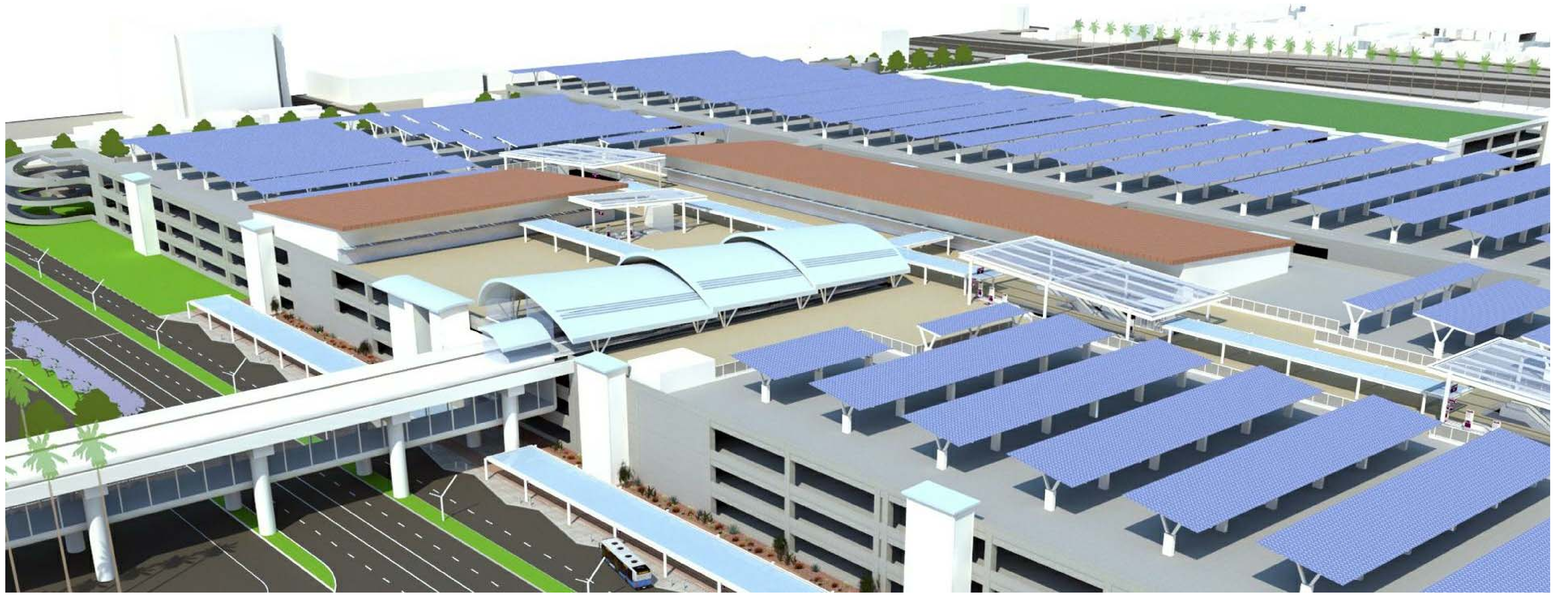
LAX
Los Angeles World Airports

LOS ANGELES INTERNATIONAL AIRPORT
CONSOLIDATED RENTAL CAR FACILITY

PROJECT NO. DA4881



NOT FOR CONSTRUCTION

VOLUME 2 OF 5 - BUILDINGS A&B - QTA

(G, S, A, M, P, Q, E, T, FP, FA)

30% QTA SUBMITTAL

09/23/2016

9/23/2016 4:12:04 PM
H:\REVIT LOCAL FILES\DA4881-BLDG_A_B_C-R15_hajelr0gn.rvt
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

NUMBER	NAME	2016-01-15 5% DESIGN SUBMITTAL	2016-02-26 REFINEMENT SUBMITTAL	2016-07-01 2ND REFINEMENT SUBMITTAL	2016-09-23 30% QTA SUBMITTAL
09 TELECOMMUNICATIONS					
2-T-001	BUILDING A & B - QTA TELECOM LEGEND, NOTES, AND ABBREVIATIONS			•	•
2-T-010	BUILDING A&B - QTA - LEVEL 1 OVERALL TELECOM FLOOR PLAN	•	•	•	•
2-T-020	BUILDING A&B - QTA - LEVEL 2 OVERALL TELECOM FLOOR PLAN	•	•	•	•
2-T-030	BUILDING A&B - QTA - LEVEL 3 OVERALL TELECOM FLOOR PLAN	•	•	•	•
2-T-111	BUILDING A - QTA - LEVEL 1 TELECOM FLOOR PLAN ZONE 1			•	•
2-T-112	BUILDING A - QTA - LEVEL 1 TELECOM FLOOR PLAN ZONE 2			•	•
2-T-113	BUILDING A - QTA - LEVEL 1 TELECOM FLOOR PLAN ZONE 3			•	•
2-T-114	BUILDING B - QTA - LEVEL 1 TELECOM FLOOR PLAN ZONE 4			•	•
2-T-115	BUILDING B - QTA - LEVEL 1 TELECOM FLOOR PLAN ZONE 5			•	•
2-T-122	BUILDING A - QTA - LEVEL 2 TELECOM FLOOR PLAN ZONE 2			•	•
2-T-123	BUILDING A - QTA - LEVEL 2 TELECOM FLOOR PLAN ZONE 3			•	•
2-T-125	BUILDING B - QTA - LEVEL 2 TELECOM FLOOR PLAN ZONE 5			•	•
2-T-132	BUILDING A - QTA - LEVEL 3 TELECOM FLOOR PLAN ZONE 2			•	•
2-T-133	BUILDING A - QTA - LEVEL 3 TELECOM FLOOR PLAN ZONE 3			•	•
2-T-135	BUILDING B - QTA - LEVEL 3 TELECOM FLOOR PLAN ZONE 5			•	•
2-T-401	BUILDING A&B ENLARGED PLANS			•	•
2-T-402	BUILDING A&B ENLARGED PLANS			•	•
2-T-501	TELECOM DATA ROOM RISER DIAGRAM BUILDING A & B			•	•
2-TY-001	BUILDING A & B - QTA SECURITY LEGEND, NOTES, AND ABBREVIATIONS			•	•
2-TY-010	BUILDING A&B - QTA - LEVEL 1 OVERALL SECURITY FLOOR PLAN		•	•	•
2-TY-020	BUILDING A&B - QTA - LEVEL 2 OVERALL SECURITY FLOOR PLAN		•	•	•
2-TY-030	BUILDING A&B - QTA - LEVEL 3 OVERALL SECURITY FLOOR PLAN		•	•	•
2-TY-111	BUILDING A - QTA - LEVEL 1 SECURITY FLOOR PLAN ZONE 1			•	•
2-TY-112	BUILDING A - QTA - LEVEL 1 SECURITY FLOOR PLAN ZONE 2			•	•
2-TY-113	BUILDING A - QTA - LEVEL 1 SECURITY FLOOR PLAN ZONE 3			•	•
2-TY-115	BUILDING B - QTA - LEVEL 1 SECURITY FLOOR PLAN ZONE 5			•	•
2-TY-122	BUILDING A - QTA - LEVEL 2 SECURITY FLOOR PLAN ZONE 2			•	•
2-TY-123	BUILDING A - QTA - LEVEL 2 SECURITY FLOOR PLAN ZONE 3			•	•
2-TY-125	BUILDING B - QTA - LEVEL 2 SECURITY FLOOR PLAN ZONE 5			•	•
2-TY-132	BUILDING A - QTA - LEVEL 3 SECURITY FLOOR PLAN ZONE 2			•	•
2-TY-133	BUILDING A - QTA - LEVEL 3 SECURITY FLOOR PLAN ZONE 3			•	•
2-TY-135	BUILDING B - QTA - LEVEL 3 SECURITY FLOOR PLAN ZONE 5			•	•
10 FIRE PROTECTION					
2-FP-010	QTA LEVEL 1 OVERALL SPRINKLER PIPING PLAN	•	•	•	•
2-FP-020	QTA LEVEL 2 OVERALL SPRINKLER PIPING PLAN	•	•	•	•
2-FP-030	QTA LEVEL 3 OVERALL SPRINKLER PIPING PLAN	•	•	•	•
2-FP-040	QTA ROOF LEVEL OVERALL SPRINKLER PIPING PLAN	•	•	•	•
2-FP-101	BLDG A QTA LEVEL 0 SPRINKLER PIPING PLAN	•	•	•	•
2-FP-111	BLDG A QTA LEVEL 1 SPRINKLER PIPING PLAN NORTH	•	•	•	•
2-FP-112	BLDG A QTA LEVEL 1 SPRINKLER PIPING PLAN SOUTH	•	•	•	•
2-FP-113	BLDG B QTA LEVEL 1 SPRINKLER PIPING PLAN	•	•	•	•
2-FP-121	BLDG A QTA LEVEL 2 SPRINKLER PIPING PLAN NORTH	•	•	•	•
2-FP-122	BLDG A QTA LEVEL 2 SPRINKLER PIPING PLAN SOUTH	•	•	•	•
2-FP-123	BLDG B QTA LEVEL 2 SPRINKLER PIPING PLAN	•	•	•	•
2-FP-131	BLDG A QTA LEVEL 3 SPRINKLER PIPING PLAN NORTH	•	•	•	•
2-FP-132	BLDG A QTA LEVEL 3 SPRINKLER PIPING PLAN SOUTH	•	•	•	•
2-FP-133	BLDG B QTA LEVEL 3 SPRINKLER PIPING PLAN	•	•	•	•
11 FIRE ALARM					
2-FA-010	QTA LEVEL 1 OVERALL FIRE ALARM DEVICE LAYOUT	•	•	•	•
2-FA-020	QTA LEVEL 2 OVERALL FIRE ALARM DEVICE LAYOUT	•	•	•	•
2-FA-030	QTA LEVEL 3 OVERALL FIRE ALARM DEVICE LAYOUT	•	•	•	•
2-FA-040	QTA LEVEL 4 OVERALL FIRE ALARM DEVICE LAYOUT	•	•	•	•
2-FA-101	BLDG A QTA LEVEL 0 FIRE ALARM DEVICE LAYOUT	•	•	•	•
2-FA-111	BLDG A QTA LEVEL 1 FIRE ALARM DEVICE LAYOUT NORTH	•	•	•	•
2-FA-112	BLDG A QTA LEVEL 1 FIRE ALARM DEVICE LAYOUT SOUTH	•	•	•	•
2-FA-113	BLDG B QTA LEVEL 1 FIRE ALARM DEVICE LAYOUT	•	•	•	•
2-FA-121	BLDG A QTA LEVEL 2 FIRE ALARM DEVICE LAYOUT NORTH	•	•	•	•
2-FA-122	BLDG A QTA LEVEL 2 FIRE ALARM DEVICE LAYOUT SOUTH	•	•	•	•
2-FA-123	BLDG B QTA LEVEL 2 FIRE ALARM DEVICE LAYOUT	•	•	•	•
2-FA-131	BLDG A QTA LEVEL 3 FIRE ALARM DEVICE LAYOUT NORTH	•	•	•	•
2-FA-132	BLDG A QTA LEVEL 3 FIRE ALARM DEVICE LAYOUT SOUTH	•	•	•	•
2-FA-133	BLDG B QTA LEVEL 3 FIRE ALARM DEVICE LAYOUT	•	•	•	•
2-FA-141	BLDG A QTA LEVEL 4 FIRE ALARM DEVICE LAYOUT NORTH	•	•	•	•
2-FA-142	BLDG A QTA LEVEL 4 FIRE ALARM DEVICE LAYOUT SOUTH	•	•	•	•
2-FA-143	- BLDG B QTA LEVEL 4 FIRE ALARM DEVICE LAYOUT				•

NUMBER	NAME	2016-01-15 5% DESIGN SUBMITTAL	2016-02-26 REFINEMENT SUBMITTAL	2016-07-01 2ND REFINEMENT SUBMITTAL	2016-09-23 30% QTA SUBMITTAL
2-Q-713	OVERALL ELECTRICAL CONDUIT PLAN LEVEL 3			•	•
2-Q-750	OVERALL HAZARD AREA PLAN - LEVEL 1			•	•
2-Q-751	HAZARD CLASSIFICATION AREA DETAILS BLDG A LEVEL 1 FUELING AREA			•	•
2-Q-752	HAZARD CLASSIFICATION AREA PLAN BUILDING A, LEVELS 2 & 3			•	•
2-Q-753	HAZARD CLASSIFICATION AREA DETAILS BLDG A UST AREA			•	•
2-Q-754	HAZARD CLASSIFICATION PLAN BUILDING B			•	•
2-Q-755	HAZARD AREA DETAILS - BLDG B UST FIELD			•	•
2-Q-764	FUEL SYSTEM E-STOP BLOCK DIAGRAMS			•	•
2-Q-765	FUEL SYSTEM POWER BLOCK DIAGRAMS			•	•
2-Q-766	FUEL SYSTEM POWER BLOCK DIAGRAMS			•	•
2-Q-767	FUEL SYSTEM LEAK DETECTION BLOCK DIAGRAM BLDG A			•	•
2-Q-768	FUEL SYSTEM LEAK DETECTION BLOCK DIAGRAM BLDG B			•	•
2-Q-769	FUEL SYSTEM COMMUNICATION BLOCK DIAGRAMS			•	•
2-Q-770	FUEL SYSTEM CONTROL BLOCK DIAGRAMS			•	•
2-Q-771	FUEL SYSTEMS ELECTRICAL SINGLE LINE DIAGRAMS			•	•
08 ELECTRICAL					
2-E-001	GENERAL NOTES				•
2-E-002	GENERAL NOTES SYMBOLS LIST AND ABBREVIATIONS			•	•
2-E-003	OVERALL SINGLE LINE DIAGRAM		•	•	•
2-E-004	QTA BUILDING SINGLE LINE DIAGRAM QTA-A1	•	•	•	•
2-E-005	QTA BUILDING SINGLE LINE DIAGRAM QTA-A2		•	•	•
2-E-006	QTA BUILDING SINGLE LINE DIAGRAM QTA-B		•	•	•
2-E-007	QTA BUILDING EMERGENCY SINGLE LINE DIAGRAM		•	•	•
2-E-008	QTA BUILDING EMERGENCY SINGLE LINE DIAGRAM EQTA		•	•	•
2-E-009	LIGHTING GENERAL NOTES AND FIXTURE SCHEDULES				•
2-E-010	QTA LEVEL 1 OVERALL FLOOR PLAN	•	•	•	•
2-E-020	QTA LEVEL 2 OVERALL FLOOR PLAN	•	•	•	•
2-E-030	QTA LEVEL 3 OVERALL FLOOR PLAN	•	•	•	•
2-E-040	QTA LEVEL 4 OVERALL FLOOR PLAN	•	•	•	•
2-E-301	LIGHTING CONTROL DIAGRAM				•
2-E-302	LIGHTING CONTROL DIAGRAM				•
2-E-402	ENLARGED ELECTRICAL ROOMS			•	•
2-E-403	BUILDING A - QTA LEVEL 1 ENLARGED ELECTRICAL ROOMS			•	•
2-E-404	BUILDING A - QTA LEVELS 2 & 3 ENLARGED ELECTRICAL ROOMS			•	•
2-E-405	BUILDING B - QTA ENLARGED ELECTRICAL ROOMS			•	•
2-EL-205	QTA LEVEL 0 ENLARGED CEILING PLAN - PART A5			•	•
2-EL-211	QTA LEVEL 1 ENLARGED CEILING PLAN - PART A1			•	•
2-EL-212	QTA LEVEL 1 ENLARGED CEILING PLAN - PART A2			•	•
2-EL-213	QTA LEVEL 1 ENLARGED CEILING PLAN - PART A3			•	•
2-EL-214	QTA LEVEL 1 ENLARGED CEILING PLAN - PART A4			•	•
2-EL-215	QTA LEVEL 1 ENLARGED CEILING PLAN - PART A5			•	•
2-EL-216	QTA LEVEL 1 ENLARGED CEILING PLAN - PART A6			•	•
2-EL-217	QTA LEVEL 1 ENLARGED CEILING PLAN - PART A7			•	•
2-EL-218	QTA LEVEL 1 ENLARGED CEILING PLAN - PART A8			•	•
2-EL-219	QTA LEVEL 1 ENLARGED LIGHTING PLAN - MAINTENANCE				•
2-EL-221	QTA LEVEL 1 ENLARGED CEILING PLAN - PART B1			•	•
2-EL-222	QTA LEVEL 1 ENLARGED CEILING PLAN - PART B2			•	•
2-EL-223	QTA LEVEL 1 ENLARGED CEILING PLAN - PART B3			•	•
2-EL-224	QTA LEVEL 1 ENLARGED CEILING PLAN - PART B4			•	•
2-EL-231	QTA LEVEL 2 ENLARGED CEILING PLAN - PART A1			•	•
2-EL-232	QTA LEVEL 2 ENLARGED CEILING PLAN - PART A2			•	•
2-EL-233	QTA LEVEL 2 ENLARGED CEILING PLAN - PART A3			•	•
2-EL-234	QTA LEVEL 2 ENLARGED CEILING PLAN - PART A4			•	•
2-EL-235	QTA LEVEL 2 ENLARGED CEILING PLAN - PART A5			•	•
2-EL-236	QTA LEVEL 2 ENLARGED CEILING PLAN - PART A6			•	•
2-EL-237	QTA LEVEL 2 ENLARGED CEILING PLAN - PART A7			•	•
2-EL-238	QTA LEVEL 2 ENLARGED CEILING PLAN - PART A8			•	•
2-EL-241	QTA LEVEL 2 ENLARGED CEILING PLAN - PART B1			•	•
2-EL-242	QTA LEVEL 2 ENLARGED CEILING PLAN - PART B2			•	•
2-EL-243	QTA LEVEL 2 ENLARGED CEILING PLAN - PART B3			•	•
2-EL-244	QTA LEVEL 2 ENLARGED CEILING PLAN - PART B4			•	•
2-EL-251	QTA LEVEL 3 CEILING LIGHTING PLAN - PART A1			•	•
2-EL-252	QTA LEVEL 3 CEILING LIGHTING PLAN - PART A2			•	•
2-EL-253	QTA LEVEL 3 CEILING LIGHTING PLAN - PART A3			•	•
2-EL-254	QTA LEVEL 3 CEILING LIGHTING PLAN - PART A4			•	•
2-EL-255	QTA LEVEL 3 CEILING LIGHTING PLAN - PART A5			•	•
2-EL-256	QTA LEVEL 3 CEILING LIGHTING PLAN - PART A6			•	•
2-EL-257	QTA LEVEL 3 CEILING LIGHTING PLAN - PART A7			•	•
2-EL-258	QTA LEVEL 3 CEILING LIGHTING PLAN - PART A8			•	•
2-EL-261	QTA LEVEL 3 CEILING LIGHTING PLAN - PART B1			•	•
2-EL-262	QTA LEVEL 3 CEILING LIGHTING PLAN - PART B2			•	•
2-EL-263	QTA LEVEL 3 CEILING LIGHTING PLAN - PART B3			•	•
2-EL-264	QTA LEVEL 3 CEILING LIGHTING PLAN - PART B4			•	•
2-EL-401	ELECTRICAL & FIRE COMMAND - LEVEL 1 ENLARGED LIGHTING PLAN				
2-EP-205	QTA LEVEL 0 ENLARGED PLAN - PART A5			•	•
2-EP-211	QTA LEVEL 1 ENLARGED POWER PLAN - PART A1			•	•
2-EP-212	QTA LEVEL 1 ENLARGED POWER PLAN - PART A2			•	•
2-EP-213	QTA LEVEL 1 ENLARGED POWER PLAN - PART A3			•	•
2-EP-214	QTA LEVEL 1 ENLARGED POWER PLAN - PART A4			•	•
2-EP-215	QTA LEVEL 1 ENLARGED POWER PLAN - PART A5			•	•
2-EP-216	QTA LEVEL 1 ENLARGED POWER PLAN - PART A6			•	•
2-EP-217	QTA LEVEL 1 ENLARGED POWER PLAN - PART A7			•	•
2-EP-218	QTA LEVEL 1 ENLARGED POWER PLAN - PART A8			•	•
2-EP-219	QTA LEVEL 1 ENLARGED POWER PLAN - MAINTENANCE				•
2-EP-221	QTA LEVEL 1 ENLARGED POWER PLAN - PART B1			•	•
2-EP-222	QTA LEVEL 1 ENLARGED POWER PLAN - PART B2			•	•
2-EP-223	QTA LEVEL 1 ENLARGED POWER PLAN - PART B3			•	•
2-EP-224	QTA LEVEL 1 ENLARGED POWER PLAN - PART B4			•	•
2-EP-231	QTA LEVEL 2 ENLARGED POWER PLAN - PART A1			•	•
2-EP-232	QTA LEVEL 2 ENLARGED POWER PLAN - PART A2			•	•
2-EP-233	QTA LEVEL 2 ENLARGED POWER PLAN - PART A3			•	•
2-EP-234	QTA LEVEL 2 ENLARGED POWER PLAN - PART A4			•	•
2-EP-235	QTA LEVEL 2 ENLARGED POWER PLAN - PART A5			•	•
2-EP-236	QTA LEVEL 2 ENLARGED POWER PLAN - PART A6			•	•
2-EP-237	QTA LEVEL 2 ENLARGED POWER PLAN - PART A7			•	•
2-EP-238	QTA LEVEL 2 ENLARGED POWER PLAN - PART A8			•	•
2-EP-241	QTA LEVEL 2 ENLARGED POWER PLAN - PART B1			•	•
2-EP-242	QTA LEVEL 2 ENLARGED POWER PLAN - PART B2			•	•
2-EP-243	QTA LEVEL 2 ENLARGED POWER PLAN - PART B3			•	•
2-EP-244	QTA LEVEL 2 ENLARGED POWER PLAN - PART B4			•	•
2-EP-251	QTA LEVEL 3 ENLARGED POWER PLAN - PART A1			•	•
2-EP-252	QTA LEVEL 3 ENLARGED POWER PLAN - PART A2			•	•
2-EP-253	QTA LEVEL 3 ENLARGED POWER PLAN - PART A3			•	•
2-EP-254	QTA LEVEL 3 ENLARGED POWER PLAN - PART A4			•	•
2-EP-255	QTA LEVEL 3 ENLARGED POWER PLAN - PART A5			•	•
2-EP-256	QTA LEVEL 3 ENLARGED POWER PLAN - PART A6			•	•
2-EP-257	QTA LEVEL 3 ENLARGED POWER PLAN - PART A7			•	•
2-EP-258	QTA LEVEL 3 ENLARGED POWER PLAN - PART A8			•	•
2-EP-261	QTA LEVEL 3 ENLARGED POWER PLAN - PART B1			•	•
2-EP-262	QTA LEVEL 3 ENLARGED POWER PLAN - PART B2			•	•
2-EP-263	QTA LEVEL 3 ENLARGED POWER PLAN - PART B3			•	•
2-EP-264	QTA LEVEL 3 ENLARGED POWER PLAN - PART B4			•	•
2-EP-271	QTA ENLARGED ROOF POWER PLAN - PART A1			•	•
2-EP-272	QTA ENLARGED ROOF POWER PLAN - PART A2			•	•
2-EP-273	QTA ENLARGED ROOF POWER PLAN - PART A3			•	•
2-EP-274	QTA ENLARGED ROOF POWER PLAN - PART A4			•	•
2-EP-275	QTA ENLARGED ROOF POWER PLAN - PART A5			•	•
2-EP-276	QTA ENLARGED ROOF POWER PLAN - PART A6			•	•
2-EP-277	QTA ENLARGED ROOF POWER PLAN - PART A7			•	•
2-EP-278	QTA ENLARGED ROOF POWER PLAN - PART A8			•	•
2-EP-281	QTA ENLARGED ROOF POWER PLAN - PART B1			•	•
2-EP-282	QTA ENLARGED ROOF POWER PLAN - PART B2			•	•
2-EP-283	QTA ENLARGED ROOF POWER PLAN - PART B3			•	•
2-EP-284	QTA ENLARGED ROOF POWER PLAN - PART B4			•	•

NUMBER	NAME	2016-01-15 5% DESIGN SUBMITTAL	2016-02-26 REFINEMENT SUBMITTAL	2016-07-01 2ND REFINEMENT SUBMITTAL	2016-09-23 30% QTA SUBMITTAL
2-P-254	QTA LEVEL 3 ENLARGED PLAN - PART A4			•	•
2-P-255	QTA LEVEL 3 ENLARGED PLAN - PART A5			•	•
2-P-256	QTA LEVEL 3 ENLARGED PLAN - PART A6			•	•
2-P-257	QTA LEVEL 3 ENLARGED PLAN - PART A7			•	•
2-P-258	QTA LEVEL 3 ENLARGED PLAN - PART A8			•	•
2-P-261	QTA LEVEL 3 ENLARGED PLAN - PART B1			•	•
2-P-262	QTA LEVEL 3 ENLARGED PLAN - PART B2			•	•
2-P-263	QTA LEVEL 3 ENLARGED PLAN - PART B3			•	•
2-P-264	QTA LEVEL 3 ENLARGED PLAN - PART B4			•	•
2-P-271	QTA ENLARGED ROOF PLAN - PART A1			•	•
2-P-272	QTA ENLARGED ROOF PLAN - PART A2			•	•
2-P-273	QTA ENLARGED ROOF PLAN - PART A3			•	•
2-P-274	QTA ENLARGED ROOF PLAN - PART A4			•	•
2-P-275	QTA ENLARGED ROOF PLAN - PART A5			•	•
2-P-276	QTA ENLARGED ROOF PLAN - PART A6			•	•
2-P-277	QTA ENLARGED ROOF PLAN - PART A7			•	•
2-P-278	QTA ENLARGED ROOF PLAN - PART A8			•	•
2-P-281	QTA ENLARGED ROOF PLAN - PART B1			•	•
2-P-282	QTA ENLARGED ROOF PLAN - PART B2			•	•
2-P-283	QTA ENLARGED ROOF PLAN - PART B3			•	•
2-P-284	QTA ENLARGED ROOF PLAN - PART B4			•	•
2-P-501	ENLARGED RESTROOM PLUMBING PLANS			•	•
2-P-502	ENLARGED RESTROOM PLUMBING PLANS				•
2-P-503	ENLARGED RESTROOM PLUMBING PLANS				•
2-P-504	ENLARGED RESTROOM PLUMBING PLANS				•
2-P-505	ENLARGED RESTROOM PLUMBING PLANS				•
2-P-506	ENLARGED RESTROOM PLUMBING PLANS				•
2-P-507	ENLARGED RESTROOM PLUMBING PLANS				•
2-P-508	ENLARGED RESTROOM PLUMBING PLANS				•
2-P-509	ENLARGED RESTROOM PLUMBING PLANS				•
2-P-601	QTA WATER RISER DIAGRAM - QTA A	•	•	•	•
2-P-602	QTA WATER RISER DIAGRAM - QTA A	•	•	•	•
2-P-603	QTA WATER RISER DIAGRAM - QTA B	•	•	•	•
2-P-604	QTA WASTE AND VENT RISER DIAGRAM	•	•	•	•
2-P-605	QTA STORM DRAIN RISER DIAGRAM	•	•	•	•
07 QTA SYSTEMS					
2-Q-001	QTA SYSTEMS LEGENDS AND ABBREVIATIONS		•	•	•
2-Q-002	QTA SYSTEM GENERAL NOTES			•	•
2-Q-003	QTA SYSTEM THEORY OF OPERATIONS			•	•
2-Q-060	QTA SYSTEMS EQUIPMENT SCHEDULE BUILDING A			•	•
2-Q-061	QTA SYSTEMS EQUIPMENT SCHEDULE BUILDING B			•	•
2-Q-062	QTA SYSTEM EQUIPMENT SCHEDULE BUILDING C			•	•
2-Q-063	QTA SYSTEMS SIGNAGE SCHEDULE			•	•
2-Q-110	OVERALL KEY PLAN LEVEL 0 (UNDERGROUND) (1/60th)			•	•
2-Q-111	OVERALL KEY PLAN LEVEL 1 (1/60th)	•	•	•	•
2-Q-112	OVERALL KEY PLAN LEVEL 2 (1/60th)	•	•	•	•
2-Q-113	OVERALL KEY PLAN LEVEL 3 (1/60th)	•	•	•	•
2-Q-121	KEY PLAN LEVEL 0 ZONE 2 (UNDERGROUND) (1/16th)		•	•	•
2-Q-122	KEY PLAN LEVEL 0 ZONE 3 (UNDERGROUND) (1/16th)			•	•
2-Q-123	KEY PLAN LEVEL 0 ZONE 4 (UNDERGROUND) (1/16th)			•	•
2-Q-124	KEY PLAN LEVEL 0 ZONE 5 (UNDERGROUND) (1/16th)			•	•
2-Q-125	KEY PLAN LEVEL 1 ZONE 1 (1/16th)	•	•	•	•
2-Q-126	KEY PLAN LEVEL 1 ZONE 2 (1/16th)	•	•	•	•
2-Q-127	KEY PLAN LEVEL 1 ZONE 3 (1/16th)	•	•	•	•
2-Q-128	KEY PLAN LEVEL 1 ZONE 4 (1/16th)	•	•	•	•
2-Q-129	KEY PLAN LEVEL 1 ZONE 5 (1/16th)	•	•	•	•
2-Q-131	KEY PLAN LEVEL 2 ZONE 2 (1/16th)	•	•	•	•
2-Q-132	KEY PLAN LEVEL 2 ZONE 3 (1/16th)	•	•	•	•
2-Q-134	KEY PLAN LEVEL 2 ZONE 5 (1/16th)	•	•	•	•
2-Q-136	KEY PLAN LEVEL 3 ZONE 2 (1/16th)	•	•	•	•
2-Q-137	KEY PLAN LEVEL 3 ZONE 3 (1/16th)	•	•	•	•
2-Q-139	KEY PLAN LEVEL 3 ZONE 5 (1/16th)	•	•	•	•
2-Q-160	BUILDING A CAR WASH RECLAIM WATER P&ID			•	•
2-Q-161	BUILDING A CAR WASH RINSE WATER P&ID			•	•
2-Q-162	BUILDING B CAR WASH P&ID			•	•
2-Q-163	TYPICAL CAR WASH BAY P&ID			•	•
2-Q-210	OVERALL FUEL PIPING PLAN LEVEL 0 (UNDERGROUND)		•	•	•
2-Q-211	OVERALL FUEL PIPING PLAN LEVEL 1		•	•	•
2-Q-212	OVERALL FUEL PIPING PLAN LEVEL 2		•	•	•
2-Q-221	FUEL PIPING PLAN LEVEL 0 ZONE 2 (UNDERGROUND)			•	•
2-Q-222	FUEL PIPING PLAN LEVEL 0 ZONE 3 (UNDERGROUND)			•	•
2-Q-223	ENLARGED FUEL PIPING PLAN LEVEL 0 ZONE 4 (UNDERGROUND)			•	•
2-Q-224	ENLARGED FUEL PIPING PLAN LEVEL 0 ZONE 5 (UNDERGROUND)			•	•
2-Q-227	FUEL PIPING PLAN LEVEL 1 ZONE 3			•	•
2-Q-232	FUEL PIPING PLAN LEVEL 2 ZONE 3			•	•
2-Q-250	FUELING ISLAND DETAILS		•	•	•
2-Q-260	FUEL SYSTEM P&ID - UST AREA (BUILDING A)			•	•
2-Q-261	FUEL SYSTEM P&ID - LEVEL 1 (BUILDING A)			•	•
2-Q-262	FUEL SYSTEM P&ID - LEVELS 2/3 (BUILDING A)			•	•
2-Q-265	FUEL SYSTEM P&ID - (BUILDING B)			•	•
2-Q-311	OVERALL COMPRESSED AIR PIPING PLAN LEVEL 1 (BUILDINGS A & B)		•	•	•
2-Q-312	OVERALL COMPRESSED AIR PIPING PLAN LEVEL 2 (BUILDINGS A & B)		•	•	•
2-Q-313	OVERALL COMPRESSED AIR PIPING PLAN LEVEL 3 (BUILDINGS A & B)		•	•	•
2-Q-326	COMPRESSED AIR PIPING PLAN LEVEL 1 ZONE 2 (BUILDING A)			•	•
2-Q-327	COMPRESSED AIR PIPING PLAN LEVEL 1 ZONE 3 (BUILDING A)			•	•
2-Q-329	COMPRESSED AIR PIPING PLAN LEVEL 1 ZONE 5 (BUILDING B)			•	•
2-Q-332	COMPRESSED AIR PIPING PLAN LEVEL 2 ZONE 3 (BUILDING A)			•	•
2-Q-334	COMPRESSED AIR PIPING PLAN LEVEL 2 ZONE 5 (BUILDING B)			•	•
2-Q-337	COMPRESSED AIR PIPING PLAN LEVEL 3 ZONE 3 (BUILDING A)			•	•
2-Q-339	COMPRESSED AIR PIPING PLAN LEVEL 3 ZONE 5 (BUILDING B)			•	•
2-Q-360	COMPRESSED AIR PIPING SCHEMATIC (BUILDING A)			•	•
2-Q-361	COMPRESSED AIR PIPING SCHEMATIC (BUILDING B)			•	•
2-Q-411	OVERALL WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 1		•	•	•
2-Q-412	OVERALL WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 2		•	•	•
2-Q-413	OVERALL WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 3		•	•	•
2-Q-427	WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 1 ZONE 3			•	•
2-Q-429	WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 1 ZONE 5			•	•
2-Q-432	WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 2 ZONE 3			•	•
2-Q-437	WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 3 ZONE 3			•	•
2-Q-460	WINDSHIELD WASHER FLUID P&ID (BUILDING A)			•	•
2-Q-461	WINDSHIELD WASHER FLUID PIPING SCHEMATIC (BUILDING B)			•	•
2-Q-511	OVERALL LUBE OIL SYSTEM PIPING PLAN LEVEL 1		•	•	•
2-Q-512	OVERALL LUBE OIL SYSTEM PIPING PLAN LEVEL 2 (BUILDING B)		•	•	•
2-Q-513	OVERALL LUBE OIL SYSTEM PIPING PLAN LEVEL 3 (BUILDING B)		•	•	•
2-Q-525	LUBE OIL SYSTEM PIPING PLAN LEVEL 1 ZONE 1			•	•
2-Q-526	LUBE OIL SYSTEM PIPING PLAN LEVEL 1 ZONE 2			•	•
2-Q-527	LUBE OIL SYSTEM PIPING PLAN LEVEL 1 ZONE 3			•	•
2-Q-529	LUBE OIL SYSTEM PIPING PLAN LEVEL 1 ZONE 5 (BUILDING B)			•	•
2-Q-534	LUBE OIL SYSTEM PIPING PLAN LEVEL 2 ZONE 5 (BUILDING B)			•	•
2-Q-539	LUBE OIL SYSTEM PIPING PLAN LEVEL 3 ZONE 5 (BUILDING B)			•	•
2-Q-560	LUBE OIL SYSTEM PIPING SCHEMATIC (BUILDING B - MAIN BUILDING)			•	•
2-Q-561	LUBE OIL SYSTEM PIPING SCHEMATIC (BUILDING B - MAINTENANCE BUILDING)			•	•
2-Q-611	OVERALL VACUUM SYSTEM PIPING PLAN LEVEL 1		•	•	•
2-Q-612	OVERALL VACUUM SYSTEM PIPING PLAN LEVEL 2		•	•	•
2-Q-613	OVERALL VACUUM SYSTEM PIPING PLAN LEVEL 3		•	•	•
2-Q-627	VACUUM SYSTEM PIPING PLAN LEVEL 1 ZONE 3			•	•
2-Q-629	VACUUM SYSTEM PIPING PLAN LEVEL 1 ZONE 5			•	•
2-Q-632	VACUUM SYSTEM PIPING PLAN LEVEL 2 ZONE 3			•	•
2-Q-637	VACUUM SYSTEM PIPING PLAN LEVEL 3 ZONE 3			•	•
2-Q-660	VACUUM SYSTEM PIPING SCHEMATIC (BUILDING A)			•	•
2-Q-661	VACUUM SYSTEM PIPING SCHEMATIC (BUILDING B)			•	•
2-Q-700	QTA SYSTEM ELECTRICAL NOTES			•	•
2-Q-710	OVERALL ELECTRICAL CONDUIT PLAN LEVEL 0 (UNDERGROUND)			•	•
2-Q-711	OVERALL ELECTRICAL CONDUIT PLAN LEVEL 1			•	•
2-Q-712	OVERALL ELECTRICAL CONDUIT PLAN LEVEL 2			•	•

NUMBER	NAME	2016-01-15 5% DESIGN SUBMITTAL	2016-02-26 REFINEMENT SUBMITTAL	2016-07-01 2ND REFINEMENT SUBMITTAL	2016-09-23 30% QTA SUBMITTAL
2-A-261	QTA LEVEL 3 ENLARGED PLAN - PART B1		•	•	•
2-A-262	QTA LEVEL 3 ENLARGED PLAN - PART B2		•	•	•
2-A-263	QTA LEVEL 3 ENLARGED PLAN - PART B3		•	•	•
2-A-264	QTA LEVEL 3 ENLARGED PLAN - PART B4		•	•	•
2-A-271	QTA ENLARGED ROOF PLAN - PART A1		•	•	•
2-A-272	QTA ENLARGED ROOF PLAN - PART A2		•	•	•
2-A-273	QTA ENLARGED ROOF PLAN - PART A3		•	•	•
2-A-274	QTA ENLARGED ROOF PLAN - PART A4		•	•	•
2-A-275	QTA ENLARGED ROOF PLAN - PART A5		•	•	•
2-A-276	QTA ENLARGED ROOF PLAN - PART A6		•	•	•
2-A-277	QTA ENLARGED ROOF PLAN - PART A7		•	•	•
2-A-278	QTA ENLARGED ROOF PLAN - PART A8		•	•	•
2-A-281	QTA ENLARGED ROOF PLAN - PART B1		•	•	•
2-A-282	QTA ENLARGED ROOF PLAN - PART B2		•	•	•
2-A-283	QTA ENLARGED ROOF PLAN - PART B3		•	•	•
2-A-284	QTA ENLARGED ROOF PLAN - PART B4		•	•	•
2-A-301	QTA OVERALL BUILDING ELEVATIONS		•	•	•
2-A-302	QTA OVERALL BUILDING ELEVATIONS		•	•	•
2-A-303	QTA OVERALL BUILDING ELEVATIONS		•	•	•
2-A-351	QTA OVERALL BUILDING SECTIONS		•	•	•
2-A-352	QTA OVERALL BUILDING SECTIONS		•	•	•
2-A-981	QTA LEVEL 1 FUEL DISPENSING PLAN			•	•
2-A-982	QTA LEVEL 1 FUEL DISPENSING PLAN			•	•
2-A-983	QTA LEVEL 2&3 FUEL DISPENSING PLAN			•	•
05 MECHANICAL					
2-M-001	GENERAL NOTES & SYMBOLS	•	•	•	•
2-M-002	SCHEDULES		•	•	•
2-M-003	SCHEDULES		•	•	•
2-M-004	TITLE 24 COMPLIANCE FORMS			•	•
2-M-005	TITLE 24 COMPLIANCE FORMS			•	•
2-M-006	TITLE 24 COMPLIANCE FORMS			•	•
2-M-010	QTA LEVEL 1 OVERALL FLOOR PLAN	•	•	•	•
2-M-020	QTA LEVEL 2 OVERALL FLOOR PLAN	•	•	•	•
2-M-030	QTA LEVEL 3 OVERALL FLOOR PLAN	•	•	•	•
2-M-040	QTA LEVEL 4 OVERALL FLOOR PLAN	•	•	•	•
2-M-205	QTA LEVEL 0 FLOOR PLAN			•	•
2-M-210	ELECTRICAL & FIRE COMMAND - LEVEL 1 ENLARGED PLAN				•
2-M-211	QTA LEVEL 1 ENLARGED PLAN - PART A1			•	•
2-M-212	QTA LEVEL 1 ENLARGED PLAN - PART A2			•	•
2-M-213	QTA LEVEL 1 ENLARGED PLAN - PART A3			•	•
2-M-214	QTA LEVEL 1 ENLARGED PLAN - PART A4			•	•
2-M-215	QTA LEVEL 1 ENLARGED PLAN - PART A5			•	•
2-M-216	QTA LEVEL 1 ENLARGED PLAN - PART A6			•	•
2-M-217	QTA LEVEL 1 ENLARGED PLAN - PART A7			•	•
2-M-218	QTA LEVEL 1 ENLARGED PLAN - PART A8			•	•
2-M-219	QTA LEVEL 1 ENLARGED PLAN - MAINTENANCE				•
2-M-221	QTA LEVEL 1 ENLARGED PLAN - PART B1			•	•
2-M-222	QTA LEVEL 1 ENLARGED PLAN - PART B2			•	•
2-M-223	QTA LEVEL 1 ENLARGED PLAN - PART B3			•	•
2-M-224	QTA LEVEL 1 ENLARGED PLAN - PART B4			•	•
2-M-230	ELECTRICAL & FIRE COMMAND ENLARGED ROOF PLAN				•
2-M-231	QTA LEVEL 2 ENLARGED PLAN - PART A1			•	•
2-M-232	QTA LEVEL 2 ENLARGED PLAN - PART A2			•	•
2-M-233	QTA LEVEL 2 ENLARGED PLAN - PART A3			•	•
2-M-234	QTA LEVEL 2 ENLARGED PLAN - PART A4			•	•
2-M-235	QTA LEVEL 2 ENLARGED PLAN - PART A5			•	•
2-M-236	QTA LEVEL 2 ENLARGED PLAN - PART A6			•	•
2-M-237	QTA LEVEL 2 ENLARGED PLAN - PART A7			•	•
2-M-238	QTA LEVEL 2 ENLARGED PLAN - PART A8			•	•
2-M-241	QTA LEVEL 2 ENLARGED PLAN - PART B1			•	•
2-M-242	QTA LEVEL 2 ENLARGED PLAN - PART B2			•	•
2-M-243	QTA LEVEL 2 ENLARGED PLAN - PART B3			•	•
2-M-244	QTA LEVEL 2 ENLARGED PLAN - PART B4			•	•
2-M-251	QTA LEVEL 3 ENLARGED PLAN - PART A1			•	•
2-M-252	QTA LEVEL 3 ENLARGED PLAN - PART A2			•	•
2-M-253	QTA LEVEL 3 ENLARGED PLAN - PART A3			•	•
2-M-254	QTA LEVEL 3 ENLARGED PLAN - PART A4			•	•
2-M-255	QTA LEVEL 3 ENLARGED PLAN - PART A5			•	•
2-M-256	QTA LEVEL 3 ENLARGED PLAN - PART A6			•	•
2-M-257	QTA LEVEL 3 ENLARGED PLAN - PART A7			•	•
2-M-258	QTA LEVEL 3 ENLARGED PLAN - PART A8			•	•
2-M-261	QTA LEVEL 3 ENLARGED PLAN - PART B1			•	•
2-M-262	QTA LEVEL 3 ENLARGED PLAN - PART B2			•	•
2-M-263	QTA LEVEL 3 ENLARGED PLAN - PART B3			•	•
2-M-264	QTA LEVEL 3 ENLARGED PLAN - PART B4			•	•
2-M-271	QTA ENLARGED ROOF PLAN - PART A1			•	•
2-M-272	QTA ENLARGED ROOF PLAN - PART A2			•	•
2-M-273	QTA ENLARGED ROOF PLAN - PART A3			•	•
2-M-274	QTA ENLARGED ROOF PLAN - PART A4			•	•
2-M-275	QTA ENLARGED ROOF PLAN - PART A5			•	•
2-M-276	QTA ENLARGED ROOF PLAN - PART A6			•	•
2-M-277	QTA ENLARGED ROOF PLAN - PART A7			•	•
2-M-278	QTA ENLARGED ROOF PLAN - PART A8			•	•
2-M-281	QTA ENLARGED ROOF PLAN - PART B1			•	•
2-M-282	QTA ENLARGED ROOF PLAN - PART B2			•	•
2-M-283	QTA ENLARGED ROOF PLAN - PART B3			•	•
2-M-284	QTA ENLARGED ROOF PLAN - PART B4			•	•
2-M-501	DETAILS		•	•	•
2-M-502	DETAILS		•	•	•
2-M-503	DETAILS		•	•	•
2-M-504	DETAILS		•	•	•
06 PLUMBING					
2-P-001	NOTES, CODES, SYMBOLS & ABBREVIATIONS	•	•	•	•
2-P-002	SCHEDULES	•	•	•	•
2-P-010	QTA LEVEL 1 OVERALL FLOOR PLAN	•	•	•	•
2-P-020	QTA LEVEL 2 OVERALL FLOOR PLAN	•	•	•	•
2-P-030	QTA LEVEL 3 OVERALL FLOOR PLAN	•	•	•	•
2-P-040	QTA LEVEL 4 OVERALL FLOOR PLAN	•	•	•	•
2-P-205	QTA LEVEL 0 ENLARGED PLAN - PART A5			•	•
2-P-210	ELECTRICAL & FIRE COMMAND ENLARGED PLAN			•	•
2-P-211	QTA LEVEL 1 ENLARGED PLAN - PART A1			•	•
2-P-212	QTA LEVEL 1 ENLARGED PLAN - PART A2			•	•
2-P-213	QTA LEVEL 1 ENLARGED PLAN - PART A3			•	•
2-P-214	QTA LEVEL 1 ENLARGED PLAN - PART A4			•	•
2-P-215	QTA LEVEL 1 ENLARGED PLAN - PART A5			•	•
2-P-216	QTA LEVEL 1 ENLARGED PLAN - PART A6			•	•
2-P-217	QTA LEVEL 1 ENLARGED PLAN - PART A7			•	•
2-P-218	QTA LEVEL 1 ENLARGED PLAN - PART A8			•	•
2-P-219	QTA LEVEL 1 ENLARGED PLAN - MAINTENANCE				•
2-P-221	QTA LEVEL 1 ENLARGED PLAN - PART B1			•	•
2-P-222	QTA LEVEL 1 ENLARGED PLAN - PART B2			•	•
2-P-223	QTA LEVEL 1 ENLARGED PLAN - PART B3			•	•
2-P-224	QTA LEVEL 1 ENLARGED PLAN - PART B4			•	•
2-P-230	DWP BUILDING ROOF PLAN				•
2-P-231	QTA LEVEL 2 ENLARGED PLAN - PART A1			•	•
2-P-232	QTA LEVEL 2 ENLARGED PLAN - PART A2			•	•
2-P-233	QTA LEVEL 2 ENLARGED PLAN - PART A3			•	•
2-P-234	QTA LEVEL 2 ENLARGED PLAN - PART A4			•	•
2-P-235	QTA LEVEL 2 ENLARGED PLAN - PART A5			•	•
2-P-236	QTA LEVEL 2 ENLARGED PLAN - PART A6			•	•
2-P-237	QTA LEVEL 2 ENLARGED PLAN - PART A7			•	•
2-P-238	QTA LEVEL 2 ENLARGED PLAN - PART A8			•	•
2-P-241	QTA LEVEL 2 ENLARGED PLAN - PART B1			•	•
2-P-242	QTA LEVEL 2 ENLARGED PLAN - PART B2			•	•
2-P-243	QTA LEVEL 2 ENLARGED PLAN - PART B3			•	•
2-P-244	QTA LEVEL 2 ENLARGED PLAN - PART B4			•	•
2-P-251	QTA LEVEL 3 ENLARGED PLAN - PART A1			•	•
2-P-252	QTA LEVEL 3 ENLARGED PLAN - PART A2			•	•
2-P-253	QTA LEVEL 3 ENLARGED PLAN - PART A3			•	•

NUMBER	NAME	2016-01-15 5% DESIGN SUBMITTAL	2016-02-26 REFINEMENT SUBMITTAL	2016-07-01 2ND REFINEMENT SUBMITTAL	2016-09-23 30% QTA SUBMITTAL
VOLUME 2					
01 GENERAL					
2-G-001	COVER SHEET	•	•	•	•
2-G-012	SHEET INDEX VOLUME 2	•	•	•	•
03 STRUCTURAL					
2-S-001	CONCRETE TYPICAL DETAILS	•	•		•
2-S-002	CONCRETE TYPICAL DETAILS	•	•		•
2-S-003	CONCRETE TYPICAL DETAILS	•	•	•	•
2-S-004	CONCRETE TYPICAL DETAILS			•	•
2-S-005	CONCRETE TYPICAL DETAILS	•	•		•
2-S-006	MASONRY TYPICAL DETAILS	•	•		•
2-S-007	STEEL TYPICAL DETAILS	•	•		•
2-S-010	LEVEL 1 OVERALL PLAN	•	•	•	•
2-S-020	LEVEL 2 OVERALL PLAN	•	•	•	•
2-S-030	LEVEL 3 OVERALL PLAN	•	•	•	•
2-S-040	LEVEL 4 OVERALL PLAN	•	•	•	•
2-S-101	QTA LEVEL 0 FLOOR PLAN	•	•	•	•
2-S-111	QTA LEVEL 1 FLOOR PLAN	•	•	•	•
2-S-112	QTA LEVEL 1 FLOOR PLAN	•	•	•	•
2-S-113	QTA LEVEL 1 FLOOR PLAN	•	•	•	•
2-S-114	QTA LEVEL 1 FLOOR PLAN	•	•	•	•
2-S-115	QTA LEVEL 1 FLOOR PLAN	•	•	•	•
2-S-121	QTA LEVEL 2 FLOOR PLAN	•	•	•	•
2-S-122	QTA LEVEL 2 FLOOR PLAN	•	•	•	•
2-S-123	QTA LEVEL 2 FLOOR PLAN	•	•	•	•
2-S-124	QTA LEVEL 2 FLOOR PLAN	•	•	•	•
2-S-125	QTA LEVEL 2 FLOOR PLAN	•	•	•	•
2-S-131	QTA LEVEL 3 FLOOR PLAN	•	•	•	•
2-S-132	QTA LEVEL 3 FLOOR PLAN	•	•	•	•
2-S-133	QTA LEVEL 3 FLOOR PLAN	•	•	•	•
2-S-134	QTA LEVEL 3 FLOOR PLAN	•	•	•	•
2-S-135	QTA LEVEL 3 FLOOR PLAN	•	•	•	•
2-S-141	QTA LEVEL 4 FLOOR PLAN	•	•	•	•
2-S-142	QTA LEVEL 4 FLOOR PLAN	•	•	•	•
2-S-143	QTA LEVEL 4 FLOOR PLAN	•	•	•	•
2-S-144	QTA LEVEL 4 FLOOR PLAN	•	•	•	•
2-S-145	QTA LEVEL 4 FLOOR PLAN	•	•	•	•
2-S-201	DWP BLDG. FOUND. AND FRAMING PLAN			•	•
2-S-202	BLDG. A - MAINTENANCE BLDG.			•	•
2-S-203	BLDG. A - MAINTENANCE BLDG.			•	•
2-S-204	BLDG. B - MAINTENANCE BLDG.			•	•
2-S-205	BLDG. A - MISC				•
2-S-206	BLDG. B - MISC				•
2-S-207	BLDG. B - MISC				•
2-S-301	SHEAR WALL ELEVATION - BUILDING A03	•	•	•	•
2-S-302	SHEAR WALL ELEVATION - BUILDING A2	•	•	•	•
2-S-303	SHEAR WALL ELEVATION - BUILDING B1				•
2-S-501	SECTIONS				•
2-S-701	HELIX A LEVEL 1 PARTIAL FLOOR PLAN				•
2-S-702	HELIX A LEVEL 2 PARTIAL FLOOR PLAN				•
2-S-703	HELIX A LEVEL 3 PARTIAL FLOOR PLAN				•
2-S-704	HELIX A LEVEL 4 PARTIAL FLOOR PLAN				•
2-S-705	HELIX B LEVEL 1 PARTIAL FLOOR PLAN				•
2-S-706	HELIX B LEVEL 2 PARTIAL FLOOR PLAN				•
2-S-707	HELIX B LEVEL 3 PARTIAL FLOOR PLAN				•
2-S-708	HELIX B LEVEL 4 PARTIAL FLOOR PLAN				•
2-S-709	STAIR FOUND. AND FRAMING PLAN	•	•	•	•
2-S-710	STAIR FOUND. AND FRAMING PLAN	•	•	•	•
2-S-711	STAIR FOUND. AND FRAMING PLAN				•
2-S-712	STAIR FOUND. AND FRAMING PLAN	•	•	•	•
2-S-713	STAIR FOUND. AND FRAMING PLAN				•
04 ARCHITECTURAL					
2-A-219	QTA LEVEL 1 ENLARGED PLAN - MAINTENANCE				•
2-A-239	QTA LEVEL 2 ENLARGED ROOF PLAN - MAINTENANCE				•
2-A-415	QTA LEVEL 1 REFLECTED CEILING PLAN - PART A5				•
2-A-501	WALL SECTIONS				•
2-A-502	WALL SECTIONS				•
2-A-505	WALL SECTIONS				•
2-A-506	WALL SECTIONS				•
2-A-010	QTA LEVEL 1 OVERALL FLOOR PLAN	•	•	•	•
2-A-020	QTA LEVEL 2 OVERALL FLOOR PLAN	•	•	•	•
2-A-030	QTA LEVEL 3 OVERALL FLOOR PLAN	•	•	•	•
2-A-040	QTA LEVEL 4 OVERALL FLOOR PLAN	•	•	•	•
2-A-102	QTA LEVEL 0 FLOOR PLAN	•	•	•	•
2-A-111	QTA LEVEL 1 FLOOR PLAN	•	•	•	•
2-A-112	QTA LEVEL 1 FLOOR PLAN	•	•	•	•
2-A-113	QTA LEVEL 1 FLOOR PLAN	•	•	•	•
2-A-114	QTA LEVEL 1 FLOOR PLAN	•	•	•	•
2-A-115	QTA LEVEL 1 FLOOR PLAN	•	•	•	•
2-A-121	QTA LEVEL 2 FLOOR PLAN	•	•	•	•
2-A-122	QTA LEVEL 2 FLOOR PLAN	•	•	•	•
2-A-123	QTA LEVEL 2 FLOOR PLAN	•	•	•	•
2-A-124	QTA LEVEL 2 FLOOR PLAN	•	•	•	•
2-A-125	QTA LEVEL 2 FLOOR PLAN	•	•	•	•
2-A-131	QTA LEVEL 3 FLOOR PLAN	•	•	•	•
2-A-132	QTA LEVEL 3 FLOOR PLAN	•	•	•	•
2-A-133	QTA LEVEL 3 FLOOR PLAN	•	•	•	•
2-A-134	QTA LEVEL 3 FLOOR PLAN	•	•	•	•
2-A-135	QTA LEVEL 3 FLOOR PLAN	•	•	•	•
2-A-141	QTA LEVEL 4 FLOOR PLAN	•	•	•	•
2-A-142	QTA LEVEL 4 FLOOR PLAN	•	•	•	•
2-A-143	QTA LEVEL 4 FLOOR PLAN	•	•	•	•
2-A-144	QTA LEVEL 4 FLOOR PLAN	•	•	•	•
2-A-145	QTA LEVEL 4 FLOOR PLAN	•	•	•	•
2-A-205	QTA LEVEL 0 ENLARGED PLAN - PART A5		•	•	•
2-A-210	ELECTRICAL & FIRE COMMAND ENLARGED PLAN		•	•	•
2-A-211	QTA LEVEL 1 ENLARGED PLAN - PART A1		•	•	•
2-A-212	QTA LEVEL 1 ENLARGED PLAN - PART A2		•	•	•
2-A-213	QTA LEVEL 1 ENLARGED PLAN - PART A3		•	•	•
2-A-214	QTA LEVEL 1 ENLARGED PLAN - PART A4		•	•	•
2-A-215	QTA LEVEL 1 ENLARGED PLAN - PART A5		•	•	•
2-A-216	QTA LEVEL 1 ENLARGED PLAN - PART A6		•	•	•
2-A-217	QTA LEVEL 1 ENLARGED PLAN - PART A7		•	•	•
2-A-218	QTA LEVEL 1 ENLARGED PLAN - PART A8		•	•	•
2-A-221	QTA LEVEL 1 ENLARGED PLAN - PART B1		•	•	•
2-A-222	QTA LEVEL 1 ENLARGED PLAN - PART B2		•	•	•
2-A-223	QTA LEVEL 1 ENLARGED PLAN - PART B3		•	•	•
2-A-224	QTA LEVEL 1 ENLARGED PLAN - PART B4		•	•	•
2-A-230	ELECTRICAL & FIRE COMMAND ENLARGED ROOF PLAN		•	•	•
2-A-231	QTA LEVEL 2 ENLARGED PLAN - PART A1		•	•	•
2-A-232	QTA LEVEL 2 ENLARGED PLAN - PART A2		•	•	•
2-A-233	QTA LEVEL 2 ENLARGED PLAN - PART A3		•	•	•
2-A-234	QTA LEVEL 2 ENLARGED PLAN - PART A4		•	•	•
2-A-235	QTA LEVEL 2 ENLARGED PLAN - PART A5		•	•	•
2-A-236	QTA LEVEL 2 ENLARGED PLAN - PART A6		•	•	•
2-A-237	QTA LEVEL 2 ENLARGED PLAN - PART A7		•	•	•
2-A-238	QTA LEVEL 2 ENLARGED PLAN - PART A8		•	•	•
2-A-241	QTA LEVEL 2 ENLARGED PLAN - PART B1		•	•	•
2-A-242	QTA LEVEL 2 ENLARGED PLAN - PART B2		•	•	•
2-A-243	QTA LEVEL 2 ENLARGED PLAN - PART B3		•	•	•
2-A-244	QTA LEVEL 2 ENLARGED PLAN - PART B4		•	•	•
2-A-251	QTA LEVEL 3 ENLARGED PLAN - PART A1		•	•	•
2-A-252	QTA LEVEL 3 ENLARGED PLAN - PART A2		•	•	•
2-A-253	QTA LEVEL 3 ENLARGED PLAN - PART A3		•	•	•
2-A-254	QTA LEVEL 3 ENLARGED PLAN - PART A4		•	•	•
2-A-255	QTA LEVEL 3 ENLARGED PLAN - PART A5		•	•	•
2-A-256	QTA LEVEL 3 ENLARGED PLAN - PART A6		•	•	•
2-A-257	QTA LEVEL 3 ENLARGED PLAN - PART A7		•	•	•
2-A-258	QTA LEVEL 3 ENLARGED PLAN - PART A8		•	•	•

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT VNY PMD LAX

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO: DA4881
SCALE:
DATE: 09/23/2016
DESIGNED BY: JQJ
DRAWN BY: JN
CHECKED BY: NL

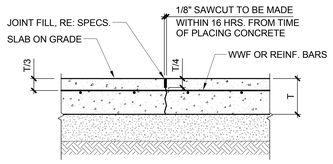
SHEET TITLE:
SHEET INDEX VOLUME 2

SHEET NO.
2-G-012

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

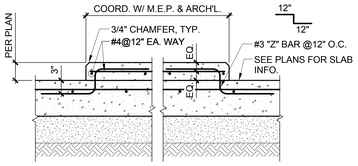
H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kapledger.rvt

9/23/2016 12:44:11 PM



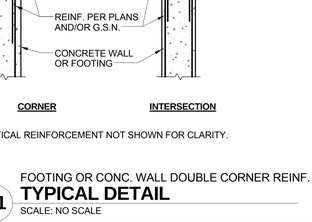
NOTES:
1. RE: GENERAL STRUCTURAL NOTES FOR SLAB BEARING MATERIAL REQUIREMENTS.

SLAB CONTROL JOINT
E1 TYPICAL DETAIL
SCALE: NO SCALE

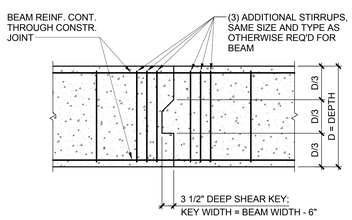


NOTES:
1. RE: GENERAL STRUCTURAL NOTES FOR SLAB BEARING MATERIAL REQUIREMENTS.
2. HOUSEKEEPING PADS ARE NOT TO BE CAST UNTIL SLAB ON GRADE HAS REACHED DESIGNED COMPRESSIVE STRENGTH. CONTRACTOR TO COORD. ANCHORAGE REQUIREMENTS FOR PARTICULAR EQUIPMENT SUPPLIED.

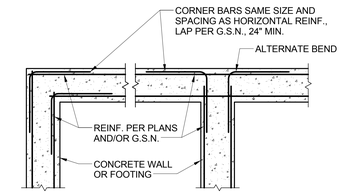
HOUSEKEEPING PAD - CAST IN PLACE DOWELS
D1 TYPICAL DETAIL
SCALE: NO SCALE



THICKENED SLAB AT STAIR STRINGER
C1 TYPICAL DETAIL
SCALE: NO SCALE

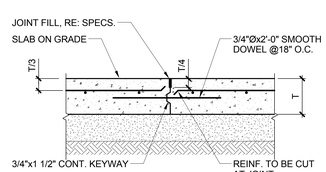


BEAM CONSTRUCTION JOINT
B1 TYPICAL DETAIL
SCALE: NO SCALE



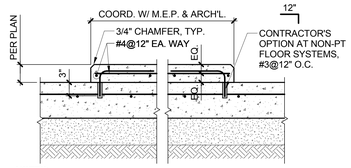
NOTE:
1. VERTICAL REINFORCEMENT NOT SHOWN FOR CLARITY.

FOOTING OR CONC. WALL DOUBLE CORNER REINF.
A1 TYPICAL DETAIL
SCALE: NO SCALE



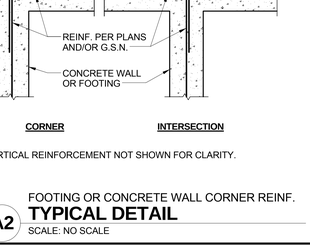
NOTES:
1. RE: GENERAL STRUCTURAL NOTES FOR SLAB BEARING MATERIAL REQUIREMENTS.
2. PROJECTING DOWEL TO BE GREASED PRIOR TO PLACEMENT OF ADJACENT SLAB. DOWELS TO BE SET STRAIGHT, PERPENDICULAR TO FORMWORK, AND PARALLEL TO EACH OTHER. PAINT WITH BOND BREAKER PRIOR TO PLACING ADJACENT SLAB.

SLAB CONSTRUCTION JOINT
E2 TYPICAL DETAIL
SCALE: NO SCALE

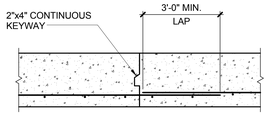


NOTES:
1. RE: GENERAL STRUCTURAL NOTES FOR SLAB BEARING MATERIAL REQUIREMENTS.
2. HOUSEKEEPING PADS ARE NOT TO BE CAST UNTIL SLAB ON GRADE HAS REACHED DESIGNED COMPRESSIVE STRENGTH. CONTRACTOR TO COORD. ANCHORAGE REQUIREMENTS FOR PARTICULAR EQUIPMENT SUPPLIED.
3. DRILL AND EPOXY DOWEL OPTION SHALL NOT BE USED AT PT SLABS OR BEAMS.
4. DRILL AND EPOXY 3" MINIMUM INTO SLAB W/ HY 200 SD ADHESIVE OR APPROVED EQUAL.

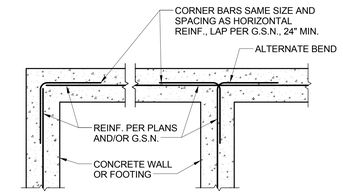
HOUSEKEEPING PAD - DRILL AND EPOXY DOWELS
D2 TYPICAL DETAIL
SCALE: NO SCALE



THICKENED SLAB AT MASONRY WALL BEARING
C2 TYPICAL DETAIL
SCALE: NO SCALE

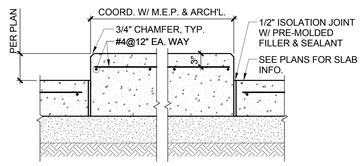


SPREAD FOOTING CONSTRUCTION JOINT
B2 TYPICAL DETAIL
SCALE: NO SCALE



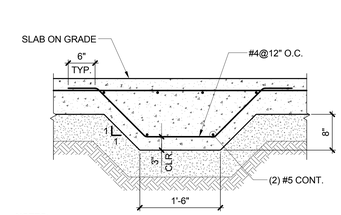
NOTE:
1. VERTICAL REINFORCEMENT NOT SHOWN FOR CLARITY.

FOOTING OR CONCRETE WALL CORNER REINF.
A2 TYPICAL DETAIL
SCALE: NO SCALE



NOTES:
1. RE: GENERAL STRUCTURAL NOTES FOR SLAB BEARING MATERIAL REQUIREMENTS.
2. HOUSEKEEPING PADS ARE NOT TO BE CAST UNTIL SLAB ON GRADE HAS REACHED DESIGNED COMPRESSIVE STRENGTH. CONTRACTOR TO COORD. ANCHORAGE REQUIREMENTS FOR PARTICULAR EQUIPMENT SUPPLIED.

THICKENED SLAB
E3 TYPICAL DETAIL
SCALE: NO SCALE

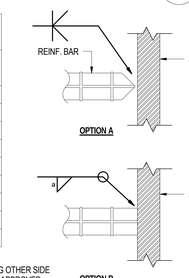


NOTES:
1. RE: GENERAL STRUCTURAL NOTES FOR SLAB BEARING MATERIAL REQUIREMENTS.

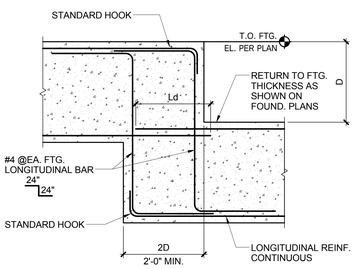
ISOLATION PAD
D3 TYPICAL DETAIL
SCALE: NO SCALE

BAR SIZE	E80 ELECTRODE (MIN.)	
	NOMINAL WELD SIZE 'a' (in.)	MIN. PLATE THICKNESS (in.)
#3	1/4	1/4
#4	5/16	1/4
#5	3/8	1/4
#6	7/16	1/4
#7	1/2	1/4
#8	9/16	5/16
#9	5/8	5/16
#10	11/16	3/8
#11	3/4	7/16

NOTES:
1. CHIP, GRIND OR GOUGE TO SOUND METAL BEFORE WELDING OTHER SIDE
2. A PRE-QUALIFICATION TENSION TEST SHALL BE MADE BY AN APPROVED TESTING LABORATIRY ON SAMPLES OF EVERY SIZE BAR BEING WELDED.
3. E80 ELECTRODES.
4. BACKING NOT REQUIRED FOR #9 & LARGER BAR.
5. #8 AND SMALLER BAR REQUIRE BACKING.



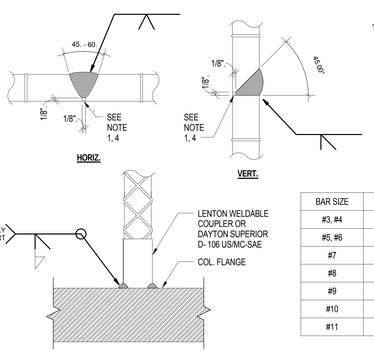
ISOLATION JOIN
D3 TYPICAL DETAIL
SCALE: NO SCALE



NOTE:
1. TRANSVERSE REINF. NOT SHOWN FOR CLARITY.

GRADE BEAM STEP
B3 TYPICAL DETAIL
SCALE: NO SCALE

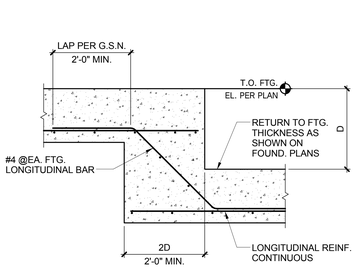
VERT. OR HORIZ. WALL CONSTRUCTION JOINT
A3 TYPICAL DETAIL
SCALE: NO SCALE



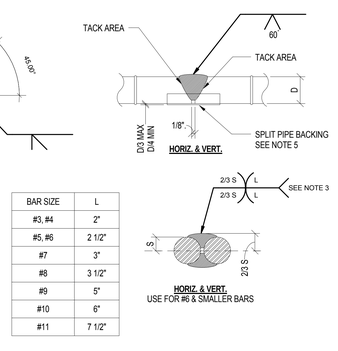
NOTES:
1. RE: GENERAL STRUCTURAL NOTES FOR SLAB BEARING MATERIAL REQUIREMENTS.

SLEEVE FOR PIPE IN SLAB
E4 TYPICAL DETAIL
SCALE: NO SCALE

STANDARD HOOK DEVELOPMENT LENGTH "Ldh"									
				NORMAL WEIGHT			LIGHT WEIGHT		
BAR SIZE	"D"	"G" 90 HOOK	"J" 180 HOOK	3000 PSI	4000 PSI	5000 PSI	3000 PSI	4000 PSI	5000 PSI
#3	2 1/4"	6"	3"	0' -9"	0' -8"	0' -7"	0' -11"	0' -10"	0' -9"
#4	3"	8"	4"	0' - 11"	0' - 10"	0' - 9"	1' - 3"	1' - 1"	1' - 0"
#5	3 3/4"	10"	5"	1' - 2"	1' - 0"	0' - 11"	1' - 6"	1' - 4"	1' - 2"
#6	4 1/2"	12"	6"	1' - 5"	1' - 3"	1' - 1"	1' - 10"	1' - 7"	1' - 5"
#7	5 1/4"	1' - 2"	7"	1' - 8"	1' - 5"	1' - 3"	2' - 1"	1' - 10"	1' - 8"
#8	6"	1'- 4"	8"	1' - 10"	1' - 7"	1' - 5"	2' - 5"	2' - 1"	1' - 11"
#9	9 1/2"	1' - 7 1/2"	11 3/4"	2' - 1"	1' - 10"	1' - 8"	2' - 9"	2' - 4"	2' - 1"
#10	10 3/4"	1' - 10"	1' - 1 1/4"	2' - 4"	2' - 1"	1' - 10"	3' - 1"	2' - 8"	2' - 5"
#11	12"	2' -0 1/2"	1' - 2 1/4"	2' - 7"	2' - 3"	2' - 0"	3' - 5"	2' - 11"	2' - 8"

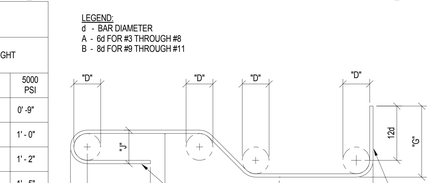


SPREAD FOOTING STEP
B4 TYPICAL DETAIL
SCALE: NO SCALE



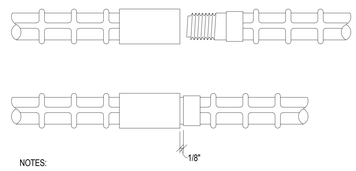
BAR SIZE	L
#3, #4	2"
#5, #6	2 1/2"
#7	3"
#8	3 1/2"
#9	5"
#10	6"
#11	7 1/2"

S1 09-TYP. BENDS AT REINF.
D4 TYPICAL DETAIL
SCALE: NO SCALE



NOTES:
1. RE: GENERAL STRUCTURAL NOTES FOR SLAB BEARING MATERIAL REQUIREMENTS.
2. FOR SLAB DEPRESSIONS NOT GREATER THAN 9" MAX.

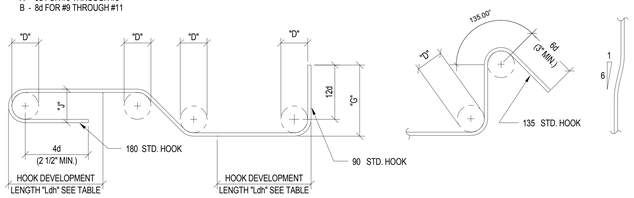
STEP IN SLAB
E5 TYPICAL DETAIL
SCALE: NO SCALE



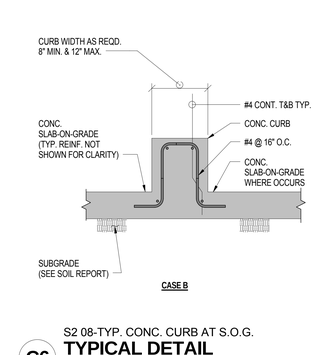
NOTES:
1. ALL MECHANICAL COUPLERS SHALL COMPLY WITH HRC 510 XTENDER ICC ER-5309, LENTON ICC ER-3967, ZAP SCREWLOCK ICC ER-5461, DAYTON SUPERIOR D-110 US/MC-SAE ICC-5216
2. COUPLERS SHALL DEVELOP 160 PERCENT OF THE BAR YIELD STRENGTH.
3. MECHANICALLY COUPLERS SHALL OCCUR @ LOCATIONS IDENTIFIED PER PLAN AND COLUMN SCHEDULE.
4. COUPLERS ARE TYPE 2 CONNECTORS FOR USE IN SEISMIC FRAMES.
5. INSTALLATION PROCEDURE SHALL FOLLOW MANUFACTURES RECOMMENDATIONS.
6. MAINTAIN COVER PER SHEET SC001.

S1 03- MECHANICAL COUPLER
E6 TYPICAL DETAIL
SCALE: NO SCALE

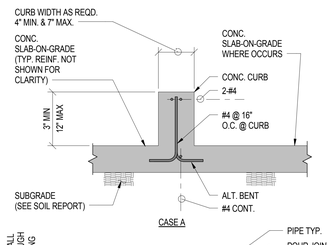
LEGEND:
d - BAR DIAMETER
A - 6d FOR #3 THROUGH #8
B - 8d FOR #9 THROUGH #11

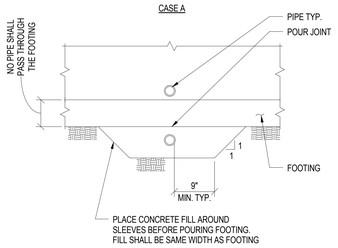


STANDARD HOOK NOTES:
1. ALL HOOK BARS SHALL EXTEND AS FAR AS POSSIBLE WITH A MINIMUM 2" END COVER AND WITH EMBEDMENT NOT LESS THAN SHOWN ON THE SCHEDULE U.N.O. ON PLANS.
2. MINIMUM ISDE COVER =2 1/2"



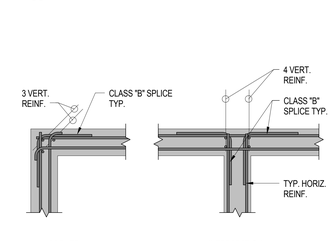
S2 08-TYP. CONC. CURB AT S.O.G.
C6 TYPICAL DETAIL
SCALE: NO SCALE

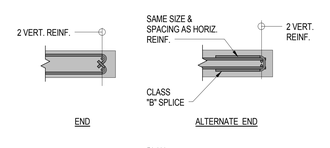




NOTE:
1. MAXIMUM PIPE DIAMETER SHALL BE 6" AND SPACED MINIMUM 18" APART.

S2 02-TYP.PIPE & TRENCH AT FOOTING
A5 TYPICAL DETAIL
SCALE: NO SCALE





NOTES:
1. BAR INTERSECTIONS SHOWN APPLY TO ALL DOUBLE CURTAIN INTERSECTIONS AND TO ALL VARIATIONS OF VERTICAL &
2. HORIZONTAL REBAR POSITIONS.
3. TYPICAL VERTICAL REINFORCING NOT SHOWN FOR CLARITY. USE THIS REINF. DETAIL UNLESS NOTED ON OTHER SECTIONS OR DETAILS.

S2 10-TYP. REINF. AT CONC. WALL ENDS
A6 TYPICAL DETAIL
SCALE: NO SCALE

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

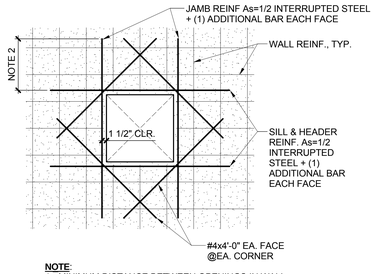
REVISIONS: MARK | DATE | DESCRIPTION

PROJ.NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
CONCRETE TYPICAL DETAILS

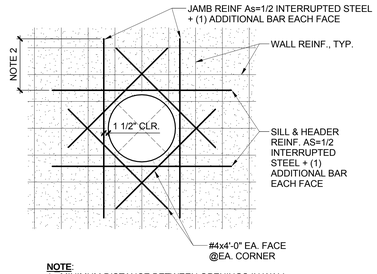
SHEET NO.
2-S-001

C:\Users\amartinez\Documents\S-DA4881-BLDG_A_R15_amartinez.rvt
9/23/2016 8:37:13 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



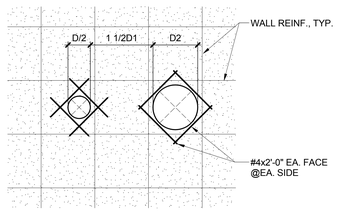
NOTE:
1. MINIMUM DISTANCE BETWEEN OPENINGS IN WALL TO BE 2'-0".
2. CLASS B SPLICE OR 2'-6" MIN. WHICHEVER IS GREATER.

CONCRETE WALL SQUARE PENETRATION
E1 TYPICAL DETAIL
SCALE: NO SCALE



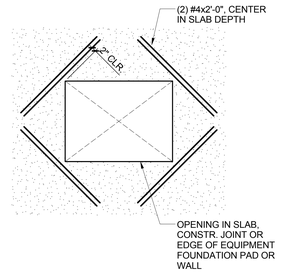
NOTE:
1. MINIMUM DISTANCE BETWEEN OPENINGS IN WALL TO BE 2'-0".
2. CLASS B SPLICE OR 2'-6" MIN. WHICHEVER IS GREATER.

CONCRETE WALL ROUND PENETRATION
E2 TYPICAL DETAIL
SCALE: NO SCALE

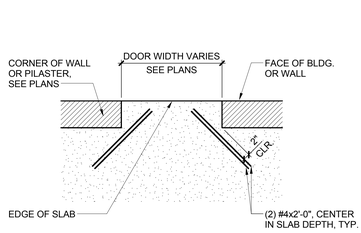


NOTE:
1. FOR SLEEVES > 10" REFERENCE TYPICAL WALL PENETRATION DETAIL.

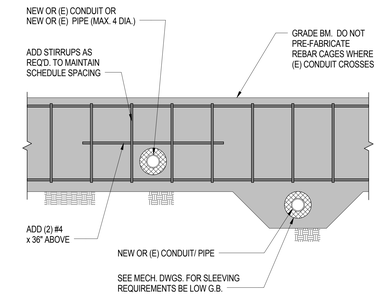
CONCRETE WALL PIPE PENETRATION
E3 TYPICAL DETAIL
SCALE: NO SCALE



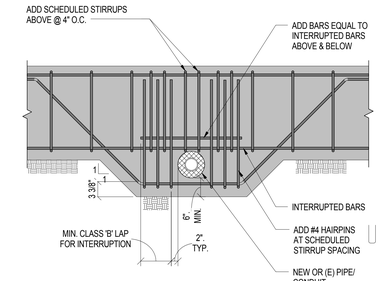
SLAB CORNER BAR
E4 TYPICAL DETAIL
SCALE: NO SCALE



SLAB RE-ENTRANT BAR
E5 TYPICAL DETAIL
SCALE: NO SCALE

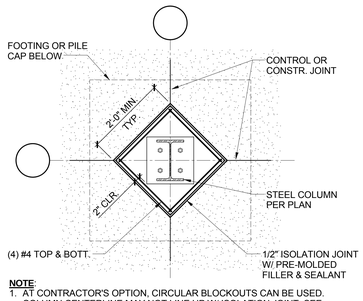


CASE 1 - NO INTERFERENCE



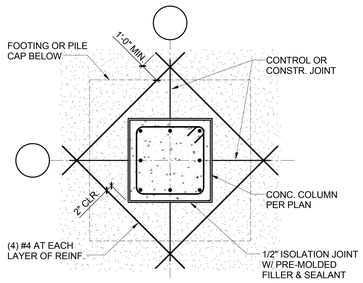
CASE 2 - INTERFERENCE

S2 19-TYP. GRADE BM. PENETRATION
D6 TYPICAL DETAIL
SCALE: NO SCALE

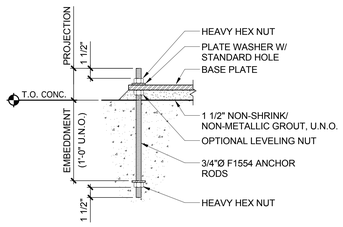


NOTE:
1. AT CONTRACTOR'S OPTION, CIRCULAR BLOCKOUTS CAN BE USED. COLUMN CENTERLINE MAY NOT LINE UP W/ ISOLATION JOINT, SEE FOUNDATION PLAN.

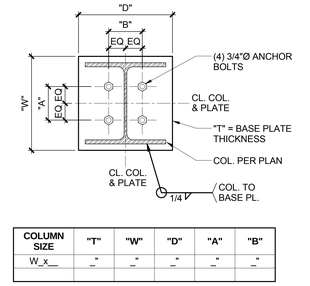
STEEL COLUMN ISOLATION JOINT
D1 TYPICAL DETAIL
SCALE: NO SCALE



CONCRETE COLUMN ISOLATION JOINT
D2 TYPICAL DETAIL
SCALE: NO SCALE

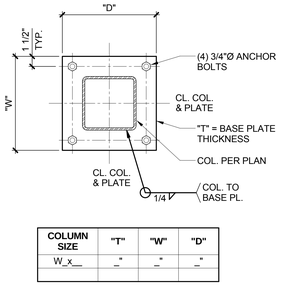


BASE PLATE ANCHOR BOLT
D3 TYPICAL DETAIL
SCALE: NO SCALE



COLUMN SIZE	"T"	"W"	"D"	"A"	"B"
W_x__	_"	_"	_"	_"	_"

BASE PLATE - WF COLUMN
D4 TYPICAL DETAIL
SCALE: NO SCALE



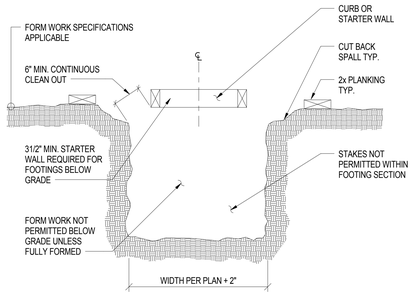
COLUMN SIZE	"T"	"W"	"D"
W_x__	_"	_"	_"

BASE PLATE - HSS COLUMN
D5 TYPICAL DETAIL
SCALE: NO SCALE

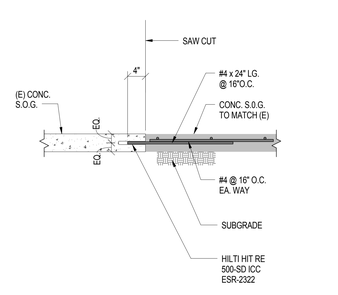
CASE 2 - INTERFERENCE

S2 19-TYP. GRADE BM. PENETRATION
D6 TYPICAL DETAIL
SCALE: NO SCALE

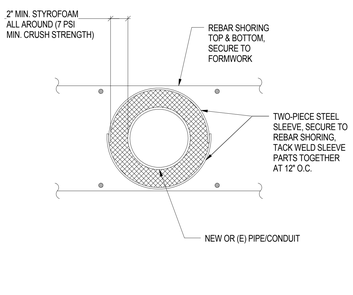
NOTES:
1. USE THIS STARTER WALL DETAIL FOR ALL MASONRY AND CONC. WALLS UNLESS FULLY FORMED.
2. FOUNDATION CONC. MAY BE PLACED DIRECTLY INTO NEAT EXCAVATIONS PROVIDED THE FOUNDATION TRENCH WALLS ARE STABLE AS DETERMINED BY THE SOIL ENGINEER. IN SUCH CASE, THE MINIMUM FORM WORK SHOWN ON THE DRAWINGS IS MANDATORY TO INSURE CLEAN EXCAVATIONS IMMEDIATELY PRIOR TO AND DURING THE PLACING OF CONC.
3. CLEAN ALL PROPOSED CONC. CONTACT SURFACES AFTER CONC. HAS SET.



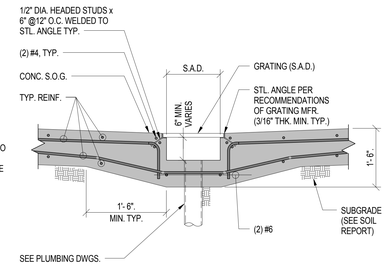
C1 S2 05-TYP.UNFORMED FOOTING
SCALE: 1" = 1'-0"



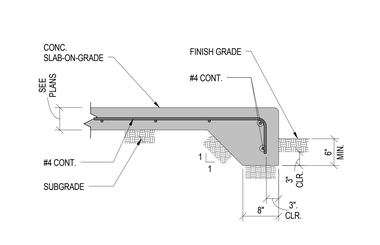
S2 15-TYP. (N) CONC. SLAB TO (E) CONC. SLAB
C3 TYPICAL DETAIL
SCALE: NO SCALE



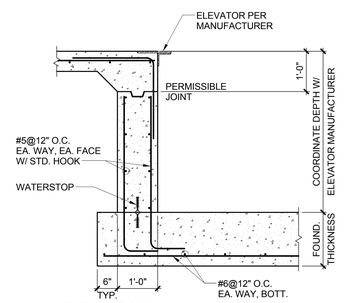
S2 16-SLEEVE AT PIPES / CONDUITS
C4 TYPICAL DETAIL
SCALE: NO SCALE



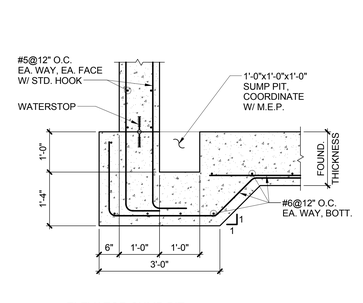
S3 06-TYP. TRENCH SECTION
C5 TYPICAL DETAIL
SCALE: NO SCALE



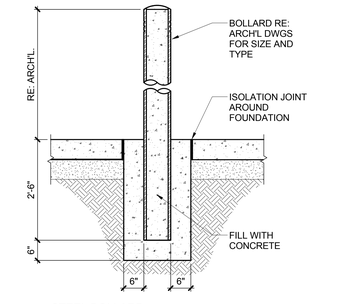
S3 10-TYP. EDGE AT EXTERIOR S.O.G.
C6 TYPICAL DETAIL
SCALE: NO SCALE



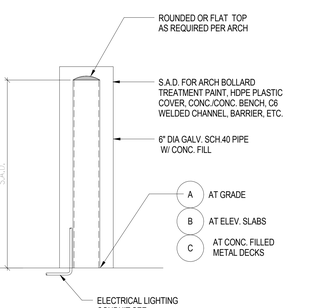
ELEVATOR PIT
B1 TYPICAL DETAIL
SCALE: NO SCALE

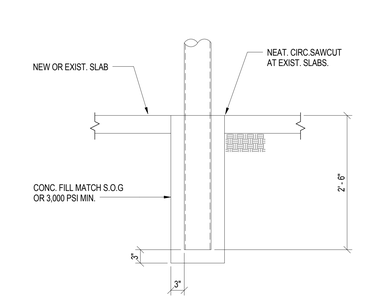


ELEVATOR SUMP PIT
B2 TYPICAL DETAIL
SCALE: NO SCALE



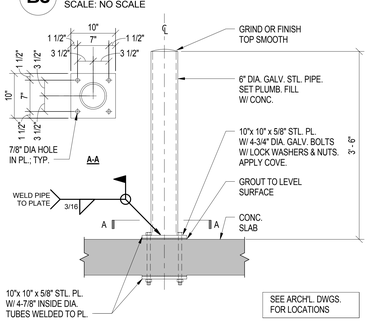
STEEL BOLLARD
B3 TYPICAL DETAIL
SCALE: NO SCALE



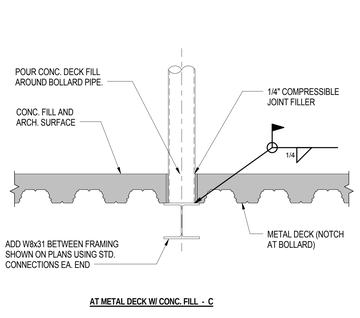


AT GRADE - A

AT ELEV SLABS - B



S4 01-PIPE BOLLARD AT CONC. FLOOR
A3 TYPICAL DETAIL
SCALE: NO SCALE



AT METAL DECK W/ CONC. FILL - C

S4 07-NON-CRASH-RATED BOLLARD DETAILS
A4 TYPICAL DETAIL
SCALE: NO SCALE

CONCRETE REINFORCING DEVELOPMENT LENGTHS (TENSION SPLICE) SCHEDULE

BAR SIZE	GRADE 60 REINFORCING (Fy=60 KSI) CONCRETE STRENGTH (PSI) 3000 ld	3000 1.3 ld	4000 ld	4000 1.3 ld	5000 ld	5000 1.3 ld	6000 ld	6000 1.3 ld	7000 ld	7000 1.3 ld	8000 ld	8000 1.3 ld
3	17	22	15	20	13	17	12	16	12	16	12	16
4	22	29	19	25	17	22	16	21	15	20	14	19
5	28	37	24	31	22	29	20	26	18	24	17	22
6	33	43	29	38	26	34	24	32	22	29	21	28
7	48	63	42	55	37	48	34	45	32	42	30	39
8	54	70	48	62	43	56	39	51	36	47	34	45
9	62	81	54	70	48	62	45	59	40	52	38	50
10	68	88	60	78	53	69	49	64	45	59	42	55
11	76	99	65	85	58	76	54	70	50	65	46	60

NOTES:
1. MULTIPLY VALUES IN TABLE BY 1.3 FOR HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12" OF FRESH CONCRETE IS CAST BELOW BARS.
2. MULTIPLY VALUES IN TABLE BY 1.3 FOR LW CONCRETE.
3. MULTIPLY VALUES IN TABLE BY 1.5 FOR COVER LESS THAN Db AND CLEAR SPACING LESS THAN 2Db.
4. MULTIPLY VALUES IN TABLE BY 1.2 FOR EPOXY COATED BARS.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

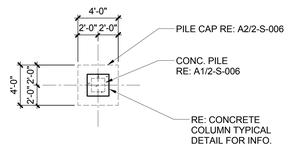
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
CONCRETE TYPICAL DETAILS

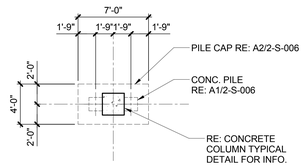
SHEET NO.
2-S-002

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

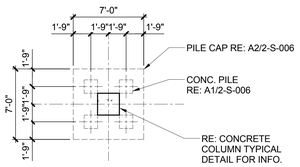
C:\Users\amartinez\Documents\S DA4881 BLDG _A_R15_amartinez.rvt
8/23/2016 8:37:16 AM



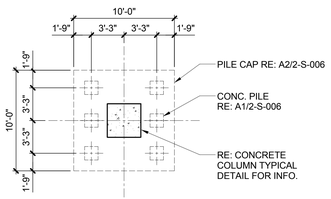
PILE CAP TYPE 1 (PC1)



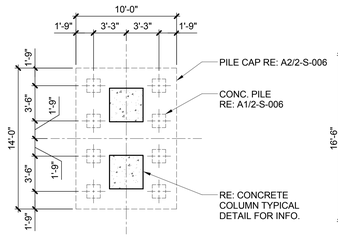
PILE CAP TYPE 2 (PC2)



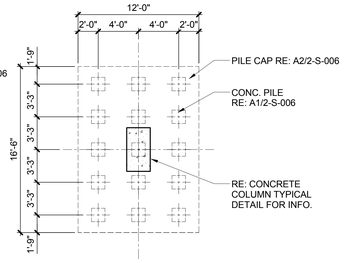
PILE CAP TYPE 4 (PC4)



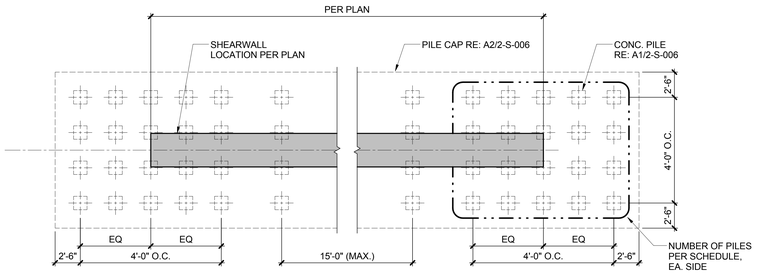
PILE CAP TYPE 6 (PC6)



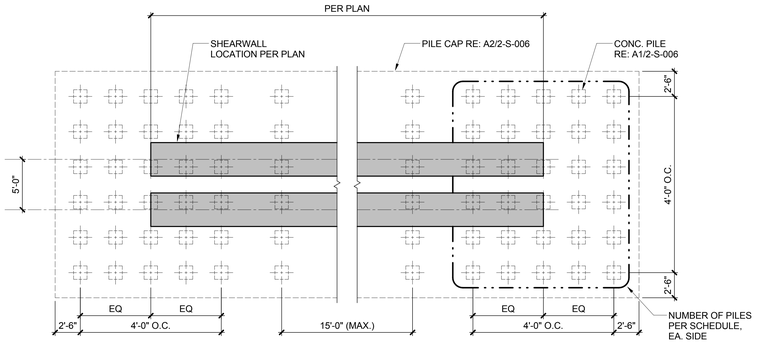
PILE CAP TYPE 8 (PC8)



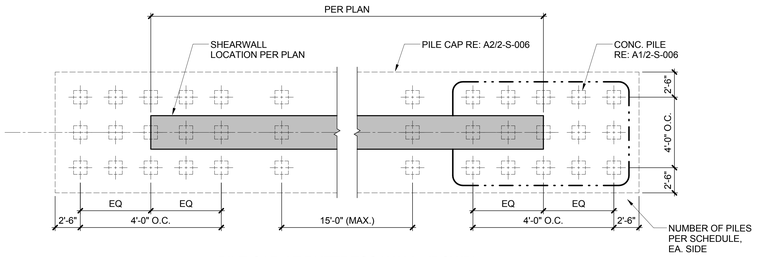
PILE CAP TYPE 15 (PC15)



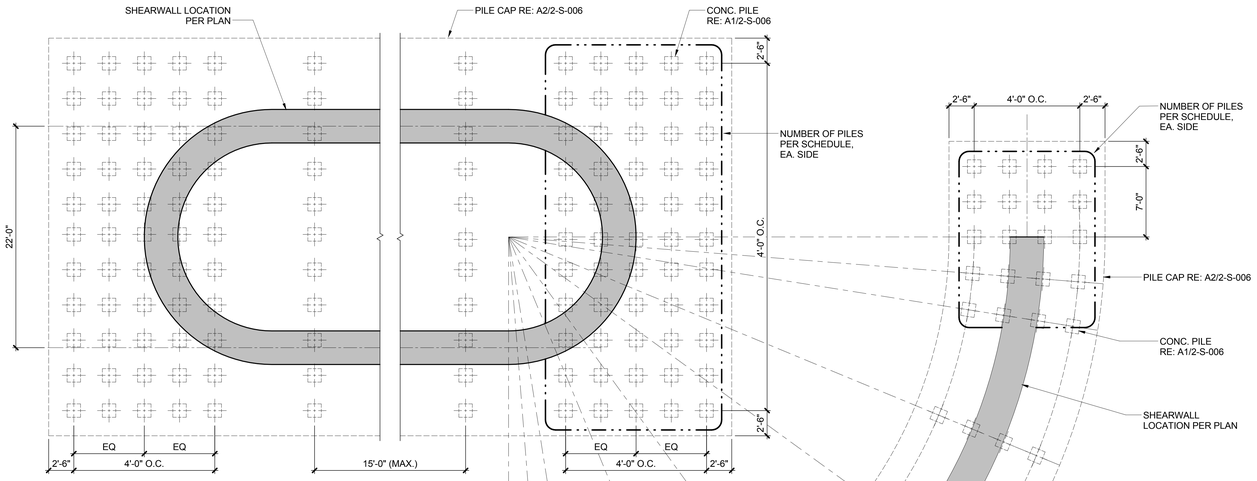
PILE CAP AT TYP. SHEAR WALL, (PCW1)



PILE CAP AT BUILDING JOINT SHEAR WALL, (PCW2)



PILE CAP AT BUTTRESS WALL, (PCWB)

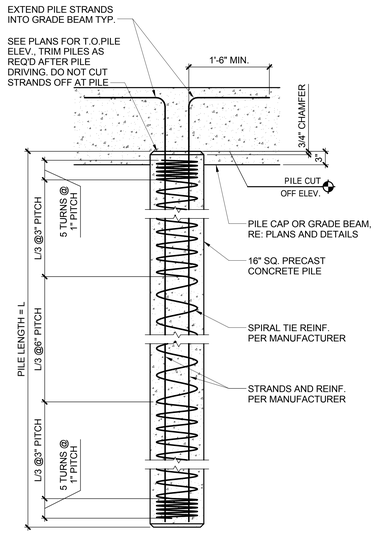


PILE CAP AT BUILDING JOINT SHEAR WALL, (PCW4)

PILE CAP AT TYP. SHEAR WALL, (PCW5)

1 PILE CAP TYPE PLANS

SCALE: 3/16" = 1'-0"



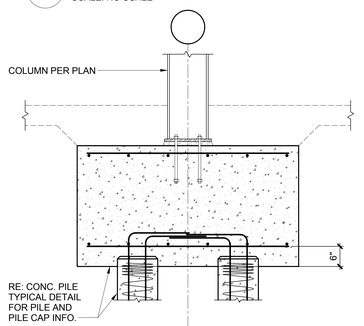
NOTES:

1. PILE CAPACITIES TO BE VERIFIED BY QUALIFIED GEOTECHNICAL ENGINEER, WORKING CAPACITY SHALL BE 15 TONS MINIMUM.
2. AFTER ALL PILES ARE DRIVEN, ALL VOIDS AROUND PERIMETER OF PILES SHALL BE BACKFILLED WITH PROPERLY COMPACTED APPROVED FILL.
3. PILES SHOULD NOT BE DISTURBED FOR A MINIMUM OF 24 HOURS PRIOR TO CONSTRUCTION OF THE PILE CAP.
4. PROVIDE AN ADDITIONAL 5'-0" OF LENGTH TO INDICATOR PILES.

PRECAST/PRESTRESSED CONC. PILE

A1 TYPICAL DETAIL

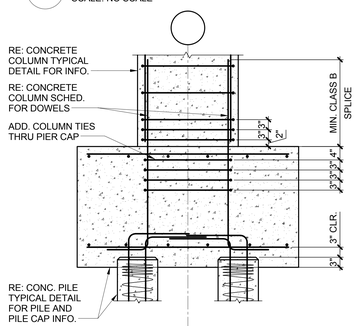
SCALE: NO SCALE



STEEL COLUMN BEARING ON PIER CAP

B3 TYPICAL DETAIL

SCALE: NO SCALE



CONCRETE COLUMN BEARING ON PILE CAP

A3 TYPICAL DETAIL

SCALE: NO SCALE

PILE CAP SCHEDULE FOR COLUMNS

CAP #	LxBxH	NO. OF PILES
PC1	4'-0"x4'-0"x2'-0"	1
PC2	7'-0"x4'-0"x3'-0"	2
PC3	11'-0"x4'-0"x3'-0"	2
PC4	7'-0"x7'-0"x3'-6"	4
PC6	10'-0"x10'-0"x4'-0"	6
PC8	14'-0"x10'-0"x4'-0"	8
PC15	16'-6"x10'-0"x4'-6"	15

PILE CAP SCHEDULE FOR SHEAR WALLS

CAP TYPE	WIDTH	LENGTH	NO. OF PILES @ END
PCWB	15'-6"	RE: PLAN	15
PCW1	17'-0"	RE: PLAN	20
PCW2	25'-0"	RE: PLAN	30
PCW3	17'-0"	RE: PLAN	20
PCW4	45'-0"	RE: PLAN	55
PCW5	RE: PLAN	RE: PLAN	20

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

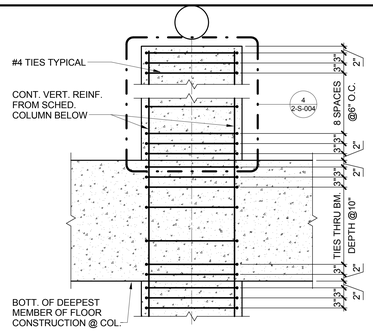
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
CONCRETE TYPICAL DETAILS

SHEET NO.
2-S-003

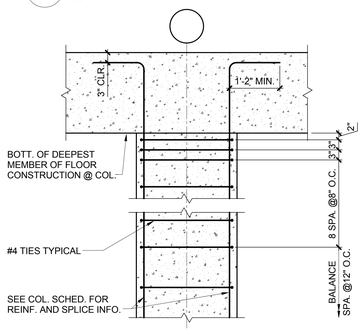
C:\Users\amanfred\Documents\S.DA4881.BLDG_A_B-R15_amanfred.rvt
9/23/2016 8:37:18 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



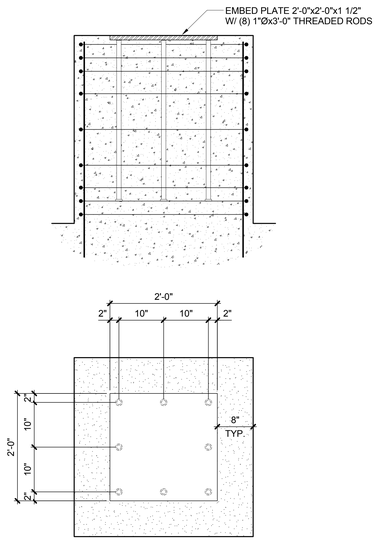
2 COLUMN EXTENSION AT ROOF

SCALE: 3/4" = 1'-0"



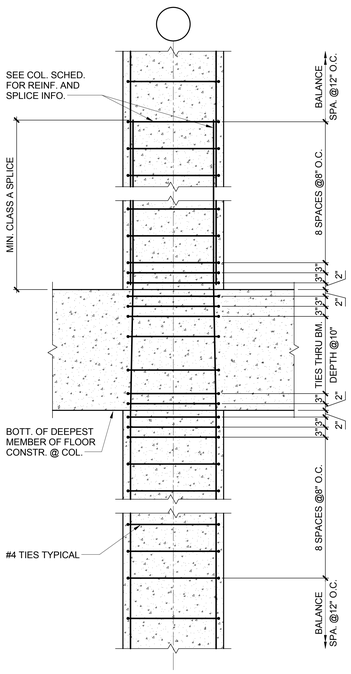
3 COLUMN AT FLOOR/ROOF

SCALE: 3/4" = 1'-0"



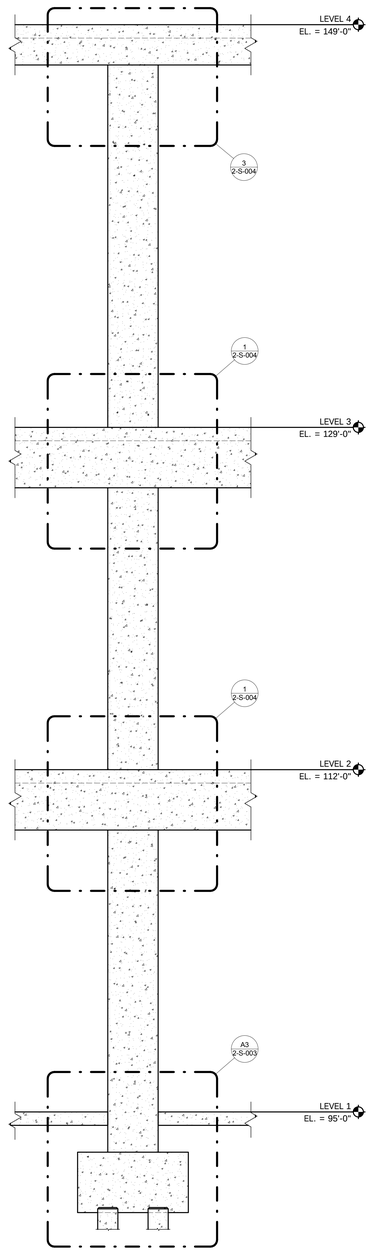
4 EMBED PL. FOR SOLAR PANEL FRMG.

SCALE: 1" = 1'-0"



1 CONCRETE COLUMN

SCALE: 3/4" = 1'-0"



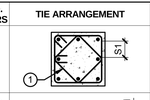
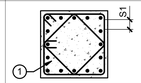
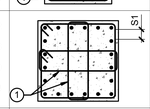
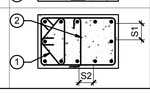
6 TYPICAL COLUMN ELEVATION

SCALE: 3/8" = 1'-0"

CONCRETE COLUMN SCHEDULE

COLUMN GRID LOCATION / LEVEL			
LEVEL 3 (__'-__")	(__)#__ x __"	(__)#__ x __"	(__)#__ x __"
LEVEL 2 (__'-__")	(__)#__ x __"	(__)#__ x __"	(__)#__ x __"
LEVEL 1 (__'-__")	(__)#__ x __"	(__)#__ x __"	(__)#__ x __"
FOUNDATION DOWELS	(__)#__ x __"	(__)#__ x __"	(__)#__ x __"

COLUMN TIE DETAILS

COL. TYPE	NO. BARS	TIE ARRANGEMENT	NOTES
SQUARE	4, 8		(1) PROVIDE INSIDE TIES ON 8 BAR ARRANGEMENT WHEN S1 > 6".
SQUARE	12, 16, 20, 24		(1) ONLY ONE INSIDE TIE REQUIRED WHEN S1 ≤ 6".
SQUARE	12, 16, 20, 24		(1) PROVIDE TIES AROUND EVERY OTHER BARS WHEN S1 ≤ 6". PROVIDE TIES AROUND ALL BARS WHEN S1 > 6".
RECTANGLE	ANY # OF BARS		(1) PROVIDE END TIE WHEN S1 > 6". (2) PROVIDE TIES AROUND EVERY OTHER BARS WHEN S1 ≤ 6". PROVIDE TIES AROUND ALL BARS WHEN S1 > 6".

CONCRETE COLUMN SCHEDULE

C1	40"x40"	INCLUDING 2" EXTRA COVER FOR COLLISION PROTECTION
C2	22"x52"	INCLUDING 2" EXTRA COVER FOR COLLISION PROTECTION
C3	40"x80"	INCLUDING 2" EXTRA COVER FOR COLLISION PROTECTION
C4	28"x64"	INCLUDING 2" EXTRA COVER FOR COLLISION PROTECTION
C5	28"x72"	INCLUDING 2" EXTRA COVER FOR COLLISION PROTECTION
C6	18"x18"	
C7	28"x28"	INCLUDING 2" EXTRA COVER FOR COLLISION PROTECTION
C8	48"x48"	
C9	12"x12"	
C10	14"x14"	

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:

CONCRETE TYPICAL DETAILS

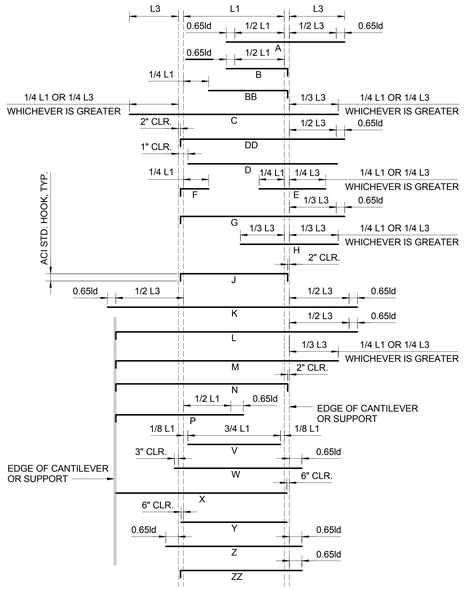
SHEET NO.

2-S-004

C:\Users\amarfrez\Documents\S DA4881 BLDG_A_B-R15_amarfrez.rvt

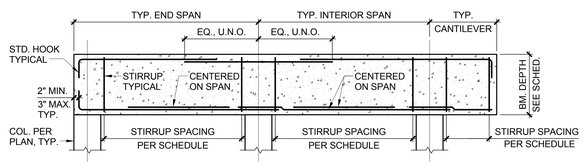
9/23/2016 9:37:20 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



NOTES:

1. BARS SHOWN ON DIAGRAM AS TOP BARS MAY BE USED AS BOTTOM BARS AND VICE-VERSA. BAR PLACEMENT MAY BE MIRRORED FROM THAT SHOWN ON DIAGRAM DEPENDING ON SPAN GEOMETRY AND SCHEDULED LOCATION OF BAR TYPE. REFER TO PLANS, SECTIONS, AND DETAILS FOR SPAN GEOMETRY.
2. ALL BARS SHALL BE DETAILED IN ACCORDANCE WITH ACI 318, REFER TO ACI 318 FOR STANDARD HOOK LENGTHS, DEVELOPMENT LENGTH (Ld), AND LAP SPLICE LENGTHS. REFER TO GENERAL NOTES AND/OR PLANS AND DETAILS FOR FACTORS THAT CAN AFFECT DEVELOPMENT LENGTH INCLUDING, BUT NOT LIMITED TO CONCRETE COMPRESSIVE STRENGTH (f'c), REINFORCEMENT YIELD STRENGTH (fy), USE OF EPOXY COATING AND/OR LIGHT WEIGHT AGGREGATES.
3. ALL STIRRUPS SHALL BE HOOKED AROUND A LONGITUDINAL BAR AT EACH BEND. PROVIDE (1) #5 CONTINUOUS BAR AT EACH BEND WHERE NO SCHEDULED REINFORCING OS PROVIDED. HOOK BAR AT DISCONTINUOUS ENDS OR LAP WITH ADJACENT BEAM REINFORCING WITH CLASS A LAP SPLICE AS REQUIRED.
4. REFER TO TYPICAL DETAILS AND SECTIONS FOR ADDITIONAL REINFORCING NOT SHOWN IN SCHEDULE.
5. LEFT (L) AND RIGHT (R) ENDS OF SCHEDULED BEAMS ARE DESIGNATED ON PLANS IN ACCORDANCE WITH THE TEXT BEING READ FROM LEFT TO RIGHT, UNLESS NOTED OTHERWISE.
6. THE LENGTHS SHOWN SHALL BE FROM FACE OF SUPPORT (I.E. BEAM/COLUMN) UNLESS NOTED OTHERWISE.



1 BAR BEND DIAGRAM

SCALE: 3/4" = 1'-0"

GRADE BEAM SCHEDULE	
TYPE	**SIZE (B"xH")**
GB1	36"x36"
GB2	54"x36"
GB3	36"x60"
GB4	18"x18"
GB5	24"x24"

BEAM SCHEDULE	
TYPE	**SIZE (B"xH")**
B01	36"x48"
B02	24"x36"
B03	24"x54"
B04	18"x30"
B05	
B06	24"x48"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	3/4" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

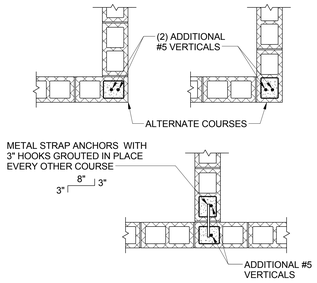
SHEET TITLE:

CONCRETE TYPICAL DETAILS

SHEET NO.

2-S-005

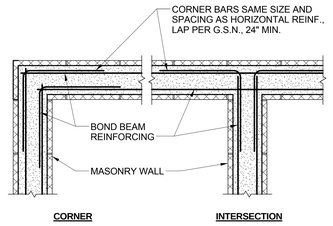
C:\Users\amartinez\Documents\S-DA4881-BLDG_A_B-R15_amartinez.rvt
9/23/2016 8:37:21 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



MASONRY WALL INTERSECTION

E1 TYPICAL DETAIL

SCALE: NO SCALE

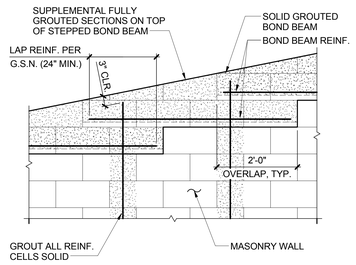


NOTE:
1. VERTICAL REINFORCEMENT NOT SHOWN FOR CLARITY.

MASONRY WALL CORNER REINF.

E2 TYPICAL DETAIL

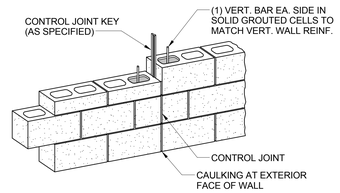
SCALE: NO SCALE



STEPPED BOND BEAM

E3 TYPICAL DETAIL

SCALE: NO SCALE

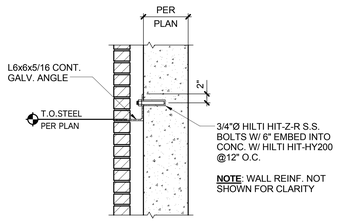


NOTES:
1. USE OF CONTROL JOINT BLOCK OR RUBBER LIKE MATERIAL, KEY AND SASH BLOCK IS CONTRACTOR'S OPTION.
2. REFER TO ARCHITECTURAL FOR LOCATION AND EXTENTS OF CONTROL JOINT.
3. HORIZONTAL JOINT REINFORCEMENT SHALL BE DISCONTINUOUS AT CONTROL JOINTS.
4. CONTINUE BOND BEAM REINF. THROUGH JOINT, WRAP BARS W/ MASTIC FOR BOND BREAK.
5. BOND BEAM REINF. SHALL NOT BE LAPPED WITHIN 8'-0" OF CONTROL JOINT.

MASONRY WALL CONTROL JOINT

E4 TYPICAL DETAIL

SCALE: NO SCALE

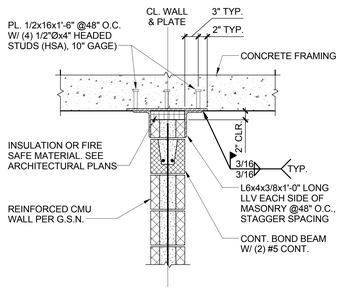


NOTE: WALL REINF. NOT SHOWN FOR CLARITY

BRICK RELIEF ANGLE

E6 TYPICAL DETAIL

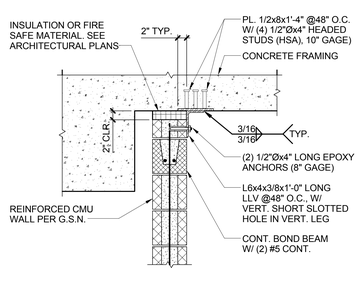
SCALE: NO SCALE



TWO SIDED MASONRY WALL SUPPORT

B3 TYPICAL DETAIL

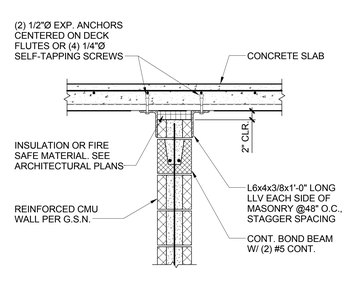
SCALE: NO SCALE



ONE SIDED MASONRY WALL SUPPORT

B4 TYPICAL DETAIL

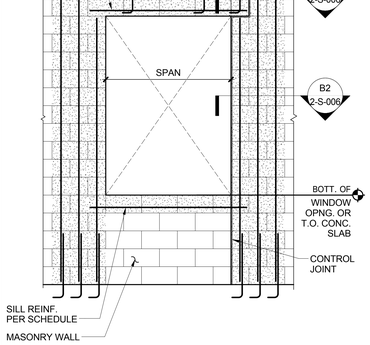
SCALE: NO SCALE



MASONRY WALL CONN. AT STEEL DECK/SLAB

D3 TYPICAL DETAIL

SCALE: NO SCALE



MASONRY LINTEL SCHEDULE			
SPAN	**B**	**LINTEL SIZE (W x D)**	**REINFORCING**
UP TO 8'-0"	8"	WIDTH OF WALL x 8"	(2) #6
8'-0" TO 12'-0"	16"	WIDTH OF WALL x 16"	(2) #6

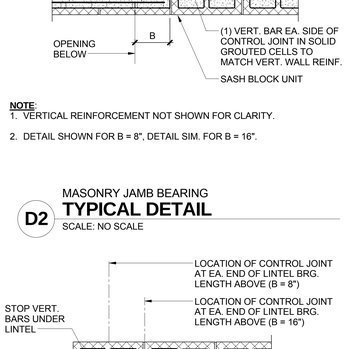
NOTES:
1. PROVIDE SMOOTH COPPER BOND BARRIER UNDER LINTEL BEARING AREA ON THE CONTROL JOINT SIDE.

2. HORIZONTAL JOINT REINF. NOT SHOWN FOR CLARITY.

MASONRY WALL OPENING

B1 TYPICAL DETAIL

SCALE: NO SCALE



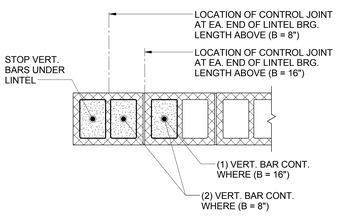
NOTE:
1. VERTICAL REINFORCEMENT NOT SHOWN FOR CLARITY.

2. DETAIL SHOWN FOR B = 8", DETAIL SIM. FOR B = 16".

MASONRY JAMB BEARING

D2 TYPICAL DETAIL

SCALE: NO SCALE



NOTE:
1. VERTICAL REINFORCEMENT NOT SHOWN FOR CLARITY.

2. VERTICAL BARS SAME SIZE AND SPACING AS VERTICAL WALL REINF.

JAMB AT OPNG. IN MASONRY

B2 TYPICAL DETAIL

SCALE: NO SCALE

MASONRY WALL NOTES:

1. SEE SHEET S-___ FOR MASONRY NOTES.
2. SEE PLANS FOR LOCATIONS AND EXTENTS.
3. PROVIDE #9 CONT. TRUSS TYPE JOINT REINFORCING AT 16" O.C VERTICAL IN JOINTS.
4. PROVIDE MASONRY EXPANSION JOINTS AT ALL INTERSECTIONS BETWEEN EXTERIOR AND INTERIOR PARTITION WALLS. PROVIDE MASONRY EXPANSION JOINTS AT ALL CORNERS OR JOGS IN EXTERIOR MASONRY WALLS. PROVIDE MASONRY EXPANSION JOINTS SO THAT NO LENGTH OF UNJOINTED WALL EXCEEDS 20'-0" OR 1.5 TIMES THE WALL HEIGHT. PROVIDE EXPANSION JOINT WITHIN 4'-0" OF ALL CORNERS FOR WALLS LONGER THAN ___'-__". U.N.O. PER ARCH'L. DWGS.
5. DO NOT RIGIDLY CONNECT MASONRY ON SLABS ON GRADE (INTERIOR) TO MASONRY ON GRADE BEAMS, STEM WALLS OR PILED FOUNDATIONS (EXTERIOR). ALL MASONRY SHALL BE LAID TO MATCHING COURSING, REGARDLESS IF INTERIOR OR EXTERIOR.
6. DO NOT ATTACH MASONRY TO THE STEEL FRAME OR OTHER STRUCTURAL SYSTEMS WHERE THE CONNECTION RESISTS FORCES OR LOADS IN THE PLANE OF THE WALL. ALL MASONRY BRACING CONNECTIONS ARE FOR OUT OF PLANE LOADS ONLY.
7. SCHEDULED REINFORCEMENT REPRESENTS THE NOMINAL MINIMUM REINFORCEMENT REQUIRED. PROVIDE ADDITIONAL REINFORCEMENT AS REQUIRED BY THE DESIGN SPECIFICATION, GENERAL NOTES, TYPICAL DETAILS OR AS SPECIFICALLY IDENTIFIED IN THE CONTRACT DRAWINGS.
8. PROVIDE ADDITIONAL BOND BEAMS AT THE UPPERMOST AND BOTTOMMOST CONTINUOUS COURSE OF MASONRY AT THE TOP OF EACH WALL, AT EACH FLOOR LEVEL AND AT ALL MASONRY BRACING LOCATIONS.
10. FOR STACK BOND MASONRY WALLS PROVIDE BOND BEAMS AT 4'-0" O.C. ALONG THE HEIGHT OF THE WALL. THE BOND BEAM SHALL HAVE (2) #5 CONT. HORIZONTAL REBARS.

MASONRY REINFORCING DEVELOPMENT LENGTHS (TENSION SPLICE) SCHEDULE												
	GRADE 60 REINFORCING (Fy=60 KSI)											
BAR SIZE	**CONCRETE STRENGTH (PSI)**											
	3000		**4000**		**5000**		**6000**		**7000**		**8000**	
	ld	1.3 ld	ld	1.3 ld	ld	1.3 ld	ld	1.3 ld	ld	1.3 ld	ld	1.3 ld
3	17	22	15	20	13	17	12	16	12	16	12	16
4	22	29	19	25	17	22	16	21	15	20	14	19
5	28	37	24	31	22	29	20	26	18	24	17	22
6	33	43	29	38	26	34	24	32	22	29	21	28
7	48	63	42	55	37	48	34	45	32	42	30	39
8	54	70	48	62	43	56	39	51	36	47	34	45
9	62	81	54	70	48	62	45	59	40	52	38	50
10	68	88	60	78	53	69	49	64	45	59	42	55
11	76	99	65	85	58	76	54	70	50	65	46	60

NOTES:
1. MULTIPLY VALUES IN TABLE BY 1.3 FOR HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12" OF FRESH CONCRETE IS CAST BELOW BARS. (APPLIES TO BEAM OR WALL REINFORCING)
2. MULTIPLY VALUES IN TABLE BY 1.3 FOR LW CONCRETE.
3. MULTIPLY VALUES IN TABLE BY 1.5 FOR COVER LESS THAN Db AND CLEAR SPACING LESS THAN 2Db.
4. MULTIPLY VALUES IN TABLE BY 1.2 FOR EPOXY COATED BARS.

MASONRY WALL SCHEDULE			
WALL MARK	**THICKNESS**	**VERT. REINF.**	**NOTE**
W1	8"	#?@?? O.C.	NOTE ??
W2	12"	#?@?? O.C.	NOTE ??

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

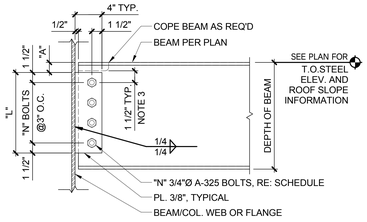
SHEET TITLE:
MASONRY TYPICAL DETAILS

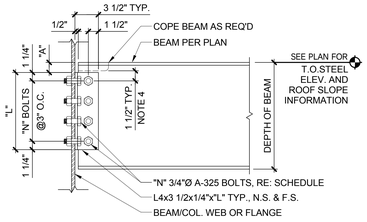
SHEET NO.
2-S-006

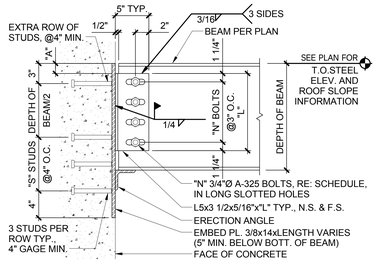
C:\Users\arnaltrad\Documents\S-DA4881-BLDG_A_B-R15_arnaltrad.rvt

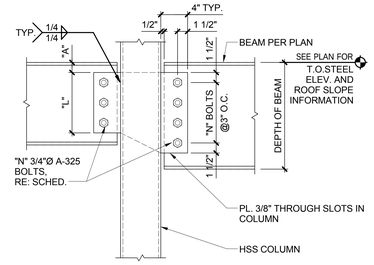
9/23/2016 8:37:25 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING









DEPTH OF BEAM	"A"	# OF BOLTS "N"	LEGNTH OF ANGLE "L"
W8	1"	2	6"
W10	1"	2	6"
W12	1 1/2"	3	9"
W14	1 1/2"	3	9"
W16	1 1/2"	4	12"
W18	1 1/2"	5	15"
W21	2"	6	18"
W24	2"	6	18"
W27	2"	7	21"
W30	2"	8	24"
W33	2"	9	27"
W36	2"	10	30"

NOTES:
1. PROVIDE MINIMUM 3/4"Ø BOLTS AS SHOWN IN THE SCHEDULE PER BEAM DEPTH UNLESS U.N.O. ON PLANS.
2. ALL BOLTS SHALL BE 3/4"Ø F1852 TWIST OFF BOLTS U.N.O.
3. MINIMUM DISTANCE FROM CENTERLINE OF TOP BOLT TO COPE SHALL BE 1 1/2".
4. STANDARD OR SHORT SLOTTED HOLES MAY BE USED WITH 3/4"Ø BOLTS.

DEPTH OF BEAM	"A"	# OF BOLTS "N"	LEGNTH OF ANGLE "L"
W8	1"	2	5 1/2"
W10	1"	2	5 1/2"
W12	1 1/2"	2	5 1/2"
W14	1 1/2"	3	8 1/2"
W16	1 1/2"	3	8 1/2"
W18	1 1/2"	3	8 1/2"
W21	2"	4	11 1/2"
W24	2"	4	11 1/2"
W27	2"	5	14 1/2"
W30	2"	5	14 1/2"
W33	2"	6	17 1/2"
W36	2"	6	17 1/2"

NOTES:
1. PROVIDE MINIMUM 3/4"Ø BOLTS AS SHOWN IN THE SCHEDULE PER BEAM DEPTH UNLESS NOTED OTHERWISE ON PLANS.
2. ALL BOLTS SHALL BE 3/4"Ø F1852 TWIST OFF BOLTS UNLESS NOTED OTHERWISE.
3. STAGGER BOLTS AND USE SHORTER OUTSTANDING LEGS AS REQUIRED FOR CLEARANCE.
4. MINIMUM DISTANCE FROM CENTERLINE OF TOP BOLT TO A COPE SHALL BE 1 1/2".
5. STANDARD OR SHORT SLOTTED HOLES MAY BE USED WITH 3/4"ØBOLTS.
6. STAGGER BOLT SPACING AS REQUIRED TO MEET OSHA ERECTION GUIDELINES.

DEPTH OF BEAM	"A"	# OF BOLTS "N"	LEGNTH OF ANGLE "L"	# OF STUDS "S"	MIN. EDGE DISTANCE
W8	1"	2	5 1/2"	1	7"
W10	1"	2	5 1/2"	1	7"
W12	1 1/2"	2	5 1/2"	1	7"
W14	1 1/2"	3	8 1/2"	2	12"
W16	1 1/2"	3	8 1/2"	2	12"
W18	1 1/2"	3	8 1/2"	2	12"
W21	2"	4	11 1/2"	3	12"
W24	2"	4	11 1/2"	3	12"
W27	2"	5	14 1/2"	4	18"
W30	2"	5	14 1/2"	4	18"
W33	2"	6	17 1/2"	5	18"
W36	2"	6	17 1/2"	5	18"

NOTES:
1. PROVIDE MINIMUM WELD PLATE CONNECTIONS AS INDICATED IN THE SCHEDULE TYPICAL U.N.O. WHERE STUD ROWS AND LENGTH OF ANGLE ARE INDICATED ON PLAN, I.E.:

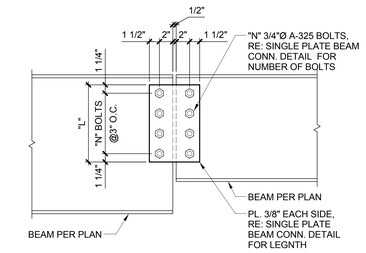
   (5) 17 1/2" — PROVIDE NUMBER OF ROWS AND ANGLE LENGTH AS INDICATED.

2. ALL HEADED STUDS SHALL BE 5/8"Øx6" FINAL LENGTH.

DEPTH OF BEAM	"A"	# OF BOLTS "N"	LEGNTH OF ANGLE "L"
W8	1"	2	6"
W10	1"	2	6"
W12	1 1/2"	3	9"
W14	1 1/2"	3	9"
W16	1 1/2"	4	12"
W18	1 1/2"	5	15"
W21	2"	6	18"
W24	2"	6	18"
W27	2"	7	21"
W30	2"	8	24"
W33	2"	9	27"
W36	2"	10	30"

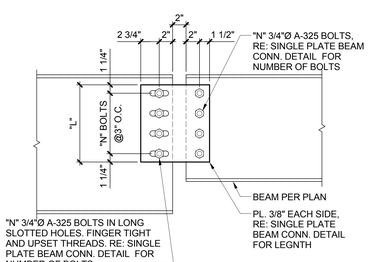
NOTES:
1. PROVIDE MINIMUM 3/4"Ø BOLTS AS SHOWN IN THE SCHEDULE PER BEAM DEPTH UNLESS U.N.O. ON PLANS.
2. ALL BOLTS SHALL BE 3/4"Ø F1852 TWIST OFF BOLTS U.N.O.
3. STANDARD OR SHORT SLOTTED HOLES MAY BE USED WITH 3/4"Ø BOLTS.

SINGLE PLATE BEAM CONNECTION
D1 TYPICAL DETAIL
SCALE: NO SCALE



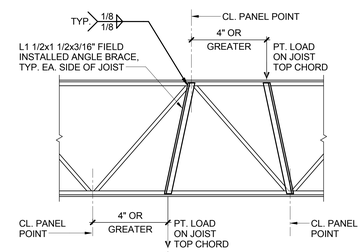
NOTES:
1. PROVIDE MINIMUM 3/4"Ø BOLTS AS SHOWN IN THE SINGLE PLATE BEAM CONN. DETAIL SCHEDULE PER BEAM DEPTH UNLESS U.N.O. ON PLANS.
2. ALL BOLTS SHALL BE 3/4"Ø F1852 TWIST OFF BOLTS U.N.O.

DOUBLE ANGLE BEAM CONNECTION
D2 TYPICAL DETAIL
SCALE: NO SCALE

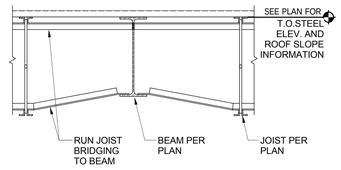


NOTES:
1. PROVIDE MINIMUM 3/4"Ø BOLTS AS SHOWN IN THE SINGLE PLATE BEAM CONN. DETAIL SCHEDULE PER BEAM DEPTH UNLESS U.N.O. ON PLANS.
2. ALL BOLTS SHALL BE 3/4"Ø F1852 TWIST OFF BOLTS U.N.O.

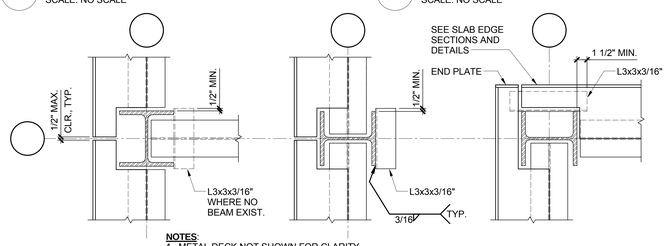
BEAM AT CONCRETE WALL CONNECTION
D3 TYPICAL DETAIL
SCALE: NO SCALE



THROUGH PLATE BEAM CONNECTION
D4 TYPICAL DETAIL
SCALE: NO SCALE



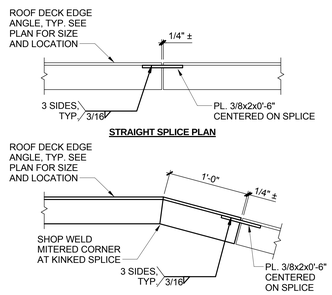
BOLTED BEAM SPLICE CONNECTION
B1 TYPICAL DETAIL
SCALE: NO SCALE



NOTES:
1. METAL DECK NOT SHOWN FOR CLARITY.
2. PROVIDE TYPICAL ANGLE AT EXTERIOR COLUMNS AND AT INTERIOR COLUMNS WHERE BEAMS ARE NOT PRESENT.
3. ANGLES NOT SHOWN ON OTHER SECTIONS FOR CLARITY.
4. PROVIDE SHEET METAL DECK CLOSURE PIECE TO PREVENT CONCRETE LEAKAGE AT COLUMNS.

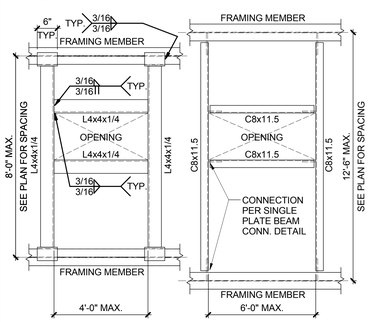
BOLTED SLIP CONNECTION
B2 TYPICAL DETAIL
SCALE: NO SCALE

JOIST POINT LOAD REINFORCING
B3 TYPICAL DETAIL
SCALE: NO SCALE

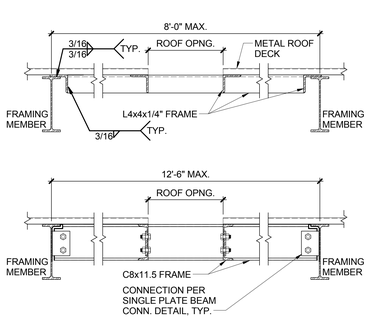


JOIST BRIDING
B4 TYPICAL DETAIL
SCALE: NO SCALE

DECK SUPPORT AT COLUMNS
A1 TYPICAL DETAIL
SCALE: NO SCALE



ROOF OPENING
A4 TYPICAL DETAIL
SCALE: NO SCALE



FRAMING AT ROOF OPENING
A5 TYPICAL DETAIL
SCALE: NO SCALE

ROOF DECK EDGE ANGLE SPLICE
A3 TYPICAL DETAIL
SCALE: NO SCALE

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

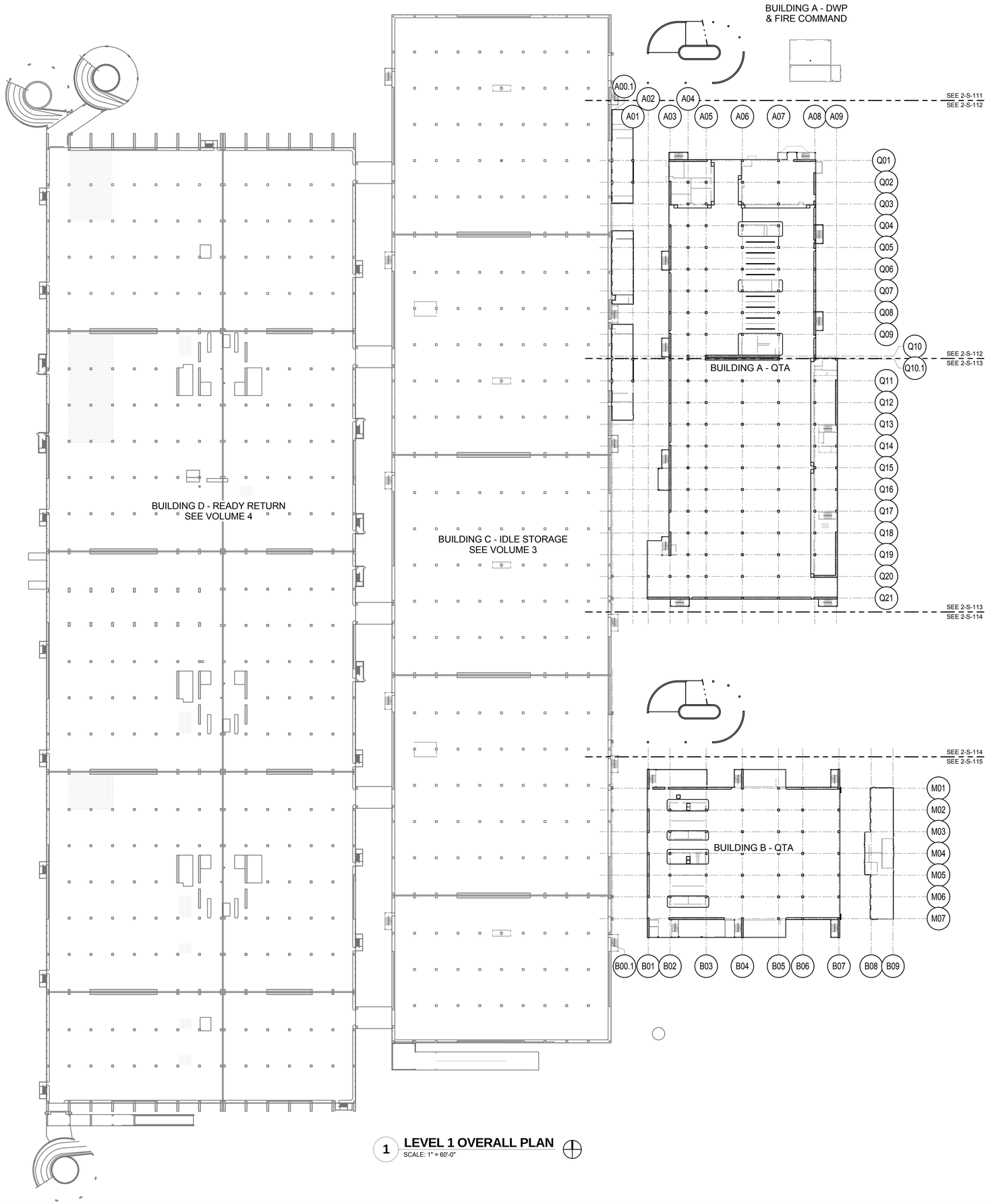
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
STEEL TYPICAL DETAILS

SHEET NO.
2-S-007

C:\Users\amarinez\Documents\S DA4881 BLDG_A_B R15_amarinez.rvt
9/23/2016 9:37:26 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 LEVEL 1 OVERALL PLAN
SCALE: 1" = 60'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

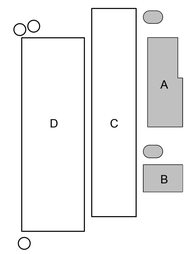
REVISIONS:

MARK	DATE	DESCRIPTION

PROJ.NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
LEVEL 1 OVERALL PLAN

SHEET NO.
2-S-010

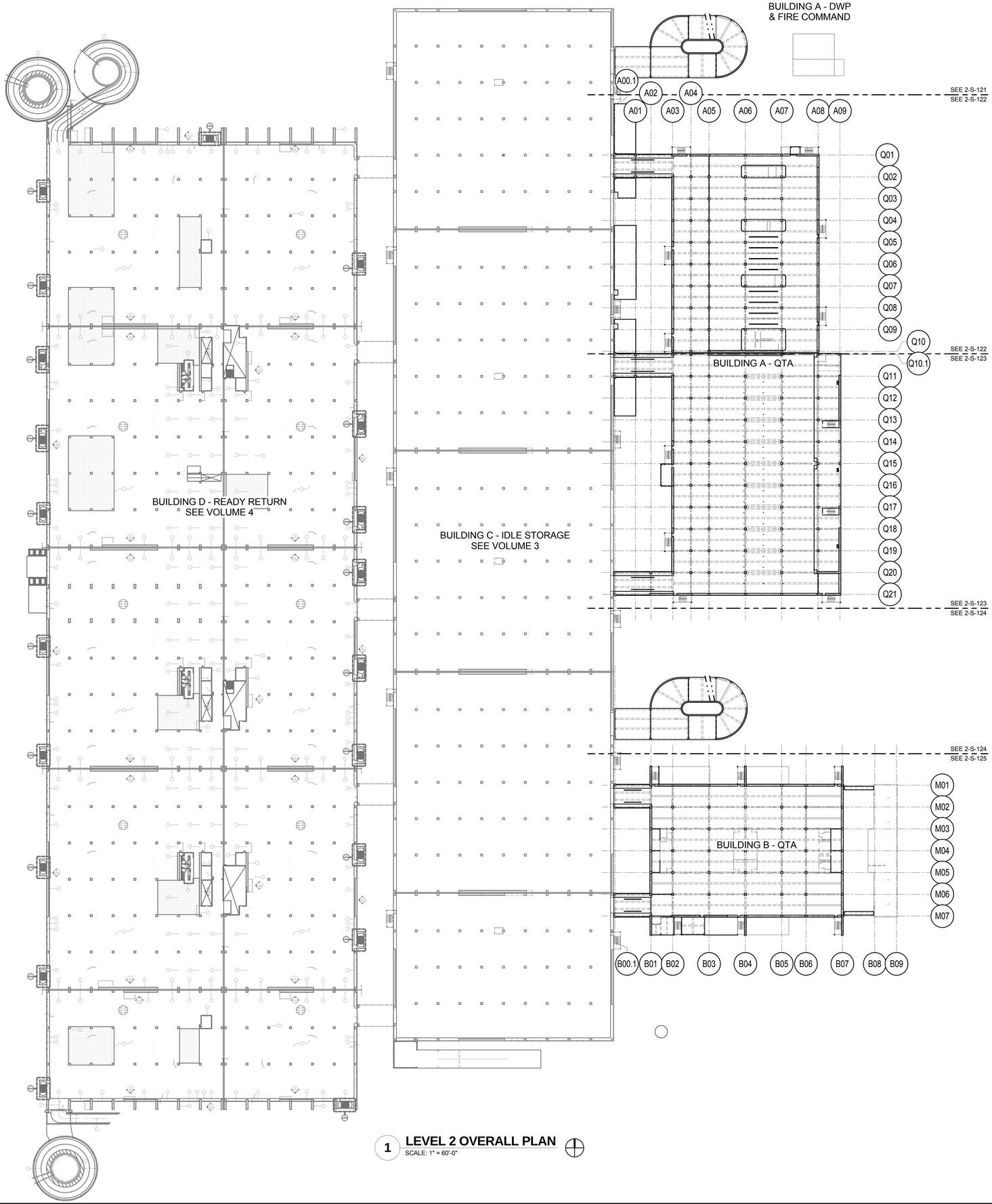


KEYPLAN

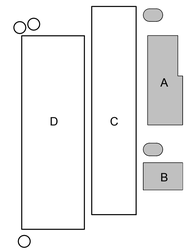
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\amartinez\Documents\S-DA4881-BLDG_A_B-R15_amartinez.rvt

9/23/2016 9:37:33 AM



1 LEVEL 2 OVERALL PLAN
SCALE: 1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

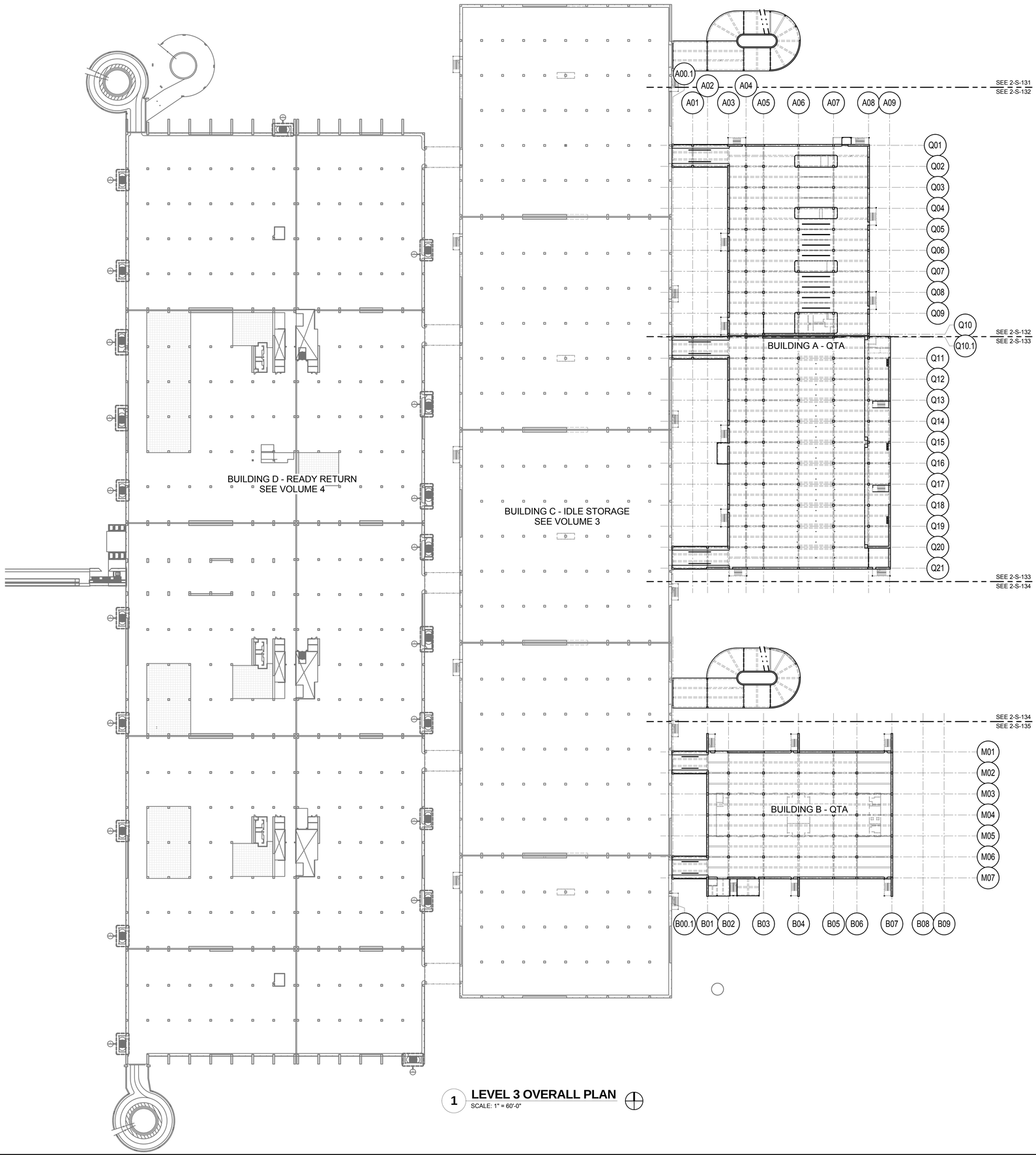
SHEET TITLE:
LEVEL 2 OVERALL PLAN

SHEET NO.
2-S-020

C:\Users\amartinez\Documents\S-DA4881-BLDG_A_B-R15_amartinez.rvt

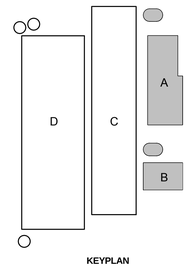
9/23/2016 9:37:41 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 LEVEL 3 OVERALL PLAN

SCALE: 1" = 60'-0"



KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

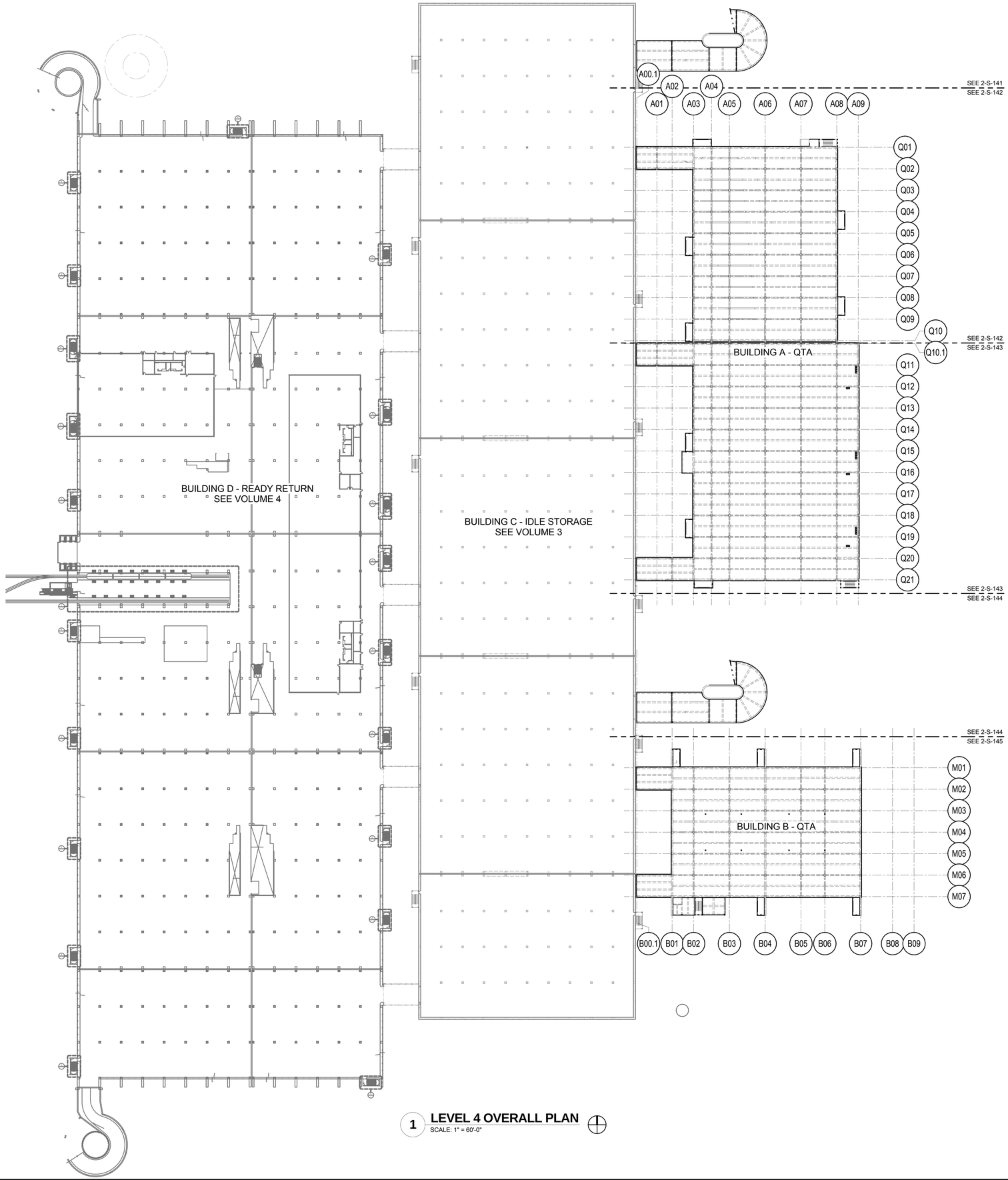
SHEET TITLE:

LEVEL 3 OVERALL PLAN

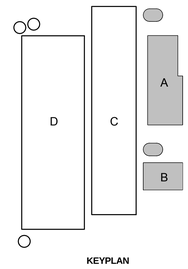
SHEET NO.

2-S-030

C:\Users\anamartinez\Documents\S-DA4881-BLDG_A_B-R15_amartinez.rvt
9/23/2016 8:37:48 AM



1 LEVEL 4 OVERALL PLAN
SCALE: 1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

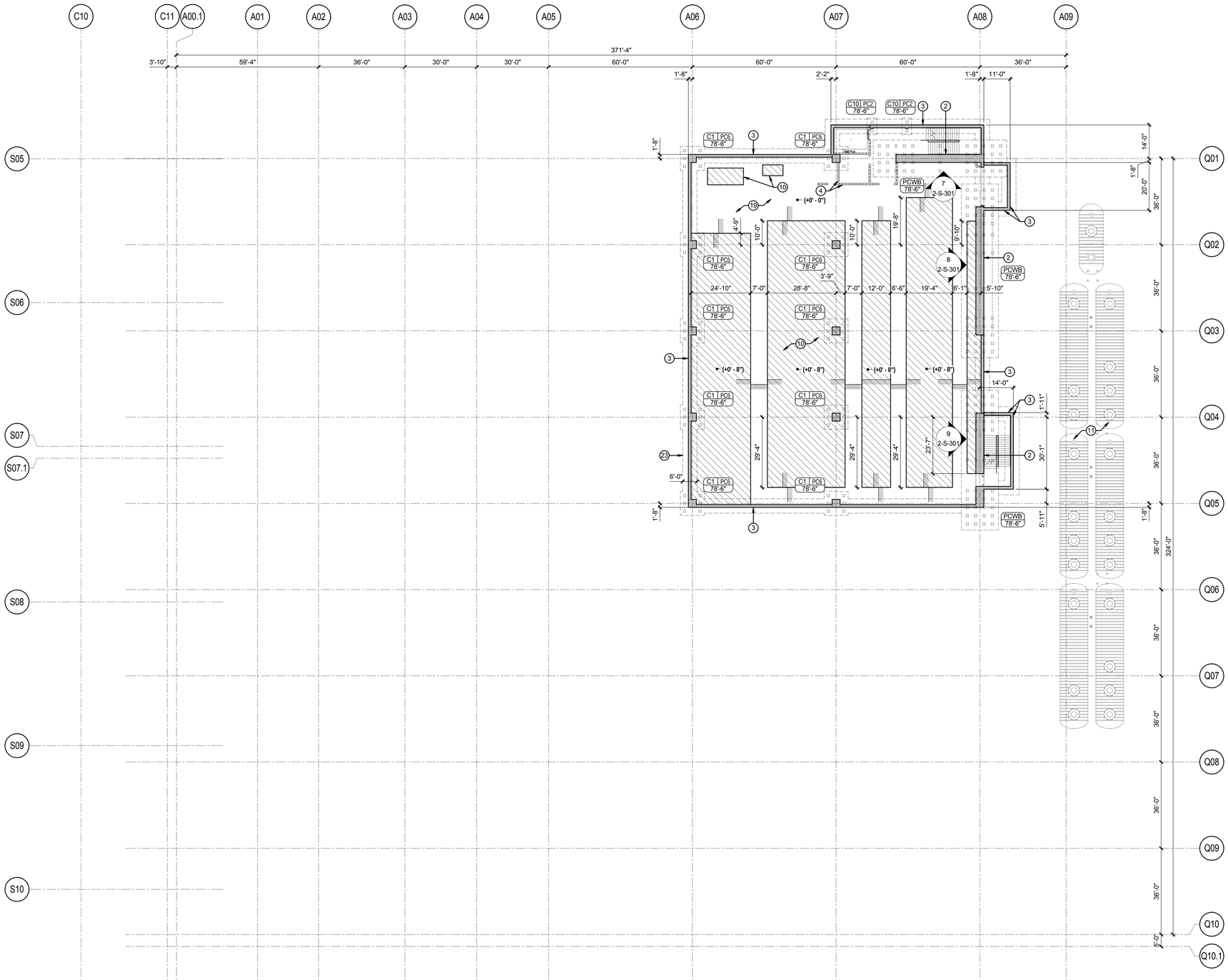
SHEET TITLE:
LEVEL 4 OVERALL PLAN

SHEET NO.
2-S-040

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\anna\revit Documents\S-DA4881-BLDG_A_B-R15_anna\rtex.rvt

9/23/2016 8:37:05 AM



1 A1 BUILDING - QTA - LEVEL 0 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 0 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 1 = 80'-6"
2. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -10" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
4. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
5. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS SCHEDULES. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
6. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES.
7. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
8. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
9. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
10. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
11. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
12. RE: ARCHITECTURAL AND MECHANICAL DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
13. RE: 1-S-001 THRU 1-S-002 FOR GENERAL STRUCTURAL NOTES.
14. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
15. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
16. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
17. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.

KEY NOTES:

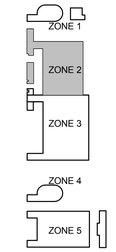
1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

COLUMN TYPE — C# | PC# — XX'-XX" — TOP OF PILE CAP — PILE CAP TYPE

CONT. WALL PILE CAP — PCW# — XX'-X" — TOP OF PILE CAP

- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE GRADE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

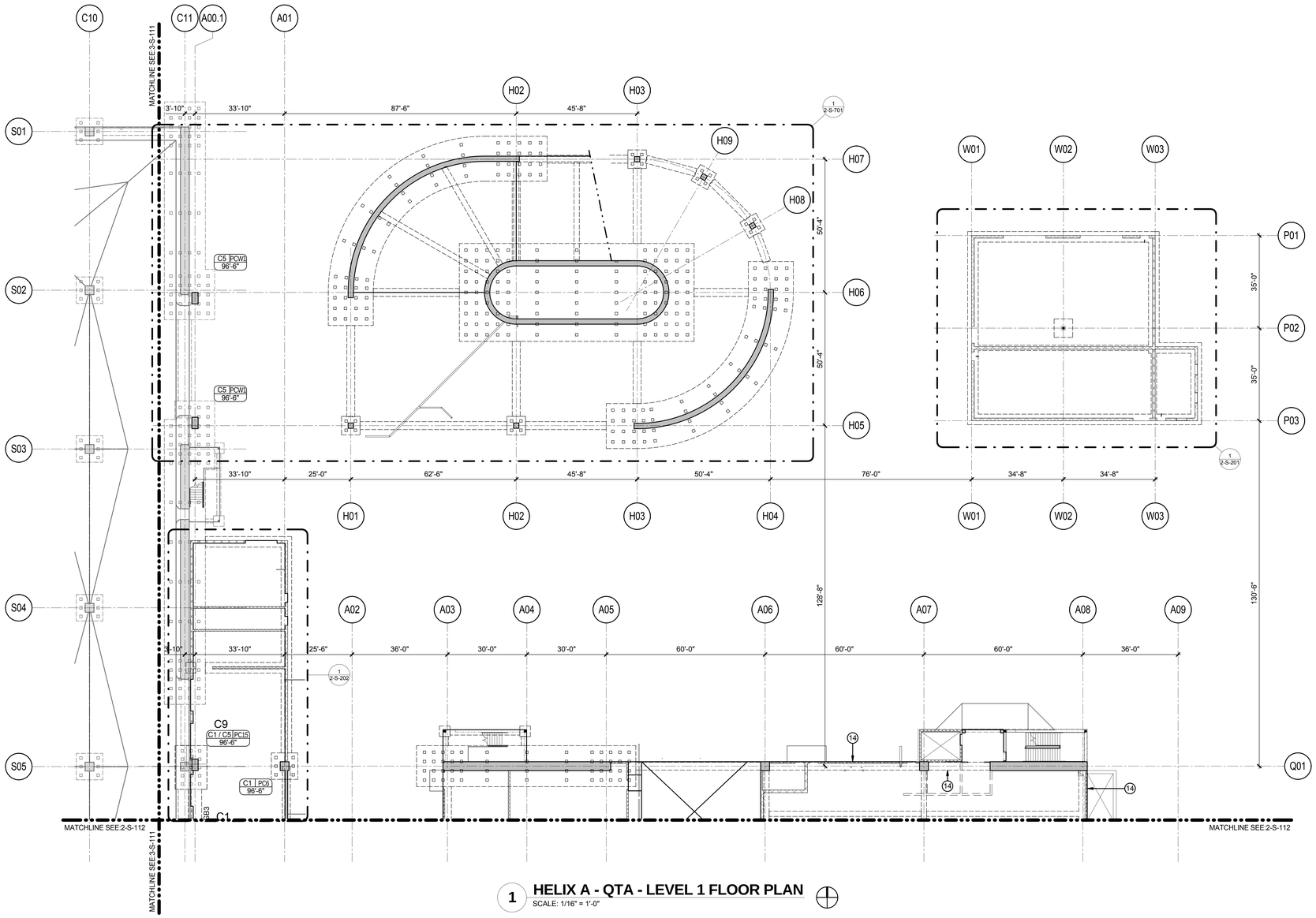
REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 0 FLOOR PLAN

SHEET NO.
2-S-101

C:\Users\amarthet\Documents\S-DA4881-BLDG_A_B R15_amarthet.rvt
9/23/2016 8:38:10 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX A - QTA - LEVEL 1 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 1 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 1 = 98'-6"
2. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -12" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
4. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
5. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
6. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
7. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
8. 8# INDICCATES CAST-IN-PLACE CONCRETE BEAM TYPE. RE: PLAN SCHEDULES
9. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
10. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
11. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
12. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
13. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
14. RE: 1-S-001 THRU 1-S-002 FOR GENERAL STRUCTURAL NOTES.
15. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
16. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
17. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
18. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.

KEY NOTES:

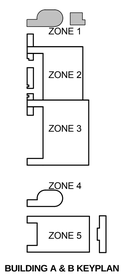
1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

COLUMN TYPE — C# | PC# — XX"-XX" — PILE CAP TYPE — TOP OF PILE CAP

CONT. WALL PILE CAP — PCW# — XX"-X" — TOP OF PILE CAP

- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE GRADE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:

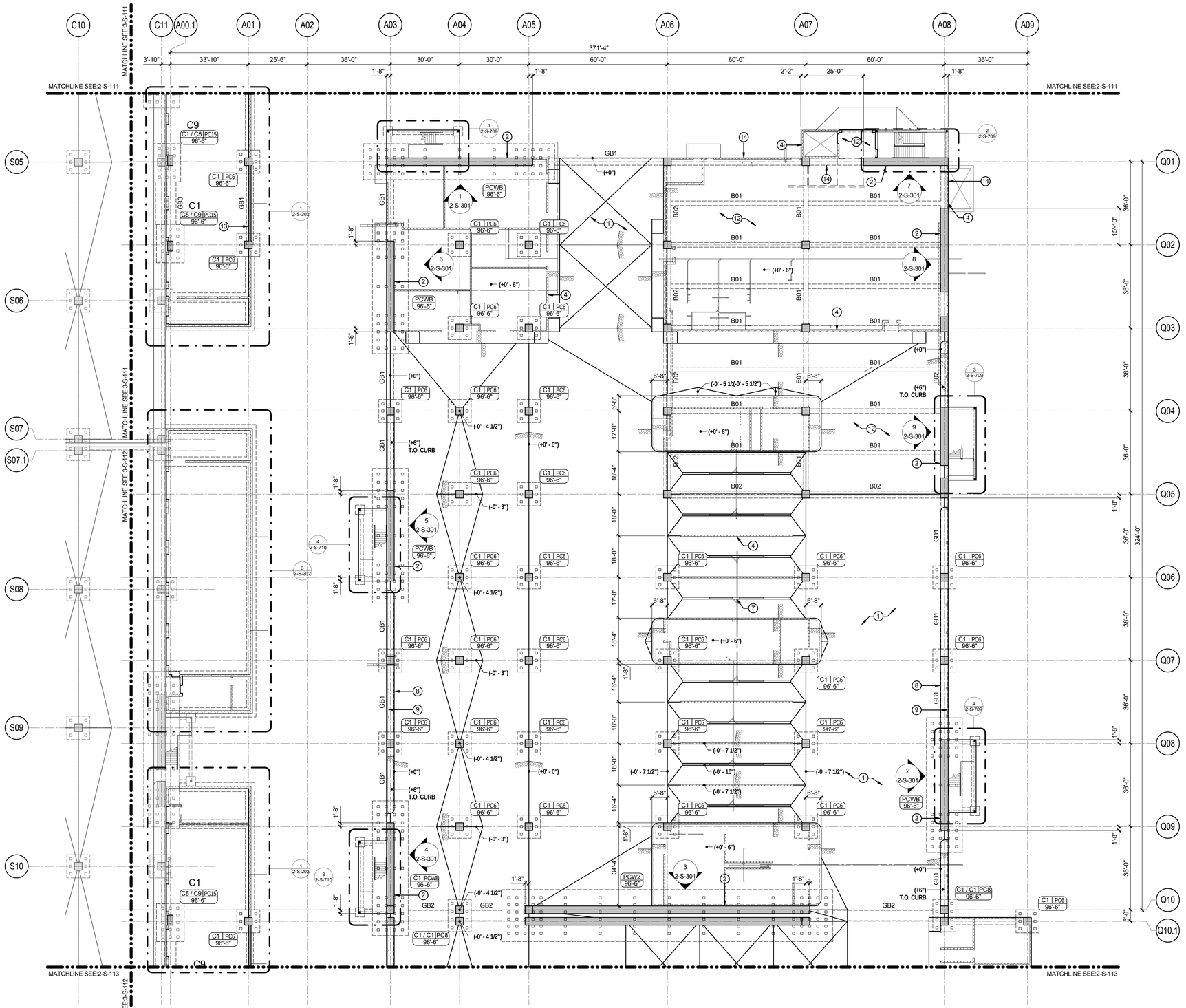
QTA LEVEL 1 FLOOR PLAN

SHEET NO.

2-S-111

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/23/2016 9:38:13 AM C:\Users\anahe\Documents\S-DA4881-BLDG_A_B-R15_anaxhrex.rvt



1 A1 BUILDING - QTA - LEVEL 1 FLOOR PLAN

SCALE: 1/16" = 1'-0"

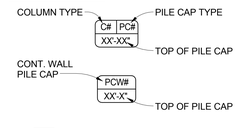
LEVEL 1 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 1 = 98'-6"
2. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -12" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
4. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
5. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
6. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
7. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
8. 8# INDICCATES CAST-IN-PLACE CONCRETE BEAM TYPE. RE: PLAN SCHEDULE
9. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
10. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
11. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
12. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
13. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
14. RE: 1-S-001 THRU 1-S-002 FOR GENERAL STRUCTURAL NOTES.
15. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
16. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
17. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
18. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.

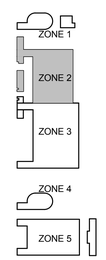
KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:



- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE GRADE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

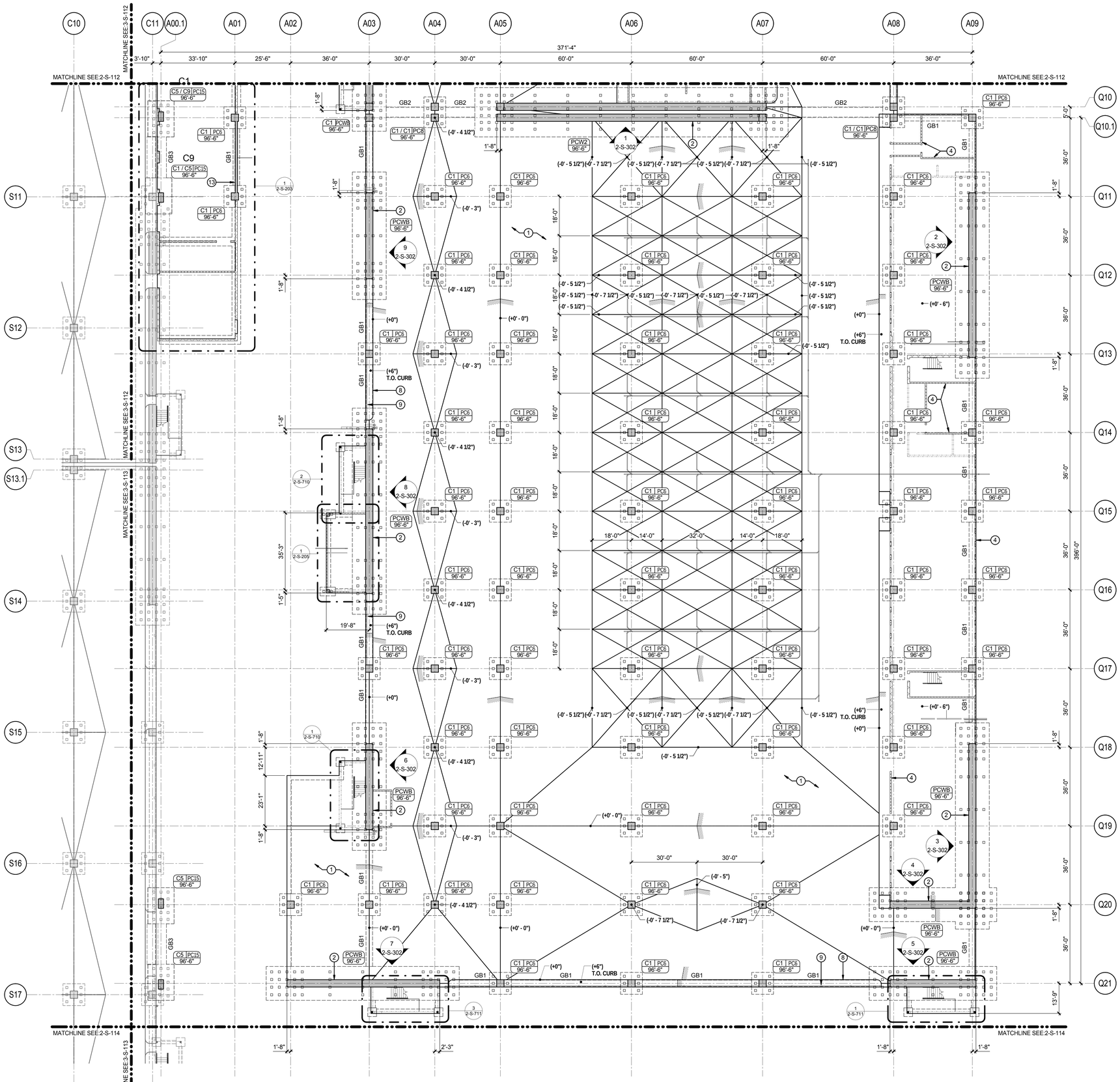
REVISIONS:			DESCRIPTION
MARK	DATE		

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 1 FLOOR PLAN

SHEET NO.
2-S-112

C:\Users\ramirhez\Documents\S DA4881 BLDG_A_B R15_ramirhez.rvt
9/23/2016 8:38:22 AM



1 A2 BUILDING - QTA - LEVEL 1 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 1 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 1 = 98'-6"
2. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -12" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
4. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
5. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
6. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
7. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
8. 8# INDICCATES CAST-IN-PLACE CONCRETE BEAM TYPE. RE: PLAN SCHEDULE
9. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
10. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
11. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
12. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
13. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
14. RE: 1-S-001 THRU 1-S-002 FOR GENERAL STRUCTURAL NOTES.
15. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
16. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
17. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
18. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.

KEY NOTES:

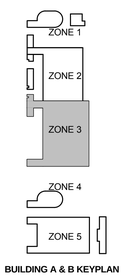
1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

COLUMN TYPE — C# | PC# — PILE CAP TYPE
XX'-XX" — TOP OF PILE CAP

CONT. WALL PILE CAP — PCW# — PILE CAP TYPE
XX'-X" — TOP OF PILE CAP

- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE GRADE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ON LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

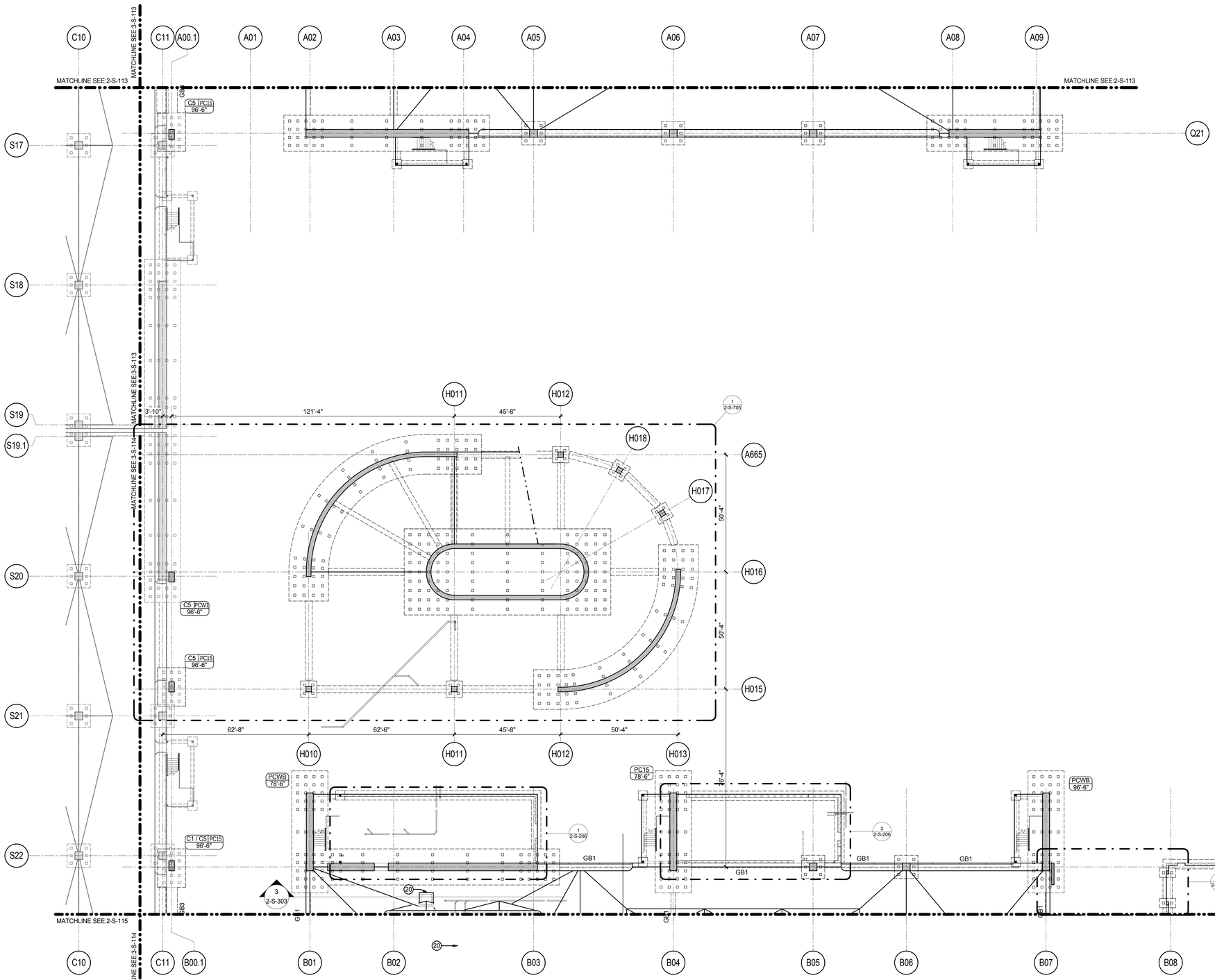
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 1 FLOOR PLAN

SHEET NO.
2-S-113

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\amalhet\Documents\IS-DA4881-BUDG_A_B_R15_amalhetz.rvt
9/23/2016 8:38:31 AM



1 HELIX B - QTA - LEVEL 1 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 1 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 1 = 98'-6"
2. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -12" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
4. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
5. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
6. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
7. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
8. 8# INDICCATES CAST-IN-PLACE CONCRETE BEAM TYPE. RE: PLAN SCHEDULES
9. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
10. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
11. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
12. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
13. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
14. RE: 1-S-001 THRU 1-S-002 FOR GENERAL STRUCTURAL NOTES.
15. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
16. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
17. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
18. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.

KEY NOTES:

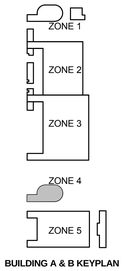
1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

COLUMN TYPE — C# | PC# — XX'-XX" — PILE CAP TYPE / TOP OF PILE CAP

CONT. WALL PILE CAP — PCW# — XX'-X" — TOP OF PILE CAP

- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE GRADE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:	MARK	DATE	DESCRIPTION

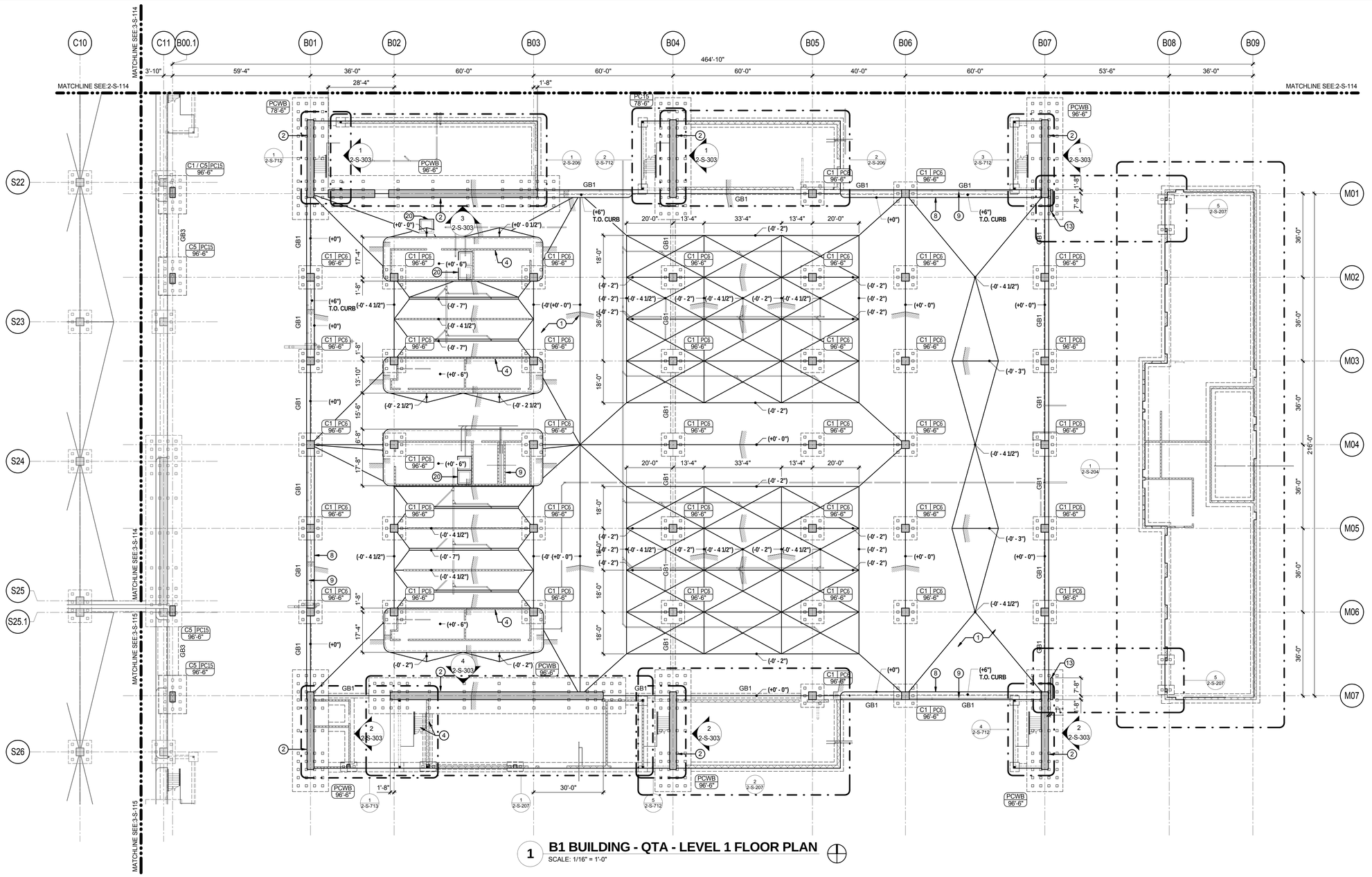
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 1 FLOOR PLAN

SHEET NO.
2-S-114

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\amartinez\Documents\S-DA4881-BLDG_A_B-R15_amartinez.rvt
9/23/2016 8:38:33 AM



1 **B1 BUILDING - QTA - LEVEL 1 FLOOR PLAN**
SCALE: 1/16" = 1'-0"

LEVEL 1 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 1 = 98'-6"
2. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -12" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
4. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
5. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
6. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
7. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
8. 8# INDICCATES CAST-IN-PLACE CONCRETE BEAM TYPE. RE: PLAN SCHEDULE
9. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
10. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
11. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
12. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
13. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
14. RE: 1-S-001 THRU 1-S-002 FOR GENERAL STRUCTURAL NOTES.
15. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
16. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
17. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
18. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.

KEY NOTES:

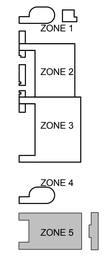
1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

COLUMN TYPE — C# | PC# / XX'-XX" — PILE CAP TYPE; TOP OF PILE CAP

CONT. WALL PILE CAP — PCW# / XX'-X" — TOP OF PILE CAP

- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE GRADE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

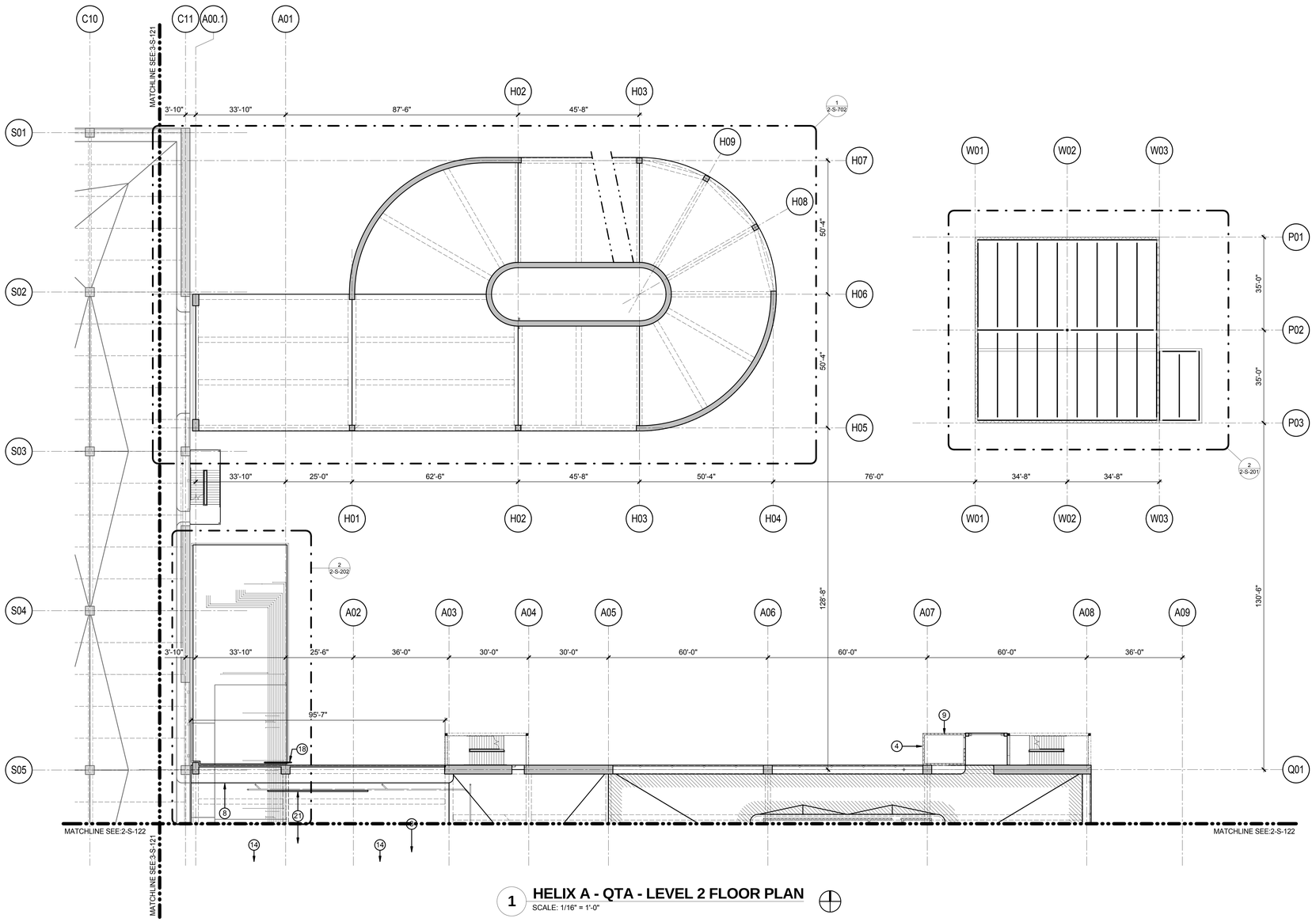
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 1 FLOOR PLAN

SHEET NO.
2-S-115

C:\Users\amarfred\Documents\S-DA4881-B1-EOL_A_B R15_amarfred.rvt
9/23/2016 8:38:39 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX A - QTA - LEVEL 2 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 2 PLAN NOTES:

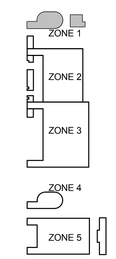
1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 2 = 115'-6"
2. (**X"**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

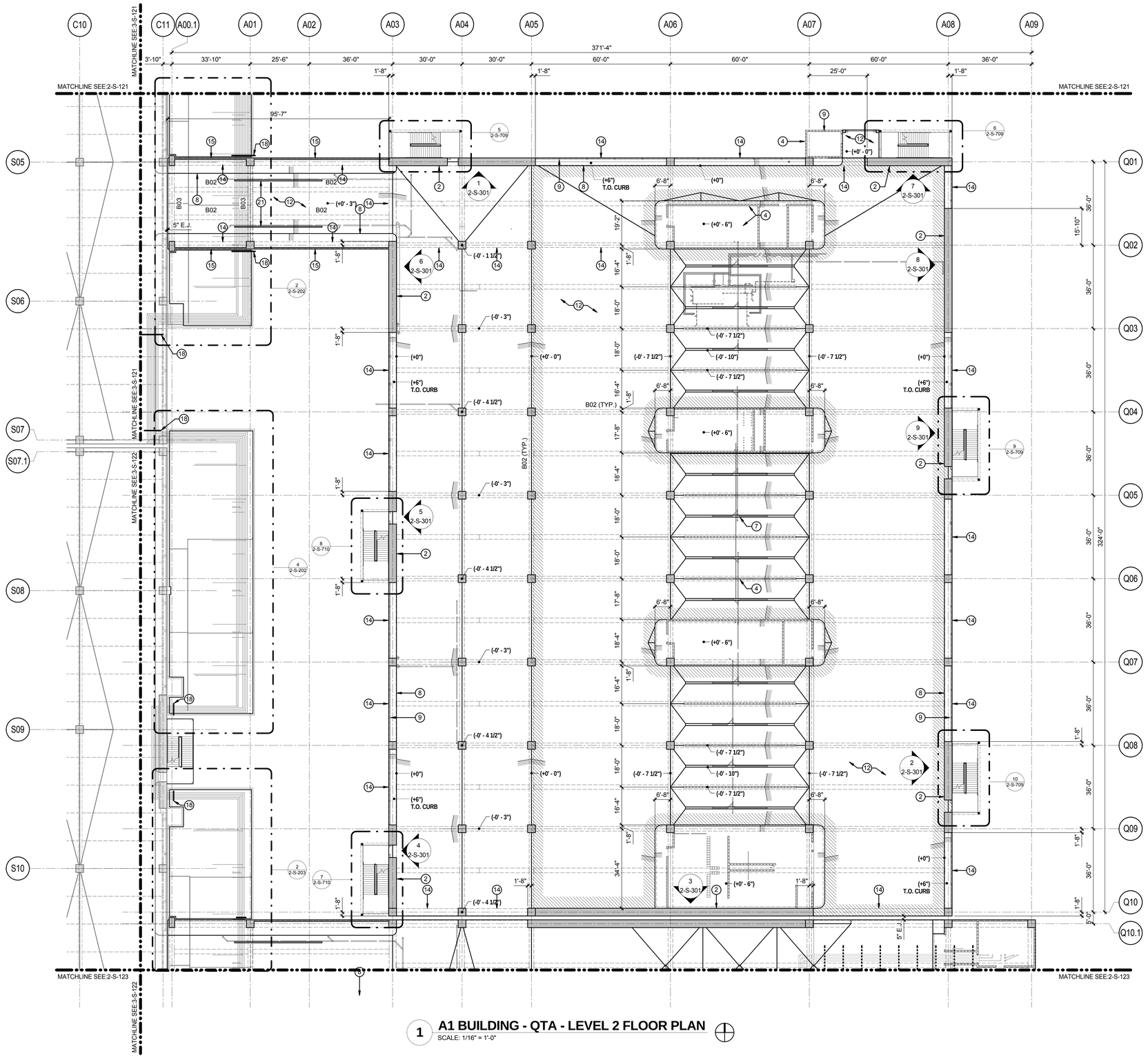
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 2 FLOOR PLAN

SHEET NO.
2-S-121

C:\Users\amarinez\Documents\S-DA4881-BLDG_A_B-R15_amarinez.rvt
9/23/2016 9:38:42 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 A1 BUILDING - QTA - LEVEL 2 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 2 PLAN NOTES:

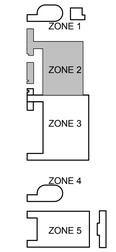
1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 2 = 115'-6"
2. **(X")** DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. **(B#)** INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

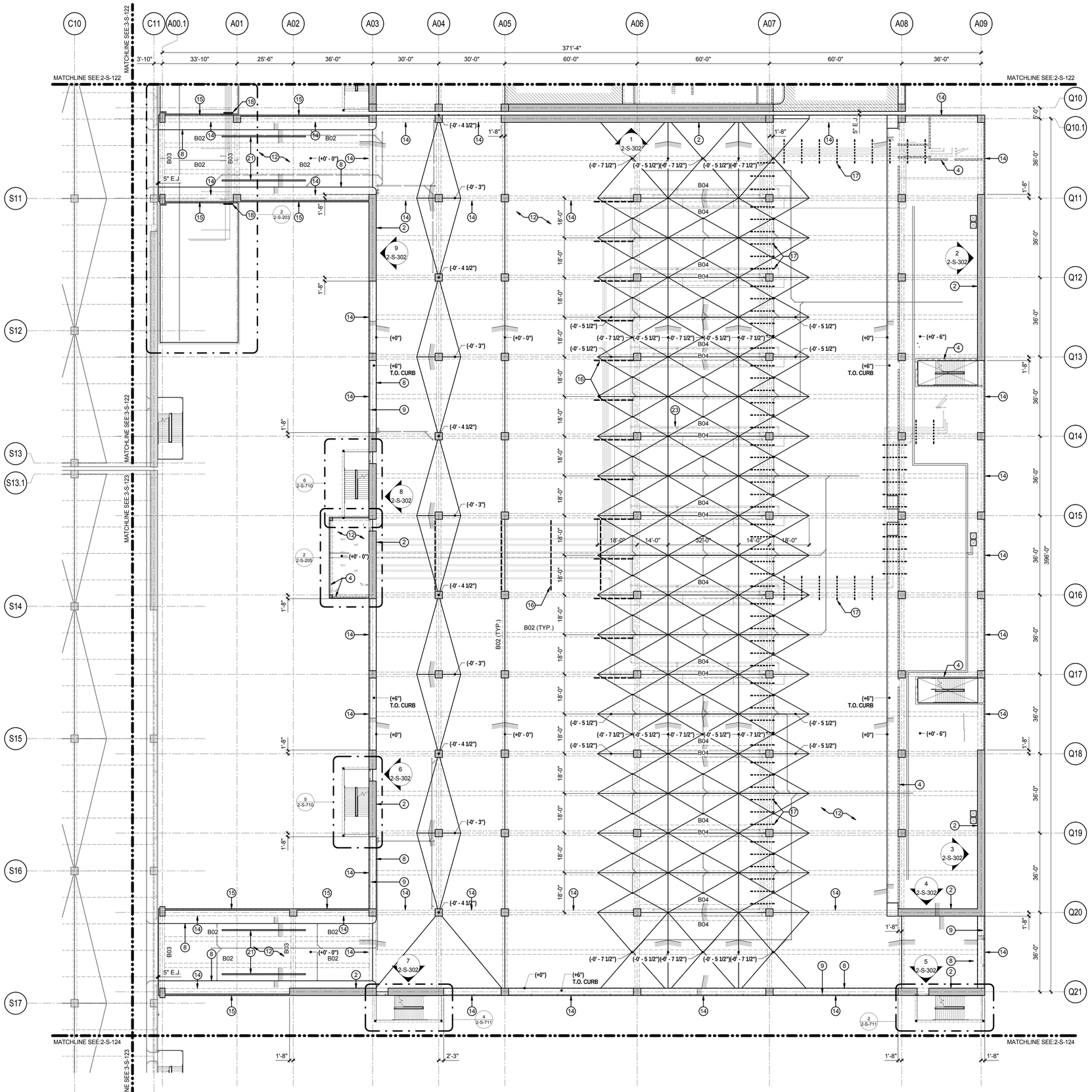
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 2 FLOOR PLAN

SHEET NO.
2-S-122

C:\Users\amarthinez\Documents\S DA4881-BLDG_A_B-R15_amarthinez.rvt
9/23/2016 9:38:49 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 A2 BUILDING - QTA - LEVEL 2 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 2 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 2 = 115'-6"
2. (**X**") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

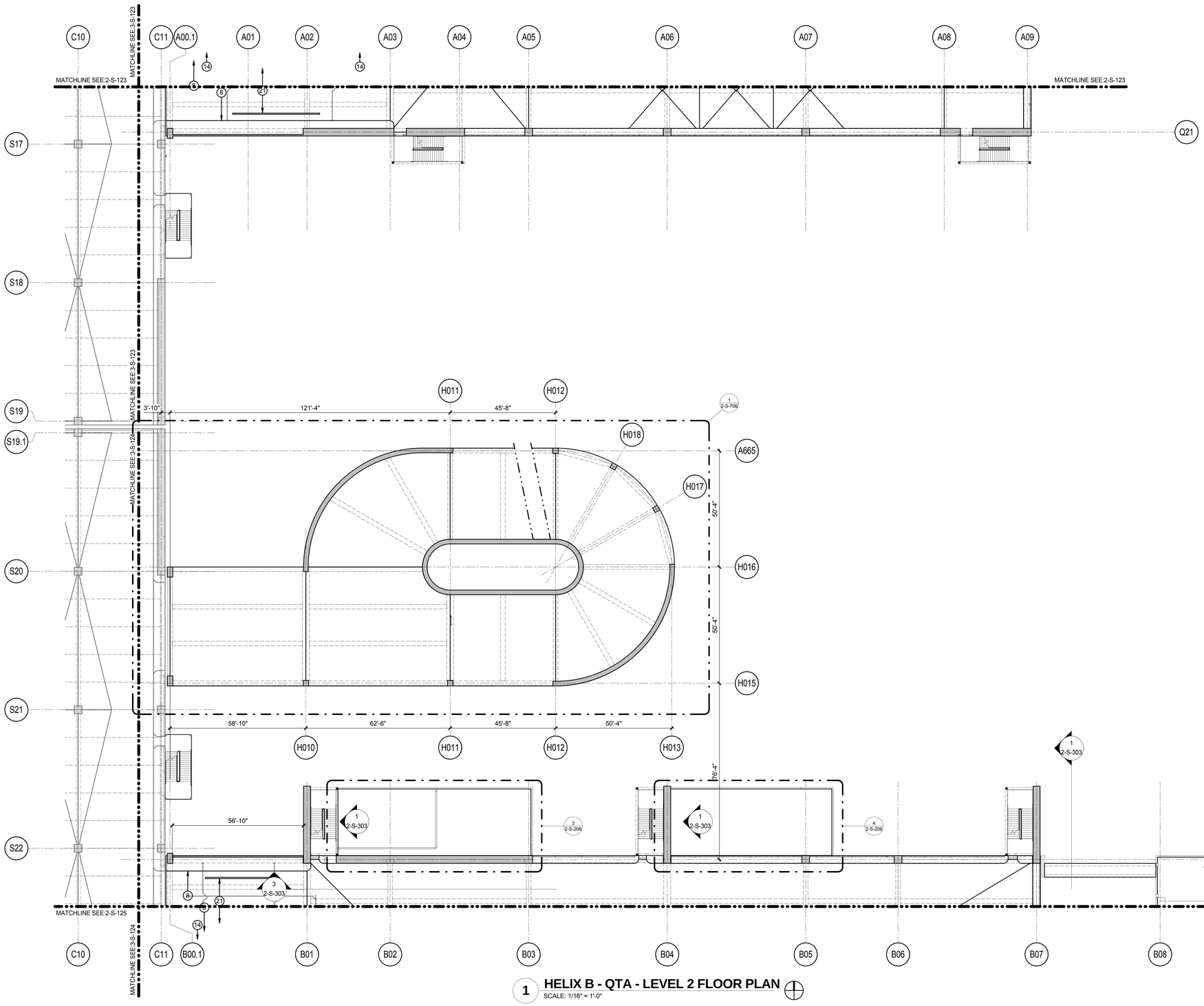
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 2 FLOOR PLAN

SHEET NO.
2-S-123

C:\Users\amarthre\Documents\S-DA4881-BLDG_A_B R15_amarthrez.rvt
9/23/2016 8:39:50 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX B - QTA - LEVEL 2 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 2 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"): -LEVEL 2 = 115'-6"
2. (**X"**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

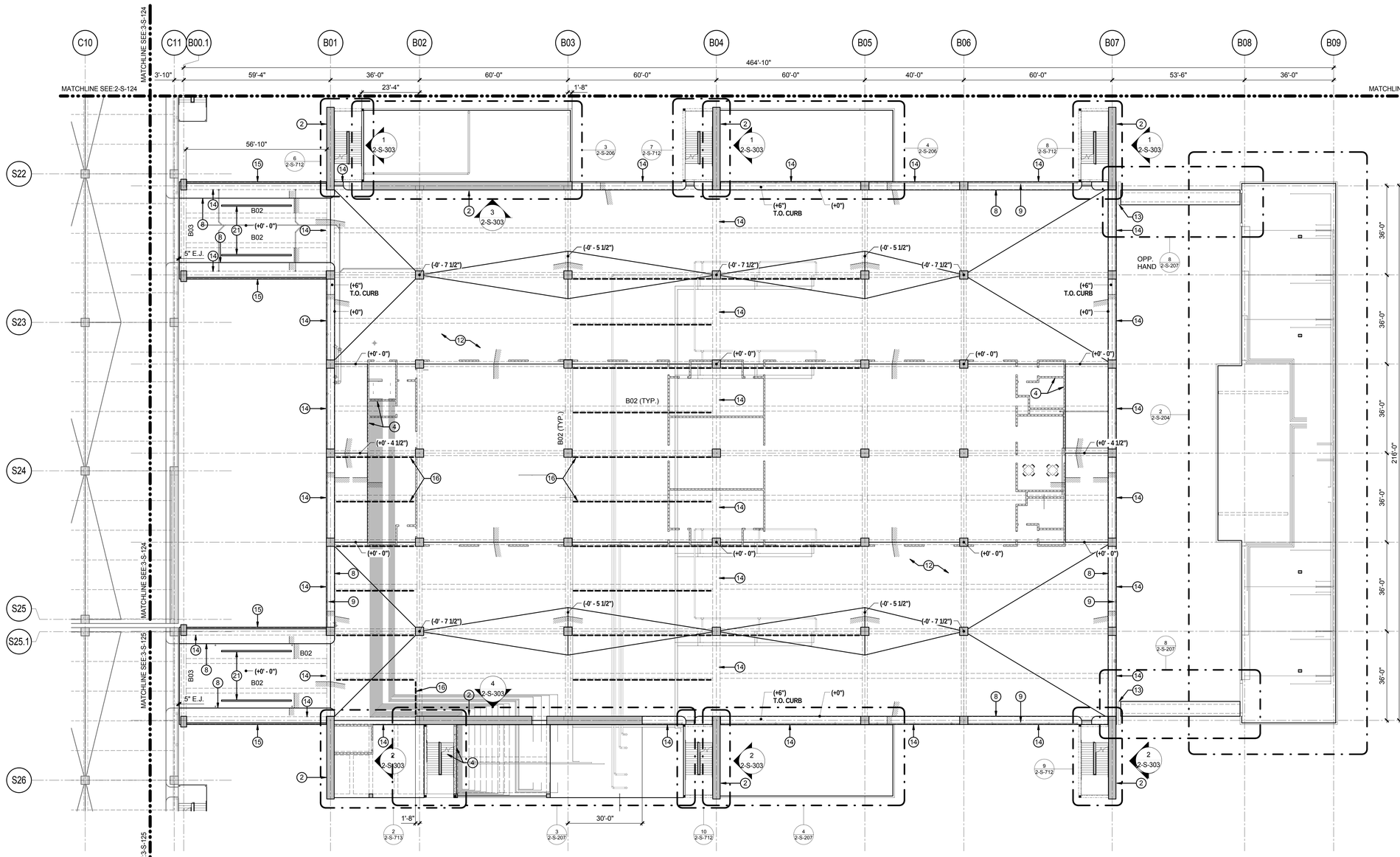
SHEET TITLE:

QTA LEVEL 2 FLOOR PLAN

SHEET NO.

2-S-124

C:\Users\amarinez\Documents\S:DA4881-BLDG_A_B-R15_amarinez.rvt
9/23/2016 9:39:06 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 B1 BUILDING - QTA - LEVEL 2 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 2 PLAN NOTES:

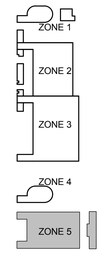
1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"): -LEVEL 2 = 115'-6"
2. (**X**") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:

QTA LEVEL 2 FLOOR PLAN

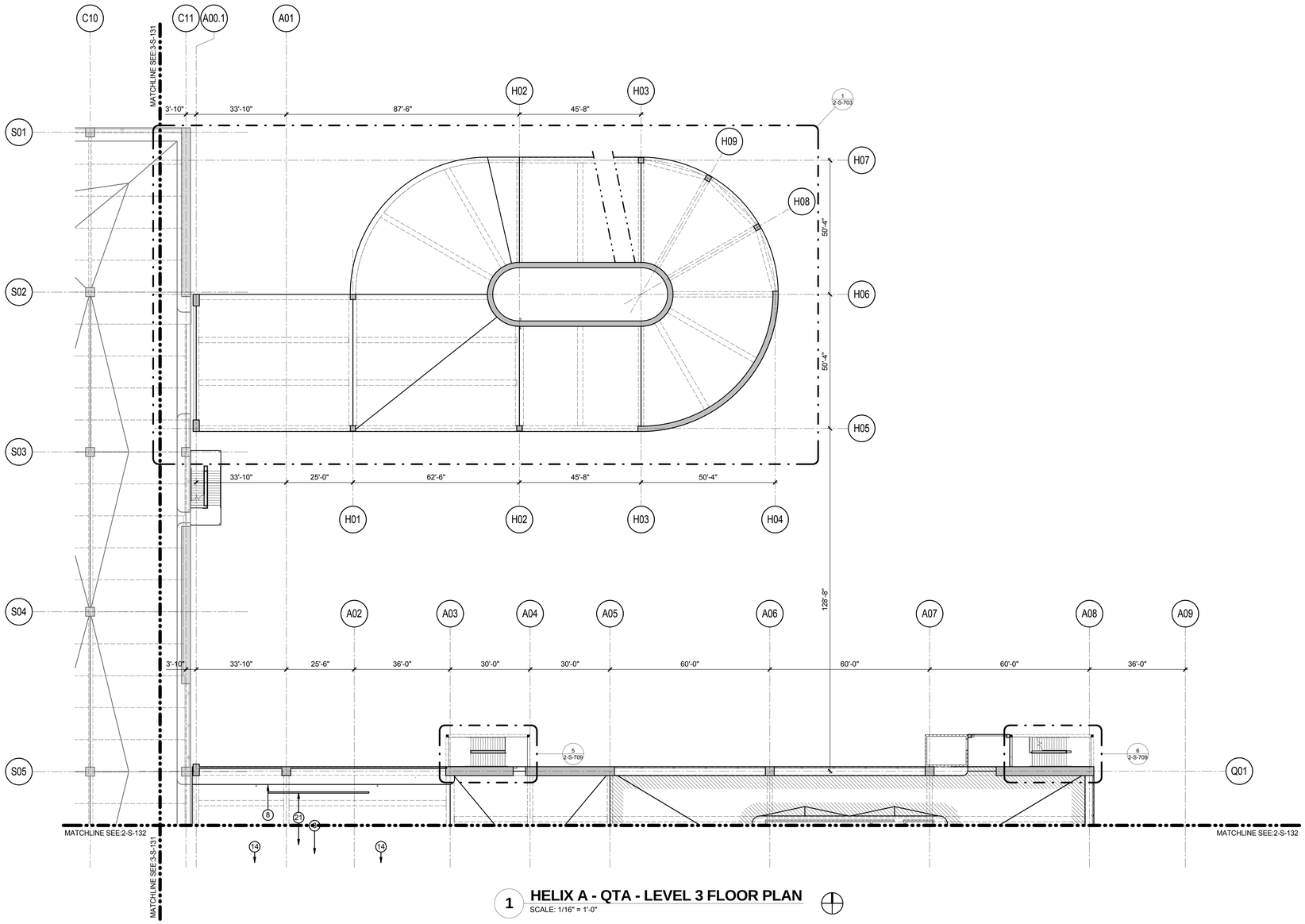
SHEET NO.

2-S-125

C:\Users\amarfrez\Documents\S DA4881 BLDG_A_B R15_amarfrez.rvt

6/23/2016 9:38:13 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX A - QTA - LEVEL 3 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 3 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 3 = 132'-6"
2. (**X"**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

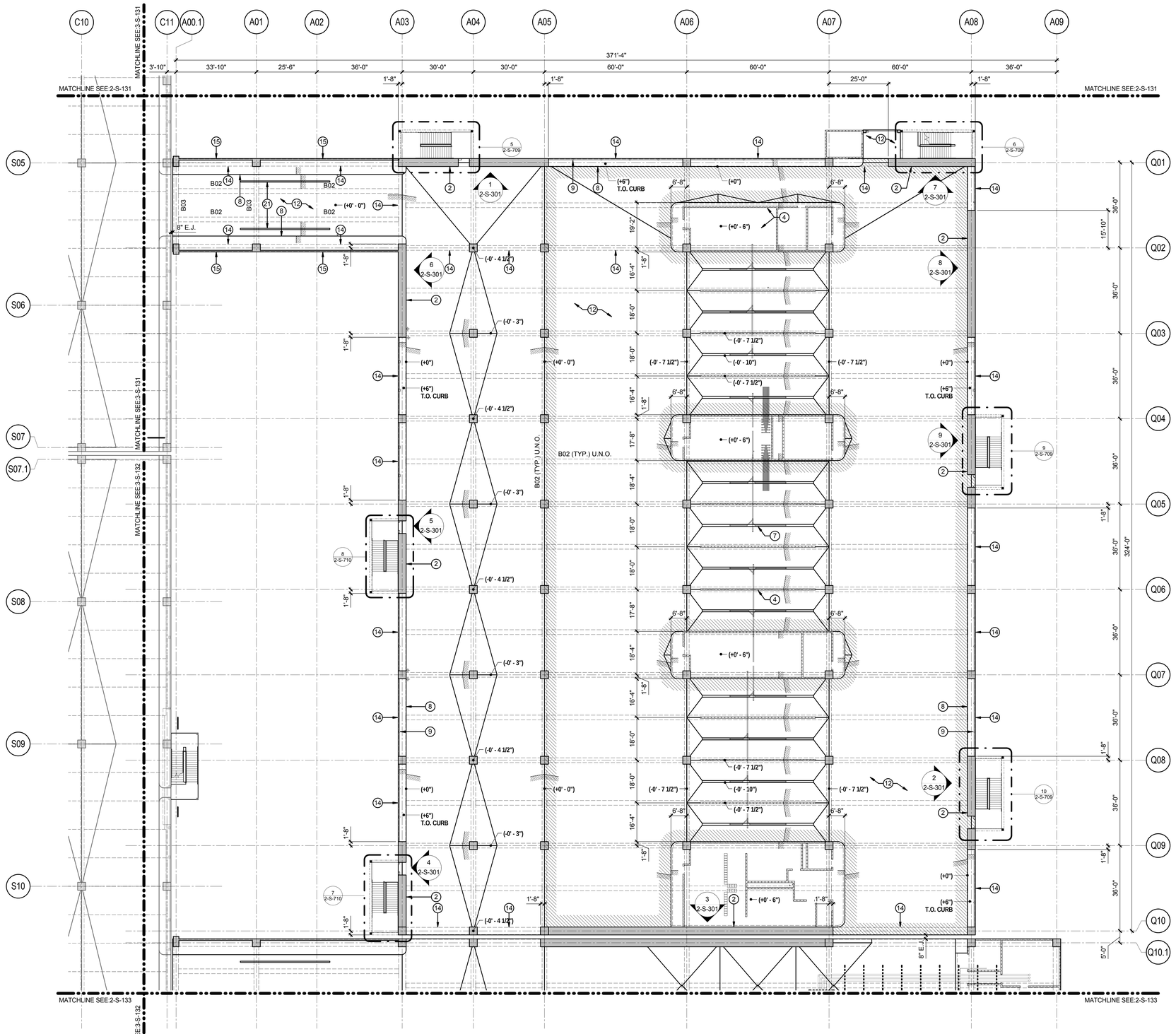
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 3 FLOOR PLAN

SHEET NO.
2-S-131

C:\Users\amartinez\Documents\S-DA4881-BLDG_A_B-R15_amartinez.rvt
9/23/2016 8:29:16 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 A1 BUILDING - QTA - LEVEL 3 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 3 PLAN NOTES:

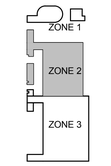
1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 3 = 132'-6"
2. (**X"**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

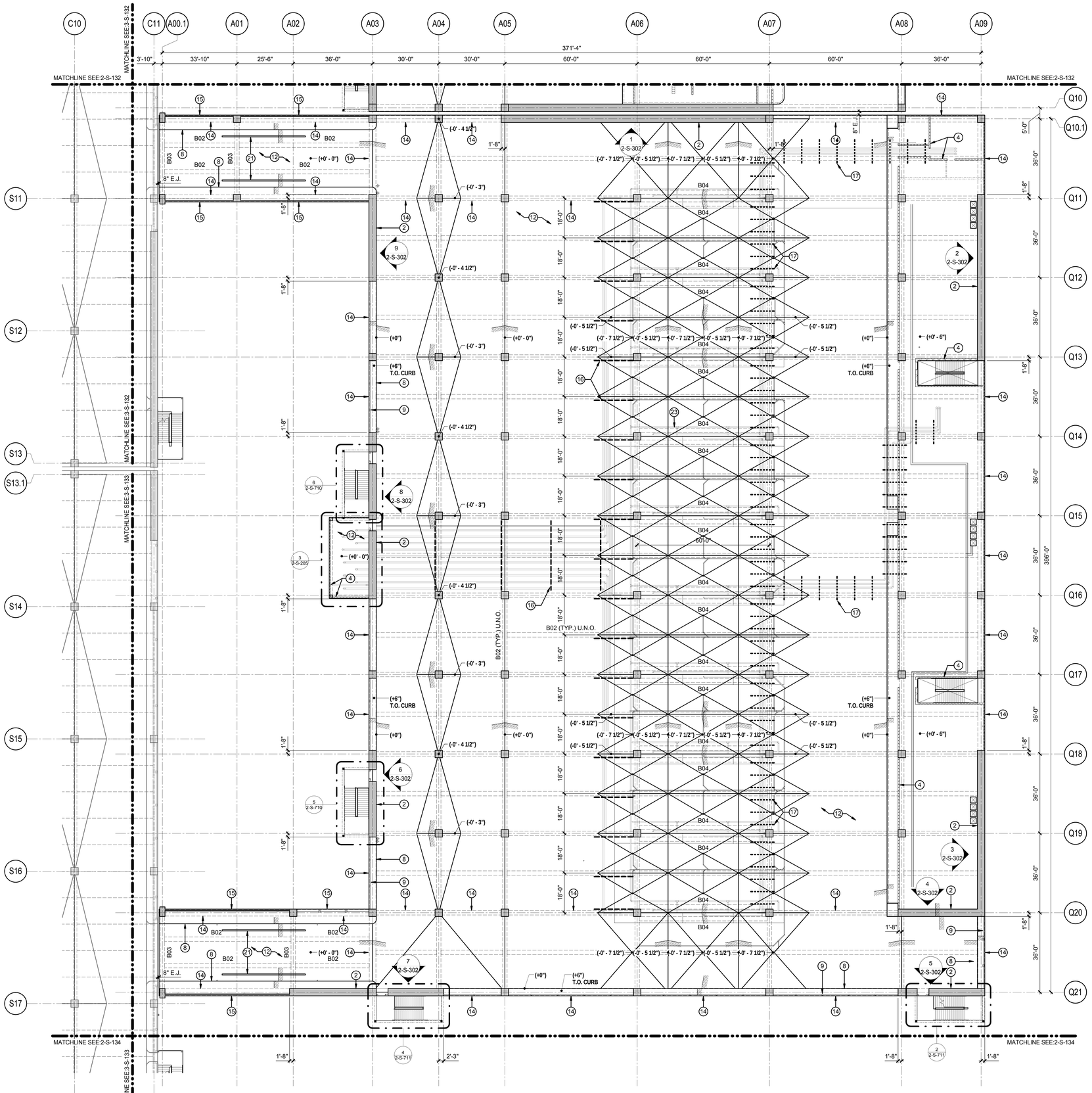
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 3 FLOOR PLAN

SHEET NO.
2-S-132

C:\Users\amarfred\Documents\S-DA4881-BLDG_A_B_R15_amarfred.rvt
9/23/2016 3:39:19 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 A2 BUILDING - QTA - LEVEL 3 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 3 PLAN NOTES:

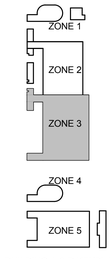
1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 3 = 132'-6"
2. **(X")** DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. **(B#)** INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:

QTA LEVEL 3 FLOOR PLAN

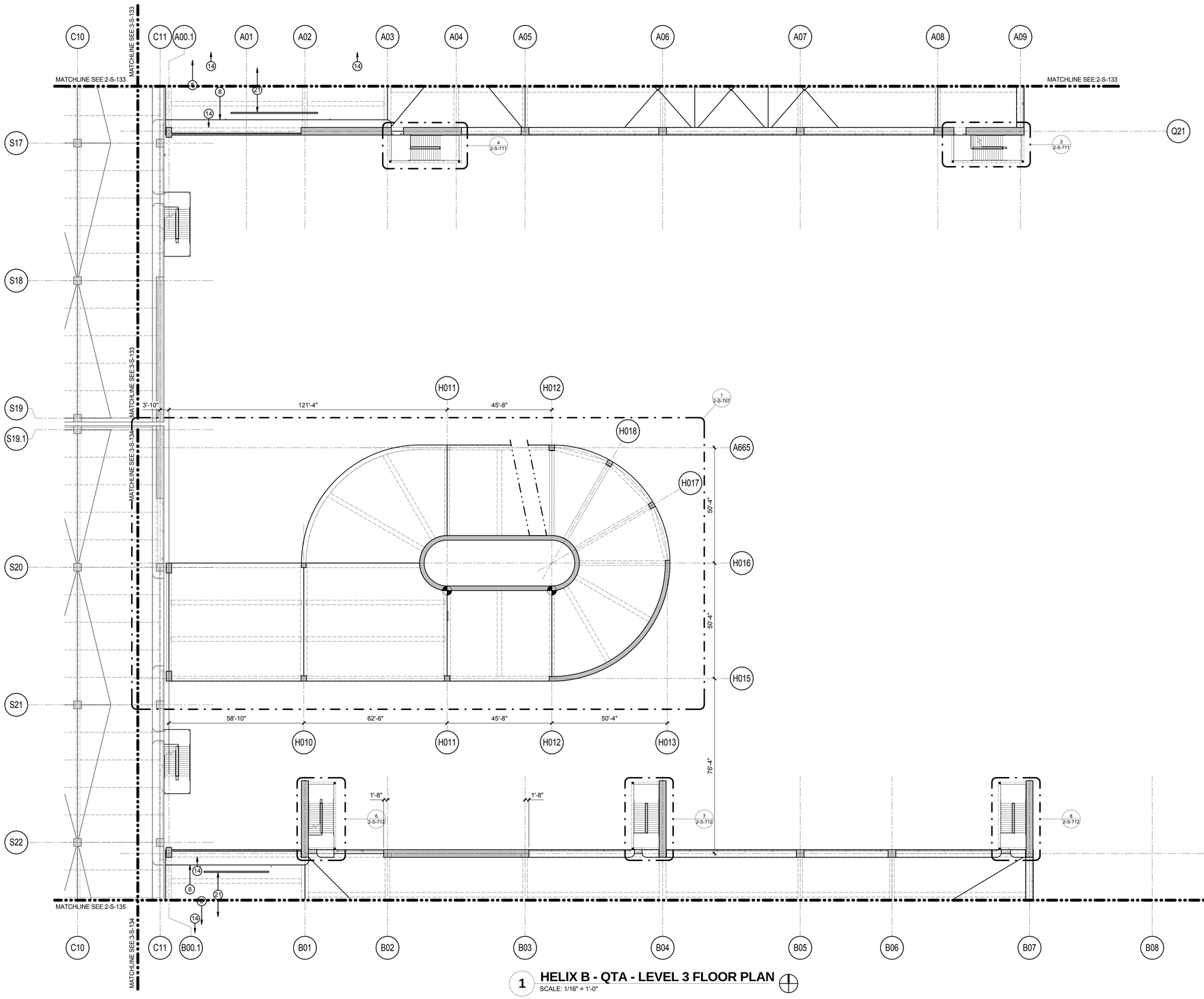
SHEET NO.

2-S-133

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\amalfred\Documents\S-DA4881-BLDG_A_B_R18_amalfred.rvt

9/23/2016 8:39:36 AM



1 HELIX B - QTA - LEVEL 3 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 3 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 3 = 132'-6"
2. (**X**") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			DESCRIPTION
MARK	DATE		

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

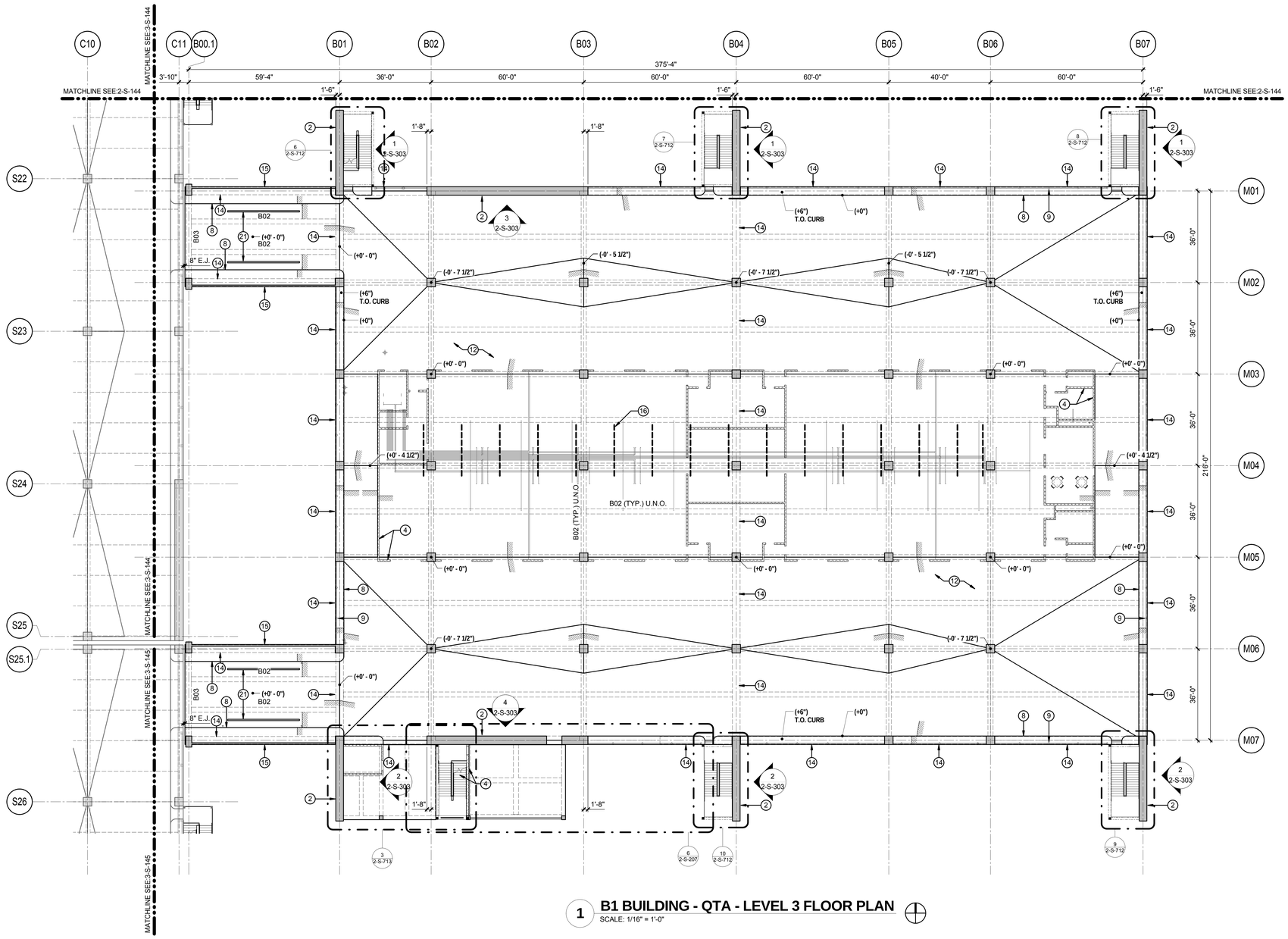
SHEET TITLE:
QTA LEVEL 3 FLOOR PLAN

SHEET NO.
2-S-134

C:\Users\ramirhez\Documents\S DA4881 BLDG_A_B R15_ramirhez.rvt

9/23/2016 8:39:29 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 B1 BUILDING - QTA - LEVEL 3 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 3 PLAN NOTES:

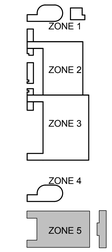
1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 3 = 132'-6"
2. (**X**") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

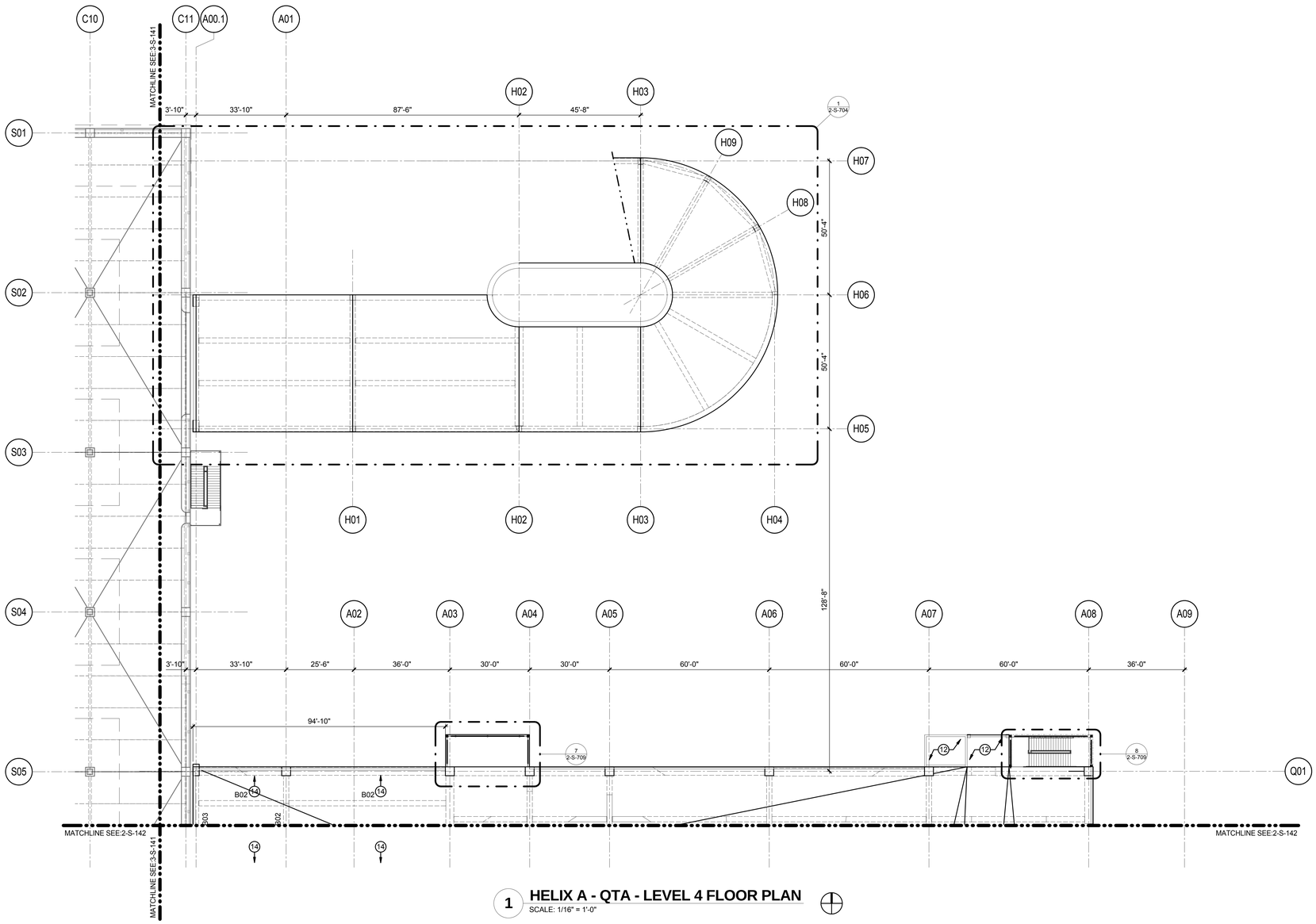
REVISIONS:	MARK	DATE	DESCRIPTION

PROJ.NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 3 FLOOR PLAN

SHEET NO.
2-S-135

C:\Users\amarthinez\Documents\S-DA4881-B1-ECS_A_B R15_amarthinez.rvt
9/23/2016 8:39:34 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX A - QTA - LEVEL 4 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 4 PLAN NOTES:

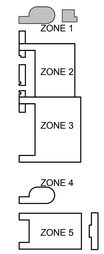
1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 4 = 152'-6"
2. (**X"**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:

QTA LEVEL 4 FLOOR PLAN

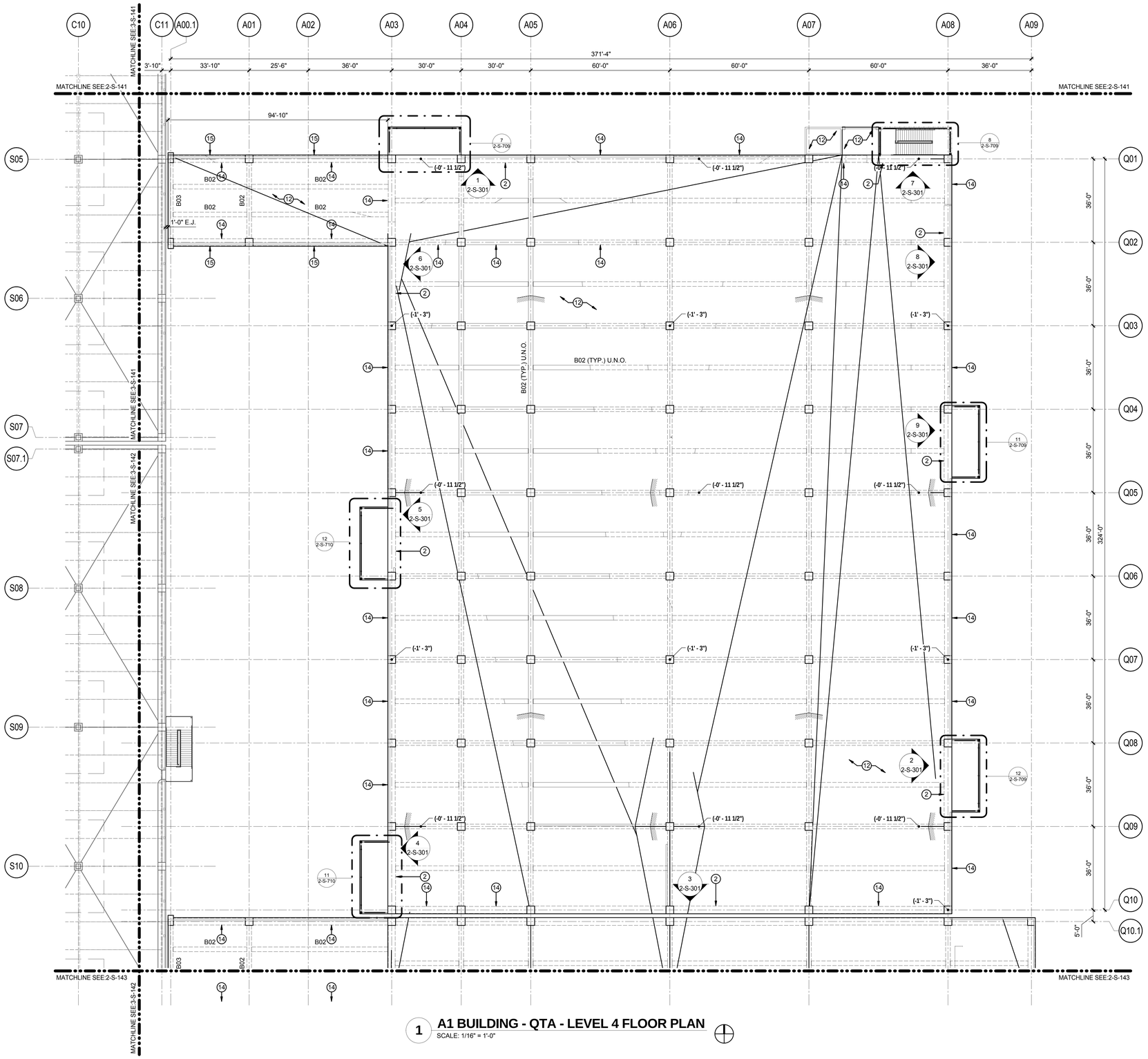
SHEET NO.

2-S-141

C:\Users\amarinez\Documents\S DA4881 BLDG_A_B RTL_amarinez.rvt

9/23/2016 8:39:36 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 A1 BUILDING - QTA - LEVEL 4 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 4 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 4 = 152'-6"
2. (**X"**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:			DESCRIPTION
MARK	DATE		

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:

QTA LEVEL 4 FLOOR PLAN

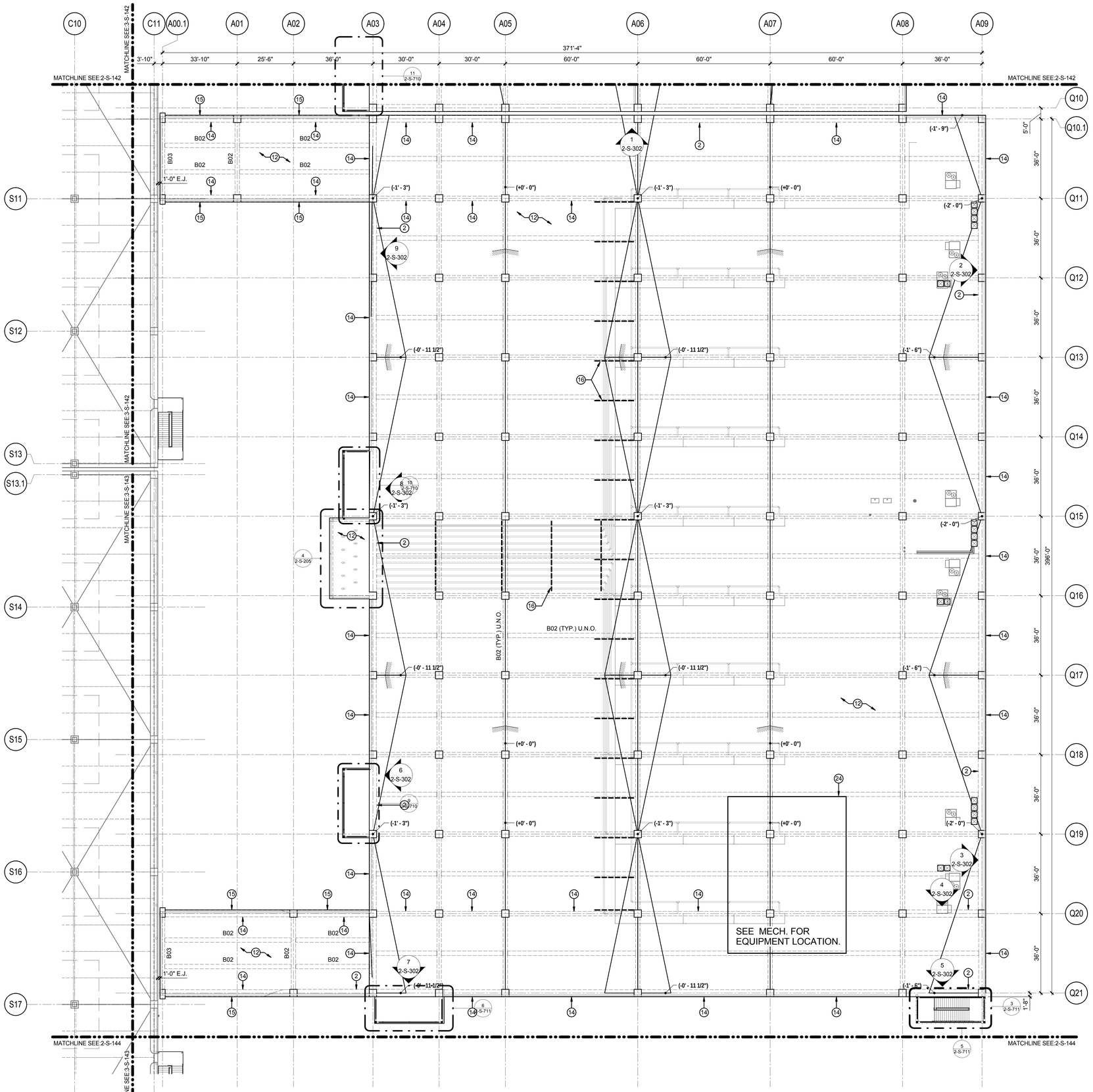
SHEET NO.

2-S-142

C:\Users\smartinez\Documents\S-DA4881-BLDG_A_B-R15_smartinez.rvt

9/23/2016 8:39:39 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 A2 BUILDING - QTA - LEVEL 4 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 4 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 4 = 152'-6"
2. **(X")** DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. **(B#)** INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

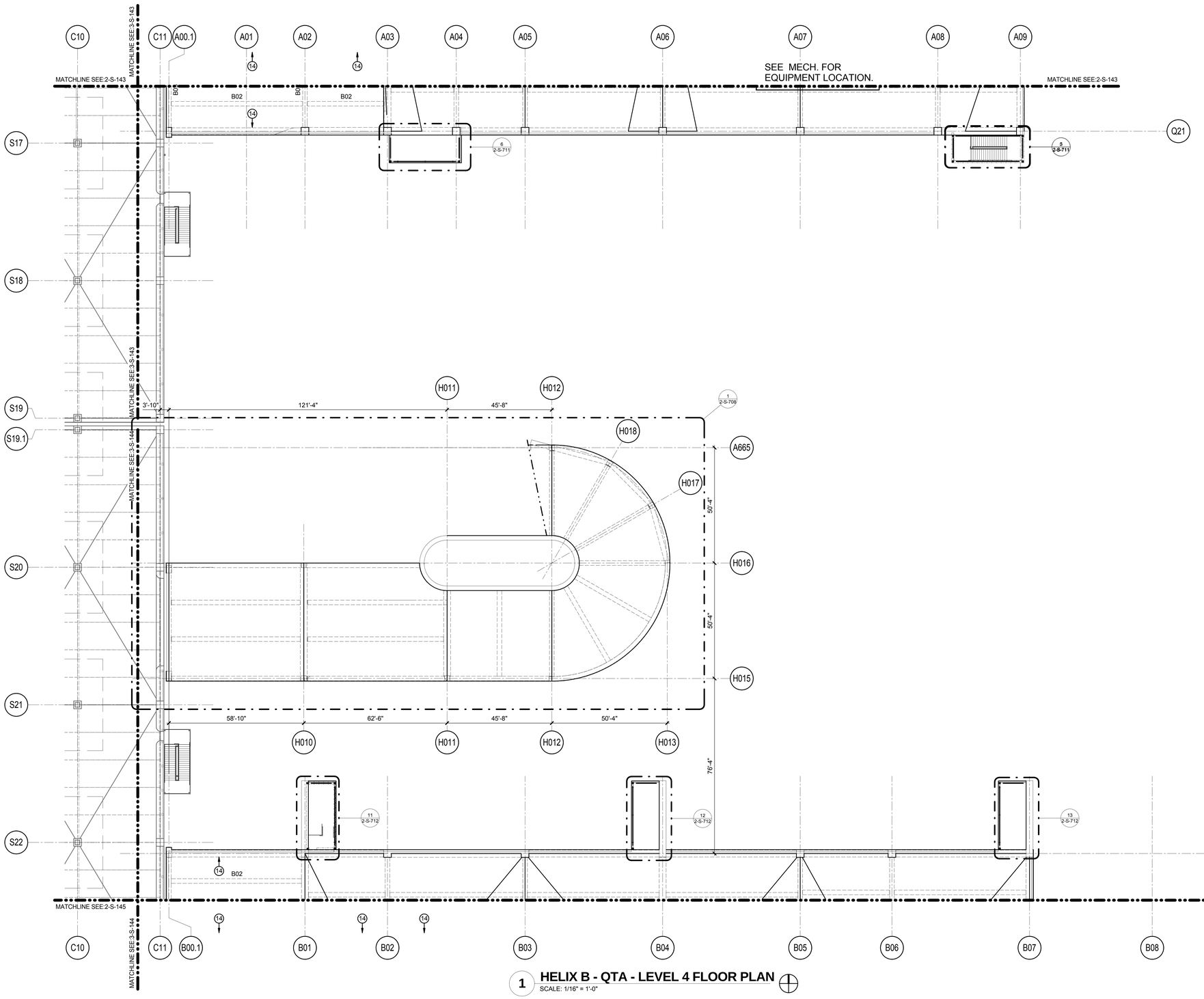
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 4 FLOOR PLAN

SHEET NO.
2-S-143

C:\Users\amarfine\Documents\S-DA4881-BLDG_A_B R18_amarfine.rvt
9/23/2016 8:39:43 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX B - QTA - LEVEL 4 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 4 PLAN NOTES:

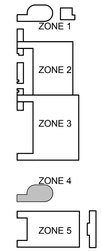
1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"): -LEVEL 4 = 152'-6"
2. (**X"**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

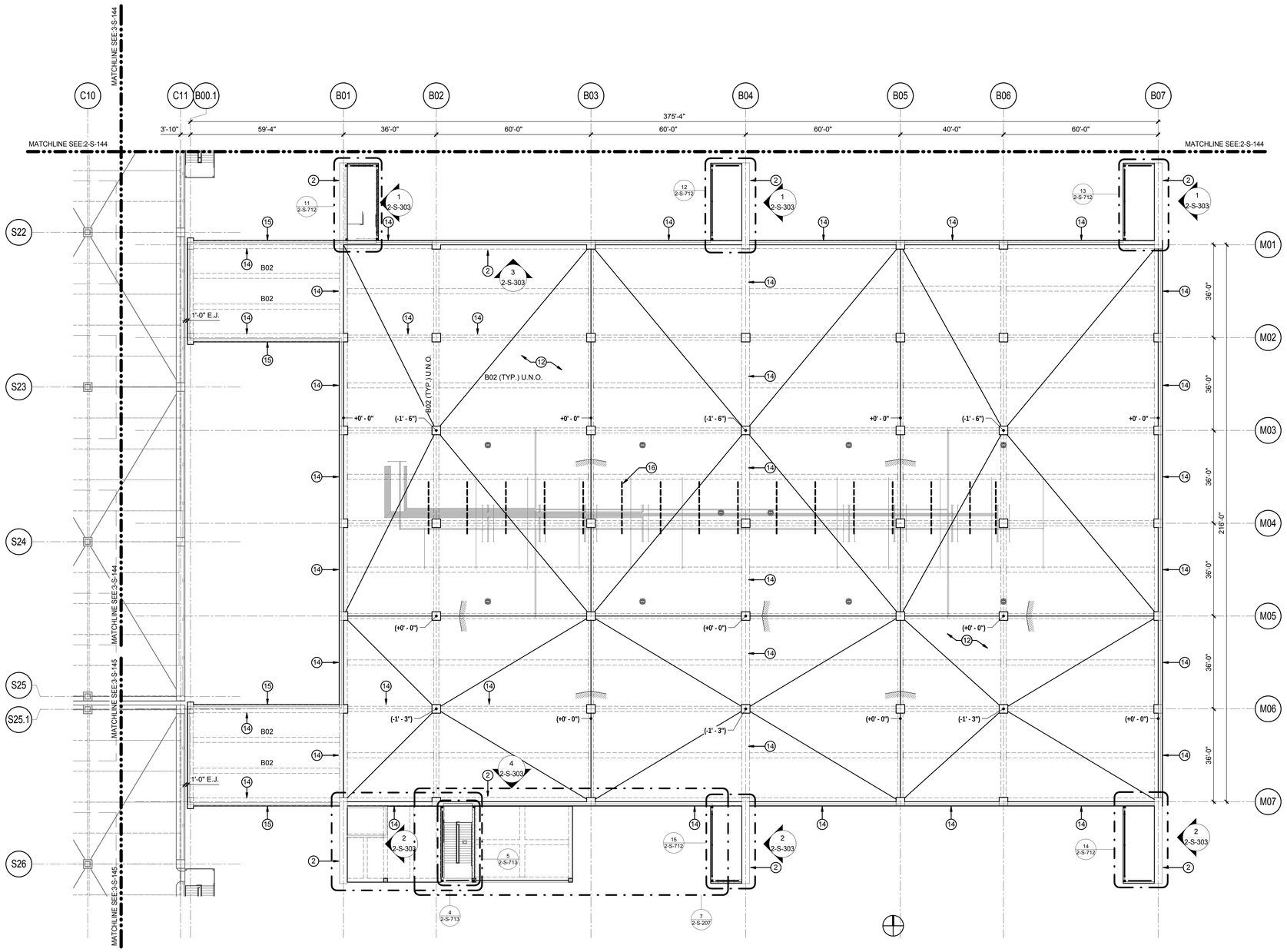
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 4 FLOOR PLAN

SHEET NO.
2-S-144

C:\Users\amarthez\Documents\S-DA4881-B1CFO_A_B R15_amarthez.rvt
9/23/2016 8:39:46 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 B1 BUILDING - QTA - LEVEL 4 FLOOR PLAN

SCALE: 1/16" = 1'-0"

LEVEL 4 PLAN NOTES:

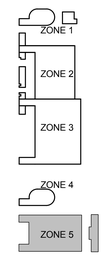
1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 4 = 152'-6"
2. (**X"**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:	MARK	DATE	DESCRIPTION

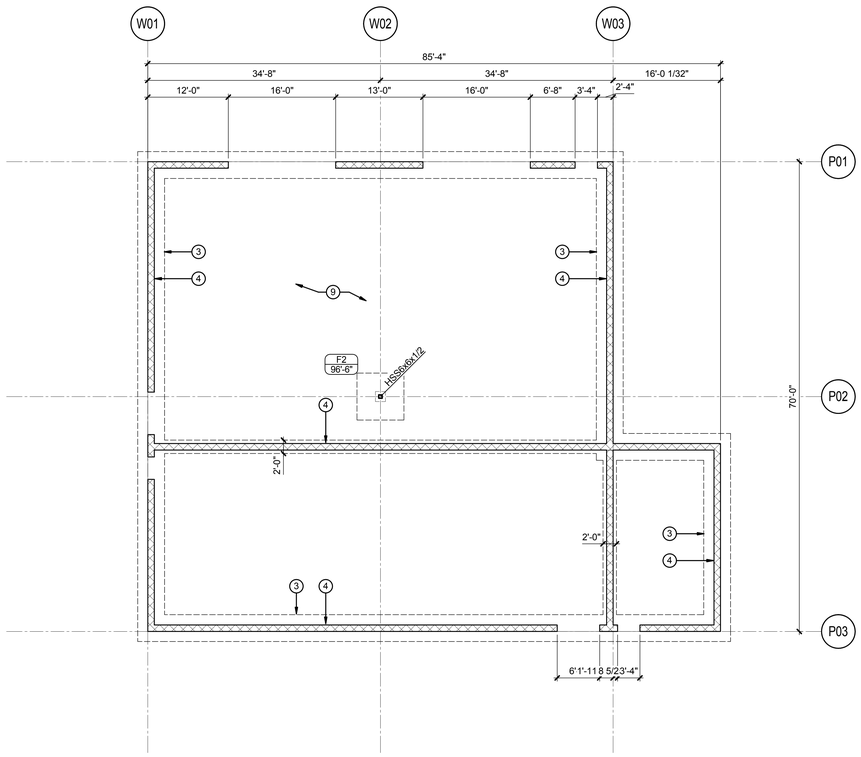
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
QTA LEVEL 4 FLOOR PLAN

SHEET NO.
2-S-145

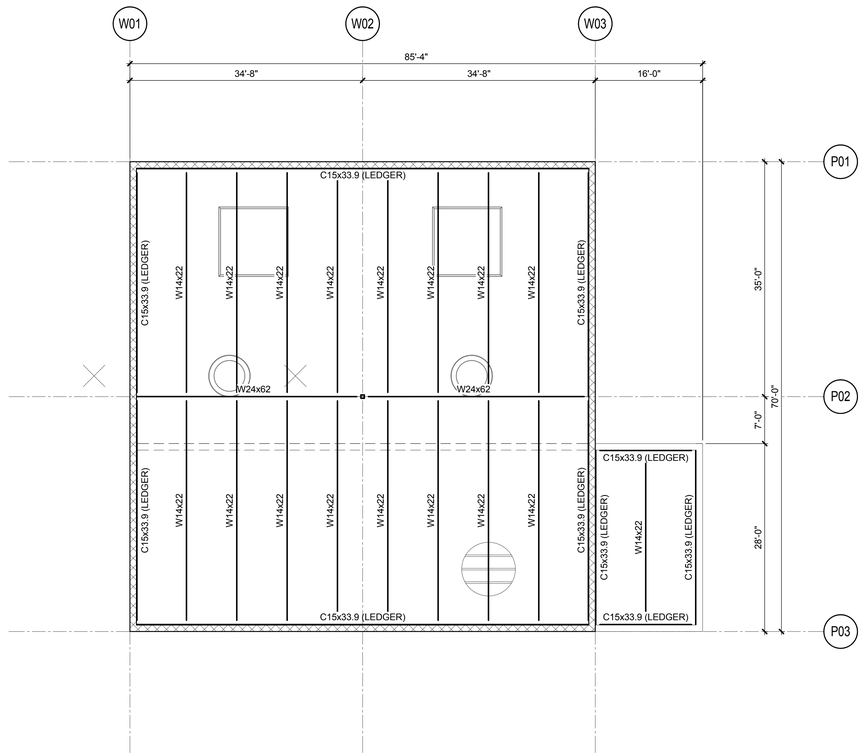
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\amatthew\Documents\S-DA4881-B1CFD_A_B R15_amatthew.rvt
9/23/2016 9:39:49 AM



1 DWP BUILDING FOUNDATION PLAN

SCALE: 1/8" = 1'-0"



2 DWP BUILDING FRAMING PLAN

SCALE: 1/8" = 1'-0"

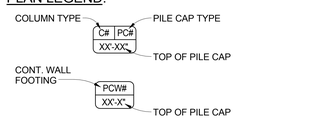
PLAN NOTES:

1. TOP OF FINISH FLOOR = 98'-6" (REFERENCE ELEVATION 0'-0")
2. ROOF STRUCTURE BEARING ELEVATION VARIES, RE: PLAN
3. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
4. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -10" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
5. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
6. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
7. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
8. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
9. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
10. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
11. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
12. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
13. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
14. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
15. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
16. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
17. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
18. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
19. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.
20. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
21. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.

KEY NOTES:

1. 8" THICK SLAB ON GRADE
2. 12" FULLY GROUTED MASONRY BEARING/SHEAR WALL
3. CONTINUOUS CONCRETE FOOTING, 4'-0" WIDE x 2'-0" DEEP
4. 8" FULLY GROUTED MASONRY WALL
5. 12" FULLY GROUTED MASONRY SHEAR WALL
6. 10" THICK x 4'-0" WIDE HOLLOW CORE CONCRETE PLANKS WITH 2 1/2" THICK NORMAL WEIGHT CONCRETE TOPPING
7. 8" FULLY GROUTED MASONRY PARAPET WALL, RE: (5/2-S501)
8. 12"x16" DRAG BEAM W/ CONTINUOUS DRAG REINF.
9. 10" THICK SLAB-ON-GRADE.
10. CONCRETE LEDGER/ CMU WALL SEE DETAIL (8/2S-501)
11. 8" THICK CAST-IN-PLACE CONC. SLAB.
12. 6" THICK SLAB ON GRADE.

PLAN LEGEND:



- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES METAL STUD AT EXTERIOR STAIRS
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS SEE SCHEDULE FOR SIZE
- INDICATES HSS STAIRS COLUMN
- INDIACTES SLAB SPAN DIRECTION
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION
- 20 GAGE STEEL DECK

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
DWP BLDG. FOUND. AND FRAMING PLAN

SHEET NO.
2-S-201

C:\Users\amarthez\Documents\S-DA4881-BLDG_A_B R15_amarthez.rvt
9/22/2016 8:28:50 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

PLAN LEGEND:

COLUMN TYPE — C# | PC# — PILE CAP TYPE
XX'-XX" — TOP OF PILE CAP

CONT. WALL FOOTING — PCW# — XX'-X" — TOP OF PILE CAP

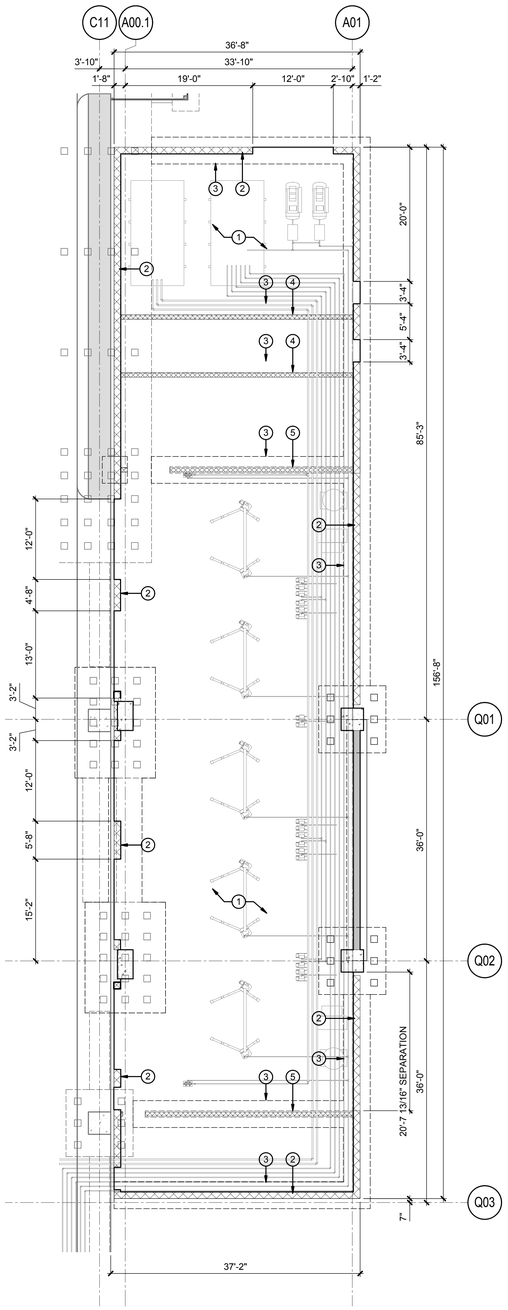
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES METAL STUD AT EXTERIOR STAIRS
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS SEE SCHEDULE FOR SIZE
- INDICATES HSS STAIRS COLUMN
- INDIACTES SLAB SPAN DIRECTION
- EJ — INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

KEY NOTES:

1. 8" THICK SLAB ON GRADE
2. 12" FULLY GROUTED MASONRY BEARING/SHEAR WALL
3. CONTINUOUS CONCRETE FOOTING, 4'-0" WIDE x 2'-0" DEEP
4. 8" FULLY GROUTED MASONRY WALL
5. 12" FULLY GROUTED MASONRY SHEAR WALL
6. 10" THICK x 4'-0" WIDE HOLLOW CORE CONCRETE PLANKS WITH 2 1/2" THICK NORMAL WEIGHT CONCRETE TOPPING
7. 8" FULLY GROUTED MASONRY PARAPET WALL, RE: (5/2-S501)
8. 12"x16" DRAG BEAM W/ CONTINUOUS DRAG REINF.
9. 10" THICK SLAB-ON-GRADE.
10. CONCRETE LEDGER/ CMU WALL SEE DETAIL (8/2S-501)
11. 8" THICK CAST-IN-PLACE CONC. SLAB.
12. 6" THICK SLAB ON GRADE.

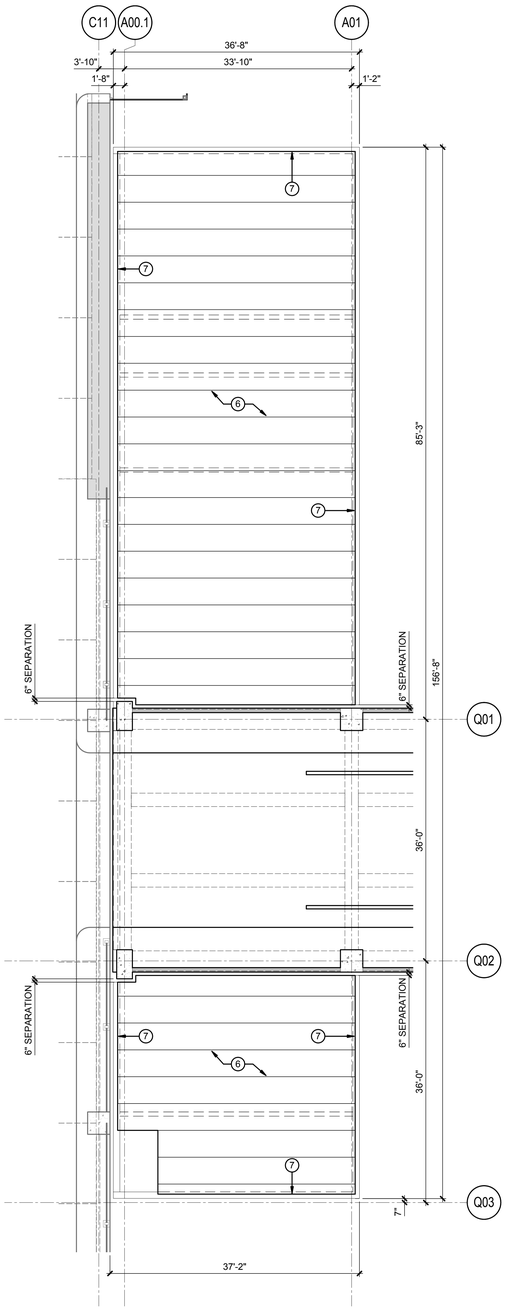
PLAN NOTES:

1. TOP OF FINISH FLOOR = 98'-6" (REFERENCE ELEVATION 0'-0")
2. ROOF STRUCTURE BEARING ELEVATION VARIES, RE: PLAN
3. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
4. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -10" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
5. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
6. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
7. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
8. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
9. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
10. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
11. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
12. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
13. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
14. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
15. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
16. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
17. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
18. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
19. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.
20. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
21. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.



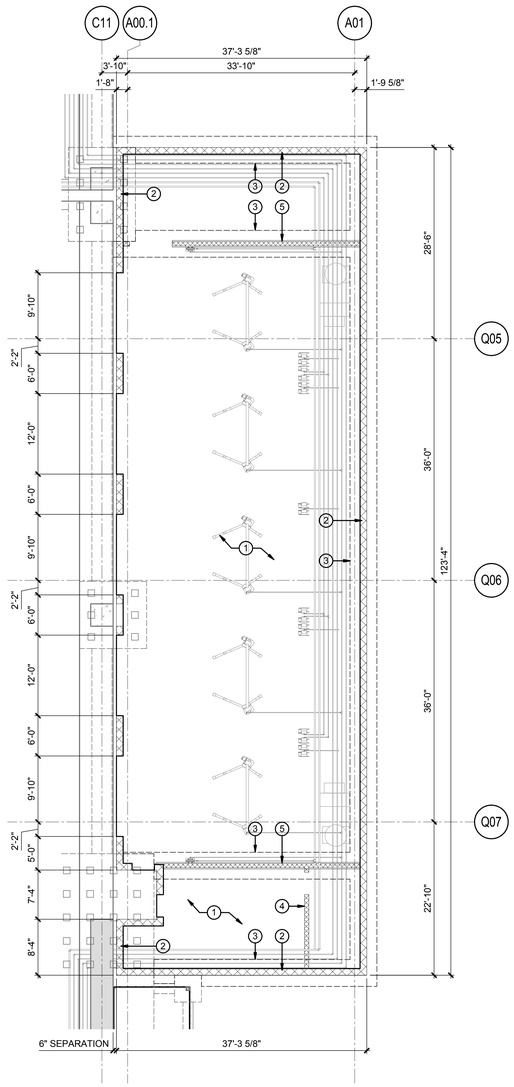
1 A BUILDING - MAINTENANCE - LEVEL 1 FLOOR PLAN

SCALE: 1/8" = 1'-0"



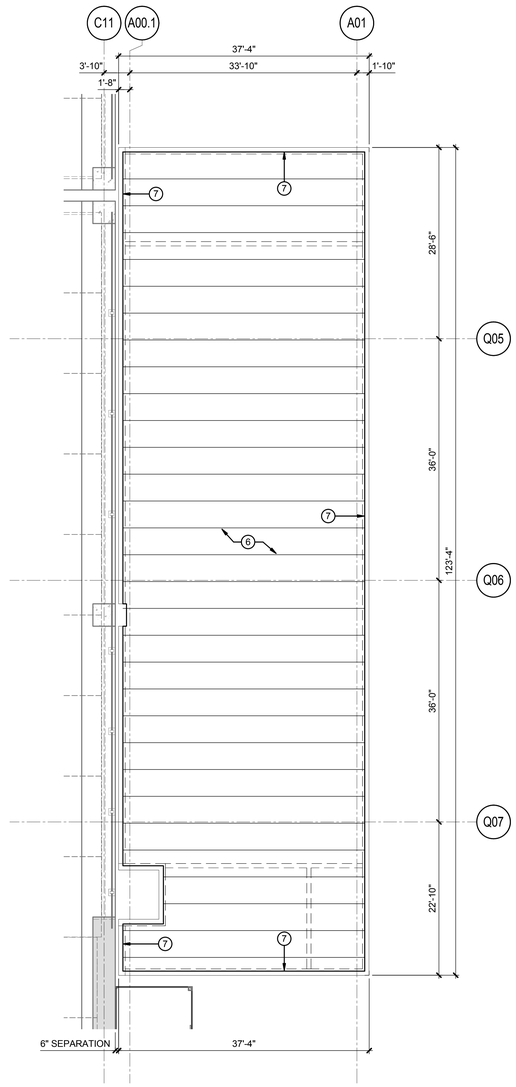
2 A BUILDING - MAINTENANCE - ROOF FRAMING PLAN

SCALE: 1/8" = 1'-0"



3 A BUILDING - MAINTENANCE - LEVEL 1 FLOOR PLAN

SCALE: 1/8" = 1'-0"



4 A BUILDING - MAINTENANCE - ROOF FRAMING PLAN

SCALE: 1/8" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ.NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:

BLDG. A - MAINTENANCE BLDG.

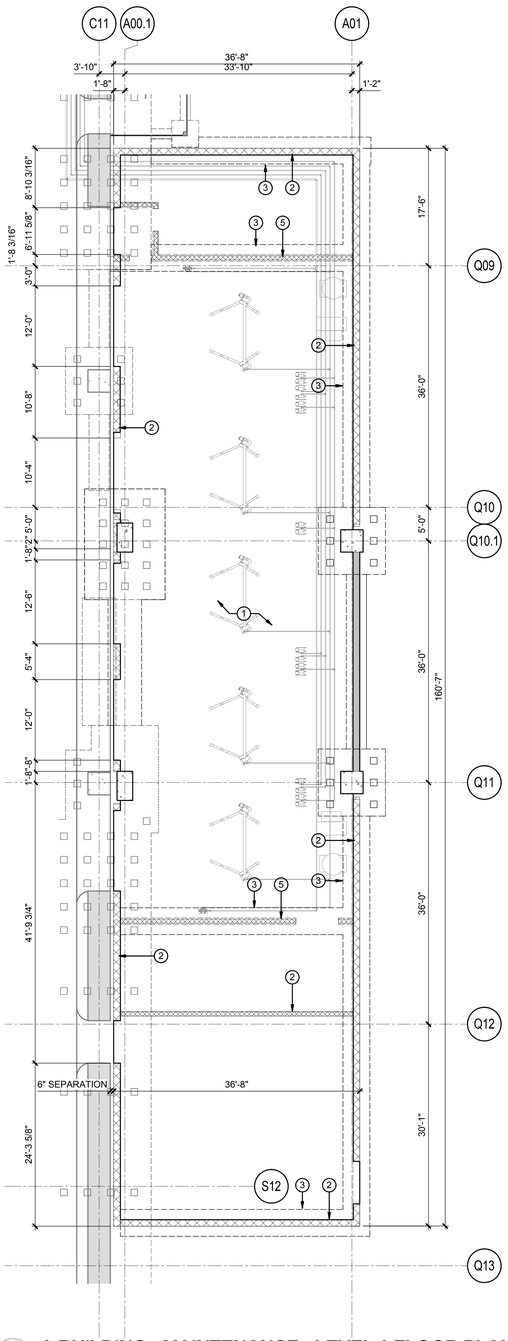
SHEET NO.

2-S-202

C:\Users\amartinez\Documents\S DA4881 BLDG_A_B R15_amartinez.rvt

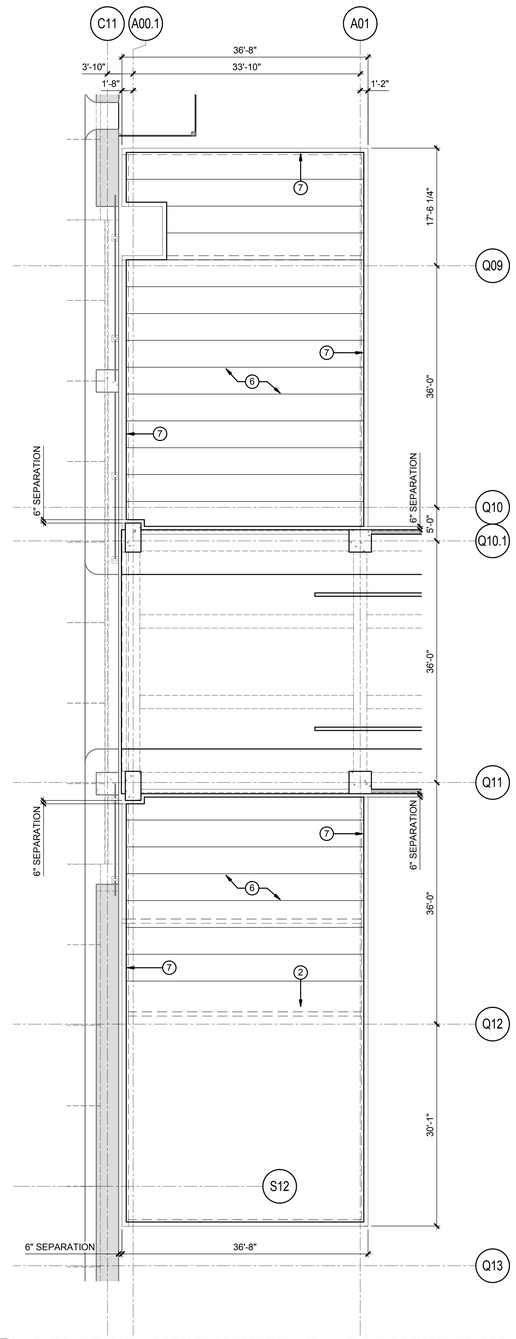
9/23/2016 8:39:54 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 A BUILDING - MAINTENANCE - LEVEL 1 FLOOR PLAN

SCALE: 1/8" = 1'-0"



2 A BUILDING - MAINTENANCE - ROOF FRAMING PLAN

SCALE: 1/8" = 1'-0"

PLAN NOTES:

1. TOP OF FINISH FLOOR = 98'-6" (REFERENCE ELEVATION 0'-0")
2. ROOF STRUCTURE BEARING ELEVATION VARIES, RE: PLAN
3. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
4. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -10" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
5. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
6. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
7. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
8. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
9. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
10. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
11. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
12. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
13. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
14. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
15. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
16. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
17. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
18. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
19. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.
20. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
21. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.

KEY NOTES:

1. 8" THICK SLAB ON GRADE
2. 12" FULLY GROUTED MASONRY BEARING/SHEAR WALL
3. CONTINUOUS CONCRETE FOOTING, 4'-0" WIDE x 2'-0" DEEP
4. 8" FULLY GROUTED MASONRY WALL
5. 12" FULLY GROUTED MASONRY SHEAR WALL
6. 10" THICK x 4'-0" WIDE HOLLOW CORE CONCRETE PLANKS WITH 2 1/2" THICK NORMAL WEIGHT CONCRETE TOPPING
7. 8" FULLY GROUTED MASONRY PARAPET WALL, RE: (5/2-S501)
8. 12"x16" DRAG BEAM W/ CONTINUOUS DRAG REINF.
9. 10" THICK SLAB-ON-GRADE.
10. CONCRETE LEDGER/ CMU WALL SEE DETAIL (8/2S-501)
11. 8" THICK CAST-IN-PLACE CONC. SLAB.
12. 6" THICK SLAB ON GRADE.

PLAN LEGEND:

COLUMN TYPE — C# | PC# — PILE CAP TYPE
XX'-XX" — TOP OF PILE CAP

CONT. WALL FOOTING — PCW# — XX'-X" — TOP OF PILE CAP

- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES METAL STUD AT EXTERIOR STAIRS
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS SEE SCHEDULE FOR SIZE
- INDICATES HSS STAIRS COLUMN
- INDIACTES SLAB SPAN DIRECTION
- EJ — INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

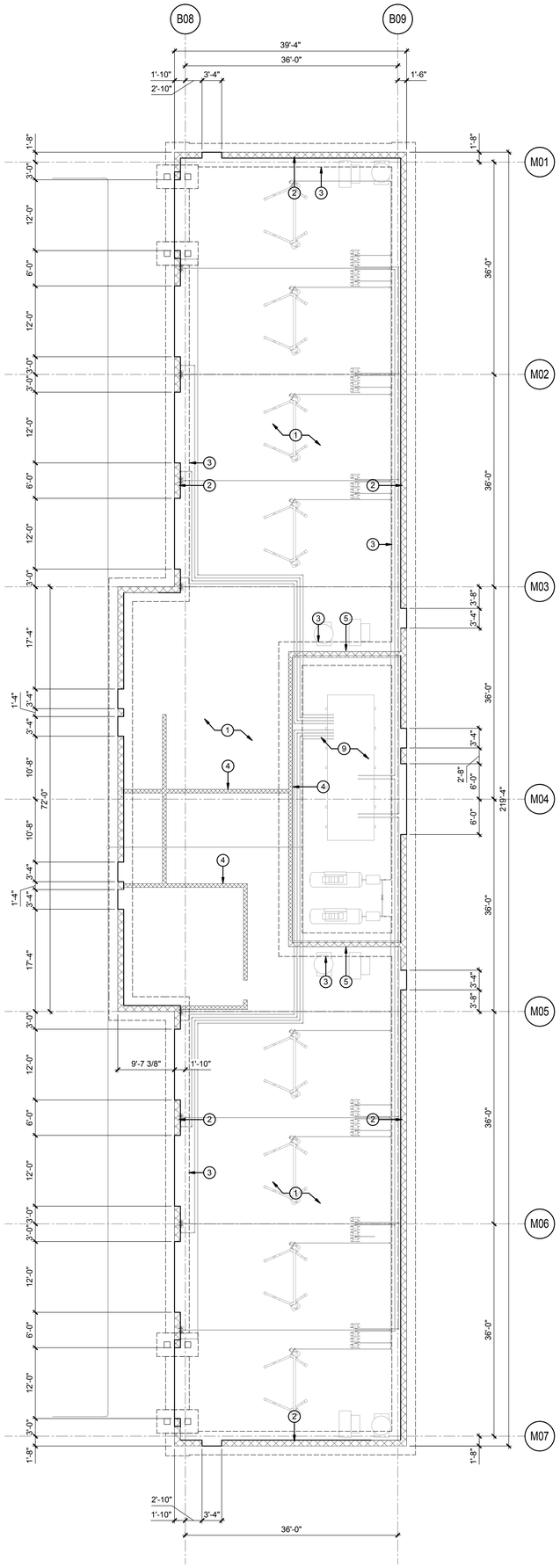
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
BLDG. A - MAINTENANCE BLDG.

SHEET NO.
2-S-203

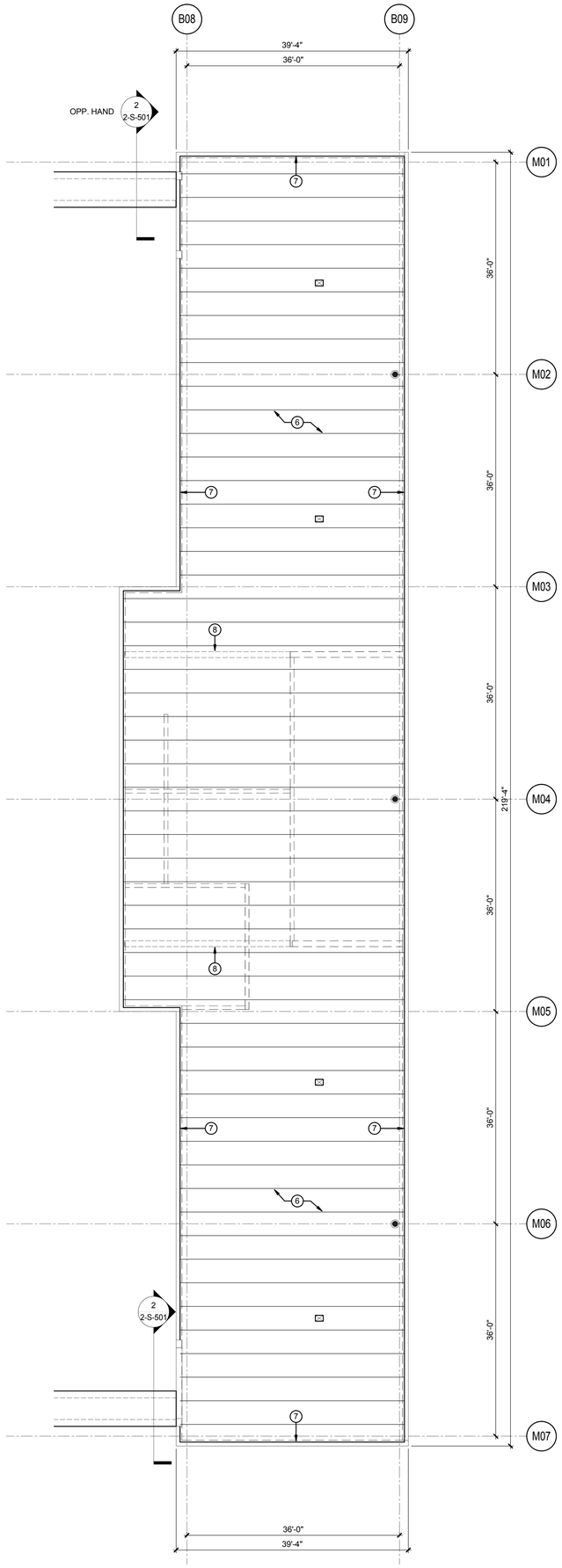
C:\Users\anamartinez\Documents\S-DA4881-BLDG_A_M-R15_anamtinez.rvt
9/23/2016 8:38:57 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 B1 BUILDING - MAINTENANCE - LEVEL 1 FLOOR PLAN

SCALE: 1/8" = 1'-0"



2 B1 BUILDING - MAINTENANCE - ROOF FRAMING PLAN

SCALE: 1/8" = 1'-0"

PLAN NOTES:

1. TOP OF FINISH FLOOR = 98'-6" (REFERENCE ELEVATION 0'-0")
2. ROOF STRUCTURE BEARING ELEVATION VARIES, RE: PLAN
3. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
4. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -10" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
5. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
6. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
7. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
8. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
9. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
10. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
11. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
12. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
13. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
14. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
15. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
16. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
17. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
18. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
19. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.
20. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
21. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.

KEY NOTES:

1. 8" THICK SLAB ON GRADE
2. 12" FULLY GROUTED MASONRY BEARING/SHEAR WALL
3. CONTINUOUS CONCRETE FOOTING, 4'-0" WIDE x 2'-0" DEEP
4. 8" FULLY GROUTED MASONRY WALL
5. 12" FULLY GROUTED MASONRY SHEAR WALL
6. 10" THICK x 4'-0" WIDE HOLLOW CORE CONCRETE PLANKS WITH 2 1/2" THICK NORMAL WEIGHT CONCRETE TOPPING
7. 8" FULLY GROUTED MASONRY PARAPET WALL, RE: (5/2-S501)
8. 12"x16" DRAG BEAM W/ CONTINUOUS DRAG REINF.
9. 10" THICK SLAB-ON-GRADE.
10. CONCRETE LEDGER/ CMU WALL SEE DETAIL (8/2S-501)
11. 8" THICK CAST-IN-PLACE CONC. SLAB.
12. 6" THICK SLAB ON GRADE.

PLAN LEGEND:

COLUMN TYPE — C# | PC# / XX'-XX" — PILE CAP TYPE; TOP OF PILE CAP

CONT. WALL FOOTING — PCW# / XX'-X" — TOP OF PILE CAP

- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES METAL STUD AT EXTERIOR STAIRS
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS SEE SCHEDULE FOR SIZE
- INDICATES HSS STAIRS COLUMN
- INDIACTES SLAB SPAN DIRECTION
- EJ — INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:

BLDG. B - MAINTENANCE BLDG.

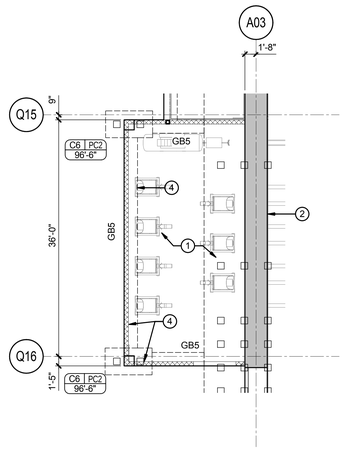
SHEET NO.

2-S-204

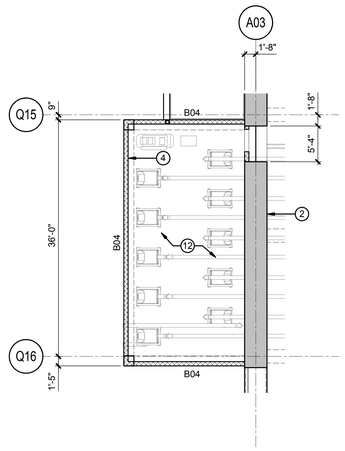
C:\Users\amartinez\Documents\S-DA4881-BLDG_A_B_R15_amartinez.rvt

9/23/2016 8:39:39 AM

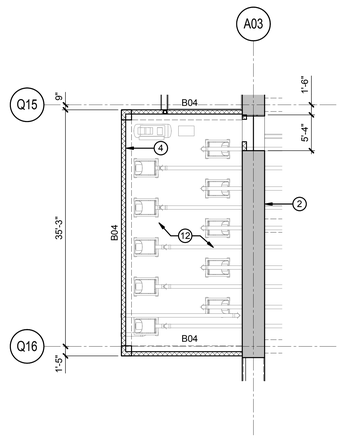
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



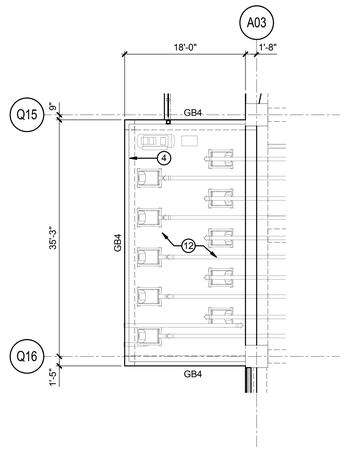
1 A2 BUILDING - MISC LEVEL 1 PLAN
SCALE: 1/8" = 1'-0"



2 A2 BUILDING - MISC LEVEL 2 PLAN
SCALE: 1/8" = 1'-0"



3 A2 BUILDING - MISC LEVEL 3 PLAN
SCALE: 1/8" = 1'-0"



4 A2 BUILDING - MISC LEVEL 4 PLAN
SCALE: 1/8" = 1'-0"

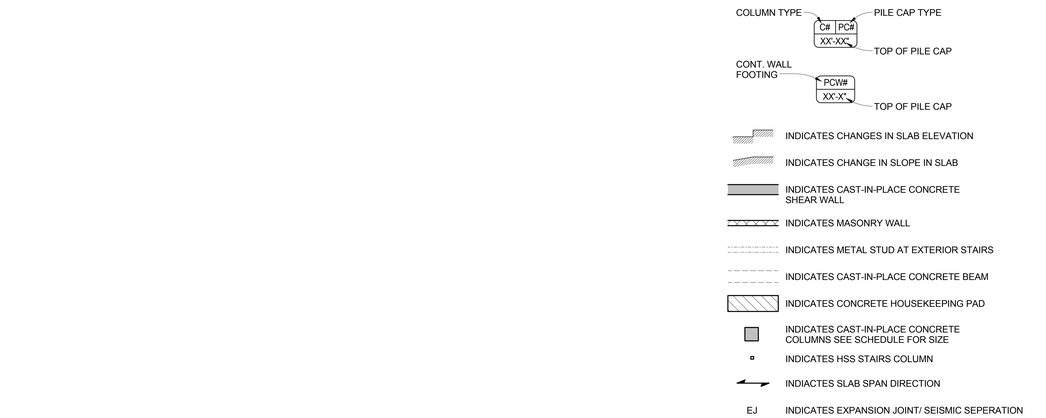
PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 1 = 98'-6"
   -LEVEL 2 = 115'-6"
   -LEVEL 3 = 132'-6"
   -LEVEL 4 = 152'-6"
2. ROOF STRUCTURE BEARING ELEVATION VARIES, RE: PLAN
3. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
4. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -12" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
5. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
6. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
7. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
8. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
9. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
10. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
11. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
12. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
13. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
14. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
15. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
16. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
17. RE: 2-S-XXX FOR PILE CAP SCHEDULE AND DETAILS.
18. RE: 2-S-XXX FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
19. RE: 2-S-XXX FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.
20. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
21. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:



TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

CEN PMD ANA LAX

REVISIONS:

MARK	DATE	DESCRIPTION

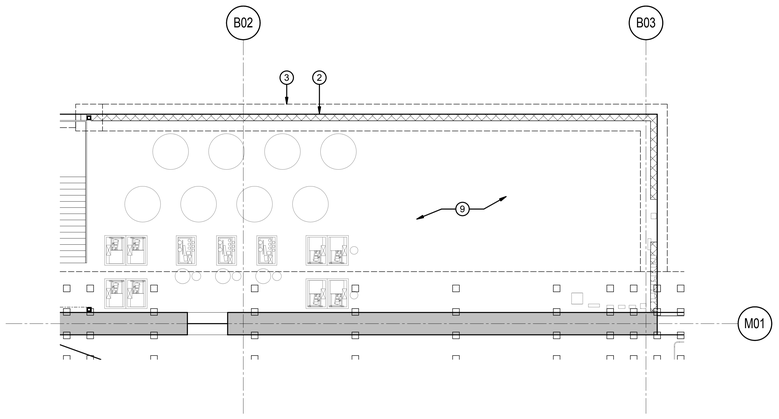
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
BLDG. A - MISC

SHEET NO.
2-S-205

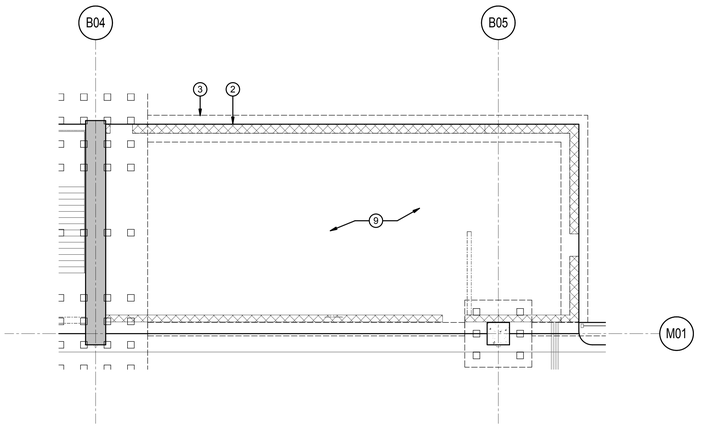
C:\Users\amarthez\Documents\S-DA4881-BLDG_A_B R15_amarthez.rvt
9/23/2016 9:40:52 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



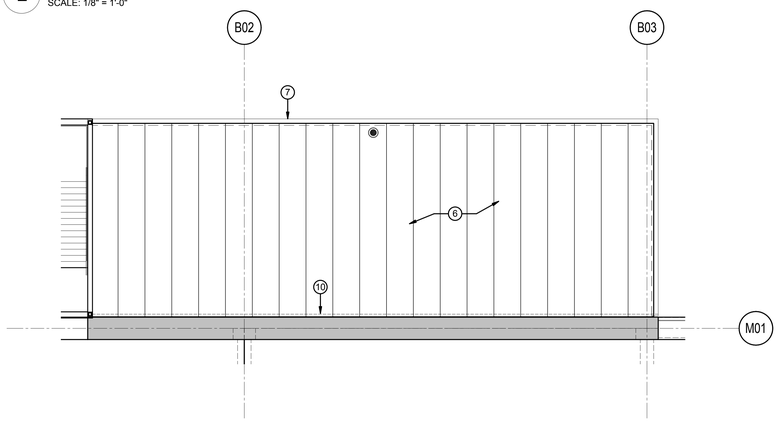
1 MISC 1 - FOUNDATION PLAN

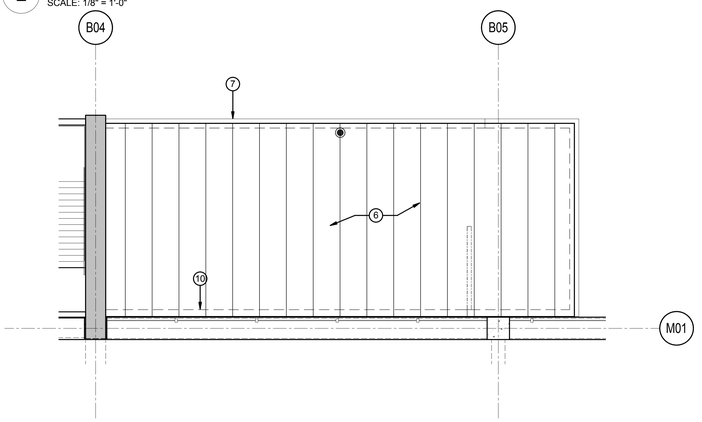
SCALE: 1/8" = 1'-0"



2 MISC 2 - FOUNDATION PLAN

SCALE: 1/8" = 1'-0"



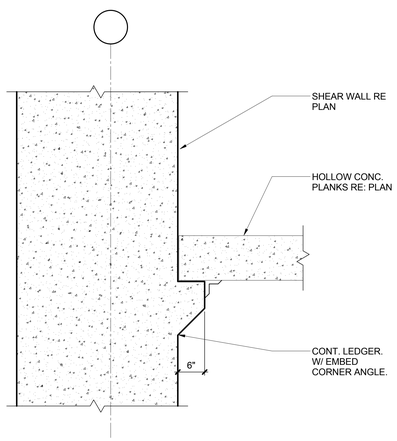


3 MISC 1 - FRAMING PLAN

SCALE: 1/8" = 1'-0"

4 MISC 2 - FRAMING PLAN

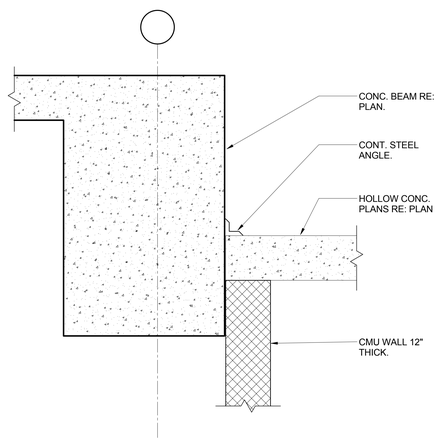
SCALE: 1/8" = 1'-0"



CASE A

1" = 1'-0"

8
2-S-501



CASE B

1" = 1'-0"

8
2-S-501

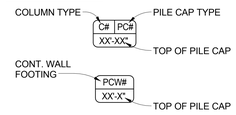
PLAN NOTES:

1. TOP OF FINISH FLOOR = 98'-6" (REFERENCE ELEVATION 0'-0")
2. ROOF STRUCTURE BEARING ELEVATION VARIES, RE: PLAN
3. (X') DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
4. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -10" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
5. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
6. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
7. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
8. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
9. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
10. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
11. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
12. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
13. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
14. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
15. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
16. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
17. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
18. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
19. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.
20. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
21. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.

KEY NOTES:

1. 8" THICK SLAB ON GRADE
2. 12" FULLY GROUTED MASONRY BEARING/SHEAR WALL
3. CONTINUOUS CONCRETE FOOTING, 4'-0" WIDE x 2'-0" DEEP
4. 8" FULLY GROUTED MASONRY WALL
5. 12" FULLY GROUTED MASONRY SHEAR WALL
6. 10" THICK x 4'-0" WIDE HOLLOW CORE CONCRETE PLANKS WITH 2 1/2" THICK NORMAL WEIGHT CONCRETE TOPPING
7. 8" FULLY GROUTED MASONRY PARAPET WALL, RE: (5/2-S501)
8. 12"x16" DRAG BEAM W/ CONTINUOUS DRAG REINF.
9. 10" THICK SLAB-ON-GRADE.
10. CONCRETE LEDGER/ CMU WALL SEE DETAIL (8/2S-501)
11. 8" THICK CAST-IN-PLACE CONC. SLAB.
12. 6" THICK SLAB ON GRADE.

PLAN LEGEND:



- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES METAL STUD AT EXTERIOR STAIRS
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS SEE SCHEDULE FOR SIZE
- INDICATES HSS STAIRS COLUMN
- INDIACTES SLAB SPAN DIRECTION
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

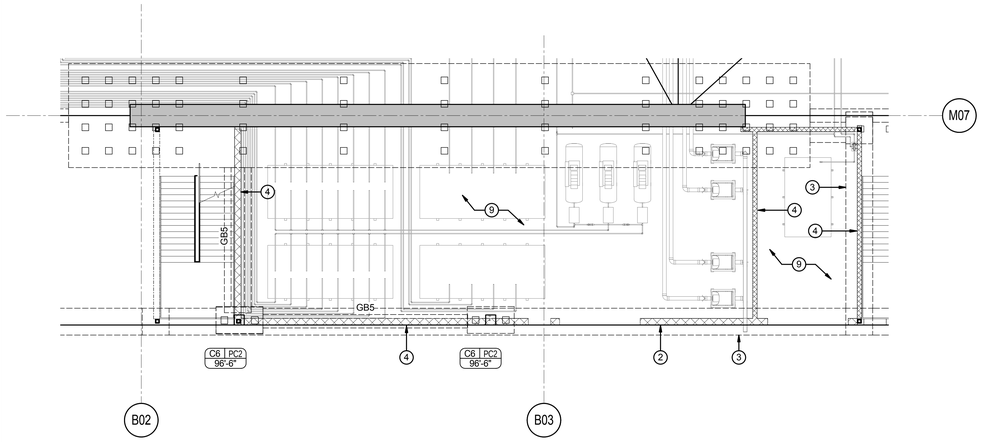
BLDG. B - MISC

SHEET NO.

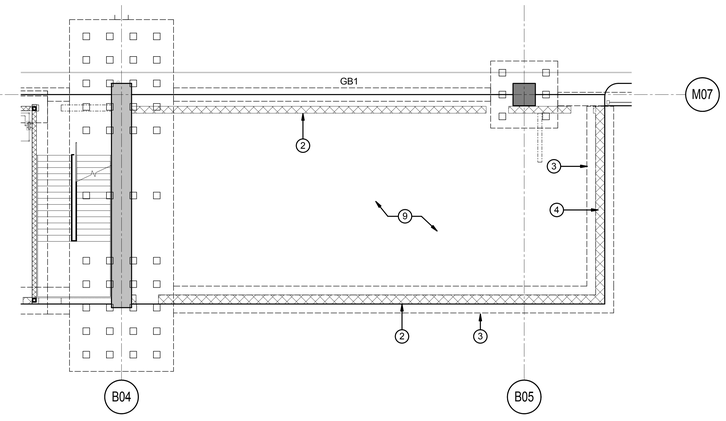
2-S-206

C:\Users\amarfinez\Documents\S-DA4881-BLDG_A_B-R15_amarfinez.rvt
9/23/2016 9:40:05 AM

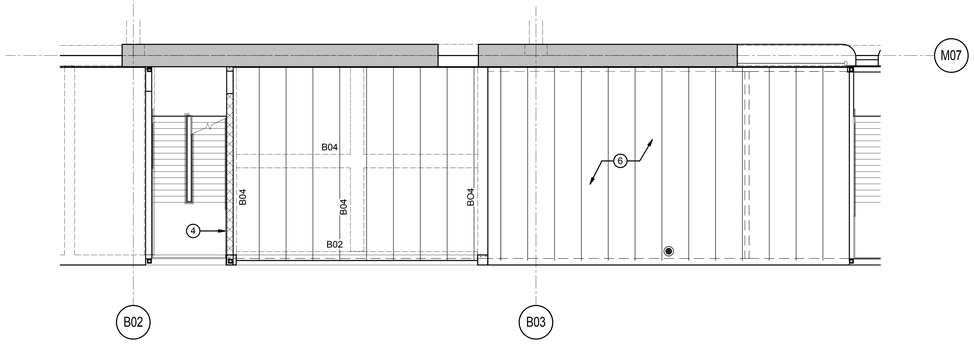
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



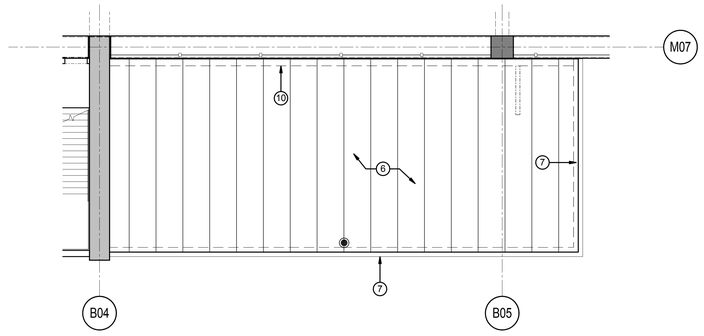
1 MISC 3 - FOUNDATION PLAN
SCALE: 1/8" = 1'-0"



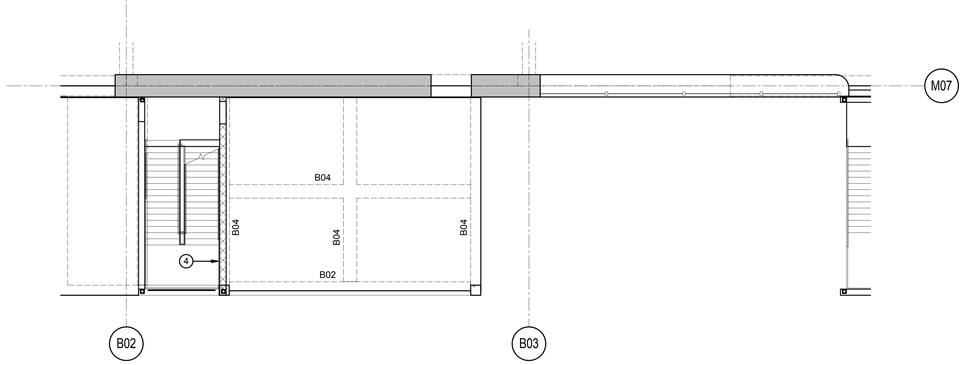
2 MISC 4 - FOUNDATION PLAN
SCALE: 1/8" = 1'-0"



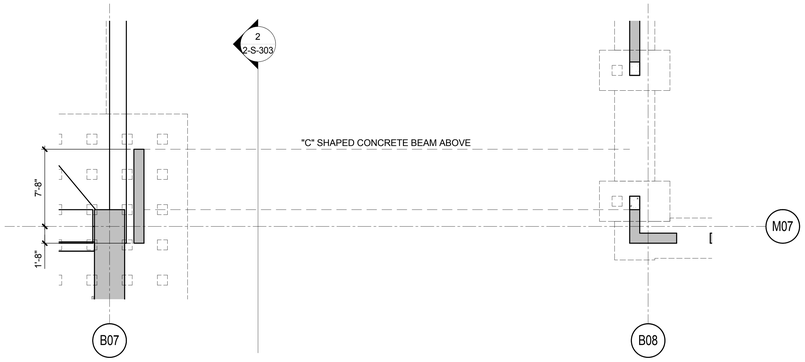
3 MISC 3 - FRAMING PLAN
SCALE: 1/8" = 1'-0"



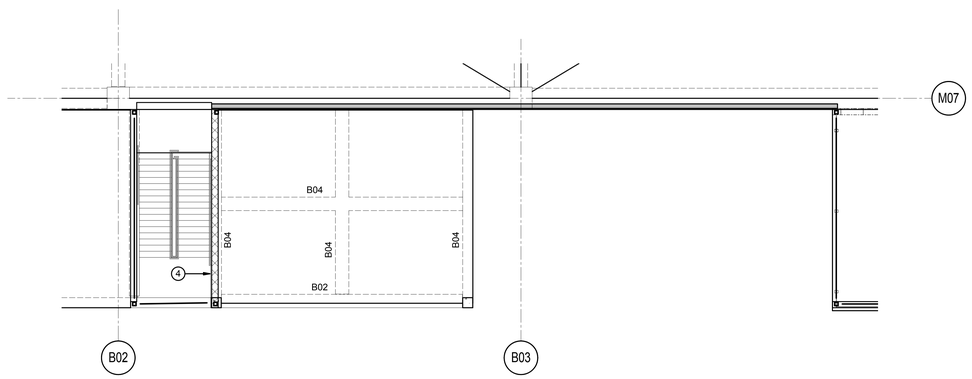
4 MISC 4 - FRAMING PLAN
SCALE: 1/8" = 1'-0"



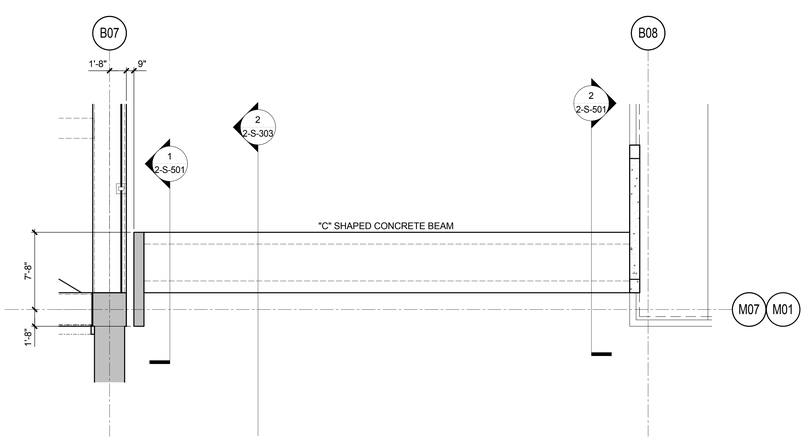
6 MISC 5 - FRAMING PLAN
SCALE: 1/8" = 1'-0"



5 BUILDING B PIPE HANGER FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



7 MISC 6 - ROOF PLAN
SCALE: 1/8" = 1'-0"



8 BUILDING B PIPE HANGER BEAM PLAN
SCALE: 3/16" = 1'-0"

PLAN NOTES:
1. TOP OF FINISH FLOOR = 98'-6" (REFERENCE ELEVATION 0'-0")
2. ROOF STRUCTURE BEARING ELEVATION VARIES, RE: PLAN
3. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
4. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -10" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
5. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
6. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
7. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
8. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
9. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
10. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
11. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
12. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
13. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
14. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
15. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
16. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
17. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
18. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
19. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.
20. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
21. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.

KEY NOTES:
1. 8" THICK SLAB ON GRADE
2. 12" FULLY GROUTED MASONRY BEARING/SHEAR WALL
3. CONTINUOUS CONCRETE FOOTING, 4'-0" WIDE x 2'-0" DEEP
4. 8" FULLY GROUTED MASONRY WALL
5. 12" FULLY GROUTED MASONRY SHEAR WALL
6. 10" THICK x 4'-0" WIDE HOLLOW CORE CONCRETE PLANKS WITH 2 1/2" THICK NORMAL WEIGHT CONCRETE TOPPING
7. 8" FULLY GROUTED MASONRY PARAPET WALL, RE: (5/2-S501)
8. 12"x16" DRAG BEAM W/ CONTINUOUS DRAG REINF.
9. 10" THICK SLAB-ON-GRADE.
10. CONCRETE LEDGER/ CMU WALL SEE DETAIL (8/2S-501)
11. 8" THICK CAST-IN-PLACE CONC. SLAB.
12. 6" THICK SLAB ON GRADE.

PLAN LEGEND:
COLUMN TYPE — C# | PC# / XX'-XX" — PILE CAP TYPE; TOP OF PILE CAP

CONT. WALL FOOTING — PCW# / XX'-X" — TOP OF PILE CAP

- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES METAL STUD AT EXTERIOR STAIRS
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS SEE SCHEDULE FOR SIZE
- INDICATES HSS STAIRS COLUMN
- INDIACTES SLAB SPAN DIRECTION
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

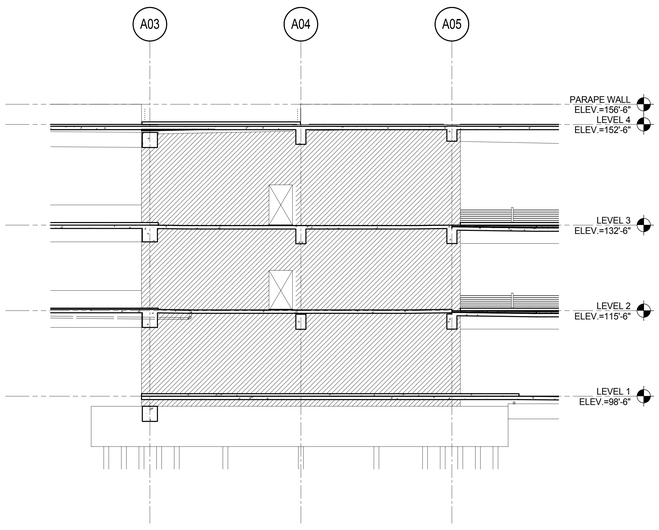
SHEET TITLE:
BLDG. B - MISC

SHEET NO.
2-S-207

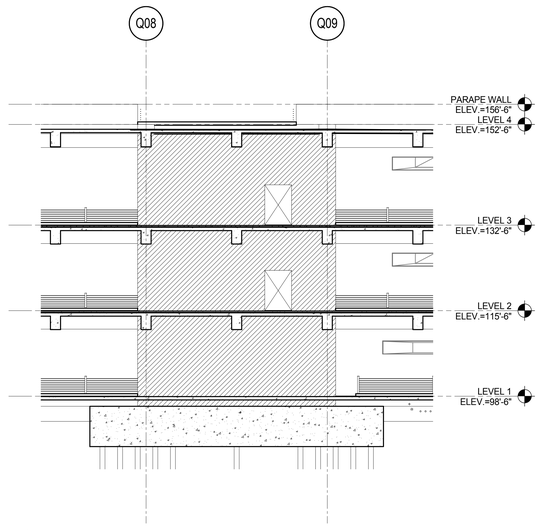
C:\Users\amarfred\Documents\S-DA4881-BLDG_A_B-R15_amarfred.rvt

9/23/2016 9:40:11 AM

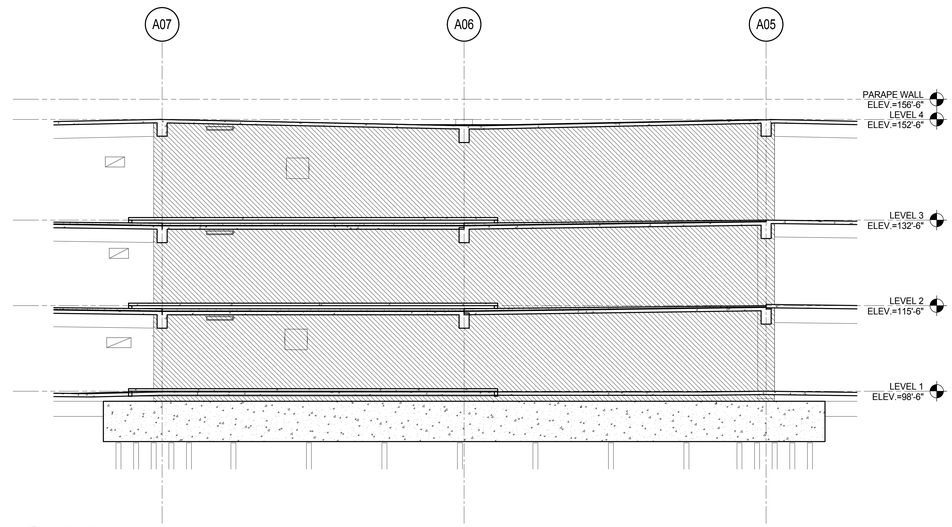
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



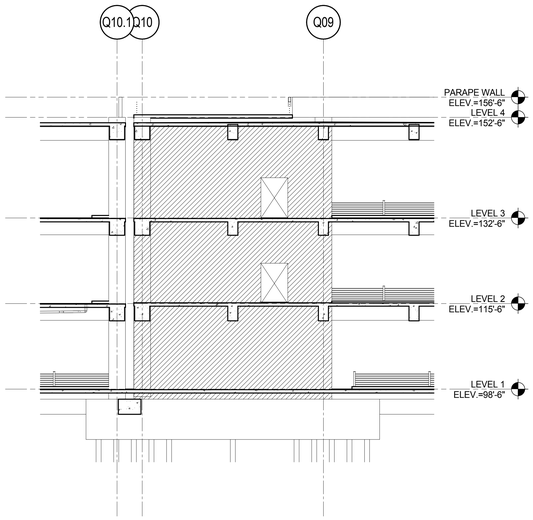
1 SHEAR WALL 1 ELEVATION - BUILDING A1 - GRID Q01
SCALE: 3/32" = 1'-0"



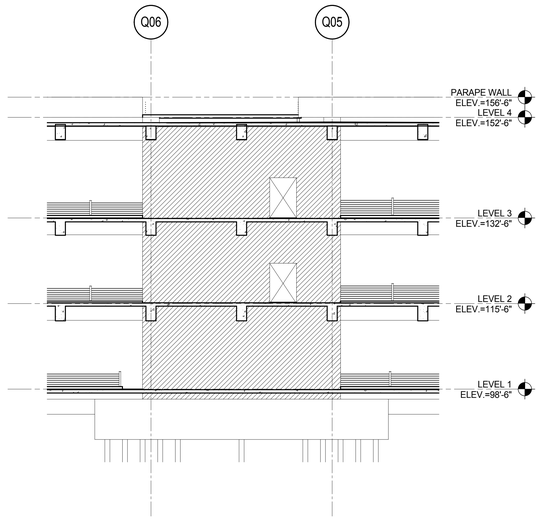
2 SHEAR WALL 2 ELEVATION - BUILDING A1 - GRID A08
SCALE: 3/32" = 1'-0"



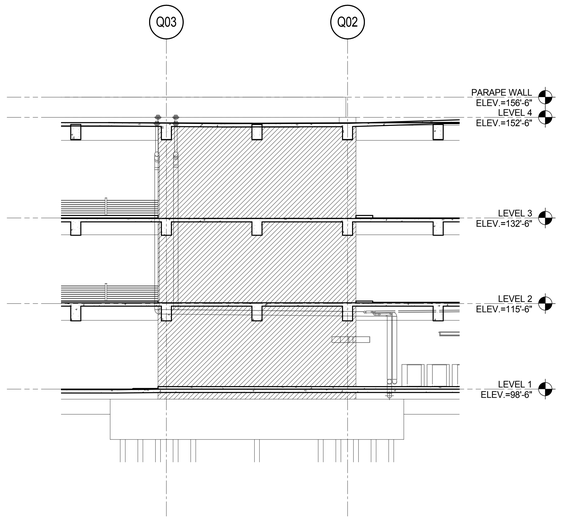
3 SHEAR WALL 2 ELEVATION - BUILDING A1 - GRID Q10
SCALE: 3/32" = 1'-0"



4 SHEAR WALL 4 ELEVATION - BUILDING A1 - GRID A03
SCALE: 3/32" = 1'-0"



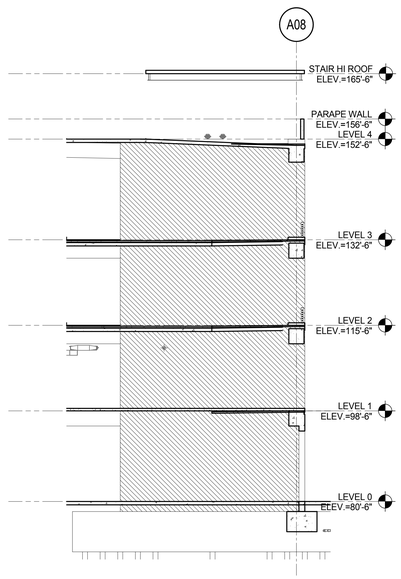
5 SHEAR WALL 5 ELEVATION - BUILDING A1 - GRID A03
SCALE: 3/32" = 1'-0"



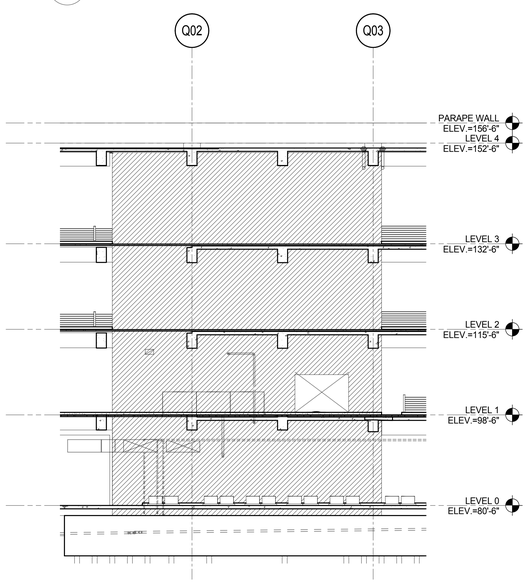
6 SHEAR WALL 6 ELEVATION - BUILDING A1 - GRID A03
SCALE: 3/32" = 1'-0"

ELEVATION LEGEND:

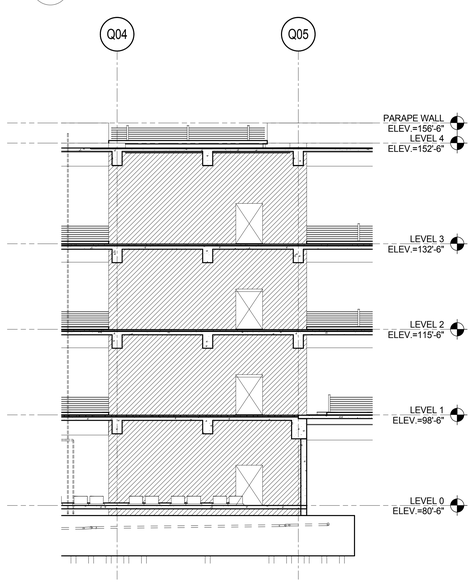
INDICATES 36" THICK CONCRETE SHEAR WALL



7 SHEAR WALL 7 ELEVATION - BUILDING A1 - GRID Q01
SCALE: 3/32" = 1'-0"



8 SHEAR WALL 8 ELEVATION - BUILDING A1 - GRID A08
SCALE: 3/32" = 1'-0"



9 SHEAR WALL 9 ELEVATION - BUILDING A1 - GRID A08
SCALE: 3/32" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

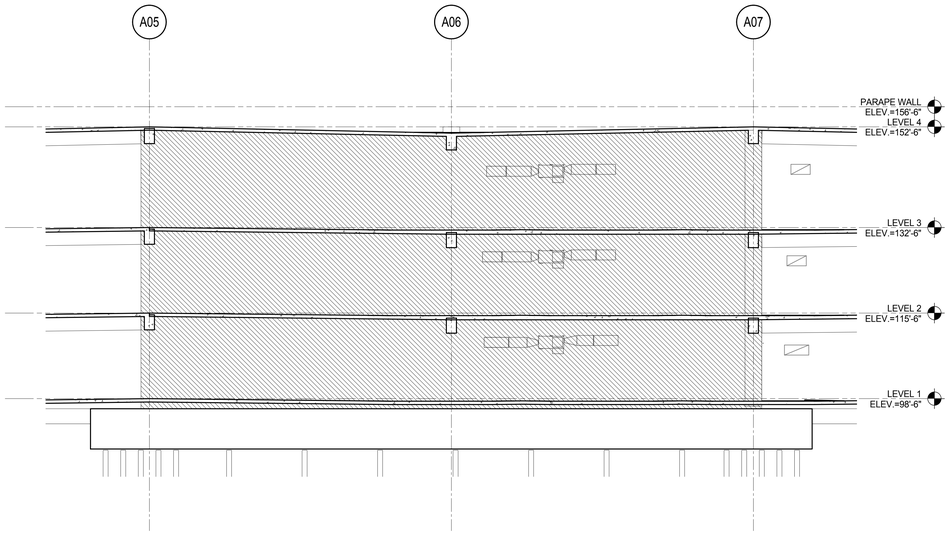
SHEET TITLE:

SHEAR WALL ELEVATION - BUILDING A03

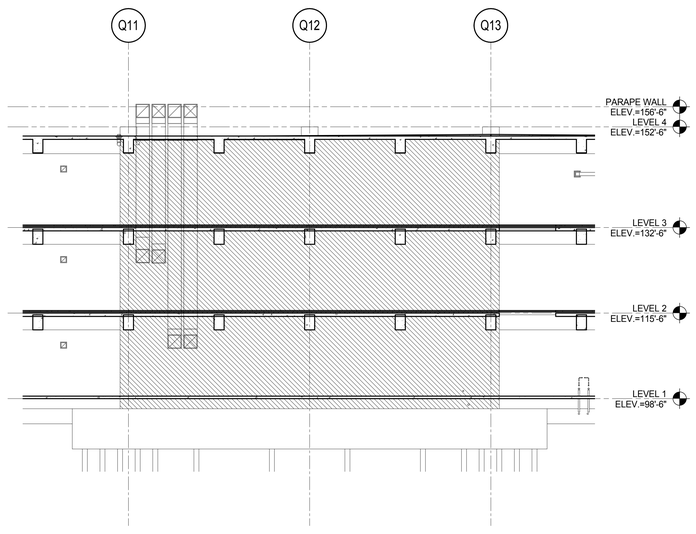
SHEET NO.
2-S-301

C:\Users\anamirez\Documents\S-DA4881-BLDG_A_B-R15_anamirez.rvt
9/23/2016 8:48:17 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



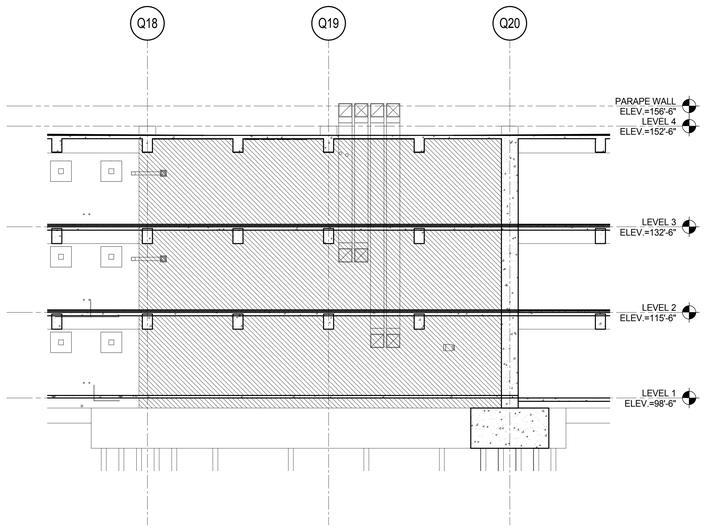
1 SHEAR WALL 1 ELEVATION - BUILDING A2 - GRID Q10.1
SCALE: 3/32" = 1'-0"



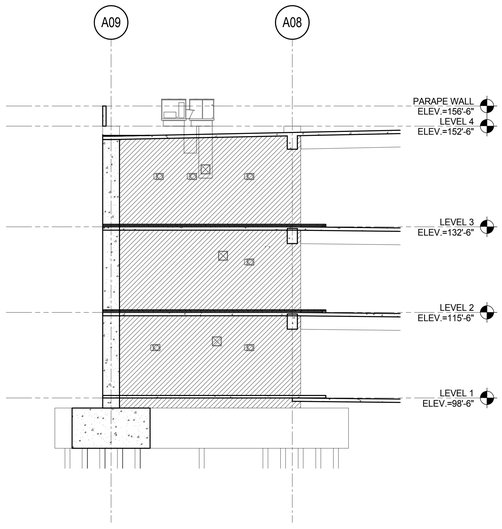
2 SHEAR WALL 2 ELEVATION - BUILDING A2 - GRID A09
SCALE: 3/32" = 1'-0"

ELEVATION LEGEND:

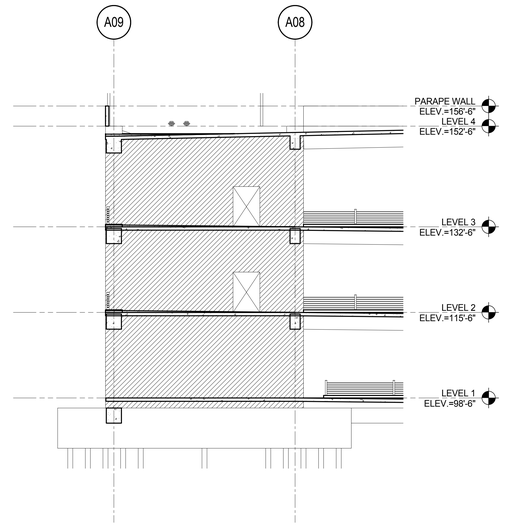
INDICATES 36" THICK CONCRETE SHEAR WALL



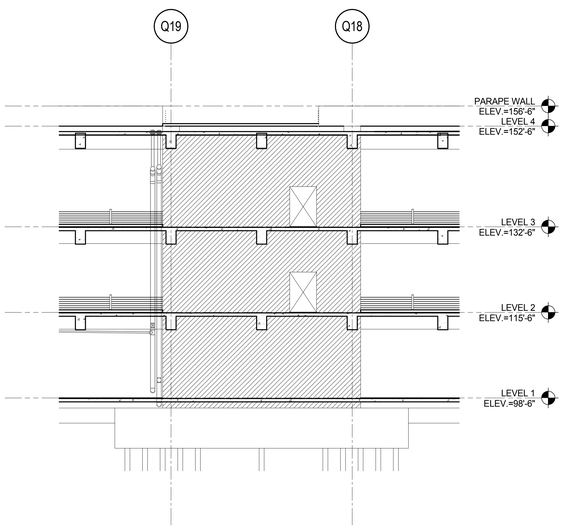
3 SHEAR WALL 3 ELEVATION 2 - BUILDING A2 - GRID A08
SCALE: 3/32" = 1'-0"



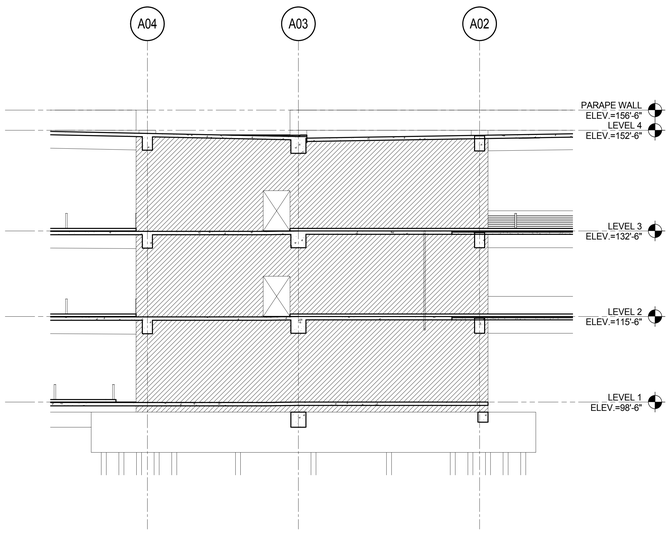
4 SHEAR WALL 4 ELEVATION - BUILDING A2 - GRID Q20
SCALE: 3/32" = 1'-0"



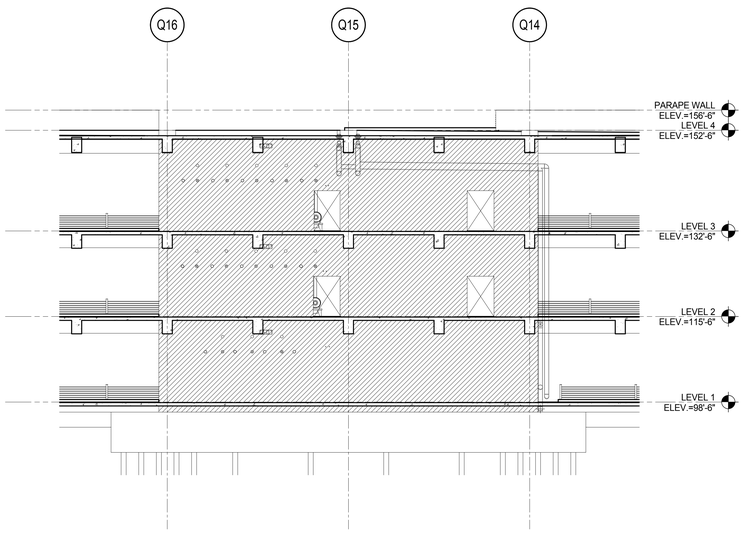
5 SHEAR WALL 5 ELEVATION - BUILDING A2 - GRID Q21
SCALE: 3/32" = 1'-0"



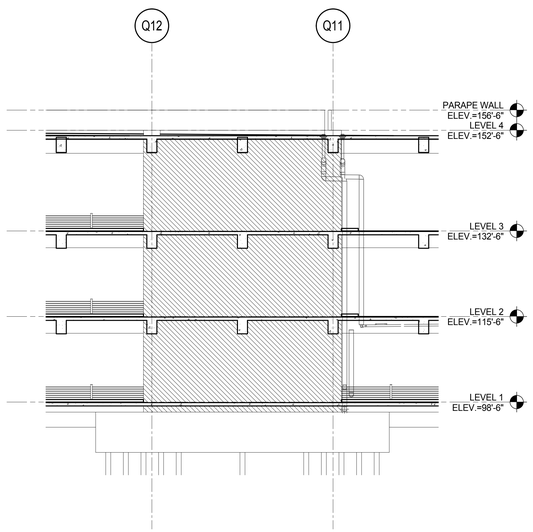
6 SHEAR WALL 6 ELEVATION 2 - BUILDING A2 - GRID A02
SCALE: 3/32" = 1'-0"



7 SHEAR WALL 7 ELEVATION - BUILDING A2 - GRID Q21
SCALE: 3/32" = 1'-0"



8 SHEAR WALL 8 ELEVATION 2 - BUILDING A2 - GRID A03
SCALE: 3/32" = 1'-0"



9 SHEAR WALL 9 ELEVATION - BUILDING A2 - GRID A03
SCALE: 3/32" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

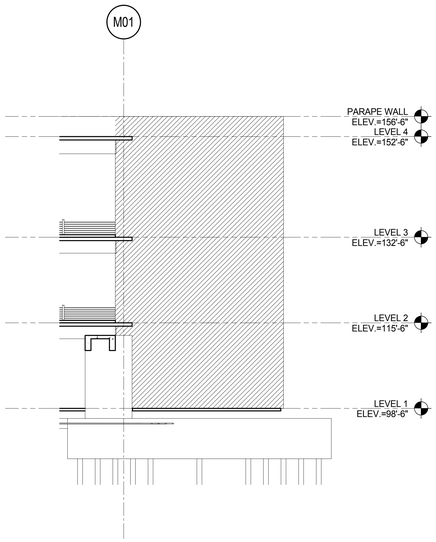
PROJ.NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
SHEAR WALL ELEVATION - BUILDING A2

SHEET NO.
2-S-302

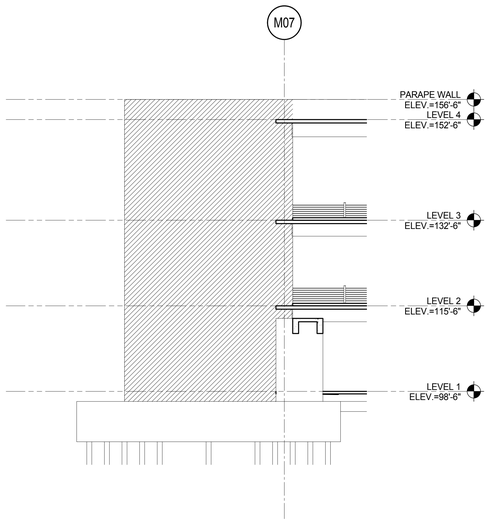
C:\Users\amartinez\Documents\DA4881 BLDG_A_BR15_amartinez.rvt
9/22/2016 9:40:23 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 SHEAR WALL 1 ELEVATION - BUILDING B1 - GRID B01,B04,B07

SCALE: 3/32" = 1'-0"

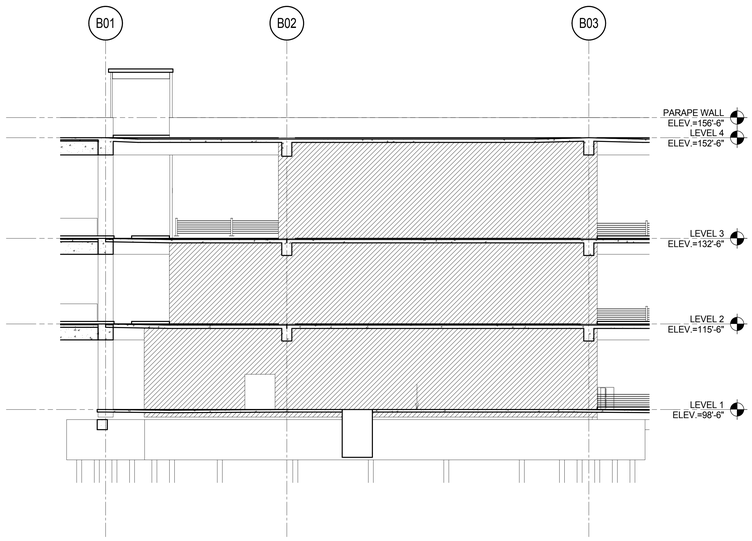


2 SHEAR WALL 2 ELEVATION - BUILDING B1 - GRID B01,B04,B07

SCALE: 3/32" = 1'-0"

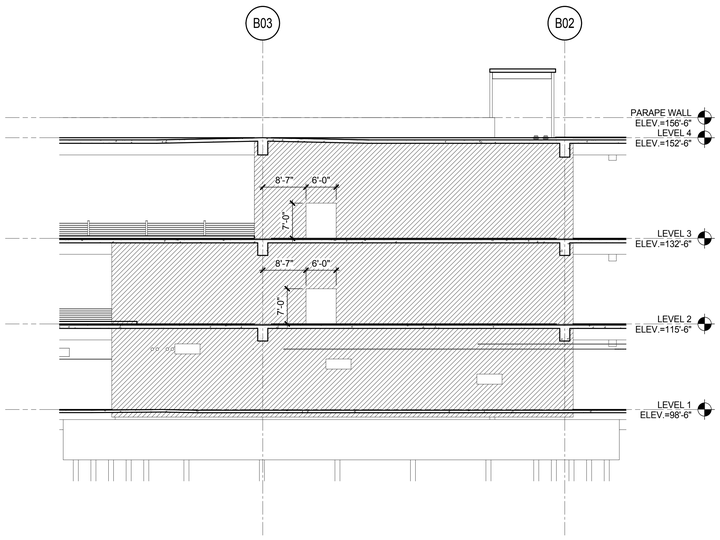
ELEVATION LEGEND:

INDICATES 36" THICK CONCRETE SHEAR WALL



3 SHEAR WALL 3 ELEVATION - BUILDING B1 - GRID M1

SCALE: 3/32" = 1'-0"



4 SHEAR WALL 4 ELEVATION - BUILDING B1 - GRID M7

SCALE: 3/32" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

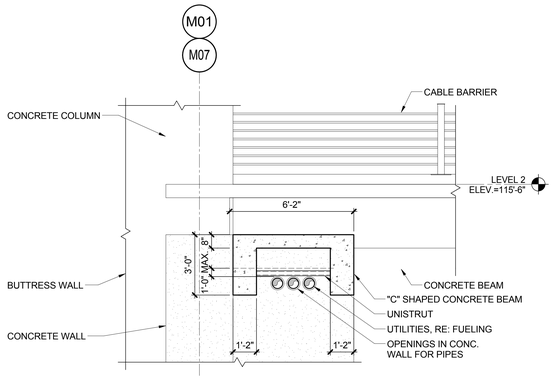
SHEET TITLE:

SHEAR WALL ELEVATION - BUILDING B1

SHEET NO.

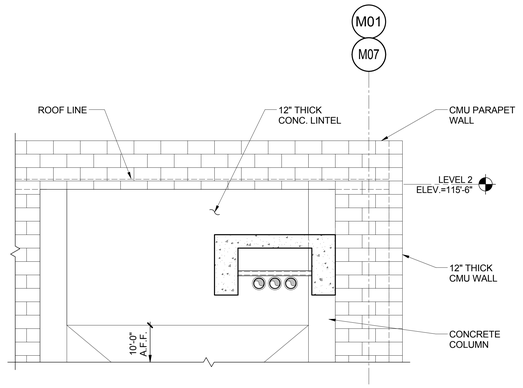
2-S-303

C:\Users\amarfrez\Documents\S:DA4881-ELDS_A_B-R15_amarfrez.rvt
9/23/2016 9:44:26 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



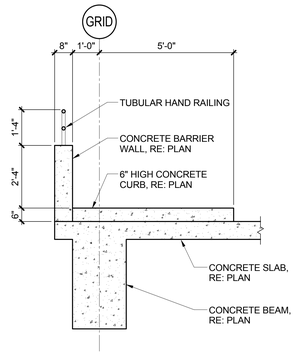
1 "C" SHAPED BEAM AT QTA BUILDING SECTION

SCALE: 3/8" = 1'-0"



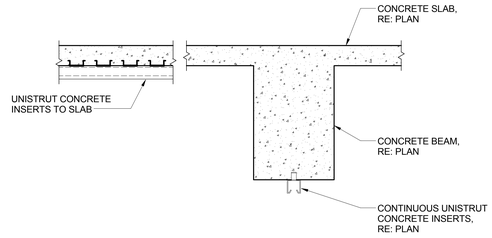
2 "C" SHAPED BEAM AT MAINT. BUILDING SECTION

SCALE: 3/8" = 1'-0"



3 CONCRETE BARRIER SECTION

SCALE: 1/2" = 1'-0"



4 UNISTRUT ATTACHMENT DETAIL

SCALE: 3/4" = 1'-0"

5 HOLLOW CORE CONC. PLANK BRG. DETAIL

SCALE: 3/4" = 1'-0"

6 FUEL LINE ADJACENT TO BEAM DETAIL

SCALE: 3/4" = 1'-0"

7 FUEL LINE BETWEEN BEAMS DETAIL

SCALE: 1/2" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

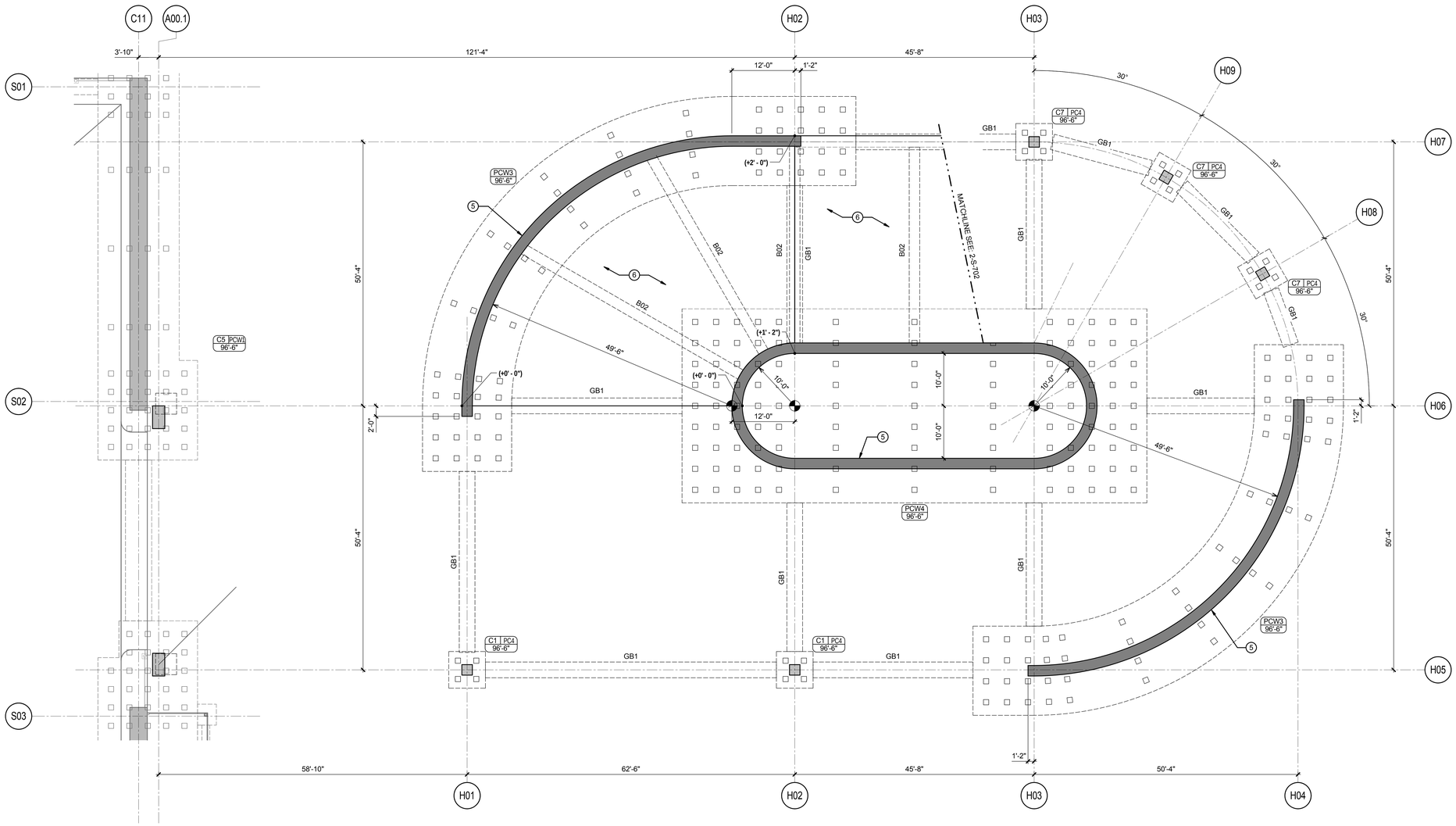
SHEET TITLE:

SECTIONS

SHEET NO.

2-S-501

9/23/2016 9:40:28 AM
C:\Users\smartinez\Documents\S-DA4881-BLDG_A_B-R15_smartinez.rvt
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX A - QTA - LEVEL 1 PARTIAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

LEVEL 1 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 1 = 98'-6"
2. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -12" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
4. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
5. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
6. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
7. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
8. 8# INDICCATES CAST-IN-PLACE CONCRETE BEAM TYPE. RE: PLAN SCHEDULES
9. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
10. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
11. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
12. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
13. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
14. RE: 1-S-001 THRU 1-S-002 FOR GENERAL STRUCTURAL NOTES.
15. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
16. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
17. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
18. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

COLUMN TYPE — C# | PC# / XX'-XX" — PILE CAP TYPE; TOP OF PILE CAP

CONT. WALL PILE CAP — PCW# / XX'-X" — TOP OF PILE CAP

- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE GRADE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

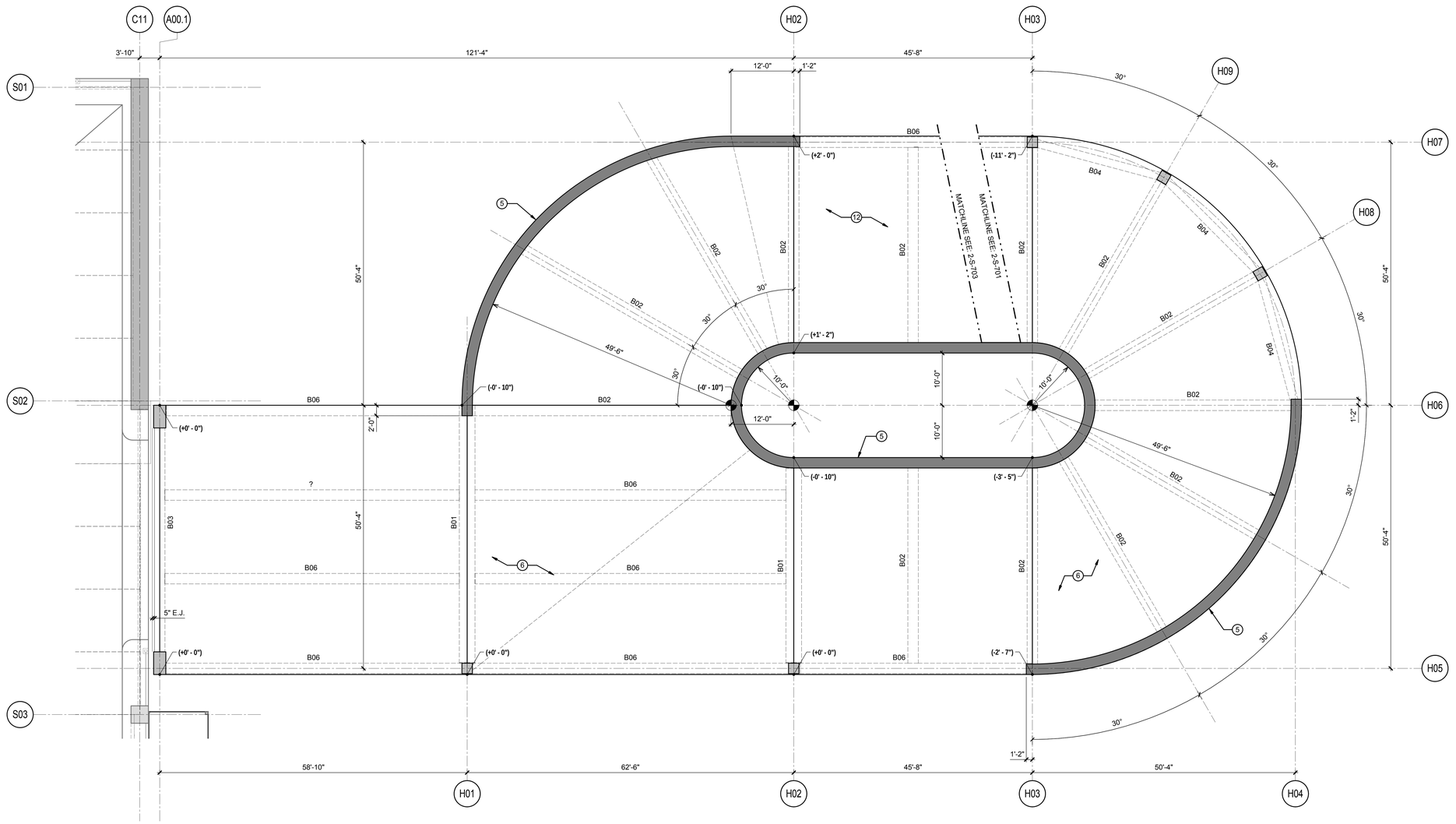
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
HELIX A LEVEL 1
PARTIAL FLOOR PLAN

SHEET NO.
2-S-701

C:\Users\smarfred\Documents\S DA4881 RLDS_A_B R15_smarfred.rvt
9/23/2016 9:46:30 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX A - QTA - LEVEL 2 PARTIAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

LEVEL 2 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 2 = 115'-6"
2. (**X'**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

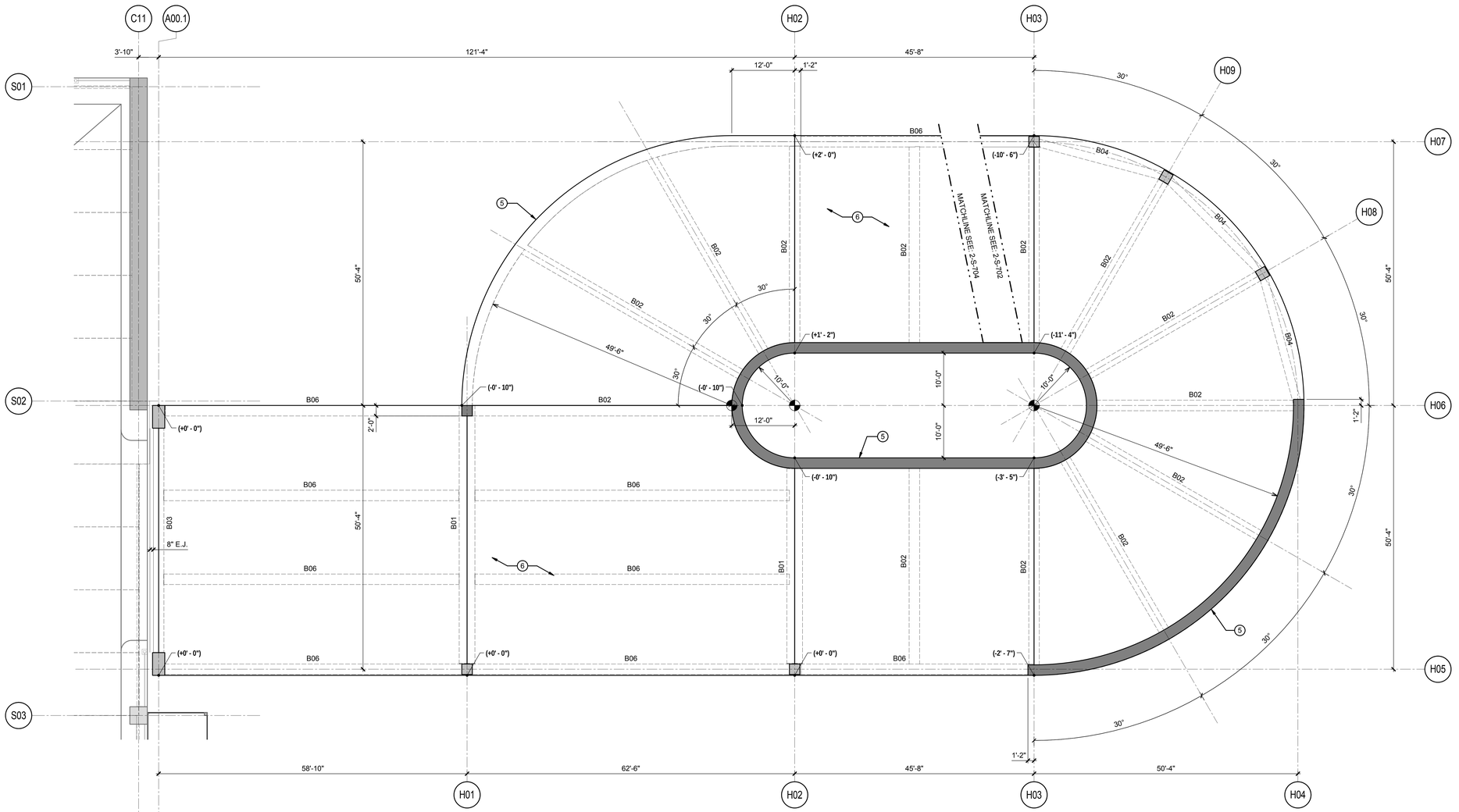
MARK:	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
HELIX A LEVEL 2
PARTIAL FLOOR PLAN

SHEET NO.
2-S-702

C:\Users\amartinez\Documents\S-DA4881-BLDG_A_B-R15_amartinez.rvt
9/23/2016 9:40:32 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX A - QTA - LEVEL 3 PARTIAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

LEVEL 3 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 3 = 132'-6"
2. **(X")** DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. **(B#)** INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

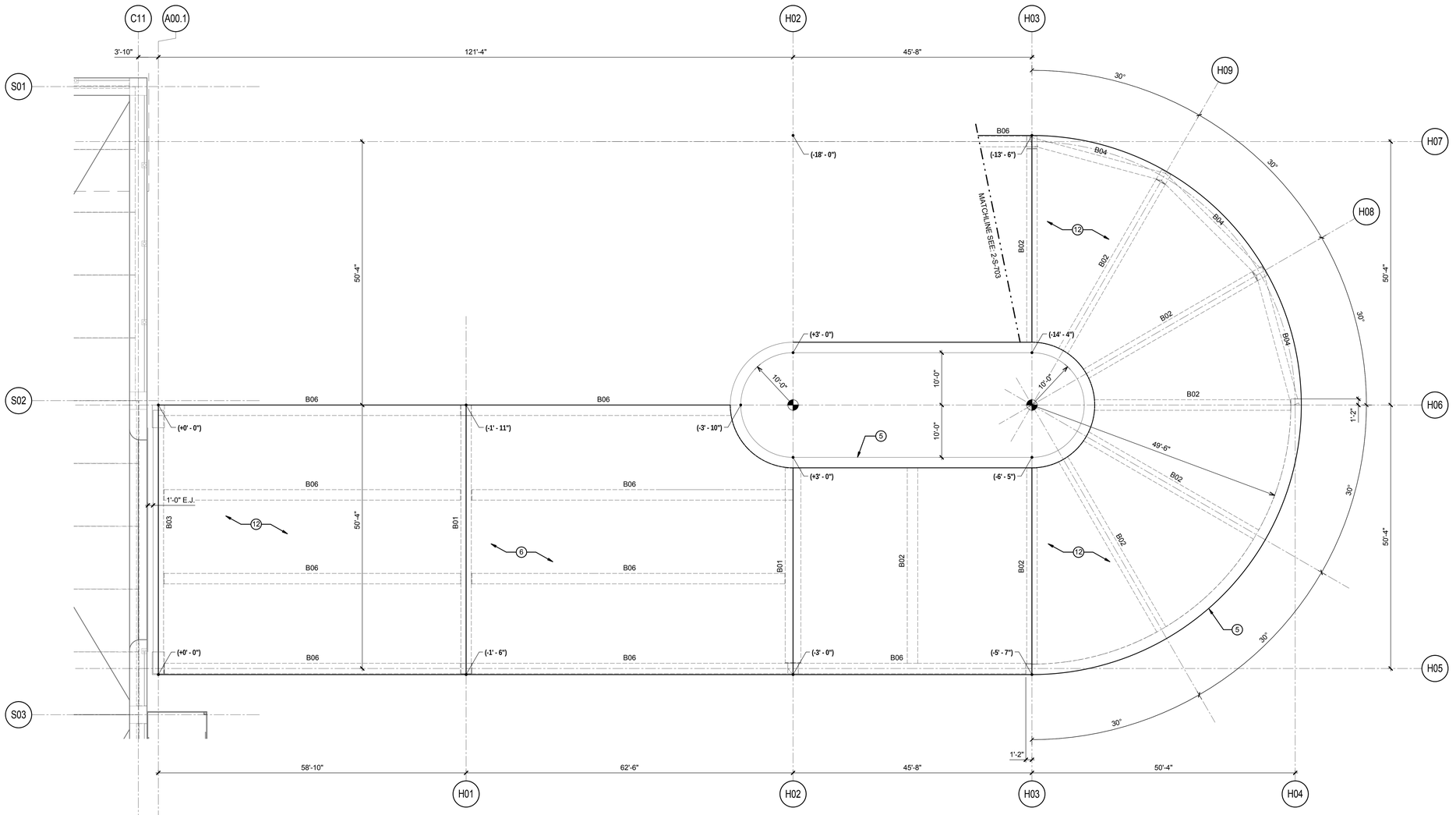
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
HELIX A LEVEL 3
PARTIAL FLOOR PLAN

SHEET NO.
2-S-703

C:\Users\smarfred\Documents\S DA4881 ELDS_A_R15_smarfred.rvt
6/23/2016 9:46:33 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX A - QTA - LEVEL 4 PARTIAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

LEVEL 4 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 4 = 152'-6"
2. (**X'**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ — INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

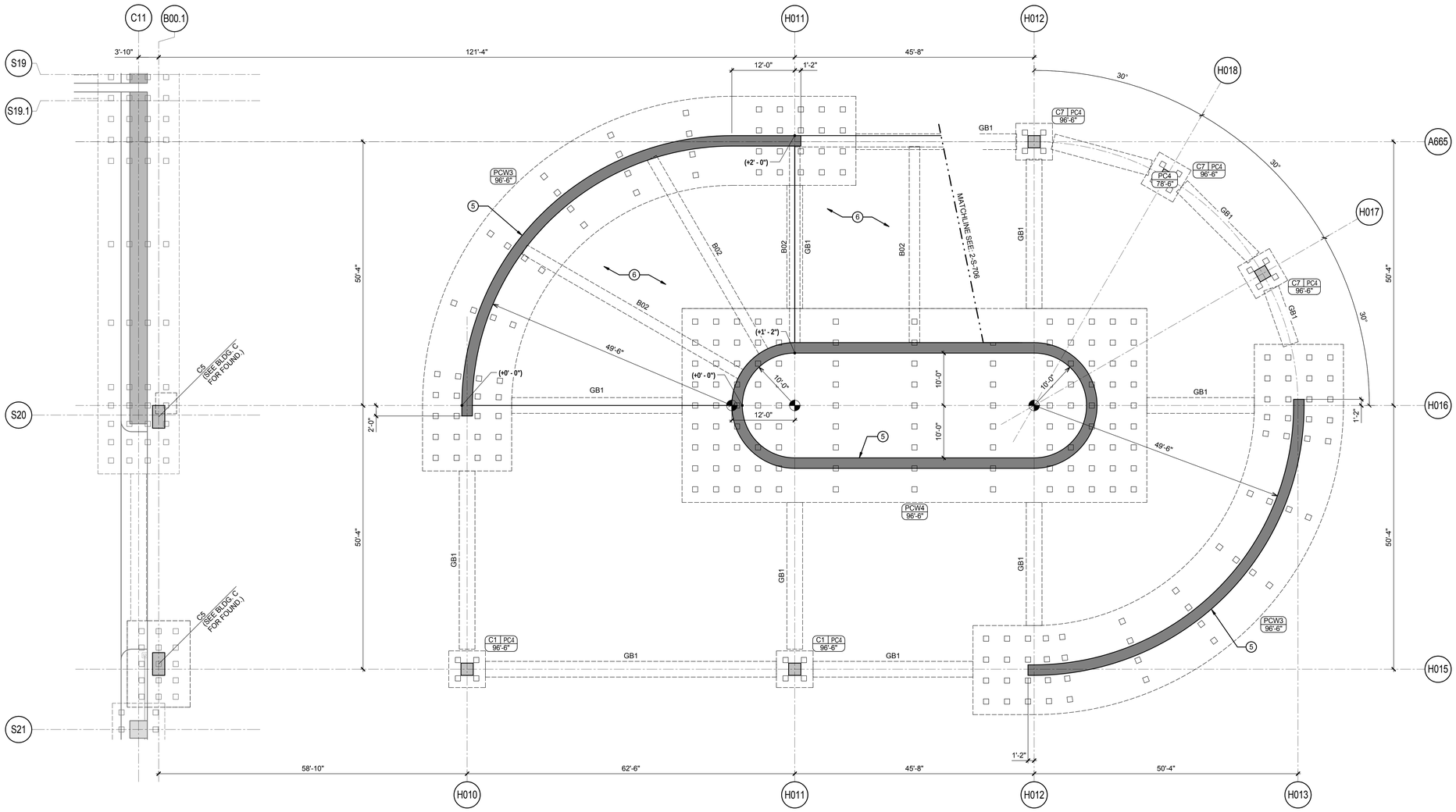
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
HELIX A LEVEL 4
PARTIAL FLOOR PLAN

SHEET NO.
2-S-704

C:\Users\amarfrez\Documents\S DA4881 ELDS_A_B R15_amarfrez.rvt
9/23/2016 9:46:35 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX B - QTA - LEVEL 1 PARTIAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

LEVEL 1 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 1 = 98'-6"
2. (X") DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. RE: PLAN FOR SLAB THICKNESS, REINFORCING IS AS FOLLOWS:
   -6" SLAB ON GRADE #5@16" O.C., EACH WAY
   -8" SLAB ON GRADE #5@12" O.C., EACH WAY
   -12" SLAB ON GRADE (2) LAYER #5@16" O.C., EACH WAY
4. SLAB SHALL BE SUPPORTED ON BASE MATERIAL PER REQUIREMENTS IN GEOTECHNICAL REPORT.
5. (**PC#**) INDICATES PILE CAP TYPE, RE: PLANS. GEOTECHNICAL REPORT WAS NOT AVAILABLE AT HE TIME OF SUBMITTING THESE DRAWINGS. THE NUMBER OF PILES, SHAPE, SIZE AND PILE CAP SIZE ARE ARBITRARY. THESE DETAILS SHALL BE REVISED PER GEOTECHNICAL RECOMMENDATIONS.
6. (**GB#**) INDICATES GRADE BEAM TYPE, RE: PLANS, SCHEDULES
7. (**C#**) INDICATES CAST-IN-PLACE CONCRETE COLUMN TYPE, RE: PLANS, SCHEDULES.
8. 8# INDICCATES CAST-IN-PLACE CONCRETE BEAM TYPE. RE: PLAN SCHEDULES
9. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
10. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
11. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
12. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
13. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
14. RE: 1-S-001 THRU 1-S-002 FOR GENERAL STRUCTURAL NOTES.
15. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL SCHEDULES AND DETAILS.
16. RE: 2-S-003 FOR PILE CAP SCHEDULE AND DETAILS.
17. RE: 2-S-004 FOR CAST-IN-PLACE CONCRETE COLUMN SCHEDULES AND DETAILS.
18. RE: 2-S-005 FOR CAST-IN-PLACE CONCRETE SLAB AND BEAM SCHEDULES AND DETAILS.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

COLUMN TYPE — C# | PC# / XX'-XX" — PILE CAP TYPE; TOP OF PILE CAP

CONT. WALL PILE CAP — PCW# / XX'-X" — TOP OF PILE CAP

- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE GRADE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

NEPA/CEQA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

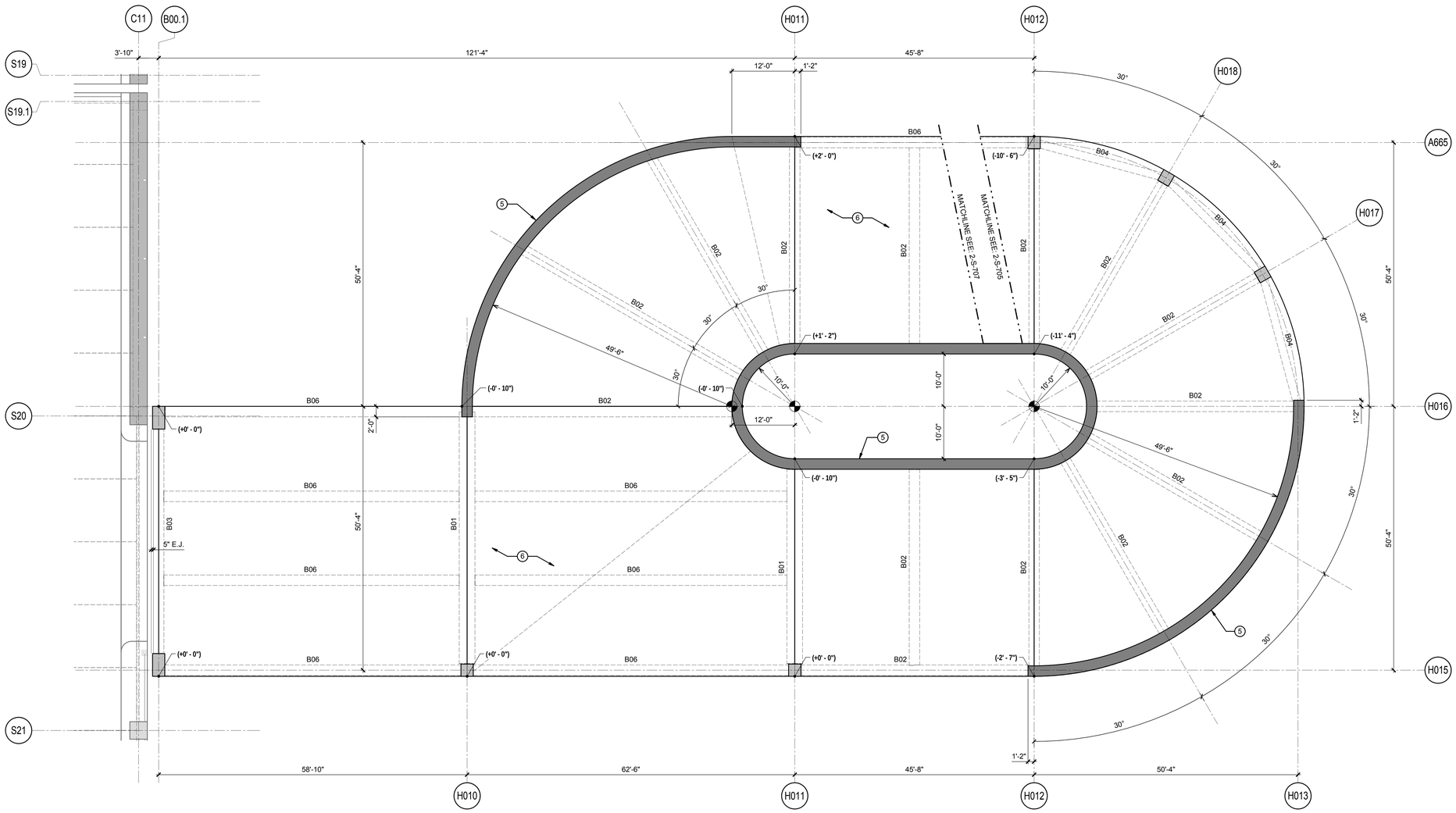
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
HELIX B LEVEL 1
PARTIAL FLOOR PLAN

SHEET NO.
2-S-705

C:\Users\smarfred\Documents\S DA4881 ELDS_A_B-R15_smarfred.rvt
6/23/2016 9:44:37 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX B - QTA - LEVEL 2 PARTIAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

LEVEL 2 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 2 = 115'-6"
2. (**X'**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ — INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

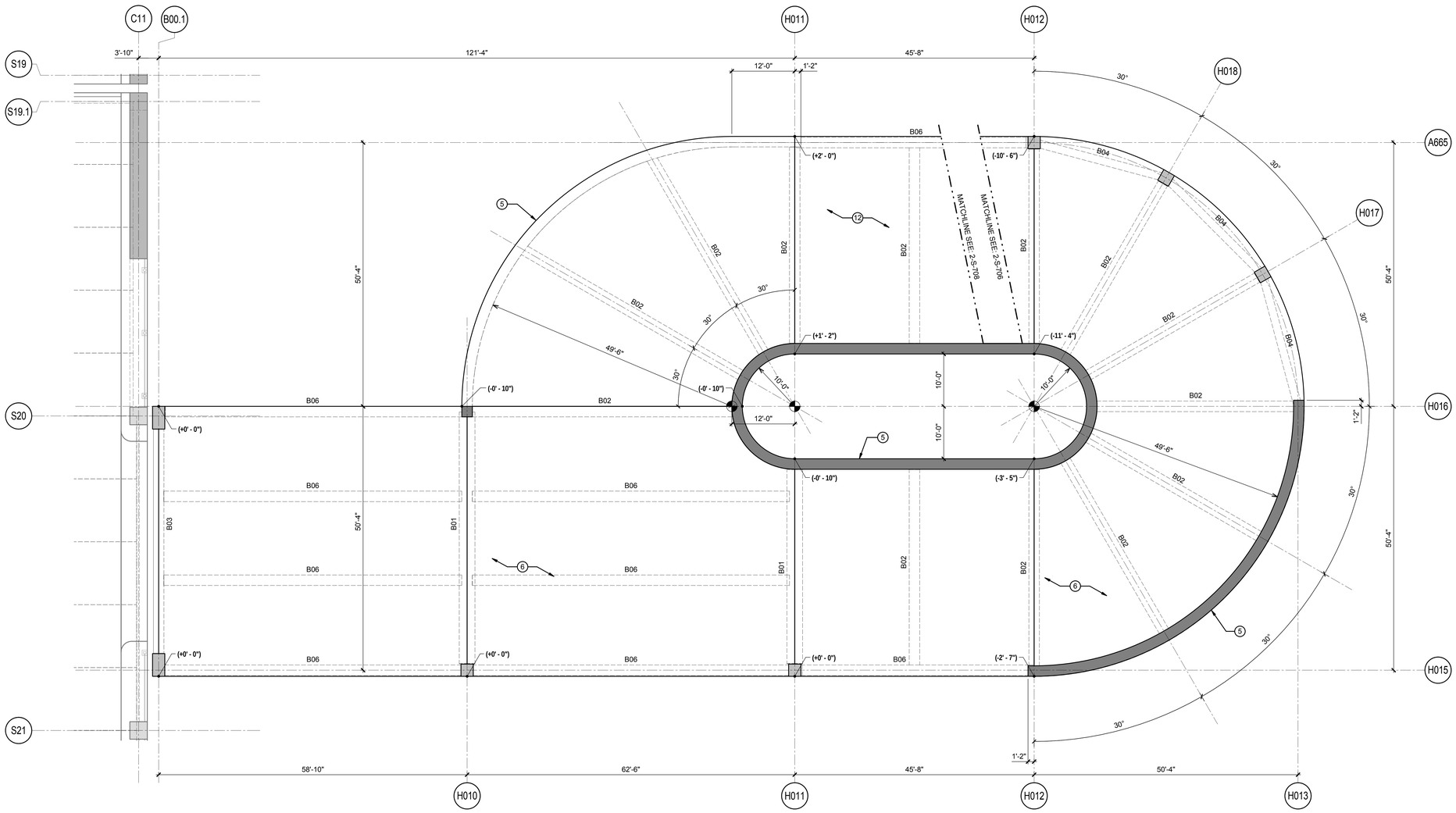
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
HELIX B LEVEL 2
PARTIAL FLOOR PLAN

SHEET NO.
2-S-706

C:\Users\amarfrez\Documents\S DA4881 ELDS_A_B R15_amarfrez.rvt
9/23/2016 9:46:39 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX B - QTA - LEVEL 3 PARTIAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

LEVEL 3 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 3 = 132'-6"
2. (**X'**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ — INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

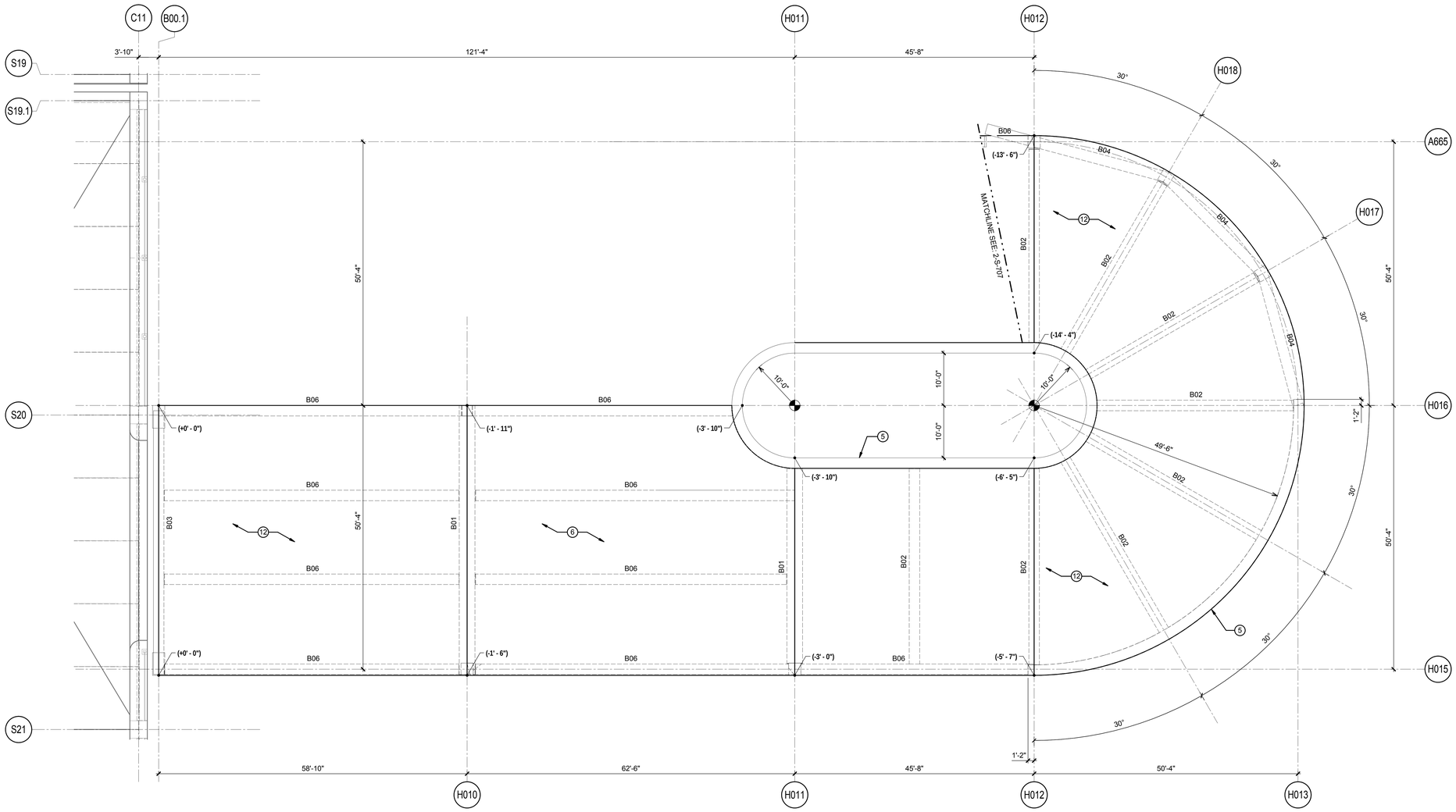
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
HELIX B LEVEL 3
PARTIAL FLOOR PLAN

SHEET NO.
2-S-707

C:\Users\amarfrex\Documents\S DA4881 ELDS_A_B R15_amarfrex.rvt
9/23/2016 9:46:40 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 HELIX B - QTA - LEVEL 4 PARTIAL FLOOR PLAN

SCALE: 1/8" = 1'-0"

LEVEL 4 PLAN NOTES:

1. TOP OF FINISH FLOOR (REFERENCE ELEVATION 0'-0"):
   -LEVEL 4 = 152'-6"
2. (**X"**) DENOTES FINISHED FLOOR ELEVATION IN RELATION TO REFERENCE ELEVATION 0'-0".
3. (**B#**) INDICATES CONCRETE BEAM TYPE, RE: PLANS, SCHEDULES
4. LOCATE COLUMNS AND BEAMS CENTERED ON GRIDS U.N.O.
5. OPENINGS IN FLOORS AND WALLS TO BE COORDINATED WITH ALL OTHER DISCIPLINES.
6. RE: ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
7. RE: ARCHITECTURAL, MEP, FUELINE, AND FIRE PROTECTION DRAWINGS FOR PIPES AND DRAIN LOCATIONS AND DETAILS. SLOPE FLOOR TO FLOOR DRAINS.
8. RE: ARCHITECTURAL, MEP, AND FUELINE DRAWINGS FOR CURBS, HOUSEKEEPING PADS, AND BOLLARD LOCATIONS.
9. CONTRACTOR SHALL LOCATE EXISTING RE-BARS AND PT-TENDONS USING A REBAR LOCATOR OR PACOMETER FOR ANY POST INSTALLED CONNECTIONS FROM BEAMS AND SLABS. ENGINEER OF RECORD SHOULD APPROVE LOCATIONS BEFORE INSTALLING POST-INSTALLED ANCHORS.
10. ALL EXPOSED CONNECTION ANGLES AND BOLTS SHALL BE GALVANIZED.
11. RE: 1-S-001 THRU 1-S-003 FOR GENERAL STRUCTURAL NOTES.
12. RE: 2-S-001 THRU 2-S-007 FOR TYPICAL DETAILS AND SCHEDULES.

KEY NOTES:

1. 6" THICK SLAB ON GRADE
2. 36" THICK CONC. CAST-IN-PLACE SHEAR WALL
3. 14" CAST-IN-PLACE CONCRETE RETAINING WALL
4. 8" FULLY GROUTED MASONRY WALL
5. 24" CAST-IN-PLACE CONCRETE SHEAR WALL
6. 12" CAST-IN-PLACE RAMP SLAB
7. CAR WASH DRAIN TRENCH
8. 6" HIGH CONC. CURB
9. CABLE BARRIER
10. 8" HIGH CONCRETE HOUSE KEEPING PAD
11. UNDERGROUND STORAGE FUEL/BRINE TANKS
12. 8" THICK CAST-IN-PLACE CONCRETE SLAB
13. 12" THICK CAST-IN-PLACE CONCRETE WALL
14. 36"x36" DRAG BEAM W/ CONTINUOUS DRAG REINF.
15. 8" THICK CAST-IN-PLACE CONCRETE BARRIER, RE: 3/2-S-501.
16. CONTINUOUS UNISTRUT CONCRETE INSERTS, RE: 7/2-S-501.
17. FUEL PIPE HANGERS & SEISMIC BRACING BRACKET @8'-0" O.C., MAX., RE: 6/2-S-501.
18. FLEXIBLE PIPE CONNECTION AT SEISMIC SEPARATION.
19. 10" THICK SLAB ON GRADE
20. CAR WASH RECLAIM PIT, 8" THICK CONC. WALLS AND 10" THICK CONC. AT THE BASE
21. DRAIN TRENCH.
22. 8" THK. 4'-0" HIGH CONC. PARAPET WALL.
23. DUOBLE CONC. BEAM AT FUEL PIPE, RE: (7/2-S-501

PLAN LEGEND:

- INDIACTES SLAB SPAN DIRECTION
- INDICATES CHANGES IN SLAB ELEVATION
- INDICATES CHANGE IN SLOPE IN SLAB
- INDICATES CAST-IN-PLACE CONCRETE SHEAR WALL
- INDICATES MASONRY WALL
- INDICATES STAIR WALL PER ARCHITECT
- INDICATES CAST-IN-PLACE CONCRETE BEAM
- INDICATES CONCRETE HOUSEKEEPING PAD
- INDICATES CAST-IN-PLACE CONCRETE COLUMNS
- INDICATES HSS STAIRS COLUMN
- INDICATES EXTENTS OF SLAB WATERPROOFING
- EJ — INDICATES EXPANSION JOINT/ SEISMIC SEPERATION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
HELIX B LEVEL 4
PARTIAL FLOOR PLAN

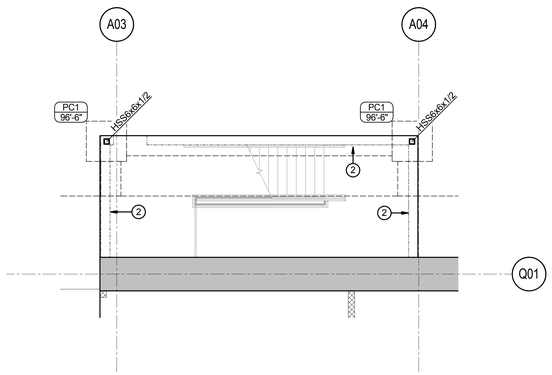
SHEET NO.
2-S-708

C:\Users\amarfrez\Documents\S DA4881 ELDS_A_B-R15_amarfrez.rvt
9/23/2016 9:46:42 AM

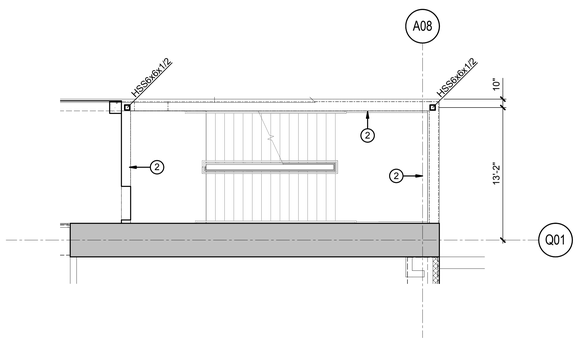
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

STAIR KEY NOTES:

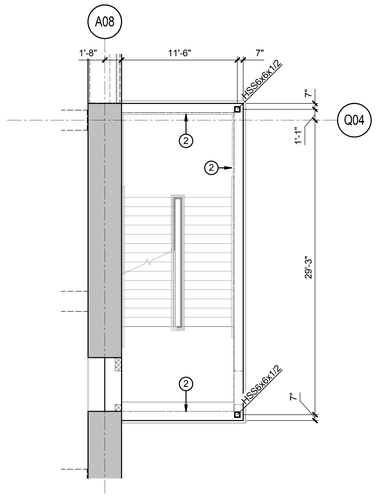
1. 8" THICK X 4'-0" WIDE HOLLOW CORE CONCRETE PLANKS W/ 2 1/2" THICK NORMAL WEIGHT CONC. TOPPING
2. 4'-0" HIGH METAL STUD PARAPET WALL
3. 6" THICK METAL STUD WALL,
4. 20 GAGE METAL DECK W/ CONCRETE ROOFING
5. HSS 4x4x3/8 @ 6'-0" MAX PARAPET WALL POST



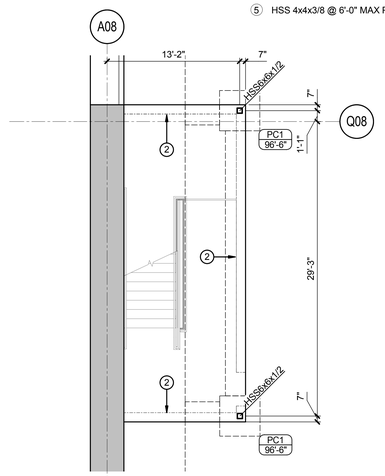
1 STAIR SA-01 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



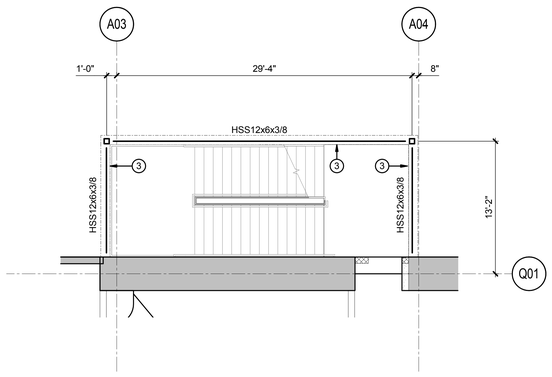
2 STAIR SA-02 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



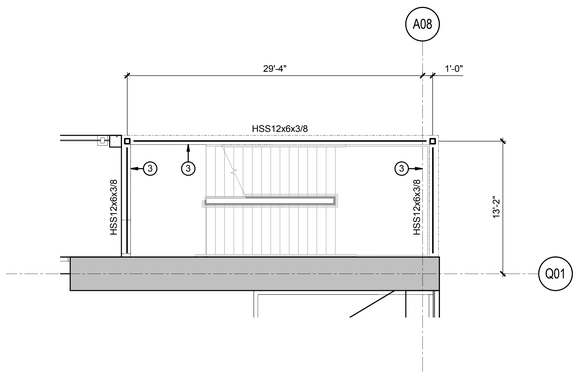
3 STAIR SA-03 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



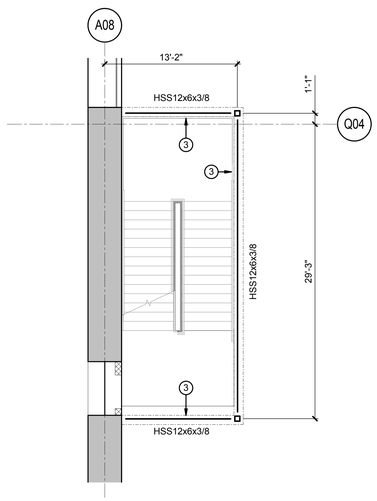
4 STAIR SA-04 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



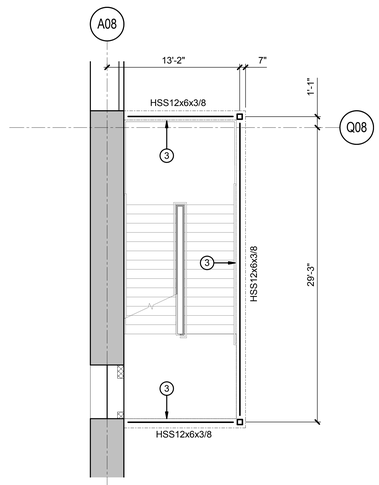
5 STAIR SA-01 - FRAMING PLAN LVL 2,3
SCALE: 3/16" = 1'-0"



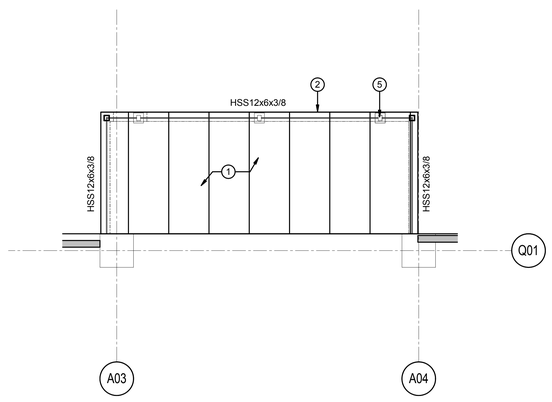
6 STAIR SA-02 - FRAMING PLAN LVL 2,3,4
SCALE: 3/16" = 1'-0"



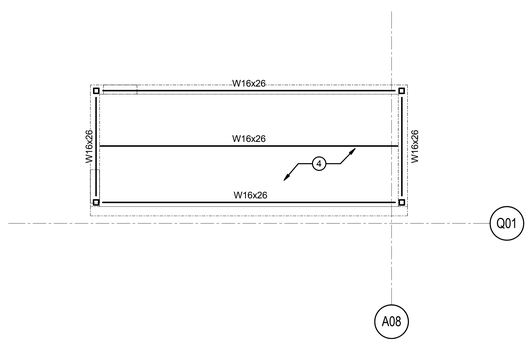
9 STAIR SA-03 - FRAMING PLAN LVL 2,3
SCALE: 3/16" = 1'-0"



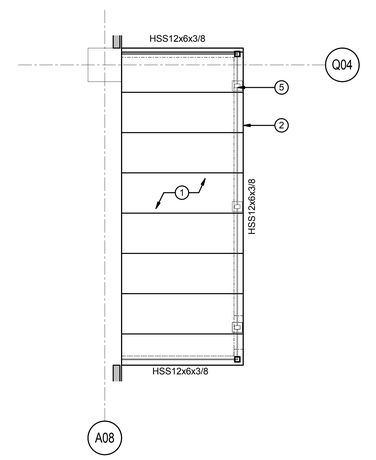
10 STAIR SA-04 - FRAMING PLAN LVL 2,3
SCALE: 3/16" = 1'-0"



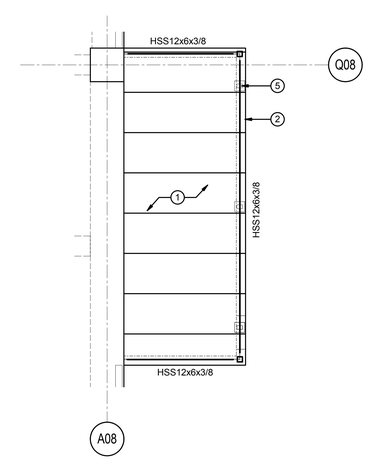
7 STAIR SA-01 - ROOF PLAN
SCALE: 3/16" = 1'-0"



8 STAIR SA-02 - HI ROOF PLAN
SCALE: 3/16" = 1'-0"



11 STAIR SA-03 - ROOF PLAN
SCALE: 3/16" = 1'-0"



12 STAIR SA-04 - ROOF PLAN
SCALE: 3/16" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:			DESCRIPTION
MARK	DATE		

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:

STAIR FOUND. AND FRAMING PLAN

SHEET NO.

2-S-709

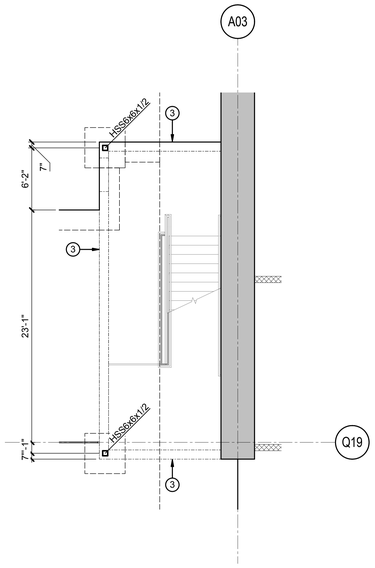
C:\Users\amarthinez\Documents\S DA4881 BLDG_A_B-R15_amarthinez.rvt

9/23/2016 9:49:48 AM

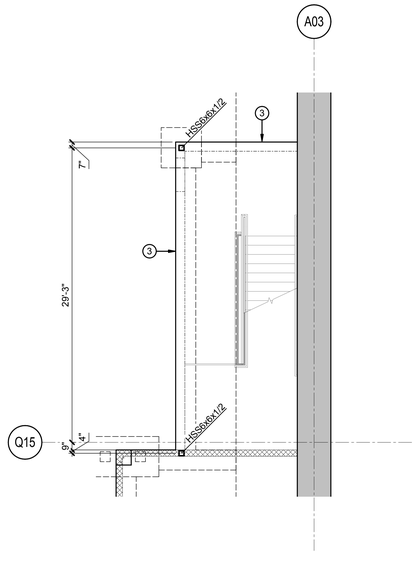
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

STAIR KEY NOTES:

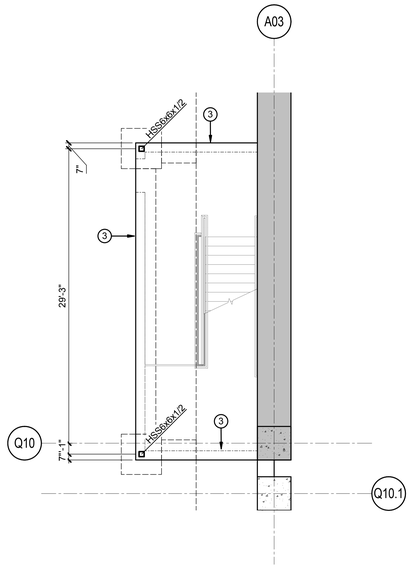
1. 8" THICK X 4'-0" WIDE HOLLOW CORE CONCRETE PLANKS W/ 2 1/2" THICK NORMAL WEIGHT CONC. TOPPING
2. 4'-0" HIGH METAL STUD PARAPET WALL
3. 6" THICK METAL STUD WALL,
4. 20 GAGE METAL DECK W/ CONCRETE ROOFING
5. HSS 4x4x3/8 @ 6'-0" MAX PARAPET WALL POST



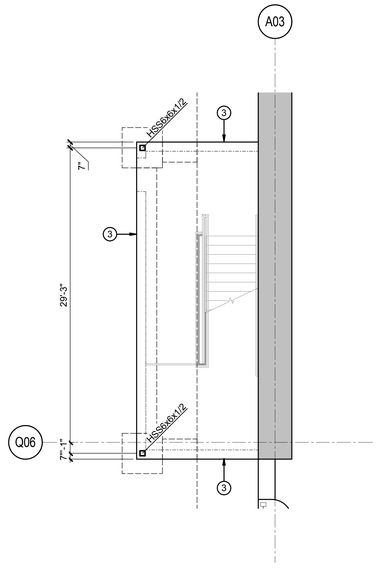
1 STAIR SA-09 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



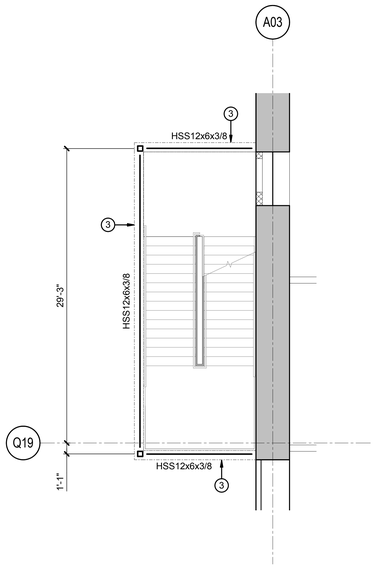
2 STAIR SA-10 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



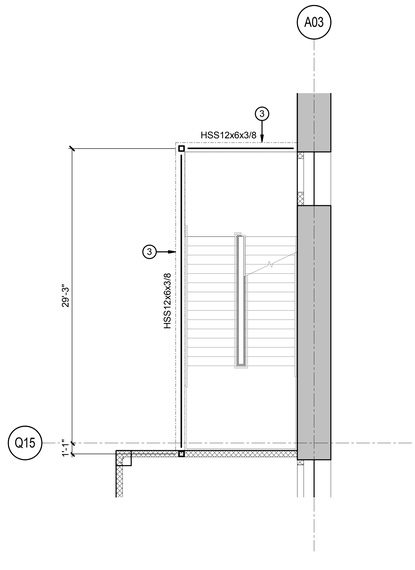
3 STAIR SA-11 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



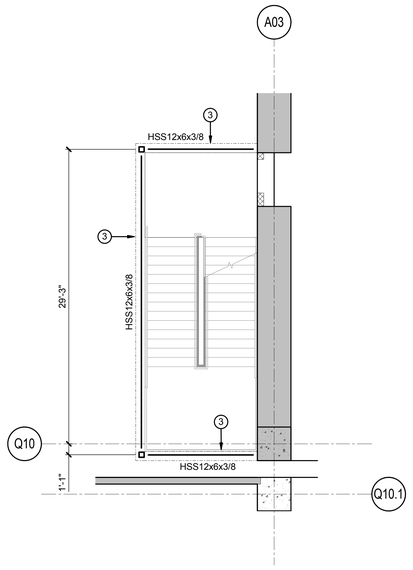
4 STAIR SA-12 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



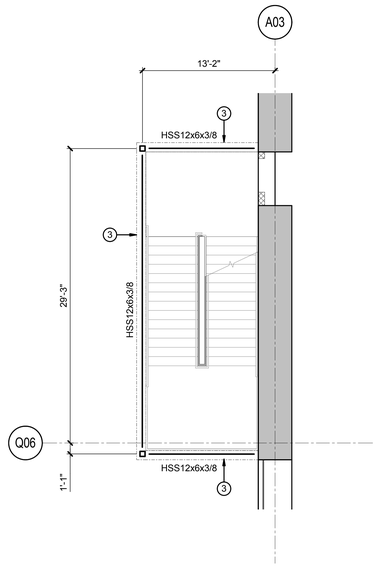
5 STAIR SA-09 - FRAMING PLAN LVL 2,3
SCALE: 3/16" = 1'-0"



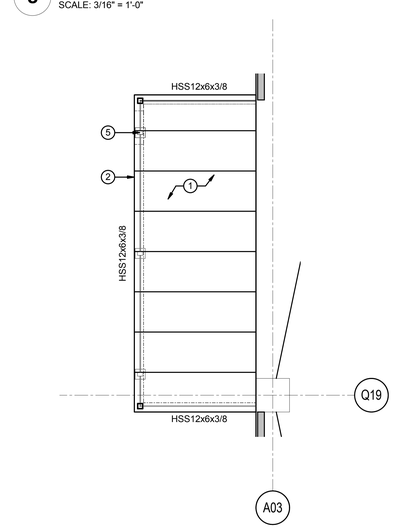
6 STAIR SA-10 - FRAMING PLAN LVL 2,3
SCALE: 3/16" = 1'-0"



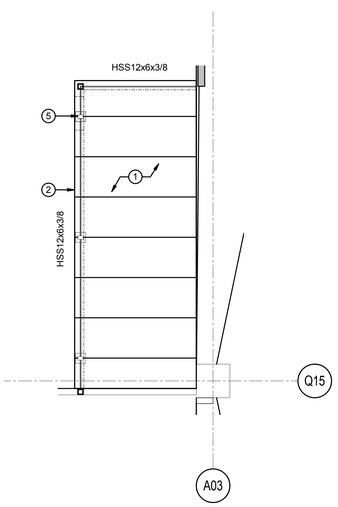
7 STAIR SA-11 - FRAMING PLAN LVL 2,3
SCALE: 3/16" = 1'-0"



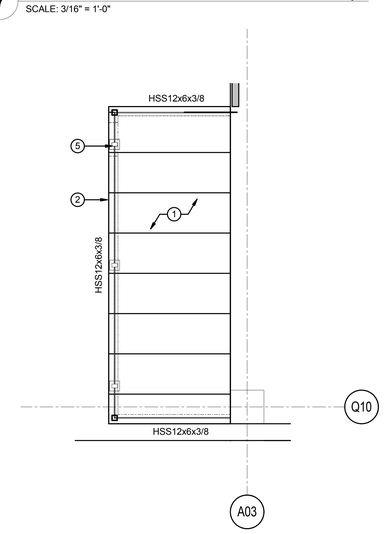
8 STAIR SA-12 - FRAMING PLAN LVL 2,3
SCALE: 3/16" = 1'-0"



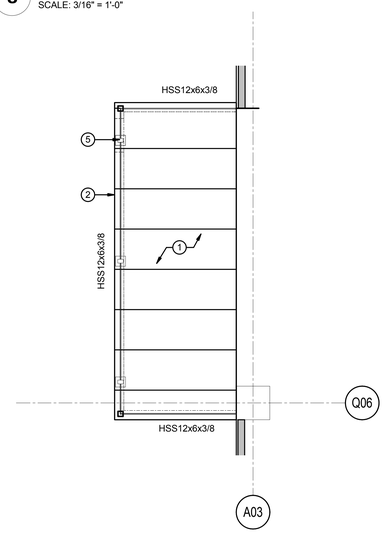
9 STAIR SA-09 - ROOF PLAN
SCALE: 3/16" = 1'-0"



10 STAIR SA-10 - ROOF PLAN
SCALE: 3/16" = 1'-0"



11 STAIR SA-11 - ROOF PLAN
SCALE: 3/16" = 1'-0"



12 STAIR SA-12- ROOF PLAN
SCALE: 3/16" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ.NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:

STAIR FOUND. AND FRAMING PLAN

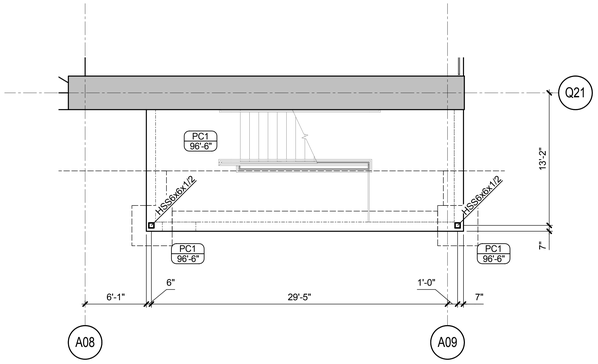
SHEET NO.

2-S-710

C:\Users\amartinez\Documents\S:DA4881 BLDG_A_B R15_amartinez.rvt

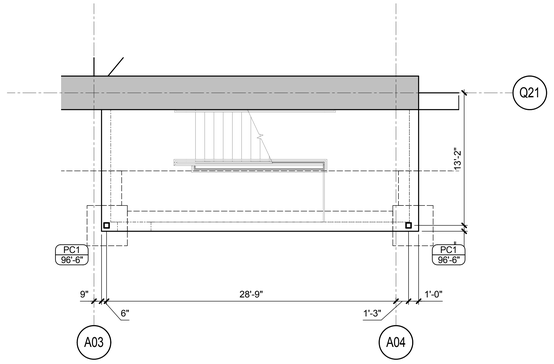
9/23/2016 9:40:55 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



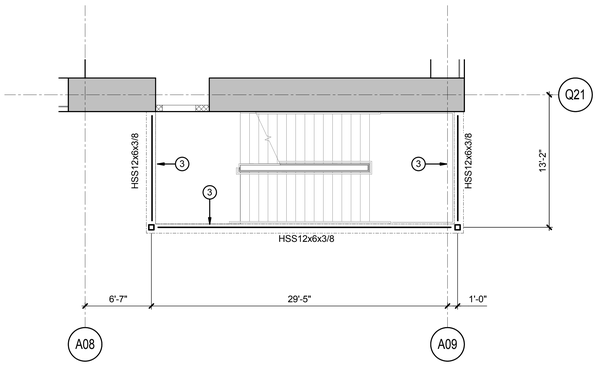
1 STAIR SA-07 - FOUNDATION PLAN

SCALE: 3/16" = 1'-0"



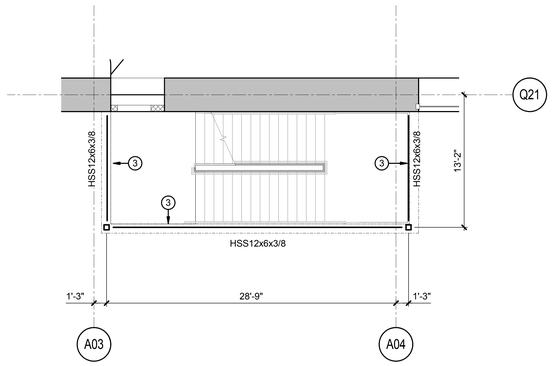
3 STAIR SA-08 - FOUNDATION PLAN

SCALE: 3/16" = 1'-0"



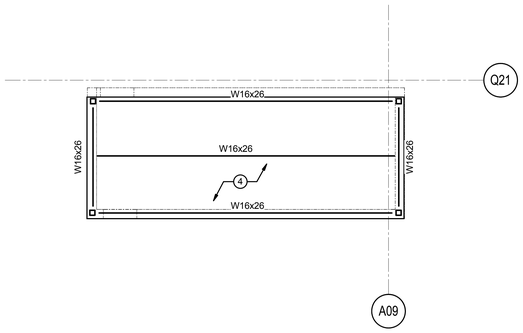
2 STAIR SA-07 - FRAMING PLAN LVL 2,3,4

SCALE: 3/16" = 1'-0"



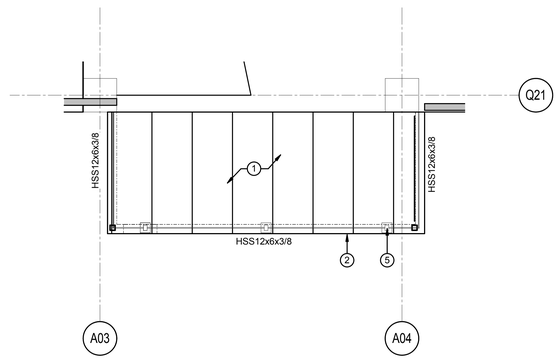
4 STAIR SA-08 - FRAMING PLAN LVL 2,3

SCALE: 3/16" = 1'-0"



5 STAIR SA-07 - HI ROOF PLAN

SCALE: 3/16" = 1'-0"



6 STAIR SA-08 - ROOF PLAN

SCALE: 3/16" = 1'-0"

STAIR KEY NOTES:

1. 8" THICK X 4'-0" WIDE HOLLOW CORE CONCRETE PLANKS W/ 2 1/2" THICK NORMAL WEIGHT CONC. TOPPING
2. 4'-0" HIGH METAL STUD PARAPET WALL
3. 6" THICK METAL STUD WALL.
4. 20 GAGE METAL DECK W/ CONCRETE ROOFING
5. HSS 4x4x3/8 @ 6'-0" MAX PARAPET WALL POST

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

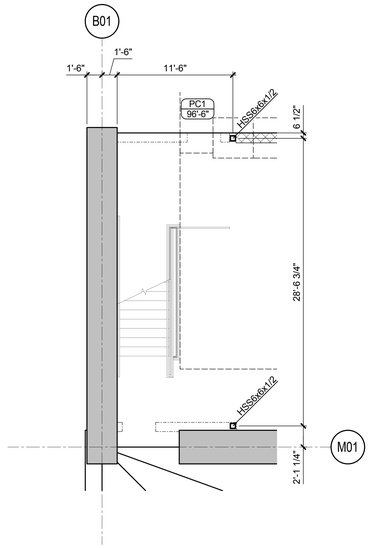
SHEET TITLE:

STAIR FOUND. AND FRAMING PLAN

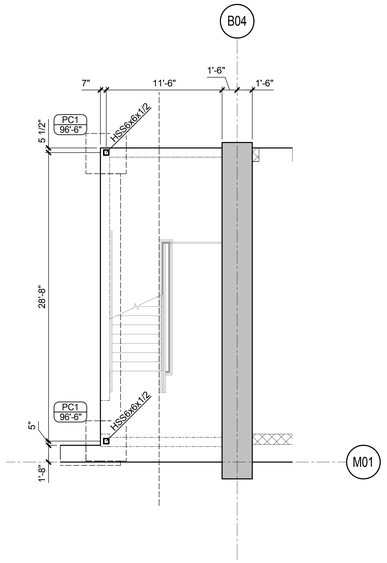
SHEET NO.

2-S-711

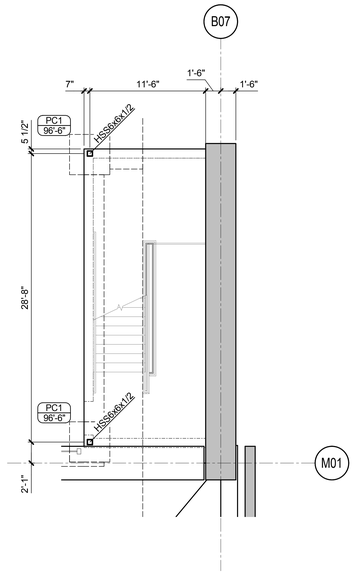
C:\Users\smartinez\Documents\S-DA4881-BLDG_A_B-R15_smartinez.rvt
9/23/2016 9:40:09 AM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



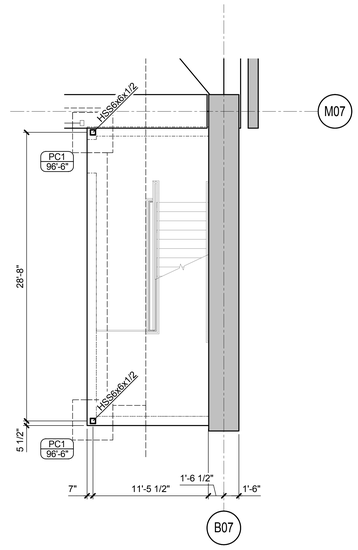
1 STAIR SB-01 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



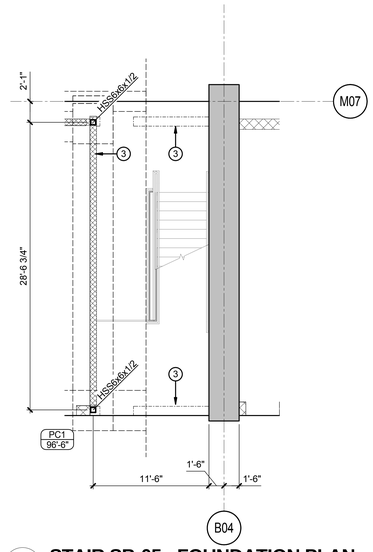
2 STAIR SB-02 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



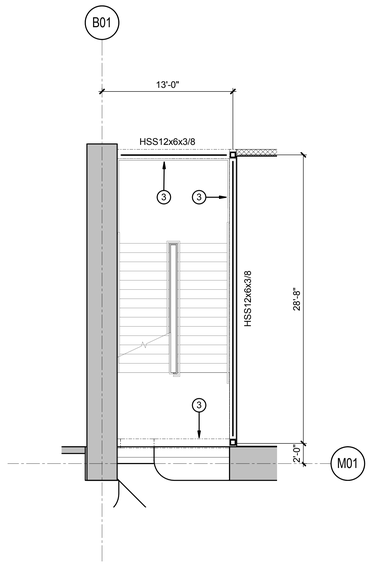
3 STAIR SB-03 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



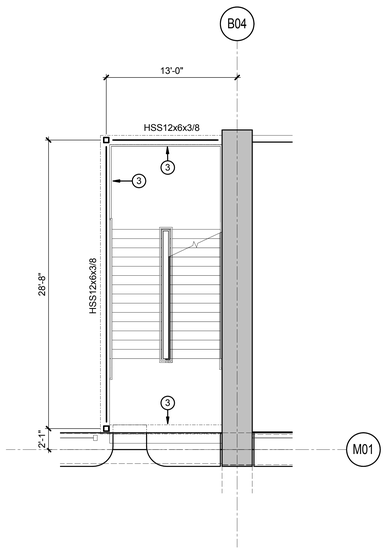
4 STAIR SB-04 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



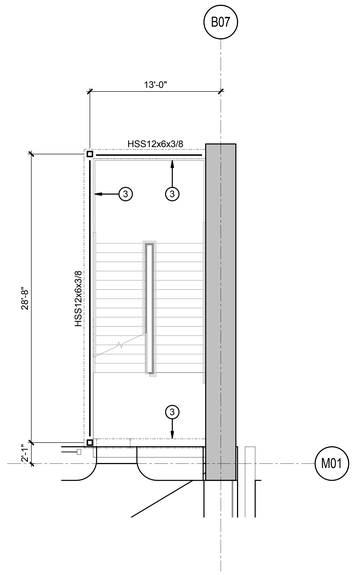
5 STAIR SB-05 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



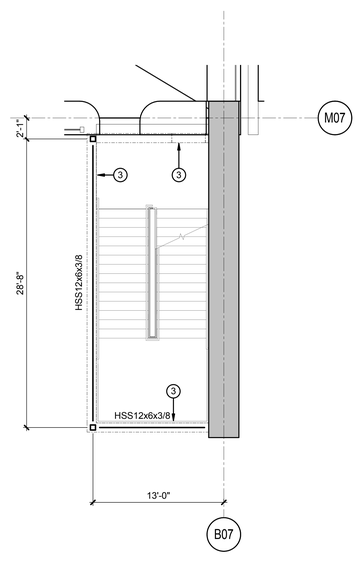
6 STAIR SB-01 - FRAMING PLAN LVL 2,3,4
SCALE: 3/16" = 1'-0"



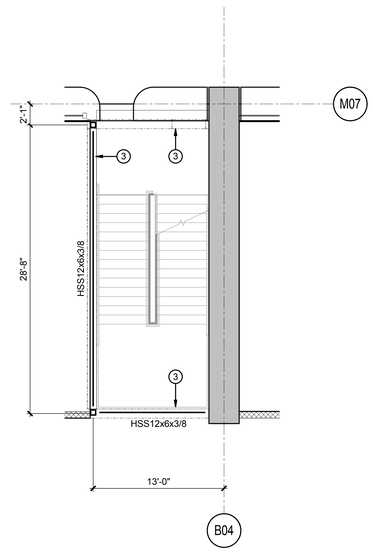
7 STAIR SB-02 - FRAMING PLAN LVL 2,3
SCALE: 3/16" = 1'-0"



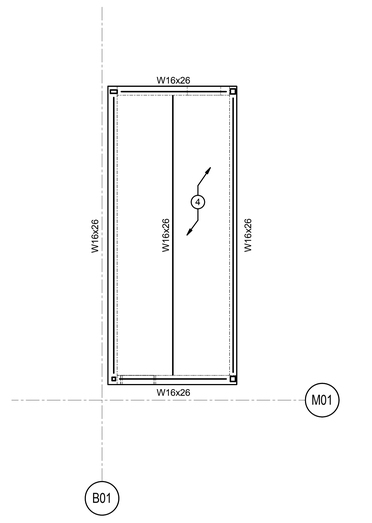
8 STAIR SB-03 - FRAMING PLAN LVL 2,3
SCALE: 3/16" = 1'-0"



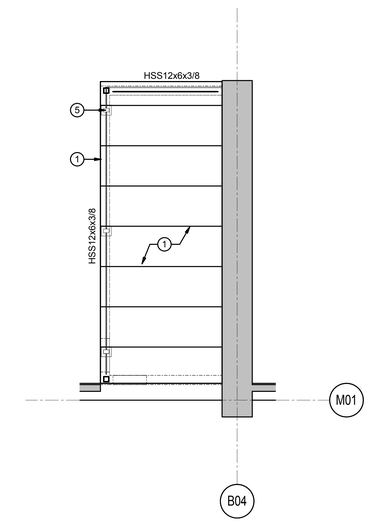
9 STAIR SB-04 - FRAMING PLAN LVL 2,3
SCALE: 3/16" = 1'-0"



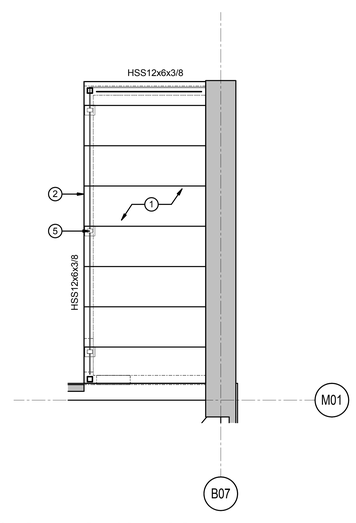
10 STAIR SB-05 - FRAMING PLAN LVL 2,3
SCALE: 3/16" = 1'-0"



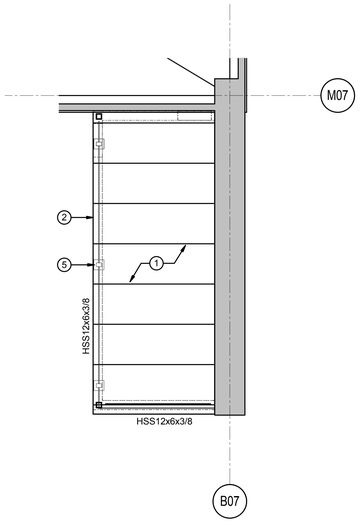
11 STAIR SB-01 - HI ROOF PLAN
SCALE: 3/16" = 1'-0"



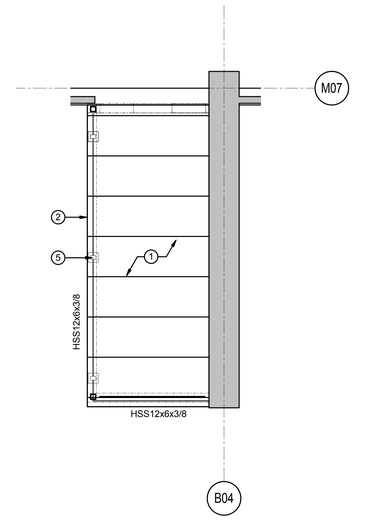
12 STAIR SB-02 - ROOF PLAN
SCALE: 3/16" = 1'-0"



13 STAIR SB-03 - ROOF PLAN
SCALE: 3/16" = 1'-0"



14 STAIR SB-04 - ROOF PLAN
SCALE: 3/16" = 1'-0"



15 STAIR SB-05 - ROOF PLAN
SCALE: 3/16" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

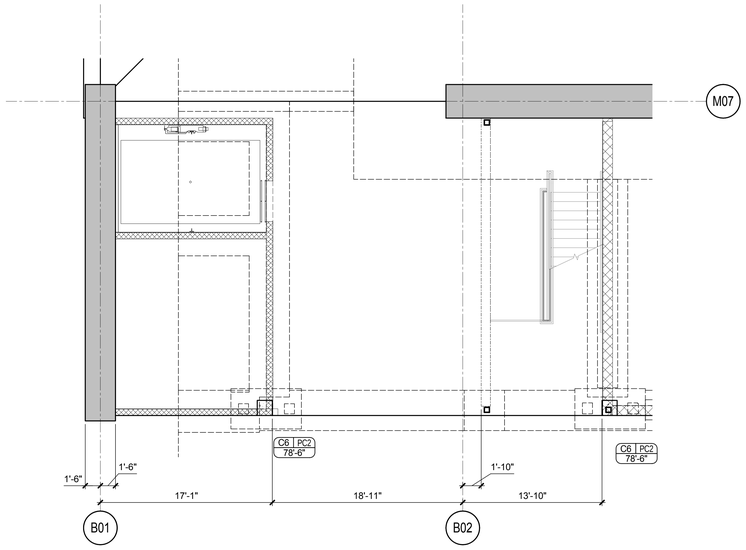
PROJ NO:	DA4881
SCALE:	3/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	AA
DRAWN BY:	CH
CHECKED BY:	AA

SHEET TITLE:
STAIR FOUND. AND FRAMING PLAN

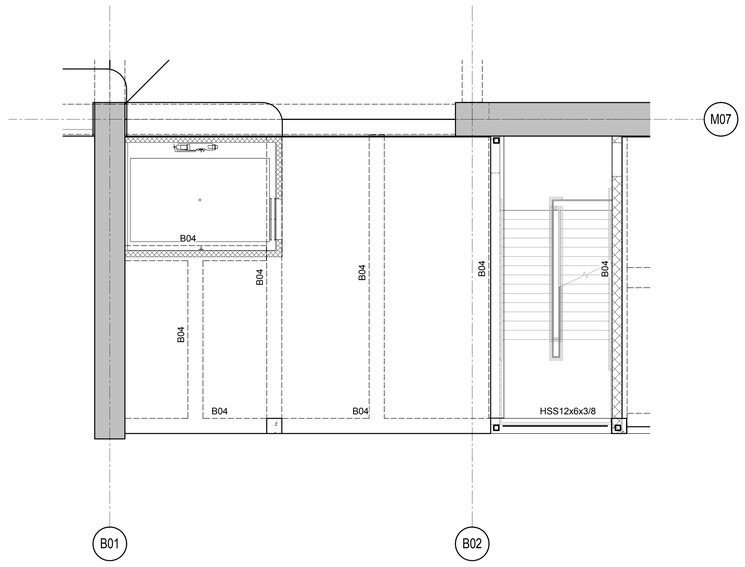
SHEET NO.
2-S-712

C:\Users\amarthinez\Documents\S.DA4881.BLDG_A_B-R15_amarthinez.rvt
9/23/2016 9:41:06 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 STAIR SB-06 - FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



3 STAIR SB-07 - FRAMING PLAN LVL 3
SCALE: 3/16" = 1'-0"

2 STAIR SB-06 - FRAMING PLAN LVL 2
SCALE: 3/16" = 1'-0"

4 STAIR SB-08 - FRAMING PLAN LVL 4
SCALE: 3/16" = 1'-0"

5 STAIR SB-06 - HI ROOF PLAN
SCALE: 3/16" = 1'-0"

STAIR KEY NOTES:
1. 8" THICK X 4'-0" WIDE HOLLOW CORE CONCRETE PLANKS W/ 2 1/2" THICK NORMAL WEIGHT CONC. TOPPING
2. 4'-0" HIGH METAL STUD PARAPET WALL
3. 6" THICK METAL STUD WALL,
4. 20 GAGE METAL DECK W/ CONCRETE ROOFING
5. HSS 4x4x3/8 @ 6'-0" MAX PARAPET WALL POST

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
STAIR FOUND. AND FRAMING PLAN

SHEET NO.
2-S-713

C:\Users\amarinez\Documents\S DA4881 BLDG_A_B-R15_amarinez.rvt
9/23/2016 9:41:09 AM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

DWP & FIRE COMMAND BUILDING

BUILDING D - READY RETURN
SEE VOLUME 4

BUILDING C - IDLE STORAGE
SEE VOLUME 3

BUILDING A - QTA

BUILDING B - QTA

WWF UST

GASOLINE USTs
TYP. 6

GASOLINE USTs

276' - 0"

725' - 0"

316' - 0"

89' - 6"

216' - 0"

W01 W02 W03

P01 P02 P03

A00.1 A01 A02 A03 A04 A05 A06 A07 A08 A09

Q01 Q02 Q03 Q04 Q05 Q06 Q07 Q08 Q09 Q10 Q10.1 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18 Q19 Q20 Q21

M01 M02 M03 M04 M05 M06 M07

B00.1 B01 B02 B03 B04 B05 B06 B07 B08 B09

1 2-A-302 | 2 2-A-302 | 3 2-A-351 | 3&4 2-A-301 | 1&2 2-A-351 | 4 2-A-351 | 1&2 2-A-351 | 3 2-A-303 | 2 2-A-352 | 1 2-A-352 | 2 2-A-303 | 3 2-A-352 | 1 2-A-303 | 4 2-A-303

1 BUILDING A&B - QTA - LEVEL 1 OVERALL FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

KEYPLAN

D C A B

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

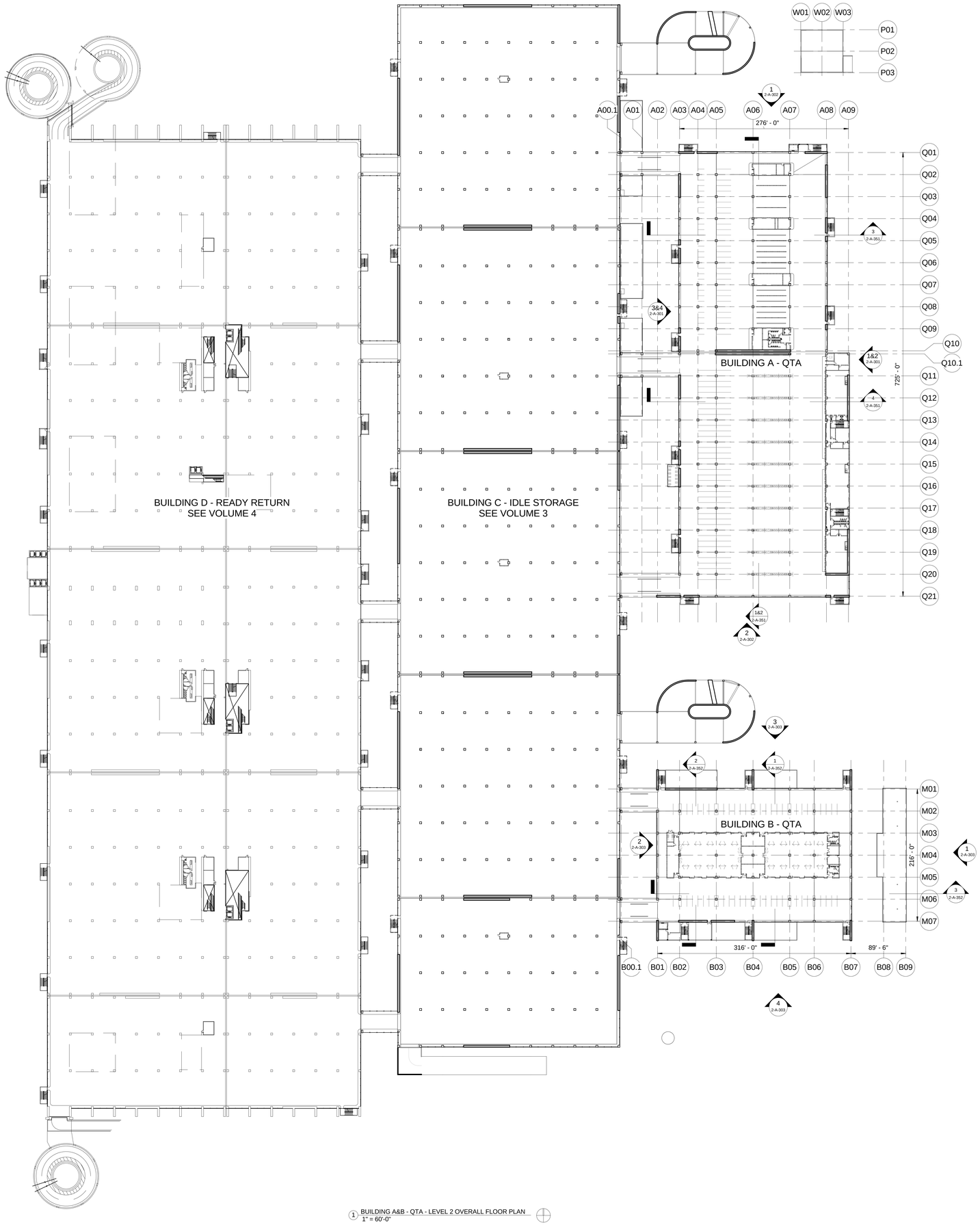
SHEET TITLE:

QTA LEVEL 1 OVERALL FLOOR PLAN

SHEET NO.

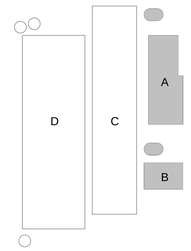
2-A-010

9/23/2016 12:26:39 PM H:\REVIT LOCAL FILES\X-DA4881-BLDG_A_B_C-R15_Nal#####.rvt



1 BUILDING A&B - QTA - LEVEL 2 OVERALL FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO.	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

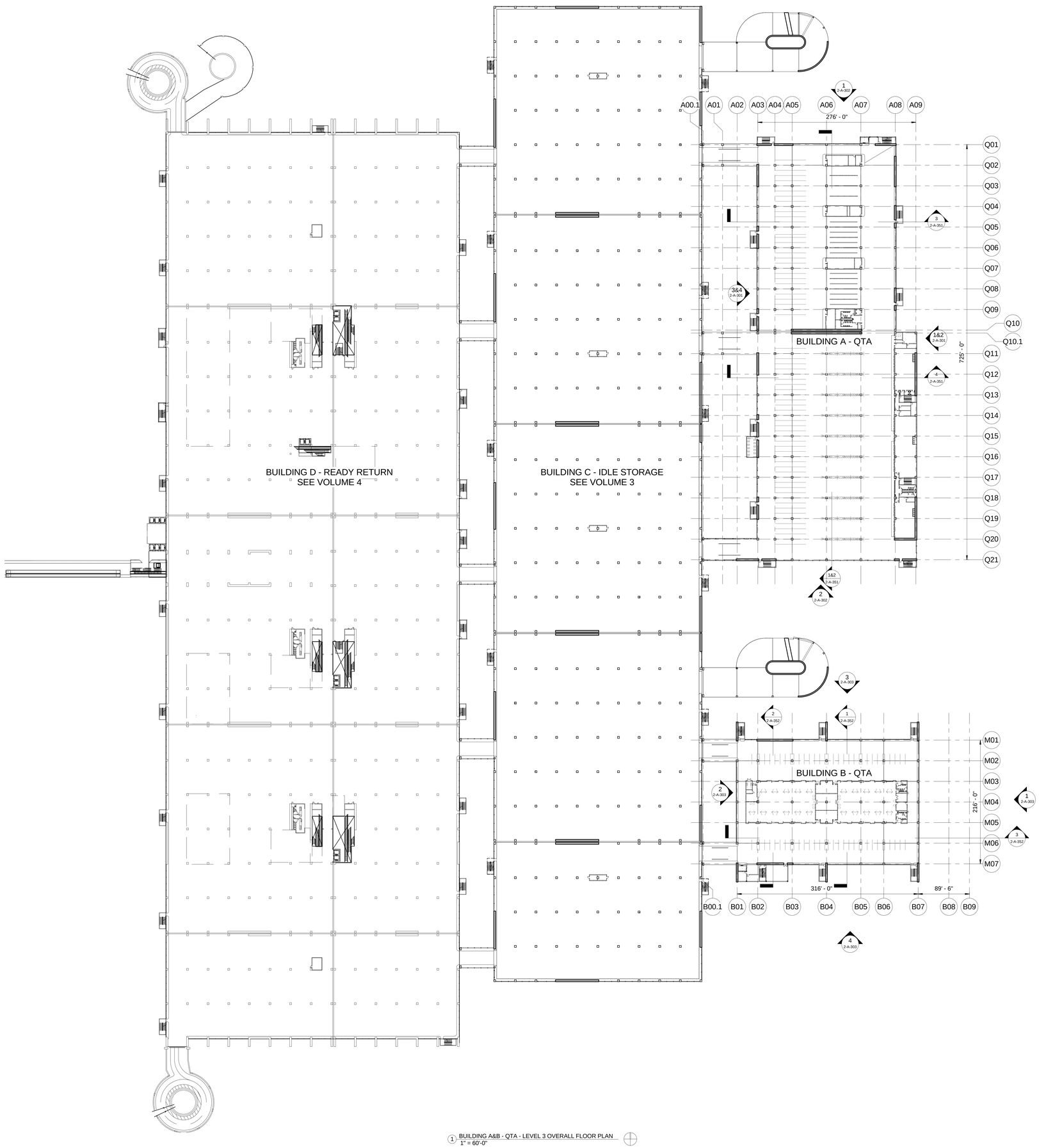
QTA LEVEL 2 OVERALL FLOOR PLAN

SHEET NO.

2-A-020

9/23/2016 9:23:19 AM

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNp\Holger.rvt



1 BUILDING A&B - QTA - LEVEL 3 OVERALL FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

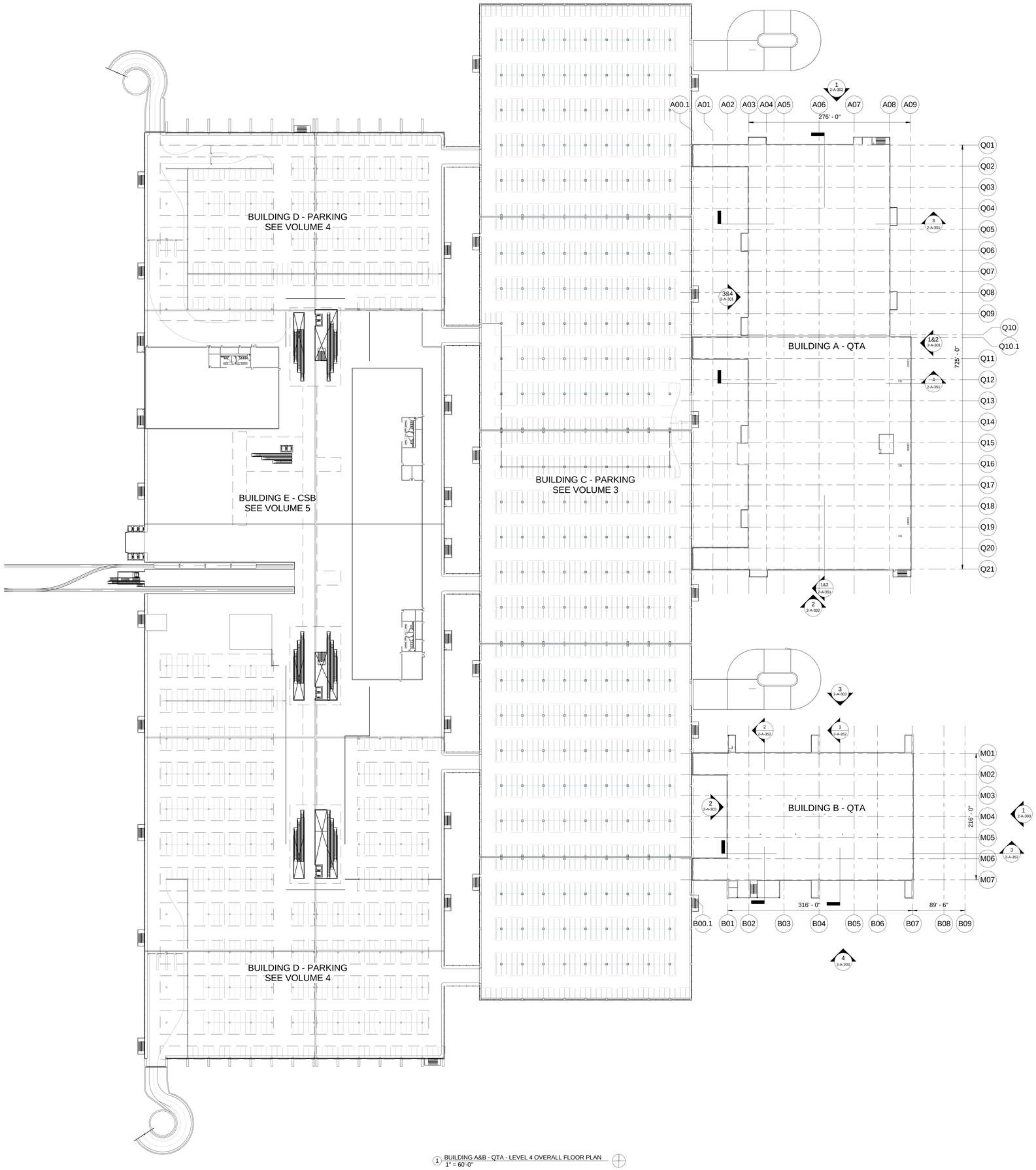
QTA LEVEL 3 OVERALL FLOOR PLAN

SHEET NO.

2-A-030

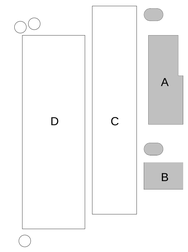
H:\REVIT LOCAL FILES\x-DA4881-BLDG_A_B_C-R15_hajdelgn.rvt

9/23/2016 9:23:39 AM



1 BUILDING A&B - QTA - LEVEL 4 OVERALL FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

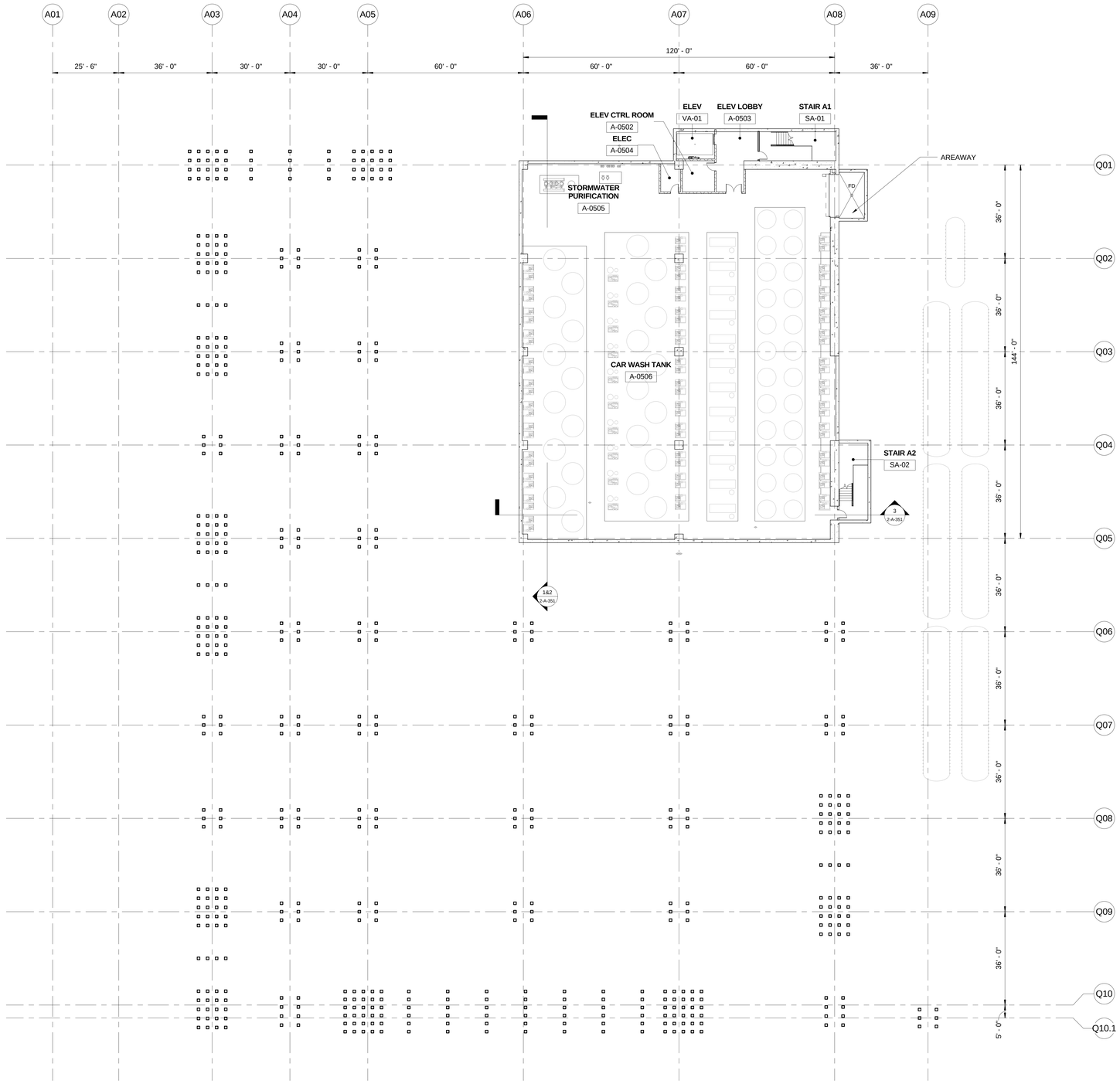
SHEET TITLE:

QTA LEVEL 4 OVERALL FLOOR PLAN

SHEET NO.

2-A-040

9/23/2016 9:23:44 AM H:\REVIT LOCAL FILES\x-DA4881-BLDG_A_B_C-R15_hajtrid@r.rvt



1 BUILDING A - QTA - LEVEL 0 FLOOR PLAN - ZONE 2
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 3:57:54 PM
H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNohl\dgn\.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

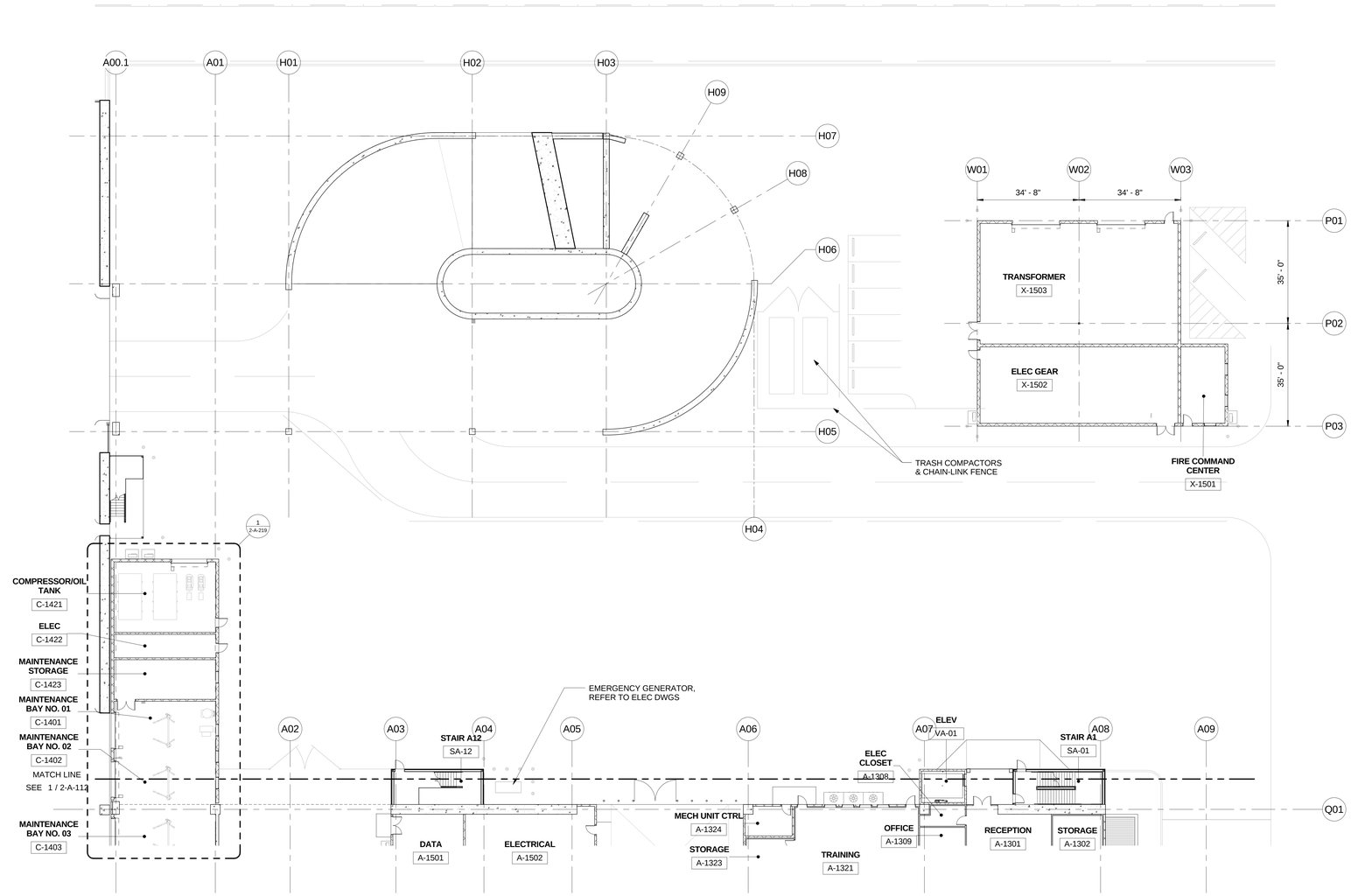
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 0 FLOOR PLAN

SHEET NO.

2-A-102



1 BUILDING A - QTA - LEVEL 1 FLOOR PLAN - ZONE 1
1/16" = 1'-0"

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_tajahidger.rvt
9/23/2016 9:27:12 AM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CONCEPT PLANNING PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

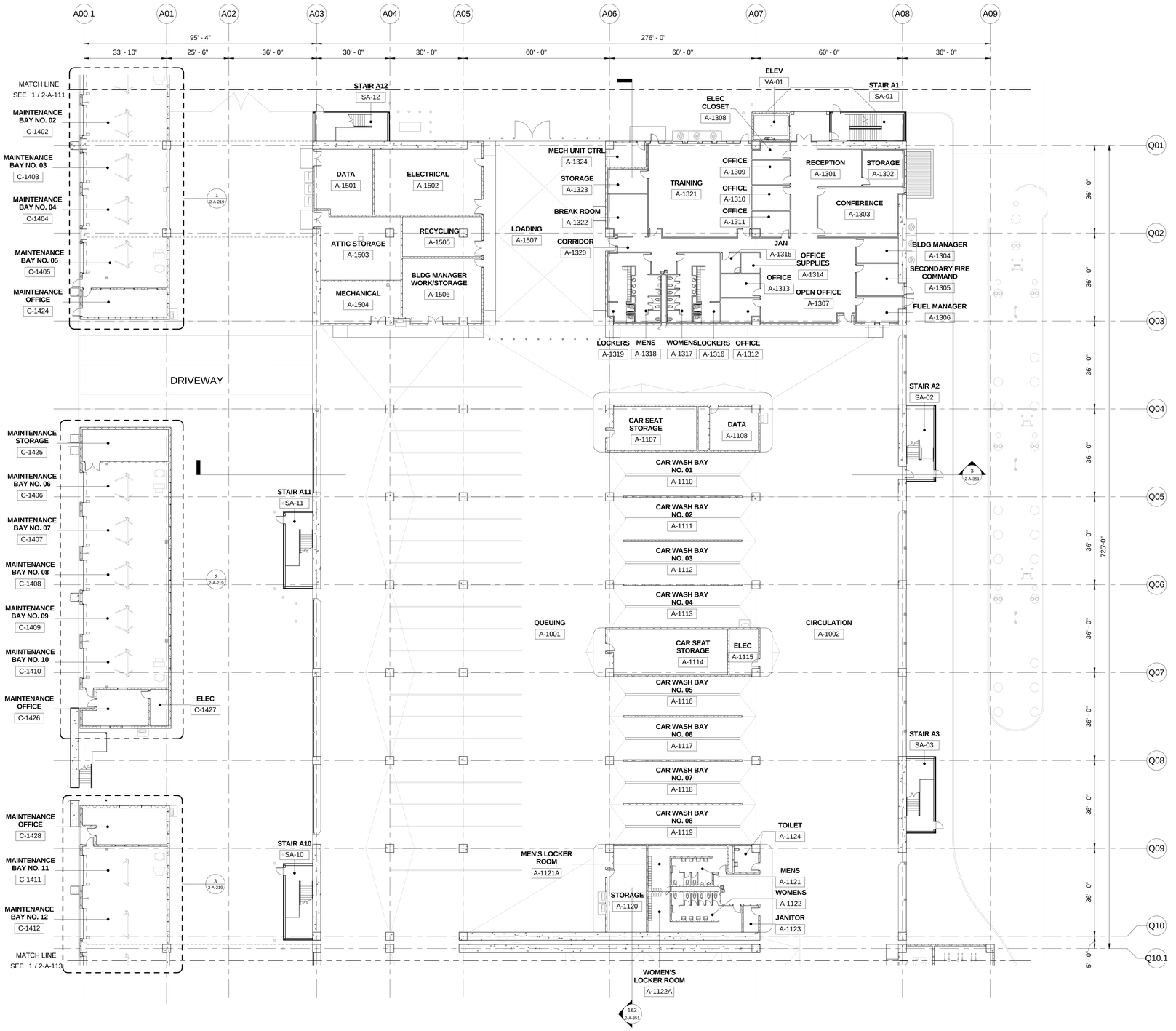
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 1 FLOOR PLAN

SHEET NO.

2-A-111



1 BUILDING A - QTA - LEVEL 1 FLOOR PLAN - ZONE 2
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-13\A4881-BUDG_A_B_C-R15_kajtedgar.rvt

9/23/2016 9:27:31 AM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA ONT PMD LAX

REVISIONS: | MARK | DATE | DESCRIPTION

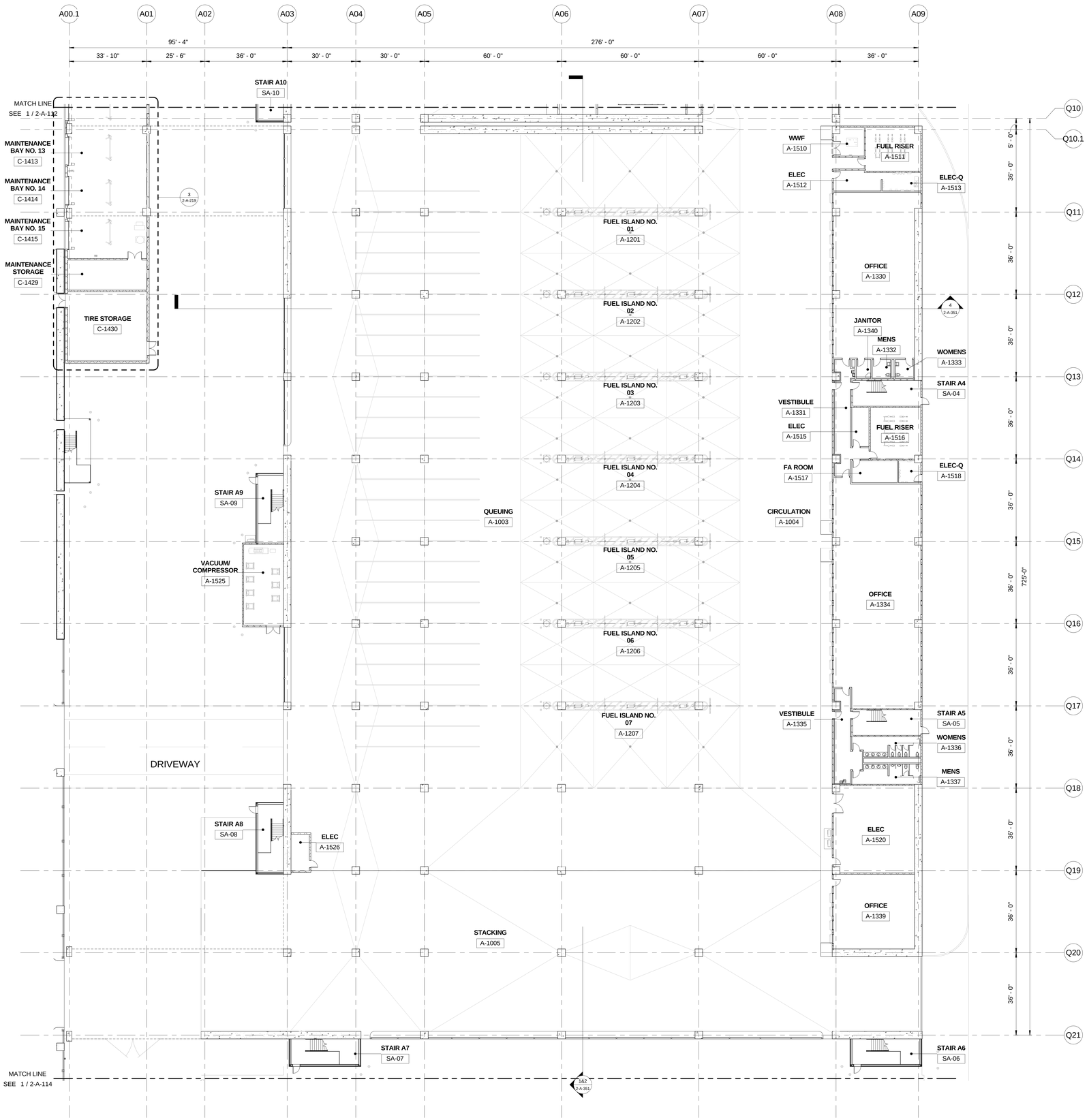
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 1 FLOOR PLAN

SHEET NO.

2-A-112



1 BUILDING A - QTA - LEVEL 1 FLOOR PLAN - ZONE 3
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

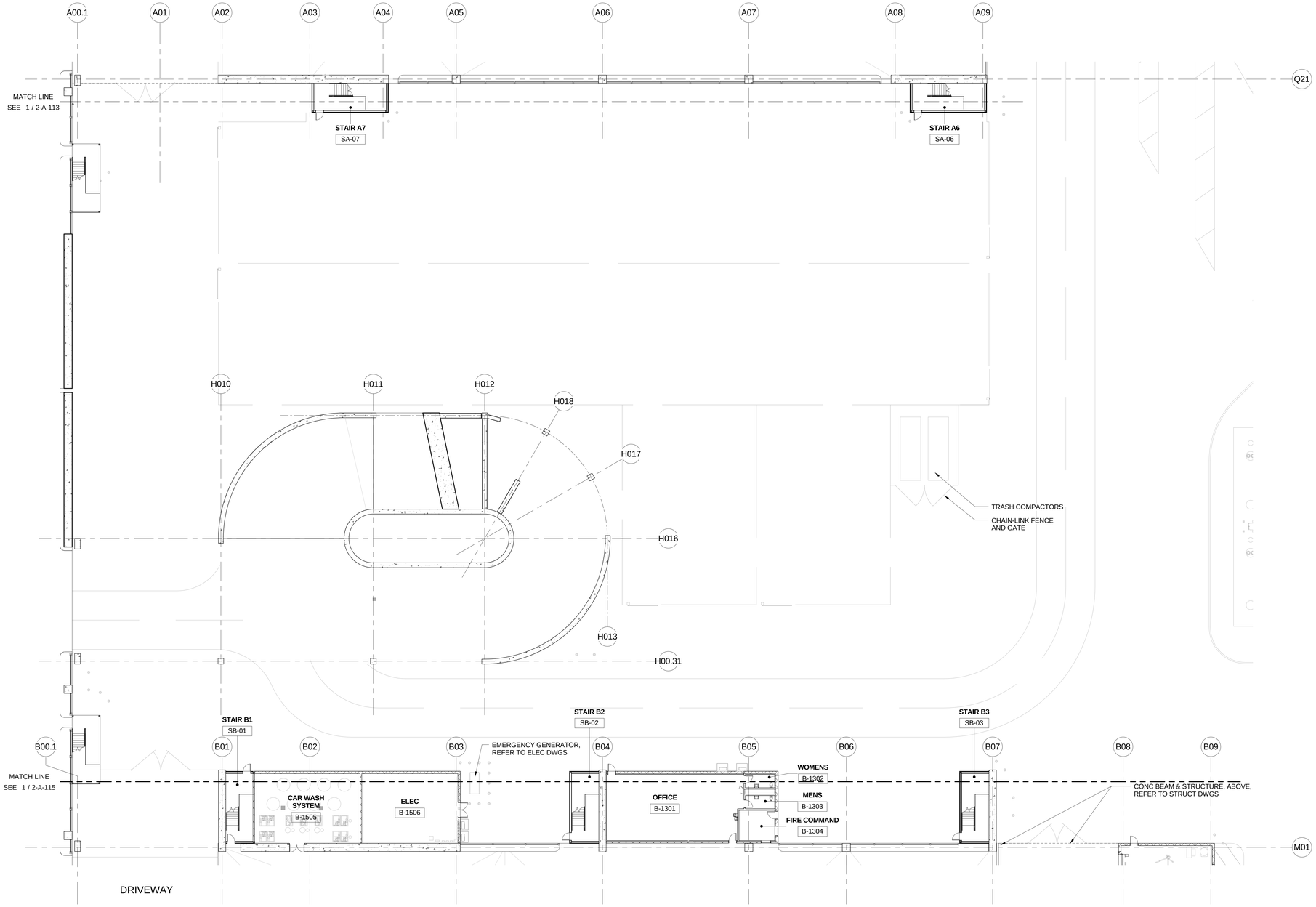
QTA LEVEL 1 FLOOR PLAN

SHEET NO.

2-A-113

H:\REVIT LOCAL FILES\v.DA4881-BLDG_A_B_C-R15_kajtedgar.rvt

9/23/2016 9:28:09 AM



1 BUILDING B - QTA - LEVEL 1 FLOOR PLAN - ZONE 4
1/16" = 1'-0"

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\x-DA4881-BLDG_A_B_C-R15_kajtedgar.rvt
9/23/2016 9:28:11 AM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			DESCRIPTION
MARK	DATE		

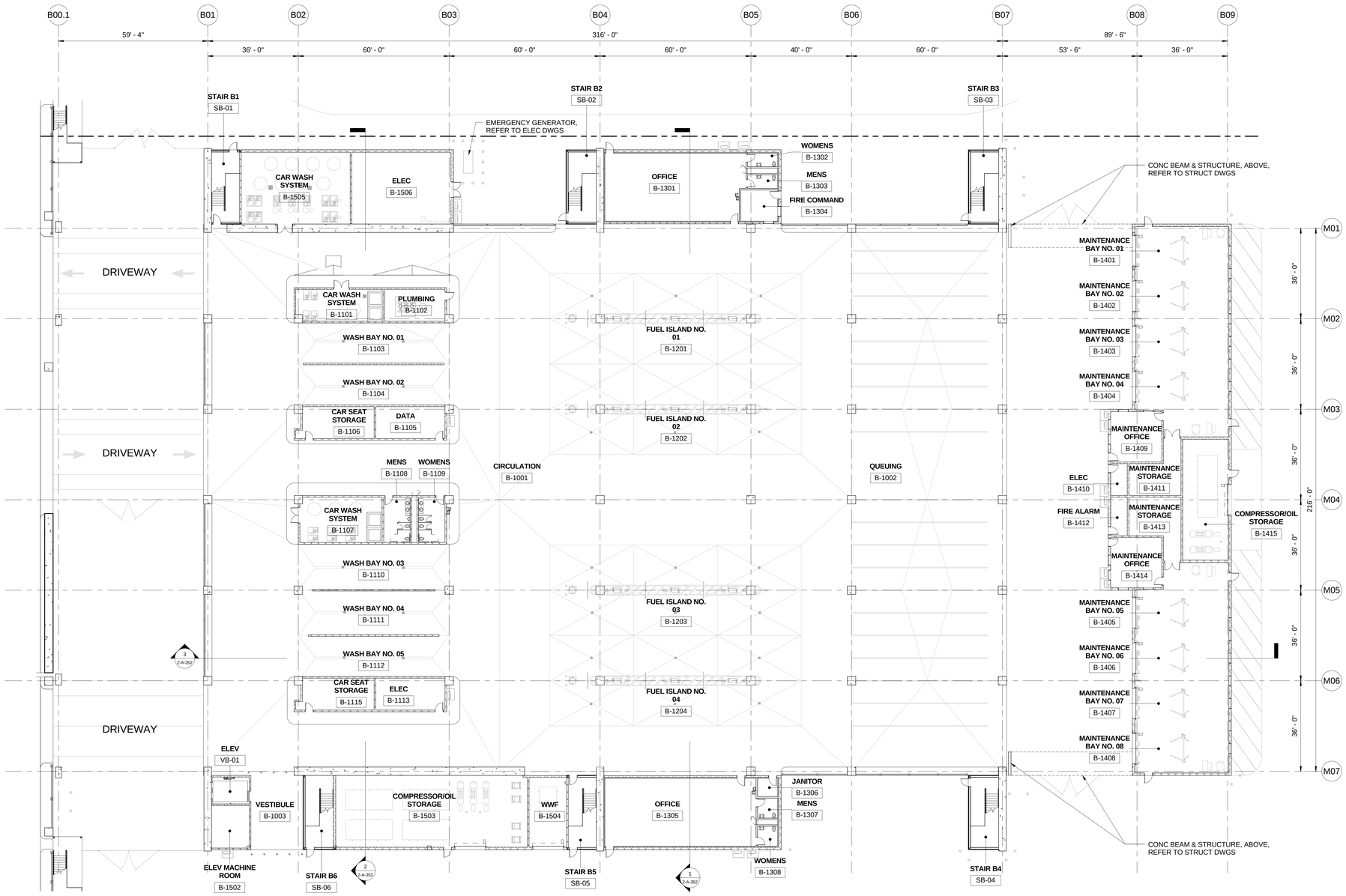
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 1 FLOOR PLAN

SHEET NO.

2-A-114



1 BUILDING B - QTA - LEVEL 1 FLOOR PLAN - ZONE 5
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

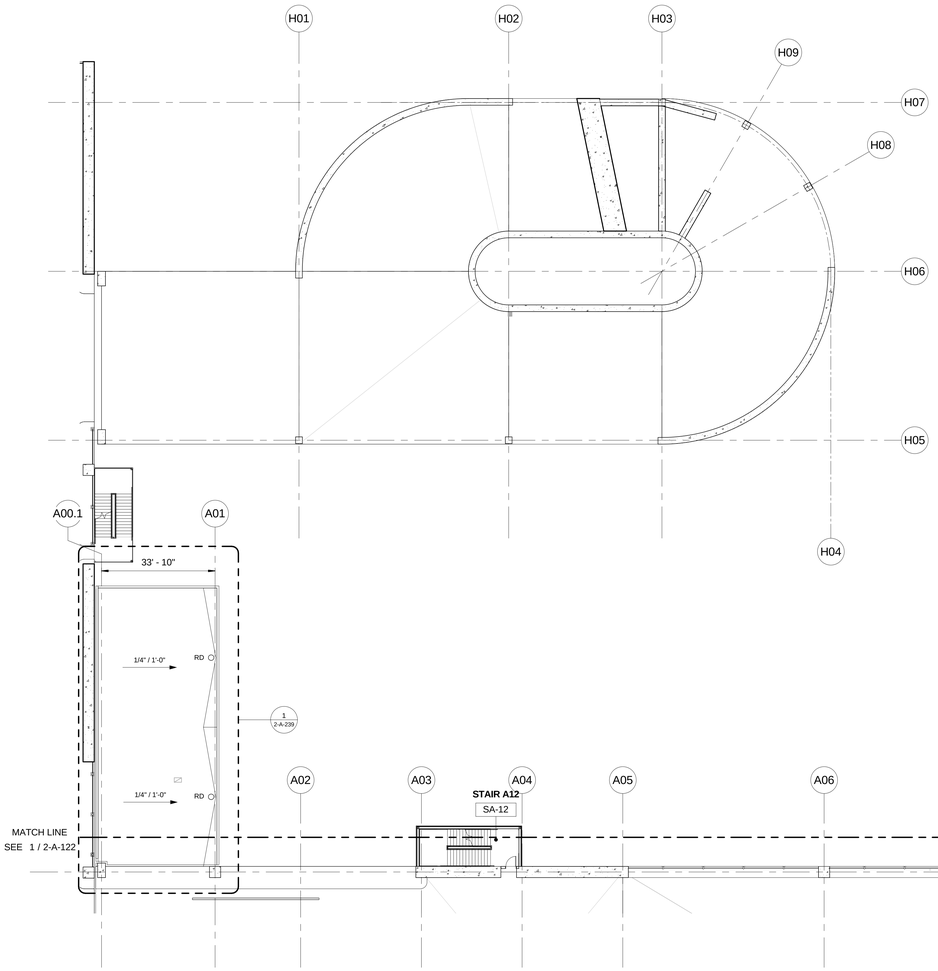
SHEET TITLE:

QTA LEVEL 1 FLOOR PLAN

SHEET NO.

2-A-115

H:\REVIT LOCAL FILES\x-DA4881-BLDG_A_B_C-R15_Aaphelger.rvt
9/23/2016 9:28:40 AM



1 BUILDING A - QTA - LEVEL 2 FLOOR PLAN - ZONE 1
1/16" = 1'-0"

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

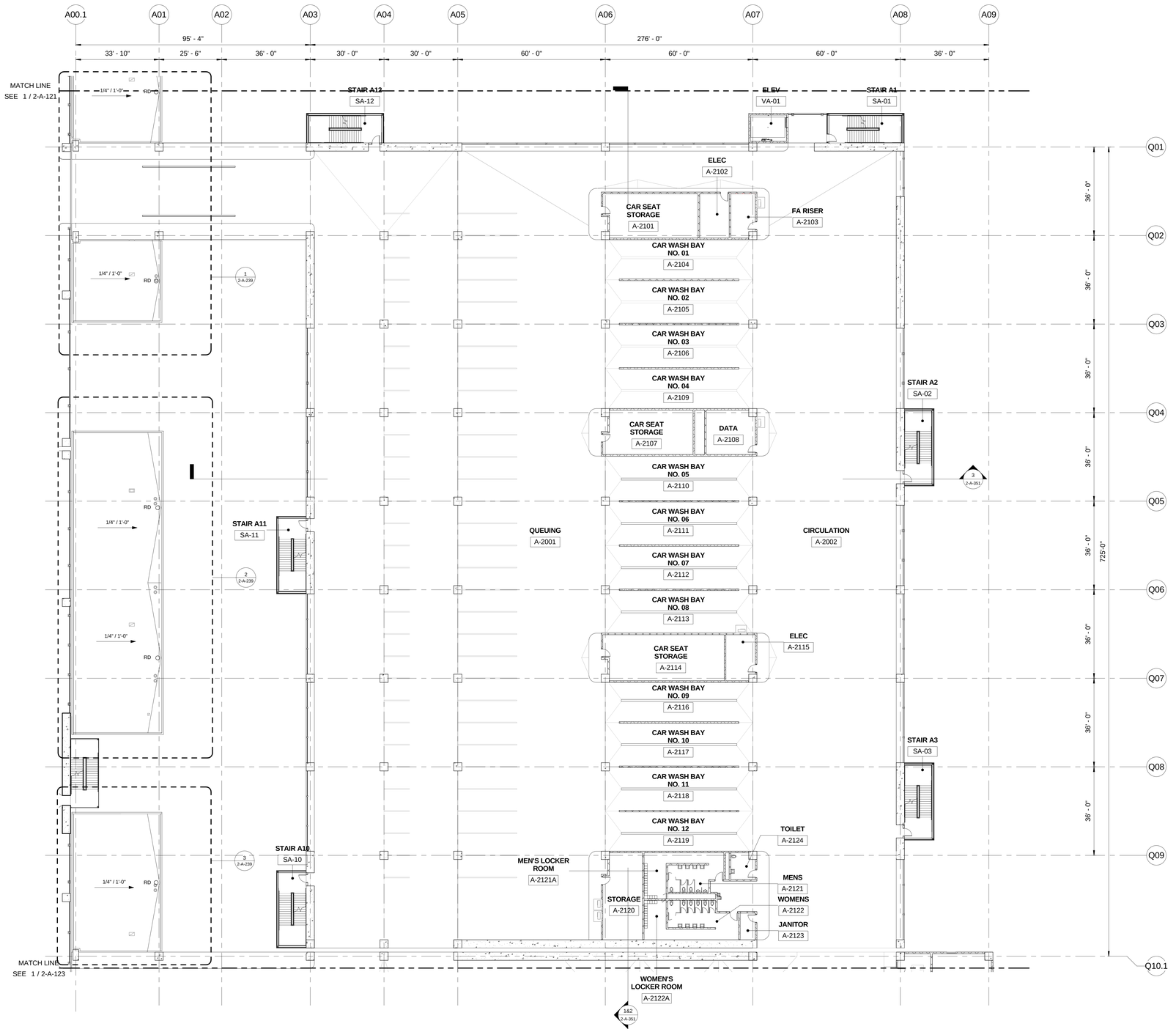
QTA LEVEL 2 FLOOR PLAN

SHEET NO.

2-A-121

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kaphodger.rvt

9/22/2016 3:59:17 PM



1 BUILDING A - QTA - LEVEL 2 FLOOR PLAN - ZONE 2
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 2 FLOOR PLAN

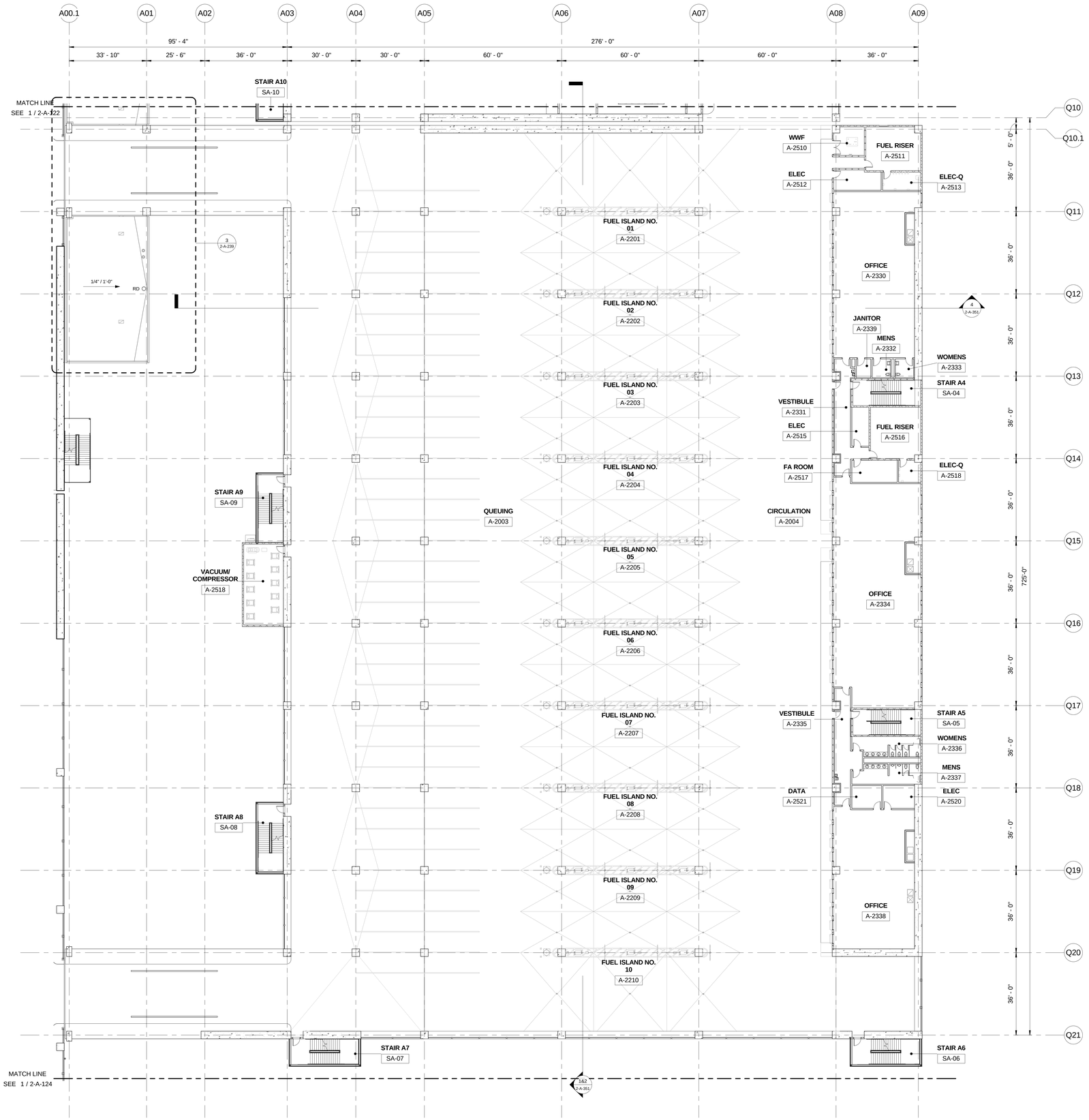
SHEET NO.

2-A-122

H:\REVIT LOCAL FILES\A-DA4881-BUDG_A_B_C-R15_tuplin@pn.rvt

9/22/2016 3:59:20 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 2 FLOOR PLAN - ZONE 3
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-13\A4881-BLDG_A_B_C-R15_kajeldgn.rvt

9/22/2016 3:59:51 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			DESCRIPTION
MARK	DATE		

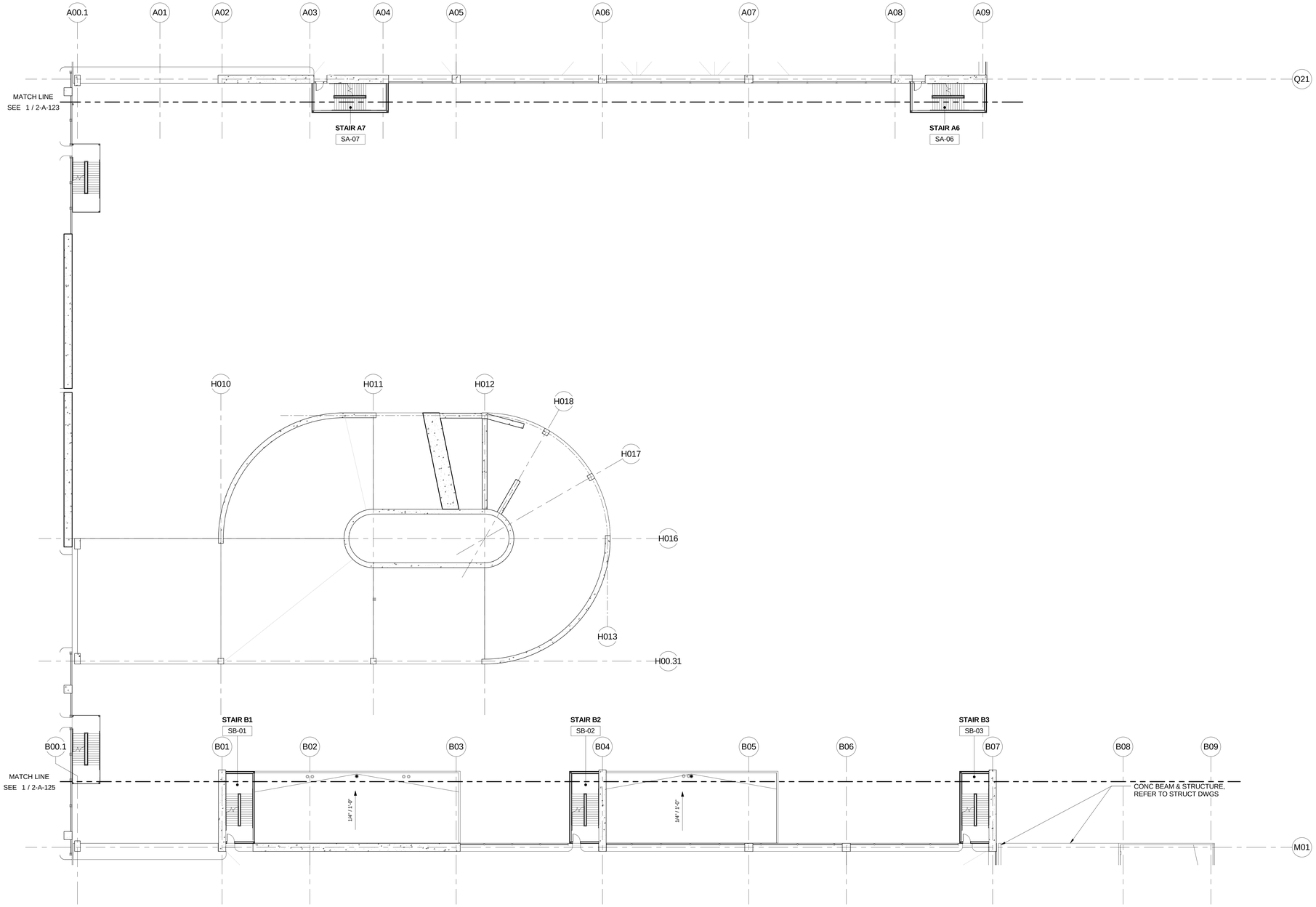
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 2 FLOOR PLAN

SHEET NO.

2-A-123



1 BUILDING B - QTA - LEVEL 2 FLOOR PLAN - ZONE 4
1/16" = 1'-0"

BUILDING A & B KEYPLAN

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 2 FLOOR PLAN

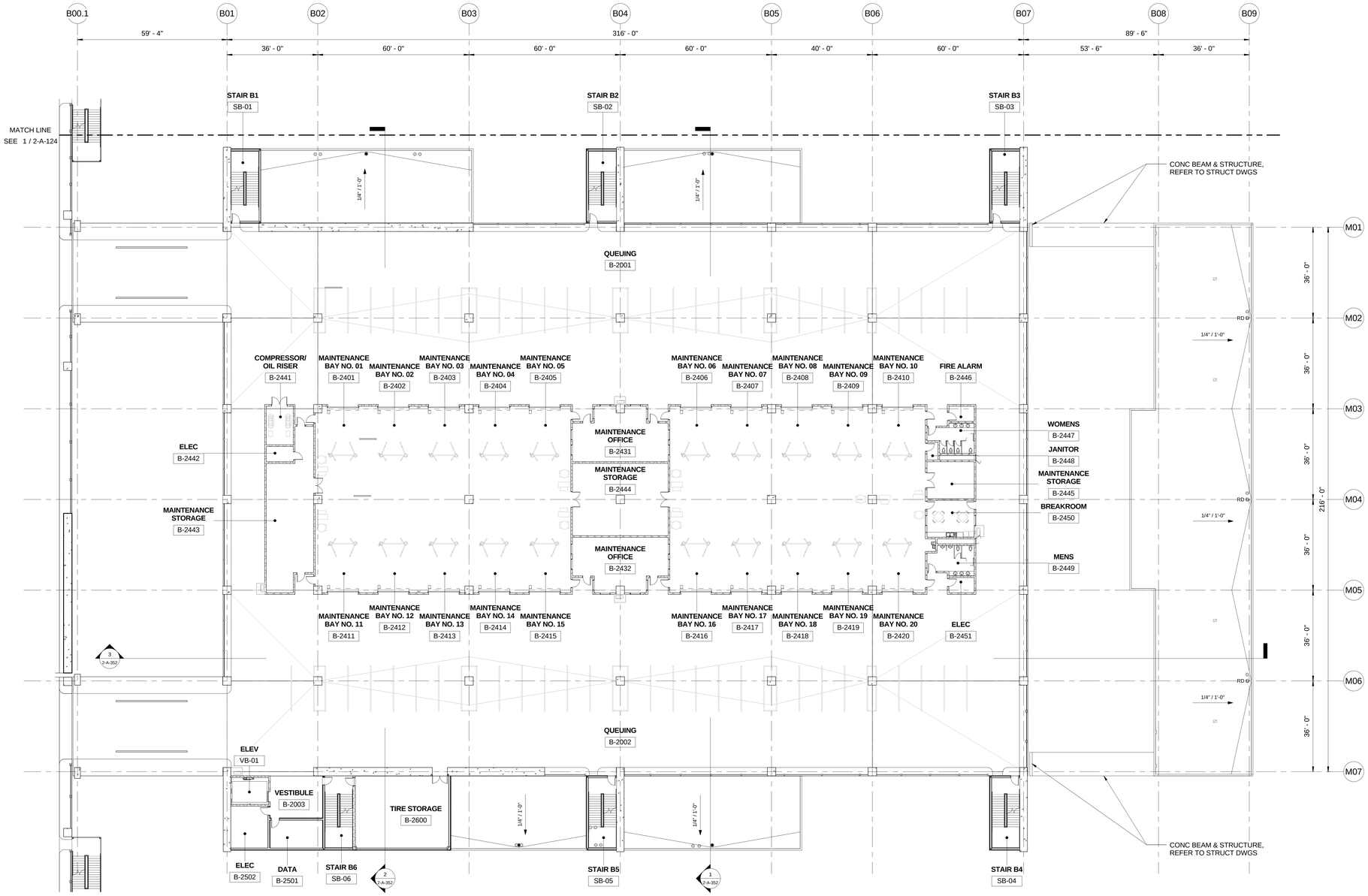
SHEET NO.

2-A-124

H:\REVIT LOCAL FILES\DA4881-BLDG_A_B_C-R15_kajindgm.rvt

9/22/2016 3:59:55 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 2 FLOOR PLAN - ZONE 5
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

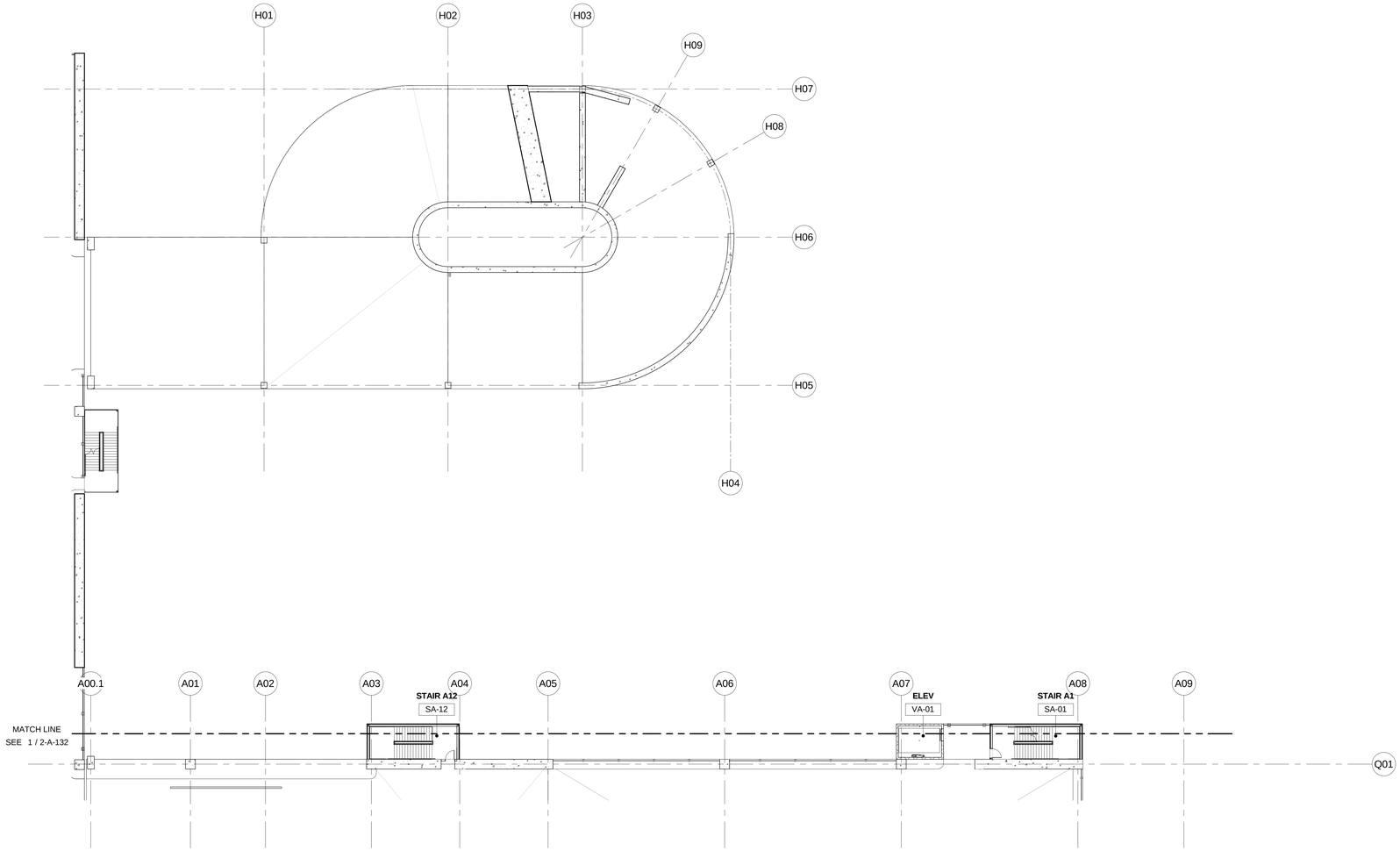
QTA LEVEL 2 FLOOR PLAN

SHEET NO.

2-A-125

H:\REVIT LOCAL FILES\DA4881-BLDG_A_B_C-R15_Jqeledger.rvt

9/22/2016 4:00:07 PM



1 BUILDING A - QTA - LEVEL 3 FLOOR PLAN - ZONE 1
1/16" = 1'-0"

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

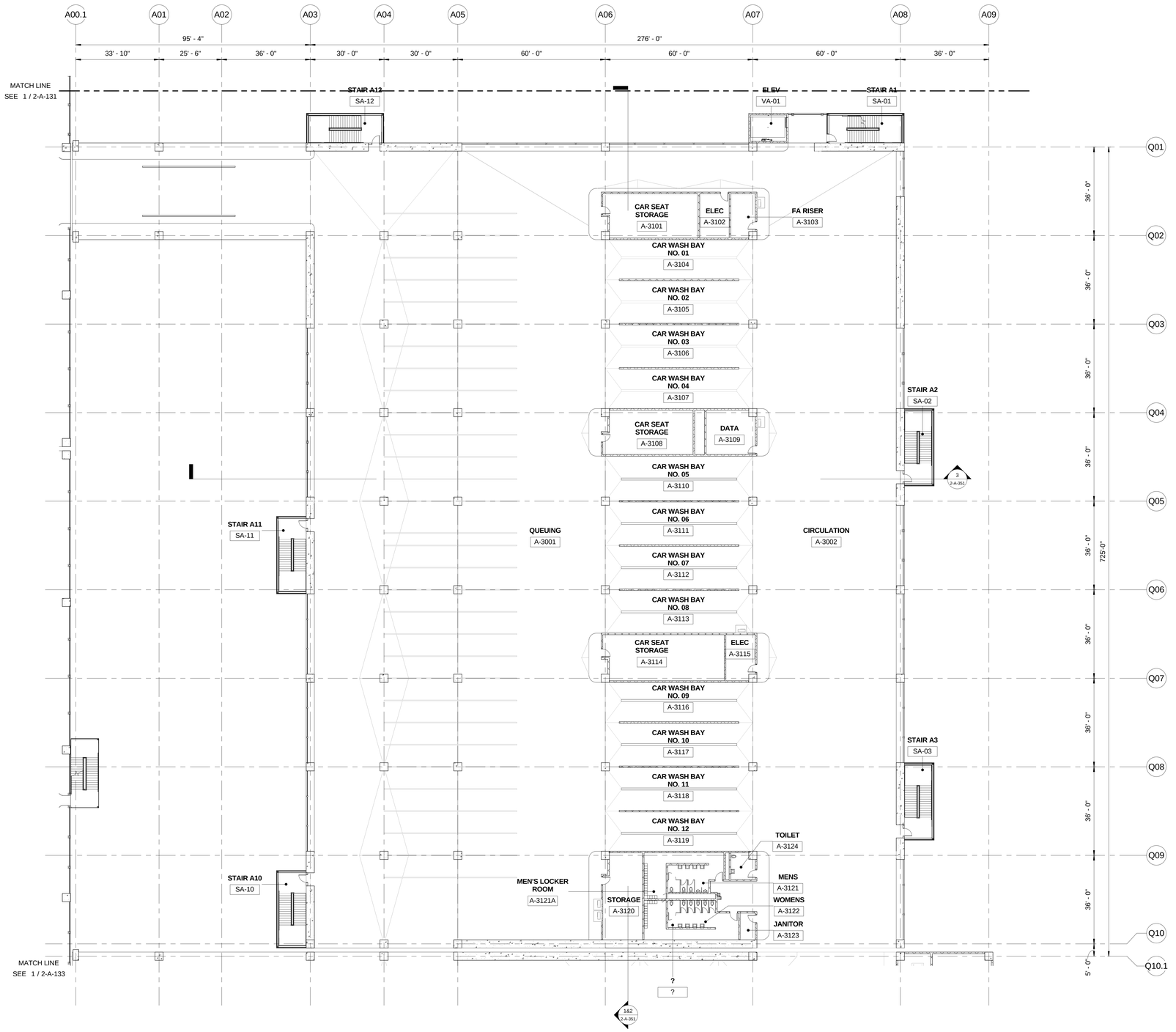
QTA LEVEL 3 FLOOR PLAN

SHEET NO.

2-A-131

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_tajahdgar.rvt

9/22/2016 4:00:09 PM



1 BUILDING A - QTA - LEVEL 3 FLOOR PLAN - ZONE 2
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BUDG_A_B_C-R15_tuplin@pn.rvt
9/22/2016 4:00:12 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

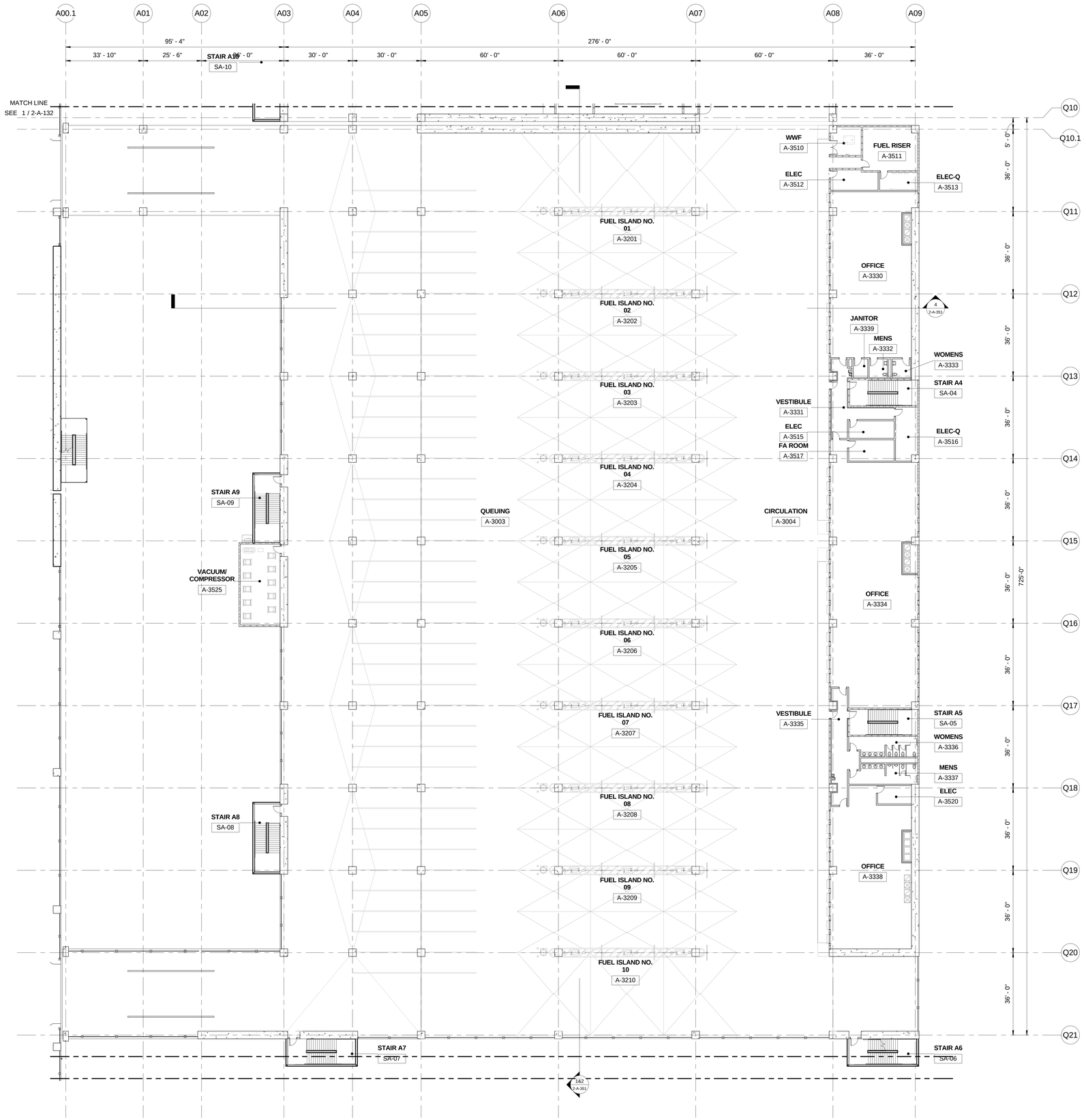
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 3 FLOOR PLAN

SHEET NO.

2-A-132



1 BUILDING A - QTA - LEVEL 3 FLOOR PLAN - ZONE 3
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-33A4881-BLDG_A_B_C-R15_kajtedgar.rvt

9/22/2016 4:00:39 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

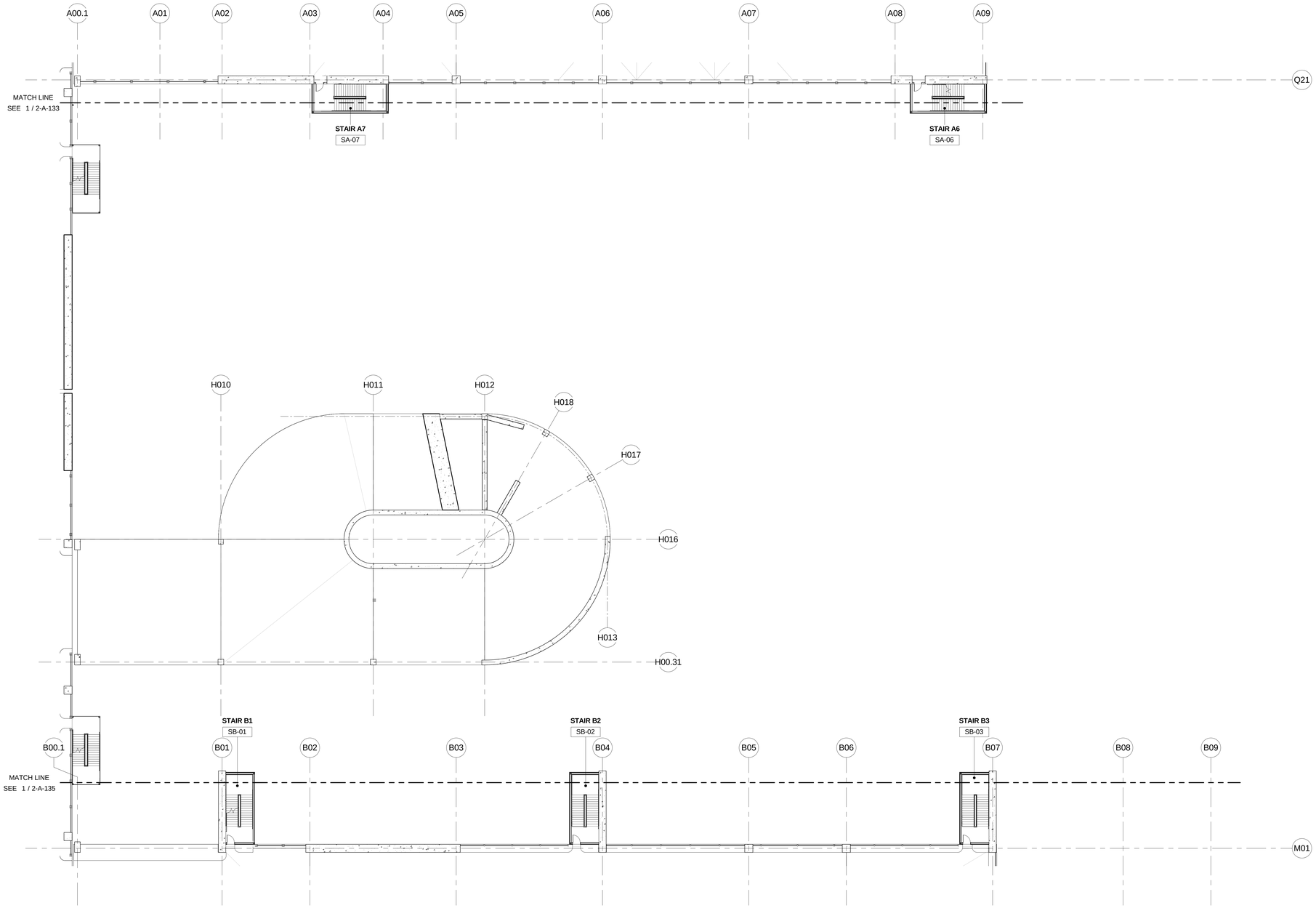
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 3 FLOOR PLAN

SHEET NO.

2-A-133



1 BUILDING B - QTA - LEVEL 3 FLOOR PLAN - ZONE 4
1/16" = 1'-0"

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 3 FLOOR PLAN

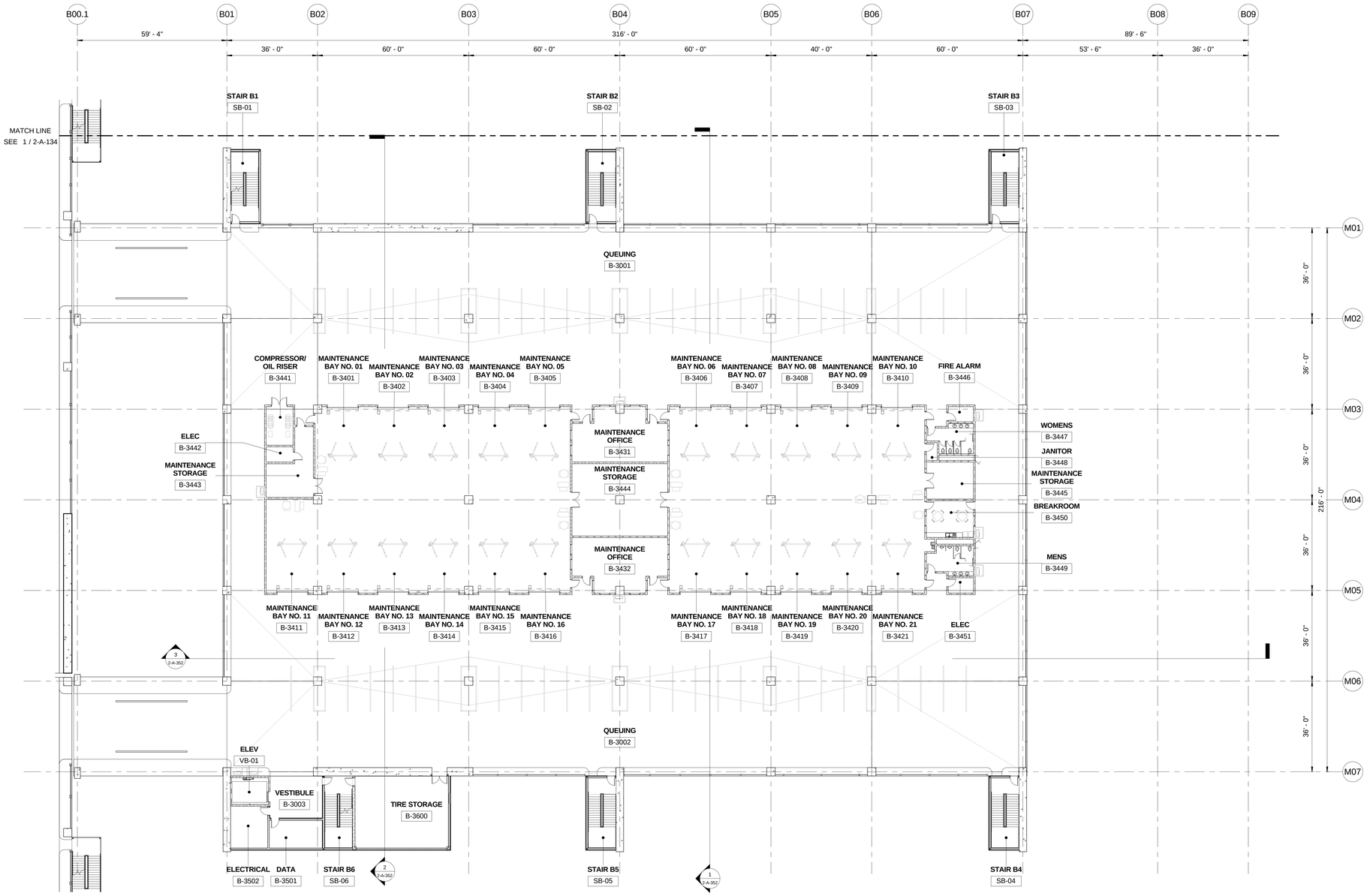
SHEET NO.

2-A-134

H:\REVIT LOCAL FILES\A-DA4881-BUDG_A_B_C-R15_tuplin0@pn.rvt

9/22/2016 4:00:33 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 3 FLOOR PLAN - ZONE 5
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_tajahidgar.rvt
8/22/2018 4:00:49 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

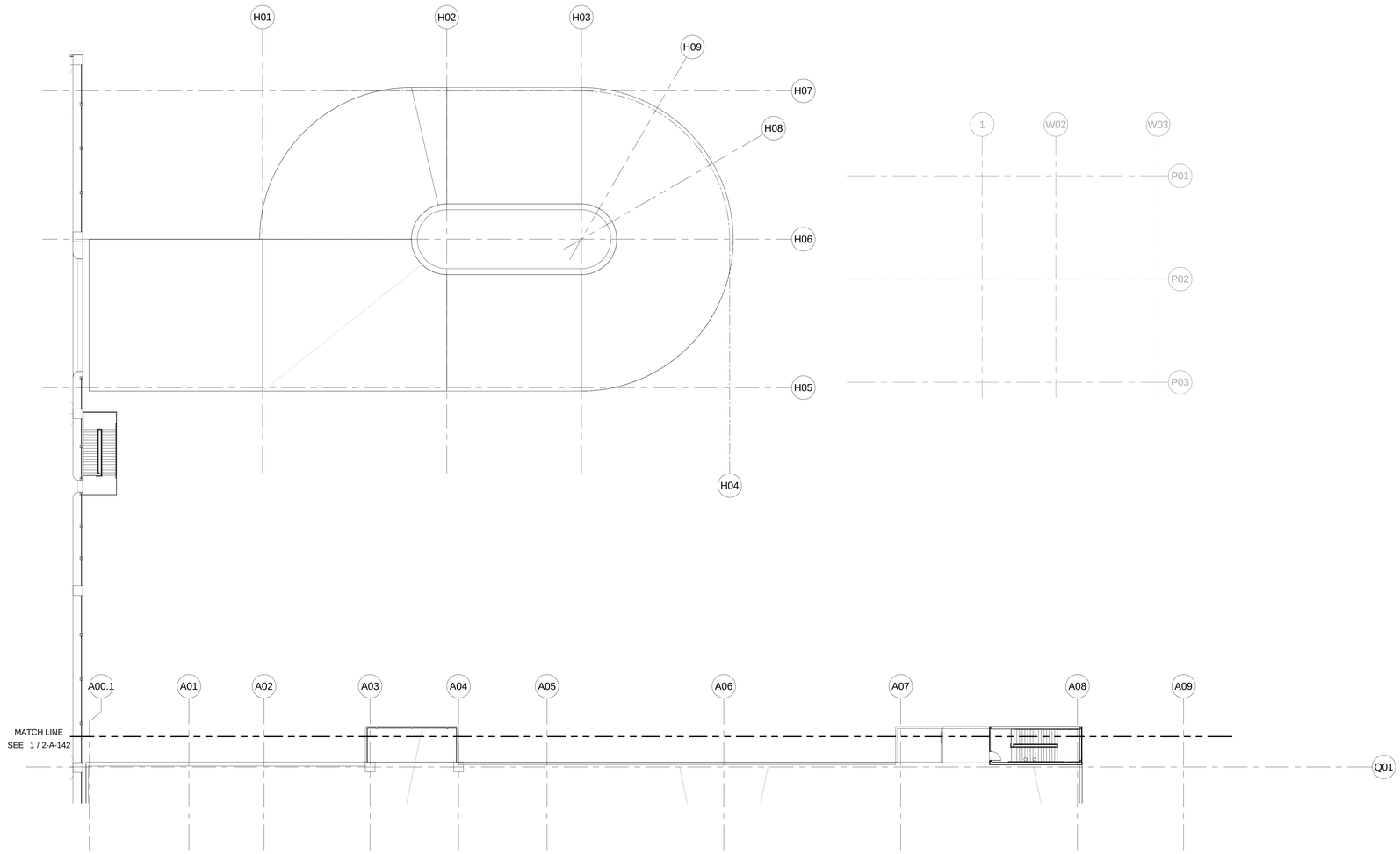
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 3 FLOOR PLAN

SHEET NO.

2-A-135



1 BUILDING A - QTA - LEVEL 4 FLOOR PLAN - ZONE 1
1/16" = 1'-0"

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

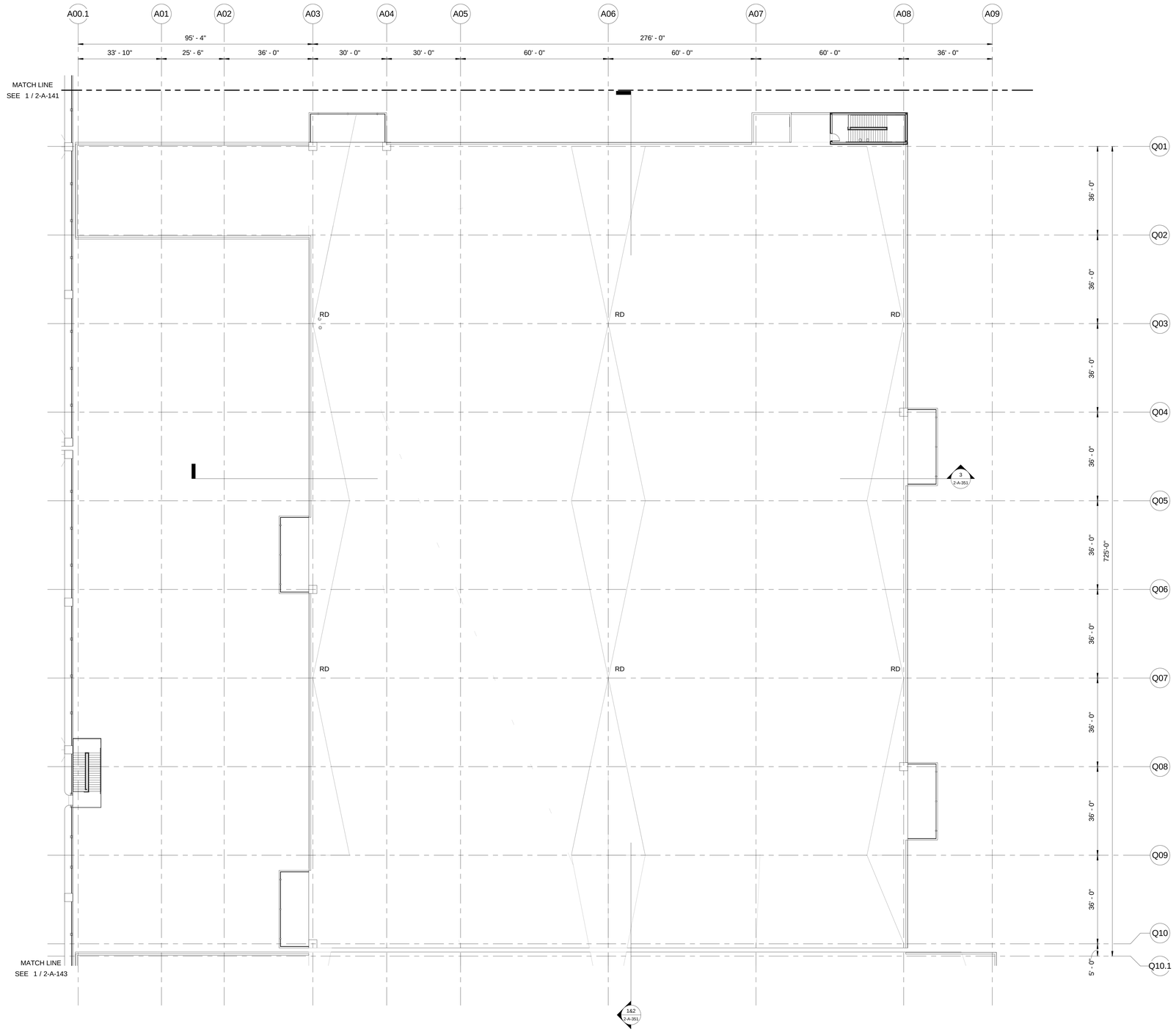
QTA LEVEL 4 FLOOR PLAN

SHEET NO.

2-A-141

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_tajahidjar.rvt

9/22/2016 4:00:42 PM



1 BUILDING A - QTA - LEVEL 4 FLOOR PLAN - ZONE 2
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 4 FLOOR PLAN

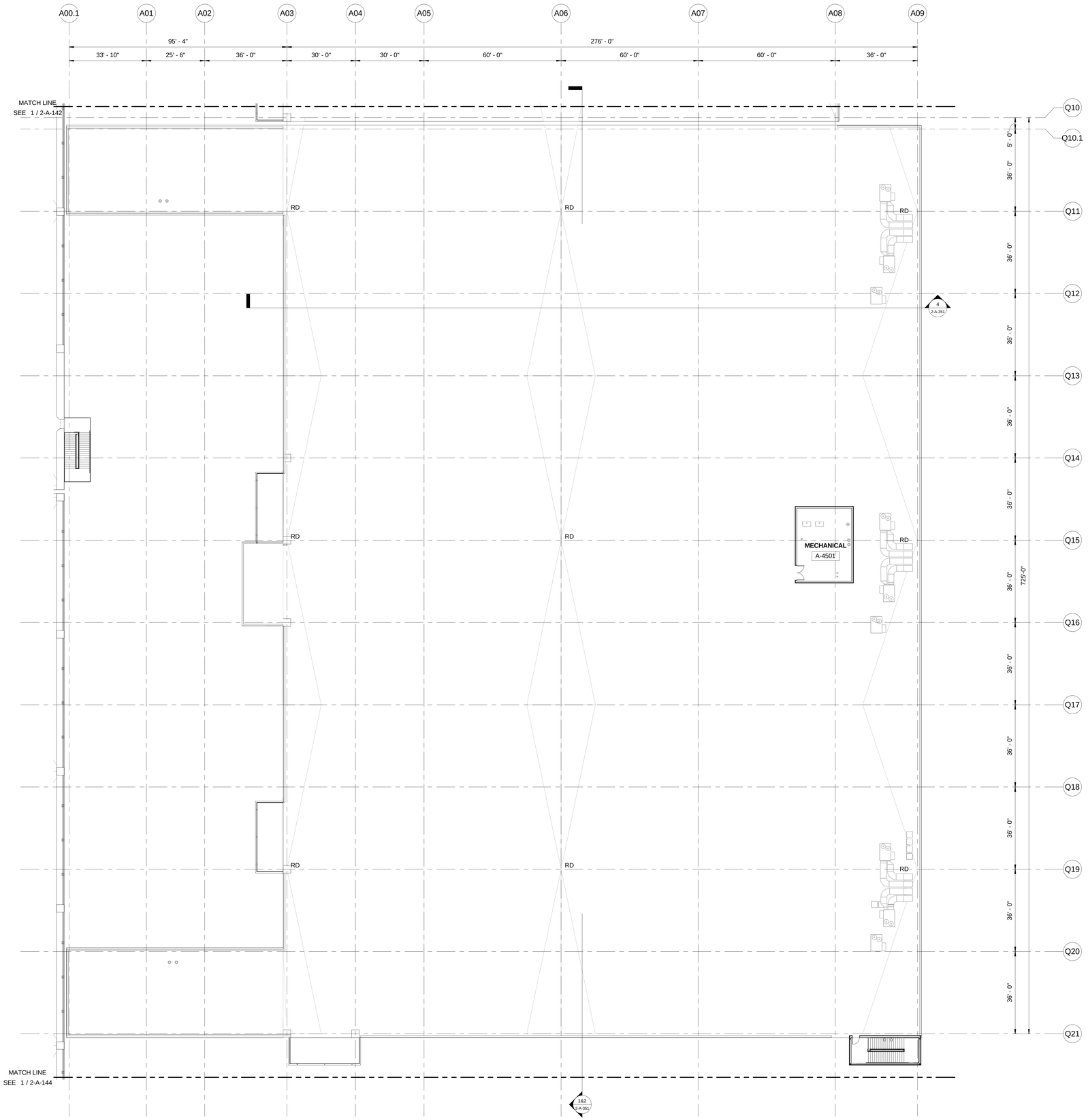
SHEET NO.

2-A-142

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajindgm.rvt

9/22/2016 4:00:46 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 4 FLOOR PLAN - ZONE 3
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-SA4881-BLDG_A_B_C-R15_kajeldgn.rvt
9/22/2016 4:00:47 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

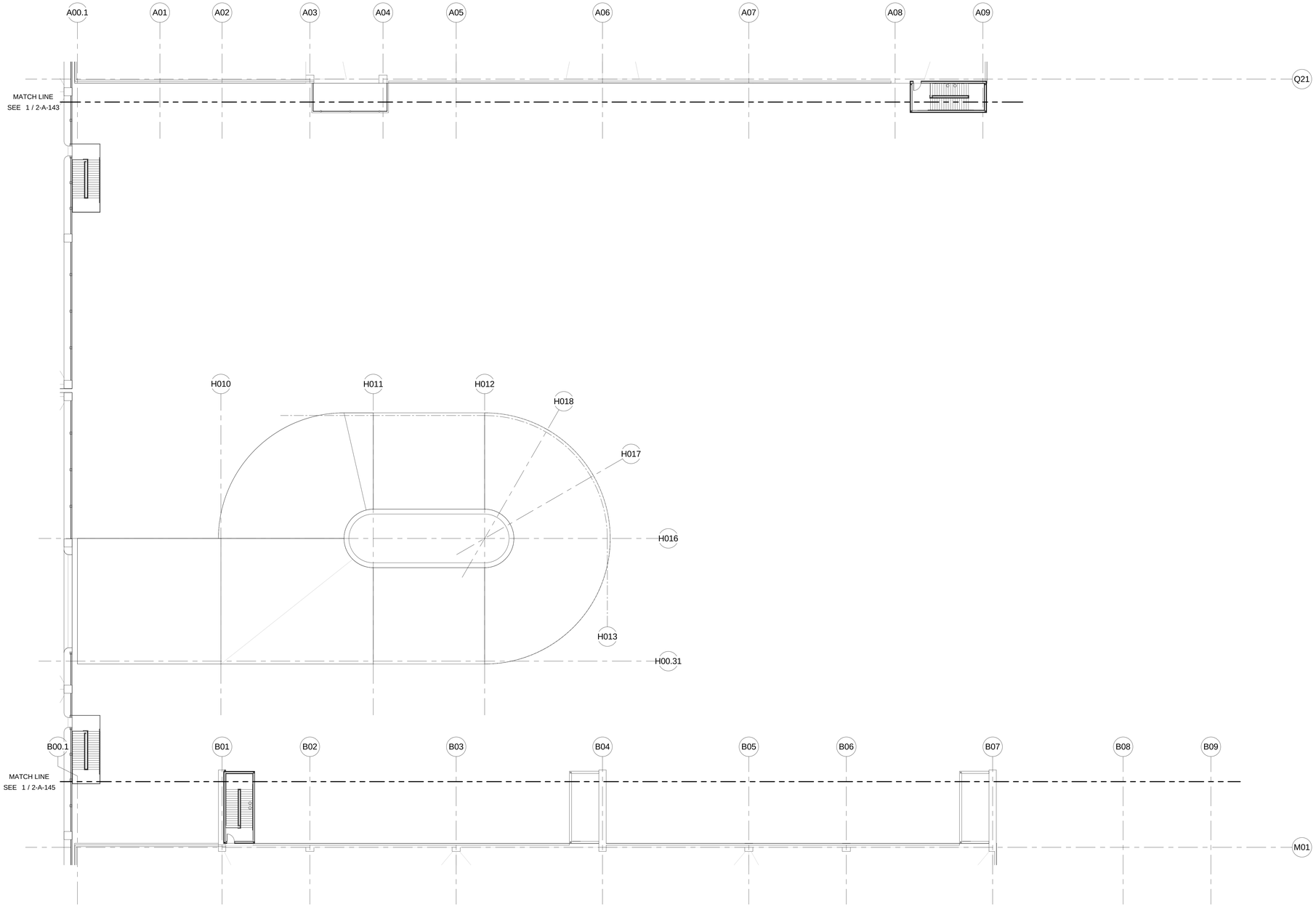
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 4 FLOOR PLAN

SHEET NO.

2-A-143



1 BUILDING B - QTA - LEVEL 4 FLOOR PLAN - ZONE 4
1/16" = 1'-0"

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

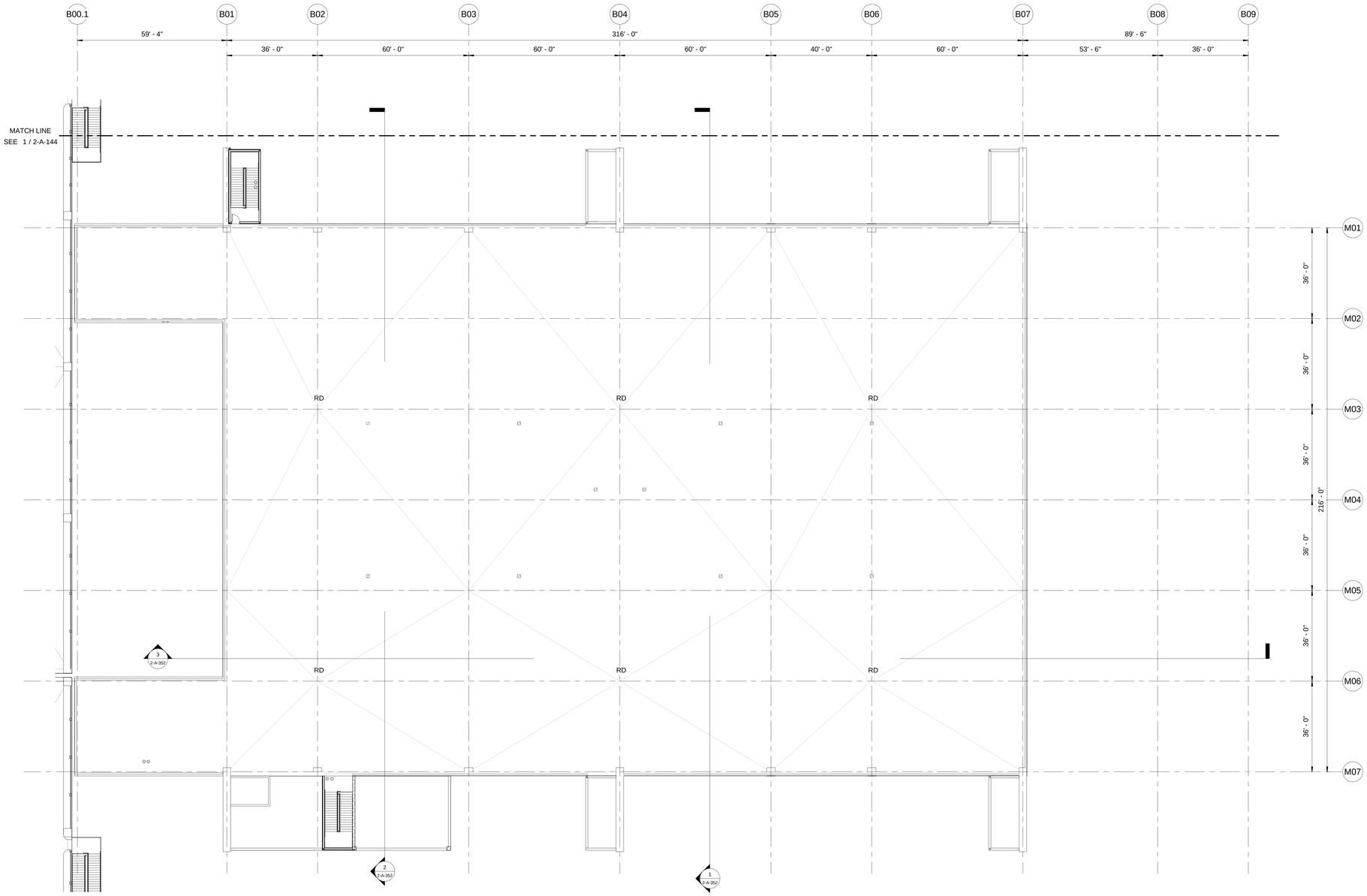
QTA LEVEL 4 FLOOR PLAN

SHEET NO.

2-A-144

H:\REVIT LOCAL FILES\DA4881-BLDG_A_B_C-R15_kaphodge.rvt

8/22/2016 4:00:50 PM



1 BUILDING B - QTA - LEVEL 4 FLOOR PLAN - ZONE 5
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

LAX CONRAC PMD

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

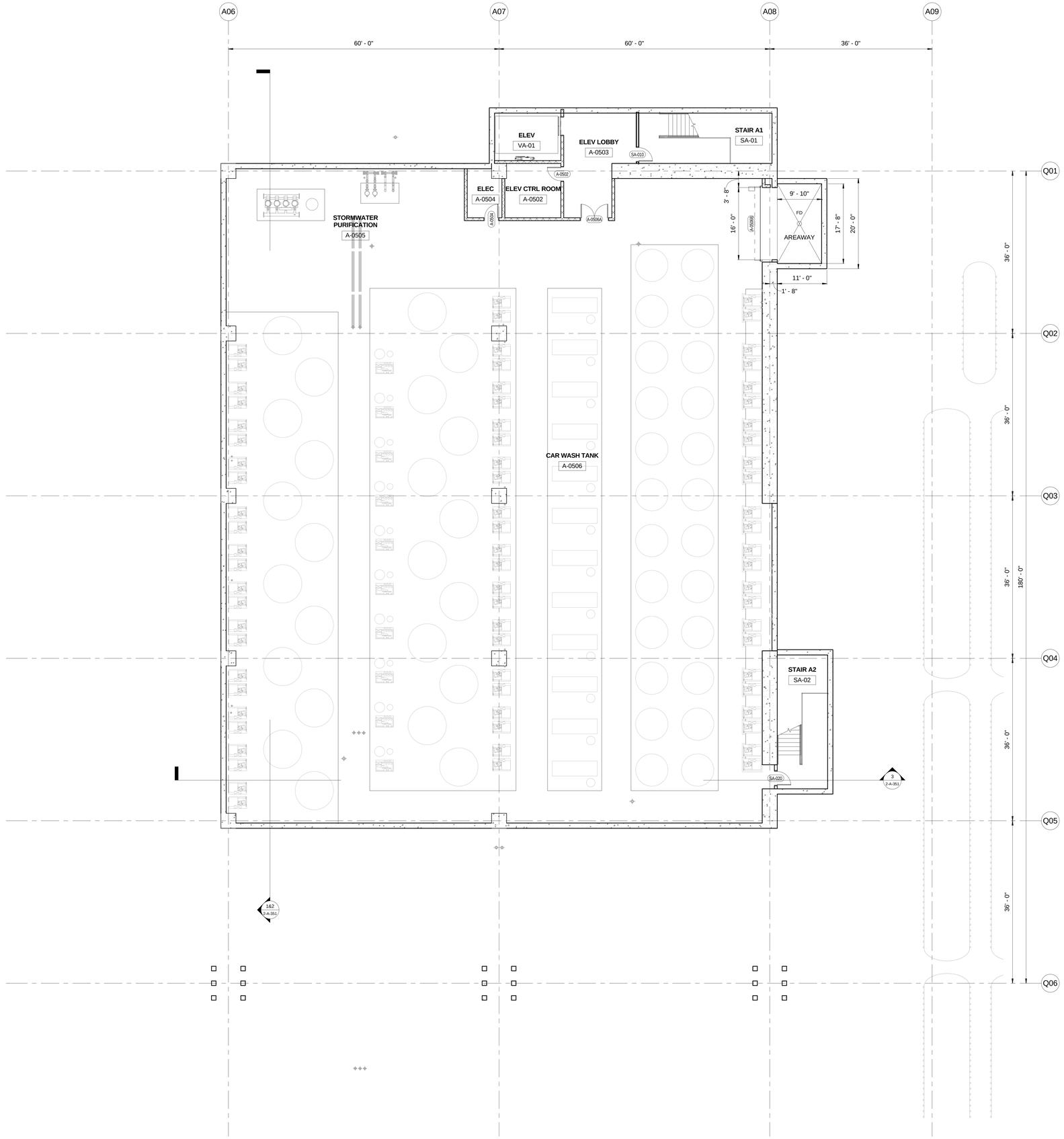
SHEET TITLE:

QTA LEVEL 4 FLOOR PLAN

SHEET NO.

2-A-145

9/22/2016 4:00:52 PM H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajtedgar.rvt



1 BUILDING A - QTA - LEVEL 0 ENLARGED PLAN - A5
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 0 ENLARGED PLAN - PART A5

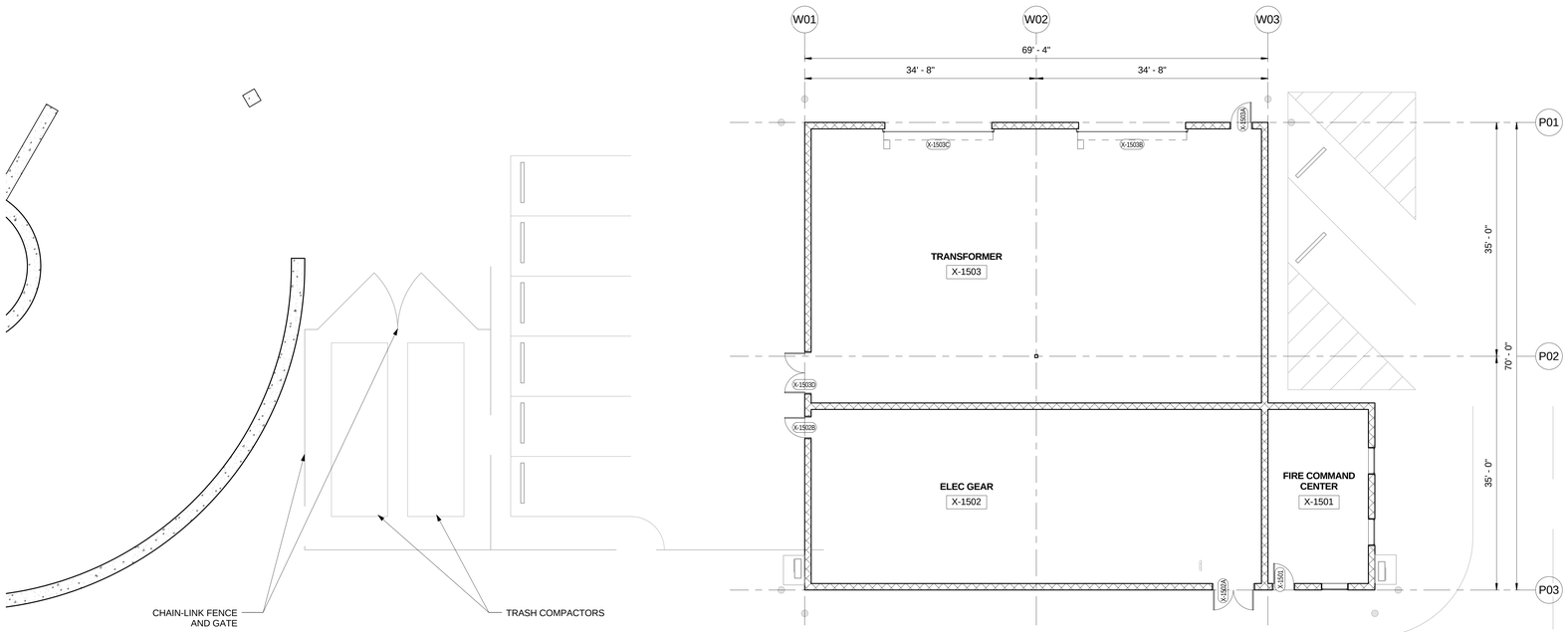
SHEET NO.

2-A-205

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajimdgm.rvt

9/22/2016 4:00:56 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 ELECTRICAL & FIRE COMMAND - LEVEL 1 ENLARGED PLAN
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

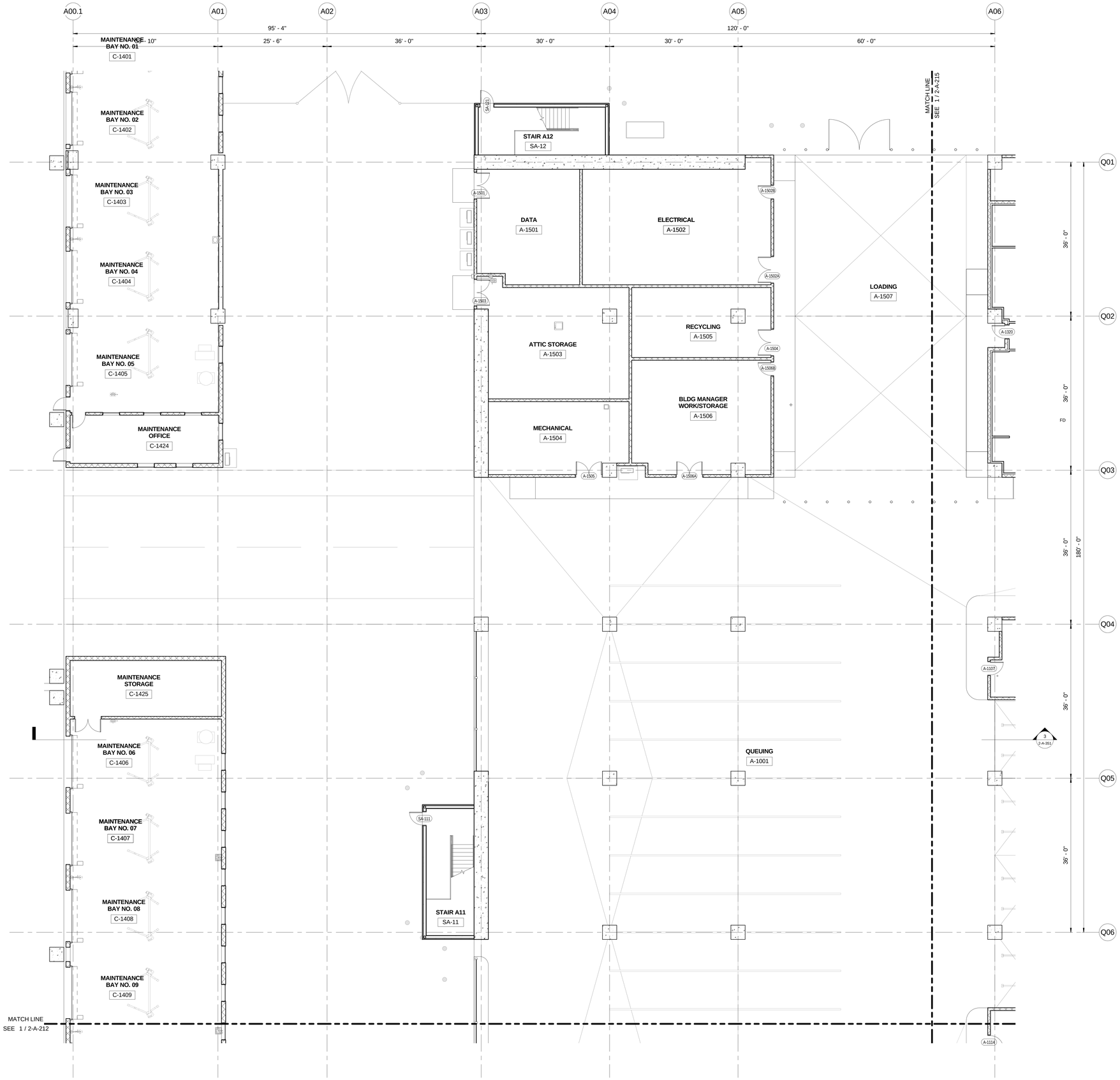
SHEET TITLE:

ELECTRICAL & FIRE COMMAND ENLARGED PLAN

SHEET NO.

2-A-210

9/23/2016 9:51:07 AM H:\REVIT LOCAL FILES\x-DA4881-BLDG_A_B_C-R15_kajeidger.rvt



1 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN - PART A1
1/8" = 1'-0"

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8
B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A1

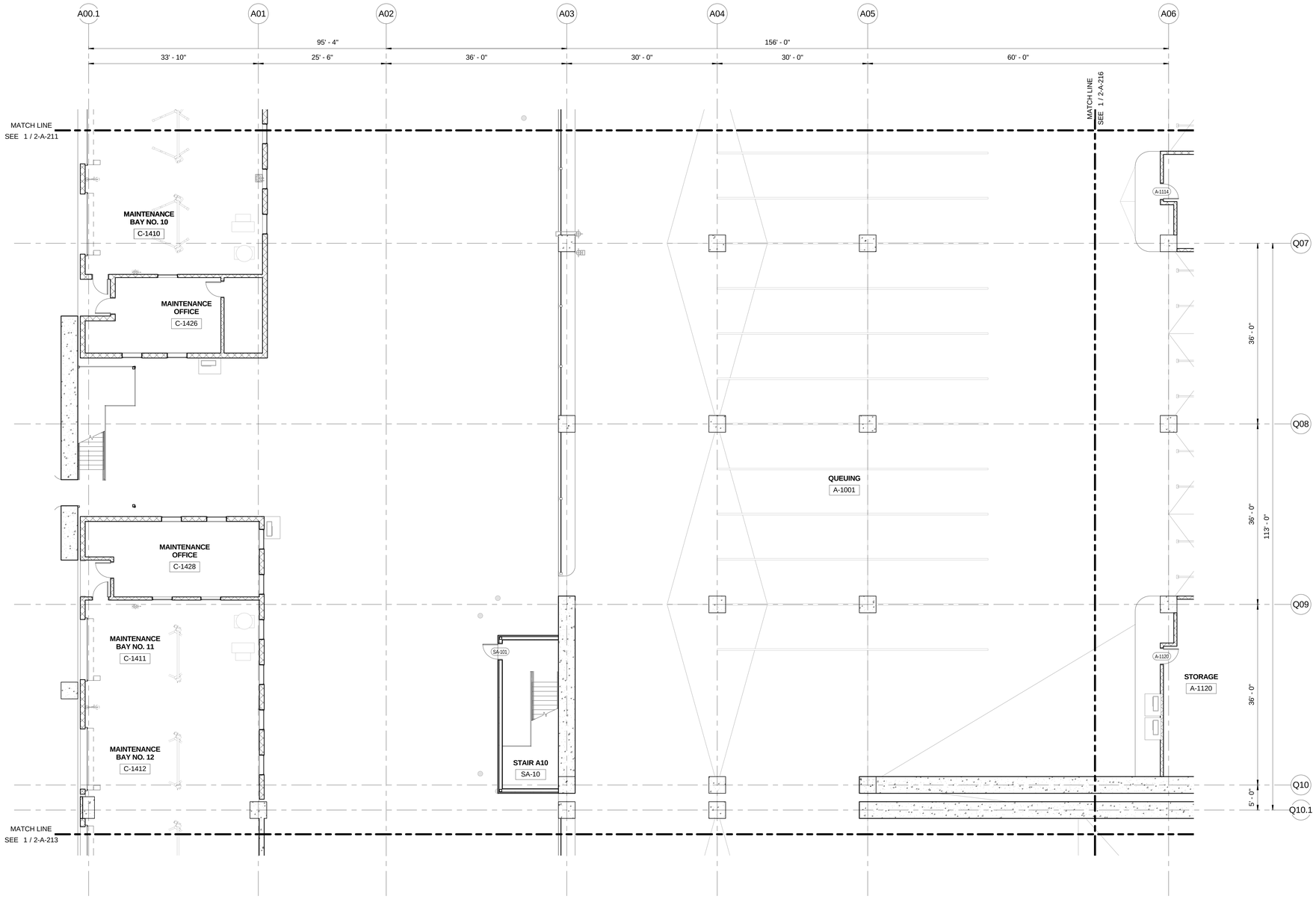
SHEET NO.

2-A-211

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajahdgar.rvt

9/22/2016 4:03:01 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN - PART A2
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNdlh0gY.rvt
9/22/2016 4:01:04 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

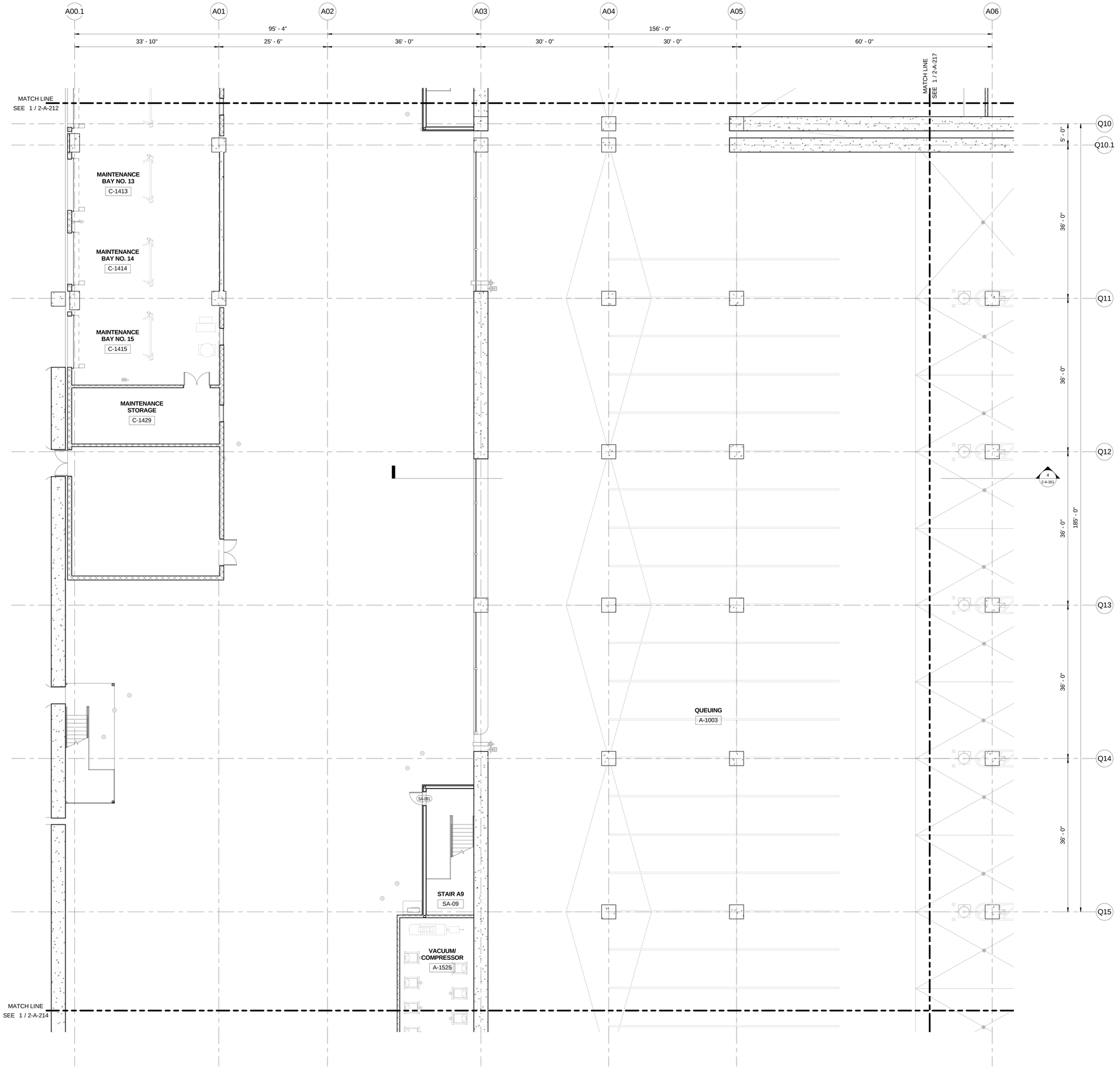
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A2

SHEET NO.

2-A-212



1 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN - PART A3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS: | MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A3

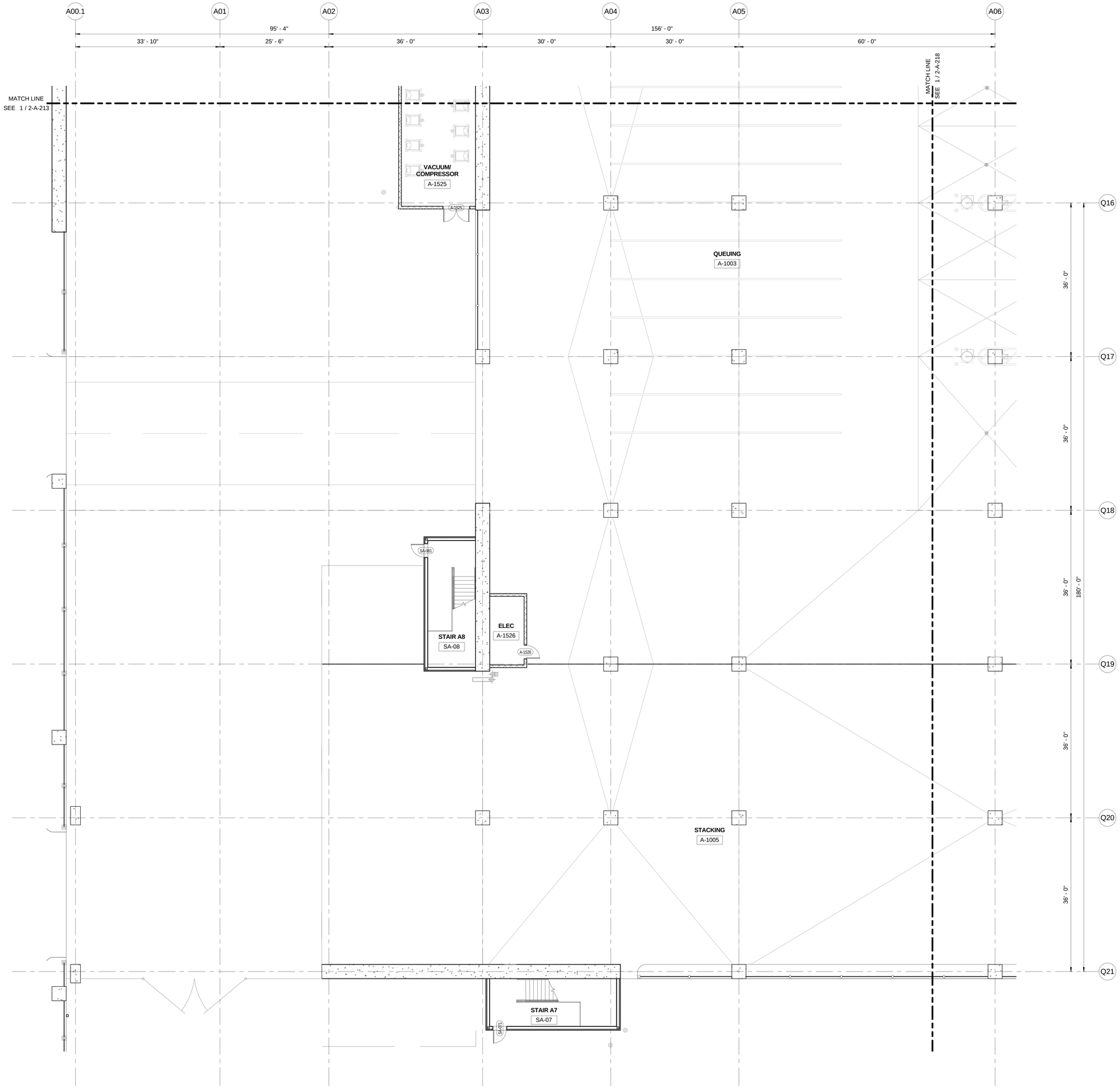
SHEET NO.

2-A-213

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNohl\dgn\.rvt

9/22/2016 4:43:07 PM



1 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN - PART A4
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

REVISIONS: DESCRIPTION DATE MARK

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A4

SHEET NO.

2-A-214

H:\REVIT LOCAL FILES\A-SA4881-BUDG_A_B_C-R15_kajtedgar.rvt

9/22/2016 4:01:09 PM

1 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN - PART A5
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS: MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 1
ENLARGED PLAN -
PART A5

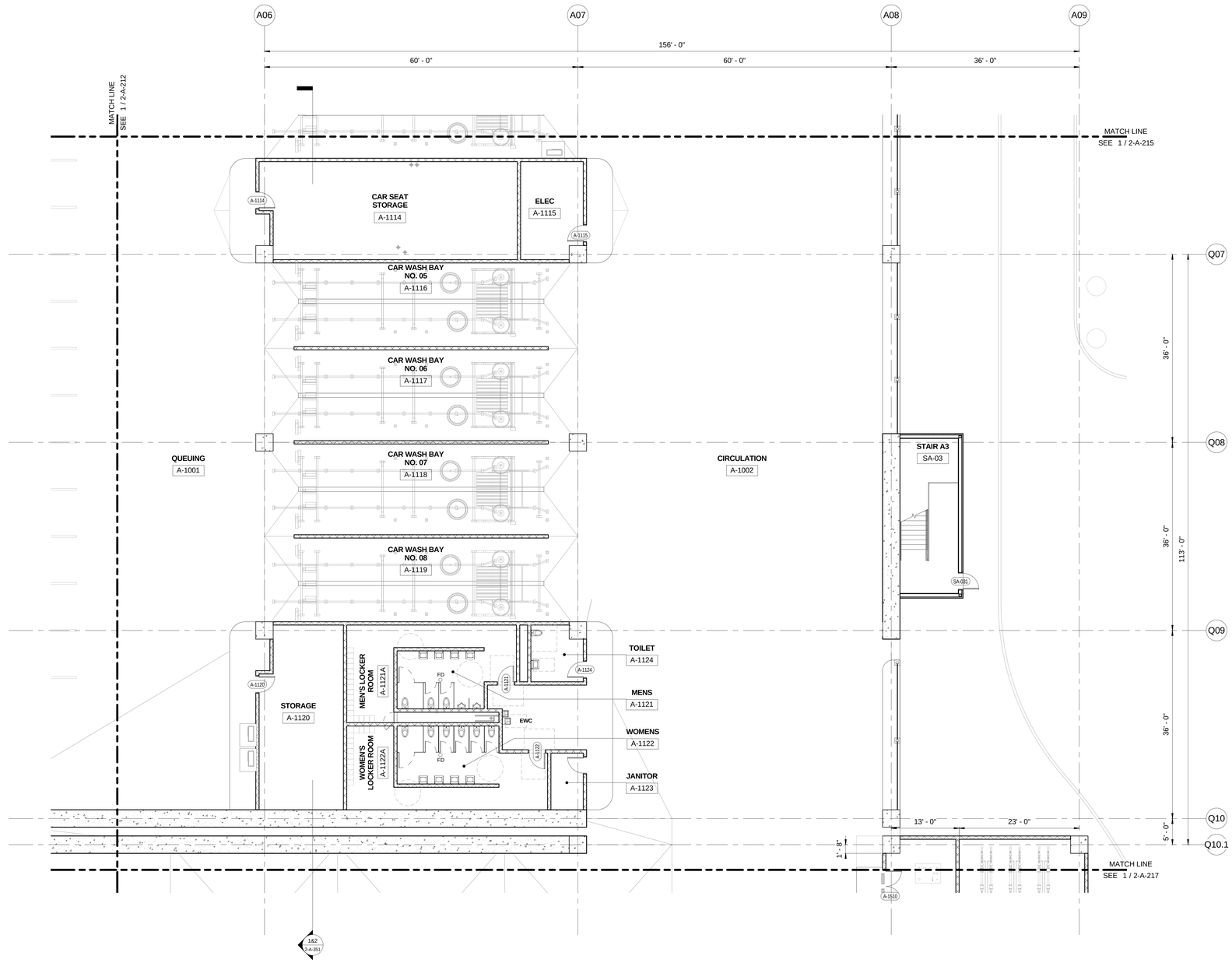
SHEET NO.

2-A-215

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajimdgan.rvt

9/22/2016 4:03:16 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN - PART A6
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

LAX CONRAC PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

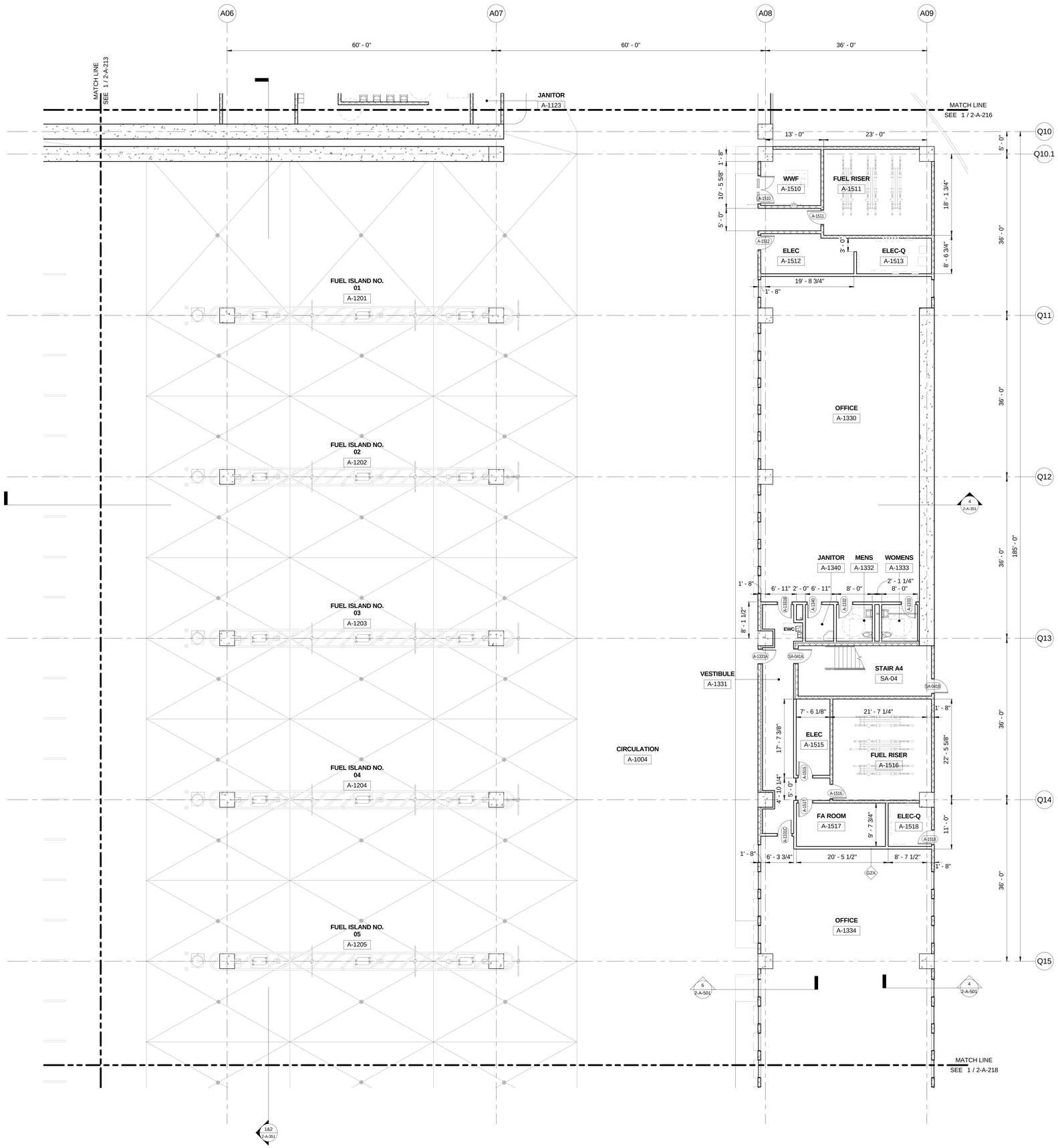
SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A6

SHEET NO.

2-A-216

9/22/2016 4:01:26 PM H:\REVIT LOCAL FILES\X-DA4881-BLDG_A_B_C-R15_kajtedgar.rvt



1 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN - PART A7
1/8" = 1'-0"

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BUDG_A_B_C-R15_tuplodgm.rvt
9/22/2016 4:02:31 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

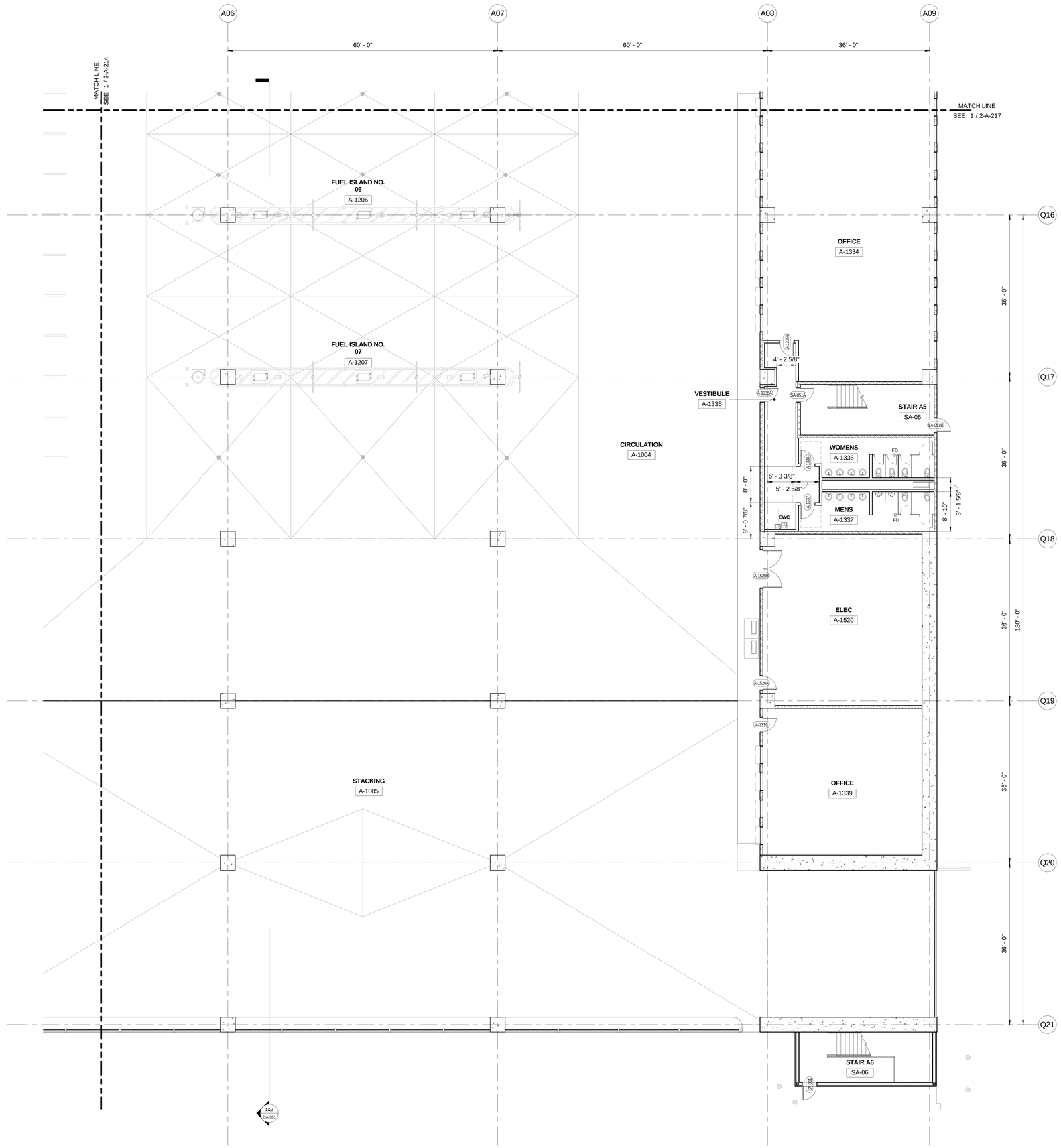
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A7

SHEET NO.

2-A-217



1 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN - PART A8
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

LAX NEXT PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

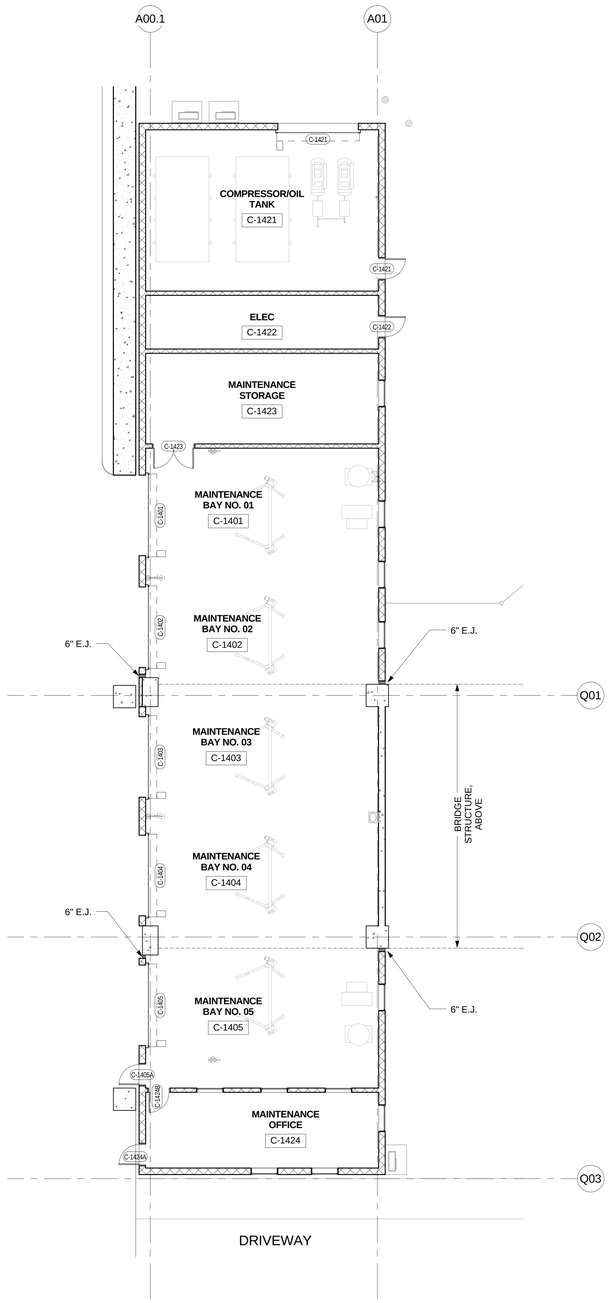
QTA LEVEL 1 ENLARGED PLAN - PART A8

SHEET NO.

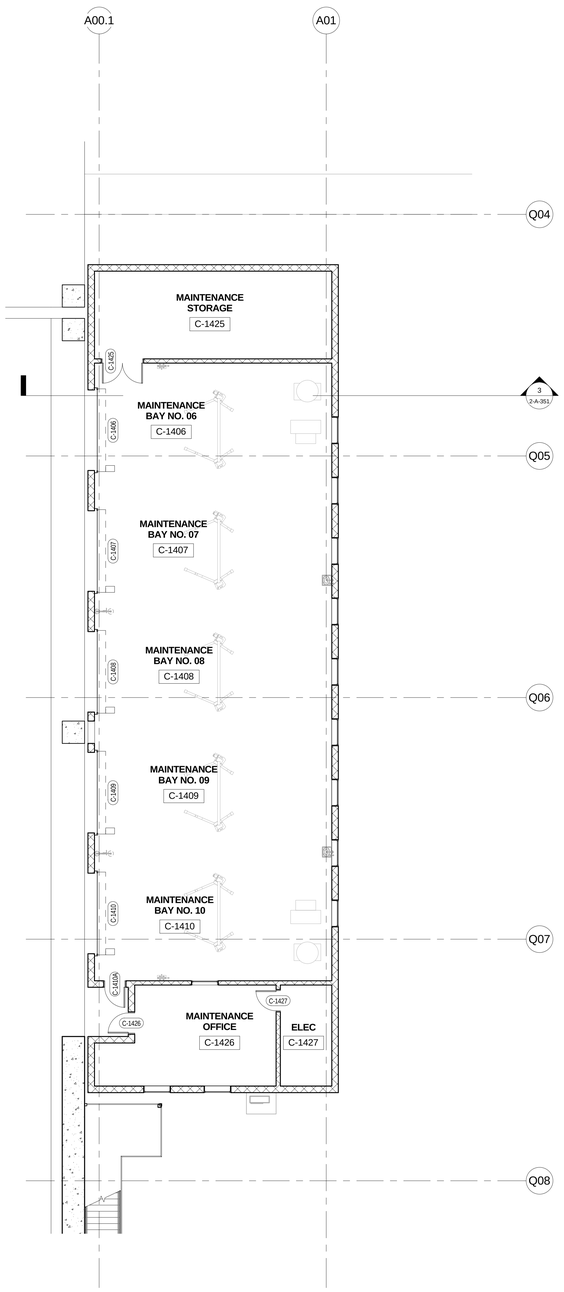
2-A-218

H:\REVIT LOCAL FILES\A-SA4881-BUDG_A_B_C-R15_kajtelgjer.rvt

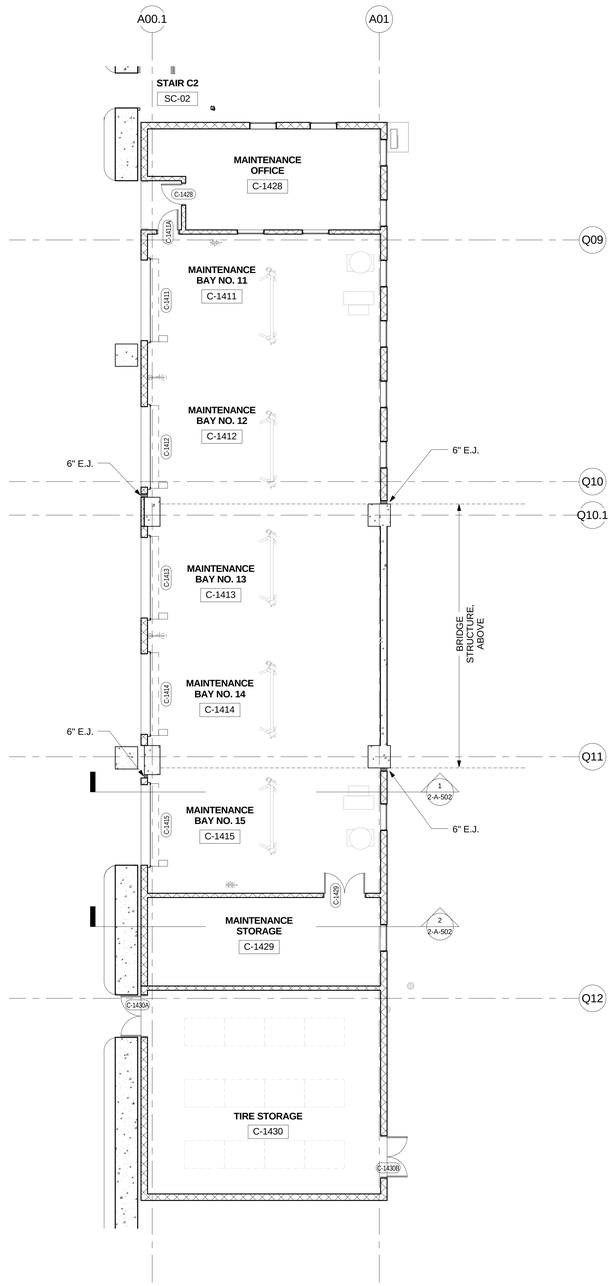
9/22/2016 4:02:54 PM



1 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN - MAINTENANCE NORTH
1/8" = 1'-0"



2 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN - MAINTENANCE CENTER
1/8" = 1'-0"



3 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN - MAINTENANCE SOUTH
1/8" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

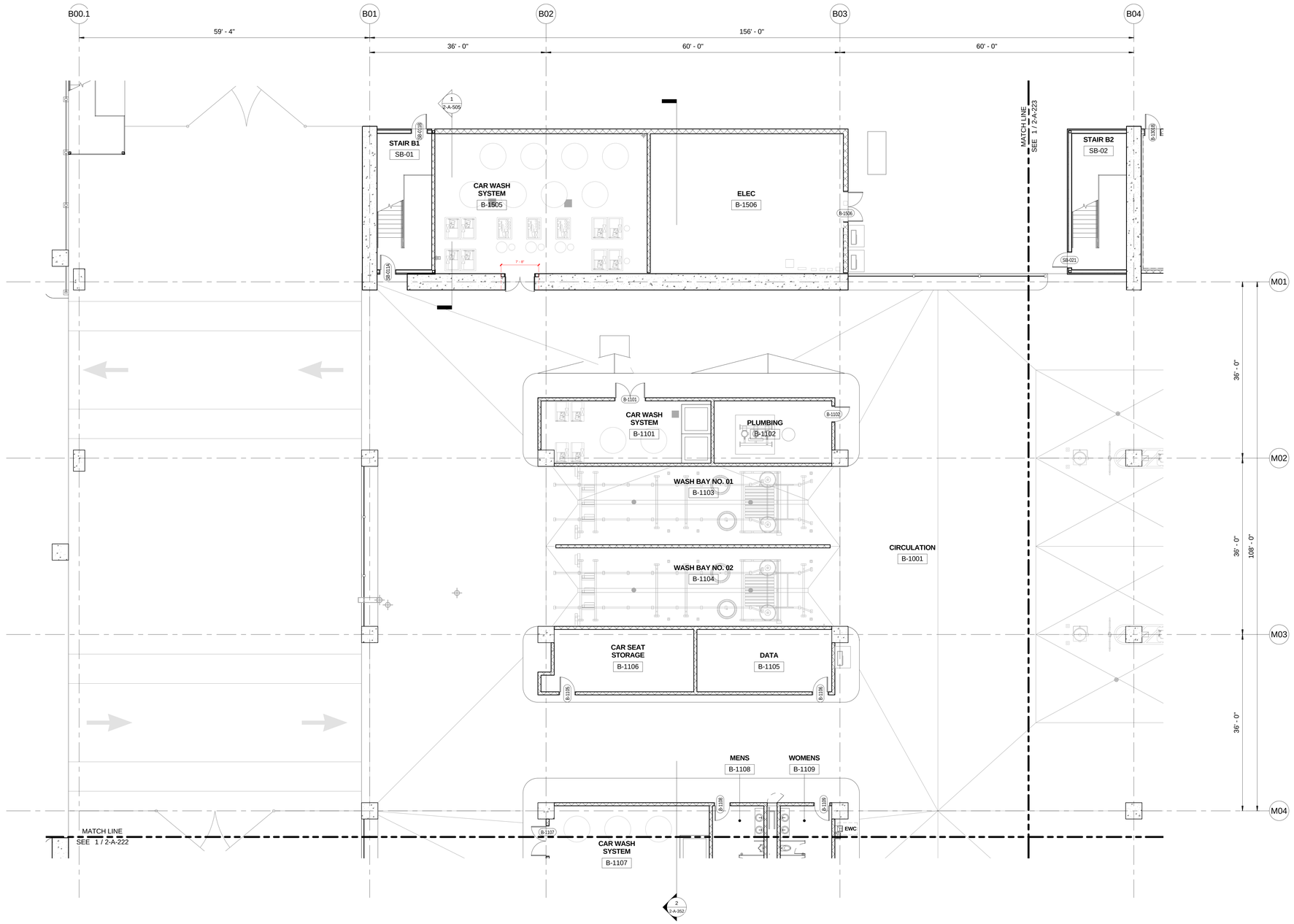
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
QTA LEVEL 1 ENLARGED PLAN - MAINTENANCE

SHEET NO.
2-A-219

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajeidger.rvt
9/22/2016 4:00:59 PM



1 BUILDING B - QTA - LEVEL 1 ENLARGED PLAN - PART B1
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

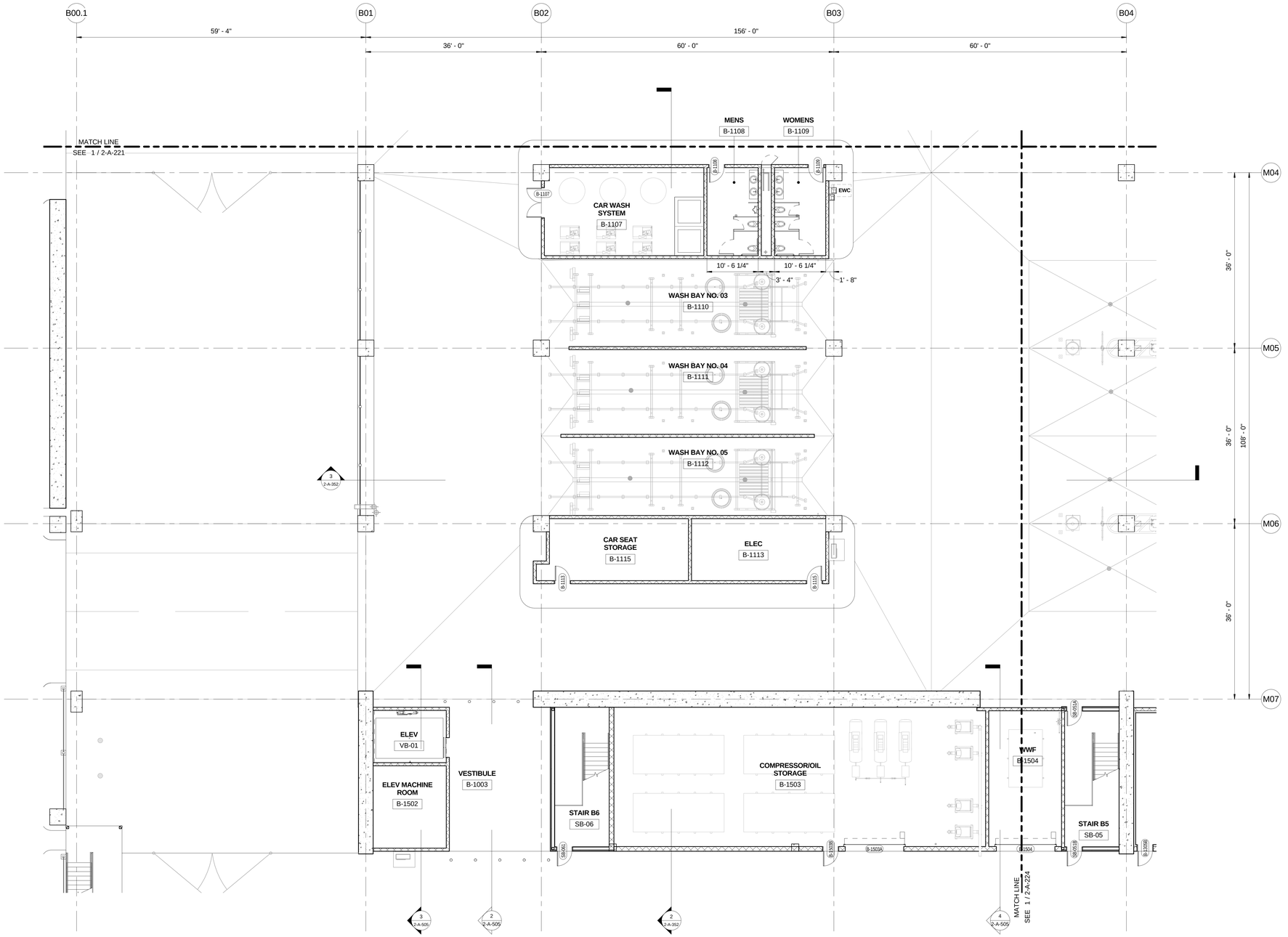
QTA LEVEL 1 ENLARGED PLAN - PART B1

SHEET NO.

2-A-221

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNoh9dgkr.rvt

9/22/2016 4:03:09 PM



1 BUILDING B - QTA - LEVEL 1 ENLARGED PLAN - PART B2
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

LAX ON PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

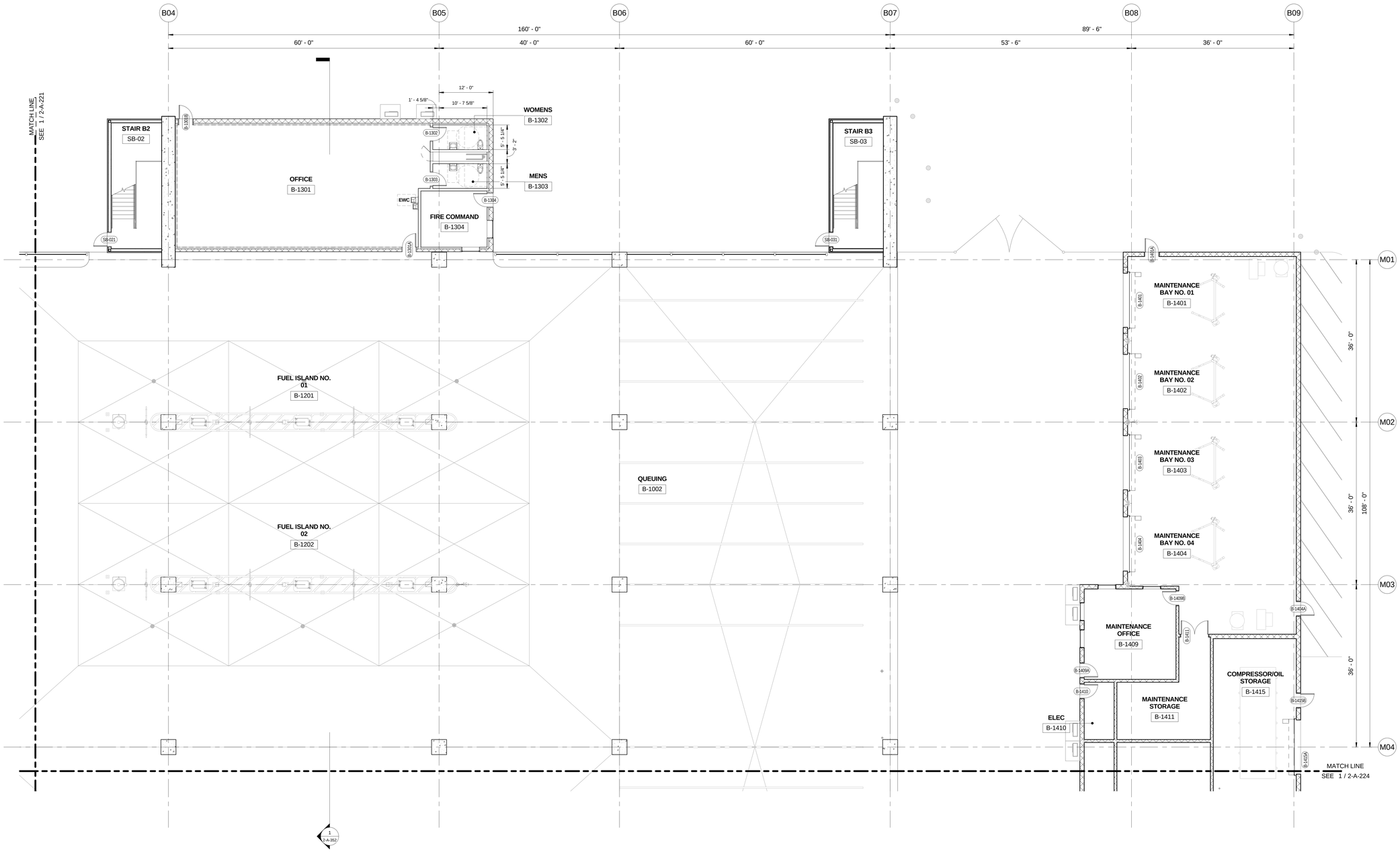
QTA LEVEL 1 ENLARGED PLAN - PART B2

SHEET NO.

2-A-222

H:\REVIT LOCAL FILES\A-DA4881-BUDG_A_B_C-R15_kajimi@jer.rvt

9/22/2016 4:03:21 PM



1 BUILDING B - QTA - LEVEL 1 ENLARGED PLAN - PART B3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART B3

SHEET NO.

2-A-223

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:03:36 PM
H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNoh\dgnr.rvt

B04 B05 B06 B07 B08 B09

160' - 0" | 89' - 6"

60' - 0" | 40' - 0" | 60' - 0" | 53' - 6" | 36' - 0"

MATCH LINE
SEE 1 / 2-A-223

M04 M05 M06 M07

36' - 0" | 36' - 0" | 108' - 0" | 36' - 0"

FUEL ISLAND NO. 03
B-1203

FUEL ISLAND NO. 04
B-1204

QUEUING
B-1002

FIRE ALARM
B-1412

MAINTENANCE STORAGE
B-1413

COMPRESSOR/OIL STORAGE
B-1415

MAINTENANCE OFFICE
B-1414

MAINTENANCE BAY NO. 05
B-1405

MAINTENANCE BAY NO. 06
B-1406

MAINTENANCE BAY NO. 07
B-1407

MAINTENANCE BAY NO. 08
B-1408

B-1412 | B-1414A | B-1413 | B-1414B | B-1415A | B-1415A | B-1405 | B-1406 | B-1407 | B-1408 | B-1405A

2 / 2-A-506

1 / 2-A-506

3 / 2-A-352

WWF
B-1504

STAIR B5
SB-05

OFFICE
B-1305

JANITOR
B-1306

MENS
B-1307

WOMENS
B-1308

EWC

B-1504 | SB-05SB | B-1305A | B-1305B | B-1307 | B-1308 | B-1306

10' - 8 1/8" | 8' - 0" | 3' - 2" | 8' - 0"

2' - 7 5/8" | 8' - 0" | 12' - 0"

423

STAIR B4
SB-04

MATCH LINE
SEE 1 / 2-A-222

1 / 2-A-352

1 BUILDING B - QTA - LEVEL 1 ENLARGED PLAN - PART B4
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART B4

SHEET NO.

2-A-224

H:\REVIT LOCAL FILES\X-DA4881-BLDG_A_B_C-R15_Nat#ridgir.rvt

9/22/2016 4:03:52 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

LAX
ONT
PMD

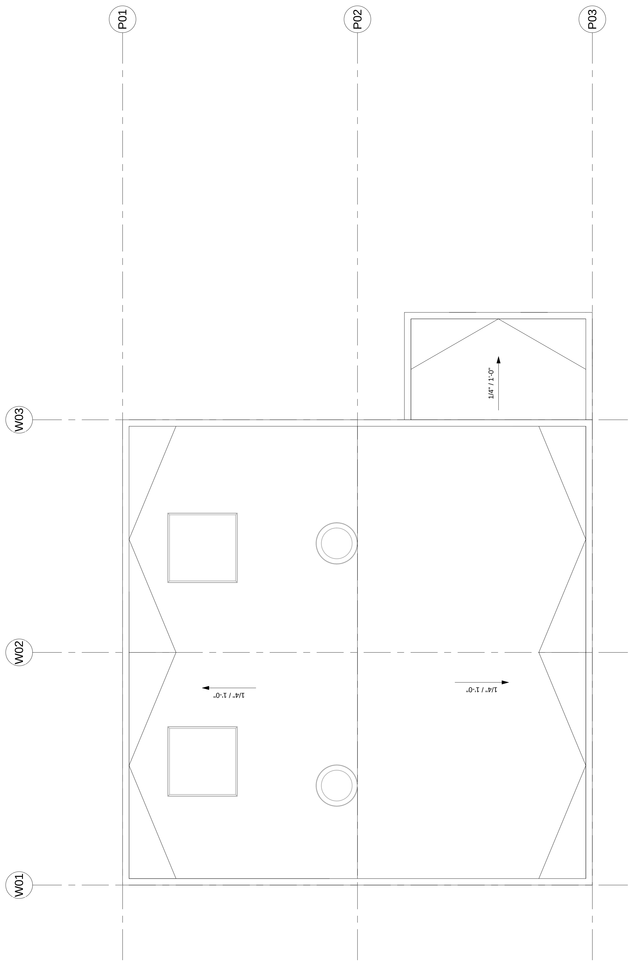
MARK	DATE	DESCRIPTION

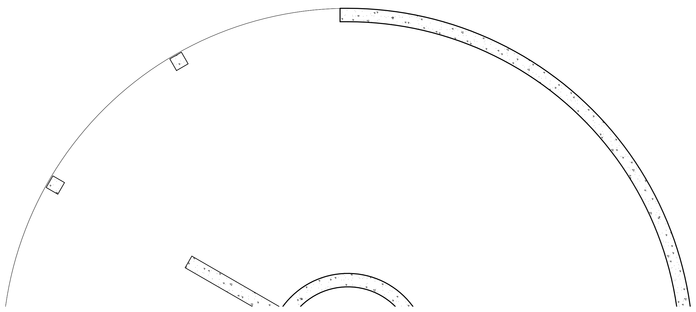
REVISIONS:

PROJ NO: DA4681
SCALE: 1/8" = 1'-0"
DATE: 09/23/2016
DESIGNED BY: JQ
DRAWN BY: JN
CHECKED BY: NL

SHEET TITLE:
ELECTRICAL & FIRE COMMAND ENLARGED ROOF PLAN

SHEET NO.
2-A-230



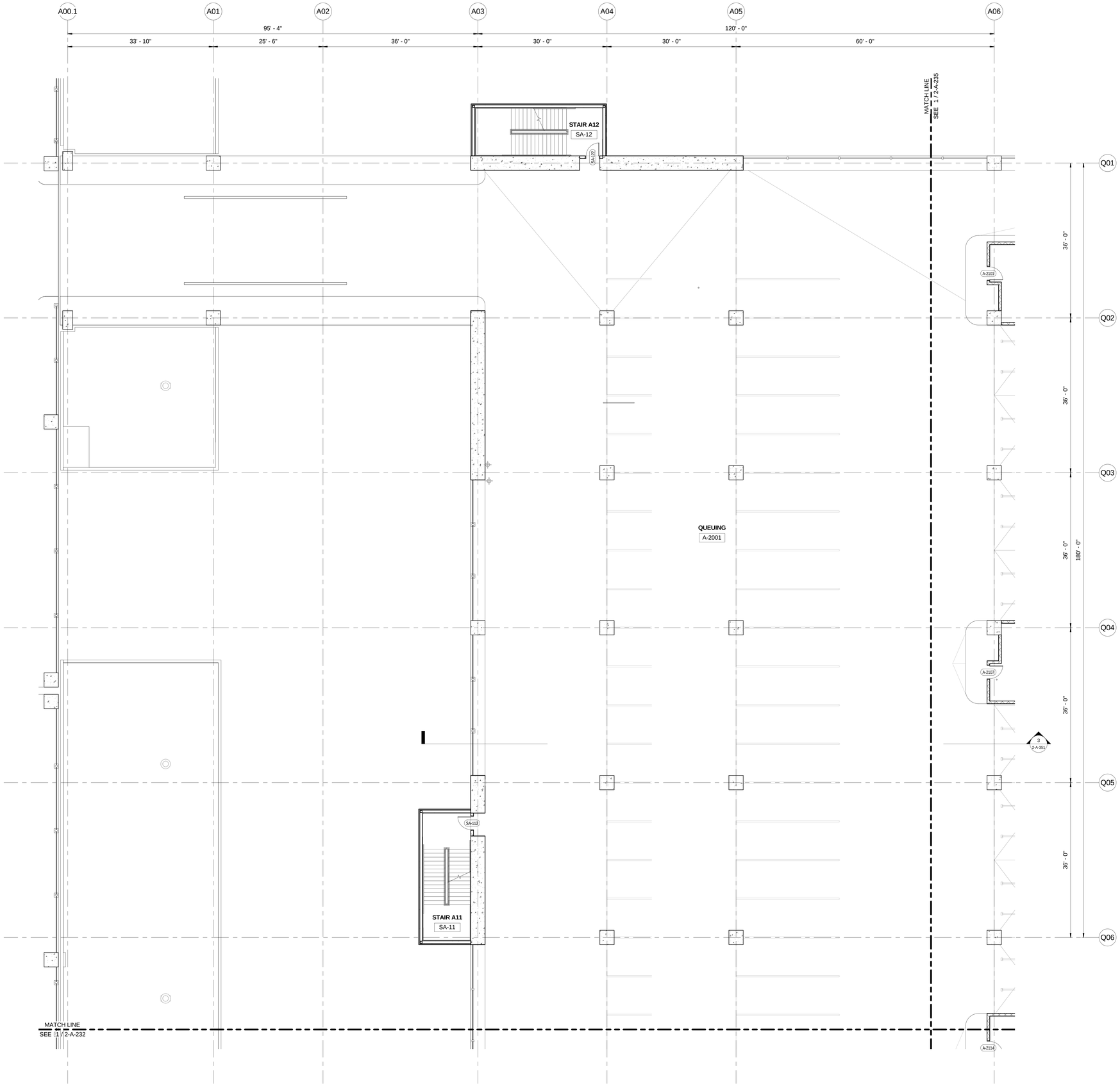


1 ELECTRICAL & FIRE COMMAND - ENLARGED ROOF PLAN
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4681-BLDG_A_B_C-R15_kaylledger.rvt

8/23/2016 9:51:08 AM



1 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN - PART A1
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_tajahidgm.rvt
9/22/2016 4:03:57 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DESCRIPTION	DATE

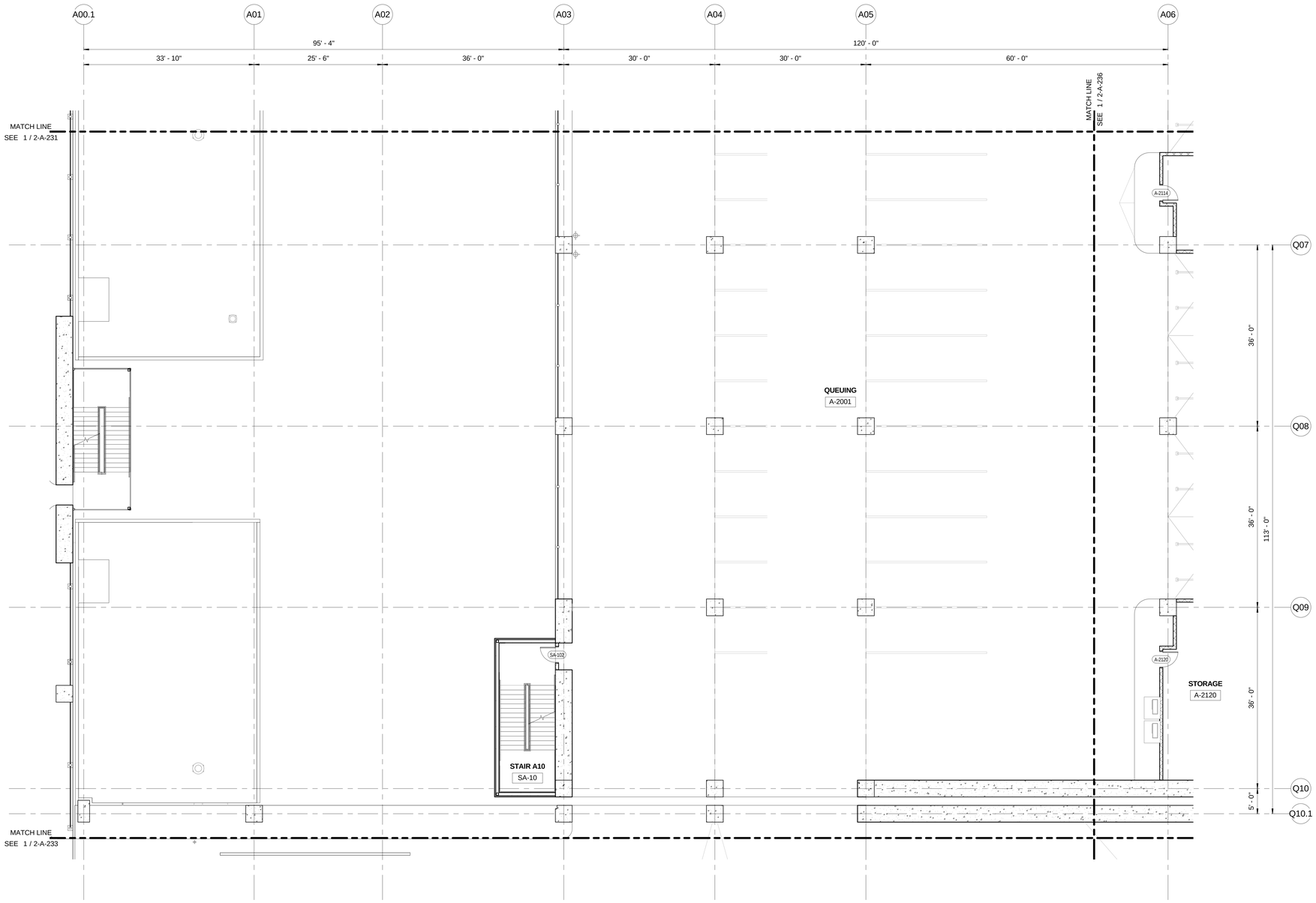
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A1

SHEET NO.

2-A-231



1 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN - PART A2
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

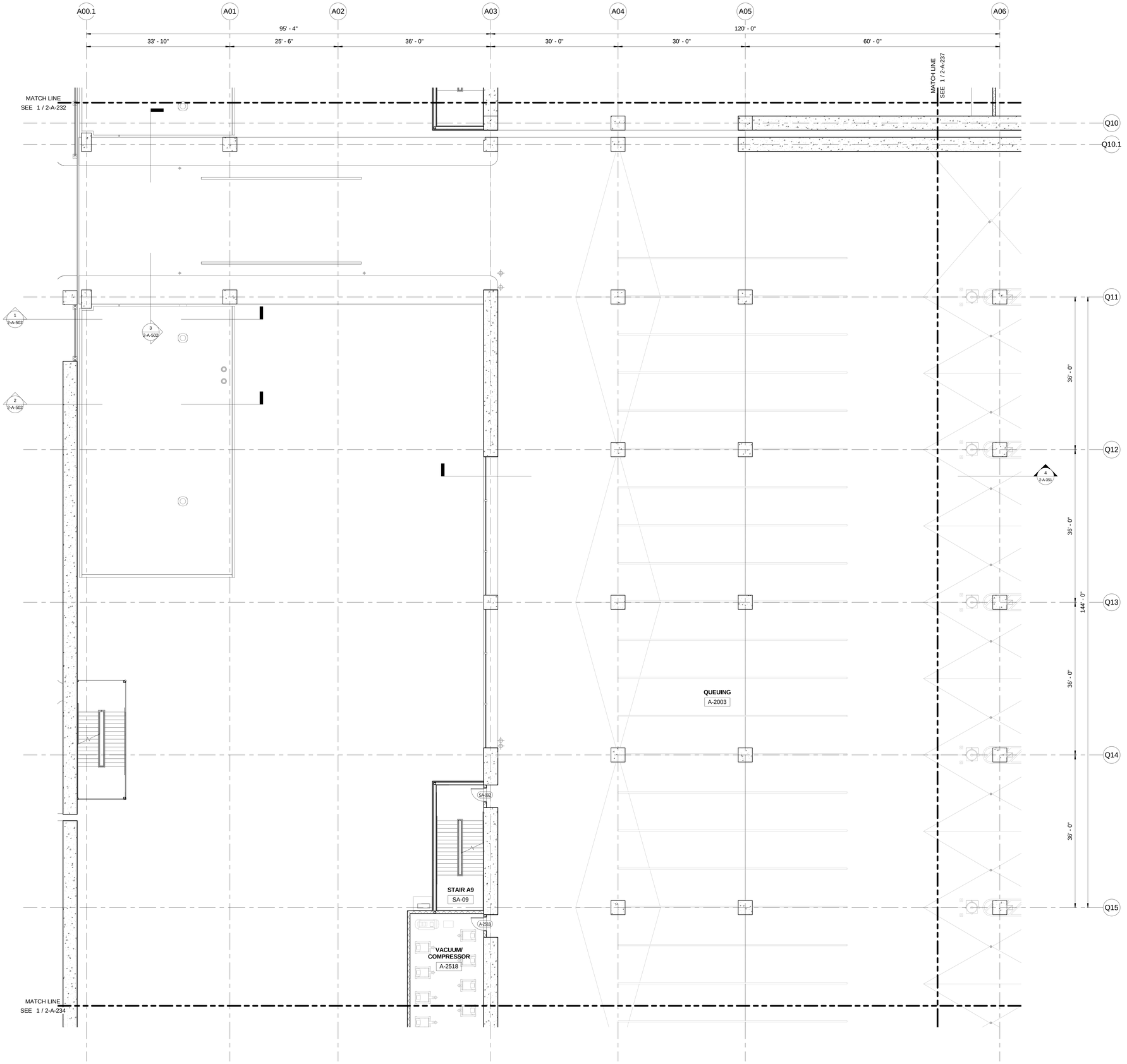
QTA LEVEL 2 ENLARGED PLAN - PART A2

SHEET NO.

2-A-232

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajimdgm.rvt

8/22/2018 4:03:39 PM



1 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN - PART A3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

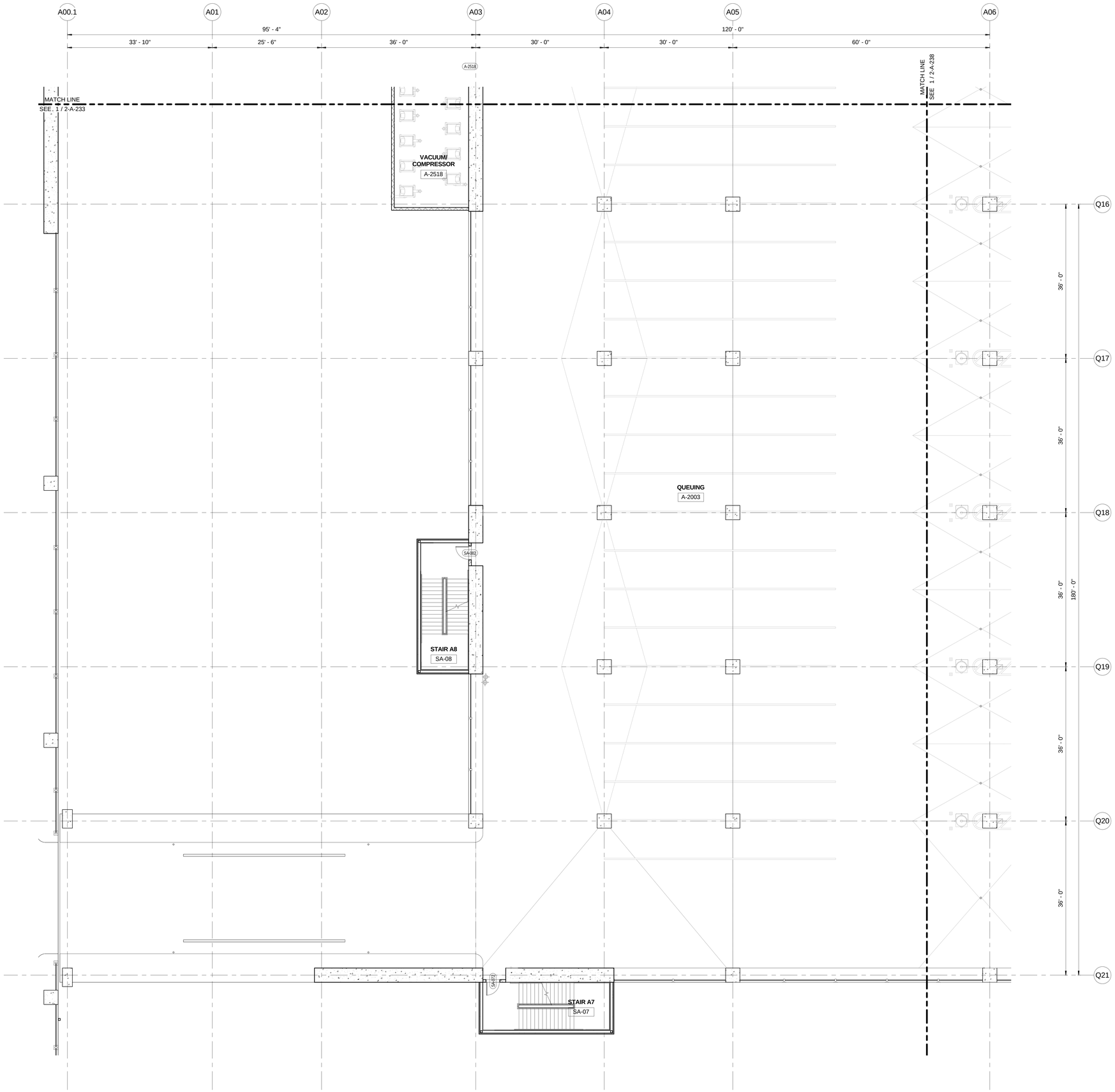
QTA LEVEL 2 ENLARGED PLAN - PART A3

SHEET NO.

2-A-233

9/22/2016 4:04:02 PM

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNdlh0gV.rvt



1 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN - PART A4
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BUDG_A_B_C-R15_tuphidgm.rvt
9/22/2016 4:04:05 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

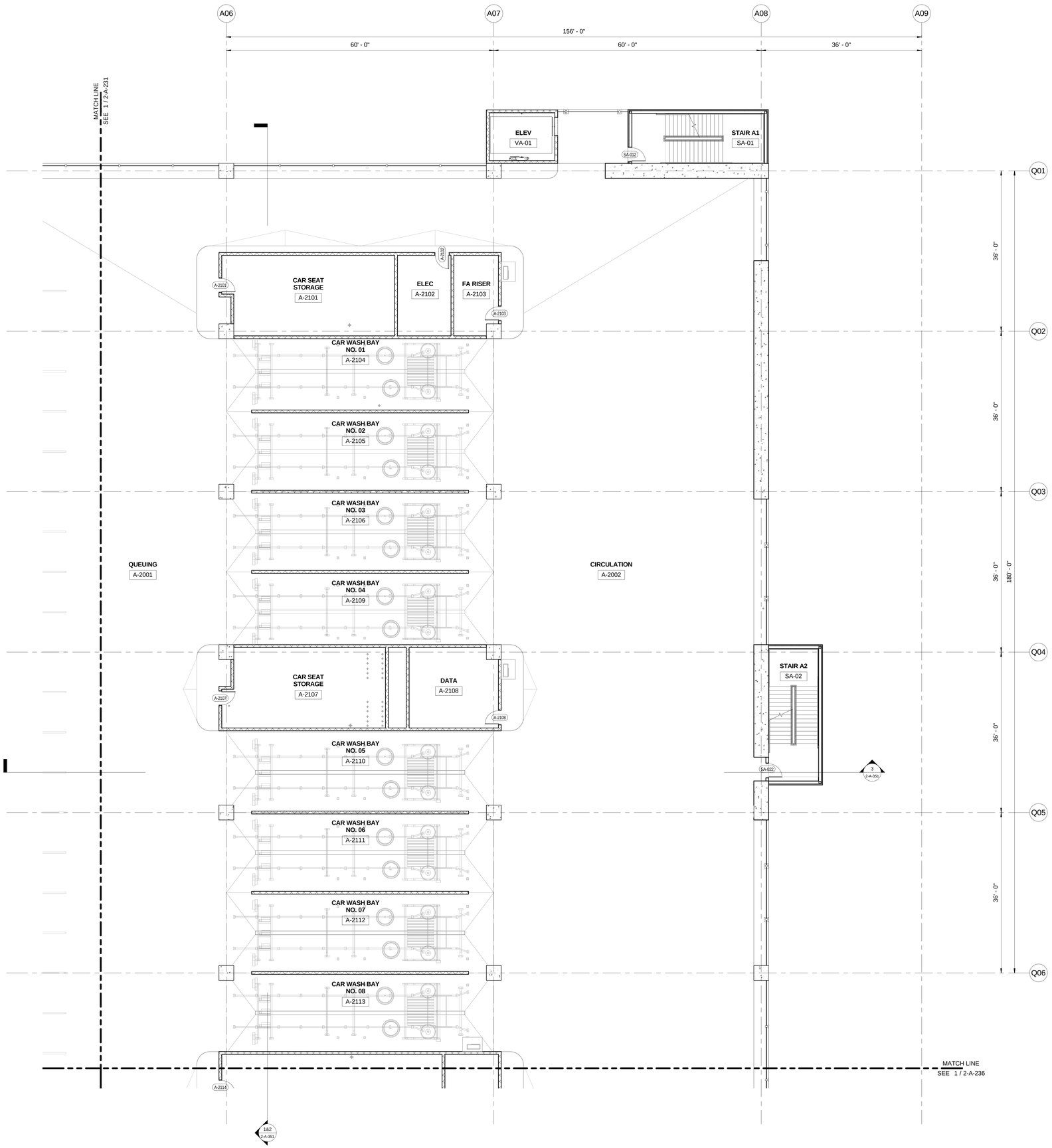
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 2
ENLARGED PLAN -
PART A4

SHEET NO.

2-A-234



1 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN - PART A5
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajtedgar.rvt
9/22/2016 4:04:13 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

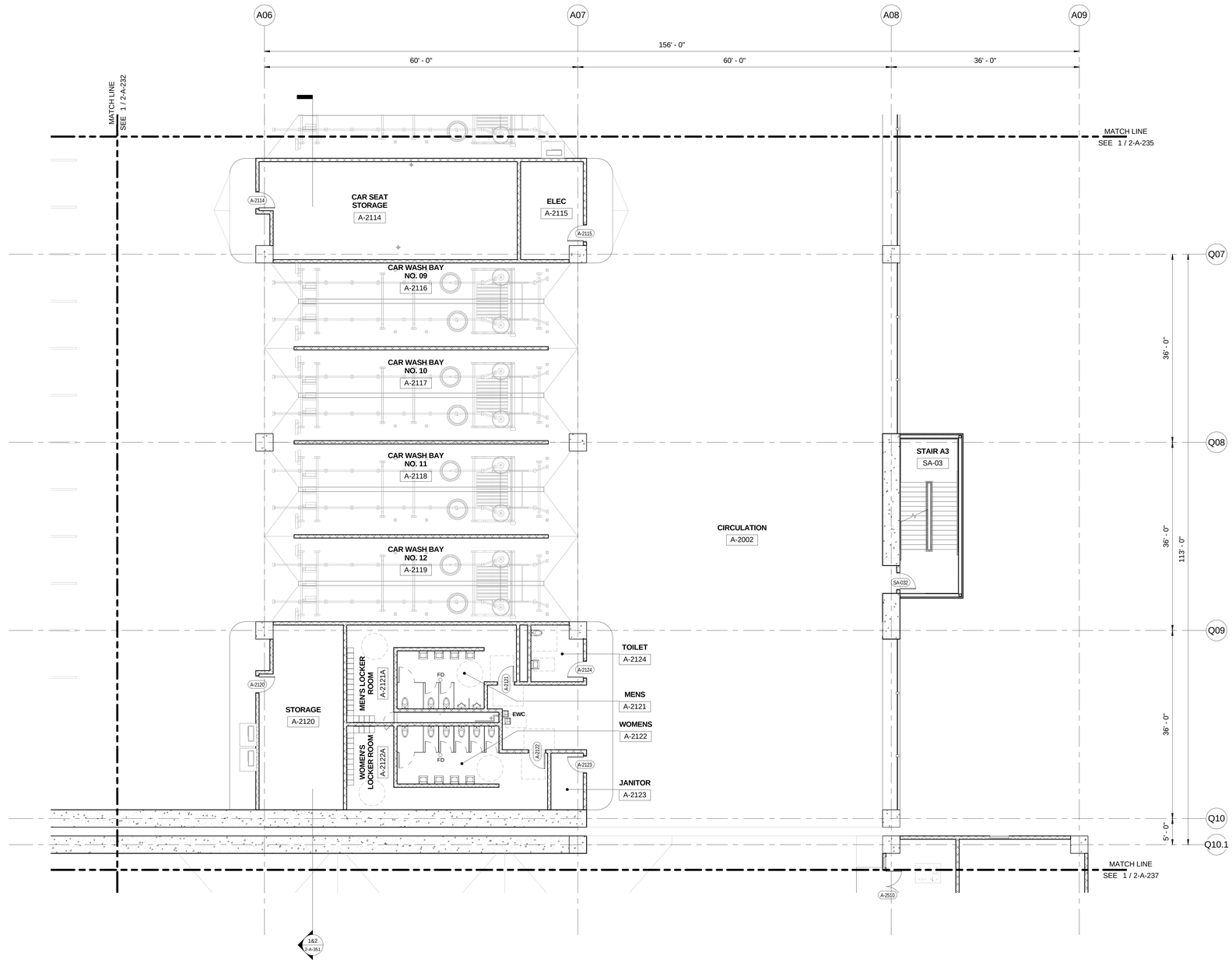
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A5

SHEET NO.

2-A-235



1 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN - PART A6
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONCEPT PMD LAWA LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

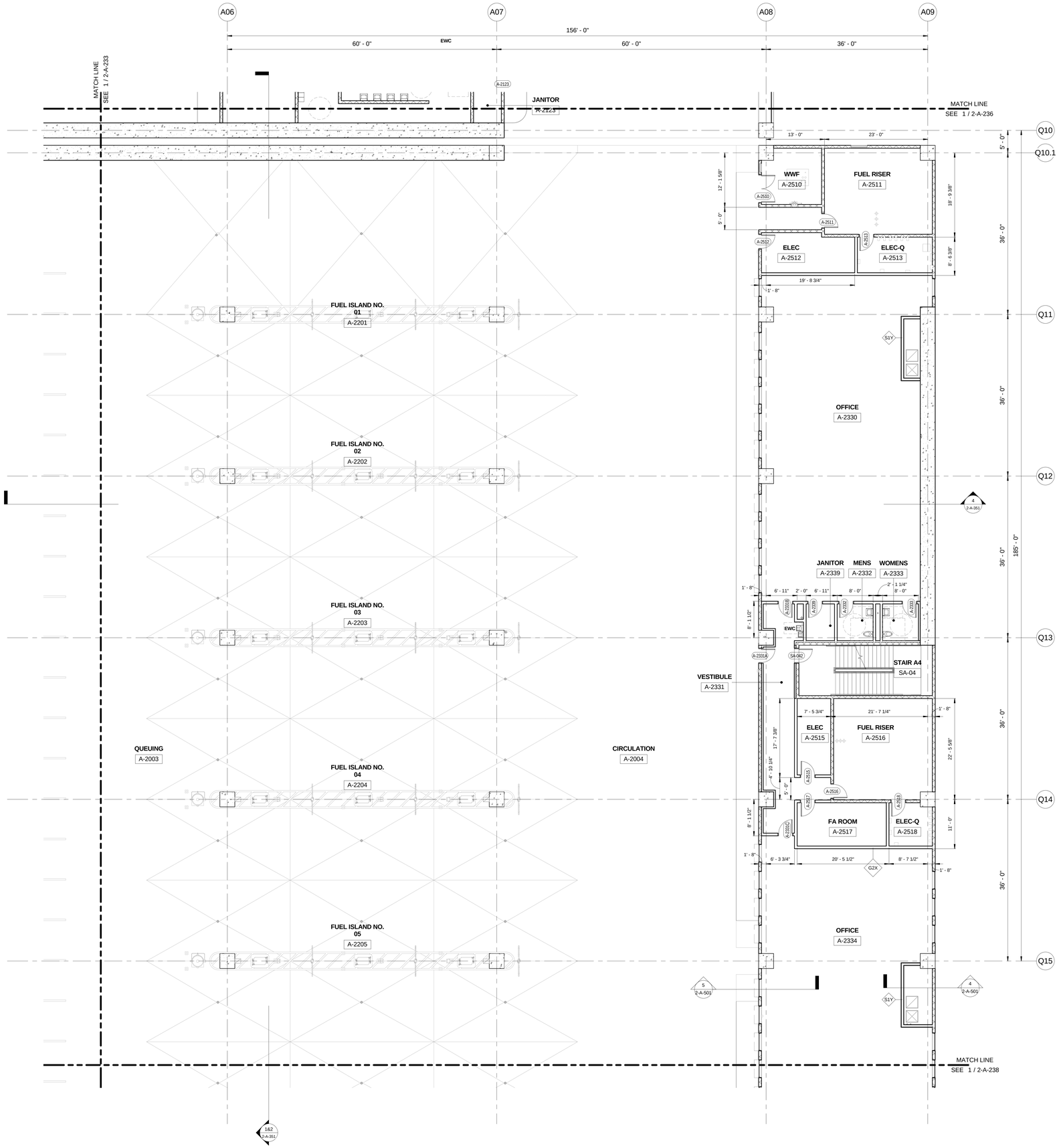
SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A6

SHEET NO.

2-A-236

9/22/2016 4:04:21 PM H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajtedgar.rvt



1 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN - PART A7
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A7

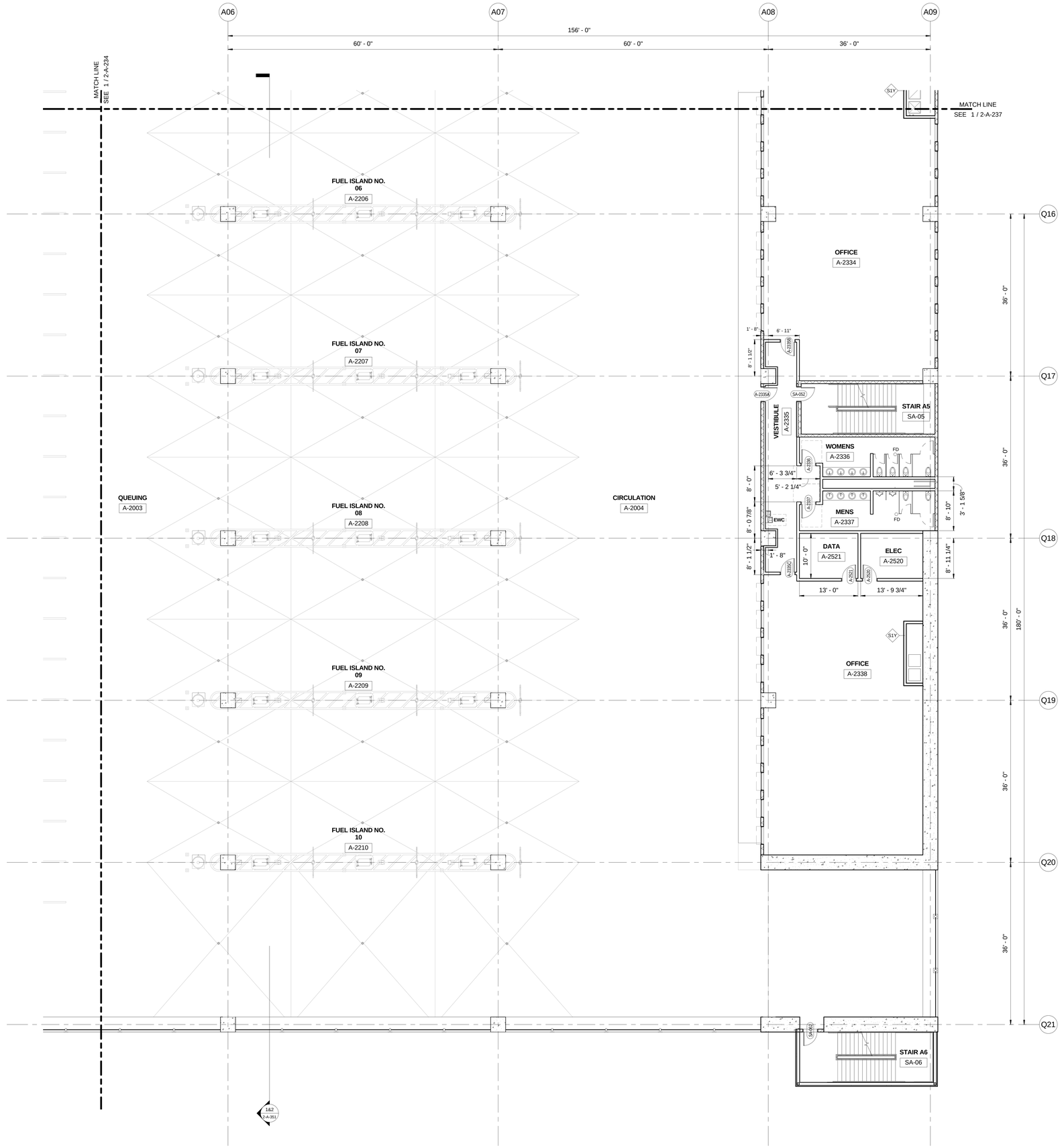
SHEET NO.

2-A-237

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajelodger.rvt

8/22/2018 4:05:11 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN - PART A8
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS: | DESCRIPTION | DATE | MARK |

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

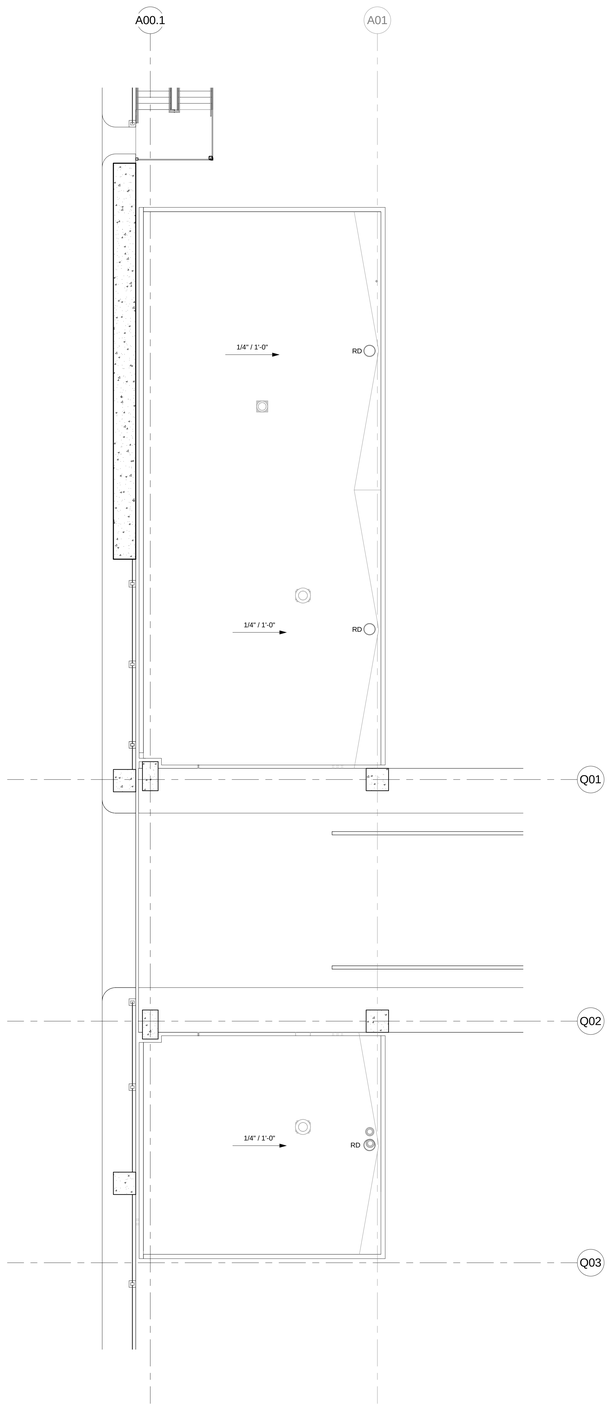
SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A8

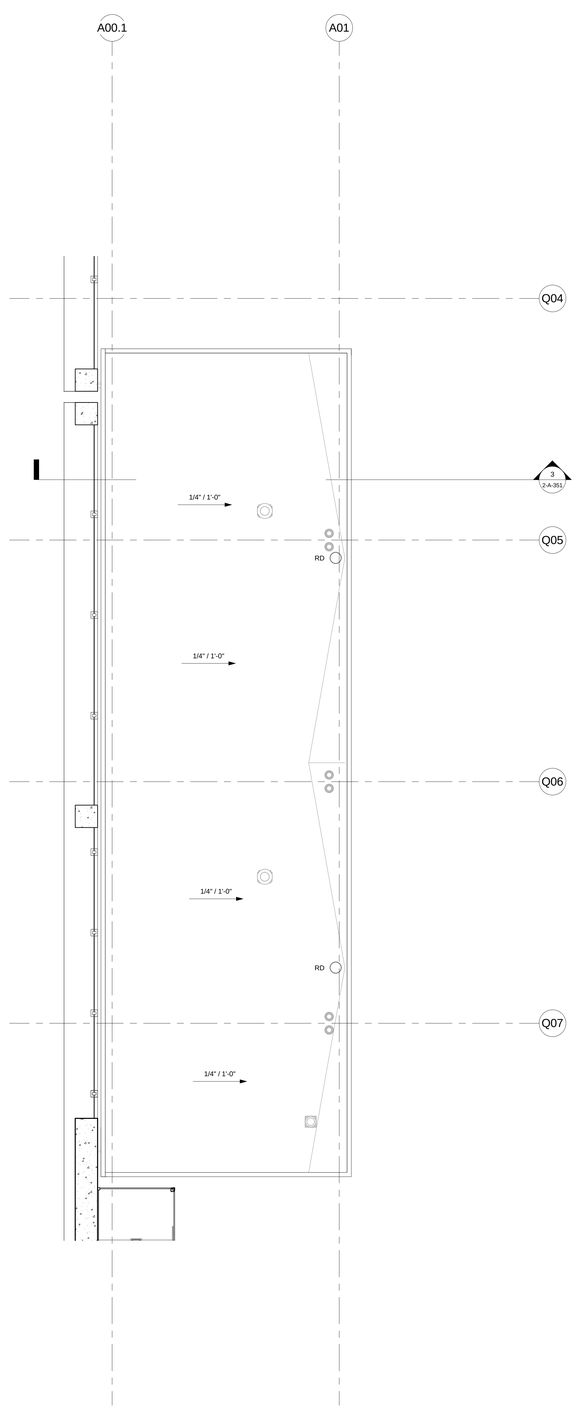
SHEET NO.

2-A-238

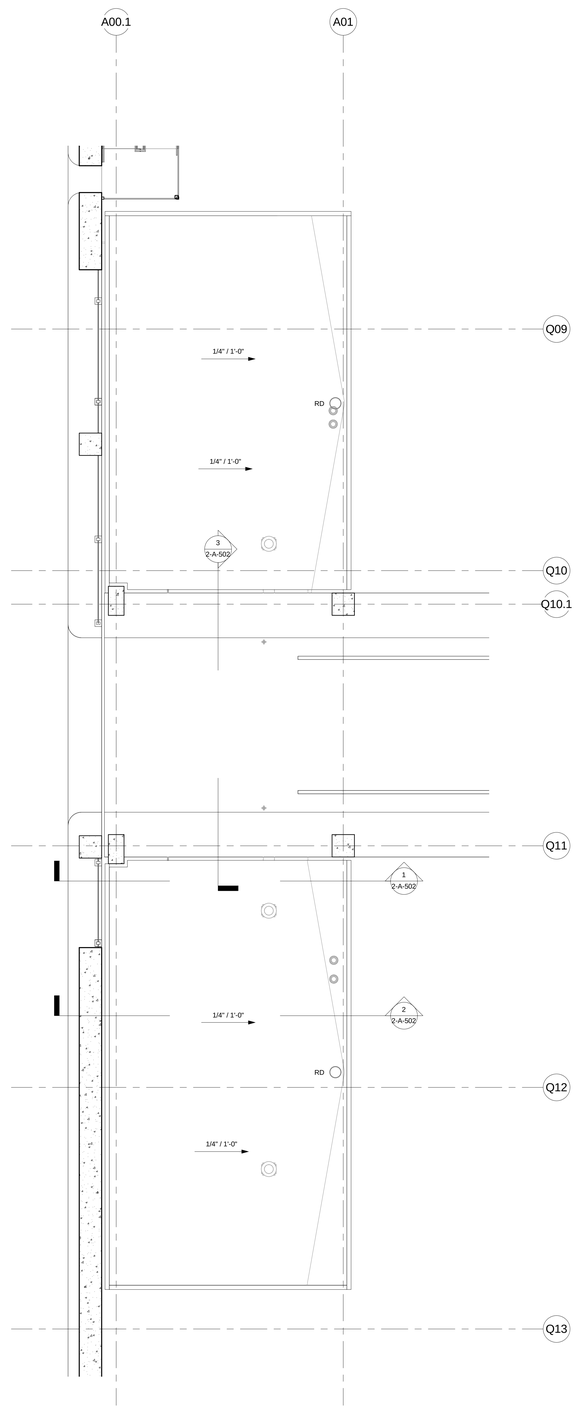
H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNohl\dgn\.rvt
9/22/2016 4:05:59 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - ENLARGED ROOF PLAN - MAINTENANCE NORTH
1/8" = 1'-0"



2 BUILDING A - QTA - ENLARGED ROOF PLAN - MAINTENANCE CENTER
1/8" = 1'-0"



3 BUILDING A - QTA - ENLARGED ROOF PLAN - MAINTENANCE SOUTH
1/8" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

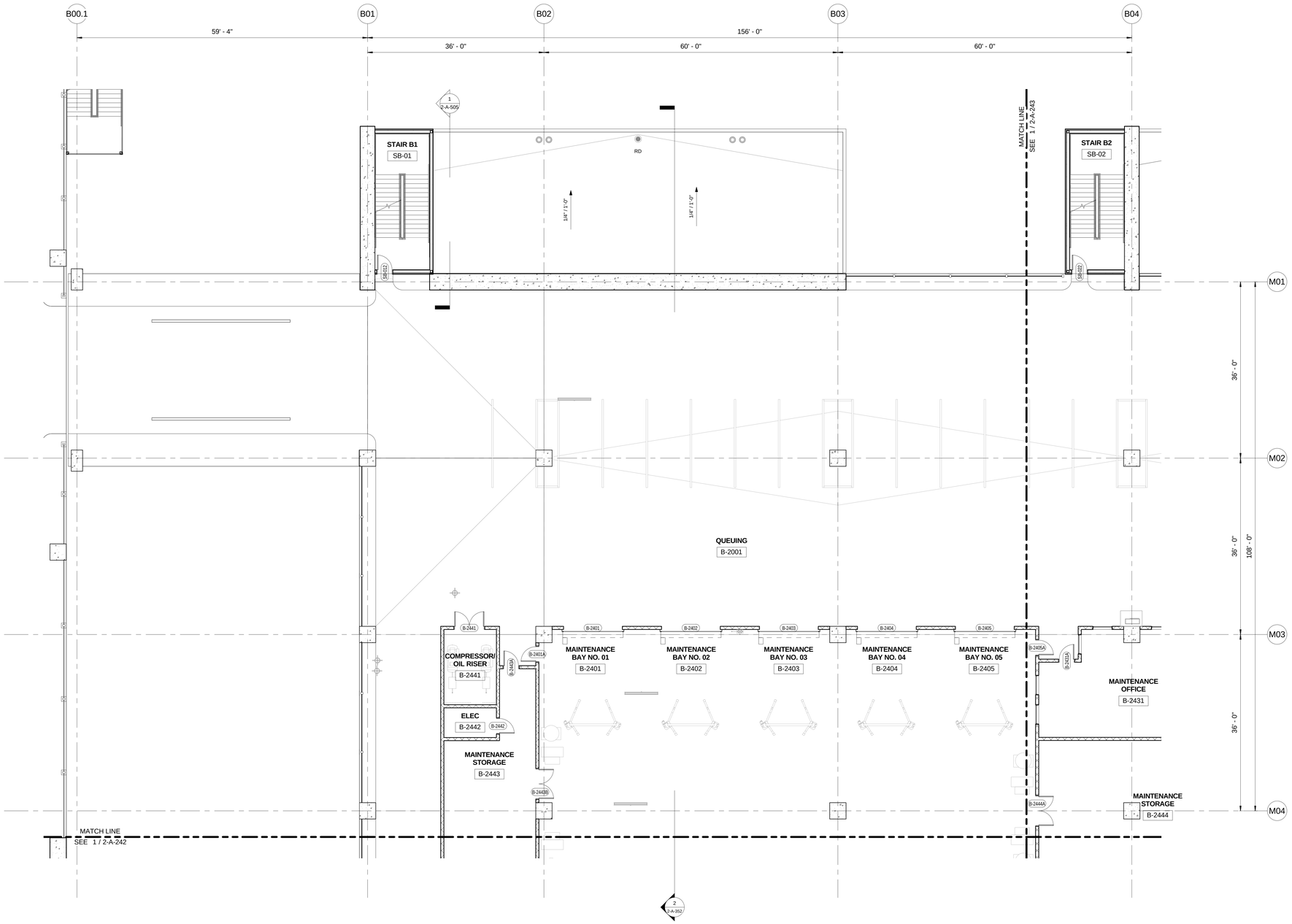
QTA LEVEL 2
ENLARGED ROOF
PLAN - MAINTENANCE

SHEET NO.

2-A-239

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kaphodger.rvt
8/22/2016 4:06:04 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 2 ENLARGED PLAN - PART B1
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNohl\dgnr.rvt
9/22/2016 4:06:06 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:	MARK	DATE	DESCRIPTION

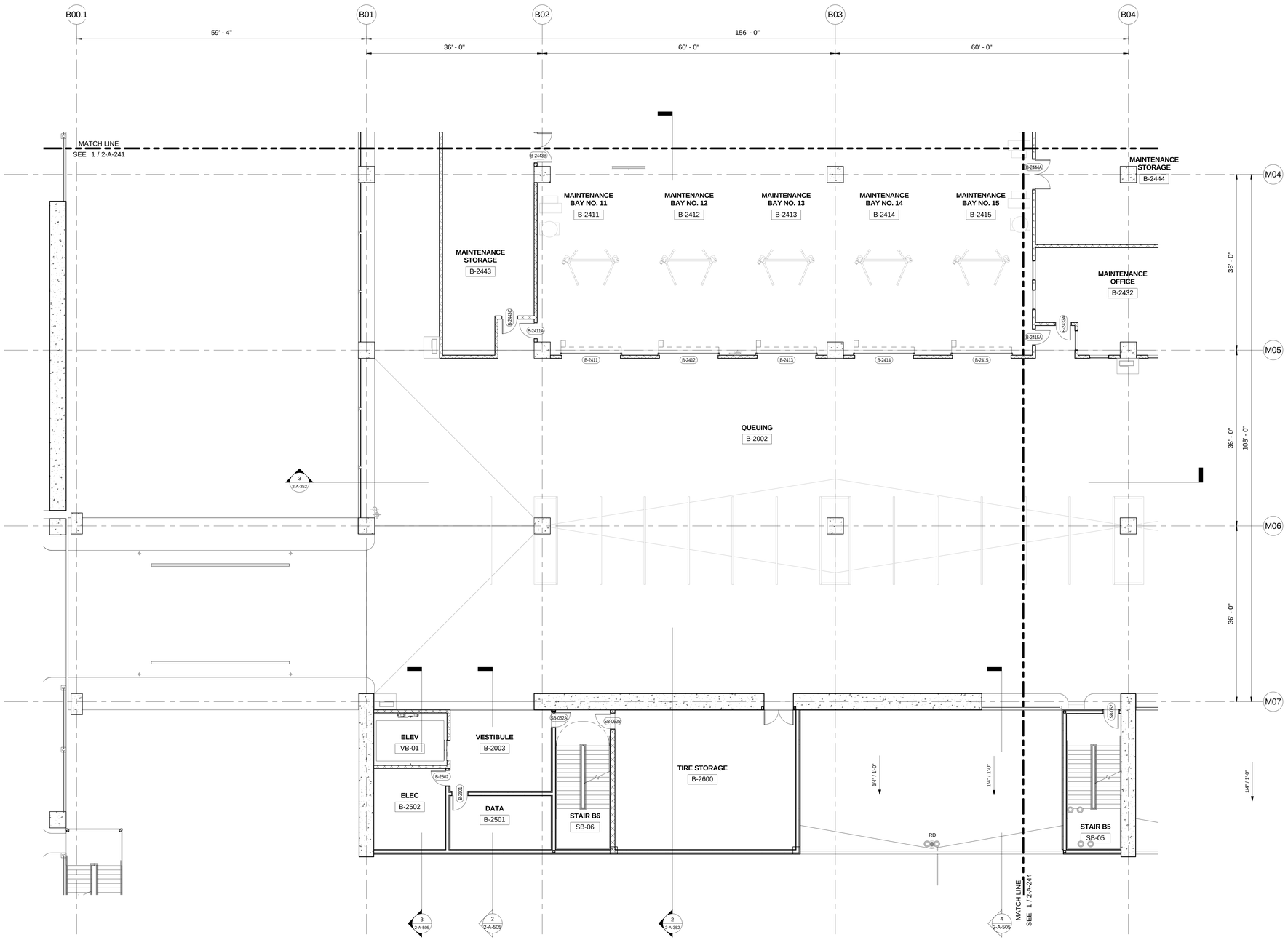
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 2
ENLARGED PLAN -
PART B1

SHEET NO.

2-A-241



1 BUILDING B - QTA - LEVEL 2 ENLARGED PLAN - PART B2
1/8" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART B2

SHEET NO.

2-A-242

A1	A5
A2	A6
A3	A7
A4	A8

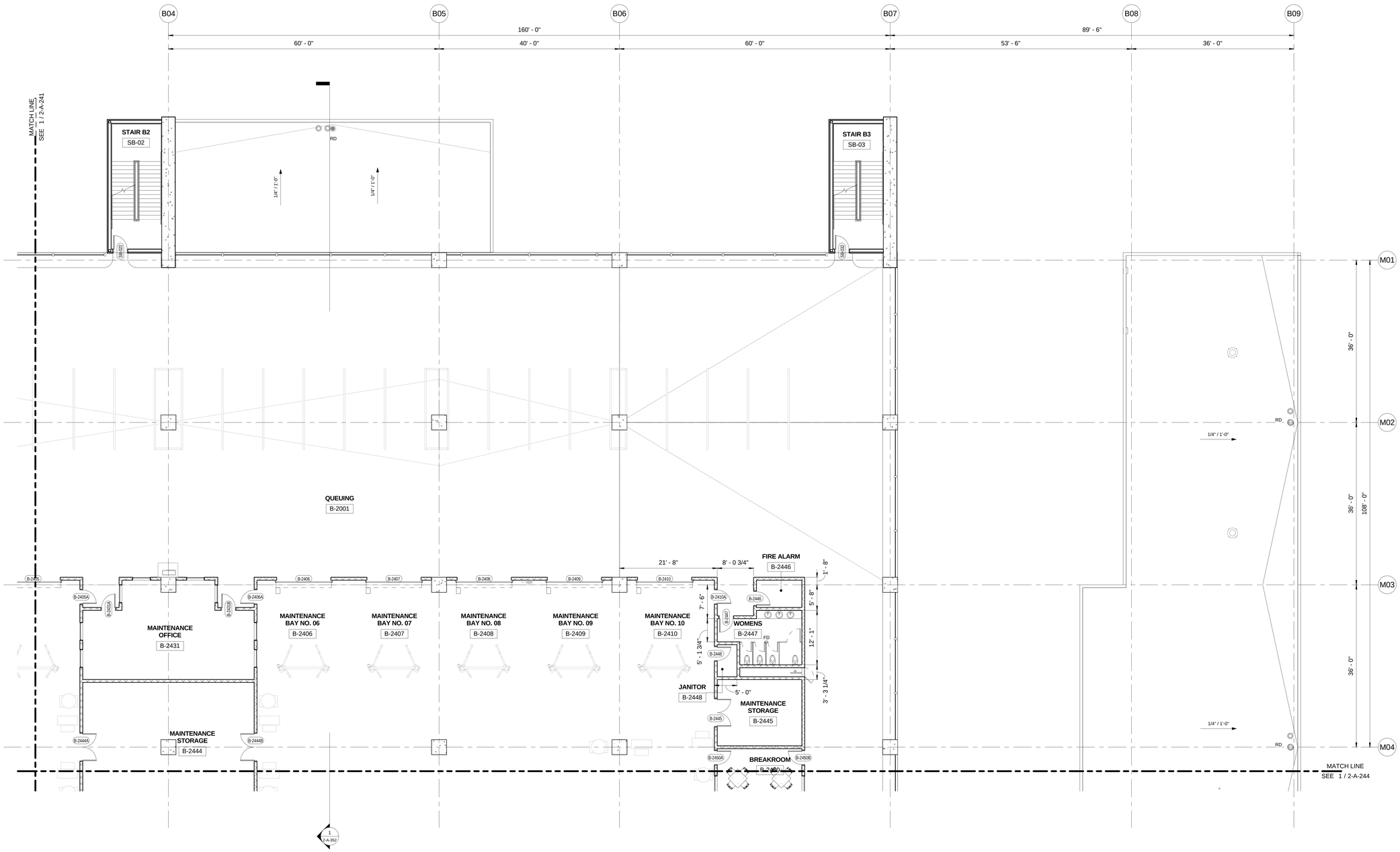
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_tajahidjar.rvt

8/22/2018 4:06:09 PM



1 BUILDING B - QTA - LEVEL 2 ENLARGED PLAN - PART B3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

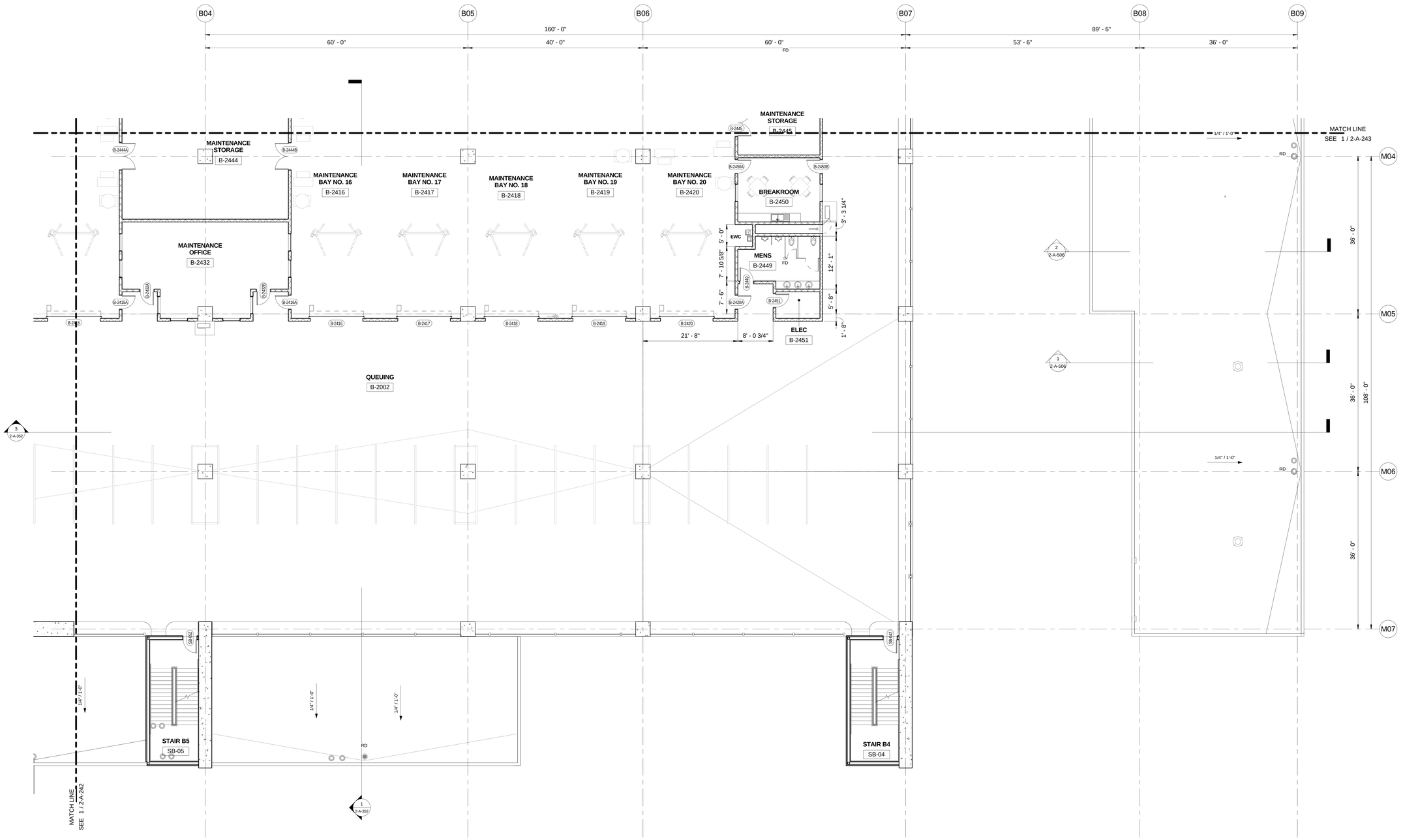
QTA LEVEL 2 ENLARGED PLAN - PART B3

SHEET NO.

2-A-243

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_tajahidger.rvt

8/22/2018 4:06:12 PM



1 BUILDING B - QTA - LEVEL 2 ENLARGED PLAN - PART B4
1/8" = 1'-0"

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

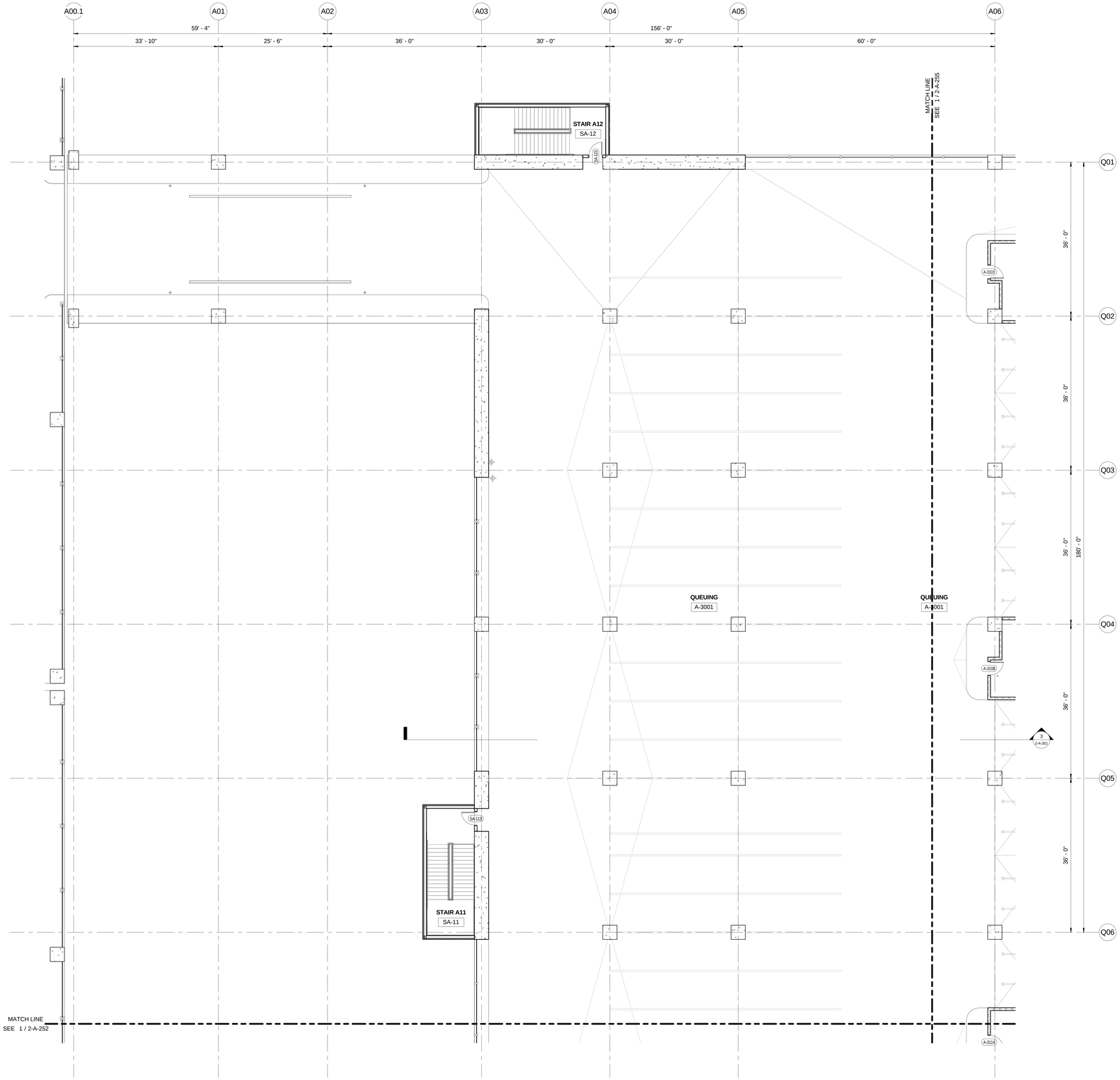
QTA LEVEL 2 ENLARGED PLAN - PART B4

SHEET NO.

2-A-244

H:\REVIT LOCAL FILES\XA-DA4881-BLDG_A_B_C-R15_bajnadgar.rvt

9/22/2016 4:06:15 PM



1 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN - PART A1
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

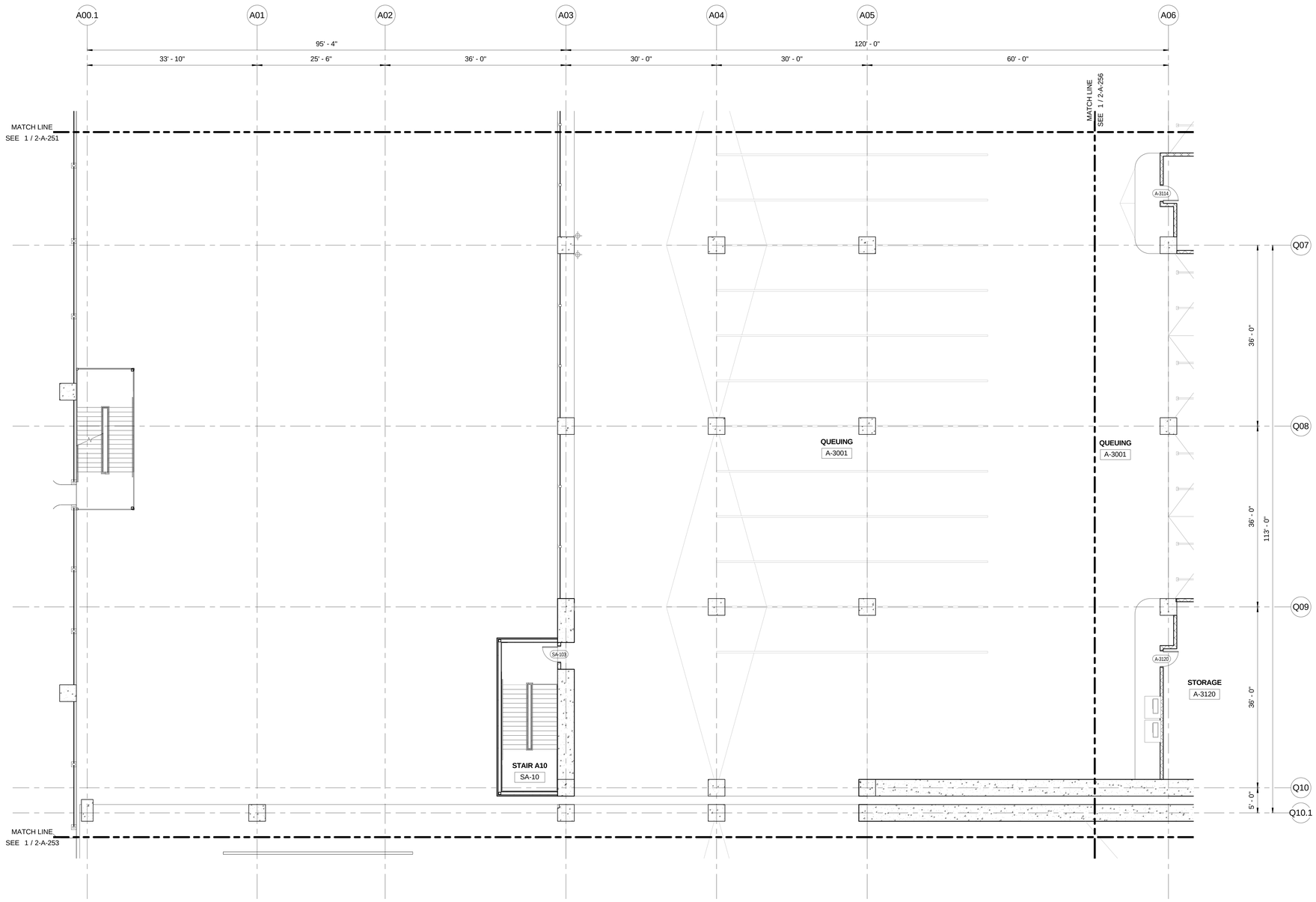
QTA LEVEL 3 ENLARGED PLAN - PART A1

SHEET NO.

2-A-251

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajindgm.rvt

9/22/2016 4:06:17 PM



1 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN - PART A2
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

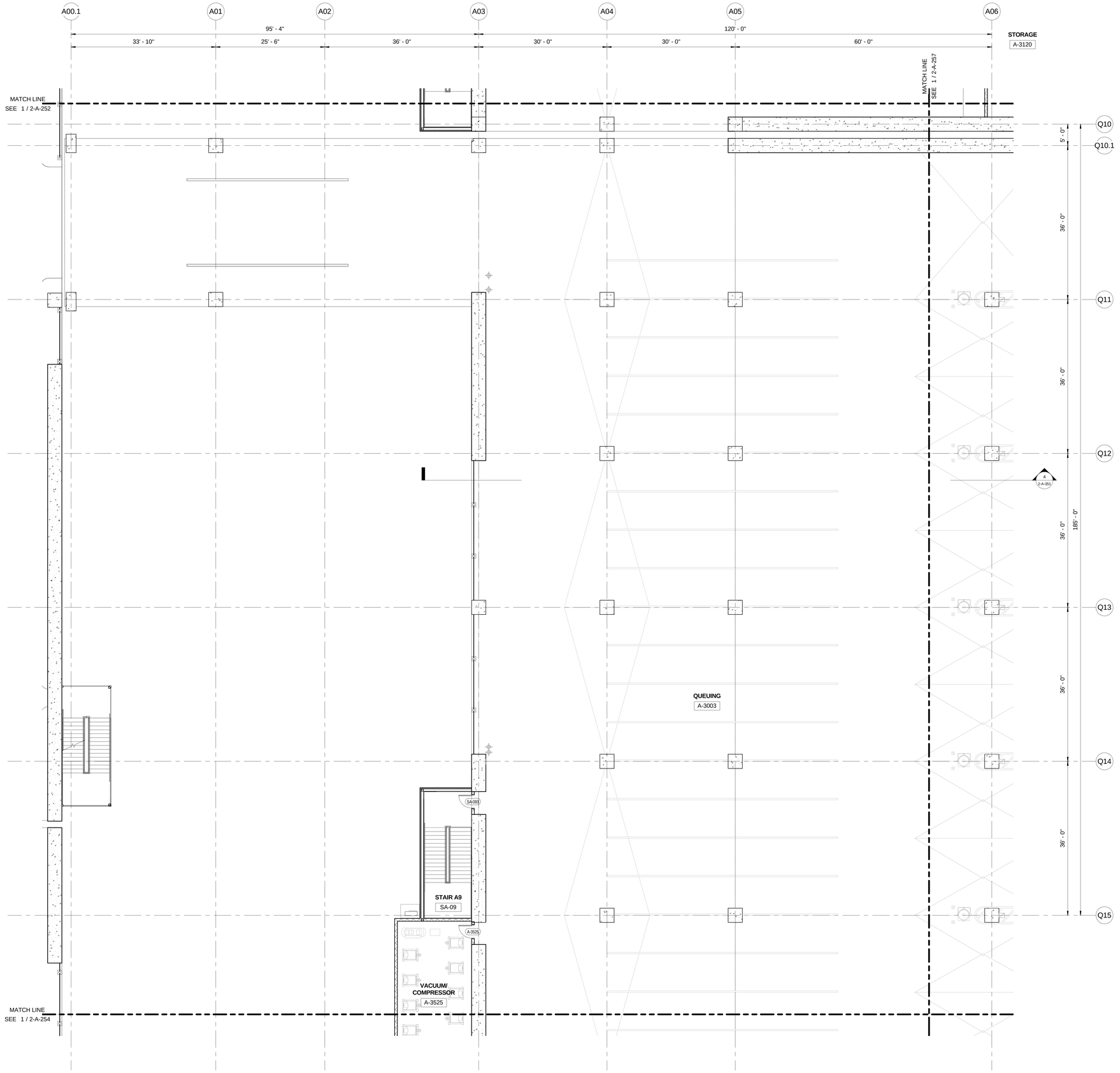
SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A2

SHEET NO.

2-A-252

H:\REVIT LOCAL FILES\X-DA4881-BLDG_A_B_C-R15_Nat#ridgir.rvt
9/22/2016 4:06:19 PM



1 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN - PART A3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNJR#0@rvt

9/22/2016 4:08:22 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

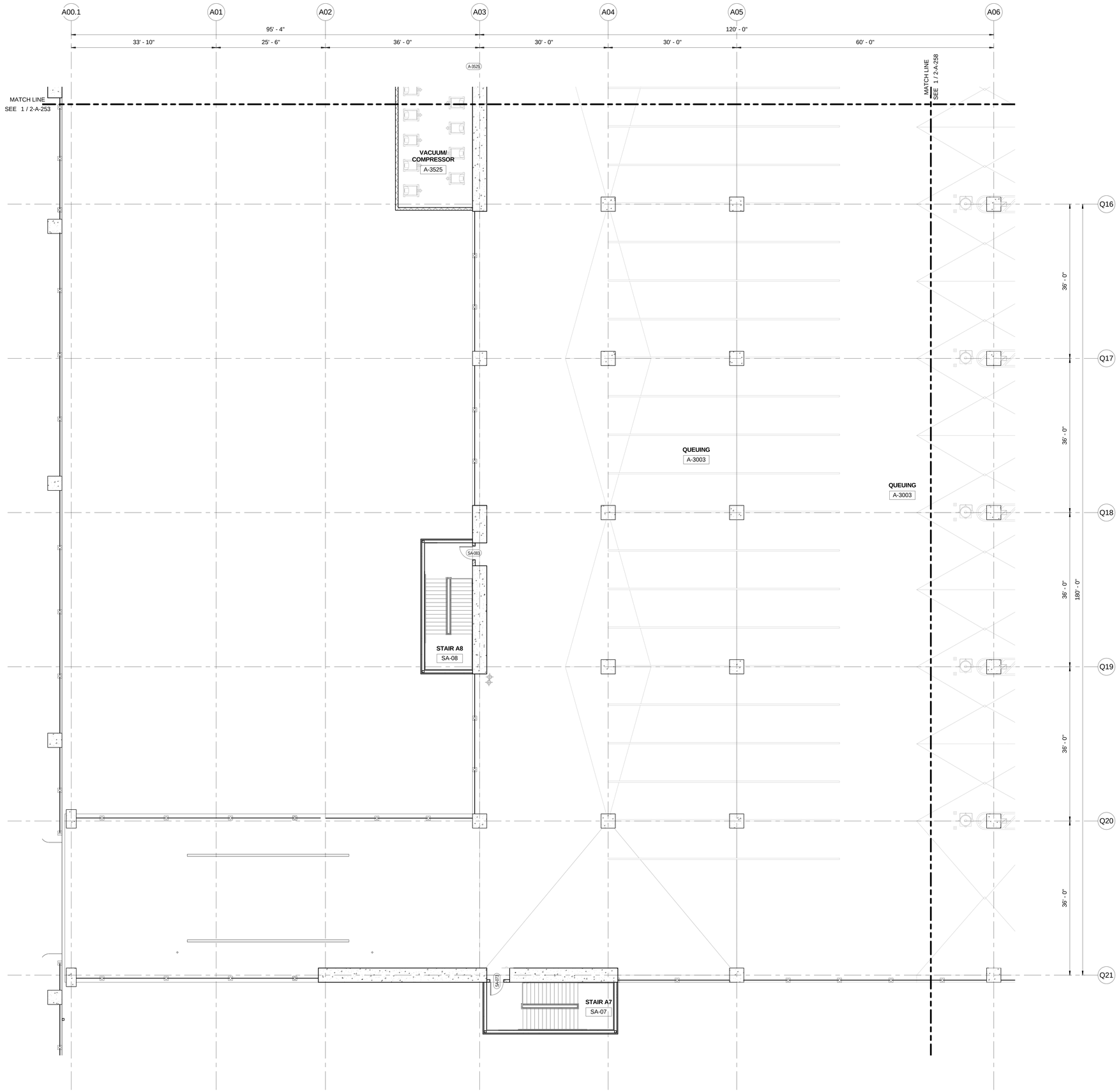
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A3

SHEET NO.

2-A-253



1 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN - PART A4
1/8" = 1'-0"

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BUDG_A_B_C-R15_tuphidgm.rvt
9/22/2016 4:06:25 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

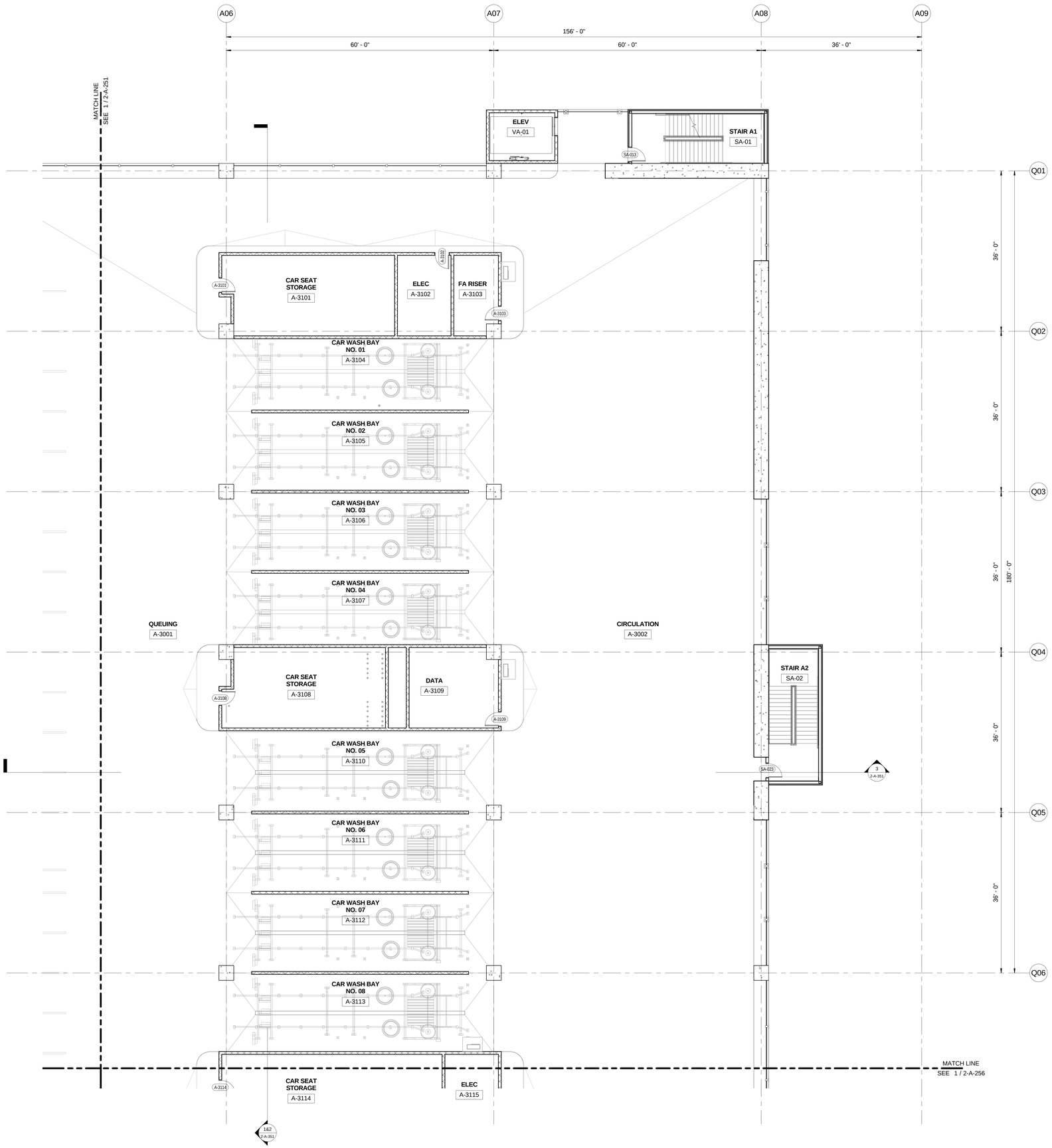
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A4

SHEET NO.

2-A-254



1 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN - PART A5
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

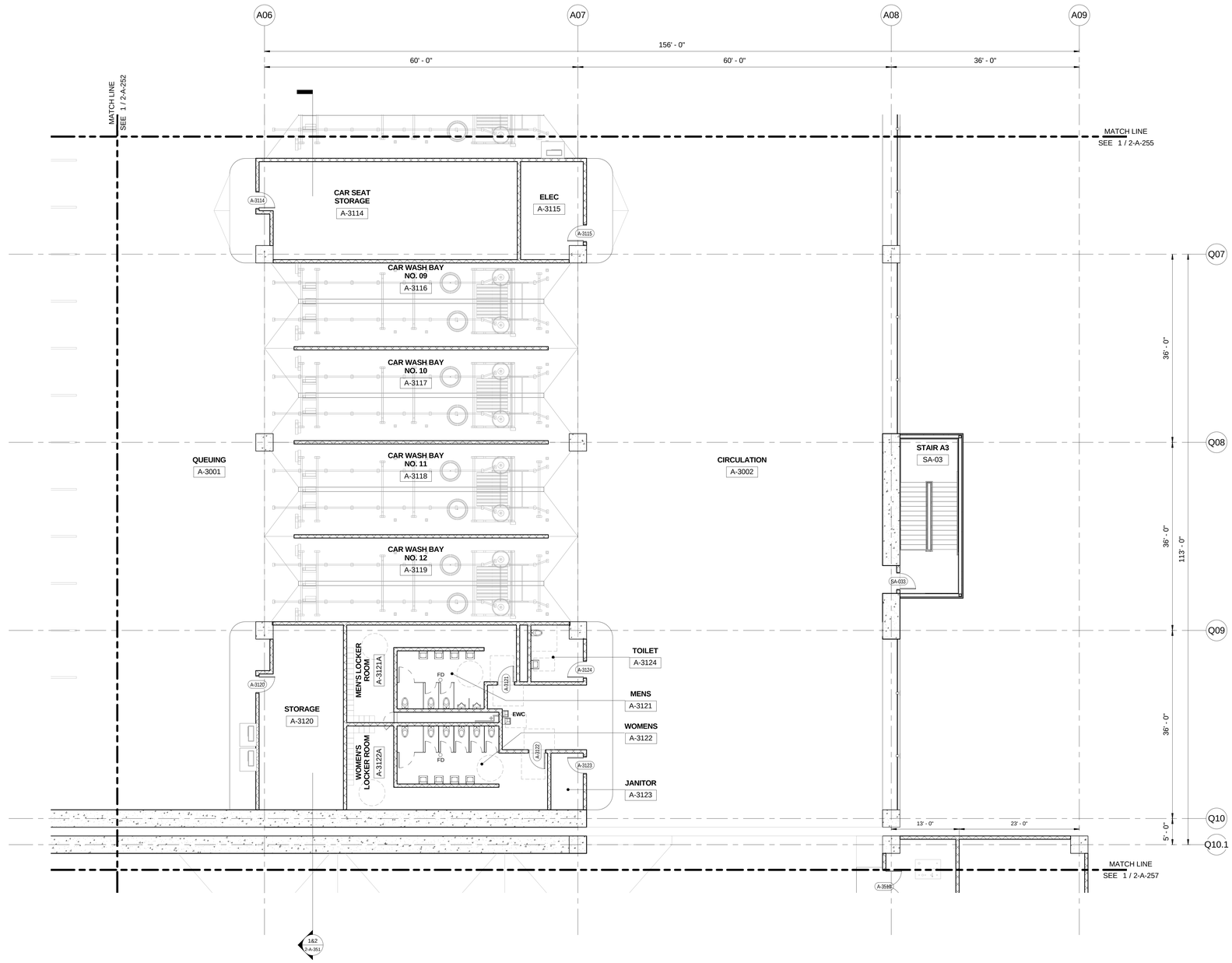
QTA LEVEL 3 ENLARGED PLAN - PART A5

SHEET NO.

2-A-255

H:\REVIT LOCAL FILES\DA4881-BLDG_A_B_C-R15_kajtedgar.rvt

9/22/2016 4:06:31 PM



1 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN - PART A6
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

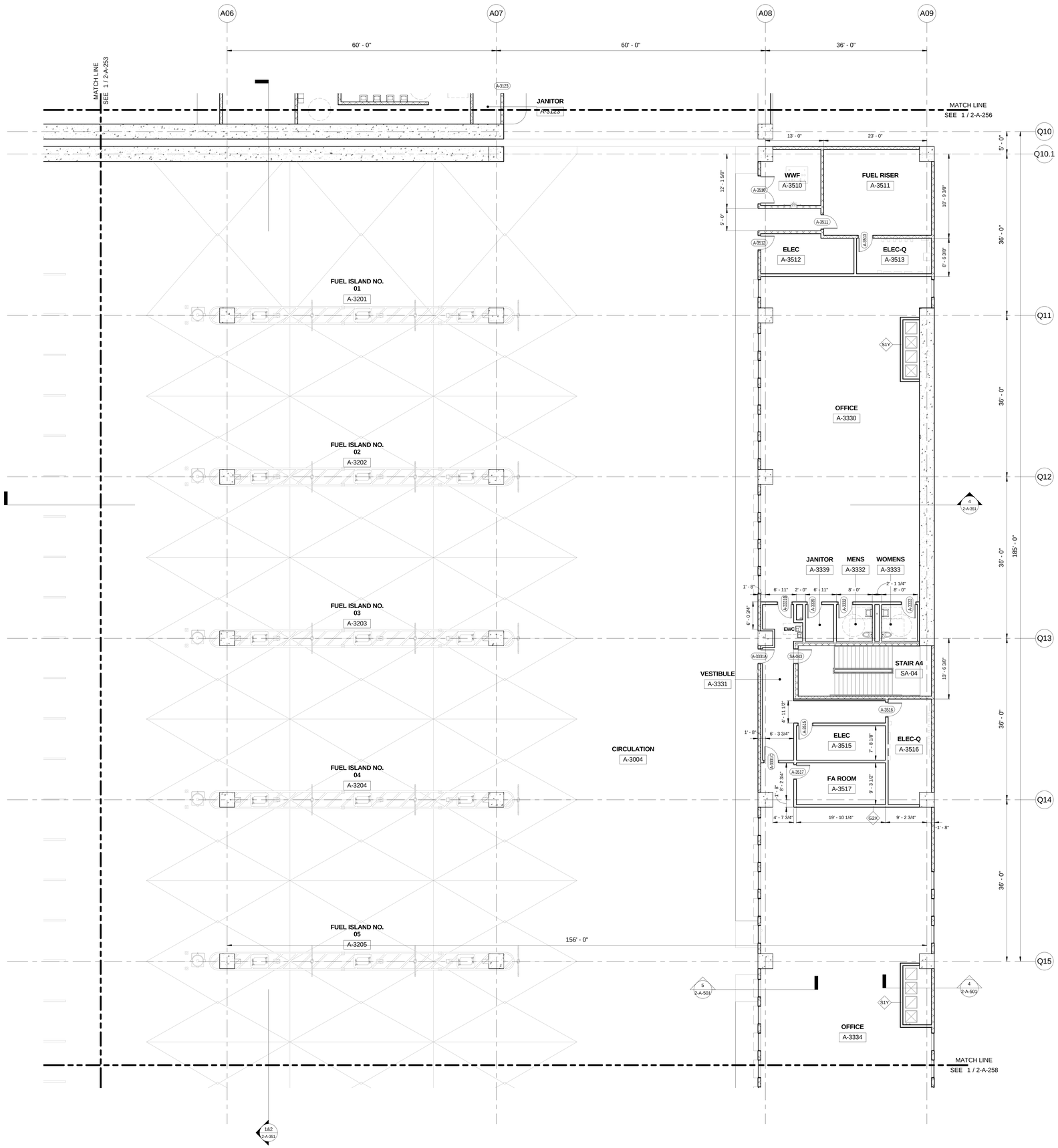
SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A6

SHEET NO.

2-A-256

9/22/2016 4:06:38 PM H:\REVIT LOCAL FILES\x-DA4881-BLDG_A_B_C-R15_kajtedgar.rvt



1 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN - PART A7
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DESCRIPTION	DATE	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A7

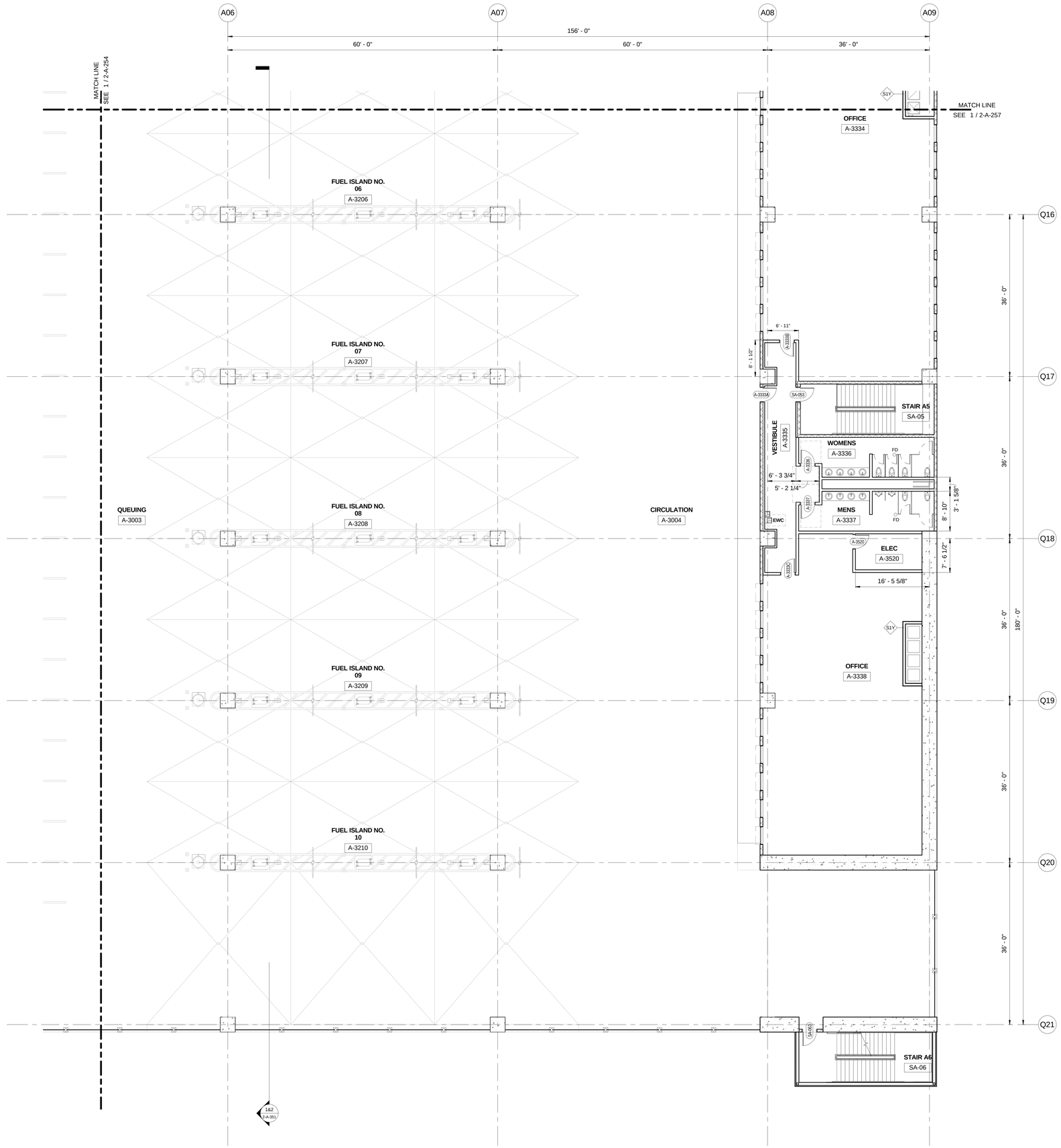
SHEET NO.

2-A-257

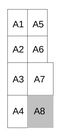
H:\REVIT LOCAL FILES\A-DA4881-BUDG_A_B_C-R15_tuplin@jn.rvt

9/22/2016 4:07:29 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN - PART A8
1/8" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

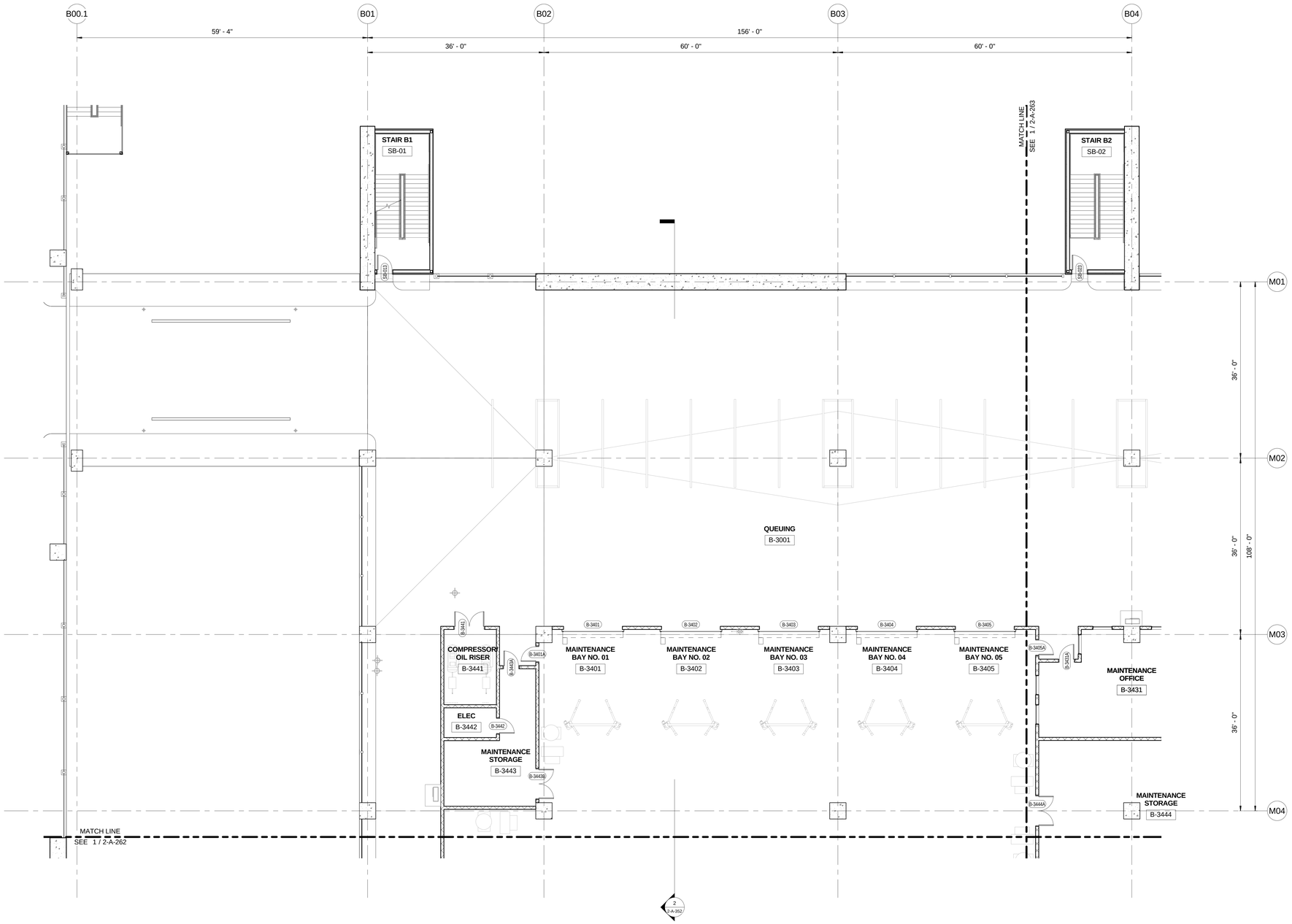
SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A8

SHEET NO.

2-A-258

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JaysBridger.rvt
9/22/2016 4:08:04 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 3 ENLARGED PLAN - PART B1
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:08:06 PM H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNohl\dgnr.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:	MARK	DATE	DESCRIPTION

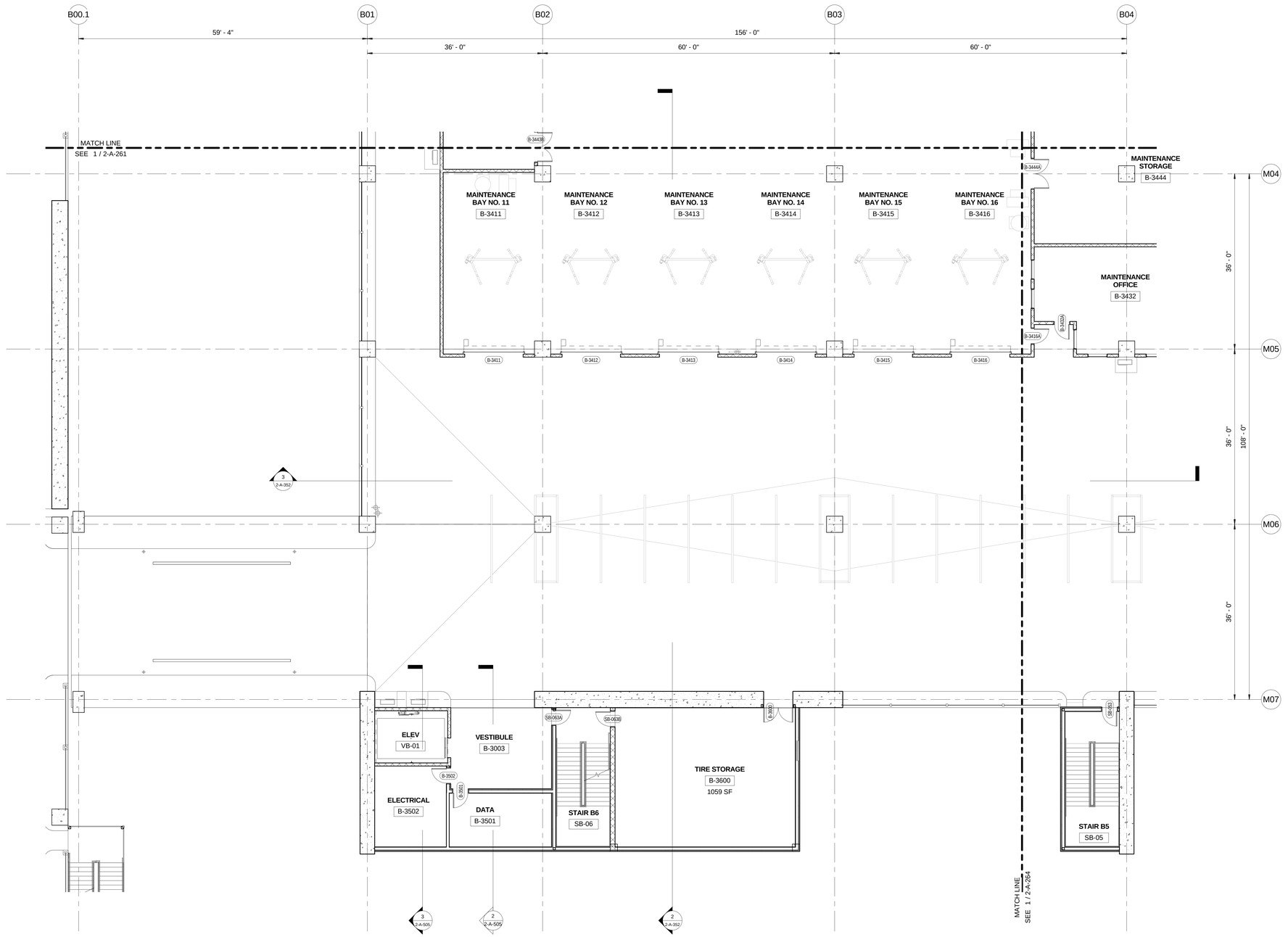
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART B1

SHEET NO.

2-A-261



1 BUILDING B - QTA - LEVEL 3 ENLARGED PLAN - PART B2
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_tajahidgm.rvt
8/22/2018 4:08:09 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

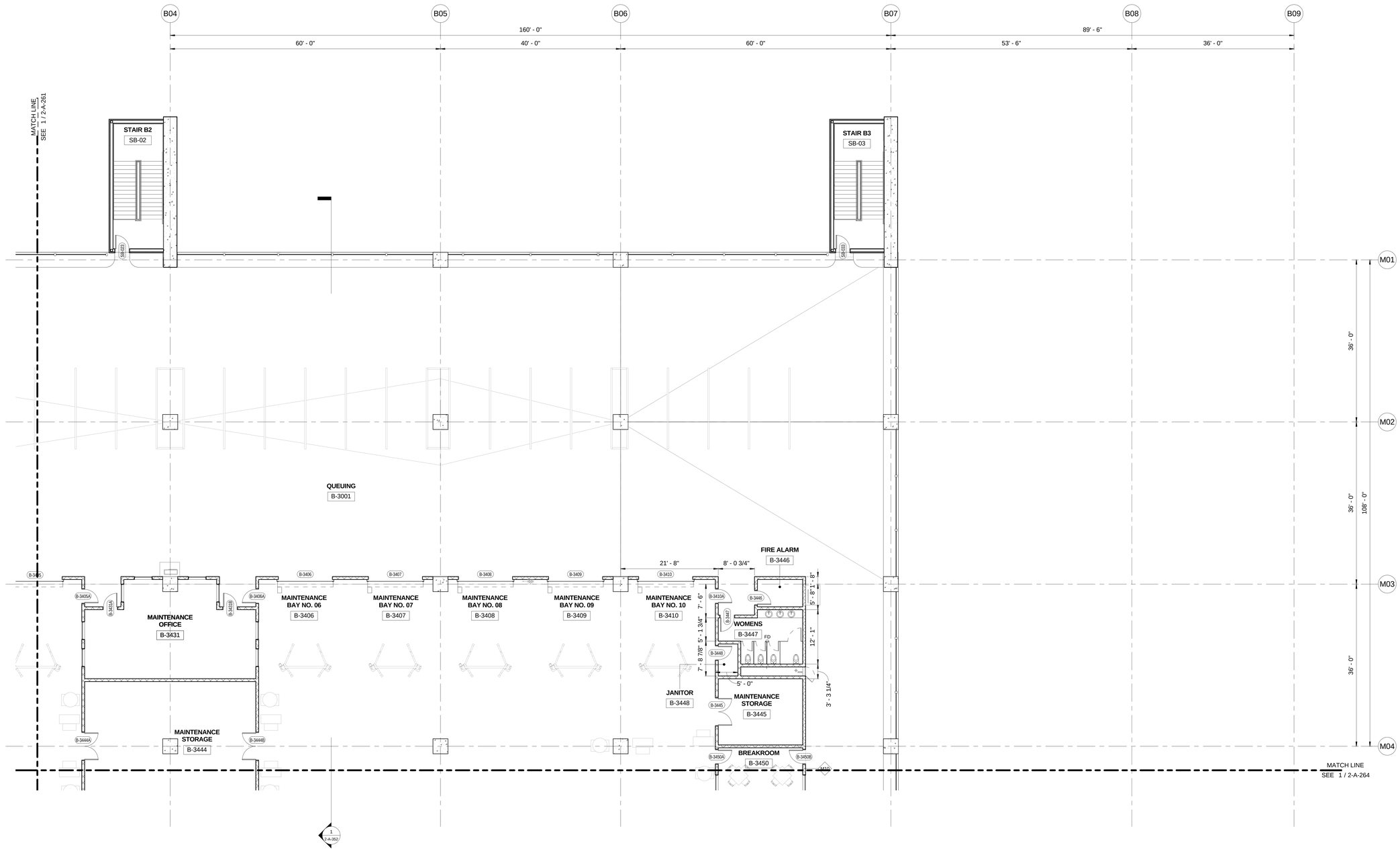
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART B2

SHEET NO.

2-A-262



1 BUILDING B - QTA - LEVEL 3 ENLARGED PLAN - PART B3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\XA-DA4881-BLDG_A_B_C-R15_kajeidger.rvt

8/22/2016 4:08:11 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

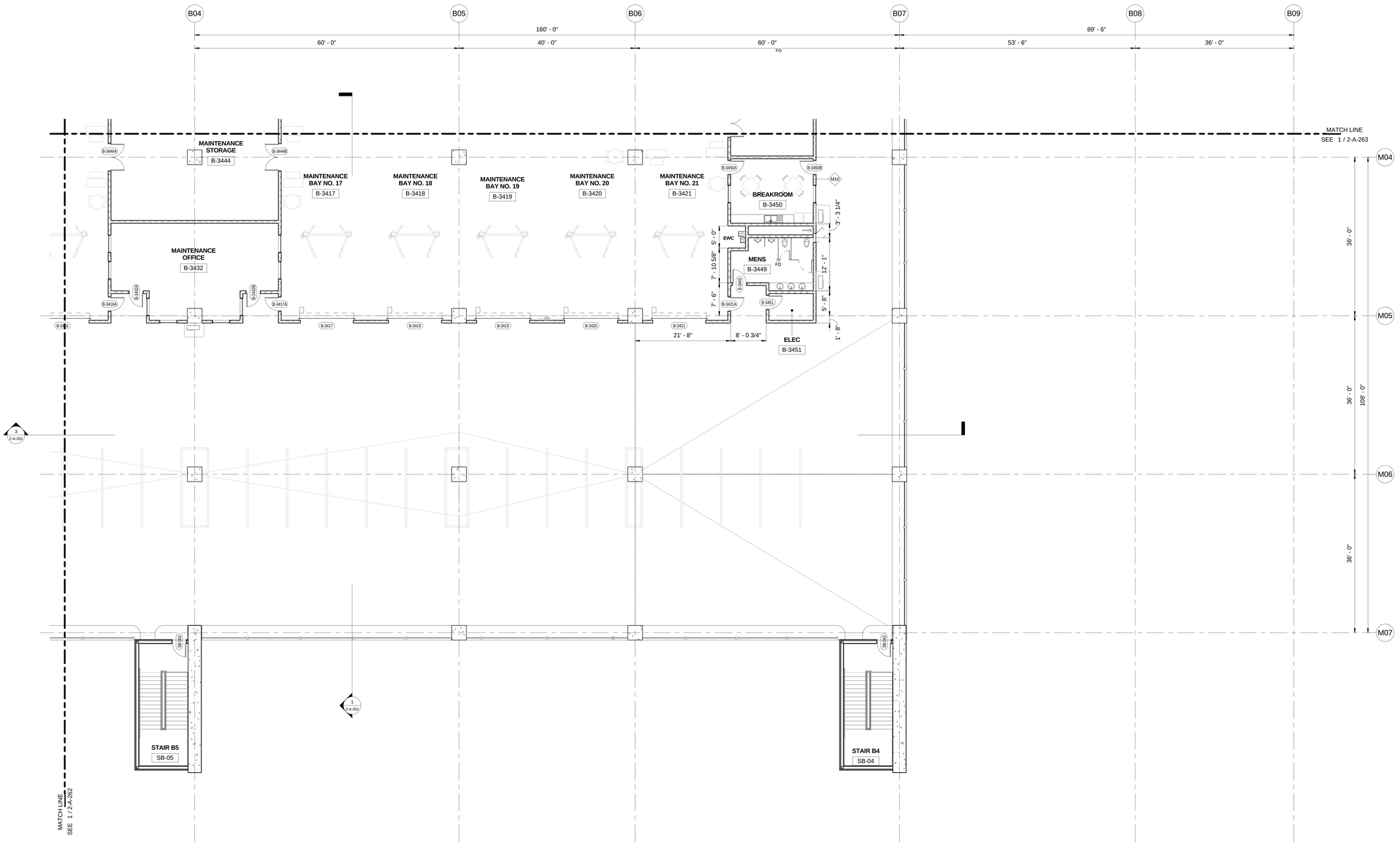
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART B3

SHEET NO.

2-A-263



1 BUILDING B - QTA - LEVEL 3 ENLARGED PLAN - PART B4
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\XA-DA4881-BLDG_A_B_C-R15_kajindgm.rvt
8/22/2016 4:08:15 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

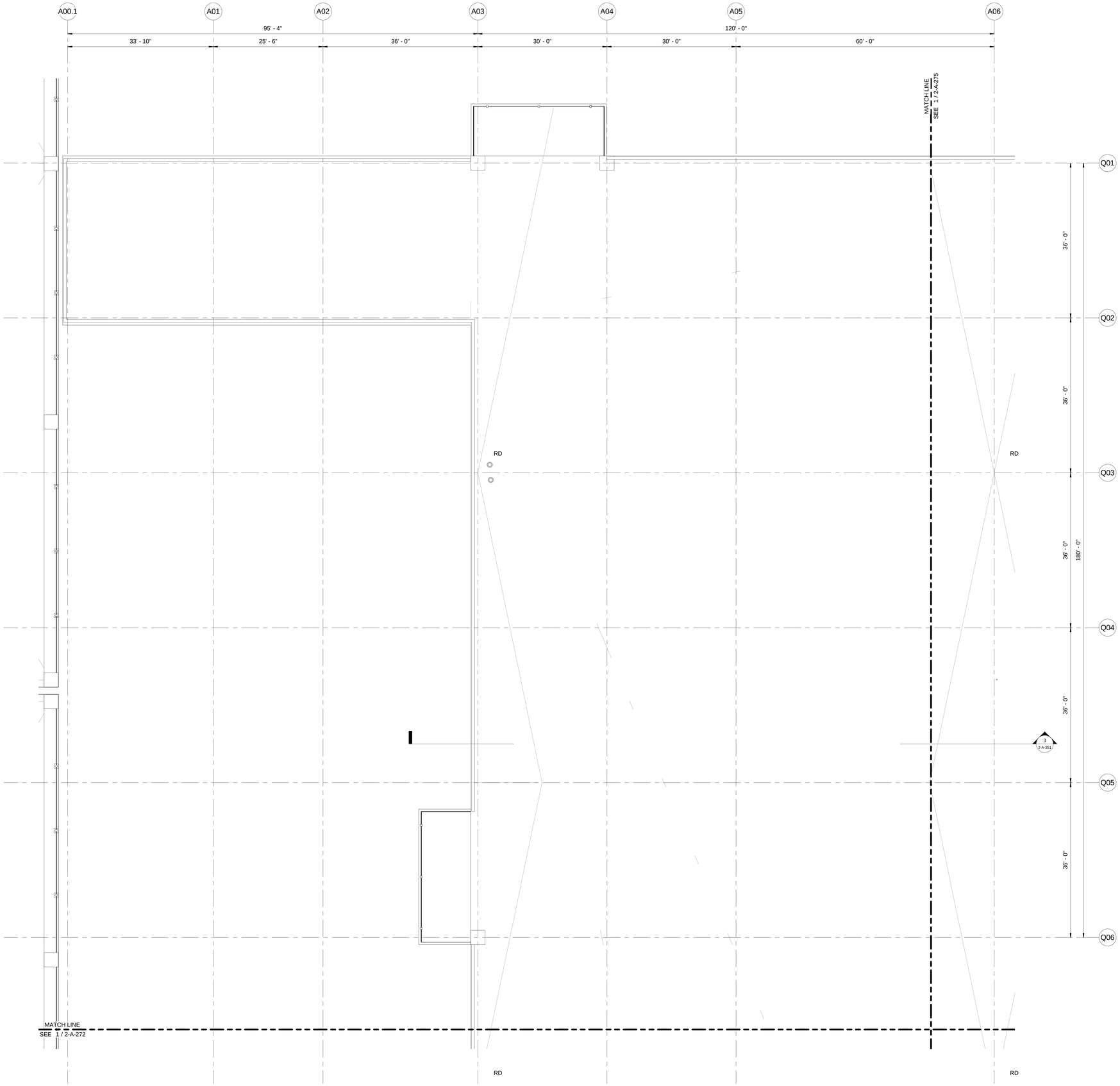
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART B4

SHEET NO.

2-A-264



1 BUILDING A - QTA - LEVEL 4 ENLARGED PLAN - PART A1
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_kajindgm.rvt
8/22/2016 4:08:16 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DESCRIPTION	DATE

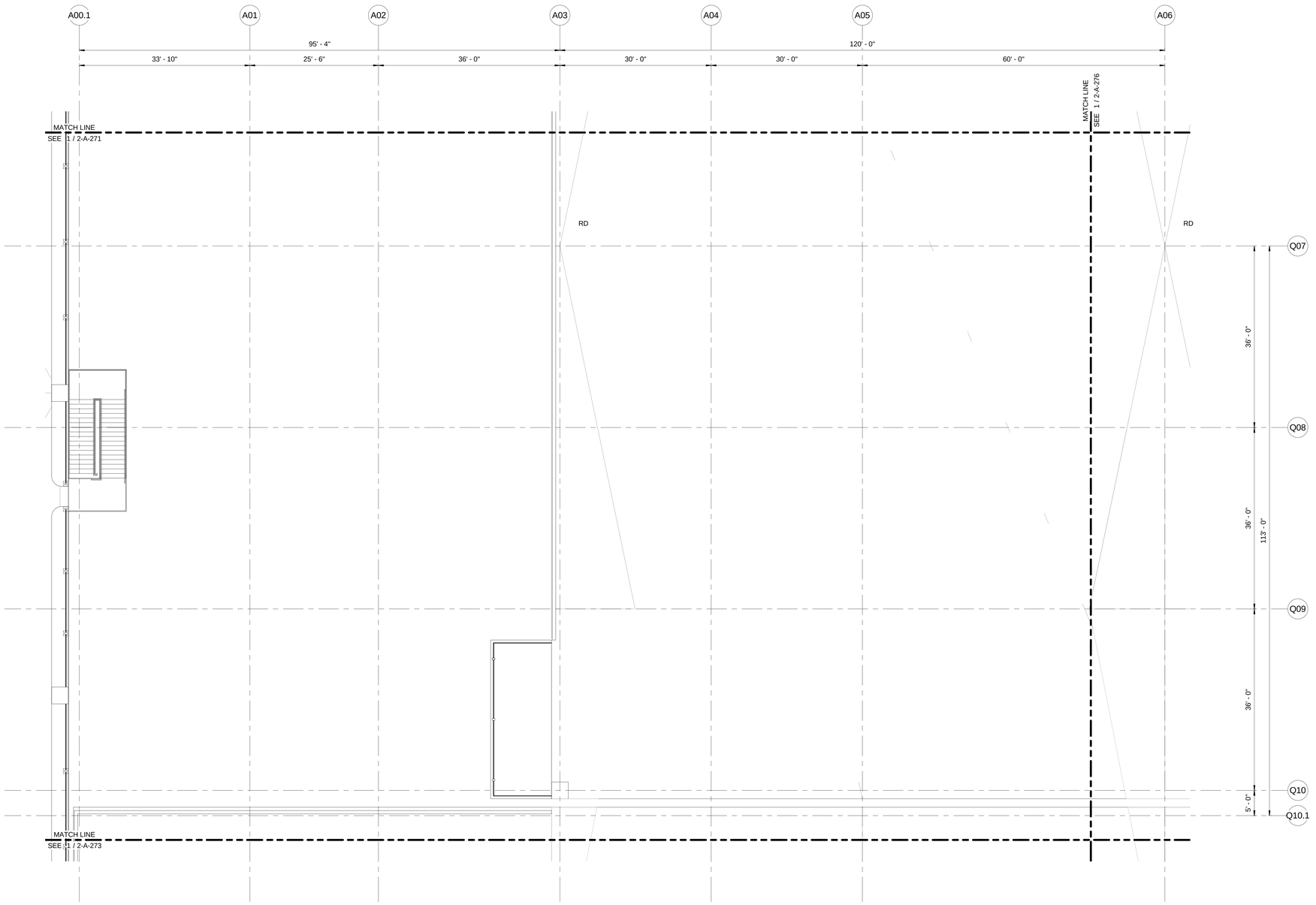
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A1

SHEET NO.

2-A-271



1 BUILDING A - QTA - LEVEL 4 ENLARGED PLAN - PART A2
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

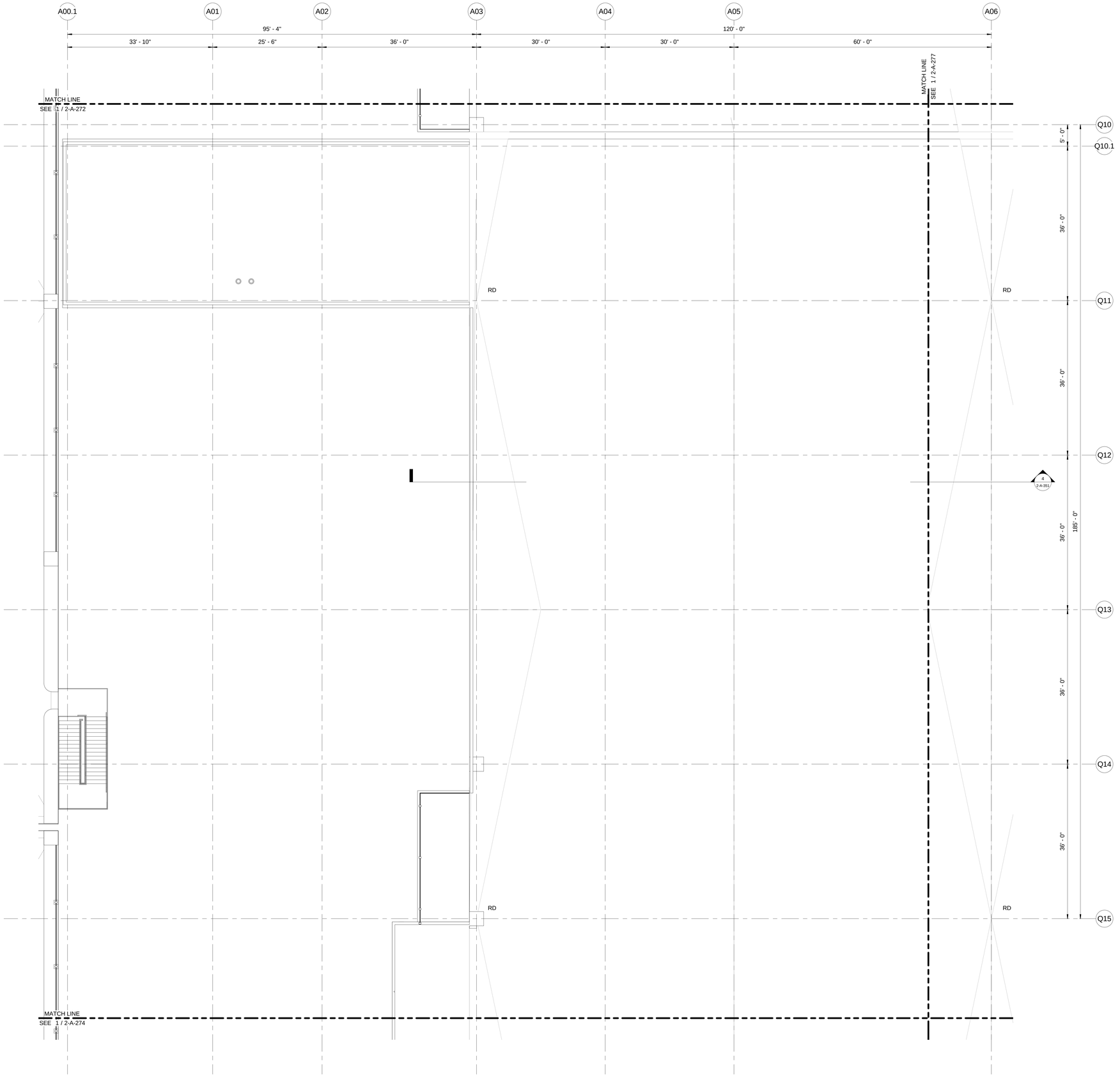
SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A2

SHEET NO.

2-A-272

H:\REVIT LOCAL FILES\X-DA4881-BLDG_A_B_C-R15_Nat#ndgtr.rvt
9/22/2016 4:08:19 PM



1 BUILDING A - QTA - LEVEL 4 ENLARGED PLAN - PART A3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A3

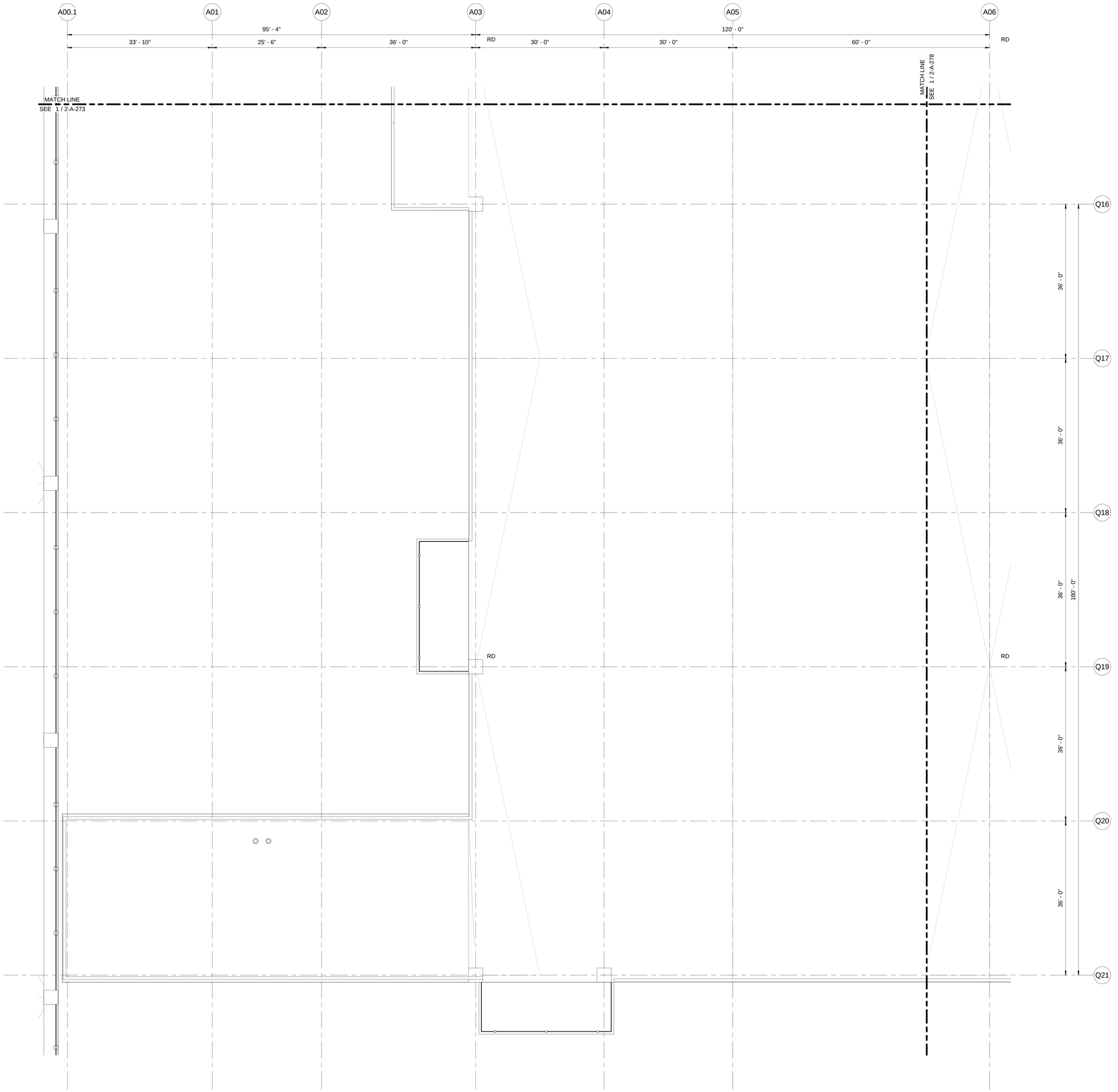
SHEET NO.

2-A-273

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNdlh0gY.rvt

9/22/2016 4:08:20 PM



1 BUILDING A - QTA - LEVEL 4 ENLARGED PLAN - PART A4
1/8" = 1'-0"

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4BB1-BLDG_A_B_C-R15_tajeda@lan.rvt

9/22/2016 4:08:22 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

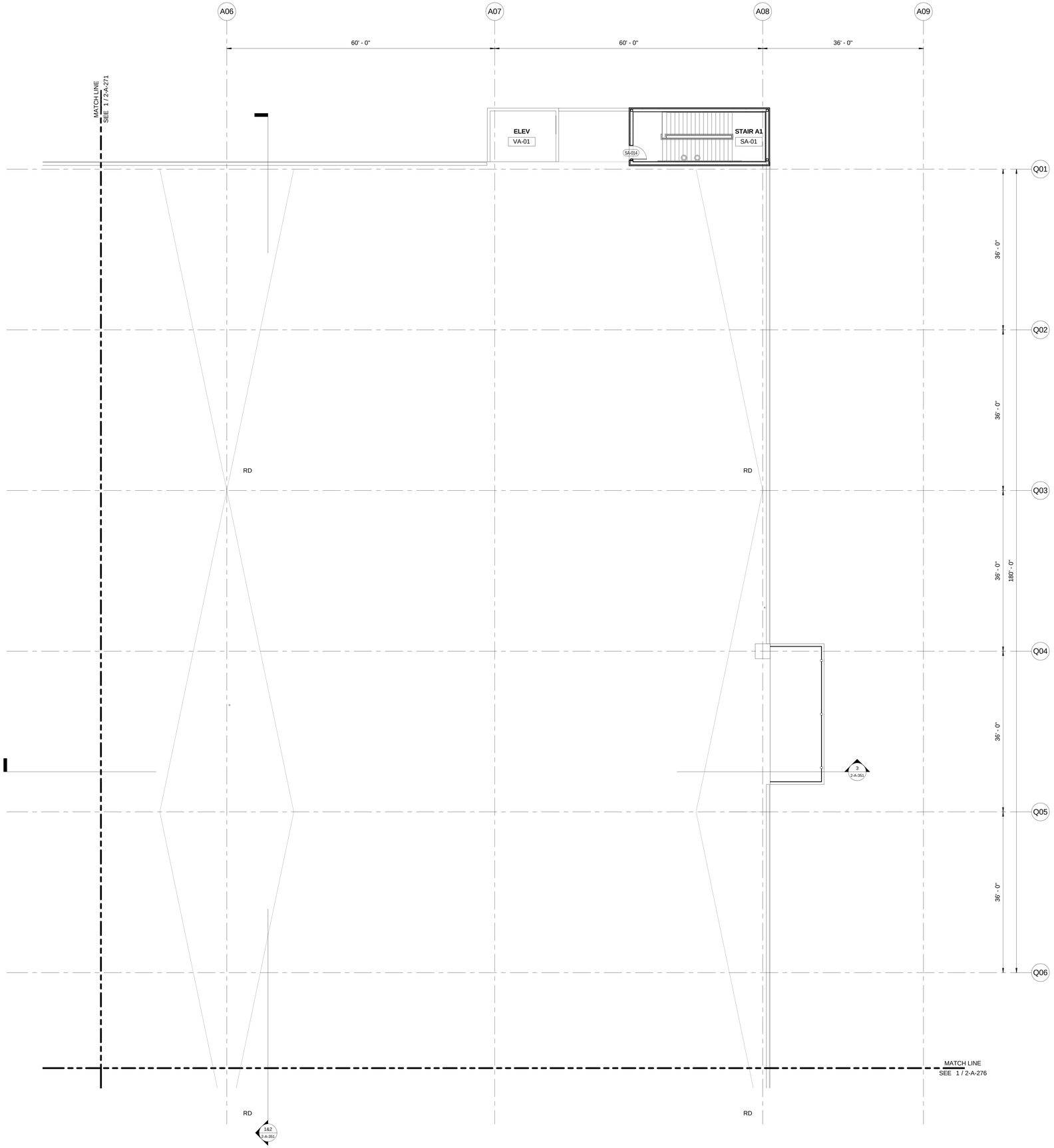
PROJ NO:	DA4BB1
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A4

SHEET NO.

2-A-274



1 BUILDING A - QTA - LEVEL 4 ENLARGED PLAN - PART A5
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

REVISIONS:

MARK	DATE	DESCRIPTION

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A5

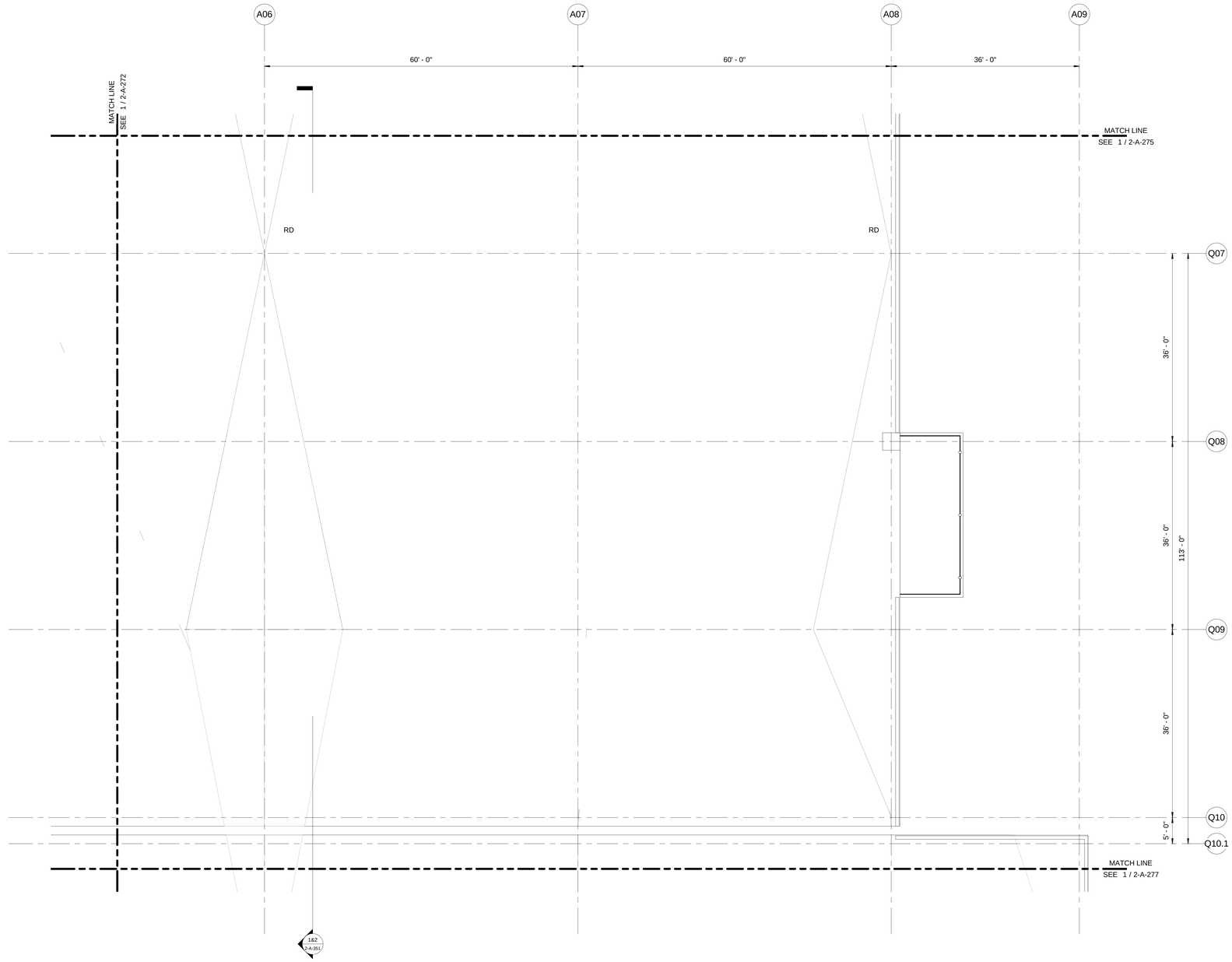
SHEET NO.

2-A-275

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_tajahdgm.rvt

8/22/2018 4:08:24 PM



1 BUILDING A - QTA - LEVEL 4 ENLARGED PLAN - PART A6
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

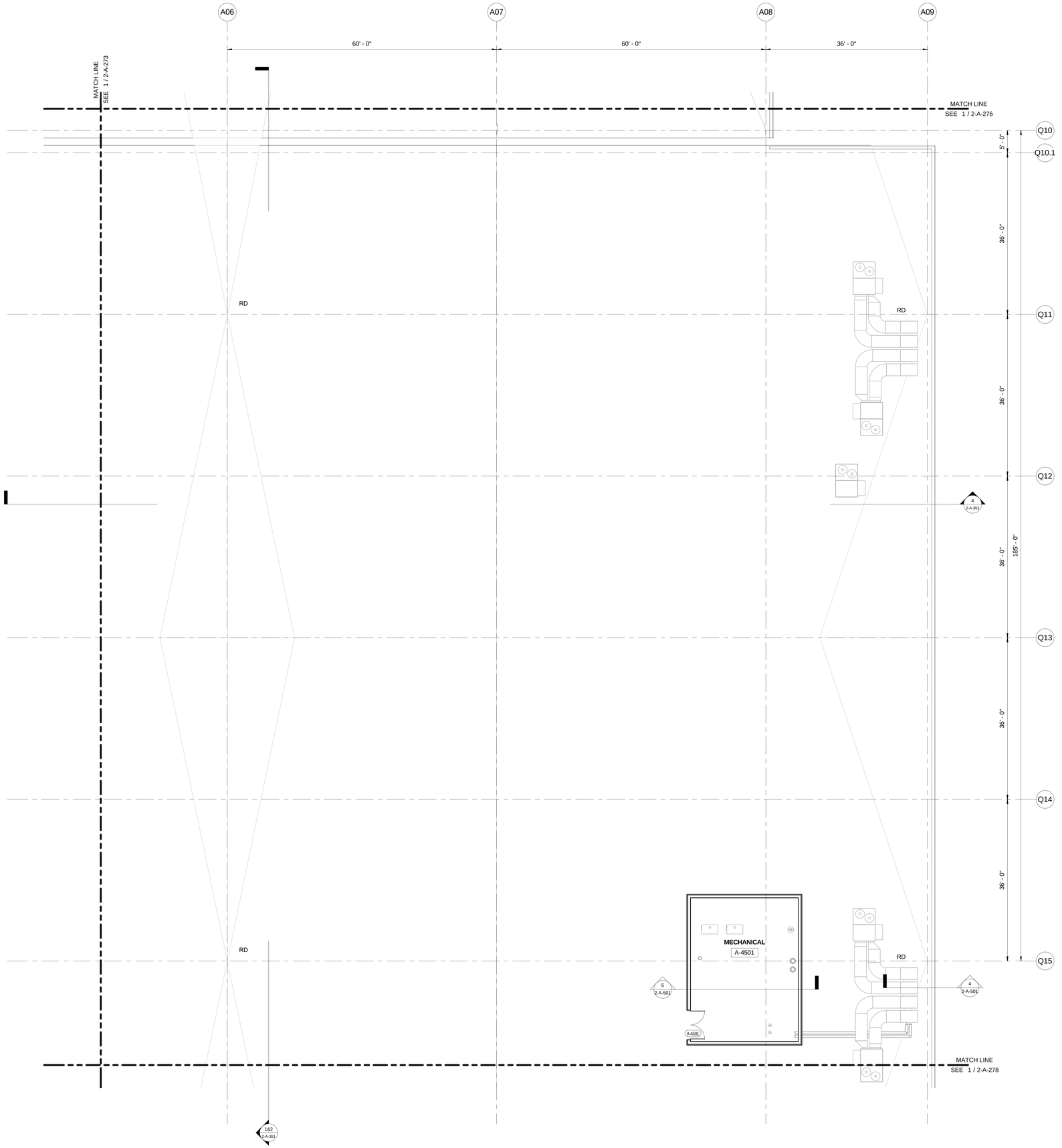
SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A6

SHEET NO.

2-A-276

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNoble\qtpr.rvt
9/22/2016 4:09:26 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 4 ENLARGED PLAN - PART A7
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNdlr0qlY.rvt
9/22/2016 4:08:28 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

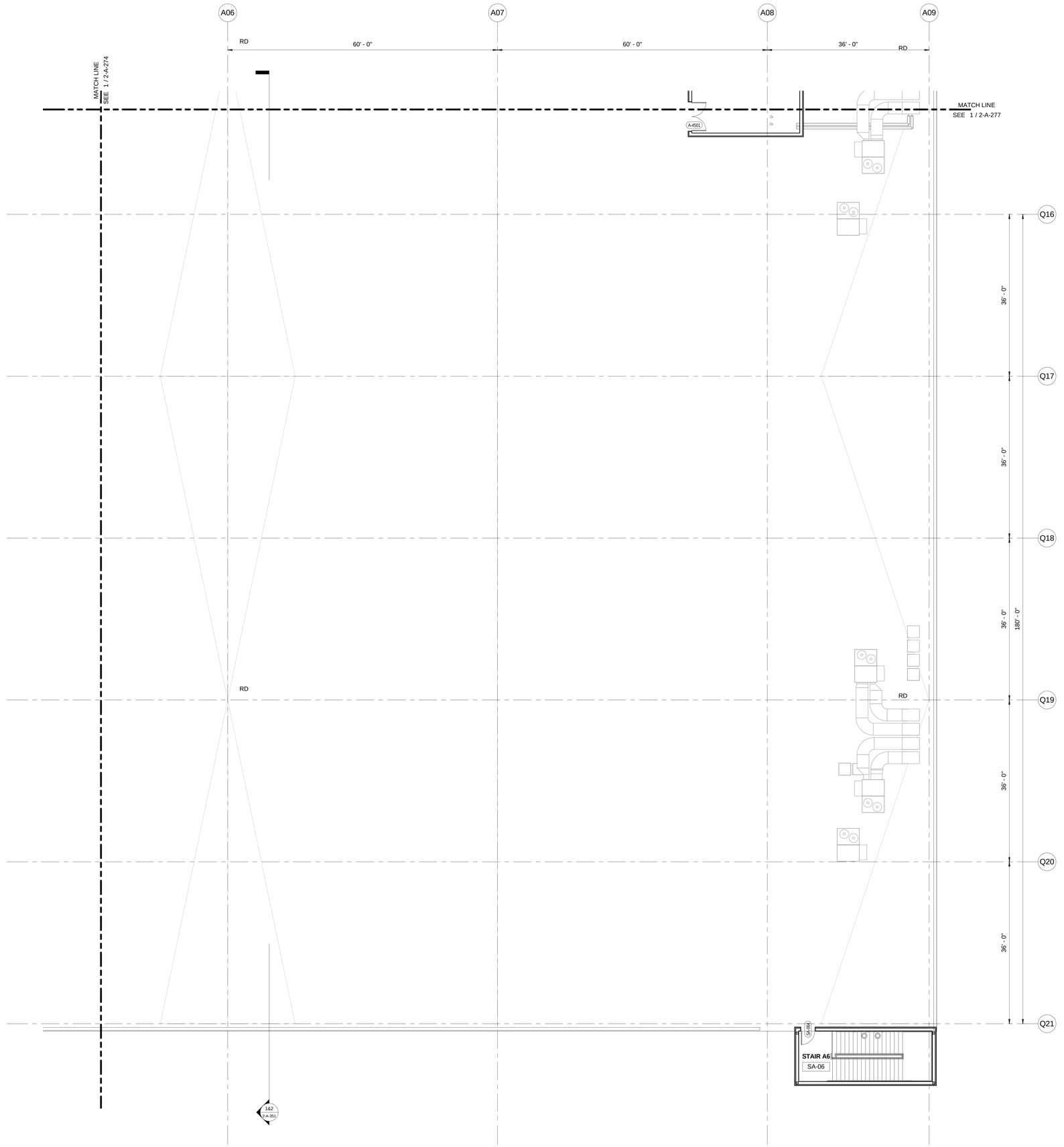
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A7

SHEET NO.

2-A-277



1 BUILDING A - QTA - LEVEL 4 ENLARGED PLAN - PART A8
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

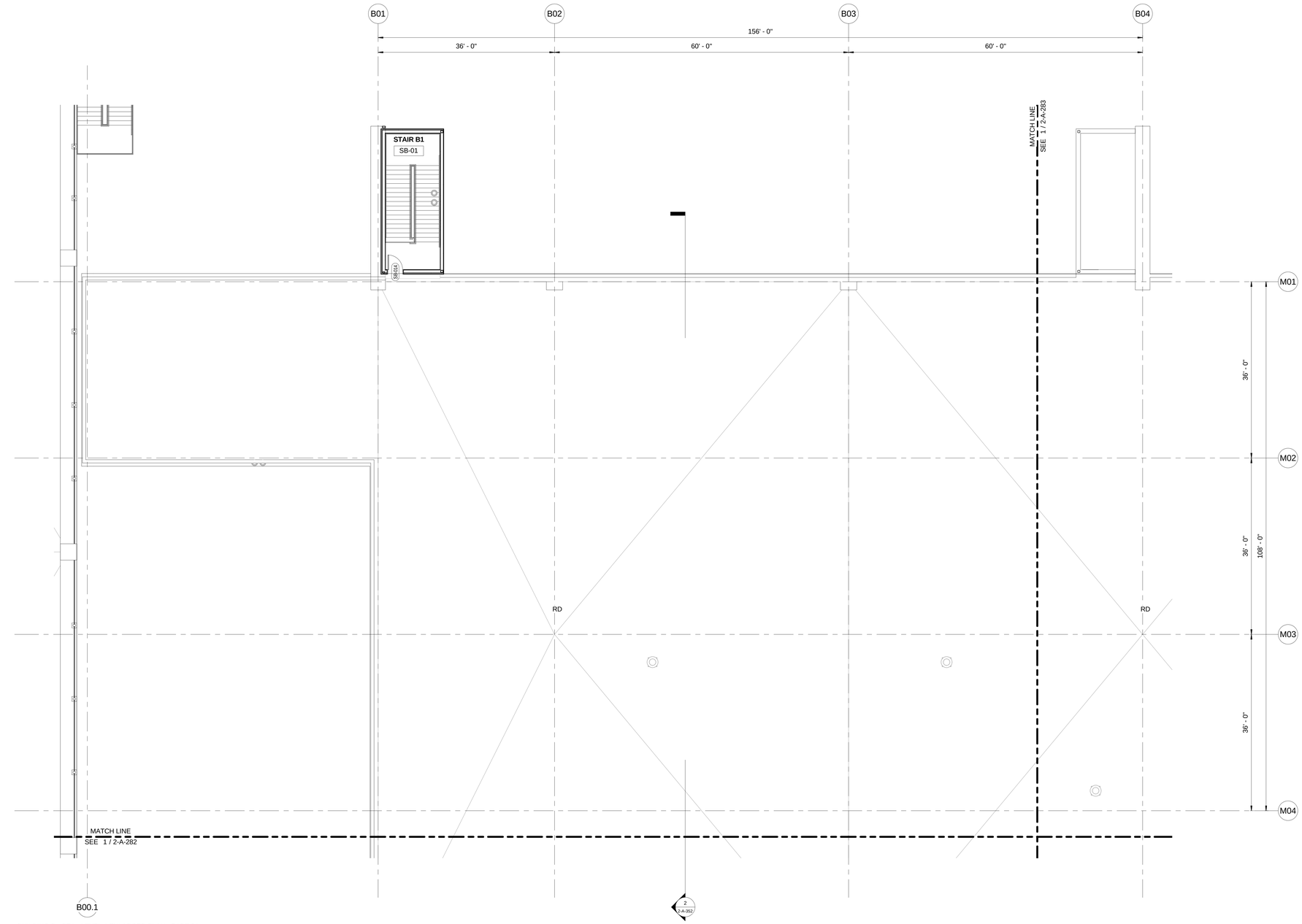
QTA ENLARGED ROOF PLAN - PART A8

SHEET NO.

2-A-278

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JaysBadger.rvt

9/22/2016 4:08:30 PM



1 BUILDING B - QTA - LEVEL 4 ENLARGED PLAN - PART B1
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART B1

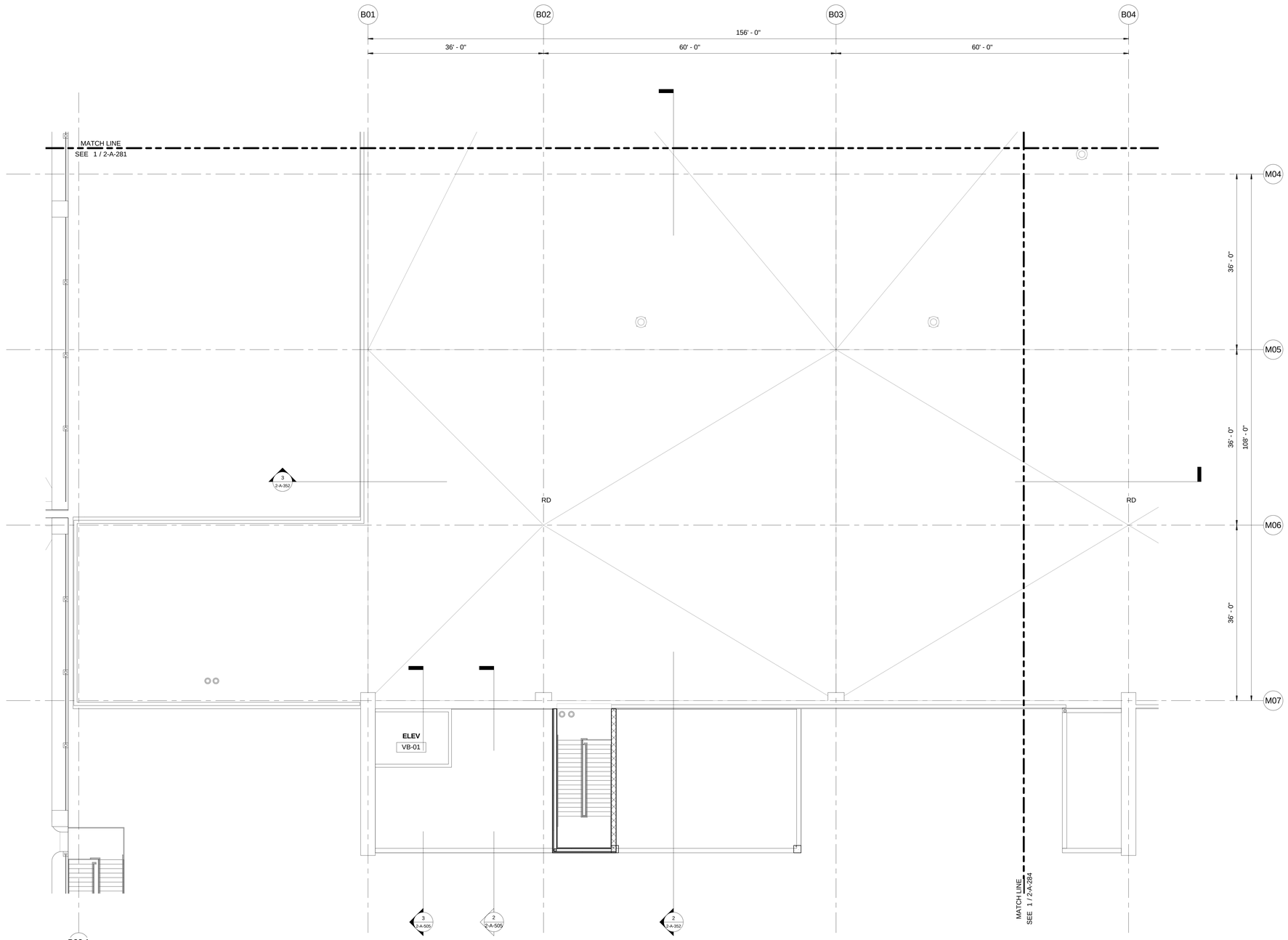
SHEET NO.

2-A-281

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_JNoh9dgn.rvt

9/22/2016 4:08:32 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 4 ENLARGED PLAN - PART B2
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\XA4881-BLDG_A_B_C-R15_kajindgm.rvt
8/22/2018 4:08:34 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CONCEPT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

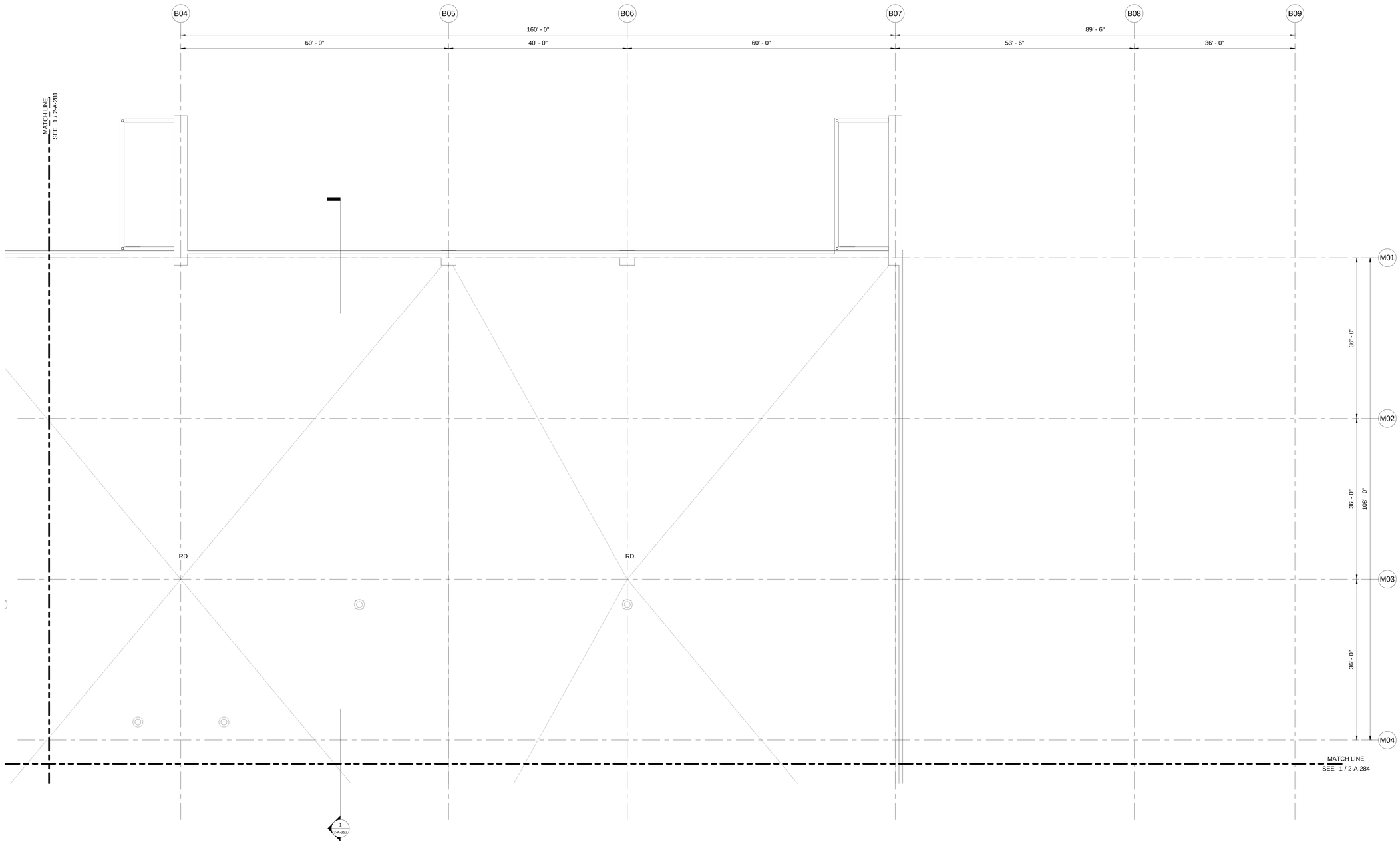
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART B2

SHEET NO.

2-A-282



1 BUILDING B - QTA - LEVEL 4 ENLARGED PLAN - PART B3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

H:\REVIT LOCAL FILES\XA-DA4881-BLDG_A_B_C-R15_kajindgm.rvt
8/22/2018 4:08:35 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

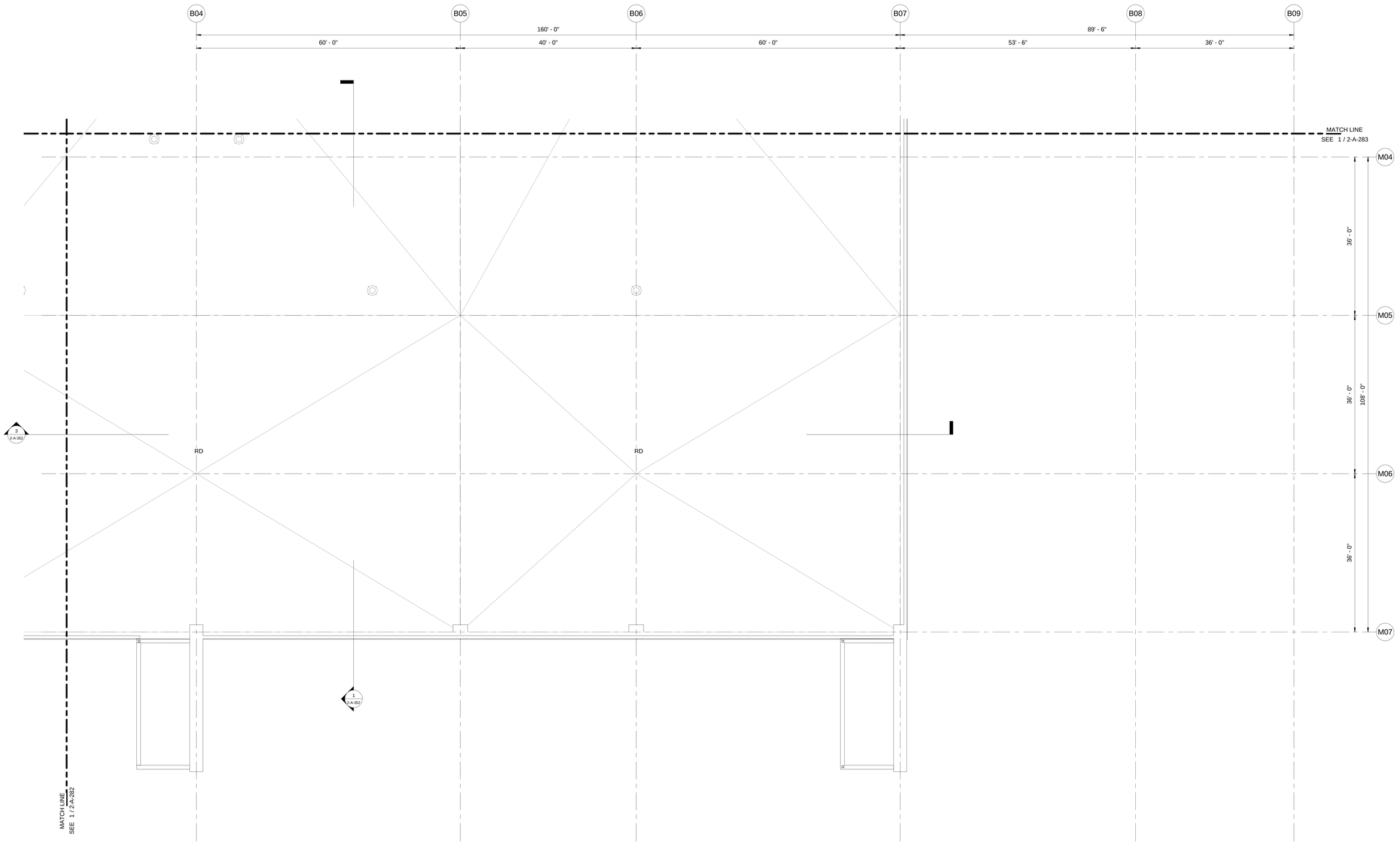
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART B3

SHEET NO.

2-A-283



1 BUILDING B - QTA - LEVEL 4 ENLARGED PLAN - PART B4
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

LAX PLAN

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

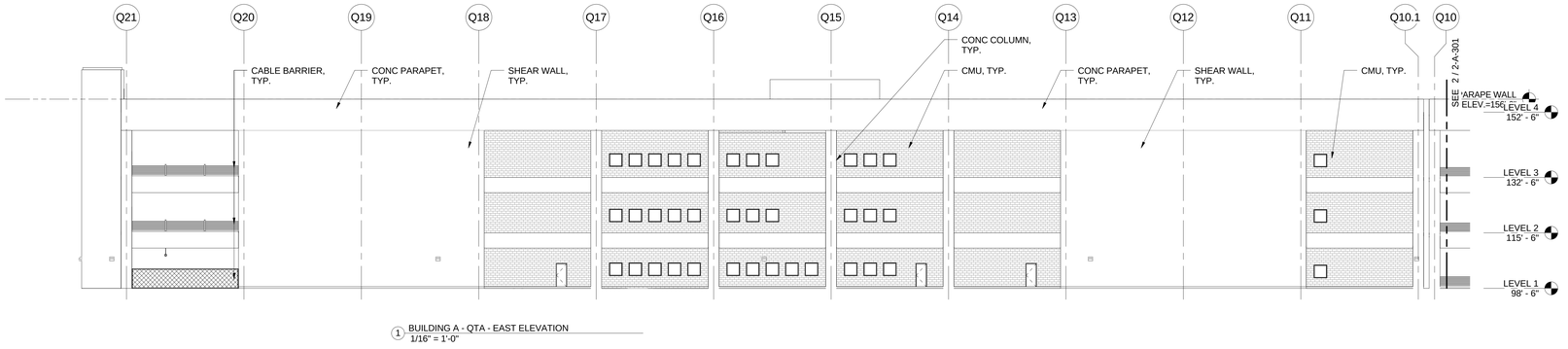
QTA ENLARGED ROOF PLAN - PART B4

SHEET NO.

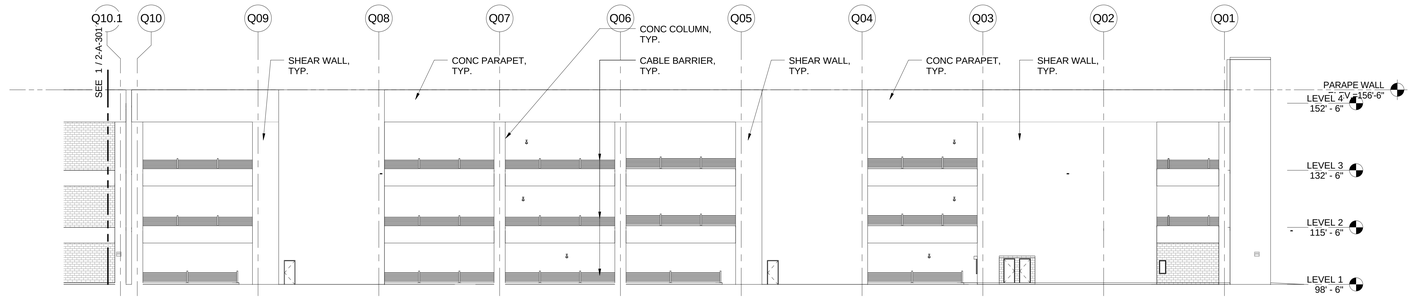
2-A-284

H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_tajahidger.rvt

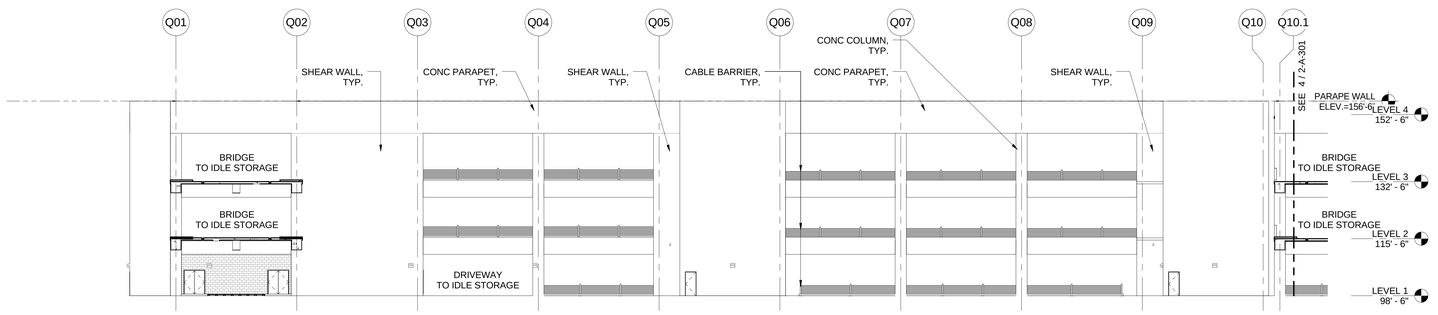
8/22/2016 4:08:37 PM



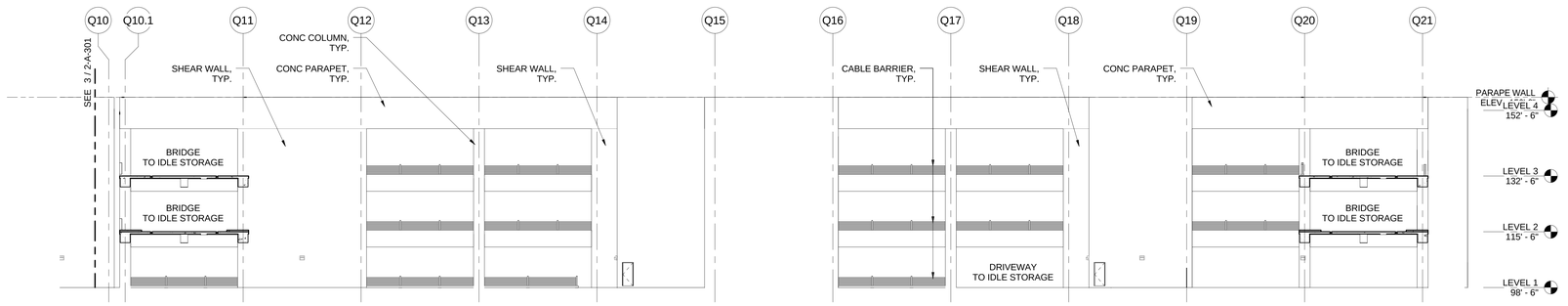
1 BUILDING A - QTA - EAST ELEVATION
1/16" = 1'-0"



2 BUILDING A - QTA - EAST ELEVATION
1/16" = 1'-0"



3 BUILDING A - QTA - WEST ELEVATION
1/16" = 1'-0"



4 BUILDING A - QTA - WEST ELEVATION
1/16" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

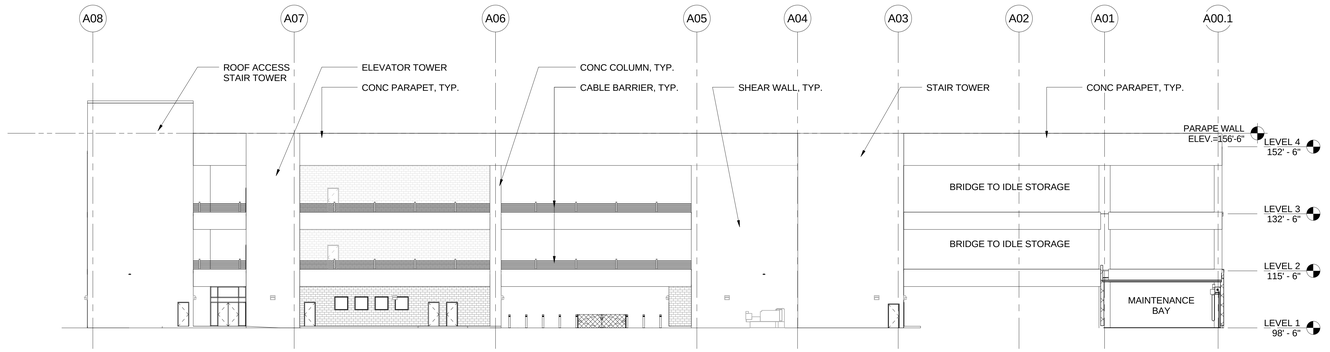
QTA OVERALL BUILDING ELEVATIONS

SHEET NO.

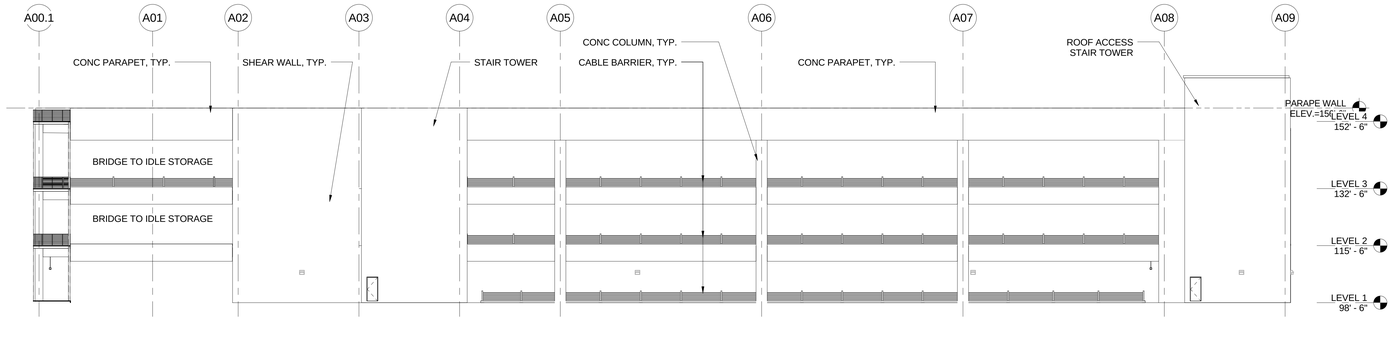
2-A-301

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:08:44 PM H:\REVIT LOCAL FILES\DA4881-BLDG_A_B_C-R15_kajelidyan.rvt



1 BUILDING A - QTA - NORTH ELEVATION
1/16" = 1'-0"



2 BUILDING A - QTA - SOUTH ELEVATION
1/16" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

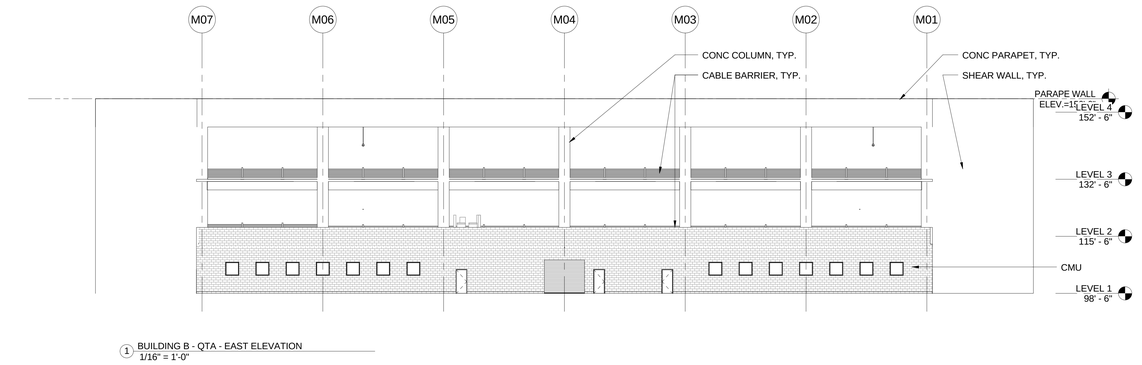
QTA OVERALL
BUILDING ELEVATIONS

SHEET NO.

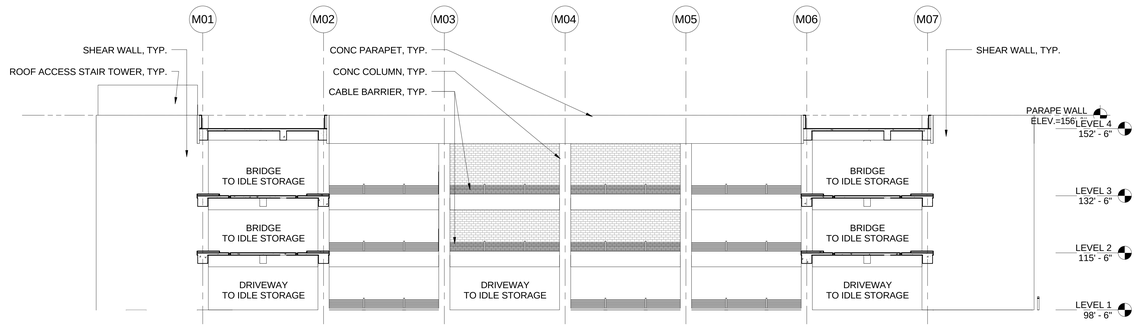
2-A-302

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

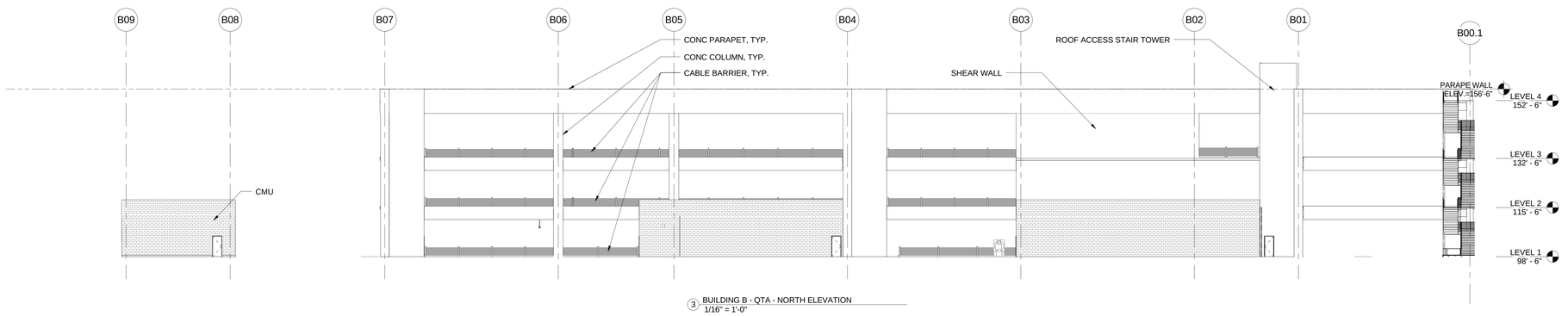
9/22/2016 4:08:47 PM H:\REVIT LOCAL FILES\DA4881-BLDG_A_B_C-R15_bajnidgm.rvt



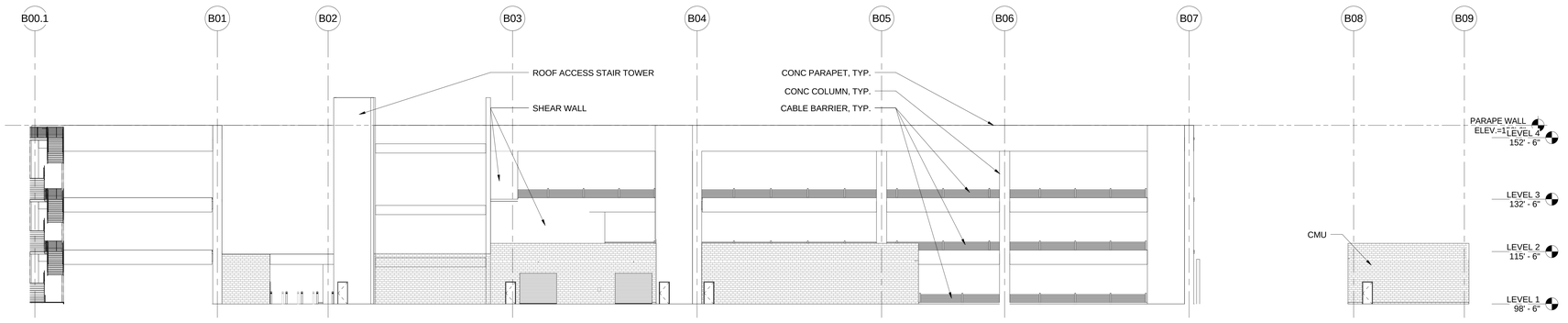
1 BUILDING B - QTA - EAST ELEVATION
1/16" = 1'-0"



2 BUILDING B - QTA - WEST ELEVATION
1/16" = 1'-0"



3 BUILDING B - QTA - NORTH ELEVATION
1/16" = 1'-0"



4 BUILDING B - QTA - SOUTH ELEVATION
1/16" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			DESCRIPTION
MARK	DATE		

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

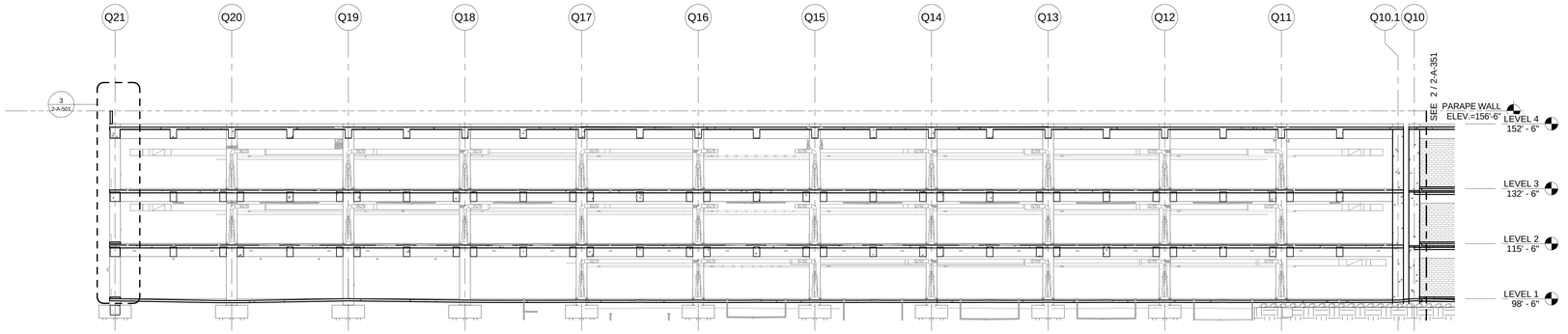
QTA OVERALL
BUILDING ELEVATIONS

SHEET NO.
2-A-303

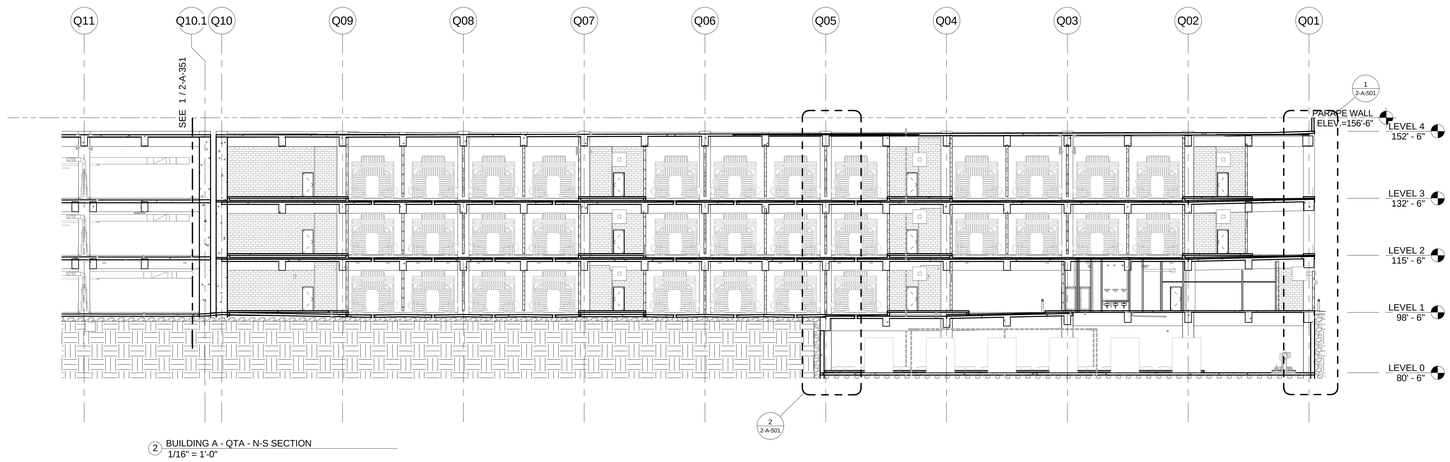
H:\REVIT LOCAL FILES\XA-DA4881-BLDG_A_B_C-R15_kajeidger.rvt

9/22/2016 4:08:53 PM

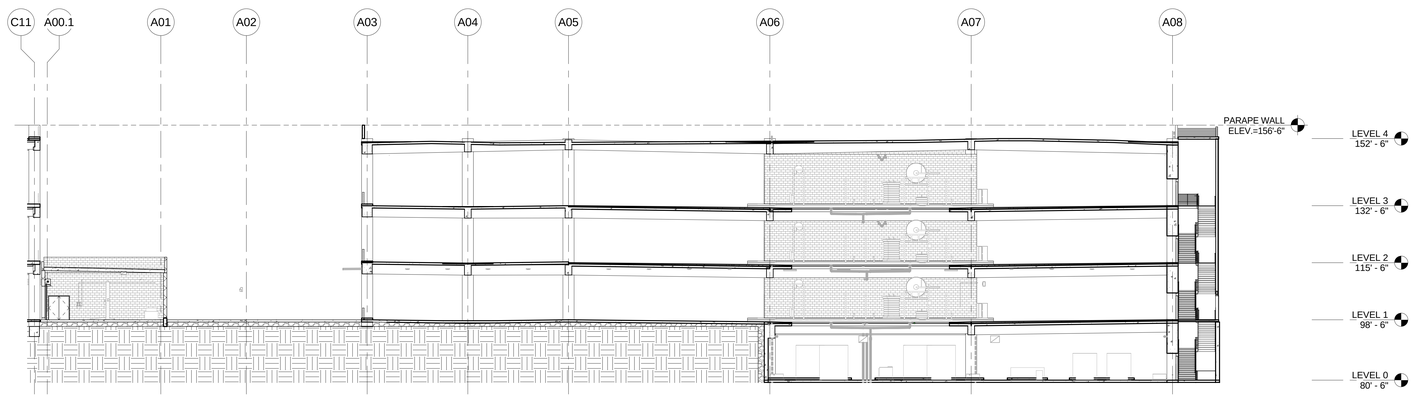
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



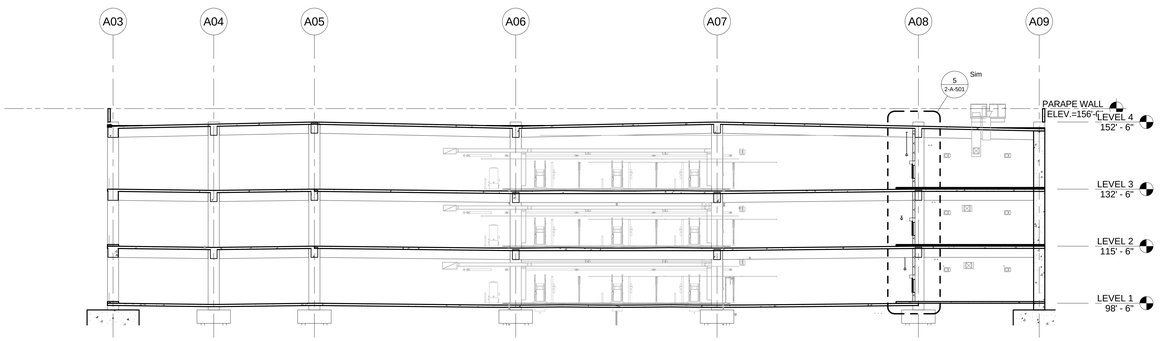
1 BUILDING A - QTA - N-S SECTION
1/16" = 1'-0"



2 BUILDING A - QTA - N-S SECTION
1/16" = 1'-0"



3 BUILDING A - QTA - E-W SECTION 1
1/16" = 1'-0"



4 BUILDING A - QTA - E-W SECTION 2
1/16" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

SHEET TITLE:

QTA OVERALL
BUILDING SECTIONS

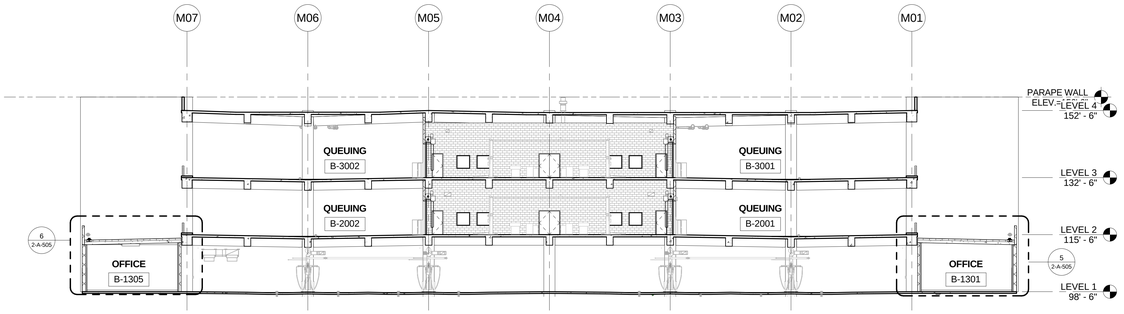
SHEET NO.

2-A-351

H:\REVIT LOCAL FILES\X-DA4881-BLDG_A_B_C-R15_kajeidger.rvt

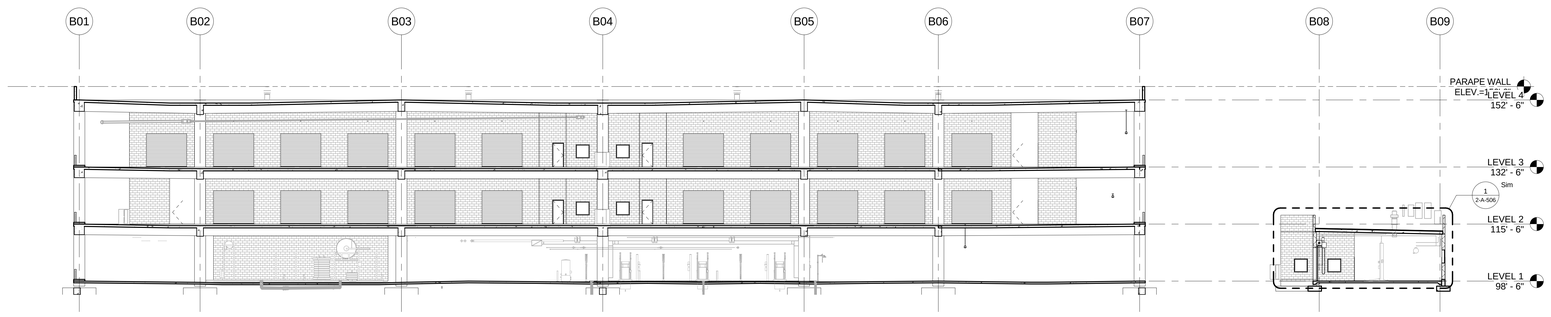
9/22/2016 4:09:20 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - N-S SECTION
1/16" = 1'-0"

2 BLDG B SECTION N-S 2
1/16" = 1'-0"



3 BUILDING B - QTA - E-W SECTION
1/16" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	JQJ
DRAWN BY:	JN
CHECKED BY:	NL

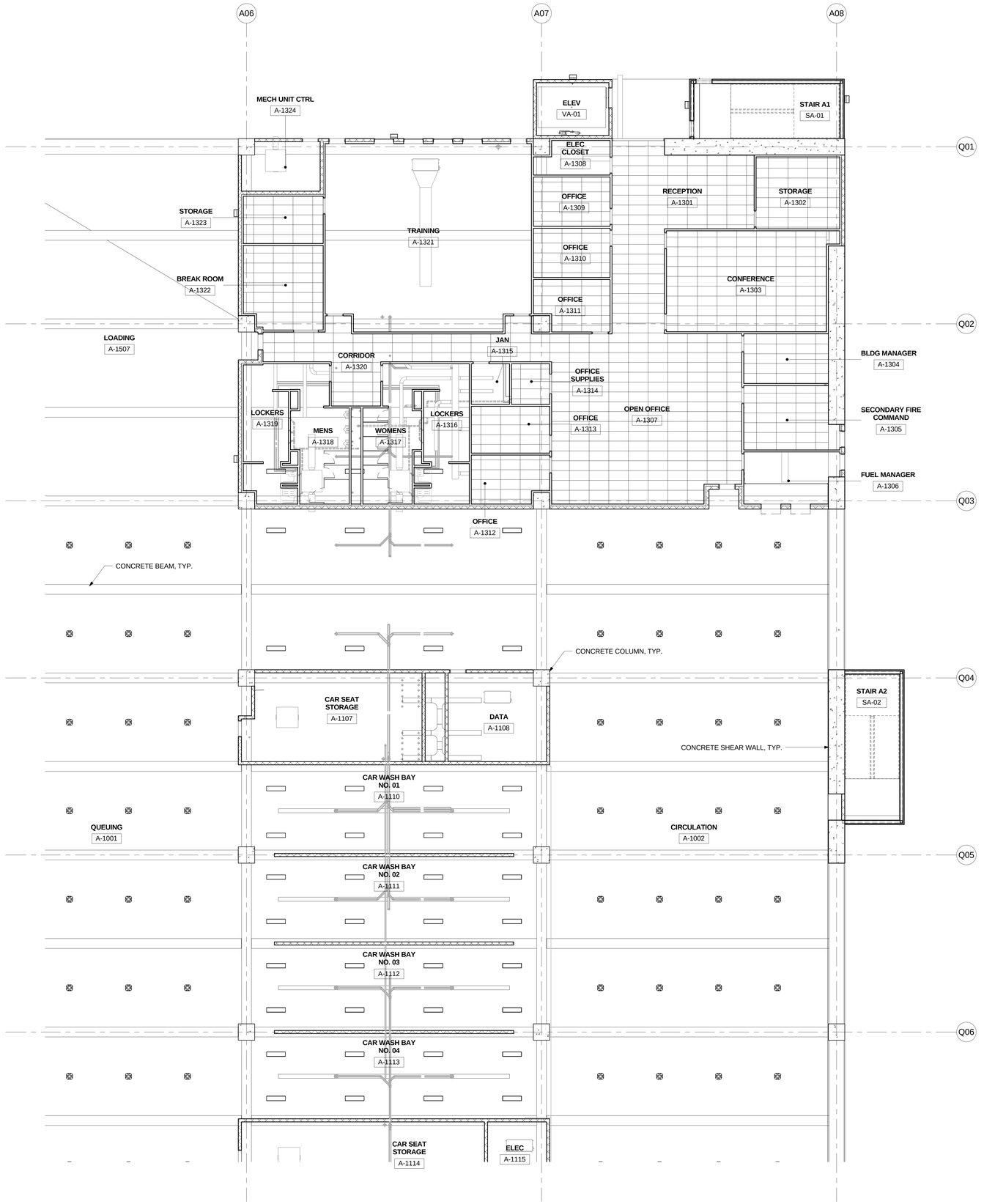
SHEET TITLE:

QTA OVERALL
BUILDING SECTIONS

SHEET NO.
2-A-352

9/22/2016 4:09:32 PM H:\REVIT LOCAL FILES\XA4881-BLDG_A_B_C-R15_bajeddjer.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 REFLECTED CEILING PLAN - PART 5
1/8" = 1'-0"

LEGEND:

CEILING MATERIAL
- GYP. BOARD CEILING SYSTEM
- 2'X4' ACOUSTIC TILE CEILING SYSTEM
- OPEN TO STRUCTURE ABOVE

MECHANICAL
- RETURN GRILLE
- SUPPLY GRILLE
- SPRINKLER HEAD

TECHNOLOGY
- CEILING MOUNTED CCTV CAMERA
- WALL MOUNTED CCTV CAMERA
- SPEAKER

MISCELLANEOUS
- ACCESS PANEL
- EXIT SIGN
- CEILING MOUNTED SMOKE DETECTOR
- WALL MOUNTED SMOKE DETECTOR
- CEILING MOUNTED STROBE HORN
- WALL MOUNTED STROBE HORN

LIGHT FIXTURES
- 4' SUSPENDED LED FIXTURE
- 4' SUSPENDED LED FIXTURE
- SUSPENDED FLOURESCENT FIXTURE
- SURFACE MOUNTED LED FIXTURE
- SURFACE MOUNTED LED FIXTURE
- RECESSED LED DOWNLIGHT
- 2'X2' LED FIXTURE
- 2'X4' LED FIXTURE

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

APPROVED BY

CHIEF AIRPORTS ENGINEER

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

LAWA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

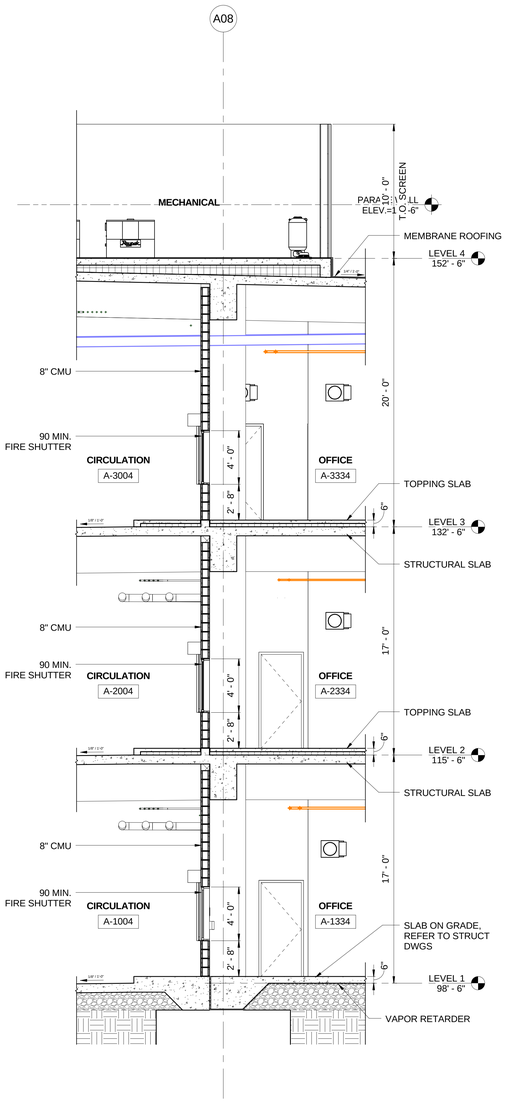
QTA LEVEL 1 REFLECTED CEILING PLAN - PART A5

SHEET NO.

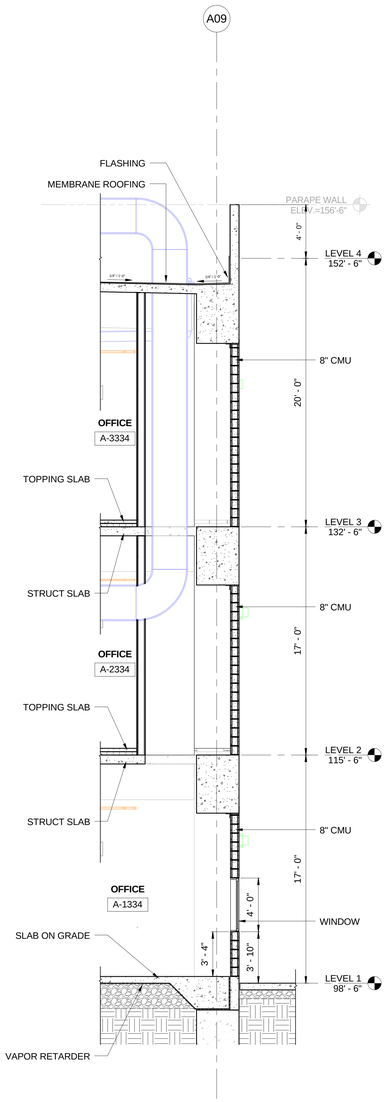
2-A-415

H:\REVIT LOCAL FILES\DA4881-BLDG_A_B_C-R15_kajtedgar.rvt

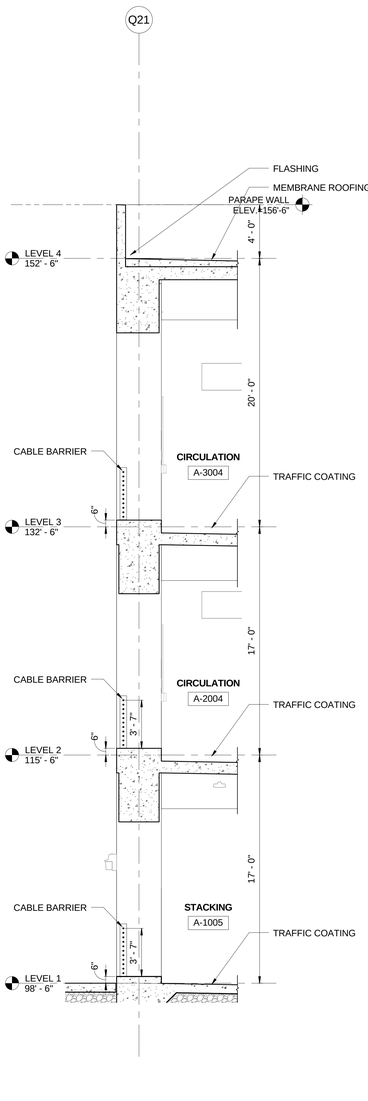
9/22/2016 4:09:38 PM



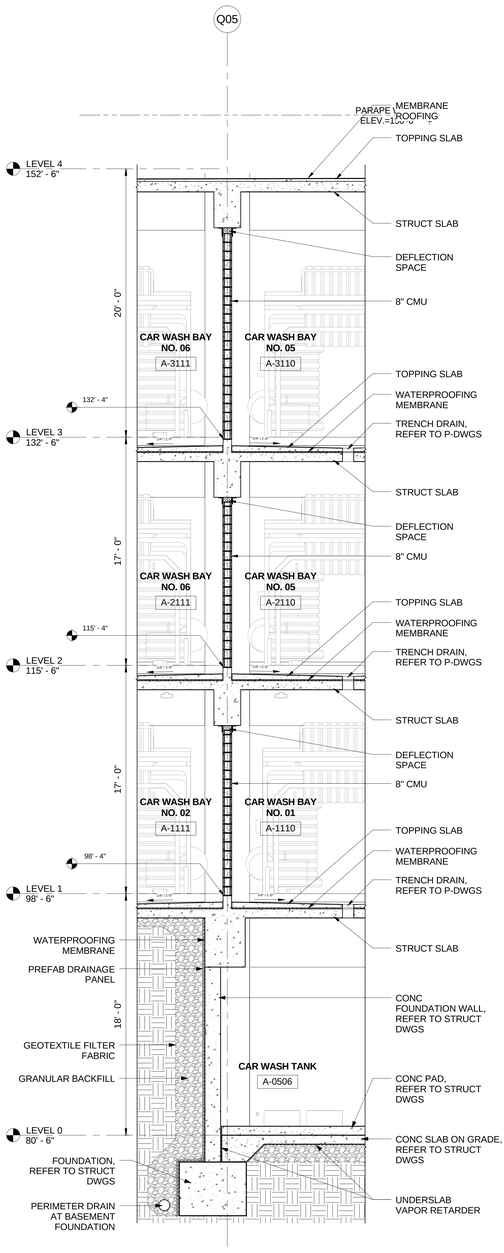
5 WALL SECTION 05 - BLDG A QTA
1/4" = 1'-0"



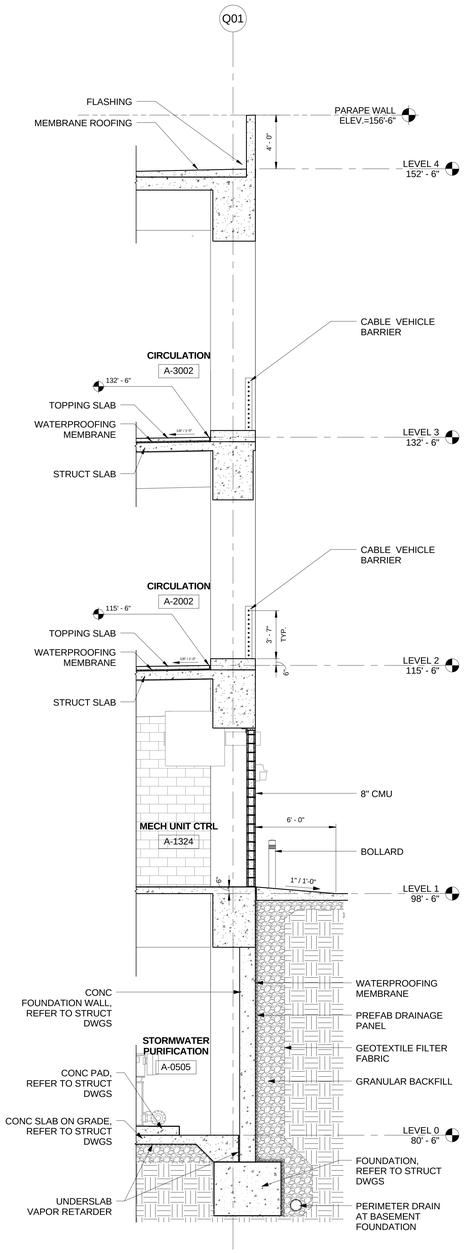
4 WALL SECTION 04 - BLDG A QTA
1/4" = 1'-0"



3 WALL SECTION 03 - BLDG A QTA
1/4" = 1'-0"



2 WALL SECTION 02 - BLDG A QTA
1/4" = 1'-0"



1 WALL SECTION 01 - BLDG A QTA
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

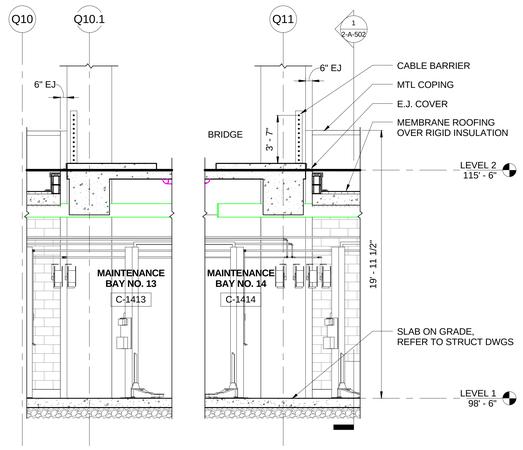
PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
WALL SECTIONS

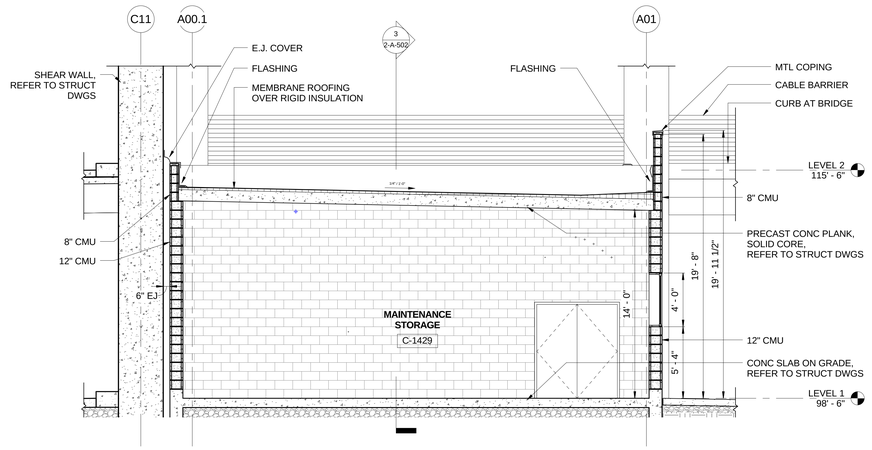
SHEET NO.
2-A-501

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

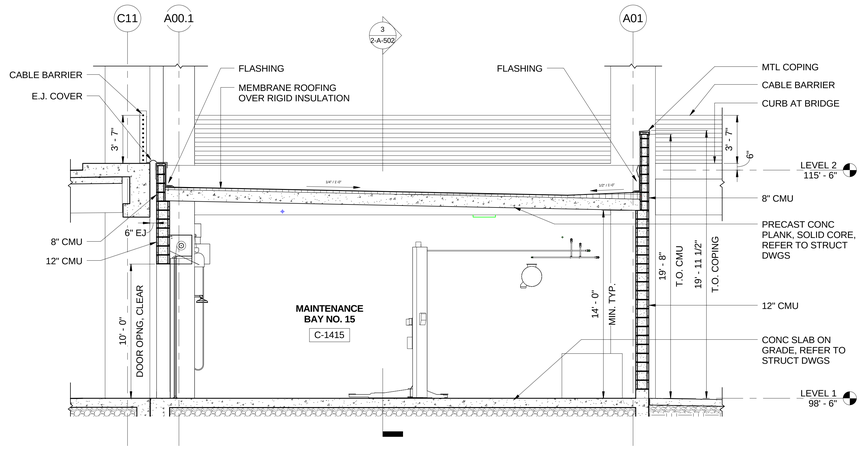
H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_bajeddger.rvt
9/22/2016 4:09:46 PM



3 WALL SECTION 03 - MAINTENANCE AT BLDG C
1/4" = 1'-0"



2 WALL SECTION 02 - MAINTENANCE AT BLDG C
1/4" = 1'-0"



1 WALL SECTION 01 - MAINTENANCE AT BLDG C
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

WALL SECTIONS

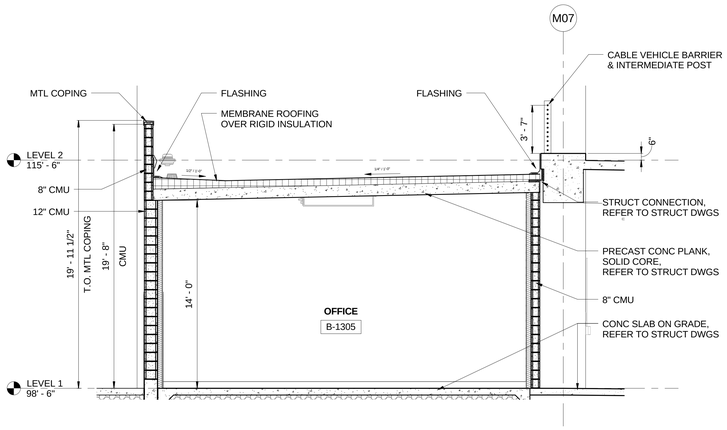
SHEET NO.

2-A-502

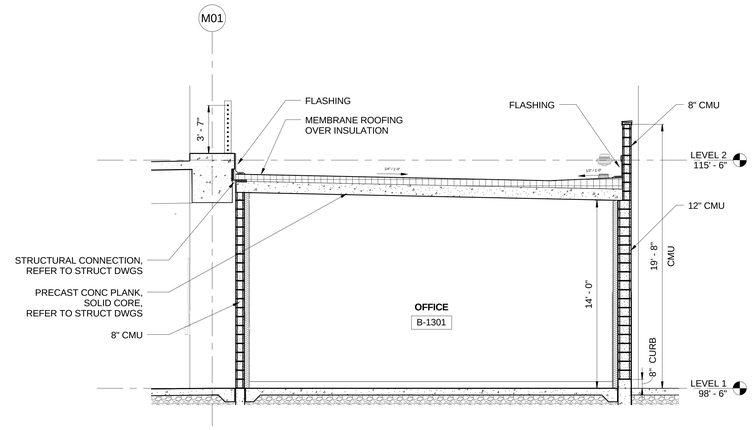
H:\REVIT LOCAL FILES\XA4881-BLDG_A_B_C-R15_kajeidger.rvt

9/22/2016 4:09:50 PM

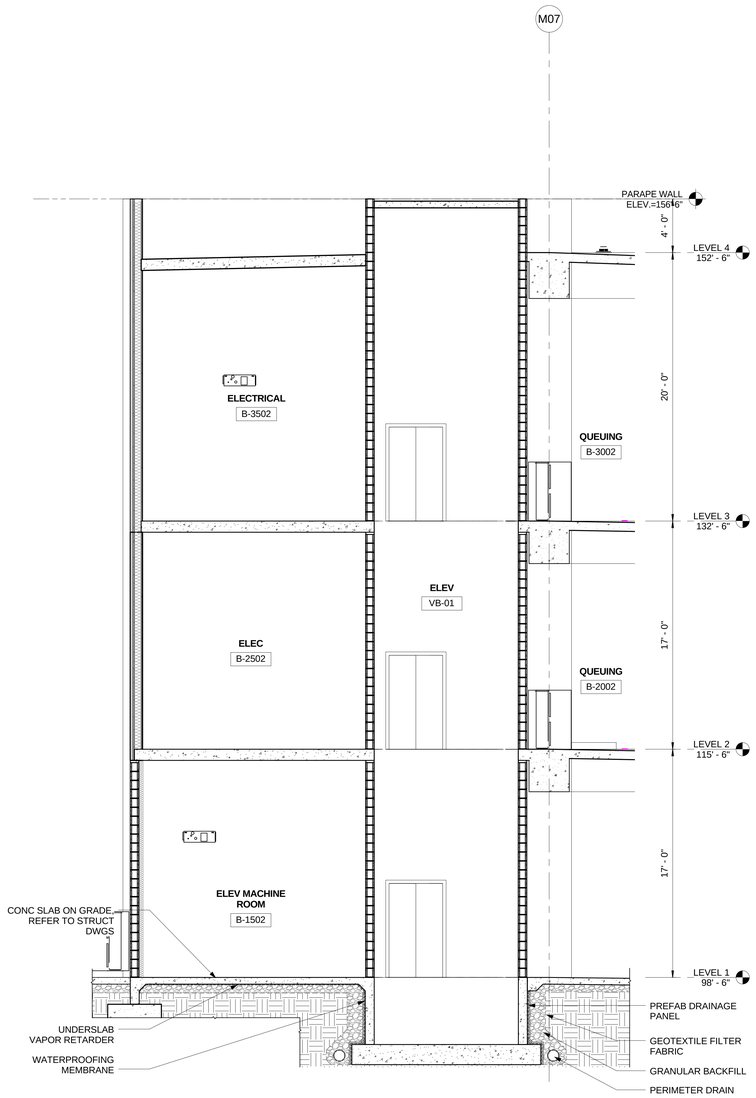
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



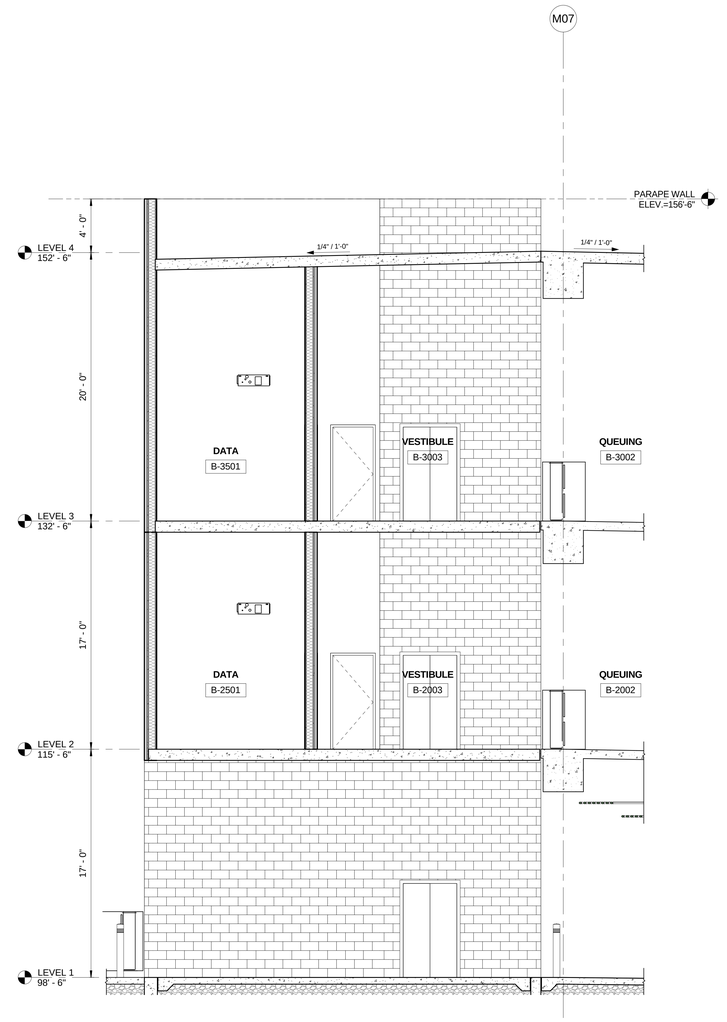
6 WALL SECTION 06 - BLDG B QTA
1/4" = 1'-0"



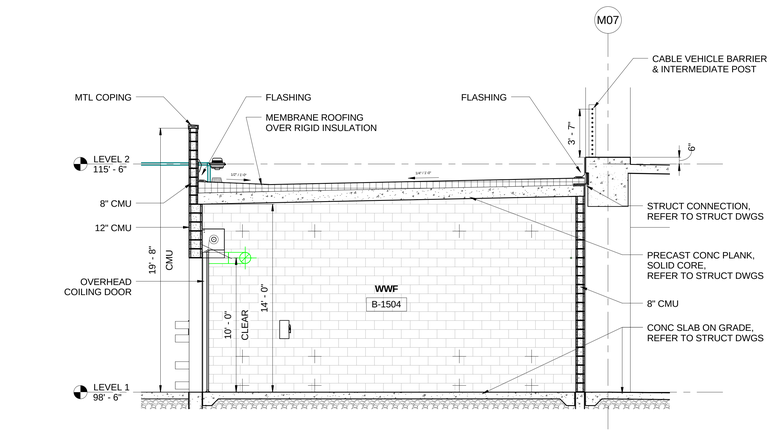
5 WALL SECTION 05 - BLDG B QTA
1/4" = 1'-0"



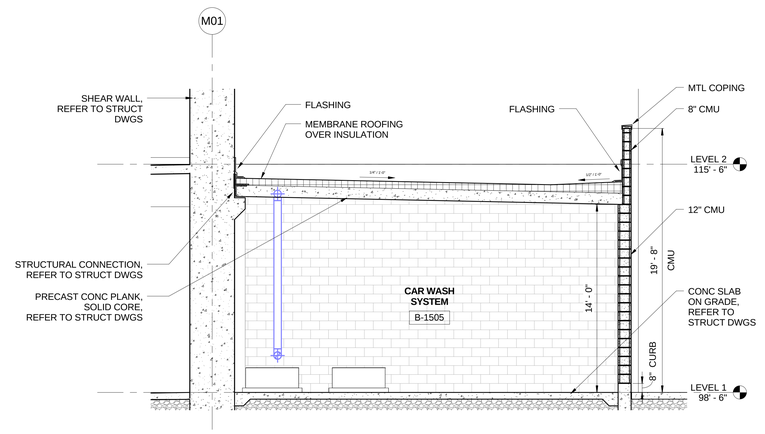
3 WALL SECTION 04 - BLDG B QTA
1/4" = 1'-0"



2 WALL SECTION 03 - BLDG B QTA
1/4" = 1'-0"



4 WALL SECTION 02 - BLDG B QTA
1/4" = 1'-0"



1 WALL SECTION 01 - BLDG B QTA
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:	DESCRIPTION	DATE	MARK

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

WALL SECTIONS

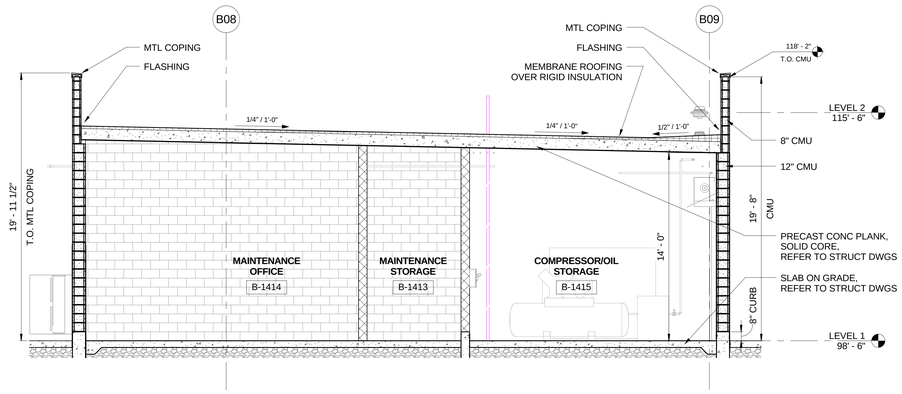
SHEET NO.

2-A-505

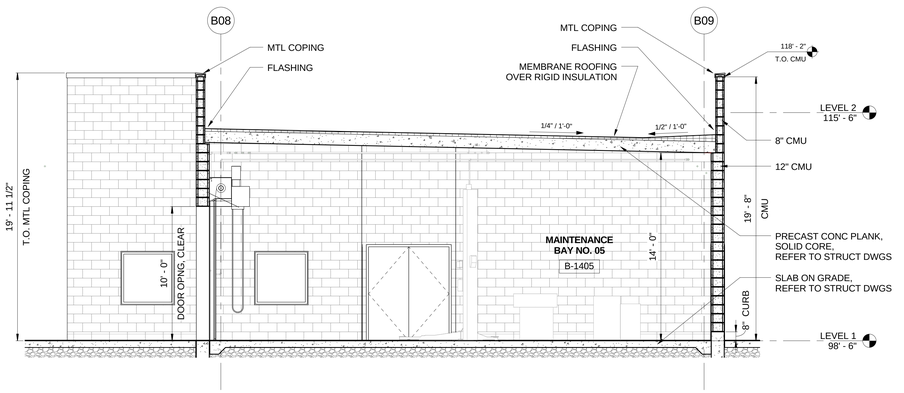
H:\REVIT LOCAL FILES\DA4881-BLDG_A_B_C-R15_tuplin@pr.rvt

9/22/2016 4:09:58 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



2 WALL SECTION 02 - BLDG B QTA MAINTENANCE
1/4" = 1'-0"



1 WALL SECTION 01 - BLDG B QTA MAINTENANCE
1/4" = 1'-0"

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CONSULTANTS:

NOT FOR CONSTRUCTION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

WALL SECTIONS

SHEET NO.

2-A-506

8/22/2016 4:10:01 PM H:\REVIT LOCAL FILES\XA-DA4881-BLDG_A_B_C-R15_bajeda\jen.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

Emergency Stop Buttons:

1 per Fuel Island
1 per Egress Stair
1 at Each Fire Control Room
1 at Each Fuel Manager's Office
1-3 as Required at Supervisors Offices

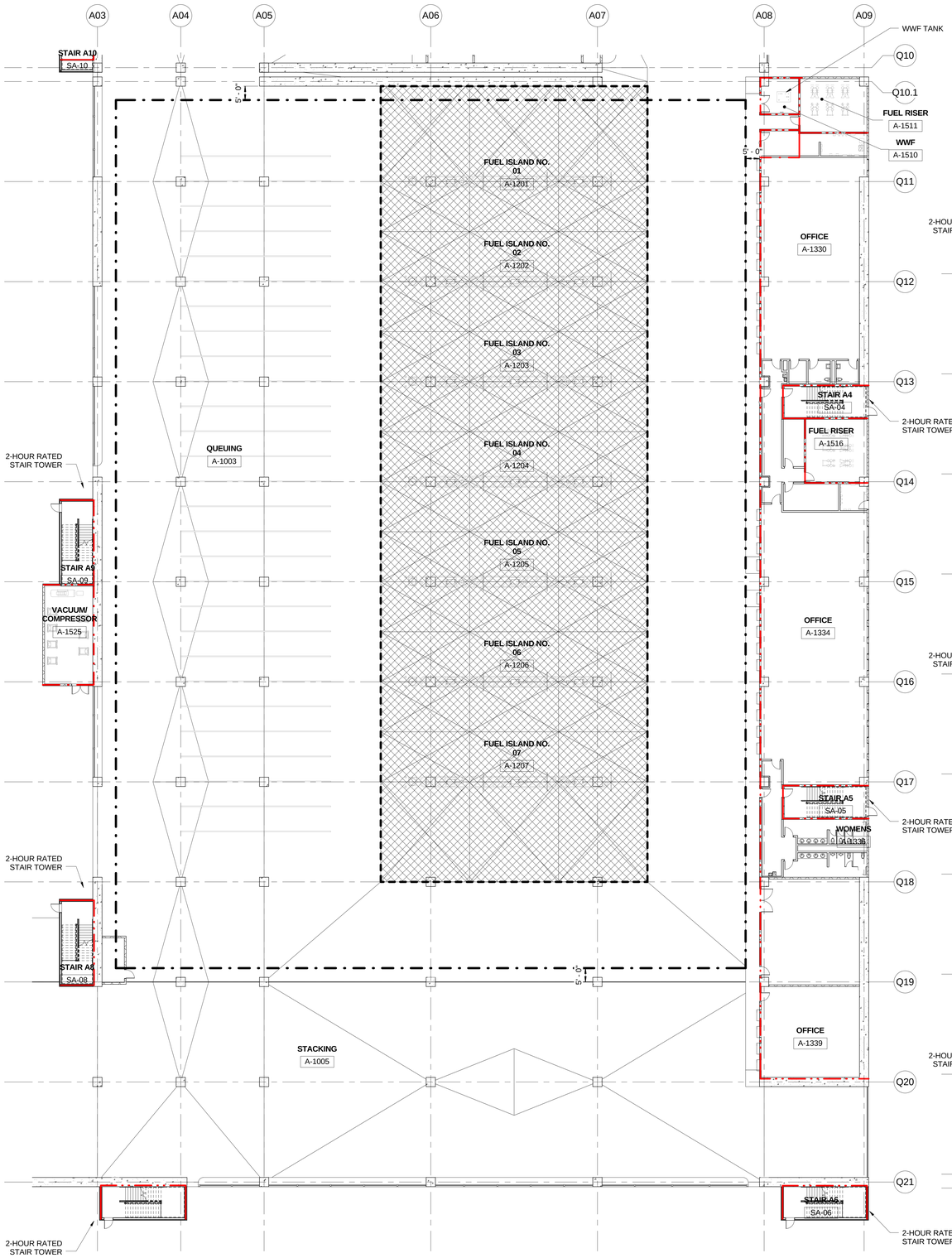
LEGEND

Dispensing Area: Mechanical Ventilation, Enhanced Fire Suppression, and Segregated Drainage Area

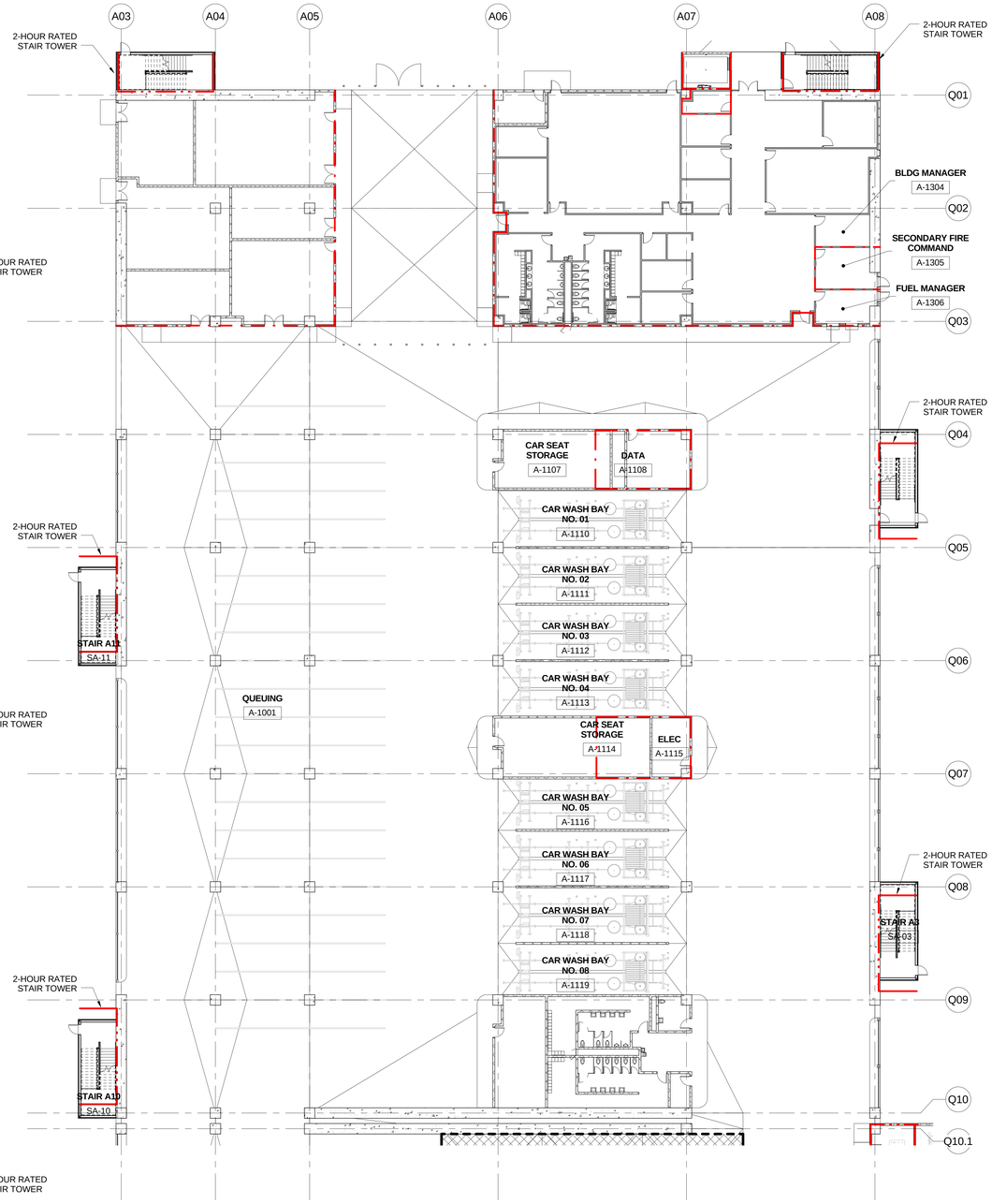
Expanded Electrical Area, Class 1 Div 2

FIRE SEPARATION

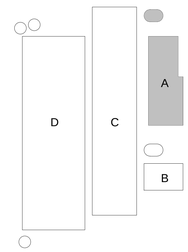
1HR FIRE RESISTANT CONSTRUCTION
2HR FIRE RESISTANT CONSTRUCTION
3HR FIRE RESISTANT CONSTRUCTION
4HR FIRE RESISTANT CONSTRUCTION



2 BUILDING A - QTA - LEVEL 1 PLAN SOUTH
1/16" = 1'-0"



1 BUILDING A - QTA - LEVEL 1 PLAN NORTH
1/16" = 1'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

QTA LEVEL 1 FUEL DISPENSING PLAN

SHEET NO.
2-A-981

H:\REVIT LOCAL FILES\DA4881-BLDG_A_B_C-R15_kajtridger.rvt
9/23/2016 4:18:37 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

Emergency Stop Buttons:

1 per Fuel Island
1 per Egress Stair
1 at Each Fire Control Room
1 at Each Fuel Manager's Office
1-3 as Required at Supervisors Offices

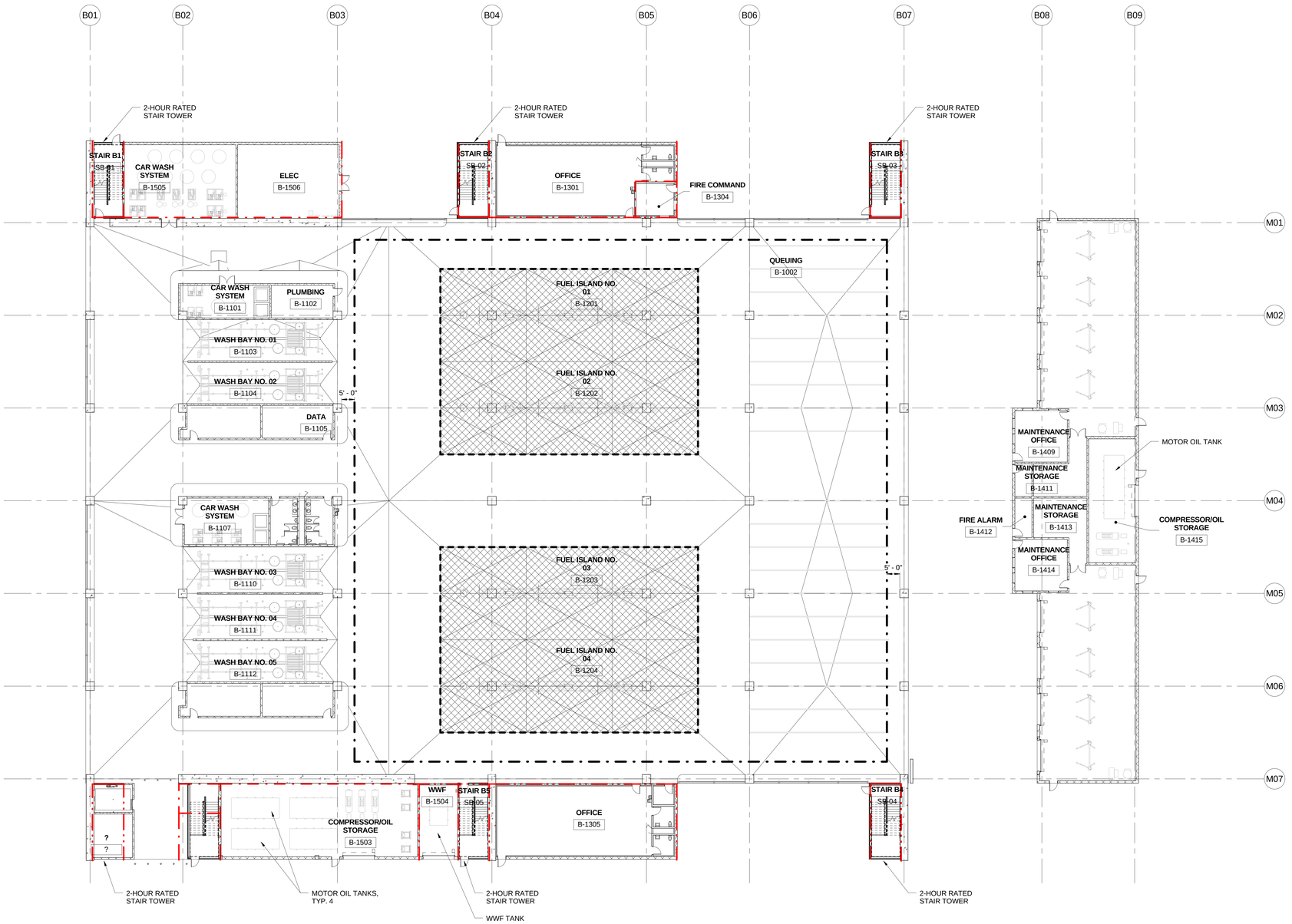
LEGEND

Dispensing Area: Mechanical Ventilation, Enhanced Fire Suppression, and Segregated Drainage Area

Expanded Electrical Area, Class 1 Div 2

FIRE SEPARATION

1HR FIRE RESISTANT CONSTRUCTION
2HR FIRE RESISTANT CONSTRUCTION
3HR FIRE RESISTANT CONSTRUCTION
4HR FIRE RESISTANT CONSTRUCTION



1 BUILDING B - QTA - LEVEL 1 PLAN
1/16" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

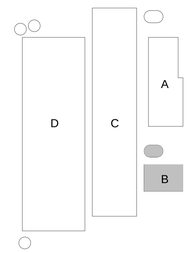
MARK:	DESCRIPTION:	DATE

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
QTA LEVEL 1 FUEL DISPENSING PLAN

SHEET NO.
2-A-982

KEYPLAN



IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:11:09 PM H:\REVIT LOCAL FILES\A-DA4881-BLDG_A_B_C-R15_Jaybridger.rvt

Emergency Stop Buttons:

1 per Fuel Island
1 per Egress Stair
1 at Each Fire Control Room
1 at Each Fuel Manager's Office
1-3 as Required at Supervisors Offices

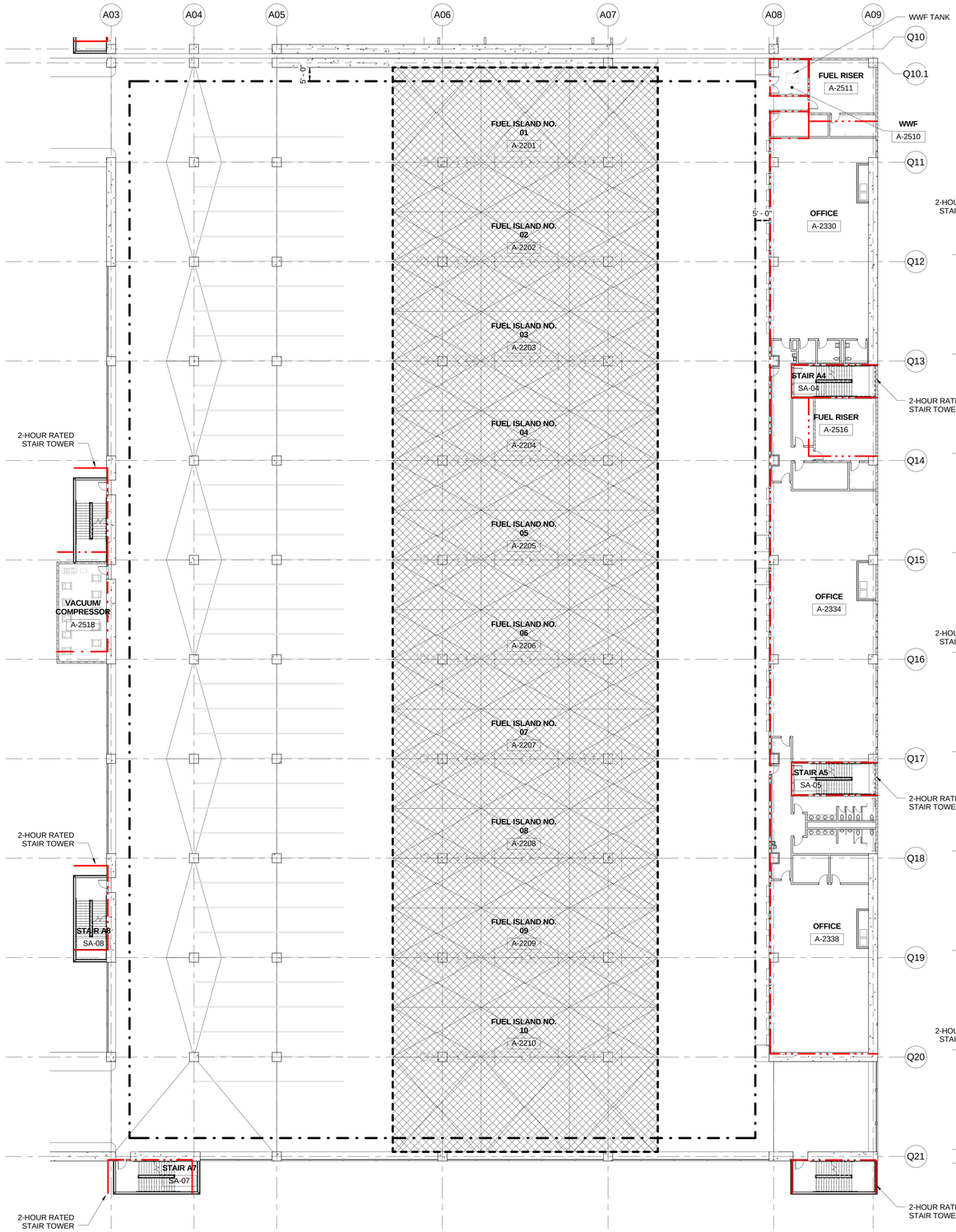
LEGEND

Dispensing Area: Mechanical Ventilation, Enhanced Fire Suppression, and Segregated Drainage Area

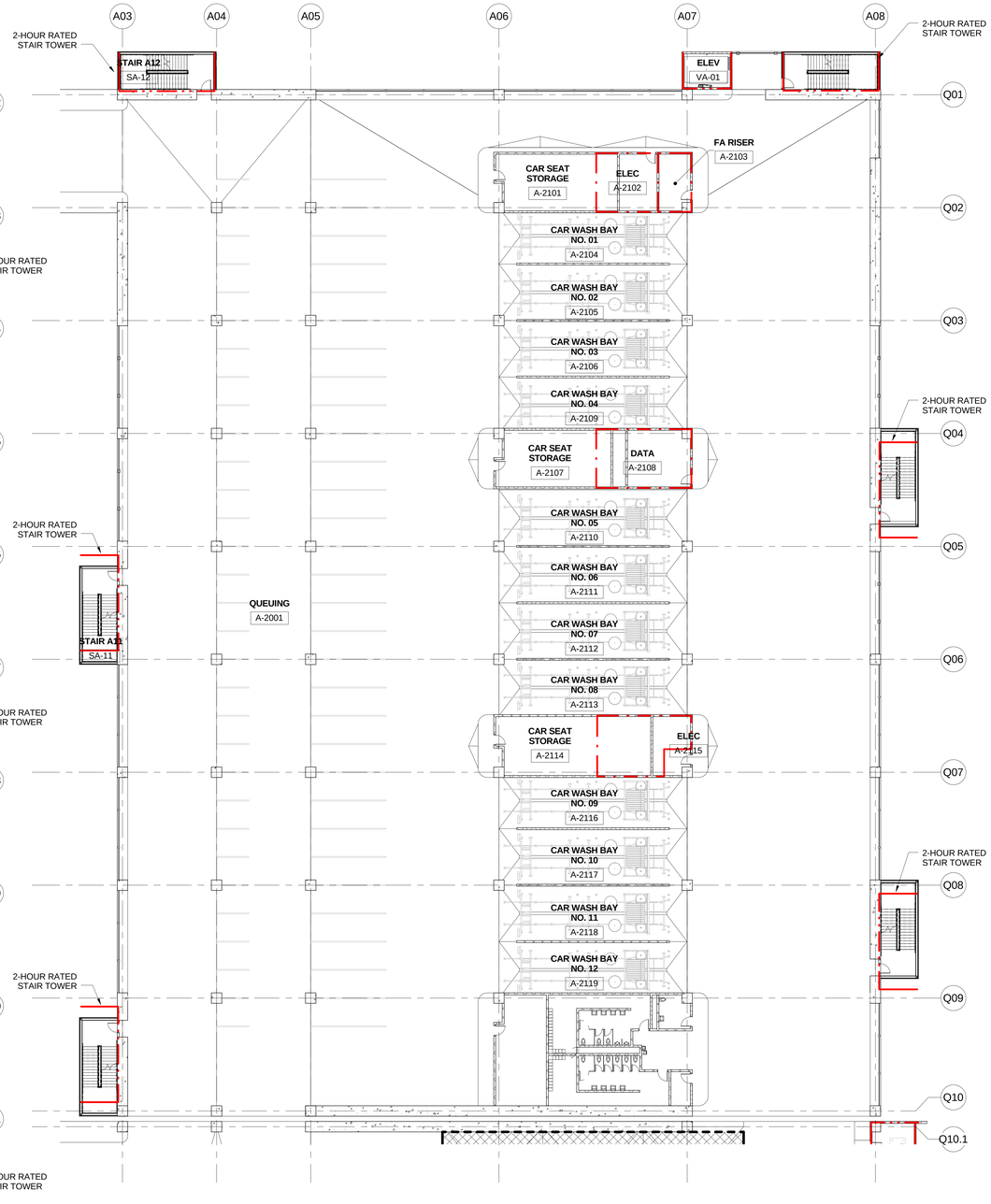
Expanded Electrical Area, Class 1 Div 2

FIRE SEPARATION

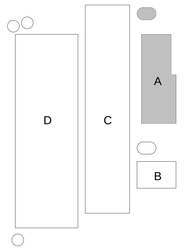
1HR FIRE RESISTANT CONSTRUCTION
2HR FIRE RESISTANT CONSTRUCTION
3HR FIRE RESISTANT CONSTRUCTION
4HR FIRE RESISTANT CONSTRUCTION



2 BUILDING A - QTA - LEVEL 2&3 PLAN SOUTH
1/16" = 1'-0"



1 BUILDING A - QTA - LEVEL 2&3 PLAN NORTH
1/16" = 1'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
QTA LEVEL 2&3 FUEL DISPENSING PLAN

SHEET NO.
2-A-983

H:\REVIT LOCAL FILES\X-DA4881-BLDG_A_B_C-R15_kajtledger.rvt
9/22/2016 4:12:02 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

MECHANICAL LEGEND

SYMBOL	ABBREV.	DESCRIPTION	SYMBOL	ABBREV.	DESCRIPTION	SYMBOL	ABBREV.	DESCRIPTION
		NEW SQUARE OR RECTANGULAR DUCT	(E)DD		EXISTING SMOKE DUCT DETECTOR	CHWS	CHWS	CHILLED WATER SUPPLY
	AC.LN.	NEW DUCT WITH ACOUSTIC LINER (IN ADDIT. TO WHERE SPECIFIED)	DD		SMOKE DUCT DETECTOR (BY FIRE ALARM CONTRACTOR)	CHWR	CHWR	CHILLED WATER RETURN
		EXISTING DUCT OR EQUIPMENT TO REMAIN		S.P.	STATIC PRESSURE	HWS	HWS	LOW TEMPERATURE HOT WATER SUPPLY
		EXISTING DUCT OR EQUIPMENT TO BE REMOVED	□	DIA.	ROUND (DIAMETER)	HWR	HWR	LOW TEMPERATURE HOT WATER RETURN
		NEW ROUND DUCT			OVAL DUCT (MINOR AXIS x MAJOR AXIS)		N.O.	NORMALLY OPEN
		NEW FLEXIBLE ROUND DUCT		TG	TOP GRILLE		N.C.	NORMALLY CLOSED
UP (OR DN)		DUCT SLOPE DIRECTION		TR	TOP REGISTER		TEMP.	TEMPERATURE
		DUCT UP OR DOWN		BR	BOTTOM REGISTER		TYP.	TYPICAL
		DUCT TRANSITION		B.G.	BOTTOM GRILLE		POR	POINT OF REMOVAL
		RADIUS ELBOW (FIG. 2-2) ✳		C.G.	CEILING GRILLE		POC	POINT OF CONNECTION
		RECTANG/SQUARE DUCT THROAT ELBOW WITH VANES (FIG. 2-2) ✳		CFM	CUBIC FEET OF AIR PER MINUTE		A.D.	ACCESS DOOR
OR		SQUARE 45° ENTRY BRANCH CONNECTION (FIG. 2-8) ✳		E. OR EXH.	EXHAUST		IBJS	IN BETWEEN JOIST SPACE
		ROUND DUCT WYE FITTING (FIG. 3-5) ✳		(E) OR EXIST	EXISTING		UTR	UP THROUGH ROOF
OR		RECTANGULAR DUCT PARALLEL FLOW BRANCH (FIG. 2-7) ✳		W/CLG. F.D.	WITH CEILING FIRE DAMPER		DTR	DOWN THROUGH ROOF
TH OR TH		THROAT SIZE ON RECTANGULAR DUCT SPLIT		O.S.A.	OUTSIDE AIR		UTF	UP THROUGH FLOOR
OR		DUCT TAKE-OFF FROM BOTTOM		R. OR RET.	RETURN		DTR	DOWN THROUGH ROOF
OR		DUCT TAKE-OFF FROM TOP		S. OR SUPP.	SUPPLY	XX / X		EQUIPMENT NUMBER
	MVD	NEW MANUAL VOLUME DAMPER		TH.	THROAT	T		EXISTING THERMOSTAT WITH ZONE NUMBER
	(E)MVD	EXISTING MANUAL VOLUME DAMPER		MCA	MINIMUM CIRCUIT AMPS	T 1	T'STAT.	THERMOSTAT WITH ZONE NUMBER
	FD	NEW FIRE DAMPER		MFA	MAXIMUM FUSE AMPS		GA.	GAUGE
	(E)FD	EXISTING FIRE DAMPER			BALL VALVE	S		REMOTE SENSOR
	MD	NEW MOTORIZED DAMPER			GLOBE VALVE	CO_2		CARBON DIOXIDE SENSOR
	FD-SD	NEW FIRE DAMPER & SMOKE DAMPER			BALANCING COCK	RL	RL	REFRIGERANT LIQUID LINE
	(E) FD-SD	EXISTING FIRE DAMPER & SMOKE DAMPER			CHECK VALVE	RS	RS	REFRIGERANT SUCTION LINE
	CR	CEILING REGISTER (RETURN OR EXHAUST)	PRV-X		PRESSURE REDUCING VALVE	RD	RD	REFRIGERANT DISCHARGE LINE
	CD	CEILING DIFFUSER (SUPPLY)			FLOW CONTROL VALVE (NON-MOTORIZED)			THERMOSTATIC EXPANSION VALVE
	CR	CEILING REGISTER (OUTSIDE AIR)			PUMP			DRYER
		SUPPLY AIR DUCT SECTION			THERMOMETER			FILTER DRYER
		RETURN OR EXHAUST AIR DUCT SECTION		PRV	PRESSU. RELIEF VALVE WITH DISCHARGE TO FLR SINK OR OUTSIDE			SIGHT GLASS
		OUTSIDE AIR DUCT SECTION	EJ-X		PIPING EXPANSION JOINT			SOLENOID VALVE
		SUPPLY AIR DUCT UP THRU FLOOR OR ROOF			PRESSURE GAUGE WITH GAUGE COCK			REFRIGERATION VALVE
		RETURN OR EXHAUST AIR DUCT UP THRU FLOOR OR ROOF	MV		MANUAL AIR VENT			VIBRATION ABSORBER
		OUTSIDE AIR DUCT UP THRU FLOOR OR ROOF			PLUG COCK	(NAME)		NEW PIPING
2	LVR.	DOOR LOUVER AND SQUARE FOOT AREA			PIPING FLEXIBLE CONNECTION	(NAME)		EXISTING PIPING TO REMAIN
		UNDERCUT DOOR 3/4"	TH		THERMOMETER WELL	(NAME)		EXISTING PIPING TO BE REMOVED
				A.A.V.	AUTOMATIC AIR VENT WITH DISCH. TO FLR SINK OR OUTSIDE	✳ REFERS TO "SMACNA" HVAC DUCT CONSTRUCTION STANDARDS		

GENERAL NOTES

1. THE INSTALLATION SHALL COMPLY WITH ANY AND ALL REQUIREMENTS OF THE LEGALLY CONSTITUTED AUTHORITIES HAVING JURISDICTION INCLUDING THE FOLLOWING:
   a) 2013 CALIFORNIA BUILDING STANDARD ADMINISTRATIVE CODE PART 1. TITLE 24 C.C.R.
   b) 2013 CITY OF LOS ANGELES BUILDING CODE BASED ON 2010 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R., AND 2009 INTERNATIONAL BUILDING CODE (IBC)
   c) 2013 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. WITH 2011 L.A CITY AMENDMENTS. (BASED ON 2008 NATIONAL ELECTRICAL CODE)
   d) 2013 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R. WITH 2011 L.A CITY AMENDMENTS. (BASED ON 2009 UNIFORM MECHANICAL CODE)
   e) 2013 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. WITH 2011 L.A CITY AMENDMENTS. (BASED ON 2009 UNIFORM MECHANICAL CODE)
   f) 2013 BUILDING ENERGY EFFICIENCY STANDARDS (CALIFORNIA ENERGY CODE) PART 6, TITLE 24, C.C.R.
   g) 2013 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R. 2010 (2006 UNIFORM FIRE CODE AND 2007 CALIFORNIA AMENDMENTS)
   h) 2013 CALIFORNIA EXISTING BUILDING CODE, PART 10, TITLE 24 C.C.R. (2006 INTERNATIONAL EXISTING BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH AMENDMENTS)
   i) 2013 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 C.C.R.
   j) 2013 TITLE 19, C.C.R. PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.
   k) 2013 LA GREEN BUILDING CODE (LABGC).
2. ALL INDICATED DIMENSIONS ARE APPROXIMATE AND ARE GIVEN FOR ESTIMATE PURPOSES ONLY. BEFORE PROCEEDING WITH THE WORK, THIS CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL DIMENSIONS, SIZES, REQUIRED CLEARANCES, AND SHALL ASSUME FULL RESPONSIBILITY FOR THE FITTING OF ALL EQUIPMENT AND MATERIALS HEREIN REQUIRED TO OTHER PARTS OF THE WORK AND TO THE WORK OF OTHER TRADES.
3. CONTRACTOR SHALL COMPLY WITH ALL CONTRACT DOCUMENTS IN LAYING OUT HIS WORK AND EQUIPMENT OR SPECIALTIES REQUIRING READING, ADJUSTMENT, INSPECTION, REPAIRS, REMOVAL OR REPLACEMENT SHALL BE CONVENIENTLY AND ACCESSIBLY LOCATED WITH REFERENCE TO THE FINISHED BLDG.
4. DUCT CONSTRUCTION, INSTALLATION & INSULATION SHALL COMPLY WITH 2011 CITY OF LA MECHANICAL CODE, CHAPTER-6 AND SMACNA 1995 EDITION.
5. ALL BRACING OF DUCTS AND PIPING SHALL BE INSTALLED IN ACCORDANCE WITH "SMACNA" GUIDELINES AS FOR SEISMIC RESTRAINTS OF MECHANICAL AND PLUMBING SYSTEMS. WHERE BRACING DETAILS ARE NOT SHOWN ON DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE TO THE APPROVAL OF THE ARCHITECT, THE STRUCTURAL ENGINEER, AND LAWA ENGINEER. A COPY OF THE GUIDELINES PUBLISHED BY "SMACNA" AND APPROVED BY LAWA SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON THE JOB AT ALL TIME.
6. ALL FRESH AIR INTAKES SHALL BE LOCATED A MINIMUM OF 10' FROM ANY SANITARY VENT, EXHAUST FAN DISCHARGE AND FLUE OF OTHER FURNACES. WHEN NECESSARY EXTEND VENTS OR PROVIDE ADDITIONAL FRESH AIR INTAKE DUCTWORK AS DIRECTED BY THE ENGINEER.
7. FIRE DAMPERS AND SMOKE DAMPERS SHALL BE PROVIDED AS REQUIRED BY SECTION 709 AND 710 OF THE CALIFORNIA BUILDING CODE. FIRE DAMPERS AND COMBINATION FIRE/SMOKE DAMPERS SHALL BE STATE FIRE MARSHAL APPROVED AND INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. MANUFACTURER'S INSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTING AUTHORITY.
8. FIRE DAMPERS OR DOORS SHALL BE PROVIDED WHERE AIR DUCTS PENETRATE FIRE RATED WALLS OR CEILINGS AS REQUIRED BY CBC 716.5.2. DUCTS AND AIR TRANSFER OPENINGS IN FIRE BARRIERS SHALL BE PROTECTED WITH APPROVED FIRE DAMPERS INSTALLED IN ACCORDANCE WITH THEIR LISTING. PROVIDE COMBINATION FIRE/SMOKE DAMPERS AT THE SHAFT PENETRATIONS AS REQUIRED BY CBC 716.5.3.1.
9. WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER.
10. THE SIZES, WEIGHTS AND CAPACITIES OF ALL EQUIPMENT SCHEDULES ON THE DRAWING HAVE BEEN CAREFULLY COMPUTED. SHOULD EQUAL ITEMS BY DIFFERENT MANUFACTURERS BE SUBMITTED FOR APPROVAL, ALL SUCH SUBMITTALS SHALL INCLUDE 1/4 INCH SCALE SHOP DRAWINGS SHOWING METHOD OF INSTALLATION. PROVIDE LOAD RATINGS AND SEISMIC CALCULATIONS AS APPROVED BY A REGISTERED STRUCTURAL ENGINEER WITH EACH SUBMITTAL.
11. REQUIRED ROUTINE MAINTENANCE ACTION SHALL BE CLEARLY STATED AND INCORPORATED ON A READILY ACCESSIBLE LABEL, WHICH MAY BE LIMITED TO IDENTIFYING BY TITLE AND/OR PUBLICATION NUMBER THE OPERATION AND MAINTENANCE MANUAL FOR THAT PARTICULAR MODEL AND TYPE OF PRODUCT. ONE COPY OF THIS INFORMATION SHALL BE FURNISHED BY THE CONTRACTOR TO THE OWNER.
12. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL TRADES AT THE SITE. ANY COSTS TO INSTALL WORK TO ACCOMPLISH SAID COORDINATION WHICH DIFFERS FROM THE WORK AS SHOWN ON THE PLANS SHALL BE INCURRED BY THE CONTRACTOR. ANY DISCREPANCIES, AMBIGUITIES OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT DURING BID TIME FOR CLARIFICATION. ANY SUCH CONFLICTS NOT CLARIFIED PRIOR TO BID SHALL BE SUBJECT TO THE INTERPRETATION OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
13. AFTER ALL REQUIREMENTS OF THE SPECIFICATIONS AND/OR THE DRAWINGS HAVE BEEN FULLY COMPLETED, REPRESENTATIVES OF THE OWNER WILL INSPECT THE WORK. THE CONTRACTOR SHALL PROVIDE COMPETENT PERSONNEL TO DEMONSTRATE THE OPERATION OF ANY ITEM OR SYSTEM, TO THE FULL SATISFACTION OF EACH REPRESENTATIVE. FINAL ACCEPTANCE OF THE WORK WILL BE MADE BY THE OWNER AFTER RECEIPT OF APPROVAL AND RECOMMENDATION OF ACCEPTANCE FROM EACH REPRESENTATIVE.
14. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DO ALL CORING, SAW CUTTING, PATCHING AND REFINISHING OF EXISTING WALLS AND SURFACES WHEREVER IT IS NECESSARY FOR HIM TO PENETRATE FOR HIS WORK. ALL OPENINGS SHALL BE SEALED TO MEET THE FIRE RATING OF THE PARTICULAR WALL, FLOOR OR CEILING PENETRATED.
15. CUTTING, BORING, SAW CUTTING OR DRILLING THROUGH THE THE EXISTING OR NEW STRUCTURAL ELEMENTS IS NOT TO BE STARTED UNTIL THE THE DETAILS HAVE BEEN REVIEW AND APPROVED BY THE ARCHITECT, STRUCTURAL ENGINEER AND THE FIELD ENGINEER IF THE DETAILS DO NOT SHOW OR CONFORM TO THE APPROVED DRAWINGS.
16. WHEREVER A DISCREPANCY IN QUANTITY OR SIZE OF MECHANICAL EQUIPMENT MATERIAL ARISES ON THE DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON DRAWINGS AND/OR IN THE SPECIFICATION TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER AND ENGINEER.
17. PENETRATIONS OF PIPES, CONDUITS, ETC., IN WALLS REQUIRING PROTECTED OPENING SHALL BE FIRE STOPPED. FIRE STOP MATERIAL SHALL BE A U.L. TESTED AND APPROVED ASSEMBLY APPROVED BY THE STATE FIRE MARSHALL.
18. BEFORE BIDDING THE PROJECT THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE CLEARANCES AVAILABLE TO BRING THE SPECIFIED EQUIPMENT AND MATERIAL TO THE SITE.
19. FINAL LOCATIONS OF THERMOSTAT TO BE VERIFIED WITH THE ELECTRICAL AND MECHANICAL ENGINEER AT JOB SITE.
20. ALL THERMOSTATS ON EXTERIOR WALLS TO BE MOUNTED ON THERMAL ISOLATION BASE.
21. EACH SYSTEM PROVIDING HEATING OR COOLING AIR IN EXCESS OF 2000 CFM IN GROUP A1, 2 & 2.1 GROUP B2 & E OCCUPANCIES SHALL BE EQUIPPED WITH AN AUTOMATIC SHUT-OFF. SHUT-OFFS SHALL STOP THE AIR-MOVING EQUIPMENT WHEN SMOKE IS DETECTED IN MAIN SUPPLY AIR DUCT SERVED BY THE SYSTEM. WHEN THE SYSTEM SERVES MORE THAN ONE OCCUPANCY SHUT-OFFS SHALL BE PROVIDED. EXCEPTIONS: DETECTORS NEED NOT BE INSTALLED WHEN ROOMS HAVE A DIRECT EXIT TO THE EXTERIOR OR WHEN SYSTEMS ARE DESIGNED FOR SMOKE CONTROL (SEC. 609. CMC).
22. DUCTS PENETRATING WALLS SHALL BE PROVIDED WITH NECESSARY FRAMES, BRACING AND SMOKE AND ACOUSTICAL SEALANT AROUND THE OPENING.
23. CONTACT BETWEEN DISSIMILAR METALS SHALL BE PROTECTED AS DESCRIBED IN THE SPECIFICATIONS, OR AS NEEDED.
24. THE INSTALLATION OF VALVES, THERMOMETERS, GAUGES, CLEANOUTS, DAMPERS, DUCT ACCESS DOORS OR OTHER INDICATING EQUIPMENT OR SPECIALTIES REQUIRING READING, ADJUSTMENT, INSPECTION, REPAIRS, REMOVAL OR REPLACEMENT SHALL BE CONVENIENTLY AND ACCESSIBLY LOCATED.
25. ALL EQUIPMENT ANCHORAGE, VIBRATION ISOLATION, AND SEISMIC RESTRAINT SYSTEMS FOR ALL EQUIPMENT SHALL BE ENGINEERED, FABRICATED, SUPPLIED AND INSTALLED BY THE APPROPRIATE SUB CONTRACTOR. PROVIDE CALCULATIONS PREPARED BY A LICENSED STRUCTURAL ENGINEER. SUBMIT DETAILS AND CALCULATIONS TO ARCHITECT AND CITY OFFICIALS. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING DEPARTMENT.
26. PIPING AND DUCT IDENTIFICATION MARKINGS AND COLOR CODES SHALL BE IN ACCORDANCE WITH ANSI A13.1 STANDARDS. MARKING SHALL INCLUDE ARROWS INDICATING DIRECTION OF FLOW. MARKINGS SHALL BE INSTALLED AT A MINIMUM OF EVERY 20' ON STRAIGHT RUNS WHERE THERE ARE NOT VISIBILITY OBSTRUCTIONS. IN AREAS WHERE VISIBILITY OF PIPE OR DUCT IS OBSTRUCTED OR NUMEROUS OTHER PIPES AND DUCTS EXIST, MARKINGS SHALL BE INSTALLED AS APPROVED TO ENABLE PIPES AND DUCTS TO BE EASILY TRACED ALONG ITS ENTIRE PATH. PIPES SHALL BE MARKED AND COLOR-CODED.
27. ANY WORK RELATED TO BUILDING AUTOMATION SYSTEM (BAS) SHALL BE PERFORMED BY BAS SUBCONTRACTOR. ALL CONTROL CONDUITS AND WIRING SHALL BE PROVIDED AND INSTALLED BY BAS SUBCONTRACTOR.
28. BAS CONTRACTOR TO PERFORM DETAILED COORDINATION BETWEEN ELECTRICAL AND MECHANICAL DRAWINGS FOR SCOPE OF WORK FOR CONDUIT AND POWER REQUIREMENTS. BAS SUBCONTRACTOR SHALL BE RESPONSIBLE FOR SUCH PROVISION AND INSTALLATION. THESE REQUIREMENTS ONLY APPLY TO CONNECTION THAT UTILIZES VOLTAGE OF 120V OR LESS.

2013 ENERGY EFFICIENCY STANDARDS : MANDATORY MEASURES - HVAC

EQUIPMENT AND SYSTEMS EFFICIENCY

1. ANY APPLIANCE FOR WHICH THERE IS A CALIFORNIA STANDARD ESTABLISHED IN THE APPLIANCE EFFICIENCY STANDARDS MAY BE INSTALLED ONLY IF THE MANUFACTURER HAS CERTIFIED TO THE ENERGY COMMISSION, AS SPECIFIED IN THOSE REGULATIONS, THAT THE APPLIANCE COMPLIES WITH THE APPLICABLE STANDARD FOR THAT APPLIANCE. INCLUDED ARE ROOM AIR CONDITIONERS, CENTRAL AIR CONDITIONING HEAT PUMPS (REGARDLESS OF CAPACITY, EXCEPT THAT REQUIREMENTS FOR CENTRAL AIR CONDITIONING HEAT PUMPS WITH COOLING CAPACITY OF 135,000 BTU/HR OR MORE APPLY TO HEATING PERFORMANCE BUT NOT COOLING PERFORMANCE), OTHER CENTRAL AIR CONDITIONERS WITH A COOLING CAPACITY LESS THAN 135,000 BTU/HR, FAN TYPE CENTRAL FURNACES WITH INPUT RATE LESS THAN 400,000 BTU/HR, BOILERS WALL FURNACES, FLOOR FURNACES, ROOM HEATERS, UNIT HEATERS, AND DUCT FURNACES SHALL HAVE BEEN CERTIFIED TO THE ENERGY COMMISSION BY ITS MANUFACTURER TO COMPLY WITH THE APPLIANCE EFFICIENCY STANDARDS.
2. THE FOLLOWING SPACE CONDITIONING EQUIPMENT MAY BE INSTALLED ONLY IF THE MANUFACTURER HAS CERTIFIED THAT THE EQUIPMENT MEETS OR EXCEEDS ALL APPLICABLE EFFICIENCY REQUIREMENTS LISTED IN 112 OF THE ENERGY EFFICIENCY STANDARDS: ALL AIR CONDITIONERS, HEAT PUMPS AND CONDENSING UNITS > 135,000 BTU/HR; ALL WATER CHILLERS; ALL GAS-FIRED BOILERS > 300,000 BTU/HR; ALL OIL-FIRED BOILERS > 225,000 BTU/HR; AND ALL WARM AIR FURNACES AND COMBINATION WARM AIR FURNACES/AIR CONDITIONING UNITS > 225,000 BTU/HR. FAN TYPE CENTRAL FURNACES SHALL NOT HAVE A PILOT LIGHT.
3. PIPING, EXCEPT THOSE CONVEYING FLUIDS AT TEMPERATURES BETWEEN 60F AND 105F, OR WITHIN HVAC EQUIPMENT, SHALL BE INSULATED IN ACCORDANCE WITH STANDARDS 123.
4. AIR HANDLING DUCT SYSTEMS SHALL BE CONSTRUCTED, INSTALLED, SEALED, AND INSULATED AS PROVIDED IN CHAPTER 10 OF THE UNIFORM MECHANICAL CODE. DUCTWORK SHALL BE INSULATED AND INSULATION SHALL BE PROTECTED IN ACCORDANCE WITH STANDARDS 124.

CONTROLS

1. THERMOSTATS SHALL HAVE NUMERIC SETPOINTS IN F.
2. THERMOSTATS SHALL HAVE ADJUSTABLE SETPOINT STOPS ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL.

VENTILATION

1. CONTROLS SHALL BE PROVIDED TO ALLOW OUTSIDE AIR DAMPERS OR DEVICES TO BE OPERATED AT THE VENTILATION RATES AS SPECIFIED IN THESE PLANS.
2. GRAVITY OR AUTOMATIC DAMPERS INTERLOCKED AND CLOSED ON FAN SHUTDOWN SHALL BE PROVIDED ON THE OUTSIDE AIR INTAKES AND DISCHARGES OF ALL SPACE CONDITIONING AND EXHAUST SYSTEMS.
3. ALL GRAVITY VENTILATING SYSTEMS SHALL BE PROVIDED WITH AUTOMATIC OR READILY ACCESSIBLE MANUALLY OPERATED DAMPERS IN ALL OPENINGS TO THE OUTSIDE, EXCEPT FOR COMBUSTION AIR OPENINGS.
4. IF APPLICABLE, DEMAND CONTROL VENTILATION DEVICES APPROVED BY THE ENERGY COMMISSION SHALL BE PROVIDED FOR HVAC SYSTEMS SERVING ASSEMBLY AREAS, CONCENTRATED USE (WITHOUT FIXED SEATS)" OR "AUCTION ROOMS", AS IDENTIFIED IN CHAPTER 10 OF THE UBC, IF SUCH AREAS ARE SERVED BY SYSTEMS WITH DESIGN OUTDOOR CAPACITIES EQUAL TO OR EXCEEDING 3,000 CFM. THE DEVICE SHALL INCLUDE A SENSOR LOCATED IN THE SPACE.
5. IF APPLICABLE, DEMAND CONTROL VENTILATION DEVICES SHALL ALLOW THE RATE OF OUTDOOR AIR TO BE REDUCED TO 0.15 CFM PER SQUARE FOOT OF CONDITIONED AREA, IF THE DEMAND CONTROL VENTILATION DEVICE INDICATES THAT THE SPACE CONDITIONS ARE ACCEPTABLE. IF THE DEVICE IS A CARBON-DIOXIDE SENSOR, IT SHALL LIMIT THE CARBON DIOXIDE LEVEL TO NO MORE THAN 800 PPM WHILE THE SPACE IS OCCUPIED.
6. DESIGNATED OUTDOOR SMOKING AREA SHALL BE AT LEAST 25 FEET FROM AN OUTDOOR AIR INTAKE OR OPERABLE WINDOWS.
7. THE BUILDING SHALL MEET OR EXCEED THE PROVISIONS FOR MECHANICAL VENTILATION OF SECTION 1203 OF THE LOS ANGELES BUILDING CODE.
8. IF APPLICABLE, BUILDING THAT USE DEMAND CONTROL VENTILATION SHALL HAVE CO2 SENSORS AND VENTILATION CONTROLS INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE CALIFORNIA ENERGY CODE, CCR, TITLE 24, PART 6, SECTION 121(C).
9. THE HVAC, REFRIGERATION, AND FIRE SUPPRESSION EQUIPMENT SHALL NOT CONTAIN CFC OR HALONS.

COMPLETION AND BALANCING

ALL VENTILATION SYSTEMS SHALL BE DOCUMENTED PER CALIFORNIA SAFETY CODE (TITLE 8, SECTION 5142 (b) TO BE PROVIDING THE MINIMUM REQUIRED VENTILATION RATE AS DETERMINED USING ONE OF THE FOLLOWING PROCEDURES:

1. AIR BALANCING: ALL SPACE CONDITIONING AND VENTILATION SYSTEMS SHALL BE BALANCED TO THE QUANTITIES SPECIFIED IN THESE PLANS, IN ACCORDANCE WITH THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) PROCEDURAL STANDARDS (1983), OR ASSOCIATED AIR BALANCE COUNCIL (AABC) NATIONAL STANDARDS (1989). REFER TO SPECIFICATION SECTION 23 05 93.
2. OUTSIDE AIR CERTIFICATION: THE SYSTEM SHALL PROVIDE THE MINIMUM OUTSIDE AIR AS SHOWN ON THE MECHANICAL DRAWINGS, AND SHALL BE MEASURED AND CERTIFIED BY THE INSTALLING LICENSED C-20 MECHANICAL CONTRACTOR.
3. OUTSIDE AIR MEASUREMENT: THE SYSTEM SHALL BE EQUIPPED WITH A CALIBRATED LOCAL OR REMOTE DEVICE CAPABLE OF MEASURING THE QUANTITY OF OUTSIDE AIR ON A CONTINUOUS BASIS AND DISPLAYING THAT QUANTITY ON A READILY ACCESSIBLE DISPLAY DEVICE.
4. A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED PRIOR TO FINAL INSPECTION. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.
5. AN OPERATION AND SYSTEMS MANUAL SHALL BE PROVIDED TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTION.
6. ALL DUCT AND OTHER RELATED DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, OR SHEETMETAL UNTIL FINAL STARTUP OF THE HEATING AND COOLING EQUIPMENT.
7. UNLESS SPECIFIED OTHERWISE, AN AIR FILTER WITH A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8 OR HIGHER SHALL BE INSTALLED IN THE MECHANICAL SYSTEM FOR OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY.
8. PROCEDURE APPROVED BY THE ENERGY COMMISSION.

CALIFORNIA GREEN BUILDINGS STANDARDS CODE 2013

1. UNLESS SPECIFIED OTHERWISE, IN NEW MECHANICAL SYSTEMS, PROVIDE AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY THAT PROVIDES AT LEAST MERV 8.
2. AT THE TIME OF ROUGH INSTALLATION OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING AND COOLING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL OR OTHER METHODS TO REDUCE THE AMOUNT OF DUST OR DEBRIS WHICH MAY COLLECT IN THE SYSTEM.
3. PROVIDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS.
4. PROVIDE THE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES/WARRANTIES FOR EACH NEW SYSTEM. O&M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CCR, TITLE 8, SECTION 5142 AND OTHER RELATED REGULATIONS.
5. A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED AND PROVIDED TO THE FIELD INSPECTOR PRIOR TO FINAL APPROVAL. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES. (2011 LABGC 10.410.4.4).
6. PROVIDE AIR FILTRATION MEDIA MINIMUM OF MERV-11 FOR OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY FOR REGULARLY OCCUPIED AREAS OF THE BUILDING AS PER 2010 CGBSC. SECTION 5.504.5.3 .
7. IN ADDITION TO TESTING AND ADJUSTING, BEFORE A NEW SPACE-CONDITIONING SYSTEM SERVING A BUILDING OR SPACE IS OPERATED FOR NORMAL USE, THE HVAC SYSTEM AND COMPONENTS WILL BE TESTED, ADJUSTED AND BALANCED IN ACCORDANCE WITH ONE OF THE FOLLOWING STANDARDS. (2011 LABGC 10.410.4.2).
   - □ TABB's CONSTRUCTION SPECIFICATIONS INSTITUTE MASTERFORMAT (23 05 93 AND 15990)
   - □ AABC's NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE (6th EDITION)
   - □ ASHRAE's STANDARD 111-2008
8. PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH INDUSTRY BEST PRACTICES AND APPLICABLE STANDARDS ON EACH SYSTEM AS DETERMINED BY THE BUILDING OFFICIAL.
9. DEVELOP A WRITTEN PLAN OF PROCEDURES FOR TESTING AND ADJUSTING NEW HVAC SYSTEMS AND CONTROLS.
10. AN OPERATION AND SYSTEMS MANUAL, SHALL BE PROVIDED TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTION. (2011 LABGC 10.410.4.5).
11. PROVIDE TESTING AND ADJUSTING OF HVAC SYSTEMS. SEE PROJECT SPECIFICATION SECTION 23 05 93 "TESTING, ADJUSTING AND BALANCING FOR HVAC" AND SECTION 23 08 00 "COMMISSIONING OF HVAC" FOR DETAILED REQUIREMENTS RELATING TO TESTING, ADJUSTING AND BALANCING OF HVAC SYSTEMS, AS WELL AS RELATED TEST AND BALANCE PROCEDURES, REPORTING, EQUIPMENT OPERATION AND MAINTENANCE MANUALS, INSPECTIONS AND REPORTS."
12. PROVIDE CO2 SENSORS FOR DEMAND CONTROL VENTILATION.
13. PROVIDE TEMPORARY VENTILATION DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 121 CALIFORNIA ENERGY CODE AND AS PER POLLUTION CONTROL SECTION OF 2010 CGBSC. SECTION: 5.714.4.1.
14. PROVIDE COVERS AND PROTECTION ON ANY DUCT OPENINGS AND MECHANICAL EQUIPMENTS AS PER 2010 CGBSC. SECTION: 5.504.3.
15. INDOOR MOISTURE CONTROL SHALL BE IN COMPLY WITH TITLE 24 , PART2 SECTION 1203 AS PER 2010 CGBSC. SECTION 5.505.1.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 West Sunset Blvd., Suite 200, San Diego, CA 92110
T 619.220.0030 F 619.220.0033
T 626.449.4200 www.pbsengineers.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY: CHIEF AIRPORTS ENGINEER
SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:
GENERAL NOTES & SYMBOLS

SHEET NO.
2-M-001

C:\Users\my\Documents\MP-DA4881-BLDG_A_B-R15_my@pbsengineers.com.rvt
9/23/2016 3:10:52 PM

1 link_mech_2-M-011
12" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

ROOFTOP COOLING ONLY VAV AIR-CONDITIONING UNIT SCHEDULE

ITEM NO.	MANUFACTURER AND MODEL NO.	BLDG. NO. LOCATION	AREA SERVED	NOMINAL TONS	AIR QUANTITY CFM	EXT. S.P. IN W.G.	ENTERING AIR DB/WB	LEAVING AIR DB/WB	FAN DATA HP	FAN DATA FAN RPM	FAN DATA MOTOR RPM	COOLING (95° D.B. AMB) TOTAL MBTUH	COOLING (95° D.B. AMB) SENSIBLE MBTUH	SEER (IEER)	EER	AFUE %	ELECTRICAL DATA V-Ø-HZ	ELECTRICAL DATA FLA	ELECTRICAL DATA MCA*	ELECTRICAL DATA MOCP*	GAS HEATING LOW NOX TOTAL INPUT MBTUH	GAS HEATING LOW NOX TOTAL OUTPUT MBTUH	MIN. O.S.A. CFM	POWER EXHAUST DATA HP	POWER EXHAUST DATA V-∅-H	POWER EXHAUST DATA FLA	POWER EXHAUST DATA MAX. CFM	OPER. WEIGHT LBS.	ANCHORAGE DETAIL	REMARKS
AC Q1-1	CARRIER 50LC0B24D3	ROOF	QTA	20	8000	1.5"			-	-	-	248.9	189.2	17.8	13.2	82%	460-3-60	-	-	-	-	-	2000	1	208-3-60	3.8	3000	1300	-	1 2 3 4
AC Q2-1	CARRIER 50LC0B24D3	ROOF	QTA	20	8000	1.5"			-	-	-	248.9	189.2	17.8	13.2	82%	460-3-60	-	-	-	-	-	2000	1	208-3-60	3.8	3000	1300	-	1 2 3 4
AC Q3-1	CARRIER 50LC0B24D3	ROOF	QTA	20	8000	1.5"			-	-	-	248.9	189.2	17.8	13.2	82%	460-3-60	-	-	-	-	-	2000	1	208-3-60	3.8	3000	1300	-	1 2 3 4
AC Q1-2	CARRIER 50LC0B24D3	ROOF	QTA	20	8000	1.5"			-	-	-	248.9	189.2	17.8	13.2	82%	460-3-60	-	-	-	-	-	2000	1	208-3-60	3.8	3000	1300	-	1 2 3 4
AC Q2-2	CARRIER 50LC0B24D3	ROOF	QTA	20	8000	1.5"			-	-	-	248.9	189.2	17.8	13.2	82%	460-3-60	-	-	-	-	-	2000	1	208-3-60	3.8	3000	1300	-	1 2 3 4
AC Q3-2	CARRIER 50LC0B24D3	ROOF	QTA	20	8000	1.5"			-	-	-	248.9	189.2	17.8	13.2	82%	460-3-60	-	-	-	-	-	2000	1	208-3-60	3.8	3000	1300	-	1 2 3 4
AC Q1-3	CARRIER 50LC0B24D3	ROOF	QTA	20	8000	1.5"			-	-	-	248.9	189.2	17.8	13.2	82%	460-3-60	-	-	-	-	-	2000	1	208-3-60	3.8	3000	1300	-	1 2 3 4
AC Q2-3	CARRIER 50LC0B24D3	ROOF	QTA	20	8000	1.5"			-	-	-	248.9	189.2	17.8	13.2	82%	460-3-60	-	-	-	-	-	2000	1	208-3-60	3.8	3000	1300	-	1 2 3 4
AC Q3-3	CARRIER 50LC0B24D3	ROOF	QTA	20	8000	1.5"			-	-	-	248.9	189.2	17.8	13.2	82%	460-3-60	-	-	-	-	-	2000	1	208-3-60	3.8	3000	1300	-	1 2 3 4

REMARKS:

1. PROVIDE WITH 2-SPEED INDOOR FAN (VFD) CONTROLLER.
2. ECONOMIZER WITH POWER EXHAUST FAN.
3. 2" FILTERS, MERV-11
4. COMPLETE WITH DUCT SMOKE DETECTOR. PROVIDED BY DIVISION 26 AND WIRED UNDER DIVISION 26. INSTALL BY DIVISION 23.

* MCA & MOCP LOAD INCLUDES ECONOMIZER, POWER EXHAUST ELECTRICAL POWER.

EXHAUST FAN SCHEDULE

ITEM NO.	MANUFACTURER & MODEL NO.	AREA SERVED	LOCATION	FAN TYPE	AIR QTY CFM	ESP IN H₂O	FAN RPM	BHP (W)	MOTOR RPM	MOTOR MIN. H.P.	MOTOR V-∅-HZ	DRIVE	APPROX. UNIT WT.= LBS.	ANCHORAGE DETAIL	REMARKS
EF Q1-1	GREENHECK BSQ-130-7	CAR SEAT STORAGE A-1107	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	1,200	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q1-2	GREENHECK BSQ-130-7	CAR SEAT STORAGE A-1113	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	1,200	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q1-3	GREENHECK BSQ-130-7	MENS RESTROOM A-1119	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	2,000	0.4	1,859	0.78	1725	3/4	208-1-60	BELT	100	-	
EF Q1-4	GREENHECK BSQ-130-7	WOMENS RESTROOM A-1119	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	2,000	0.4	1,859	0.78	1725	3/4	208-1-60	BELT	100	-	
EF Q1-5	GREENHECK BSQ-420-100	FUEL ISLAND'S A-1201, A-1202, A-1203, A-1204, A-1205, A-1206 & A-1207	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	15,120	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q1-6	GREENHECK BSQ-420-100	FUEL ISLAND'S A-1201, A-1202, A-1203, A-1204, A-1205, A-1206 & A-1207	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	15,120	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q1-7	GREENHECK BSQ-130-7	MENS RESTROOM A-1334	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q1-8	GREENHECK BSQ-130-7	WOMENS RESTROOM A-1334	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q1-9	GREENHECK BSQ-130-7	CAR SEAT STORAGE B-1106	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	1,200	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q1-10	GREENHECK BSQ-130-7	CAR SEAT STORAGE B-1113	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	1,200	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q1-11	GREENHECK BSQ-420-100	FUEL ISLAND'S B-1414, B-1415, B-1416 & B-1417	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	8,640	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q1-12	GREENHECK BSQ-420-100	FUEL ISLAND'S B-1414, B-1415, B-1416 & B-1417	QTA LEVEL 1	BELT DRIVE CENTRIFUGAL INLINE FAN	8,640	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q2-1	GREENHECK G-099-VG	MAINT. STOR. A-1401, MAINT. BAYS A-1402 & A-1403	QTA LEVEL 2	ROOF MOUNTED CENTRIFUGAL FAN	3,000	3/8	1,572	0.18	1,725	1/2	208-1-60	DIRECT	100	-	
EF Q2-2	GREENHECK G-099-VG	MAINTENANCE BAYS A-1404, A-1405 & A-1406	QTA LEVEL 2	ROOF MOUNTED CENTRIFUGAL FAN	3,000	3/8	1,572	0.18	1,725	1/2	208-1-60	DIRECT	100	-	
EF Q2-3	GREENHECK G-099-VG	MAINT. STOR. C-1410, MAINT. BAYS C-1411 & C-1412	QTA LEVEL 2	ROOF MOUNTED CENTRIFUGAL FAN	3,000	3/8	1,572	0.18	1,725	1/2	208-1-60	DIRECT	100	-	
EF Q2-4	GREENHECK G-099-VG	MAINTENANCE BAYS C-1413, C-1414 & C-1415	QTA LEVEL 2	ROOF MOUNTED CENTRIFUGAL FAN	3,000	3/8	1,572	0.18	1,725	1/2	208-1-60	DIRECT	100	-	
EF Q2-5	GREENHECK G-099-VG	MAINTENANCE BAYS C-1421, C-1422 & C-1423	QTA LEVEL 2	ROOF MOUNTED CENTRIFUGAL FAN	3,000	3/8	1,572	0.18	1,725	1/2	208-1-60	DIRECT	100	-	
EF Q2-6	GREENHECK G-099-VG	MAINT. STOR. C-1426, MAINT. BAYS C-1424 & C-1425	QTA LEVEL 2	ROOF MOUNTED CENTRIFUGAL FAN	3,000	3/8	1,572	0.18	1,725	1/2	208-1-60	DIRECT	100	-	
EF Q2-7	GREENHECK BSQ-130-7	CAR SEAT STORAGE A-2101	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,200	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-8	GREENHECK BSQ-130-7	CAR SEAT STORAGE A-2107	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,200	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-9	GREENHECK BSQ-130-7	CAR SEAT STORAGE A-2114	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,200	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-10	GREENHECK BSQ-130-7	MENS RESTROOM A-2120	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-11	GREENHECK BSQ-130-7	WOMENS RESTROOM A-2120	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-12	GREENHECK BSQ-420-100	FUEL ISLAND'S A-2201, A-2202, A-2203, A-2204 & A-2205	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	10,800	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q2-13	GREENHECK BSQ-420-100	FUEL ISLAND'S A-2201, A-2202, A-2203, A-2204 & A-2205	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	10,800	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q2-14	GREENHECK BSQ-420-100	FUEL ISLAND'S A-2206, A-2207, A-2208, A-2209 & A-2210	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	10,800	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q2-15	GREENHECK BSQ-420-100	FUEL ISLAND'S A-2206, A-2207, A-2208, A-2209 & A-2210	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	10,800	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q2-16	GREENHECK BSQ-130-7	MENS RESTROOM A-2334	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-17	GREENHECK BSQ-130-7	WOMENS RESTROOM A-2334	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-18	GREENHECK BSQ-130-7	MAINTENANCE BAY NO.01 B-2401 & NO.02 B-2403	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-19	GREENHECK BSQ-130-7	MAINTENANCE BAY NO.03 B-2404, NO.04 B-2405 & NO.05 B-2406	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-20	GREENHECK BSQ-130-7	MAINTENANCE BAY NO.06 B-2408 & NO.07 B-2409	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-21	GREENHECK BSQ-130-7	MAINTENANCE BAY NO.8 B-2410, NO.09 B-2411 & NO.10 B-2412	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-22	GREENHECK BSQ-130-7	MAINTENANCE BAY NO.011 B-2415 & NO.12 B-2416	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-23	GREENHECK BSQ-130-7	MAINTENANCE BAY NO.13 B-2417, NO.14 B-2418 & NO.15 B-2419	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-24	GREENHECK BSQ-130-7	MAINTENANCE BAY NO.16 B-2420 & NO.17 B-2421	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-25	GREENHECK BSQ-130-7	MAINTENANCE BAY NO.18 B-2422, NO.19 B-2423 & NO.20 B-2424	QTA LEVEL 2	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q2-26	GREENHECK G-099-VG	MAINTENANCE BAY NO.01 B-1401 & NO.02 A-1402	QTA LEVEL 2	ROOF MOUNTED CENTRIFUGAL FAN	1,000	3/8	1,572	0.18	1,725	1/2	208-1-60	DIRECT	100	-	
EF Q2-27	GREENHECK G-099-VG	MAINTENANCE BAY NO.03 B-1403 & NO.04 A-1404	QTA LEVEL 2	ROOF MOUNTED CENTRIFUGAL FAN	1,000	3/8	1,572	0.18	1,725	1/2	208-1-60	DIRECT	100	-	
EF Q2-28	GREENHECK G-099-VG	MAINTENANCE BAY NO.05 B-1410 & NO.06 A-1411	QTA LEVEL 2	ROOF MOUNTED CENTRIFUGAL FAN	1,000	3/8	1,572	0.18	1,725	1/2	208-1-60	DIRECT	100	-	
EF Q2-29	GREENHECK G-099-VG	MAINTENANCE BAY NO.07 B-1412 & NO.08 A-1413	QTA LEVEL 2	ROOF MOUNTED CENTRIFUGAL FAN	1,000	3/8	1,572	0.18	1,725	1/2	208-1-60	DIRECT	100	-	

REMARKS:

1. PROVIDE NEW ROOF CURB AND BACKDRAFT DAMPER.
2. INTERLOCK WITH ON-OFF LIGHT SWITCH.
3. INTERLOCK WITH THERMOSTAT.
6. PROVIDE RUBBER GOURMET MOUNTING KIT.
4. INTERLOCK WITH GRAVITY VENT AND THERMOSTAT.
5. PROVIDE DIRECT DRIVE.

EXHAUST FAN SCHEDULE

ITEM NO.	MANUFACTURER & MODEL NO.	AREA SERVED	LOCATION	FAN TYPE	AIR QTY CFM	ESP IN H₂O	FAN RPM	BHP (W)	MOTOR RPM	MOTOR MIN. H.P.	MOTOR V-∅-HZ	DRIVE	APPROX. UNIT WT.= LBS.	ANCHORAGE DETAIL	REMARKS
EF Q3-1	GREENHECK BSQ-130-7	CAR SEAT STORAGE A-3101	QTA LEVEL 3	BELT DRIVE CENTRIFUGAL INLINE FAN	1,200	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q3-2	GREENHECK BSQ-130-7	CAR SEAT STORAGE A-3108	QTA LEVEL 3	BELT DRIVE CENTRIFUGAL INLINE FAN	1,200	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q3-3	GREENHECK BSQ-130-7	CAR SEAT STORAGE A-3114	QTA LEVEL 3	BELT DRIVE CENTRIFUGAL INLINE FAN	1,200	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q3-4	GREENHECK BSQ-130-7	MENS RESTROOM A-3120	QTA LEVEL 3	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q3-5	GREENHECK BSQ-130-7	WOMENS RESTROOM A-3120	QTA LEVEL 3	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q3-6	GREENHECK BSQ-420-100	FUEL ISLAND'S A-3201, A-3202, A-3203, A-3204 & A-3205	QTA LEVEL 3	BELT DRIVE CENTRIFUGAL INLINE FAN	10,800	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q3-7	GREENHECK BSQ-420-100	FUEL ISLAND'S A-3201, A-3202, A-3203, A-3204 & A-3205	QTA LEVEL 3	BELT DRIVE CENTRIFUGAL INLINE FAN	10,800	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q3-8	GREENHECK BSQ-420-100	FUEL ISLAND'S A-3206, A-3207, A-3208, A-3209 & A-3210	QTA LEVEL 3	BELT DRIVE CENTRIFUGAL INLINE FAN	10,800	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q3-9	GREENHECK BSQ-420-100	FUEL ISLAND'S A-3206, A-3207, A-3208, A-3209 & A-3210	QTA LEVEL 3	BELT DRIVE CENTRIFUGAL INLINE FAN	10,800	0.7	569	6.59	1725	10	460-3-60	BELT	823	-	
EF Q3-10	GREENHECK BSQ-130-7	MENS RESTROOM A-3334	QTA LEVEL 3	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q3-11	GREENHECK BSQ-130-7	WOMENS RESTROOM A-3334	QTA LEVEL 3	BELT DRIVE CENTRIFUGAL INLINE FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q4-1	GREENHECK G-099-VG	MAINTENANCE BAY NO.01 B-3402 & NO.02 B-3403	QTA LEVEL 4	ROOF MOUNTED CENTRIFUGAL FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q4-2	GREENHECK G-099-VG	MAINTENANCE BAY NO.03 B-3404, NO.04 B-3405 & NO.05 B-3406	QTA LEVEL 4	ROOF MOUNTED CENTRIFUGAL FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q4-3	GREENHECK G-099-VG	MAINTENANCE BAY NO.06 B-3408 & NO.07 B-3409	QTA LEVEL 4	ROOF MOUNTED CENTRIFUGAL FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q4-4	GREENHECK G-099-VG	MAINTENANCE BAY NO.8 B-3410, NO.09 B-3411 & NO.10 B-3412	QTA LEVEL 4	ROOF MOUNTED CENTRIFUGAL FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q4-5	GREENHECK G-099-VG	MAINTENANCE BAY NO.11 B-3414, NO.12 B-3415 & NO.13 B-3416	QTA LEVEL 4	ROOF MOUNTED CENTRIFUGAL FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q4-6	GREENHECK G-099-VG	MAINTENANCE BAY NO.14 B-3417, NO.15 B-3418 & NO.16 B-3419	QTA LEVEL 4	ROOF MOUNTED CENTRIFUGAL FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q4-7	GREENHECK G-099-VG	MAINTENANCE BAY NO.17 B-3420 & NO.18 B-3421	QTA LEVEL 4	ROOF MOUNTED CENTRIFUGAL FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	
EF Q4-8	GREENHECK G-099-VG	MAINTENANCE BAY NO.19 B-3422, NO.20 B-3423 & NO.21 B-3424	QTA LEVEL 4	ROOF MOUNTED CENTRIFUGAL FAN	1,600	0.7	1,725	0.18	1725	1/2	208-1-60	BELT	100	-	

REMARKS:

1. PROVIDE NEW ROOF CURB AND BACKDRAFT DAMPER.
2. INTERLOCK WITH ON-OFF LIGHT SWITCH.
3. INTERLOCK WITH THERMOSTAT.
6. PROVIDE RUBBER GOURMET MOUNTING KIT.
4. INTERLOCK WITH GRAVITY VENT AND THERMOSTAT.
5. PROVIDE DIRECT DRIVE.

HOT WATER BOILER SCHEDULE

ITEM NO.	MANUFACTURER AND MODEL NO.	BOILER TYPE	BOILER EFF. (%)	FUEL TYPE	MIN GAS PRESS.	INPUT MBTUH	OUTPUT MBTUH	MAX NO_x PPM	OPERATING TEMPERATURES IN °F	OPERATING TEMPERATURES OUT °F	FLOW GPM	ELECT.-DATA V-∅-HZ	BOILER AMPS	OPERATING WEIGHT LBS.	ANCHORAGE DETAIL	REMARKS
B Q-1	RAYPAK HI-DELTA 402B	LOW NOX MOD FIRED	85	NAT. GAS	8"WC	400	336	12	160	190	14	115-1-60	12	990	-	1 2
B Q-2	RAYPAK HI-DELTA 402B	LOW NOX MOD FIRED	85	NAT. GAS	8"WC	400	336	12	160	190	14	115-1-60	12	990	-	1 2

REMARKS:

1. BOILER SHALL BE PRE-WIRED LEAD/LAG & CAPABLE OF INTEGRATING WITH ENERGY MANAGEMENT BACNET PROTOCOL SYSTEM BOILER SHALL BE FURNISHED WITH FLOW CONTROL VALVE, FLOW SWITCH, CIRCULATING PUMP, FILED INSTALLED. PROVIDE A SEPARATE CIRCUIT FOR BP-1&2.
2. PROVIDE DOUBLE WALL, STAINLESS STEEL, CAT IV FLUE VENT SYSTEM.

CIRCULATING PUMP UNIT SCHEDULE

ITEM NO.	MANUFACTURER AND MODEL NO.	PUMP TYPE	SYSTEM	LOCATION AND SERVICE	FLOW GPM	TOTAL HEAD (FT.)	MOTOR MIN. H.P.	MOTOR RPM	MOTOR V-∅-HZ	MINIMUM PUMP EFFICIENCY	WT. LBS.	ANCHORAGE DETAIL	REMARKS
P Q-1	BELL & GOSSETT ECOCIRC XL B 70-145	IN-LINE	HOT WATER	QTA BOILER Q-1 BOILER Q-2	28	55	2	1750	208-1-60	67.5	150	-	1 2
P Q-2	BELL & GOSSETT ECOCIRC XL B 70-145	IN-LINE	HOT WATER	QTA BOILER Q-1 BOILER Q-2	28	55	2	1750	208-1-60	67.5	150	-	1 2

REMARKS:

1. BASE MOUNTED, HIGH EFFICIENCY MOTOR, VFD, PRIMARY PUMP AND VIBRATION BASE ISOLATORS.
2. PROVIDE FIELD FABRICATED SHEET METAL COVER BOX TO PROVIDE WEATHER PROTECTION TO THE PUMPS.

EXPANSION TANK SCHEDULE

ITEM NO.	MANUFACTURER AND MODEL NO.	SERVICE LOCATION	SIZE	CAPACITY (GAL.)	ACCEPTANCE VOLUME (GAL.)	OPER. WEIGHT (LBS.)	ANCHOR DETAIL	REMARKS
ET Q-1	WESSELS MODEL NLA 85	HOT WATER SYSTEM#2 QTA	16"□ x 38" HIGH	23	23	150	-	1 2

REMARKS:

1. ASME, STEEL FABRICATED, HEAVY DUTY, BUTYL BLADDER, REMOVABLE TYPE, 125 PSI
2. CONTRACTOR TO PROVIDE CORROSION PROTECTION PAINT.

AIR SEPARATOR SCHEDULE

ITEM NO.	MANUFACTURER AND MODEL NO.	LOCATION	SERVICE	FLOW GPM	TANK DIMENSIONS, IN. DIAMETER	TANK DIMENSIONS, IN. HEIGHT	SYSTEM CONN. FLANGED	STRAINER FREE AREA SQ. INCHES	WEIGHT (LBS.)	REMARKS
AS Q-1	BELL & GOSSETT ROLAIRTROL RL2N	QTA	HOT WATER SYSTEM #1	140	-	-	8"□	-	250	1 2 3

REMARKS:

1. PROVIDE MANUAL BLOWDOWN AND DRAIN.
2. PROVIDE DIRT SEPARATION.
3. CONTRACTOR TO PROVIDE CORROSION PROTECTION PAINT.

CHEMICAL POT FEEDER SCHEDULE

ITEM NO.	MANUFACTURER AND MODEL NO.	LOCATION	SERVICE	TYPE	INLET/OUTLET SIZE (IN)	CAPACITY GALLONS	OPERATING WT. LESS BRACKETS. LBS.	ANCHORAGE DETAIL	REMARKS
CPF Q-1	J.L.WINGERT CO. DB-SHD	QTA	HOT WATER SYSTEM #2	DOME BOTTOM FILTER FEEDER	3/4"	5	40	-	1

REMARKS:

1. CONTRACTOR TO PROVIDE CORROSION PROTECTION PAINT.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING + ENVIRONMENTAL
2729 Prospect Park Dr. Suite 210 Rancho Cordova, CA 95670
T 916.853.0500 F 916.853.0502
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ON LAX PMD

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:
SCHEDULES

SHEET NO.
2-M-002

C:\Users\mhy\Documents\IMP-DA4881-RLOG_A_8-R15_mhy@pbsengineers.com.rvt
9/23/2016 3:10:53 PM

4 link_mech_2-M-012
12" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

FAN COIL UNIT SPLIT SYSTEM- INDOOR UNIT

ITEM NO.	MANUFACTURER MODEL NO.	AREA & ROOMS SERVED	CFM (HIGH SPEED)	STATIC PRESSURE (IN. WG)	ELECTRICAL				DX COIL						REFRIG. PIPE DIA. CONNECTION SIZE (INCH)		UNIT OPERATING WT.= LBS	ANCHORAGE DETAIL	REMARKS
					BREAK HP	FLA	MOCP	V-□-HZ	TOTAL CAPACITY (BTUH)	SENSIBLE CAPACITY (BTUH)	EAT DB/WB (°F)	LAT DB/WB (°F)	AIR P.D. (IN.WG)	COIL ROWS	RL	RS			
FC Q1-1	**YORK AHX61D**	ELECT/DATA A-1108	1950	0.3	-	- -	- -	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q1-2	YORK AHX61D	ELECT/DATA A-1114	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q1-3	YORK AHX61D	ELECT/DATA B-1102	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q1-4	YORK AHX61D	ELECT/DATA B-1105	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q1-5	YORK AHX61D	ELECT/DATA B-1108	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q1-6	YORK AHX61D	ELECT/DATA B-1112	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q1-7	YORK AHX61D	OFFICE B-1301	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q1-8	YORK AHX61D	OFFICE B-1302	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q1-9	YORK AHX61D	MAINTENANCE OFFICE A-1407	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q1-10	YORK AHX61D	MAINTENANCE OFFICE A-1416	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q1-11	YORK AHX61D	MAINTENANCE OFFICE A-1420	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q2-1	YORK AHX61D	ELECT/DATA A-2102	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q2-2	**YORK AHX61D**	ELECT/DATA A-2108	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q2-3	YORK AHX61D	ELECT/DATA A-2115	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q3-1	YORK AHX61D	ELECT/DATA A-3102	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q3-2	YORK AHX61D	ELECT/DATA A-3109	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	
FC Q3-3	YORK AHX61D	ELECT/DATA A-3115	1950	0.3	-	-	-	208-1-60	57700	41300	80/69	60.4/57.7	-	-	7/8	5/8	200	- -	

REMARKS: (1) PROVIDE CONDENSATE PUMP, VALVES, AND ACCESSORIES. (2) PROVIDE SECONDARY DRAIN PAN. (3) PROVIDE CONDENSATE HIGH LIMIT OVERFLOW SWITCH. *POWERED FROM OUTDOOR UNIT.

CONDENSING UNIT - OUTDOOR UNIT

ITEM NO.	MANUFACTURER MODEL NO.	UNIT SERVED	COOLING TOTAL (BTUh)	HEATING LOAD (BTUh)	EER	IEER	COP	ELECTRICAL			UNIT OPERATING WT.= LBS	ANCHORAGE DETAIL	REMARKS
								MCA	MOCP	V-□-HZ			
CU Q1-1	**YORK YZH060**	FC Q1-1	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q1-2	YORK YZH060	FC Q1-2	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q1-3	YORK YZH060	FC Q1-3	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q1-4	YORK YZH060	FC Q1-4	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q1-5	YORK YZH060	FC Q1-5	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q1-6	YORK YZH060	FC Q1-6	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q1-7	YORK YZH060	FC Q1-7	57700	59400	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q1-8	YORK YZH060	FC Q1-8	57700	59400	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q1-9	YORK YZH060	FC Q1-8	57700	59400	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q1-10	YORK YZH060	FC Q1-8	57700	59400	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q1-11	YORK YZH060	FC Q1-8	57700	59400	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q2-1	YORK YZH060	FC Q1-9	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q2-2	**YORK YZH060**	FC Q1-10	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q2-3	YORK YZH060	FC Q1-11	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q3-1	YORK YZH060	FC Q1-12	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q3-2	YORK YZH060	FC Q1-13	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	
CU Q3-3	YORK YZH060	FC Q1-14	57700	-	11.5	16.5	-	-	-	208-1-60	500	- -	

REMARKS: (1) - (2) R-410 REFRIGERANT, 26 LBS EACH

FAN COIL UNIT SPLIT SYSTEM- INDOOR UNIT

ITEM NO.	MANUFACTURER MODEL NO.	AREA & ROOMS SERVED	CFM (HIGH SPEED)	STATIC PRESSURE (IN. WG)	FAN		ELECTRICAL			DX COIL					REFRIG. PIPE DIA. CONNECTION SIZE (INCH)		UNIT OPERATING WT.= LBS	ANCHORAGE DETAIL	REMARKS
					BHP	FLA	MCA	MOCP	V-□-HZ	TOTAL CAPACITY (BTUH)	SENSIBLE CAPACITY (BTUH)	EAT DB/WB (°F)	LAT DB/WB (°F)	COIL ROWS	RL	RS			
FC QE-1-1	CARRIER 40RUA	-	4000	0.5	2.08	2.4	5.0	15.0	460-3-60	128.1	119.6	85/67	57.3/56.8	4	-/-	-/-	425	- -	
FC QE-1-2	CARRIER 40RUA	-	4000	0.5	2.08	2.4	5.0	15.0	460-3-60	128.1	119.6	85/67	57.3/56.8	4	-/-	-/-	425	- -	
FC QE-1-3	CARRIER 40RUA	-	4000	0.5	2.08	2.4	5.0	15.0	460-3-60	128.1	119.6	85/67	57.3/56.8	4	-/-	-/-	425	- -	

REMARKS: (1) PROVIDE CONDENSATE PUMP, VALVES, AND ACCESSORIES. (2) PROVIDE SECONDARY DRAIN PAN. (3) PROVIDE CONDENSATE HIGH LIMIT OVERFLOW SWITCH. *POWERED FROM OUTDOOR UNIT.

CONDENSING UNIT - OUTDOOR UNIT

ITEM NO.	MANUFACTURER MODEL NO.	UNIT SERVED	EER	IEER	ELECTRICAL			UNIT OPERATING WT.= LBS	ANCHORAGE DETAIL	REMARKS
					MCA	MOCP	V-□-HZ			
CU QE-1-1	CARRIER 38AUD	FC QE-2-1	11.2	13.0	19	25	460-3-60	516	- -	
CU QE-1-2	CARRIER 38AUD	FC QE-2-2	11.2	13.0	19	25	460-3-60	516	- -	
CU QE-1-3	CARRIER 38AUD	FC QE-2-3	11.2	13.0	19	25	460-3-60	516	- -	

(1) - (2) R-410 REFRIGERANT, 26 LBS EACH

VARIABLE REFRIGERANT FLOW (VRF)

INDOOR UNIT - FAN COIL (FC)

ITEM NO.	MANUFACTURER AND MODEL NO.	AREA SERVED	CFM	EXTERNAL STATIC	COOLING (BTU)		HEATING (BTU)	MOTOR OUTPUT KW	ELECTRICAL			MIN. OSA CFM	OPER. WEIGHT LBS.	ANCHORAGE DETAIL	REMARKS
					TOTAL	SENSIBLE	TOTAL		MCA	MOCP	V-□-HZ				
FC 1	MITSUBISHI PEFY-P54NAMU-E	QTA SUPPORT OFFICES	1800	0.6	45,793	38,519	46,621	-	3.5	15	208/230-1-60	-	40	- -	(1) (2) (3)
FC 2	MITSUBISHI PEFY-P54NAMU-E	QTA SUPPORT OFFICES	1800	0.6	45,793	38,519	46,621	-	3.5	15	208/230-1-60	-	40	- -	(1) (2) (3)
FC 3	MITSUBISHI PEFY-P54NAMU-E	QTA SUPPORT OFFICES	1800	0.6	45,793	38,519	46,621	-	3.5	15	208/230-1-60	-	40	- -	(1) (2) (3)
FC 4	MITSUBISHI PEFY-P54NMAU-E3	QTA SUPPORT OFFICES	1800	0.6	45,793	38,519	46,621	-	3.5	15	208/230-1-60	-	40	- -	(1) (2) (3)
FC 5	MITSUBISHI PEFY-P54NMAU-E3	QTA SUPPORT OFFICES	1800	0.6	45,793	38,519	46,621	-	3.5	15	208/230-1-60	-	40	- -	(1) (2) (3)
FC 6	MITSUBISHI PEFY-P54NAMU-E	QTA SUPPORT OFFICES	1800	0.6	45,793	38,519	46,621	-	3.5	15	208/230-1-60	-	40	- -	(1) (2) (3)
FC 7	MITSUBISHI PEFY-P54NAMU-E	QTA SUPPORT OFFICES	1800	0.6	45,793	38,519	46,621	-	3.5	15	208/230-1-60	-	40	- -	(1) (2) (3)

REMARKS:
(1) ISOLATION VALVE SHALL BE LOCATED AT BC CONTROLLER.
(2) 2-PIPE SYSTEM ONLY. NO 3-PIPE SYSTEM ALLOWED.
(3) PROVIDE WITH CONDENSATE PUMP (GOBI), 120/240-1-50/60, 16W, 5A, 30 VDC, 250 VAC BREAK ON FAULT AND 3.17 GAL/H.

OUTDOOR UNIT - HEAT PUMP (HP)

ITEM NO.	MANUFACTURER AND MODEL NO.		COOLING TOTAL (MBH)	HEATING TOTAL (MBH)	ELECTRICAL			COOLING POWER INPUT KW	HEATING POWER INPUT KW	COOLING CURRENT (208/230V) RLA	HEATIING CURRENT (208/230V) RLA	OPER. WEIGHT LBS.	ANCHORAGE DETAIL	REMARKS
					MCA	MOCP	V-□-HZ							
HP 1	MITSUBISHI 28 TON PURY-P?336YSLMU	MODULE 1 PURY-P168YLMU	168.0	188.0	45/42	50	460 -3-60	-	-	-	-	900	- -	(1) (2) (3)
		MODULE 2 PURY-P168YLMU	168.0	188.0	45/42	50	460 -3-60	-	-	-	-	900	- -	(1) (2) (3)
HP 2	MITSUBISHI 28 TON PURY-P?336YSLMU	MODULE 1 PURY-P168YLMU	168.0	188.0	45/42	50	460 -3-60	-	-	-	-	900	- -	(1) (2) (3)
		MODULE 2 PURY-P168YLMU	168.0	188.0	45/42	50	460 -3-60	-	-	-	-	900	- -	(1) (2) (3)

REMARKS:
(1) PROVIDE INVERTER COMPRESSORS ONLY, NO SINGLE SPEED COMPRESSORS.
(2) PROVIDE 10 YEAR COMPRESSOR WARRANTY, 7 YEAR PARTS WARRANTY.
(3) FACTORY SUPPLY TWINNING KITS FOR FIELD INSTALLATION.

MAIN BC CONTROLLER (BC)

ITEM NO.	MANUFACTURER AND MODEL NO.	EQUIP SERVED	ELECTRICAL			ANCHORAGE DETAIL
			MCA	MOCP	V-□-HZ	
BC 1	MITSUBISHI CMB-P1013NU-GA	FC - TO FC -	1.08	15A	208/230-1-60	- - WEIGTH=94 LBS
BC 2 *	MITSUBISHI CMB-P1013NU-GA	FC - TO	1.08	15A	208/230-1-60	- - WEIGTH=94 LBS

PROVIDE SINGLE POWER POINT OF CONNECTION THAT INCLUDES THE T-STAT AND BC CONTROLLER.

PROVIDE DRAIN PAN AND ACCESSORIES - FIELD INSTALLED

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.3355 F 562.426.3251 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE: SCHEDULES

SHEET NO. 2-M-003

C:\Users\mhy\Documents\IMP-DA4881-RLOC_A_8-R15_mhy@pbsengineers.com.rvt

9/23/2016 3:10:54 PM

link_mech_2-M-013

12" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

Project Name:	CONRAC- QTA Admin office	NRCC-PRF-01-E	Page 1 of 19
Project Address:	Los Angeles	Calculation Date/Time:	11:00, Fri, Apr 15, 2016
Compliance Scope:	NewComplete	Input File Name:	QTA Admin Office.xml

A. PROJECT GENERAL INFORMATION

1.	Project Location (city)	Los Angeles	7.	# of dwelling units	0
2.	CA Zip Code		8.	Standards Version	Compliance2015
3.	Climate Zone	6	9.	Compliance Software (version)	EnergyPro 6.7
4.	Total Conditioned Floor Area	41,577 ft²	10.	Building Orientation (deg)	(N) 0 deg
5.	Total Unconditioned Floor Area	0 ft²	11.	Permitted Scope of Work	NewComplete
6.	# of Stories (Habitable Above Grade)	3	12	Building Type(s)	Nonresidential

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS **§ 140.1**

BUILDING COMPLIES

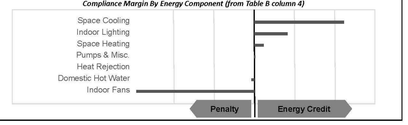
1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	3.2	--	3.2	--
Space Cooling	190.9	157.4	33.5	17.5%
Indoor Fans	132.6	176.9	-44.3	-33.4%
Heat Rejection	--	--	--	--
Pumps & Misc.	0.1	--	0.1	--
Domestic Hot Water	4.0	4.9	-0.9	-22.5%
Indoor Lighting	43.1	30.9	12.2	28.3%
COMPLIANCE TOTAL	**373.9**	**370.1**	**3.8**	**1.0%**
Receptacle	111.7	111.7	0.0	0.0%
Process	744.6	744.6	0.0	0.0%
Process Ltg	--	--	--	--
TOTAL	**1,230.2**	**1,226.4**	**3.8**	**0.3%**

Project Name:	CONRAC- QTA Admin office	NRCC-PRF-01-E	Page 2 of 19
Project Address:	Los Angeles	Calculation Date/Time:	11:00, Fri, Apr 15, 2016
Compliance Scope:	NewComplete	Input File Name:	QTA Admin Office.xml

C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)

1st	Space Cooling: Check envelope and mechanical
2nd	Indoor Lighting: Check lighting
3rd	Space Heating: Check envelope and mechanical
4th	Pumps & Misc.: Check mechanical
5th	Heat Rejection: Check envelope and mechanical
6th	Domestic Hot Water: Check mechanical
7th	Indoor Fans: Check envelope and mechanical

Compliance Margin By Energy Component (from Table B column 4)



D. EXCEPTIONAL CONDITIONS

E. HERS VERIFICATION

This Section Does Not Apply

F. ADDITIONAL REMARKS

None Provided

Project Name:	CONRAC- QTA Admin office	NRCC-PRF-01-E	Page 3 of 19
Project Address:	Los Angeles	Calculation Date/Time:	11:00, Fri, Apr 15, 2016
Compliance Scope:	NewComplete	Input File Name:	QTA Admin Office.xml

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components use the performance or prescriptive path for compliance. "NA"= not in project

For components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans.

Building Component	Compliance Path		Compliance Forms *(required for submittal)*	Location of Mandatory Notes on Plans
Envelope	☒	Performance	NRCC-PRF-ENV-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
	☐	NA		
Mechanical	☒	Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	
	☐	NA		
Domestic Hot Water	☒	Performance	NRCC-PRF-PLB-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PLB-01-E	
	☐	NA		
Lighting (Indoor Conditioned)	☒	Performance	NRCC-PRF-LTI-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	
	☐	NA		
Covered Process: Commercial Kitchens	☐	Performance	S2 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 03-E	
	☒	NA		
Covered Process: Computer Rooms	☐	Performance	S3 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 04-E	
	☒	NA		
Covered Process: Laboratory Exhaust	☐	Performance	S4 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 09-E	
	☒	NA		

Project Name:	CONRAC- QTA Admin office	NRCC-PRF-01-E	Page 4 of 19
Project Address:	Los Angeles	Calculation Date/Time:	11:00, Fri, Apr 15, 2016
Compliance Scope:	NewComplete	Input File Name:	QTA Admin Office.xml

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

The following building components are only eligible for prescriptive compliance. Indicate which are relevant to the project.				*The following building components may have mandatory requirements per Part 6. Indicate which are relevant to the project.*			
Yes	NA	Prescriptive Requirement	Compliance Forms	Yes	NA	Mandatory Requirement	Compliance Forms
☐	☒	Lighting (Indoor Unconditioned) §140.6	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	☐	☒	Commissioning: §120.8 Simple Systems Complex Systems	NRCC-CXR-01 / 02 / 03 / 05-E NRCC-CXR-01 / 02 / 04 / 05-E
☐	☒	Lighting (Outdoor) §140.7	NRCC-LTO-01 / 02 / 03-E	☐	☒	Electrical: §130.5	NRCC-ELC-01-E
☐	☒	Lighting (Sign) §140.8	NRCC-LTS-01-E	☐	☒	Solar Ready: §110.10	NRCC-SRA-01 / 02-E
☐	☒	Solar Thermal Water Heating: §140.5	NRCC-STH-01-E	☐	☒	Covered Process: §120.6 Parking Garage Commercial Refrigeration Warehouse Refrigeration Compressed Air Process Boilers	NRCC-PRC-01-E NRCC-PRC-02-E NRCC-PRC-05-E NRCC-PRC-06/07/08-E NRCC-PRC-10-E NRCC-PRC-11-E

Project Name:	CONRAC- QTA Admin office	NRCC-PRF-01-E	Page 5 of 19
Project Address:	Los Angeles	Calculation Date/Time:	11:00, Fri, Apr 15, 2016
Compliance Scope:	NewComplete	Input File Name:	QTA Admin Office.xml

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Envelope	☒ NRCI-ENV-01-E - For all buildings	☐	☐
	☐ NRCA-ENV-02-F- NFRC label verification for fenestration	☐	☐
Mechanical	☒ NRCI-MCH-01-E - For all buildings with Mechanical Systems	☐	☐
	☒ NRCA-MCH-02-A- Outdoor Air	☐	☐
	☐ NRCA-MCH-03-A – Constant Volume Single Zone HVAC	☐	☐
	☐ NRCA-MCH-04-H- Air Distribution Duct Leakage	☐	☐
	☒ NRCA-MCH-05-A- Air Economizer Controls	☐	☐
	☐ NRCA-MCH-06-A- Demand Control Ventilation	☐	☐
	☒ NRCA-MCH-07-A – Supply Fan Variable Flow Controls	☐	☐
	☒ NRCA-MCH-08-A- Valve Leakage Test	☐	☐
	☒ NRCA-MCH-09-A – Supply Water Temp Reset Controls	☐	☐
	☒ NRCA-MCH-10-A- Hydronic System Variable Flow Controls	☐	☐
	☒ NRCA-MCH-11-A – Auto Demand Shed Controls	☐	☐
	☒ NRCA-MCH-12-A- Packaged Direct Expansion Units	☐	☐
	☐ NRCA-MCH-13-A- Air Handling Units and Zone Terminal Units	☐	☐
	☐ NRCA-MCH-14-A- Distributed Energy Storage	☐	☐
	☐ NRCA-MCH-15-A – Thermal Energy Storage	☐	☐
	☒ NRCA-MCH-16-A- Supply Air Temp Reset Controls	☐	☐
	☐ NRCA-MCH-17-A – Condensate Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-18-A- Energy Management Controls Systems	☐	☐
	☐ NRCV-MCH-04-H- Duct Leakage Test	☐	☐

Project Name:	CONRAC- QTA Admin office	NRCC-PRF-01-E	Page 6 of 19
Project Address:	Los Angeles	Calculation Date/Time:	11:00, Fri, Apr 15, 2016
Compliance Scope:	NewComplete	Input File Name:	QTA Admin Office.xml

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Plumbing	☒ NRCI-PLB-01-E - For all buildings with Plumbing Systems	☐	☐
	☐ NRCI-PLB-02-E - required on central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-03-E - Single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-22-E - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-21-H- HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-22-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-STH-01-E - Any solar water heating	☐	☐
Indoor Lighting	☒ NRCI-LTI-01-E - For all buildings	☐	☐
	☐ NRCI-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	☐	☐
	☐ NRCI-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting	☐	☐
	☐ NRCI-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a conference room, or a theater	☐	☐
	☐ NRCI-LTI-05-E - Lighting Control Credit Power Adjustment Factor (PAF)	☐	☐
	☐ NRCI-LTI-06-E - Additional wattage installed in a video conferencing studio	☐	☐
	☐ NRCA-LTI-02-A - Occupancy sensors and automatic time switch controls.	☐	☐
	☐ NRCA-LTI-03-A - Automatic daylighting controls	☐	☐
	☐ NRCA-LTI-04-A - Demand responsive lighting controls	☐	☐
Outdoor Lighting	☐ NRCI-LTO-01-E – Outdoor Lighting	☐	☐
	☐ NRCI-LTO-02-E- EMCS Lighting Control System	☐	☐
	☐ NRCA-LTO-02-A - Outdoor Lighting Control	☐	☐
Sign Lighting	☐ NRCI-LTS-01-E – Sign Lighting	☐	☐
Electrical	☐ NRCI-ELC-01-E - Electrical Power Distribution	☐	☐
Photovoltaic	☐ NRCI-SPV-01-E Photovoltaic Systems	☐	☐

Project Name:	CONRAC- QTA Admin office	NRCC-PRF-01-E	Page 7 of 19
Project Address:	Los Angeles	Calculation Date/Time:	11:00, Fri, Apr 15, 2016
Compliance Scope:	NewComplete	Input File Name:	QTA Admin Office.xml

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Covered Process	☐ NRCI-PRC-01-E Refrigerated Warehouse	☐	☐
	☐ NRCA-PRC-01-F- Compressed Air Systems	☐	☐
	☐ NRCA-PRC-02-F- Kitchen Exhaust	☐	☐
	☐ NRCA-PRC-03-F- Garage Exhaust	☐	☐
	☐ NRCA-PRC-04-F- Refrigerated Warehouse- Evaporator Fan Motor Controls	☐	☐
	☐ NRCA-PRC-05-F- Refrigerated Warehouse- Evaporative Condenser Controls	☐	☐
	☐ NRCA-PRC-06-F- Refrigerated Warehouse- Air Cooled Condenser Controls	☐	☐
	☐ NRCA-PRC-07F- Refrigerated Warehouse- Variable Speed Compressor	☐	☐
	☐ NRCA-PRC-08-F- Electrical Resistance Underslab Heating System	☐	☐

I. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)

						Confirmed Pass	Confirmed Fail
1.	Total Conditioned Floor Area	41,577 ft²	5.	Number of Floors Above Grade	3		
2.	Total Unconditioned Floor Area	0 ft²	6.	Number of Floors Below Grade	0		
3.	Addition Conditioned Floor Area	0 ft²					
4.	Addition Unconditioned Floor Area	0 ft²					

7. Opaque Surfaces & Orientation	8. Total Gross Surface Area	9. Total Fenestration Area	10. Window to Wall Ratio	Pass	Fail
North Wall	1,680 ft²	0 ft²	00.0%	☐	☐
East Wall	10,848 ft²	2,181 ft²	20.1%	☐	☐
South Wall	1,680 ft²	0 ft²	00.0%	☐	☐
West Wall	15,120 ft²	0 ft²	00.0%	☐	☐
Total	**29,328 ft²**	**2,181 ft²**	**07.4%**	☐	☐
Roof	1,400 ft²	0 ft²	00.0%	☐	☐

Project Name:	CONRAC- QTA Admin office	NRCC-PRF-01-E	Page 8 of 19
Project Address:	Los Angeles	Calculation Date/Time:	11:00, Fri, Apr 15, 2016
Compliance Scope:	NewComplete	Input File Name:	QTA Admin Office.xml

J. FENESTRATION ASSEMBLY SUMMARY **§ 110.6** **Confirmed**

1. Fenestration Assembly Name / Tag or I.D.	2. Fenestration Type	3. Certification Method[1]	4. Assembly Method	5. Area ft²	6. Overall U-factor	7. Overall SHGC	8. Overall VT	9. Status[2]	Pass	Fail
Loewen Dbl/Wd Mtlclad Low-E	VerticalFenestration	NFRCRated	SiteBuilt	2181	0.34	0.25	0.50	N	☐	☐

[1] Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default: tables found in Table 110.6-A and Table 110.6-B. Site-built fenestration less than 1,000 ft², or areas than or equal to 1,000 ft² see Reference Nonresidential Appendix NA6.

[2] Status: N - New, A – Altered, E – Existing

Taking compliance credit for fenestration shading devices? (if "Yes", see NRCC-PRF-ENV-DETAILS for more information)

K. OPAQUE SURFACE ASSEMBLY SUMMARY **§ 120.7/ § 140.3** **Confirmed**

1. Surface Name	2. Surface Type	3. Area (ft²)	4. Framing Type	5. Cavity R-Value	6. Continuous R-Value	7. U-Factor / F-Factor / C-Factor	8. Status[1]	Pass	Fail
R-21 Wall Metal Stud11	ExteriorWall	29328	NA	0	NA	U-Factor: 0.418	N	☐	☐
Slab On Grade17	UndergroundFloor	13737	NA	0	NA	F-Factor: 0.730	N	☐	☐
R-30 Floor Crawlspace26	ExteriorFloor	27718	Wood	25	NA	U-Factor: 0.037	N	☐	☐
R-38 Roof Cathedral35	Roof	1400	Wood	38	NA	U-Factor: 0.029	N	☐	☐

[1] Status: N - New, A – Altered, E – Existing

L. ROOFING PRODUCT SUMMARY **§ 140.3** **Confirmed**

1. Product Type	2. Product ≥25 lb ft²	3. Aged Solar Reflectance	4. Thermal Emittance	5. SRI	6. Cool Roof Credit	7. CRRC Product ID Number	Pass	Fail
R-38 Roof Cathedral35	No	0.08	0.75	NA	No	NA	☐	☐

Project Name:	CONRAC- QTA Admin office	NRCC-PRF-01-E	Page 9 of 19
Project Address:	Los Angeles	Calculation Date/Time:	11:00, Fri, Apr 15, 2016
Compliance Scope:	NewComplete	Input File Name:	QTA Admin Office.xml

M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) **§ 110.1 / § 110.2**

Dry System Equipment [1] (Fan & Economizer info included below in Table N)

1. Equip Name	2. Equip Type	3. System Type (Simple [3] or Complex [4])	4. Qty	5. Total Heating Output (kBtu/h)	6. Supp Heat Source (Y/N)	7. Supp Heat Output (kBtu/h)	8. Total Cooling Output (kBtu/h)	9. Efficiency: Cooling	9. Efficiency: Heating	10. Acceptance Testing Required? (Y/N) [5]	11. Status[6]	Confirmed Pass	Confirmed Fail
Level - QTA Offices4	PVAV (Packaged3Phase)	Complex	9	0	No	0	259	EER-12.0	NA	Yes	N	☐	☐

Wet System Equipment [2] / *Pumps*

12. Equip Name	13. Equip Type	14. Qty	15. Vol (gal)	16. Rated Capacity (kBtu/h)	17. Efficiency	18. Standby Loss	19. Tank Ext. R Value	20. Qty	21. GPM	22. HP	23. VSD (Y/N)	24. Status[6]	Confirmed Pass	Confirmed Fail
Raypak H(34)-0302*2-0	HotWater	NA	NA	291	AFUE: 0.97	NA	NA	1	28.0	2.000	Yes	N	☐	☐
Raypak H(34)-0302*2-1	HotWater	NA	NA	291	AFUE: 0.97	NA	NA	1	28.0	2.000	Yes	N	☐	☐
Standard Gas 50 gal or Le3	Storage	3	50	40	EF: 0.575	NA	NA	NA	NA	NA	No	N	☐	☐

[1] Dry System Equipment includes furnaces, air handling units, heat pumps, etc.

[2] Wet System Equipment includes boilers, chillers, cooling towers, water heaters, etc.

[3] Simple Systems must complete NRCC-CXR-03-E commissioning design review form

[4] Complex Systems must complete NRCC-CXR-04-E commissioning design review form

[5] A summary of which acceptance tests are applicable is provided in NRCC-PRF-MCH-DETAILS

[6] Status: N – New, A – Altered, E – Existing

Discrepancy between modeled and designed equipment sizing? (if "Yes", see Table F. "Additional Remarks" for an explanation) No

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
Mechanical Electrical Plumbing Fire Protection Engineers
3130 Wilshire Blvd. Ste 410 Santa Monica, CA 90403
T 424.8200500 F 424.8200501
www.pbsengineering.com

LAX Consolidated Rental Car Facility

Los Angeles World Airports
Project
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: DESCRIPTION DATE MARK

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:
TITLE 24 COMPLIANCE FORMS

SHEET NO.
2-M-004

C:\Users\mh\Documents\MP-DA4881-BLDG_A_R15_mh@pbsengineers.com.rvt

9/23/2016 3:10:56 PM

link_mech_2-M-014
12" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

N. ECONOMIZER & FAN SYSTEMS SUMMARY[1] — § 140.4 — Confirmed (Pass / Fail)

1.	2.	3.				4.					5.	Pass	Fail
Equip Name	Outside Air	Supply Fan				Return Fan					Economizer Type (if present)		
	CFM	CFM	HP	BHP	TSP (inch WC)	Control	CFM	HP	BHP	TSP (inch WC)	Control		
Level - QTA Offices4	693	8000	7.000	7.000	3.33	VariableSpeedDrive	NA	NA	NA	NA	NA	DifferentialDryBulb	☐	☐

[1] *Mechanical ventilation calculations and exhaust fans are included in the NRCC-PRF-MCH-DETAILS section*

O. EQUIPMENT CONTROLS — § 120.2 — Confirmed (Pass / Fail)

1. Equip Name	2. Equip Type	3. Controls	Pass	Fail
Level - QTA Offices4	PVAV	No DCV Controls, DDC Controls Differential Drybulb Economizer Warmest Zone Supply Air Temp. Reset	☐	☐
QTA1 - HotWater	Heating Hot Water, Primary Only	Fixed Temperature Control, No DDC	☐	☐
QTA1 - SHW	Service Hot Water, Primary Only	Fixed Temperature Control, No DDC	☐	☐

P. SYSTEM DISTRIBUTION SUMMARY — § 120.4/ § 140.4(i)

This Section Does Not Apply

Does the Project include Zonal Systems? (if "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Does the Project include a Solar Hot Water System? (if "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Multifamily or Hotel/ Motel Occupancy? (if "Yes", see NRCC-PRF-MCH-DETAILS for DHW system information)	No

Q. INDOOR CONDITIONED LIGHTING GENERAL INFO (see NRCC-PRF-LTI-DETAILS for more info)[3] — § 140.6 — Confirmed (Pass / Fail)

1. Occupancy Type [1]	2. Conditioned Floor Area [2] (ft²)	3. Installed Lighting Power (Watts)	4. Lighting Control Credits (Watts)	5. Additional (Custom) Allowance		Pass	Fail
				Area Category Footnotes (Watts)	Tailored Method (Watts)		
Office (Greater than 250 square feet in floor area)	41,577	22,356	0	0	0	☐	☐
Building Totals:	**41,577**	**22,356**		**0**			

[1] *See Table 140.6-C*
[2] *See NRCC-LTI-01-E for unconditioned spaces*
[3] *Lighting information for existing spaces modeled is not included in the table*

R. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)[1] — § 130.0 — Confirmed (Pass / Fail)

Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/ft²[1] in offices)

Name or Item Tag	Complete Luminaire Description (i.e., 3-lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per luminaire	How Wattage is Determined: CEC Default from NA8	How Wattage is Determined: According to §130.0(c)	Total Number Luminaires	Installed Watts	Pass	Fail
A	PENDANT LED (FIXTURE ID: A)	54	No	Yes	414	22,356	☐	☐

[1] *If lighting power densities were used in the compliance model Building Department will need to check prescriptive forms for Luminaire Schedule details.*

S1. COVERED PROCESS SUMMARY – ENCLOSED PARKING GARAGES — § 140.9

This Section Does Not Apply

S2. COVERED PROCESS SUMMARY – COMMERCIAL KITCHENS — § 140.9

This Section Does Not Apply

S3. COVERED PROCESS SUMMARY – COMPUTER ROOMS — § 140.9

This Section Does Not Apply

S4. COVERED PROCESS SUMMARY – LABORATORY EXHAUSTS — § 140.9

This Section Does Not Apply

T. UNMET LOAD HOURS

Thermal Zone Name	Cooling Unmet Load Hour Limit for Thermal Zone	Proposed Cooling Unmet Load Hours	Heating Unmet Load Hour Limit for Thermal Zone	Proposed Heating Unmet Load Hours
2-Level 2 - QTA Offices	150	408.75	150	1068.25
3-Level 3 - QTA Offices	150	463.25	150	1064.5

U. ENERGY USE SUMMARY

	Electric (kWh/yr)	Natural Gas (therms/yr)
Total Annual Baseline	1856250	1775.02
Total Annual Proposed	1924490	1227.59

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT — § 10-103

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Khushboo Patel	Signature:
Company: PBS Engineers	
Address: 2100 E Route 66 Ste 101	Signature Date:
City/State/Zip: Glendora CA 91740	CEA Identification (If applicable):
Phone: (626) 650-0352	

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
2	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
3	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Responsible Envelope Designer Name:	**Signature:**	
Company: Transystem		
Address: 801 S Grand Suite 210	Date Signed:	
City/State/Zip: Los Angeles CA 90017	Declaration Statement Type:	
Phone: 5625946974	Title:	License #:
Responsible Lighting Designer Name: KUNAL SHAH	**Signature:**	
Company: PBS ENGINEERS		
Address: 2100 E ROUTE 66; SUITE 101	Date Signed:	
City/State/Zip: GLENDORA CA 91740	Declaration Statement Type:	
Phone: 6266500350	Title:	License #: E17249
Responsible Mechanical Designer Name: Noe Portilla	**Signature:**	
Company: PBS Engineers,Inc		
Address: 2100 E Route 66	Date Signed:	
City/State/Zip: Glendora CA 91740	Declaration Statement Type:	
Phone: 6266500350	Title:	License #: M29029

NRCC-PRF-ENV-DETAILS -SECTION START-

A. OPAQUE SURFACE ASSEMBLY DETAILS — Confirmed (Pass / Fail)

1. Surface Name	2. Surface Type	3. Description of Assembly Layers	4. Notes	Pass	Fail
R-21 Wall Metal Stud11	ExteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Air - Wall - 3 1/2 in. Gypsum Board - 1/2 in.		☐	☐
Slab On Grade17	UndergroundFloor			☐	☐
R-30 Floor Crawlspace26	ExteriorFloor	Air - Floor - 3 1/2 in. Wood framed floor, 16in. OC, 9.25in., R-25 Plywood - 1/2 in. Carpet - 3/4 in.		☐	☐
R-38 Roof Cathedral35	Roof	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 16in. OC, 11.25in., R-38 Gypsum Board - 1/2 in.		☐	☐

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-E)

This Section Does Not Apply

C. OPAQUE DOOR SUMMARY

This Section Does Not Apply

NRCC-PRF-MCH-DETAILS -SECTION START-

A. MECHANICAL VENTILATION AND REHEAT ***(Adapted from 2013-NRCC-MCH-03-E)*** — Confirmed (Pass / Fail)

CONDITIONED ZONE NAME	1. DESIGN AIR FLOWS: HEATING / COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW CONTROL	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DOC CONTROLS (Y/N)	2. VENTILATION (§ 120.1): VENT SYSTEM ID	CONDITIONED SPACE (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	RECTD VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIR FLOW (CFM)	DCV (Y/N)	Pass	Fail
1-Level 1 - QTA Offices	Level - QTA Offices4	2,667	NA	NA	NA	NA	Y	Level - QTA Offices4	13,859	0.15	139	15.0	2,079	2,079	NA	N	☐	☐
2-Level 2 - QTA Offices	Level - QTA Offices4	2,667	NA	NA	NA	NA	Y	Level - QTA Offices4	13,859	0.15	139	15.0	2,079	2,079	NA	N	☐	☐
3-Level 3 - QTA Offices	Level - QTA Offices4	2,667	NA	NA	NA	NA	Y	Level - QTA Offices4	13,859	0.15	139	15.0	2,079	2,079	NA	N	☐	☐
								TOTAL	41,577		417		6,237	6,237	NA		☐	☐

B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY — § 140.4 — Confirmed (Pass / Fail)

1. System ID	2. System Type	3. Qty	4. Rated Capacity (kBtuh): Heating	4. Rated Capacity (kBtuh): Cooling	5. Economizer	6. Zone Name	7. Airflow (cfm): Design	7. Airflow (cfm): Min.	7. Airflow (cfm): Min. Ratio	8. Fan: BHP	8. Fan: Cycles	8. Fan: ECM Motor	Pass	Fail
Level 3 - QTA Offices27-TRM	Uncontrolled	9	NA	NA	NA	3-Level 3 - QTA Offices	2667	NA	NA	NA	NA	☐	☐	☐
Level 2 - QTA Offices18-TRM	Uncontrolled	9	NA	NA	NA	2-Level 2 - QTA Offices	2667	NA	NA	NA	NA	☐	☐	☐
Level 1 - QTA Offices6-TRM	Uncontrolled	9	NA	NA	NA	1-Level 1 - QTA Offices	2667	NA	NA	NA	NA	☐	☐	☐

C. EXHAUST FAN SUMMARY

This Section Does Not Apply

D. DHW EQUIPMENT SUMMARY – ***(Adapted from NRCC-PLB-01)*** — § 110.3 — Confirmed (Pass / Fail)

1. DHW Name	2. Fuel	3. Type	4. Qty	5. Distribution Type	6. Rated Input kBtuh	7. Efficiency	8. Pilot Energy (Btu/h)	9. External Tank Insulation	10. Vol	11. Standby Loss	12. Vol. of Suppl. Storage Tank	Pass	Fail
Standard Gas 50 gal or Le3	NaturalGas	Storage	3	Nonrecirculating	40	EF: 0.575	0	NA	50	0.038	NA	☐	☐

E. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS

This Section Does Not Apply

F. SOLAR HOT WATER HEATING SUMMARY (Adapted from NRCC-STH-01)

This Section Does Not Apply

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS ***(Adapted from 2013-NRCC-MCH-01-E)*** — § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A	MCH-12A	MCH-13A	MCH-14A	MCH-15A	MCH-16A	MCH-17A	MCH-18A	Confirmed: Pass	Confirmed: Fail
Equipment Requiring Testing or Verification	# of units	Outdoor Air	Single Zone Unitary	Air Dist. Ducts	Economizer Controls	DCV	Supply Fan VAV	Valve leakage	Supply Water Temp. Reset	Hyd. Variable Flow Control	Auto Demand Shed Control	FDD for DX Units	Auto FDD for Air & Zone	Dist. Energy Storage DX AC	TES Systems	Supply Air Temp. Reset	Condenser Water Reset Controls	ECM5		
QTA1 - HotWater	1	--	--	--	--	--	--	X	X	X	--	--	--	--	--	--	--	--	☐	☐
QTA1 - SHW	1	--	--	--	--	--	--	X	--	--	--	--	--	--	--	--	--	--	☐	☐

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS ***(Adapted from 2013-NRCC-MCH-01-E)*** — § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A	MCH-12A	MCH-13A	MCH-14A	MCH-15A	MCH-16A	MCH-17A	MCH-18A	Confirmed: Pass	Confirmed: Fail
Equipment Requiring Testing or Verification	# of units	Outdoor Air	Single Zone Unitary	Air Dist. Ducts	Economizer Controls	DCV	Supply Fan VAV	Valve leakage	Supply Water Temp. Reset	Hyd. Variable Flow Control	Auto Demand Shed Control	FDD for DX Units	Auto FDD for Air & Zone	Dist. Energy Storage DX AC	TES Systems	Supply Air Temp. Reset	Condenser Water Reset Controls	ECM5		
Level - QTA Offices4	9	X	--	--	X	--	X	--	--	--	X	X	--	--	--	X	--	--	☐	☐

NRCC-PRF-LTI-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) — § 140.6

Lighting Control Credits Schedule (includes all lighting controls installed in conditioned space for compliance credit per §140.6(a)2 and Table 140.6-A)

Location in Building	Occupancy Type (must meet requirements of Table 140.6-A)	Type/Description of Lighting Control (i.e., partial on occupancy sensor, manual dimming, etc.)	# of Units	Control Credit Calculation: Watts of Controlled Lighting	Control Credit Calculation: Power Adjustment Factor	Control Credit Calculation: Control Credit Watts	√ If Acceptance Test Required	Confirmed: Pass	Confirmed: Fail
S-1-Level 1 - QTA Offices	Office (Greater than 250 square feet in floor area)	- none specified -	1	7452	0.00	0		☐	☐
S-2-Level 2 - QTA Offices	Office (Greater than 250 square feet in floor area)	- none specified -	1	7452	0.00	0		☐	☐
S-3-Level 3 - QTA Offices	Office (Greater than 250 square feet in floor area)	- none specified -	1	7452	0.00	0		☐	☐

B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E) — § 130.1

This Section Does Not Apply

§130.1(a) – Manual area controls; §130.0(b) – Multi Level; §130.1(c) – Auto Shut-Off; §130.1(d) – Mandatory Daylight; §130.1(e) – Demand Responsive

C. TAILORED METHOD LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E) — § 140.6

General lighting power (see Table D)	0
General lighting power from special function areas (see Table E)	NA
Additional "use it or lose it" (See Table G)	0
Total watts	0

D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E) — § 140.6-D

This Section Does Not Apply

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E) — § 140.6(c) 3H

Room Number	Primary Function Area	Illuminance Value (LUX)	Room Cavity Ratio (Table G)	Allowed LPD	Floor Area (ft²)	Allowed Watts	Confirmed: Pass	Confirmed: Fail
NA	NA	NA	NA	NA	NA	NA	☐	☐

Note: Tailored Method for Special Function Areas is not currently implemented

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)

Rectangular Spaces

Room Number	Task/Activity Description	Room Length (ft)	Room Width (ft)	Room Cavity Height (ft)	RCR	Confirmed: Pass	Confirmed: Fail
NA	NA	NA	NA	NA	NA	☐	☐

Non-Rectangular Spaces

This Section Does Not Apply

Note: All applicable spaces are listed under the Non-Rectangular Spaces table

G. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E)

1. Wall Display	2. Combined Floor Display and Task Lighting	3. Combined Ornamental and Special Effects Lighting	4. Very Valuable Merchandise	Allowed Watts	Confirmed: Pass	Confirmed: Fail
0	0	0	0	0	☐	☐

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101, Glendora, CA 91740
T 626.650.0350 F 626.650.0352 www.pbsengineers.com
Mechanical Electrical Plumbing Consulting Engineers

NOT FOR CONSTRUCTION

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:	DESCRIPTION	DATE	MARK

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

TITLE 24 COMPLIANCE FORMS

SHEET NO.

2-M-005

C:\Users\my\Documents\MP\DA4881-BLDG_A_R-R15_my@pbsengineers.com.rvt

9/23/2016 3:10:58 PM

1 link_mech_2-M-015
12" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

Project Name:	CONRAC- QTA Admin office	NRCC-PRF-01-E	Page 19 of 19
Project Address:	Los Angeles	Calculation Date/Time:	11:00, Fri, Apr 15, 2016
Compliance Scope:	NewComplete	Input File Name:	QTA Admin Office.xml

5. Wall Display

This Section Does Not Apply

6. Floor Display and Task Lighting

This Section Does Not Apply

7. Combined Ornamental and Special Effects Lighting

This Section Does Not Apply

8. Very Valuable Merchandise

This Section Does Not Apply

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) **§ 130.4**

Declaration of Required Acceptance Certificates (NRCA) –Acceptance Certificates that must be verified in the field. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		Indoor			Outdoor	Confirmed	
		NRCA-LTI-02-A	NRCA-LTI-03-A	NRCA-LTI-04-A	NRCA-LTO-02-A		
Equipment Requiring Testing or Verification	# of units	Occ Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls	PASS	FAIL
Occupant Sensors	0	☐	☐	☐	☐	☐	☐
Automatic Time Switch	0	☐	☐	☐	☐	☐	☐
Automatic Daylighting	0	☐	☐	☐	☐	☐	☐
Demand Responsive	0	☐	☐	☐	☐	☐	☐
Outdoor Controls	0	☐	☐	☐	☐	☐	☐

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL ENV-MM

Project Name	Date
CONRAC_Minimum Efficiency	*4/15/2016*

DESCRIPTION

Building Envelope Measures:

§110.8(a):	Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.
§110.8(c):	All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.
§110.8(f):	The opaque portions of framed demising walls in nonresidential buildings shall have insulation with an installed R-value of no less than R-13 between framing members.
§110.7(a):	All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.
§110.6(a):	Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.^{2} of window area, 0.3 cfm/ft.^{2} of door area for residential doors, 0.3 cfm/ft.^{2} of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.^{2} for nonresidential double doors (swinging).
§110.6(a):	Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor.
§110.6(a) :	Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC.
§110.6(b):	Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3760 Kilroy Airport Way, Suite 210
Long Beach, CA 90806
T 562.426.3355 F 562.426.3251
Electrical Mechanical Plumbing Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

TITLE 24 COMPLIANCE FORMS

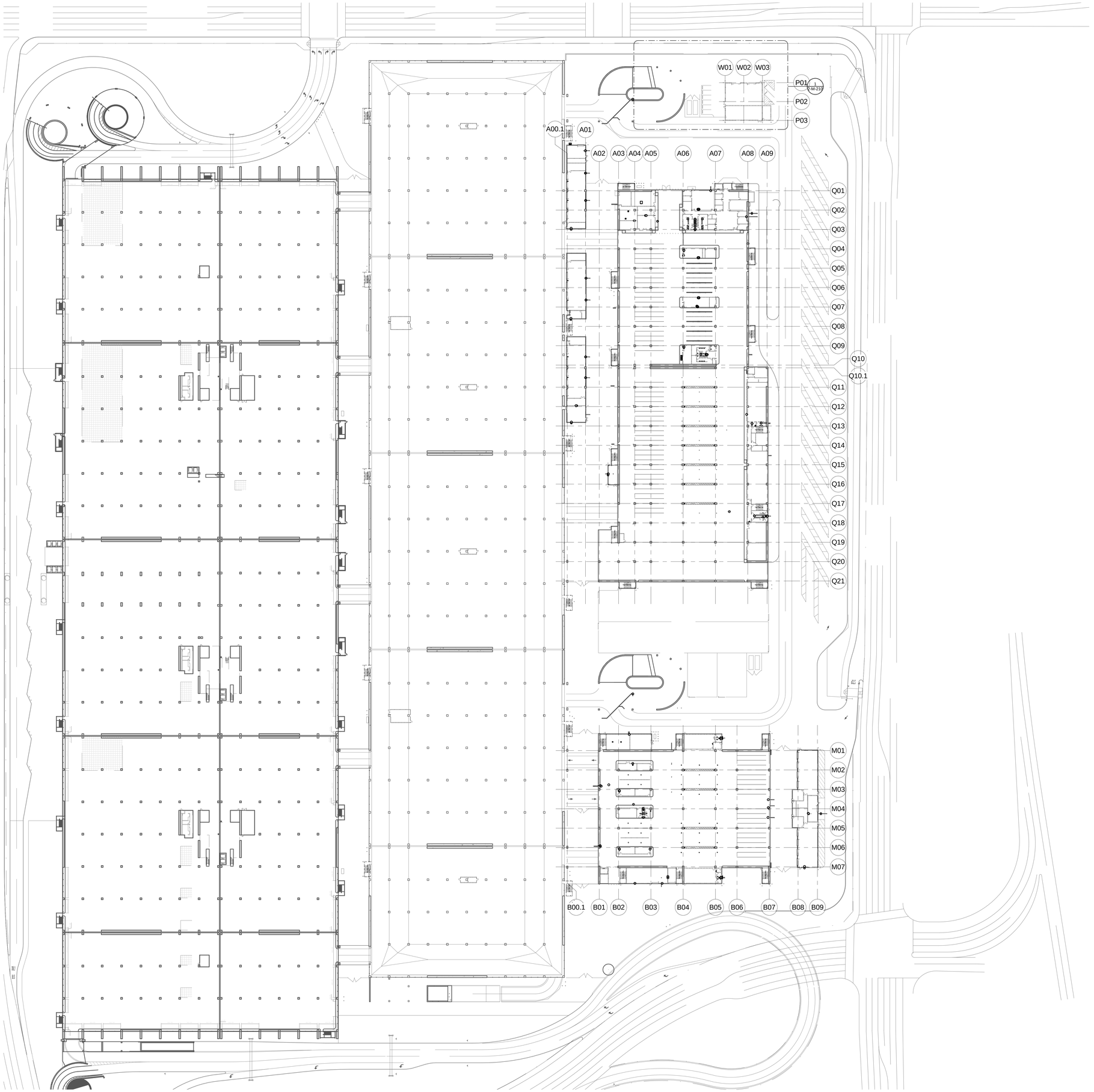
SHEET NO.

2-M-006

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt
9/23/2016 3:10:59 PM

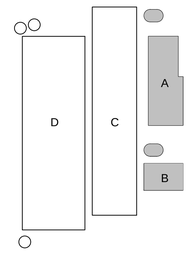
2_link_mech_2-M-016
12" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 1 OVERALL HVAC FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 500, Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS: MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

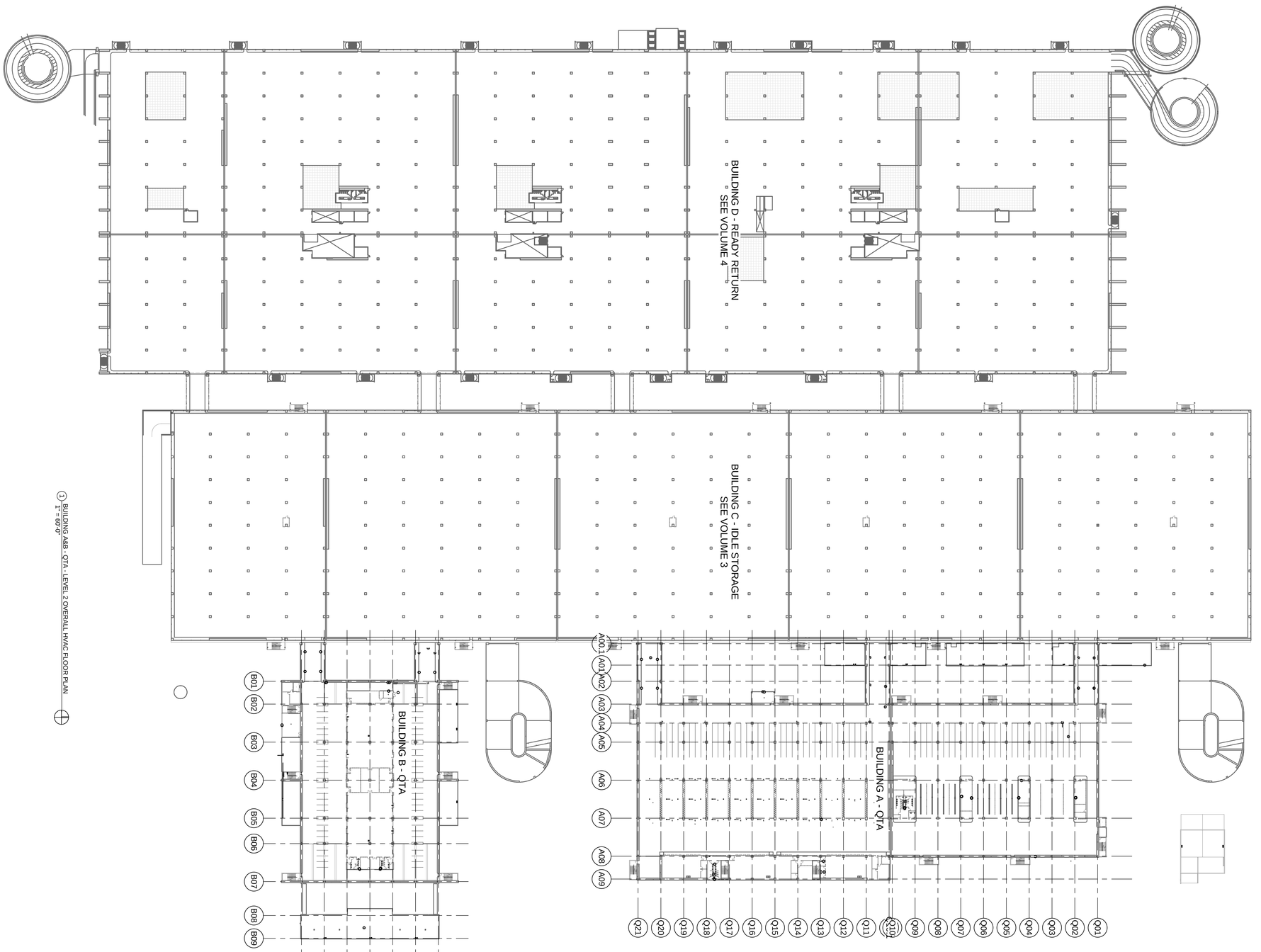
SHEET TITLE:

QTA LEVEL 1 OVERALL FLOOR PLAN

SHEET NO.

2-M-010

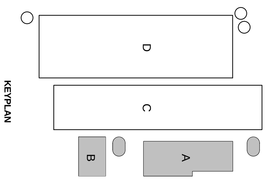
9/21/2016 3:11:08 PM C:\Users\nyh\Documents\MP-DA4881-BLDG_A_B-R15_nyh@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 2 OVERALL HVAC FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

KEYPLAN



SHEET NO:	2-M-020
	QTA LEVEL 2 OVERALL FLOOR PLAN
SHEET TITLE:	
PROJ.NO:	DA4880/4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	V.P.
CHECKED BY:	N.P.

REVISIONS:

MARK	DATE	DESCRIPTION

PROGRAM MANAGEMENT
LAX

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

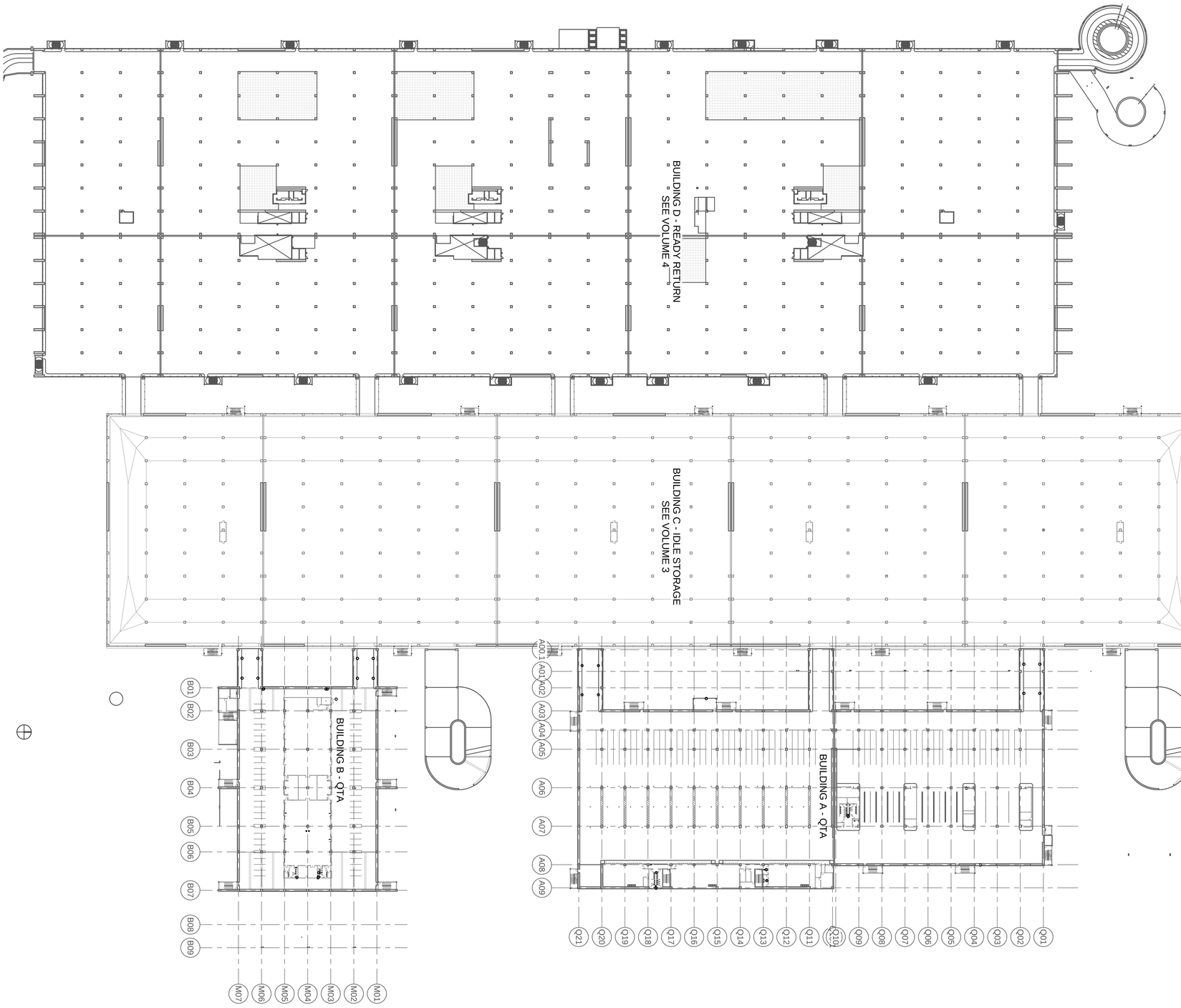
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.6600598 F 626.6600352
Job No. 2015-067-00 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

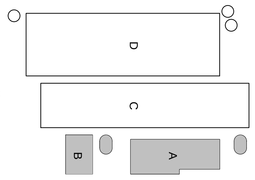
TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975



1 BUILDING A&B - QTA - LEVEL 3 OVERALL HVAC FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

KEYPLAN



SHEET NO: 2-M-030

QTA LEVEL 3 OVERALL FLOOR PLAN

SHEET TITLE:

DRAWING NO: DA4880
SCALE: 1" = 60'-0"
DATE: 09/23/2016
DESIGNED BY: V.P.
DRAWN BY: L.C.
CHECKED BY: N.P.

REVISIONS:

MARK	DATE	DESCRIPTION

PMD LAX

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.6600558 F 626.6600352
Job No. 2015467-00 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

TransSystems

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.8200200 www.pbsengineers.com
Jak No. 2015-062-00
Technical Electrical Plumbing | Consulting Engineers

Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

LAX Consolidated Rental Car Facility

Project

Los Angeles World Airports

LAX PMD ONT VNY

MARK	DATE	DESCRIPTION

REVISIONS:

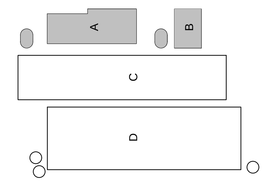
PROJ.NO.	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	I.C.
CHECKED BY:	N.P.

SHEET TITLE:

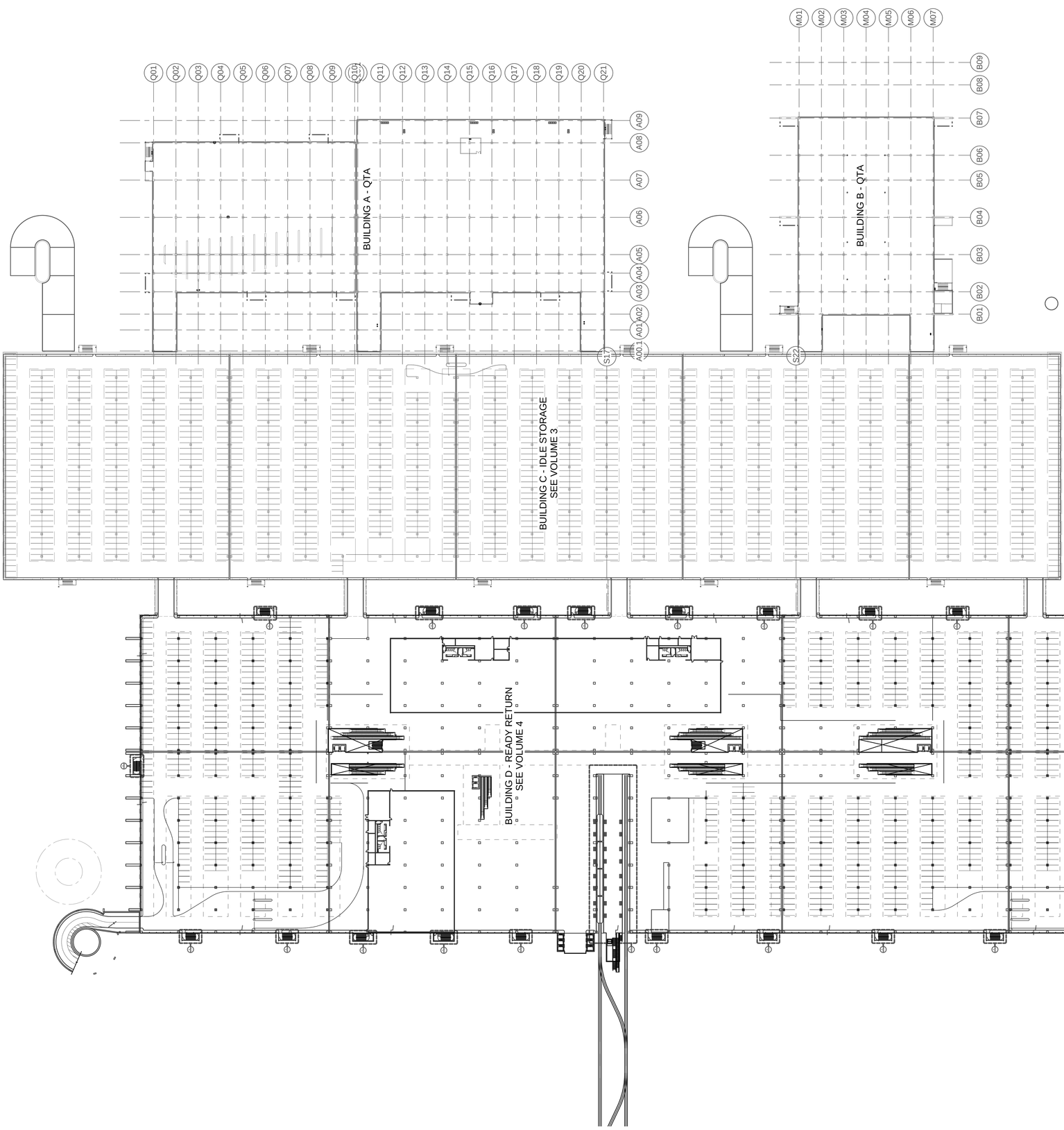
QTA LEVEL 4 OVERALL FLOOR PLAN

SHEET NO.

2-M-040



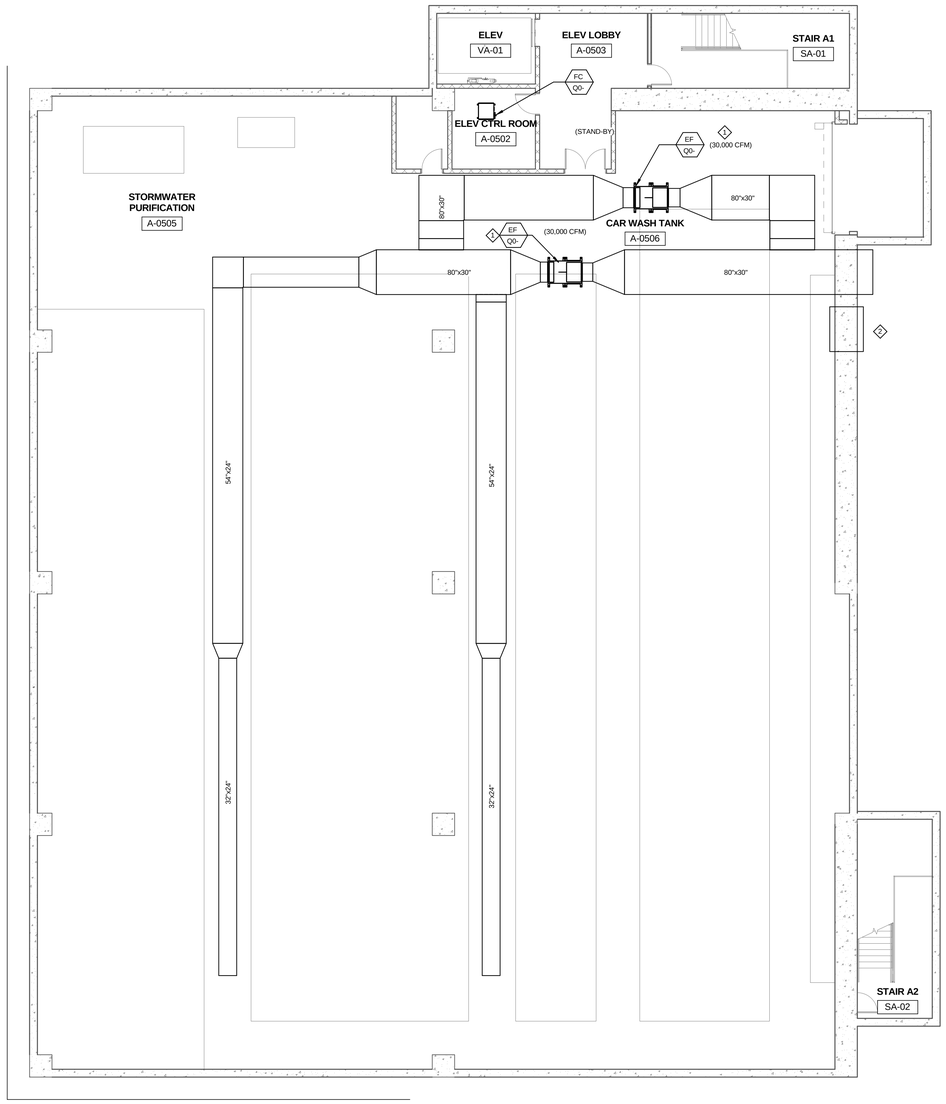
KEYPLAN



1 BUILDING A&B - QTA - LEVEL 4 OVERALL HVAC FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 3:11:36 PM C:\Users\nvy\Documents\SMP-DA4881-BLDG_A_B-R15_nvy@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 0 HVAC FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1 CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.

2 MAKEUP AIR FROM SIDE LOUVER.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600
Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS: MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 0 FLOOR PLAN

SHEET NO.

2-M-205

9/21/2016 3:11:37 PM C:\Users\nhy\Documents\MP-DA4881-BLDG_A_B-R15_nhy@pbsengineers.com.rvt

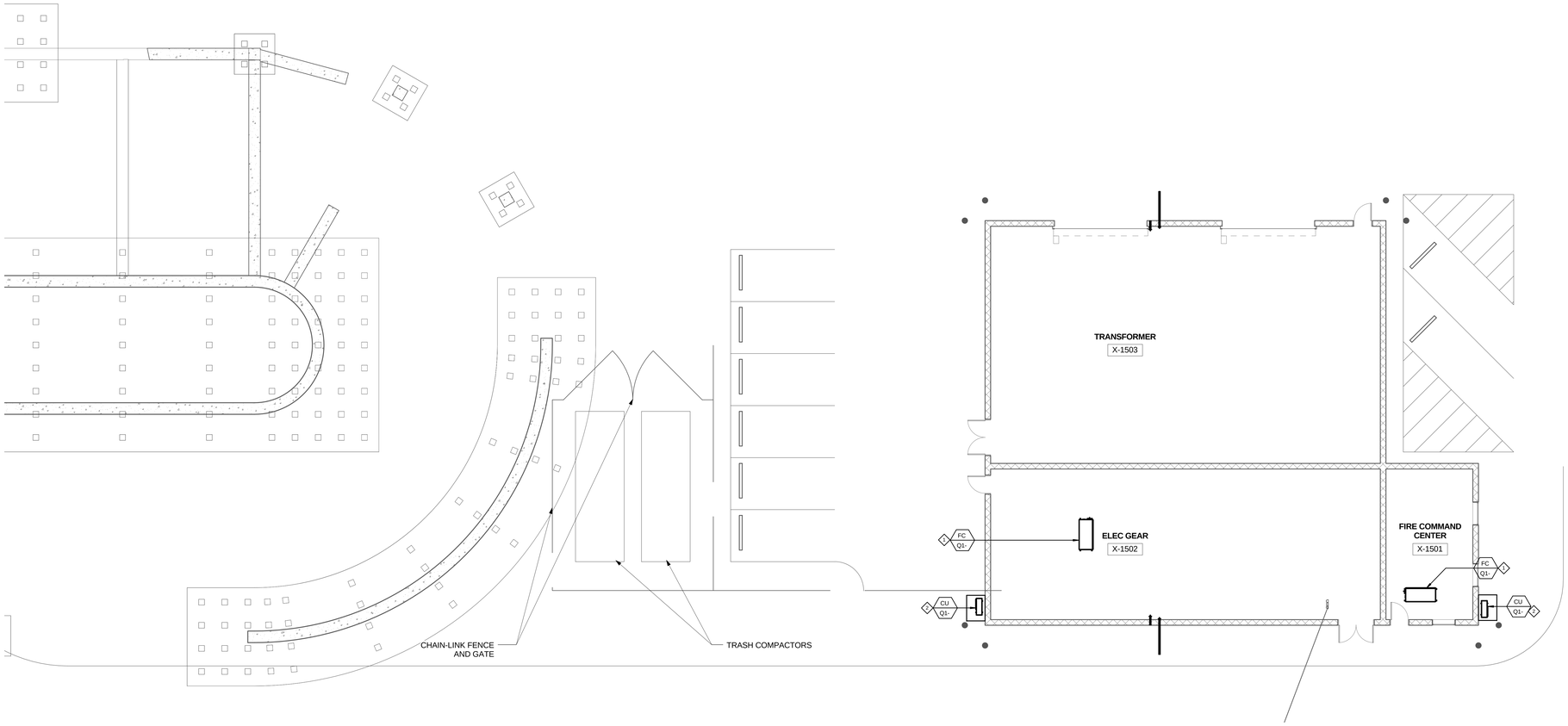
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED DWP VAULT FLOOR PLAN
1/8" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Civil | Structural | MEP
3780 Kilroy Airport Way, Suite 150
Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

ELECTRICAL & FIRE COMMAND - LEVEL 1 ENLARGED PLAN

SHEET NO.

2-M-210

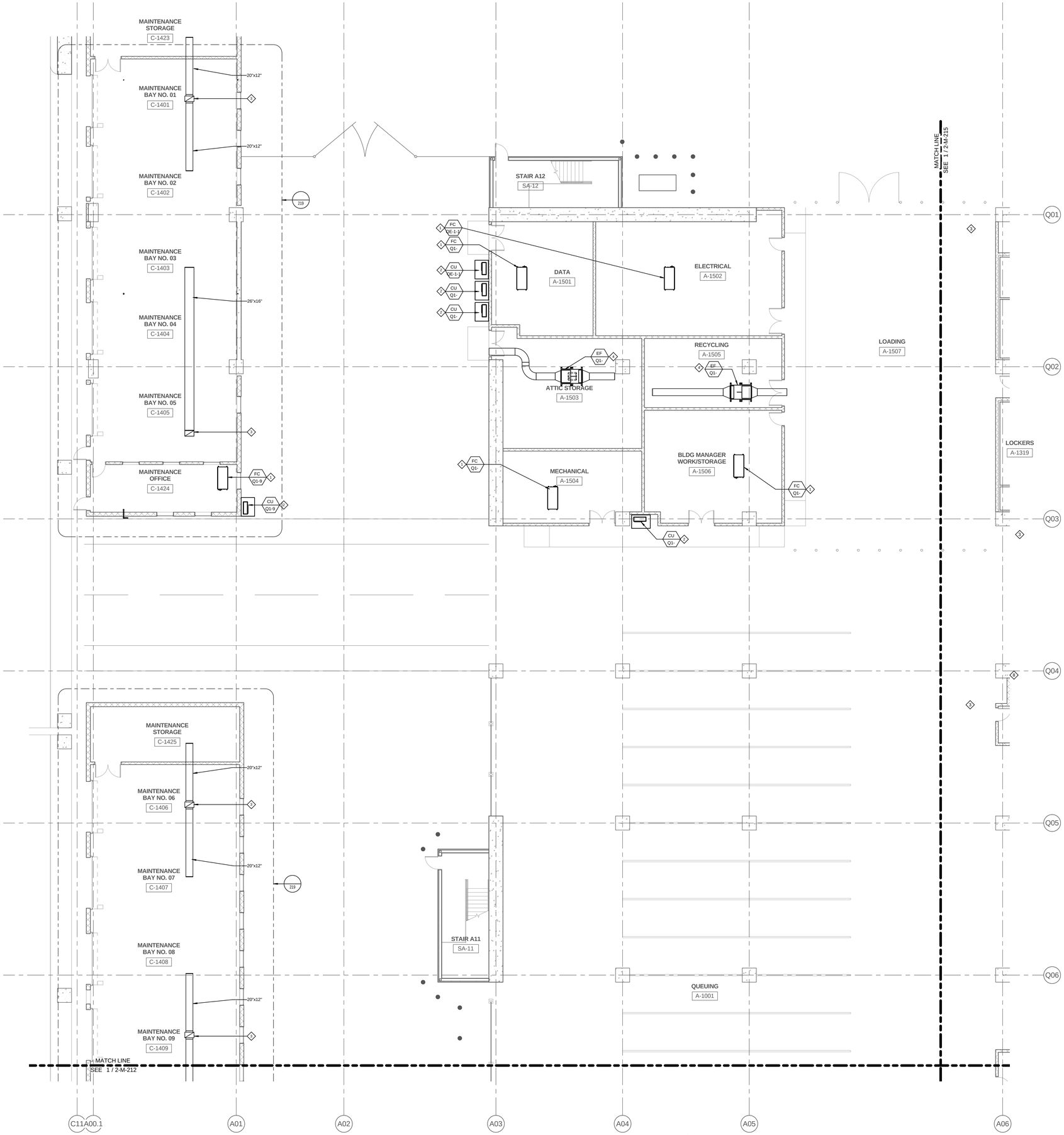
C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt
9/21/2016 4:01:00 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

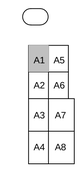
1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. 26"x16" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.
4. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART A1
1/8" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2030 Main Street, Suite 1470, Irvine, CA 92614
T 949.809.0500 F 949.809.0520 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

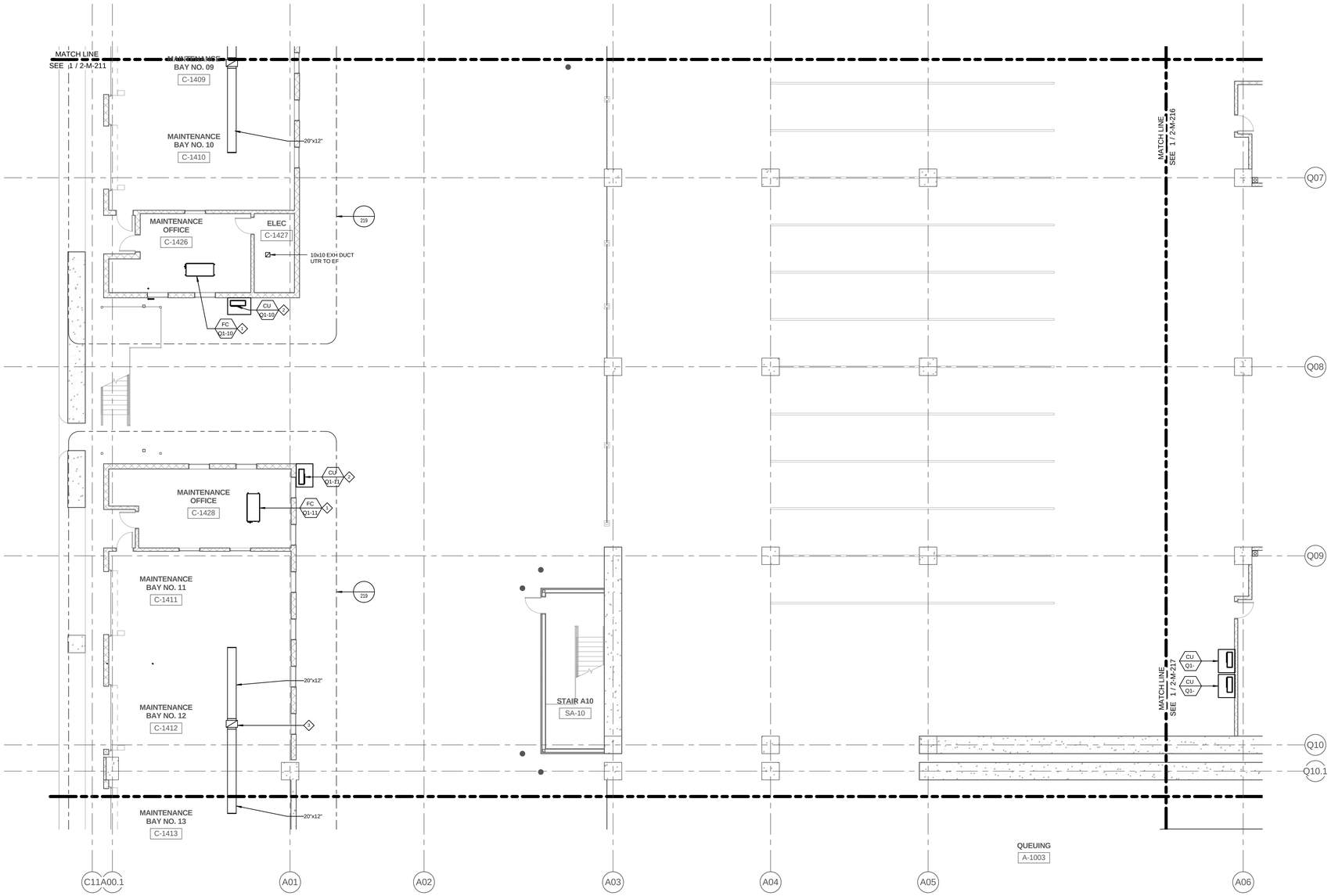
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:
QTA LEVEL 1 ENLARGED PLAN - PART A1

SHEET NO.
2-M-211

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\myl\Documents\MP-DA4881-BLDG_A_B-R15_myl@pbsengineers.com.rvt
9/21/2016 4:03:01 PM



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. 26"x16" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2030 Main Street, Suite 1300
Irvine, CA 92614
T 949.809.0500
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A2

SHEET NO.

2-M-212

BUILDING A & B KEYPLAN

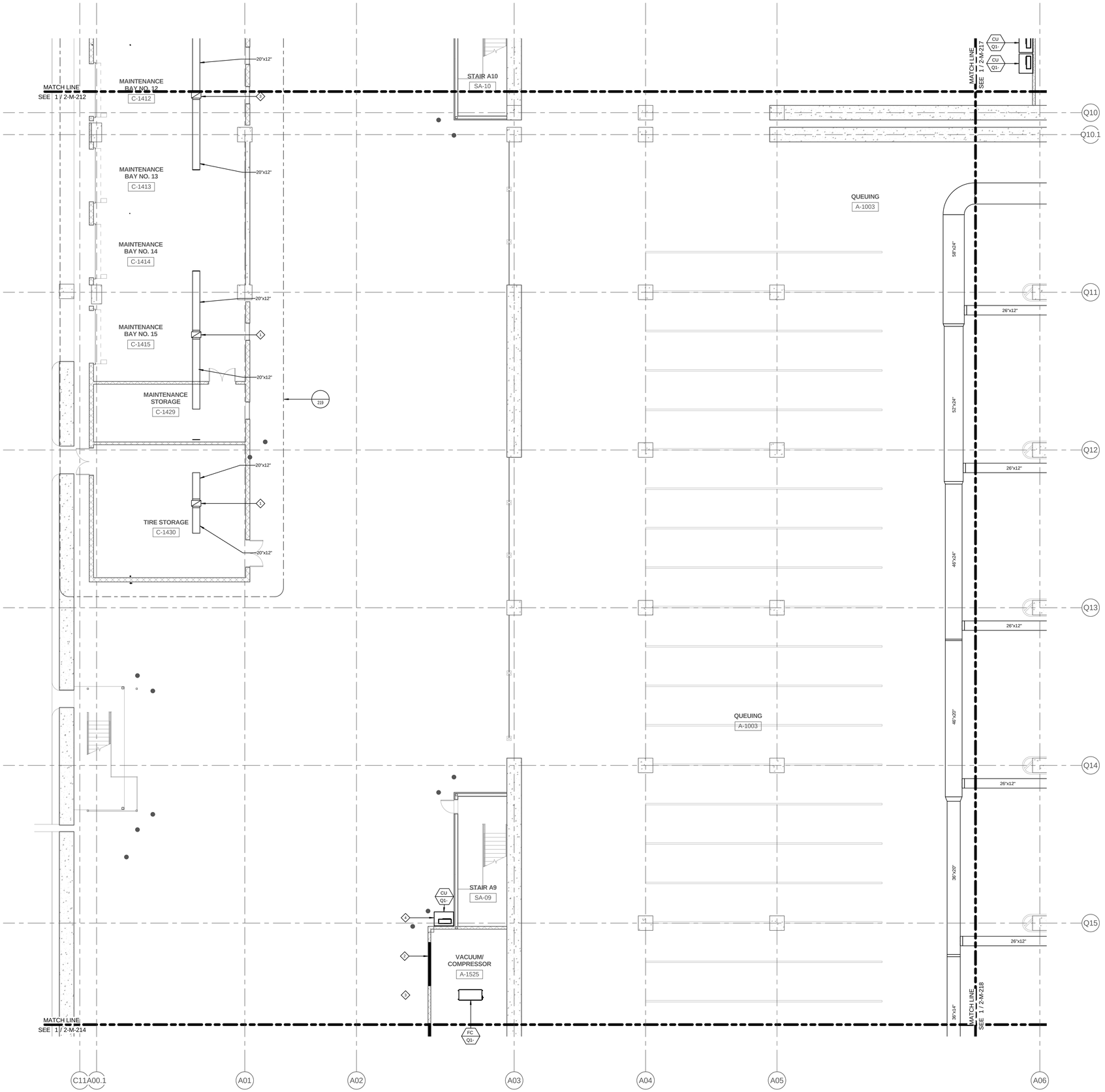
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\mvy\Documents\MP-DA4881-BLDG_A_B-R15_mvy@pbsengineers.com.rvt

9/21/2016 4:01:03 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. 26"x16" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.
2. WALL MOUNTED MAKEUP AIR 10'x3' LOUVER.
3. CEILING MOUNTED FANCOIL UNIT. SUPPORTED FROM STRUCTURE ABOVE.
4. OUTDOOR CONDENSING UNIT ON PLATFORM.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2030 Main Street, Ste. 1470, Irvine, CA 92614
T 949.809.0006 F 949.809.0010
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK:	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A3

SHEET NO.

2-M-213

A1	A5
A2	A6
A3	A7
A4	A8

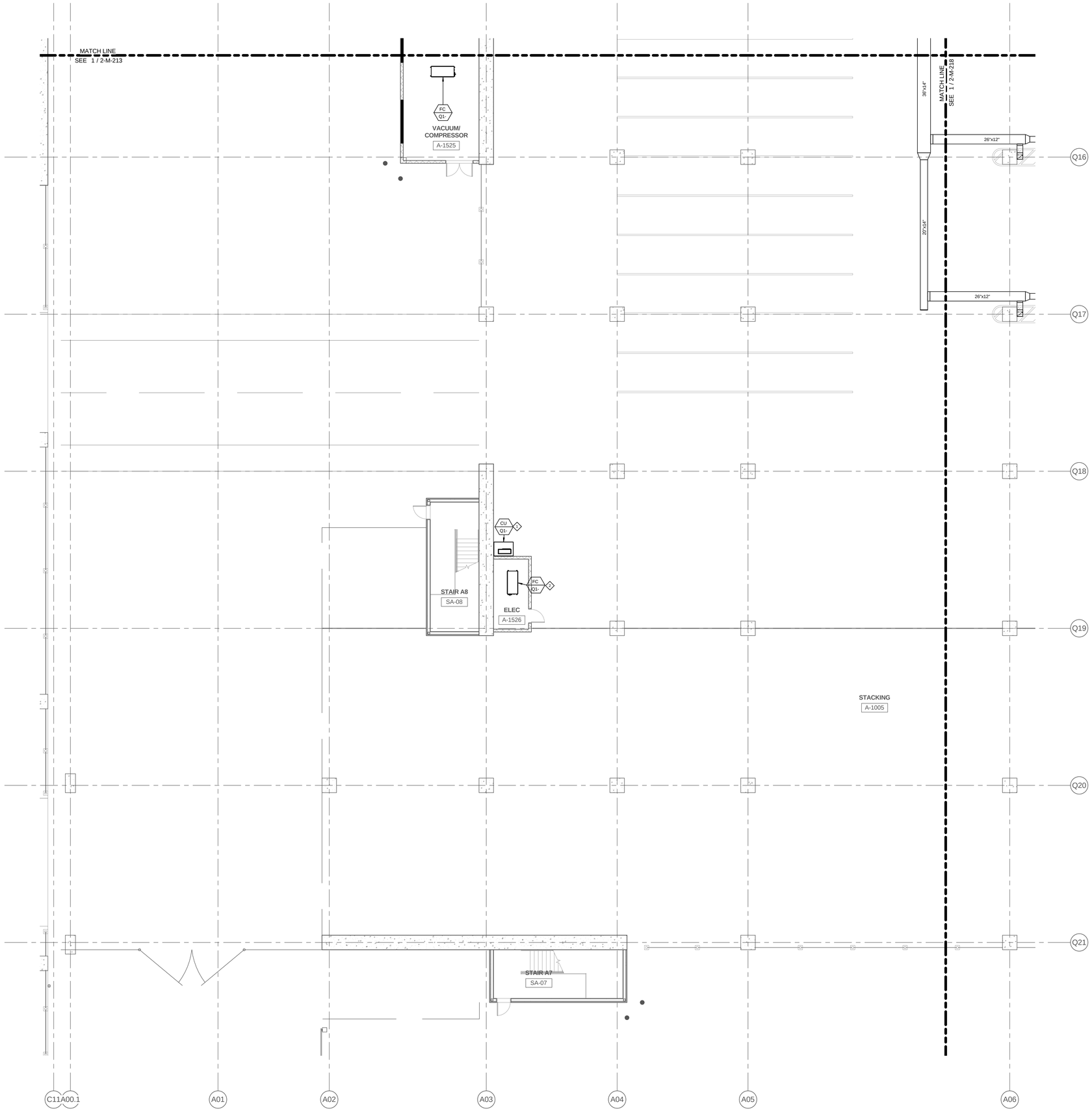
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:01:05 PM



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. --

KEY NOTES

1. CEILING MOUNTED FANCOIL UNIT, SUPPORTED FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 210 Anaheim, CA 92806
T 714.939.0200 F 714.939.0201
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK:	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A4

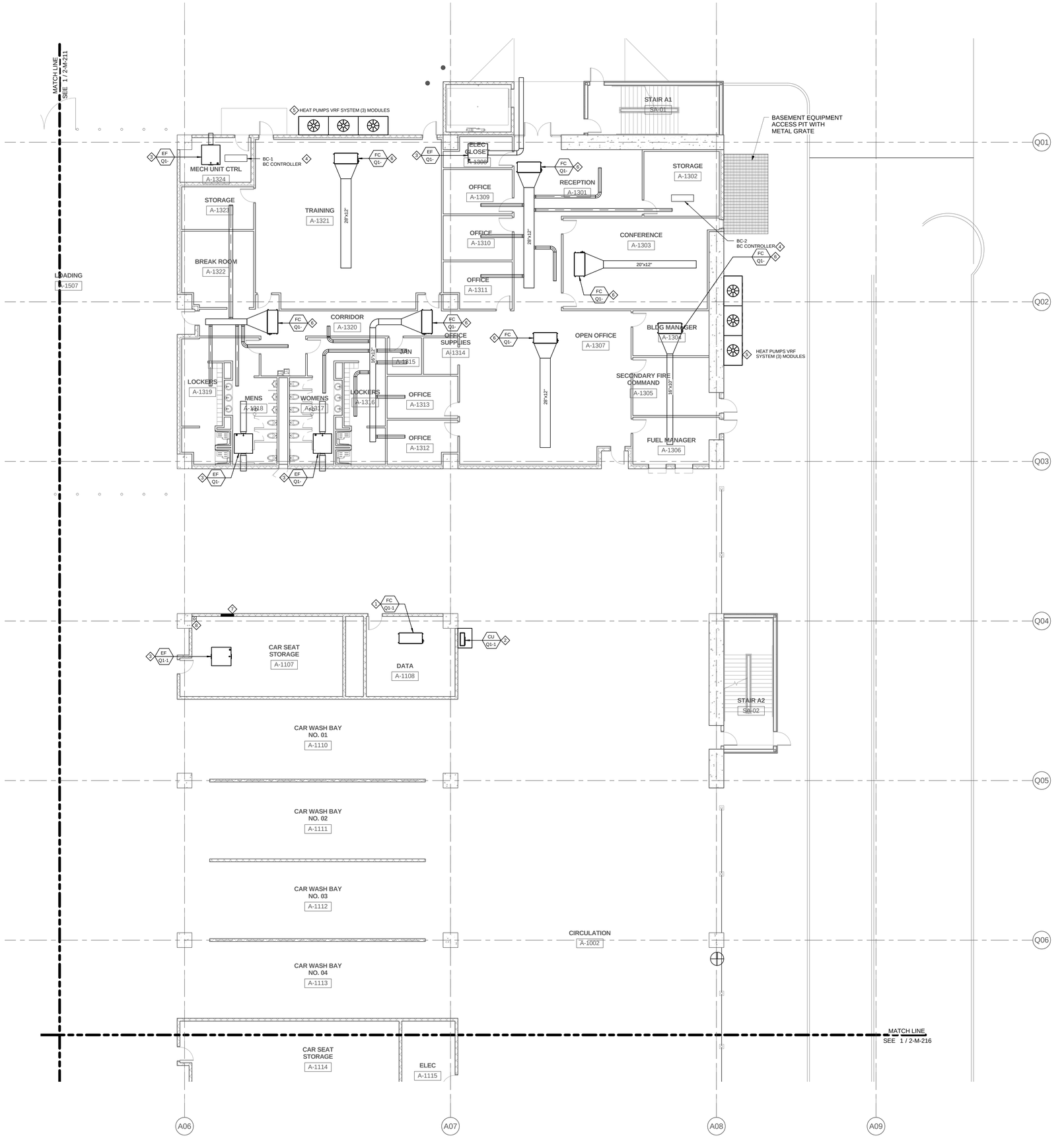
SHEET NO.

2-M-214

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:03:08 PM



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPORT FROM STRUCTURE ABOVE.
4. CEILING MOUNTED MAIN BC CONTROLLER. SUPPORT FROM STRUCTURE ABOVE.
5. OUTDOOR HEAT PUMP UNIT VARIABLE REFRIGERANT FLOW HEAT RECOVERY SYSTEM ON PLATFORM.
6. CEILING MOUNTED FAN COIL UNIT VRF SYSTEM. SUPPORT FROM STRUCTURE AVOVE. CONNECT REFRIGERANT LINES TO THE MAIN BC CONTROLLER. SEE PLUMBING DRAWINGS FOR CONDENSATE DRAIN.
7. WALL MOUNTED LOUVER FOR MAKEUP AIR.
8. DRYER VENT STRAIGHT UP TO THE ROOF.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 410
Anaheim, CA 92806
T 714.939.1030
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:
QTA LEVEL 1 ENLARGED PLAN - PART A5

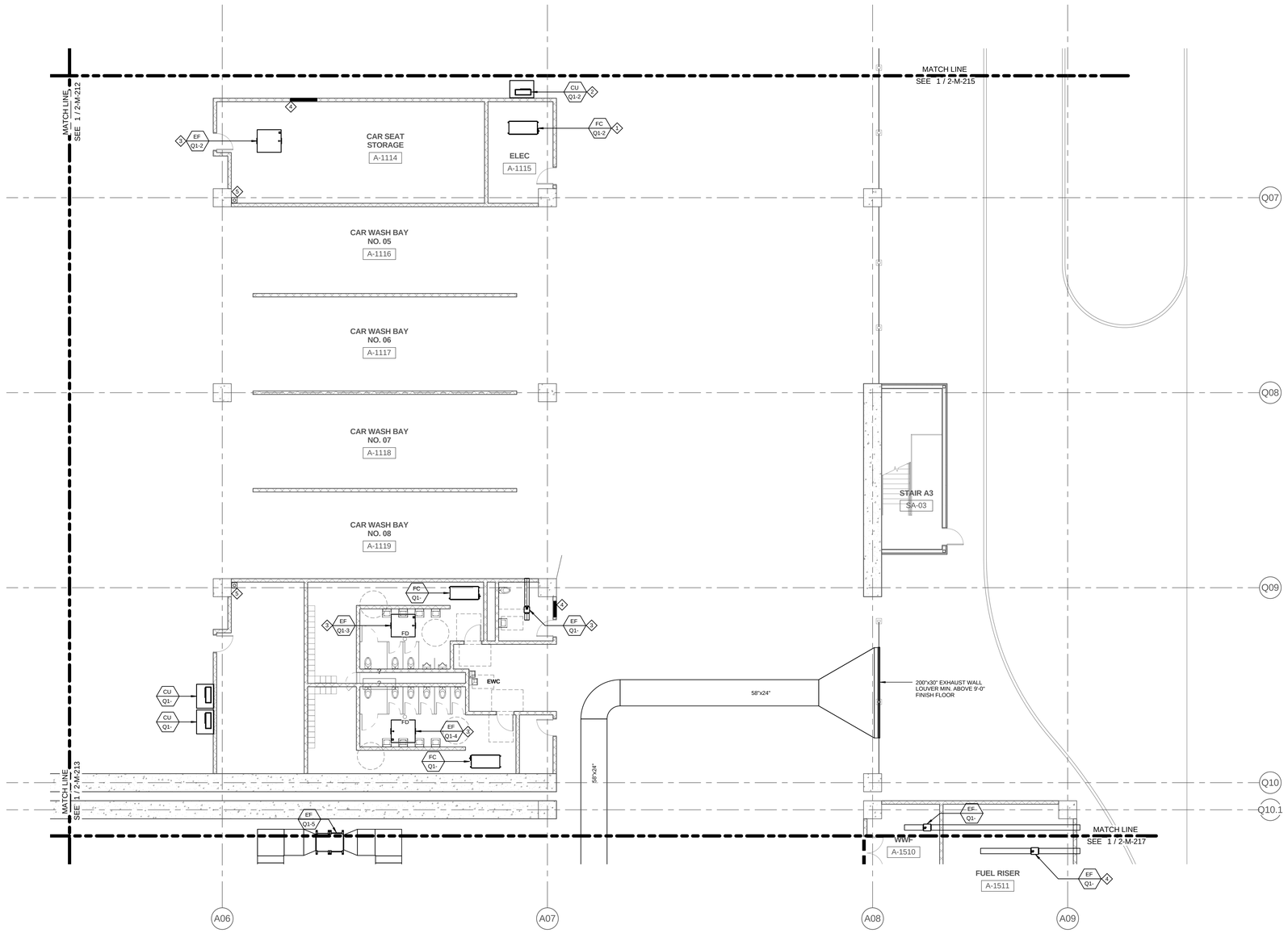
SHEET NO.
2-M-215

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8
B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\nvp\Documents\MP-DA4881-BLDG_A_B-R15_nvp@pbsengineers.com.rvt
9/21/2016 4:03:19 PM



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART A6
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.
4. WALL MOUNTED LOUVER FOR MAKEUP AIR.
5. DRYER VENT STRAIGHT UP TO THE ROOF.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
P.&A.#20020321
3780 Kilroy Airport Way, Suite 600
Long Beach, CA 90806
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO.	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 1
ENLARGED PLAN -
PART A6

SHEET NO.

2-M-216

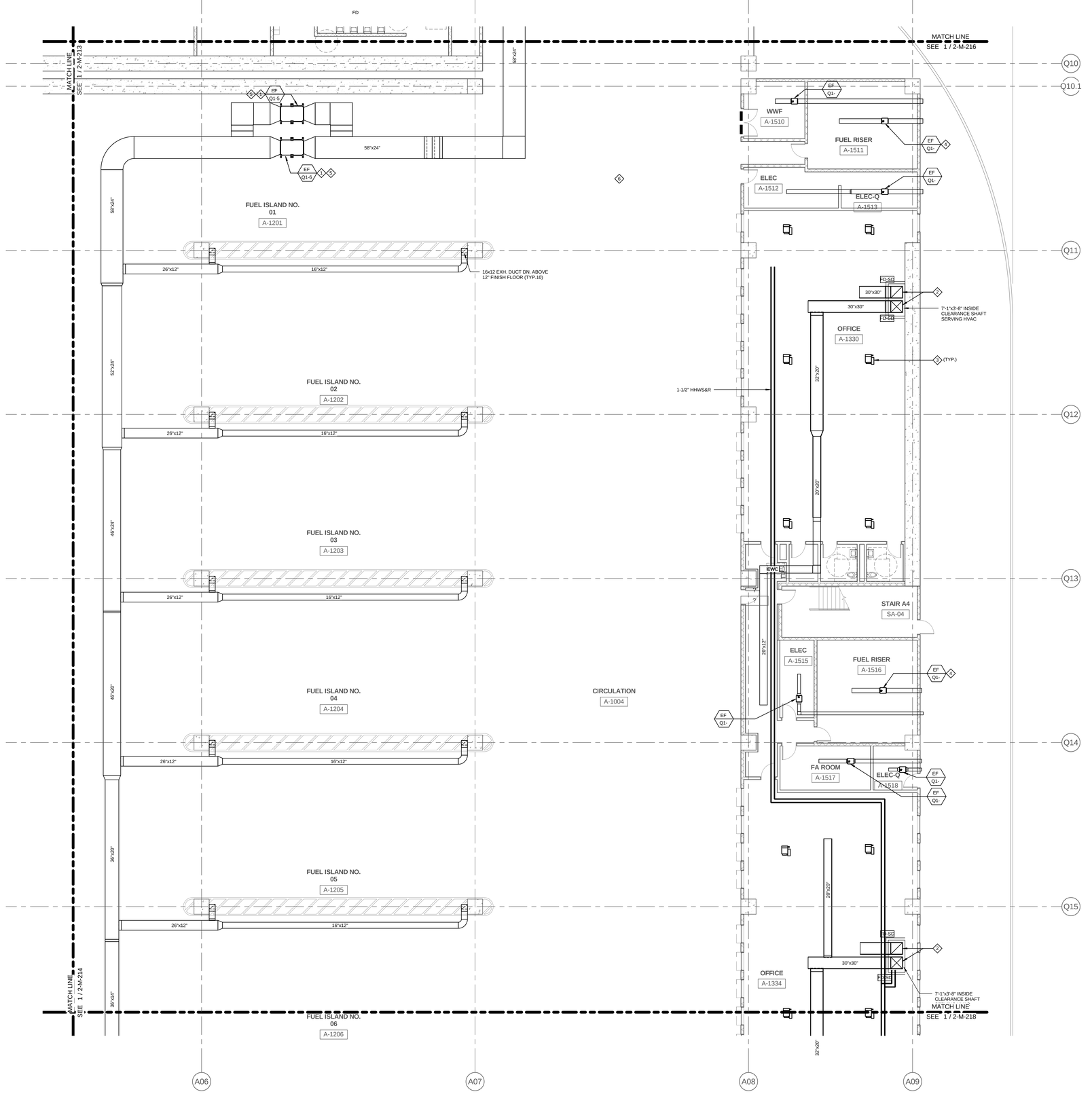
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:01:14 PM C:\Users\mfy\Documents\MP-DA4881-BUDG_A_B-R15_mfy@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART A7
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.
2. 30"x30" SUPPLY AND RETURN AIR DUCTS UP INSIDE SHAFT THRU LEVELS 2, 3 AND ROOF. OFFSET DUCTS ON ROOF TO AIR CONDITIONING UNITS.
3. VARIABLE AIR VOLUME TERMINAL BOX WITH OR WITHOUT REHEAT COILS IS SHOWN FOR REFERENCE ONLY AND IS NOT IN SCOPE. VAV BOX WILL BE PROVIDED BY TENANT.
4. EXPLOSION PROOF/SPARK RESISTANCE MOTOR CONSTRUCTION FOR EXHAUST FAN.
5. EXHAUST FAN SERVING FUELING ISLAND MUST BE CONNECTED TO FUEL CONTROL PANEL.
6. 2'x3' LOUVER ON DOORS.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 400, Anaheim, CA 92806
T 714.939.1000 F 714.939.1010
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:	DESCRIPTION	DATE	MARK

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A7

SHEET NO.

2-M-217

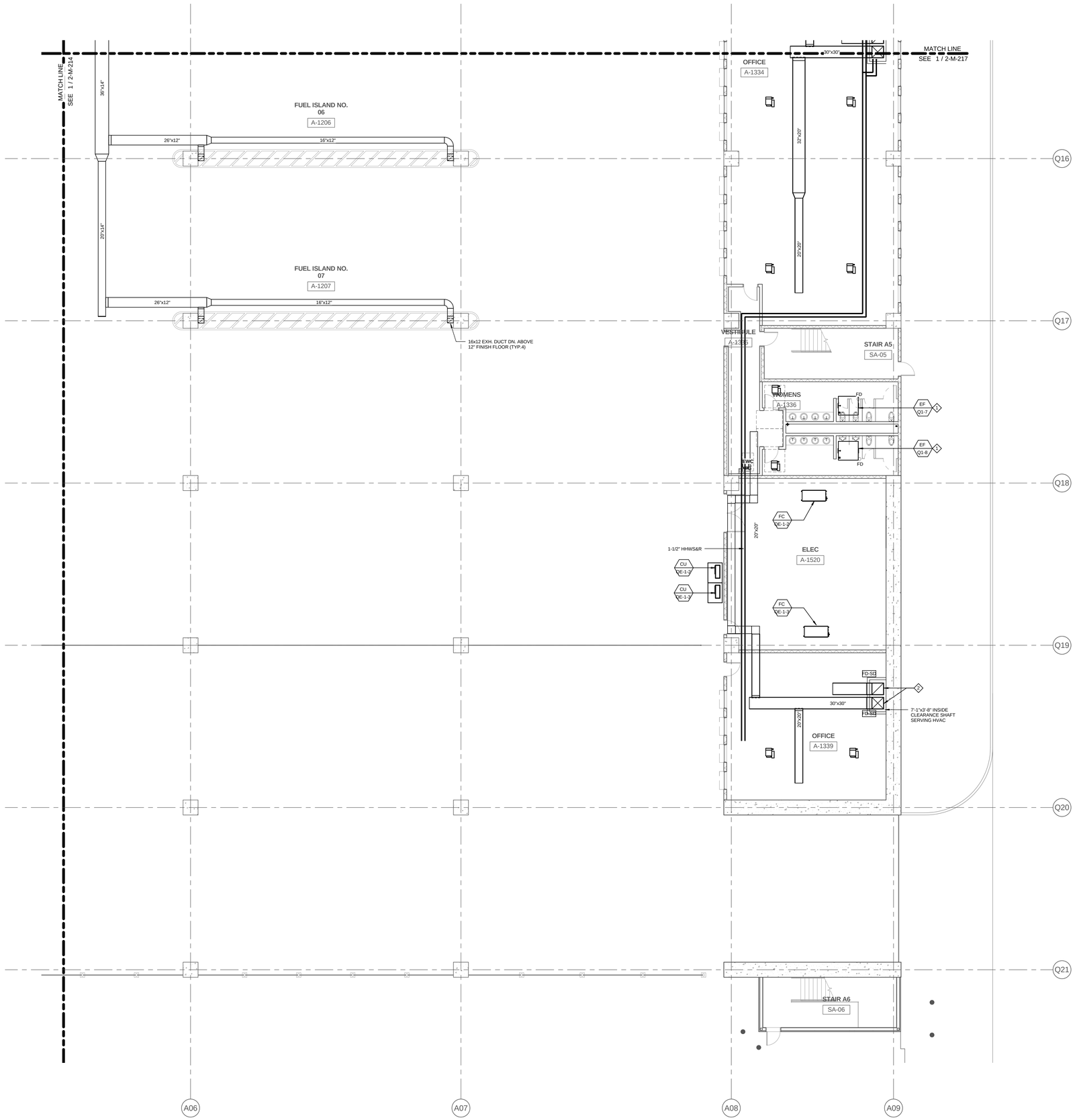
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:01:17 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART A8
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPORT FROM STRUCTURE ABOVE.
2. 30"x30" SUPPLY AND RETURN AIR DUCTS UP INSIDE SHAFT THRU LEVELS 2, 3 AND ROOF. OFFSET DUCTS ON ROOF TO AIR CONDITIONING UNITS.
3. VARIABLE AIR VOLUME TERMINAL BOX WITH OR WITHOUT REHEAT COILS IS SHOWN FOR REFERENCE ONLY AND IS NOT IN SCOPE. VAV BOX WILL BE PROVIDED BY TENANT.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 200
Long Beach, CA 90806
T 562.426.3355 F 562.490.2761
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK:	DESCRIPTION	DATE:

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A8

SHEET NO.

2-M-218

A1	A5
A2	A6
A3	A7
A4	A8

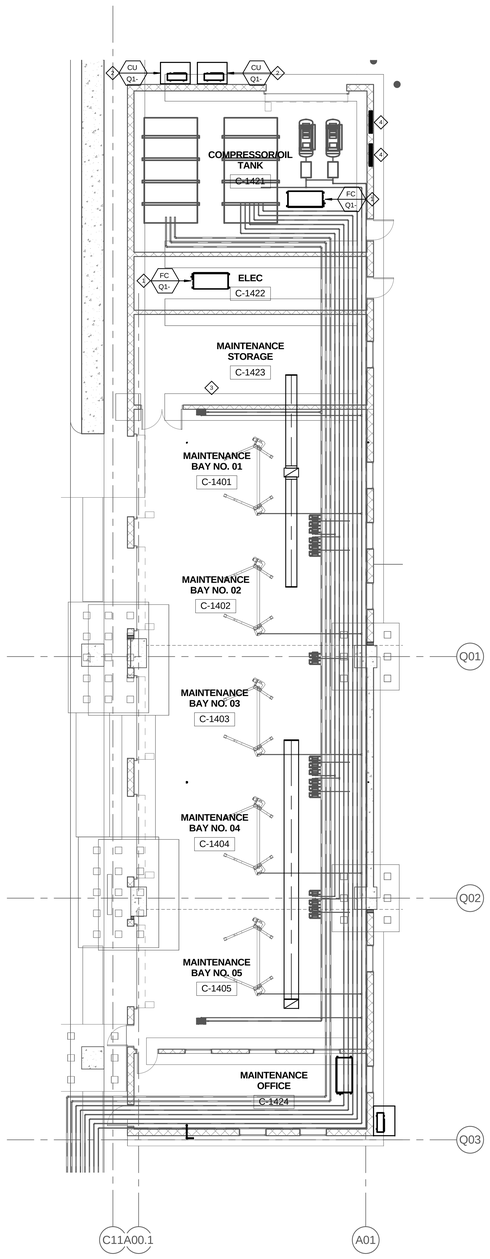
B1	B3
B2	B4

BUILDING A & B KEYPLAN

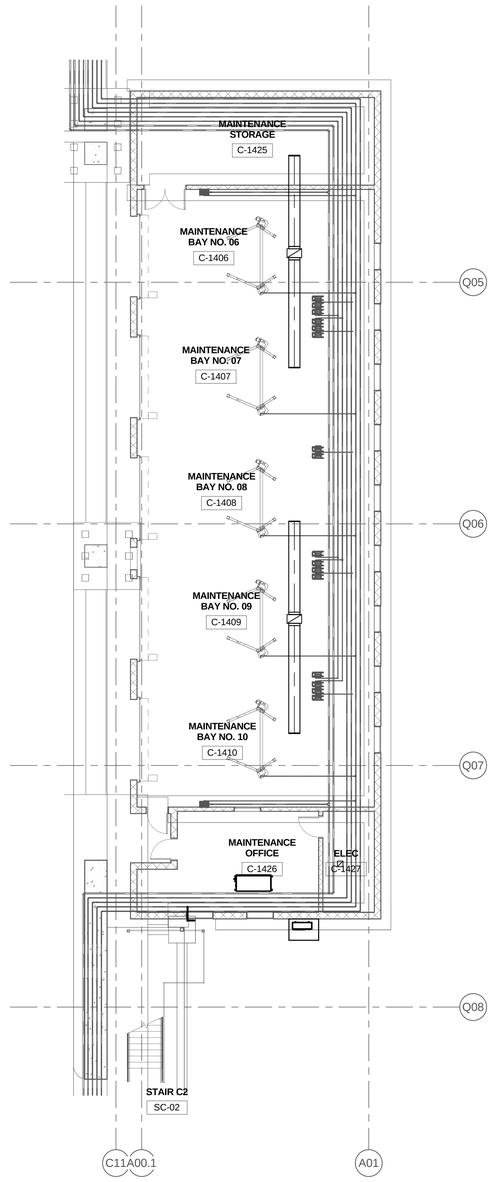
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:03:19 PM

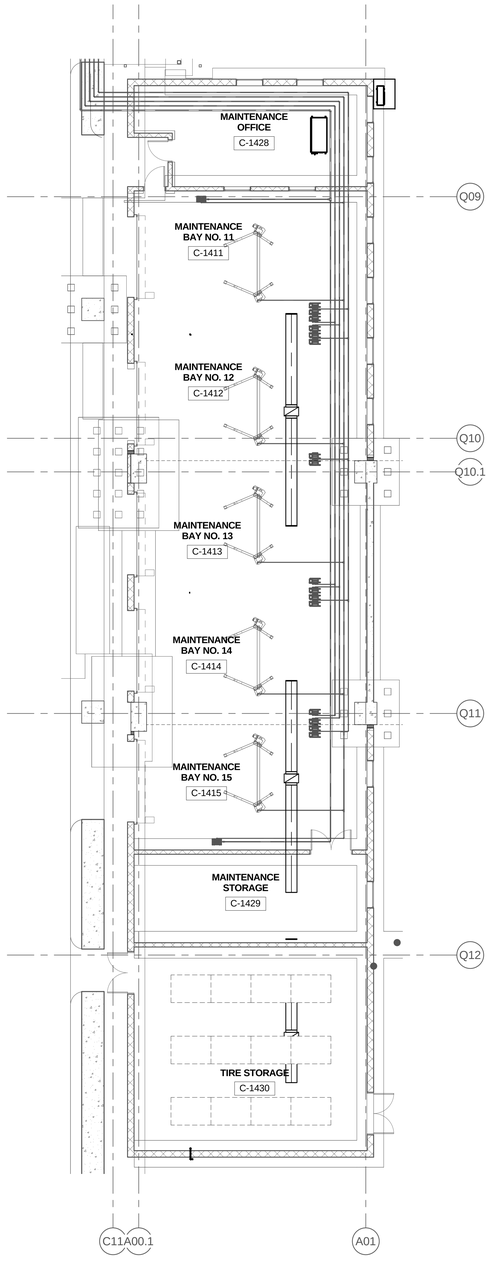
C:\Users\mjy\Documents\MP-DA4881-BLDG_A_B-R15_mjy@pbsengineers.com.rvt



1 BUILDING A - QTA - LEVEL 1 ENLARGED HVAC PLAN - MAINTENANCE NORTH
1/8" = 1'-0"



2 BUILDING A - QTA - LEVEL 1 ENLARGED HVAC PLAN - MAINTENANCE CENTER
1/8" = 1'-0"



3 BUILDING A - QTA - LEVEL 1 ENLARGED HVAC PLAN - MAINTENANCE SOUTH
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FANCOIL UNIT. SUPPORTED FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. 25"x16" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.
4. WALL MOUNTED LOUVER FOR MAKE UP AIR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2100 East Busch St., Ste 101 Ontario, CA 91761
T 626.650.0556 F 626.650.0551
T 626.650.0556 F 626.650.0551
Mechanical Electrical Plumbing Commissioning Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - MAINTENANCE

SHEET NO.

2-M-219

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

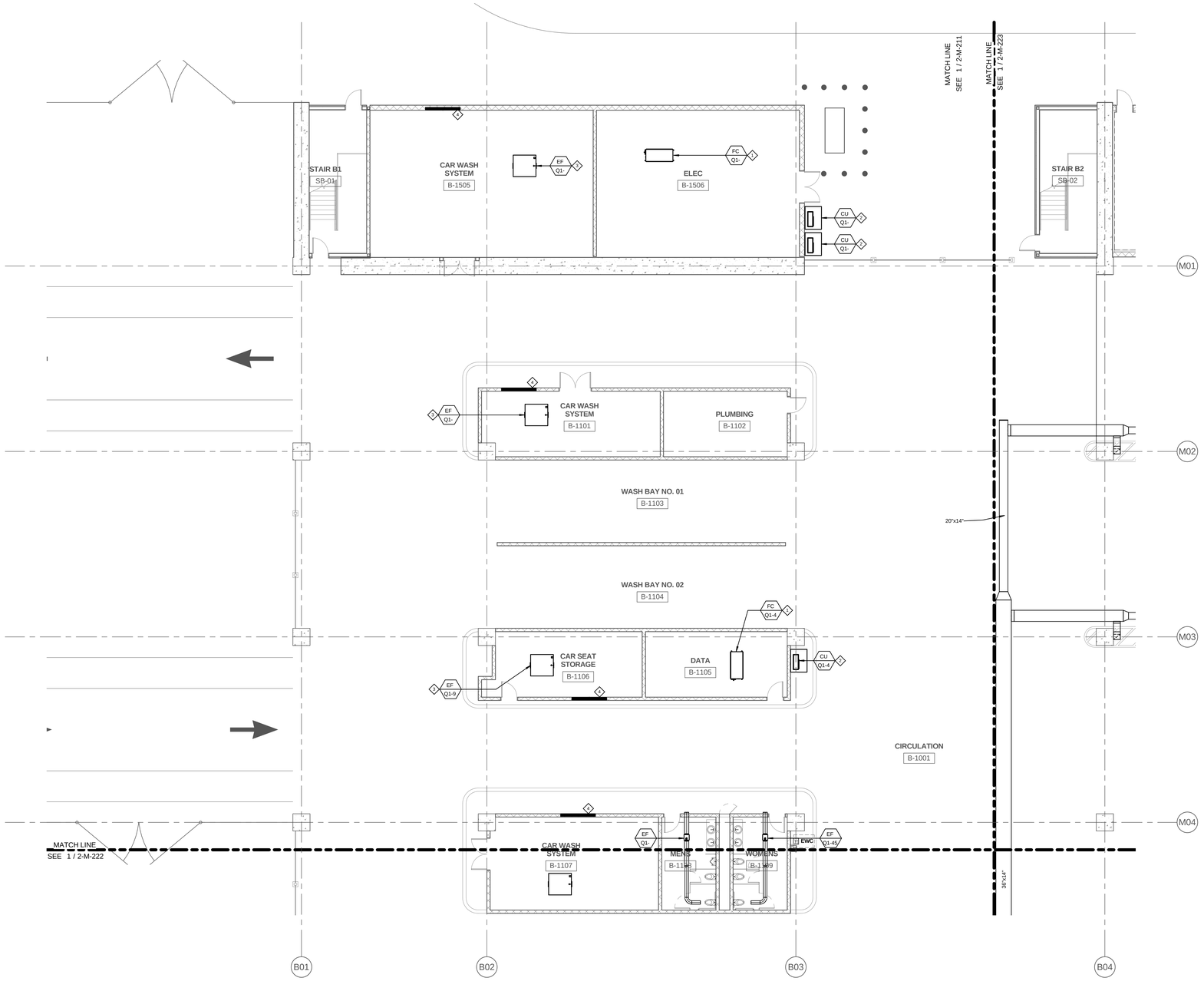
C:\Users\mhv\Documents\MP-DA4881-BLDG_A_8-R15_mhv@pbsengineers.com.rvt
9/21/2016 4:01:22 PM

GENERAL NOTES

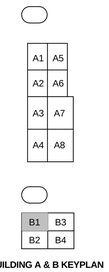
1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPORT FROM STRUCTURE ABOVE.
4. WALL MOUNTED LOUVER FOR MAKEUP AIR.
5. DRYER VENT STRAIGHT UP TOP ROOF



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART B1
1/8" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.3355 F 562.490.2761
Electrical Mechanical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4B81
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART B1

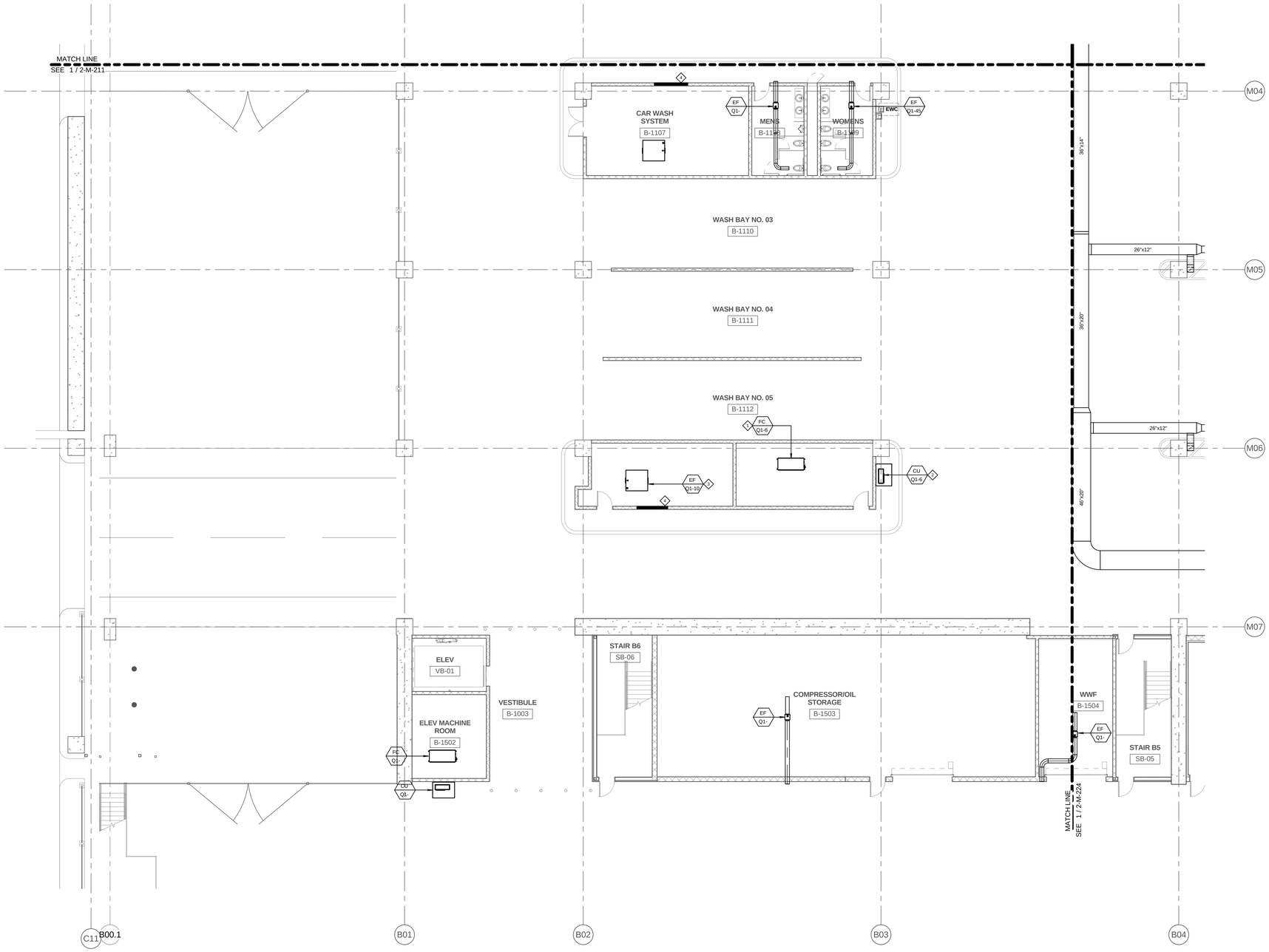
SHEET NO.

2-M-221

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\nvh\Documents\MP-DA4B81-BLDG_A_B-R15_nvh@pbsengineers.com.rvt

9/23/2016 4:01:25 PM



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART B2
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPORT FROM STRUCTURE ABOVE.
4. WALL MOUNTED LOUVER TO PROVIDE MAKE UP AIR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.427.0190
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART B2

SHEET NO.

2-M-222

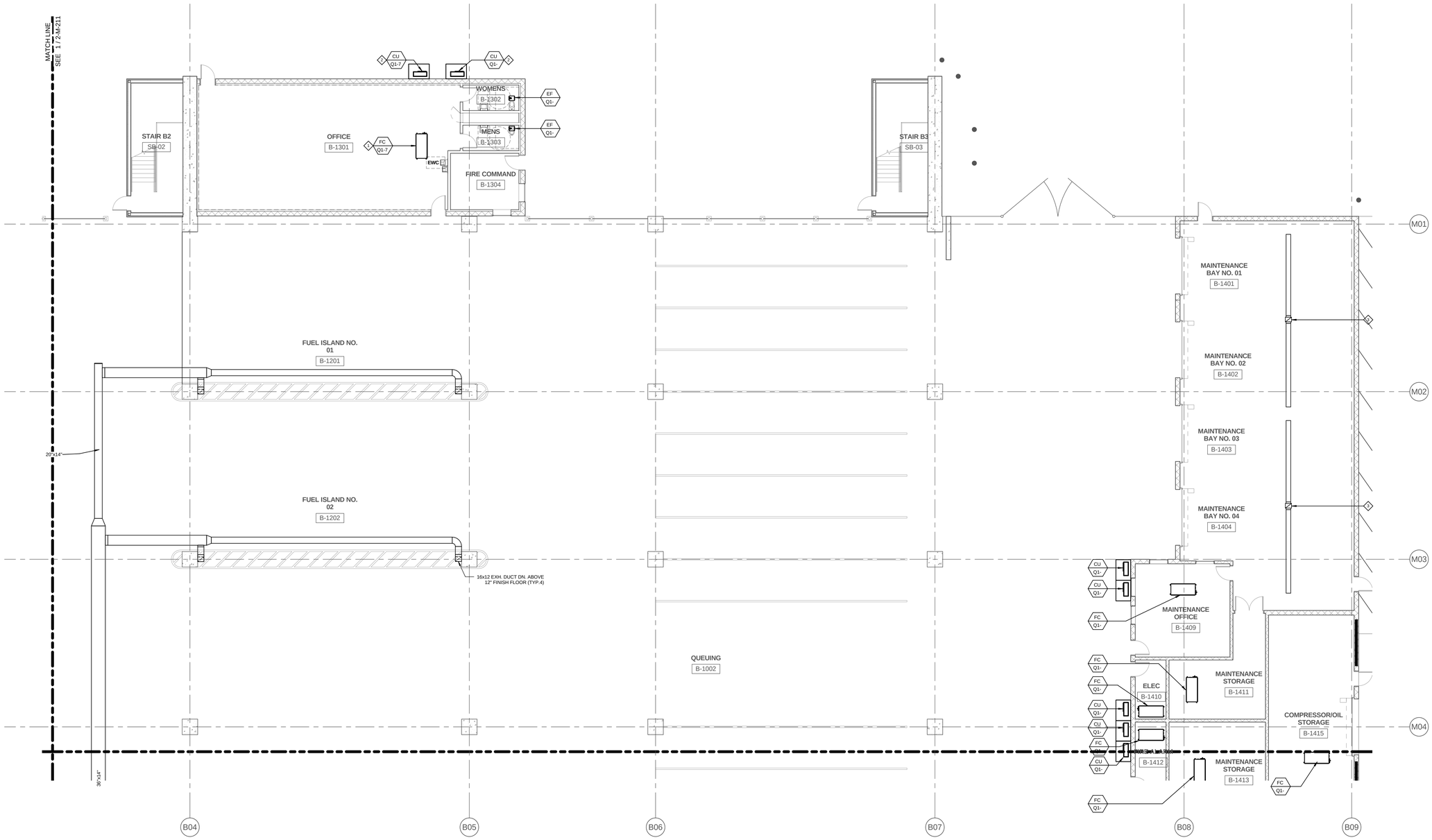
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:01:28 PM C:\Users\mh\Documents\MP-DA4881-BUDG_A_B R15_-mh@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART B3
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. 16"x12" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3760 Kilroy Airport Way, Suite 210, Long Beach, CA 90806
T 562.426.8356 F 562.426.0232
Mechanical Electrical Plumbing / Controls Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:
QTA LEVEL 1 ENLARGED PLAN - PART B3

SHEET NO.
2-M-223

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

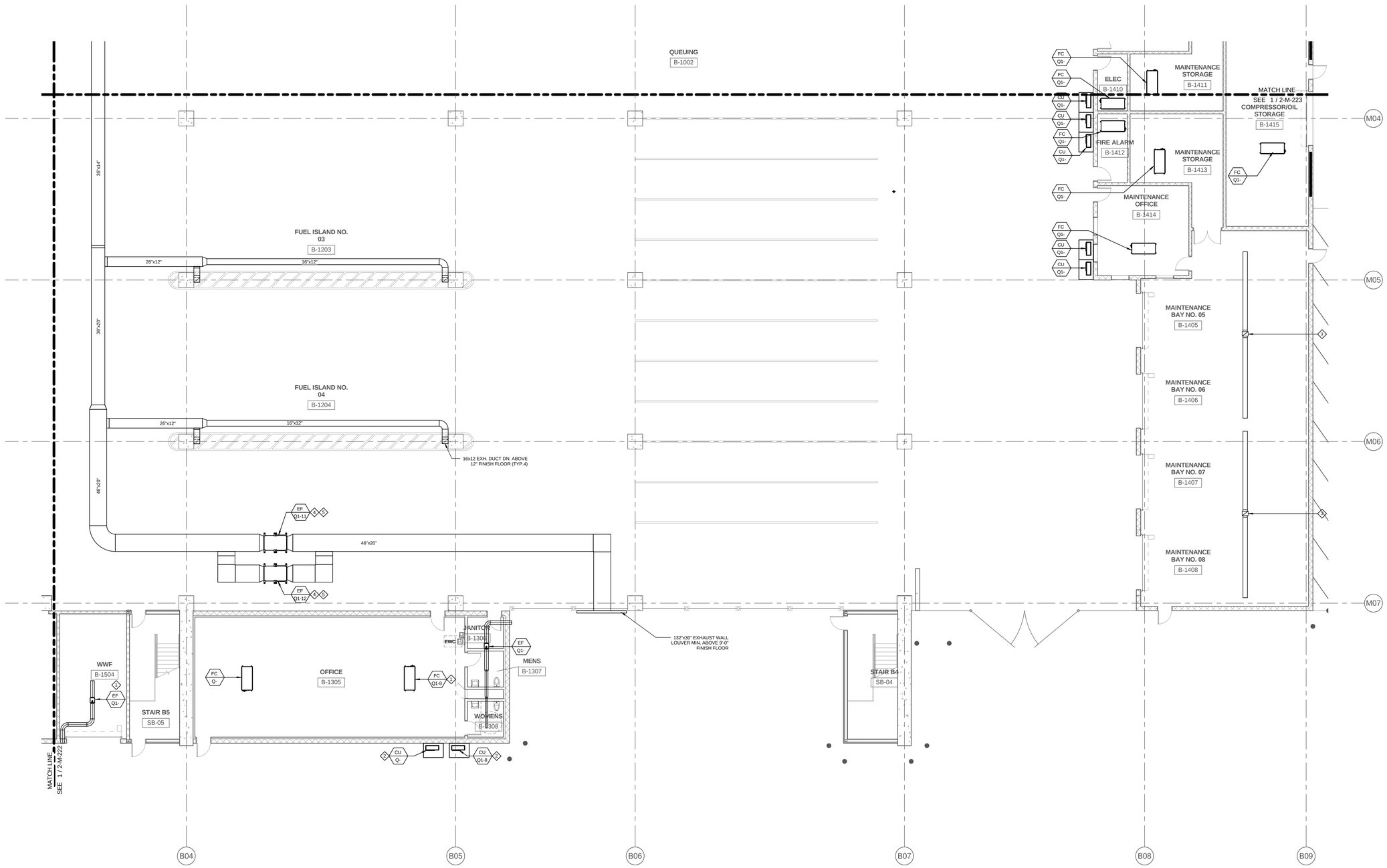
C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt
9/21/2016 4:01:30 PM

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. 16"x12" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.
4. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.
5. EXHAUST FAN SERVING FUELING ISLAND MUST BE INTERLOCKED WITH FUEL CONTROL PANEL.



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED HVAC PLAN - PART B4
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING + ENVIRONMENTAL
3760 Kilroy Airport Way, Suite 210, Long Beach, CA 90806
T 562.426.8356 F 562.426.0232
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:	DESCRIPTION	DATE	MARK

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

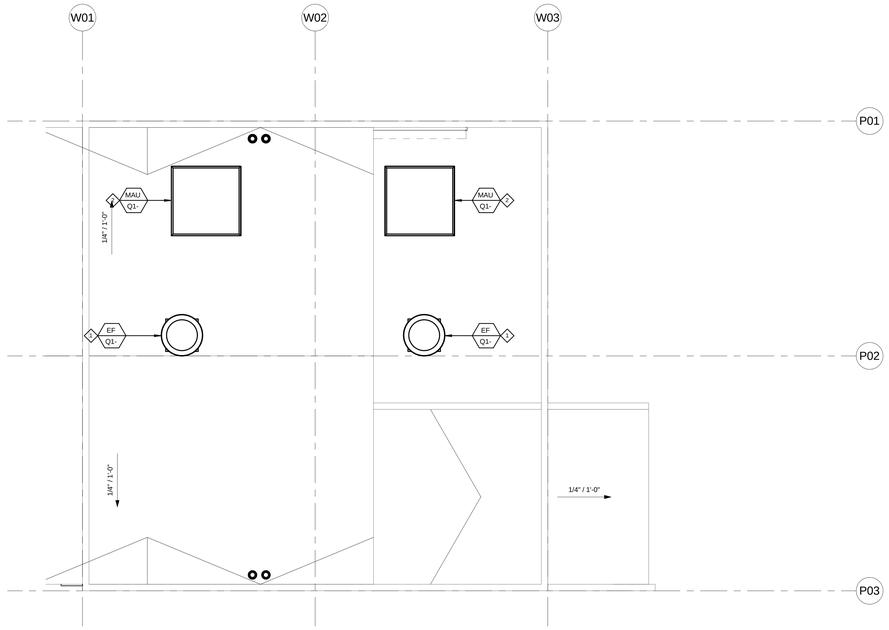
QTA LEVEL 1 ENLARGED PLAN - PART B4

SHEET NO.

2-M-224

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:01:34 PM



1 ELECTRICAL AND FIRE COMMAND - ENLARGED ROOF PLAN
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. FOR EXACT EQUIPMENT, PAD LOCATIONS AND SIZES, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
5. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION OR THREE (3) FEET ABOVE THE OUTSIDE-AIR INTAKES FOR HVAC UNITS.

KEY NOTES

1. UPBLAST ROOF MOUNTED EXHAUST FAN SERVING TRANSFORMER ROOM WITH PRE-FABRICATED ROOF CURB.
2. MAKE-UP AIR UNIT SERVING TRANSFORMER ROOM MOUNTED ON PRE-FABRICATED CURB.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 200
Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

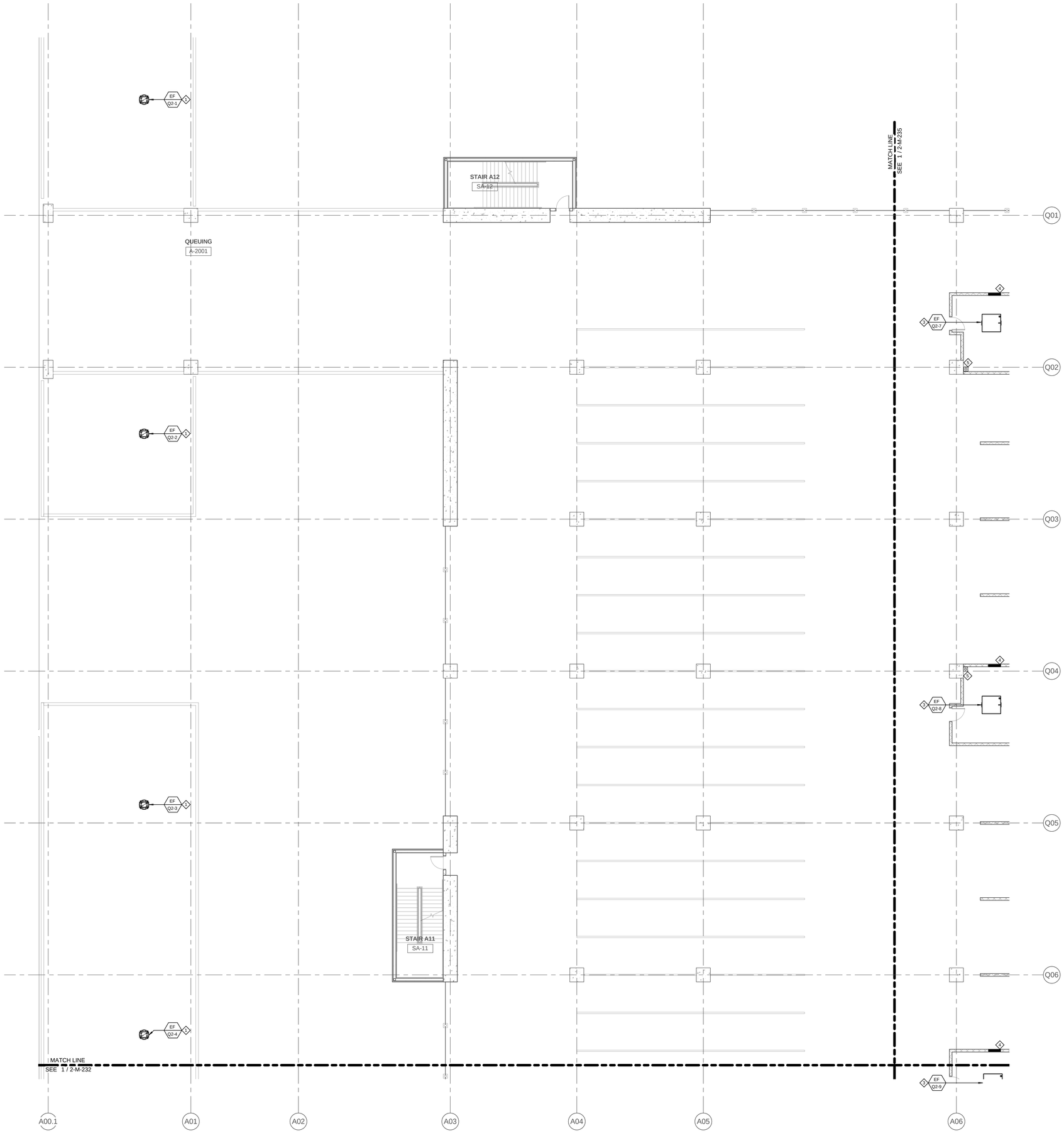
SHEET TITLE:

ELECTRICAL & FIRE COMMAND ENLARGED ROOF PLAN

SHEET NO.
2-M-230

9/21/2016 4:01:35 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART A1
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. FOR EXACT EQUIPMENT, PAD LOCATIONS AND SIZES, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
5. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION OR THREE (3) FEET ABOVE THE OUTSIDE-AIR INTAKES FOR HVAC UNITS.

KEY NOTES

1 ROOF MOUNTED EXHAUST FAN WITH PRE-FABRICATED ROOF CURB.

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8
B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
3780 Kilroy Airport Way, Suite 500
Long Beach, CA 90806
T 562.426.0200 F 562.426.0021
Mechanical Electrical Plumbing Fire Protection Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

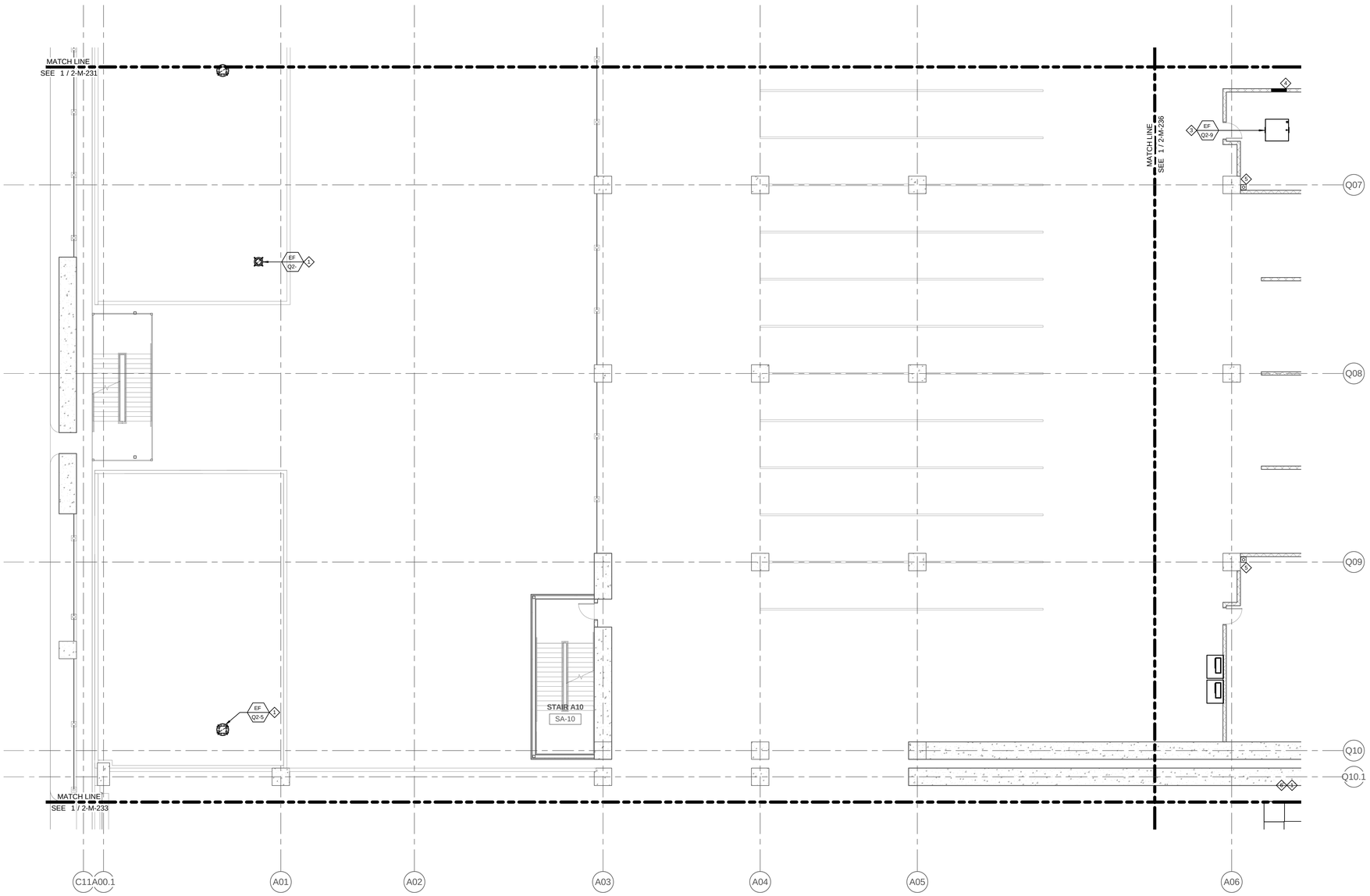
SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A1

SHEET NO.

2-M-231

C:\Users\mhy\Documents\MR-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt
9/12/2016 4:01:27 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. FOR EXACT EQUIPMENT, PAD LOCATIONS AND SIZES, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
5. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION OR THREE (3) FEET ABOVE THE OUTSIDE-AIR INTAKES FOR HVAC UNITS.

KEY NOTES

1 ROOF MOUNTED EXHAUST FAN WITH PRE-FABRICATED ROOF CURB.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
Civil | Structural | Mechanical | Electrical | Plumbing | Fire Protection
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.427.0190
Mechanical · Electrical · Plumbing | Covering Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO.	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

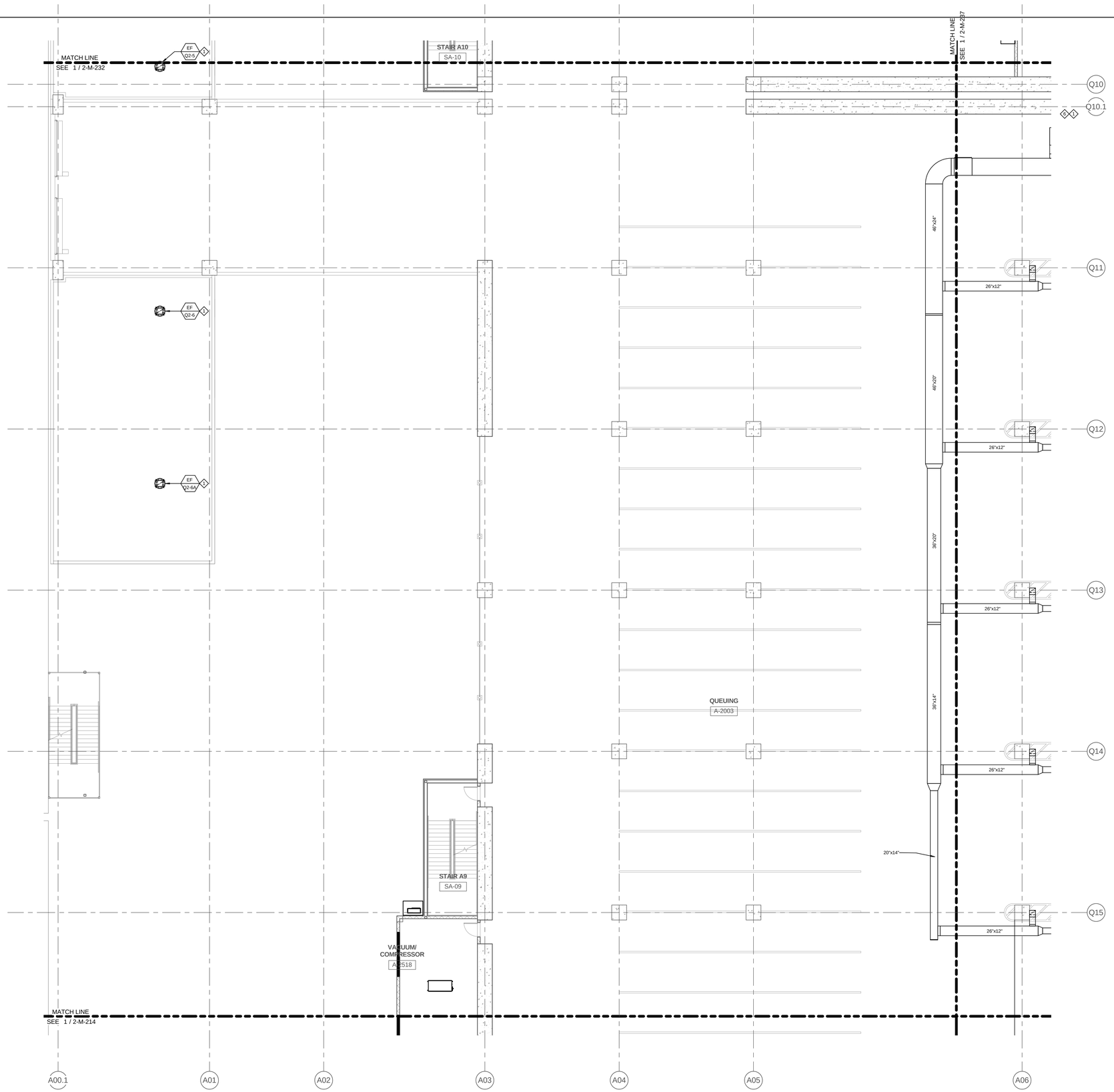
QTA LEVEL 2 ENLARGED PLAN - PART A2

SHEET NO.

2-M-232

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:01:39 PM C:\Users\mh\Documents\MP-DA4881-BUDC_A_R15_mh@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. FOR EXACT EQUIPMENT, PAD LOCATIONS AND SIZES, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
5. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION OR THREE (3) FEET ABOVE THE OUTSIDE-AIR INTAKES FOR HVAC UNITS.

KEY NOTES

1 ROOF MOUNTED EXHAUST FAN WITH PRE-FABRICATED ROOF CURB.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3760 Kilroy Airport Way, Suite 210 Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A3

SHEET NO.

2-M-233

A1	A5
A2	A6
A3	A7
A4	A8

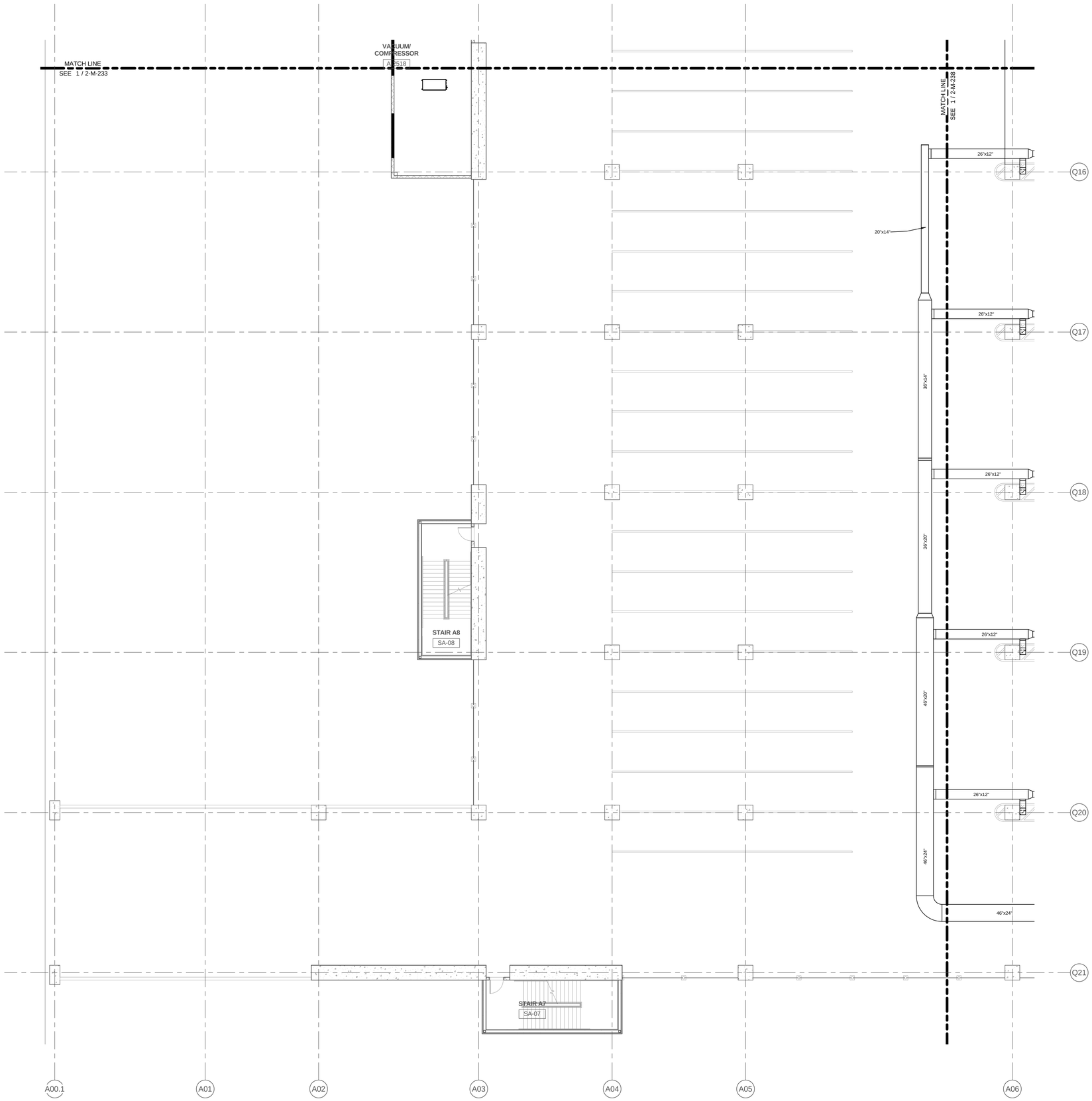
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mhy\Documents\IMP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt

9/21/2016 4:01:42 PM



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. --

KEY NOTES

1 --

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 510 Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A4

SHEET NO.

2-M-234

BUILDING A & B KEYPLAN

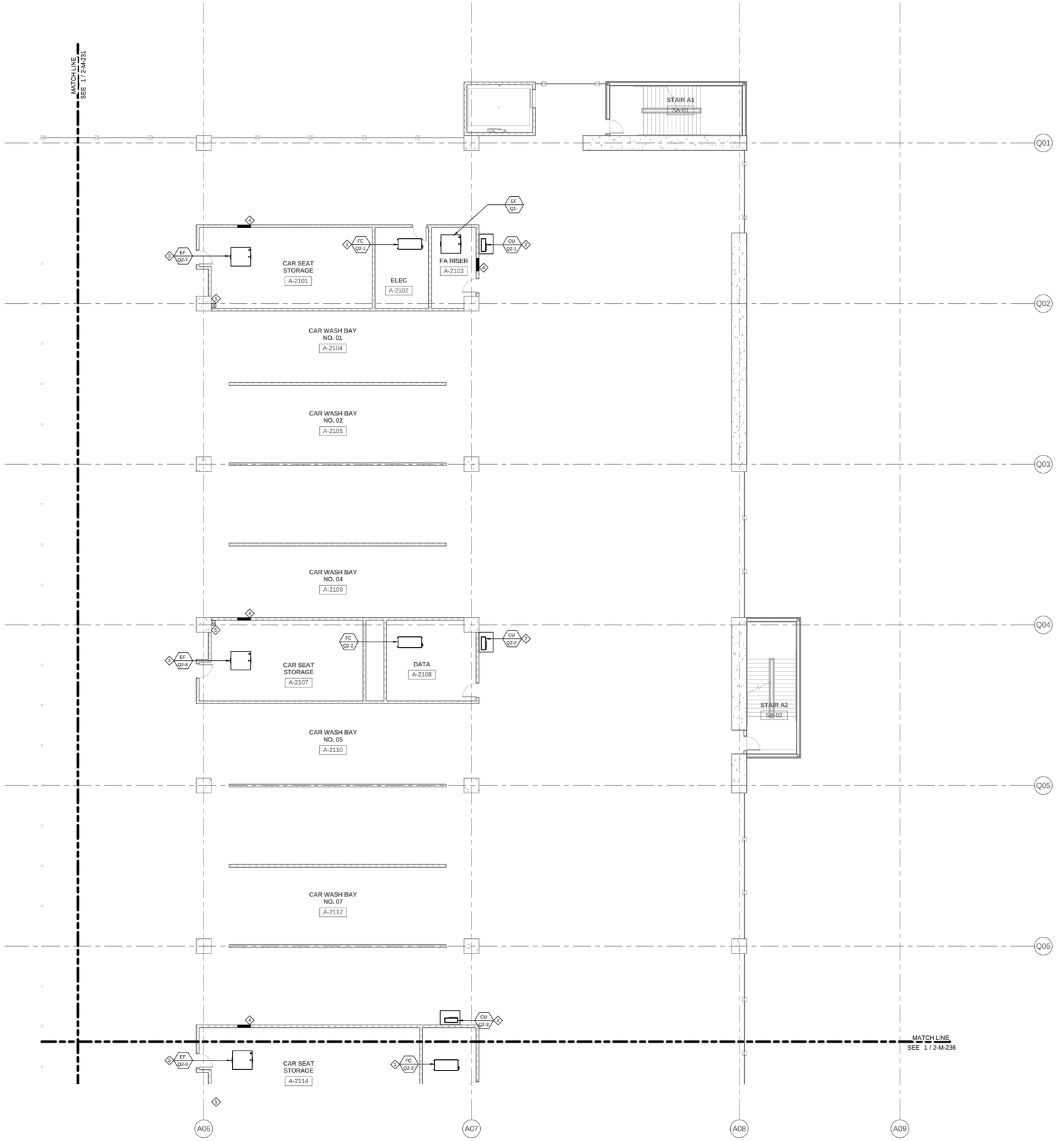
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mvy\Documents\MP-DA4881-BLDG_A_B-R15_mvy@pbsengineers.com.rvt

9/21/2016 4:01:44 PM



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.
4. PROVIDE WALL MOUNTED MAKEUP AIR LOUVER.
5. DRYER VENT STRAIGHT UP TO THE ROOF.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 200
Long Beach, CA 90806
T 562.426.8000 F 562.427.0130
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A5

SHEET NO.

2-M-235

A1	A5
A2	A6
A3	A7
A4	A8

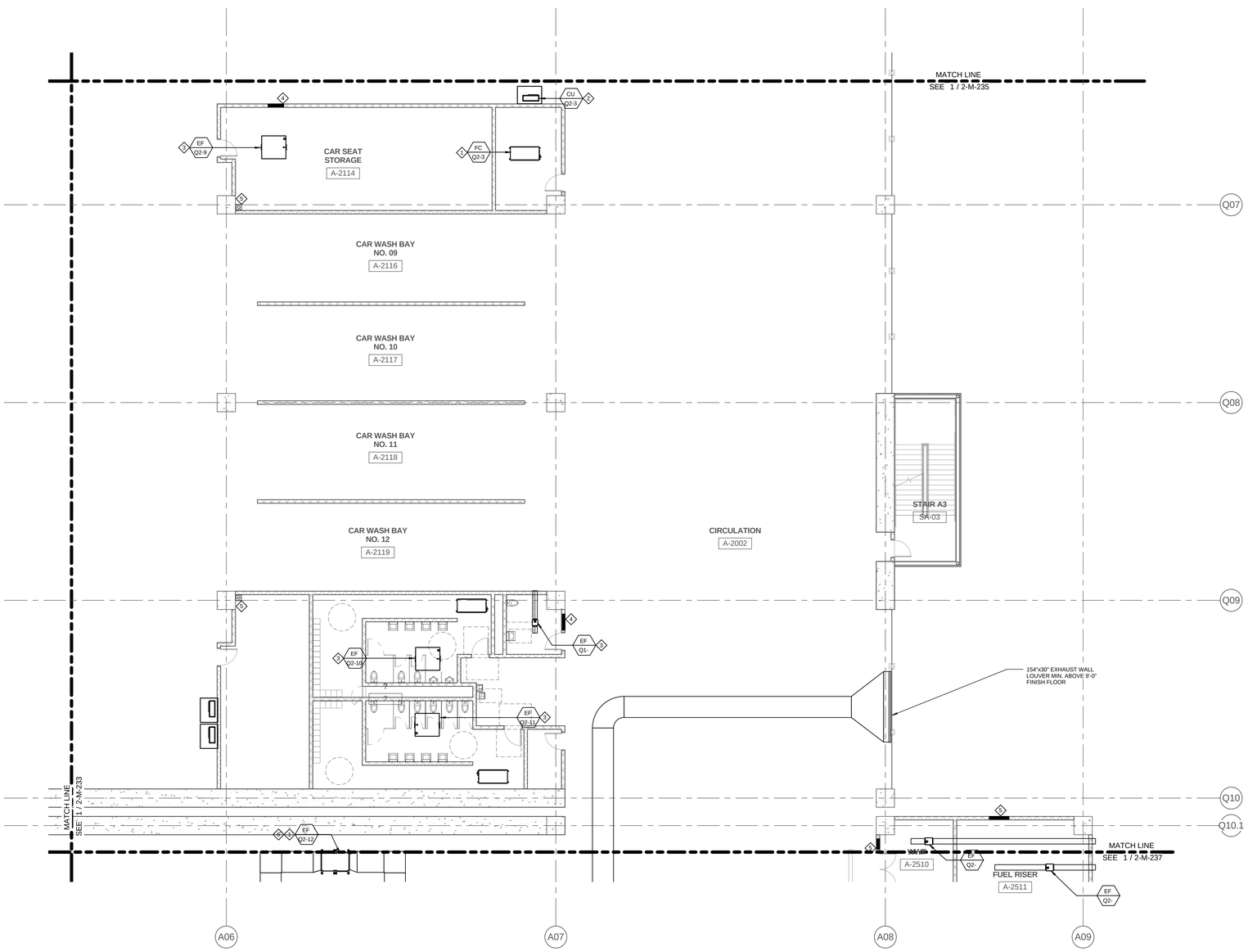
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:03:47 PM



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART A6
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.
4. WALL MOUNTED LOUVER FOR MAKEUP AIR.
5. DRYER VENT STRAIGHT UP TO THE ROOF.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 400 Anaheim, CA 92806
T 714.520.0335 F 714.520.0350
www.pbsengineers.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 2
ENLARGED PLAN -
PART A6

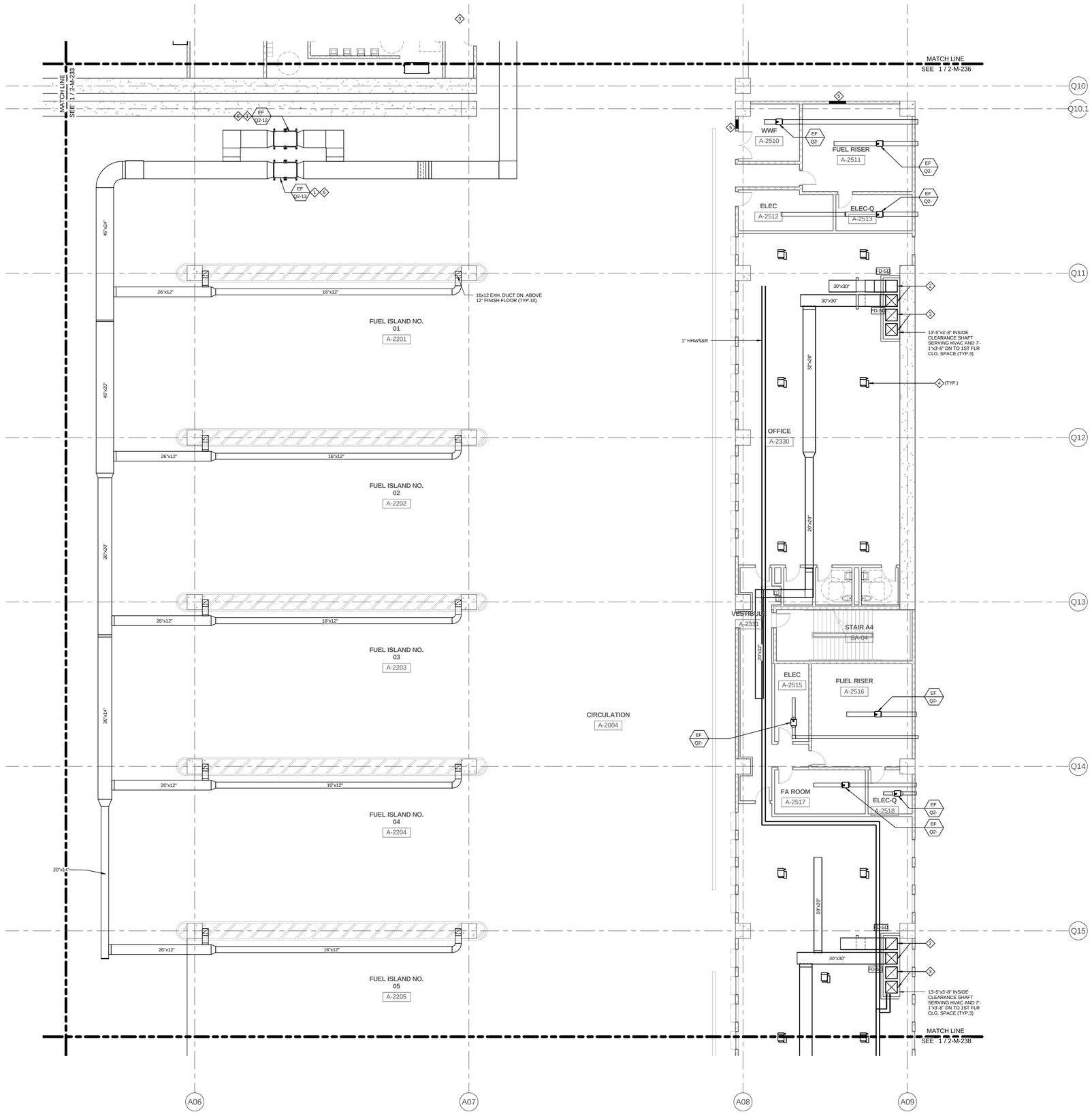
SHEET NO.
2-M-236

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

9/21/2016 4:01:51 PM C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART A7
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.
2. 30"x30" SUPPLY AND RETURN AIR DUCTS UP INSIDE SHAFT THRU LEVELS 3 AND ROOF. OFFSET DUCTS ON ROOF TO AIR CONDITIONING UNITS.
3. 30"x30" SUPPLY AND RETURN AIR DUCTS DN TO CEILING OF LEVEL 1 AND UP INSIDE SHAFT THRU LEVELS 3 AND ROOF. OFFSET DUCTS ON ROOF TO AIR CONDITIONING UNITS.
4. VARIABLE AIR VOLUME TERMINAL BOX WITH OR WITHOUT REHEAT COILS IS SHOWN FOR REFERENCE ONLY AND IS NOT IN SCOPE. VAV BOX WILL BE PROVIDED BY TENANT.
5. WALL MOUNTED LOUVER FOR MAKEUP AIR.
6. EXHAUST FAN ISLAND MUST BE CONNECTED TO FUEL CONTROL PANEL.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
Mechanical Electrical Plumbing | Consulting Engineers
2030 East Duarte Road, Suite 101 Arcadia, CA 91006
T 626.650.0556 F 626.650.0551
www.pbsengineers.com

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

ON ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A7

SHEET NO.

2-M-237

BUILDING A & B KEYPLAN

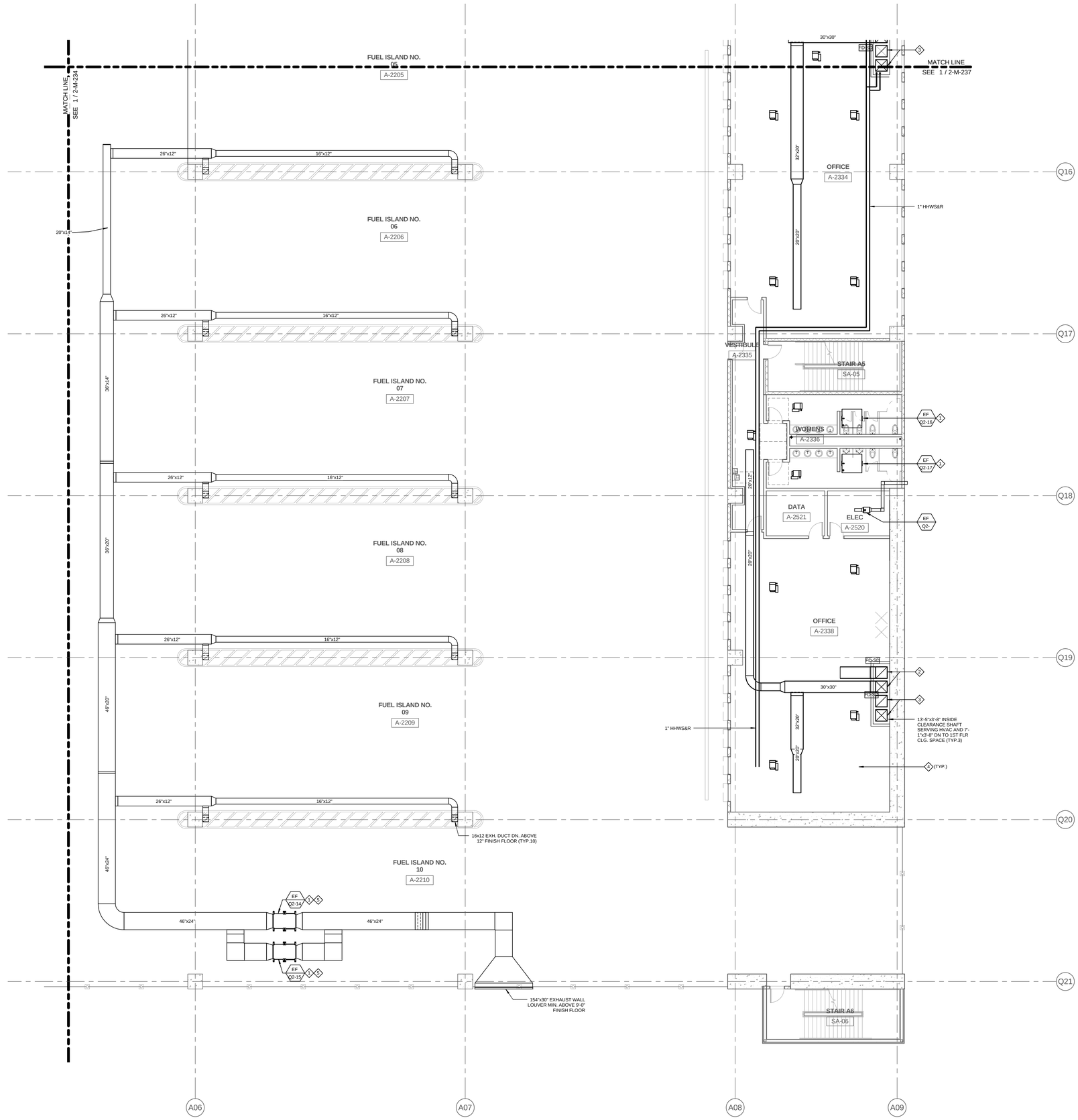
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:03:55 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART A8
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPORT FROM STRUCTURE ABOVE.
2. 30"x30" SUPPLY AND RETURN AIR DUCTS UP INSIDE SHAFT THRU LEVELS 3 AND ROOF. OFFSET DUCTS ON ROOF TO AIR CONDITIONING UNITS.
3. 30"x30" SUPPLY AND RETURN AIR DUCTS DN TO CEILING OF LEVEL 1 AND UP INSIDE SHAFT THRU LEVELS 3 AND ROOF. OFFSET DUCTS ON ROOF TO AIR CONDITIONING UNITS.
4. VARIABLE AIR VOLUME TERMINAL BOX WITH OR WITHOUT REHEAT COILS IS SHOWN FOR REFERENCE ONLY AND IS NOT IN SCOPE. VAV BOX WILL BE PROVIDED BY TENANT.
5. EXHAUST FAN FUELING ISLAND MUST BE CONNECTED TO FUEL CONTROL PANEL

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3760 Kilroy Airport Way, Suite 210
Long Beach, CA 90806
T 562.426.8356 F 562.427.0190
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO.	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A8

SHEET NO.

2-M-238

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\nvh\Documents\MP-DA4881-BUDG_A_B-R15_-nhy@pbsengineers.com.rvt

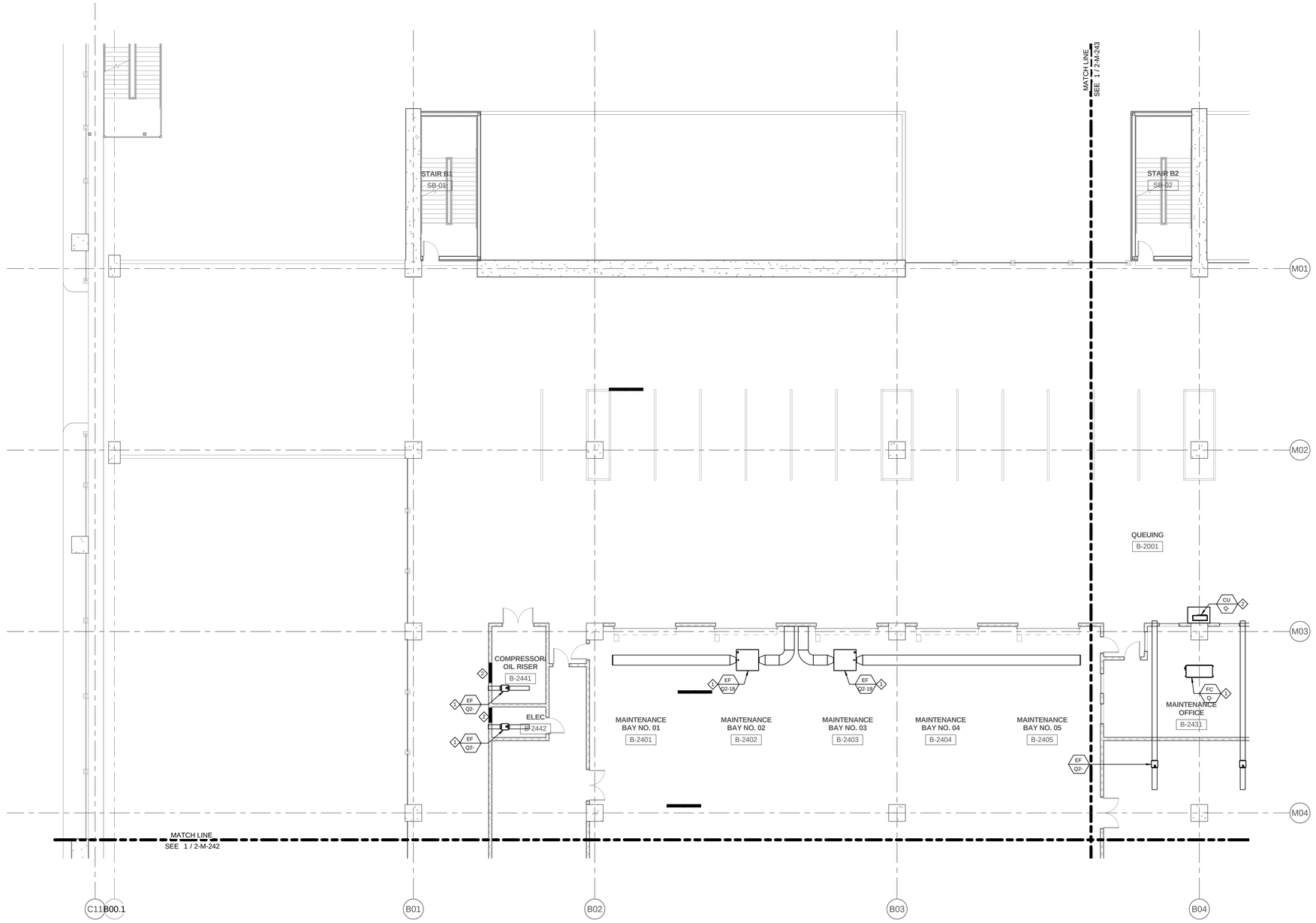
9/21/2016 4:01:57 PM

GENERAL NOTES

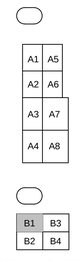
1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.
2. WALL MOUNTED LOUVER FOR MAKEUP AIR.



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART B1
1/8" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2309 Main Street, Suite 101 Chula Vista, CA 91911
P 619.420.0008 F 619.420.0021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART B1

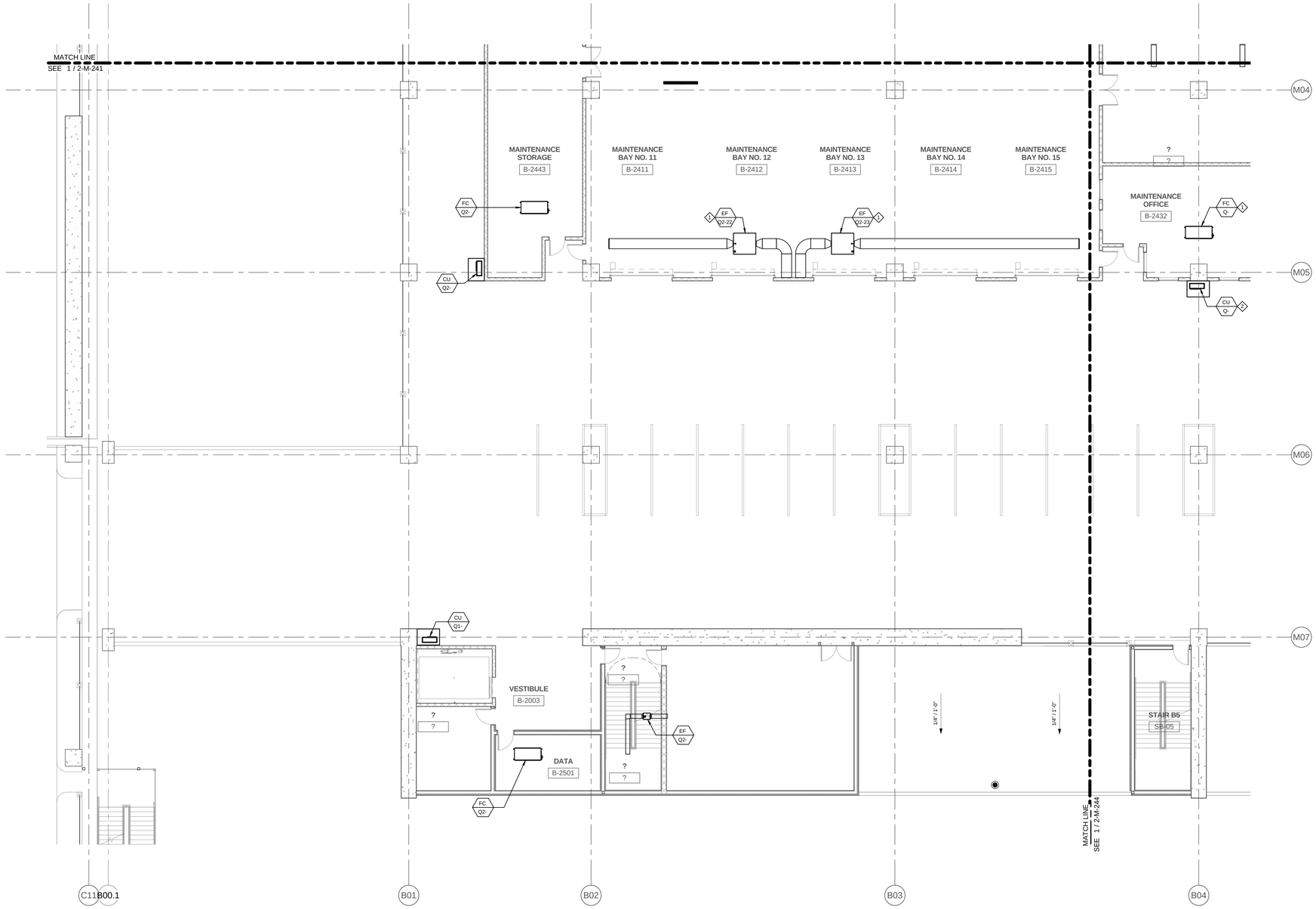
SHEET NO.

2-M-241

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mhy\Documents\IMP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt

9/21/2016 4:02:00 PM



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART B2
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1 CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 210, Long Beach, CA 90806
T 562.426.8356 F 562.426.8357 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:
QTA LEVEL 2 ENLARGED PLAN - PART B2

SHEET NO.
2-M-242

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

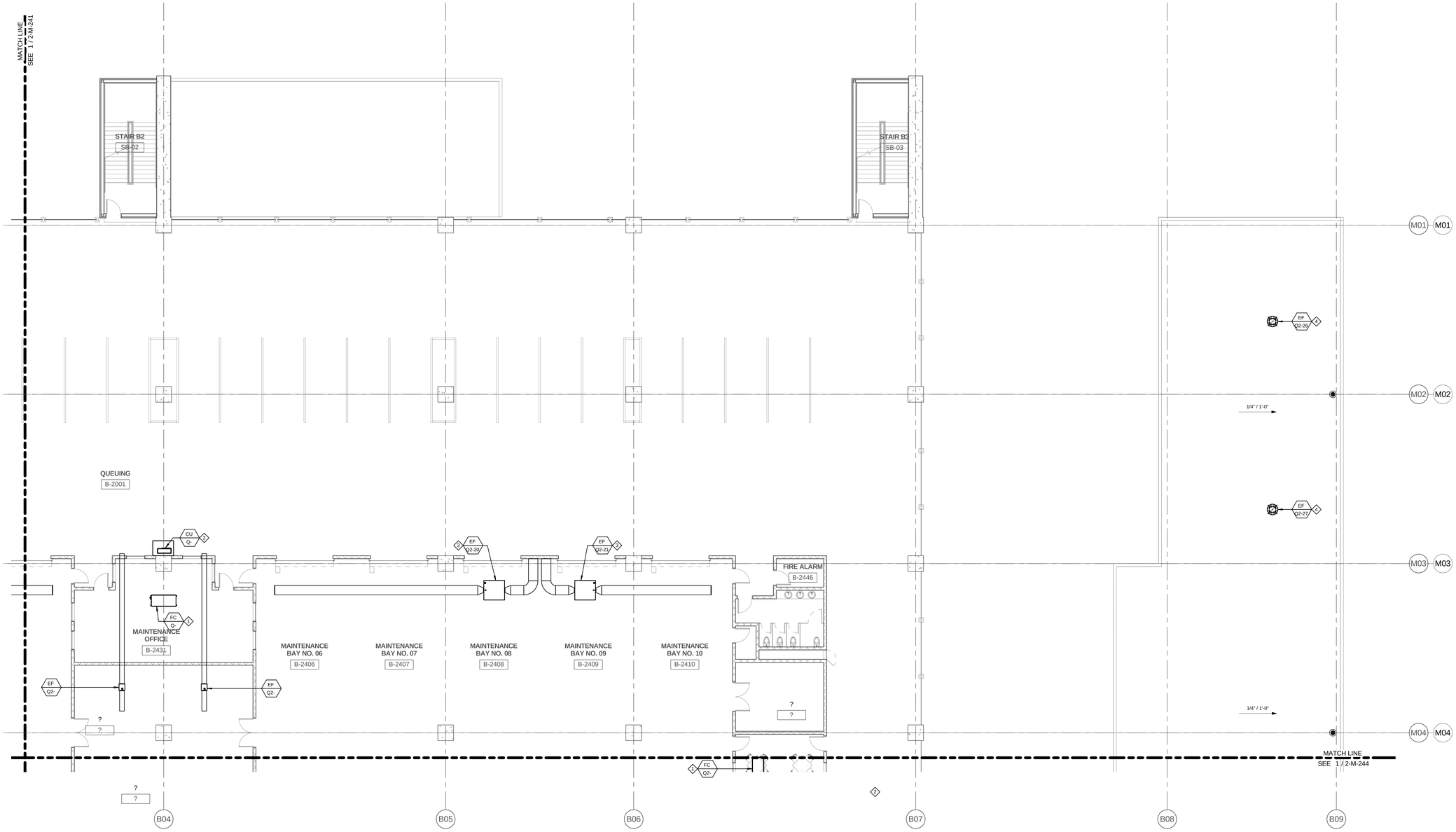
9/21/2016 4:02:01 PM C:\Users\mvp\Documents\MP-DA4881-BLDG_A_B-R15_mvp@pbsengineers.com.rvt

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.
4. ROOF MOUNTED EXHAUST FAN WITH PRE-FABRICATED ROOF CURB.



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART B3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8356 F 562.427.0190
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CHIEF AIRPORTS ENGINEER

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART B3

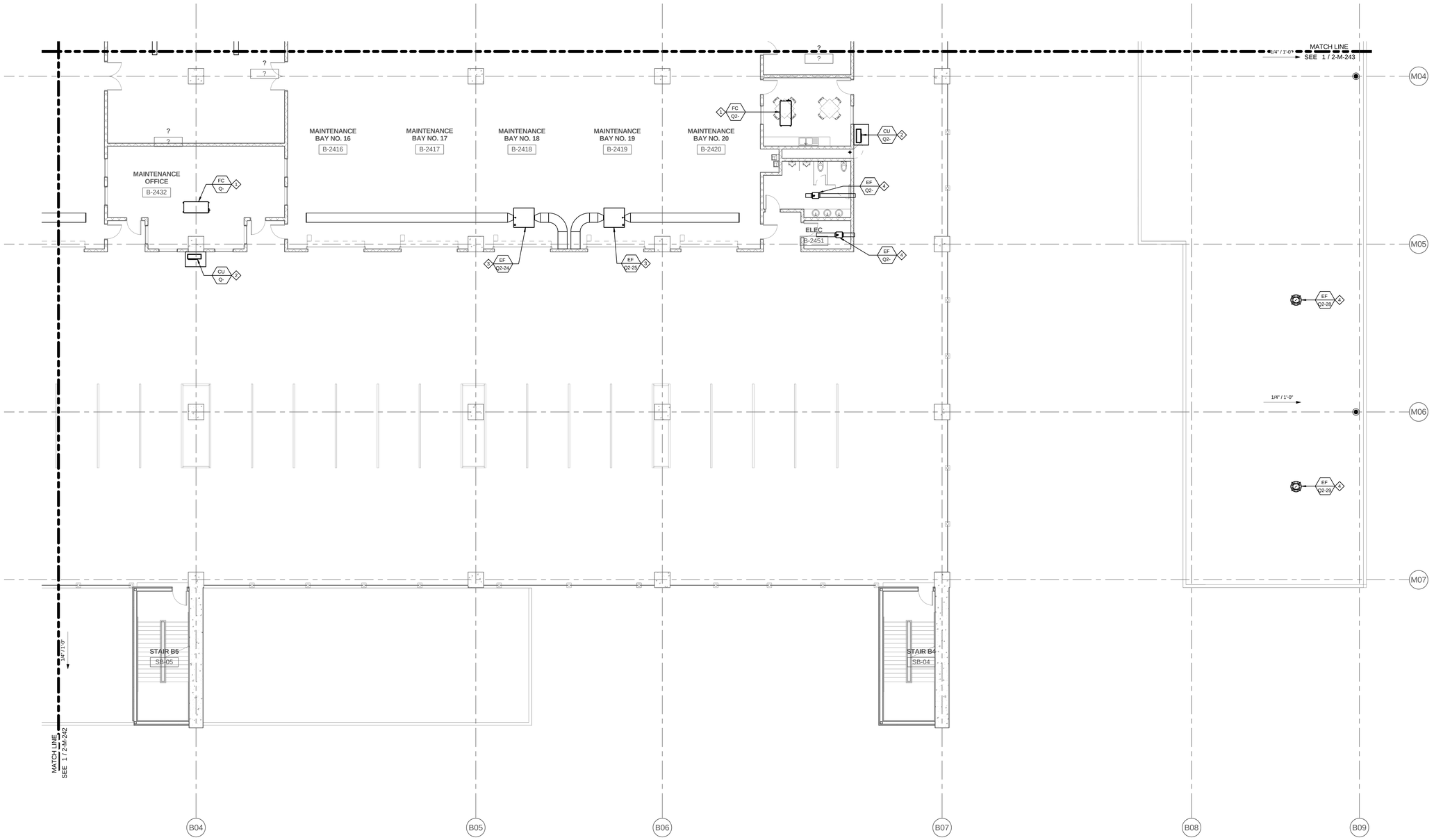
SHEET NO.

2-M-243

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:02:03 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED HVAC PLAN - PART B4
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.
4. ROOF MOUNTED EXHAUST FAN WITH PRE-FABRICATED ROOF CURB.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2030 Main Street, Ste. 410 Irvine, CA 92614
T 949.809.0200 F 949.809.0220
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART B4

SHEET NO.

2-M-244

BUILDING A & B KEYPLAN

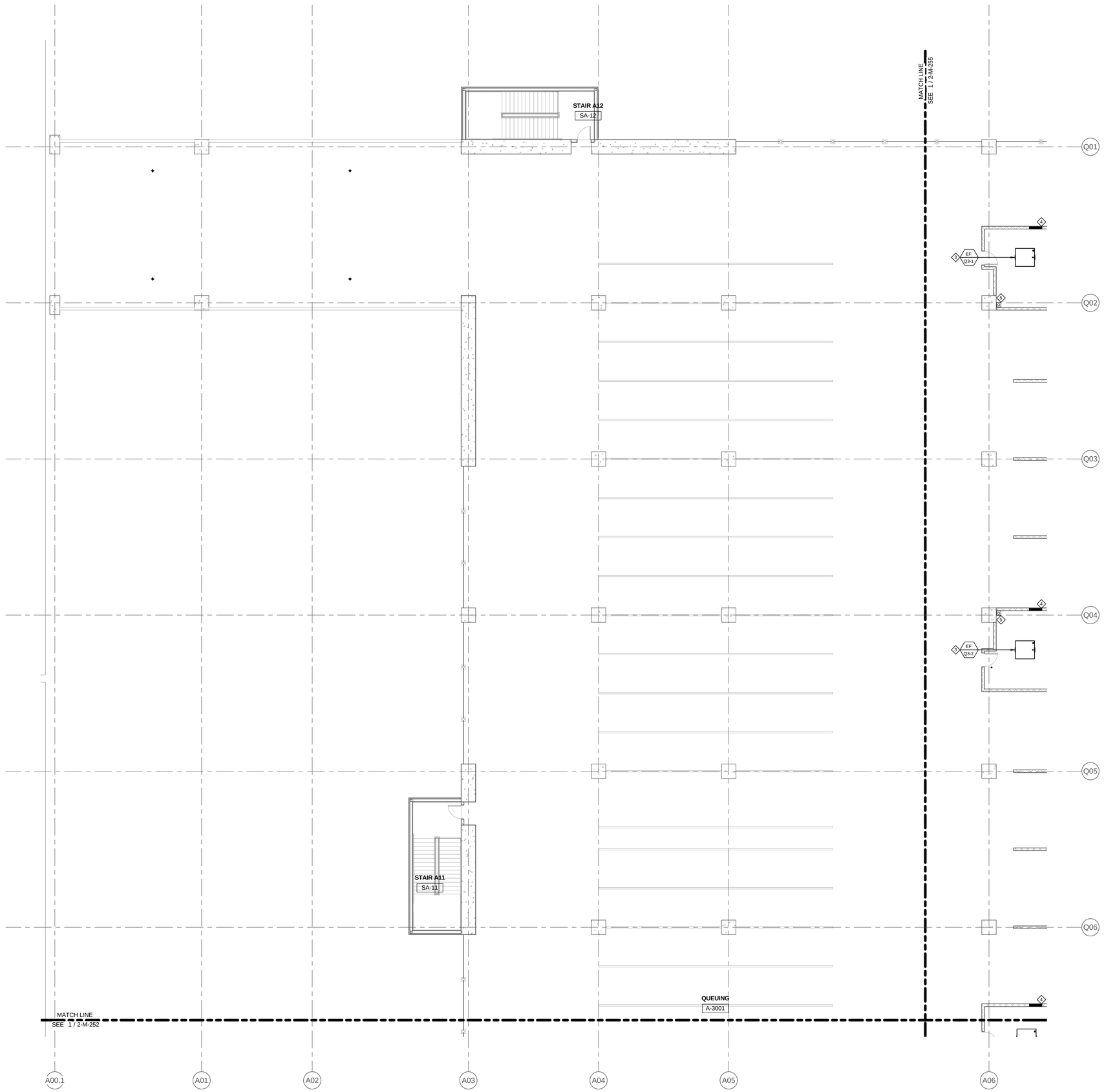
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mh\Documents\MP-DA4881-BUDG_A_B-R15_mh@pbsengineers.com.rvt

9/21/2016 4:02:56 PM



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART A1
1/8" = 1'-0"

GENERAL NOTES

1. --

KEY NOTES

1 --

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 510 Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A1

SHEET NO.

2-M-251

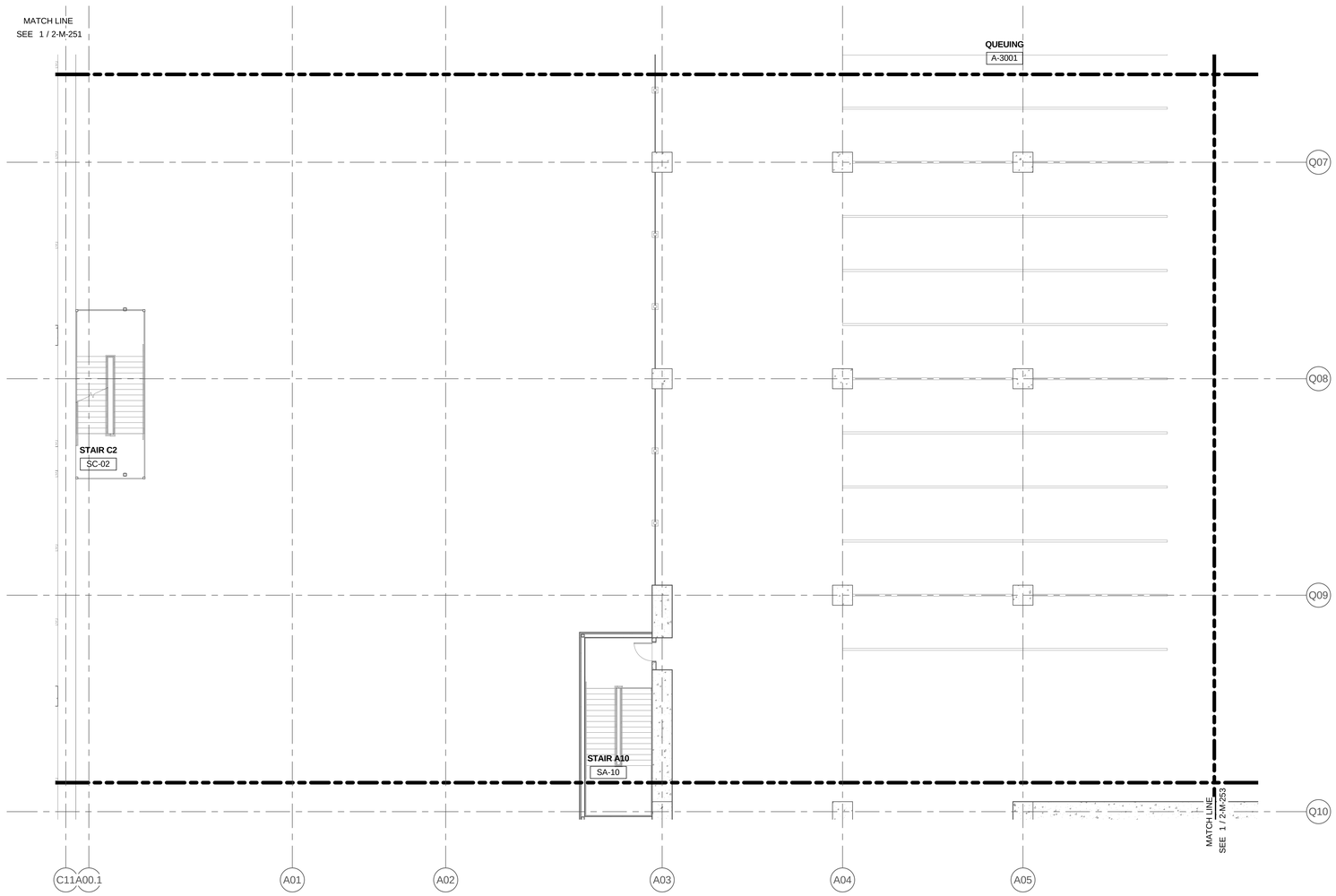
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:02:07 PM C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. --

KEY NOTES

1 --

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.426.8001
Mechanical Electrical Plumbing | Consulting Engineers

REVISIONS:

MARK	DATE	DESCRIPTION

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

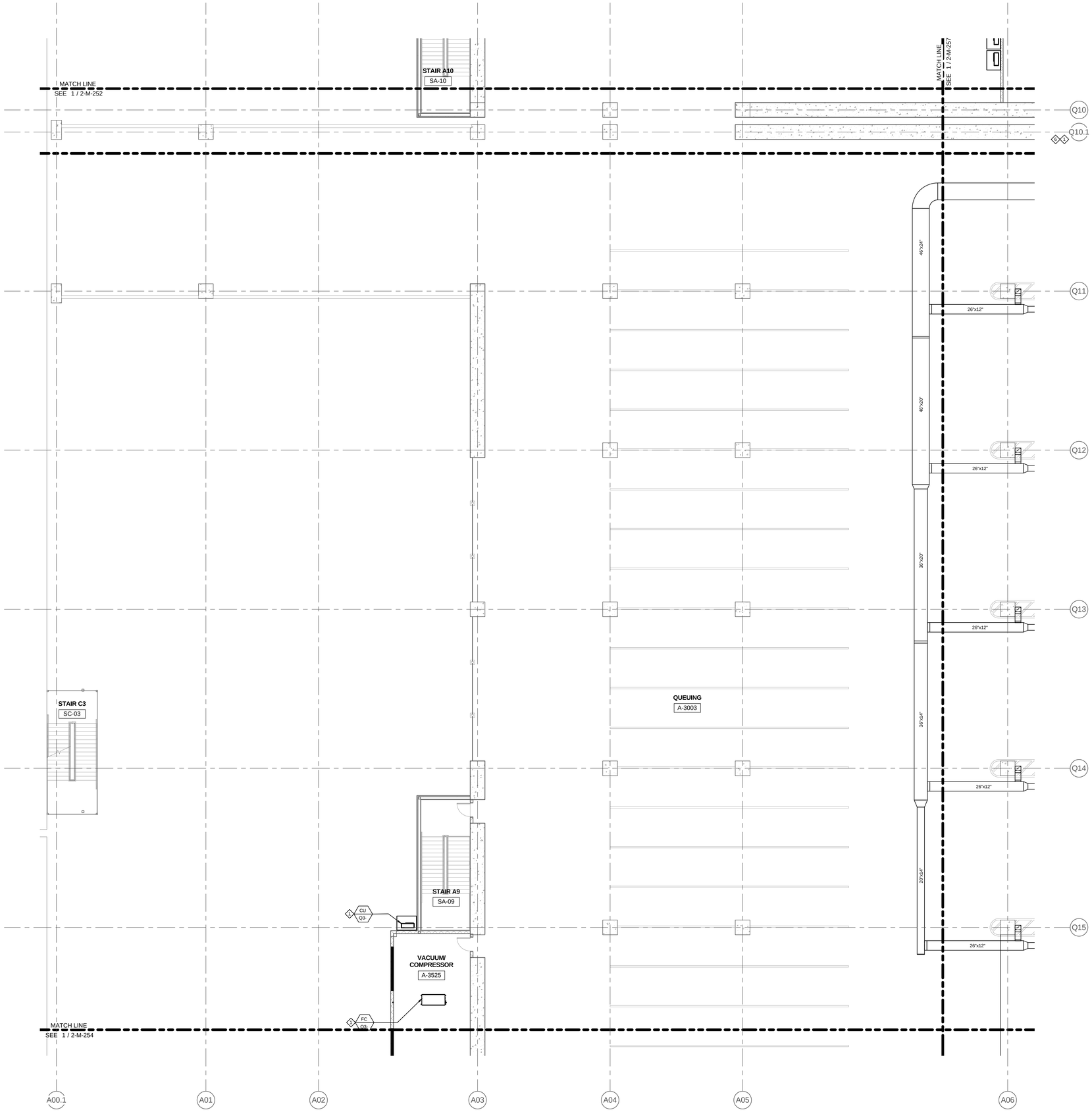
QTA LEVEL 3 ENLARGED PLAN - PART A2

SHEET NO.

2-M-252

9/21/2016 4:02:08 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. --

KEY NOTES

1. OUTDOOR CONDENSING UNIT ON PLATFORM.
2. WALL MOUNTED LOUVERS FOR MAKEUP AIR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 400
Long Beach, CA 90806
T 562.426.0100 F 562.426.0551
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A3

SHEET NO.

2-M-253

BUILDING A & B KEYPLAN

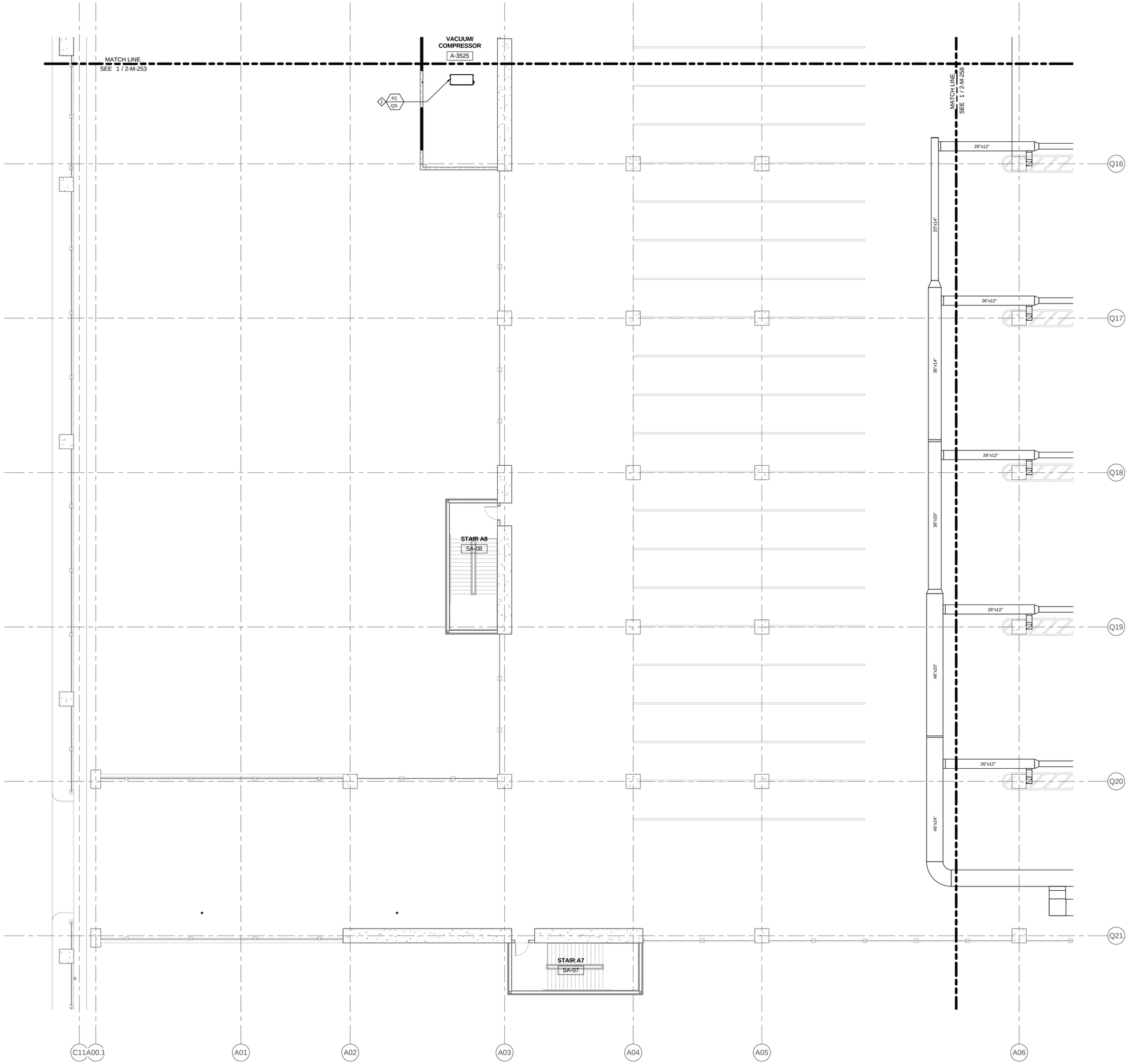
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mfy\Documents\MP-DA4881-BUDC_A_B-R15_mfy@pbsengineers.com.rvt

9/21/2016 4:02:11 PM



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. --

KEY NOTES

1 CEILING SUSPENDED FANCOIL SUPPORTED FROM STRUCTURE ABOVE.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
3780 Kilroy Airport Way, Suite 500
Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Electrical Mechanical Plumbing | Controls Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A4

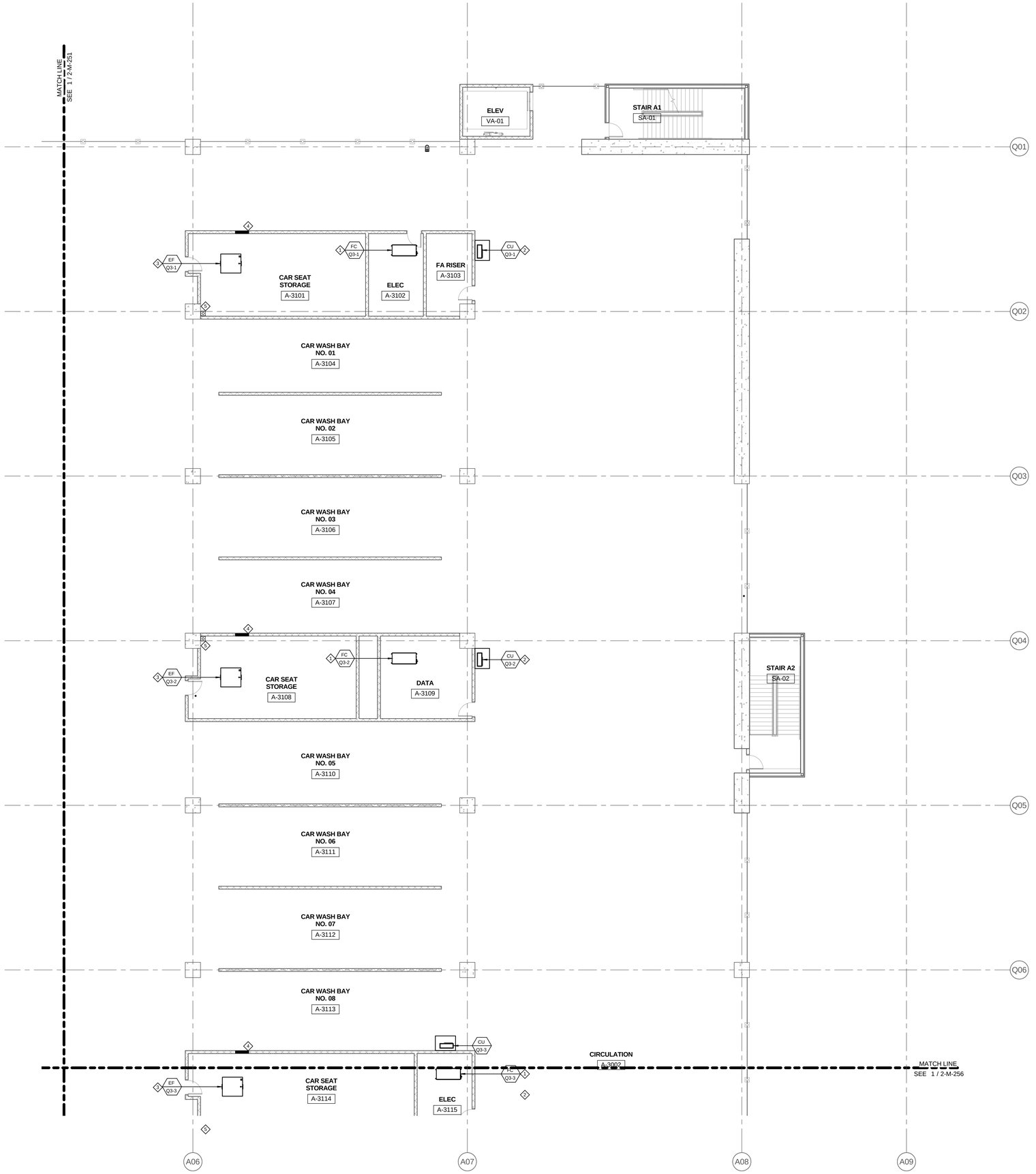
SHEET NO.

2-M-254

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mhV\Documents\MP-DA4881-BLDG_A_B-R15_mhv@pbsengineers.com.rvt

9/21/2016 4:02:14 PM



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.
4. WALL MOUNTED LOUVER FOR MAKEUP AIR.
5. DRYER VENT STRAIGHT UP TO ROOF.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.427.0190
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO.	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A5

SHEET NO.

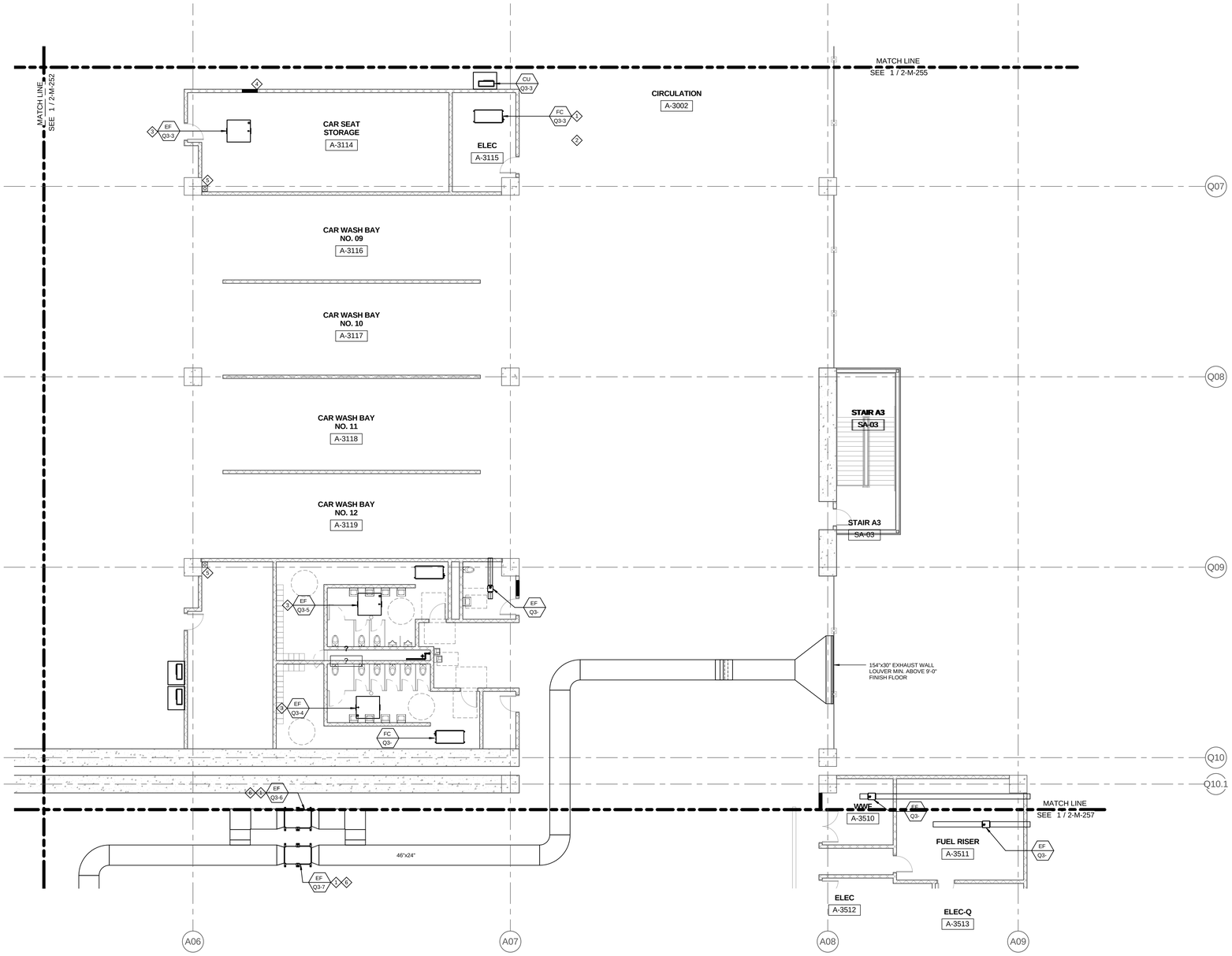
2-M-255

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\mfy\Documents\MP-DA4881-BUDC_A_R15_mfy@pbsengineers.com.rvt
9/21/2016 4:02:16 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART A6
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPPORT FROM STRUCTURE ABOVE.
4. EXHAUST FAN SAERVING FUELING ISLAND MUST BE CONNECTED TO FUEL CONTROL PANEL.
5. DRYER VENT STRAIGHT UP TO THE ROOF

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600
Long Beach, CA 90806
T 562.426.8000 F 562.490.4332
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A6

SHEET NO.

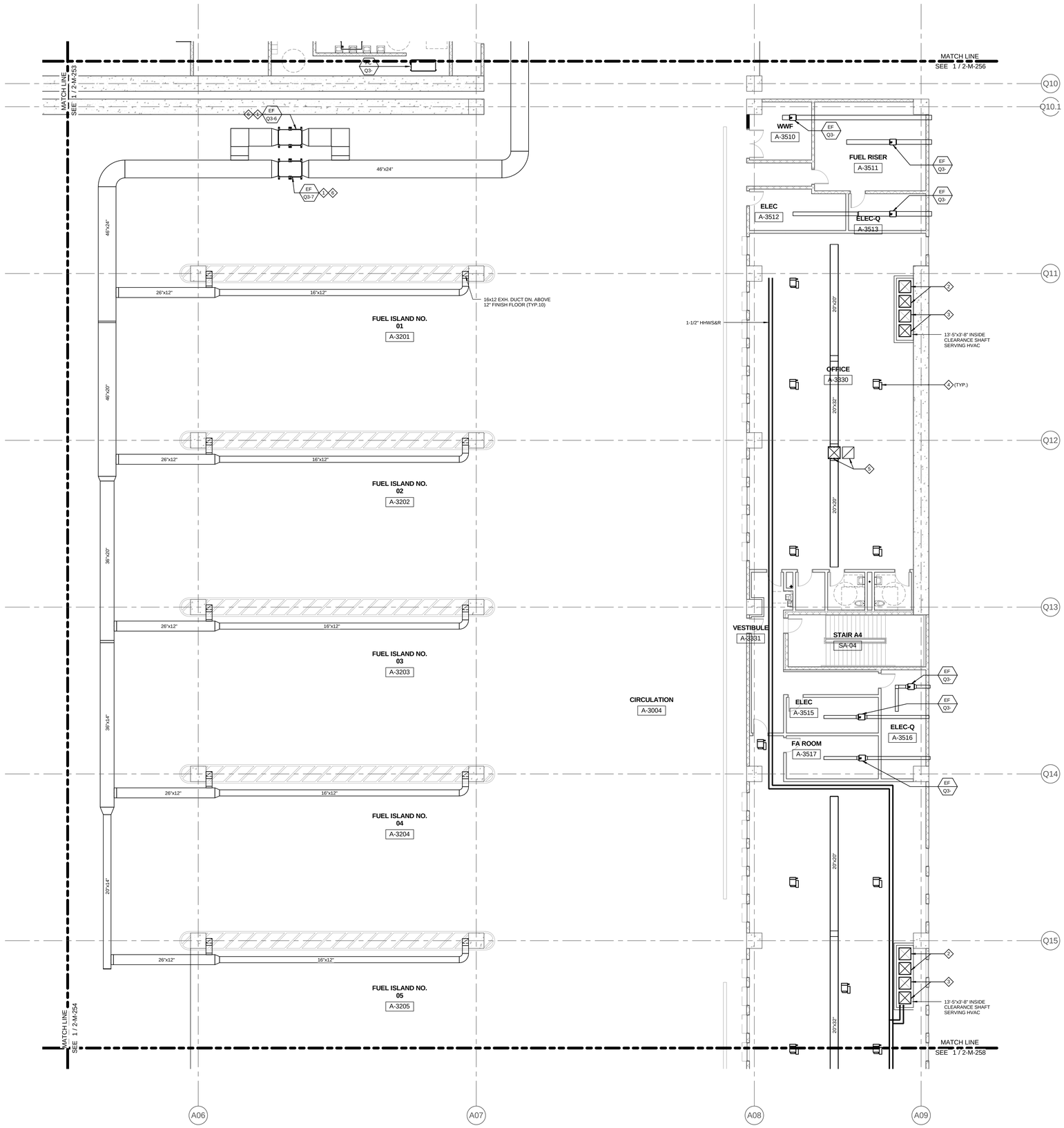
2-M-256

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\mlyi\Documents\MP-DA4881-BLDG_A_B-R15_mlyi@pbsengineers.com.rvt
9/21/2016 4:02:19 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART A7
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPORT FROM STRUCTURE ABOVE.
2. 30"x30" SUPPLY AND RETURN AIR DUCTS DN TO CEILING OF LEVEL 2 AND UP INSIDE SHAFT TO ROOF. OFFSET DUCTS ON ROOF TO AIR CONDITIONING UNITS.
3. 30"x30" SUPPLY AND RETURN AIR DUCTS DN THRU LEVEL 2 TO CEILING OF LEVEL 1 AND UP INSIDE SHAFT TO ROOF. OFFSET DUCTS ON ROOF TO AIR CONDITIONING UNITS.
4. VARIABLE AIR VOLUME TERMINAL BOX WITH OR WITHOUT REHEAT COILS IS SHOWN FOR REFERENCE ONLY AND IS NOT IN SCOPE. VAV BOX WILL BE PROVIDED BY TENANT.
5. 30"x30 SUPPLY AND RETURN AIR DUCTS UTR TO AIR CONDITIONING UNIT. CONNECT WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.
6. EXHAUST FAN SERVING FUELING ISLAND MUST BE CONNECTED TO FUEL CONTROL PANEL

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
Mechanical Electrical Plumbing
2100 East Katella Ave, Suite 210
Anaheim, CA 92806
T 714.939.1010 F 714.939.1020
www.pbsengineers.com

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A7

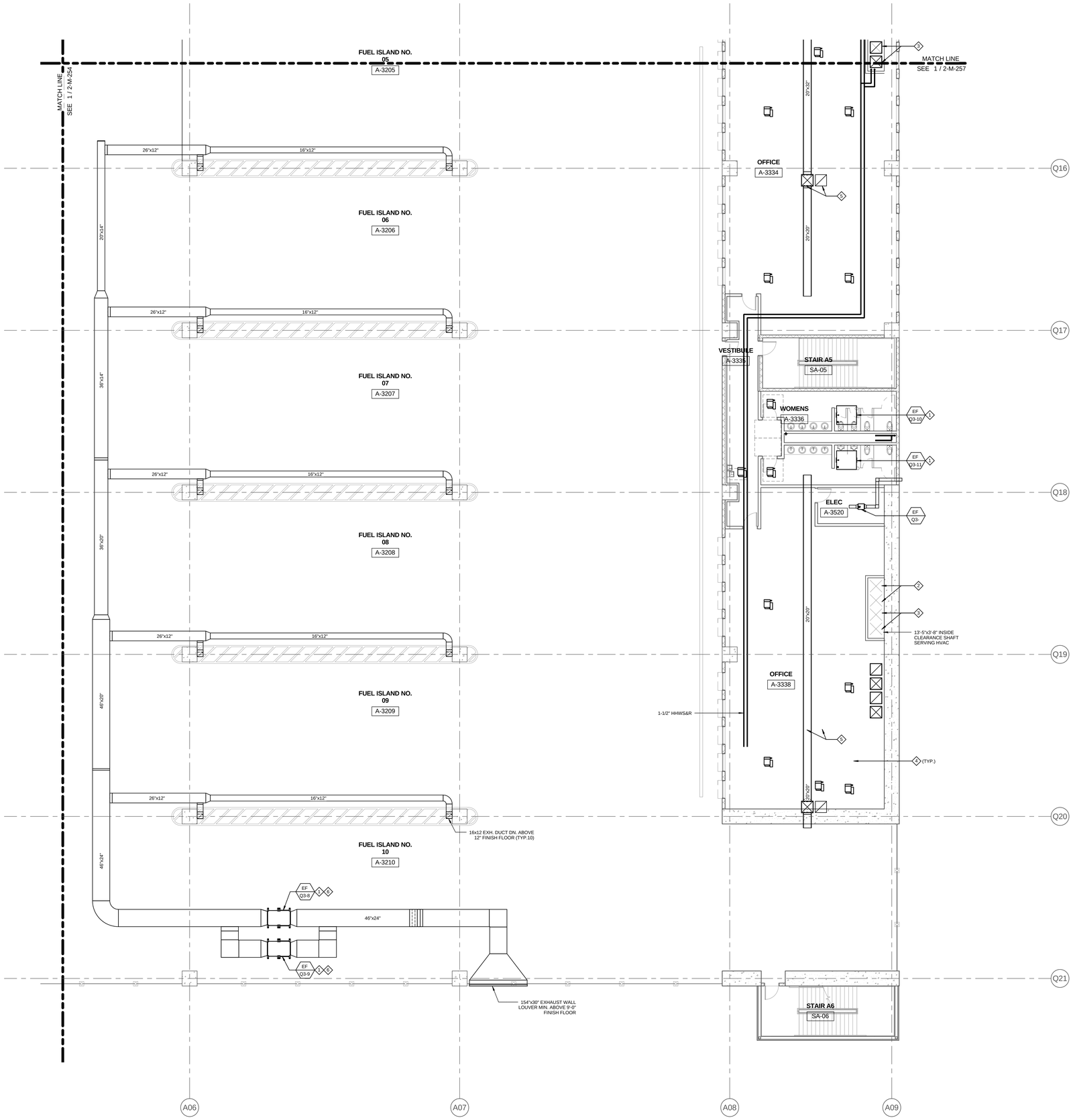
SHEET NO.

2-M-257

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:02:22 PM



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART A8
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED IN-LINE EXHAUST FAN. SUPPORT FROM STRUCTURE ABOVE.
2. 30"x30" SUPPLY AND RETURN AIR DUCTS DN TO CEILING OF LEVEL 2 AND UP INSIDE SHAFT TO ROOF. OFFSET DUCTS ON ROOF TO AIR CONDITIONING UNITS.
3. 30"x30" SUPPLY AND RETURN AIR DUCTS DN THRU LEVEL 2 TO CEILING OF LEVEL 1 AND UP INSIDE SHAFT TO ROOF. OFFSET DUCTS ON ROOF TO AIR CONDITIONING UNITS.
4. VARIABLE AIR VOLUME TERMINAL BOX WITH OR WITHOUT REHEAT COILS IS SHOWN FOR REFERENCE ONLY AND IS NOT IN SCOPE. VAV BOX WILL BE PROVIDED BY TENANT.
5. 30"x30 SUPPLY AND RETURN AIR DUCTS UTR TO AIR CONDITIONING UNIT. CONNECT WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.
6. EXHAUST FAN SERVING FUELING ISLAND MUST BE CONNECTED TO FUEL CONTROL PANEL.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3200 Bristol Street, Ste. 610 | Costa Mesa, CA 92626
T 714.850.0500 | F 714.850.0550
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CONT LAX PMD

REVISIONS: DESCRIPTION DATE MARK

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A8

SHEET NO.

2-M-258

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

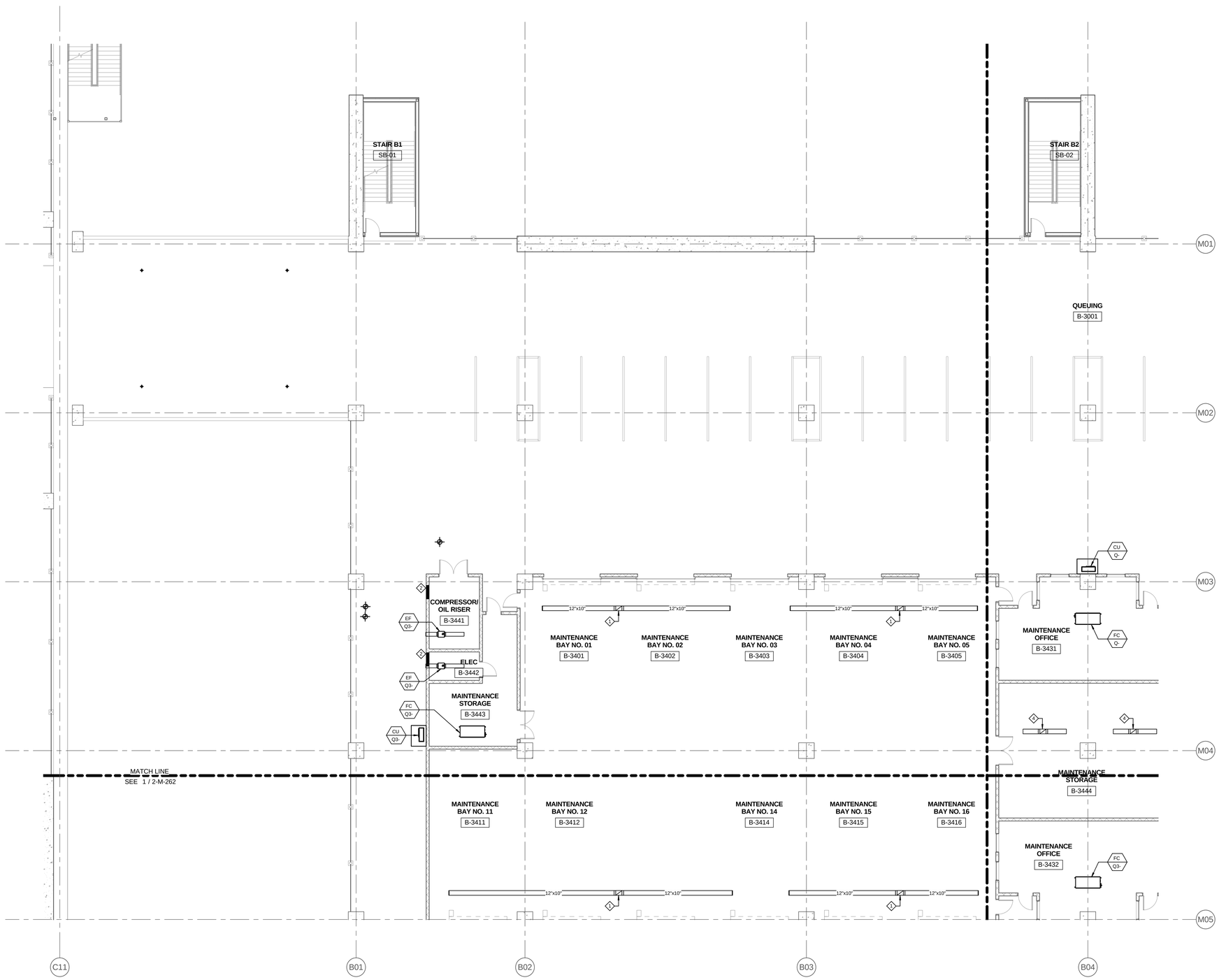
9/21/2016 4:02:23 PM C:\Users\mty\Documents\MP-DA4881-BLDG_A_B-R15_mty@pbsengineers.com.rvt

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. 16"x12" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.
2. WALL MOUNTED LOUVERS TO PROVIDE MAKEUP AIR.



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART B1
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Civil | Structural | MEP | Fire Protection
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.427.0190
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART B1

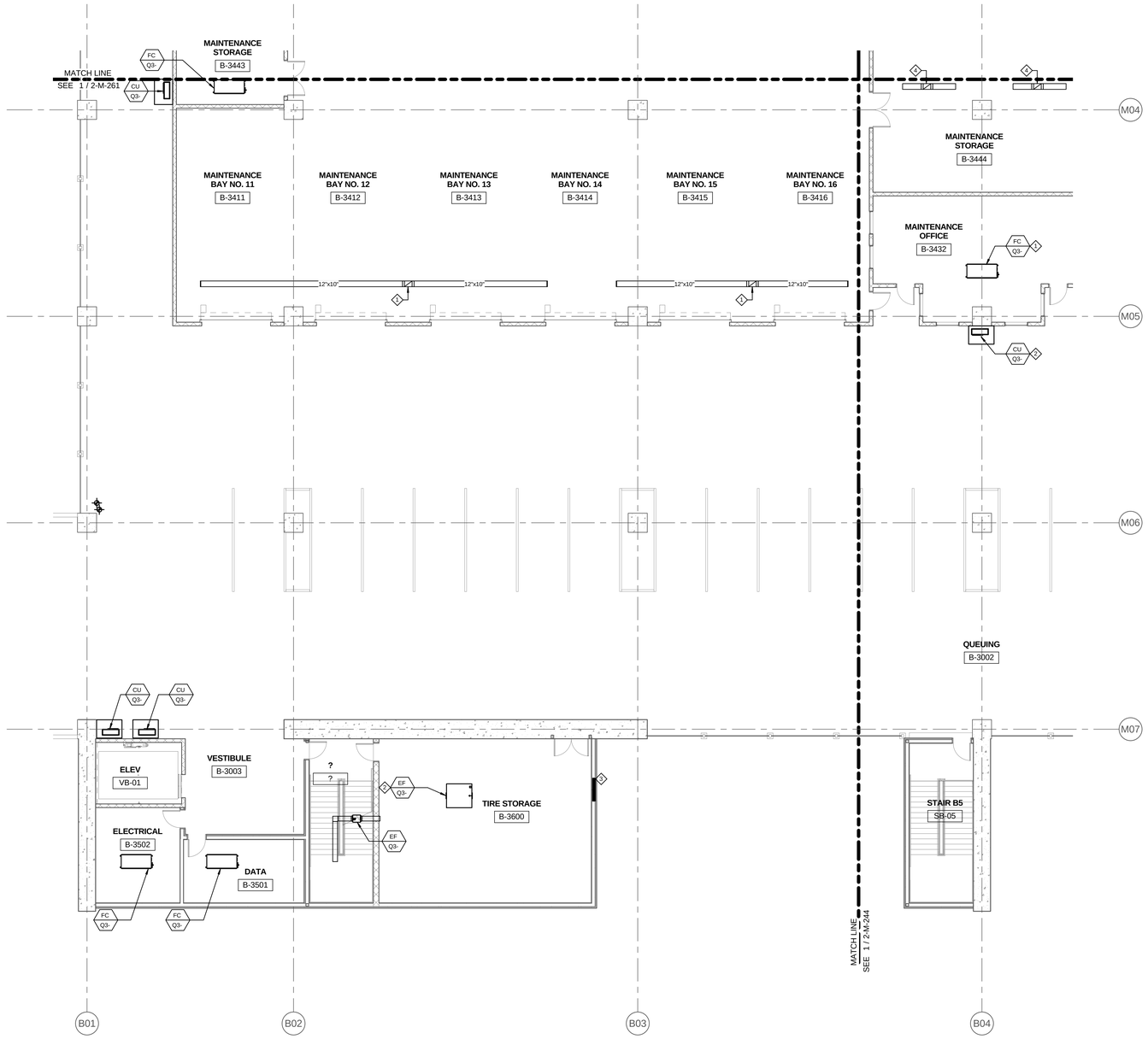
SHEET NO.

2-M-261

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:02:26 PM



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART B2
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. 16"x12" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.
2. CEILING SUSPENDED INLINE EXHAUST FAN SUPPORTED FROM STRUCTURE ABOVE.
3. WALL MOUNTED LOUVER TO PROVIDE MAKEUP AIR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2030 Main Street, Suite 1300
Irvine, CA 92614
T 949.809.0500
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ZONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART B2

SHEET NO.

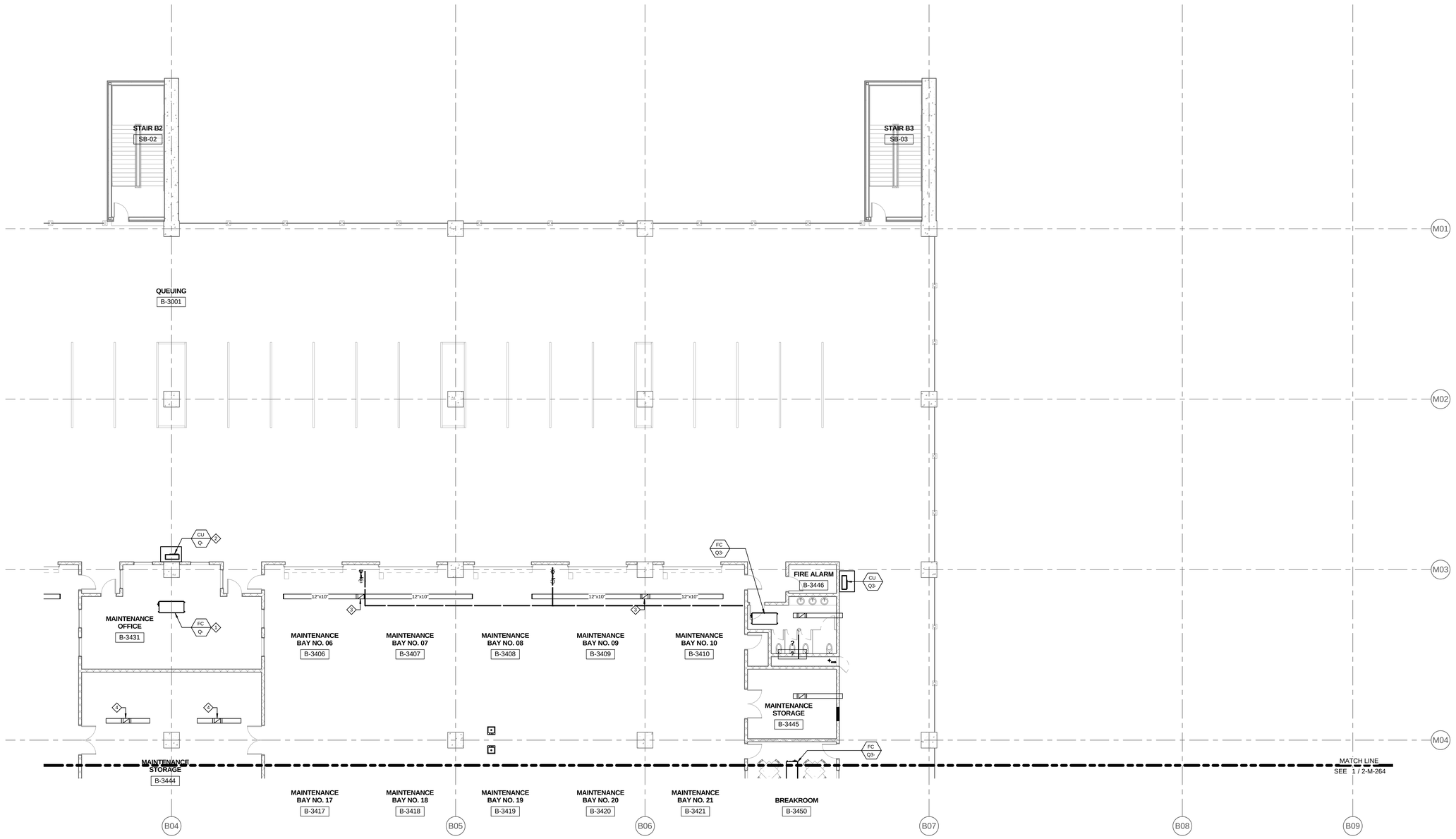
2-M-262

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\mlyi\Documents\MP-DA4881-BLDG_A_B-R15_mlyi@pbsengineers.com.rvt
9/21/2016 4:02:27 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART B3
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. 16"x12" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.
4. 12"x12" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 210, Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART B3

SHEET NO.

2-M-263

A1	A5
A2	A6
A3	A7
A4	A8

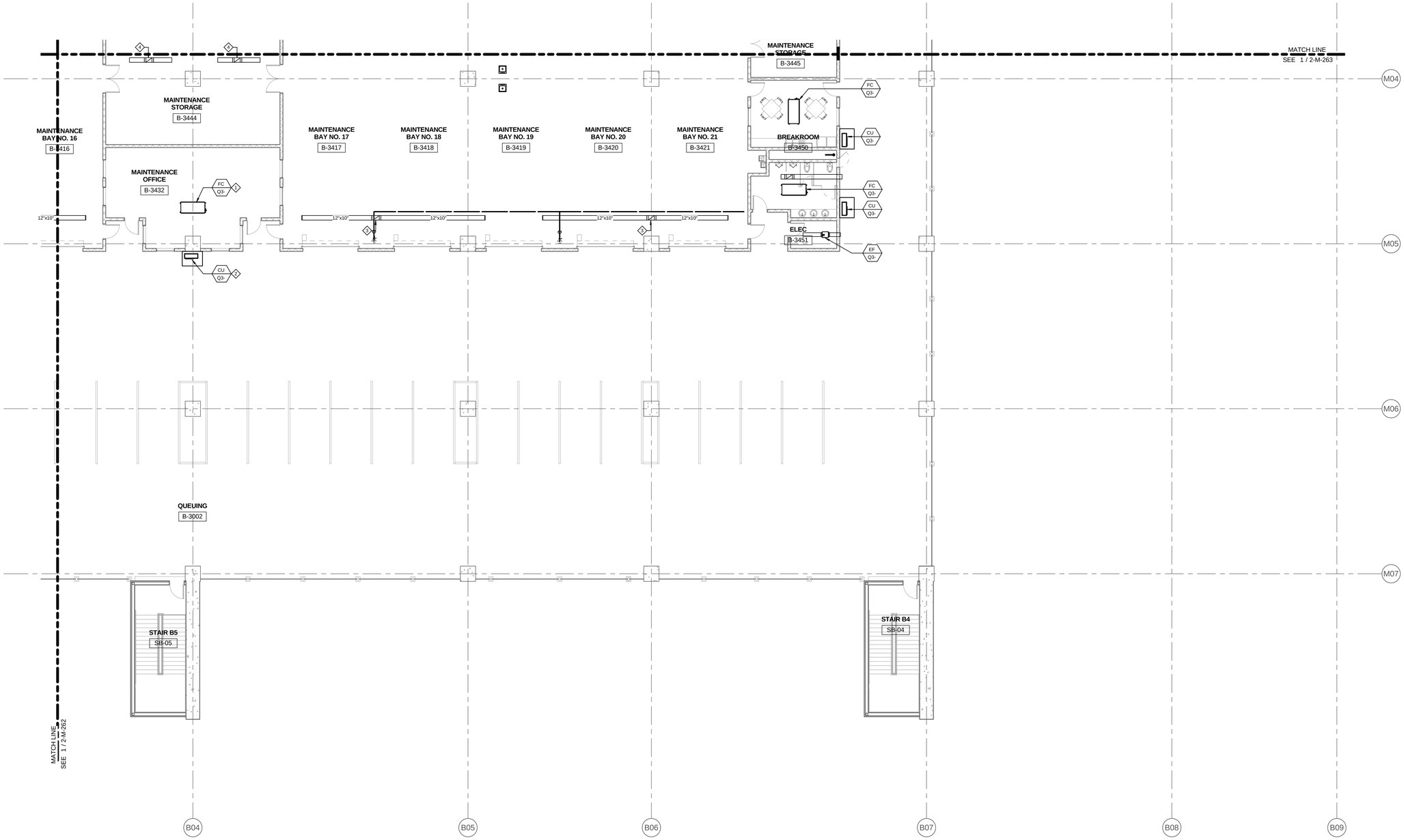
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\mly\Documents\MP-DA4881-B1DC_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:02:29 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED HVAC PLAN - PART B4
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. LINED DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS. INCREASE DUCT SIZE AS NEEDED TO PROVIDE CLEAR DIMENSIONS SHOWN ON DRAWINGS.
4. THE BOTTOM OF CEILING MOUNTED HVAC UNITS SHALL BE LOCATED MAXIMUM 1'-0" ABOVE CEILING AND CLEAR FROM ANY OBSTRUCTIONS FOR INSPECTIONS AND MAINTENANCE.
5. PROVIDE 24" CLEAR SPACE HORIZONTALLY AROUND HVAC EQUIPMENT FOR INSPECTION AND MAINTENANCE.
6. ALL HVAC EQUIPMENT HUNG OR MOUNTED SHALL BE PROVIDED WITH VIBRATION ISOLATORS AND SEISMIC RESTRAINTS UNLESS OTHERWISE NOTED.
7. COORDINATE LOCATION OF THERMOSTAT SERVING HVAC EQUIPMENT WITH ROOM LIGHT SWITCH AND/OR OTHER FIXED DEVICES OR EQUIPMENT.

KEY NOTES

1. CEILING MOUNTED FAN COIL UNIT. SUPPORT FROM STRUCTURE ABOVE.
2. OUTDOOR CONDENSING UNIT ON PLATFORM.
3. 16"x12" EXHAUST DUCT UP TO EXHAUST FAN ON ROOF WITH SMOOTH TRANSITION AND FLEXIBLE CONNECTION.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 400 Anaheim, CA 92806
T 714.939.1000 F 714.939.1001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:
QTA LEVEL 3 ENLARGED PLAN - PART B4

SHEET NO.
2-M-264

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mly\Documents\MP-DA4881-B1DC_A_R14.5_mly@pbsengineers.com.rvt
9/21/2016 4:02:31 PM

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.6200200 F 626.6200203
Fairbanks Honolulu Portland Sacramento Las Vegas www.pbsengineers.com

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT PMD LAX

MARK	DATE	DESCRIPTION

REVISIONS:

PROJ NO: DA4681
SCALE: 1/8" = 1'-0"
DATE: 09/23/2016
DESIGNED BY: V.P.
DRAWN BY: I.Z.
CHECKED BY: N.P.

SHEET TITLE: QTA ENLARGED ROOF PLAN - PART A1

SHEET NO. 2-M-271

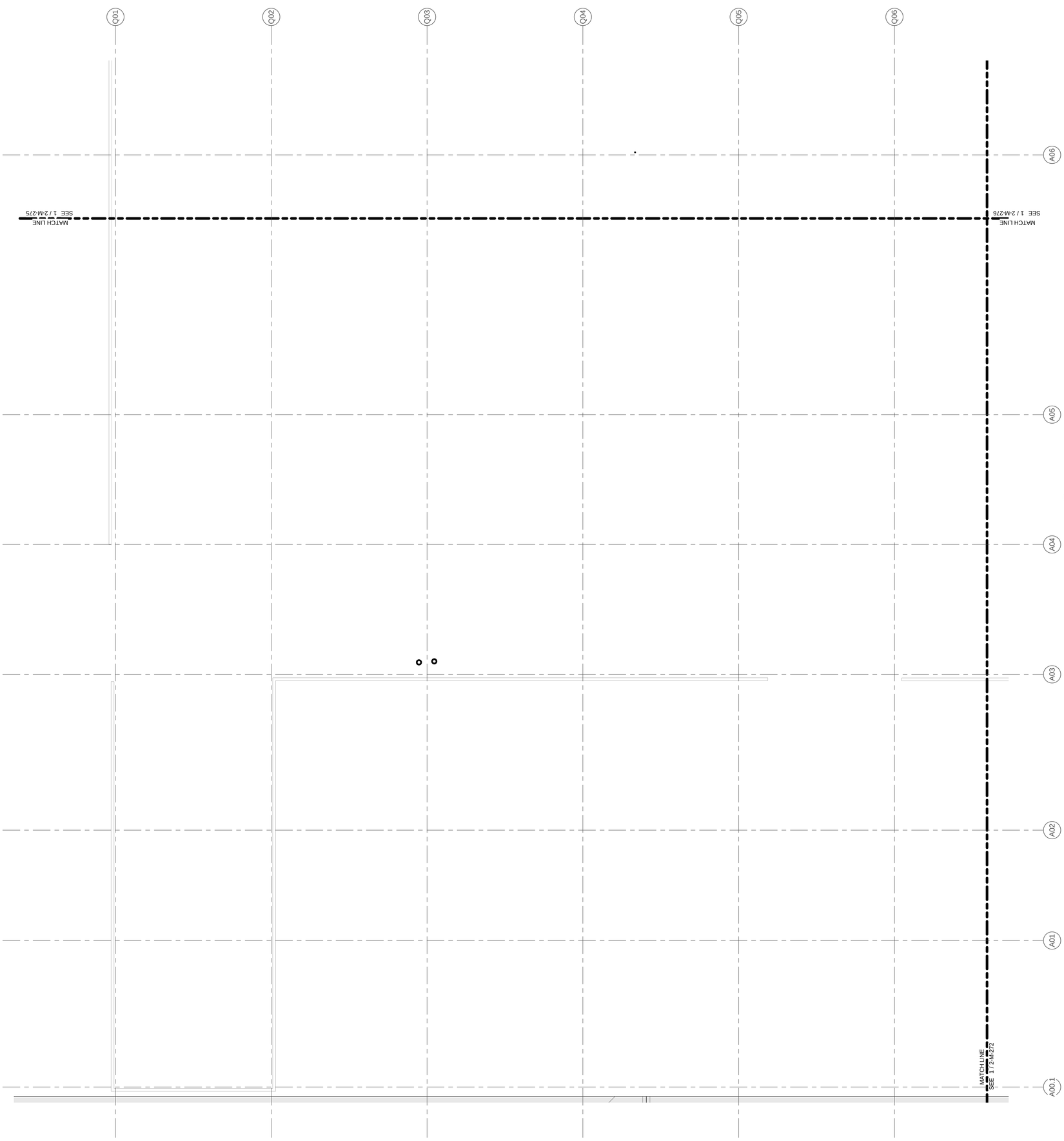
GENERAL NOTES

1. ...

KEY NOTES

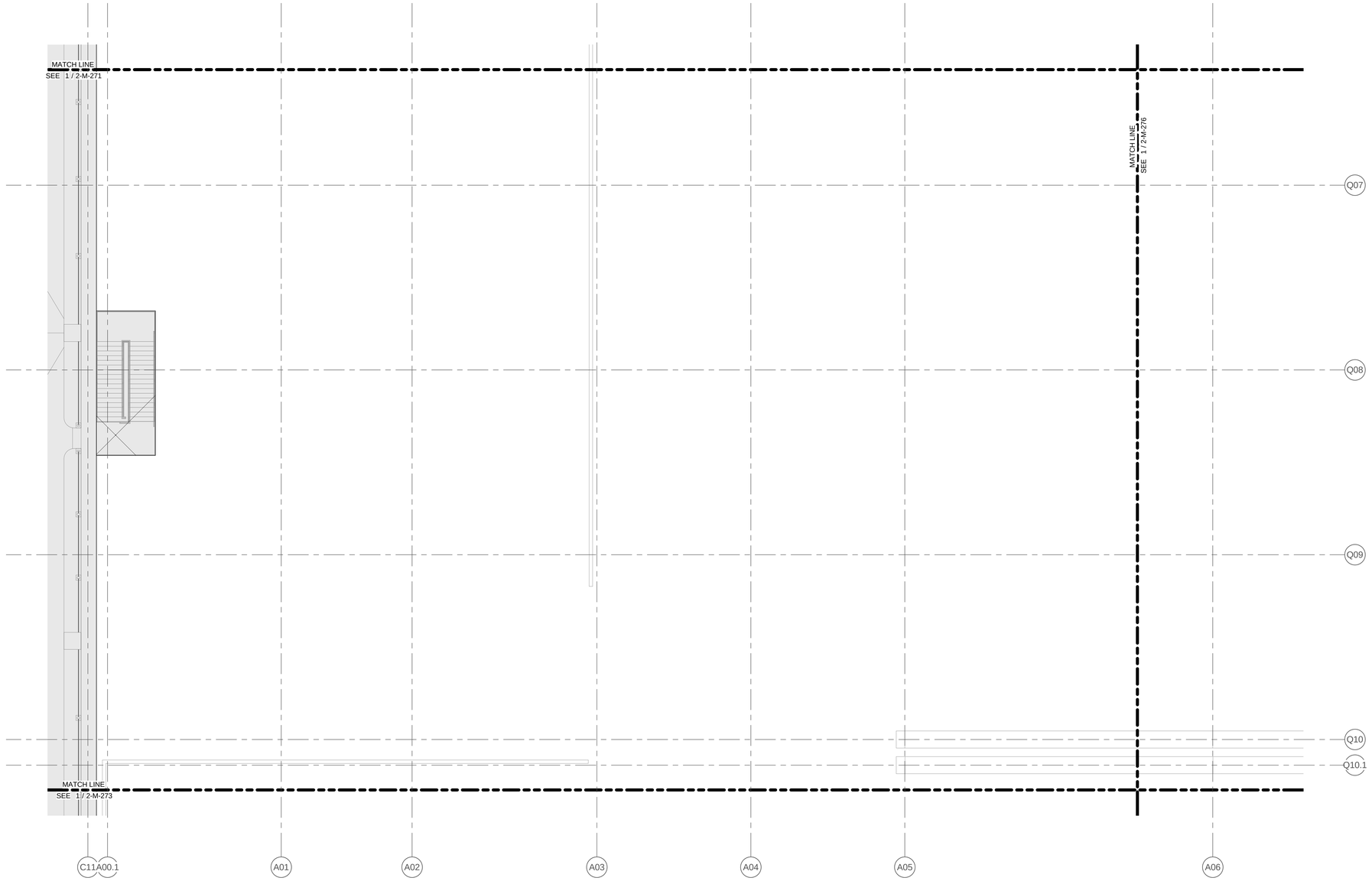
1

BUILDING A & B KEYPLAN



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART A1
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. --

KEY NOTES

1 --

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS

3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.426.8001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

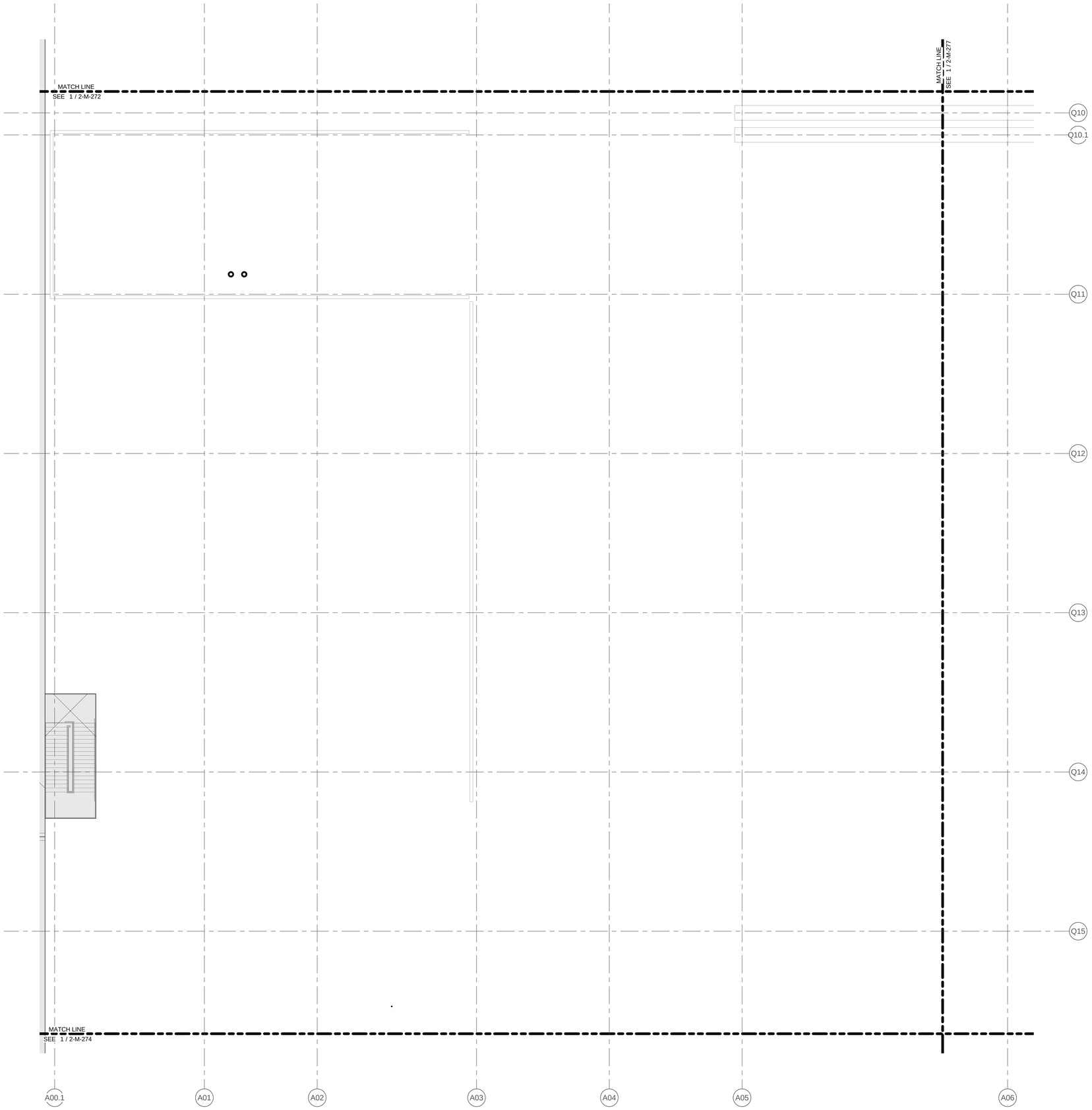
QTA ENLARGED ROOF PLAN - PART A2

SHEET NO.

2-M-272

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:02:33 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. --

KEY NOTES

1 --

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ON LAX ANA PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

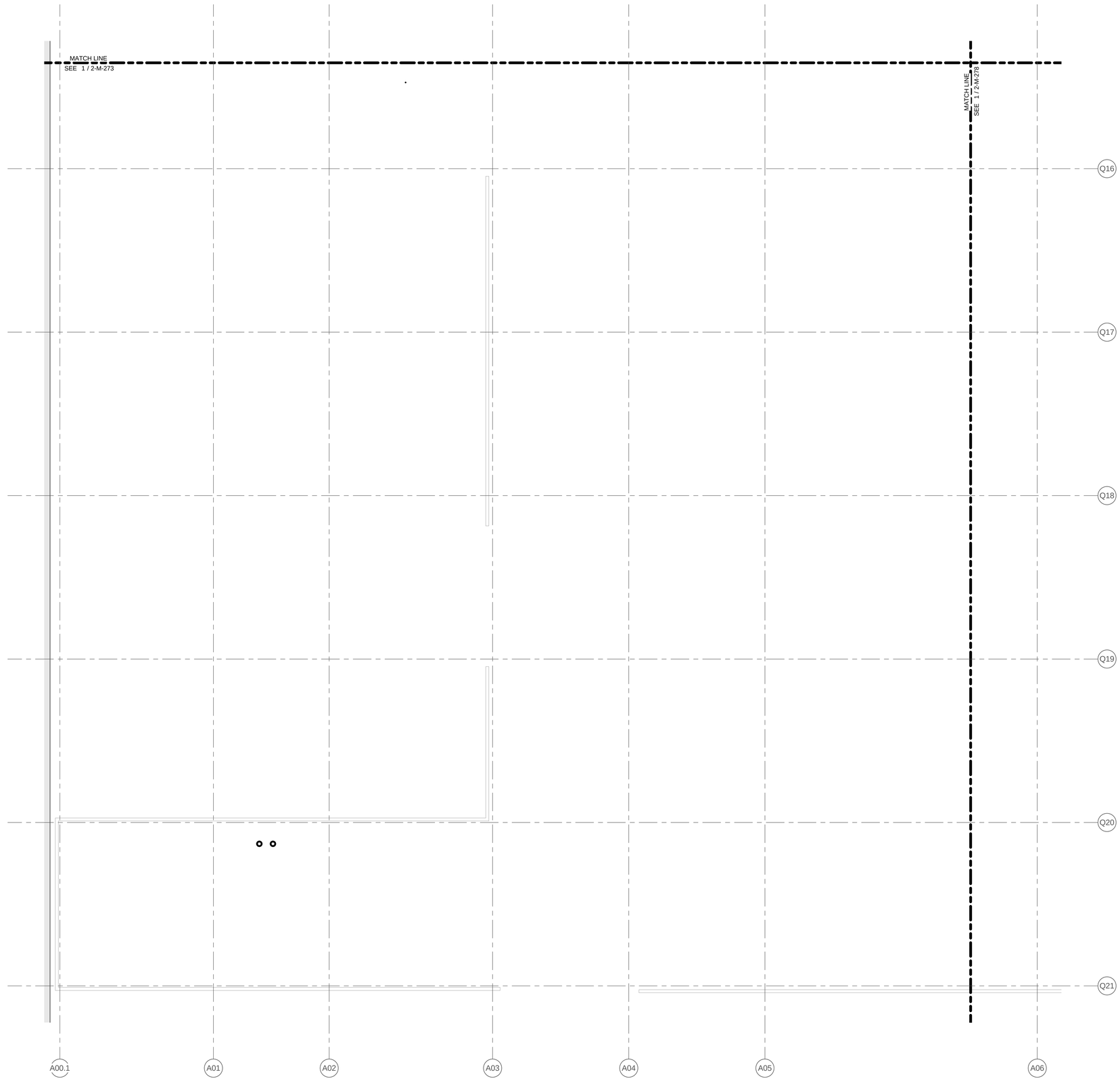
SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A3

SHEET NO.

2-M-273

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt
9/21/2016 4:02:34 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. --

KEY NOTES

1 --

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A4

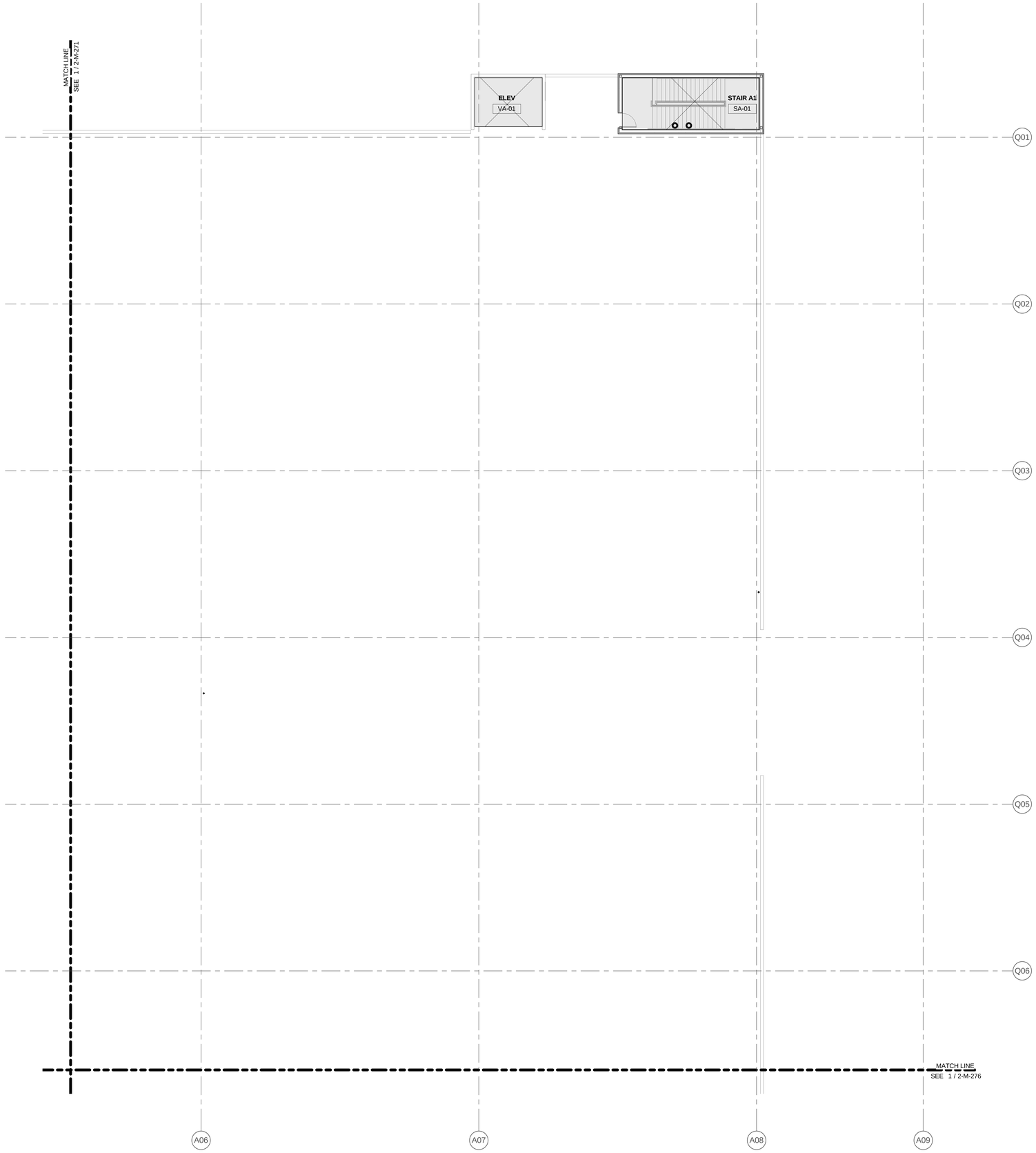
SHEET NO.

2-M-274

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:02:25 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. --

KEY NOTES

1 --

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.427.0621
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A5

SHEET NO.

2-M-275

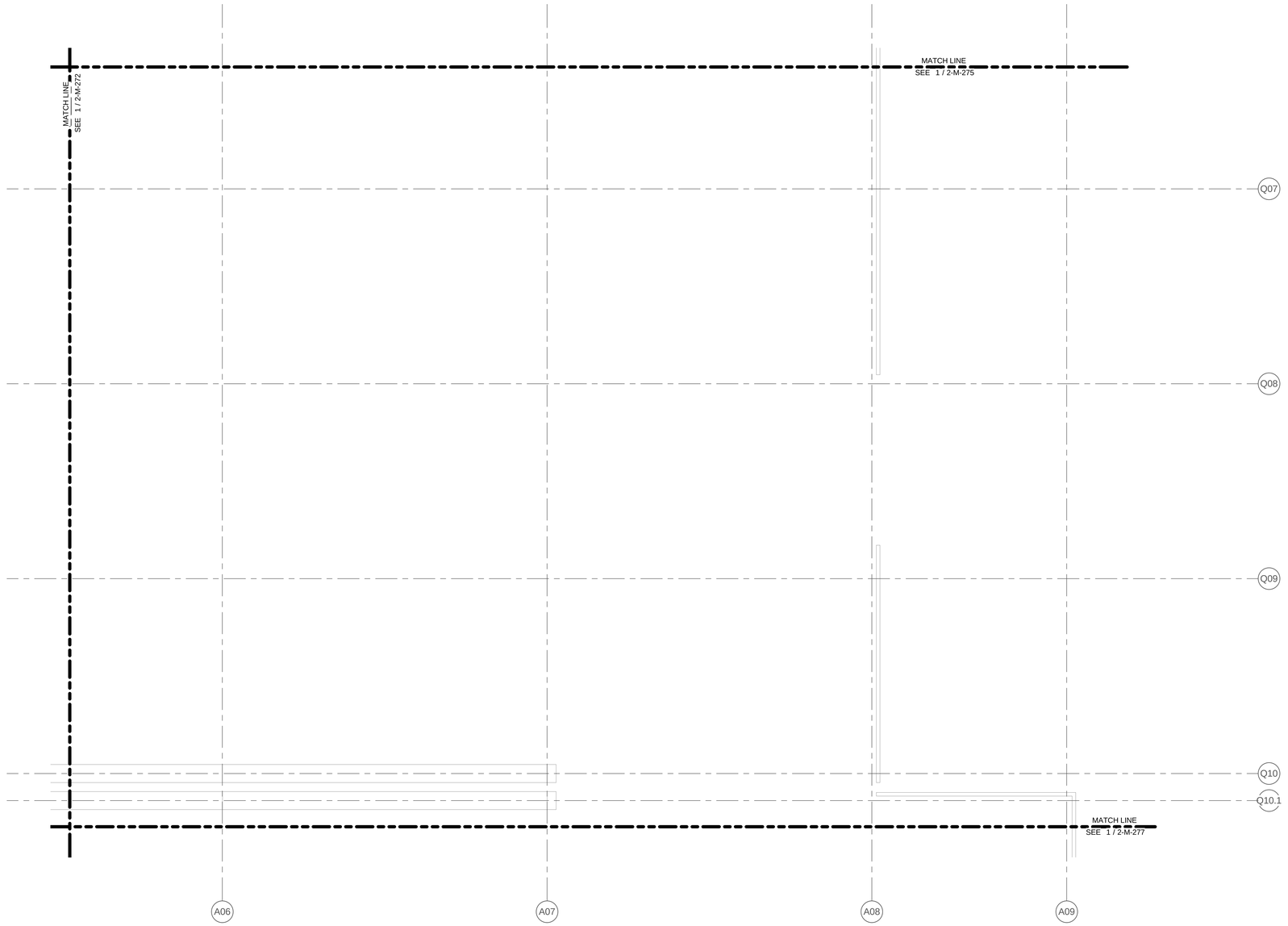
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/23/2016 4:02:36 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART A6
1/8" = 1'-0"

GENERAL NOTES

1. --

KEY NOTES

1 --

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical · Electrical · Plumbing | Consulting · Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

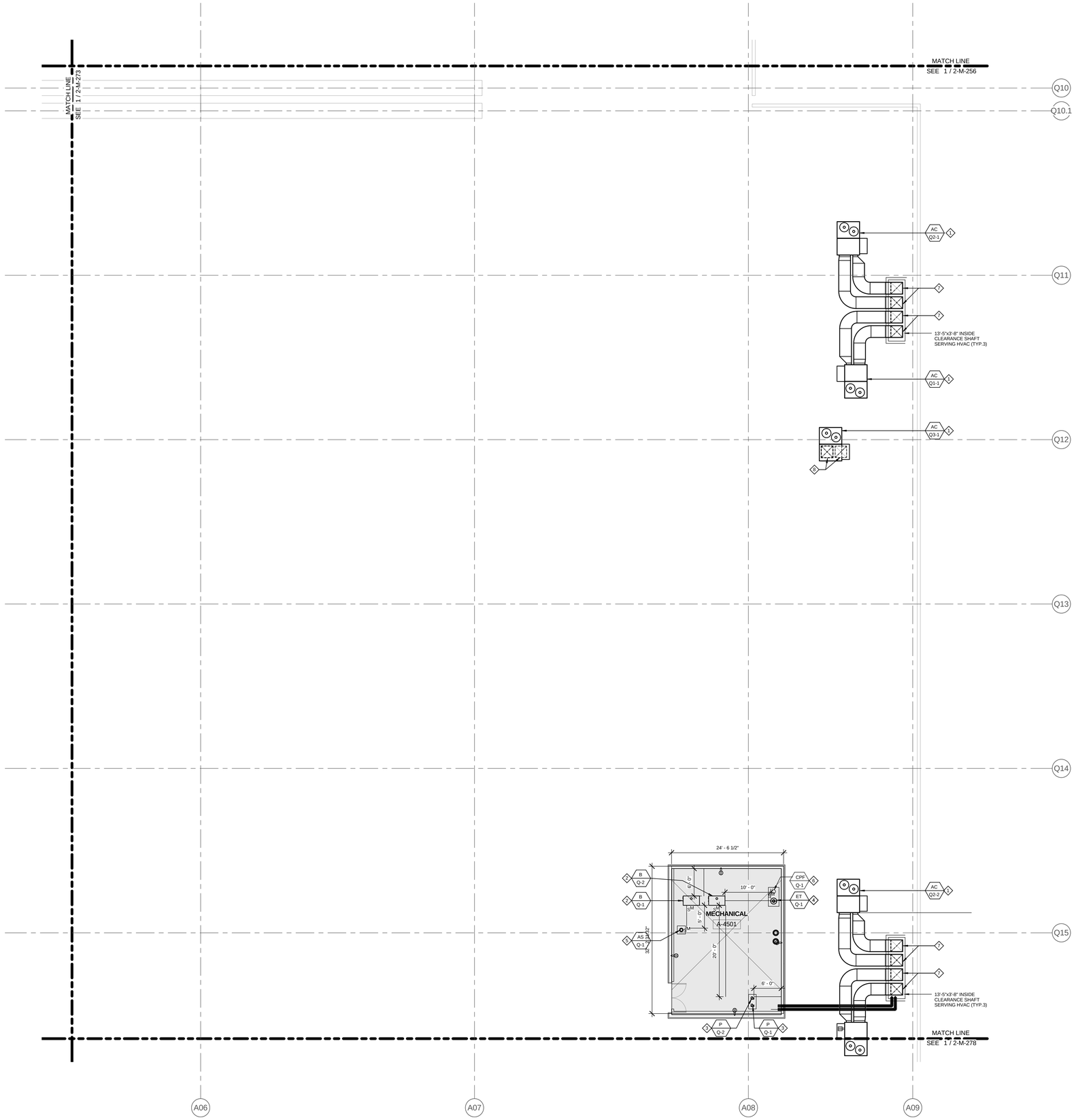
QTA ENLARGED ROOF PLAN - PART A6

SHEET NO.

2-M-276

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:02:37 PM C:\Users\nvy\Documents\MP-DA4881-BLDG_A_B-R15_nvy@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART A7
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. FOR EXACT EQUIPMENT, PAD LOCATIONS AND SIZES, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
5. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION OR THREE (3) FEET ABOVE THE OUTSIDE-AIR INTAKES FOR HVAC UNITS.

KEY NOTES

1. ROOF MOUNTED 20 TONS PACKAGED SYSTEM VARIABLE AIR VOLUME AIR CONDITIONING UNIT COOLING ONLY.
2. BOILER SERVING HEATING HOT WATER SYSTEM MOUNTED ON MINIMUM 4" HIGH CONCRETE PAD.
3. CIRCULATING PUMP SERVING HEATING HOT WATER SYSTEM.
4. EXPANSION TANK SERVING HEATING HOT WATER SYSTEM.
5. AIR SEPARATOR SERVING HEATING HOT WATER SYSTEM.
6. CHEMICAL POT FEEDER SERVING HEATING HOT WATER SYSTEM.
7. 30"x30" SUPPLY AND RETURN AIR DUCTS DN INSIDE SHAFT.
8. 30"x30" SUPPLY AND RETURN AIR DUTS DN THRU ROOF.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A7

SHEET NO.
2-M-277

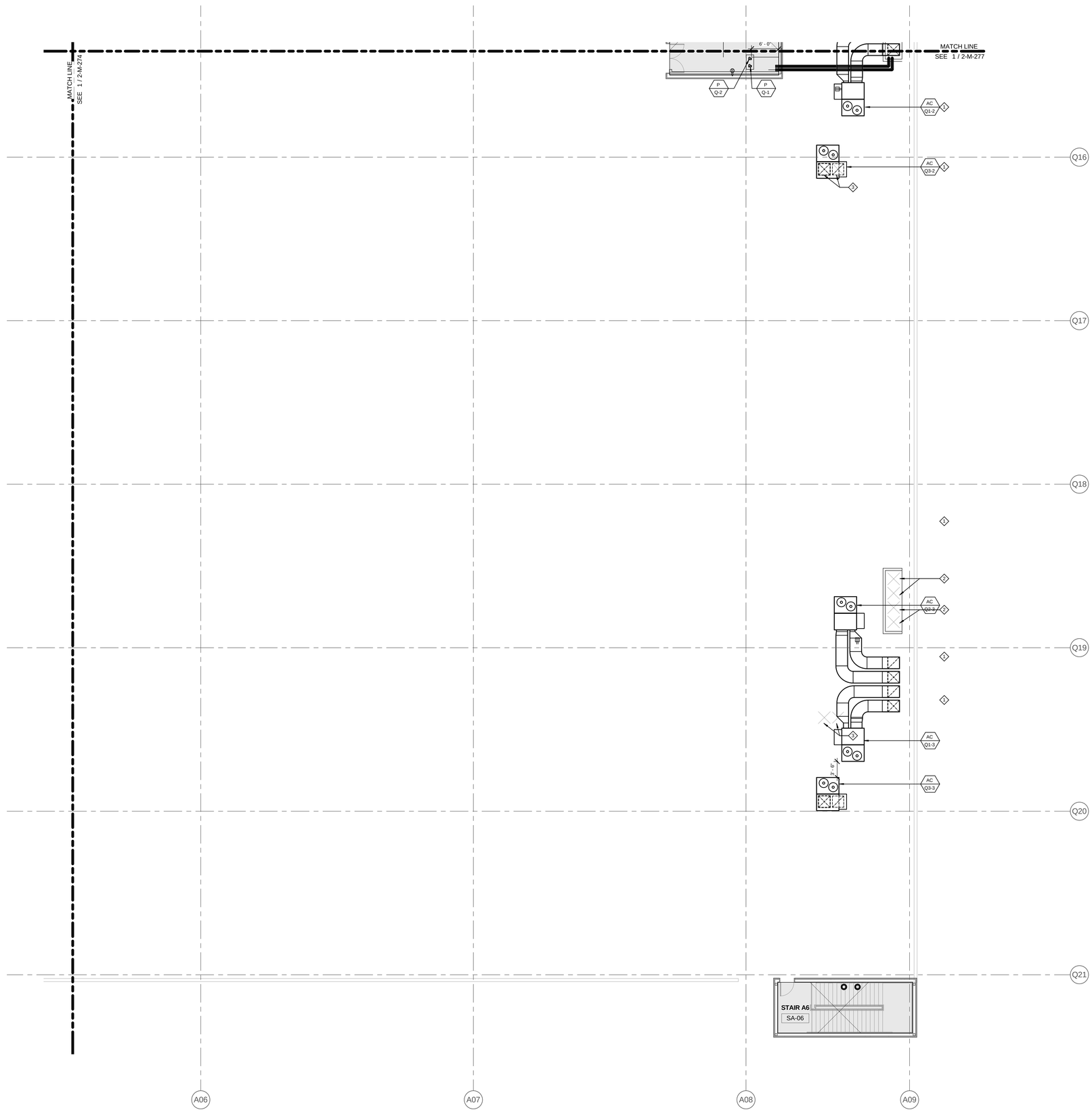
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:02:39 PM C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART A8
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. FOR EXACT EQUIPMENT, PAD LOCATIONS AND SIZES, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
5. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION OR THREE (3) FEET ABOVE THE OUTSIDE-AIR INTAKES FOR HVAC UNITS.

KEY NOTES

1. ROOF MOUNTED 20 TONS PACKAGED SYSTEM VARIABLE AIR VOLUME AIR CONDITIONING UNIT COOLING ONLY.
2. 30"x30" SUPPLY AND RETURN AIR DUCTS DN INSIDE SHAFT.
3. 30"x30" SUPPLY AND RETURN AIR DUCTS DN THRU ROOF.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 200
Long Beach, CA 90806
T 562.426.0356 F 562.426.0373
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A8

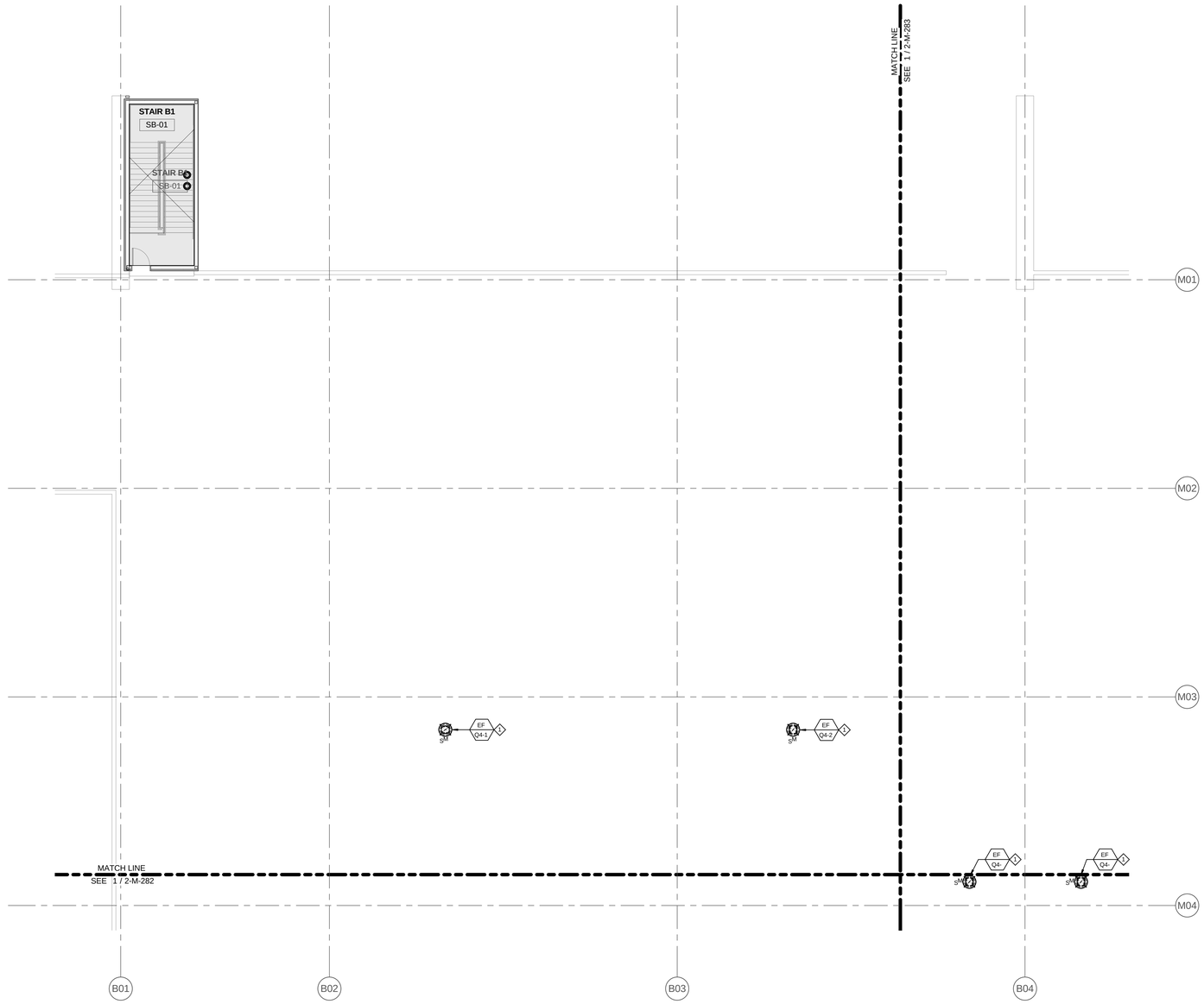
SHEET NO.
2-M-278

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

9/21/2016 4:02:40 PM
C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@tdsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART B1
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. FOR EXACT EQUIPMENT, PAD LOCATIONS AND SIZES, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
5. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION OR THREE (3) FEET ABOVE THE OUTSIDE-AIR INTAKES FOR HVAC UNITS.

KEY NOTES

1 ROOF MOUNTED EXHAUST FAN WITH PRE-FABRICATED ROOF CURB.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 200
Long Beach, CA 90806
T 562.426.0551 F 562.490.2613
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4BB1
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART B1

SHEET NO.

2-M-281

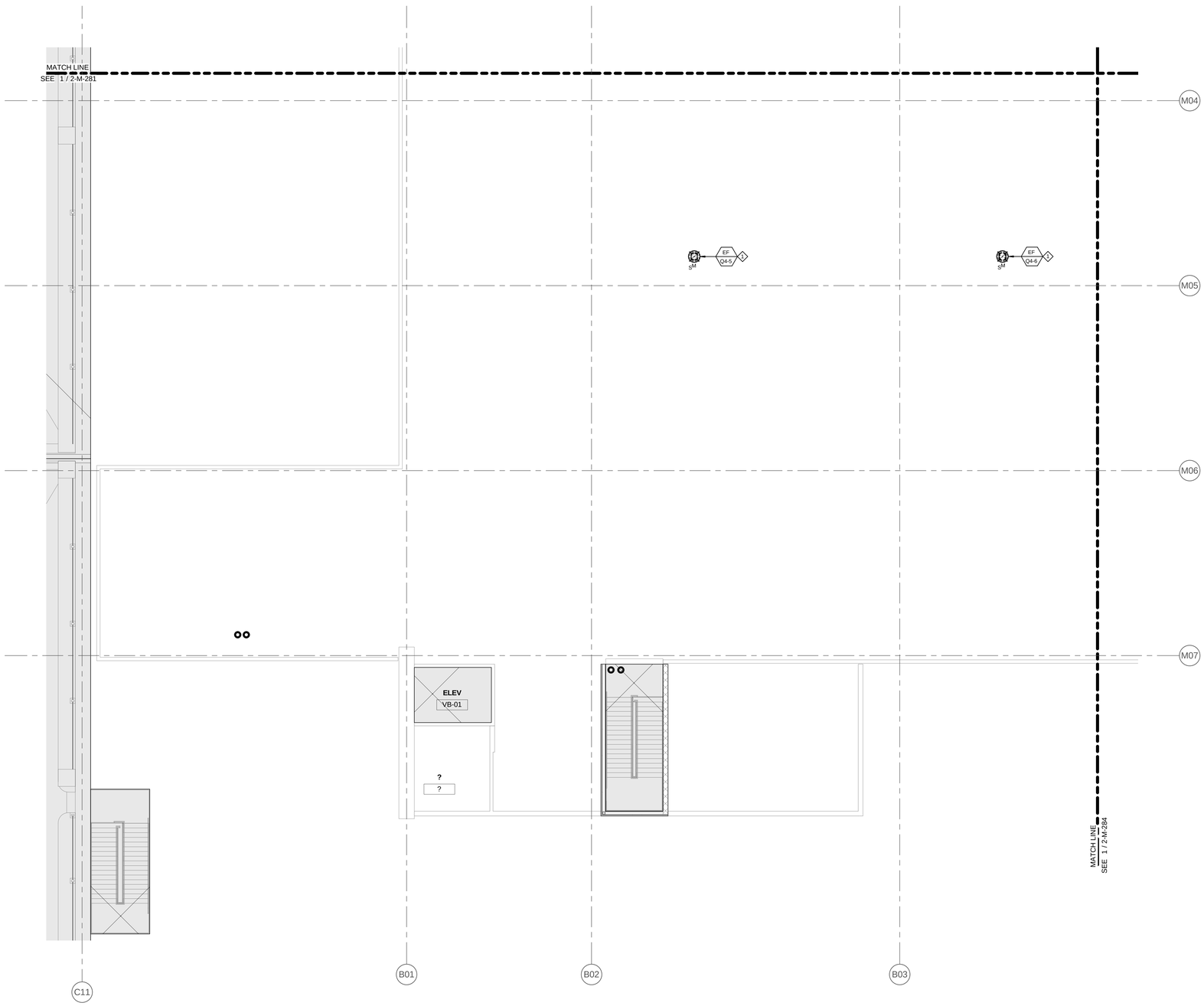
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:02:41 PM C:\Users\mly\Documents\MP-DA4BB1-BLDG_A_B-R15_mly@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART B2
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. FOR EXACT EQUIPMENT, PAD LOCATIONS AND SIZES, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
5. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION OR THREE (3) FEET ABOVE THE OUTSIDE-AIR INTAKES FOR HVAC UNITS.

KEY NOTES

1 ROOF MOUNTED EXHAUST FAN WITH PRE-FABRICATED ROOF CURB.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.490.2101
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART B2

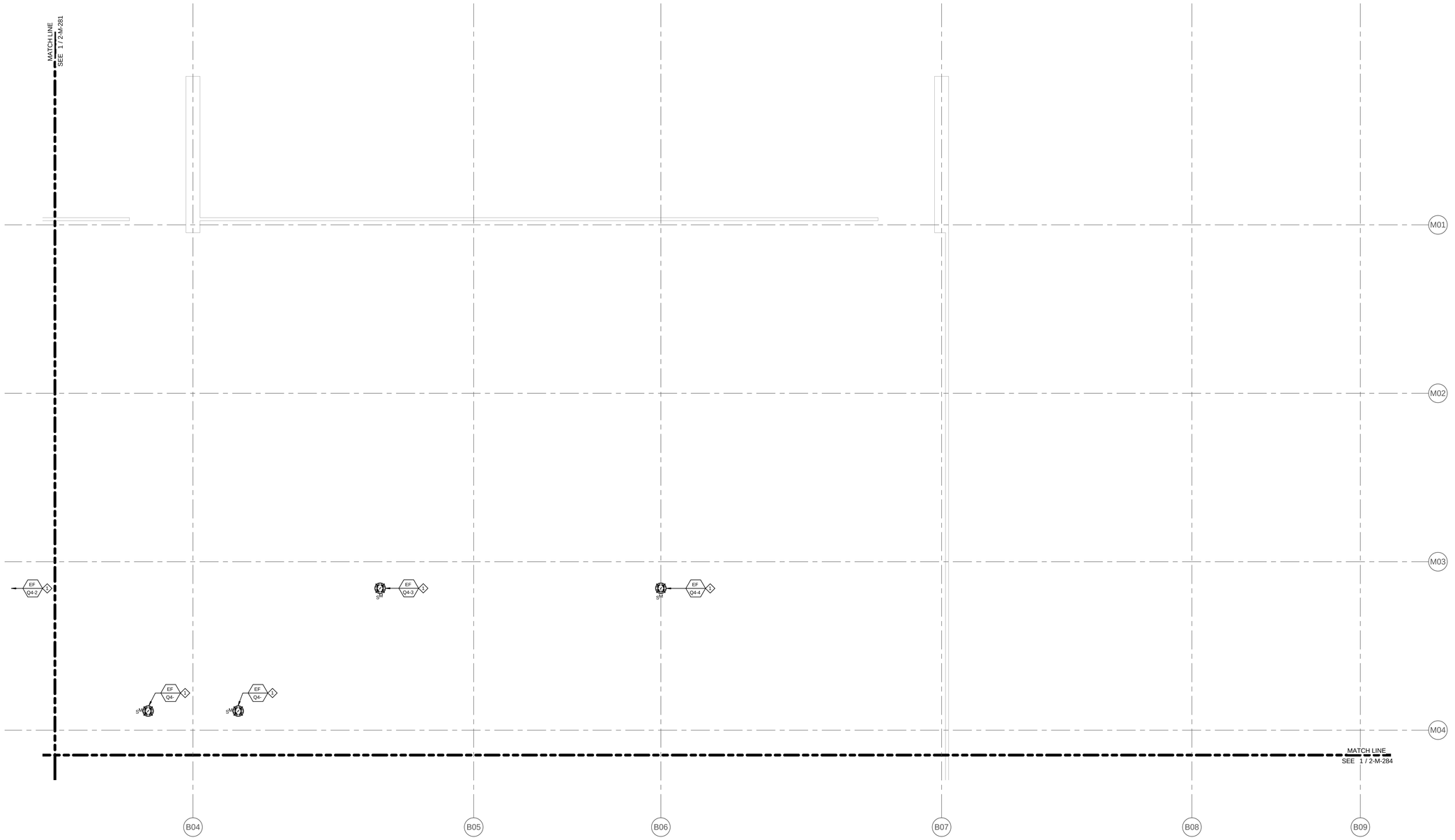
SHEET NO.
2-M-282

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

9/21/2016 4:02:42 PM C:\Users\mhy\Documents\MR-DA4881-BLDG_A_B-R15_mhy@tbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART B3
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. FOR EXACT EQUIPMENT, PAD LOCATIONS AND SIZES, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
5. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION OR THREE (3) FEET ABOVE THE OUTSIDE-AIR INTAKES FOR HVAC UNITS.

KEY NOTES

1 ROOF MOUNTED EXHAUST FAN WITH PRE-FABRICATED ROOF CURB.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Civil | Structural | MEP | FP
3780 Kilroy Airport Way, Suite 210, Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

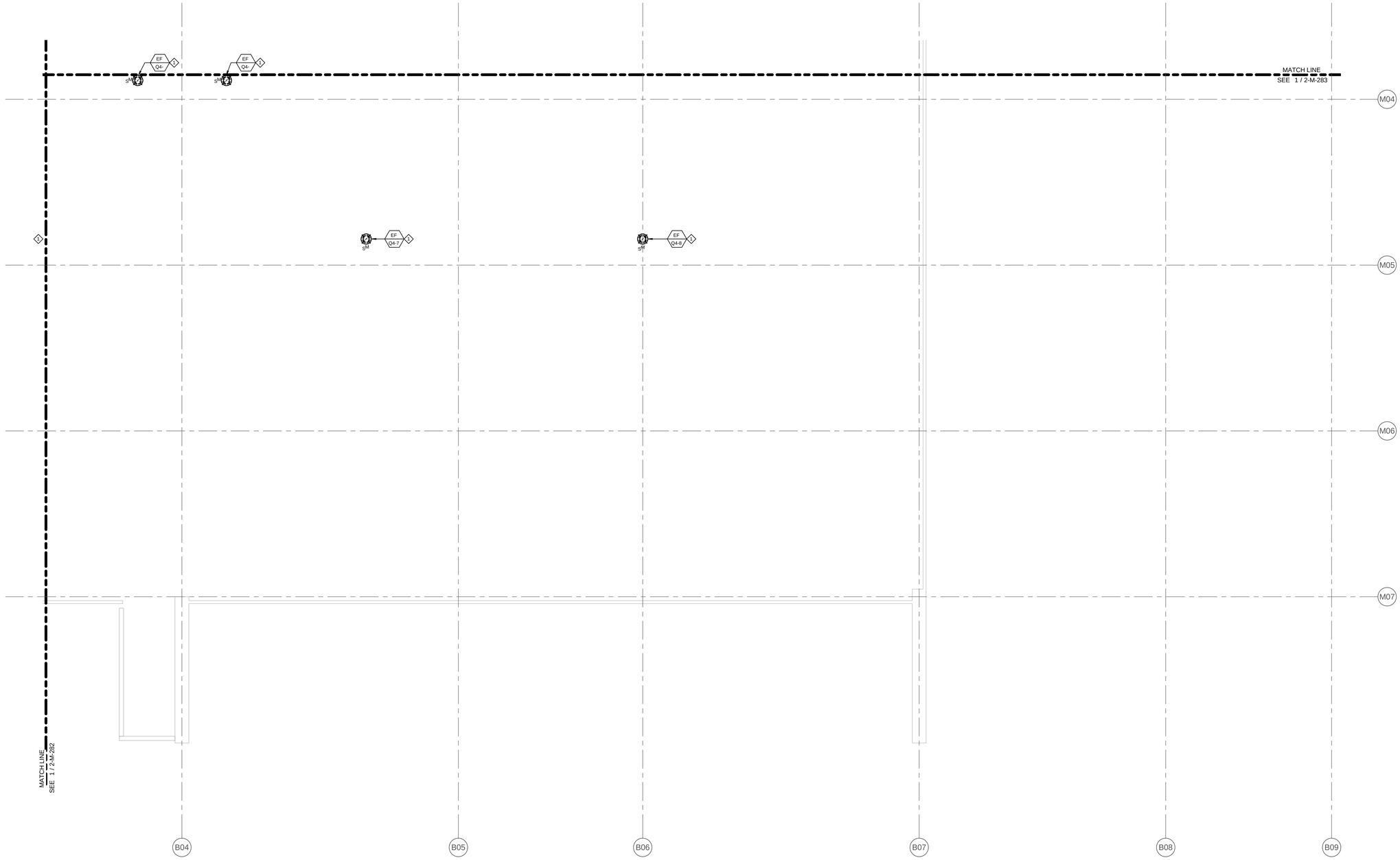
QTA ENLARGED ROOF PLAN - PART B3

SHEET NO.

2-M-283

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:02:44 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 4 ENLARGED HVAC PLAN - PART B4
1/8" = 1'-0"

GENERAL NOTES

1. COORDINATE WORK WITH ALL RELATED DISCIPLINES INCLUDING ELECTRICAL AND PLUMBING.
2. REFER TO ARCHITECTURAL DRAWINGS AND KEY PLANS FOR SITE LOCATION.
3. FOR EXACT EQUIPMENT, PAD LOCATIONS AND SIZES, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
5. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION OR THREE (3) FEET ABOVE THE OUTSIDE-AIR INTAKES FOR HVAC UNITS.

KEY NOTES

1 ROOF MOUNTED EXHAUST FAN WITH PRE-FABRICATED ROOF CURB.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2290 East Avenue S, Suite 101 La Verne, CA 91750
P (626)6000500
Mechanical Electrical Plumbing | Consulting Engineers

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

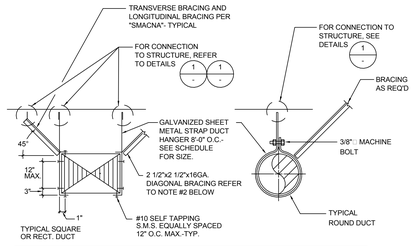
SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART B4

SHEET NO.

2-M-284

C:\Users\mhy\Documents\IMP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt
9/21/2016 4:02:45 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



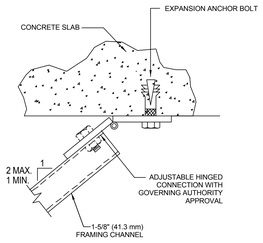
RECTANGULAR DUCT			ROUND DUCT		
MAX. OF DUCT PERIMETER/IN.	PAIR AT 8 FT. SPACING	MAX. LOAD EACH HANGER/LBS.	DIAMETER /INCHES	STRAP AT 12 FT. SPACING	MAX. LOAD EACH HANGER/LBS.
P/2 =72	1"X 20 GA.	320	UP TO 24"	1"X 22 GA.	260
P/2 =96	1"X 18 GA.	420	25" TO 36"	1"X 20 GA.	320
P/2 =120	1"X 16 GA.	700	37" TO 50"	(2)1"X 20 GA.	320

NOTES:

1. EXCEPT FROM TABLES 6-2-A AND 6-2-B OF APPENDIX A, STANDARD 6-2 OF THE 2013 CALIFORNIA MECHANICAL CODE
2. PROVIDE TRANSVERSE BRACING AT 4O FT. AND LONGITUDINAL BRACING AT 80 FT. (1998 SMACNA SEISMIC RESTRAINT MANUAL, 2ND EDITION)

1 DUCT SUPPORT AND CONNECTION TO STRUCTURE DETAILS

SCALE: NOT TO SCALE

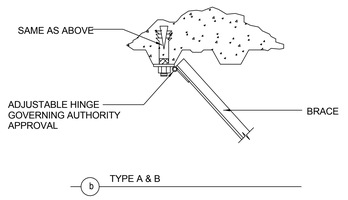


TYPE A, B & C

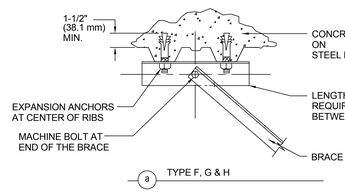
ADJUSTABLE CONN. TO CONCRETE

NOTES:

THIS IS FIGURE 8-2 OF SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS, (SECOND EDITION 1998) AND ADDENDUM NO.1 (SEPTEMBER 2000), BY SMACNA. ALL REFERENCES ARE TO THESE PUBLICATIONS



b TYPE A & B

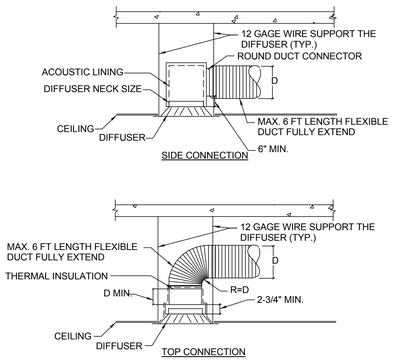


a TYPE F, G & H

CONN. CONCRETE FILL ON STEEL DECK

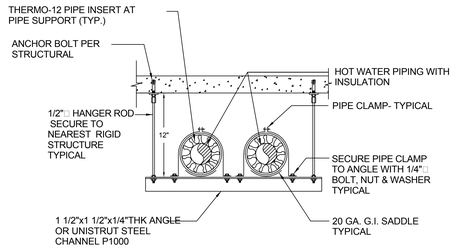
NOTES:

1. THIS IS FIGURE 8-6 OF SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS, SECOND EDITION (1998) AND ADDENDUM NO.1 (SEPTEMBER 2000), BY SMACNA. ALL REFERENCES ARE TO THESE PUBLICATIONS.



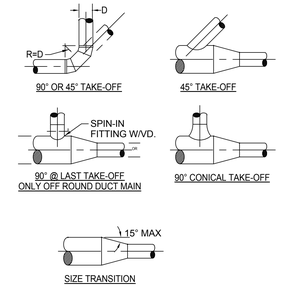
5 CD/CR MOUNTING DETAIL

SCALE: NOT TO SCALE



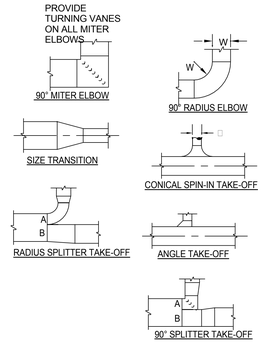
4 TRAPEZE PIPE SUPPORT DETAIL

SCALE: NOT TO SCALE



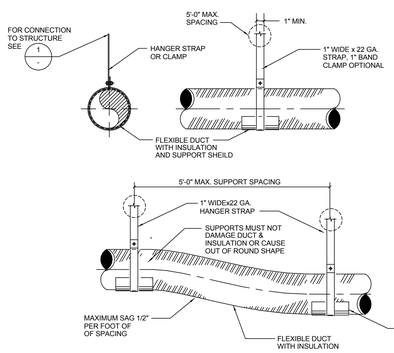
3 ROUND DUCTWORK TRANSITIONS AND CONN. DETAILS

SCALE: NOT TO SCALE



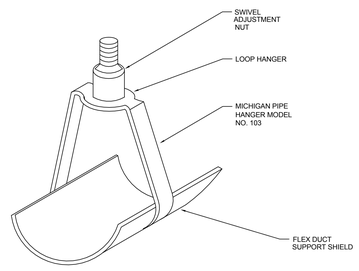
2 RECTANGULAR DUCTWORK TRANSITIONS AND CONN. DETAILS

SCALE: NOT TO SCALE



8 FLEXIBLE DUCT SUPPORT DETAIL

SCALE: NOT TO SCALE



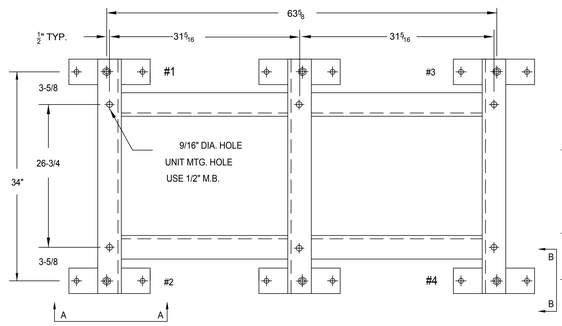
7 FLEX DUCT SUPPORT DETAIL

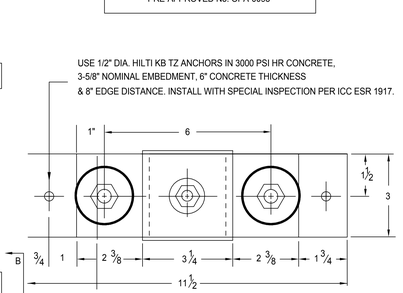
SCALE: NOT TO SCALE

MARK	MAKE	TYPE	SIZE	STEEL SIZE
HP-1	MITSUBISHI	PURY	P144	L3 X 3 X 1/4

ISOLATORS ARE O.S.H.P.D. PRE-APPROVED No. OPA-0098

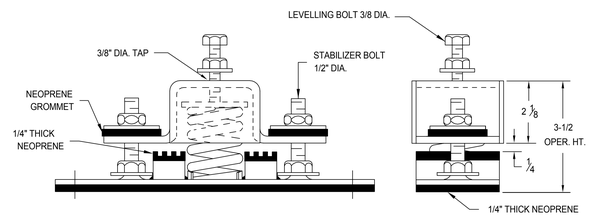
MTS	SPRING O.D.	DEFL
1-4	2"	1"

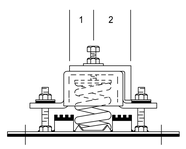




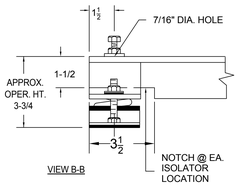
NOTES:

1. APPROX. STEEL WEIGHT INCLUDING ISOLATORS.: 130 LBS.
2. ISOLATORS ARE OSHPD PRE-APPROVED #OPA-0098.
3. M.W. SAUSSE & CO. INC. IS NOT RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THE EQUIPMENT WHEN ANCHORED AS SHOWN.
4. NOT FOR CONSTRUCTION, ALL DIMENSIONS REQUIRE FINAL REVIEW AT COMMENCEMENT OF PROJECT.





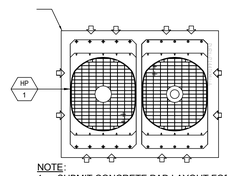
VIEW A-A



VIEW B-B

MAX. ALLOW. LOADS: HORIZ. 1100 lbs. VERT. (UP) 1400 lbs.

10" CONCRETE PAD/ EQUIPMENT PAD

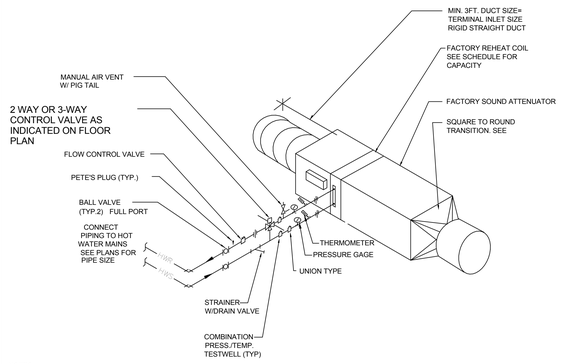


NOTE:

1. SUBMIT CONCRETE PAD LAYOUT FOR APPROVAL.

6 HEAT PUMP/VRF CHANNEL FRAME AND SPRING ISOLATOR DETAIL

SCALE: NOT TO SCALE

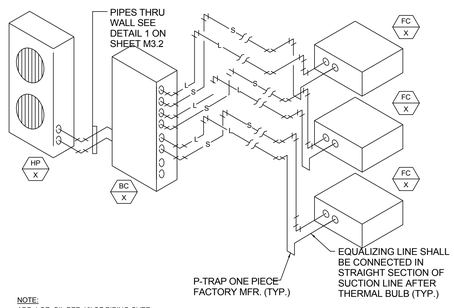


NOTES:

1. COIL PIPING PACKAGE SHALL BE BELL & GOSSETT MODEL MC3Y VALVE KIT PLUS CIRCUIT SETTER
2. PROVIDE 3-WAY CONTROL VALVES FOR THE VAV BOXES ONLY AT THE END OF THE HOT WATER PIPING LOOP. 2-WAY CONTROL SHALL BE AT ALL OTHER VAV BOXES.

10 VARIABLE/CONSTANT AIR VOLUME BOX PIPING DETAIL

SCALE: NOT TO SCALE



NOTE:

ADD 4 OZ. OIL PER 10' OF PIPING OVER 50' MAXIMUM PIPE RUN. INSULATE PIPING PER SPECIFICATIONS.

9 TYPICAL VRF PIPING DIAGRAM

SCALE: NOT TO SCALE

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3281East Guasti Rd. Suite 810 Ontario, CA 91761
T 626.6000500 F 626.6000501
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:

DETAILS

SHEET NO.

2-M-501

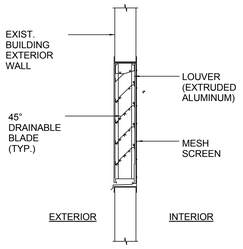
C:\Users\my\Documents\MP-DA4881-BLDG_A_R15_my@pbsengineers.com.rvt

9/23/2016 3:13:34 PM

link_mech_2-M-501

12" = 1'-0"

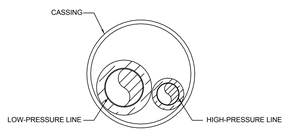
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



NOTE:

MOUNT AS HIGH AS POSSIBLE. EXACT MOUNTING HEIGHT TO BE FIELD VERIFIED. COORDINATE WITH EXTERIOR & INTERIOR CONDITIONS.

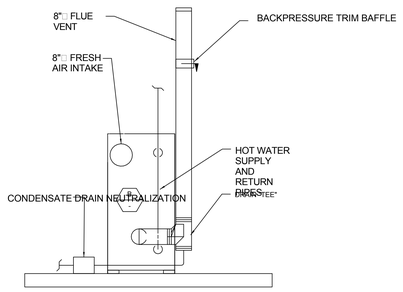
2 WALL MOUNTED LOUVER DETAIL
SCALE: NOT TO SCALE



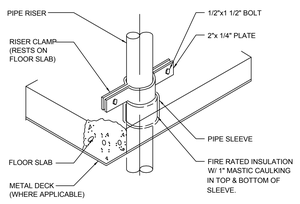
NOTES:

- REFRIGERANT LINES MUST BE INSULATED SEPARATELY
- A MINIMUM OF 1/2" THICK INSULATION IS RECOMMENDED
- IF POSSIBLE, INSTALL CASING AS ONE CONTINUOUS PIECE
- IF THE CASING INCLUDES JOINTS, CONTACT THE MANUFACTURER OR SUPPLIER FOR INSTRUCTIONS ON HOW TO SEAL THE JOINTS TO MAKE THEM WATER TIGHT.

3 TYPICAL CROSS SECTION OF PIPING
SCALE: NOT TO SCALE

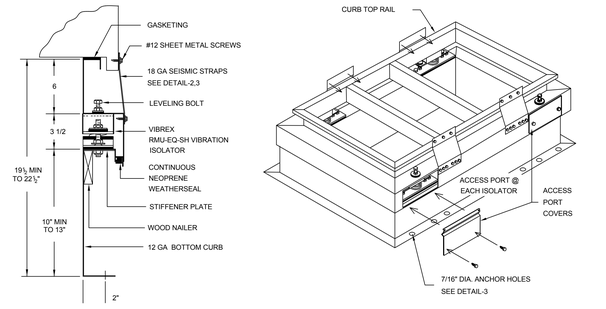


4 BOILER FLUE VENT DETAIL
SCALE: NOT TO SCALE



6 PIPE FLOOR PENETRATION DETAIL
SCALE: NOT TO SCALE

DETAIL-1



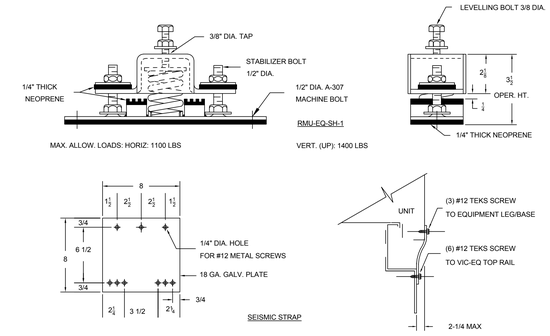
NOTES:

1. FOR ANCHOR REQUIREMENTS AND DETAILS OF ISOLATORS AND SEISMIC STRAPS, SEE DETAIL 2, 3.
2. ROOF SLOPE TO BE VERIFIED BY CONTRACTOR BEFORE FABRICATION & ROOF CURB HEIGHT ARE APPROXIMATE.
3. NOT FOR CONSTRUCTION, ALL DIMENSIONS REQUIRE FINAL REVIEW AT COMMENCEMENT OF PROJECT

DETAIL-2

NOTES: 1) ALL DIMENSIONS IN INCHES
2) SPRING DEFLECTION = 1"

ISOLATORS ARE O.S.H.P.D. PRE-APPROVED No. OPA-0098

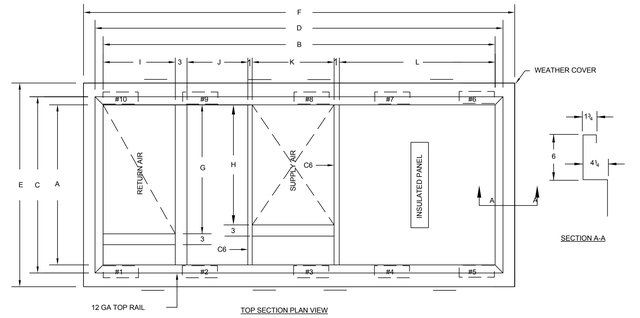


NOTES:

1) —— INDICATES SEISMIC TIE-DOWN PLATE. (5) REQUIRED PER LONG SIDE, SEE DETAIL 2.
2) #1 THRU #10 INDICATE ISOLATOR LOCATIONS. SEE DETAIL 2.

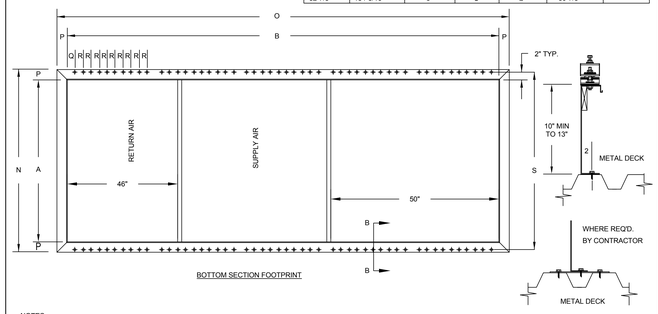
DETAIL-3

MARK	MAKE	TYPE	SIZE	VIC-EQ WT.
-	CARRIER	48LC	24	760#



TOP SECTION PLAN VIEW

A	B	C	D	E	F	G	H	I	J	K	L	M
76-7/8	148-3/16	80-3/8	151-11/16	85-3/8	156-11/16	69-9/16	63-7/8	22-1/4	21-7/8	27-7/8	71-3/16	--
						N	O	P	Q	R	S	T
						82-7/8	154-3/16	3	3	2	80-7/8	



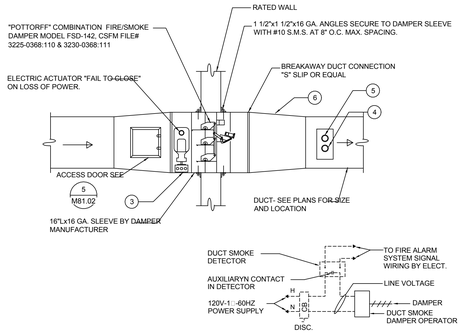
BOTTOM SECTION FOOTPRINT

SECTION B-B

NOTES:

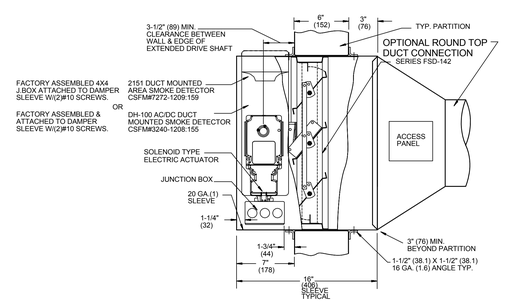
1. R DIMENSIONS ARE CENTERLINES OF ANCHOR HOLES IN CURB BOTTOM FLANGE.
2. USE 1/4" ITW TEKS SCREWS TO MIN. 18 GA METAL DECK.
(10) PER ISOLATOR. WHEN CURB FASTENED TO PLATE, USE 1/4" TEKS SCREWS ON EITHER SIDE AS SHOWN.

1 PACKAGE UNIT ROOF CURB DETAIL
SCALE: NOT TO SCALE



DAMPER NOTES:

1. FIRE/SMOKE DETAIL IS FOR REFERENCE ONLY. ALL FIRE/SMOKE DAMPERS SHALL BE STATE FIRE MARSHAL APPROVED AND INSTALLED STRICTLY PER THE MANUFACTURERS PRINTED INSTRUCTIONS. THE MANUFACTURERS INSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTING AUTHORITIES PER CBC 4306(K)
2. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO INSTALLING.
3. DUCT MOUNTED SMOKE DETECTOR COMPLETE WITH HOUSING FURNISHED AND WIRED BY DIVISION 26000 ELECTRICAL.
4. DUCT SMOKE DETECTOR SAMPLING TUBE AND MOUNTING BASE FURNISHED BY DIVISION 26000 ELECTRICAL AND INSTALLED BY DIVISION 23000 MECHANICAL.
5. ALL FIRE/SMOKE DAMPERS SHALL BE TWO INCHES (2") LARGER THAN THE SPECIFIED DUCT SIZE INDICATED ON THE FLOOR PLANS. REFER TO FLOOR PLANS FOR DUCT SIZES.
6. FURNISH AND INSTALL DUCT TRANSITION FROM THE FIRE/SMOKE DAMPER SLEEVE SIZE INDICATED ON THE MECHANICAL FLOOR PLANS. TYPICAL TWO (2) TRANSITIONS FOR EACH DAMPER.



FIRE/SMOKE DAMPER SPECIFICATIONS:

ALL FIRESMOKE DAMPERS SHALL BE LABELED AND LISTED BY CALIFORNIA STATE FIRE MARSHAL AND/OR UNDERWRITERS LABORATORIES. ALL DAMPERS MUST ALSO BE LEAKAGE RATED AND LABELED UNDER UNDERWRITER LABORATORIES STD. 555S. WITH SILICON SEALS ALLOWING NO MORE THAN 10 CFM/SQ.FT. AT 1" W.G. TO 350° F FOR A FULL 30 MIN. MOTOR OPERATED. TORQUE REQ'D. TO MAINTAIN LEAKAGE RATE NOT TO EXCEED 0 LBS. TORQUE. DAMPERS SHALL BE INSTALLED PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND/OR STATE FIRE MARSHAL LISTING NO. 03225. POTTORFF COMPANY, INC. (LISTING # 03225:0368:110 AND 03230:0368:111) PROVIDE NON STALL SOLENOID MOTOR , 64 VA. MAXIMUM. TESTED FOR 1 YEAR CONTINUOUS POWER APPLICATIONS SUCH AS BELIMO CAPABLE TO REOPEN DAMPER REGARDLESS OF POWER FAILURE LENGTH OF TIME. PROVIDE 5 YEAR DAMPER AND ACTUATOR WARRANTY.

5 COMBINATION FIRE / SMOKE DAMPER DETAIL
SCALE: NOT TO SCALE

M. W. SAUSSE & CO., INC.
28774 Whitherspoon Pkwy. Valencia, CA 91355
Phone: (661) 257-3311 Fax: (661) 257-7673

Vibrex vibration & seismic control systems — VIC-EQ

JOB NAME: CONRAC CSB		REVISIONS:	DRN: TDT
CUST.:		A:	DATE: 1-29-16
CUST. P.O.:		B:	DRAWING NO.: -5
MECH. ENGR .:	PBS	C:	
MARK:	-	D:	

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2361Rosecrans Ave. Suite 210 El Segundo, CA 90245
T 424.8200500 F 424.8200501
www.pbsengineers.com
Mechanical Electrical Plumbing / Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:	DATE	DESCRIPTION
MARK		

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

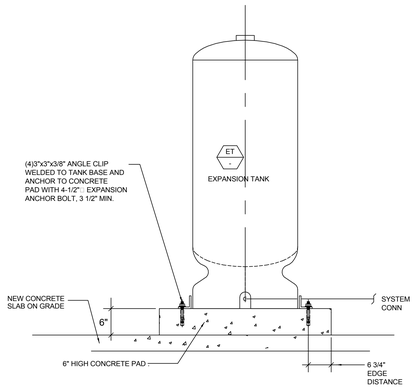
SHEET TITLE: DETAILS

SHEET NO. 2-M-502

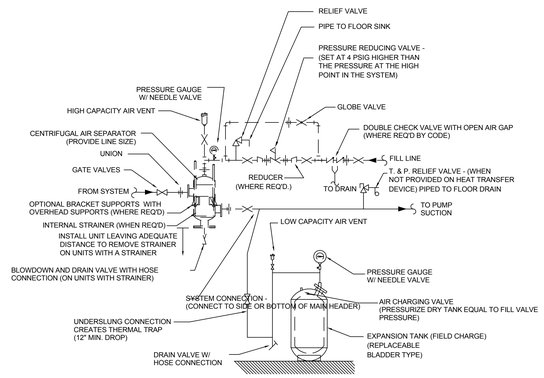
C:\Users\mvy\Documents\M\P-DA4881-BLDG_A_R15_mvy@pbsengineers.com.rvt
9/23/2016 3:13:35 PM
link_mech_2-M-502

4 12" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



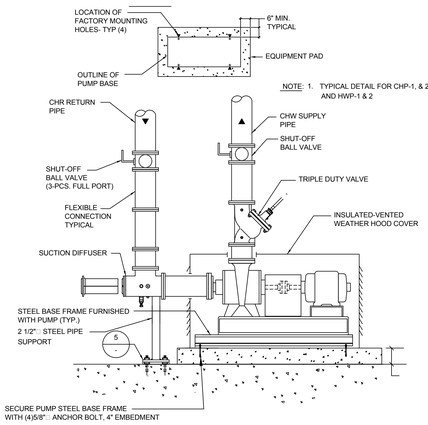
10 EXPANSION TANK MOUNTING DETAIL
SCALE: NOT TO SCALE



NOTE:

INSULATE AND PROVIDE WEATHERPROOF JACKETING OVER AIR SEPARATOR.

7 TYP. AIR SEPARATOR AND EXPANSION TANK PIPING CONN. DETAIL
SCALE: NOT TO SCALE

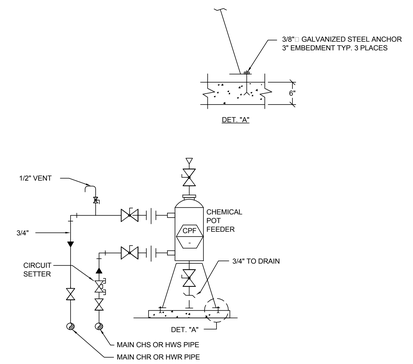


NOTE: 1. TYPICAL DETAIL FOR CHP-1, & 2 AND HWP-1 & 2

NOTE:

ALL EXPOSED PIPES, VALVES AND ACCESSORIES TO BE INSULATED AND COVERED WITH WEATHERPROOF JACKETING.

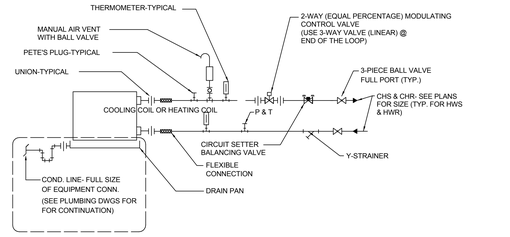
4 TYPICAL PUMP MOUNTING AND PIPING CONNECTION DETAIL
SCALE: NOT TO SCALE



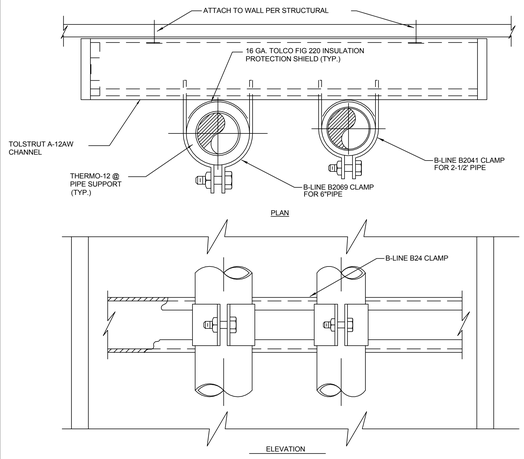
NOTES:

1. TYPICAL DETAIL FOR CPF-1 & 2

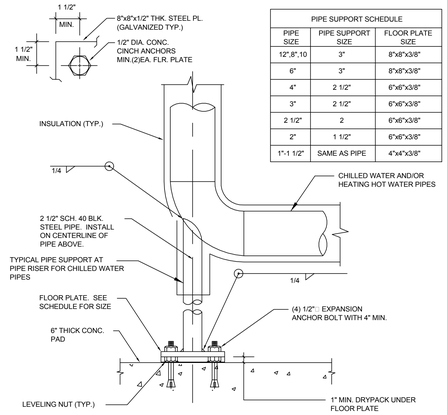
1 CHEMICAL POT FEEDER DETAIL
SCALE: NOT TO SCALE



11 TYP. FAN COIL CLG./HTG. COIL PIPING CONNECTION DETAIL
SCALE: NOT TO SCALE

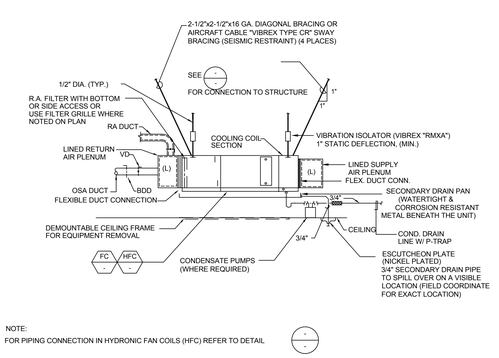


8 HEATING HOT WATER PIPE SUPPORT @ WALL /RISER DETAIL
SCALE: NOT TO SCALE



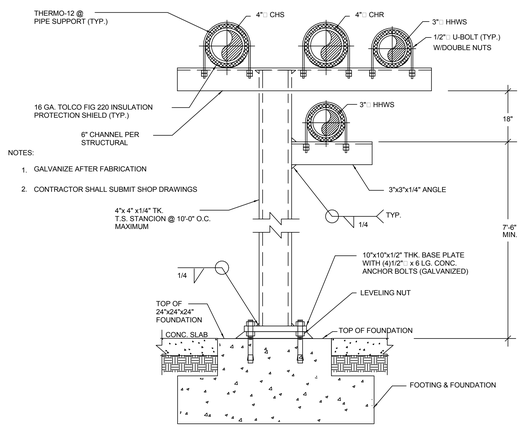
PIPE SUPPORT SCHEDULE		
PIPE SIZE	PIPE SUPPORT SIZE	FLOOR PLATE SIZE
1/2",8",10	3"	8"x8"x3/8"
6"	3"	8"x8"x3/8"
4"	2 1/2"	6"x6"x3/8"
3"	2 1/2"	6"x6"x3/8"
2 1/2"	2	6"x6"x3/8"
2"	1 1/2"	6"x6"x3/8"
1"-1 1/2"	SAME AS PIPE	4"x4"x3/8"

5 PIPE SUPPORT DETAIL
SCALE: NOT TO SCALE

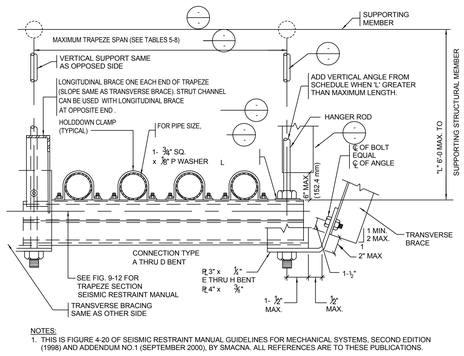


NOTE:
FOR PIPING CONNECTION IN HYDRONIC FAN COILS (HFC) REFER TO DETAIL

2 FAN COIL INSTALLATION DETAIL
SCALE: NOT TO SCALE

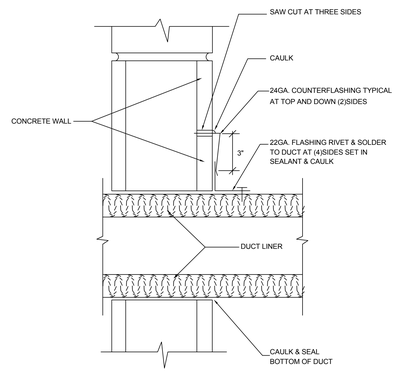


12 PIPE SUPPORT (STANCION) DETAIL
SCALE: NOT TO SCALE



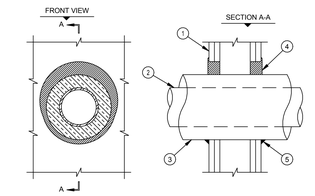
NOTES:
1. THIS IS FIGURE 4-20 OF SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS, SECOND EDITION (1998) AND ADDENDUM NO.1 (SEPTEMBER 2000), BY SMACNA. ALL REFERENCES ARE TO THESE PUBLICATIONS.

9 STRUT BRACING FOR PIPE TRAPEZE
SCALE: NOT TO SCALE



6 DUCT PENETRATION THRU WALL DETAIL
SCALE: NOT TO SCALE

U.L. SYSTEM NO. WL5029
INSULATED METAL PIPE THROUGH 1-HR. OR 2-HR. GYPSUM WALL ASSEMBLY
F RATING = 1-HR. AND 2-HR.
T RATING = 1/2 HR., 1-HR., AND 1-3/4 HR. (SEE U.L. FIRE RESISTANCE DIRECTORY)
L RATING AT AMBIENT = 4 CFM/SQ. FT.
L RATING AT 400°F = LESS THAN 1 CFM/SQ. FT.



1. GYPSUM WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING)(2-HR. SHOWN).
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
   A. MAXIMUM 10" DIAMETER STEEL PIPE (SCHEDULE 40 OR THINNER).
   B. MAXIMUM 2" DIAMETER COPPER PIPE.
   C. 2-1/2" OR LARGER DIAMETER STEEL CONDUIT.
3. MAXIMUM 2" THICK GLASS FIBER PIPE INSULATION WITH AN ALL SERVICE JACKET.
4. ANCHOR BOLT HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT :
   A. MINIMUM 5/8" DEPTH, FOR A 1-HR. FIRE-RATING.
   B. MINIMUM 1-1/4" DEPTH, FOR A 2-HR. FIRE-RATING.
5. MINIMUM 1/2" CROWN HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT AT PIPE INSULATION/WALL INTERFACE.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 9".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-1/2".

3 INSULATED PIPE THRU 1 OR 2-HR GYPS. WALL
SCALE: NOT TO SCALE

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2309 Main Street, Suite 100
Irvine, CA 92614
T 949.809.0500
www.pbsengineers.com
Mechanical Electrical Plumbing Engineering Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:	DESCRIPTION	DATE	MARK

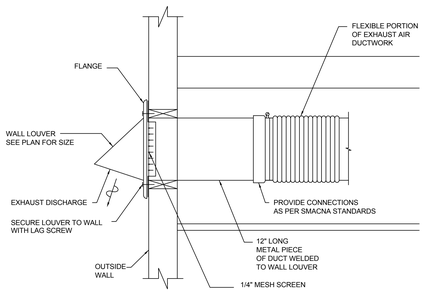
PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:
DETAILS

SHEET NO.
2-M-503

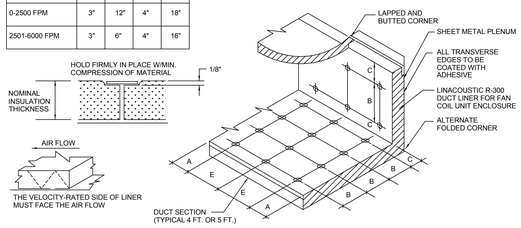
C:\Users\mhy\Documents\MP-DA4881-BLDG_A_S-R15_my@dbsengineers.com.rvt
9/21/2016 8:13:37 PM
link_mech_2-M-503
12" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



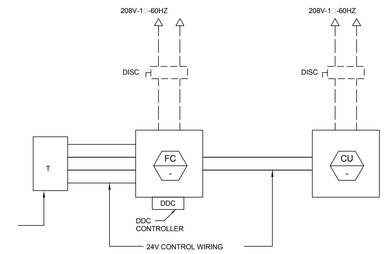
10 EXHAUST AIR DUCT THRU EXTERIOR WALL W/HOOD
SCALE: NOT TO SCALE

MAX. SPACING FOR FASTENER, ACTUAL INTERVALS ARE APPROXIMATE.				
VELOCITY	DIMENSION			
	A	B	C	E
0-2500 FPM	3"	12"	4"	18"
2501-6000 FPM	3"	6"	4"	16"



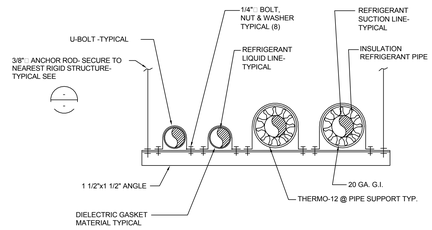
NOTES:
1. LINER ADHERED TO THE DUCT WITH FULL AREA COVERED OF ADHESIVE. ADHESIVE SHALL CONFORM TO ASTM C 916.
2. ALL EXPOSED LEADING EDGES AND TRANSFER JOINTS SHALL BE COATED WITH JOHNS MANVILLE SUPER SEAL DUCT BUTTER, JOHNS MANVILLE SUPER SEAL EDGE TREATMENT OR AN APPROVED ADHESIVE.
3. ALL MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE NAIMA FIBROUS GLASS DUCT LINER INSTALLATION STANDARD.
4. THE PERMACOTE LINACOUSTIC R-300 FOR FURNACE UNITS ENCLOSURE SHALL BE ADDITIONALLY SECURED WITH MECHANICAL FASTENERS SPACED PER THE SCHEDULE SHOWN. THE PIN LENGTH SHOULD SUCH AS TO HOLD THE MATERIAL FIRMLY IN PLACE WITH MIN. COMPRESSION OF THE MATERIAL.

7 DUCT LINER DETAIL
SCALE: NOT TO SCALE



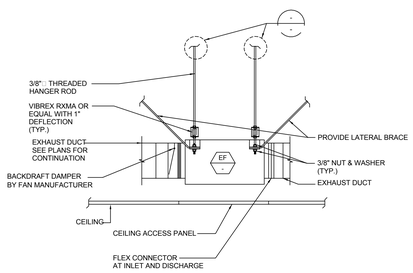
NOTES:
1. SEE (1) FOR WIRING LEGEND.
2. SEE CONTROLS DRAWINGS FOR FURTHER CONTROLS DIAGRAMS.

4 SPLIT DX FAN COIL SYSTEM WIRING DIAGRAM
SCALE: NOT TO SCALE

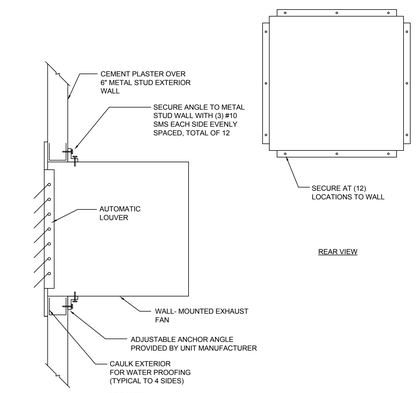


NOTE:
TYPICAL FOR CHILLED AND HOT WATER PIPING SUPPORT.

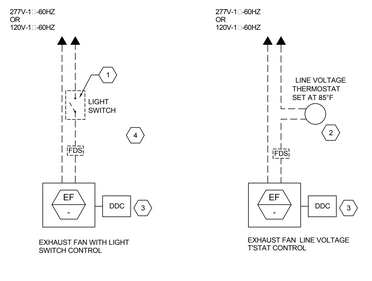
1 REFRIGERANT PIPING MOUNTING DETAIL
SCALE: NOT TO SCALE



11 INLINE EXHAUST FAN MOUNTING DETAIL
SCALE: NOT TO SCALE

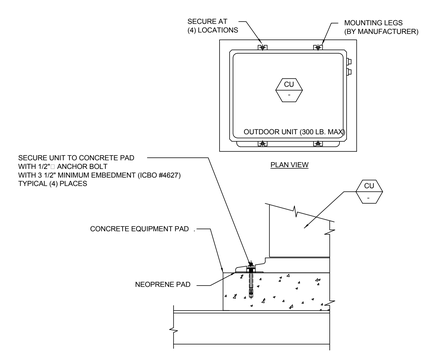


8 WALL THRU EXHAUST FAN MOUNTING DETAIL
SCALE: NOT TO SCALE



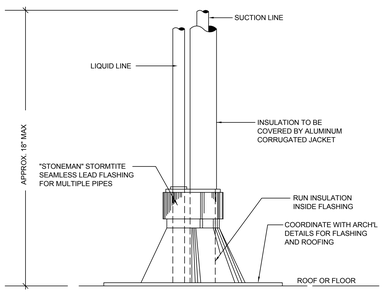
DETAIL NOTES:
1. INTERLOCK EXHAUST FAN TO WALL MOUNTED LIGHT SWITCH. REFER TO "EXHAUST FAN SCHEDULE" FOR DETAILS.
2. INTERLOCK EXHAUST FAN TO WALL MOUNTED THERMOSTAT, OR TEMPERATURE SENSOR. REFER TO "EXHAUST FAN SCHEDULE" FOR DETAILS.
3. CONNECT EXHAUST FANS TO DDC SYSTEM. SEE CONTROLS DRAWINGS FOR MORE INFORMATION.
4. SEE (-) FOR WIRING LEGEND AND NOTES.

5 EXHAUST FAN WIRING DIAGRAM
SCALE: NOT TO SCALE



NOTE: SUBMIT SHOP DRAWING FOR APPROVAL

2 CONDENSING UNIT MOUNTING DETAIL
SCALE: NOT TO SCALE



12 REFRIGERANT PIPING THRU ROOF OR FROM PENETRATION
SCALE: NOT TO SCALE

ALL LINE VOLTAGE CONDUIT, WIRING, AND EQUIPMENT SHOWN DASHED SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

ALL LOW VOLTAGE WIRING SHOWN SOLID SHALL BE FURNISHED AND INSTALLED BY THE LOW VOLTAGE CONTROLS CONTRACTOR. VERIFY THE EXACT REQUIREMENT WITH THE EQUIPMENT MANUFACTURER. CONDUIT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

DISCONNECT SWITCHES AND MAGNETIC STARTERS WITH H-O-A, 120V CONTROL TRANSFORMER, AND AUXILIARY CONTACTS INCLUDING RELAYS SHALL BE FURNISHED & INSTALLED BY THE ELECT. DIVISION.

(DD) DUCT SMOKE DETECTORS SHALL BE FURNISHED & WIRED BY THE ELECTRICAL DIVISION AND INSTALLED BY THE MECHANICAL DIVISION.

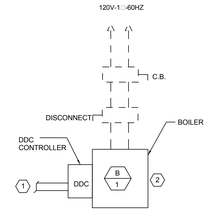
MECHANICAL EQUIPMENT TO BE FURNISHED AND INSTALLED BY MECHANICAL DIVISION.

CB OR FDS CIRCUIT BREAKER OR FUSED DISCONNECT SWITCH BY ELECTRICAL.

(T) THERMOSTAT OR SPACE TEMPERATURE SENSOR BY CONTROLS CONTRACTOR.

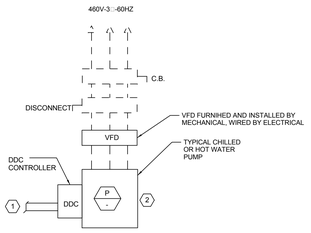
NOTES:
1. ALL LOW VOLTAGE CONDUIT SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
2. ALL LOW VOLTAGE WIRING (24 VAC.) SHALL COMPLY WITH CLASS 2 WIRING CODE. THE MINIMUM LOW VOLTAGE WIRING CONDUCTOR SIZE SHALL BE 16 AWG COPPER. ALL CONDUCTOR QUANTITIES SHALL BE COORDINATED WITH THE EQUIPMENT MANUFACTURER PRIOR TO INSTALLATION. COORDINATION OF ALL LOW VOLTAGE EQUIPMENT WIRING SHALL BE THE RESPONSIBILITY OF THE LOW VOLTAGE CONTROLS CONTRACTOR.

9 WIRING NOTES
SCALE: NOT TO SCALE



NOTES:
1. CONNECT TO DDC SYSTEM. SEE CONTROLS DRAWINGS.
2. SEE (-) FOR WIRING LEGENDS AND NOTES.

6 BOILER WIRING DIAGRAM
SCALE: NOT TO SCALE



NOTES:
1. CONNECT TO DDC SYSTEM. SEE CONTROLS DRAWINGS.
2. SEE (-) FOR WIRING LEGENDS AND NOTES.

3 TYPICAL PUMP WIRING DIAGRAM
SCALE: NOT TO SCALE

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 370
Anaheim, CA 92806
T 714.939.0200 F 714.939.0202
Mechanical Electrical Plumbing Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	V.P.
DRAWN BY:	L.C.
CHECKED BY:	N.P.

SHEET TITLE:
DETAILS

SHEET NO.
2-M-504

C:\Users\my\Documents\MP-DA4881-BLDG_A_S-R15_my@pbsengineers.com.rvt
10/21/2016 3:13:38 PM

1 link_mech_2-M-504
12" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

EQUIPMENT ANCHORAGE NOTES

ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE ANCHORED OR BRACED TO MEET THE HORIZONTAL AND VERTICAL FORCES PRESCRIBED ASCE 7-05 SECTIONS 6.5, 13.3, 13.4 & 13.6.

THE ATTACHMENT OF THE FOLLOWING ITEMS SHALL BE DESIGNED TO RESIST THE FORCES PRESCRIBED ABOVE, BUT NEED NOT BE DETAILED ON THE PLANS.

EQUIPMENT WEIGHING LESS THAN 400 POUNDS SUPPORTED DIRECTLY ON THE FLOOR OR ROOF.

TEMPORARY OR MOVABLE EQUIPMENT.

EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUPPORTED BY VIBRATION ISOLATORS.

EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE MECHANICAL/ELECTRICAL AND THE FIELD ENGINEER.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO RESIST THE FORCES PRESCRIBED IN ASCE 7-05 SECTION 13.3 AS DEFINED IN ASCE 7-05 SECTION 13.6.8, 13.6.7. AND 13.4.5.5., ITEM 6. RESPECTIVELY.

THE SEISMIC BRACING AND ANCHORAGE OF PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE IN ACCORDANCE WITH THE "GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS", PUBLISHED BY SMACNA AND PPIC, OR ANY SEISMIC BRACING AND ANCHORAGE SYSTEM WITH CURRENT OPA #. (ISAT, MASON, B-LINE, ETC..).

COPIES OF THE SMACNA OR OPA MANUAL SHALL BE ON THE JOBSITE PRIOR TO STARTING HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

APPLICABLE CODES

CODE ANALYSIS

PARTIAL LIST OF APPLICABLE CODES

THE CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO THE REQUIREMENTS OF:

2013 CALIFORNIA ADMINISTRATIVE CCODE (CAC)
CCR, TITLE 24, PART 1

2013 CALIFORNIA BUILDING CODE (CBC)
CCR, TITLE 24, PART 2 WITH L.A. 2014
AMENDMENTS
BASED ON 2012 IBC

2013 CALIFORNIA ELECTRICAL CODE (CEC)
CCR, TITLE 24, PART 3 WITH L.A. 2014
AMENDMENTS
BASED ON 2011 NEC

2103 CALIFORNIA MECHANICAL CODE (CMC)
CCR, TITLE 24, PART 4 WITH L.A. 2014
AMENDMENTS
BASED ON 2012 UMC

2013 CALIFORNIA PLUMBING CODE (CPC)
CCR, TITLE 24, PART 5 WITH L.A. 2014
AMENDMENTS
BASED ON 2012 UPC

2013 CALIFORNIA ENERGY CODE
CCR, TITLE 24, PART 6

2013 CALIFORNIA FIRE CODE (CFC)
CCR, TITLE 24, PART 9 BASED ON 2012 IFC

2013 CALIFORNIA GREEN BUILDING STANDARDS CODE
(CALGREEN)
CCR, TITLE 24, PART 11 WITH L.A. 2014
AMENDMENTS

2013 CALIFORNIA REFERENCED STANDARDS CODE
CCR, TITLE 24, PART 12

2014 CALIFORNIA PUBLIC SAFETY CCR, TITLE 19,
DIVISION 1-STATE FIRE MARSHAL

GENERAL NOTES

1. OFFSET PIPES AS REQUIRED TO CLEAR MECHANICAL DUCTWORK.
2. FURNISH AND INSTALL A SHUT-OFF VALVE, PLUG COCK OR STOP AT EACH PIECE OF EQUIPMENT FURNISHED BY OTHERS REQUIRING DRAIN, WASTE, WATER, GAS, ETC.
3. SEAL ALL PENETRATIONS WATERTIGHT.
4. REFER TO MECHANICAL DRAWINGS FOR THE EXACT LOCATION OF ALL AC UNITS. IN AN EVENT OF CONFLICT, AC EQUIPMENT GOVERNS THE PLUMBING ROUTE
5. UNLESS OTHERWISE NOTED, ALL CONDENSATE AND GAS DROPS SHALL BE CONCEALED IN WALLS.
6. THE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC TO THE EXTENT THAT ALL OFFSETS, BENDS, SPECIAL FITTINGS AND LOCATIONS ARE NOT EXACTLY LOCATED. THE CONTRACTOR SHALL LOCATE ALL OFFSETS, BENDS, AND SPECIAL FITTINGS TO SUIT JOB SITE CONDITIONS.
7. AFTER ALL REQUIREMENTS OF THE SPECIFICATIONS AND/OR THE DRAWINGS HAVE BEEN FULLY COMPLETED, REPRESENTATIVES OF THE OWNER WILL INSPECT THE WORK. THE CONTRACTOR SHALL PROVIDE COMPETENT PERSONNEL TO DEMONSTRATE THE OPERATION OF ANY ITEM OR SYSTEM, TO THE FULL SATISFACTION OF EACH REPRESENTATIVE. FINAL ACCEPTANCE OF THE WORK WILL BE MADE BY THE OWNER AFTER RECEIPT OF APPROVAL AND RECOMMENDATION OF ACCEPTANCE FROM EACH REPRESENTATIVE.
8. WHEREVER A DISCREPANCY IN QUANTITY OR SIZE OF MECHANICAL EQUIPMENT MATERIAL ARISES ON THE DRAWINGS AND/OR SPECIFICATIONS, CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON DRAWINGS AND/OR IN THE SPECIFICATION TO ENSURE COMPLETE AND OPERABLE SYSTEMS.
9. BEFORE ORDERING ANY PIECE OF EQUIPMENT, THE CONTRACTOR SHALL PROVIDE EQUIPMENT SUBMITTALS, AND SHOP DRAWINGS WITH EQUIPMENT DIMENSIONS, AND SITE CLEARANCE AVAILABLE. WHERE REQUIRED BY SPACE LIMITATIONS HAVE UNITS SHIPPED IN SECTIONS.
10. REFER TO ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION OF ALL PLUMBING FIXTURES AND FIXTURE HEIGHTS.
11. ALL SINKS, LAVATORY AND URINALS TO HAVE WALL CLEAN-OUTS.
12. ALL HANDICAP ACCESSIBLE PLUMBING FIXTURES SHALL MEET ADA REQUIREMENTS.
13. ALL PIPE BRANCH CONNECTIONS SHALL OFF-SET. NO "BULL HEAD" CONNECTIONS WILL BE ALLOWED.
14. INSTALL WATER HAMMER ARRESTORS IN THE HOT AND COLD WATER SUPPLY TO EACH FIXTURE OR IN THE HEADER SUPPLY TO A BATTERY OF FIXTURES SIZED PER PDI STANDARD WH-201.
15. NEW COLD WATER TO BE SUPPLIED TO 5 FT. FROM BUILDING. PROVIDE SHUT OFF VALVE IN YARD BOX.
16. COORDINATE PLANS FOR CONTINUITY OF WORK.
17. RUN UNDERGROUND PIPING IN COORDINATION WITH STRUCTURAL DETAILS.
18. UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBER SHALL BE CUT, DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER.
19. COORDINATE ALL EXPOSED PIPING WITH ARCHITECT.
20. ACCESSIBLE PLUMBING FIXTURES SHALL COMPLY WITH ALL OF THE REQUIREMENTS OF CBC SECTION 1115B.
21. HEIGHTS AND LOCATION OF ALL FIXTURES SHALL BE ACCORDING TO CBC SECTION 1115B.4 SHALL COMPLY WITH ALL OF THE REQUIREMENTS OF CBC SECTION 1115B.
22. FIXTURE CONTROLS SHALL COMPLY WITH CBC SECTIONS 1115B.4.3 ITEM 1 FOR LAVATORIES, 1115B.4.1 ITEM 5 FOR TOILETS AND 1115.4.2 ITEM 3 FOR URINALS.
23. EACH ACCESSIBLE SINK SHALL BE A MAXIMUM OF 6 1/2" DEEP. SINKS SHALL BE MOUNTED WITH THE COUNTER OR RIM NO HIGHER THAN 34" ABOVE THE FINISH FLOOR. CBC SECTION 1115B.4.7 ITEM 1.
24. FOR ALL PLUMBING SYSTEM SIZES REFER TO RISER DIAGRAMS.

LEGEND AND ABBREVIATIONS

SYMBOL	ABBREV.	DESCRIPTION
	C.W.	COLD WATER
	H.W.	HOT WATER
	H.W.R.	HOT WATER RETURN
G	G.	FUEL GAS
MPG	MPG	MEDIUM PRESSURE GAS
CD	C.D.	CONDENSATE DRAIN
FCD	FCD	FURNACE CONDENSATE DRAIN
	V	SANITARY VENT
	W OR SS	WASTE OR SANITARY SEWER
RW	RW	RECLAIM WATER
RWS	RWS	RECLAIM WATER SUPPLY
SD	SD	STORM DRAIN
OD	OD	OVERFLOW DRAIN
SSD	SSD	SUB-SOIL DRAINAGE
FWD	FWD	FUEL WATER
	FWS	FUEL WATER SEPARATOR
	S.O.V.	SHUT OFF VALVE
	G.C.	GAS COCK
	H.B.	HOSE-BIBB
		PIPE-UP OR RISER
		PIPE-DOWN OR DROP
		UNION
	COYB	CLEANOUT IN YARD BOX
	POC	POINT OF CONNECTION
	W/	WITH
	I.E.	INVERT ELEVATION OF PIPE BELOW FLOOR
	ADA	AMERICAN DISABILITIES ACT
	CONC.	CONCRETE
	F.C.O.	FLOOR CLEANOUT
	N.T.S.	NOT TO SCALE
	CONT.	CONTINUATION
	FIN.	FINISH
	F.F.E.	FINISH FLOOR ELEVATION
	FLR.	FLOOR
	F.U.	FIXTURE UNIT
	GR.	GRADE
	LOC.	LOCATION
	ABV.	ABOVE
	BEL.	BELOW
	C.I.	CAST IRON
	CLG.	CEILING
	CONN.	CONNECT OR CONNECTION
	WHA	WATER HAMMER ARRESTOR
	TYP.	TYPICAL
		PLUMBING EQUIPMENT IDENTIFICATION
		PLUMBING FIXTURE IDENTIFICATION
	VTC	VENT THROUGH CANOPY
	VTR	VENT THROUGH ROOF
	W.C.O.	WALL CLEANOUT
	Y.B.	YARD BOX
	TDL	TOTAL DEVELOPED LENGTH
	RD	ROOF DRAIN
	OD	OVERFLOW DRAIN
	S.O.V.	SHUT OFF VALVE ON RISER

PIPE MATERIAL TABLE

SERVICE	PIPE	FITTINGS	REMARKS
DOMESTIC HOT AND COLD WATER SYSTEM	SEAMLESS COPPER TUBING, TYPE L ABOVE GROUND, DRAWN TEMPER, ASTM B88, TYPE K BELOW GROUND	WROUGHT COPPER, SOLDER - JOINT, ANSI B16.22 OR CAST BRONZE ANSI B16, 23, ANSI 16 , 18	JOINTS: 95 - 5 (TIN AND ANTIMONY) SOLDER. ALL EXPOSED WATER PIPING AT PLUMBING FIXTURES SHALL BE CHROME PLATED.
SOIL, WASTE AND VENT	STANDARD WEIGHT CAST IRON NO-HUB TYPE SOIL PIPE, TYLER WIDE BODY OR EQUAL	STANDARD WEIGHT CAST IRON NO-HUB TYPE SOIL FITTINGS WITH NEOPRENE GASKET AND STAINLESS STEEL BANDS AND SHIELD, NO-HUB	NSF LISTED
CONDENSATE DRAIN	SEAMLESS COPPER TUBING, TYPE L HARD DRAWN TEMPER, ASTM B88	WROUGHT COPPER, SOLDER - JOINT, ANSI B16.22 OR CAST BRONZE ANSI B16, 23, ANSI 16 , 18	JOINTS: 95 - 5 (TIN AND ANTIMONY) SOLDER.
STORM DRAIN	STANDARD WEIGHT CAST IRON NO-HUB TYPE SOIL PIPE, TYLER WIDE BODY OR EQUAL	STANDARD WEIGHT CAST IRON NO-HUB TYPE SOIL FITTINGS WITH NEOPRENE GASKET AND STAINLESS STEEL BANDS AND SHIELD, NO-HUB COUPLINGS	
NATURAL GAS	STEEL PIPE ASTM A53/A 53M BLACK STEEL SCHEDULE 40 TYPE E OR S GRADE B	MALLEABLE IRON THREADED FITTINGS ASTM B16.3, CLASS 150 STANDARD PATTERN	
RECLAIMED WATER	SEAMLESS COPPER TUBING, TYPE L ABOVE GROUND, DRAWN TEMPER, ASTM B88, PURPLE PVC BELOW GROUND	WROUGHT COPPER, SOLDER - JOINT, ANSI B16.22 OR CAST BRONZE ANSI B16, 23, ANSI 16, 18 PVC-REQT'S OF ASTM F477 & ASTM D3139	ALL PIPES TO BE CONTINUOUSLY WRAPPED WITH PURPLE COLORED PANTONE #512 MYLAR TAPE READING "CAUTION RECLAIMED WATER DO NOT DRINK

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2290 East Bluff Dr. Suite 101 Anaheim, CA 92733
T 714.450.0500 F 714.450.0501
Electrical Mechanical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4BB1
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

NOTES, CODES, SYMBOLS & ABBREVIATIONS

SHEET NO.

2-P-001

C:\Users\rhy\Documents\MP-DA4BB1-BLDG_A_B-R15_rhy@pbsengineers.com.rvt

9/21/2016 4:26:43 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

BOOSTER PUMP

NO.	SERVICE	LOCATION	MANUFACTURER MODEL	TYPE	EFFICIENCY	GPM	TDH	HP	RPM	VOLT/PH/HZ	OPER. WT.(LBS.)	REMARKS
BP 1	POTABLE WATER SYSTEM	BUILDING "A" BASEMENT	ARMSTRONG MODEL #6847	QUADRUPLEX	STD	800	30 PSI	15	3600	460/3/60	30.6	VARIABLE SPEED BOOSTER PUMP PACKAGE.

BOOSTER PUMP

NO.	SERVICE	LOCATION	MANUFACTURER MODEL	TYPE	EFFICIENCY	GPM	TDH	HP	RPM	VOLT/PH/HZ	OPER. WT.(LBS.)	REMARKS
BP 2	POTABLE WATER SYSTEM	BUILDING "B" ROOM B-1102	ARMSTRONG MODEL #6847	QUADRUPLEX	STD	800	30 PSI	15	3600	460/3/60	30.6	VARIABLE SPEED BOOSTER PUMP PACKAGE.

SUMP PUMP

NO.	SERVICE	LOCATION	MANUFACTURER MODEL	TYPE	EFFICIENCY	GPM	TDH	HP	RPM	VOLT/PH/HZ	OPER. WT.(LBS.)	REMARKS
SP 1	DRAIN SYSTEM	BUILDING "A" BASEMENT	WEIL MODEL 2516	DUPLEX	STD	40	25.4	3	3450	240/1/60	-	UL EXPLOSION MOTOR

SEWAGE EJECTOR

NO.	SERVICE	LOCATION	MANUFACTURER MODEL	TYPE	EFFICIENCY	GPM	TDH	HP	RPM	VOLT/PH/HZ	OPER. WT.(LBS.)	REMARKS
SE 1	WASTE SYSTEM	BUILDING "A" BASEMENT	WEIL MODEL 2516	DUPLEX	STD	40	28	3	3450	240/1/60	-	UL EXPLOSION MOTOR

LAX ConRAC
Plumbing Fixture Water Usage
Provided per current plan - August 22, 2016

Description	Number of Fixtures	Usage (gallons/use)	Number of Uses (per day)	Daily Water Usage (gallons)
CSB/Cores				
Men				
Water Closets	28	1.28	40	1,434
Urinals	21	0.13	60	164
Lavatories	31	0.50	85	1,318
Women				
Water Closets	75	1.28	55	5,280
Lavatories	35	0.50	85	1,488
Drinking Fountain	33	0.10	30	99
Kitchen Sink	24	1.00	20	480
Service Sink	9	1.28	20	230
QTA				
Men				
Water Closets	29	1.28	40	1,485
Urinals	20	0.13	60	156
Lavatories	40	0.50	92	1,840
Women				
Water Closets	52	1.28	25	1,664
Lavatories	40	0.50	50	1,000
Drinking Fountain	24	0.10	30	72
Kitchen Sink	18	1.00	20	360
Service Sink	8	1.28	20	205
Assisted-Used Toilet				
Water Closets	3	1.28	25	96
Lavatories	3	0.50	50	75
			Total:	**17,444**
			Days in year:	365
			Total Yearly:	**6,367,060**

Per 2013 CPC table A 2.1.

CSB/Cores: 745 wdu at 177 GPM
QTA : 628 wdu at 158 GPM (per table 5-6 ASPE Data book)

Water rate: Tier 1 = $4.62 per HCF, Tier 2= $7.02 per HCF (rates per LADWP)
Potable water: 2,430,900 / 748 x 4.62= $15,014.38 for Tier 1
2,430,900 / 748 x 7.82= $25,414.00 for Tier 2

QTA: 625,610 gal/yr/ 748 x$ 4.62 per HFC (100 cubic feet)=$3,864.00/yr for Tier 1
625,610 gal/yr / 748 x 7.82= $ 6,540/ yr. for Tier 2

POTABLE WATER ONLY

Description	Number of Fixtures	Water Usage (gallons/use)	Number of Uses (per day)	Daily Water Usage (gallons)
CSB/Cores				
Men				
Lavatories	31	0.50	85	1,318
Women				
Lavatories	35	0.50	85	1,488
Drinking Fountain	33	0.10	30	99
Kitchen Sink	24	1.00	20	480
Service Sink	9	1.28	20	230
QTA				
Men				
Lavatories	29	0.50	92	1,334
Women				
Lavatories	40	0.50	50	1,000
Drinking Fountain	24	0.10	30	72
Kitchen Sink	18	1.00	20	360
Service Sink	8	1.28	20	205
Assisted-Used Toilet				
Lavatories	Lavatories	3	0.50	50	75
			Total:	**6,660**
			Days in year:	365
			Total Yearly:	**2,430,900**

IRRIGATION WATER TO WATER CLOSETS

Description	Number of Fixtures	Water Usage (gallons/use)	Number of Uses (per day)	Daily Water Usage (gallons)
CSB/Cores				
Men				
Water Closets	28	1.28	40	1,434
Urinals	35	0.13	60	273
Women				
Water Closets	75	1.28	55	5,280
QTA				
Men				
Water Closets	29	1.28	40	1,485
Urinals	20	0.13	60	156
Women				
Water Closets	52	1.28	25	1,664
Assited -use Toilet				
Water Closets	3	1.28	25	96
			Total:	**10,387**
			Days in year:	365
			Total Yearly:	**3,791,255**

PLUMBING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	ROUGH-IN CONNECTIONS WASTE	TRAP	VENT	COLD WATER	HOT WATER	REMARKS
WC 1	WATER CLOSET	4"	INT.	2"	1-1/2"	-	WALL MOUNTED ELONGATED BOWL, VITREOUS CHINA 1 1/2" TOP SPUD, 1.28 GPF 15" HIGH COMPLETE WITH FLUSH VALVE, HARD WIRED SENSOR OPERATED EXPOSED FLUSHOMETER. MOUNT AT STANDARD HEIGHT.
WC 2	WATER CLOSET (ACCESSIBLE)	4"	INT.	2"	1-1/2"	-	WALL MOUNTED ELONGATED BOWL, VITREOUS CHINA 1 1/2" TOP SPUD, 1.28 GPF 15" HIGH COMPLETE WITH FLUSH VALVE, HARD WIRED SENSOR OPERATED EXPOSED FLUSHOMETER. SUPPORT MOUNT AT ADA HEIGHT.
U 1	URINAL (ACCESSIBLE)	2"	INT.	1-1/2"	3/4"	-	WALL MOUNT, VITREOUS CHINA 3/4" TOP SPUD, 1/8 GPF 17" HIGH COMPLETE WITH HIGH EFFICIENCY HARD WIRED SENSOR OPERATED EXPOSED FLUSHOMETER. MOUNT AT ADA HEIGHT.
L 1	LAVATORY (ACCESSIBLE)	2"	1-1/4" X 1-1/2"	1-1/2"	1/2"	1/2"	WALL MOUNT LAVATORY, VITREOUS CHINA WITH HANGER OVERFLOW AND CONCEALED ARM CARRIER COMPLETE WITH HIGH EFFICIENCY HARD WIRED SENSOR OPERATED EXPOSED FLUSHOMETER. MOUNT AT ADA HEIGHT.
AD 2	AREA DRAIN J.R. SMITH #2233Y	4"	-	-	-	-	CAST IRON BODY WITH FLASHING COLLAR AND CAST IRON TRACTOR GRATE. *PROVIDE 1/2" TRAP PRIMER CONNECTION
SS 1	SERVICE SINK ACORN # TNC-323212	3"	3"	2"	3/4"	3/4"	"TERRAZO-WARE" SERVICE SINK, PRE-CAST TERRAZO, CORNER FLOOR MOUNTED WITH CHICAGO FAUCET MODEL # 445-ABCP, 3" INTEGRAL PIPE DRAIN, 6" HIGH FRONT SHOULDER AND 12" HIGH STANDRAD SIDE SHOULDER CAPPED WITH STAINLESS STEAL FOR PROTECTION.
SS 2	SERVICE SINK	3"	2"	2"	1/2"	1/2"	CECO MODEL 866 SERVICE SINK, ACID RESISTANT ENAMELED CAST IRON WITH CHICAGO 631-RCP FAUCET.
FD 1	FLOOR DRAIN J.R. SMITH #2005Y	2"	2"	1-1/2"	*	-	SQUARE TOP CAST IRON BODY WITH FLASHING COLLAR AND NICKEL BRONZE ROUND 5" ADJUSTABLE STRAINER. *PROVIDE 1/2" TRAP PRIMER CONNECTION
FD 2	FLOOR DRAIN J.R. SMITH #2005Y	2"	2"	1-1/2"	*	-	SQUARE TOP CAST IRON BODY WITH FLASHING COLLAR AND NICKEL BRONZE ROUND 10" ADJUSTABLE STRAINER. *PROVIDE 1/2" TRAP PRIMER CONNECTION
FWD 1	FUEL WATER DRAIN J.R. SMITH #2005Y	3"	3"	2"	*	-	SQUARE TOP CAST IRON BODY WITH FLASHING COLLAR AND NICKEL BRONZE ROUND ADJUSTABLE STRAINER. *PROVIDE 1/2" TRAP PRIMER CONNECTION
AD 1	AREA DRAIN ZURN Z526	4"	-	-	-	-	12" DIAMETER TOP DRAIN, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, SEEPAGE PAN, ADJUSTABLE EXTENSION FRAME AND HEAVY DUTY SLOTTED GRATE. *PROVIDE 1/2" TRAP PRIMER CONNECTION WHERE APPLICABLE.
HB 1	HOSE BIBB ACORN 8104	-	-	-	3/4"	-	RECESSED HOSE VALVE BOX WITH LOCKABLE DOOR AND FRAME, WITH VACUUM BREAKER.
HB 2	HOSE BIBB ACORN 8121-CP	-	-	-	3/4"	-	ROUGH BRASS BODY, WALL FLANGE TYPE WITH VACUUM BREAKER, CARTRIDGE OPERATED HOSE VALVE WITH LOCKSHIELD BONNET AND REMOVABLE KEY HANDLE, INTERIOR VALVES SHALL BE POLISHED CHROME FINISH, EXTERIOR VALVES SHALL BE ROUGH CHROME PLATED.
TP 1	TRAP PRIMER	-	-	-	1/2"	-	"PPP" # P1-500 FLOOR DRAIN TRAP PRIMER VALVE #316 CHECK VALVE BALL RETAINER MONEL METAL 1/2" NPT CHROME PLATED BRASS AND NEOPRENE STRAINER. (TO PRIME 3 TO 4 FLOOR DRAINS/FLOOR SINKS.)
TP 2	TRAP PRIMER	-	-	-	1/2"	-	"PPP" # MPB-500 MINI PRIME BOX ELECTRONIC TRAP PRIMER, 115 V
WHA 1	WATER HAMMER ARRESTOR	-	-	-	-	-	PRECISION PLUMBING PRODUCTS MODEL # SC-750, 3/4" NPT BRASS, BARREL FABRICATED OF TYPE "K" HARD DRAWN COPPER, NORMAL OPERATING PRESSURE 0 TO 200 P.S.I.G. AND MAXIMUM SPIKE PRESSURE 400 P.S.I.G.
DF 1	DRINKING FOUNTAIN (ACCESSIBLE)	(2)2"	(2) 1-1/2"	(2) 1-1/2"	(2) 3/4"	-	HAWS MODEL 1011 WITH 1920, "HI-LO" BARRIER-FREE, WALL MOUNTED DRINKING FOUNTAIN, WITH PUSH BUTTON OPERATED BOTTLE FILLER WITH VANDAL RESISTANT 14 GAUGE TYPE 304 STAINLESS STEEL BOTTLE FILLER, 100 % LEAD-FREE WATERWAYS, VANDAL-RESISTANT, OPTION IN-LINE WATER FILTER MODEL 6426 AND WATER CHILLER PACKAGE AVAILABLE SEPARATELY FOR REMOTE INSTALLATION (MODEL HCR8) OR BUILT INTO UNIT (MODEL HI011.8 WITH 1920BF BOTTLE FILLER).
HD 1	HUB DRAIN (FABRICATED)	4"	4"	2"	1/2"	-	4" CAST IRON PIPE WITH 4" TRAP, 2" VENT AND TRAP PRIMER CONNECTION. (SEE DETAIL 5/RC-P-501)
FS 1	FLOOR SINK J.R. SMITH #3100Y	2"	2"	2"	-	-	DUCO CAST IRON RECEPTOR WITH SOLID WATER DAM AND CAST IRON DOME BOTTOM STRAINER, UNDERDECK CLAMP SECURED WITH STAINLESS STEEL VANDAL PROOF SCREWS
FS 2	FLOOR SINK J.R. SMITH #3200Y	4"	2"	2"	-	-	16" SQUARE DUCO CAST IRON RECEPTOR WITH DOME BOTTOM STRAINER, FLASHING CLAMP SECURED WITH STAINLESS STEEL VANDAL PROOF SCREWS.
FS 3	FLOOR SINK J.R. SMITH #3100Y	2"	2"	2"	-	-	DUCO CAST IRON RECEPTOR WITH SOLID WATER DAM AND CAST IRON DOME BOTTOM STRAINER, UNDERDECK CLAMP SECURED WITH STAINLESS STEEL VANDAL PROOF SCREWS
WHB 1	WASTE HOSE BOX	2"	2"	2"	3/4"	3/4"	ACORN MODEL 8186 STAINLESS STEEL RECESSED SUPPLY AND WASTE HOSE BOX WITH HOT AND COLD SHUT-OFF VALVES AND VACUUM BREAKER.
S 1	SINK	2"	1 1/2"	1 1/2"	1/2"	1/2"	COUNTER TOP 18 GA. STAINLESS STEEL SINK SINGLE HOLE, WITH GOOSENECK HARD WIRED SENSOR FAUCET LESS AERATOR, CAST BRASS P-TRAP AND TRAP ARM.
S 2	SINK	2"	1 1/2"	1 1/2"	1/2"	1/2"	JUST # A-544-912, WALL HUNG, 20 GA., 304 STAINLESS STEEL, WITH GOOSENECK FAUCET WITH AERATOR JS-45-TGA, BACKSPLASH JS-47-TGSA, CHROME PLATED BRASS DRAIN WITH FLAT GRID J-15-FS COMPLETE WITH PTRAP JT-150.
S 3	SINK	2"	1 1/2"	1 1/2"	1/2"	1/2"	JUST # DOUBLE COMPARTMENT SINK
EEWS 1	EMERGENCY EYEWASH SHOWER	-	-	-	3/4"	-	HAWS MODEL 8330, COMBINATION SHOWER AND EYE FACE WASH, STAINLESS STEEL SHOWER HEAD WITH INTEGRAL SELF REGULATING 20 GPM FLOW CONTROL, STAINLESS STEEL ROUND BOWL, SOFT FLO ANTI SURGE EYEWASH HEADS AND FACE RING, DUST COVER, MESH WATER STRAINER, STAY OPEN SHOWER AND EYEWASH BALL VALVES. TYPE 304 STAINLESS STEEL PIPE AND FITTINGS.
TD 1	TRENCH DRAIN	-	-	-	-	-	ZURN Z400H DRAIN. TRENCH DRAIN AND GRATING BY ARCHITECT.
TD 2	TRENCH DRAIN	4"	2"	2"	1/2"	1/2"	ZURN Z886 DRAIN.
F 1	FUNNEL DRAIN	2"	2"	1 1/2"	-	-	J.R SMITH FIG 3821T DUCO CAST IRON BODY WITH ACID RESISTANT COATED INTERIOR AND EXTERIOR
IR 1	INDIRECT RECEPTOR	-	-	-	-	-	J.R SMITH FIG 3970Y DUCO CAST IRON BODY
AGA 1	AIR GAP ADAPTOR	2"	2"	2"	-	-	J.R SMITH FIG 3955S CAST IRON BODY, BEHIND ACCESS PANEL.
RD 1	ROOF DRAIN ZURN	-	-	-	-		ZURN Z526, 12" DIAMETER TOP DRAIN, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, SEEPAGE PAN, ADJUSTABLE EXTENSION FRAME AND HEAVY DUTY SLOTTED GRATE. SEE PLAN FOR SIZE.
OD 1	OVERFLOW DRAIN	-	-	-	-	-	ZURN Z526, 12" DIAMETER TOP DRAIN, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, SEEPAGE PAN, ADJUSTABLE EXTENSION FRAME AND HEAVY DUTY SLOTTED GRATE. PLACE AT A DISTANCE SO IT IS 2" ABOVE OVERFLOW DRAIN. SEE PLAN FOR SIZE.
RD 2	ROOF DRAIN	-	-	-	-	-	J.R. SMITH # 1015Y, DUCO CAST IRON BODY WITH ADJUSTABLE EXTENSION SLEEVE, REVERSIBLE COLLAR, COMBINED FLASHING CLAMP AND GRAVEL STOP, WITH POLYETHYLENE DOME. SEE PLAN FOR SIZE.
OD 2	OVERFLOW DRAIN	-	-	-	-	-	J.R. SMITH # 1080Y, DUCO CAST IRON BODY WITH ADJUSTABLE EXTENSION SLEEVE, REVERSIBLE COLLAR, COMBINED FLASHING CLAMP AND GRAVEL STOP, WITH POLYETHYLENE DOME. SEE PLAN FOR SIZE.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Mechanical Electrical Plumbing / Controls Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS: MARK | DATE | DESCRIPTION

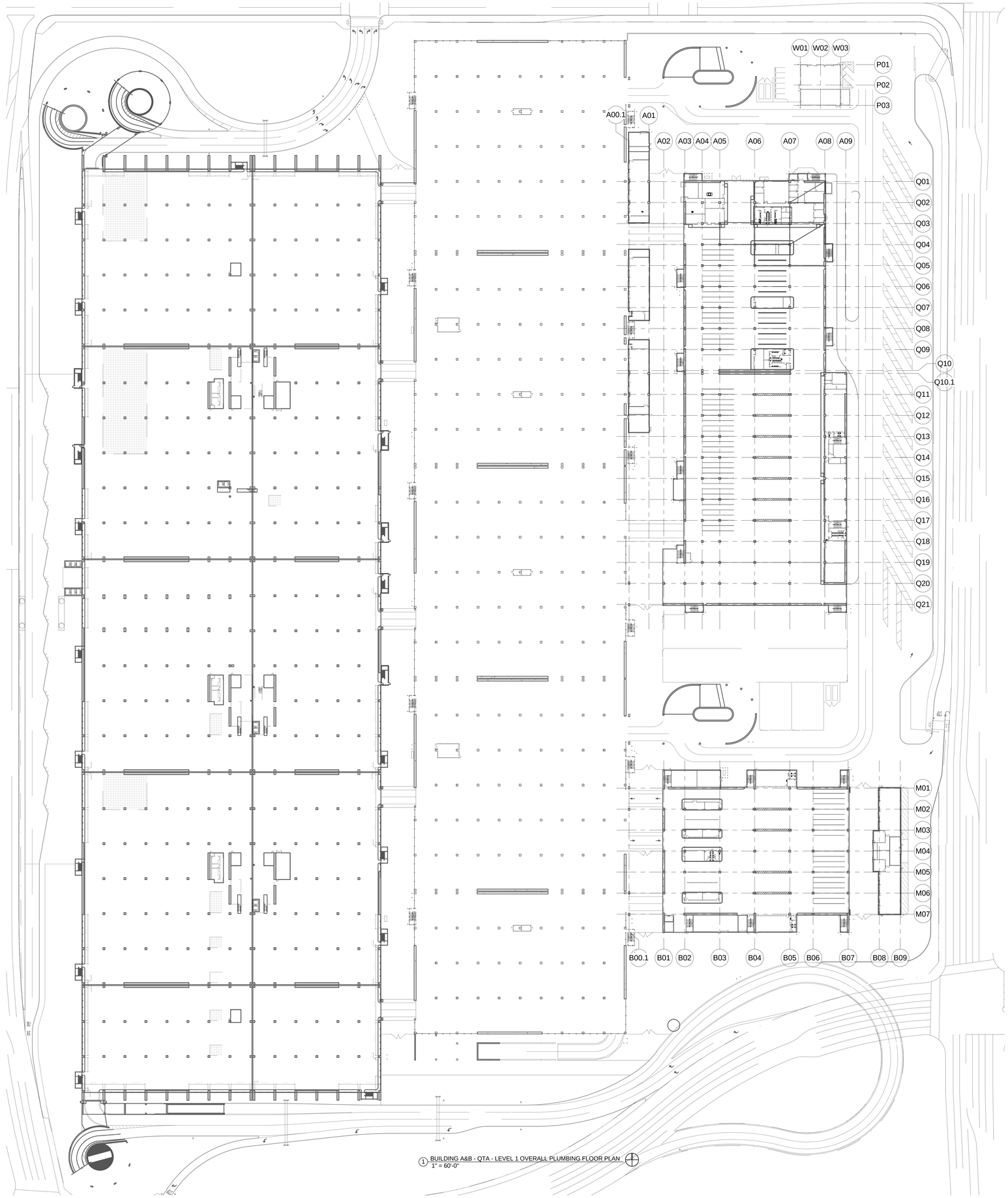
PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	LC
CHECKED BY:	EH

SHEET TITLE:
SCHEDULES

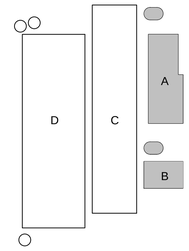
SHEET NO.
2-P-002

C:\Users\mhy\Documents\MP-DA4881-BLDG_A_8-R15_mhy@pbsengineers.com.rvt
9/21/2016 4:26:45 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 1 OVERALL PLUMBING FLOOR PLAN
1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2 Whatney Suite A, Irvine, CA 92618
T 949.855.0200 F 949.855.0201
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ON LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	LC
CHECKED BY:	EH

SHEET TITLE:

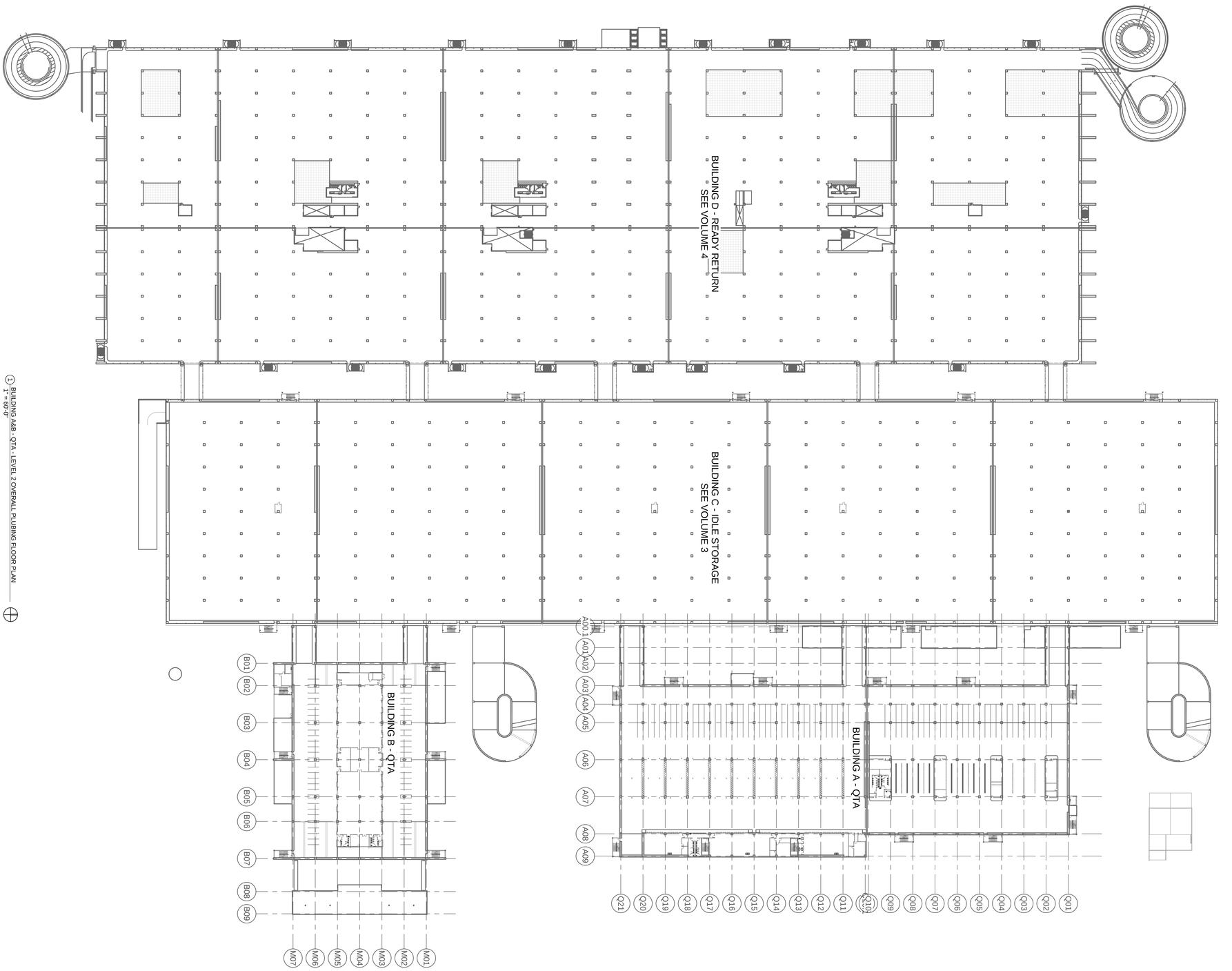
QTA LEVEL 1 OVERALL FLOOR PLAN

SHEET NO.

2-P-010

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

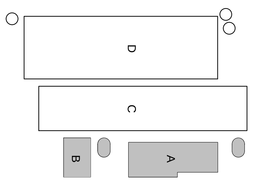
9/21/2016 4:26:49 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 2 OVERALL PLUMBING FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

KEYPLAN



SHEET NO.
2-P-020

QTA LEVEL 2 OVERALL FLOOR PLAN

SHEET TITLE:

PROJECT NO. 004880
SCALE: 1" = 60'-0"
DATE: 09/23/2016
DESIGNED BY: RV
DRAWN BY: RV
CHECKED BY: EH

REVISIONS:

MARK	DATE	DESCRIPTION

ONTARIO PMD LAX

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

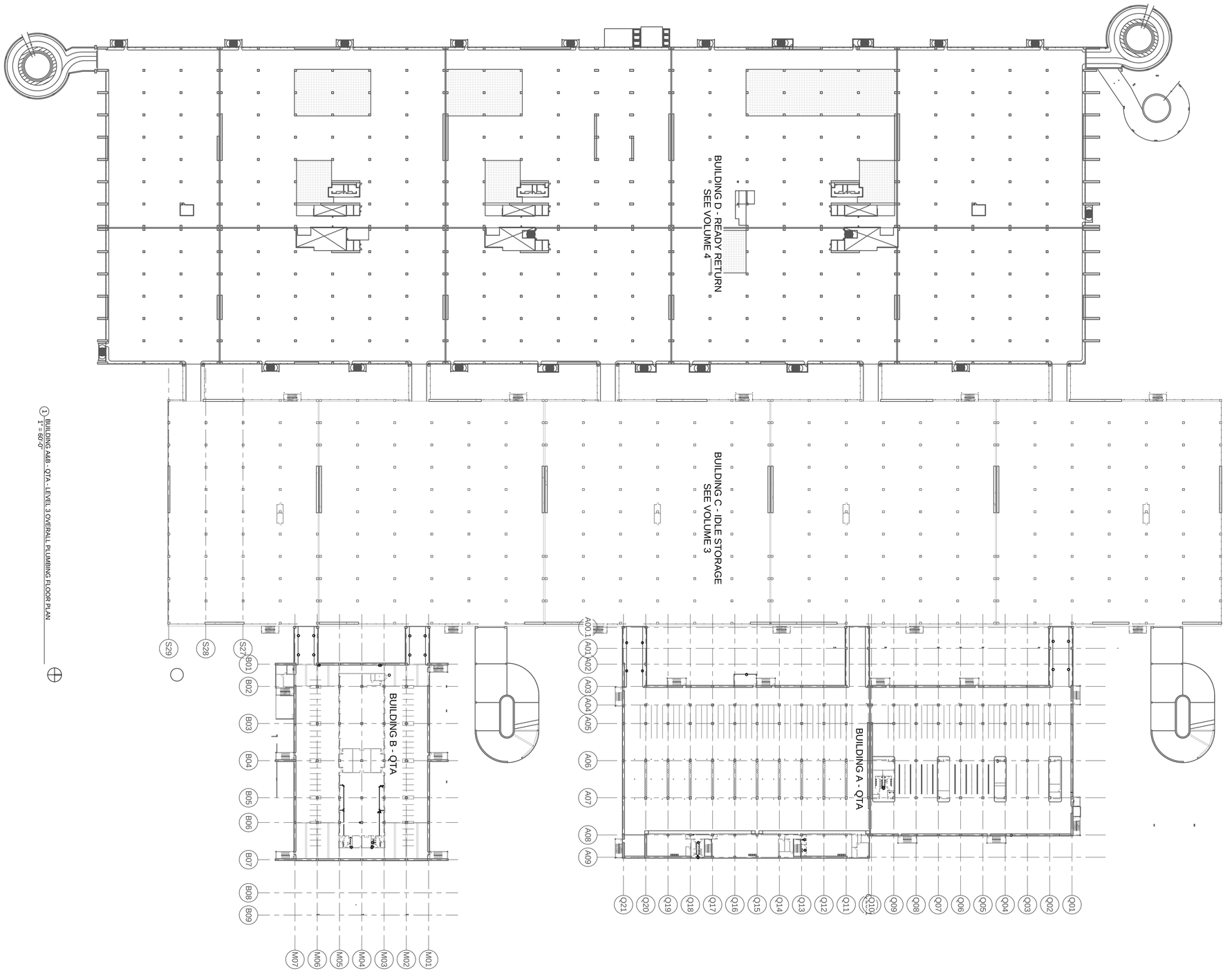
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.6820350 F 626.6820352
Job No. 2015-067-00 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

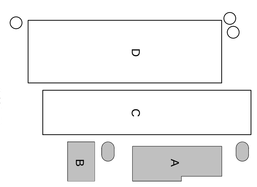
TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975



1 BUILDING A&B - QTA - LEVEL 3 OVERALL PLUMBING FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

KEYPLAN



SHEET NO.
2-P-030

QTA LEVEL 3 OVERALL FLOOR PLAN

SHEET TITLE:

CHECKED BY: EH
DESIGNED BY: RV
DRAWN BY: RV
DATE: 09/23/2016
SCALE: 1" = 60'-0"
PROJECT NO: 0048880

REVISIONS:

MARK	DATE	DESCRIPTION

ONTARIO PMD LAX

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

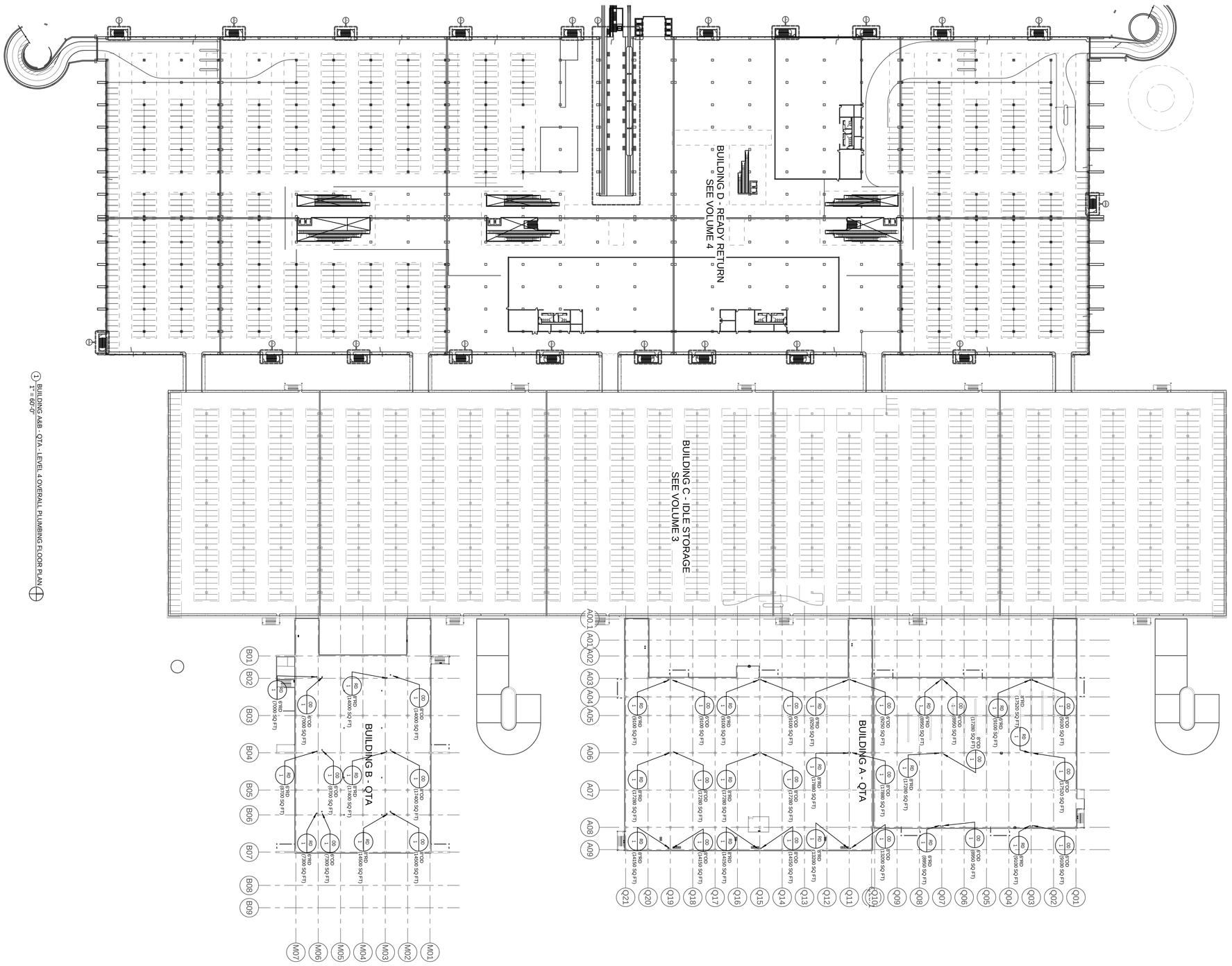
APPROVED BY
CHIEF AIRPORTS ENGINEER

CONSULTANTS:

PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.6820350 F 626.6820352
Job No. 2015-067-00 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

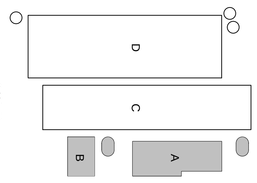
TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975



1 BUILDING A&B - QTA - LEVEL 4 OVERALL PLUMBING FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 28" X 48" IT IS A REDUCED SIZE DRAWING

KEYPLAN



SHEET NO.	2-P-040
SHEET TITLE:	QTA LEVEL 4 OVERALL FLOOR PLAN
PROJECT NO.	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	RV
DRAWN BY:	MLYL
CHECKED BY:	BH

REVISIONS:

MARK	DATE	DESCRIPTION

ONT LAX PMD

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

CONSULTANTS:

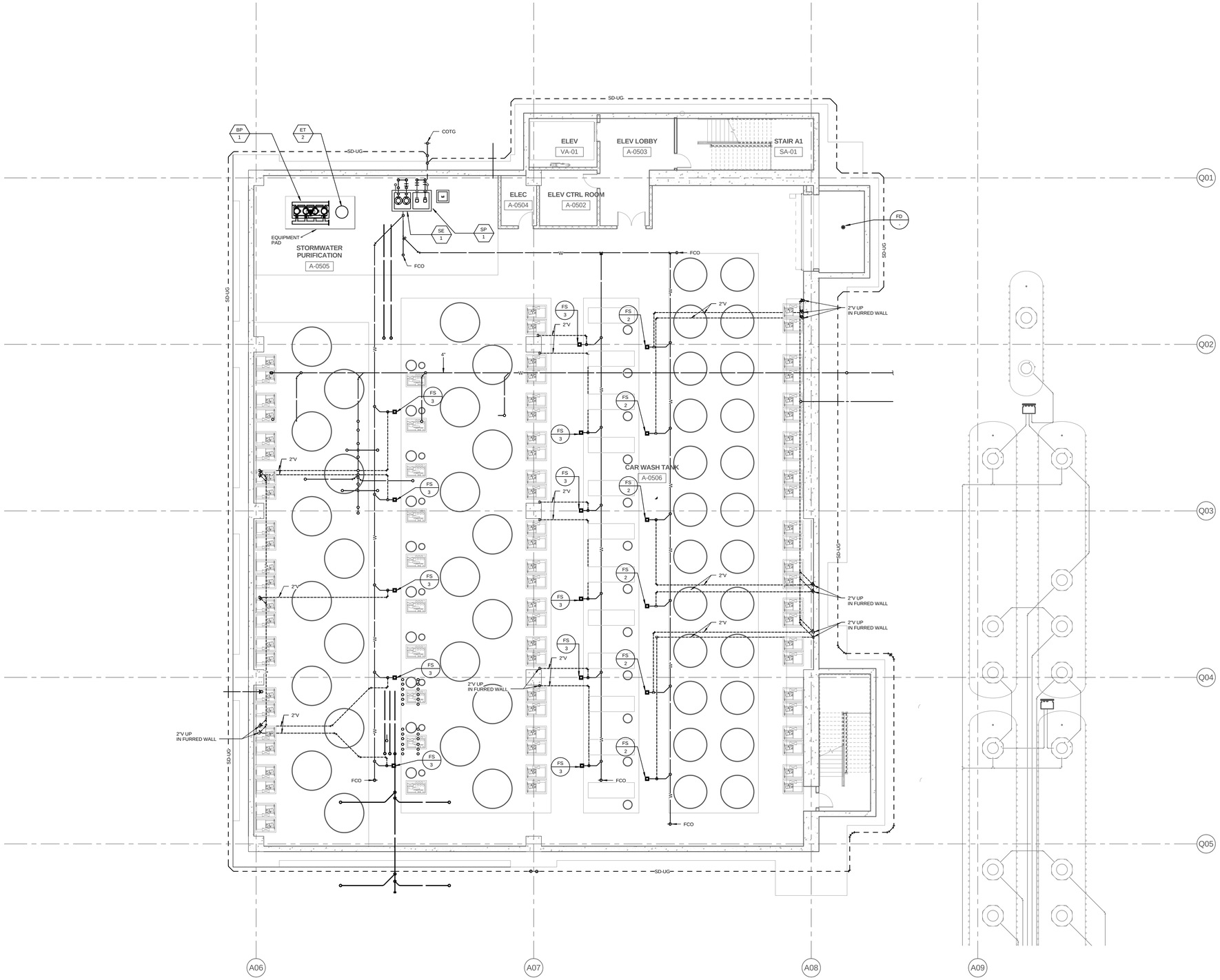
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.6502000 F 626.6502001
Job No. 2015-067-00 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 0 PLUMBING FLOOR PLAN (PARENT) 1/8" - Dependent 1
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2030 East Brundage Lane, Suite 100, Bakersfield, CA 93307
T 661.325.0200 F 661.325.0201
www.pbsengineers.com
Mechanical Electrical Plumbing Construction Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

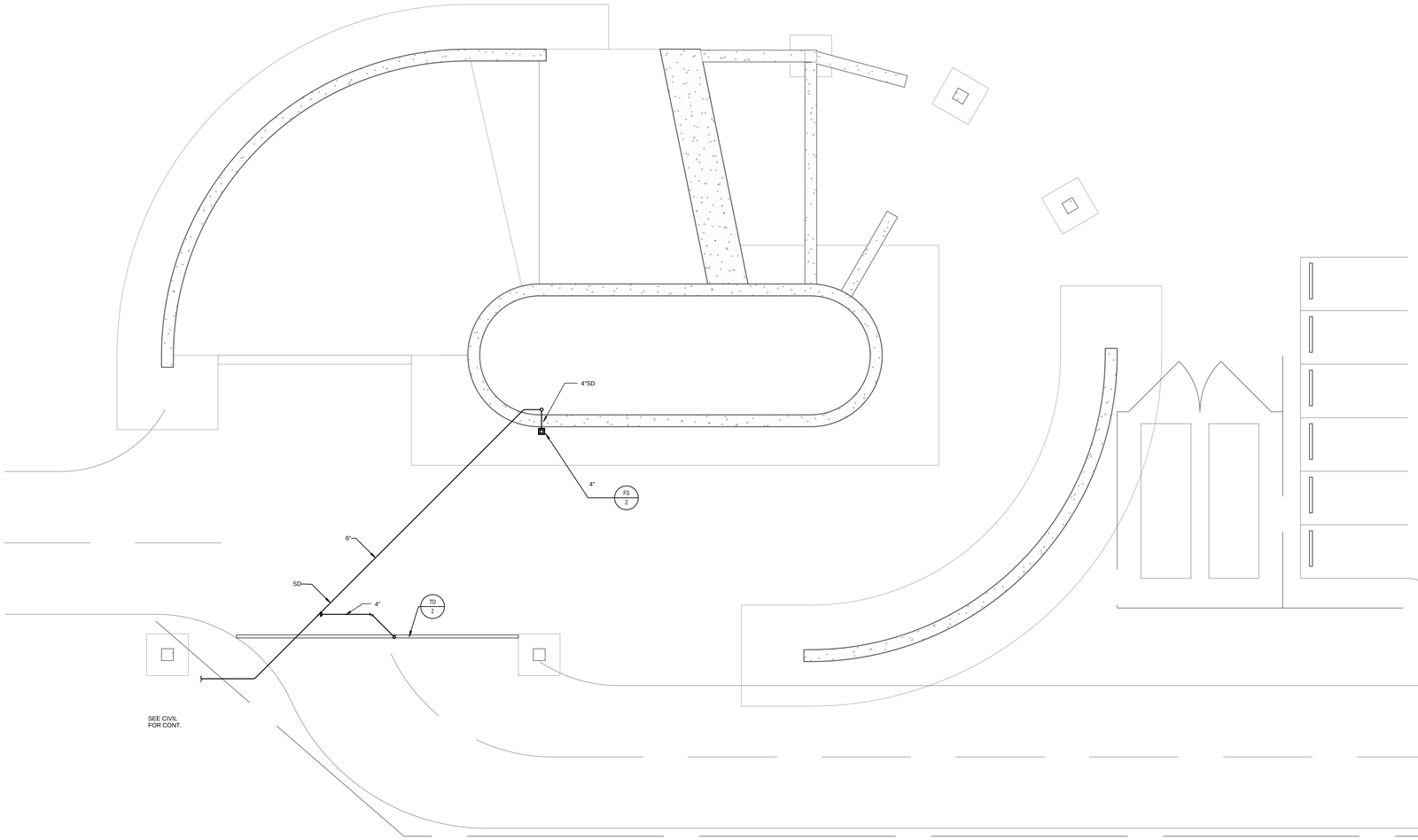
QTA LEVEL 0 ENLARGED PLAN - PART A5

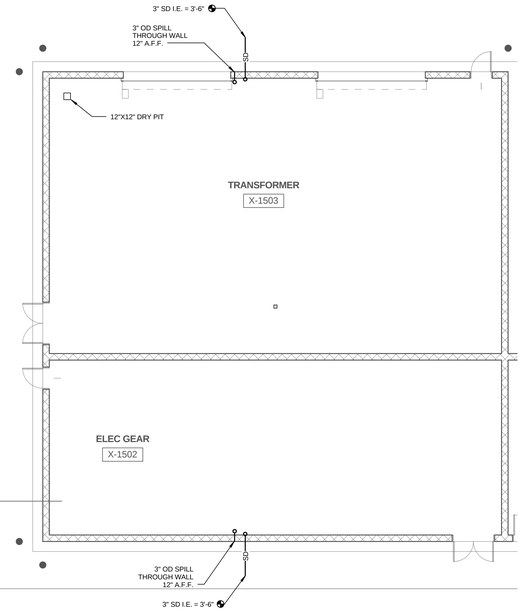
SHEET NO.

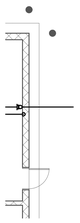
2-P-205

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:27:18 PM C:\Users\mhV\Documents\IMP-DA4881-BLDG_A_B-R15_mhv@pbsengineers.com.rvt







1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING 1/8" - PART A0
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\hvy\Documents\MP-DA4881-BLDG_A_B-R15_rvy@pbsengineers.com.rvt
9/21/2016 4:27:20 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

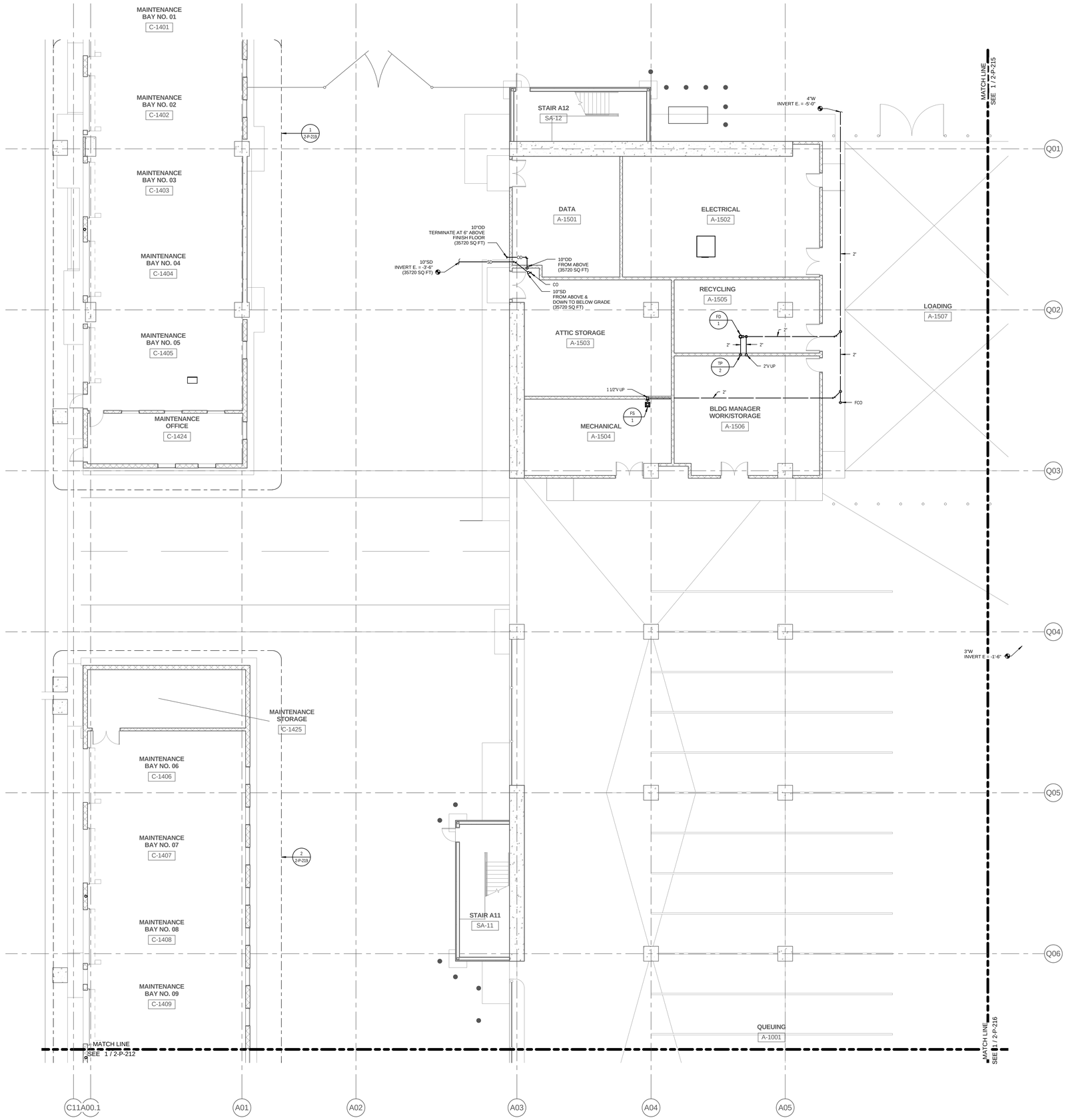
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

ELECTRICAL & FIRE COMMAND ENLARGED PLAN

SHEET NO.

2-P-210



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART A1
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2030 Main Street, Suite 1300
Irvine, CA 92614
T 949.809.0500 F 949.809.0520
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE
	QTA 30% SUBMITTAL	09/23/2016

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A1

SHEET NO.

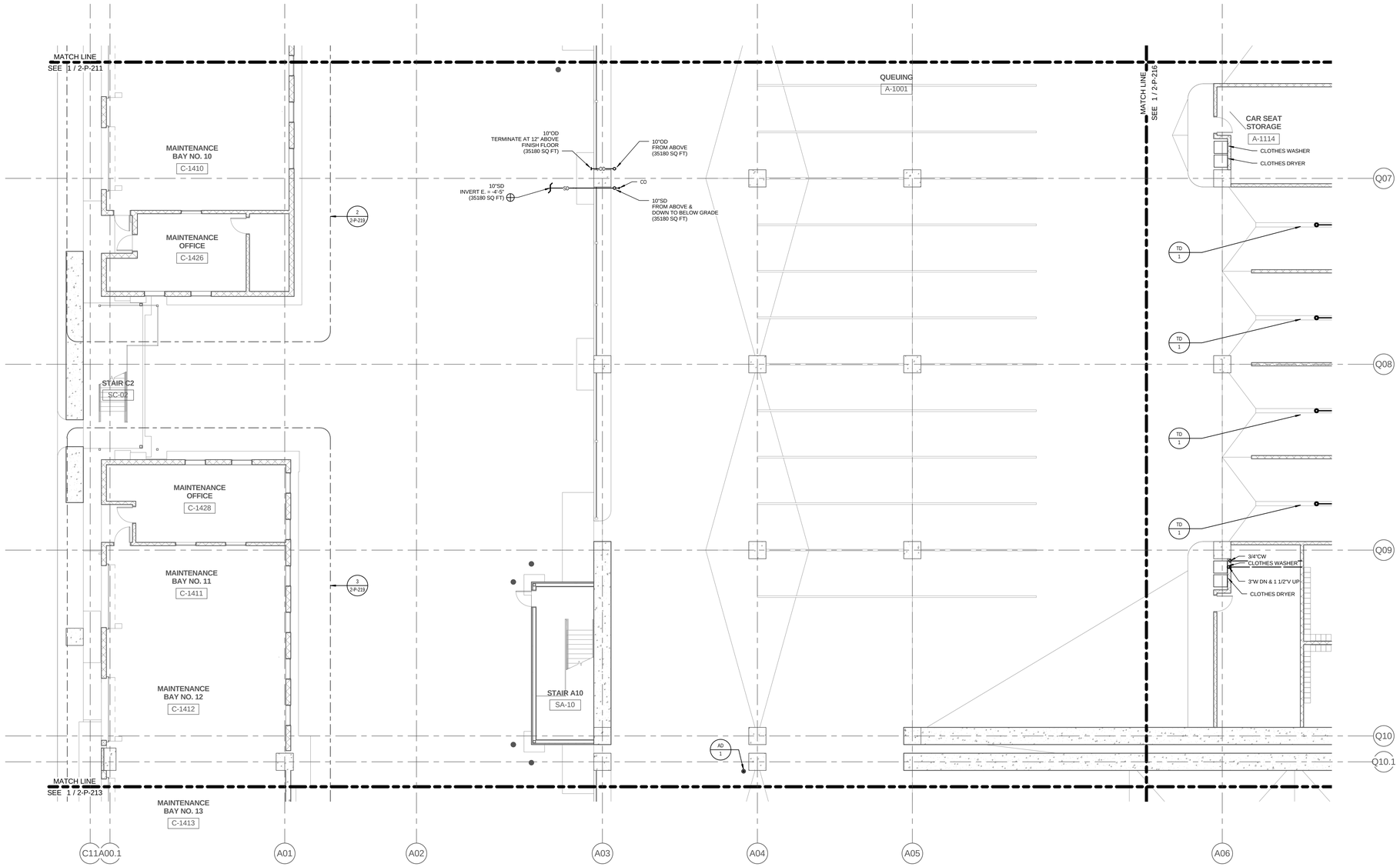
2-P-211

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\mlv\Documents\MP-DA4881-BLDG_A_B-R15_mlv@pbsengineers.com.rvt
9/21/2016 4:27:23 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 400 Anaheim, CA 92806
T 714.520.0335 F 714.520.0353
Mechanical Electrical Plumbing | Controls Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

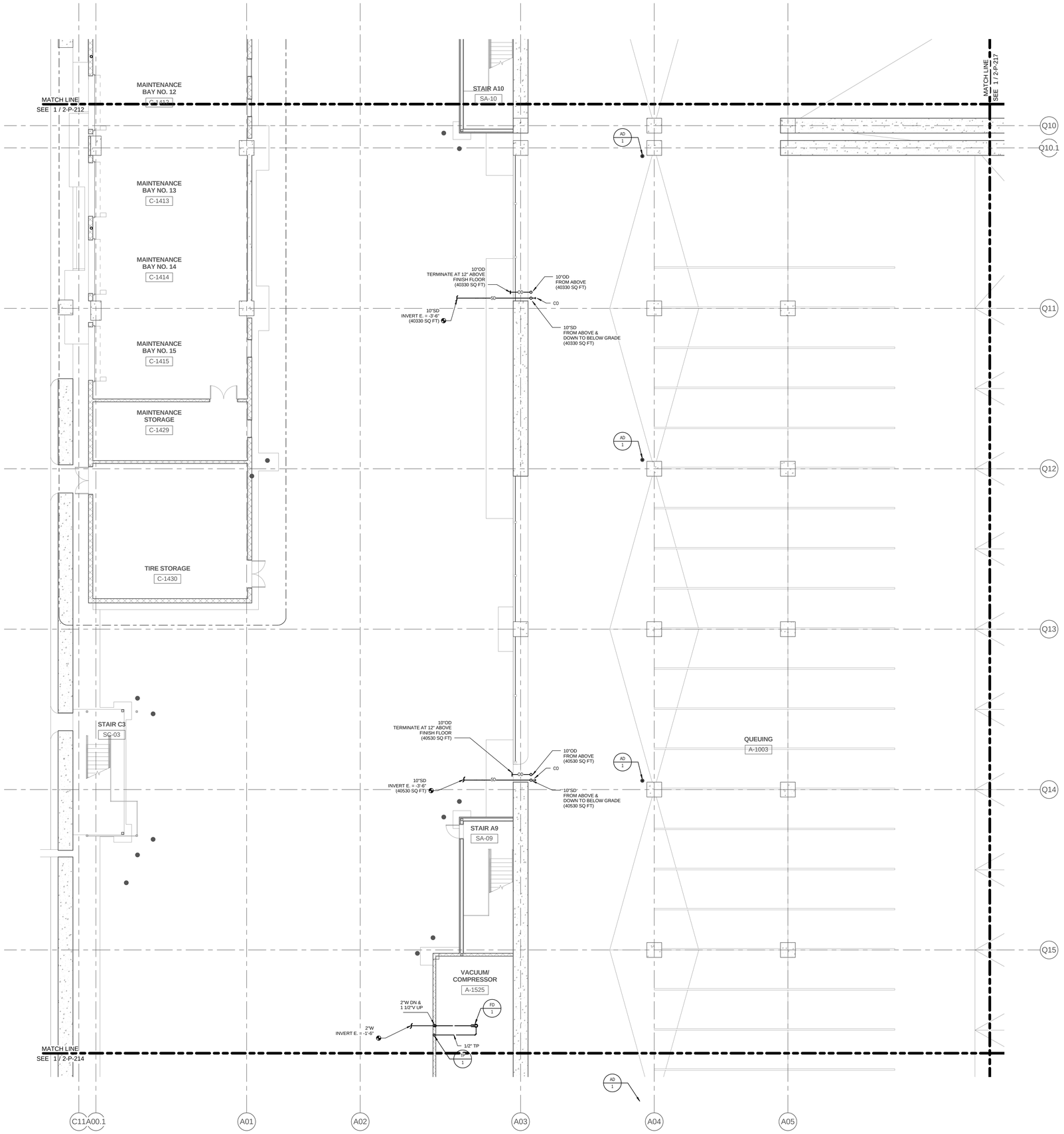
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:
QTA LEVEL 1 ENLARGED PLAN - PART A2

SHEET NO.
2-P-212

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mh\Documents\MP-DA4881-BUDG_A_BR15_-mh@pbsengineers.com.rvt
9/21/2016 4:27:25 PM



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART A3
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Mechanical Electrical Plumbing

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 1
ENLARGED PLAN -
PART A3

SHEET NO.
2-P-213

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

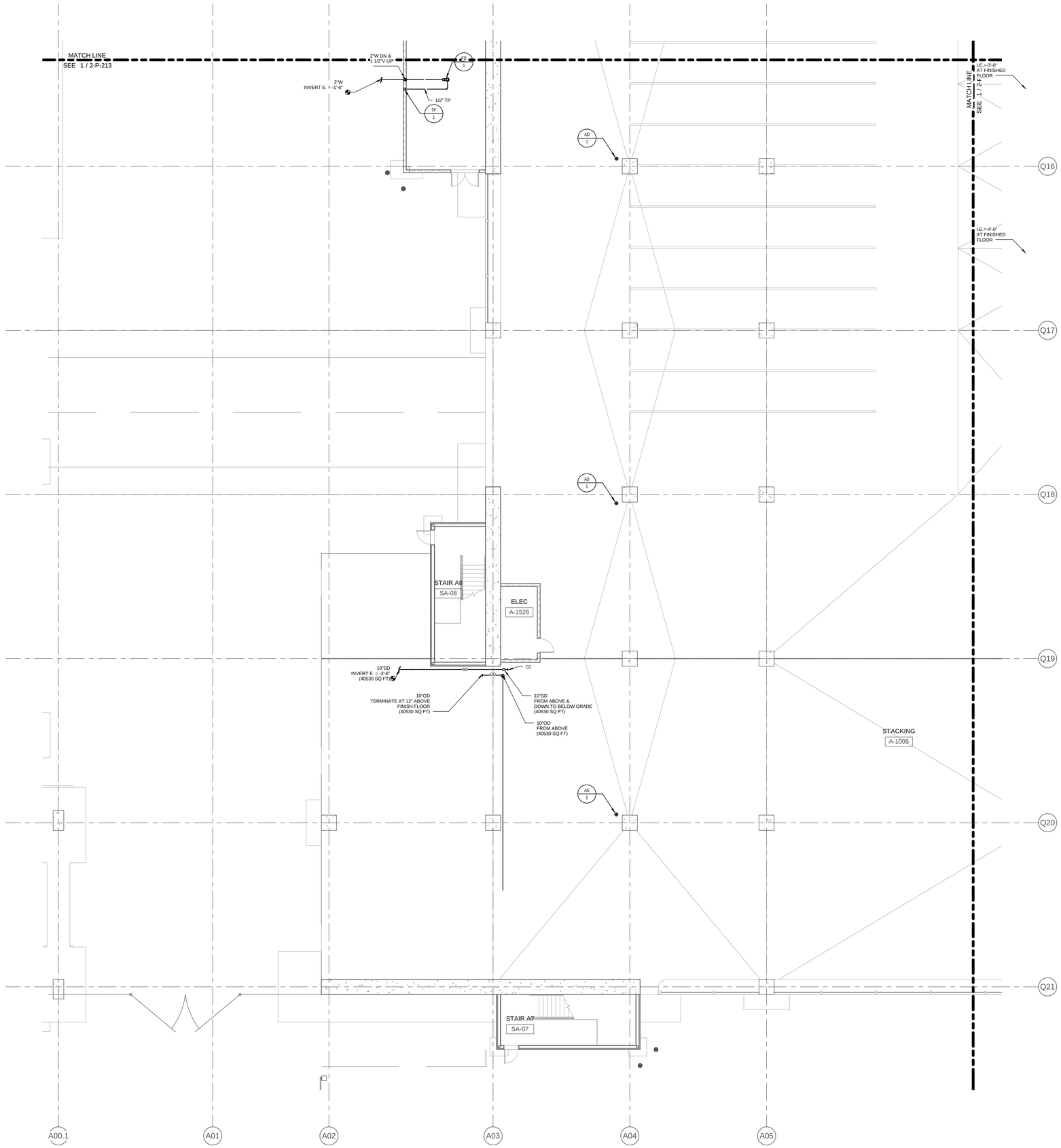
B1	B3
B2	B4

C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt

9/21/2016 4:27:27 PM

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART A4
1/8" = 1'-0"

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Civil | Structural | MEP | FP
CA#C60355 NV#16267 AZ#ROC 291231
3760 Kilroy Airport Way, Suite 200, Long Beach, CA 90806
T 562.426.8356 F 562.426.8373 www.pbsengineers.com
Mechanical Electrical Plumbing | Construction Management

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A4

SHEET NO.

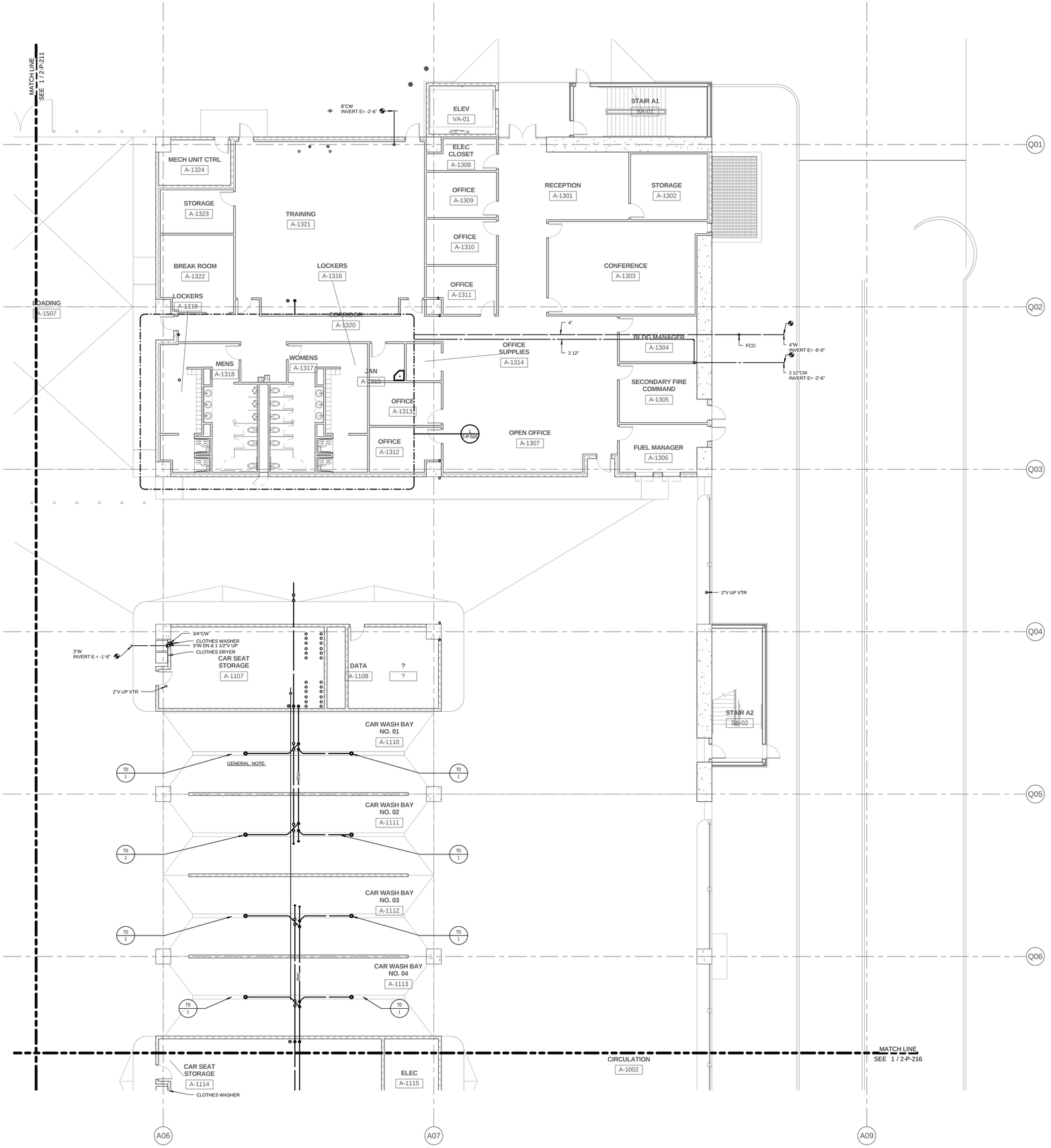
2-P-214

9/21/2016 4:27:28 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART A5
1/8" = 1'-0"

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8
B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3760 Kilroy Airport Way, Suite 200, Long Beach, CA 90806
T 562.426.8356 F 562.490.2761
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK:	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A5

SHEET NO.

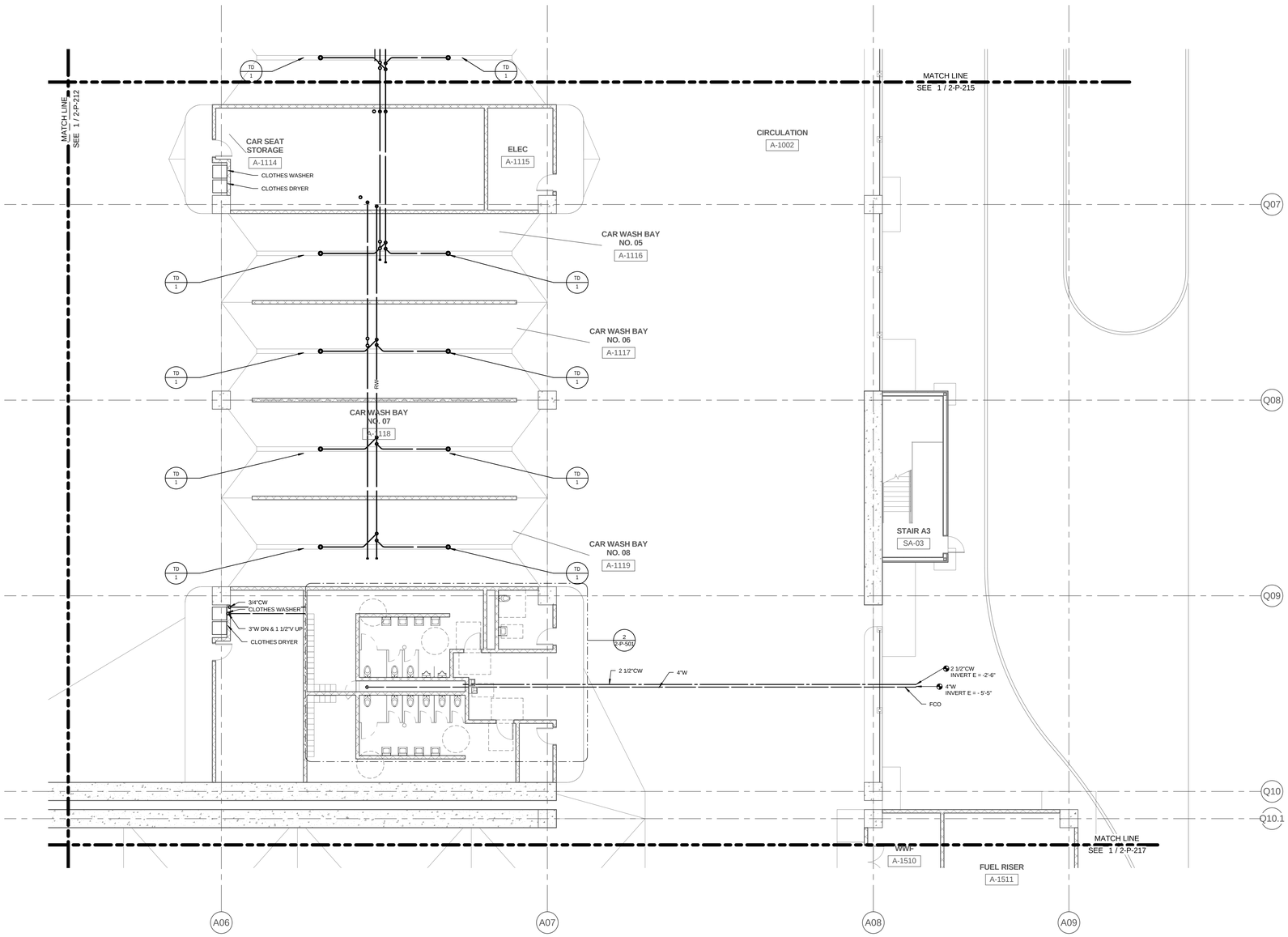
2-P-215

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:27:30 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART A6
1/8" = 1'-0"

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8
B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING + ENVIRONMENTAL INC.
2729 Prospect Park Dr. Suite 220 Rancho Cordova, CA 95670
T 916.853.0500 F 916.853.0502
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE
	QTA 30% SUBMITTAL	09/23/2016

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART A6

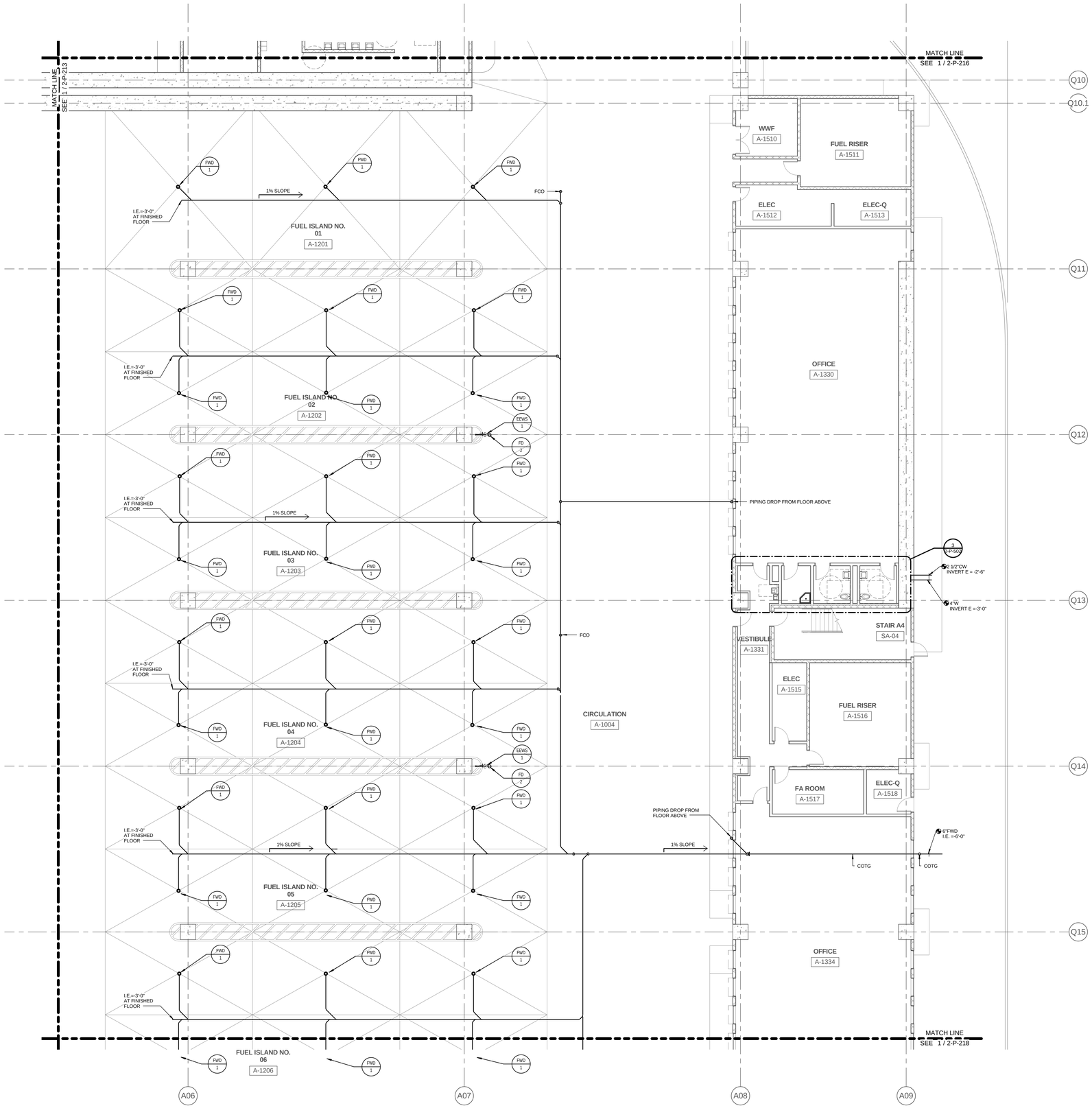
SHEET NO.

2-P-216

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:27:32 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART A7
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Mechanical Electrical Plumbing Engineers

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA48B1
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

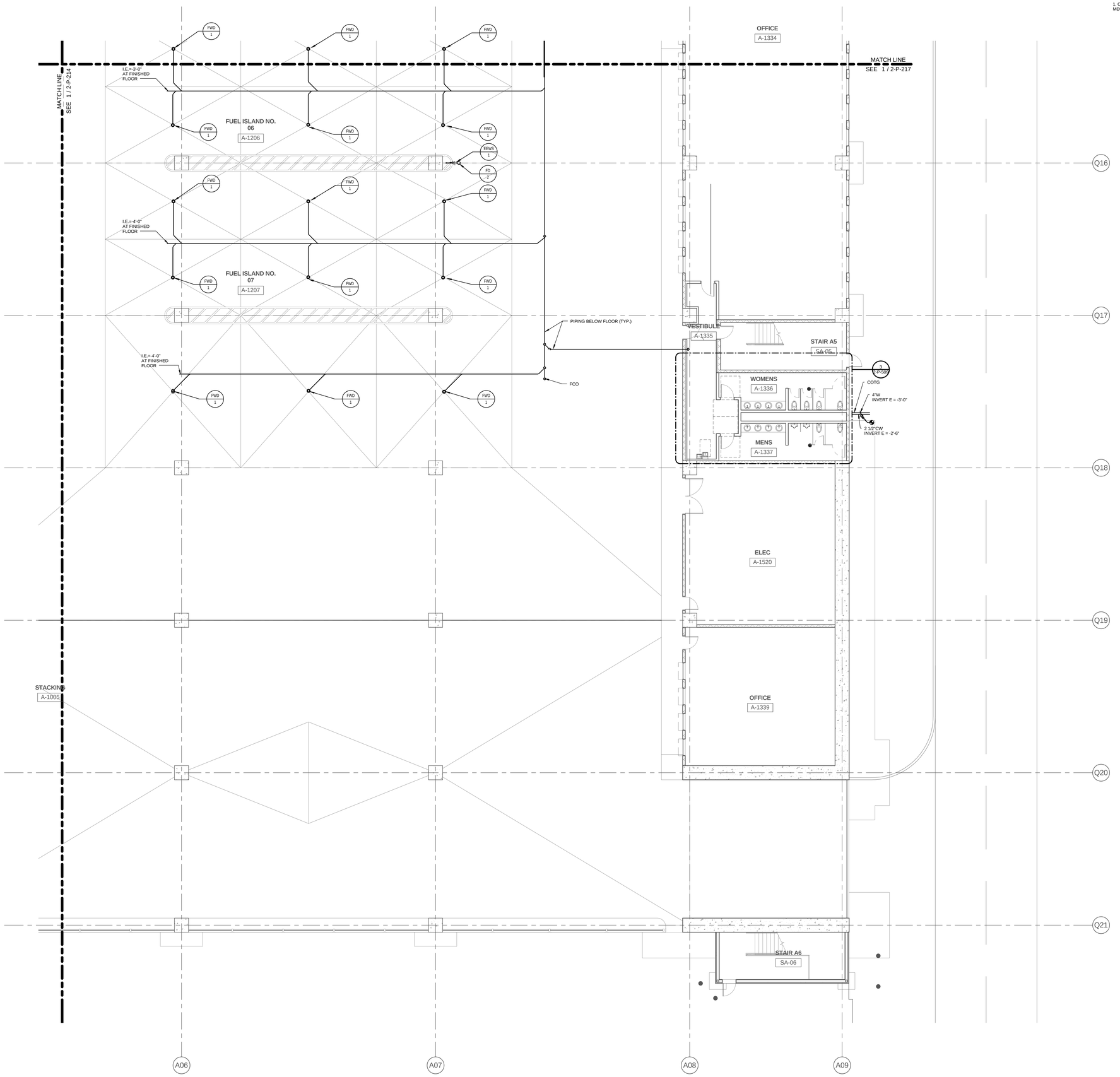
SHEET TITLE:
QTA LEVEL 1 ENLARGED PLAN - PART A7

SHEET NO.
2-P-217

C:\Users\mhy\Documents\MP-DA4881-BLDG_A_R15_-_mhy@abeengineers.com.rvt
9/21/2016 4:27:34 PM

GENERAL NOTE:

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART A8
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600
Long Beach, CA 90806
T 562.426.8000 F 562.427.0190
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/22/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

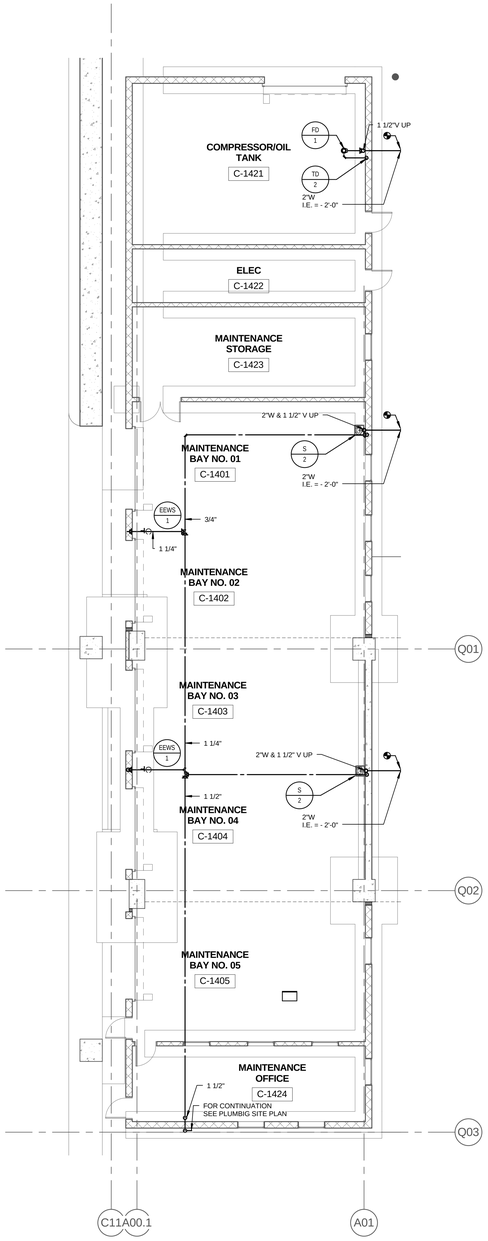
QTA LEVEL 1
ENLARGED PLAN -
PART A8

SHEET NO.
2-P-218

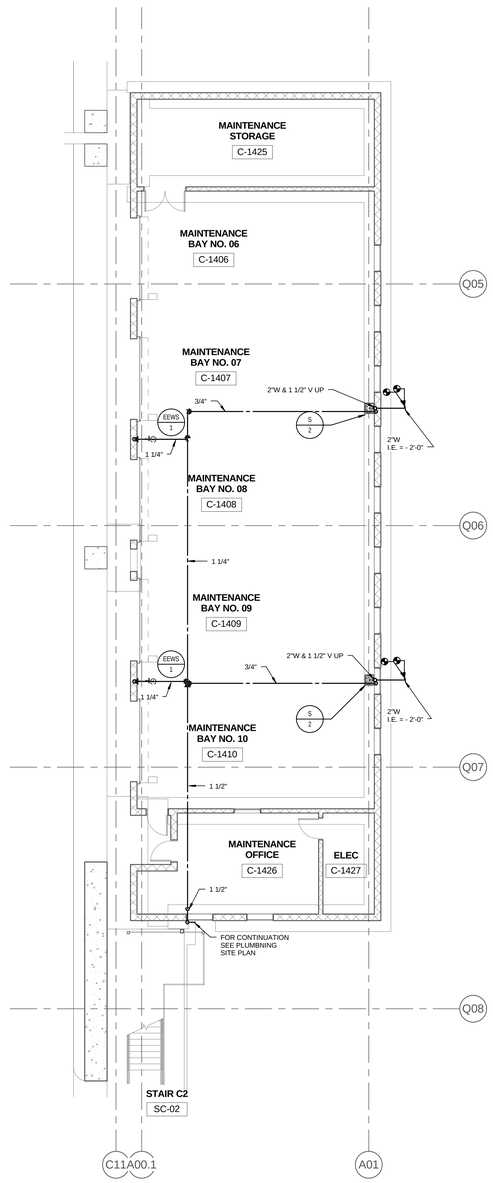
C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt
9/21/2016 4:27:36 PM

GENERAL NOTES

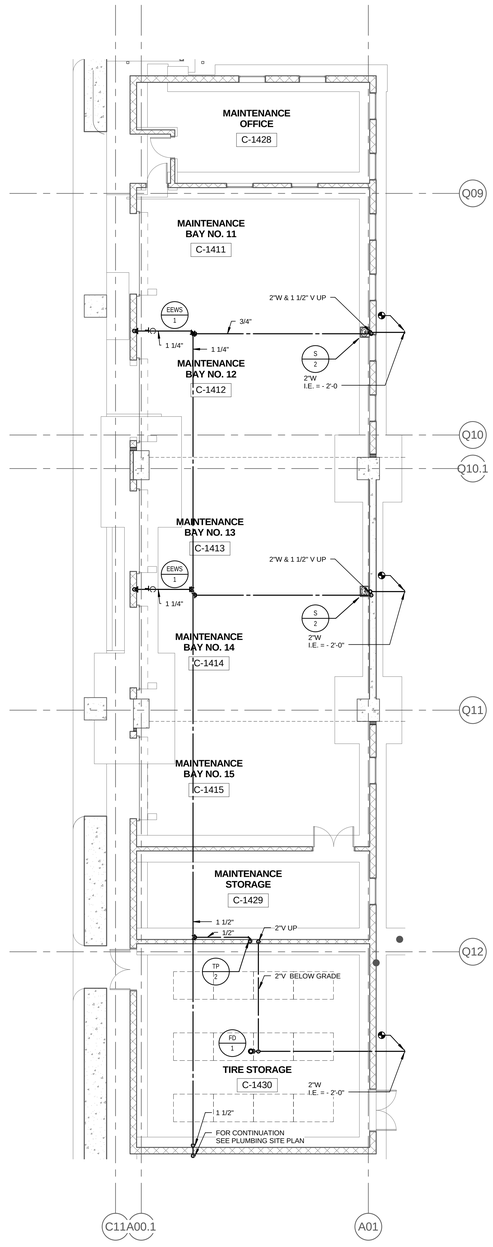
1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - MAINTENANCE NORTH
1/8" = 1'-0"



2 BUILDING A - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - MAINTENANCE CENTER
1/8" = 1'-0"



3 BUILDING A - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - MAINTENANCE SOUTH
1/8" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 250 Anaheim, CA 92806
T 714.520.0556 F 714.520.0557
Mechanical Electrical Plumbing Fire Protection Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
ASST. CHIEF AIRPORTS ENGINEER
SUBMITTED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DESCRIPTION	DATE	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:
QTA LEVEL 1 ENLARGED PLAN - MAINTENANCE

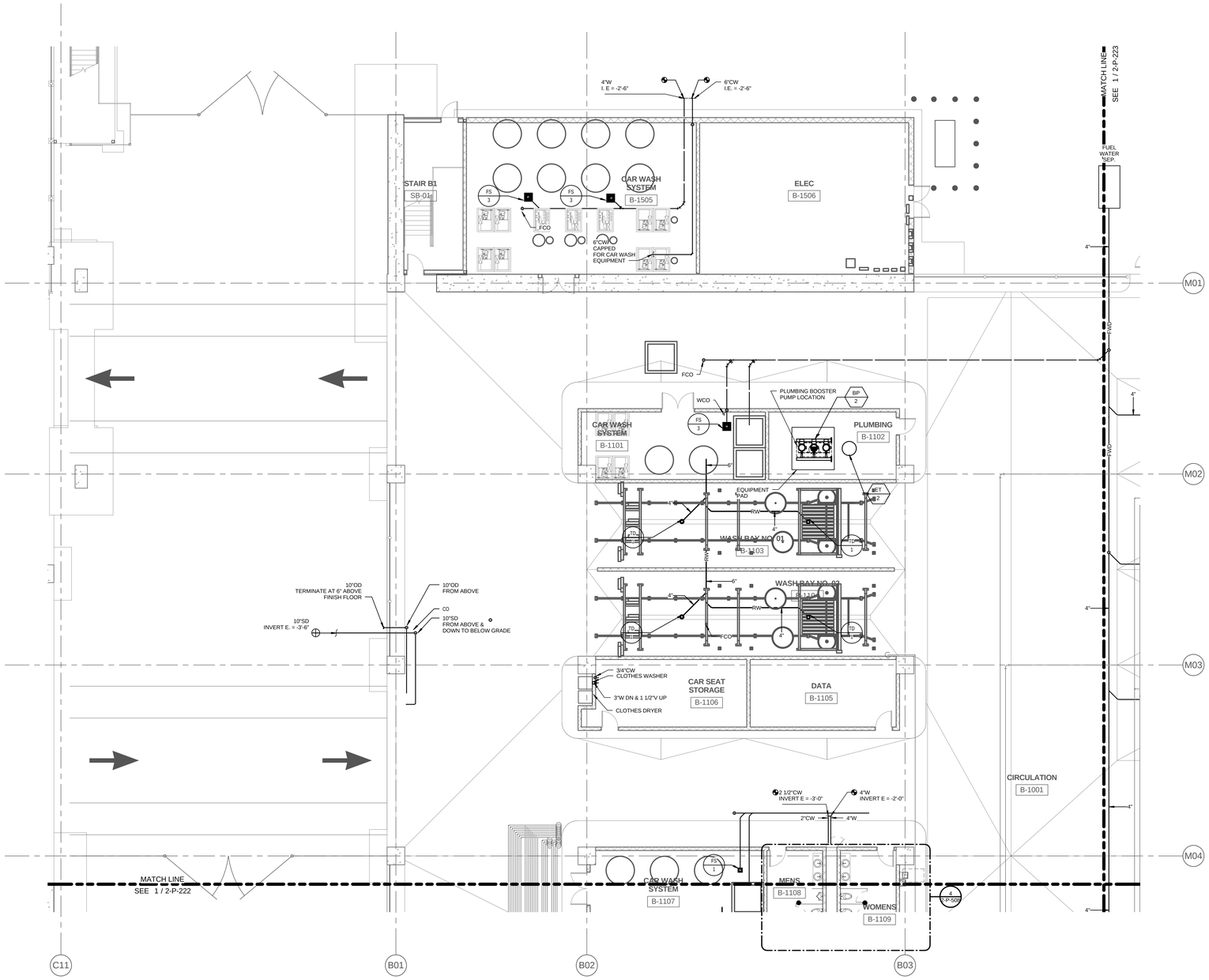
SHEET NO.
2-P-219

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\rhy\Documents\MP-DA4881-BLDG_A_8-R15_rhy@pbsengineers.com.rvt
9/21/2016 4:27:38 PM

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART B1
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING + ENVIRONMENTAL INC.
2729 Main Street, Ste. 100, Irvine, CA 92614 P 949.809.5000 F 949.809.5001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

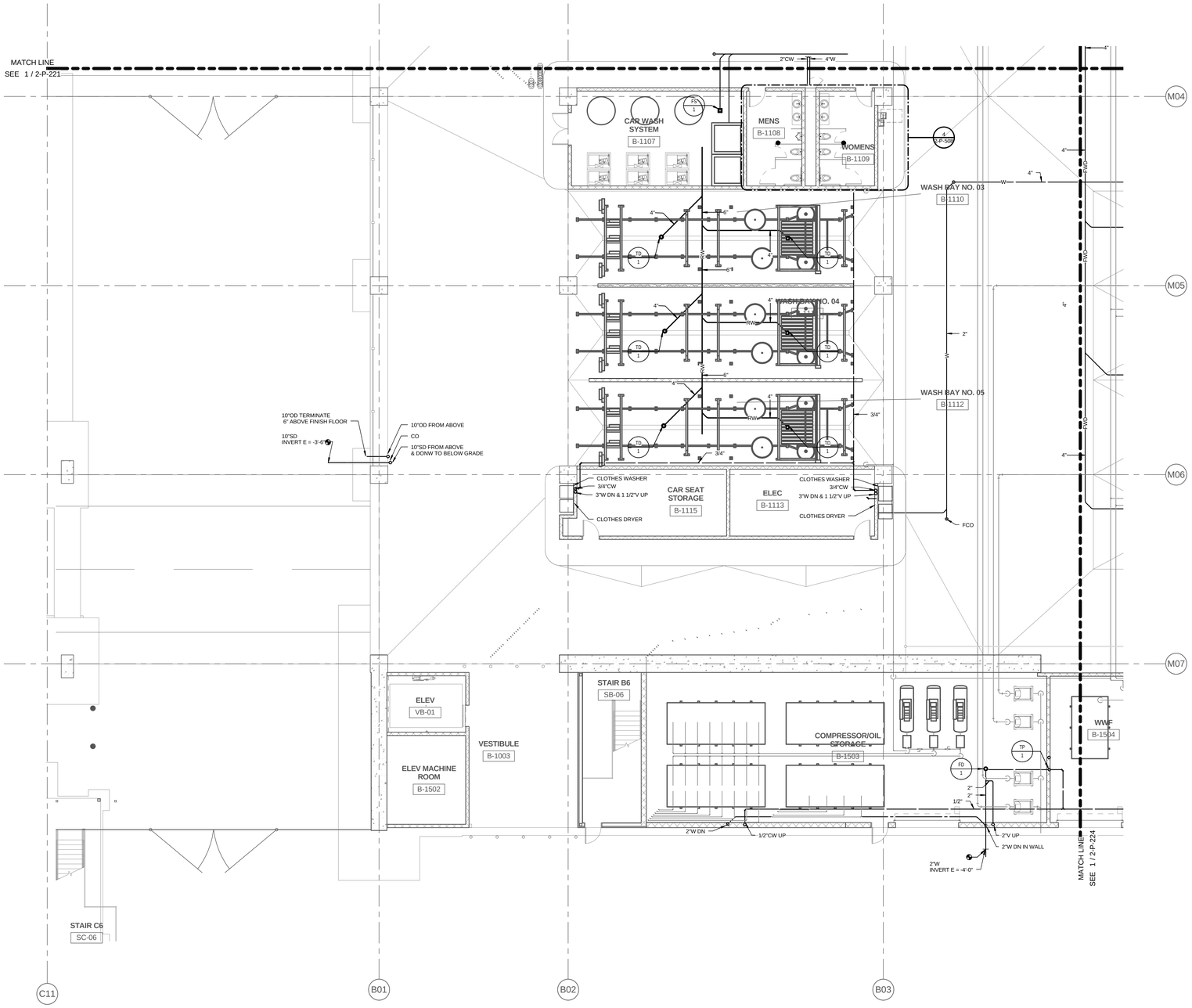
REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:
QTA LEVEL 1 ENLARGED PLAN - PART B1

SHEET NO.
2-P-221

9/21/2016 5:10:19 PM
C:\Users\rcarmacho\Documents\MP-DA4881-BLDG_A_B-R15_rcarmacho.rvt



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART B2
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Mechanical Electrical Plumbing

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART B2

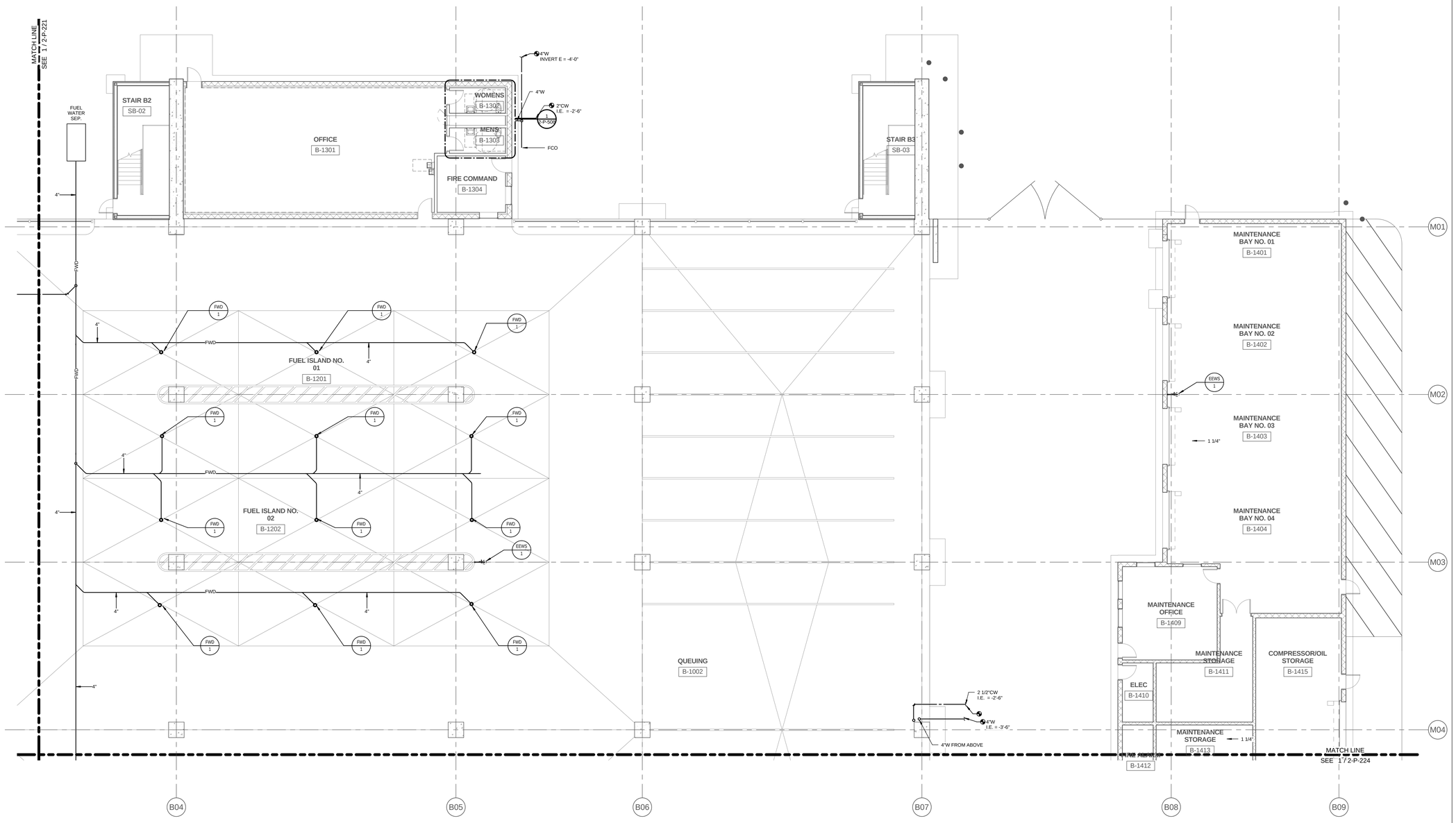
SHEET NO.

2-P-222

C:\Users\rcamacho\Documents\MP-DA4881-BUDG_A_R15_rcamacho.rvt
9/21/2016 5:10:23 PM

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART B3
1/8" = 1'-0"

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600
Long Beach, CA 90806
T 562.426.8356 F 562.426.0232
Mechanical Electrical Plumbing / Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

LEED ANA LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE
	QTA 30% SUBMITTAL	09/23/2016

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 1 ENLARGED PLAN - PART B3

SHEET NO.

2-P-223

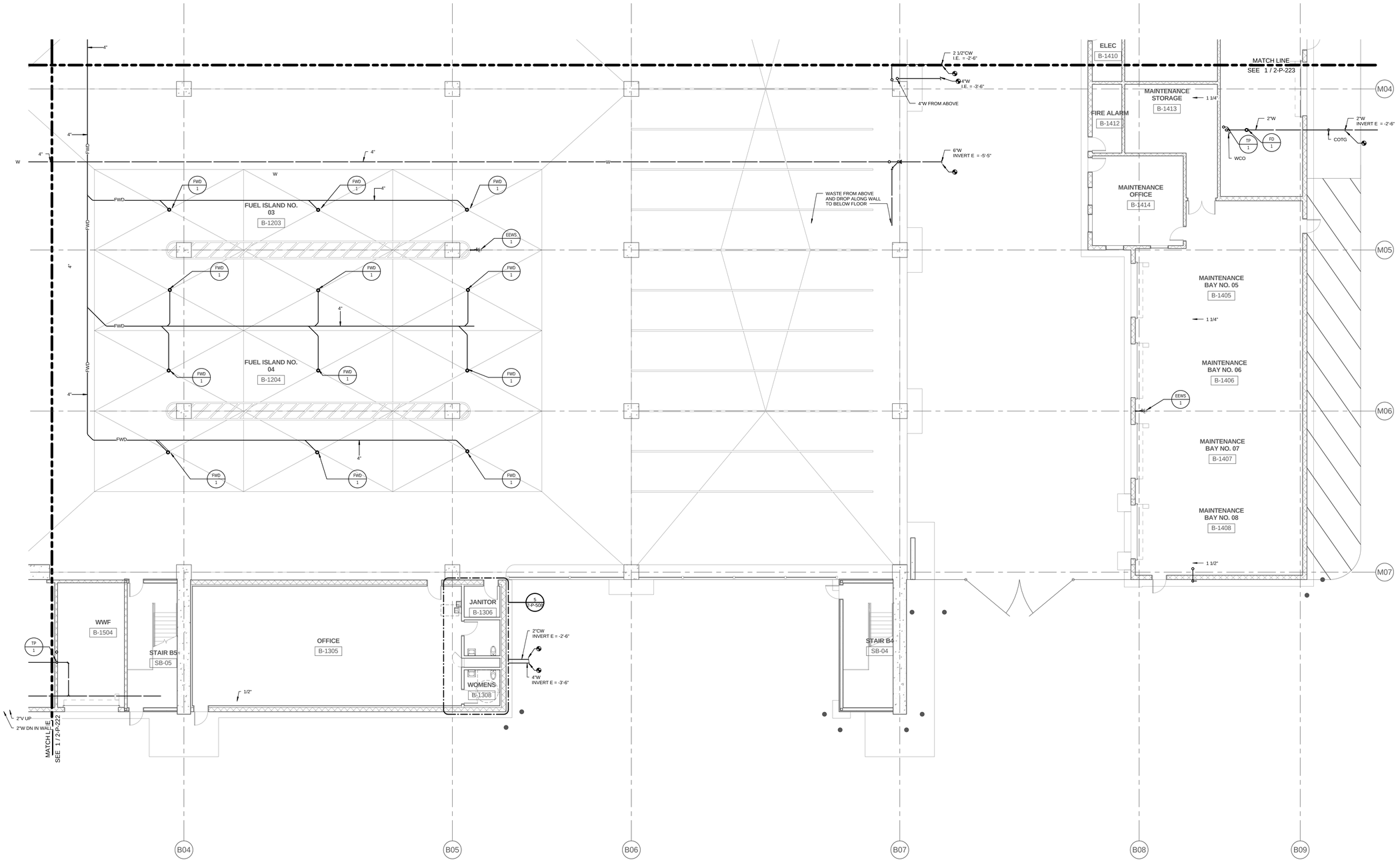
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:27:44 PM

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN - PART B4
1/8" = 1'-0"

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 200 Anaheim, CA 92806
714.634.5000 FAX 714.634.0050
Mechanical Electrical Plumbing / Controls Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:
QTA LEVEL 1 ENLARGED PLAN - PART B4

SHEET NO.
2-P-224

C:\Users\mh\Documents\MP-DA4881-BUDG_A_BR15_-mh@pbsengineers.com.rvt
9/23/2016 4:27:45 PM

801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

TransSystems

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2100 Main Street, 6th Floor, Irvine, CA 92614
T 949.250.0020 F 949.250.0021
Network Electrical Planning | Consulting Engineers

LAX Consolidated Rental Car Facility

Project

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

LAWA ONT PMD LAX

Los Angeles World Airports

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ.NO: DA4881
SCALE: 1/8" = 1'-0"
DATE: 09/23/2016
DESIGNED BY: Designer
DRAWN BY: Author
CHECKED BY: Checker

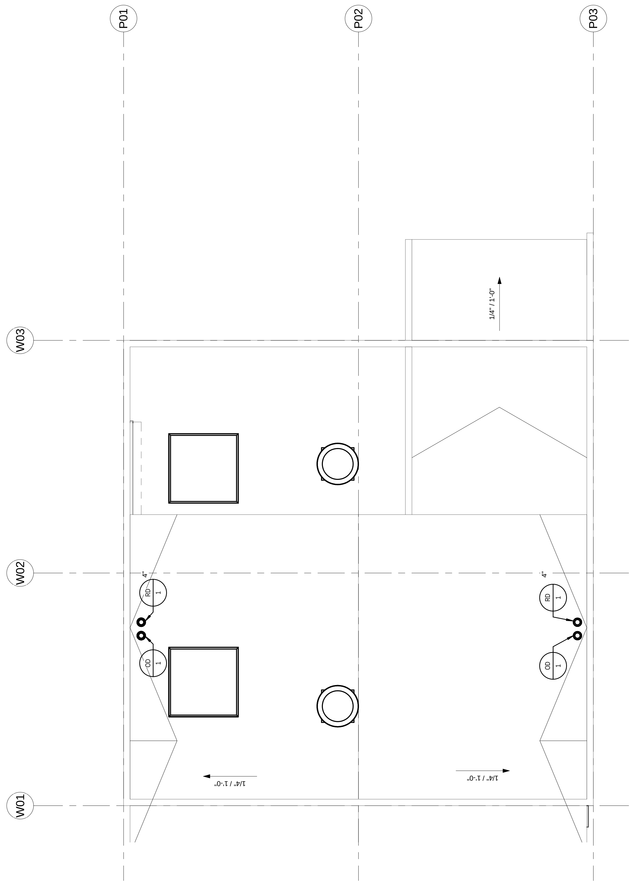
SHEET TITLE: DWP BUILDING ROOF PLAN

SHEET NO. 2-P-230

BUILDING A & B KEYPLAN

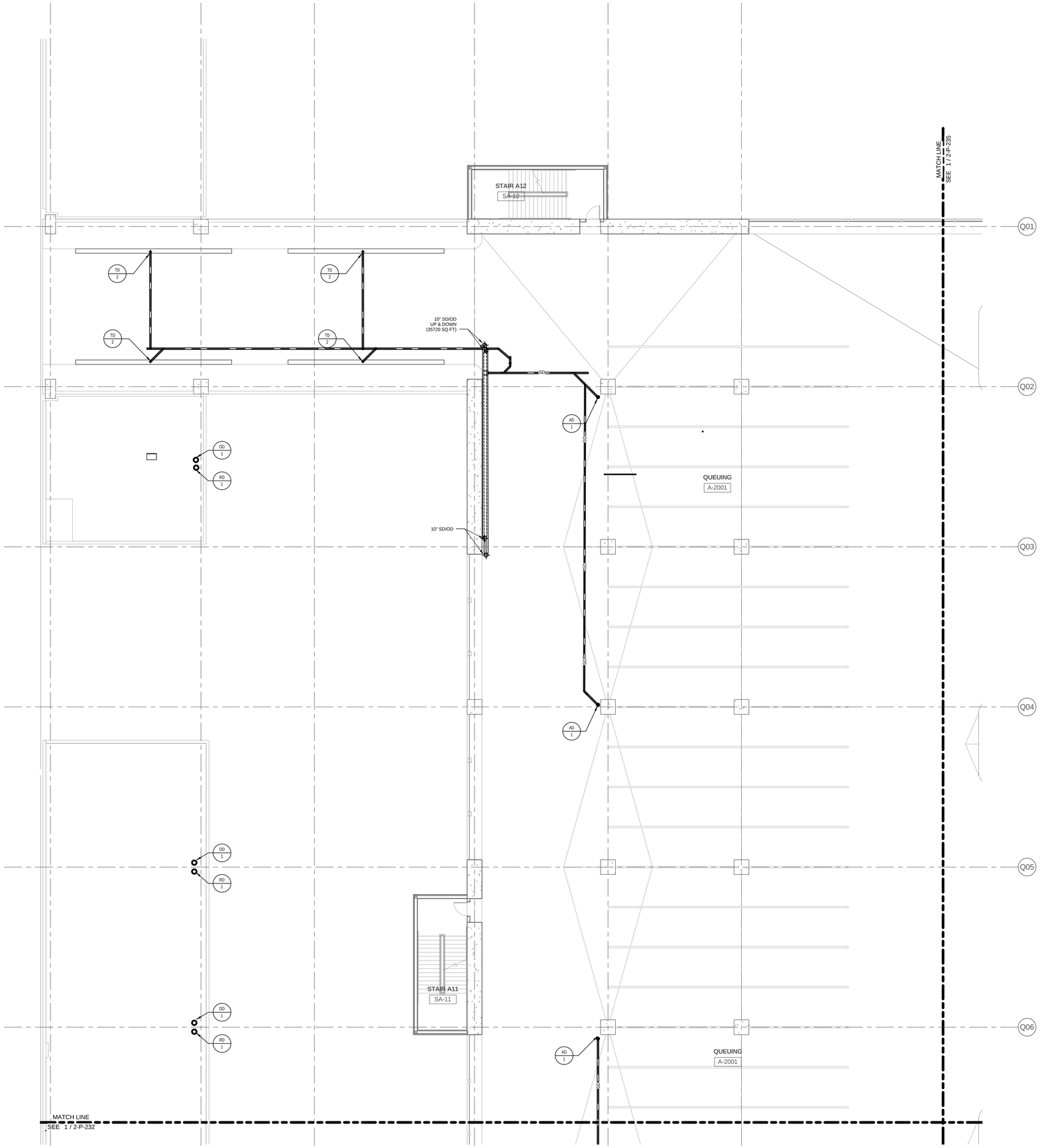
A5	A6	A7	A8
A1	A2	A3	A4

B3	B4
B1	B2



1 DWP BUILDING ROOF PLAN
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART A1
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3760 Kilroy Airport Way, Suite 210 Long Beach, CA 90806
T 562.426.8000 F 562.426.0232
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA48B1
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

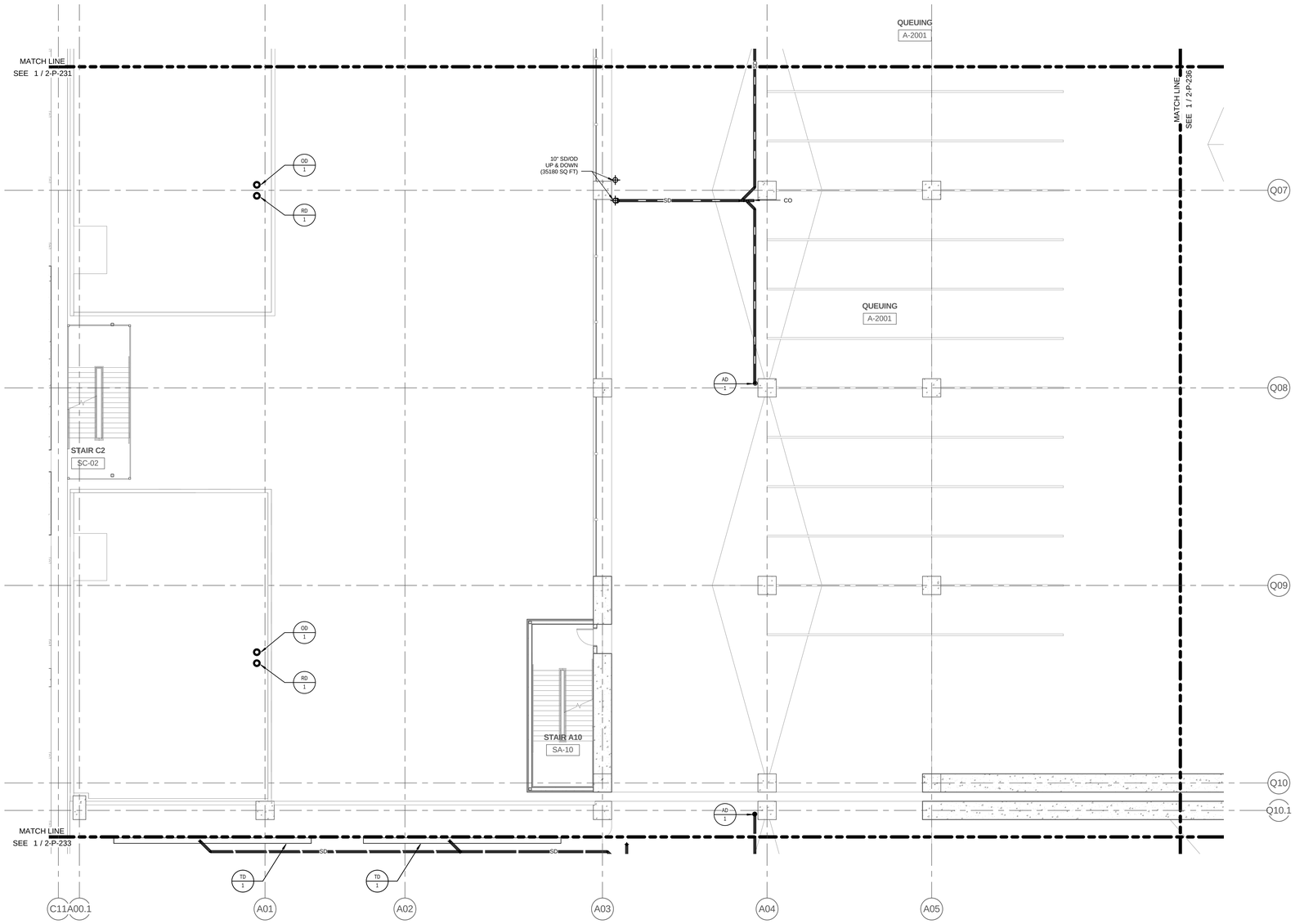
SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A1

SHEET NO.

2-P-231

9/12/2016 4:27:48 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART A2
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Civil | Structural | Mechanical | Electrical | Plumbing | Consulting Engineers
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8356 F 562.427.0190

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

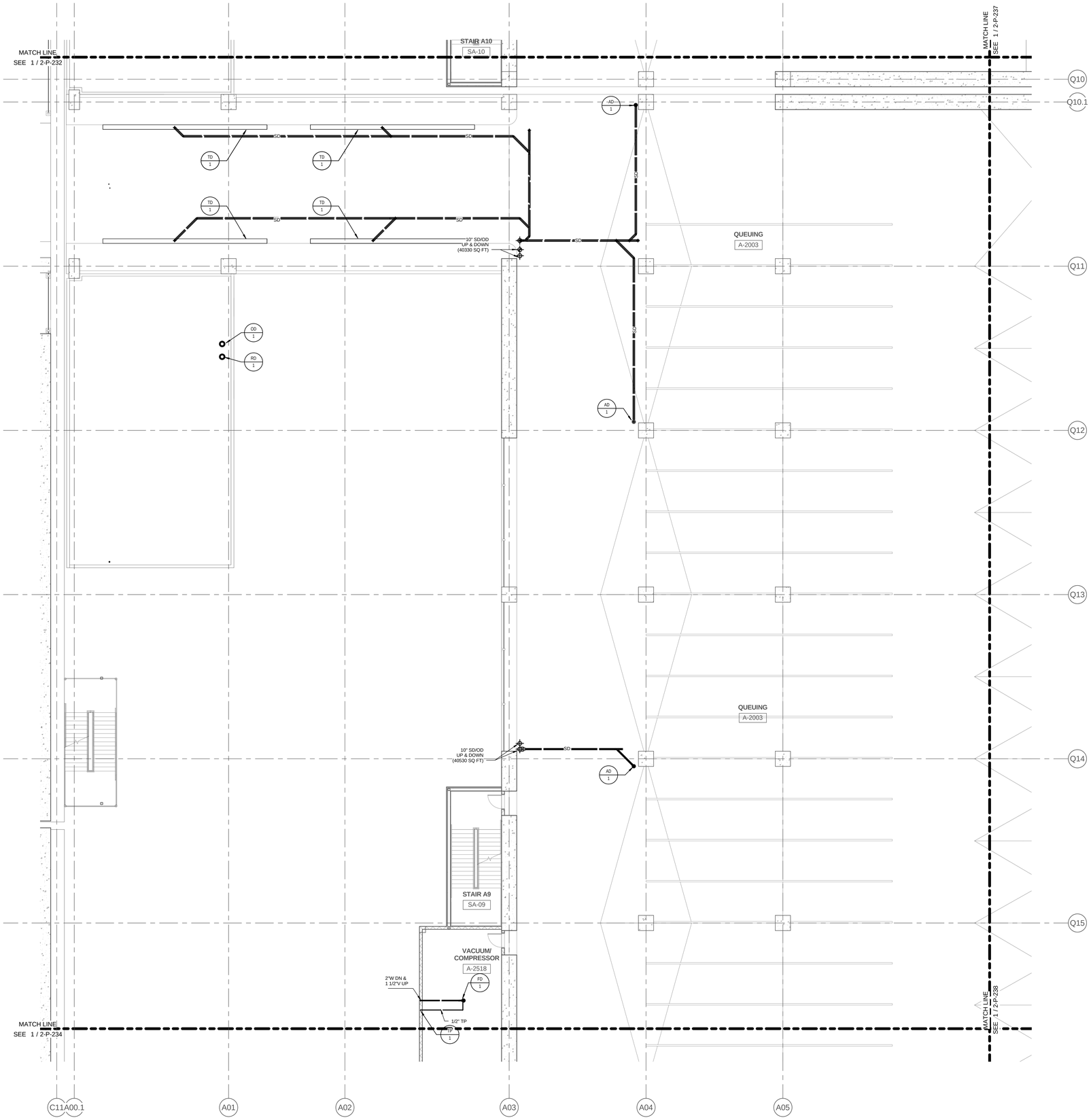
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 2
ENLARGED PLAN -
PART A2

SHEET NO.
2-P-232

9/21/2016 4:27:49 PM
C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 500
Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:
QTA LEVEL 2 ENLARGED PLAN - PART A3

SHEET NO.
2-P-233

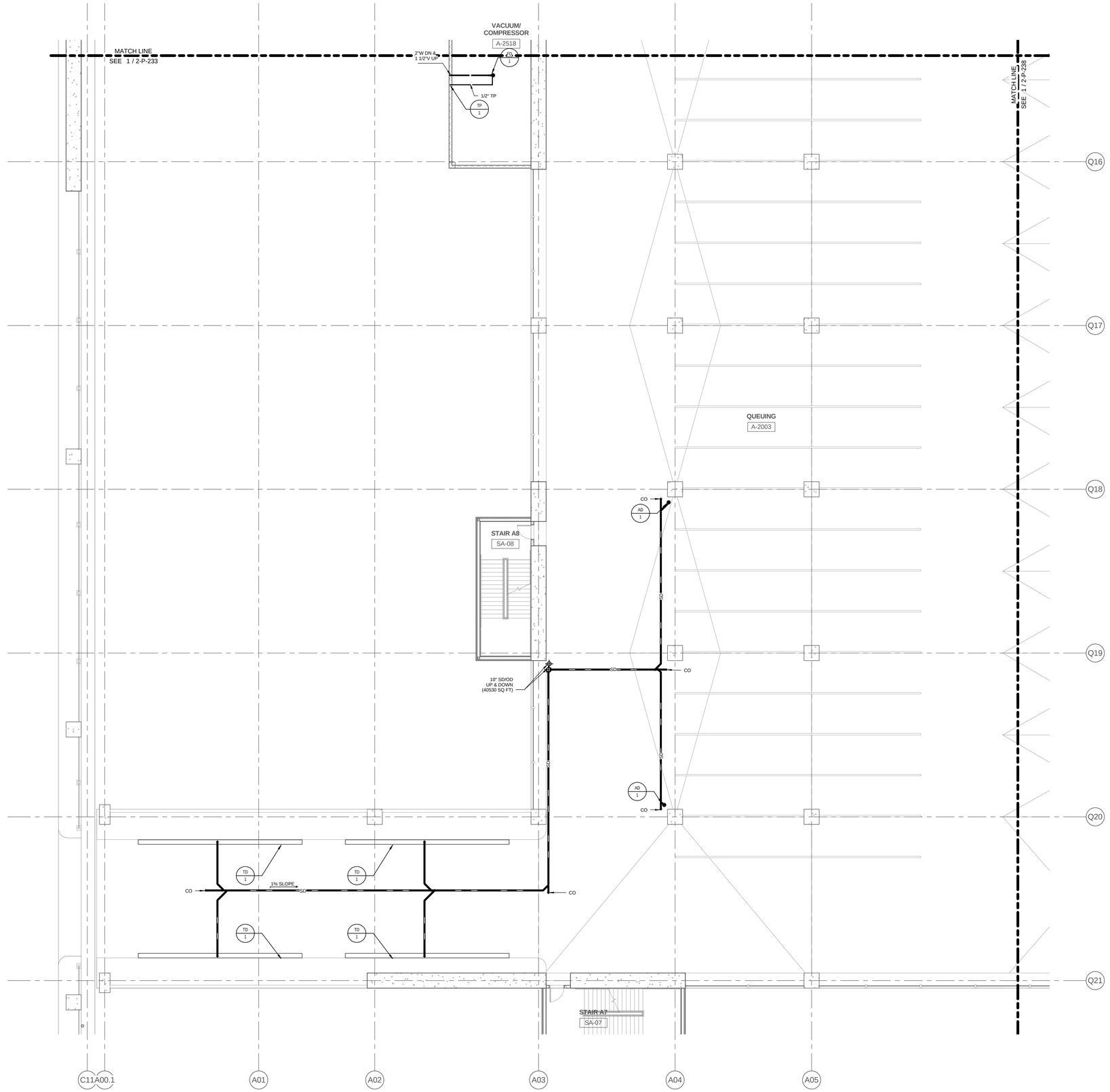
BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:27:51 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS

3780 Kilroy Airport Way, Suite 600
Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing Fire Protection Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 50% SUBMITTAL	

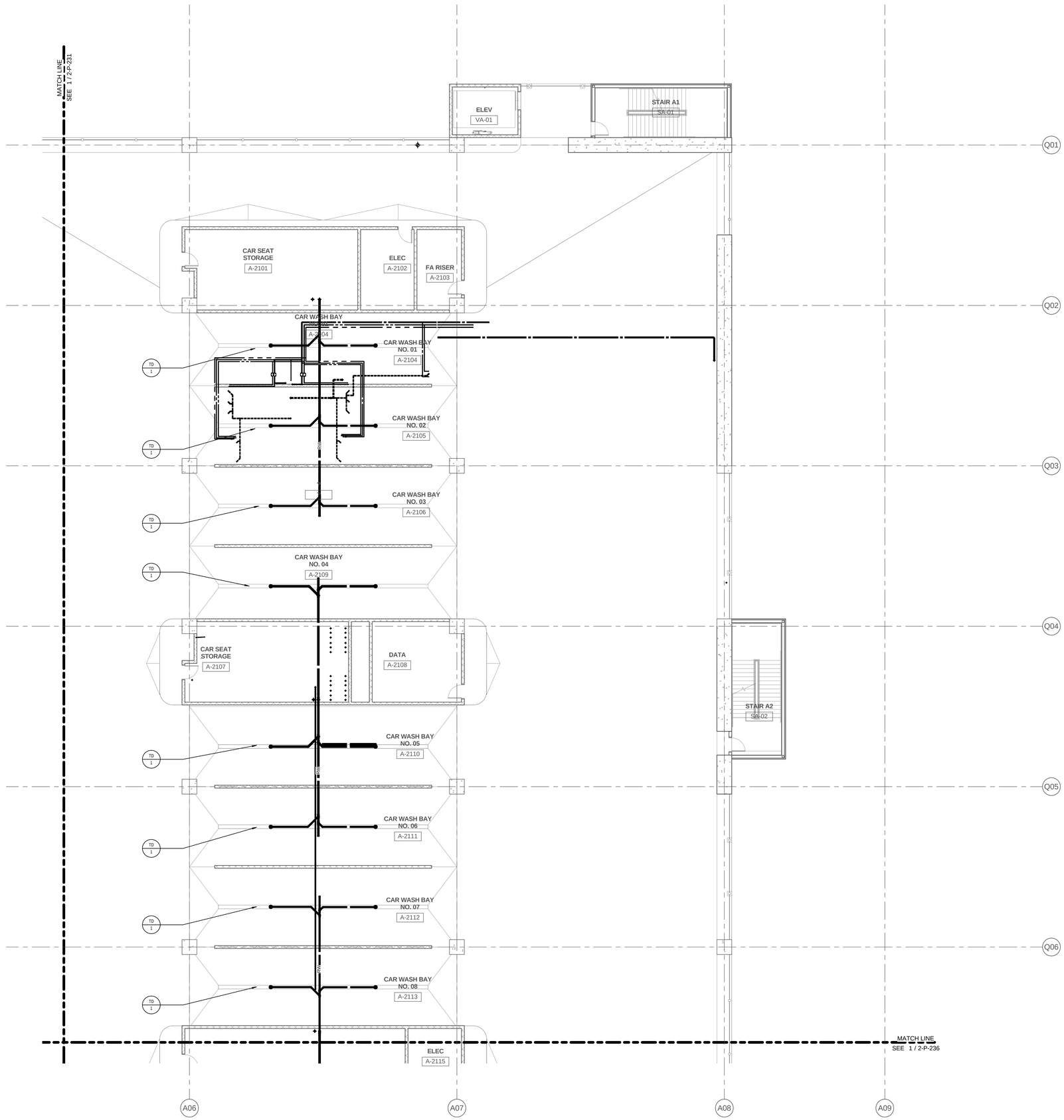
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:
QTA LEVEL 2
ENLARGED PLAN -
PART A4

SHEET NO.
2-P-234

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt
9/21/2016 4:27:52 PM



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8
B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 210 Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE
	QTA 30% SUBMITTAL	09/23/2016

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

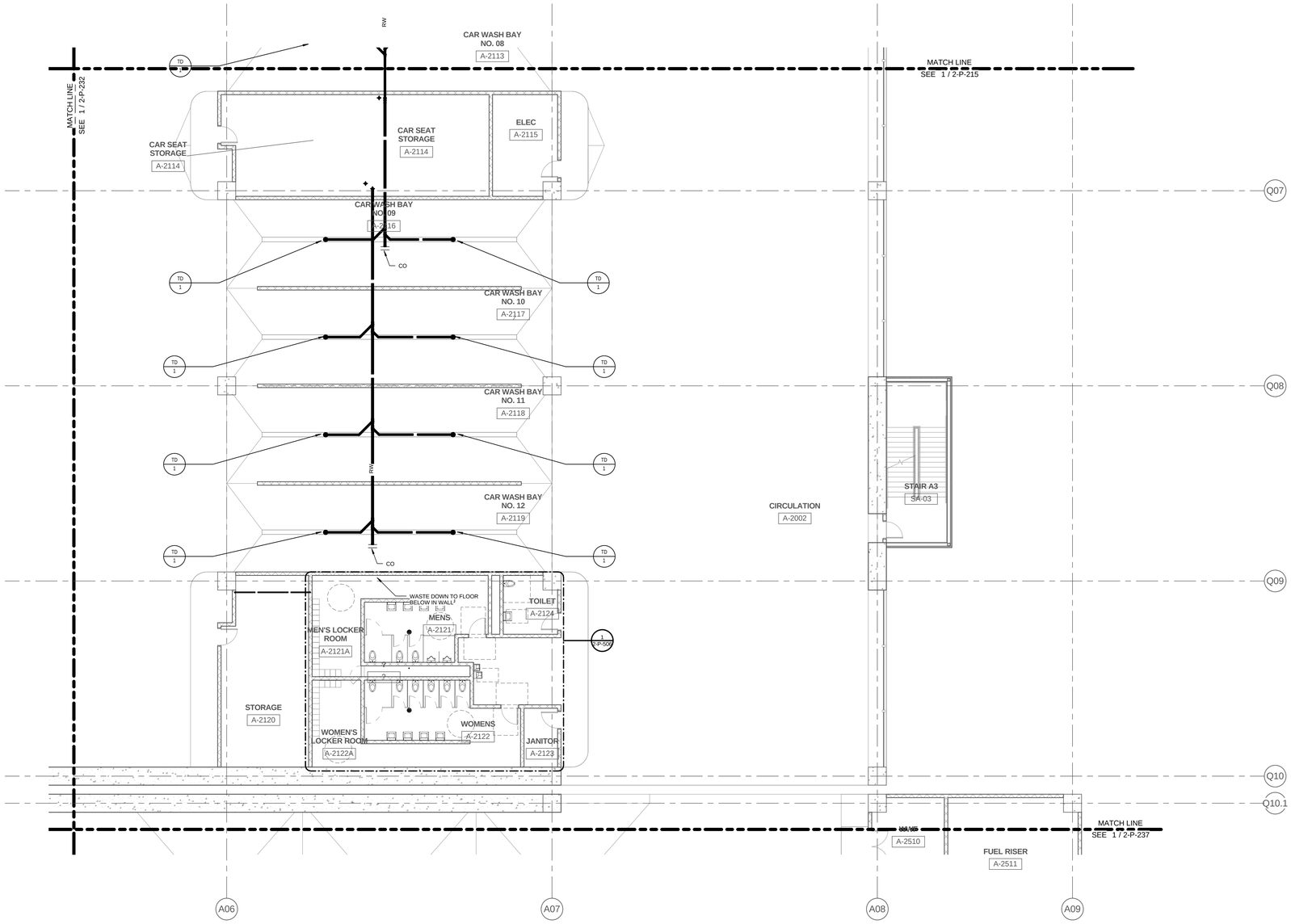
QTA LEVEL 2 ENLARGED PLAN - PART A5

SHEET NO.

2-P-235

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:27:56 PM C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART A6
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 220 Anaheim, CA 92806
T 714.520.0335 F 714.520.0336
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

JOINT PMD ANA LAX

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 50% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A6

SHEET NO.

2-P-236

A1	A5
A2	A6
A3	A7
A4	A8

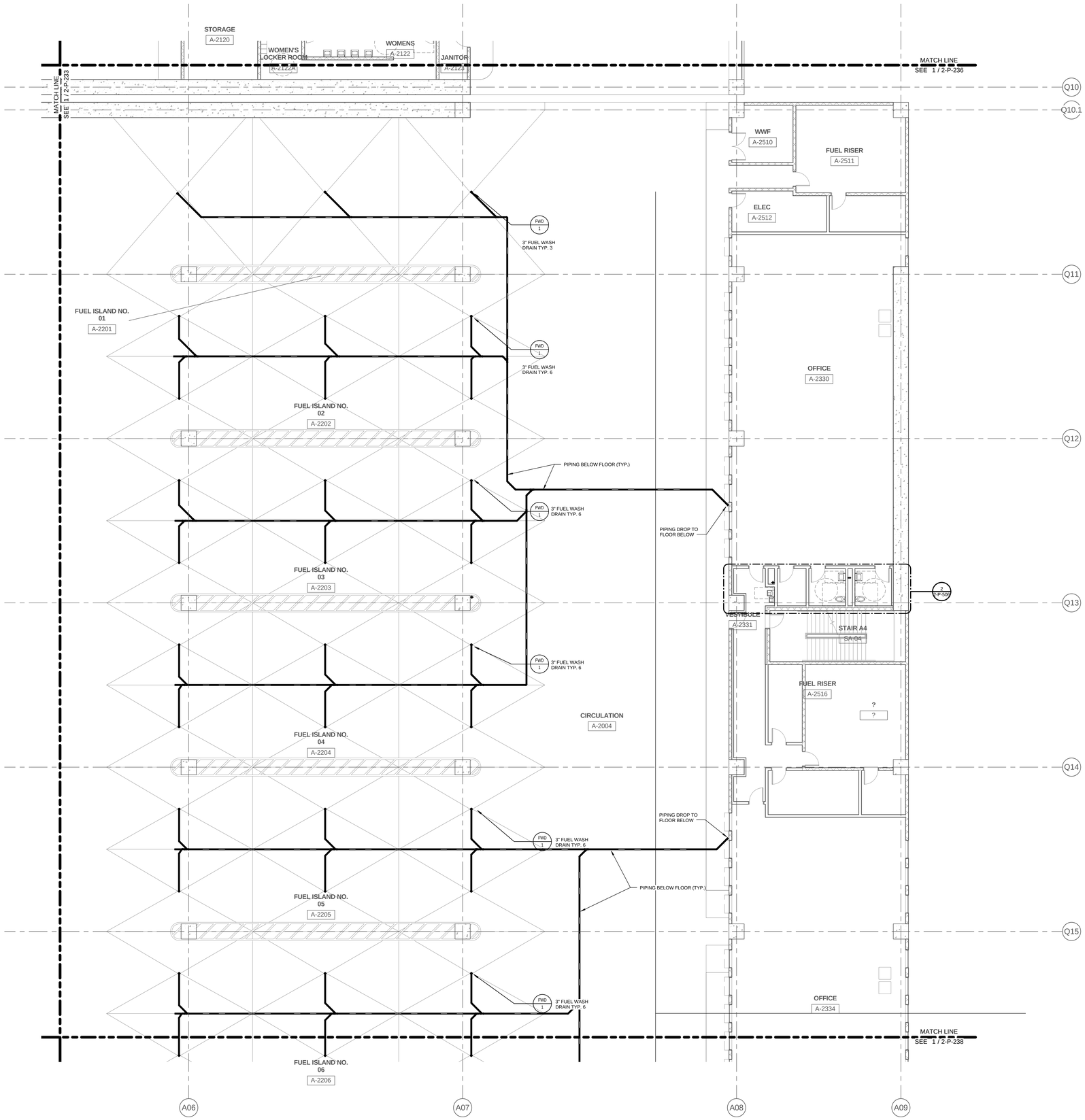
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mh\Documents\MP-DA4881-BUDG_A_B-R15_-mh@pbsengineers.com.rvt

9/21/2016 4:27:59 PM



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART A7
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 310 Anaheim, CA 92806
T 714.939.0000 F 714.939.0001
Mechanical Electrical Plumbing Fire Protection Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4B81
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:
QTA LEVEL 2 ENLARGED PLAN - PART A7

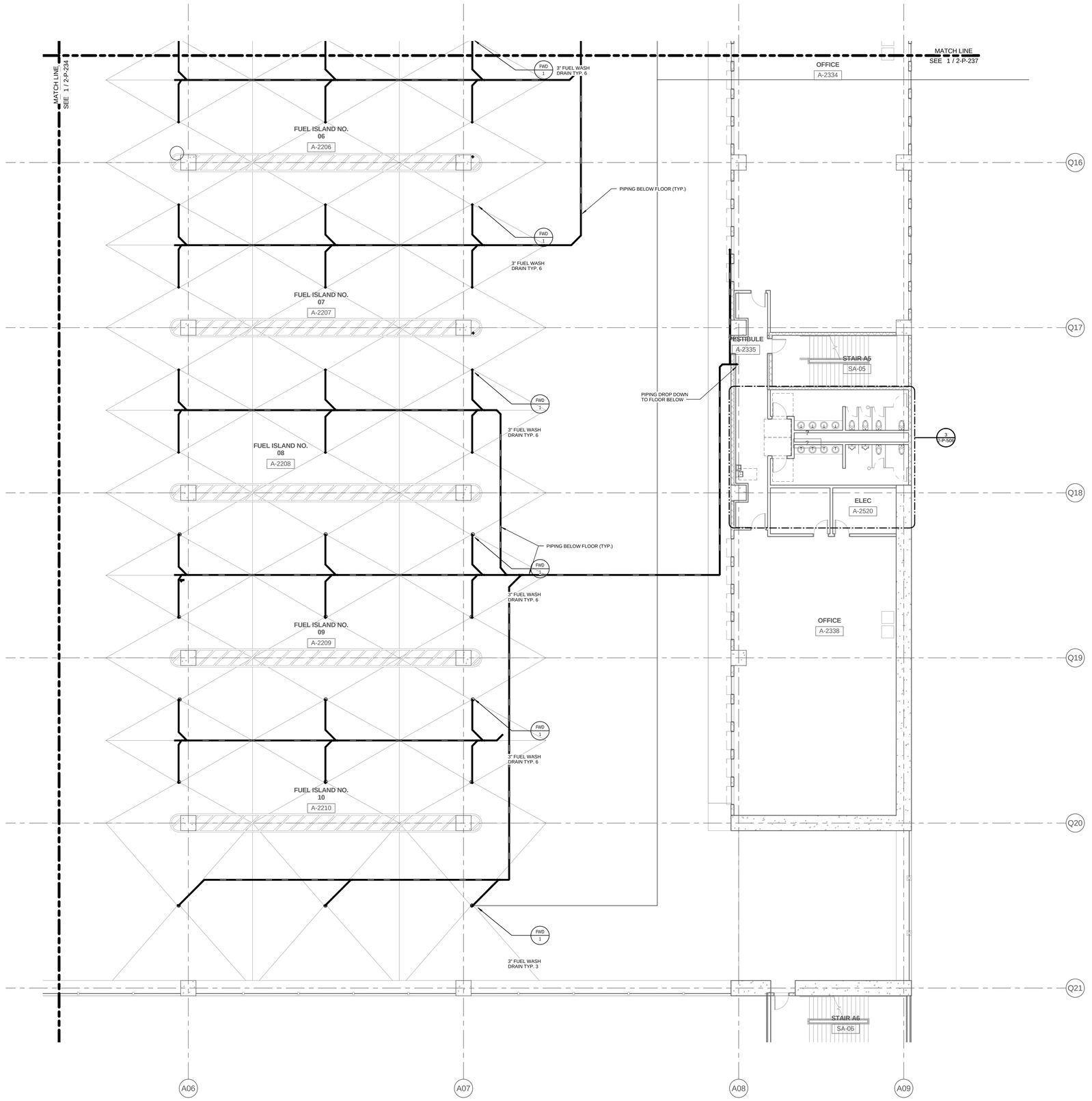
SHEET NO.
2-P-237

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\rhy\Documents\MP-DA4B81-BLDG_A_B-R15_rhy@pbsengineers.com.rvt
9/23/2016 4:28:07 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART A8
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:		
MARK:	DATE:	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART A8

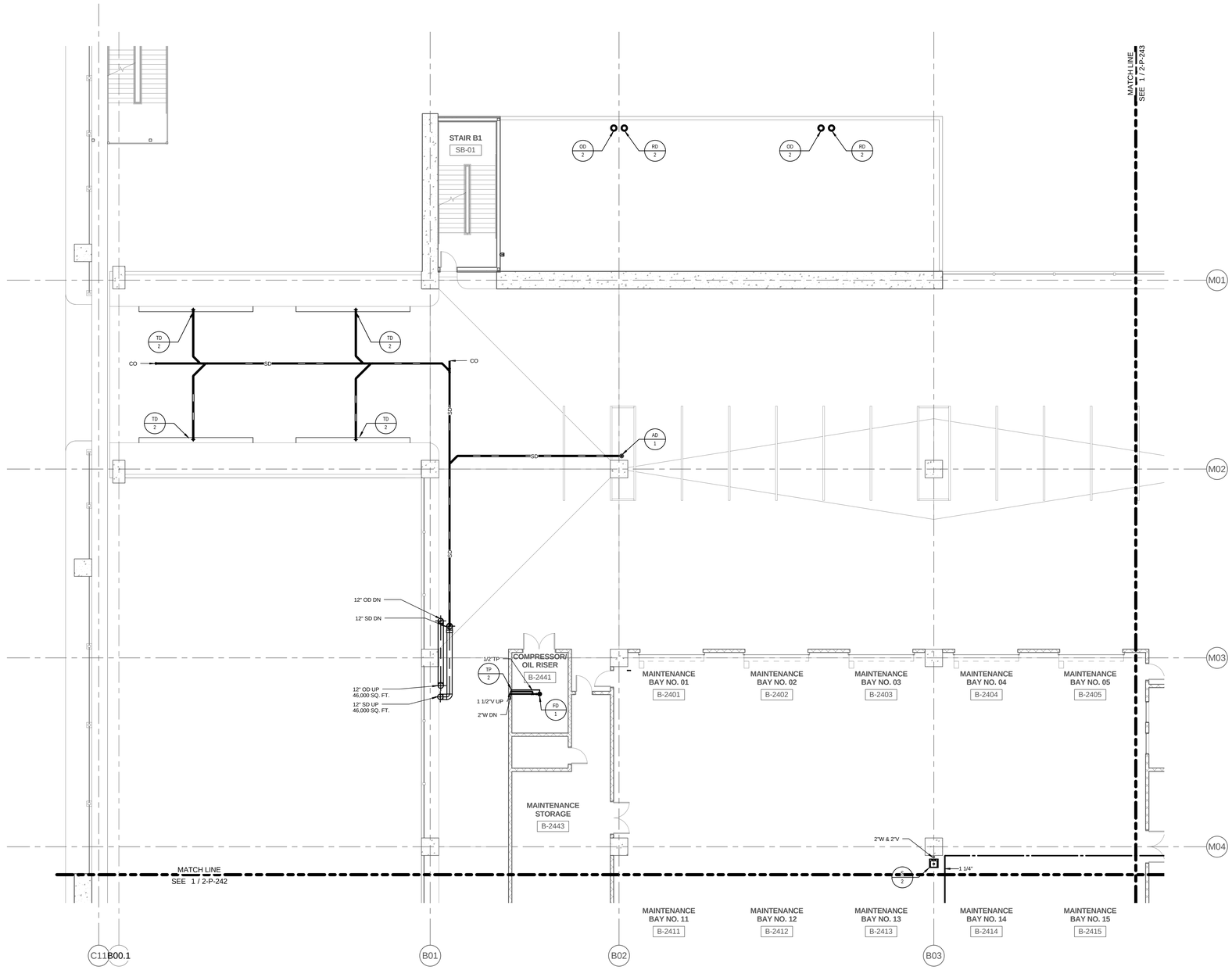
SHEET NO.

2-P-238

C:\Users\myDocuments\MP-DA4881-BLDG_A_B-R15_my@pbsengineers.com.rvt
8/21/2016 4:28:15 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART B1
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
3760 Kilroy Airport Way, Suite 200, Long Beach, CA 90806
T 562.426.8356 F 562.490.2761
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 50% SUBMITTAL	

PROJ NO:	DA488 1
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART B1

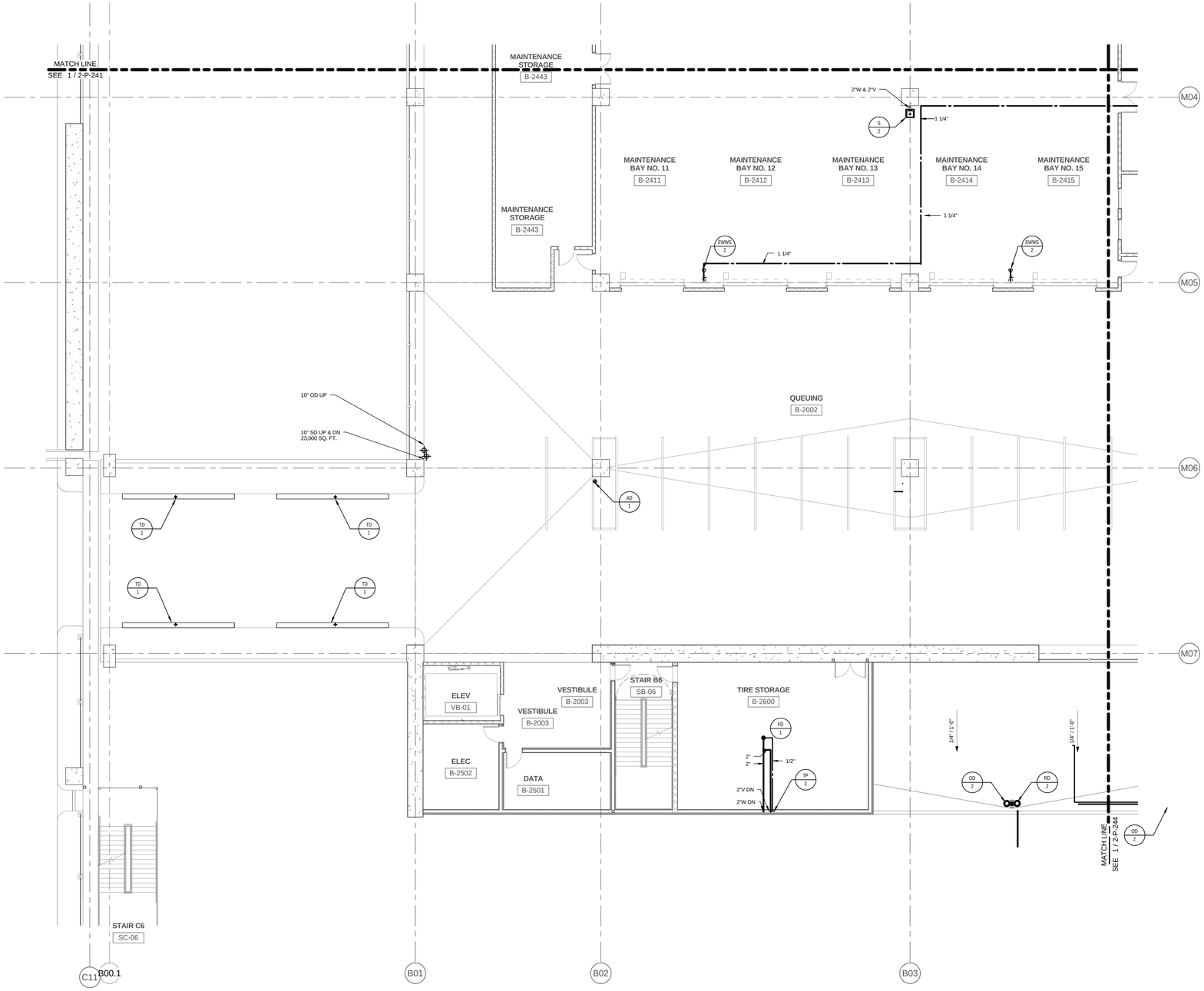
SHEET NO.

2-P-241

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\myh\Documents\MP-DA488 1-BUDG_A_B R15_-myh@pbsengineers.com.rvt

9/21/2016 4:28:17 PM



GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART B2
1/8" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 200
Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 2 ENLARGED PLAN - PART B2

SHEET NO.

2-P-242

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

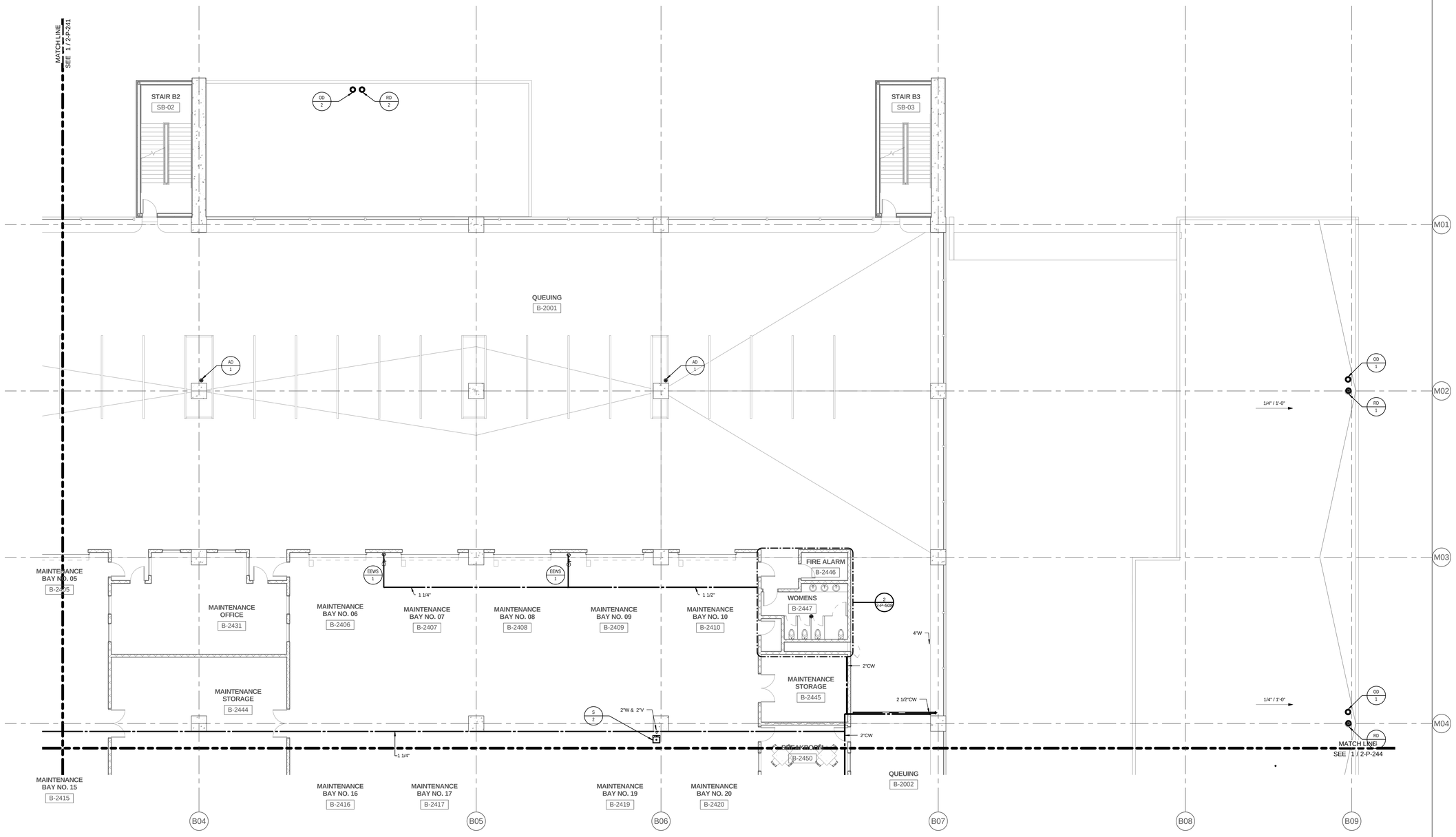
BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:28:19 PM C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART B3
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Civil | Structural | Mechanical | Electrical | Plumbing | Fire Protection

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

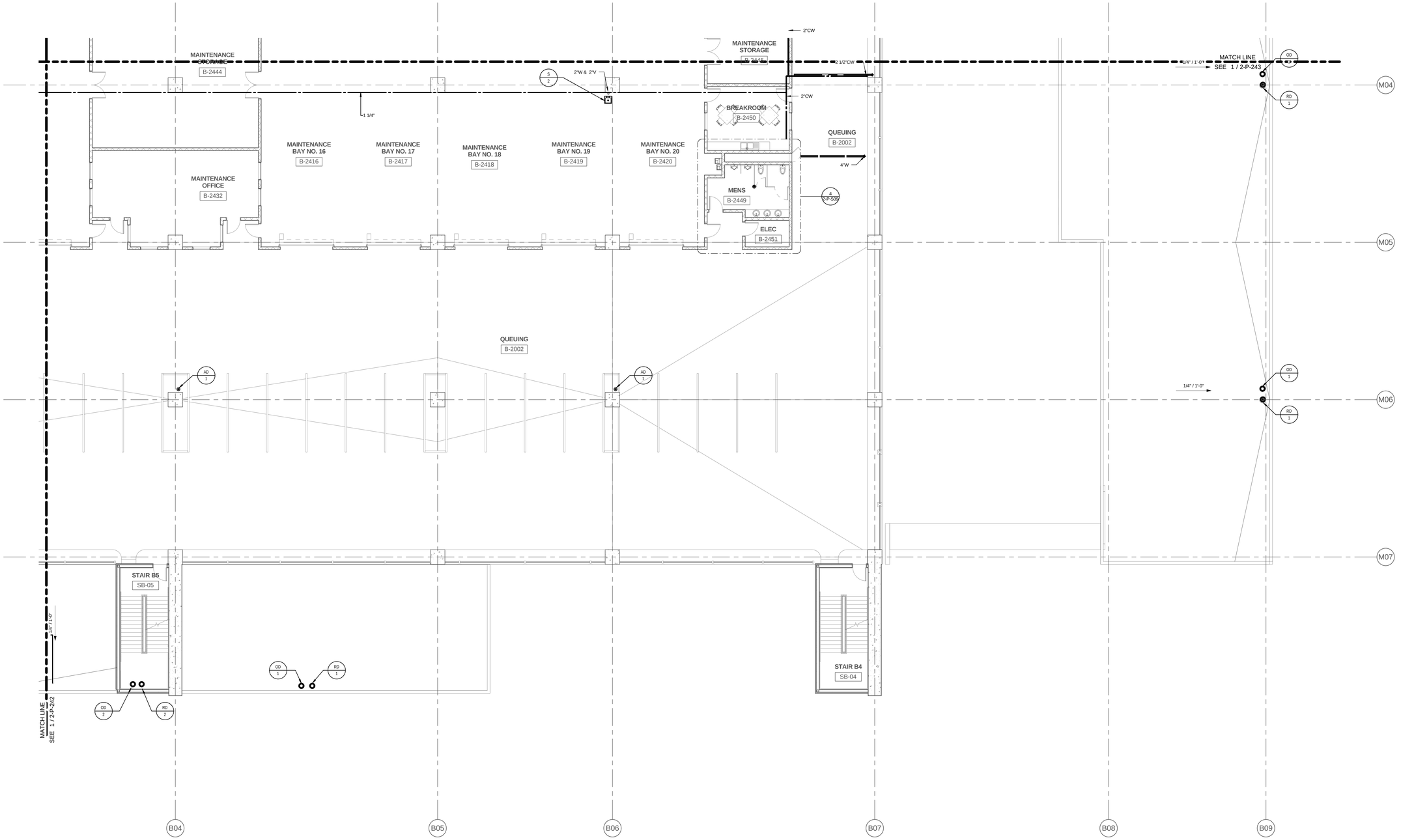
QTA LEVEL 2
ENLARGED PLAN -
PART B3

SHEET NO.
2-P-243

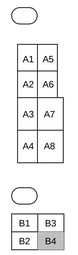
C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt
9/21/2016 4:28:20 PM

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED PLUMBING PLAN - PART B4
1/8" = 1'-0"



BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600
Long Beach, CA 90806
T 562.426.8356 F 562.490.2761
Mechanical Electrical Plumbing / Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

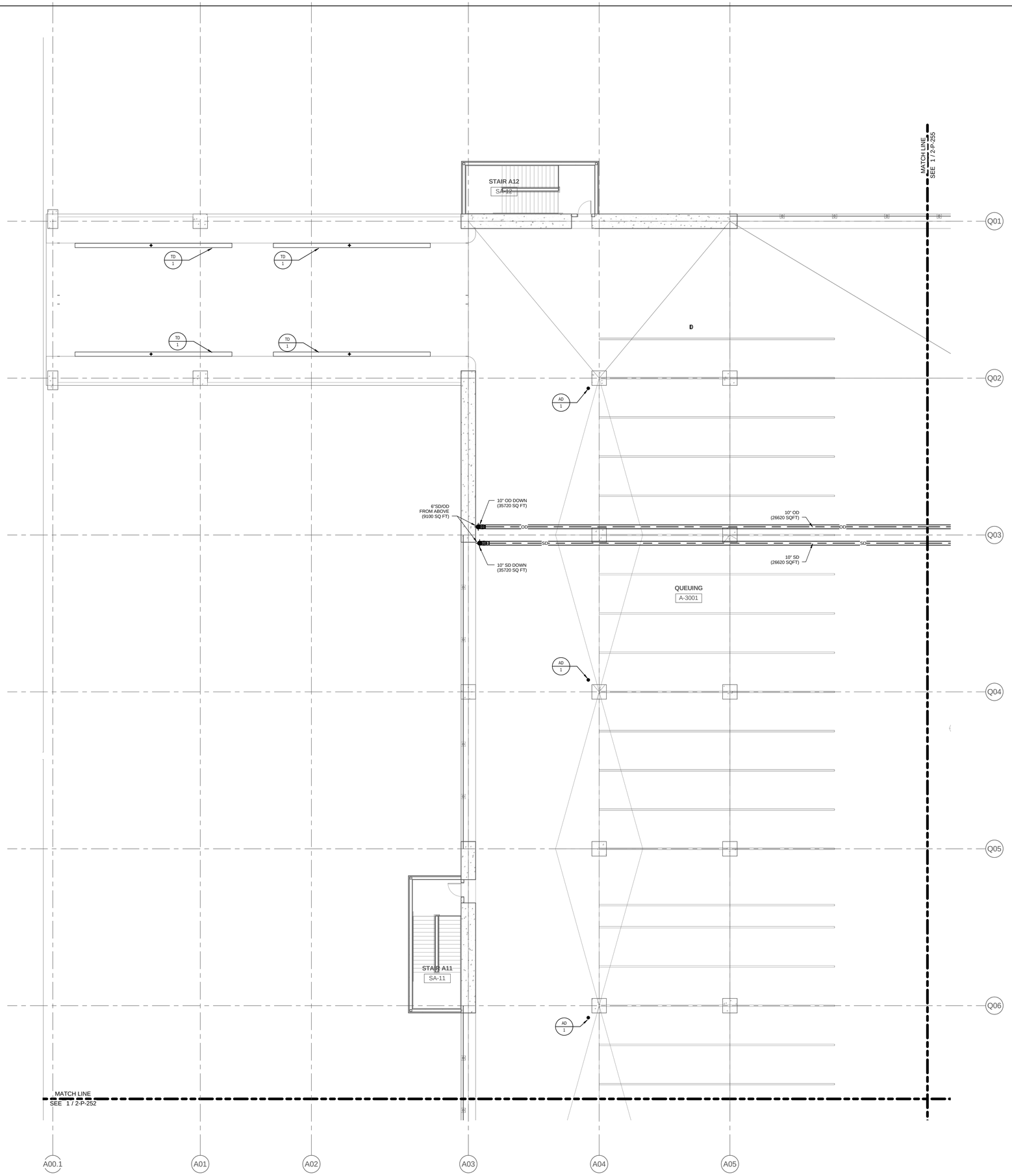
QTA LEVEL 2 ENLARGED PLAN - PART B4

SHEET NO.

2-P-244

C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt

9/21/2016 4:28:22 PM



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART A1
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 200
Long Beach, CA 90806
T 562.426.8000 F 562.427.0190
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION
1	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

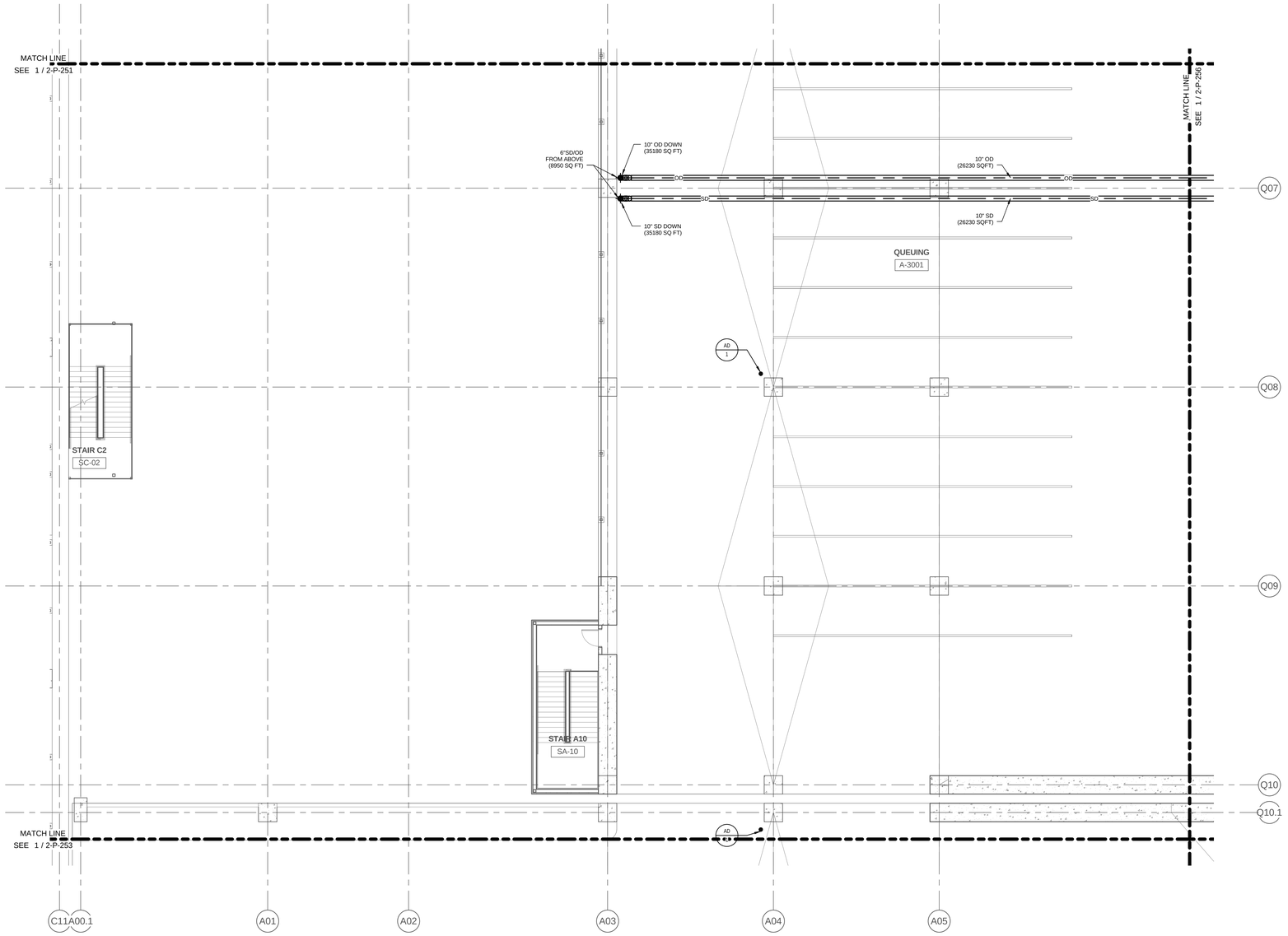
QTA LEVEL 3 ENLARGED PLAN - PART A1

SHEET NO.

2-P-251

C:\Users\mhy\Documents\SMP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt

9/21/2016 4:28:24 PM



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ON LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4BB1
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

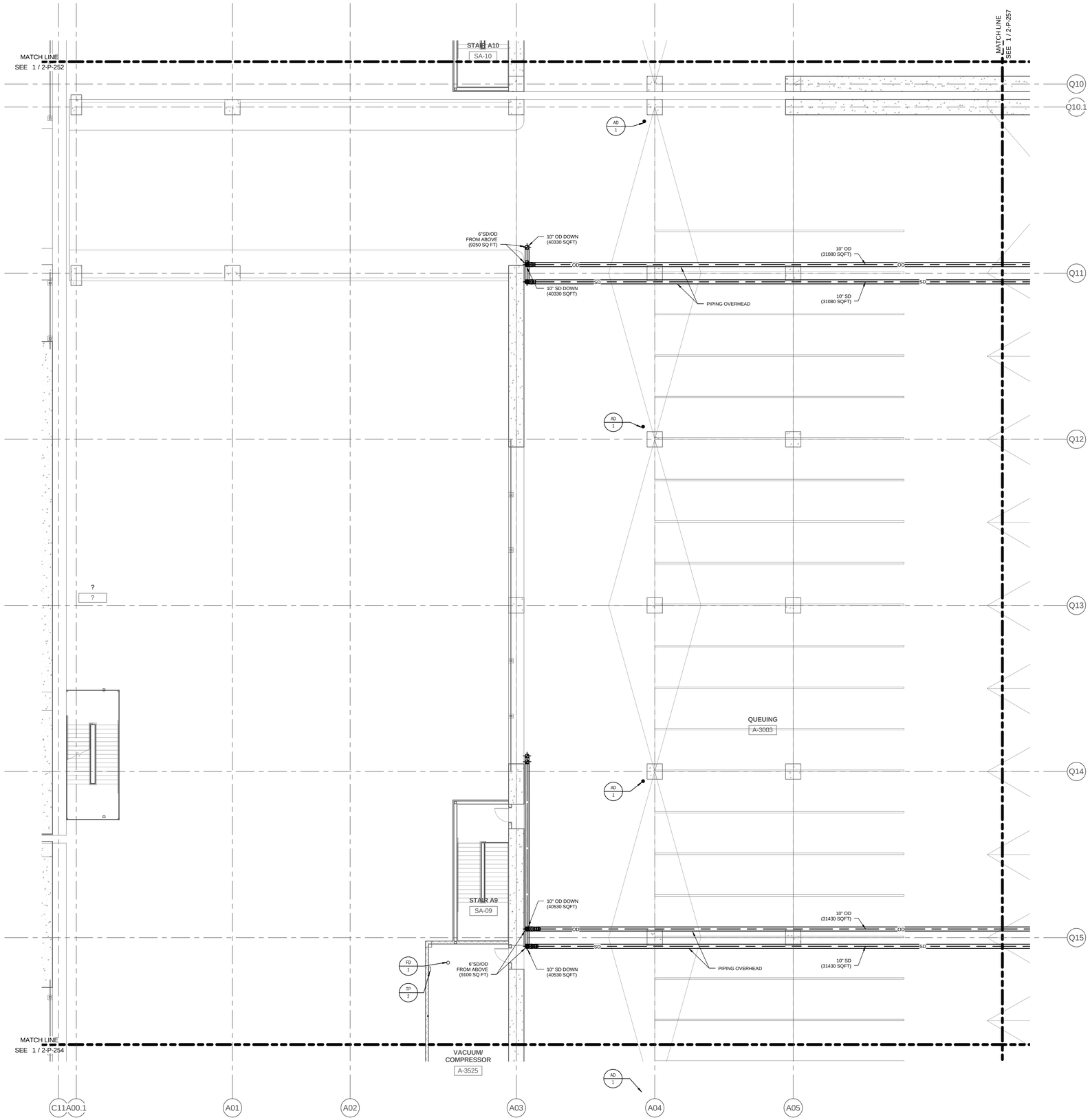
QTA LEVEL 3 ENLARGED PLAN - PART A2

SHEET NO.

2-P-252

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:57:03 PM C:\Users\rcramacho\Documents\MP-DA4BB1-BUDG_A_P-R15_rcramacho.rvt



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
Inc. CA 95125
FAX:4082655020
www.pbsengineers.com
Mechanical Electrical Plumbing / Controls Engineers

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

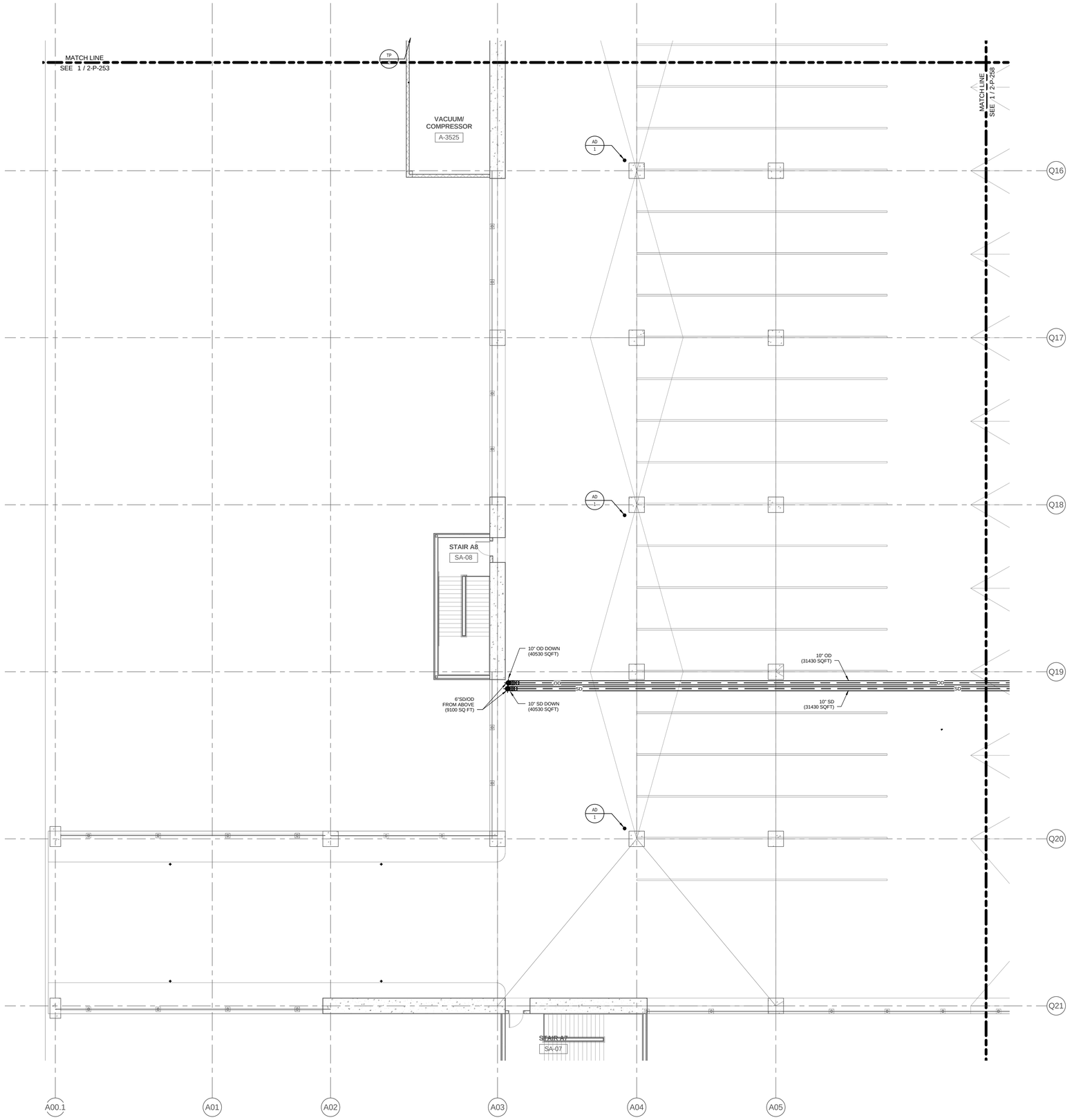
SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A3

SHEET NO.

2-P-253

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt
9/21/2016 4:28:26 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

A1 A5
A2 A6
A3 A7
A4 A8

B1 B3
B2 B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:		
MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

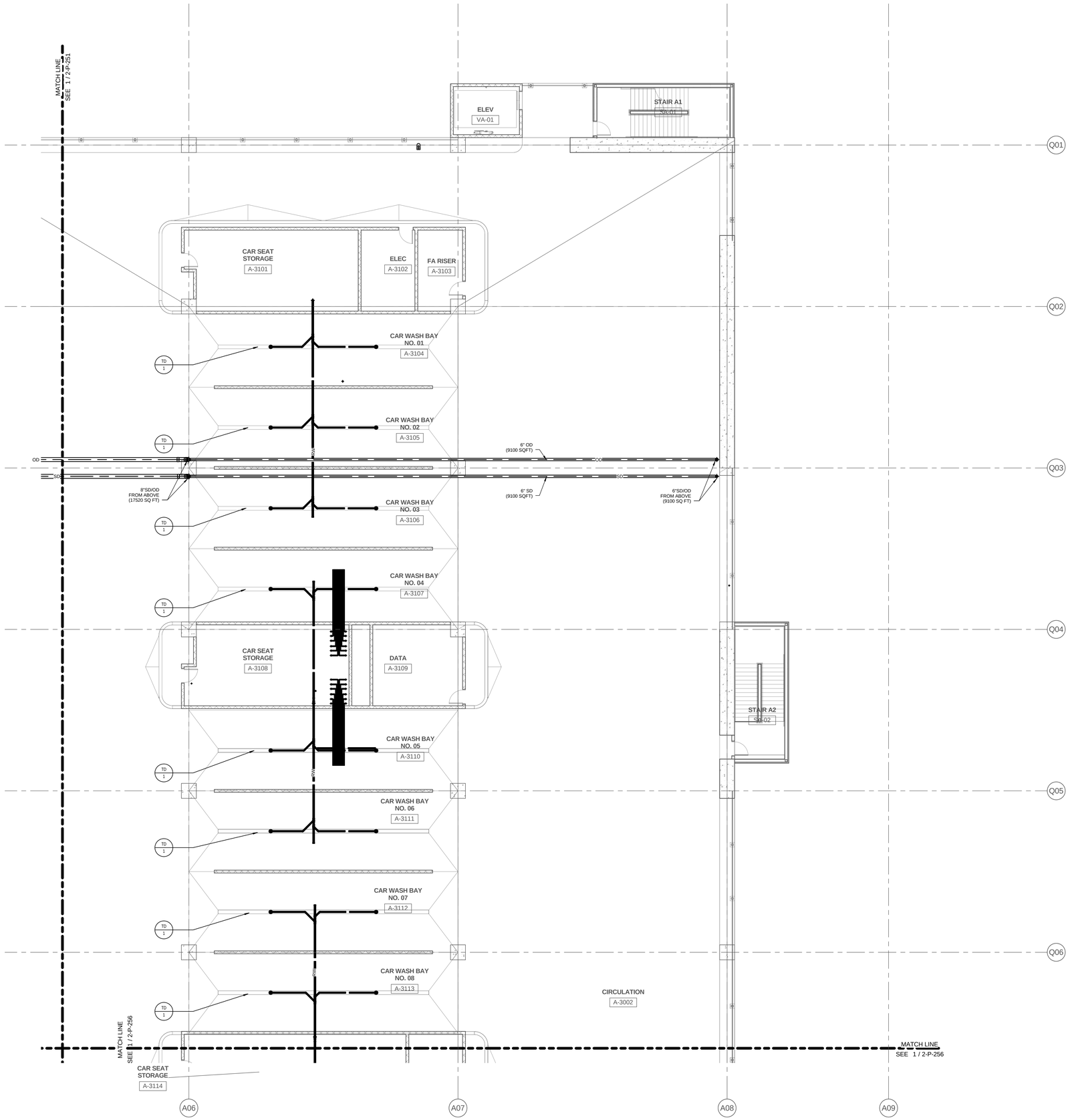
SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A4

SHEET NO.

2-P-254

C:\Users\mhy\Documents\IMP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt
9/21/2016 4:28:28 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING + ENVIRONMENTAL INC.
3760 Kilroy Airport Way, Suite 220, Long Beach, CA 90806
T 562.426.8356 F 562.426.3697 www.pbsenvironmental.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE
	QTA 30% SUBMITTAL	09/23/2016

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

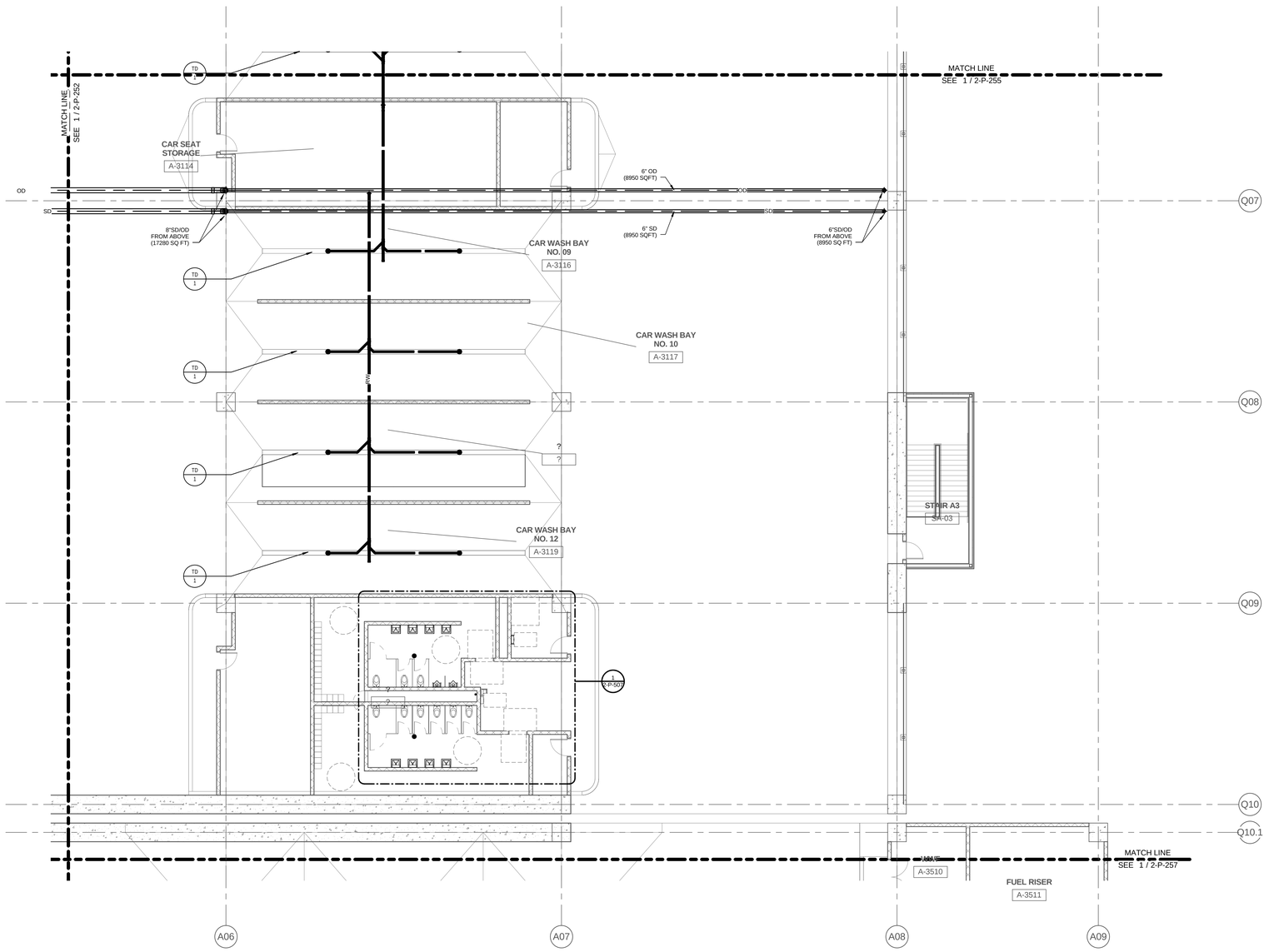
QTA LEVEL 3 ENLARGED PLAN - PART A5

SHEET NO.

2-P-255

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:28:33 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART A6
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8
B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3760 Kilroy Airport Way, Suite 200
Long Beach, CA 90806
T 562.426.8000 F 562.427.0190
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A6

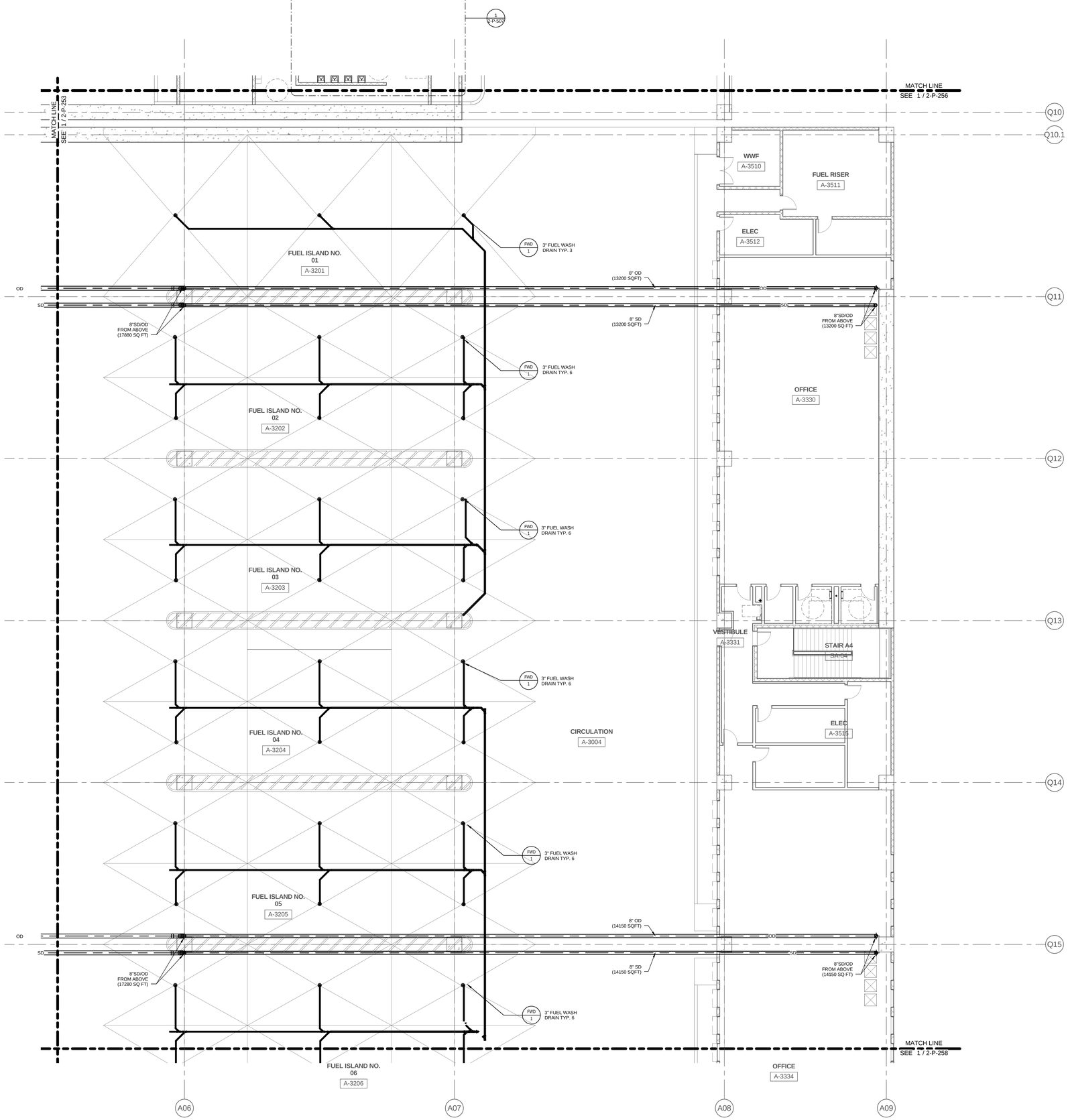
SHEET NO.

2-P-256

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt
9/21/2016 4:28:35 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART A7
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2040 Main Street, Suite 200, Irvine, CA 92614
T 949.809.0500 F 949.809.0520
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A7

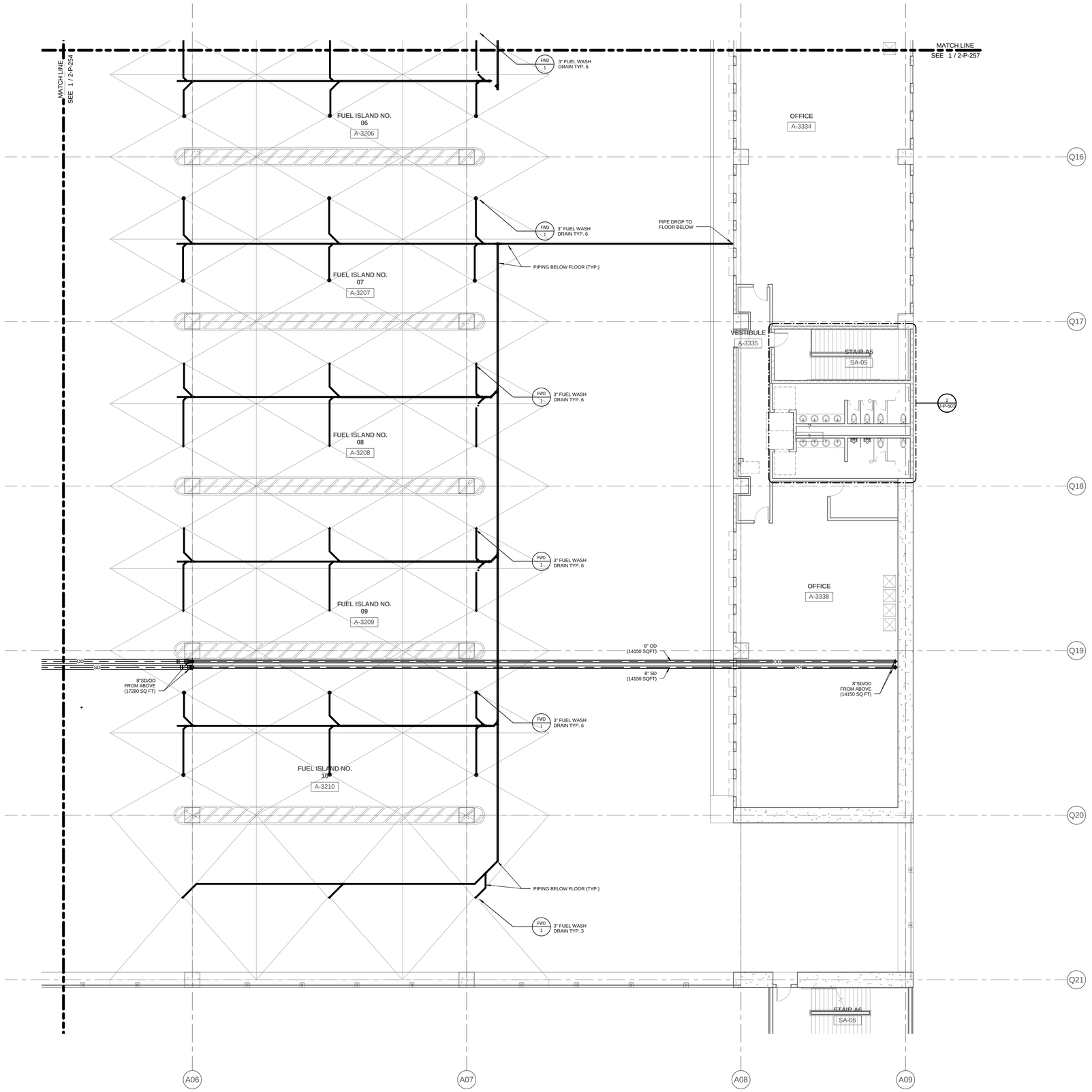
SHEET NO.

2-P-257

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:26:38 PM

C:\Users\rhy\Documents\MP-DA4881-BLDG_A_B-R15_rhy@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART A8
1/8" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.490.2761 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE
	QTA 30% SUBMITTAL	09/23/2016

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART A8

SHEET NO.

2-P-258

A1	A5
A2	A6
A3	A7
A4	A8

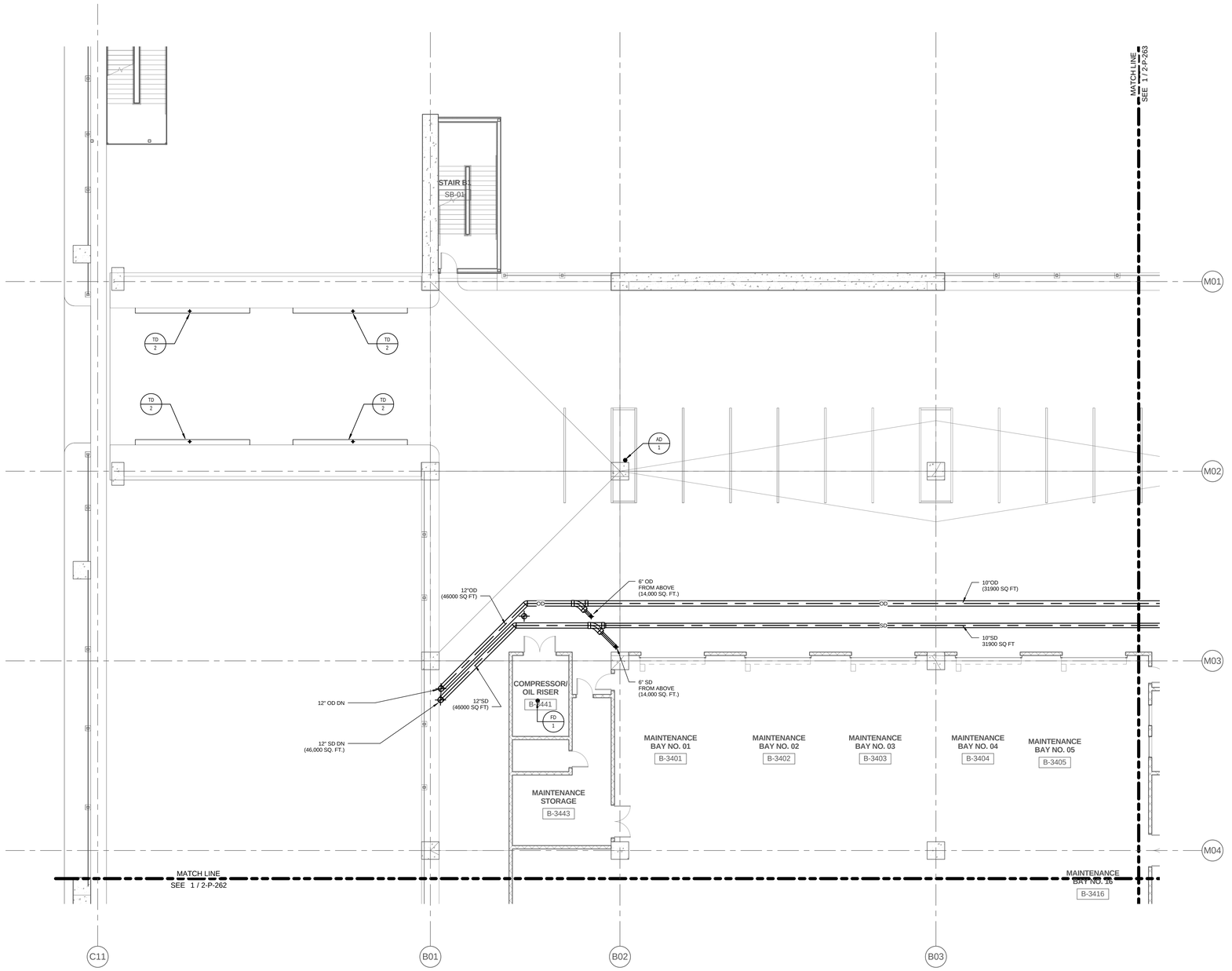
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\mfy\Documents\MR-DA4881-BLDG_A_B-R15_mfy@pbsengineers.com.rvt
9/21/2016 4:28:41 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART B1
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 200, Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE
	QTA 30% SUBMITTAL	09/23/2016

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART B1

SHEET NO.

2-P-261

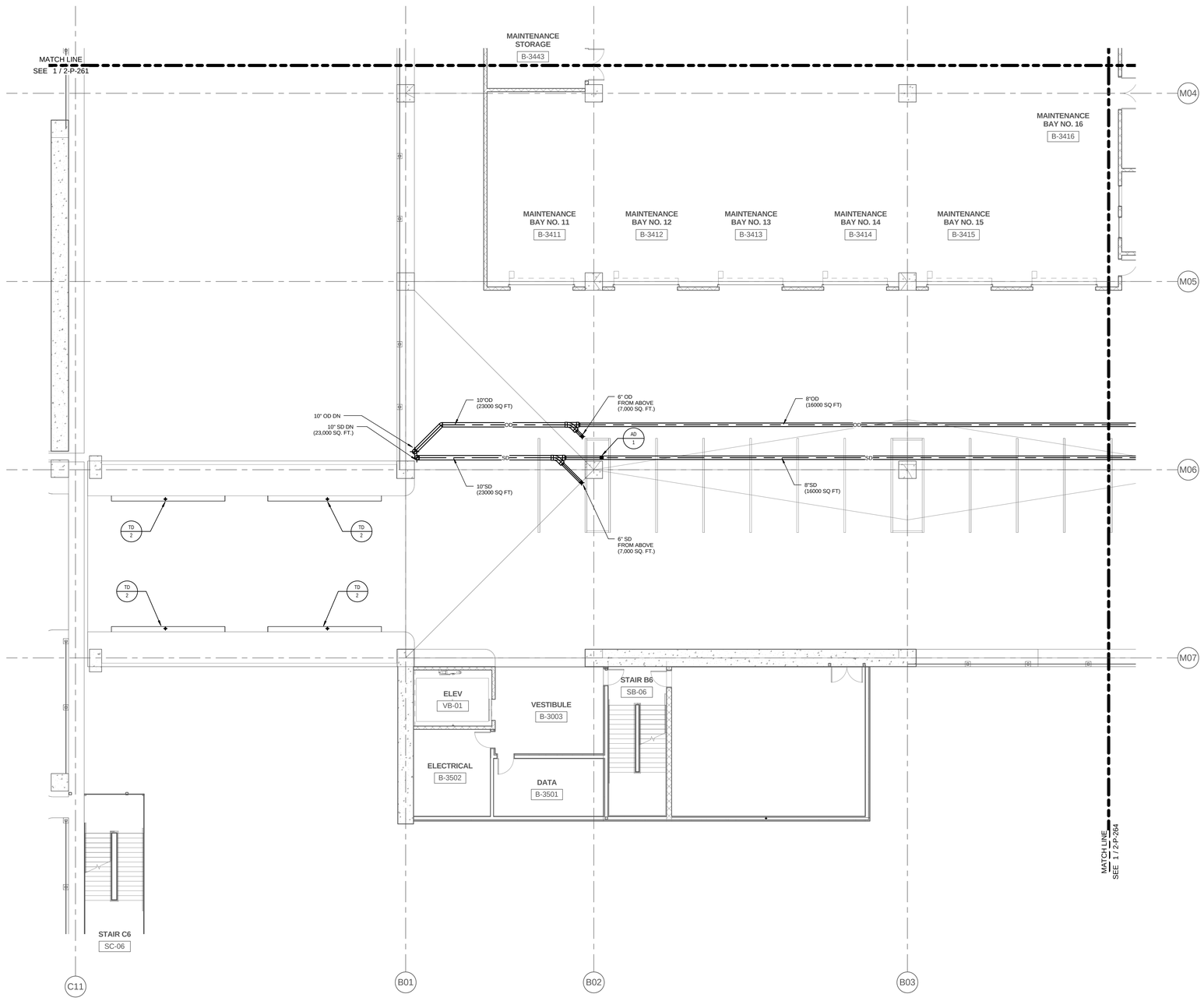
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

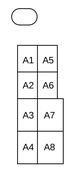
9/21/2016 4:26:43 PM

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART B2
1/8" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
3760 Kilroy Airport Way, Suite 210 Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:		
MARK:	DATE:	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART B2

SHEET NO.

2-P-262

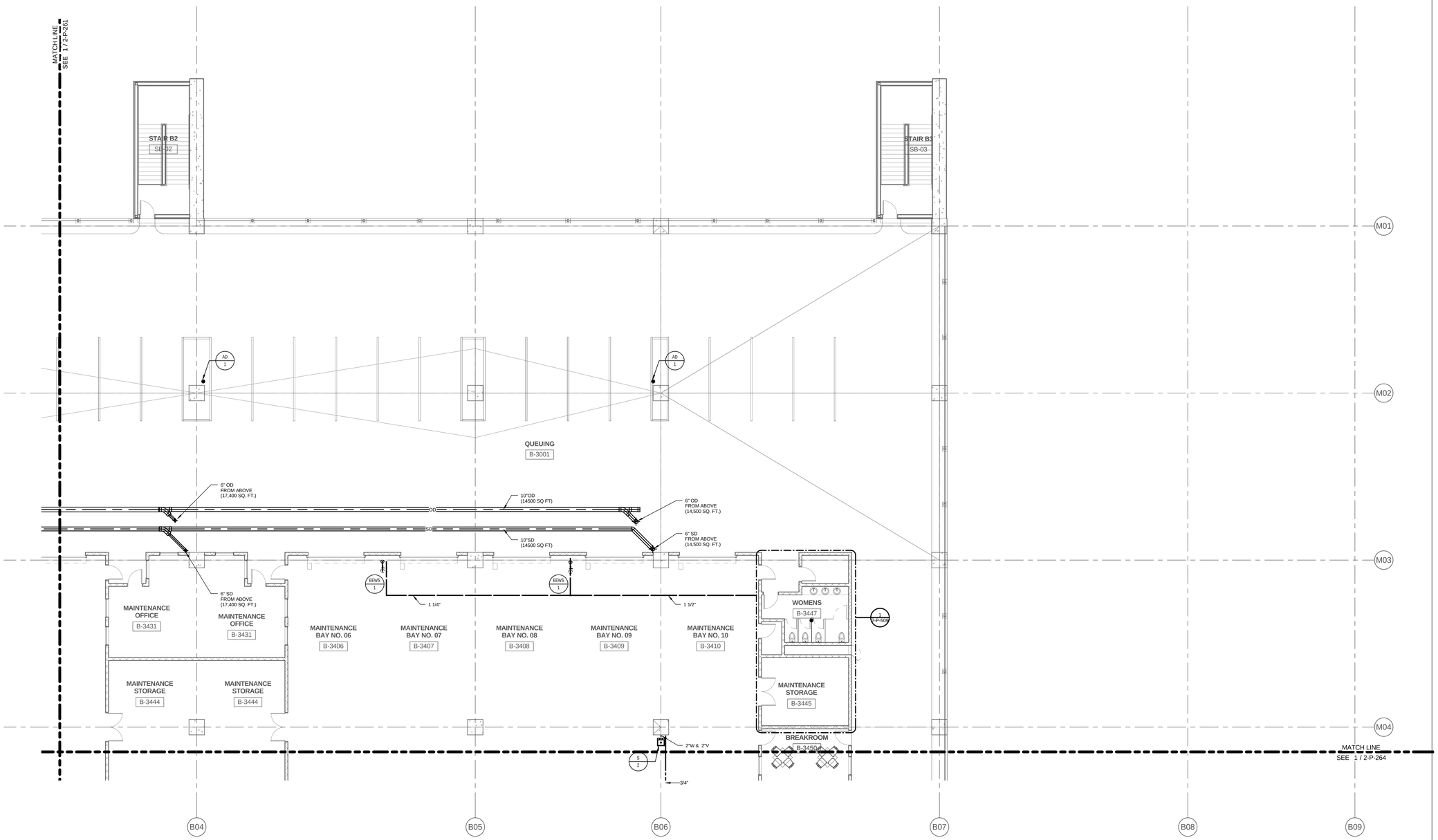
C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

9/21/2016 4:26:44 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART B3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.426.8021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 50% SUBMITTAL	

PROJ NO:	DA48B1
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA LEVEL 3 ENLARGED PLAN - PART B3

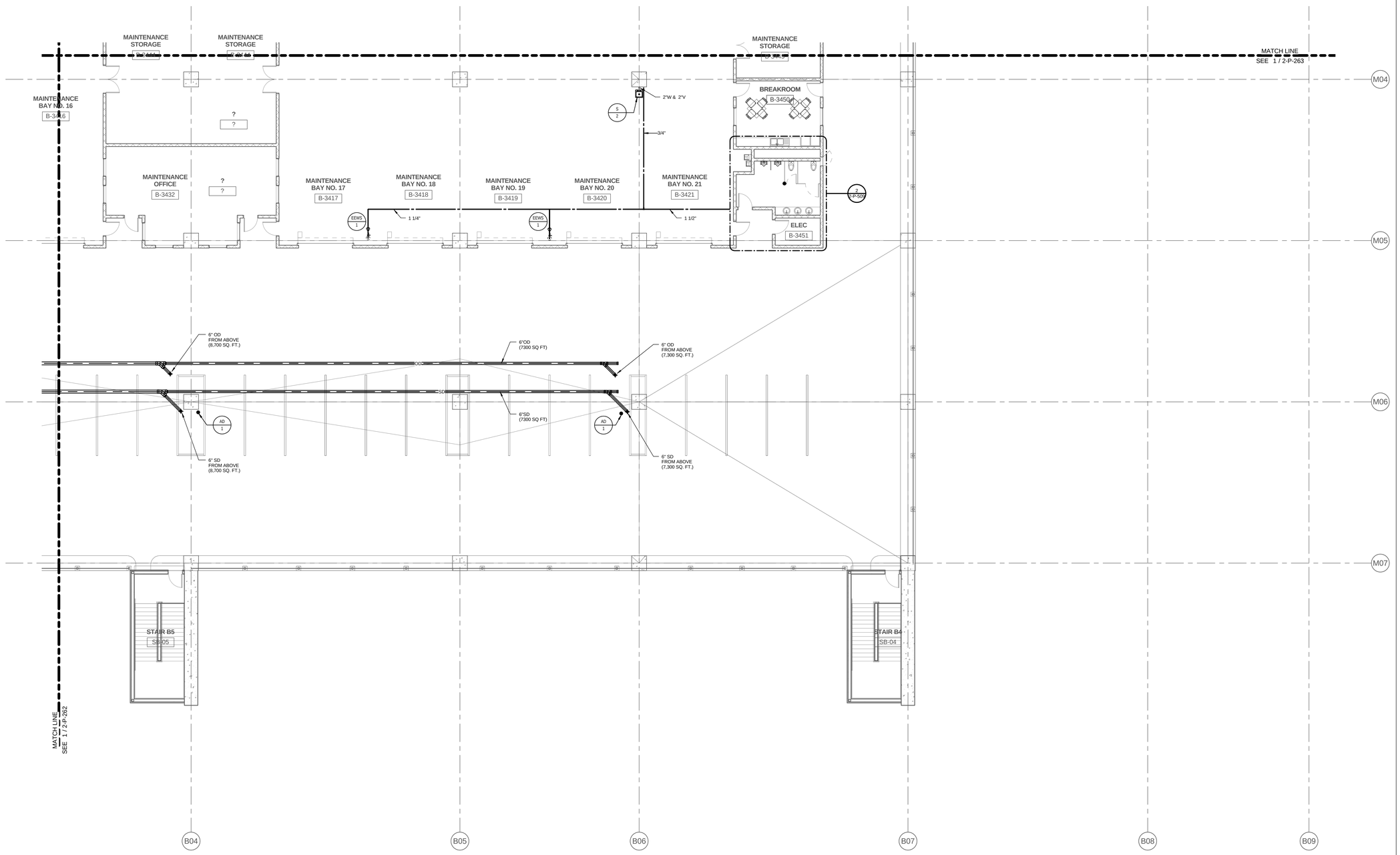
SHEET NO.

2-P-263

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\mfy\Documents\MP-DA48B1-BUDC_A_B R15_mfy@pbsengineers.com.rvt

9/21/2016 4:28:46 PM



GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

1 BUILDING A&B - QTA - LEVEL 3 ENLARGED PLUMBING PLAN - PART B4
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600
Long Beach, CA 90806
T 562.426.8356 F 562.427.0190
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

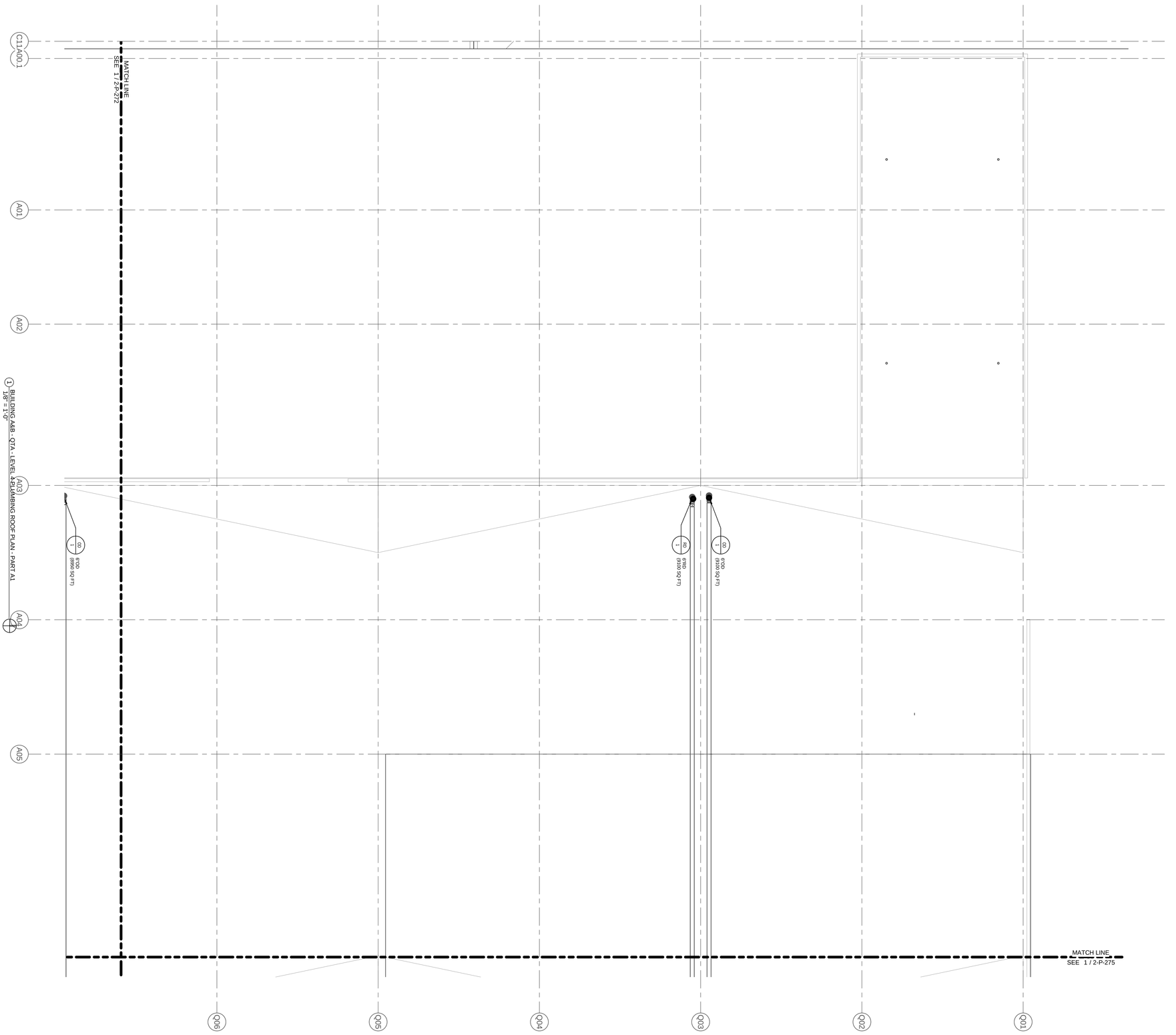
QTA LEVEL 3 ENLARGED PLAN - PART B4

SHEET NO.

2-P-264

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:28:48 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART A1
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

BUILDING A & B KEYPLAN

B2	B1		A4	A3	A2	A1	
B4	B3		A8	A7	A6	A5	

SHEET NO. 2-P-271

SHEET TITLE: QTA ENLARGED ROOF PLAN - PART A1

PROJECT NO: DA4881
SCALE: 1/8" = 1'-0"
DATE: 09/23/2016
DRAWN BY: BV
CHECKED BY: BH

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

ONTIME PMD LAX

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

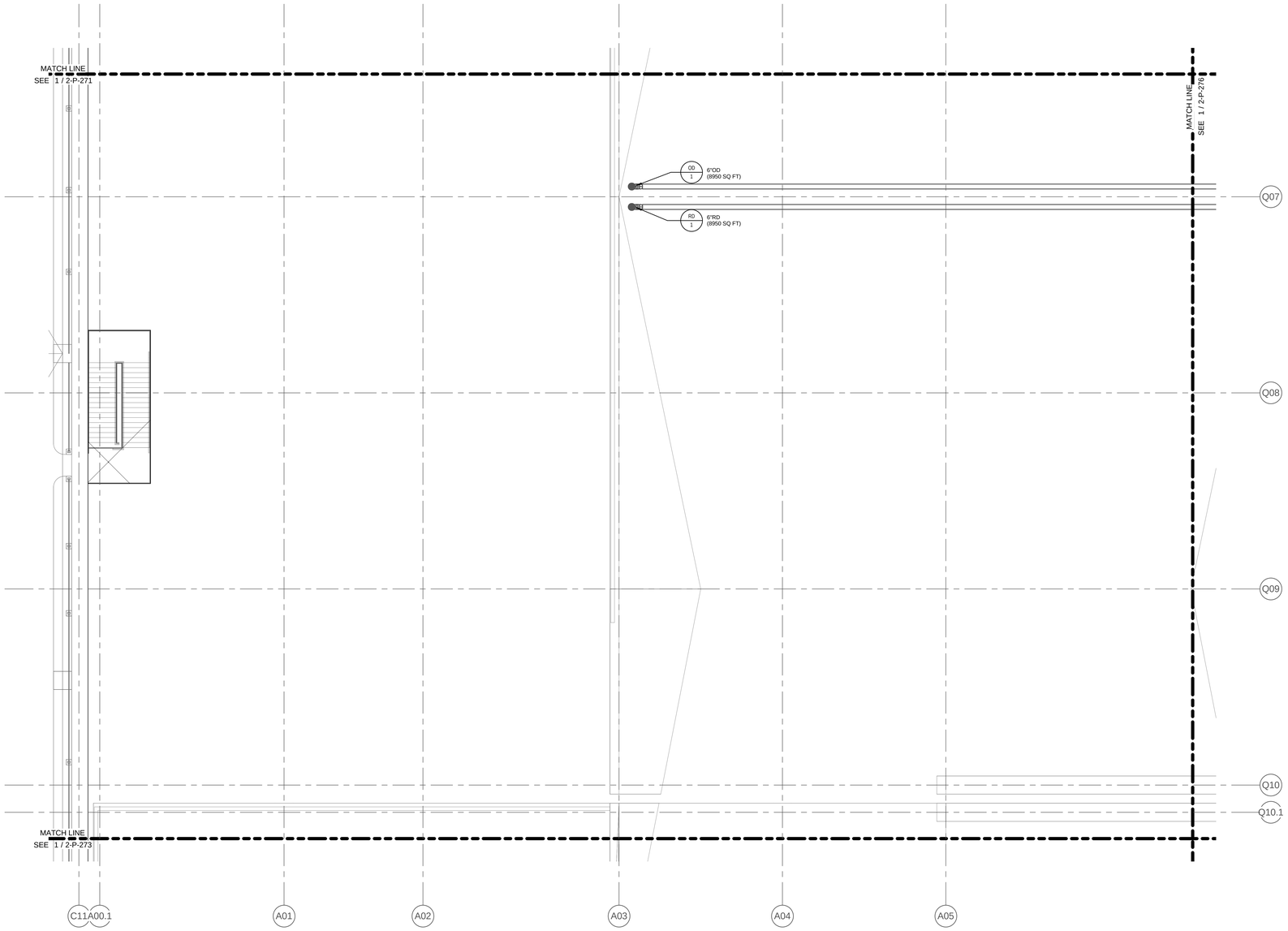
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.6502000 F 626.6502002
Job No. 2015-067-00 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART A2
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 210, Long Beach, CA 90806
T 562.426.8356 F 562.490.2761
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A2

SHEET NO.
2-P-272

9/21/2016 4:28:50 PM C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.6200200 F 626.6200201
Fabricating Electrical Plumbing Engineering Consulting Systems

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

LAX PMD ONT VNY

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

REVISIONS:

PROJ.NO. DA4881
SCALE: 1/8" = 1'-0"
DATE: 09/23/2016
DESIGNED BY: BV
DRAWN BY: RC
CHECKED BY: EH

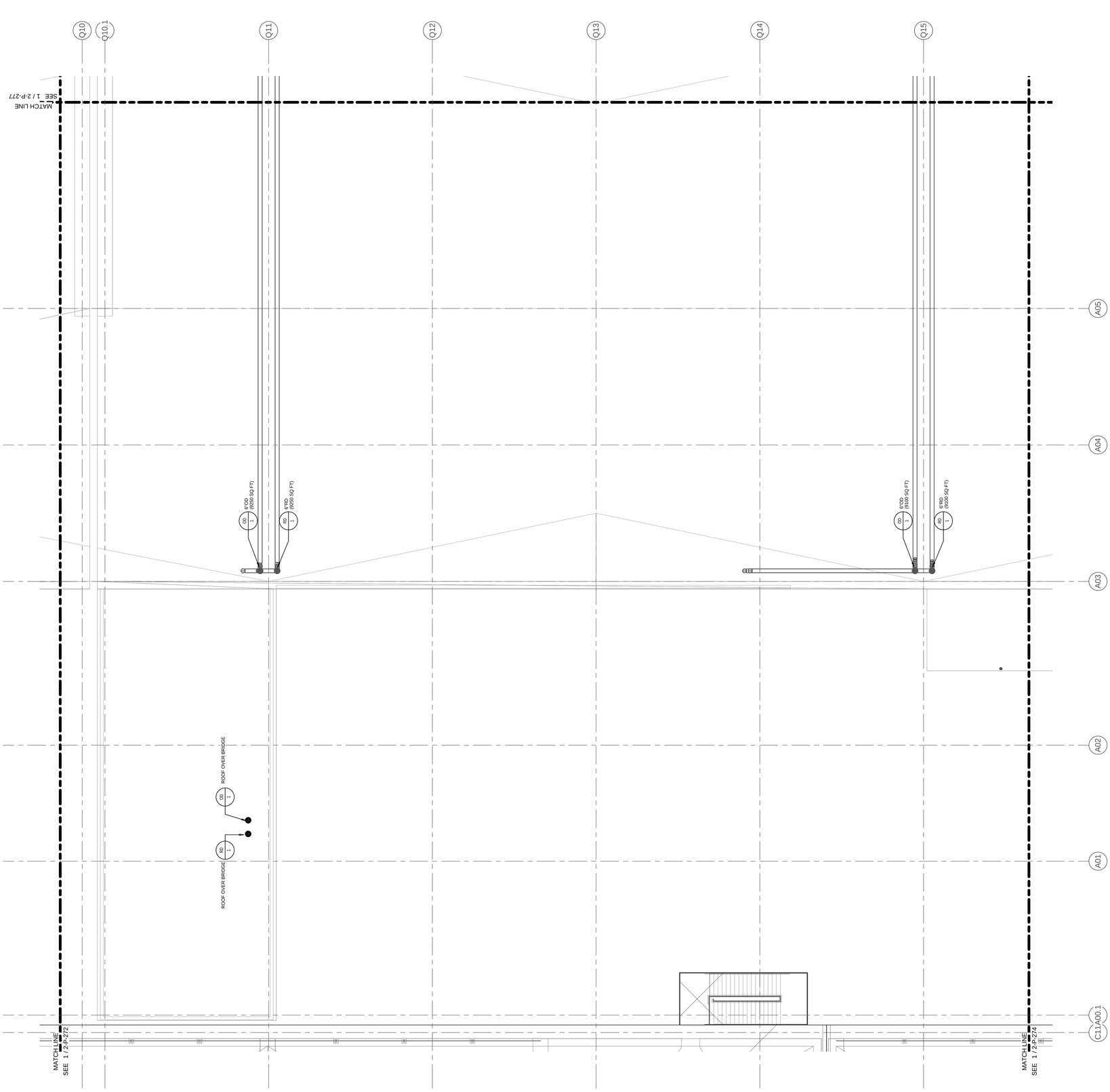
SHEET TITLE: QTA ENLARGED ROOF PLAN - PART A3

SHEET NO. 2-P-273

BUILDING A & B KEYPLAN

A5	A6	A7	A8
A1	A2	A3	A4

B3	B4		
B1	B2		



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART A3
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

TransSystems

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.6200200 F 626.6200203
Technical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

LAWA ONT PMD LAX

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

REVISIONS:

PROJ.NO. DA4881
SCALE: 1/8" = 1'-0"
DATE: 09/23/2016
DESIGNED BY: BV
DRAWN BY: RC
CHECKED BY: EH

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A4

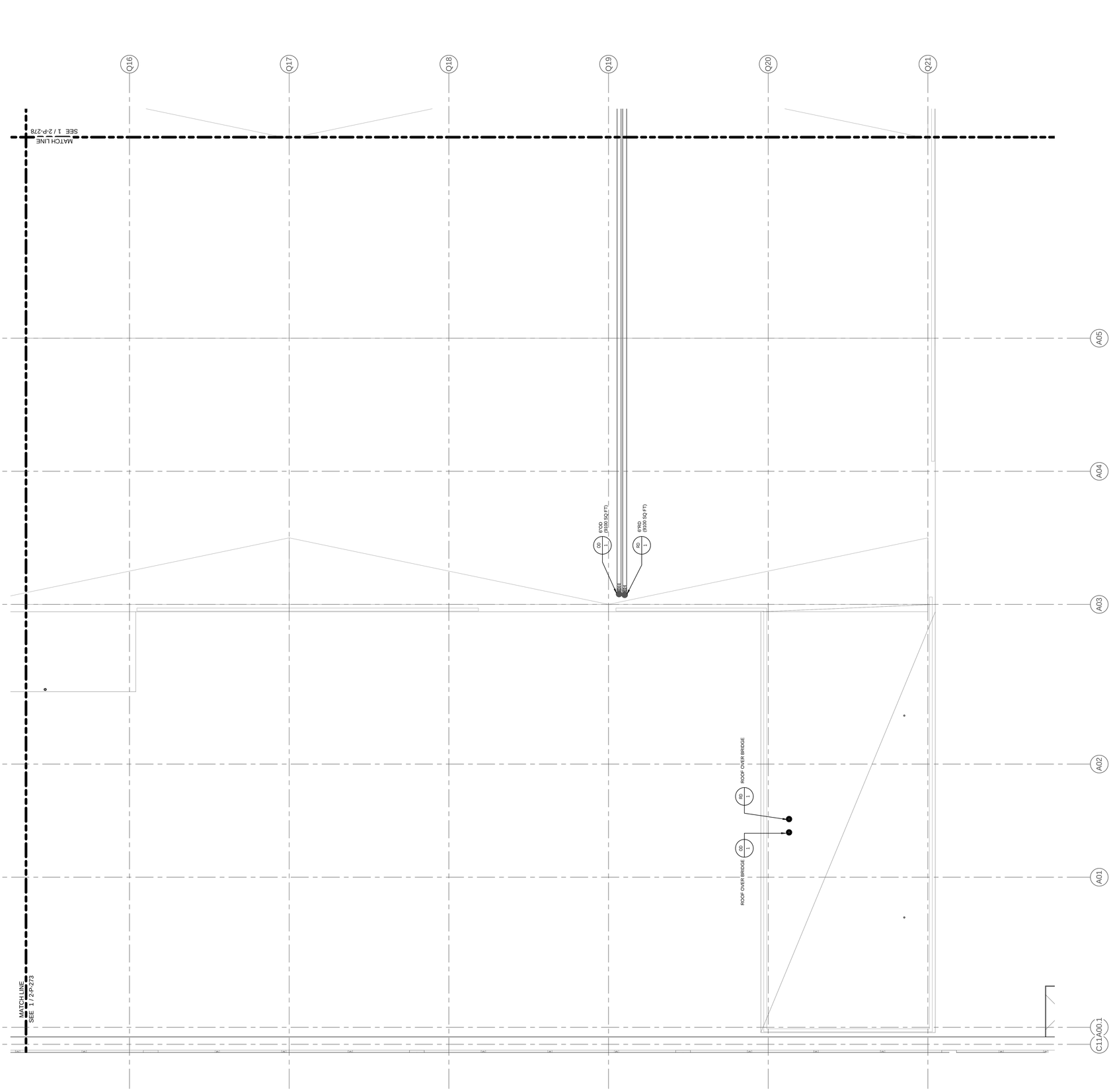
SHEET NO.

2-P-274

BUILDING A & B KEYPLAN

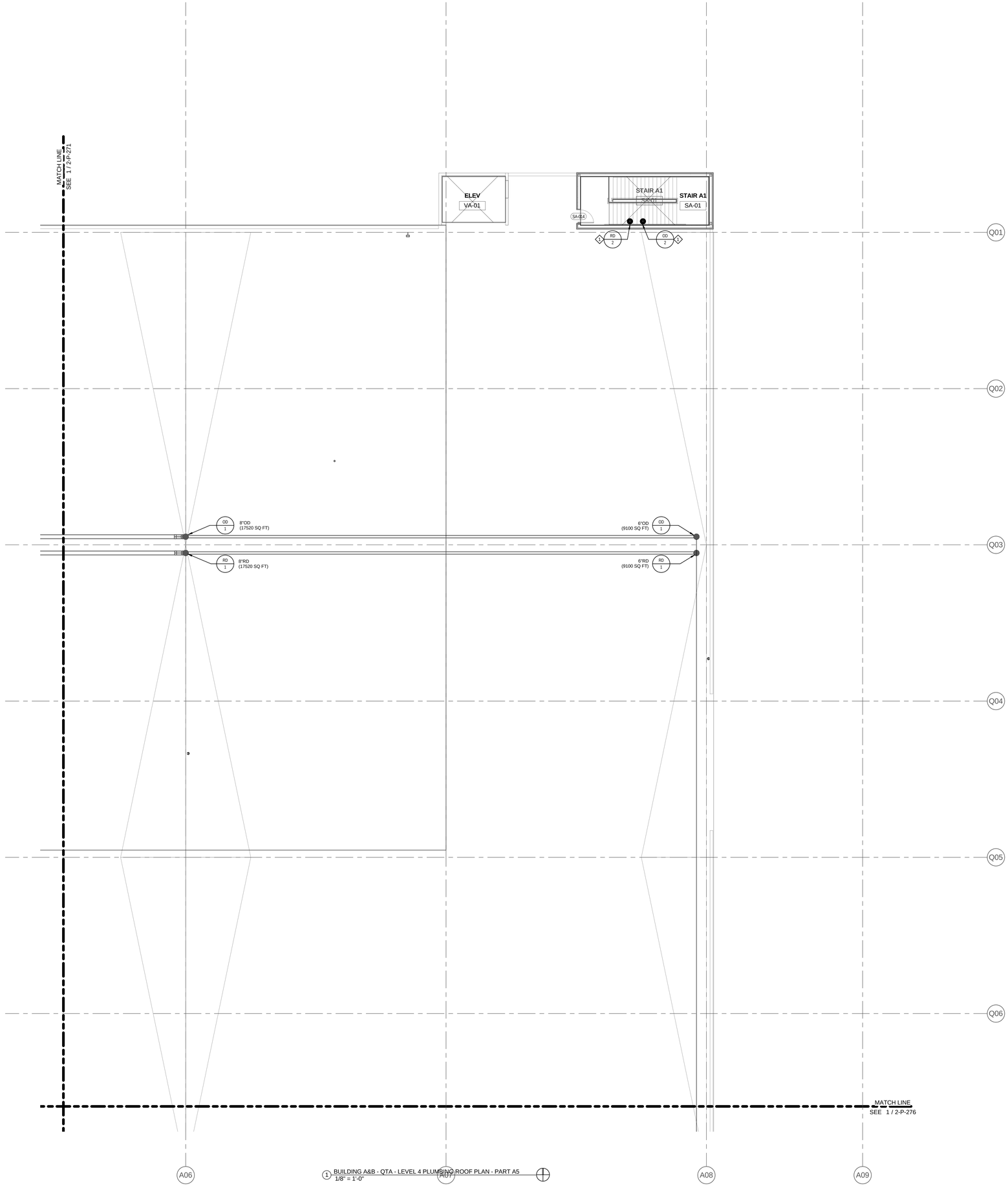
A5	A6	A7	A8
A1	A2	A3	A4

B3	B4
B1	B2



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART A4
1/8" = 1'-0"

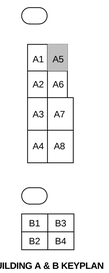
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART A5
1/8" = 1'-0"

KEY NOTES

1. 3" ROOF AND OVERFLOW DRAIN ON TOP OF ROOF ACCESS STAIR TOWER DOWN IN WALL AND DAYLIGHT 6" ABOVE ROOF WITH SPLASH BLOCK. SEE ARCHITECTURAL PLAN FOR EXACT LOCATION.



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONLAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE
	QTA 30% SUBMITTAL	09/23/2016

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

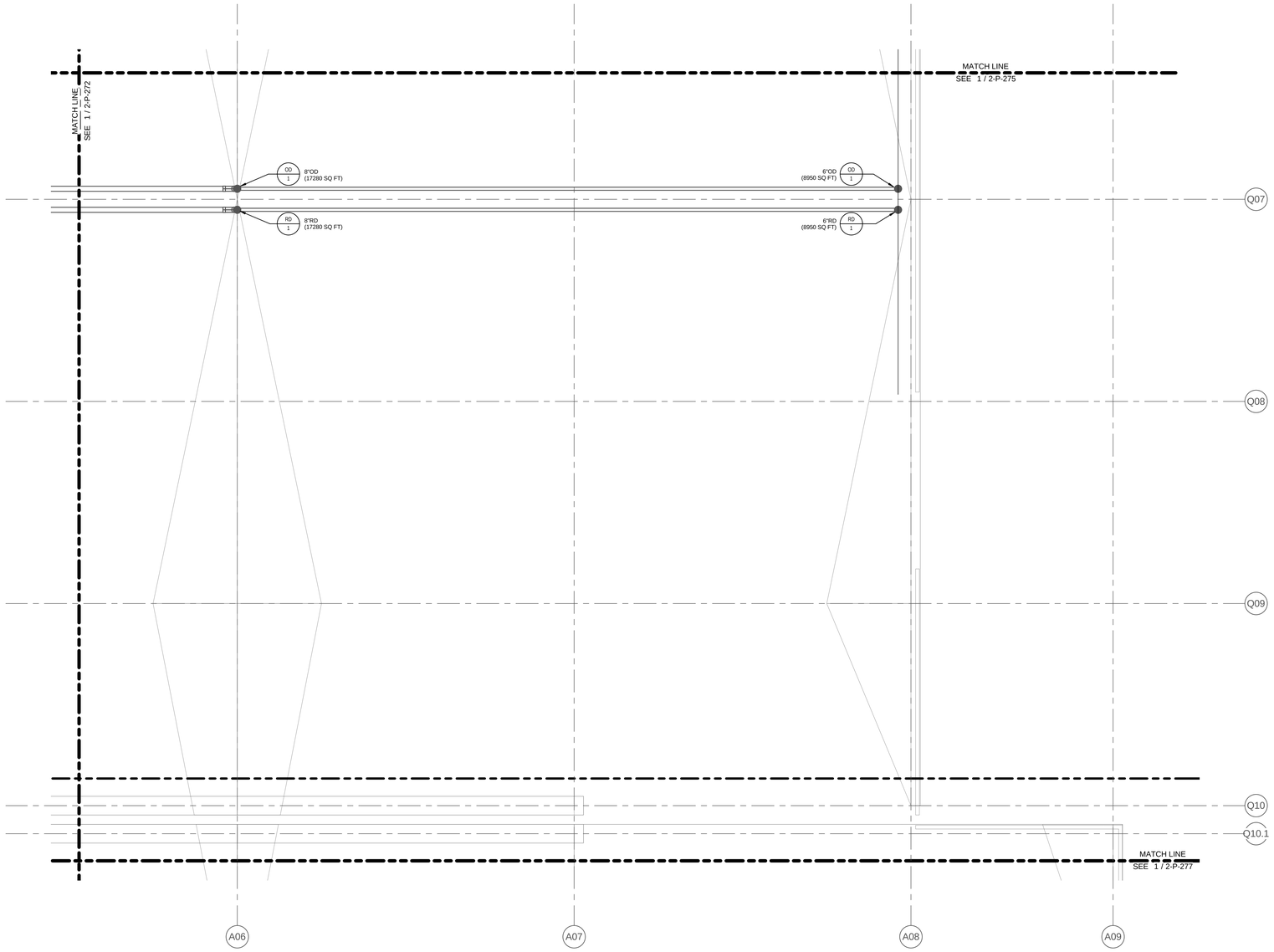
QTA ENLARGED ROOF PLAN - PART A5

SHEET NO.

2-P-275

9/21/2016 4:57:06 PM C:\Users\rcramacho\Documents\MP-DA4881-BUDG_A_R15_rcramacho.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART A6
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE
	QTA 30% SUBMITTAL	09/23/2016

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

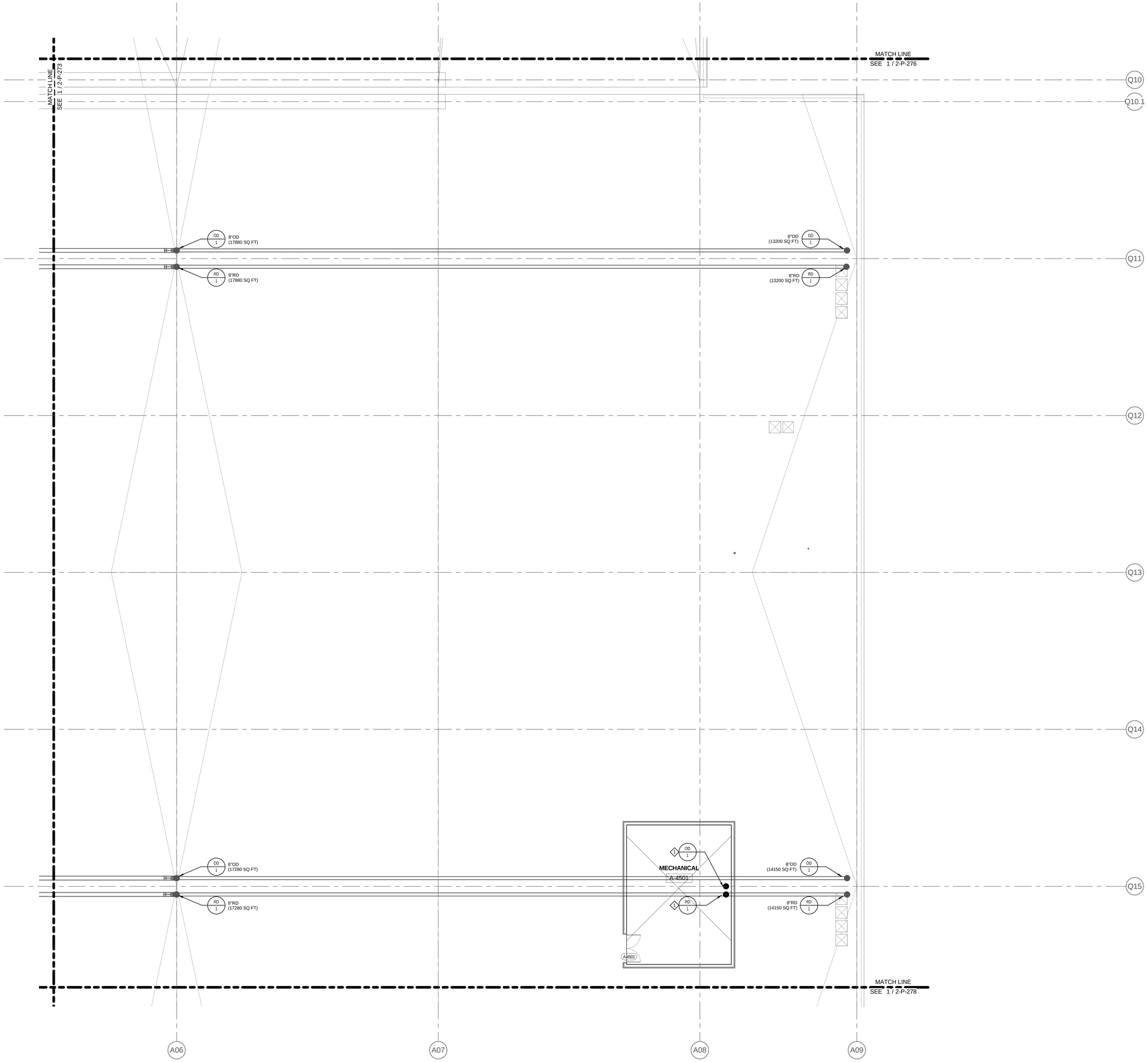
SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A6

SHEET NO.
2-P-276

9/23/2016 8:31:31 AM
C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt

2 ROOF AND OVERFLOW DRAIN ON ON MECHANICAL PENTHOUSE ROOF DOWN IN WALL AND DAYLIGHT 6" ABOVE MAIN ROOF WITH SPLASH BLOCK. SEE ARCHITECTURAL PLAN FOR EXACT LOCATION.



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART A7
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 50% SUBMITTAL	

PROJ NO:	DA48B1
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

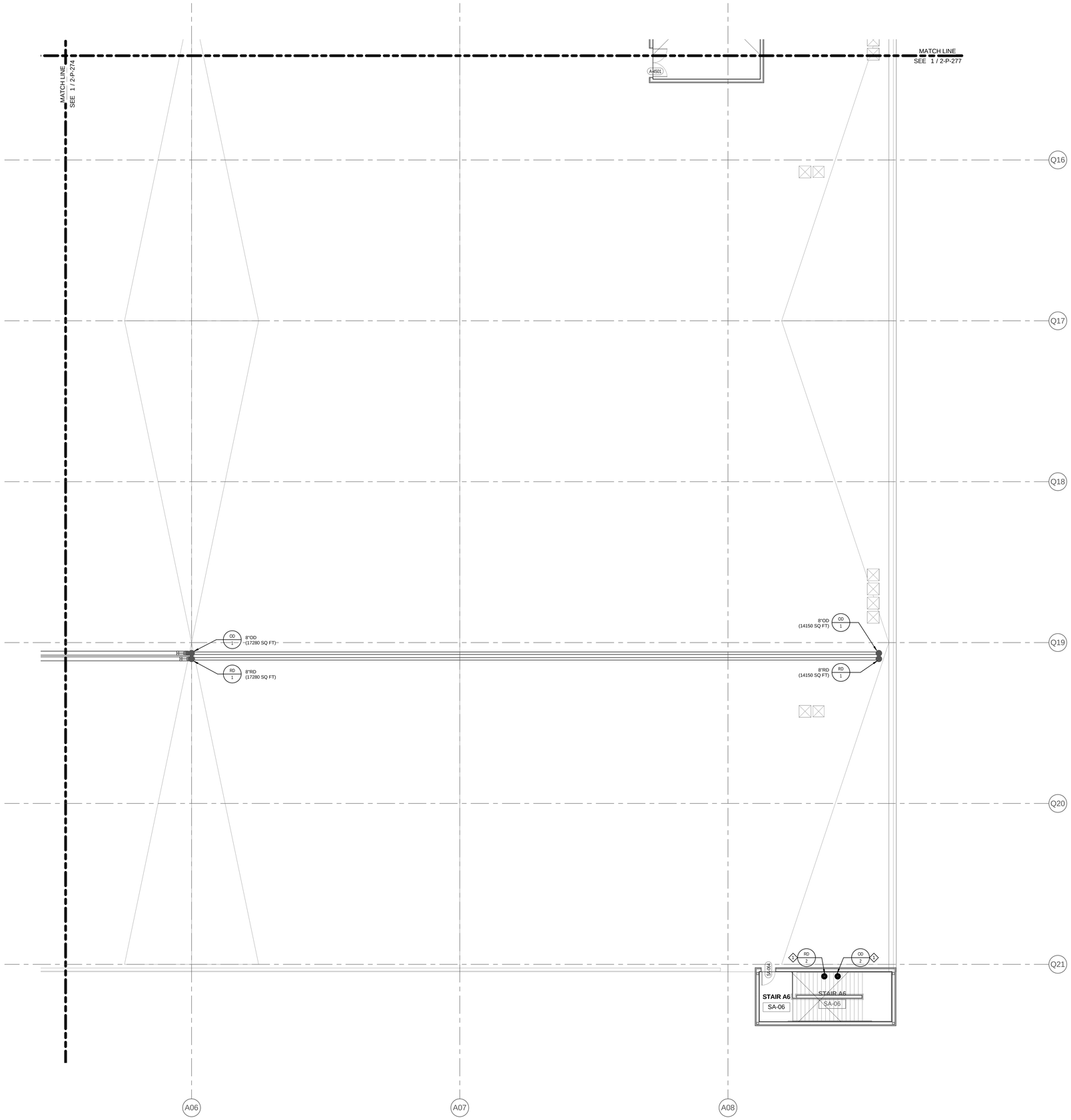
SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART A7

SHEET NO.
2-P-277

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:28:56 PM C:\Users\mly\Documents\MP-DA48B1-BLDG_A_B R15_mly@pbsengineers.com.rvt



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART A8
1/8" = 1'-0"

2 ROOF AND OVERFLOW DRAIN ON ON MECHANICAL PENTHOUSE ROOF DOWN IN WALL AND DAYLIGHT 6" ABOVE ROOF WITH SPLASH BLOCK. SEE ARCHITECTURAL PLAN FOR EXACT LOCATION.

A1	A5
A2	A6
A3	A7
A4	A8

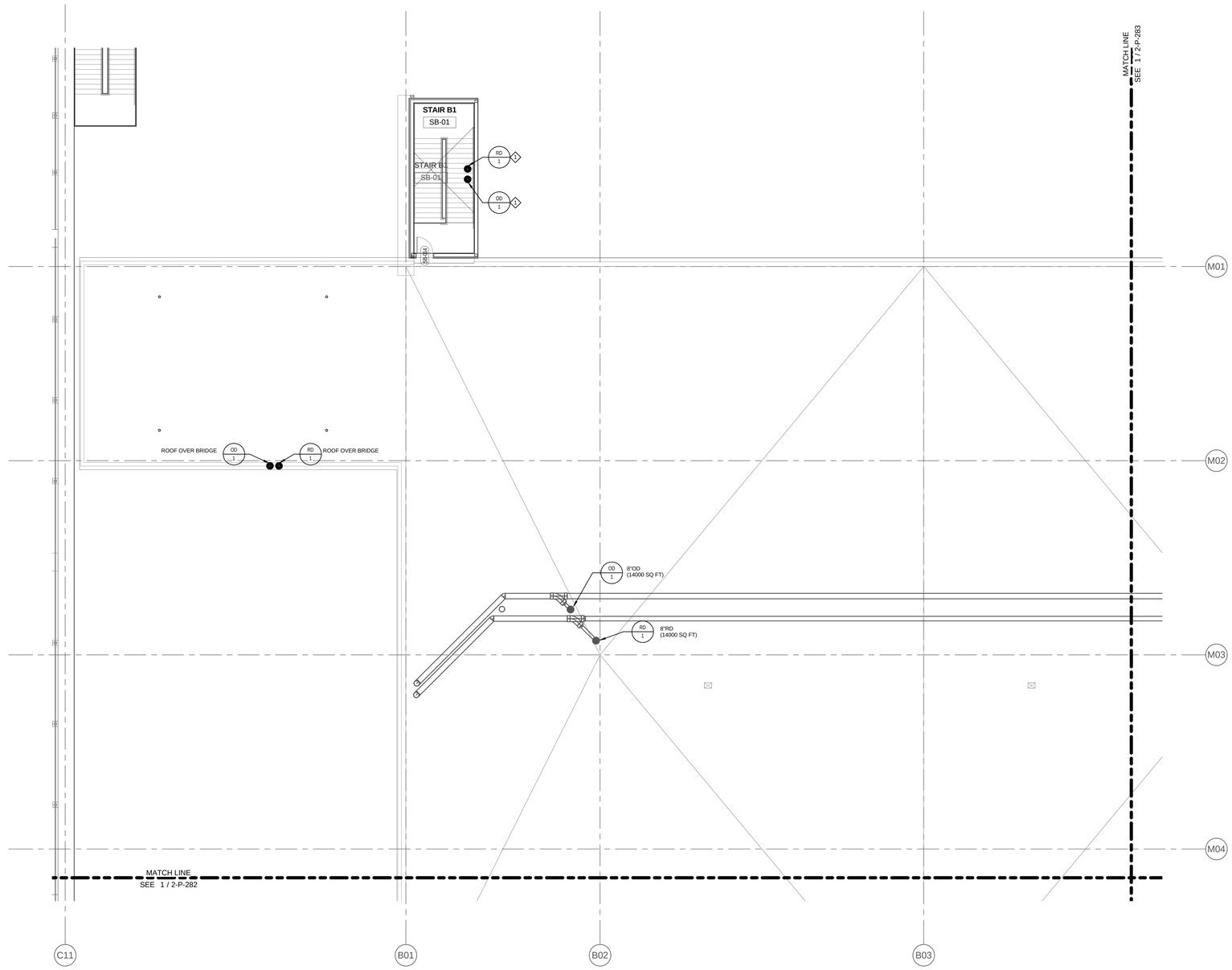
B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART B1
1/8" = 1'-0"

2 2" ROOF AND OVERFLOW DRAIN ON TOP ROOF ACCESS STAIR TOWER DOWN IN WALL AND DAYLIGHT 6" ABOVE ROOF WITH SPLASH BLOCK. SEE ARCHITECTURAL PLAN FOR EXACT LOCATION.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Civil | Structural | MEP | Fire Protection
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4BB1
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

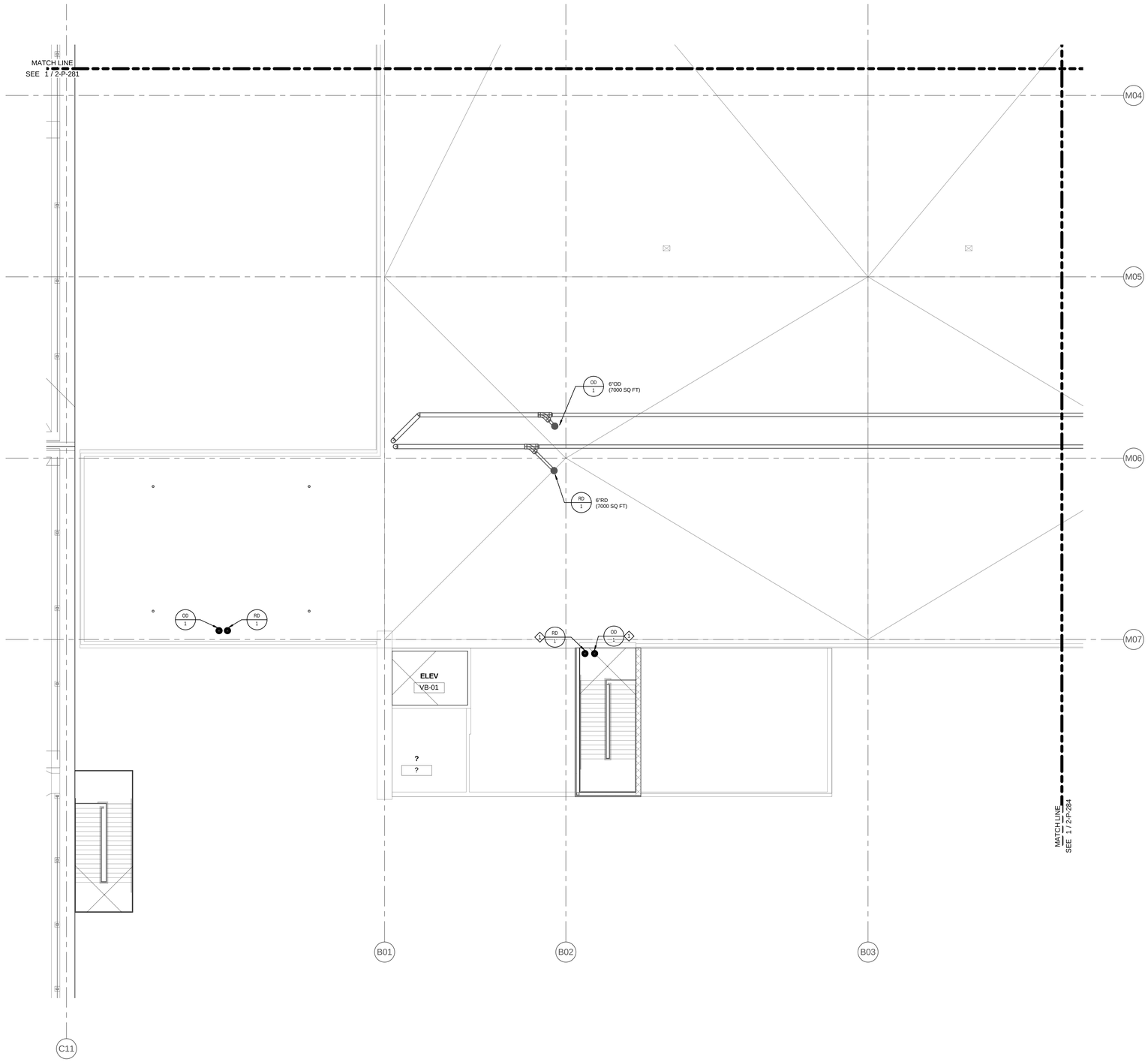
QTA ENLARGED ROOF PLAN - PART B1

SHEET NO.

2-P-281

9/21/2016 4:28:59 PM C:\Users\mly\Documents\MP-DA4BB1-BLDG_A_B-R15_mly@pbsengineers.com.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART B2
1/8" = 1'-0"

2 2" ROOF AND OVERFLOW DRAIN ON TOP ROOF ACCESS STAIR TOWER DOWN IN WALL AND DAYLIGHT 6" ABOVE ROOF WITH SPLASH BLOCK. SEE ARCHITECTURAL PLAN FOR EXACT LOCATION.

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 500
Long Beach, CA 90806
T 562.426.8000 F 562.427.0190
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4BB1
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

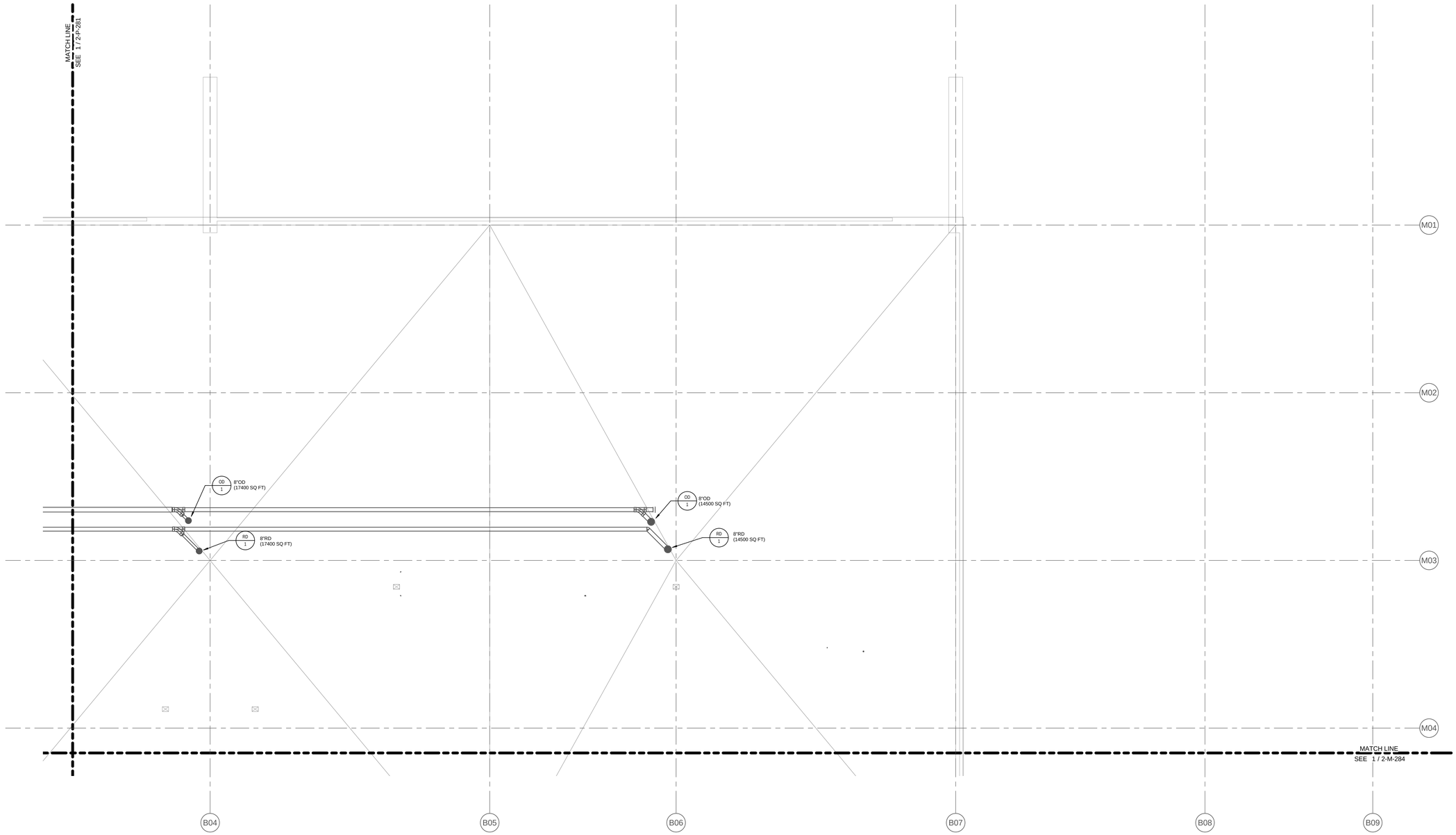
QTA ENLARGED ROOF PLAN - PART B2

SHEET NO.

2-P-282

9/21/2016 4:57:19 PM C:\Users\rcamacho\Documents\MP-DA4BB1-BUDG_A_P-R15_rcamacho.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART B3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONSULTANTS:

PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.490.2801
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4BB1
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA ENLARGED ROOF PLAN - PART B3

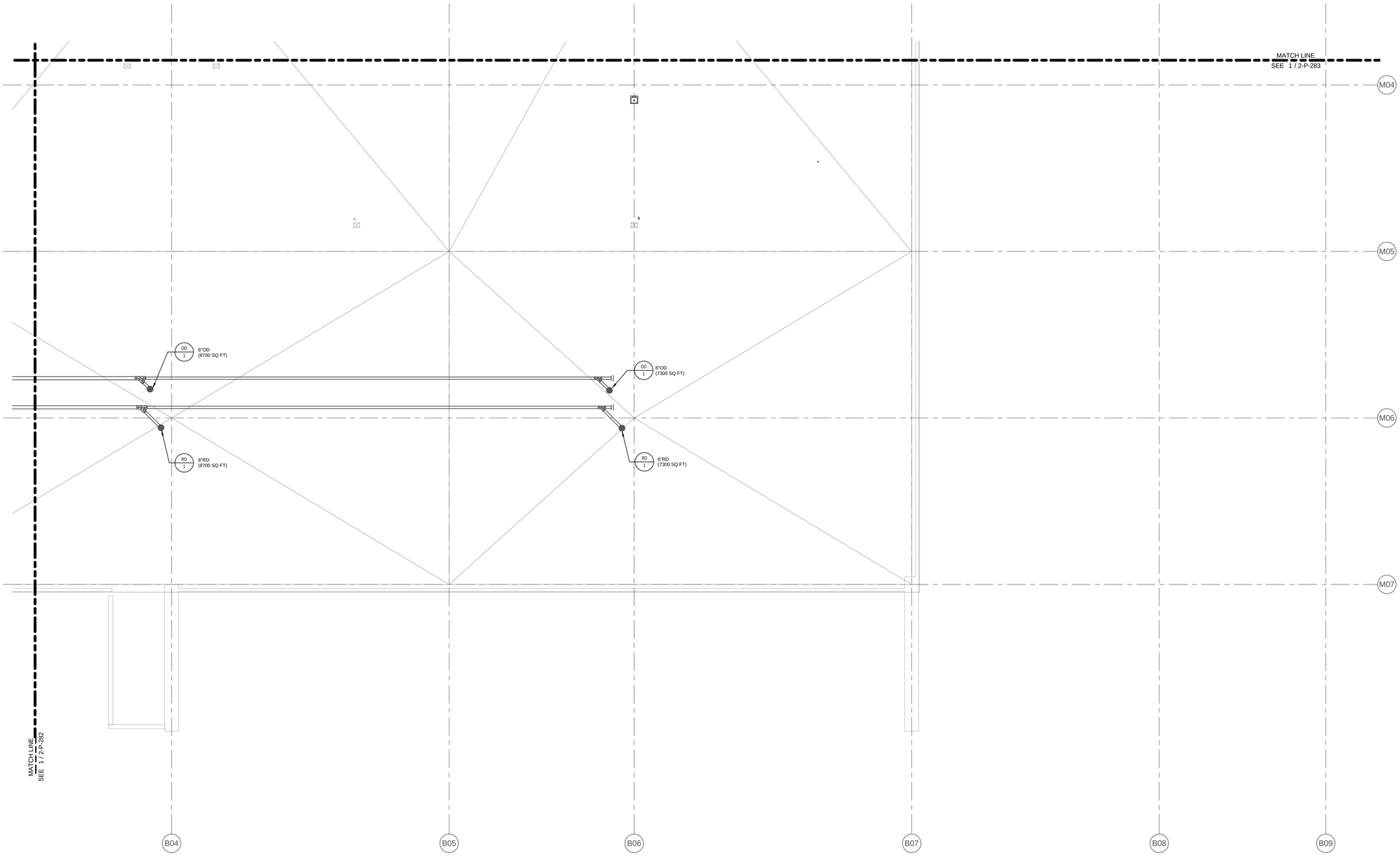
SHEET NO.

2-P-283

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\rcramacho\Documents\MP-DA4BB1-BUDG_A_P-R15_rcramacho.rvt

9/21/2016 4:57:11 PM



1 BUILDING A&B - QTA - LEVEL 4 PLUMBING ROOF PLAN - PART B4
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 210, Long Beach, CA 90806
T 562.426.8000 F 562.427.0190 www.pbsengineers.com
Mechanical Electrical Plumbing / Construction Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK:	DATE:	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:
QTA ENLARGED ROOF PLAN - PART B4

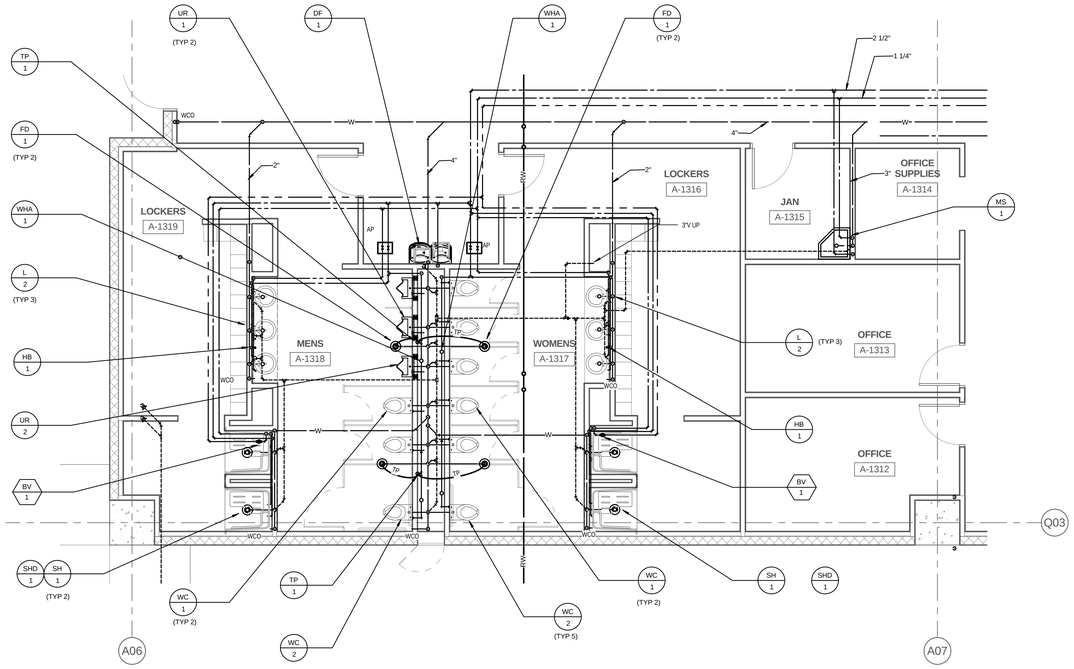
SHEET NO.
2-P-284

8/21/2016 4:29:02 PM C:\Users\myl\Documents\MP-DA4881-BLDG_A_B-R15_myl@pbsengineers.com.rvt

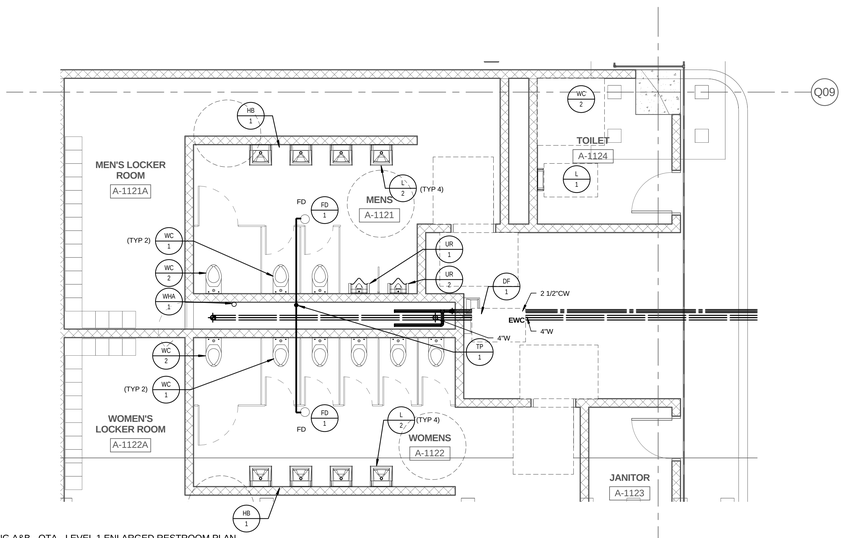
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVE1 ENLARGED RESTROOM AND JANITOR ROOM PLANS
1/4" = 1'-0"



2 BUILDING A&B - QTA - LEVEL 1 ENLARGED RESTROOM PLAN
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Mechanical Electrical Plumbing

REVISIONS: MARK | DATE | DESCRIPTION

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

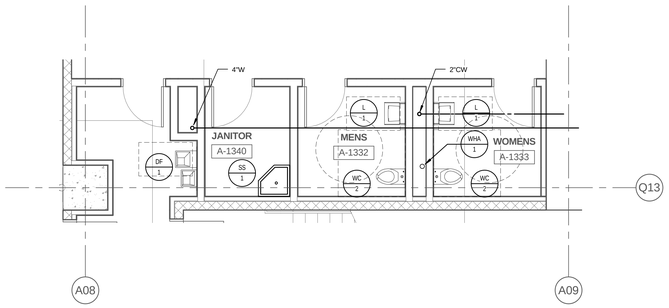
SHEET TITLE:
ENLARGED RESTROOM PLUMBING PLANS

SHEET NO.
2-P-501

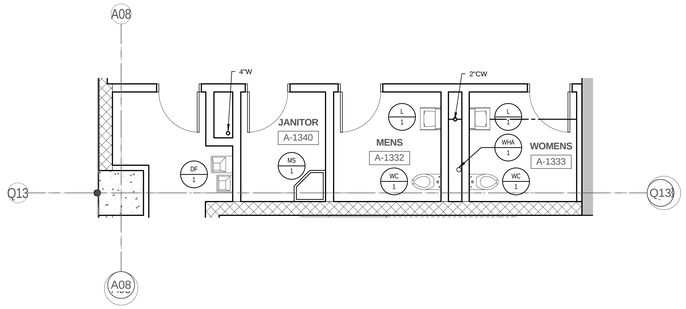
9/21/2016 4:29:05 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

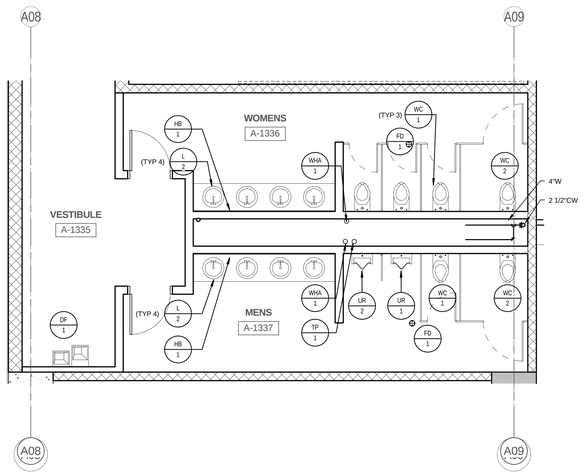
1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



3 BUILDING A&B - QTA - LEVEL 1 RESTROOM PLAN
1/4" = 1'-0"



1 BUILDING A - QTA - LEVEL 2 RESTROOM PLAN
1/4" = 1'-0"



2 BUILDING A - QTA - LEVEL 1 RESTROOM PLANS
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Civil | Structural | MEP
2300 East Katella Ave, Suite 300
Anaheim, CA 92806
T 714.939.1030
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

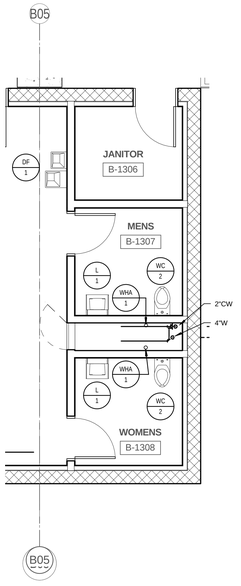
PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:
ENLARGED RESTROOM PLUMBING PLANS

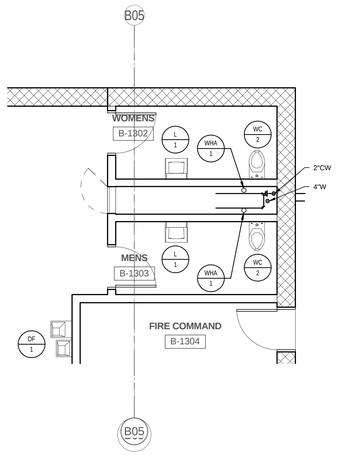
SHEET NO.
2-P-502

9/21/2016 4:29:07 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

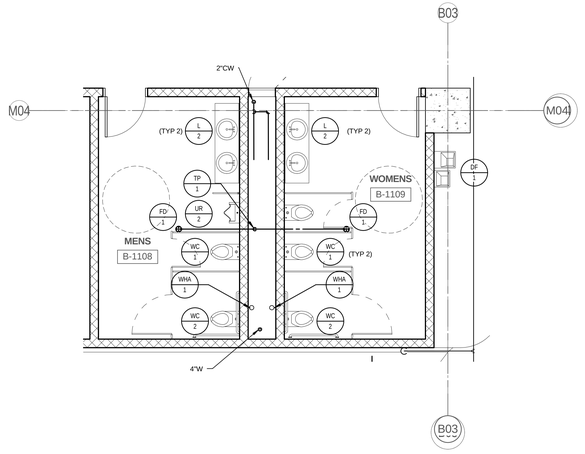
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



3 BUILDING B - QTA - LEVEL 1 SINGLE USE RESTROOM PLAN
1/4" = 1'-0"



1 BUILDING B - QTA - LEVEL 1 RESTROOM PLAN
1/4" = 1'-0"



2 BUILDING B - QTA - LEVEL 1 RESTROOM PLANS
1/4" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 310 Anaheim, CA 92806
T 714.939.0000 F 714.939.0001
Mechanical · Electrical · Plumbing | Consulting · Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

JOINT PMD — ANA — LAX

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

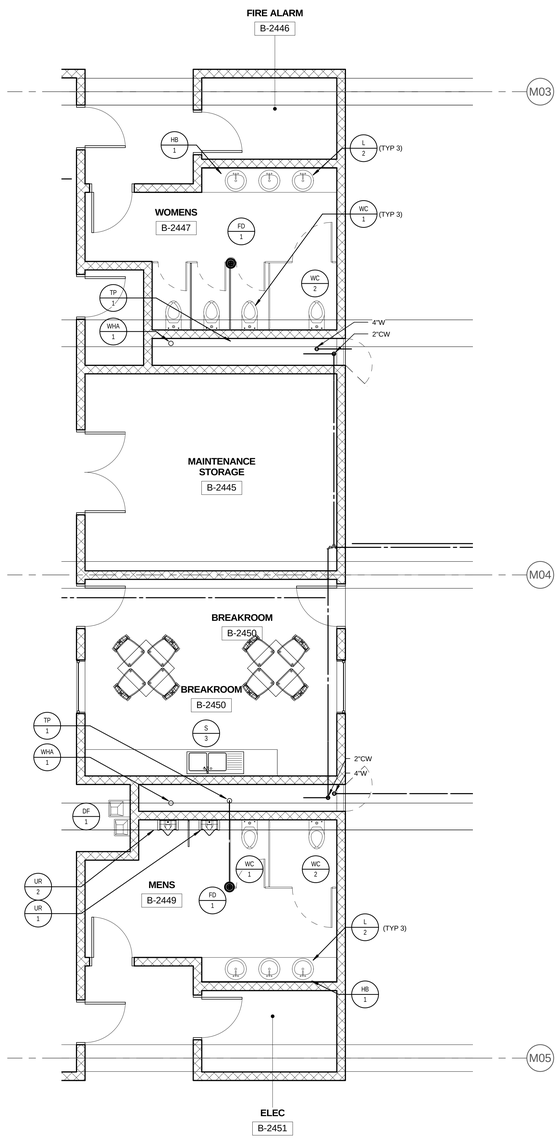
ENLARGED RESTROOM PLUMBING PLANS

SHEET NO.

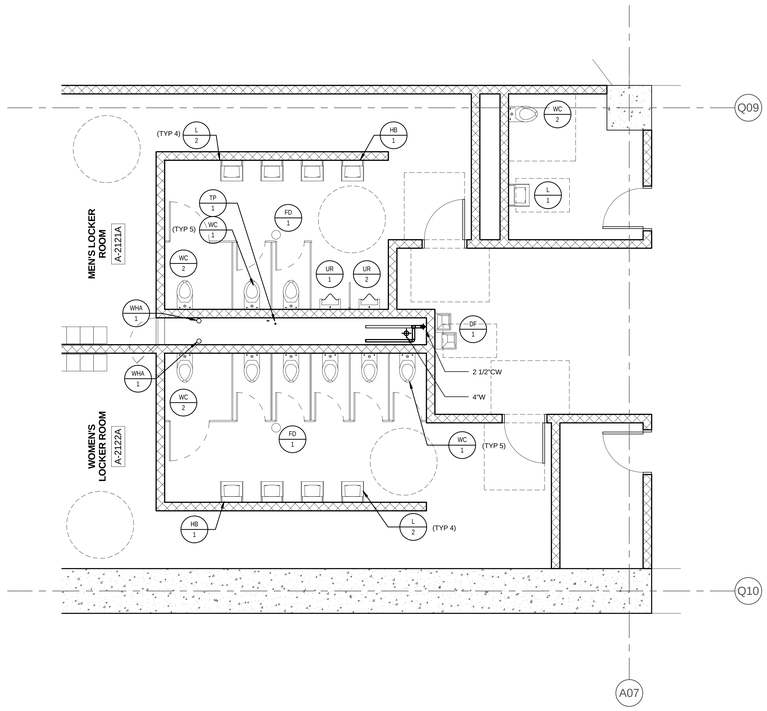
2-P-503

9/23/2016 4:29:19 PM C:\Users\mhy\Documents\MP-DA4881-BUDG_A_B-R15_mhy@pbsengineers.com.rvt

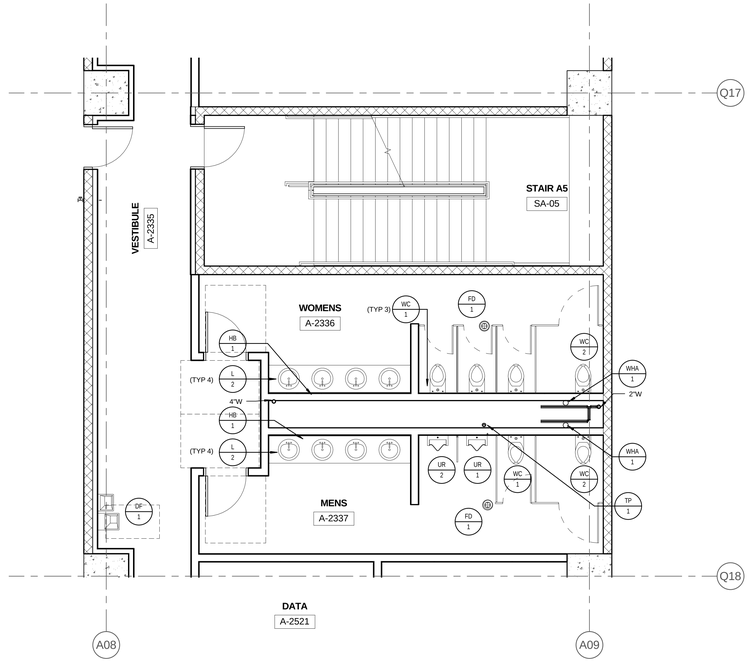
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



3 BUILDING B - QTA - LEVEL 2 RESTROOM AND BREAKROOM PLAN
1/4" = 1'-0"



1 BUILDING A - QTA - LEVEL 2 RESTROOM AND JANITOR ROOM PLAN
1/4" = 1'-0"



2 BUILDING A - QTA - LEVEL 2 RESTROOM PLAN
1/4" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 300 Anaheim, CA 92806
T 714.520.0335 F 714.520.0353
Mechanical Electrical Plumbing Fire Protection Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

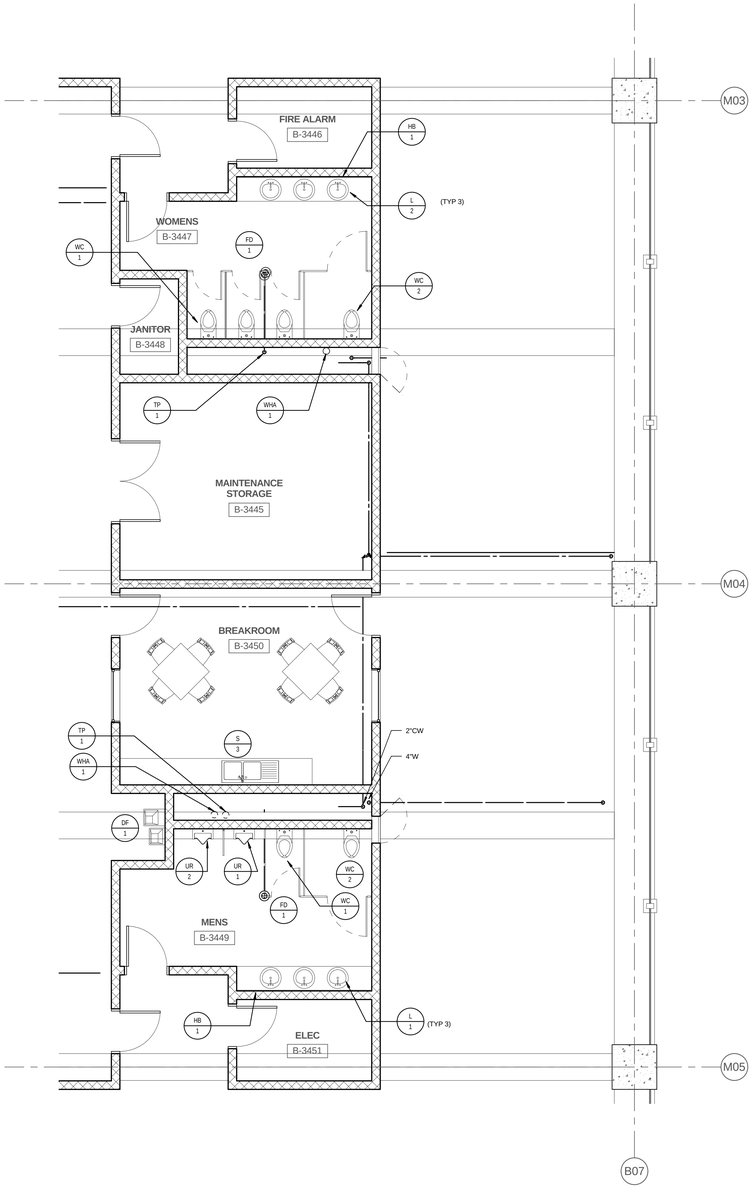
ENLARGED RESTROOM PLUMBING PLANS

SHEET NO.

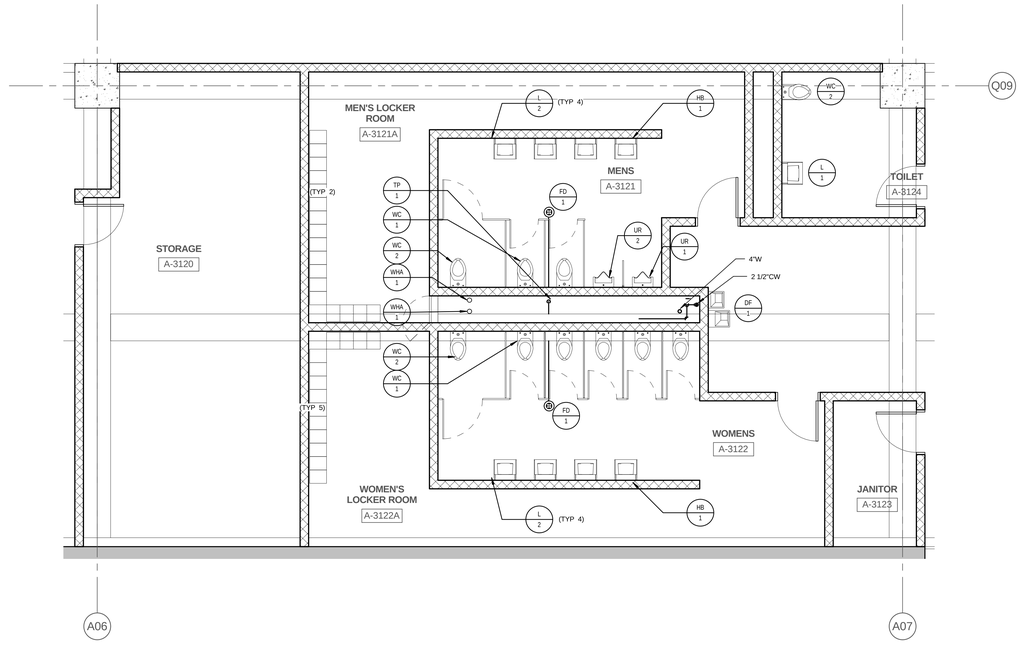
2-P-504

9/21/2016 4:29:13 PM C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt

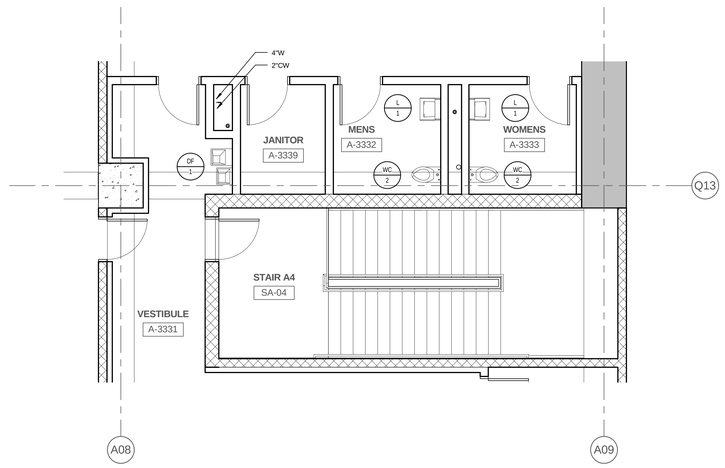
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



3 BUILDING B - QTA - LEVEL 3 RESTROOM AND BREAKROOM PLAN
1/4" = 1'-0"



1 BUILDING A - QTA - LEVEL 3 RESTROOM PLANS
1/4" = 1'-0"



2 BUILDING A - QTA - LEVEL 3 RESTROOM PLAN
1/4" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

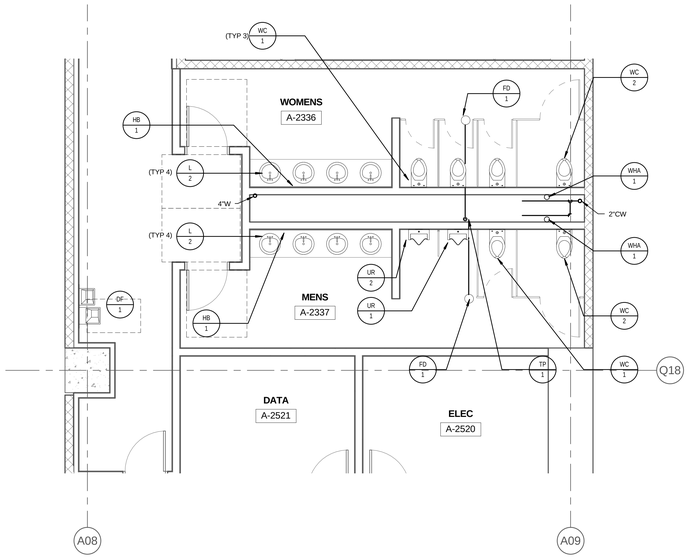
SHEET TITLE:
ENLARGED RESTROOM PLUMBING PLANS

SHEET NO.
2-P-505

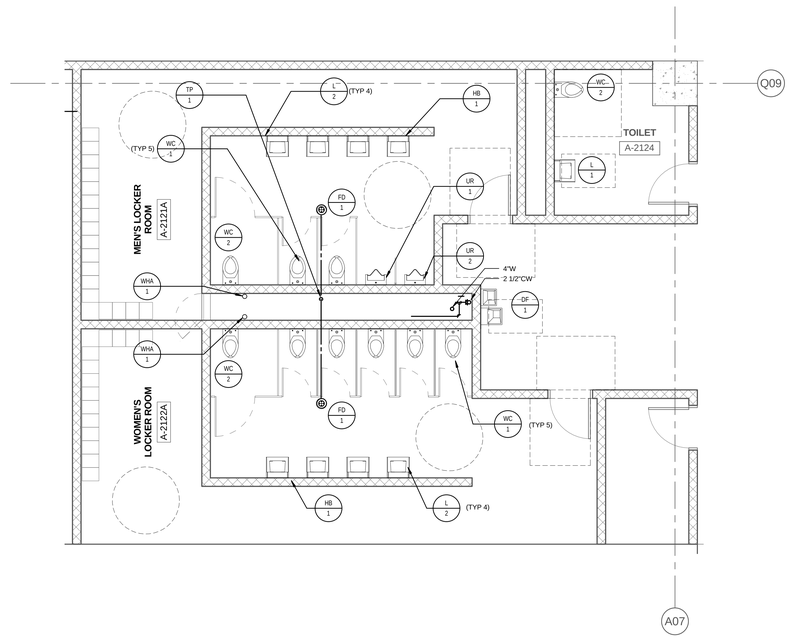
C:\Users\rcamacho\Documents\MP-DA4881-BUDG_A_P-R15_rcamacho.rvt
9/21/2016 4:57:14 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

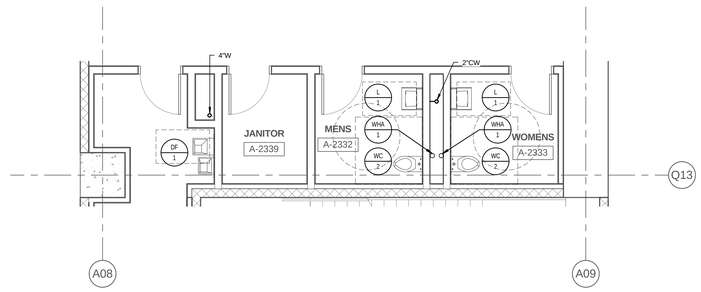
1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



3 BUILDING A&B - QTA - LEVEL 2 ENLARGED RESTRROOM PLAN -
1/4" = 1'-0"



1 BUILDING A&B - QTA - LEVEL 2 ENLARGED RESTROOM PLAN
1/4" = 1'-0"



2 BUILDING A&B - QTA - LEVEL 2 ENLARGED SINGLE RESTROOM PLAN
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 410 Orange, CA 92867
T 714.520.0335 F 714.520.0353
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

ENLARGED RESTROOM PLUMBING PLANS

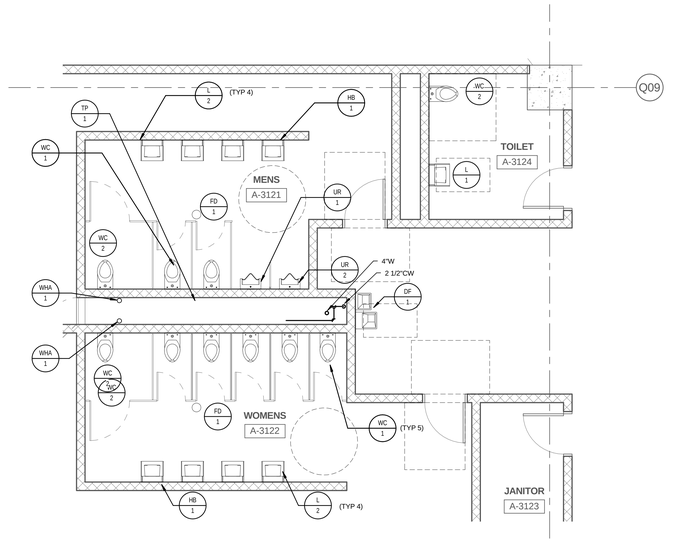
SHEET NO.
2-P-506

9/21/2016 4:57:15 PM C:\Users\rcramacho\Documents\MP-DA4881-BUDG_A_R15_rcramacho.rvt

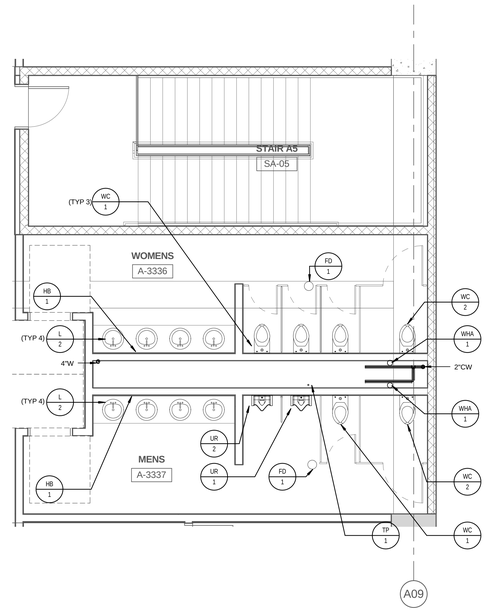
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED RESTROOM AND SINGLE RESTROOM PLAN
1/4" = 1'-0"



2 BUILDING A&B - QTA - LEVEL 3 ENLARGED RESTROOM PLAN
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 420 Orange, CA 92867
714.939.0200 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

ENLARGED RESTROOM PLUMBING PLANS

SHEET NO.

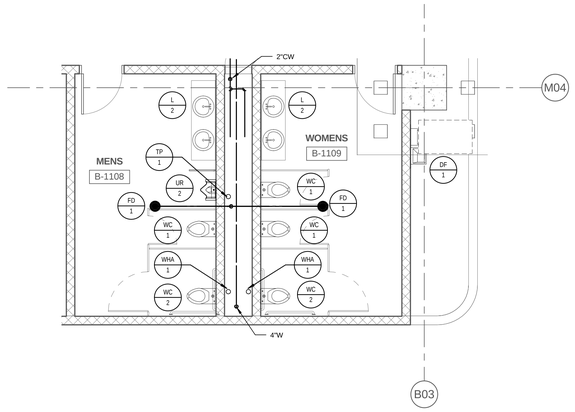
2-P-507

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

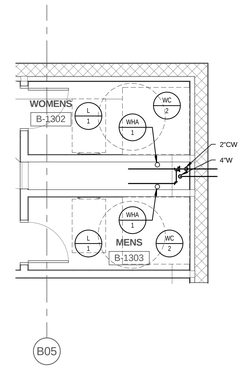
9/21/2016 4:29:19 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.



4 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLUMBING PLAN
1/4" = 1'-0"



1 BUILDING A&B - QTA - LEVEL 1 ENLARGED SINGLE RESTROOM PLAN
1/4" = 1'-0"

5 BUILDING A&B - QTA - LEVEL 1 ENLARGED PLAN
1/4" = 1'-0"

2 BUILDING A&B - QTA - LEVEL 2 ENLARGED JANITOR AND RESTROOM PLAN
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 200
Long Beach, CA 90806
T 562.426.8000 F 562.490.2613
Mechanical Electrical Plumbing | Construction Management

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

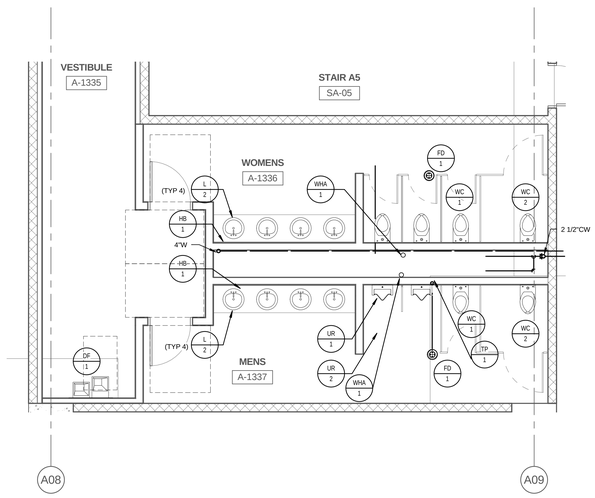
ENLARGED RESTROOM PLUMBING PLANS

SHEET NO.

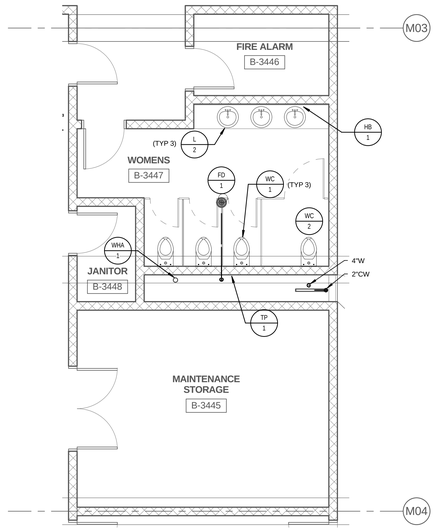
2-P-508

9/21/2016 4:29:22 PM C:\Users\mhy\Documents\MP-DA4881-BLDG_A_B-R15_mhy@pbsengineers.com.rvt

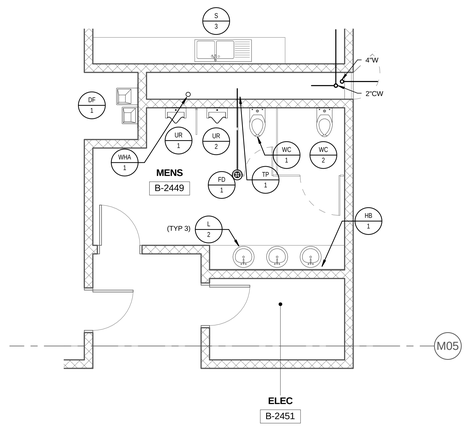
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



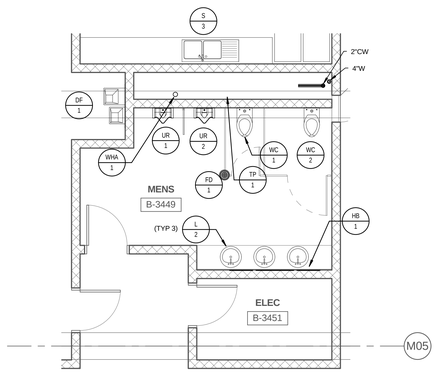
3 BUILDING A&B - QTA - LEVEL 1 MENS AND WOMENS ENLARGED RESTROOM PLAN
1/4" = 1'-0"



1 BUILDING A&B - QTA - LEVEL 3 ENLARGED RESTROOM PLAN -
1/4" = 1'-0"



4 BUILDING A&B - QTA - LEVEL 2 ENLARGED BREAKROOM AND RESTROOM PLAN
1/4" = 1'-0"



2 BUILDING A&B - QTA - LEVEL 3 ENLARGED BREAKROOM AND RESTROOM PLAN
1/4" = 1'-0"

GENERAL NOTES

1. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO EXTERIOR MECHANICAL UNITS AND RUN PIPING UNDERGROUND TO DRYWELL.
2. CONNECT 3/4" CONDENSATE DRAIN PIPING WITH TRAP TO INTERIOR MECHANICAL UNITS AND RUN PIPING OVERHEAD TO AN APROVED RECEPTOR.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Civil | Structural | Mechanical | Electrical | Plumbing | Fire Protection
3780 Kilroy Airport Way, Suite 510 Long Beach, CA 90806
T 562.426.8000 F 562.426.8001

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

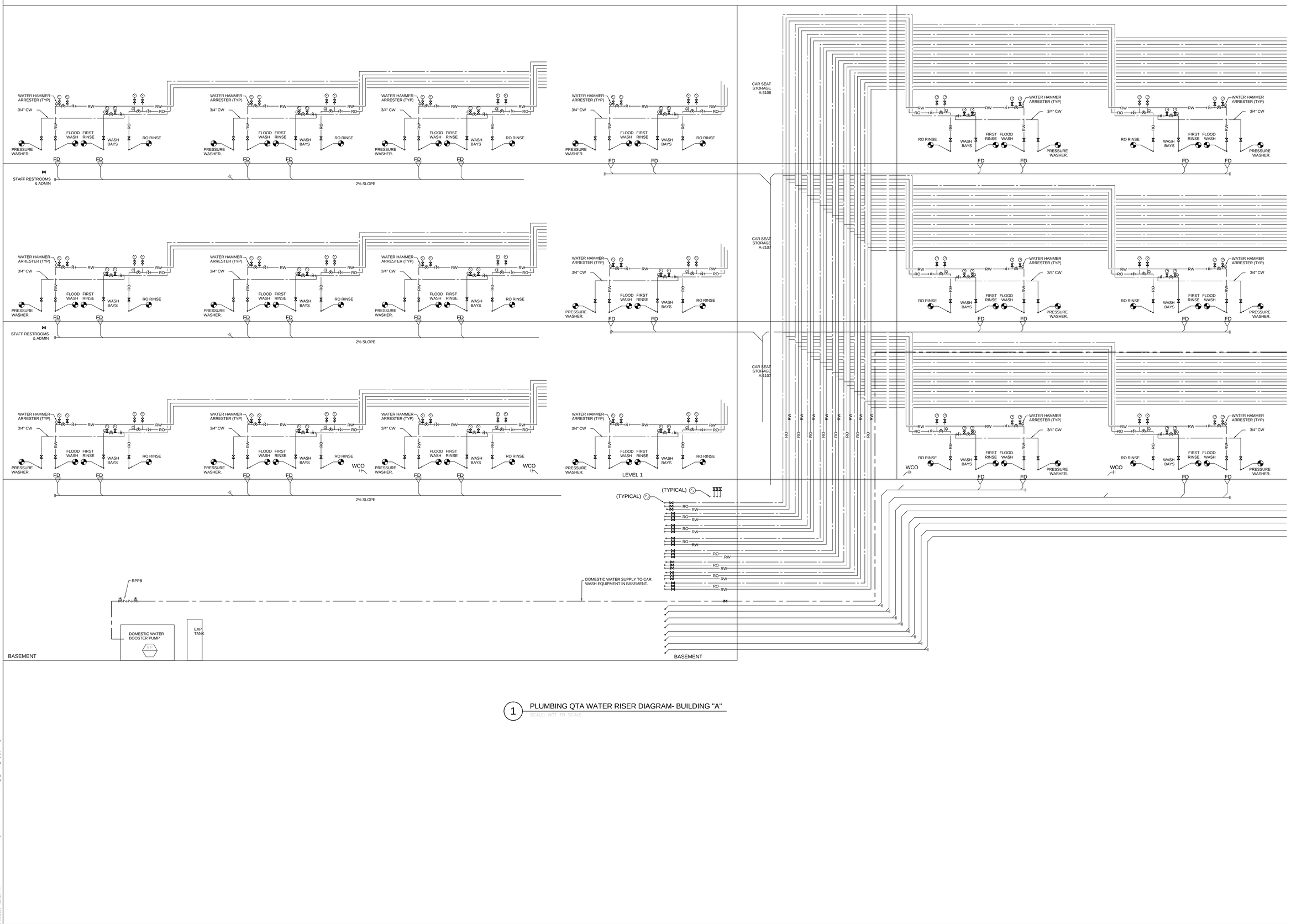
ENLARGED RESTROOM PLUMBING PLANS

SHEET NO.

2-P-509

9/21/2016 4:29:24 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 PLUMBING QTA WATER RISER DIAGRAM- BUILDING "A"

SCALE: NOT TO SCALE

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8356 F 562.426.8397
Mechanical Electrical Plumbing Fire Protection Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA WATER RISER DIAGRAM - QTA A

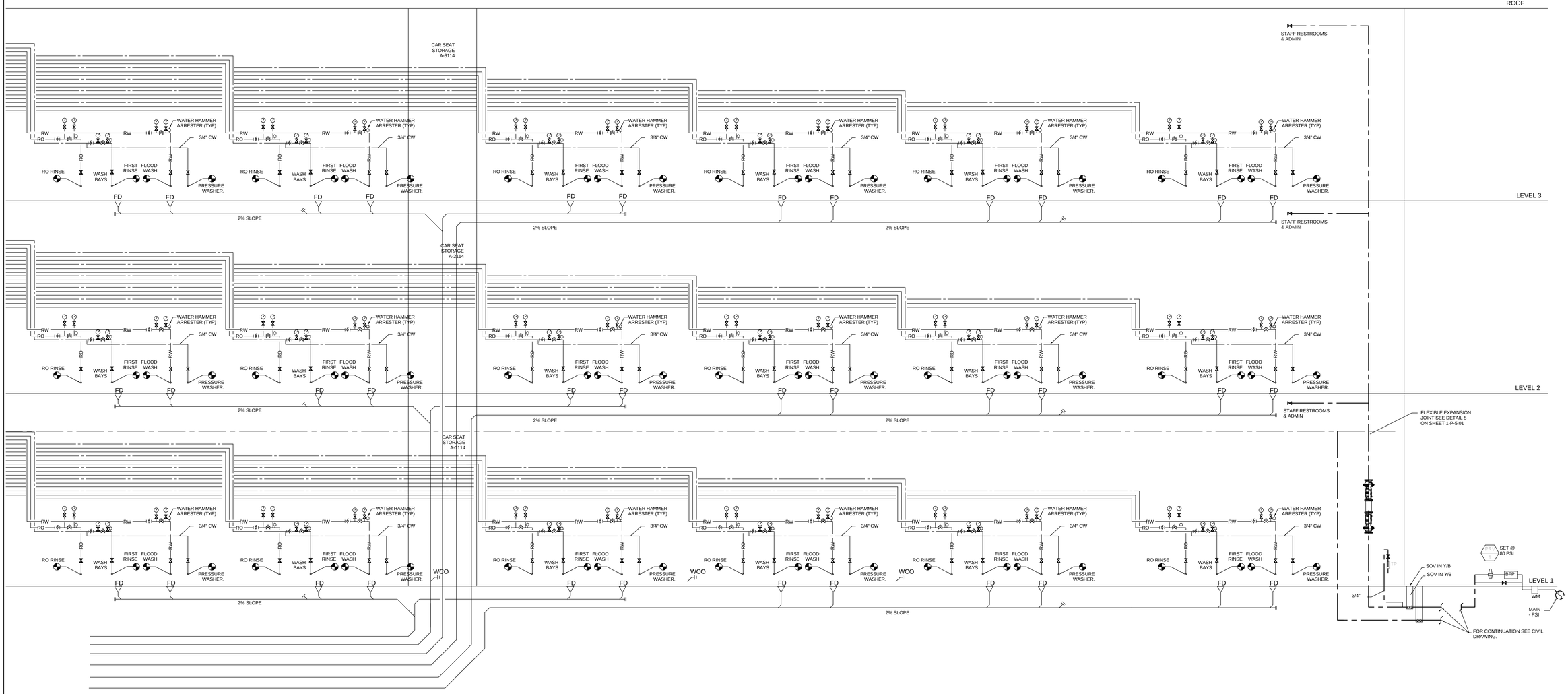
SHEET NO.

2-P-601

C:\Users\mfy\Documents\MP-DA4881-BLDG_A_8-R15_mfy@pbsengineers.com.rvt

9/21/2016 4:29:25 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 PLUMBING QTA WATER RISER DIAGRAM- BUILDING "A"

SCALE: NOT TO SCALE

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
Plumbing Fire Protection
FSA0000353
2300 East Katella Ave, Suite 410 Anaheim, CA 92806
714.634.2000 www.pbsengineers.com
Mechanical Electrical Plumbing / Controls Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

LAX ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

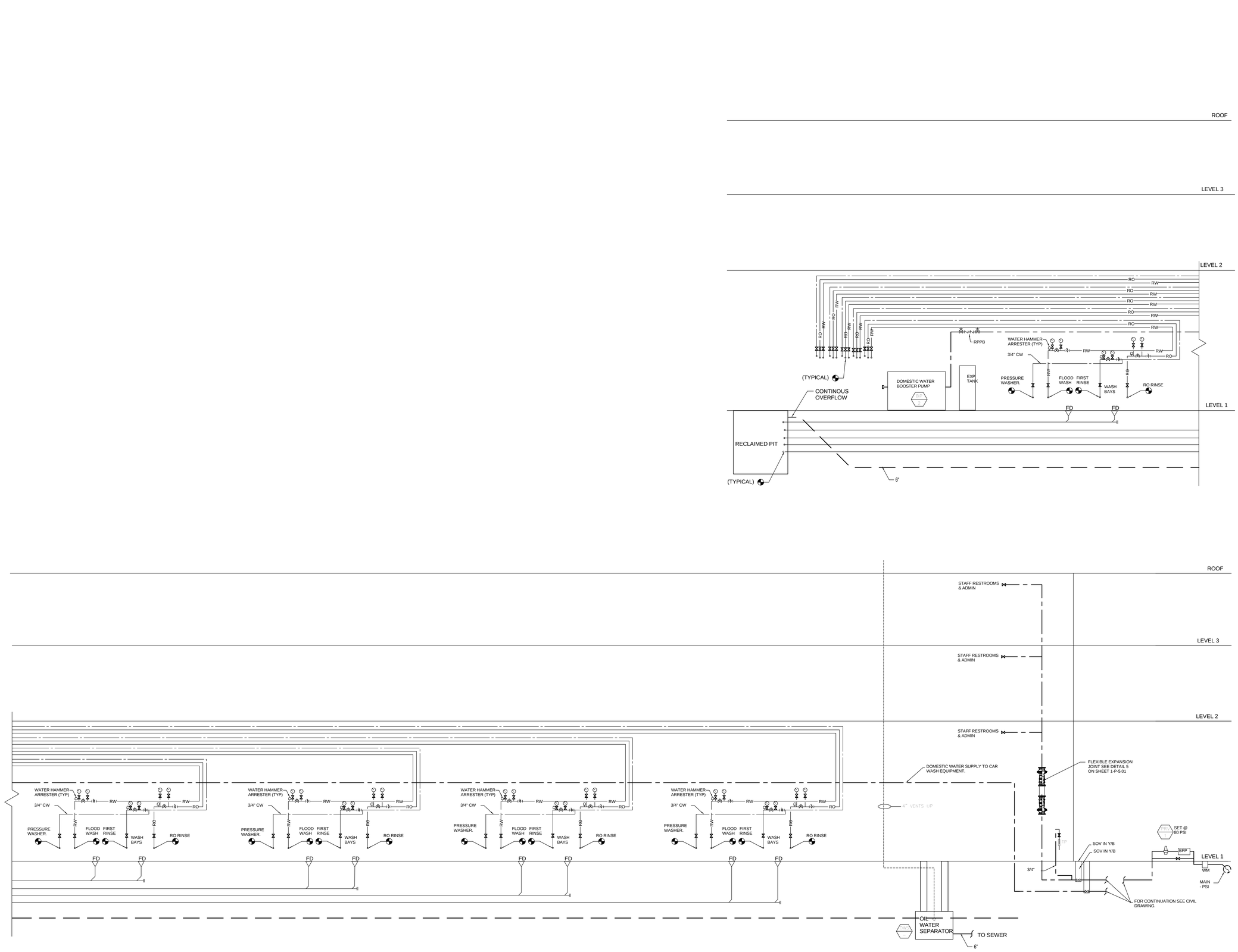
QTA WATER RISER DIAGRAM - QTA A

SHEET NO.

2-P-602

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:29:27 PM C:\Users\mvy\Documents\MP-DA4881-BLDG_A_B-R15_mvy@pbsengineers.com.rvt



2 PLUMBING QTA WATER RISER DIAGRAM- BUILDING "B"

SCALE: NOT TO SCALE

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 310 Anaheim, CA 92806
714.520.0335 FAX 714.520.0331
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:			DESCRIPTION
MARK	DATE		

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

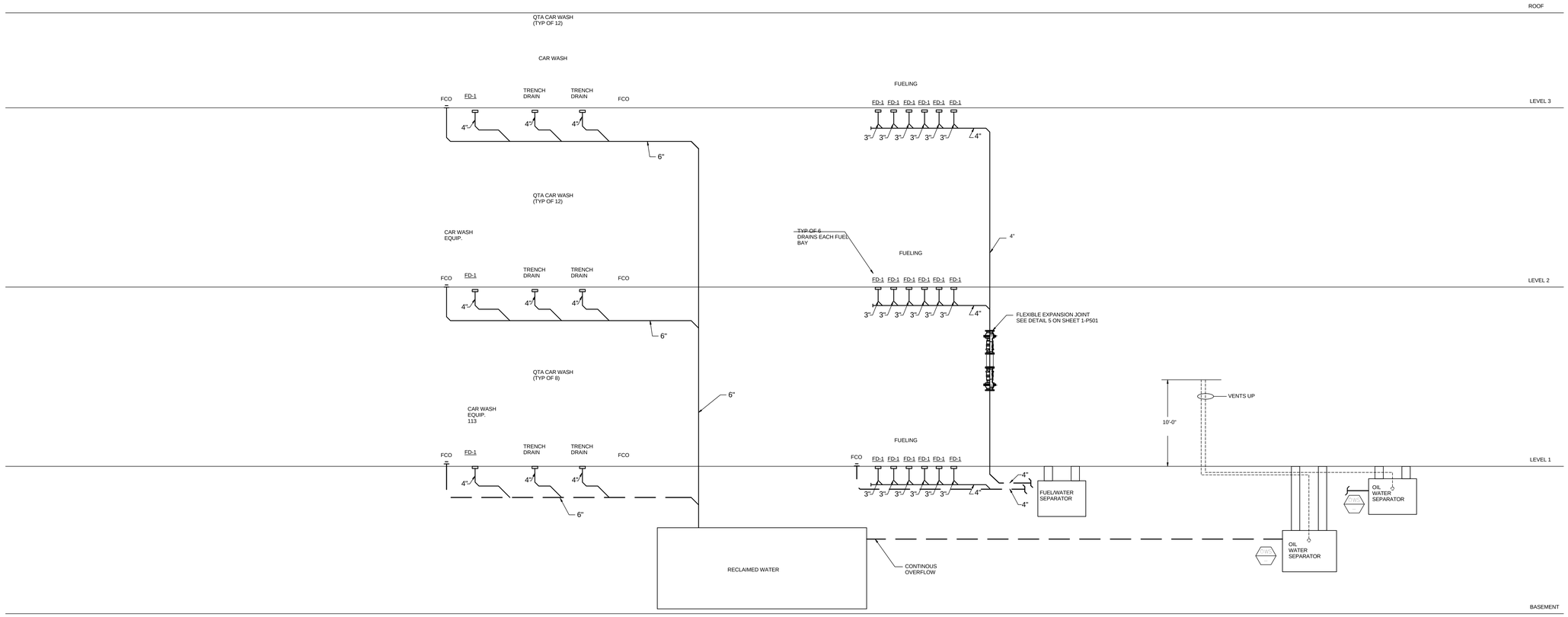
QTA WATER RISER DIAGRAM - QTA B

SHEET NO.

2-P-603

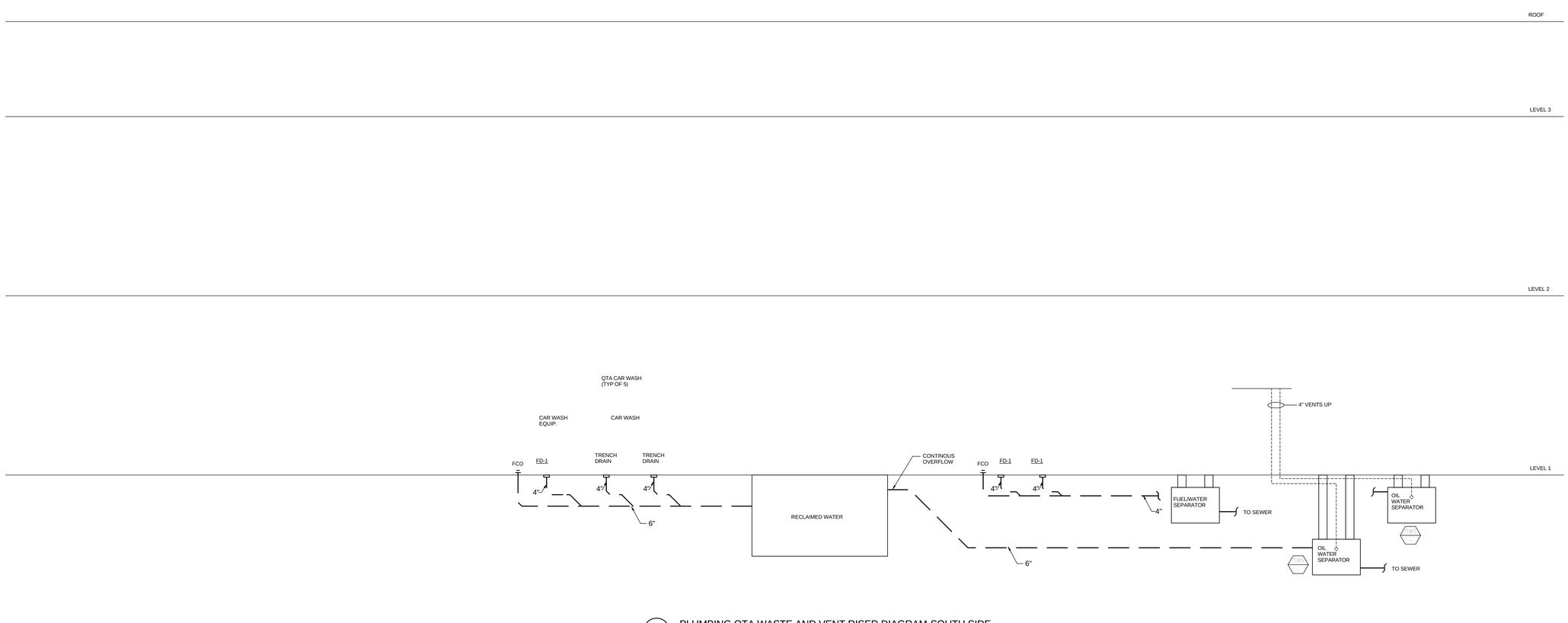
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:29:28 PM C:\Users\rhy\Documents\MP-DA4881-BLDG_A_B-R15_rhy@pbsengineers.com.rvt



1 PLUMBING QTA WASTE AND VENT RISER DIAGRAM-NORTH SIDE

SCALE: NOT TO SCALE



2 PLUMBING QTA WASTE AND VENT RISER DIAGRAM-SOUTH SIDE

SCALE: NOT TO SCALE

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:29:29 PM C:\Users\mly\Documents\MP-DA4881-BLDG_A_B-R15_mly@pbsengineers.com.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2300 East Katella Ave, Suite 410 Anaheim, CA 92806
T 714.520.0335 F 714.520.0352
Mechanical Electrical Plumbing Fire Protection Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

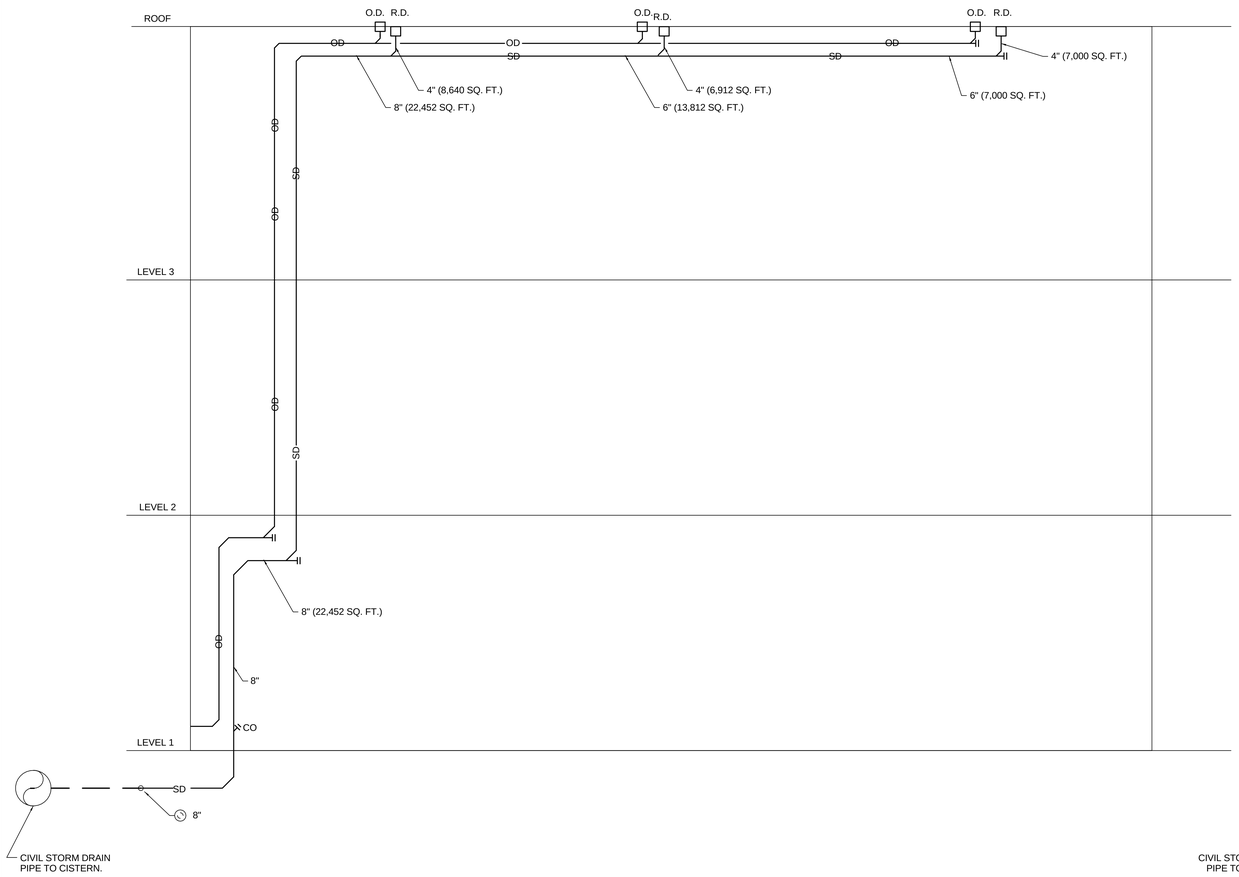
PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

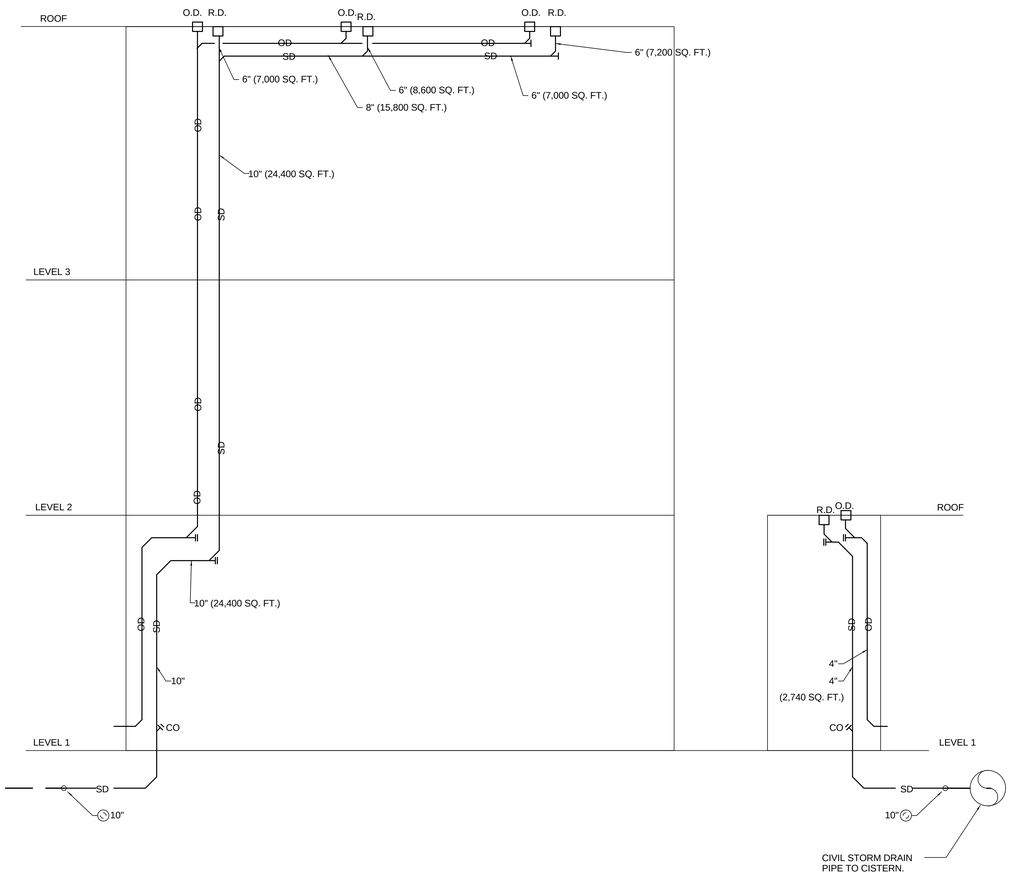
QTA WASTE AND VENT RISER DIAGRAM

SHEET NO.

2-P-604



QTA - NORTH (TYPICAL OF ELEVEN RUNS)



QTA - SOUTH (TYPICAL OF THREE RUNS)

1 PLUMBING STORM DRAIN RISER DIAGRAM-QTA

SCALE: NOT TO SCALE

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3780 Kilroy Airport Way, Suite 600, Long Beach, CA 90806
T 562.426.8000 F 562.427.0190
T &A A6000353 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANX PMD LAX

REVISIONS: MARK | DESCRIPTION | DATE

PROJ NO:	DA4881
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	BV
DRAWN BY:	RC
CHECKED BY:	EH

SHEET TITLE:

QTA STORM DRAIN RISER DIAGRAM

SHEET NO.

2-P-605

C:\Users\mhy\Documents\MP-DA4881-BLDG_A_R15_mhy@pbsengineers.com.rvt

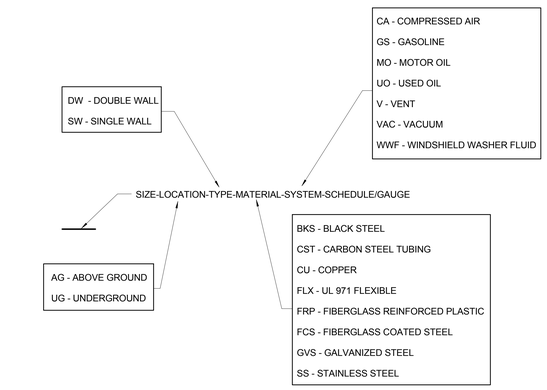
9/21/2016 4:29:30 PM

ATG	-	AUTOMATIC TANK GAUGE
AC	-	AIR COMPRESSOR
CS	-	CONTAINMENT SUMP
D	-	DISPENSER
DS	-	DISPENSER SUMP
DC	-	DISPENSER CONTAINMENT
DESI	-	DISPENSER EMERGENCY STOP DISCONNECT
DHI	-	DISPENSER HOOK ISOLATION BOX
EMC	-	ENVIRONMENTAL MONITORING CONSOLE
ESB	-	EMERGENCY STOP BUTTON
ESR	-	EMERGENCY STOP RESET
FACP	-	FIRE ALARM CONTROL PANEL
FEX	-	FIRE EXTINGUISHER
FP	-	FUELING POSITION
FSP	-	FUEL SYSTEM STATUS PANEL
H	-	HOSE
HLA	-	HIGH LEVEL ALARM
HR	-	HOSE REEL
IM	-	INTERSTITIAL MONITOR
LR	-	LATCHING RELAY
LS	-	LEAK SENSOR
MFSP	-	MAIN FUEL SYSTEM PANEL
MO	-	MOTOR OIL
PP	-	PNEUMATIC PUMP
PS	-	PIPING SUMP
RLP	-	REMOTE LEVEL READOUT PANEL
SMO	-	SYNTHETIC MOTOR OIL
STP	-	SUBMERSIBLE TURBINE PUMP
UO	-	USED OIL
UPS	-	UNINTERRUPTIBLE POWER SUPPLY
UST	-	UNDERGROUND STORAGE TANK
VD	-	VACUUM DROP
VFC	-	VARIABLE FREQUENCY CONTROLLER
VL	-	VEHICLE LIFT
VP	-	VACUUM PRODUCER
VS	-	VACUUM SEPARATOR
VTS	-	VENT TRANSITION SUMP
WL	-	EMERGENCY WARNING LIGHT
WWF	-	WINDSHIELD WASHER FLUID

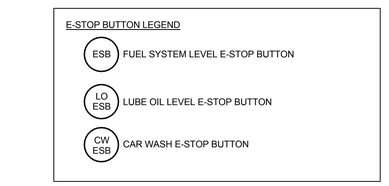
1 2-Q-001 DESIGNATION LEGEND

AG	ABOVEGROUND
AST	ABOVEGROUND STORAGE TANK
ATG	AUTOMATIC TANK GAUGE
AWG	AMERICAN WIRE GAUGE
BLK	BLACK
CS	CONTAINMENT SUMP
CM	COMMUNICATION
CONT	CONTINUATION
DIA	DIAMETER
DIV	DIVISION
DW	DOUBLE WALL
ED	EMERGENCY DISCONNECT
ELLD	ELECTRONIC LINE LEAK DETECTOR
EMS	ENVIRONMENTAL MONITORING SYSTEM
RMC	RIGID METALLIC TUBING
ESB	EMERGENCY STOP BUTTON
E-STOP	EMERGENCY STOP
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FUEL SYSTEM
GLV	GALVANIZED
HLA	HIGH LEVEL ALARM
HP	HORSEPOWER
I.S.	INTRINSICALLY SAFE
JB	JUNCTION BOX
L.C.	LOCK CLOSED
L.O.	LOCK OPEN
MFR	MANUFACTURER
N.P.T.	NATIONAL PIPE THREAD
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
PL	PROPERTY LINE
PW	POWER
RMC	RIGID METAL CONDUIT
SCH	SCHEDULE
SS	STAINLESS STEEL
STP	SUBMERSIBLE TURBINE PUMP
SW	SINGLE WALL
SWN	SWITCHED NEUTRAL
TBD	TO BE DETERMINED
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
UO	USED OIL
UST	UNDERGROUND STORAGE TANK
VR	VAPOR RECOVERY
WW	WIREWAY

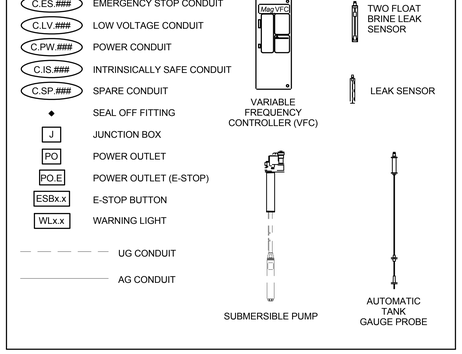
2 2-Q-001 ABBREVIATIONS



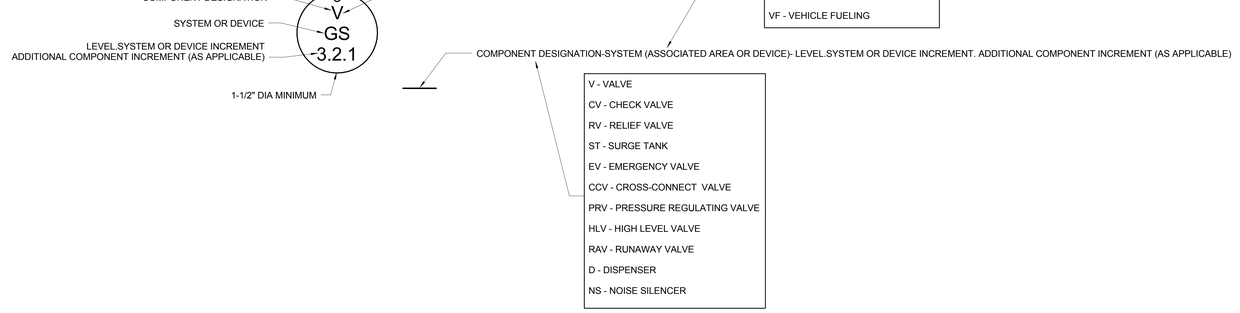
3 2-Q-001 PIPING CALLOUT LEGEND



4 2-Q-001 ESB LEGEND



5 2-Q-001 SLD LEGEND



6 2-Q-001 VALVE COMPONENT TAG LEGEND

General Sheet Volume Index
2-Q-XXX : Volume 2

General QTA Systems Sheet Index
X-Q-0XX : General
X-Q-1XX : Key Plans
X-Q-2XX : Fueling System
X-Q-3XX : Compressed Air System
X-Q-4XX : Windshield Wash Fluid System
X-Q-5XX : Lube System
X-Q-6XX : Vacuum System
X-Q-7XX : Electrical System

Sheet Sub-Section Index
X00 to X09 : General QTA Systems Index and Notes
X10 to X19 : Overall Plans (1/60th Scale)
X20 to X39 : Enlarged Plans (1/16th Scale)
X40 to X49 : Enlarged Plans (1/8th Scale, As Needed)
X50 to X59 : Details
X60 to X99 : Schematics, Block Diagrams and Single Line Diagrams

7 2-Q-001 QTA SYSTEMS SHEET INDEX

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

LAWA LAX PMD

REVISIONS: DESCRIPTION DATE MARK

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:
QTA SYSTEMS LEGENDS AND ABBREVIATIONS

SHEET NO.
2-Q-001

C:\Users\Public\Documents\Local_Revit_Files\DA4881 BLDG_A_B_R15_jwilson.rvt

9/22/2016 4:18:47 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

IMPORTANT NOTE ON QTA SYSTEMS

THIS FACILITY HAS BEEN DESIGNED UNDER THE AUTHORITY OF MULTIPLE CODE MODIFICATION REQUESTS, WHICH ALLOW FOR INDOOR FUELING BEYOND THAT NORMALLY PERMITTED BY CODE. THESE CODE MODIFICATION REQUESTS HAVE BEEN GRANTED WITH CONDITIONS REQUIRING MULTIPLE MITIGATING DESIGN FEATURES. AS SUCH, MANY DESIGN ELEMENTS DEPICTED IN THESE CONSTRUCTION DOCUMENTS EXCEED THE REQUIREMENTS OF APPLICABLE CODES AND TYPICAL STANDARDS. IN THESE CASES, DESIGN ELEMENTS DEPICTED THAT EXCEED CODE REQUIREMENTS SHALL BE CONSIDERED REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE SYSTEMS AS INDICATED IN THE CONTRACT DOCUMENTS AND AS REQUIRED BY CODE AND THE CODE MODIFICATION REQUESTS.
2. INSTALL AND TEST ALL FUEL SYSTEM EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
3. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS NOT SHOWN ON THESE FUEL SYSTEM, FLUIDS SYSTEM, VACUUM AND CAR WASH SYSTEM PLANS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES BEFORE COMMENCING WORK AND REFER TO CIVIL ENGINEERING PLANS PREPARED FOR THE LOCATION OF ALL EXISTING AND PROPOSED UTILITIES. THE CONTRACTOR SHALL PAY FOR AND REPAIR DAMAGES CAUSED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY UNDERGROUND UTILITIES UNLESS OTHERWISE INDICATED.
4. COORDINATE CONSTRUCTION OF ALL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, ELECTRICAL, ETC., AS SHOWN ON OTHER CONTRACT DOCUMENTS. REFER TO CIVIL PLANS FOR EARTHWORK REQUIREMENTS.
5. WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE USED UNLESS IDENTIFIED ON THE PLANS.
6. THE CONTRACTOR SHALL OBTAIN ALL STATE AND LOCAL TANK HANDLING LICENSES AND CERTIFICATIONS GOVERNING THE TYPE OF WORK TO BE PERFORMED. PROOF OF NECESSARY LICENSES AND CERTIFICATIONS SHALL BE FURNISHED TO THE OWNER OR ENGINEER UPON REQUEST.
7. THE CONTRACTOR SHALL OBTAIN AND MAINTAIN INSTALLER CERTIFICATIONS AS REQUIRED BY THE EQUIPMENT MANUFACTURERS OUTLINED IN THIS PROJECT, INCLUDING CERTIFICATIONS FOR INSTALLATION OF THE ENVIRONMENTAL MONITORING SYSTEM AND UNDERGROUND PIPING SYSTEMS. PROOF OF NECESSARY MANUFACTURER CERTIFICATIONS SHALL BE FURNISHED TO THE OWNER OR ENGINEER UPON REQUEST.
8. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM ALL GOVERNING FEDERAL, STATE, AND LOCAL JURISDICTIONS AND MAKE ARRANGEMENTS FOR INSPECTIONS AND APPROVALS FOR THE WORK. WHERE APPLICABLE, THIS INCLUDES ALL PERMITS/APPROVALS FROM THE LOCAL MUNICIPALITY AND AIRPORT AUTHORITIES. ALL INCURRED COSTS ARE TO BE BORNE BY THE CONTRACTOR. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL DELIVER TO THE OWNER ALL NECESSARY CERTIFICATES OF APPROVAL FROM ALL GOVERNING JURISDICTIONS AS PART OF THE PROJECT CLOSEOUT DOCUMENTATION.
9. THE CONSTRUCTION DRAWINGS COVER THE DESIGN AND INSTALLATION ELEMENTS OF THE PROPERTY IMPROVEMENT PROJECT. ANY DEVIATION FROM THE DRAWINGS MUST BE APPROVED BY THE OWNER PRIOR TO THE CONTRACTOR MAKING ANY SUBSTITUTIONS, CHANGES, OR MODIFICATIONS.
10. THE OWNER SHALL, AT ALL TIMES, HAVE ACCESS TO THE WORK, AND THE CONTRACTOR SHALL PROVIDE FOR SUCH ACCESS AND FOR INSPECTION. IF CERTAIN WORK IS FOUND TO BE NOT IN ACCORDANCE WITH THE CONTRACTUAL DOCUMENTS, THE DEFICIENT WORK MUST BE IMMEDIATELY REMOVED AND REPLACED TO THE OWNER'S SATISFACTION.
11. ALL TESTS REQUIRED SHALL BE DOCUMENTED ON A TEST REPORT SIGNED BY THE CONTRACTOR. ALL TEST REPORTS SHALL BE SUBMITTED TO THE OWNER WITHIN 3 DAYS OF THE TEST AND INCLUDED IN THE CLOSEOUT DOCUMENTS.
12. SHOP DRAWINGS FOR ALL FUEL SYSTEM EQUIPMENT OUTLINED ON THE FUEL SYSTEM EQUIPMENT LIST, SHALL BE SUBMITTED TO THE OWNER. REALIZING THE LONG LEAD TIME ASSOCIATED WITH CERTAIN EQUIPMENT (E.G., STORAGE TANKS), THE CONTRACTOR SHALL MAKE EVERY EFFORT TO SUBMIT THESE SHOP DRAWINGS AS SOON AS POSSIBLE AFTER THE CONTRACT AWARD DATE. IF THE CONTRACTOR DOES NOT SUBMIT SHOP DRAWINGS IN THE ALLOTTED TIME, NO CONSIDERATION WILL BE GIVEN ON THE PROJECT SCHEDULE FOR SUPPLY DELAYS.
13. THE CONTRACTOR SHALL PROVIDE CLOSEOUT DOCUMENTATION IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
14. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS AS SPECIFIED IN THE CONTRACT DOCUMENTS.
15. THE CONTRACTOR SHALL NOT TAKE ADVANTAGE OF ANY APPARENT ERROR OR OMISSION IN THE CONTRACT. IF AN ERROR OR OMISSION IS DISCOVERED, THE ENGINEER SHALL BE PROMPTLY NOTIFIED SO CORRECTIONS AND INTERPRETATIONS NECESSARY TO FULFILL THE INTENT OF THE CONTRACT CAN BE MADE.
16. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE QTA SYSTEMS SPECIFICATION SECTIONS.
17. ALL ELEMENTS OF WORK ARE TO BE CONSIDERED NEW UNLESS INDICATED EXISTING OR RELOCATED. CONTRACTOR SHALL NOT SCALE DRAWINGS. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT UNLESS OTHERWISE NOTED.
18. CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS AND CONDUITS AS SHOWN AND/OR NOTED ON THE DRAWINGS. THIS SHALL INCLUDE ANY AND ALL FABRICATIONS PRIOR TO INSTALLATION.
19. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE ADVANCED ORDERING OF LONG LEAD ITEMS, AS NOT TO INTERFERE WITH THE PRODUCTION OF OTHER TRADES RESULTING IN ANY DOWN TIME OR LAG TIME.
20. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK AS SHOWN AND/OR NOTED ON THE DRAWINGS.
21. IT SHALL BE UNDERSTOOD THAT ALL WORK PERFORMED SHALL BE DONE BY A LICENSED CONTRACTOR AND IN A FIRST CLASS WORKMANLIKE MANNER. THE CONTRACTOR SHALL MEET ALL REQUIREMENTS SET FORTH BY ANY LOCAL ORDINANCE AND GOVERNING AUTHORITIES.
22. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR TO ORIGINAL CONDITIONS ANY AND ALL DAMAGES TO BUILDING SURFACES, EQUIPMENT AND FURNISHINGS CAUSED DURING PERFORMANCE OF WORK.
23. THE CONTRACTOR SHALL KEEP ALL AREAS IN WHICH WORK IS BEING PERFORMED, FREE FROM DEBRIS AT ALL TIMES AND AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY.
24. IT SHALL NOT BE THE INTENT OF THESE PLANS AND/OR SPECIFICATION TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR SHALL BE EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
25. WHERE CORE DRILLING OF FLOOR/WALLS IS REQUIRED, CONTRACTOR SHALL SEAL OPENINGS WATERTIGHT AFTER UTILITIES HAVE BEEN INSTALLED. LOCATION OF CORED HOLES SHALL COORDINATE WITH LOCATION OF EQUIPMENT IN A MANNER TO BE CLEAN AND FUNCTIONAL. THE CONTRACTOR SHALL INSTALL ONLY ONE CONDUIT PER HOLE AND SEAL THE OPENING AROUND THE CONDUIT AS SPECIFIED, USING A U.L. LISTED FIRE PROOFING COMPOUND. ALL CORING THROUGH OR ANCHORING INTO THE STRUCTURE SHALL BE SUBMITTED TO AND APPROVED BY THE STRUCTURAL ENGINEER. ALL PENETRATIONS SHALL BE MADE IN ACCORDANCE, SEALED, AND RATED AS REQUIRED IN ACCORDANCE WITH THE PROJECT MECHANICAL AND PLUMBING SPECIFICATIONS.
26. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
27. MAGNETIC SAFETY TAPE SHALL BE USED ABOVE ALL UNDERGROUND CONDUIT AND PIPING.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT LAN ONT PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

QTA SYSTEM GENERAL NOTES

SHEET NO.

2-Q-002

8/22/2018 4:16:48 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

FUEL SYSTEM

1. THE FUELING SYSTEM CONSISTS OF:
   - a. BUILDING A:
     - i. (6)-45,000 GALLON, DW UL1316, FRP BRINE FILLED INTERSTICE, UG USTs.
     - ii. (30)-4HP VARIABLE SPEED SUBMERSIBLE TURBINE PUMPS (STP).
     - iii. (81)-TWO HOSE, SINGLE PRODUCT ENHANCED CAPACITY ELECTRONIC DISPENSERS WITH INTEGRAL FUEL MANAGEMENT AND HANGING HARDWARE.
     - iv. DW STEEL AG PIPING WITH HORIZONTAL MONITORING TAPE
   - b. BUILDING B:
     - i. (2)-20,000 GALLON, DW UL1316, FRP BRINE FILLED INTERSTICE, UG USTs.
     - ii. (3)-4HP VARIABLE SPEED SUBMERSIBLE TURBINE PUMPS (STP).
     - iii. (12)-TWO HOSE, SINGLE PRODUCT ENHANCED CAPACITY ELECTRONIC DISPENSERS WITH INTEGRAL FUEL MANAGEMENT AND HANGING HARDWARE.
   - c. UL 971 UG PIPING
   - d. ENVIRONMENTAL MONITORING SYSTEMS (EMS).
   - e. ELECTRONIC LINE LEAK DETECTION SYSTEM (ELLD).
   - f. ASSOCIATED SUMPS, APPURTENANCES, VALVES, CONTROLS, ETC.
   - g. ASSOCIATED ELECTRICAL AND CONTROL SYSTEMS, INCLUDING A MULTI-FUNCTION EMERGENCY STOP SYSTEM WITH NUMEROUS EXTERNAL INPUTS AND OUTPUTS.
   - h. INTERLOCK WITH A DEDICATED VENTILATION SYSTEM DESIGNED IN OTHER SECTIONS.
   - i. HIGH LEVEL ALARMS.

2. EACH TURBINE SUMP CONSISTING OF ONE OR TW0 STPS SERVES A SYSTEM OF UP TO FIVE (5) DISPENSERS.

3. THE ENVIRONMENTAL MONITORING AND FUEL CONTROLS SYSTEM CONSISTS OF:
   - a. BUILDING A:
     - i. SEVEN (7) CONSOLES, (2 PER OPERATING FLOOR AND 1 SERVING THE USTS AND INTERSTITIAL SENSORS)
     - ii. CONTAINMENT SUMP LEAK ALARMS IN TANK SUMPS, TRANSITION SUMPS, AND DISPENSER SUMPS.
     - iii. SENSORS IN THE FUEL TRANSITION ROOMS.
   - b. BUILDING B:
     - i. TWO (2) CONSOLES (1 FOR THE DISPENSERS AND 1 FOR USTS AND INTERSTITIAL SENSORS)
     - ii. CONTAINMENT SUMP LEAK ALARMS IN TANK SUMPS AND DISPENSER SUMPS.
   - c. THE EMS SYSTEM PROVIDES THE FOLLOWING FUNCTIONS:
     - i. FUEL INVENTORY LEVELS IN THE USTs, INCLUDING AUDIBLE/VISUAL HIGH LEVEL ALARM FUNCTION (INCLUDING THE WWF UST).
     - ii. CONTAINMENT SUMP LEAK ALARMS IN TANK SUMPS, TRANSITION SUMPS, AND DISPENSER SUMPS.
     - iii. LIQUID OR VAPOR MONITORING IN THE FUEL TRANSITION ROOM.
     - iv. INTERSTITIAL MONITORING OF THE USTS, UG PIPING, AG PIPING AND FIRST FLOOR DISPENSER SUMPS
     - v. LEAK AND INTERSTITIAL MONITORING OF OTHER SYSTEMS (WWF, OIL AST's).
     - vi. DISPENSER HOOK SIGNAL CONTROL.
     - vii. OUTPUT SIGNALS FOR FUEL SYSTEM STATUS PANELS AND POSITIVE FUEL SYSTEM SHUTDOWN (REFER TO FUEL SYSTEM ACTION AND ALARM MATRIX).
     - viii. STP MONITORING, DIAGNOSTICS, AND TROUBLE ALERTS.

4. THE GASOLINE DISPENSING SEQUENCE OF OPERATIONS IS:
   - a. THE FMS PROXIMITY CARD IS SWIPED, AUTHORIZING THE TRANSACTION.
   - b. THE GASOLINE NOZZLE IS REMOVED FROM THE SADDLE, SENDING A HOOK SIGNAL TO THE EMS.
   - c. THE EMS CHECKS THE ELLD STATUS TO CONFIRM NORMAL STATUS.
   - d. THE EMS CHECKS THE ASSOCIATED VENTILATION SYSTEM STATUS TO CONFIRM THAT AIRFLOW IS ESTABLISHED.
   - e. IF THE VENTILATION SYSTEM IS RUNNING AND THE ELLD INDICATES NO LEAK, THE EMS ACTIVATES THE CORRESPONDING SYSTEM STPS, AUTHORIZES THE DISPENSER TO ALLOW THE FLOW OF FUEL, AND ALLOWS THE SOLENOIDS TO OPEN.

5. EMERGENCY STOP DEVICES ARE PLACED THROUGHOUT THE FACILITY. WHEN ACTIVATED, THE FUEL SYSTEMS ON ALL LEVELS OF THE AFFECTED BUILDING WILL BE SHUT DOWN.

6. HIGH LEVEL ALARMS WILL BE LOCATED AT THE UST AREA SET TO ACTIVATE AT 90% OF THE USTs CAPACITY. POSITIVE SHUT OFF OVERFILL PREVENTION VALVES WILL BE SET TO STOP DELIVERY AT 95% OF THE USTs CAPACITY. DIGITAL PRODUCT LEVEL DISPLAY WILL BE LOCATED NEAR THE UST DELIVERY AREA.

COMPRESSED AIR SYSTEM

1. THE COMPRESSED AIR SYSTEM CONSISTS OF:
   - a. BUILDING A:
     - i. (3) -15HP COMPRESSOR WITH DRYERS ON LEVEL 1.
     - ii. (1) -15HP COMPRESSOR WITH DRYER ON LEVEL 2.
     - iii. (1) -15HP COMPRESSOR WITH DRYER ON LEVEL 3.
   - b. BUILDING B:
     - i. (4) -15HP COMPRESSOR WITH DRYERS ON LEVEL 1.
     - ii. (2) -15HP COMPRESSOR WITH DRYER ON LEVEL 2.
     - iii. (2) -15HP COMPRESSOR WITH DRYER ON LEVEL 3.
   - c. ASSOCIATED SCH 40 CARBON STEEL PIPING, VALVES, REGULATORS AND FILTERS.
   - d. HOSE REELS WITH ASSOCIATED HOSES AND AIR CHUCKS.
   - e. EACH OF THE COMPRESSORS WILL BE DUPLEX, AND RATED AT 50 ACFM @ 175 PSIG.

2 COMPRESSORS WILL SERVICE LUBE OIL PUMPS, WASTE OIL EVACUATION PUMPS, TIRE SERVICE HOSE REELS LOCATED AT EACH FUEL DISPENSER ISLANDS, THE WWF DISPENSING PUMPS LOCATED IN EACH WWF STORAGE ROOM, LIFT ACCESSORIES, TIRE CHANGING EQUIPMENT AND SERVICE DROPS LOCATED IN THE MAINTENANCE AND CAR WASH AREAS. ADDITIONADROPS ARE LOCATED IN THE CAR WASH AREA, WHICH CAN BE USED FOR GENERAL MAINTENANCE OR FOR CAR WASH ACTUATION, IF REQUIRED.

3. THE COMPRESSED AIR SYSTEM WILL BE TIED INTO THE EMERGENCY STOP SYSTEM USING NORMALLY CLOSED SOLENOID VALVES IN THE AIR DISTRIBUTION PIPING THAT ARE WIRED INTO THE FUEL SYSTEM E-STOP.

4. THE COMPRESSED AIR SYSTEMS IN EACH BUILDING WILL BE CROSS CONNECTED WITH AIR LINES THAT CAN BE OPENED IN THE EVENT OF COMPRESSOR FAILURE.

VACUUM SYSTEM

1. THE VACUUM SYSTEM CONSISTS OF:
   - a. BUILDING A:
     - i. (7) -30HP VACUUM PRODUCERS LEVEL 1.
     - ii. (10) -30HP VACUUM PRODUCERS LEVEL 1.
     - iii. (10) -30HP VACUUM PRODUCERS LEVEL 1.
   - b. BUILDING B:
     - i. (4) -30HP VACUUM PRODUCERS LEVEL 1.
   - c. A DEDICATED SEPARATOR LOCATED IN EACH FUEL ISLAND AREA FOR EACH PRODUCER/SYSTEM.
   - d. (186) - SINGLE HOSE DROPS (2 PER FUELING ISLAND) WITH ISLAND TOOL POSTS
   - e. ASSOCIATED HARDWARE, PIPING, VALVES, HOSES AND CLEANOUTS.

2. THE VACUUM PRODUCERS WILL HAVE FIXED SPEED CONTROLLERS AND BLEEDER VALVES. THE BLEEDER VALVES ARE SUPPLIED BY A DEDICATED OUTDOOR AIR SUPPLY (NOT IN-ROOM AIR) AND EACH VACUUM WILL HAVE AN EXHAUST LEADING TO THE OUTSIDE.

3. A NORMALLY OPEN CONTACTOR ASSOCIATED WITH EACH PRODUCER WHICH IS HELD CLOSED BY THE FUEL SYSTEM PANEL, SUCH THAT THE POWER IS DISCONNECTED TO THE VACUUM SYSTEMS IN THE EVENT OF EMERGENCY STOP ACTUATIONS. EACH VACUUM SYSTEM WILL HAVE REMOTE "ON/OFF" SWITCHES ON EACH LEVEL LOCATED IN DISPATCHERS' OFFICES.

MOTOR (MO) AND USED OIL (UO) SYSTEMS

1. THE MO AND UO SYSTEMS CONSISTS OF:
   - a. BUILDING A:
     - i. (1)-5,000 GALLON, MO DW UL 2085 AG MULTI COMPARTMENT AST ON LEVEL 1. THE LUBE OIL TANK HAS PROVISIONS FOR (2) NEW OIL COMPARTMENTS (2,500-MO, 2-500-SMO).
     - ii. (1)-5,000 GALLON, UO DW UL 2085 AG MULTI COMPARTMENT AST ON LEVEL 1. THE USED OIL TANK HAS PROVISIONS FOR (3) USED OIL COMPARTMENTS.
     - iii. (3)-10:1 PNEUMATIC MO PISTON PUMPS
     - iv. (3)-10:1 PNEUMATIC SMO PISTON PUMPS
     - v. (3)-PNEUMATIC UO EVACUATION PUMPS
   - b. BUILDING B:
     - i. (2)-8,000 GALLON, MO DW UL 2085 AG MULTI COMPARTMENT AST ON LEVEL 1 (1 SERVING LEVEL 2 AND 1 SERVING LEVEL 3). THE LUBE OIL TANKS HAVE PROVISIONS FOR (2) NEW OIL COMPARTMENTS (3,000-MO, 3,000-SMO) EACH.
     - ii. (2)-8,000 GALLON, UO DW UL 2085 AG MULTI COMPARTMENT AST ON LEVEL 1. (1 SERVING LEVEL 2 AND 1 SERVING LEVEL 3). USED OIL TANKS HAVE PROVISIONS FOR (4) USED OIL COMPARTMENTS EACH.
     - iii. (1)-8,000 GALLON, UO/MO DW UL 2085 AG MULTI COMPARTMENT AST ON LEVEL 1 (SERVING LEVEL 1). (2,000-MO, 2,000 SMO, 500 UO, 500 UO, 500 UO, 500 UO, 500 UO, 500 UO, 500 UO)
     - iii. (10)-10:1 PNEUMATIC MO PISTON PUMPS (2 PER LEVEL 1, 8 PER LEVELS 2-3)
     - iv. (10)-10:1 PNEUMATIC SMO PISTON PUMPS (2 PER LEVEL 1, 8 PER LEVELS 2-3)
     - v. (16)-PNEUMATIC UO EVACUATION PUMPS (8 PER LEVEL 1, 8 PER LEVELS 2-3)
   - c. ASSOCIATED AG PIPING, GAUGES AND VALVES.
   - d. AN ELECTRONIC MO DISPENSING MANAGEMENT SYSTEM.
   - e. UO HIGH LEVEL OIL CUT OFF VALVES.
   - f. HIGH LEVEL ALARMS FOR BOTH NEW OIL DELIVERIES AND FOR USED OIL EVACUATIONS.
   - g. A MOTOR OIL EMERGENCY STOP SYSTEM WHICH SECURES AIR SUPPLY TO THE FIRST FLOOR AIR SYSTEM.
   - k. MO HOSE REELS.
   - l. SMO HOSE REELS.
   - m. PIPING FOR MO SYSTEM TO PROVIDE 2 PRODUCTS (REG MO AND SYNTHETIC MO) TO QTA REEL SETS.

2. EACH MO AST SERVICES ONE QTA LEVEL WITH THE CAPABILITY OF CROSS-CONNECTING BETWEEN LEVELS.

3. MO DISPENSING NOZZLES WILL ACCEPT PIN INPUTS FROM TECHNICIANS TO INITIATE MO DISPENSING.

4. EACH LEVEL WILL HAVE UO EVACUATION PUMPS AND UO OIL CARTS. THE CARTS AND PUMPS WILL BE EQUIPPED WITH QUICK DISCONNECTS.

WINDSHIELD WASHER FLUID (WWF) SYSTEM

1. THE WWF SYSTEM CONSISTS OF:
   - a. BUILDING A:
     - i. (1)-15,000 GALLON DW UL1316 FRP UG UST.
     - ii. (1)-3 HP SUBMERSIBLE PUMP, WHICH IS BOTH EXPLOSION-PROOF AND CAPABLE OF PUMPING WATER.
     - iii. (3)-250 GALLON UL 2085 DAY TANKS (ONE PER LEVELS 1-3).
     - iv. ELECTRONIC LEVEL AND PUMP CONTROL SYSTEM.
     - v. UL 971 UG PIPING.
   - b. BUILDING B:
     - i. (1)-2,000 GALLON DW UL 2085 AST.
   - f. STAINLESS STEEL AG PIPING.
   - g. ASSOCIATED SUMPS, APPURTENANCES, VALVES, CONTROLS, ETC.
   - h. HIGH LEVEL AND LEAK ALARMS.
   - i. (93) HOSE REELS 1 PER FUEL DISPENSER.
   - j. (7)-DIAPHRAGM PUMPS.

2. THE UST IN BUILDING A SERVICES A DAY TANK ON EACH LEVEL. WHEN A DAY TANK IN BUILDING A REQUIRES WWF THE FOLLOWING STEPS ARE PROCESSED:
   - a. A SIGNAL IS SENT TO THE DAY TANK CONTROLLER (DTC).
   - b. THE DTC ACTIVATES THE SUBMERSIBLE PUMP.
   - c. THE DTC ACTIVATES THE CORRESPONDING LEVEL SUPPLY SOLENOID VALVE.
   - d. THE DTC DE-ACTIVATES THE CORRESPONDING LEVEL SUPPLY SOLENOID VALVE WHEN FULL.
   - e. THE DTC DE-ACTIVATES THE STP WHEN ALL REQUESTS ARE ENDED.

4. THE WWF SYSTEM WILL BE TIED INTO THE EMERGENCY STOP SYSTEM USING NORMALLY CLOSED SOLENOID VALVES IN THE WWF DISTRIBUTION PIPING THAT ARE WIRED INTO THE FUEL SYSTEM ESTOP PANEL.

5. HIGH LEVEL ALARMS WILL BE LOCATED AT THE UST AREA SET TO ACTIVATE AT 90% OF THE USTs CAPACITY. POSITIVE SHUT OFF OVERFILL PREVENTION VALVES WILL BE SET TO STOP DELIVERY AT 95% OF THE USTs CAPACITY.

6. THE MAIN ENVIRONMENTAL MONITORING AND FUEL CONTROL SYSTEM WILL PROVIDE THE FOLLOWING:
   - a. WWF LEVELS IN THE USTs.
   - b. LEAK ALARMS.

FUELING ELECTRICAL SYSTEM

1. THE FUEL SYSTEM (FS) ELECTRICAL SYSTEM CONSISTS OF:
   - a. BUILDING A:
     - i. (1) - MAIN FS SWITCHBOARD LOCATED ON LEVEL 1 (FED FROM BUILDING A SWITCHBOARD - REFER TO MAIN BUILDING ELECTRICAL PLANS)
     - ii. (3) - MAIN FS ELECTRICAL PANELS (FED FROM FS SWITCHBOARD -1 PER LEVELS 1-3).
     - iii. (17)- FS PANELS (5 PER LEVEL 1, 6 PER LEVEL 2, 6 PER LEVEL 3)
   - b. BUILDING B:
     - i. (1) - MAIN FS ELECTRICAL PANEL (FED FROM BUILDING B SWITCHBOARD - REFER TO MAIN BUILDING ELECTRICAL PLANS)
     - ii. (3) - FS PANELS
   - d. ASSOCIATED CONDUIT, WIRING, ELECTRICAL AND ELECTRONIC DEVICES.
   - e. SURGE SUPPRESSION DEVICES.
   - f. UPS SYSTEMS POWERING FUEL SYSTEM ELECTRONIC DEVICES.

2. THE FS E-STOP PANEL WILL BE SUPPLIED THROUGH CONTACTORS. E-SCONTACTORS, FUELING DISPENSERS, FUELING STPs, WWF STP, COMPRESSED AIR SOLENOIDS, WWF SOLENOIDS, VACUUM CONTACTOR COILS, ETC. TO BE FED FROM THE FS E-STOP PANEL DEACTIVATED (OPENED) UPON LOSS OF POWER.

3. THE E-STOP CIRCUITRY TO BE CONFIGURED:
   - a. ANY E-STOP PUSH BUTTON WILL CAUSE THE BUILDING E-STOP TO TRIP.
   - c. LEVEL E-STOP RESET TO BE LOCATED IN THE FIRE COMMAND ROOMS AND FUEL SYSTEM MANAGERS OFFICES.
   - d. CRITICAL FUEL SYSTEM ALARMS (AG SUMP LEAKS), FIRE ALARM ACTIVATION, FLOW OF SPRINKLER WATER, SEISMIC SWITCH ACTIVATION, OR UV/IC OR VISUAL FLAME DETECTION WILL CAUSE THE BUILDING E-STOP TO TRIP.

4. FUEL SYSTEM STATUS PANELS WILL BE LOCATED THROUGHOUT THE FACILITY AND INDICATE ALARMS AND TROUBLE CONDITIONS.

5. REFER TO THE FUEL SYSTEM ACTION AND ALARMING MATRIX IN THESE PLANS FOR ADDITIONAL INFORMATION.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

LAX ON PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

QTA SYSTEM THEORY OF OPERATIONS

SHEET NO.

2-Q-003

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

9/22/2016 4:18:48 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

Underground Storage Tanks

Description	Manufacturer	Manufacturer	Manufacturer
Gasoline: 12' Diameter, 45,000 Gallon Double walled Fiberglass UG storage tank with brine filled interstice	Containment Solutions	Xerxes	Approved Equal
WWF: 10' Diameter, 15,000 Gallon Double walled Fiberglass UG storage tank with brine filled interstice	Containment Solutions	Xerxes	Approved Equal
Containment sumps, Anchor straps	Containment Solutions	Xerxes	Approved Equal
Double Walled Spill Containment Manhole	OPW	Emco-Wheaton	Fairfield
Mechanical Overfill Protection Device (Phase I EVR)	OPW	Morrison Brothers	Approved equal

Product Piping

Description	Manufacturer	Manufacturer	Manufacturer
AG - Fiberglass coated double wall steel piping	Perma Pipe	Enviro-Tek	Rovanco
UG - 4" Diameter/UL971 double walled FRP product piping	Ameron	A.O. Smith	Approved Equal
UG - 2" Diameter/UL971 double walled FRP product piping	Ameron	A.O. Smith	Approved Equal
Ball Valves	Appollo	Velan	Jamesbury
Check Valves	Morrison Brothers	Velan	Approved equal
Pressure Relief Valves	Taylor Valve Technology	Approved equal	Approved equal
Solenoid Valves	Morrison Brothers	Approved equal	Approved equal
Strainers	Morrison Brothers	Approved equal	Approved equal
Surge Tank	Young Engineering Inc.	Parker	Approved equal

Gasoline Dispensers

Description	Manufacturer	Manufacturer	Manufacturer
Two hose, single product, enhanced capacity, lane oriented dispenser with dual pulse output option and stainless steel doors. Supplied with integrated HID readers (one per nozzle) and associated fuel management system.	Dresser Wayne/Wayne iX	Approved Equal (Based on pressure loss)	Approved Equal
Hose Breakaways	OPW: 66RB	Approved equal with pressure drop of less than 1.5 psig @ 10gpm.	
Nozzles	M. Carder: 5-Star Automatic Nozzle	Approved equal with pressure drop of less than 7 psig @ 10gpm.	
Hose Retractors	Wayne Dispenser Mounted	Universal	Pomeco
Emergency Shutoff/Crash Valves	OPW	Morrison Brothers	Approved equal
Hoses-one w/ swivel @ nozzle only for each dispenser	Goodyear	Irpco	Dayco
Fire Extinguishers: Self Contained, Sumps	OPW	Approved equal	Approved equal
Fire Extinguishers: In cabinets 4A 80:BC	Potter Rommer	Ansul	Approved equal
Dispenser Containment	Custom built stainless steel boxes	Approved equal	Approved equal
Dispenser Safety Device	Vaporless Mfr. Safety Port	Approved equal	Approved equal

Submersible Pumps

Description	Manufacturer	Manufacturer	Manufacturer
3 HP WWF submersible pump	Corcoran	Approved Equal	Approved Equal
4 HP variable speed submersible turbine pump	FE Petro	Approved Equal (Based on 127 ft hd @ 50 gpm)	Approved Equal
Mag VFC variable speed controller	FE Petro	Approved Equal	Approved Equal

Line Leak Detection System

Description	Manufacturer	Manufacturer	Manufacturer
Programmable leak detection system with environmental system integration	Incon	Vaporless Manufacturing	Veeder Root

Environmental Monitoring System

Description	Manufacturer	Manufacturer	Manufacturer
Monitoring Console	Incon	Approved Equal	Approved Equal
Level Probes	Incon	Approved Equal	Approved Equal
Leak Sensors, Vapor Sensors	Incon	Approved Equal	Approved Equal
Overfill Alarms	Incon	Approved Equal	Approved Equal
AG Piping Leak Detection	Perma-Pipe "PAL-AT" System	Approved equal, provided by the pre-fabricated pipe manufacturer supplying the pipe	
Interstitial Piping Leak Detection	xxxx	Approved Equal	Approved Equal

Fueling Electrical System

Fuel System Status Panels	Honeywell/Gamewell-FCI	Approved Equal	Approved Equal
Surge Suppression	Incon	Eaton	Approved Equal
Uninterruptible Power Supplies (UPS)	APC	Approved Equal	Approved Equal
Low Voltage Dispenser Disconnect (LVDD)	Square D 9 position video model	Power Integrity	Carolina Products
Dispenser E-Stop Disconnect	Power Integrity	Square D	Carolina Products

1 / 2-Q-060 **BLDG A FLUID SYSTEMS COMPONENTS - PART 1**

Windshield Washer Fluid Aboveground Storage Tank

Description	Manufacturer	Manufacturer	Manufacturer
250-gallon UL 2085 Stainless Steel Primary AST Tank to include: Desert Sand epoxy finish. Light Weight Concrete Insulation (4 inches). Primary and Secondary working and emergency vents. Mechanical overfill protection device, clock gauge.	Containment Solutions	Modern Welding	Highland Tank
WWF control console-NEMA 1 enclosure, 4 sensor, 115/230V. 12 Relay expansion board	Pneumercator	Samson	Omntec
Multi-level BUNA float switch w/housing and 2" NPT bushing	Pneumercator	Samson	Omntec
Mechanical Totalizer			
Solenoid Valves	ASCO	Approved equal	Approved equal

Motor Oil, Waste Oil, Air, and WWF Equipment

Description	Manufacturer	Manufacturer	Manufacturer
WWF Dispensing Pump Package (1" diaphragm pump, air filter/regulator w/ gauge, runaway valve, oil lubricator and structural brackets)	Graco	Alemite	Balcrank
Air Reel Station Package Includes: (1) XD series air reel - 50-foot by 1/2-inch hose w/ coupler kit; (1) inlet hose kit; (1) air inflator w/ gauge; (1) 1/2" fluid shut-off at reel; and (1) ID Label - Air.	Graco	Alemite	Balcrank
Windshield Washer Fluid Reel Station Package Includes: (1) XD series WWF reel - 50-foot by 1/2-inch hose w/ bib; (1) inlet hose kit; (1) 1/2" fluid shut-off at reel; and (1) ID Label - WWF.	Graco	Alemite	Balcrank
Fuel Island Reel Mounting Assembly [mounting assembly can accommodate: two (2) dispensing reels]; (1) Mounting Channel for XD Series Reels; (2) I-Beam Brackets	Graco	Alemite	Balcrank

2 / 2-Q-060 **BLDG A FLUID SYSTEMS COMPONENTS - PART 2**

Air Compressor

Description	Manufacturer	Manufacturer	Manufacturer
15 HP - 120-Gallon 2-Stage Horizontal Air Compressor w/ Low Oil Shutoff	Quincy	Champion	Ingersoll Rand
Compressor Pre-Filter (60 cfm)	Quincy	Champion	Ingersoll Rand
Compressor Post-Filter (60 cfm)	Quincy	Champion	Ingersoll Rand
Refrigerated air dryer	Quincy	Champion	Ingersoll Rand

Vacuum Equipment

Description	Manufacturer	Manufacturer	Manufacturer
25 H.P. Vacuum Producer, Controller and Automated Bleed Valve	Spencer Turbine	AutoVac	Approved Equal
Separator	Spencer Turbine	AutoVac	Approved Equal
Car Care Kit, 25' Anti-static Hose, Inlet Valve	Spencer Turbine	AutoVac	Approved Equal
Island Tool Post w/ (2) Swinging Booms	Spencer Turbine	AutoVac	Approved Equal

Car Wash Equipment

Description	Manufacturer	Manufacturer	Manufacturer
Complete Car Wash System	NS Wash	Belanger	Approved Equal

3 / 2-Q-060 **BLDG A MAINTENANCE AND CAR WASH COMPONENTS**

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	6" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

QTA SYSTEMS EQUIPMENT SCHEDULE BUILDING A

SHEET NO.

2-Q-060

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt
9/22/2016 4:18:49 PM

Underground Storage Tanks

Description	Manufacturer	Manufacturer	Manufacturer
Gasoline: 10' Diameter, 20,000 Gallon Double walled Fiberglass UG storage tank with brine filled interstice	Containment Solutions	Xerxes	Approved Equal
Containment sumps, Anchor straps	Containment Solutions	Xerxes	Approved Equal
Double Walled Spill Containment Manhole	OPW	Emco-Wheaton	Fairfield
Mechanical Overfill Protection Device (Phase I EVR)	OPW	Morrison Brothers	Approved equal

Product Piping

Description	Manufacturer	Manufacturer	Manufacturer
AG - Fiberglass coated double wall steel piping	Perma Pipe	Enviro-Tek	Rovanco
UG - 4" Diameter/UL971 double walled FRP product piping	Ameron	A.O. Smith	Approved Equal
UG - 2" Diameter/UL971 double walled FRP product piping	Ameron	A.O. Smith	Approved Equal
Ball Valves	Appollo	Velan	Jamesbury
Check Valves	Morrison Brothers	Velan	Approved equal
Pressure Relief Valves	Taylor Valve Technology	Approved equal	Approved equal
Solenoid Valves	Morrison Brothers	Approved equal	Approved equal
Strainers	Morrison Brothers	Approved equal	Approved equal
Surge Tank	Young Engineering Inc.	Parker	Approved equal

Gasoline Dispensers

Description	Manufacturer	Manufacturer	Manufacturer
Two hose, single product, enhanced capacity, lane oriented dispenser with dual pulse output option and stainless steel doors. Supplied with integrated HID readers (one per nozzle) and associated fuel management system.	Dresser Wayne/Wayne iX	Approved Equal (Based on pressure loss)	Approved Equal
Hose Breakaways	OPW: 66RB	Approved equal with pressure drop of less than 1.5 psig @ 10gpm.	
Nozzles	M. Carder: 5-Star Automatic Nozzle	Approved equal with pressure drop of less than 7 psig @ 10gpm.	
Hose Retractors	Wayne Dispenser Mounted	Universal	Pomeco
Emergency Shutoff/Crash Valves	OPW	Morrison Brothers	Approved equal
Hoses-one w/ swivel @ nozzle only for each dispenser	Goodyear	Irpco	Dayco
Fire Extinguishers: Self Contained, Sumps	OPW	Approved equal	Approved equal
Fire Extinguishers: In cabinets 4A 80:BC	Potter Rommer	Ansul	Approved equal
Dispenser Containment	Custom built stainless steel boxes	Approved equal	Approved equal
Dispenser Safety Device	Vaporless Mfr. Safety Port	Approved equal	Approved equal

Submersible Pumps

Description	Manufacturer	Manufacturer	Manufacturer
3 HP WWF submersible pump	Corcoran	Approved Equal	Approved Equal
4 HP variable speed submersible turbine pump	FE Petro	Approved Equal (Based on 127 ft hd @ 50 gpm)	Approved Equal
Mag VFC variable speed controller	FE Petro	Approved Equal	Approved Equal

Line Leak Detection System

Description	Manufacturer	Manufacturer	Manufacturer
Programmable leak detection system with environmental system integration	Incon	Vaporless Manufacturing	Veeder Root

Environmental Monitoring System

Description	Manufacturer	Manufacturer	Manufacturer
Monitoring Console	Incon	Approved Equal	Approved Equal
Level Probes	Incon	Approved Equal	Approved Equal
Leak Sensors, Vapor Sensors	Incon	Approved Equal	Approved Equal
Overfill Alarms	Incon	Approved Equal	Approved Equal
AG Piping Leak Detection	Perma-Pipe "PAL-AT" System	Approved equal, provided by the pre-fabricated pipe manufacturer supplying the pipe	
Interstitial Piping Leak Detection	xxxx	Approved Equal	Approved Equal

Fueling Electrical System

Fuel System Status Panels	Honeywell/Gamewell-FCI	Approved Equal	Approved Equal
Surge Suppression	Incon	Eaton	Approved Equal
Uninterruptible Power Supplies (UPS)	APC	Approved Equal	Approved Equal
Low Voltage Dispenser Disconnect (LVDD)	Square D 9 position video model	Power Integrity	Carolina Products
Dispenser E-Stop Disconnect	Power Integrity	Square D	Carolina Products

1 2-Q-061 **BLDG B FLUID SYSTEMS COMPONENTS - PART 1**

Motor Oil/Waste Oil Aboveground Storage Tanks

Description	Manufacturer	Manufacturer	Manufacturer
6,000-gallon UL 2085 Double-Walled Steel Compartmentalized Aboveground Storage Tank Tank to include: Desert sand epoxy finish. 110% Secondary containment for each compartment. Anchor Skids/Clips for bolting tank to foundation. (2) Primary and secondary working and emergency vents for tank and interstitial spaces. Rolling steps with OSHA handrails, paint black. Mechanical overfill protection device, clock gauge.	Containment Solutions	Modern Welding	Highland Tank
8,000-gallon UL 2085 Double-Walled Steel Compartmentalized Aboveground Storage Tank 10 Compartments for both MO and UO Tank to include: Desert sand epoxy finish. 110% Secondary containment for each compartment. Anchor Skids/Clips for bolting tank to foundation. (2) Primary and secondary working and emergency vents for tank and interstitial spaces. Rolling steps with OSHA handrails, paint black. Mechanical overfill protection device, clock gauge.	Containment Solutions	Modern Welding	Highland Tank

Windshield Washer Fluid Aboveground Storage Tank

Description	Manufacturer	Manufacturer	Manufacturer
2,000-gallon UL 2085 Stainless Steel Primary AST Tank to include: Desert Sand epoxy finish. Light Weight Concrete Insulation (4 inches). Primary and Secondary working and emergency vents. Mechanical overfill protection device, clock gauge.	Containment Solutions	Modern Welding	Highland Tank
WWF control console-NEMA 1 enclosure, 4 sensor, 115/230V. 12 Relay expansion board	Pneumercator	Samson	Omntec
Multi-level BUNA float switch w/housing and 2" NPT bushing	Pneumercator	Samson	Omntec
Mechanical Totalizer			
Solenoid Valves	ASCO	Approved equal	Approved equal

Motor Oil, Waste Oil, Air, and WWF Equipment

Description	Manufacturer	Manufacturer	Manufacturer
WWF Dispensing Pump Package (1" diaphragm pump, air filter/regulator w/ gauge, runaway valve, oil lubricator and structural brackets)	Graco	Alemite	Balcrank
Motor Oil Pumps - Pump Package feeds up to twenty one (21) Reel Banks/Dispensing Points Package Includes: (1) 10:1 Piston Pump for Oils w/ pressure relief valves, hoses, valves, runaway valve.	Graco	Alemite	Balcrank
Used Oil Evacuation System - Package includes: (1) UL-listed One (1) inch used oil evacuation pump, (1) Used Oil Monitor for Fuel Pump Shut-off.	Graco	Alemite	Balcrank
24-gallon used oil drain cart (per bay)	Graco	Alemite	Balcrank
Air Reel Station Package Includes: (1) XD series air reel - 50-foot by 1/2-inch hose w/ coupler kit; (1) inlet hose kit; (1) air inflator w/ gauge; (1) 1/2" fluid shut-off at reel; and (1) ID Label - Air.	Graco	Alemite	Balcrank
Windshield Washer Fluid Reel Station Package Includes: (1) XD series WWF reel - 50-foot by 1/2-inch hose w/ bib; (1) inlet hose kit; (1) 1/2" fluid shut-off at reel; and (1) ID Label - WWF.	Graco	Alemite	Balcrank
Fuel Island Reel Mounting Assembly [mounting assembly can accommodate: two (2) dispensing reels]; (1) Mounting Channel for XD Series Reels; (2) I-Beam Brackets	Graco	Alemite	Balcrank
Fuel Island Reel Mounting Assembly [mounting assembly can accommodate: two (2) dispensing reels]; (1) Mounting Channel for XD Series Reels; (2) I-Beam Brackets	Graco	Alemite	Balcrank
Motor Oil Reel Station Package Includes: (2) XD series oil reels - 50-foot by 1/2-inch hose; (1) inlet hose kit; (1) electronic metered handle associated with oil management system; (1) 1/2" fluid shut-off at reel; and (1) ID Label - Motor Oil.	Graco	Alemite	Balcrank
Bay Reel Mounting Assembly [mounting assembly to accommodate: three (3) dispensing reels & two (2) electric cord reels (2 light)]; (1) Mounting Channel for XD Series Reels; (5) I-Beam Brackets Channels for XD Series Reels	Graco	Alemite	Balcrank
Electric Cord Reel (50-foot / 16AWG cord) with Stubby II Fluorescent Light with receptacles, two reels per set.	Graco	Alemite	Balcrank
Remote Spill Containment	Morrison Bros.	OPW	Approved equal

Motor Oil Management System

Description	Manufacturer	Manufacturer	Manufacturer
Fluid Management system with automated tracking of fluid inventory, fluid dispensed with site system controller software, metering controlled nozzles, tank level probes and solenoid control valves	Graco	Alemite	Balcrank

2 2-Q-061 **BLDG B FLUID SYSTEMS COMPONENTS - PART 2**

Air Compressor

Description	Manufacturer	Manufacturer	Manufacturer
15 HP - 120-Gallon 2-Stage Horizontal Air Compressor w/ Low Oil Shutoff	Quincy	Champion	Ingersoll Rand
Compressor Pre-Filter (60 cfm)	Quincy	Champion	Ingersoll Rand
Compressor Post-Filter (60 cfm)	Quincy	Champion	Ingersoll Rand
Refrigerated air dryer	Quincy	Champion	Ingersoll Rand

Vehicle Lift Equipment

Description	Manufacturer	Manufacturer	Manufacturer
10,000 lb. Asymmetrical Lift. Provide Tire Stop Plate With Lift With Air And Electrical Outlets on post.	Rotary Basis of Design: SPOA10	Eagle Equipment	Challenger

Vacuum Equipment

Description	Manufacturer	Manufacturer	Manufacturer
25 H.P. Vacuum Producer, Controller and Automated Bleed Valve	Spencer Turbine	AutoVac	Approved Equal
Separator	Spencer Turbine	AutoVac	Approved Equal
Car Care Kit, 25' Anti-static Hose, Inlet Valve	Spencer Turbine	AutoVac	Approved Equal
Island Tool Post w/ (2) Swinging Booms	Spencer Turbine	AutoVac	Approved Equal

Car Wash Equipment

Description	Manufacturer	Manufacturer	Manufacturer
Complete Car Wash System	NS Wash	Belanger	Approved Equal

3 2-Q-061 **BLDG B MAINTENANCE AND CAR WASH COMPONENTS**

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	6" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

QTA SYSTEMS EQUIPMENT SCHEDULE BUILDING B

SHEET NO.

2-Q-061

9/22/2016 4:18:59 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

Motor Oil/Waste Oil Aboveground Storage Tanks			
Description	**Manufacturer**	**Manufacturer**	**Manufacturer**
5,000-gallon UL 2085 Double-Walled Steel Compartmentalized Aboveground Storage Tank 3 compartments Tank to include: Desert sand epoxy finish. 110% Secondary containment for each compartment. Anchor Skids/Clips for bolting tank to foundation. (2) Primary and secondary working and emergency vents for tank and interstitial spaces. Rolling steps with OSHA handrails, paint black. Mechanical overfill prevention device, clock gauge and high level alarm.	Containment Solutions	Modern Welding	Highland Tank
Motor Oil, Waste Oil, Air, and WWF Equipment			
Description	**Manufacturer**	**Manufacturer**	**Manufacturer**
Motor Oil Pumps - Pump Package feeds up to eleven (11) Reel Banks/Dispensing Points Package Includes: (1) 10:1 Piston Pump for Oils w/ pressure relief valves, hoses, valves, runaway valve. (Typical system for each oil grade)	Graco	Alemite	Balcrank
Used Oil Evacuation System - Package includes: (1) UL-listed One (1) inch used oil evacuation pump, (1) Used Oil Monitor for Fuel Pump Shut-off.	Graco	Alemite	Balcrank
24-gallon used oil drain cart (per bay)	Graco	Alemite	Balcrank
Air Reel Station Package Includes: (1) XD series air reel - 50-foot by 1/2-inch hose w/ coupler kit; (1) inlet hose kit; (1) air inflator w/ gauge; (1) 1/2" fluid shut-off at reel; and (1) ID Label - Air.	Graco	Alemite	Balcrank
Motor Oil Reel Station Package Includes: (2) XD series oil reels - 50-foot by 1/2-inch hose; (1) inlet hose kit; (1) electronic metered handle associated with oil management system; (1) 1/2" fluid shut-off at reel; and (1) ID Label - Motor Oil.	Graco	Alemite	Balcrank
Bay Reel Mounting Assembly [mounting assembly to accommodate: three (3) dispensing reels & two (2) electric cord reels (2 light)]; (1) Mounting Channel for XD Series Reels; (5) I-Beam Brackets Channels for XD Series Reels	Graco	Alemite	Balcrank
Electric Cord Reel (50-foot / 16AWG cord) with Stubby II Fluorescent Light with receptacles, two reels per set.	Graco	Alemite	Balcrank
Remote Spill Containment	Morrison Bros.	OPW	Approved equal
Motor Oil Management System			
Description	**Manufacturer**	**Manufacturer**	**Manufacturer**
Fluid Management system with automated tracking of fluid inventory, fluid dispensed with site system controller software, metering controlled nozzles, tank level probes and solenoid control valves	Graco	Alemite	Balcrank
Air Compressor			
Description	**Manufacturer**	**Manufacturer**	**Manufacturer**
15 HP - 120-Gallon 2-Stage Horizontal Air Compressor w/ Low Oil Shutoff	Quincy	Champion	Ingersoll Rand
Compressor Pre-Filter (60 cfm)	Quincy	Champion	Ingersoll Rand
Compressor Post-Filter (60 cfm)	Quincy	Champion	Ingersoll Rand
Refrigerated air dryer	Quincy	Champion	Ingersoll Rand
Vehicle Lift Equipment			
Description	**Manufacturer**	**Manufacturer**	**Manufacturer**
10,000 lb. Asymmetrical Lift, Provide Tire Stop Plate With Lift With Air And Electrical Outlets on post.	Rotary Basis of Design: SPOA10	Eagle Equipment	Challenger

1
2-Q-062

BLDG C FLUID SYSTEMS MAJOR EQUIPMENT SCHEDULE

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ON LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	6" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

QTA SYSTEM EQUIPMENT SCHEDULE BUILDING C

SHEET NO.

2-Q-062

9/22/2016 4:18:51 PM C:\Users\Public\Documents\Local_Revit_Files\DA4881-BLDG_A_B_R15_jwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

PIPING LABELS

(LABEL PER ANSI/ASME A13.1/2007)

SIZE LABELS PER PIPE SIZE BASED ON ANSI STANDARDS

ITEM	SYSTEM	TEXT	LETTER COLOR	BACK-GROUND COLOR	DIRECTION OF FLOW ARROW	PIPE COATING COLOR	COMMENTS
1	GASOLINE	GASOLINE, FLAMMABLE	BLACK	YELLOW	YES	YELLOW	ALTERNATE BETWEEN GASOLINE & FLAMMABLE
2	WINDSHIELD WASHER FLUID	WINDSHIELD WASHER FLUID, FLAMMABLE, METHANOL	BLACK	YELLOW	YES	YELLOW	ALTERNATE BETWEEN 3 SIGNS
3	COMPRESSED AIR	COMPRESSED AIR	WHITE	BLUE	YES	WHITE	
4	VACUUM	VACUUM	WHITE	BLACK	YES	NONE	
5	MOTOR OIL	MOTOR OIL, COMBUSTIBLE	WHITE	BROWN	YES	WHITE	ALTERNATE BETWEEN SIGNS
6	USED OIL	USED OIL, COMBUSTIBLE	WHITE	BROWN	YES	WHITE	ALTERNATE BETWEEN SIGNS

UNDERGROUND DETECTABLE WARNING TAPE

ITEM	SYSTEM	LETTER COLOR	BACK-GROUND COLOR	TEXT	COMMENTS
1	GASOLINE	BLACK	YELLOW	GASOLINE FLAMMABLE	OVER ALL UG GASOLINE PIPES
2	WWF	BLACK	YELLOW	METHANOL FLAMMABLE	OVER ALL UG WWF PIPES
3	ELECTRICAL	BLACK	RED	ELECTRICAL	OVER ALL UG ELECTRICAL CONDUITS

OPERATIONAL & EMERGENCY

REFER TO SPECIFICATIONS FOR SIGN MATERIALS

ITEM #	QTY	TEXT	DESCRIPTION	LETTER HEIGHT	LETTER COLOR	BACK-GROUND COLOR	COMMENTS	STOCK SIGN ACCEPTABLE (Y/N)
1		EMERGENCY STOP (LEVEL X)	EMERGENCY STOP SIGNS	2	WHITE	RED	MOUNT ABOVE EACH E-STOP BUTTON	
2		MASTER EMERGENCY STOP (ALL LEVELS)	EMERGENCY STOP SIGNS	2	WHITE	RED		
3		EMERGENCY USE ONLY. SHUTS OFF THE FUEL, OIL, VACUUM, AIR, AND WINDSHIELD WASHER FLUID SYSTEMS. A LIGHT WILL FLASH AND THE FIRE DEPARTMENT WILL BE CALLED.	SUPPLEMENTARY EMERGENCY STOP SIGNS	VARIOUS	RED	WHITE	REFER TO DETAIL	
4		EMERGENCY STOP - MOTOR AND USED OIL ONLY	MOTOR OIL E-STOP SIGNS		WHITE			
5		TBD	E-STOP RESET INSTRUCTIONS	1/4	RED	WHITE	MOUNT ABOVE RESET BUTTONS	
6		E-STOP RESET - LEVEL X	E-STOP RESET SIGN WWF RESET SIGN	1/2	RED	WHITE	MOUNT ABOVE EACH RESET BUTTON	
7		WWF SYSTEM RESET	WWF RESET SIGN	1/2	RED	WHITE	MOUNT ABOVE RESET BUTTON	
8		FIRE EXTINGUISHER	VERTICAL FIRE EXTINGUISHER SIGN	STOCK	RED	WHITE	2 PER EXTINGUISHER / VERTICAL	YES
9		(PER STOCK SIGN)	NO SMOKING - STOP ENGINE	STOCK	RED	WHITE	WARNING SIGN - ONE PER DISPENSER - MOUNT ON COLUMN	
10		87 OCTANE	87 OCTANE STICKER	STOCK	BLACK	YELLOW	STICKER/ MOUNT ON DISPENSER FACE	YES
11		CONTAINS 10% ETHANOL	10% ETHANOL STICKER	STOCK	BLACK	WHITE	STICKER/ MOUNT ON DISPENSER FACE	YES
12		*(PER STOCK SIGN)*	UNLAWFUL TO DISPENSE SIGN	STOCK	RED	WHITE	STOCK SIGN - UNLAWFUL TO DISPENSE INTO UNAUTHORIZED CONTAINER ETC.	YES
13		*(PER STOCK SIGN)*	STATIC DISCHARGE WARNING SIGN	STOCK	RED	WHITE	STOCK SIGN	YES
14		NO SMOKING	WWF NO SMOKING SIGN	1	RED	WHITE	WWF AST TANK STICKER	
15		SYNTHETIC MOTOR OIL FILL TANK X.X	SYNTHETIC MOTOR OIL TANK FILL PORT SIGN	1	RED	WHITE		
16		MOTOR OIL FILL TANK X.X	MOTOR OIL TANK FILL PORT SIGN	1	RED	WHITE		
17		USED OIL EVACUATION TANK X.X	USED OIL EVACUATION PORT SIGN	1	RED	WHITE		
18		XW - X	MOTOR OIL TANK FILL PORT GRADE	1	RED	WHITE		
19		*(PER STOCK SIGN)*	HIGH LEVEL ALARM SIGN	1	WHITE	RED	MOUNT ABOVE STOCK HIGH LEVEL ALARM SIGN	YES
20		GASOLINE TANK # X	SIGNS TO ACCOMPANY HIGH LEVEL SIGNS	1	WHITE	RED		
21		WINDSHIELD WASHER FLUID TANK	SIGNS TO ACCOMPANY HIGH LEVEL SIGNS	1	WHITE	RED		
22		MOTOR OIL TANK # X	SIGNS TO ACCOMPANY HIGH LEVEL SIGNS	1	WHITE	RED		
23		*NUMBER AS REQUIRED*	NFPA PLACARD SYMBOL	STOCK	STOCK	STOCK	NUMBER AS REQUIRED	
24		MOTOR OIL	TANK PRODUCT LABEL	2	BLACK	WHITE		YES
25		USED OIL	TANK PRODUCT LABEL	2	BLACK	WHITE		YES
26		XW - X	TANK MOTOR OIL GRADE LABEL	1	BLACK	WHITE		
27		xxxx, xxxx, xxxx GALLONS	USED OIL, MOTOR OIL, SYN. OIL AST CAPACITY	2	BLACK	WHITE	TANK CAPACITY LABELS	YES
28		250 GALLONS	WWF AST CAPACITY SIGNS	2	BLACK	WHITE	TANK CAPACITY LABELS	YES
29		WARNING: THIS WWF AST IS FILLED AUTOMATICALLY FROM THE UNDERGROUND STORAGE TANK. TURN OFF ALL CONTROLS PRIOR TO SERVICING SYSTEM.	WWF AST WARNING SIGN	1/2	RED	WHITE		
30		SAFE FILL HEIGHT X FT. XX IN.	AST 90% FILL HEIGHT SIGNS	2	BLACK	WHITE	CALIBRATE/ COORDINATE WITH MECHANICAL LEVEL GAUGE	
31		COMBUSTIBLE	COMBUSTIBLE SIGNS FOR MOTOR OIL TANKS	2	RED	WHITE		
32		FLAMMABLE	FLAMMABLE SIGNS FOR WWF TANKS	2	RED	WHITE		
33		EMERGENCY STOP WARNING LIGHT WHEN FLASHING THE EMERGENCY STOP SYSTEM HAS BEEN ACTIVATED	E-STOP WARNING LIGHT	2	RED	WHITE		
34		FILL PORT LABELS	UST FILL PORT COLOR CODE	N/A	VARIOUS	VARIOUS	COLOR CODE FILL PORTS PER API 1637	N/A
35		N/A	AST FILL/EVAC PORT COLOR CODE	N/A	VARIOUS	VARIOUS	COLOR CODE AST FILL/ EVAL PORTS PER API 1637	N/A
36		TBD	FLAMMABLE LIQUIDS ROOM WARNING SIGN	VARIOUS	RED	WHITE	MOUNT ON FLAMMABLE LIQUIDS ROOM DOOR	
37		TBD	USED OIL EVAC WARNING SIGN	VARIOUS	RED	WHITE	MOUNT AT OUTDOOR USED OIL EVAC PORT	
38		TBD	NEW OIL DELIVERY WARNING SIGN	VARIOUS	RED	WHITE	MOUNT AT OUTDOOR OIL FILL PORT	
39		COMPRESSED AIR SYSTEM CROSS CONNECT	COMPRESSED AIR EMERGENCY CROSS CONNECT SIGN 1	1	RED	WHITE	MOUNT AT CROSS CONNECT VALVES	
40		AIR HOSE REEL PRESSURE REGULATOR	SIGN FOR REMOTE REGULATOR FOR OVERHEAD AIR HOSE REELS	1	RED	WHITE	MOUNT AT EACH HOSE REEL SET REGULATOR	
41		MAIN AIR SYSTEM PRESSURE REGULATOR	SIGN FOR SYSTEM AIR REGULATOR	1	RED	WHITE	MOUNT AT EACH MAIN SYSTEM REGULATOR	
42		HIGH LEVEL ALARM - USED OIL TANK	HLA SIGN IN MAINTENANCE BAY	2	RED	WHITE	MOUNT AT EACH MAINTENANCE BAY HLA	
43		TBD	USED OIL COLLECTION STATION INSTRUCTIONAL SIGNAGE	VARIOUS	WHITE	RED	MOUNT AT EACH COLLECTION STATION	
44		VACUUM (X) ON/OFF	VACUUM ON/OFF SIGN	1	N/A	N/A	INDIVIDUAL VACUUM PRODUCER ON/OFF SWITCH SIGN	
45		TANK CHART	UST VENT RISER TANK GAUGE CHART BOX	1	N/A	N/A	UST VENT RISER TANK GAUGE CHARTS IN CONTAINMENT BOX	
46		TANK #X, GASOLINE OR WINDSHIELD WASHER FLUID, XX,XXX GALLONS	TANK SLAB BRASS PLATES	1	N/A	N/A	CAST BRASS TANK IDENTIFICATION PLATES INTO TANK SLAB	
47		WARNING: UNDERGROUND GASOLINE PIPING. DO NOT EXCAVATE. CONTACT ENGINEERING.	UNDERGROUND WARNING SIGN	1	RED	WHITE	MOUNT AT 4 EXTERIOR LOCATIONS IN GASOLINE PIPE VICINITY	

DESIGNATION LABELS

COORDINATE TO MATCH PROGRAMMING OF ENVIRONMENTAL MONITORING, FUEL CONTROL, AND FUEL MANAGEMENT SYSTEMS

REFER TO Q - 10X SERIES PLANS FOR DESIGNATION NUMBERS

REFER TO SPECIFICATIONS FOR SIGN MATERIALS

ITEM #	QTY	TEXT	DESCRIPTION	LETTER HEIGHT	LETTER COLOR	BACK-GROUND COLOR	COMMENTS
1		D X.X A	DISPENSER AND FUELING POSITION NUMBER	1/2	WHITE	BLACK	MOUNT ON FACE OF DISPENSER "A" SIDE
2		D X.X B	DISPENSER AND FUEL POSITION NUMBER	1/2	WHITE	BLACK	MOUNT ON FACE OF DISPENSER "B" SIDE
3		HR X.X	HOSE REELS	1/2	WHITE	BLACK	MOUNT ON SIDE OF ACC HOSE REELS
4		AST - WWF - X SOLENOID	WWF SUPPLY SOLENOID	1/2	WHITE	BLACK	MOUNT ADJACENT TO SOLENOID
5		AST - WWF - X.X SOLENOID	MO SUPPLY SOLENOID	1/2	WHITE	BLACK	MOUNT ADJACENT TO SOLENOID
6		HLA - UST X	UST HIGH LEVEL ALARM HORNS	1/2	WHITE	BLACK	MOUNT ON HORN JUNCTION BOX
7		STP X.X	SUBMERSIBLE PUMP - GASOLINE	1/2	WHITE	BLACK	MOUNT ON PUMP HORN
8		HLA AST MO/UO X.X	USED OIL AND MOTOR OIL HLA HORNS	1/2	WHITE	BLACK	MOUNT ON HORN JUNCTION BOX
9		VFC - STP X.X	SUBMERSIBLE PUMP - CONTROLLERS	1/2	WHITE	BLACK	MOUNT ON UFD
10		DW LEAK DETECTION CONSOLE	DW LEAK DETECTION CONSOLE	1/2	WHITE	BLACK	MOUNT ON CONSOLE
11		ESB X.X	EMERGENCY STOP BUTTON	1/2	WHITE	BLACK	MOUNT ON BOX
12		ESB M.X	MASTER EMERGENCY STOP BUTTON	1/2	WHITE	BLACK	MOUNT ON BOX
13		ESB - OIL - X.X	MOTOR/ USED OIL E-STOP BUTTON	1/2	WHITE	BLACK	MOUNT ON BOX
14		REMOTE UST LEVEL GAUGE	REMOTE UST LEVEL GAUGE	1/2	WHITE	BLACK	MOUNT ON CONSOLE
15		EMC MAIN	MAIN ENVIRONMENTAL MONITORING CONSOLE	1/2	WHITE	BLACK	MOUNT ON CONSOLE
16		EMC X	LEVEL ENVIRONMENTAL MONITORING CONSOLE	1/2	WHITE	BLACK	MOUNT ON CONSOLE
17		PANEL MFSP	MAIN FUEL SYSTEM ELECTRIC PANEL	1/2	WHITE	BLACK	MOUNT ON PANEL (COORDINATE WITH ELECTRICAL SPECIFICATIONS TO MATCH)
18		PANEL FSFP X.X	LEVEL FUEL SYSTEM FEEDER PANEL	1/2	WHITE	BLACK	MOUNT ON PANEL (COORDINATE WITH ELECTRICAL SPECIFICATIONS TO MATCH)
19		WWF CONTROL CONSOLE	WWF CONTROL CONSOLE	1/2	WHITE	BLACK	MOUNT ON TANK CONSOLE
20		LEVEL X NETWORK SWITCH	NETWORK SWITCHES	1/2	WHITE	BLACK	MOUNT ON SWITCHES
21		AST WWF-X	WWF AST	1	WHITE	BLACK	MOUNT ON TANK FRONT
22		AST MO X.X	MOTOR OIL AST	1	WHITE	BLACK	MOUNT ON TANK FRONT
23		TRANSCEIVER X.X	TRANSCEIVER	1/2	WHITE	BLACK	
24		MO LEVEL GAUGE	MO LEVEL GAUGE	1/2	WHITE	BLACK	
25		MO FLUID CONTROL SYSTEM SOLENOID	MO FLUID CONTROL SYSTEM SOLENOID	1/2	WHITE	BLACK	
26		VAC CONTACTORS	VAC CONTACTORS	1/2	WHITE	BLACK	
27		DISPENSER DISCONNECT LVDD(X)	DISPENSER DISCONNECT	1/2	WHITE	BLACK	
28		CONTACTORS	CONTACTORS	1/2	WHITE	BLACK	
29		DHI BOX	DHI BOX	1/2	WHITE	BLACK	
30		FUEL MANAGEMENT CONTROLLER	FUEL MANAGEMENT CONTROLLER	1/2	WHITE	BLACK	
31		FUEL MANAGERS COMPUTER	FUEL MANAGERS COMPUTER	1/2	WHITE	BLACK	
32		STATUS PANELS (DISPATCHERS, MANAGER, FIRE)	STATUS PANELS (DISPATCHERS, MANAGER, FIRE)	1/2	WHITE	BLACK	
33		R-XXX	RELAY	1/2	WHITE	BLACK	

VALVE/COMPONENT TAGS

REFER TO SPECIFICATIONS FOR SIGN MATERIALS

ITEM	QTY	TEXT	SYSTEM	ASSOCIATED AREA OR DEVICE	LEVEL(S)	COMMENTS
1		V-GS-X.X	GASOLINE	N/A	1-2-3	
2		V-GS-X.X.X	GASOLINE	N/A	1-2-3	
3		V-GS-X.XA	GASOLINE	N/A	1-2-3	
4		V-GS-X.XB	GASOLINE	N/A	1-2-3	
5		V-GS(ST)-X.XX	GASOLINE	STORAGE TANK	1-2-3	
6		CV-GS-X.X.X	GASOLINE	N/A	1-2-3	
7		CCV-GS-X	GASOLINE	N/A	1-2-3	
8		CCV-GS-X.X	GASOLINE	N/A	1-2-3	
9		ST-GS-X.X	GASOLINE	N/A	1-2-3	
10		RV-GS-X.X	GASOLINE	N/A	1-2-3	
11		EV-D-X.X	DISPENSER	N/A	1-2-3	
12		V-D-X.X	DISPENSER	N/A	1-2-3	
13		RAV-CA(WWF)-X	COMPRESSED AIR	WINDSHIELD WASHER FLUID	1-2-3	
14		PRV-CA(WWF)-X	COMPRESSED AIR	WINDSHIELD WASHER FLUID	1-2-3	
15		V-CA(WWF)-X	COMPRESSED AIR	WINDSHIELD WASHER FLUID	1-2-3	
16		PP-WWF-X	WINDSHIELD WASHER FLUID	N/A	1-2-3	
17		V-CA-X.X	COMPRESSED AIR	N/A	1-2-3	
18		V-CA(CW)-X.X	COMPRESSED AIR	CAR WASH	1-2-3	
19		V-CA(UO)-X	COMPRESSED AIR	USED OIL	1	
20		V-CA(UO)-X.X.X	COMPRESSED AIR	USED OIL	1-2-3	
21		PRV-CA(UO)-X.X.X	COMPRESSED AIR	USED OIL	1-2-3	
22		PRV-CA-X.X	COMPRESSED AIR	N/A	1-2-3	
23		PRV-CA(VM)-X.X	COMPRESSED AIR	VEHICLE MAINTENANCE	1-2-3	
24		PRV-CA(VM)-X.X.X	COMPRESSED AIR	VEHICLE MAINTENANCE	1-2-3	
25		V-CA(VF)-X.X.X	COMPRESSED AIR	VEHICLE FUELING	1-2-3	
26		V-CA(VF)-X.X	COMPRESSED AIR	VEHICLE FUELING	1-2-3	
27		SV-CA-X	COMPRESSED AIR	N/A	1-2-3	
28		CCV-CA-X	COMPRESSED AIR	N/A	1-2-3	
29		CCV-CA-X.X	COMPRESSED AIR	N/A	1-2-3	
30		RV-CA-X	COMPRESSED AIR	N/A	1-2-3	
31		RV-CA(UO)-X	COMPRESSED AIR	USED OIL	1	
32		RV-CA(MO)-X.X	COMPRESSED AIR	MOTOR OIL	1	
33		HLV-UO-X.X	COMPRESSED AIR	USED OIL	1	
34		PRV-CA(MO)-X	COMPRESSED AIR	MOTOR OIL	1	
35		PRV-CA(MO)-X.X	COMPRESSED AIR	MOTOR OIL	1	
36		RV-CA(MO)-X	COMPRESSED AIR	MOTOR OIL	1	
37		RAV-CA(MO)-X.X	COMPRESSED AIR	MOTOR OIL	1	
38		V-CA(MO)-X.X	COMPRESSED AIR	MOTOR OIL	1	
39		LP-MO-X.X	MOTOR OIL	N/A	1	
40		SV-CA(MO)-X.X	COMPRESSED AIR	MOTOR OIL	1	
41		NS-VAC-X.X	VACUUM	N/A	1-2-3	
42		V-VAC-X	VACUUM	N/A	1-2-3	
43		CV-VAC-X.X	VACUUM	N/A	1-2-3	
44		V-WWF-X	WINDSHIELD WASHER FLUID	N/A	1-2-3	
45		V-WWF-X.X	WINDSHIELD WASHER FLUID	N/A	1-2-3	
46		V-WWF-X.X.X	WINDSHIELD WASHER FLUID	N/A	1-2-3	
47		CV-WWF-X	WINDSHIELD WASHER FLUID	N/A	1-2-3	
48		PP-WWF-X.X	WINDSHIELD WASHER FLUID	N/A	1-2-3	
49		SV-WWF-X.X	WINDSHIELD WASHER FLUID	N/A	1-2-3	
50		PP-UO-X.X	USED OIL	N/A	1-2-3	
51		V-MO-X.X.X	MOTOR OIL	N/A	1-2-3	
52		V-UO-X.X	USED OIL	N/A	1-2-3	
53		RV-MO-X.X	MOTOR OIL	N/A	1	
54		LP-MO-X.X	MOTOR OIL	N/A	1	

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ON LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

QTA SYSTEMS SIGNAGE SCHEDULE

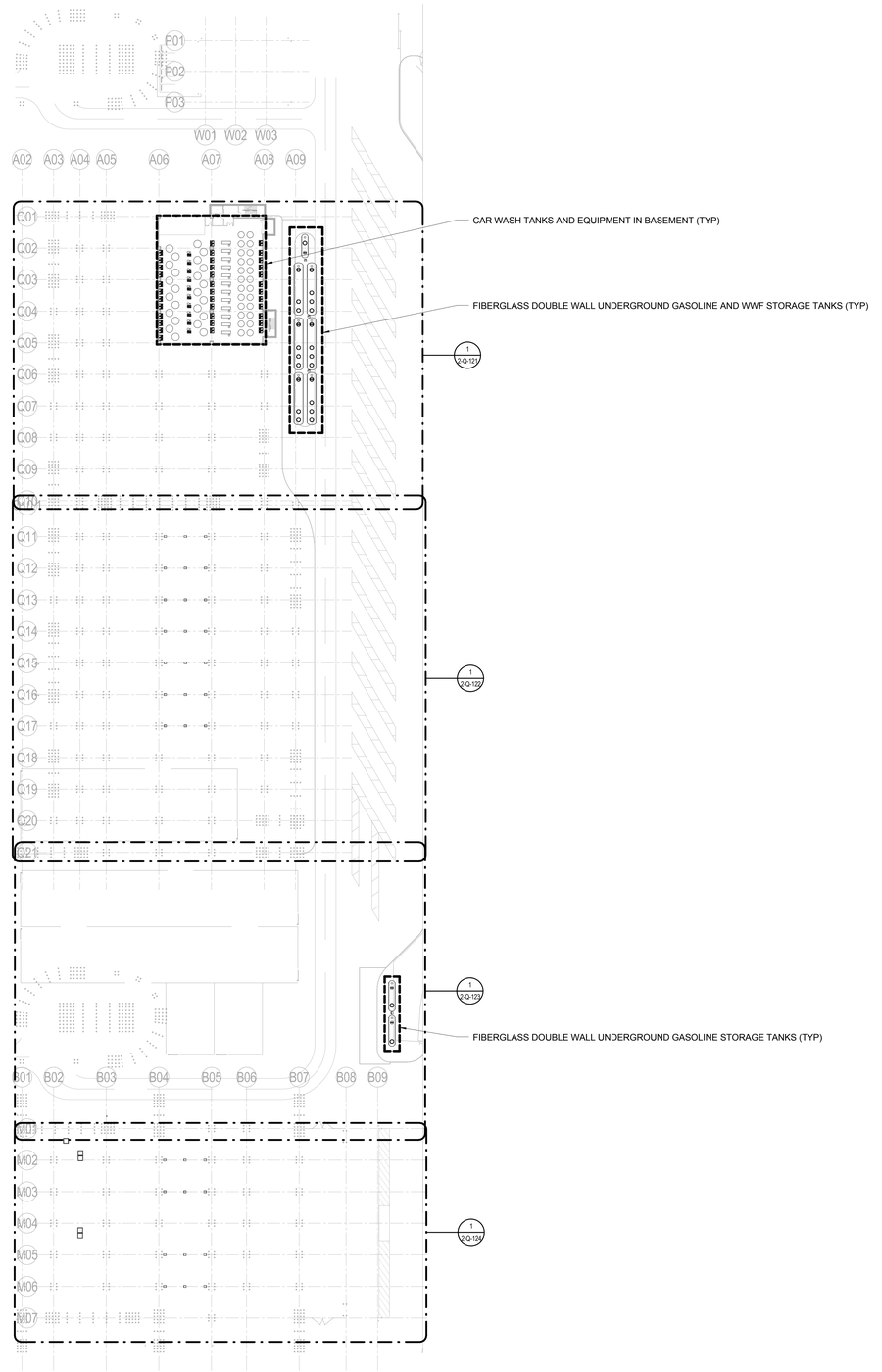
SHEET NO.

2-Q-063

C:\Users\Public\Documents\Local_Revit_Files\DA4881-BLDG_A_B_R15_jwilson.rvt

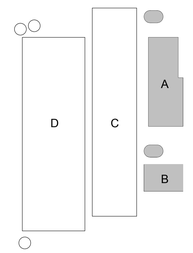
9/22/2016 4:18:53 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-110 OVERALL KEY PLAN LEVEL 0 (UNDERGROUND)

1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:			
MARK:	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

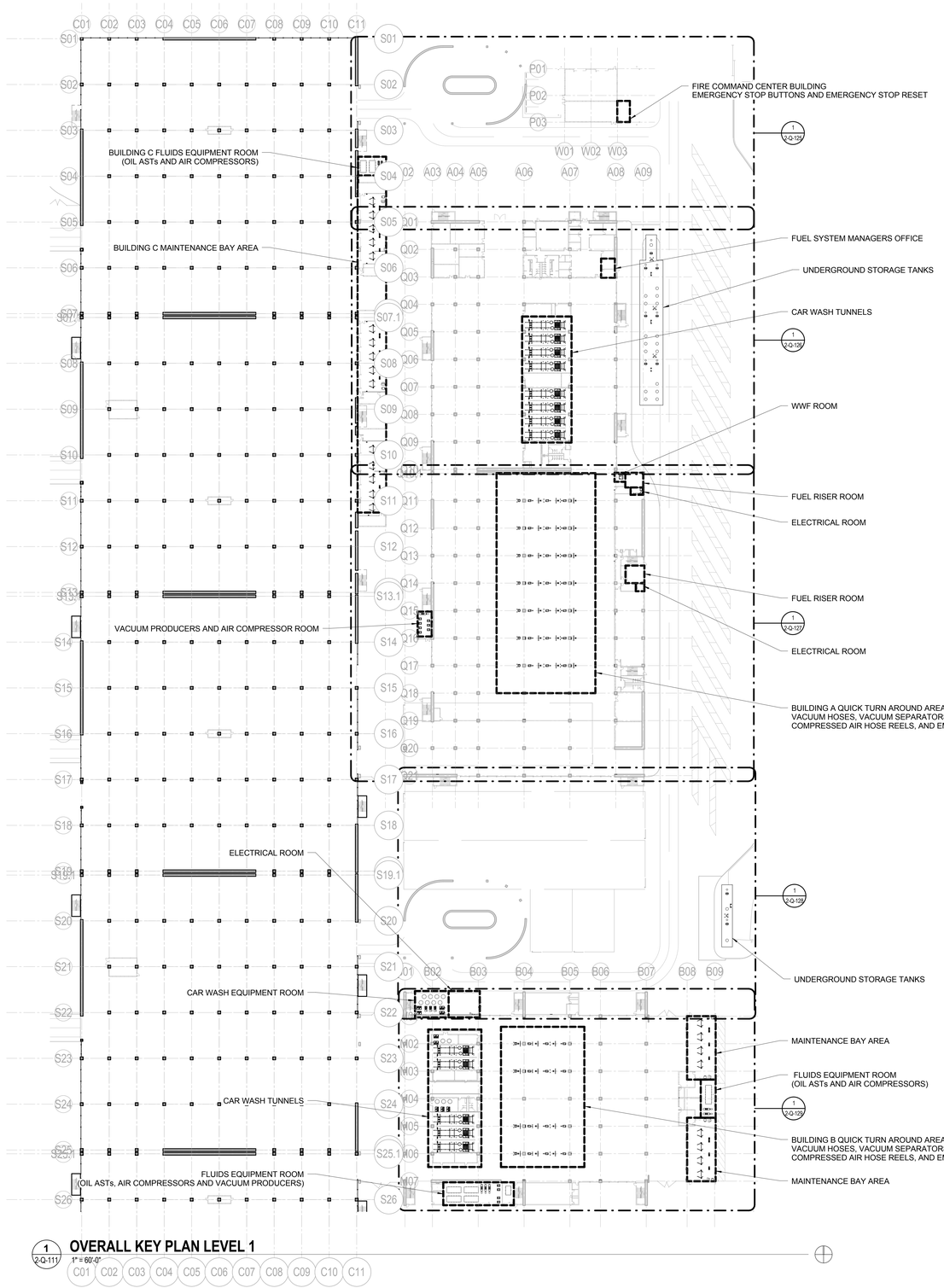
OVERALL KEY PLAN LEVEL 0 (UNDERGROUND) (1/60th)

SHEET NO.

2-Q-110

9/22/2016 4:16:59 PM C:\Users\Public\Documents\Local_Revit_Files\r2-DA4881-SLDG_A_B_R16_jwilson.rvt

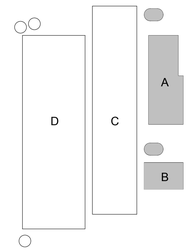
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 2-Q-111 OVERALL KEY PLAN LEVEL 1

1" = 60'-0"

C01 C02 C03 C04 C05 C06 C07 C08 C09 C10 C11



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

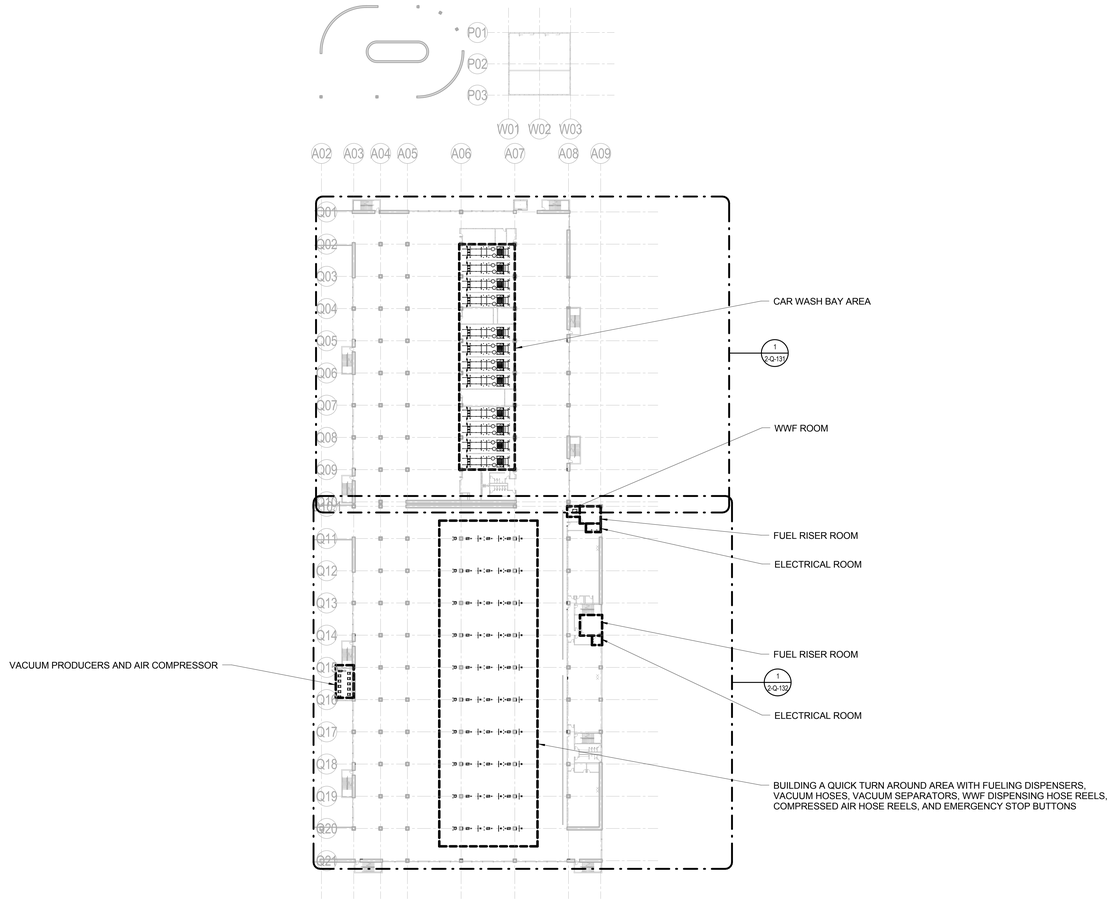
OVERALL KEY PLAN
LEVEL 1 (1/60th)

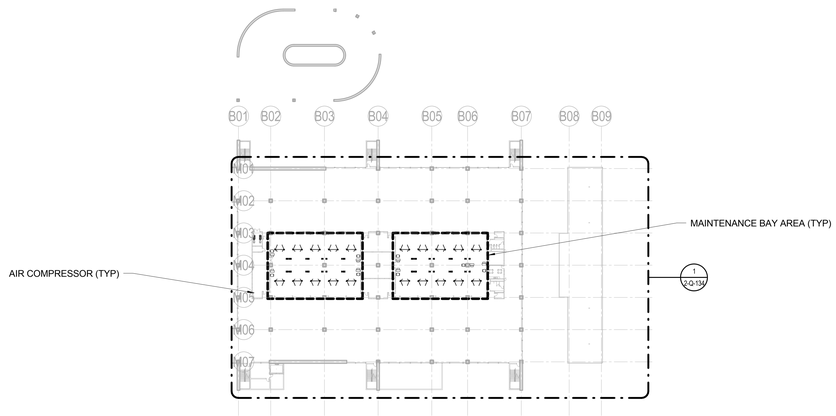
SHEET NO.

2-Q-111

9/22/2016 4:17:20 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

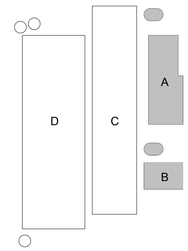
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING





1 / 2-Q-112 OVERALL KEY PLAN LEVEL 2

1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DESCRIPTION	DATE	

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

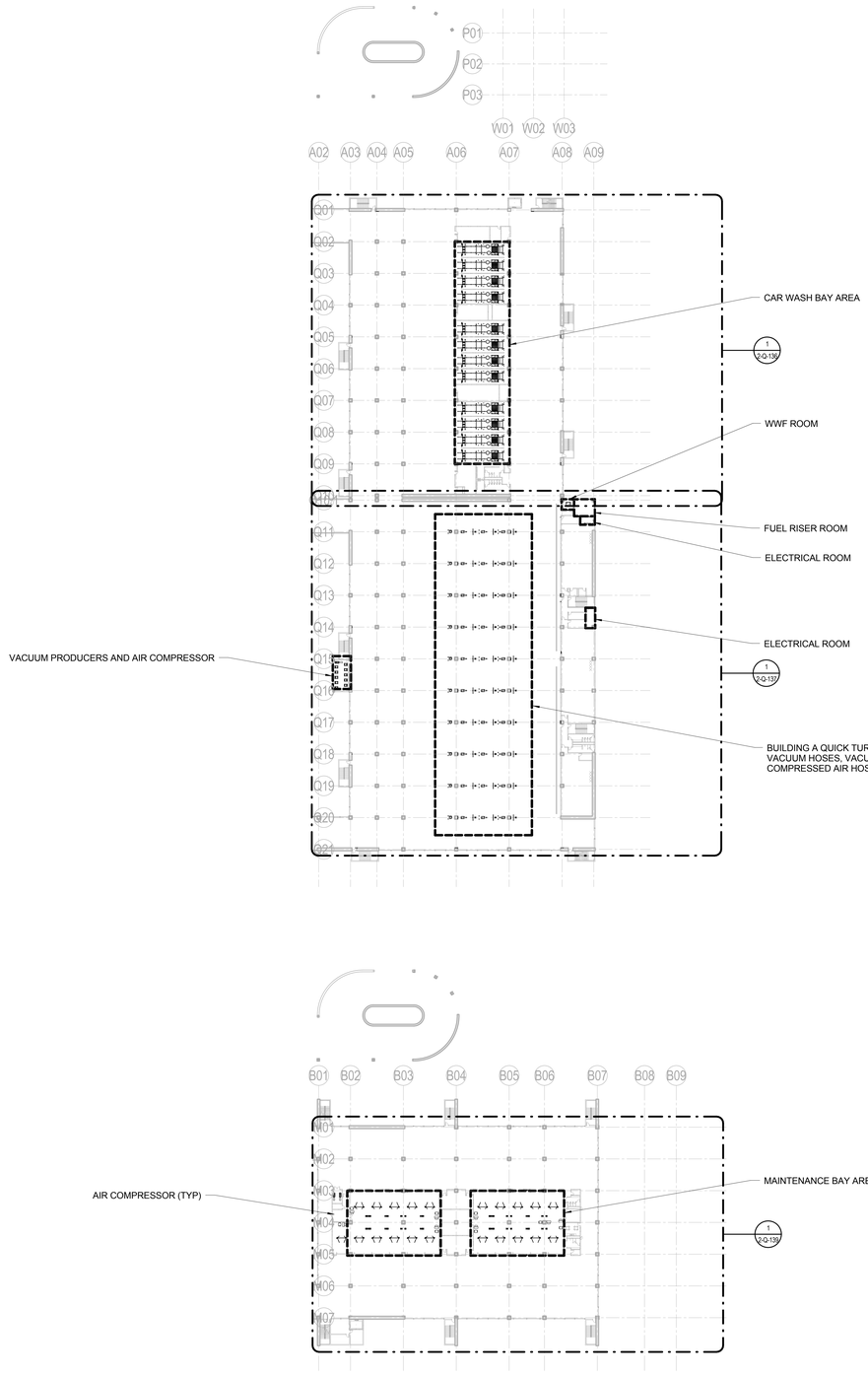
OVERALL KEY PLAN LEVEL 2 (1/60th)

SHEET NO.

2-Q-112

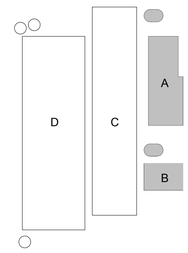
9/22/2016 4:17:39 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-113 OVERALL KEY PLAN LEVEL 3

1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

OVERALL KEY PLAN LEVEL 3 (1/60th)

SHEET NO.

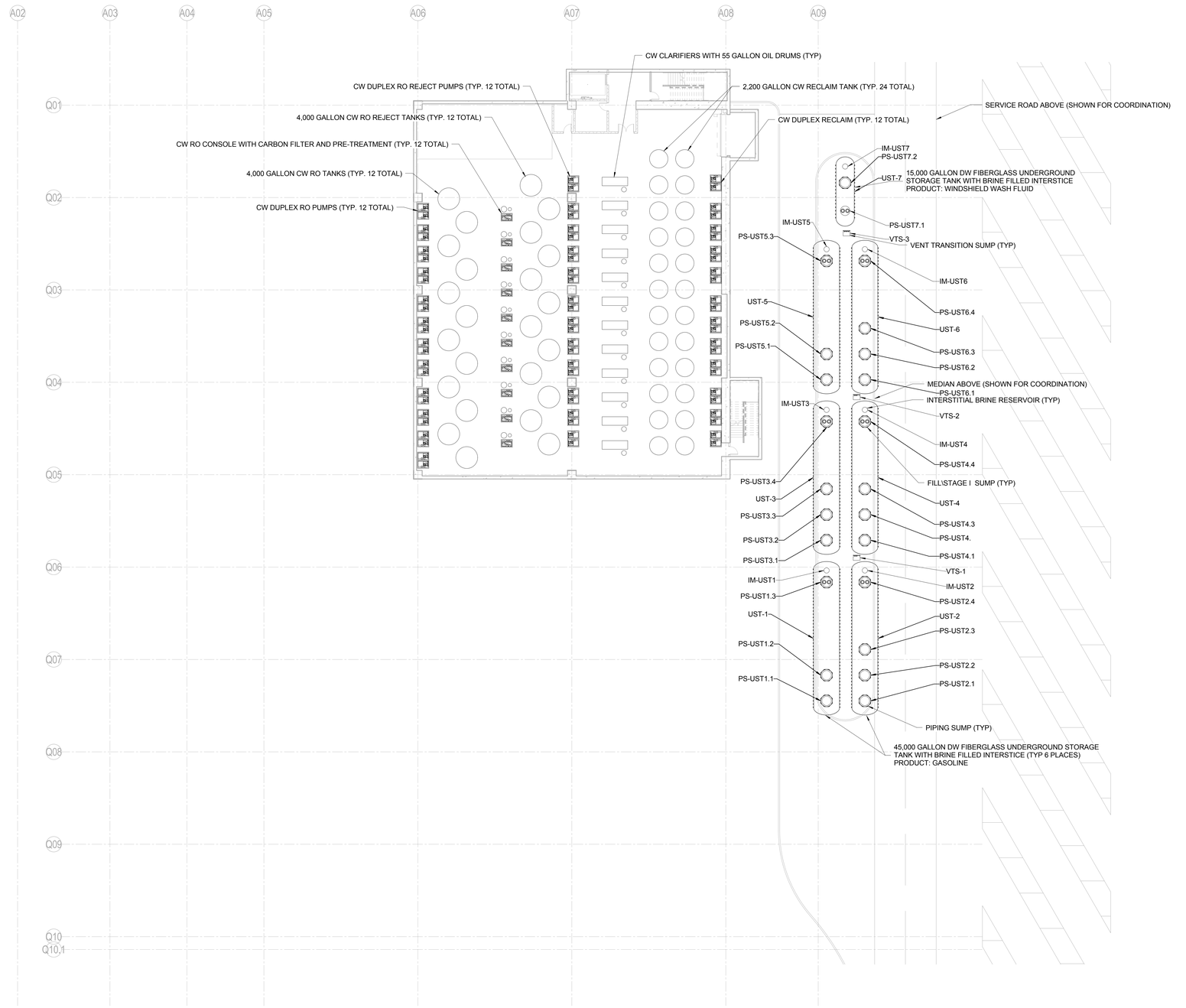
2-Q-113

9/22/2016 4:17:49 PM C:\Users\Public\Documents\Local_Revit_2Tier\Q-DA4881-RLDG_A_TL_RTE_jwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

CAR WASH LEGEND

RO	REVERSE OSMOSIS
ROP	RO PUMP SET (SECOND STAGE)
ROC	RO CONTROLLER / PURIFICATION UNIT
ROR	REVERSE OSMOSIS REJECT
RORT	REVERSE OSMOSIS REJECT TANK
RORP	REVERSE OSMOSIS REJECT PUMP (FIRST STAGE)
ROT	RO TANK
RP	RECLAIM PIT
RCT	RECLAIM TANK
RCP	RECLAIM PUMP
RCC	RECLAIM CONTROLLER
RCF	RECLAIM CLARIFIER



1 / 2-Q-121 **KEY PLAN LEVEL 0 ZONE 2 (UNDERGROUND)**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

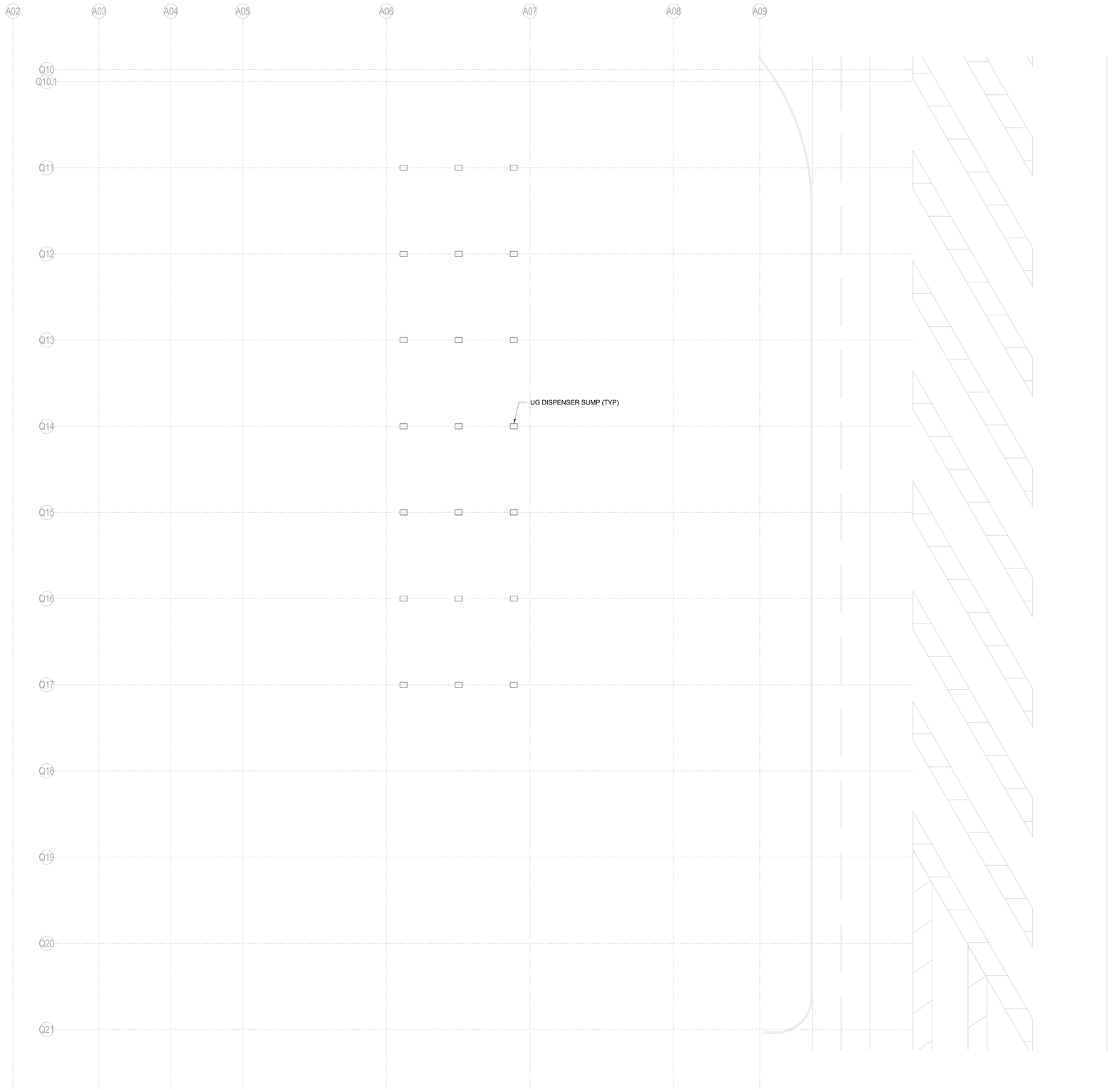
SHEET TITLE:

KEY PLAN LEVEL 0 ZONE 2 (UNDERGROUND) (1/16th)

SHEET NO.

2-Q-121

C:\Users\Public\Documents\Local_Revit_Files\DA4881-BLDG_A_B_R15_jhwilson.rvt
8/22/2018 4:17:51 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-122 **KEY PLAN LEVEL 0 ZONE 3 (UNDERGROUND)**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT LAN PMD LAX

REVISIONS:

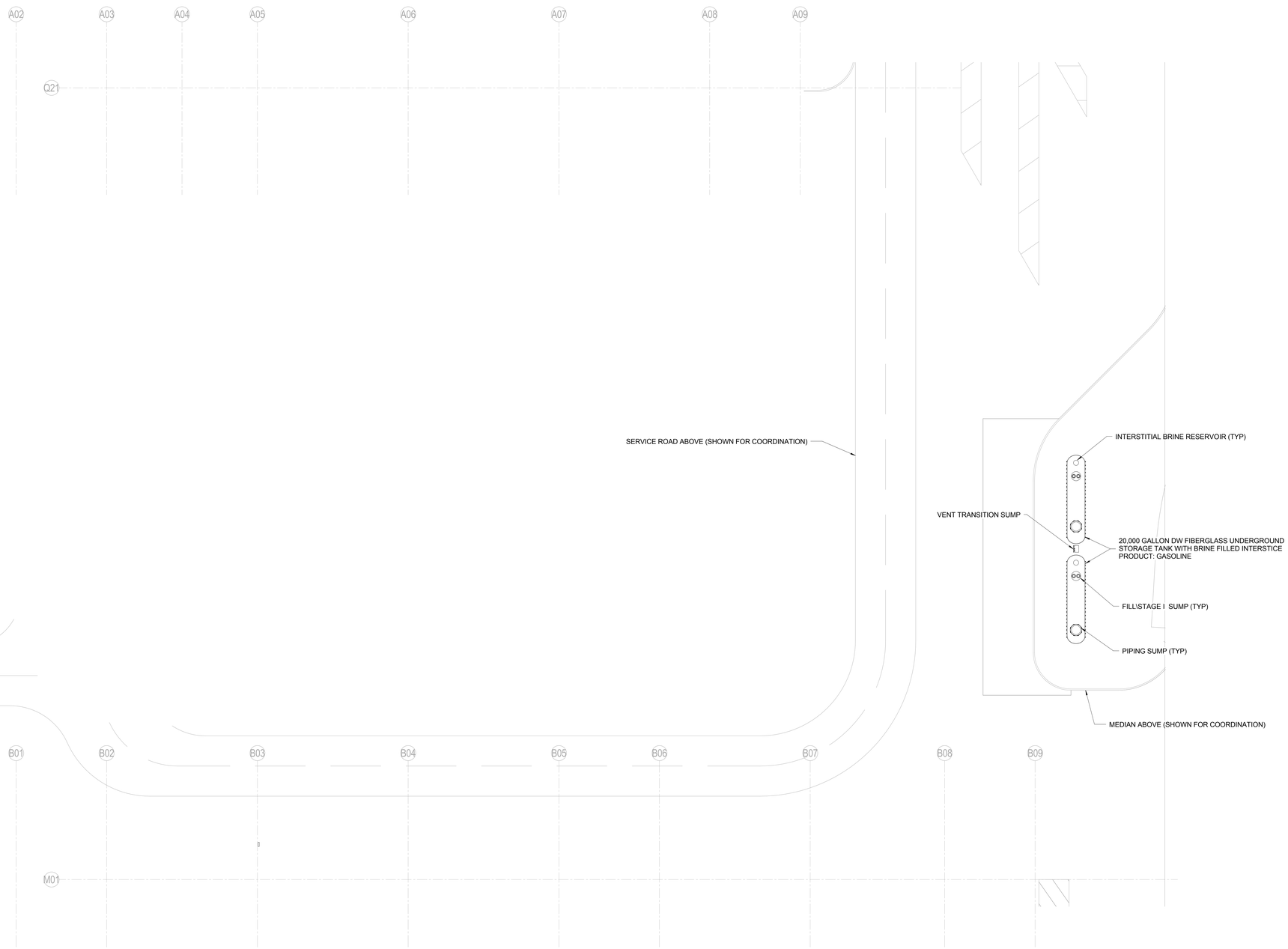
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
KEY PLAN LEVEL 0
ZONE 3
(UNDERGROUND)
(1/16th)

SHEET NO.
2-Q-122

C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jjwilson.rvt
9/22/2016 4:17:52 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-123 **KEY PLAN LEVEL 0 ZONE 4 (UNDERGROUND)**
1/16" = 1'-0"

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY: CHIEF AIRPORTS ENGINEER

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:			DESCRIPTION
MARK	DATE		

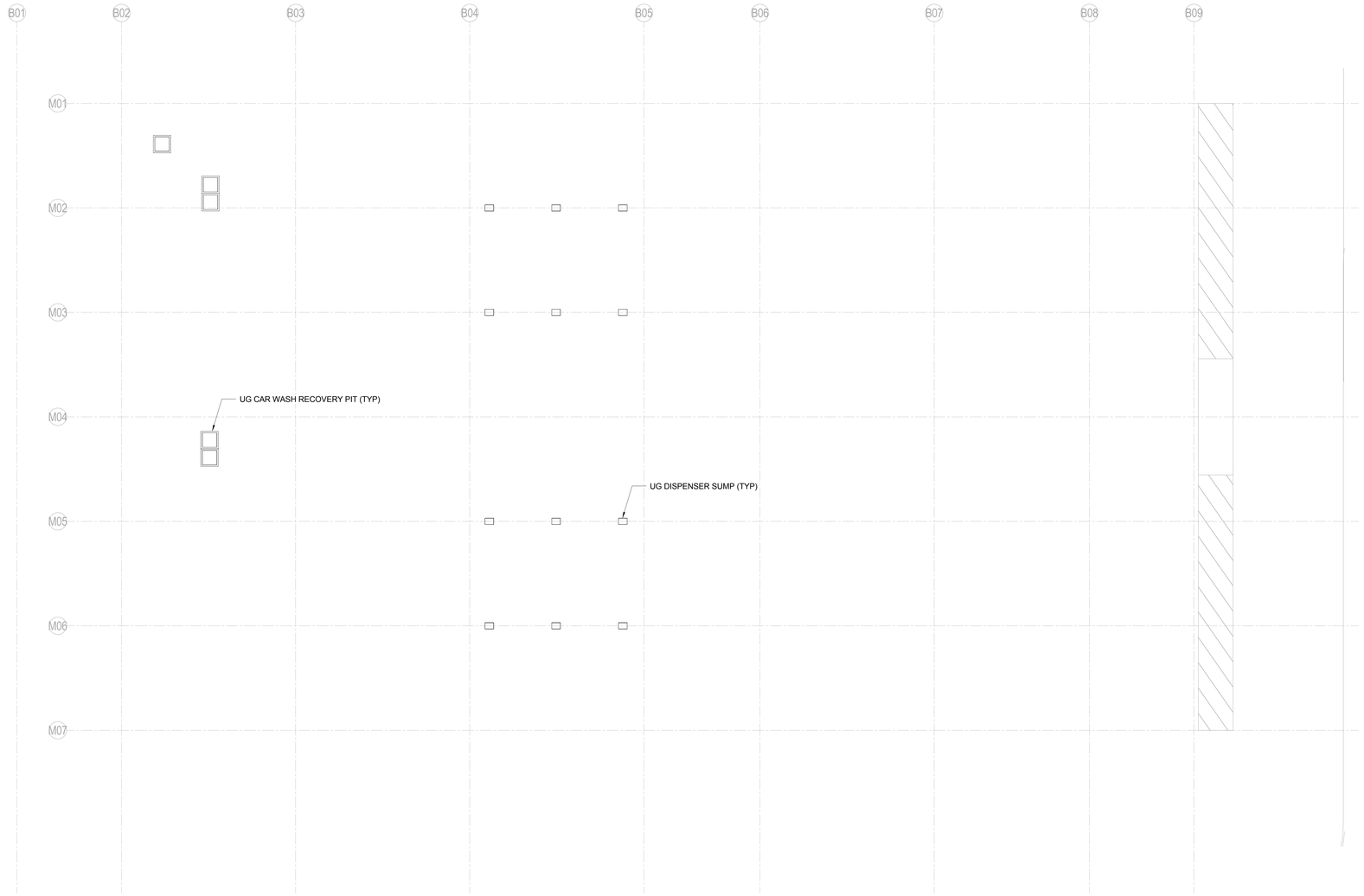
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:
KEY PLAN LEVEL 0 ZONE 4 (UNDERGROUND) (1/16th)

SHEET NO.
2-Q-123

8/22/2018 4:17:54 PM C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1
2-Q-124
KEY PLAN LEVEL 0 ZONE 5 (UNDERGROUND)
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

NOT FOR CONSTRUCTION

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

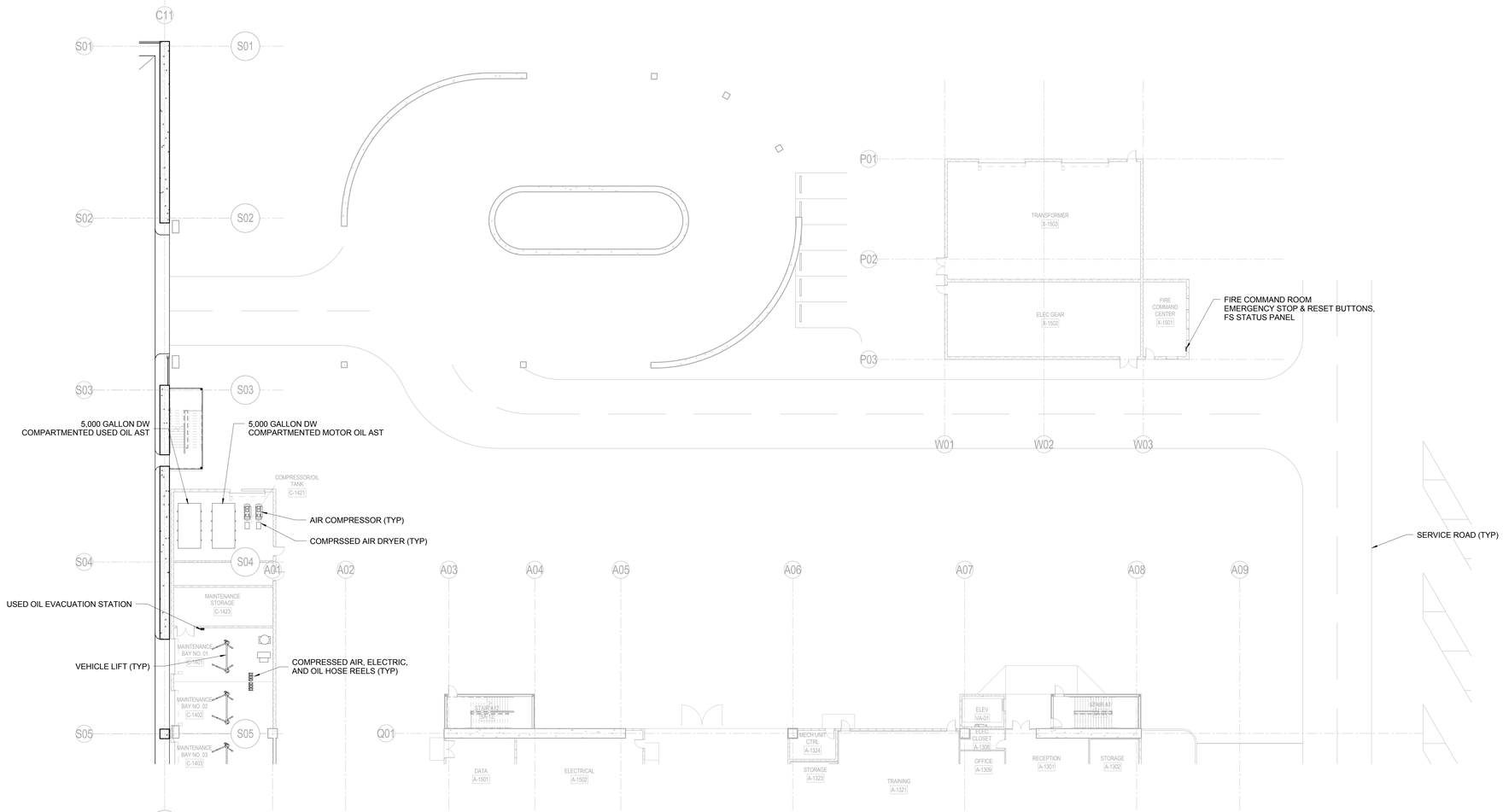
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:
KEY PLAN LEVEL 0 ZONE 5 (UNDERGROUND) (1/16th)

SHEET NO.
2-Q-124

9/22/2016 4:17:59 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_pwilson.rvt



1 / 2-Q-125 **KEY PLAN LEVEL 1 ZONE 1**

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:18:01 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CONCUR LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

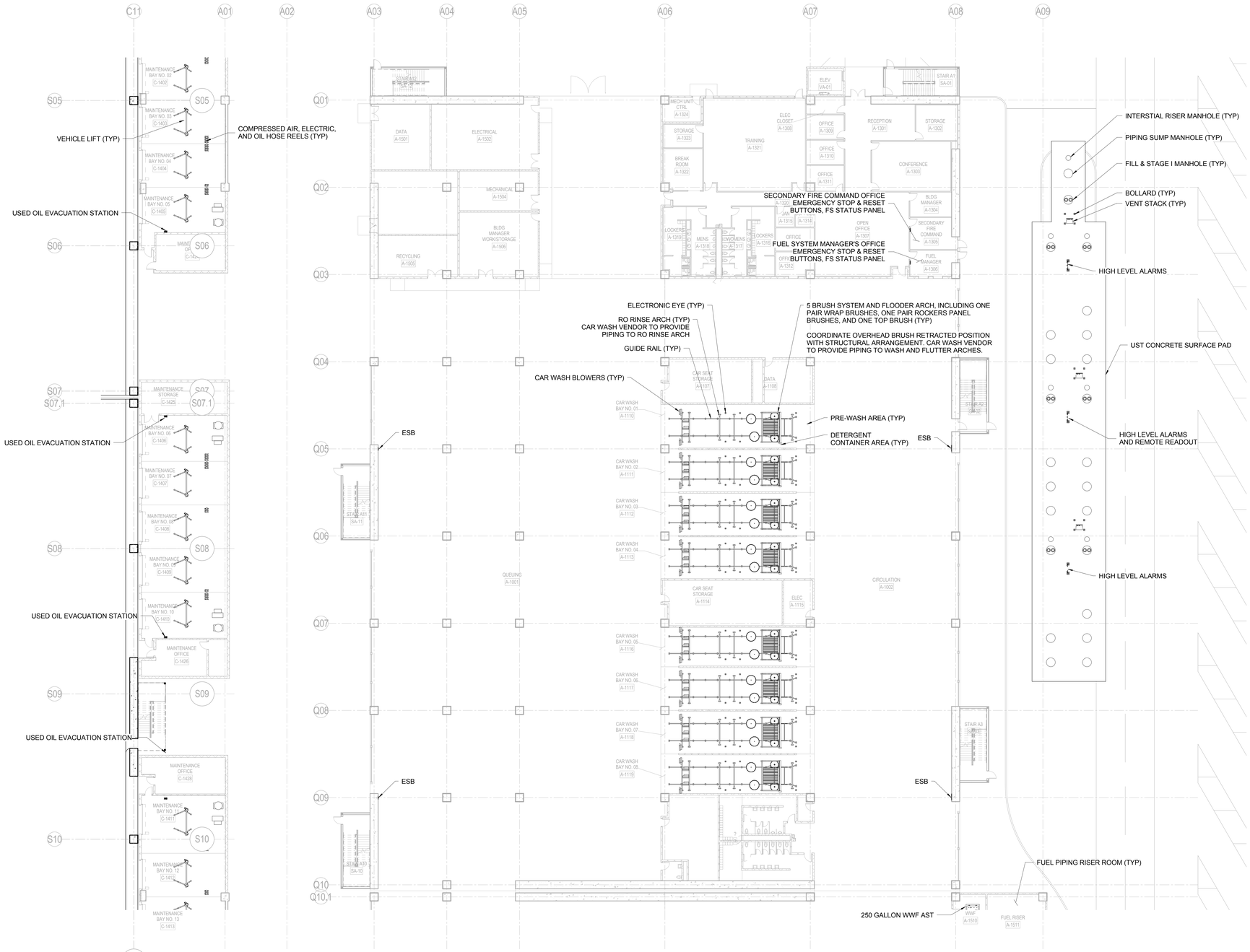
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

KEY PLAN LEVEL 1
ZONE 1 (1/16th)

SHEET NO.

2-Q-125



1 / 2-Q-126 **KEY PLAN LEVEL 1 ZONE 2**
1/16" = 1'-0"

CAR WASH SYSTEM NOTE:

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SELECTED CAR WASH VENDOR TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM. THE CAR WASH EQUIPMENT LAYOUT SHOWN HERE IS DIAGRAMMATIC ONLY, AND IS INTENDED TO SHOW GENERAL EQUIPMENT REQUIREMENTS. SEEK AND OBTAIN CAR WASH SYSTEM VENDOR DRAWINGS FOR DETAILS ON EXACT SYSTEM LOCATION, SYSTEM PIPING, SYSTEM WIRING AND CONNECTION POINTS. THE ASSOCIATED MECHANICAL AND ELECTRICAL DRAWINGS IN OTHER SECTIONS ARE INTENDED TO PROVIDE BASE INFRASTRUCTURE (DRAINAGE, WATER, AND POWER TO THE CAR WASH SYSTEM). THE EXACT LOCATION OF THIS INFRASTRUCTURE, INCLUDING CONNECTION POINTS WILL VARY WITH CAR WASH SYSTEM, AND SHALL BE COORDINATED AND ADJUSTED AS NECESSARY BY THE CONTRACTOR. ADDITIONAL COMPENSATION WILL NOT BE PROVIDED TO MAKE ADJUSTMENTS TO SUPPORTING INFRASTRUCTURE TO ACCOMMODATE A SPECIFIC CAR WASH BRAND. SHOULD COMPRESSED AIR BE NECESSARY FOR THE OPERATION OF THE CAR WASH, THE CONTRACTOR AND CAR WASH VENDOR SHALL BE RESPONSIBLE FOR PROVIDING THAT INFRASTRUCTURE.

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK:	DATE:	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

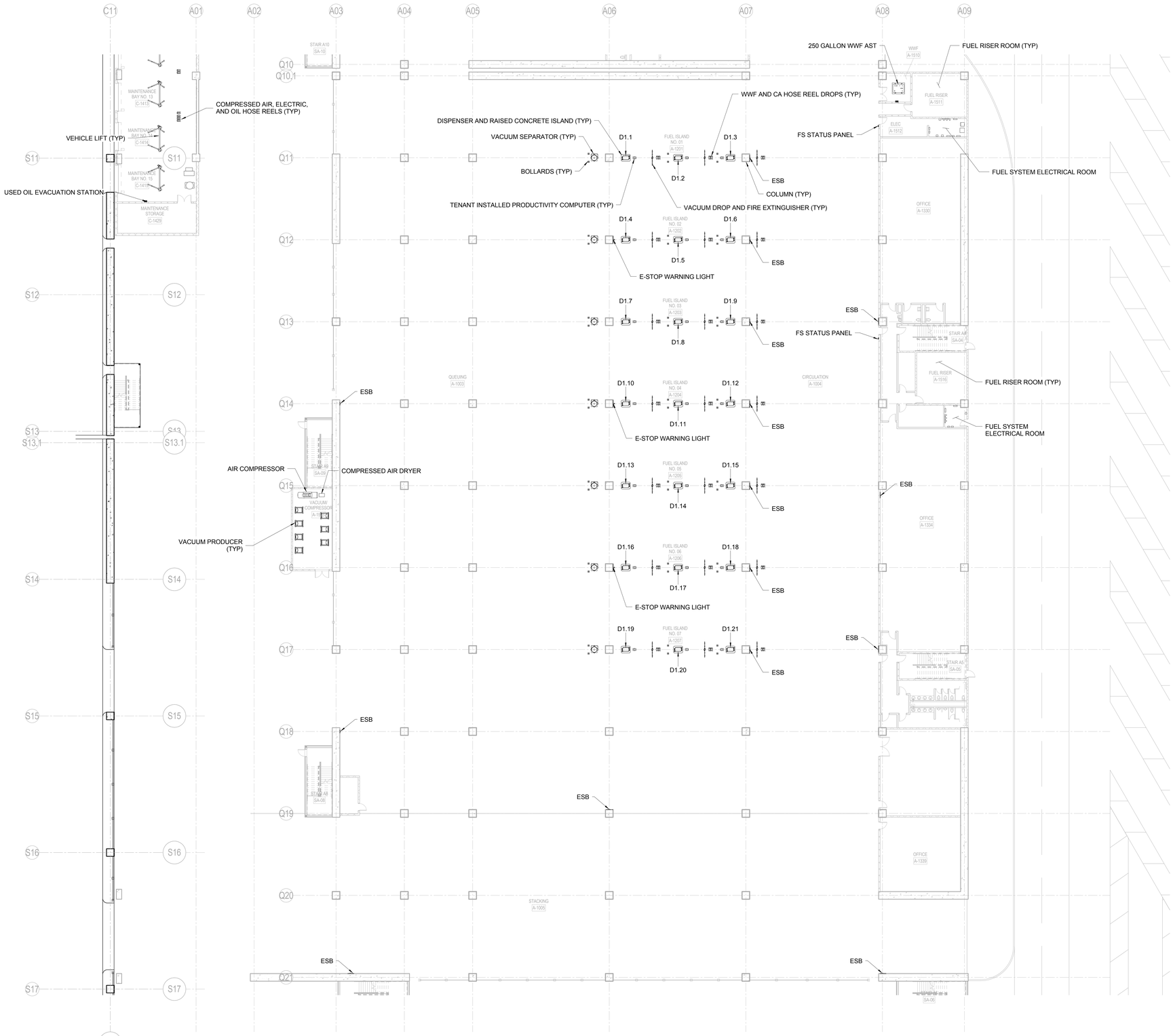
SHEET TITLE:
KEY PLAN LEVEL 1 ZONE 2 (1/16th)

SHEET NO.
2-Q-126

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

8/22/2018 4:18:07 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-127 **KEY PLAN LEVEL 1 ZONE 3**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS: MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

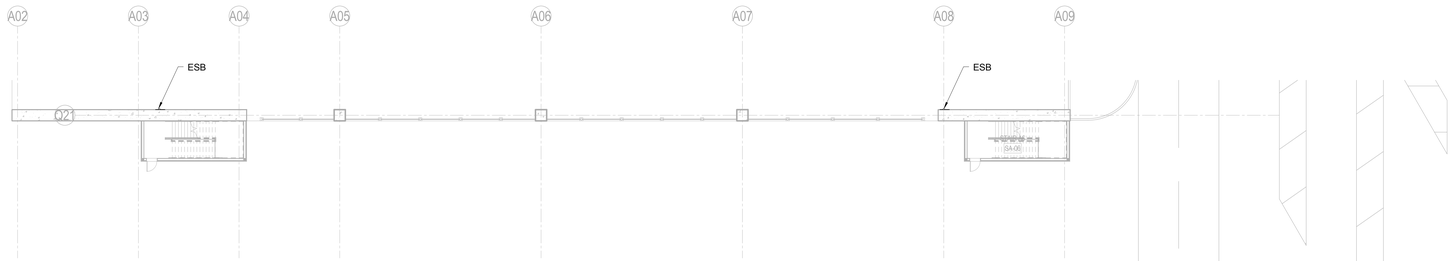
SHEET TITLE:
KEY PLAN LEVEL 1 ZONE 3 (1/16th)

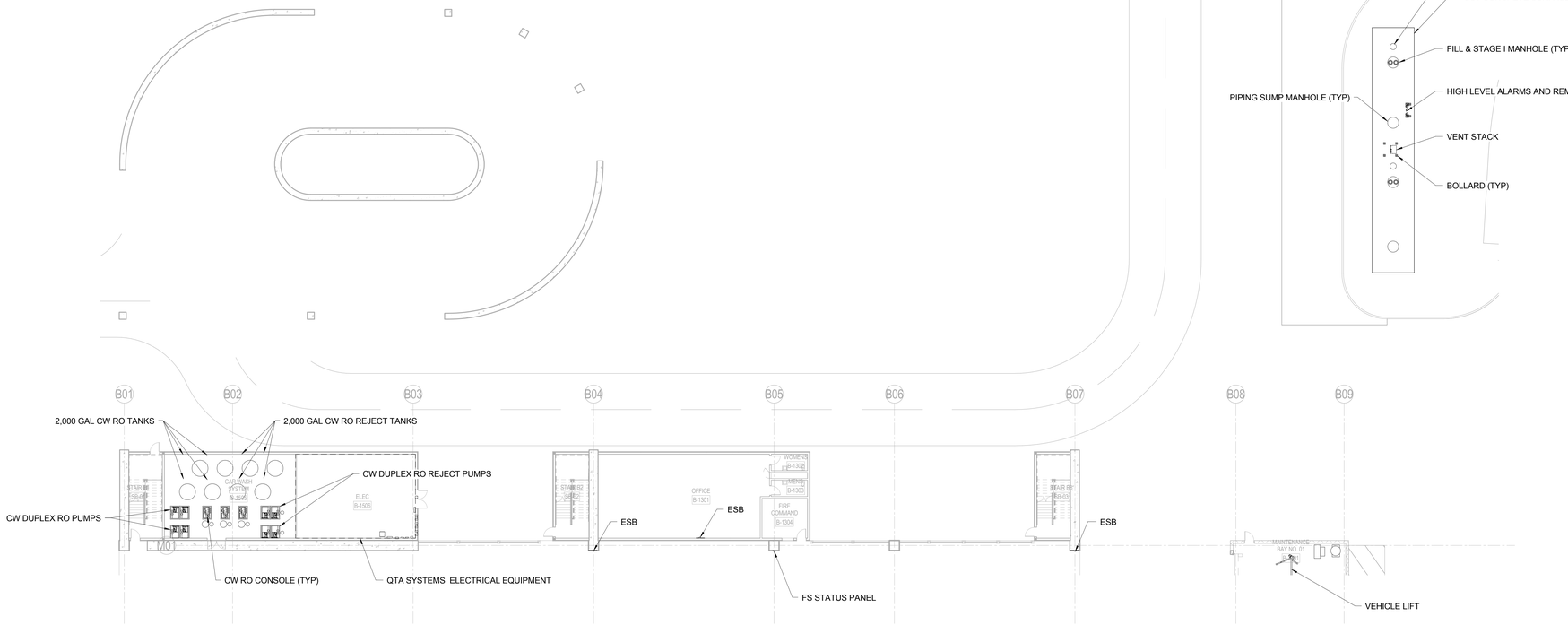
SHEET NO.
2-Q-127

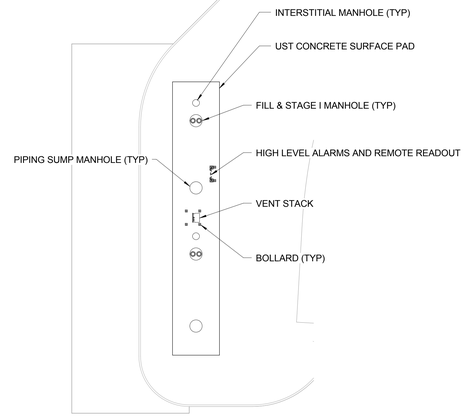
C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

9/22/2016 4:18:26 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING







1 / 2-Q-128 **KEY PLAN LEVEL 1 ZONE 4**

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:			DESCRIPTION
MARK	DATE		

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

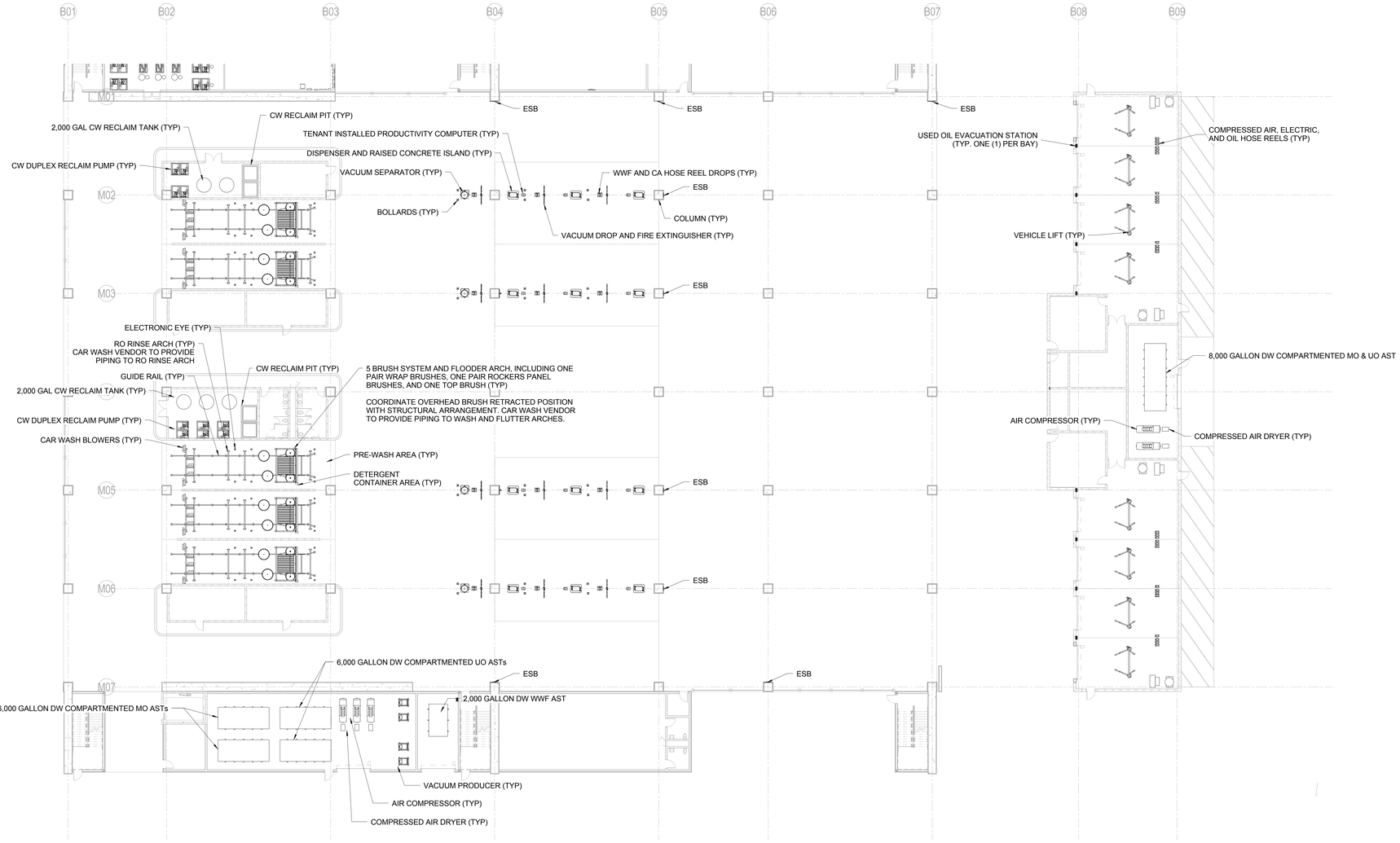
KEY PLAN LEVEL 1 ZONE 4 (1/16th)

SHEET NO.

2-Q-128

9/22/2016 4:18:28 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-129 **KEY PLAN LEVEL 1 ZONE 5**

1/16" = 1'-0"

CAR WASH SYSTEM NOTE:

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SELECTED CAR WASH VENDOR TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM. THE CAR WASH EQUIPMENT LAYOUT SHOWN HERE IS DIAGRAMMATIC ONLY, AND IS INTENDED TO SHOW GENERAL EQUIPMENT REQUIREMENTS. SEEK AND OBTAIN CAR WASH SYSTEM VENDOR DRAWINGS FOR DETAILS ON EXACT SYSTEM LOCATION, SYSTEM PIPING, SYSTEM WIRING AND CONNECTION POINTS. THE ASSOCIATED MECHANICAL AND ELECTRICAL DRAWINGS IN OTHER SECTIONS ARE INTENDED TO PROVIDE BASE INFRASTRUCTURE (DRAINAGE, WATER, AND POWER TO THE CAR WASH SYSTEM). THE EXACT LOCATION OF THIS INFRASTRUCTURE, INCLUDING CONNECTION POINTS WILL VARY WITH CAR WASH SYSTEM, AND SHALL BE COORDINATED AND ADJUSTED AS NECESSARY BY THE CONTRACTOR. ADDITIONAL COMPENSATION WILL NOT BE PROVIDED TO MAKE ADJUSTMENTS TO SUPPORTING INFRASTRUCTURE TO ACCOMMODATE A SPECIFIC CAR WASH BRAND. SHOULD COMPRESSED AIR BE NECESSARY FOR THE OPERATION OF THE CAR WASH, THE CONTRACTOR AND CAR WASH VENDOR SHALL BE RESPONSIBLE FOR PROVIDING THAT INFRASTRUCTURE.

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT PMD LAX

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

KEY PLAN LEVEL 1
ZONE 5 (1/16th)

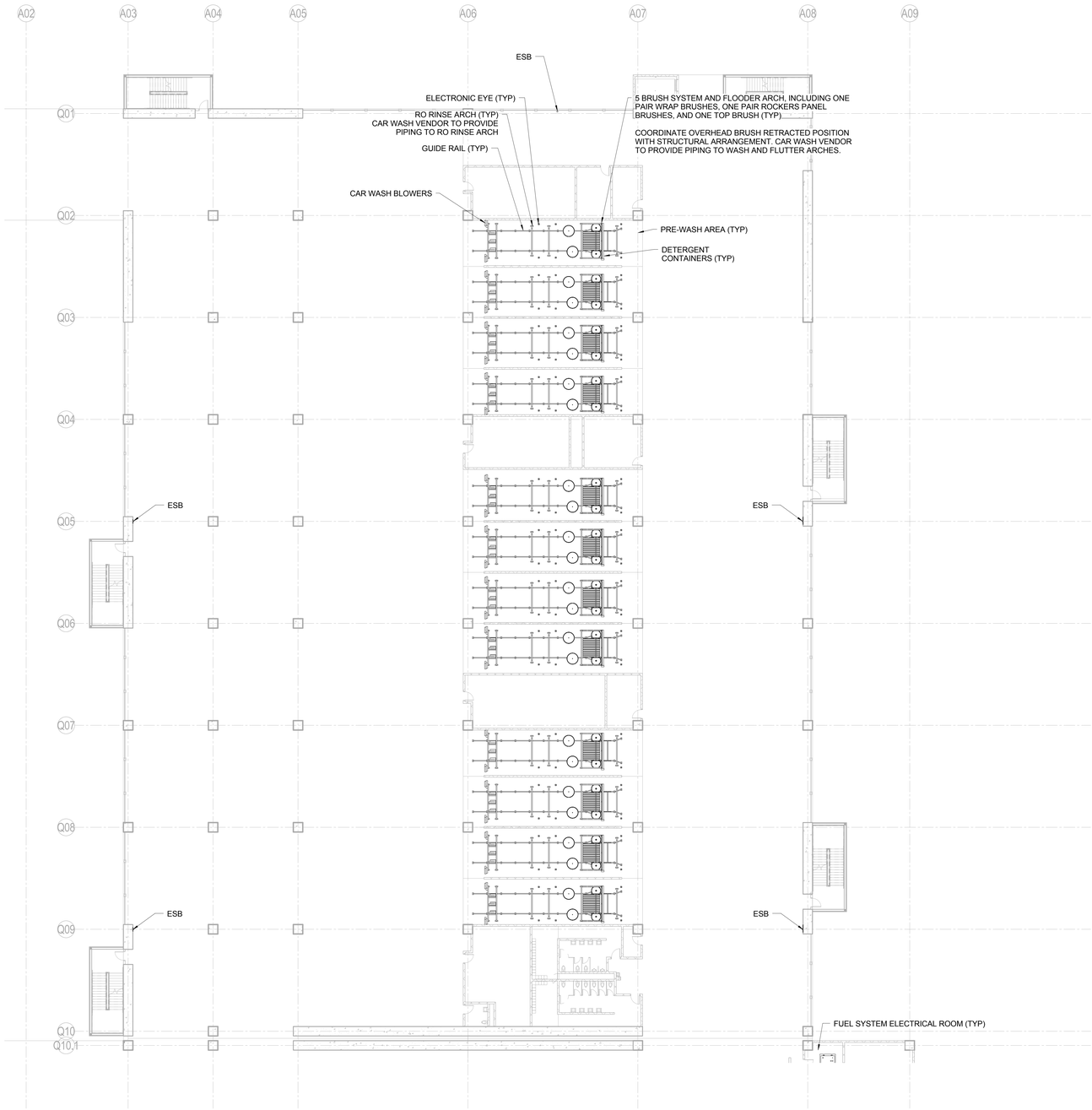
SHEET NO.

2-Q-129

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

9/22/2016 4:18:38 PM



1 / 2-Q-131 **KEY PLAN LEVEL 2 ZONE 2**

1/16" = 1'-0"

CAR WASH SYSTEM NOTE:

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SELECTED CAR WASH VENDOR TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM. THE CAR WASH EQUIPMENT LAYOUT SHOWN HERE IS DIAGRAMMATIC ONLY, AND IS INTENDED TO SHOW GENERAL EQUIPMENT REQUIREMENTS. SEEK AND OBTAIN CAR WASH SYSTEM VENDOR DRAWINGS FOR DETAILS ON EXACT SYSTEM LOCATION, SYSTEM PIPING, SYSTEM WIRING AND CONNECTION POINTS. THE ASSOCIATED MECHANICAL AND ELECTRICAL DRAWINGS IN OTHER SECTIONS ARE INTENDED TO PROVIDE BASE INFRASTRUCTURE (DRAINAGE, WATER, AND POWER TO THE CAR WASH SYSTEM). THE EXACT LOCATION OF THIS INFRASTRUCTURE, INCLUDING CONNECTION POINTS WILL VARY WITH CAR WASH SYSTEM, AND SHALL BE COORDINATED AND ADJUSTED AS NECESSARY BY THE CONTRACTOR. ADDITIONAL COMPENSATION WILL NOT BE PROVIDED TO MAKE ADJUSTMENTS TO SUPPORTING INFRASTRUCTURE TO ACCOMMODATE A SPECIFIC CAR WASH BRAND. SHOULD COMPRESSED AIR BE NECESSARY FOR THE OPERATION OF THE CAR WASH, THE CONTRACTOR AND CAR WASH VENDOR SHALL BE RESPONSIBLE FOR PROVIDING THAT INFRASTRUCTURE.

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

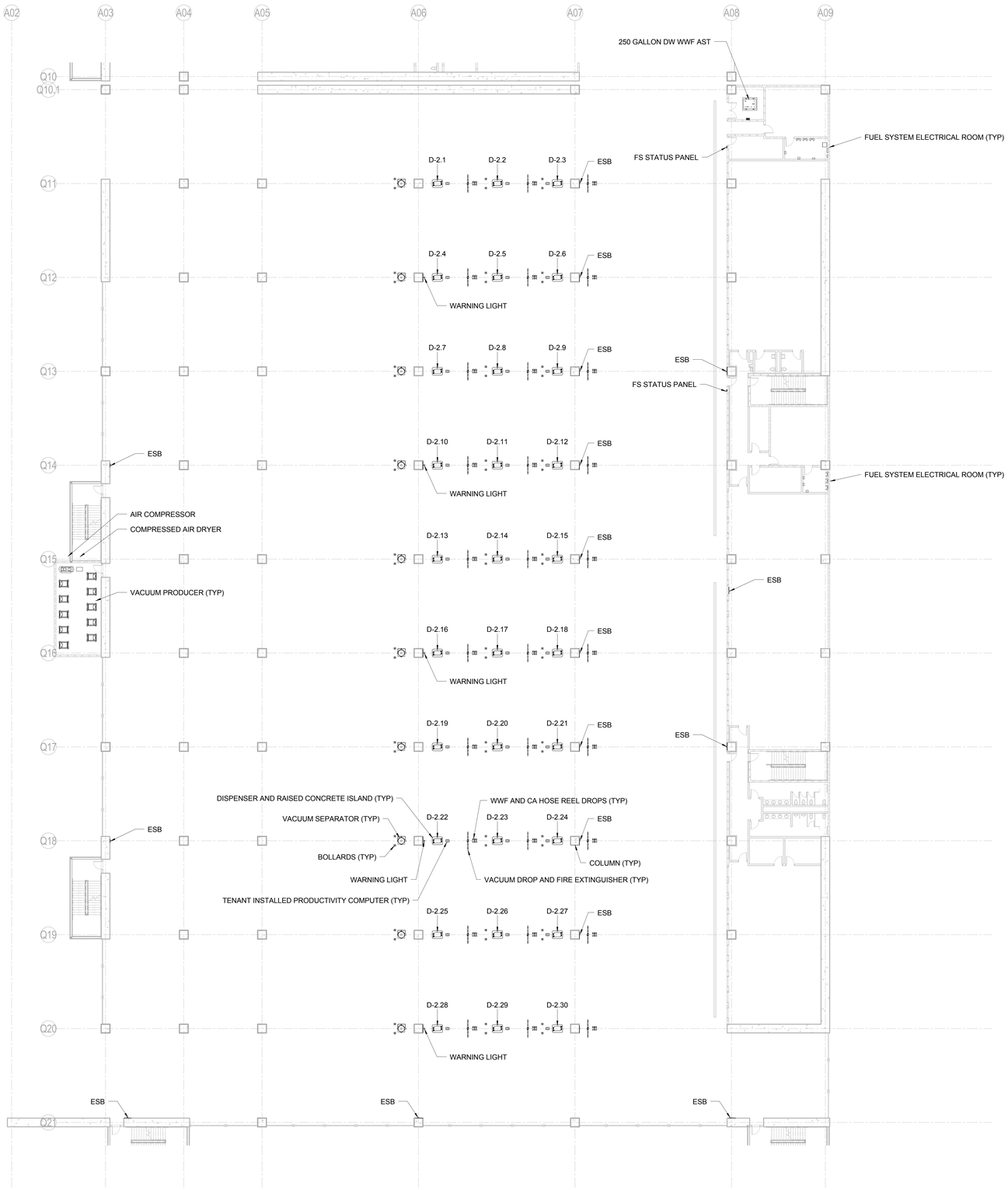
KEY PLAN LEVEL 2 ZONE 2 (1/16th)

SHEET NO.

2-Q-131

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt
8/22/2016 4:18:47 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-132 KEY PLAN LEVEL 2 ZONE 3

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

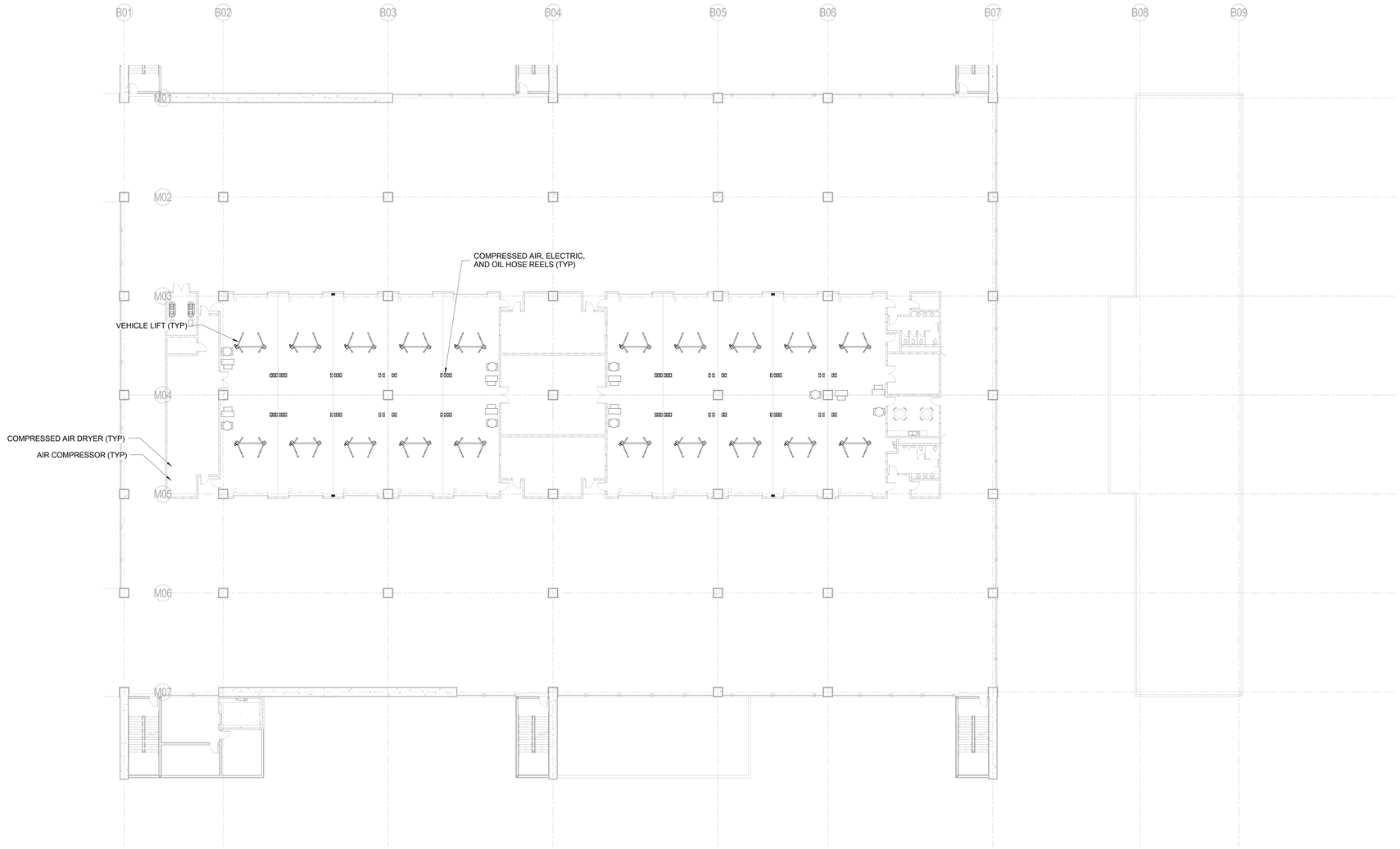
SHEET TITLE:

KEY PLAN LEVEL 2 ZONE 3 (1/16th)

SHEET NO.

2-Q-132

C:\Users\JPuhlet\Documents\Local_Rev_J.Rev\Q-DA4881-BLDG_A_B_R15_jwilson.rvt
9/22/2016 4:19:04 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 KEY PLAN LEVEL 2 ZONE 5

2-Q-134 1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

KEY PLAN LEVEL 2 ZONE 5 (1/16th)

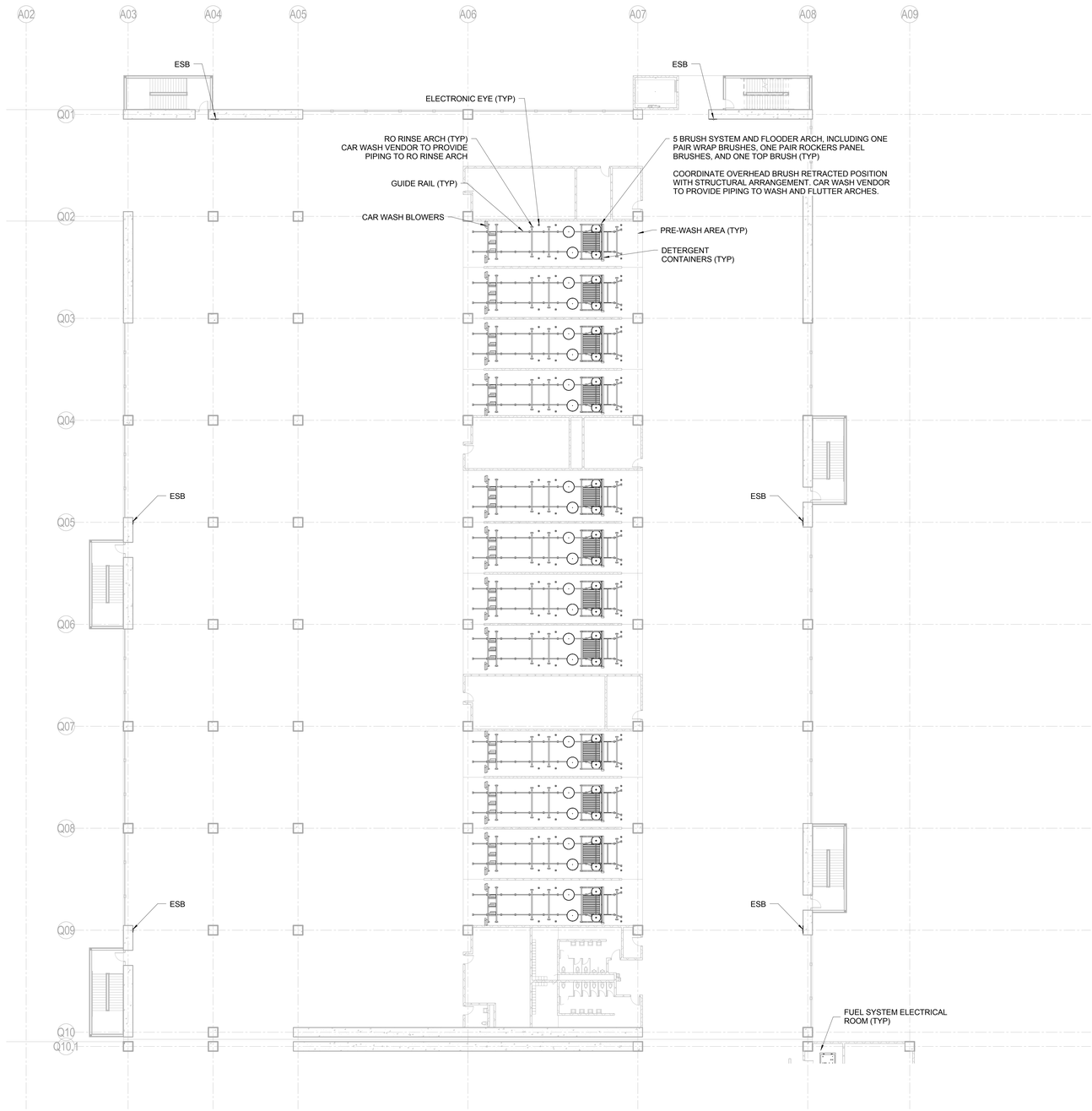
SHEET NO.

2-Q-134

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

9/22/2016 4:19:09 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1
2-Q-136

KEY PLAN LEVEL 3 ZONE 2

1/16" = 1'-0"

CAR WASH SYSTEM NOTE:

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SELECTED CAR WASH VENDOR TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM. THE CAR WASH EQUIPMENT LAYOUT SHOWN HERE IS DIAGRAMMATIC ONLY, AND IS INTENDED TO SHOW GENERAL EQUIPMENT REQUIREMENTS. SEEK AND OBTAIN CAR WASH SYSTEM VENDOR DRAWINGS FOR DETAILS ON EXACT SYSTEM LOCATION, SYSTEM PIPING, SYSTEM WIRING AND CONNECTION POINTS. THE ASSOCIATED MECHANICAL AND ELECTRICAL DRAWINGS IN OTHER SECTIONS ARE INTENDED TO PROVIDE BASE INFRASTRUCTURE (DRAINAGE, WATER, AND POWER TO THE CAR WASH SYSTEM). THE EXACT LOCATION OF THIS INFRASTRUCTURE, INCLUDING CONNECTION POINTS WILL VARY WITH CAR WASH SYSTEM, AND SHALL BE COORDINATED AND ADJUSTED AS NECESSARY BY THE CONTRACTOR. ADDITIONAL COMPENSATION WILL NOT BE PROVIDED TO MAKE ADJUSTMENTS TO SUPPORTING INFRASTRUCTURE TO ACCOMMODATE A SPECIFIC CAR WASH BRAND. SHOULD COMPRESSED AIR BE NECESSARY FOR THE OPERATION OF THE CAR WASH, THE CONTRACTOR AND CAR WASH VENDOR SHALL BE RESPONSIBLE FOR PROVIDING THAT INFRASTRUCTURE.

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

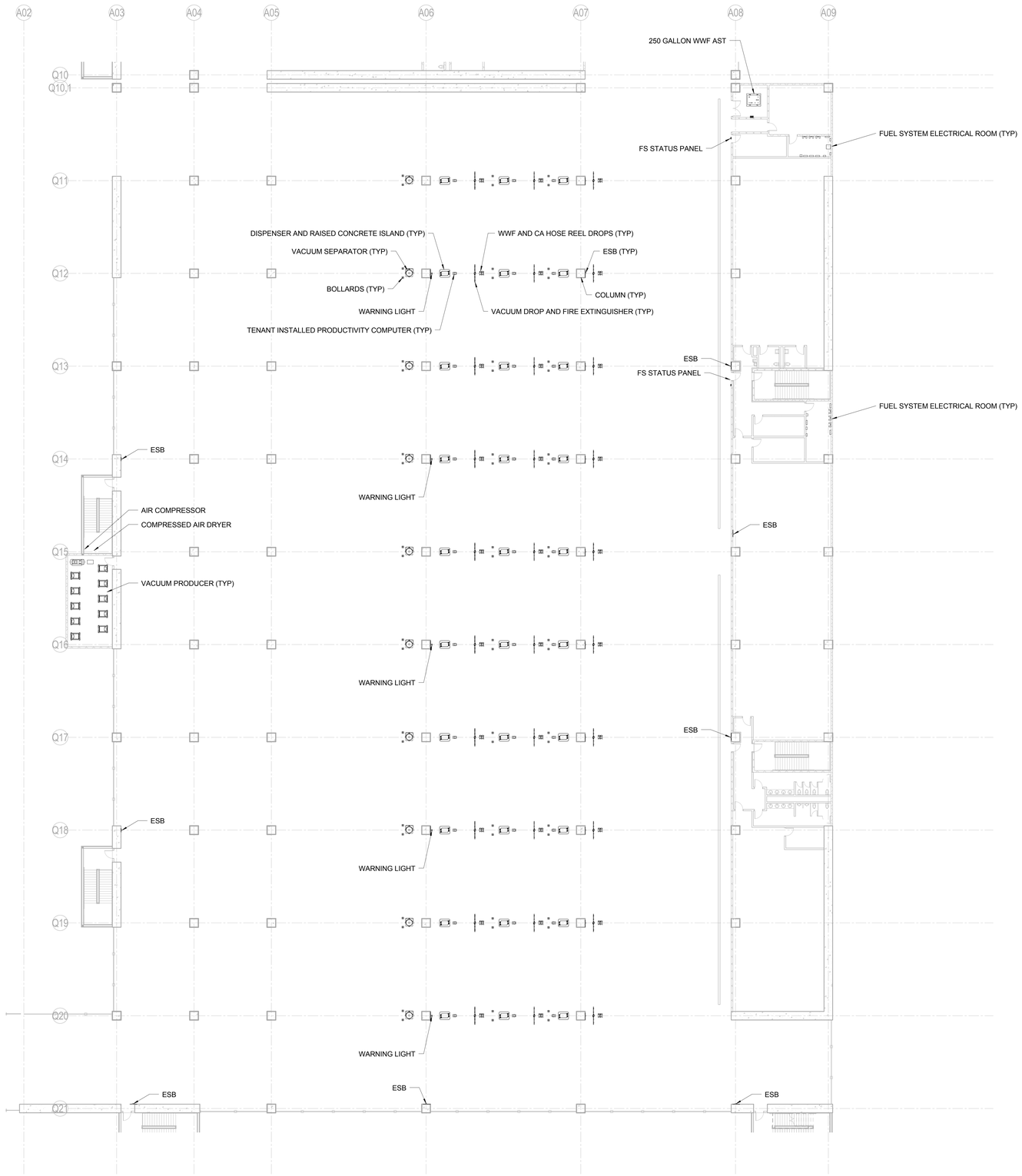
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:
KEY PLAN LEVEL 3
ZONE 2 (1/16th)

SHEET NO.
2-Q-136

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt
9/22/2016 4:19:17 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-137 KEY PLAN LEVEL 3 ZONE 3

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

KEY PLAN LEVEL 3 ZONE 3 (1/16th)

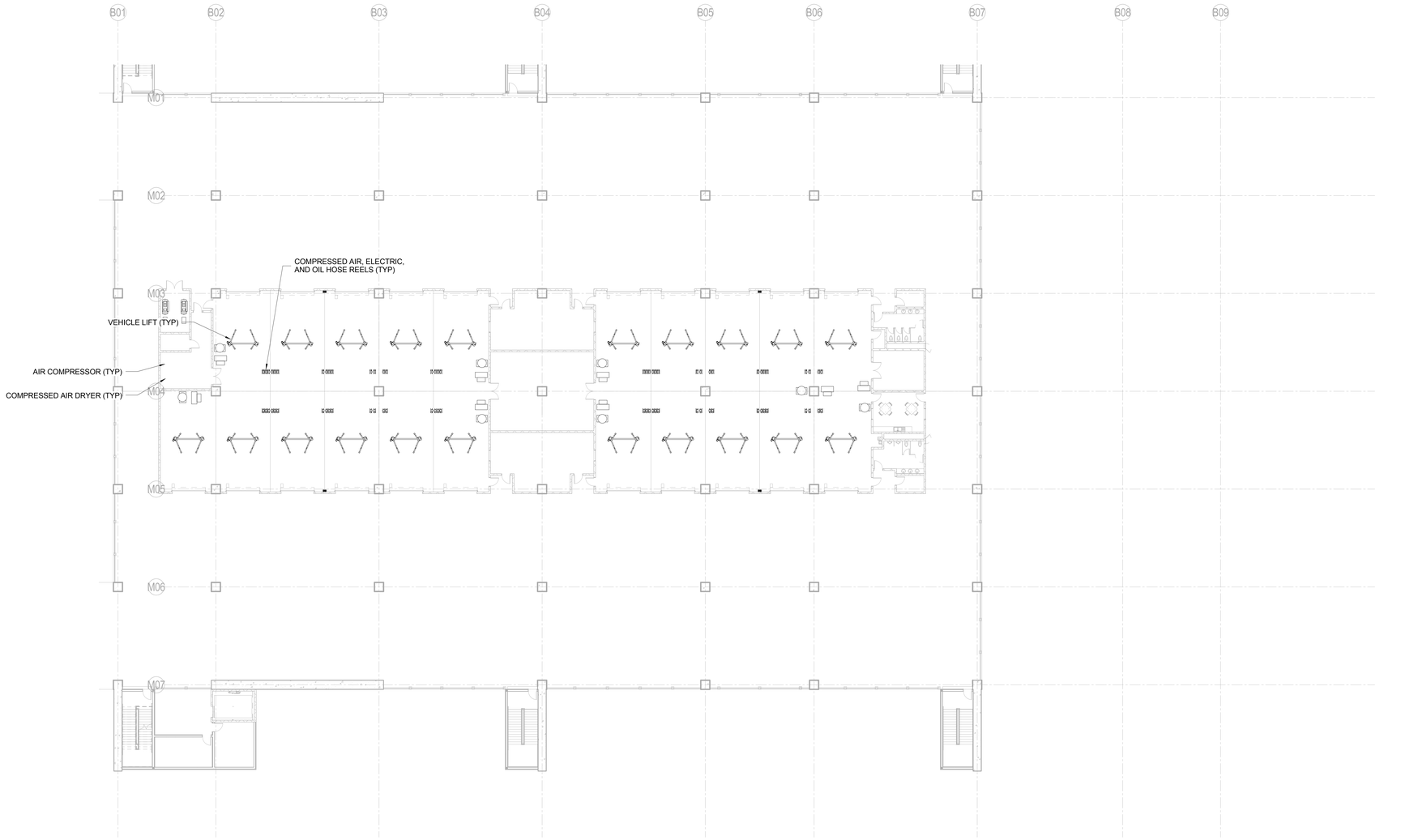
SHEET NO.

2-Q-137

C:\Users\JPuhlet\Documents\Local_Rev_J.Rev\Q-DA4881-BLDG_A_B_R15_jwilson.rvt

9/22/2016 4:19:30 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1
2-Q-139
KEY PLAN LEVEL 3 ZONE 5
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:
KEY PLAN LEVEL 3 ZONE 5 (1/16th)

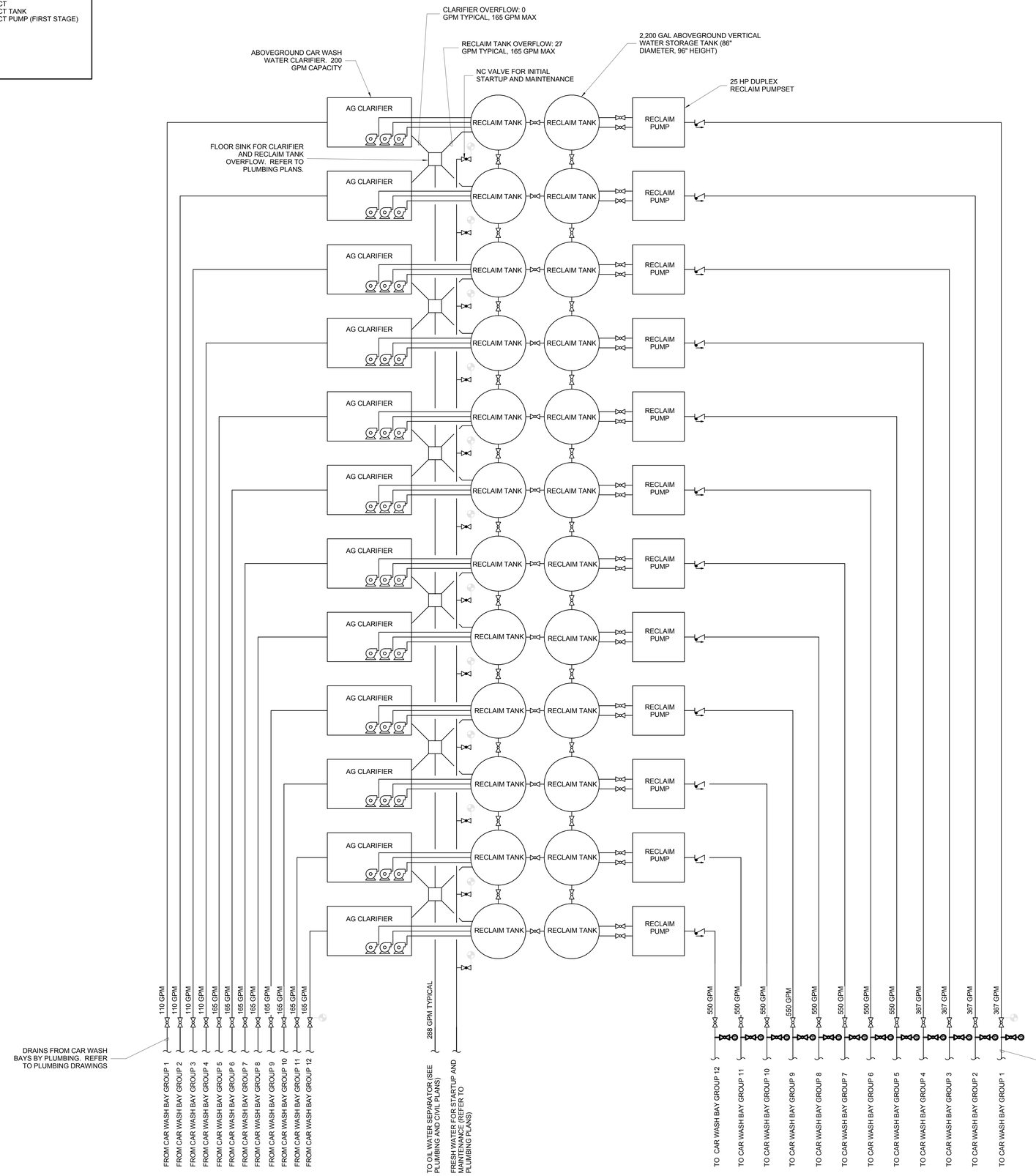
SHEET NO.
2-Q-139

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt
9/22/2016 4:19:35 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

CAR WASH LEGEND

RO	-	REVERSE OSMOSIS
ROP	-	RO PUMP SET (SECOND STAGE)
ROC	-	RO CONTROLLER / PURIFICATION UNIT
ROR	-	REVERSE OSMOSIS REJECT
RORT	-	REVERSE OSMOSIS REJECT TANK
RORP	-	REVERSE OSMOSIS REJECT PUMP (FIRST STAGE)
ROT	-	RO TANK
RP	-	RECLAIM PIT
RCT	-	RECLAIM TANK
RCP	-	RECLAIM PUMP
RCC	-	RECLAIM CONTROLLER
RCF	-	RECLAIM CLARIFIER



CAR WASH SYSTEM NOTE:

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SELECTED CAR WASH VENDOR TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM. THE CAR WASH EQUIPMENT LAYOUT SHOWN HERE IS DIAGRAMMATIC ONLY, AND IS INTENDED TO SHOW GENERAL EQUIPMENT REQUIREMENTS. SEEK AND OBTAIN CAR WASH SYSTEM VENDOR DRAWINGS FOR DETAILS ON EXACT SYSTEM LOCATION, SYSTEM PIPING, SYSTEM WIRING AND CONNECTION POINTS. THE ASSOCIATED MECHANICAL AND ELECTRICAL DRAWINGS IN OTHER SECTIONS ARE INTENDED TO PROVIDE BASE INFRASTRUCTURE (DRAINAGE, WATER, AND POWER TO THE CAR WASH SYSTEM). THE EXACT LOCATION OF THIS INFRASTRUCTURE, INCLUDING CONNECTION POINTS WILL VARY WITH CAR WASH SYSTEM, AND SHALL BE COORDINATED AND ADJUSTED AS NECESSARY BY THE CONTRACTOR. ADDITIONAL COMPENSATION WILL NOT BE PROVIDED TO MAKE ADJUSTMENTS TO SUPPORTING INFRASTRUCTURE TO ACCOMMODATE A SPECIFIC CAR WASH BRAND. SHOULD COMPRESSED AIR BE NECESSARY FOR THE OPERATION OF THE CAR WASH, THE CONTRACTOR AND CAR WASH VENDOR SHALL BE RESPONSIBLE FOR PROVIDING THAT INFRASTRUCTURE.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	N.MacAloney
DRAWN BY:	N.MacAloney
CHECKED BY:	Z.Rich

SHEET TITLE:

BUILDING A CAR WASH RECLAIM WATER P&ID

SHEET NO.

2-Q-160

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R16_jbwilson.rvt
9/22/2016 4:19:35 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

10 HP DUPLEX RO PUMPSET

4,000 GAL ABOVEGROUND VERTICAL WATER STORAGE TANK (105" DIAMETER, 125" HEIGHT)

RO PRE-TREATMENT UNIT

7,000 GALLON PER DAY RO PURIFICATION UNIT (TYP)

4,000 GAL ABOVEGROUND VERTICAL WATER STORAGE TANK (105" DIAMETER, 125" HEIGHT)

10 HP DUPLEX RINSE PUMPSET WITH 25 GAL ACCUMULATOR

RO PUMP

RO TANK

RO PRE-TREATMENT

RO PURIFICATION UNIT

RO REJECT TANK

RINSE PUMP

RO WATER PIPING FROM BASEMENT TO CAR WASH BAYS BY PLUMBING. REFER TO PLUMBING DRAWINGS

THREE-WAY VALVE. PROVIDES RO REJECT WATER TO FIRST RINSE ARCH WHEN AVAILABLE (TYP)

RINSE WATER PIPING FROM BASEMENT TO CAR WASH BAYS BY PLUMBING. REFER TO PLUMBING DRAWINGS

30 GPM	30 GPM	30 GPM	30 GPM	45 GPM	45 GPM	45 GPM	45 GPM	45 GPM	45 GPM	45 GPM	45 GPM
TO CAR WASH BAY GROUP 1	TO CAR WASH BAY GROUP 2	TO CAR WASH BAY GROUP 3	TO CAR WASH BAY GROUP 4	TO CAR WASH BAY GROUP 5	TO CAR WASH BAY GROUP 6	TO CAR WASH BAY GROUP 7	TO CAR WASH BAY GROUP 8	TO CAR WASH BAY GROUP 9	TO CAR WASH BAY GROUP 10	TO CAR WASH BAY GROUP 11	TO CAR WASH BAY GROUP 12

FRESH WATER INPUT FROM BACKFLOW PREVENTER. REFER TO PLUMBING PLANS.

RAINWATER INPUT FROM TREATMENT SKID. REFER TO PLUMBING PLANS.

84 GPM	84 GPM	84 GPM	84 GPM	84 GPM	84 GPM	84 GPM	84 GPM	56 GPM	56 GPM	56 GPM	56 GPM
TO CAR WASH BAY GROUP 12	TO CAR WASH BAY GROUP 11	TO CAR WASH BAY GROUP 10	TO CAR WASH BAY GROUP 9	TO CAR WASH BAY GROUP 8	TO CAR WASH BAY GROUP 7	TO CAR WASH BAY GROUP 6	TO CAR WASH BAY GROUP 5	TO CAR WASH BAY GROUP 4	TO CAR WASH BAY GROUP 3	TO CAR WASH BAY GROUP 2	TO CAR WASH BAY GROUP 1

CAR WASH SYSTEM NOTE:

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SELECTED CAR WASH VENDOR TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM. THE CAR WASH EQUIPMENT LAYOUT SHOWN HERE IS DIAGRAMMATIC ONLY, AND IS INTENDED TO SHOW GENERAL EQUIPMENT REQUIREMENTS. SEEK AND OBTAIN CAR WASH SYSTEM VENDOR DRAWINGS FOR DETAILS ON EXACT SYSTEM LOCATION, SYSTEM PIPING, SYSTEM WIRING AND CONNECTION POINTS. THE ASSOCIATED MECHANICAL AND ELECTRICAL DRAWINGS IN OTHER SECTIONS ARE INTENDED TO PROVIDE BASE INFRASTRUCTURE (DRAINAGE, WATER, AND POWER TO THE CAR WASH SYSTEM). THE EXACT LOCATION OF THIS INFRASTRUCTURE, INCLUDING CONNECTION POINTS WILL VARY WITH CAR WASH SYSTEM, AND SHALL BE COORDINATED AND ADJUSTED AS NECESSARY BY THE CONTRACTOR. ADDITIONAL COMPENSATION WILL NOT BE PROVIDED TO MAKE ADJUSTMENTS TO SUPPORTING INFRASTRUCTURE TO ACCOMMODATE A SPECIFIC CAR WASH BRAND. SHOULD COMPRESSED AIR BE NECESSARY FOR THE OPERATION OF THE CAR WASH, THE CONTRACTOR AND CAR WASH VENDOR SHALL BE RESPONSIBLE FOR PROVIDING THAT INFRASTRUCTURE.

CAR WASH LEGEND

RO	-	REVERSE OSMOSIS
ROP	-	RO PUMP SET (SECOND STAGE)
ROC	-	RO CONTROLLER / PURIFICATION UNIT
ROR	-	REVERSE OSMOSIS REJECT
RORT	-	REVERSE OSMOSIS REJECT TANK
RORP	-	REVERSE OSMOSIS REJECT PUMP (FIRST STAGE)
ROT	-	RO TANK
RP	-	RECLAIM PIT
RCT	-	RECLAIM TANK
RCP	-	RECLAIM PUMP
RCC	-	RECLAIM CONTROLLER
RCF	-	RECLAIM CLARIFIER

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

REVISIONS:

MARK	DATE	DESCRIPTION

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

PROJ NO:	DA4881
SCALE:	1/2" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	N.MacAloney
DRAWN BY:	N.MacAloney
CHECKED BY:	Z.Rich

SHEET TITLE:

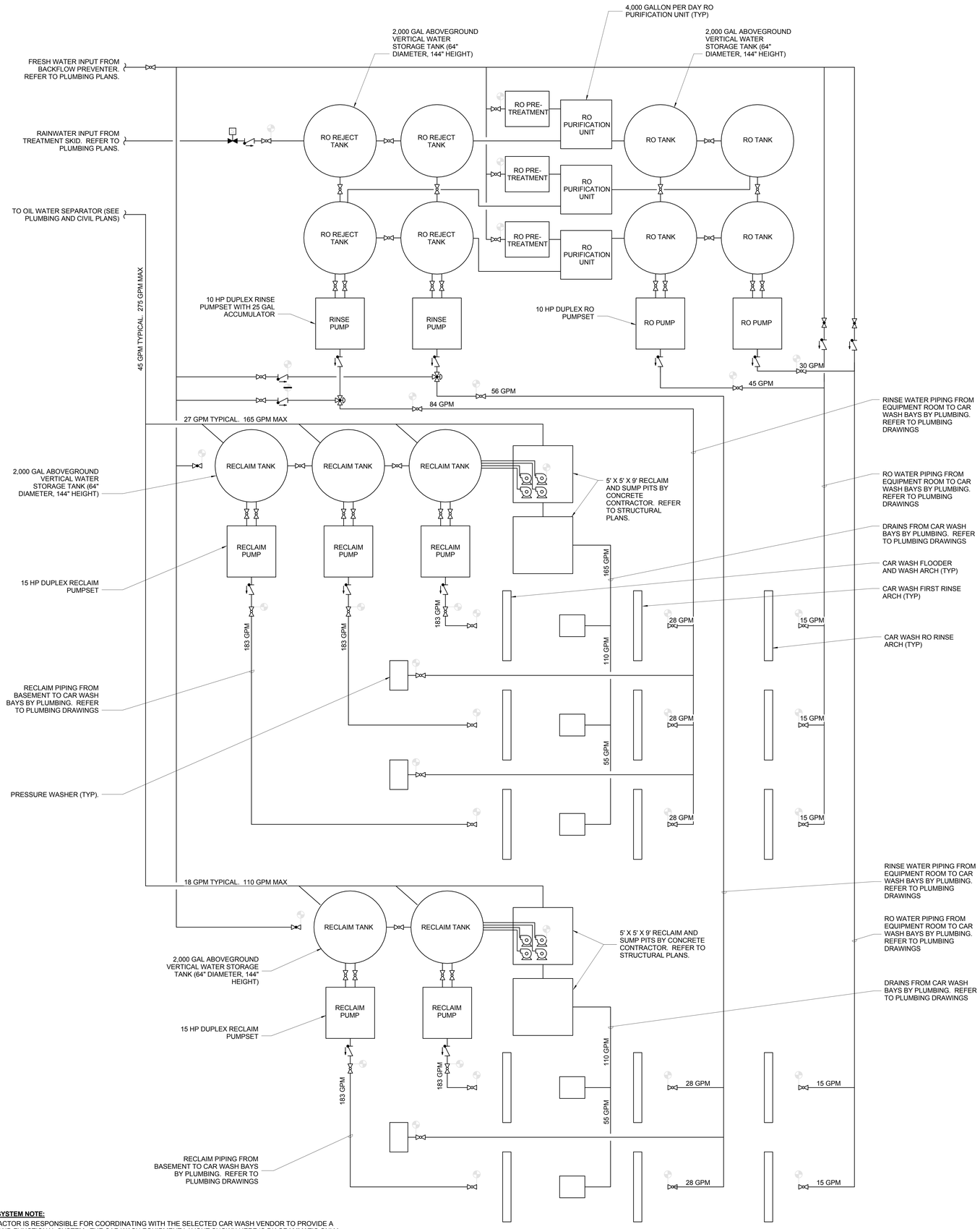
BUILDING A CAR WASH RINSE WATER P&ID

SHEET NO.

2-Q-161

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

8/22/2016 4:19:36 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt



CAR WASH LEGEND

RO	- REVERSE OSMOSIS
ROP	- RO PUMP SET (SECOND STAGE)
ROC	- RO CONTROLLER / PURIFICATION UNIT
ROR	- REVERSE OSMOSIS REJECT
RORT	- REVERSE OSMOSIS REJECT TANK
RORP	- REVERSE OSMOSIS REJECT PUMP (FIRST STAGE)
ROT	- RO TANK
RP	- RECLAIM PIT
RCT	- RECLAIM TANK
RCP	- RECLAIM PUMP
RCC	- RECLAIM CONTROLLER
RCF	- RECLAIM CLARIFIER

CAR WASH SYSTEM NOTE:

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SELECTED CAR WASH VENDOR TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM. THE CAR WASH EQUIPMENT LAYOUT SHOWN HERE IS DIAGRAMMATIC ONLY, AND IS INTENDED TO SHOW GENERAL EQUIPMENT REQUIREMENTS. SEEK AND OBTAIN CAR WASH SYSTEM VENDOR DRAWINGS FOR DETAILS ON EXACT SYSTEM LOCATION, SYSTEM PIPING, SYSTEM WIRING AND CONNECTION POINTS. THE ASSOCIATED MECHANICAL AND ELECTRICAL DRAWINGS IN OTHER SECTIONS ARE INTENDED TO PROVIDE BASE INFRASTRUCTURE (DRAINAGE, WATER, AND POWER TO THE CAR WASH SYSTEM). THE EXACT LOCATION OF THIS INFRASTRUCTURE, INCLUDING CONNECTION POINTS WILL VARY WITH CAR WASH SYSTEM, AND SHALL BE COORDINATED AND ADJUSTED AS NECESSARY BY THE CONTRACTOR. ADDITIONAL COMPENSATION WILL NOT BE PROVIDED TO MAKE ADJUSTMENTS TO SUPPORTING INFRASTRUCTURE TO ACCOMMODATE A SPECIFIC CAR WASH BRAND. SHOULD COMPRESSED AIR BE NECESSARY FOR THE OPERATION OF THE CAR WASH, THE CONTRACTOR AND CAR WASH VENDOR SHALL BE RESPONSIBLE FOR PROVIDING THAT INFRASTRUCTURE.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	N.MacAloney
DRAWN BY:	N.MacAloney
CHECKED BY:	Z.Rich

SHEET TITLE:

BUILDING B CAR WASH P&ID

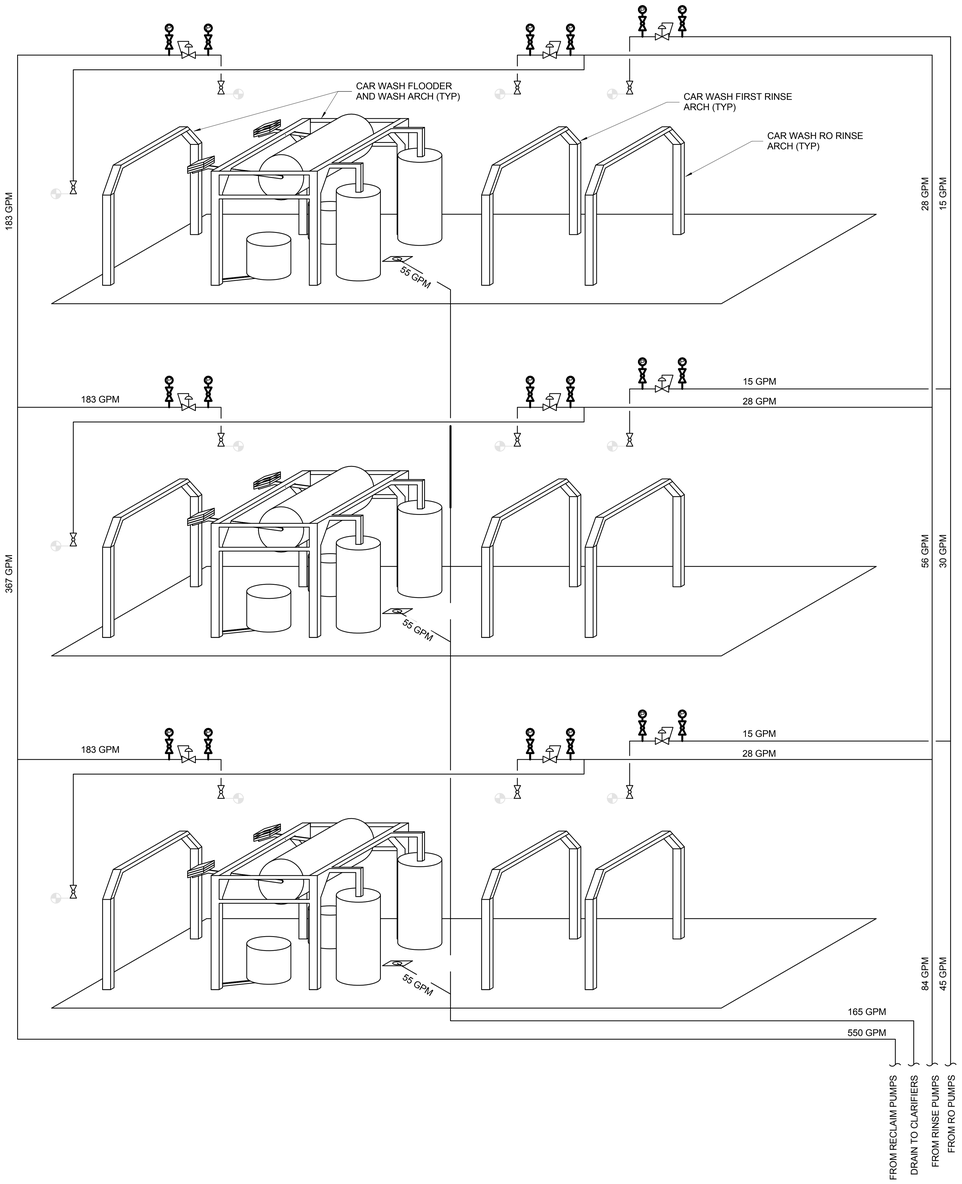
SHEET NO.

2-Q-162

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jmwilson.rvt

9/22/2016 4:19:37 PM



CAR WASH LEGEND

RO	-	REVERSE OSMOSIS
ROP	-	RO PUMP SET (SECOND STAGE)
ROC	-	RO CONTROLLER / PURIFICATION UNIT
ROR	-	REVERSE OSMOSIS REJECT
RORT	-	REVERSE OSMOSIS REJECT TANK
RORP	-	REVERSE OSMOSIS REJECT PUMP (FIRST STAGE)
ROT	-	RO TANK
RP	-	RECLAIM PIT
RCT	-	RECLAIM TANK
RCP	-	RECLAIM PUMP
RCC	-	RECLAIM CONTROLLER
RCF	-	RECLAIM CLARIFIER

CAR WASH SYSTEM NOTE:

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SELECTED CAR WASH VENDOR TO PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM. THE CAR WASH EQUIPMENT LAYOUT SHOWN HERE IS DIAGRAMMATIC ONLY, AND IS INTENDED TO SHOW GENERAL EQUIPMENT REQUIREMENTS. SEEK AND OBTAIN CAR WASH SYSTEM VENDOR DRAWINGS FOR DETAILS ON EXACT SYSTEM LOCATION, SYSTEM PIPING, SYSTEM WIRING AND CONNECTION POINTS. THE ASSOCIATED MECHANICAL AND ELECTRICAL DRAWINGS IN OTHER SECTIONS ARE INTENDED TO PROVIDE BASE INFRASTRUCTURE (DRAINAGE, WATER, AND POWER TO THE CAR WASH SYSTEM). THE EXACT LOCATION OF THIS INFRASTRUCTURE, INCLUDING CONNECTION POINTS WILL VARY WITH CAR WASH SYSTEM, AND SHALL BE COORDINATED AND ADJUSTED AS NECESSARY BY THE CONTRACTOR. ADDITIONAL COMPENSATION WILL NOT BE PROVIDED TO MAKE ADJUSTMENTS TO SUPPORTING INFRASTRUCTURE TO ACCOMMODATE A SPECIFIC CAR WASH BRAND. SHOULD COMPRESSED AIR BE NECESSARY FOR THE OPERATION OF THE CAR WASH, THE CONTRACTOR AND CAR WASH VENDOR SHALL BE RESPONSIBLE FOR PROVIDING THAT INFRASTRUCTURE.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	N.MacAloney
DRAWN BY:	N.MacAloney
CHECKED BY:	Z.Rich

SHEET TITLE:

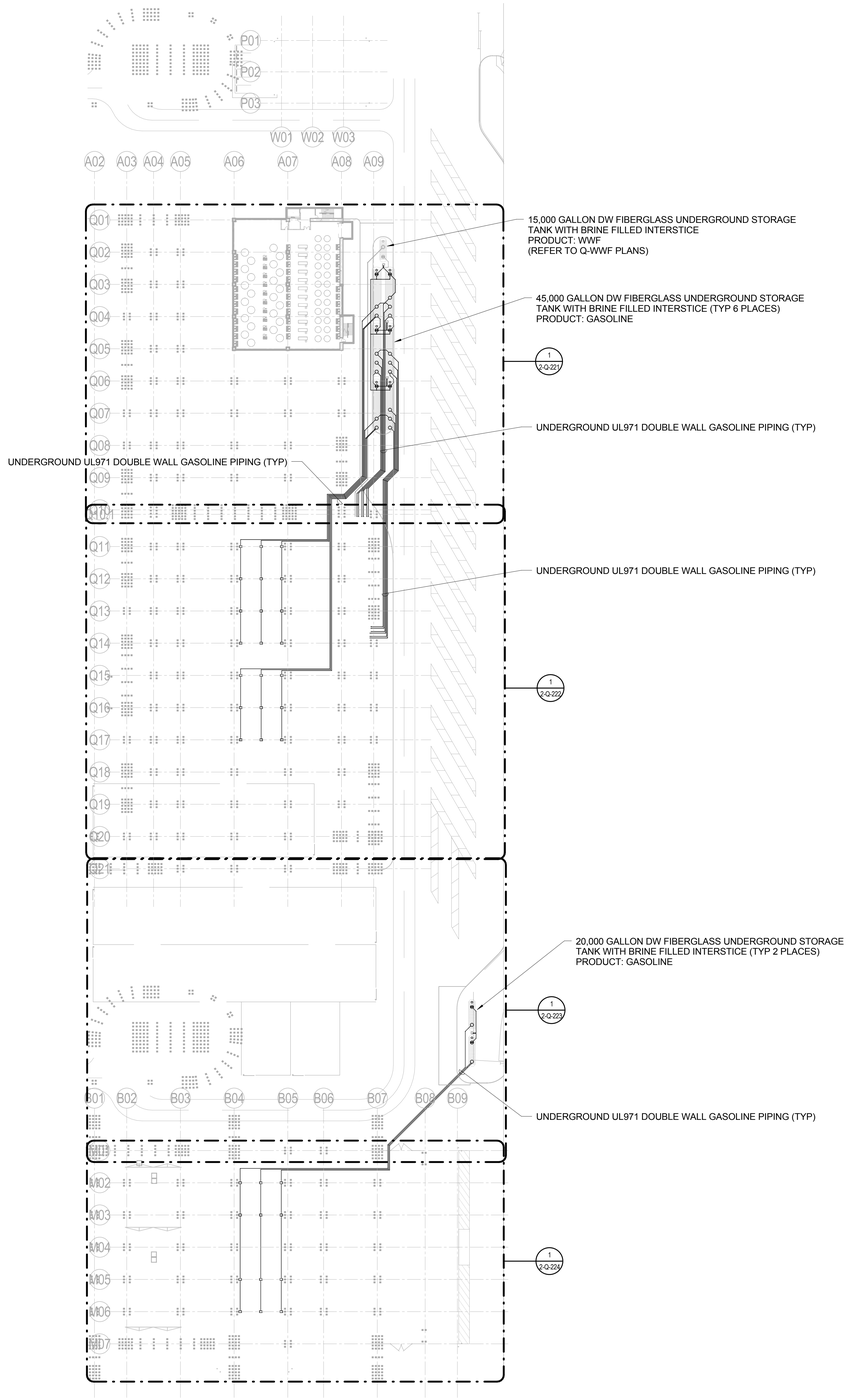
TYPICAL CAR WASH
BAY P&ID

SHEET NO.

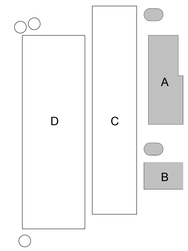
2-Q-163

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:19:38 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jhwilson.rvt



1 2-Q-210 **FS PIPING PLAN_LEVEL_0_60_SCALE**
1" = 60'-0"



KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

8/22/2018 4:19:41 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

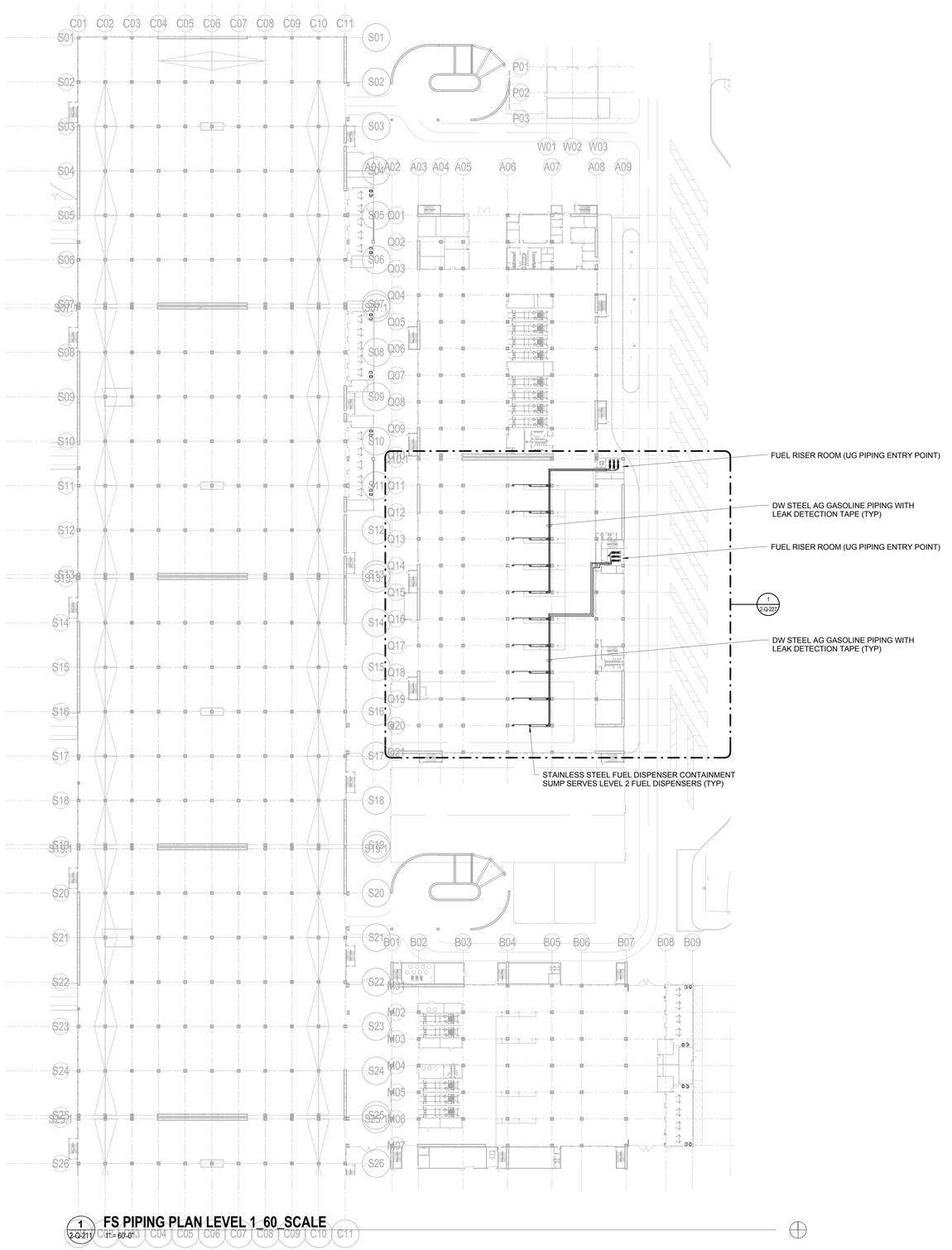
PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

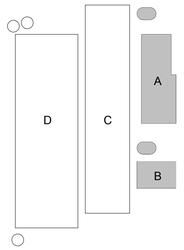
OVERALL FUEL PIPING PLAN LEVEL 0 (UNDERGROUND)

SHEET NO.

2-Q-210



1 2-Q-211 **FS PIPING PLAN LEVEL 1_60_SCALE**
1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

OVERALL FUEL PIPING PLAN LEVEL 1

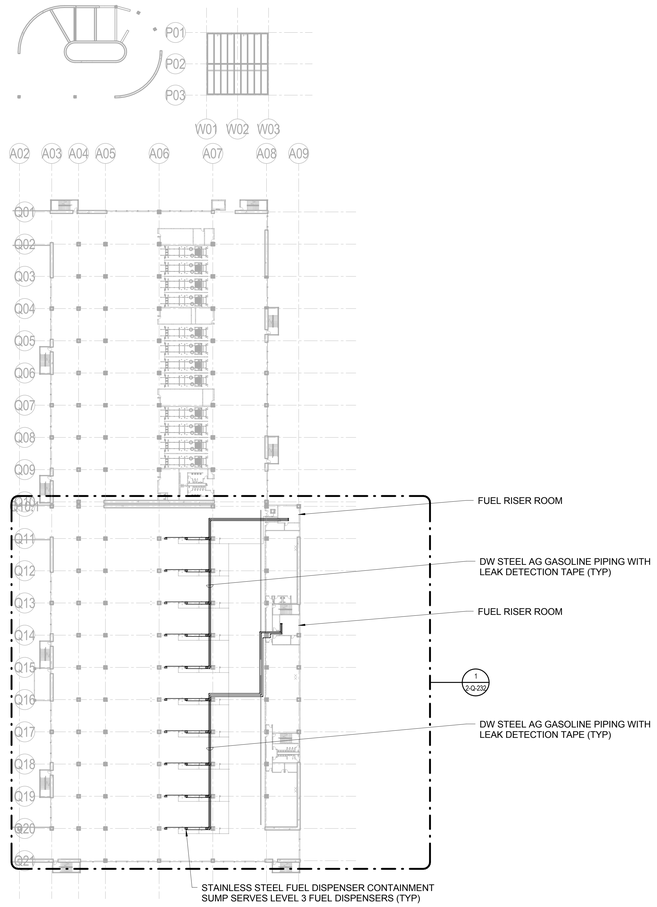
SHEET NO.

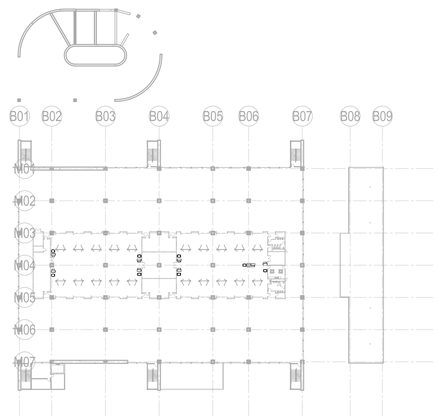
2-Q-211

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

8/22/2018 4:20:18 PM

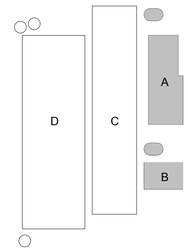
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING





1 / 2-Q-212 FS PIPING PLAN LEVEL 2_60_SCALE

1" = 60'-0"



KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

8/22/2018 4:20:25 PM C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jwilson.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

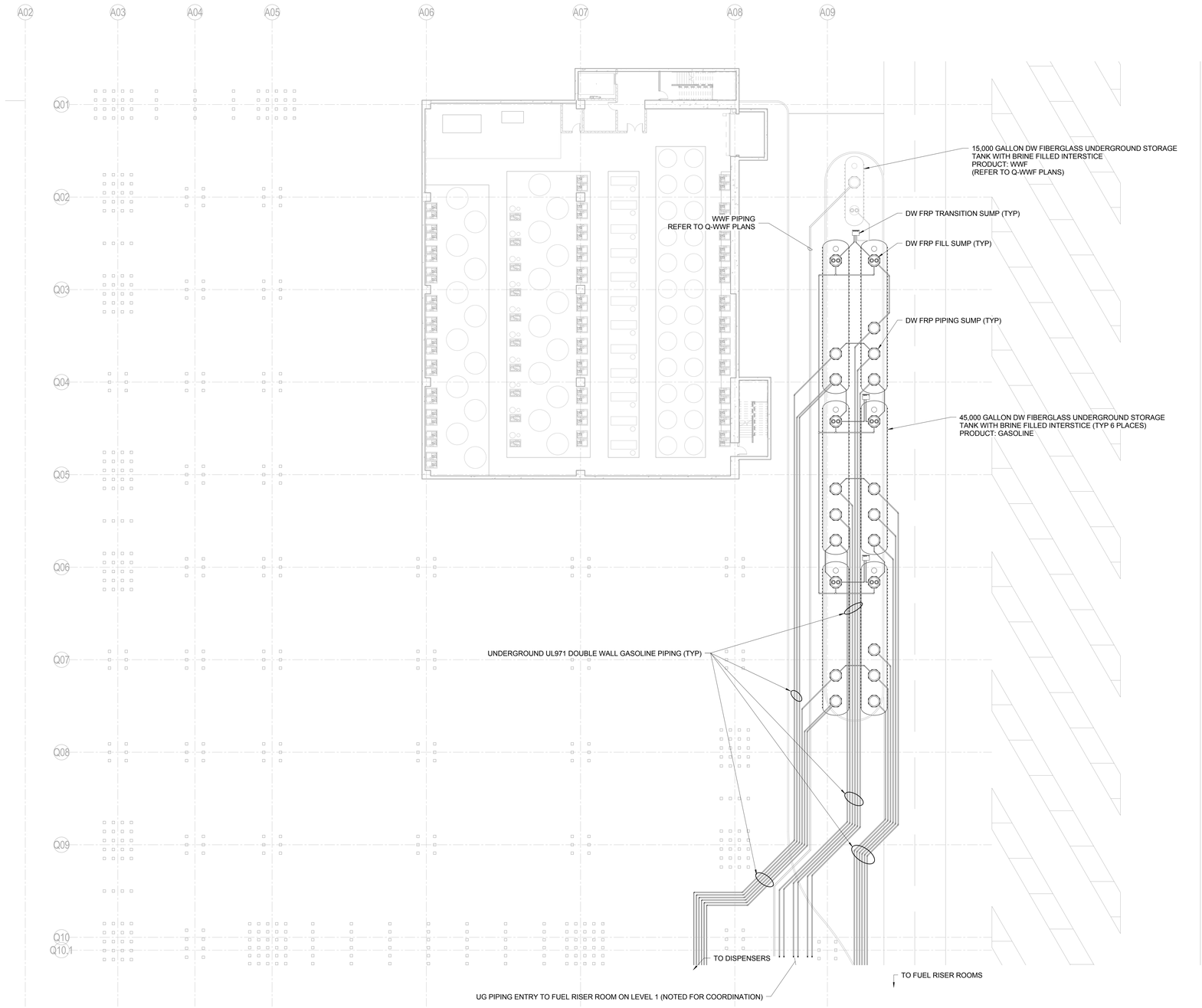
PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

OVERALL FUEL PIPING PLAN LEVEL 2

SHEET NO.

2-Q-212



1 / 2-Q-221 **FS PIPING PLAN_LEVEL_0_16th_SCALE - ZONE 2**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY
CHIEF AIRPORTS ENGINEER

LAX PMD

REVISIONS:

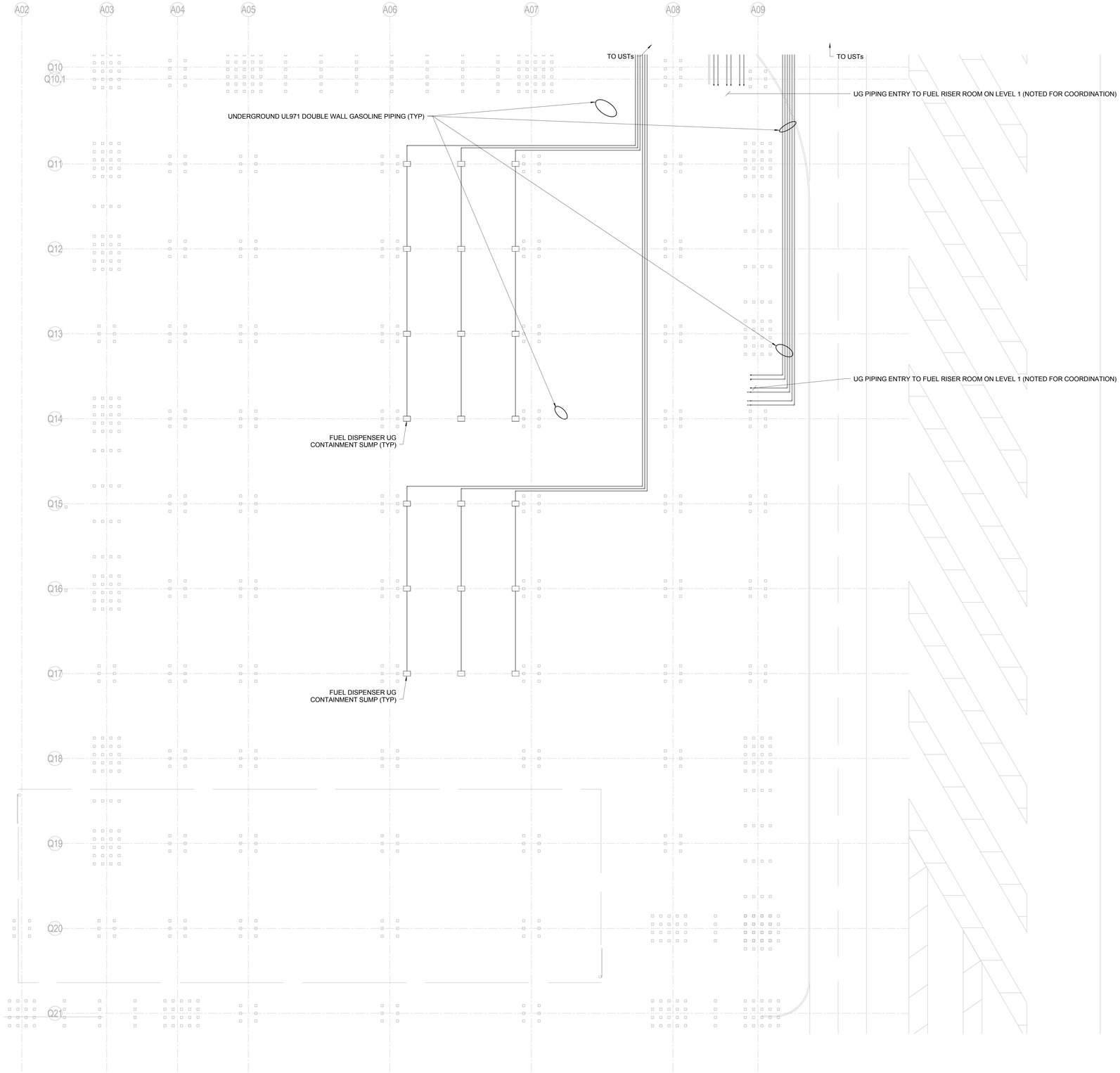
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:
FUEL PIPING PLAN
LEVEL 0 ZONE 2
(UNDERGROUND)

SHEET NO.
2-Q-221

9/22/2016 4:20:28 PM
C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt



1 / 2-Q-222 **FS PIPING PLAN_LEVEL_0_16th_SCALE - ZONE 3**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT LAN PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

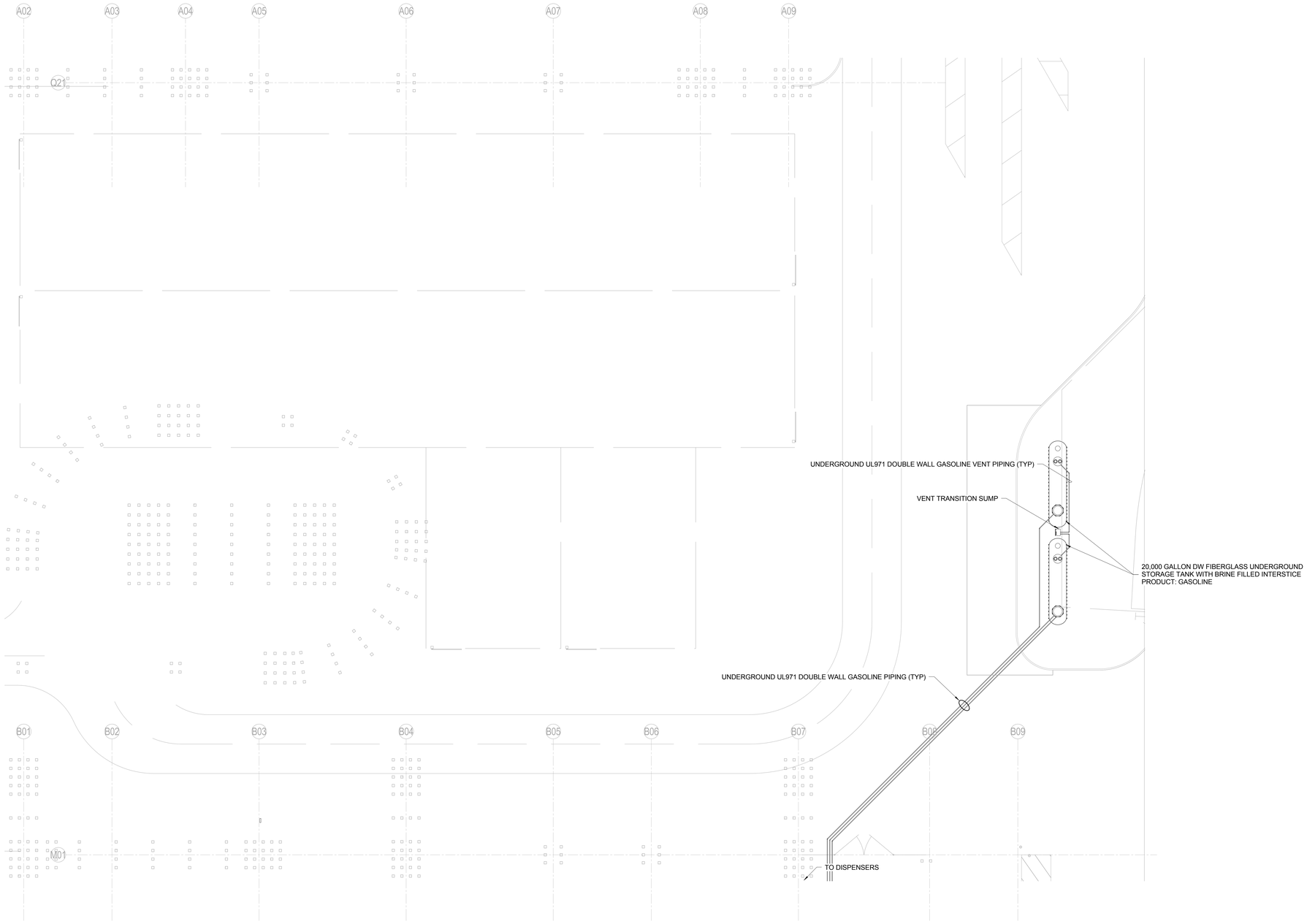
FUEL PIPING PLAN
LEVEL 0 ZONE 3
(UNDERGROUND)

SHEET NO.

2-Q-222

8/22/2018 4:20:30 PM C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jjwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-223 **FS PIPING PLAN LEVEL 0_16th_SCALE ZONE 4**

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

LAX ANCILLARY PMD

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

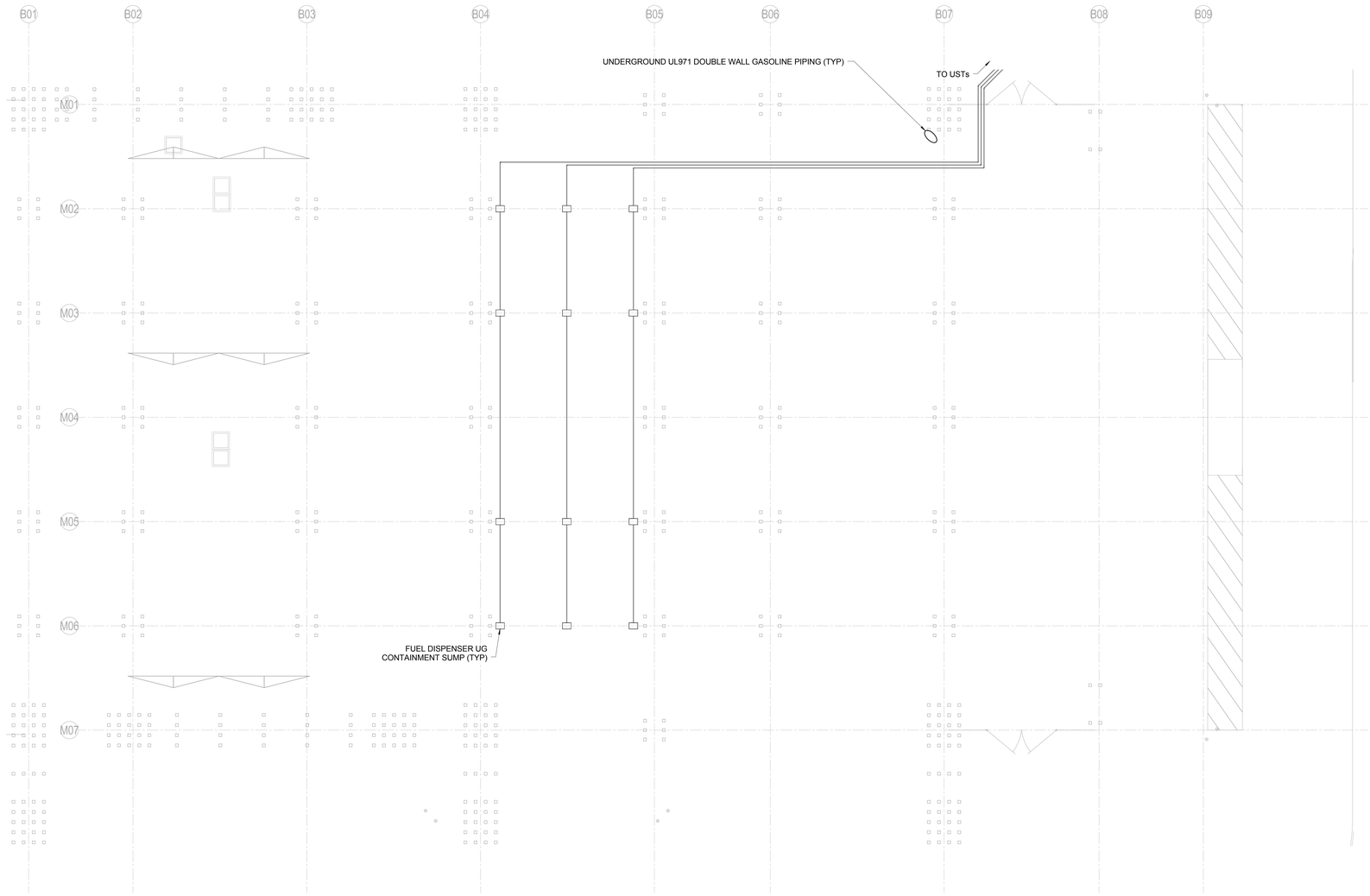
ENLARGED FUEL PIPING PLAN LEVEL 0 ZONE 4 (UNDERGROUND)

SHEET NO.

2-Q-223

C:\Users\PUblic\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

9/22/2016 4:20:31 PM



1
2-Q-224

FS PIPING PLAN LEVEL 0_16th_SCALE ZONE 5

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

ENLARGED FUEL PIPING PLAN LEVEL 0 ZONE 5 (UNDERGROUND)

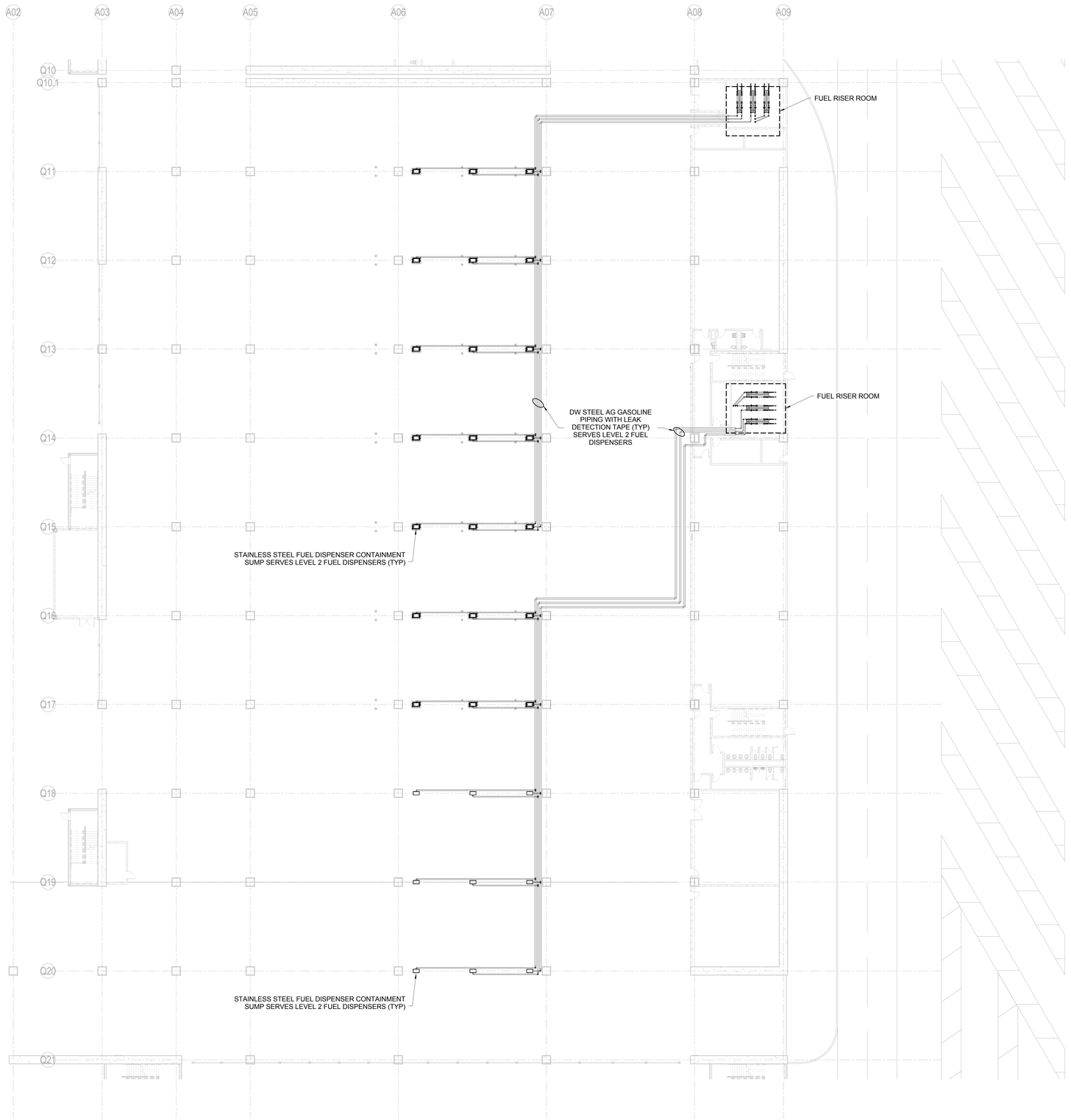
SHEET NO.

2-Q-224

9/22/2016 4:20:33 PM

C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jjwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-227 **FS PIPING PLAN LEVEL 1_16th_SCALE ZONE 3**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX ANA PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

FUEL PIPING PLAN
LEVEL 1 ZONE 3

SHEET NO.

2-Q-227

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt
9/22/2016 4:20:38 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

1 / 2-Q-232 **FS PIPING PLAN LEVEL 2_16th_SCALE ZONE 3**

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

FUEL PIPING PLAN LEVEL 2 ZONE 3

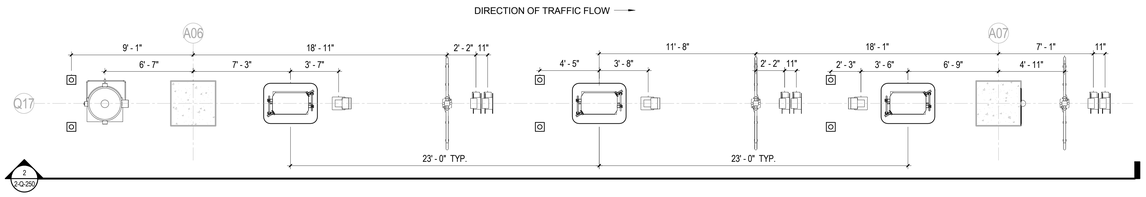
SHEET NO.

2-Q-232

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

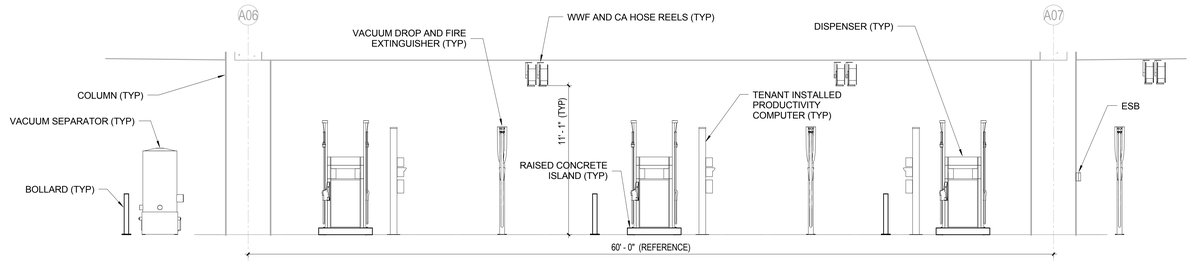
8/22/2018 4:20:57 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



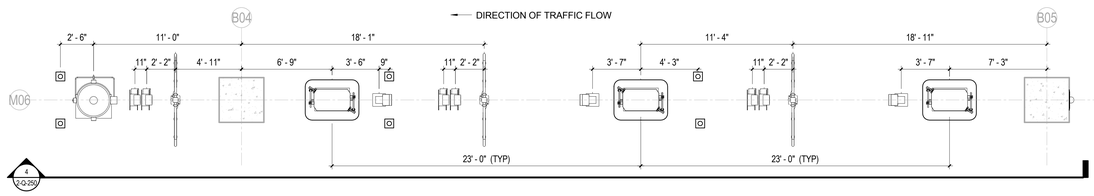
1 2-Q-250 BUILDING A - TYPICAL FUELING ISLAND PLAN

1/4" = 1'-0"



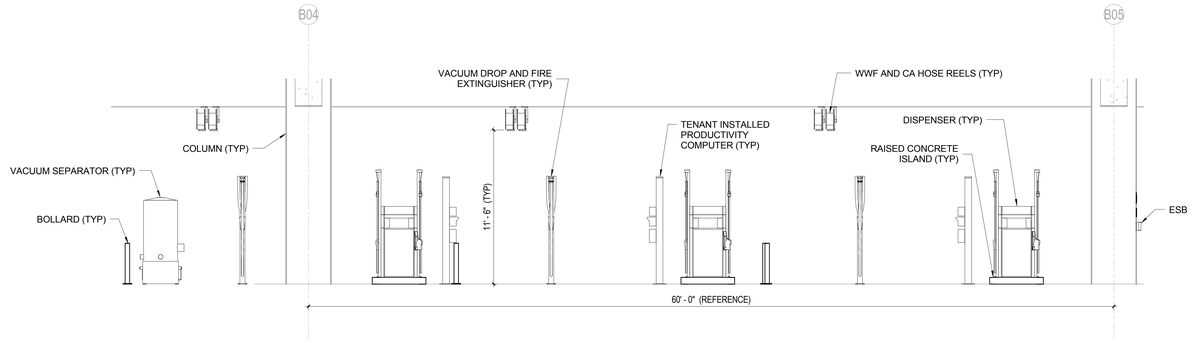
2 2-Q-250 BUILDING A - TYPICAL FUEL ISLAND ELEVATION

1/4" = 1'-0"



3 2-Q-250 BUILDING B - TYPICAL FUELING ISLAND PLAN

1/4" = 1'-0"



4 2-Q-250 BUILDING B - TYPICAL FUEL ISLAND ELEVATION

1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

FUELING ISLAND DETAILS

SHEET NO.

2-Q-250

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jjwilson.rvt

9/22/2016 4:21:02 PM

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

LAX Consolidated Rental Car Facility

Project

Los Angeles World Airports

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

LAX ONT PMD

MARK	DATE	DESCRIPTION
REVISIONS:		

PROJ NO: DA8681
SCALE: 1" = 1'-0"
DATE: 09-23-2016
DESIGNED BY: J.Wilson
DRAWN BY: J.Wilson
CHECKED BY:

SHEET TITLE:

FUEL SYSTEM P&ID - UST AREA (BUILDING A)

SHEET NO.
2-Q-260

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

REFER TO SHEET 2-Q-261 FOR CONTINUANCE

MATCHLINE "A"

MATCHLINE "A"

MATCHLINE "A"

MATCHLINE "A"

UST-1
SERVICES LEVEL 1
DISPENSERS SOUTH
PS-UST1.1
PS-UST1.2
PS-UST1.3

UST-2
SERVICES LEVEL 3
DISPENSERS SOUTH
PS-UST2.1
PS-UST2.2
PS-UST2.3
PS-UST2.4

UST-3
SERVICES LEVEL 3
DISPENSERS NORTH
PS-UST3.1
PS-UST3.2
PS-UST3.3
PS-UST3.4

UST-4
SERVICES LEVEL 2
DISPENSERS SOUTH
PS-UST4.1
PS-UST4.2
PS-UST4.3
PS-UST4.4

UST-5
SERVICES LEVEL 1
DISPENSERS NORTH
PS-UST5.1
PS-UST5.2
PS-UST5.3

UST-6
SERVICES LEVEL 2
DISPENSERS NORTH
PS-UST6.1
PS-UST6.2
PS-UST6.3
PS-UST6.4

REFER TO SHEET 2-Q-460 FOR CONTINUANCE

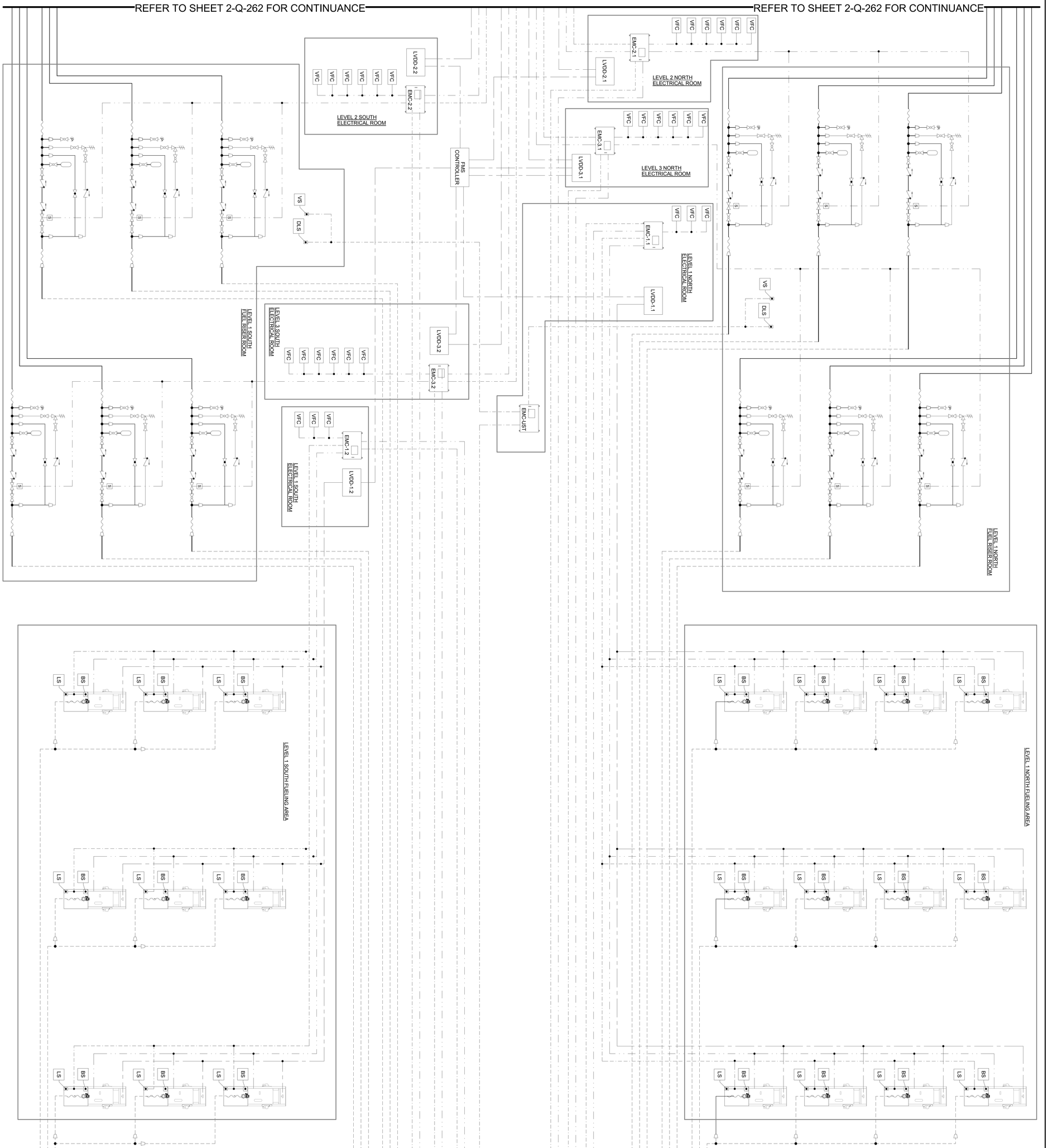
ATG	AUTOMATIC TANK GAUGE
BS	BRINE SENSOR
DLS	DISCRIMINATING LEAK SENSOR
ILS	INTERSTITIAL LEAK SENSOR
LS	LEAK SENSOR
PT	PRESSURE TRANSDUCER
VM1	VACUUM MONITOR - SINGLE
VM2	VACUUM MONITOR - DOUBLE
VS	VAPOR SENSOR

INTRINSICALLY SAFE WIRING
LOW VOLTAGE WIRING
CONTROL WIRING
SS TUBING
DW UG SS TUBING
AG PIPE
UG PIPE

BALL VALVE - OPEN
BALL VALVE - CLOSED
DW FRP PIPE TERMINATION FITTING
4" x 4" x 3" x 2" EXTRACTOR
PRESSURE RELIEF VALVE
CHECK VALVE
SOLENOID VALVE
FLEXIBLE CONNECTOR
REDUCER
CAP & ADAPTER
PRESSURE/VACUUM VENT CAP
SPILL BUCKET
SURGE ARRESTOR
4HP VARIABLE SPEED STP

REFER TO SHEET 2-Q-262 FOR CONTINUANCE

REFER TO SHEET 2-Q-262 FOR CONTINUANCE



REFER TO SHEET 2-Q-261 FOR CONTINUANCE

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

SHEET NO.
2-Q-261

FUEL SYSTEM P&ID - LEVEL 1 (BUILDING A)

SHEET TITLE:

PROJECT NO.: DA4881
SCALE: 1" = 1'-0"
DATE: 09-23-2016
DESIGNED BY: JWilson
DRAWN BY: JWilson
CHECKED BY: JWilson

REVISIONS:

MARK	DATE	DESCRIPTION

ONT LAX PMD

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

NOT FOR CONSTRUCTION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

REFER TO SHEET 2-Q-261 FOR CONTINUANCE

REFER TO SHEET 2-Q-261 FOR CONTINUANCE

LEVEL 2 SOUTH FUELING AREA

LEVEL 2 NORTH FUELING AREA

LEVEL 3 SOUTH FUELING AREA

LEVEL 3 NORTH FUELING AREA

DLS

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

REVISIONS:			
MARK	DATE	DESCRIPTION	
PROJ NO:	DA8681		
SCALE:	1" = 1'-0"		
DATE:	09-23-2016		
DESIGNED BY:	J.Wilson		
DRAWN BY:	J.Wilson		
CHECKED BY:			

SHEET TITLE: FUEL SYSTEM P&ID - LEVELS 2/3 (BUILDING A)

SHEET NO. 2-Q-262

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

CONSULTANTS:

Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

NOT FOR CONSTRUCTION

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

C:\Users\FuJob\Documents\Local_Revit_Files\G-DA8681-BLDG_A_B_R15_jwilson.rvt

8/22/2016 4:21:07 PM

LAX Consolidated Rental Car Facility

Project

Los Angeles World Airports

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONSULTANTS:

Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

NOT FOR CONSTRUCTION

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

MARK	DATE	DESCRIPTION

REVISIONS:

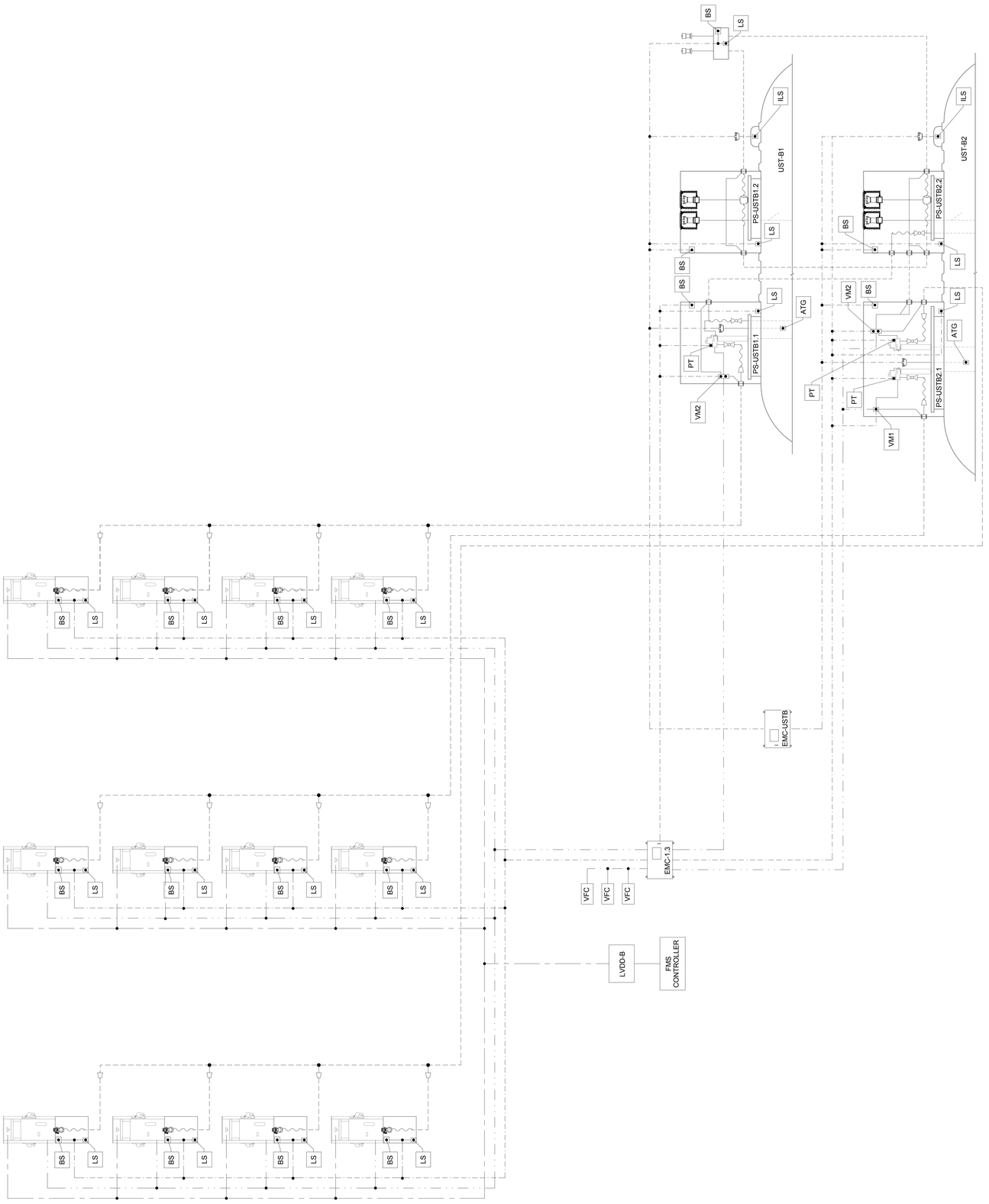
PROJ NO: DA6681
SCALE: 1" = 1'-0"
DATE: 09-23-2016
DESIGNED BY: J.Wilson
DRAWN BY: J.Wilson
CHECKED BY:

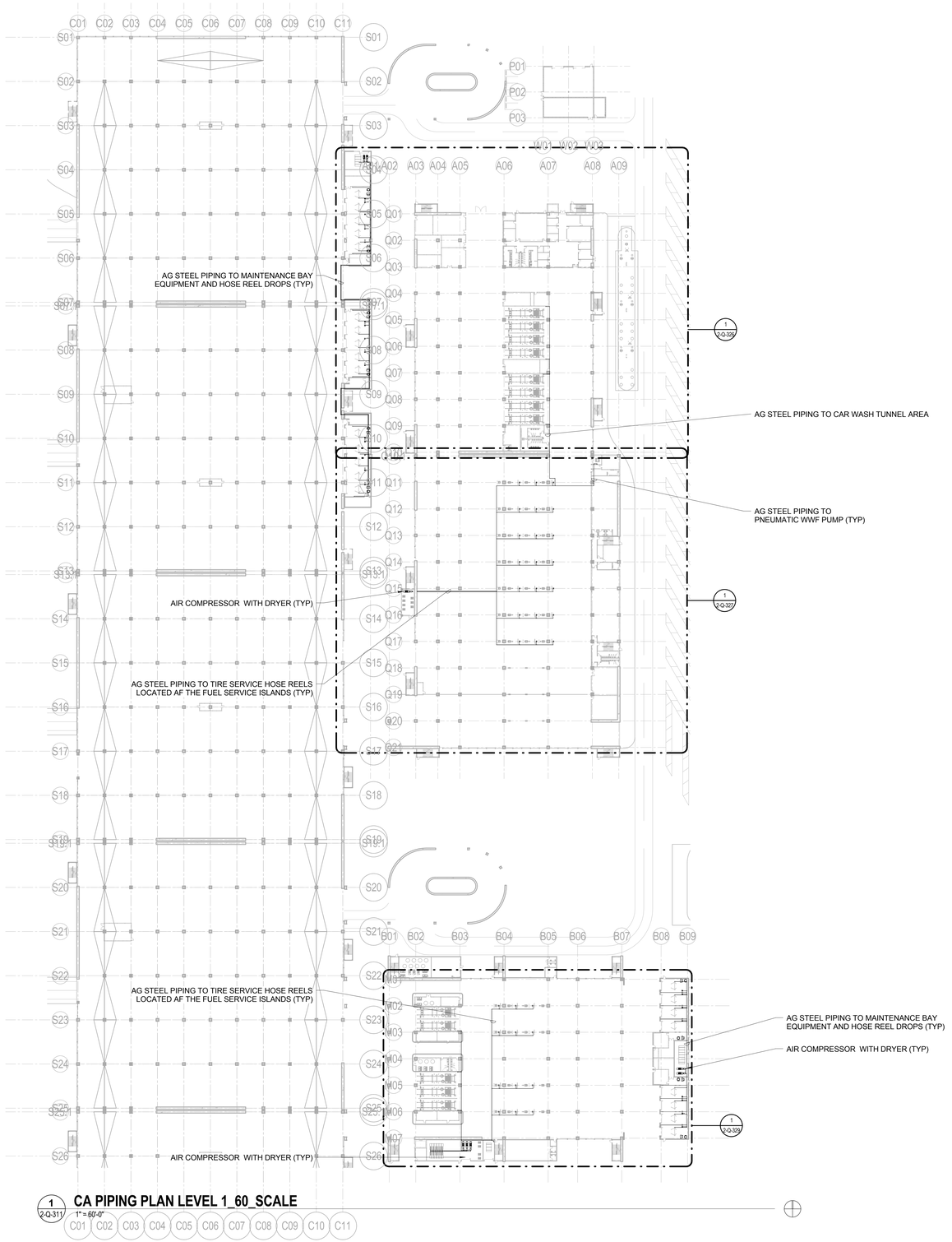
SHEET TITLE:

FUEL SYSTEM P&ID - (BUILDING B)

SHEET NO.
2-Q-265

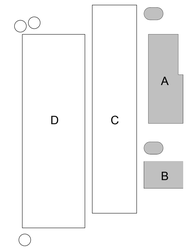
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING





1 2-Q-311 **CA PIPING PLAN LEVEL 1_60_SCALE**

1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

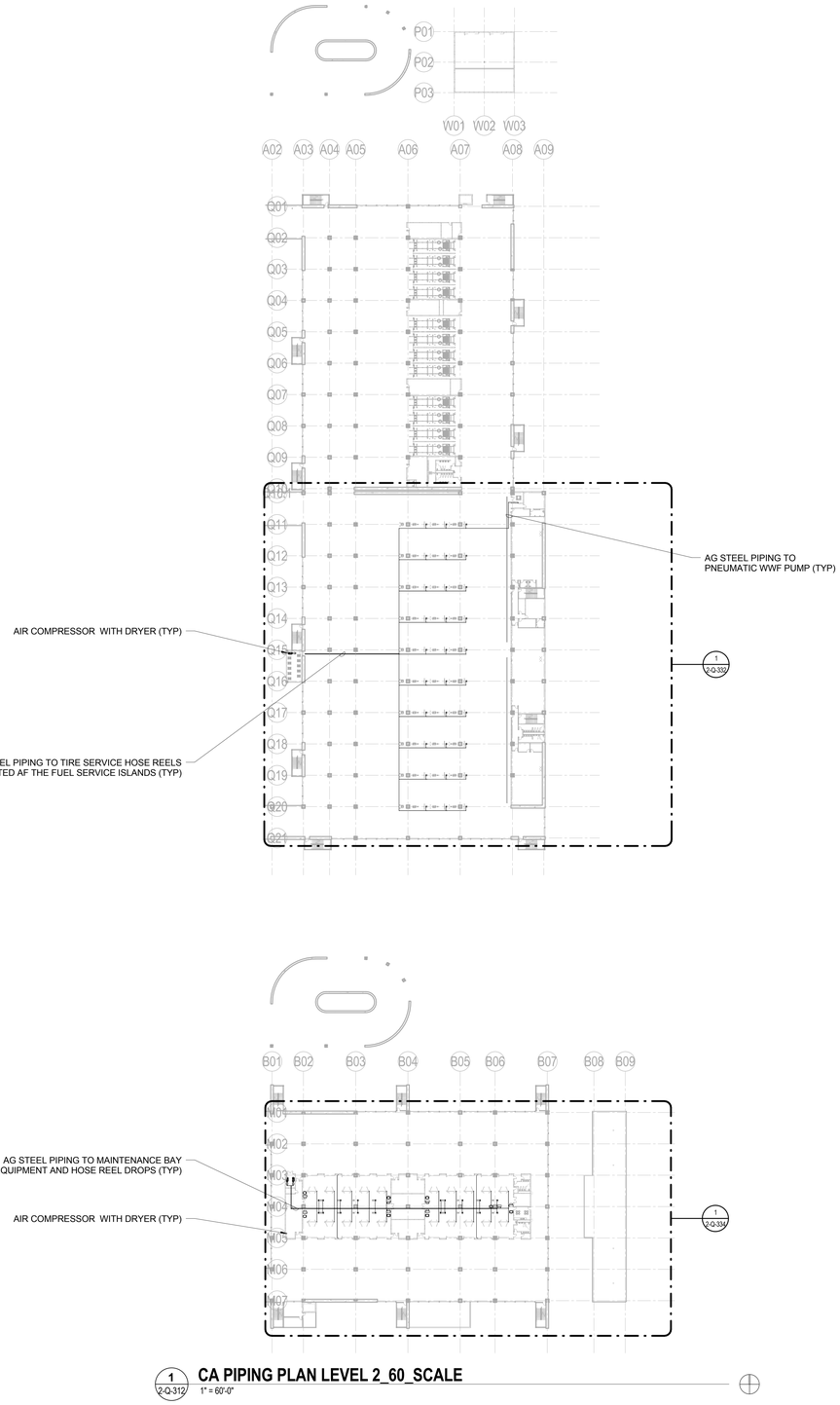
OVERALL COMPRESSED AIR PIPING PLAN LEVEL 1 (BUILDINGS A & B)

SHEET NO.

2-Q-311

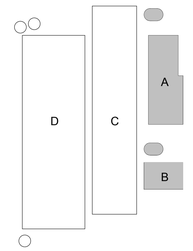
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

8/22/2018 4:21:35 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt



1 / 2-Q-312 **CA PIPING PLAN LEVEL 2_60_SCALE**

1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

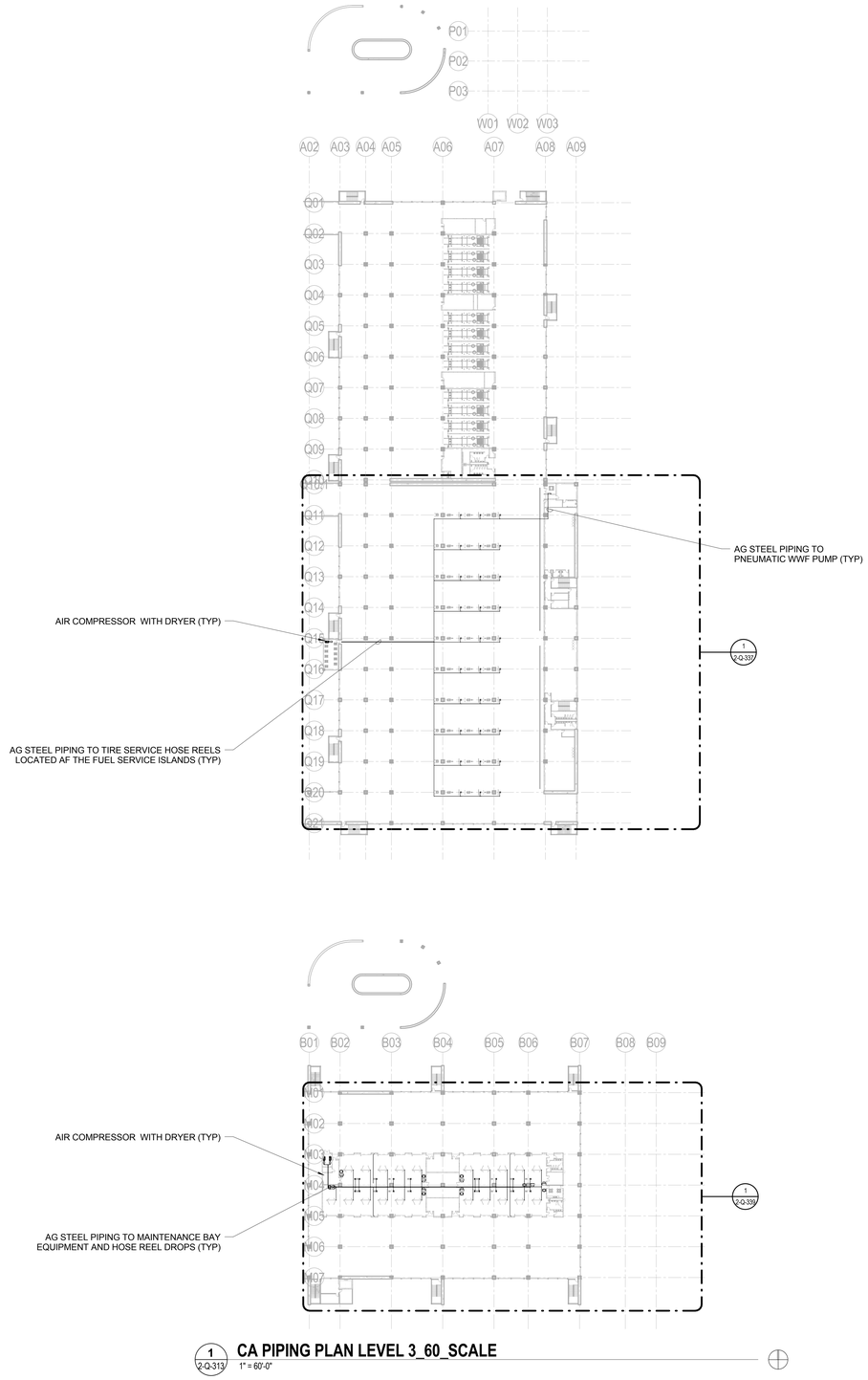
OVERALL COMPRESSED AIR PIPING PLAN LEVEL 2 (BUILDINGS A & B)

SHEET NO.

2-Q-312

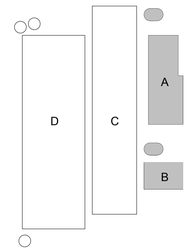
9/22/2016 4:21:48 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jrwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-313 **CA PIPING PLAN LEVEL 3_60_SCALE**

1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

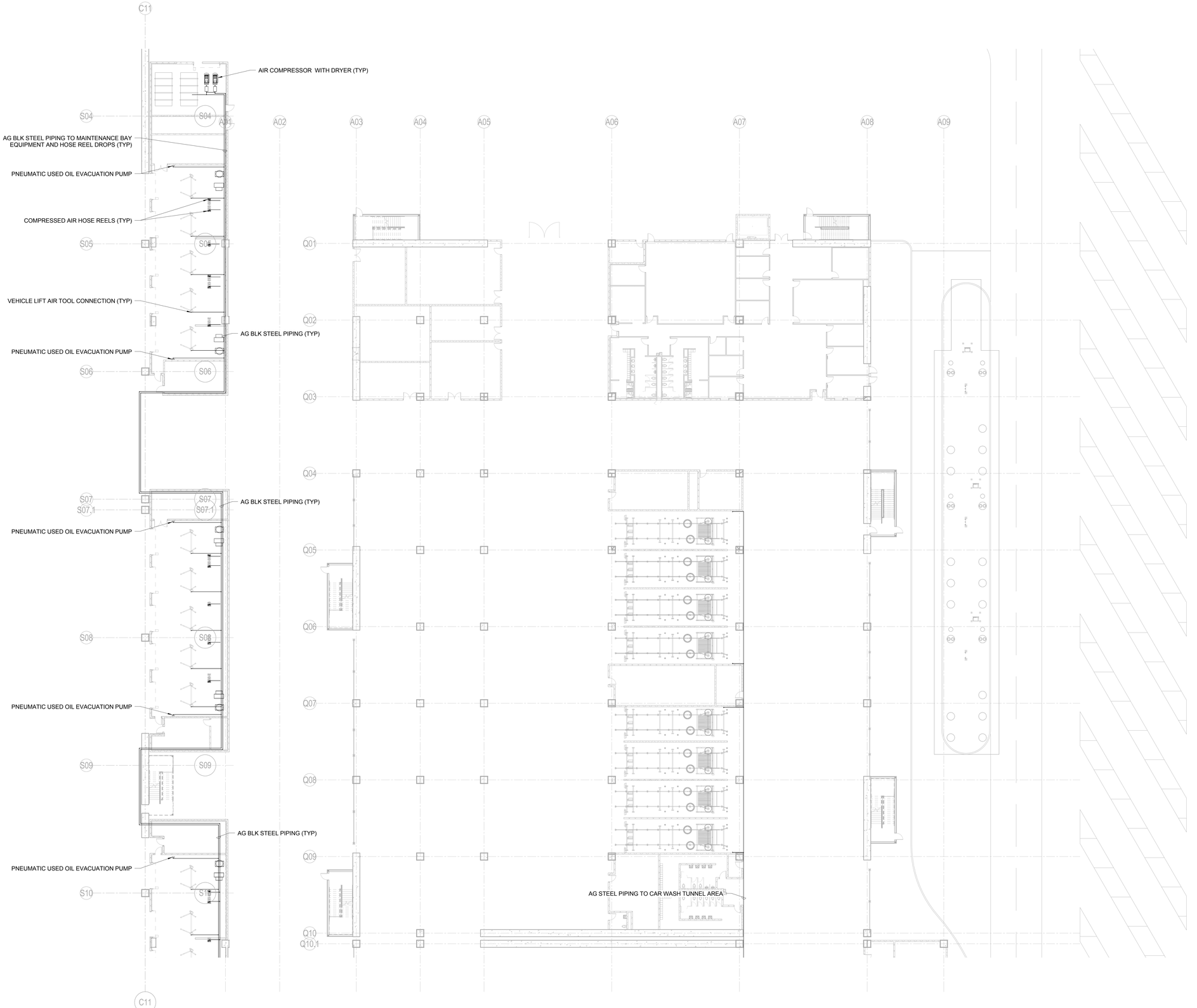
OVERALL COMPRESSED AIR PIPING PLAN LEVEL 3 (BUILDINGS A & B)

SHEET NO.

2-Q-313

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:21:09 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt



1 / 2-Q-326 **CA PIPING PLAN LEVEL 1_16th_SCALE ZONE 2**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport
SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

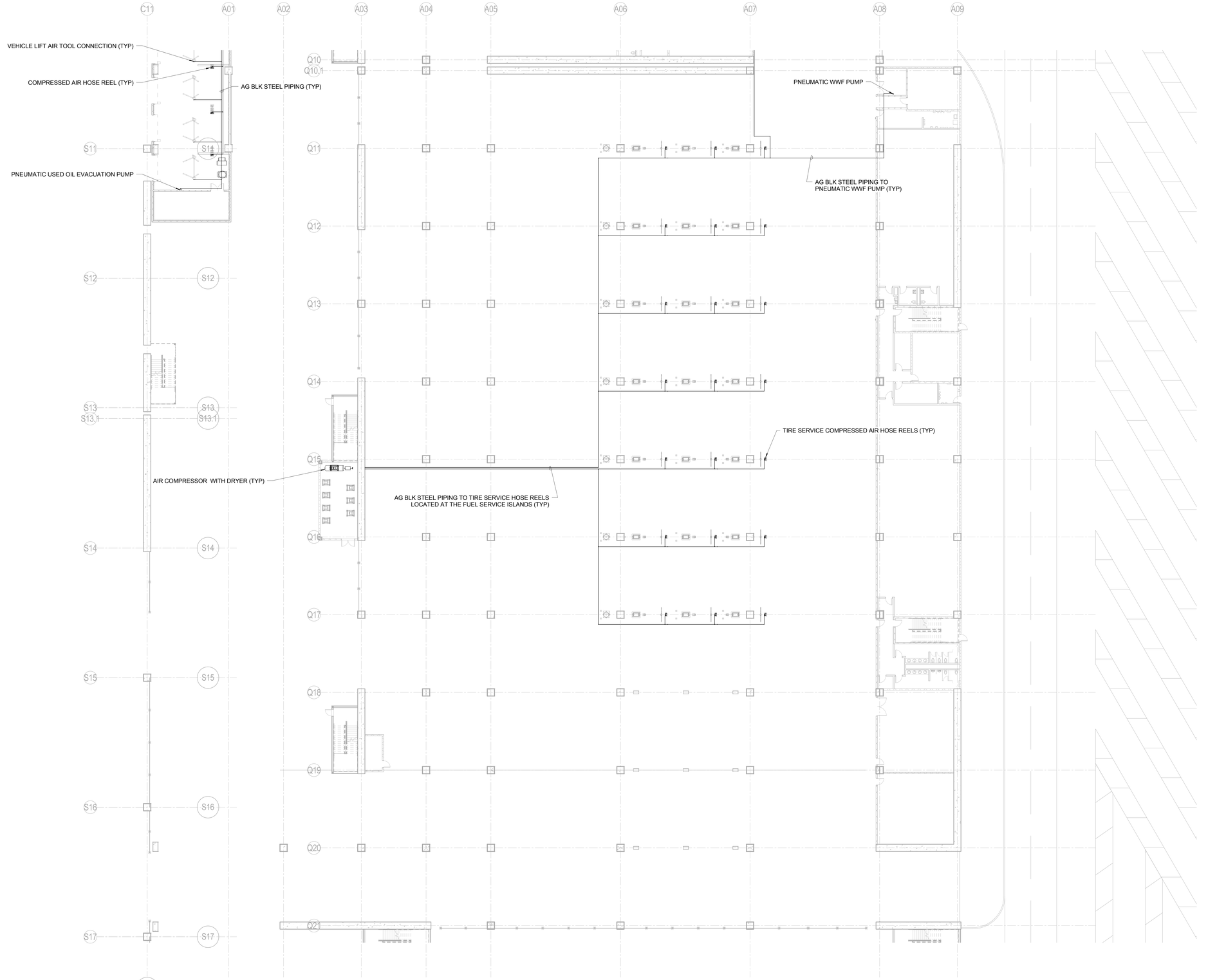
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:
COMPRESSED AIR PIPING PLAN LEVEL 1 ZONE 2 (BUILDING A)

SHEET NO.
2-Q-326

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:22:04 PM C:\Users\PUblic\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jlwilson.rvt



C11

1 / 2-Q-327 **CA PIPING PLAN LEVEL 1_16th_SCALE ZONE 3**

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

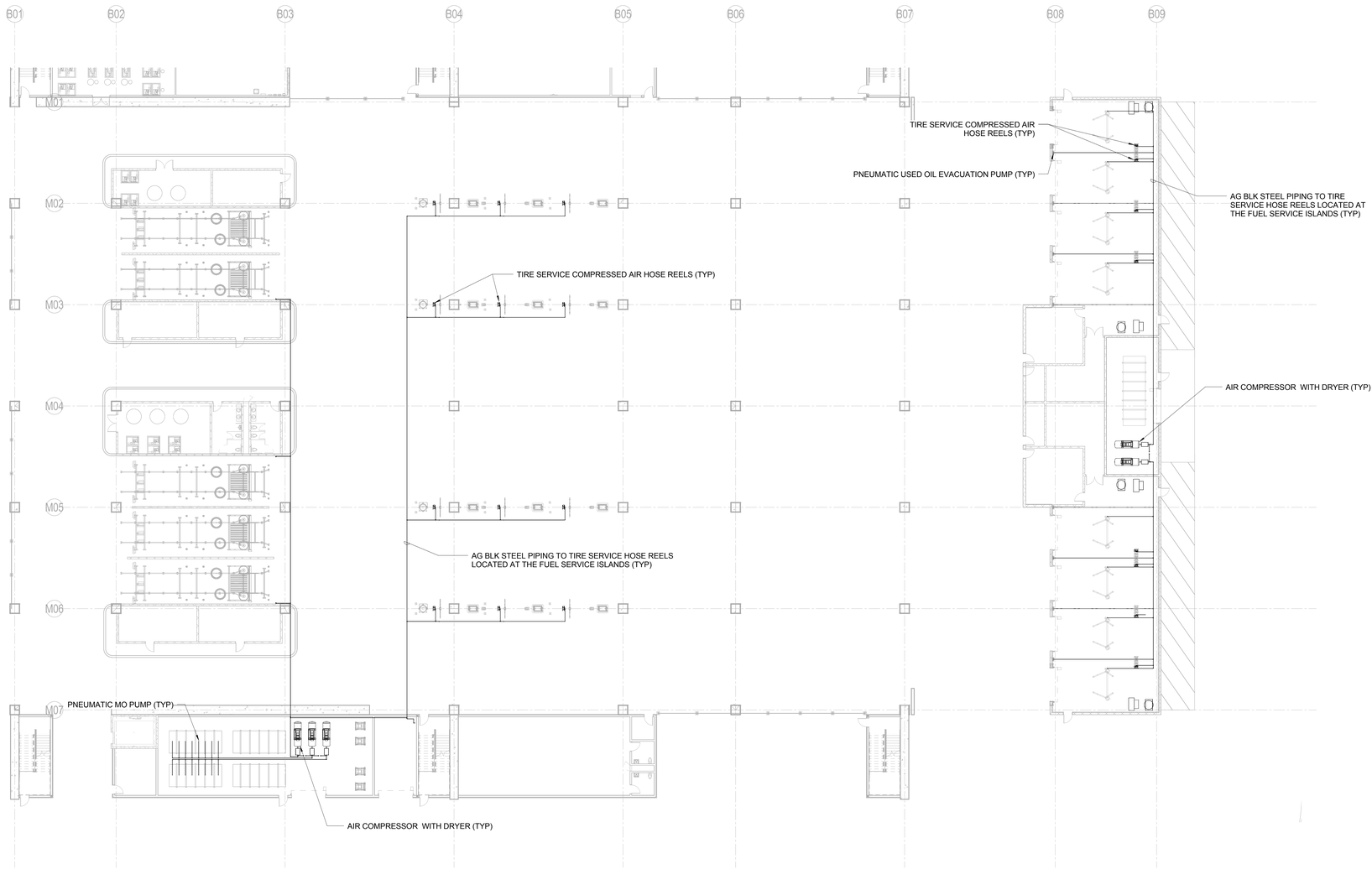
PROJ NO.:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	Z.Rich
CHECKED BY:	Z.Rich

SHEET TITLE:
COMPRESSED AIR PIPING PLAN LEVEL 1 ZONE 3 (BUILDING A)

SHEET NO.
2-Q-327

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-RLDG_A_B_R15_jwilson.rvt
9/22/2016 4:22:17 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-329 **CA PIPING PLAN LEVEL 1_16th_SCALE ZONE 5**

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

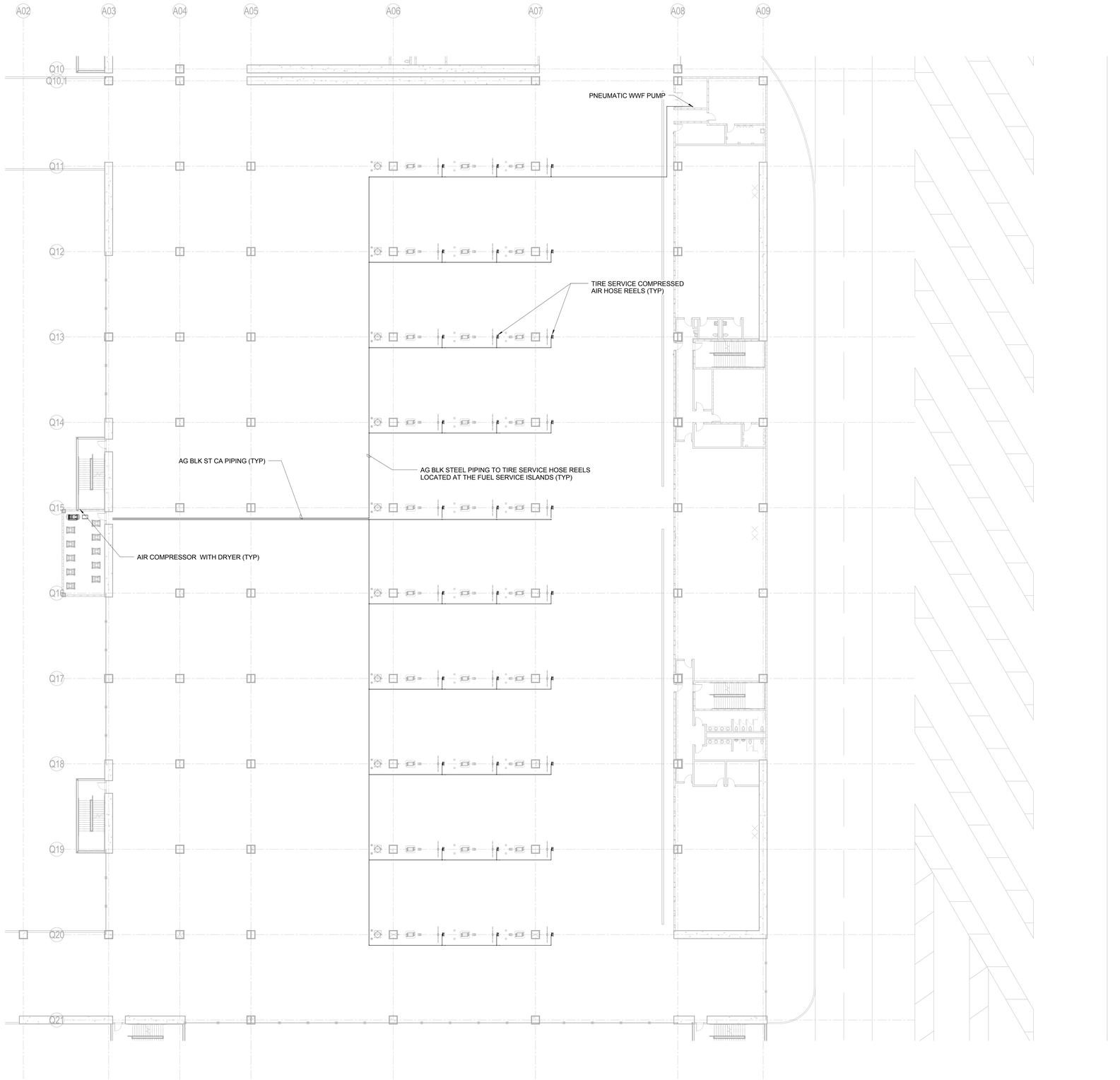
SHEET TITLE:

COMPRESSED AIR PIPING PLAN LEVEL 1 ZONE 5 (BUILDING B)

SHEET NO.

2-Q-329

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt
8/22/2018 4:22:25 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-332 **CA PIPING PLAN LEVEL 2_16th_SCALE ZONE 3**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS: MARK | DATE | DESCRIPTION

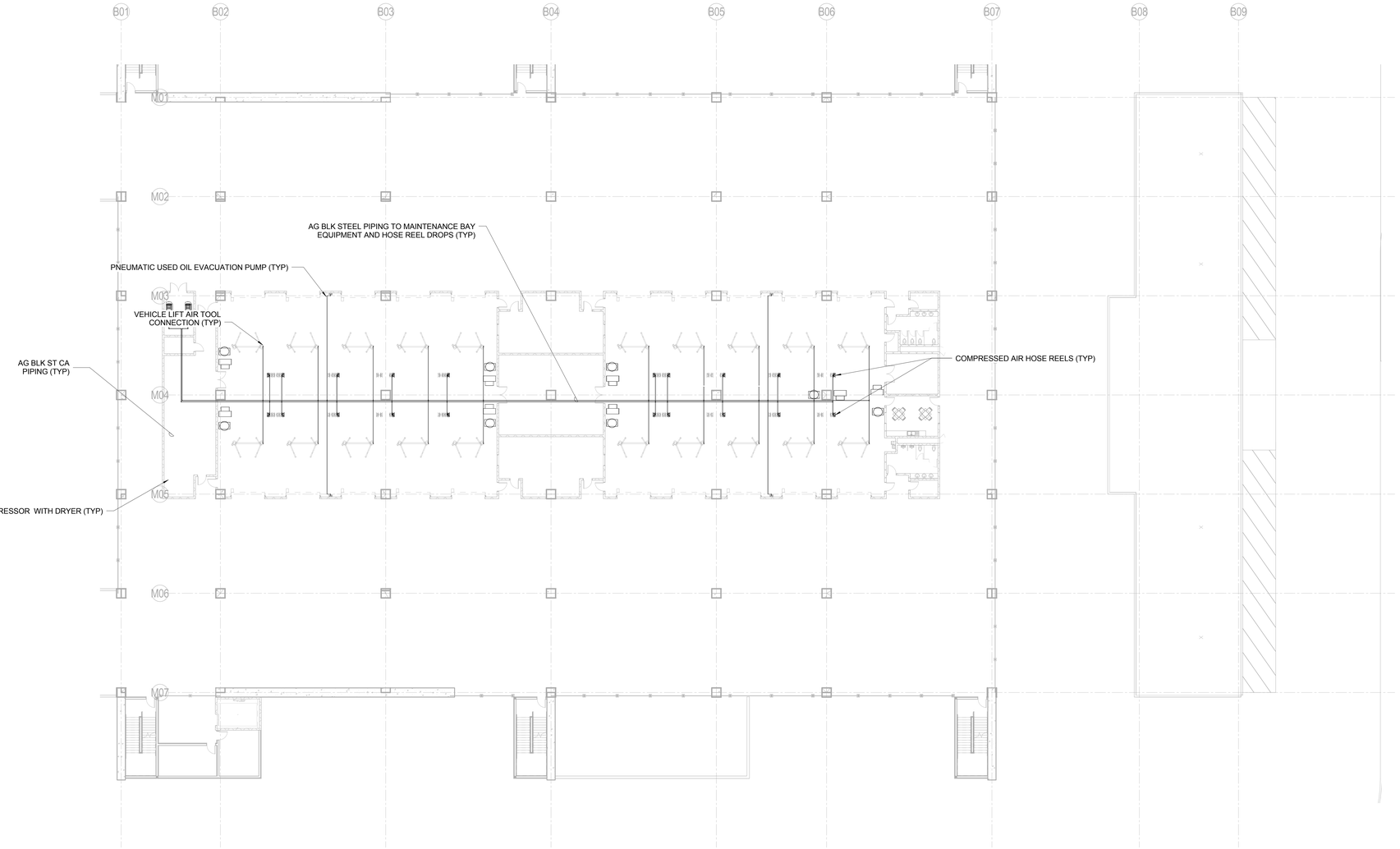
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:
COMPRESSED AIR PIPING PLAN LEVEL 2 ZONE 3 (BUILDING A)

SHEET NO.
2-Q-332

C:\Users\Public\Documents\Local_Revit_Files\d3-DA4881-BLDG_A_B_R16_jwilson.rvt
9/22/2016 4:22:55 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1
2-Q-334
CA PIPING PLAN LEVEL 2_16th_SCALE ZONE 5
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt
8/22/2018 4:22:53 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

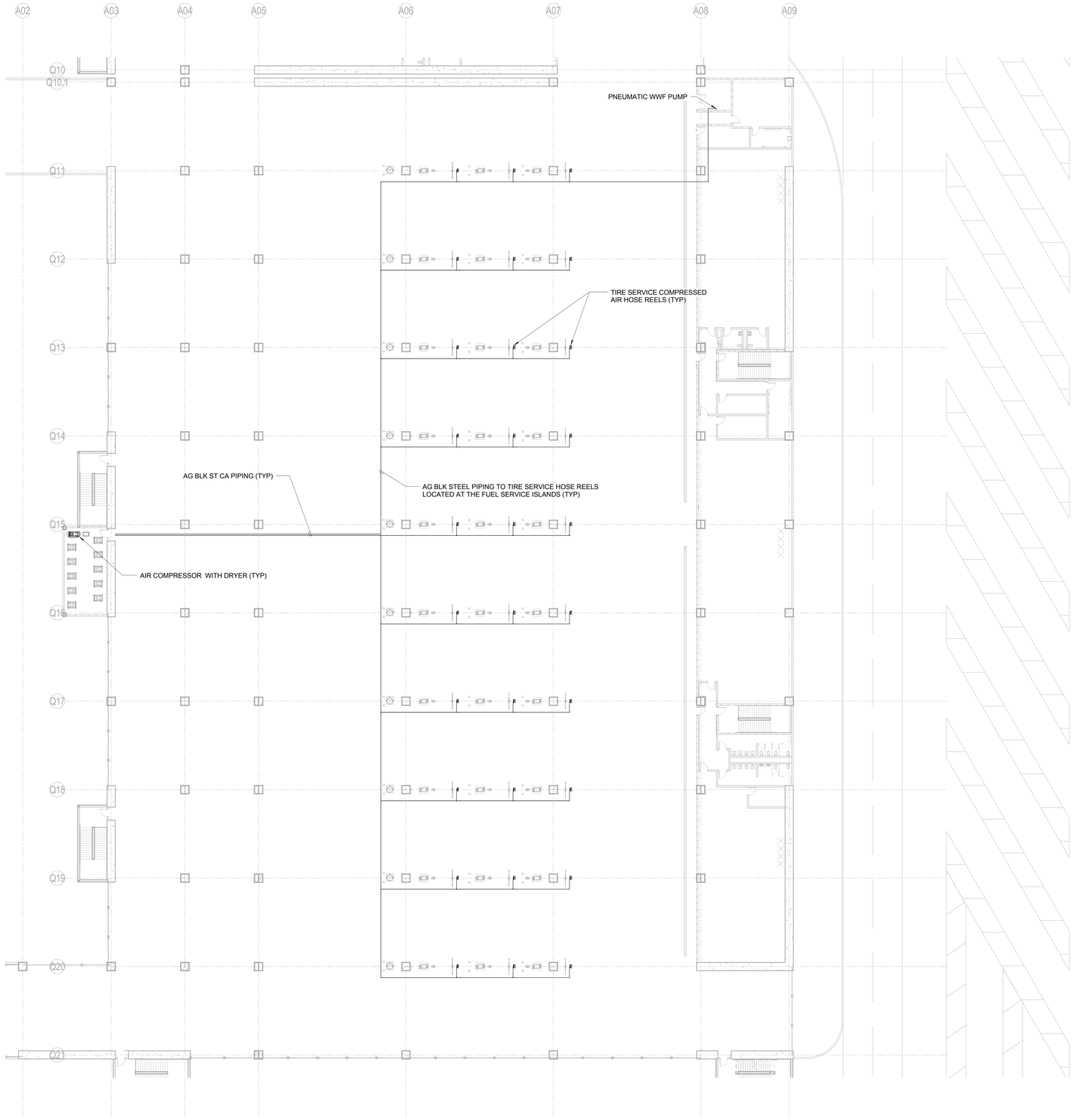
ONE LAX PMD

REVISIONS:
MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:
COMPRESSED AIR PIPING PLAN LEVEL 2 ZONE 5 (BUILDING B)

SHEET NO.
2-Q-334



1 / 2-Q-337 **CA PIPING PLAN LEVEL 3_16th_SCALE ZONE 3**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS: MARK | DESCRIPTION | DATE

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

COMPRESSED AIR PIPING PLAN LEVEL 3 ZONE 3 (BUILDING A)

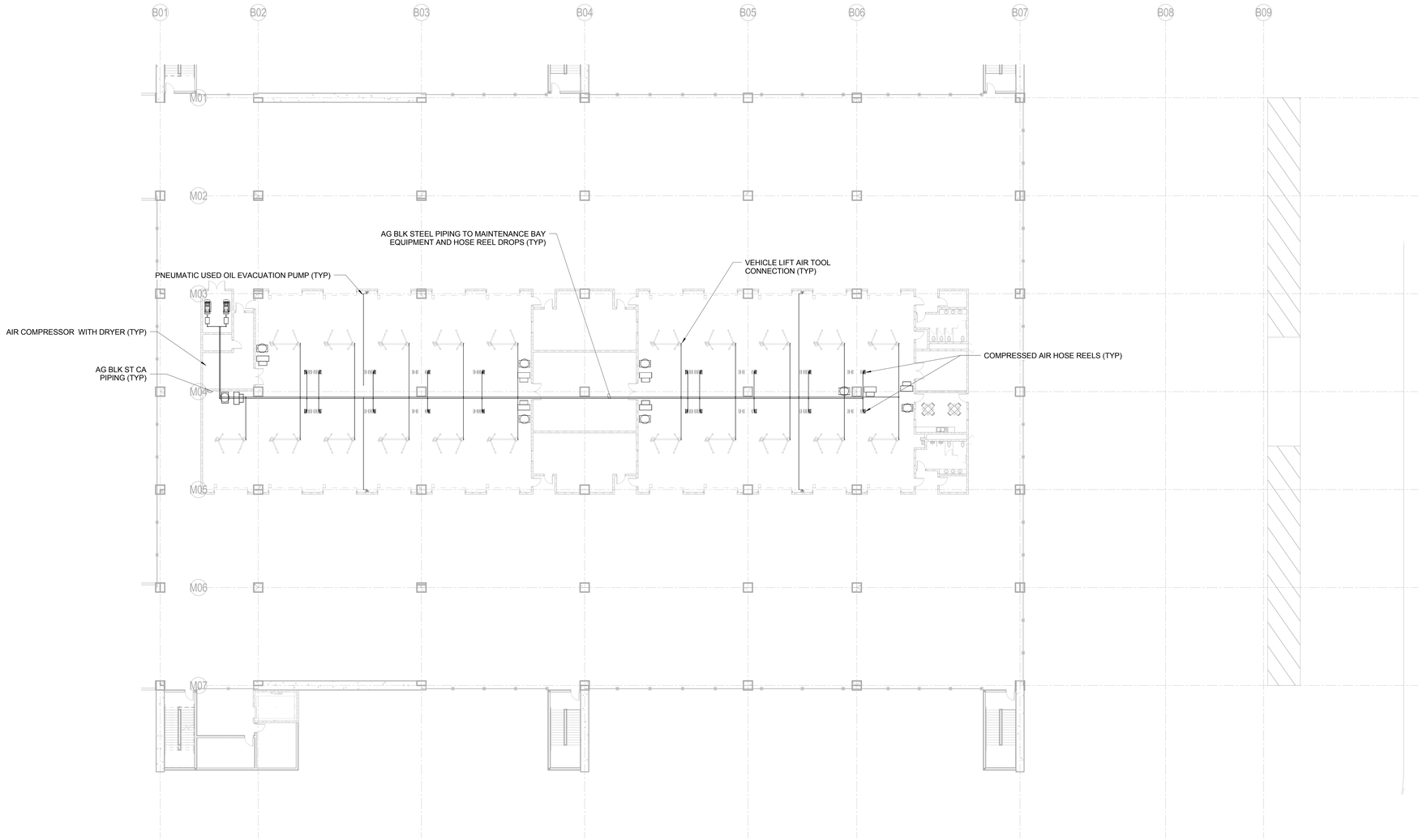
SHEET NO.

2-Q-337

C:\Users\Public\Documents\Local_Revit_Files\d3-DA4881-BLDG_A_B_R16_jwilson.rvt

9/22/2016 4:23:02 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-339 **CA PIPING PLAN LEVEL 3_16th_SCALE ZONE 5**

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

COMPRESSED AIR PIPING PLAN LEVEL 3 ZONE 5 (BUILDING B)

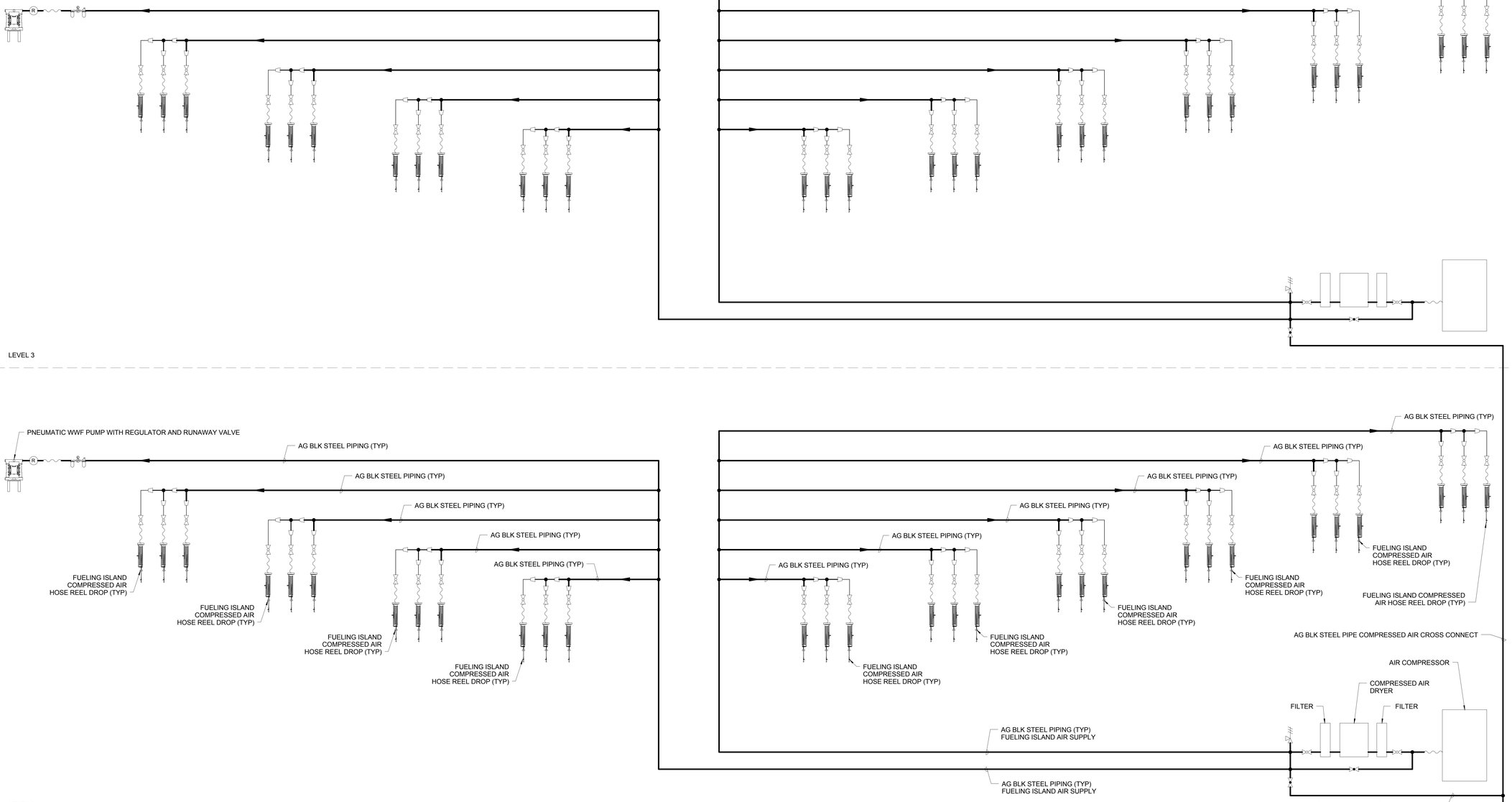
SHEET NO.

2-Q-339

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

9/22/2016 4:23:05 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

LAX NEXT ANA PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/2" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

COMPRESSED AIR PIPING SCHEMATIC (BUILDING A)

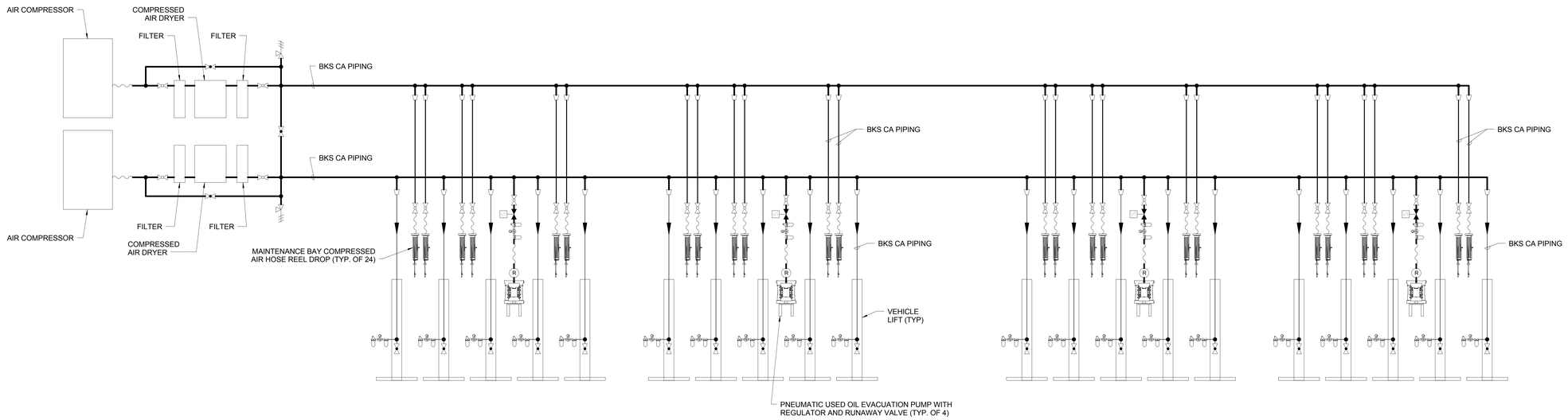
SHEET NO.

2-Q-360

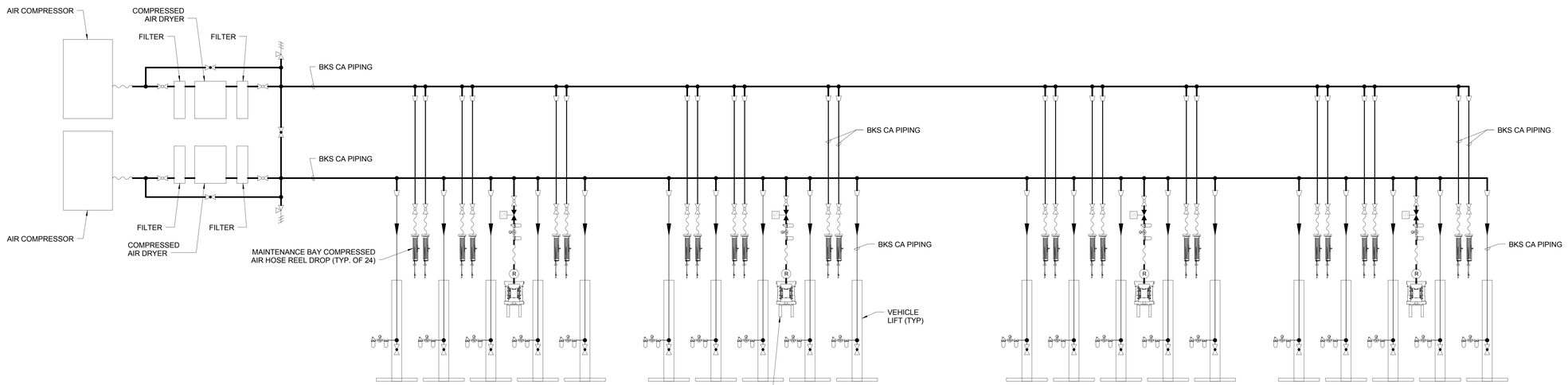
C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

9/22/2016 4:23:06 PM

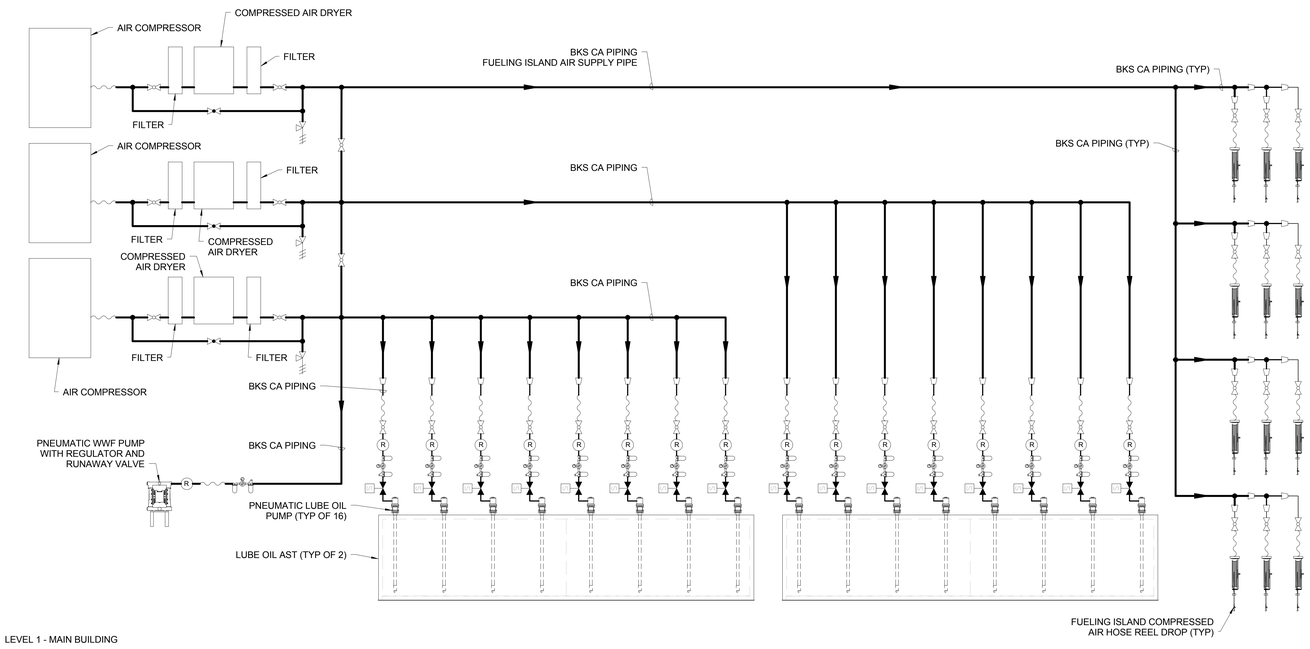
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



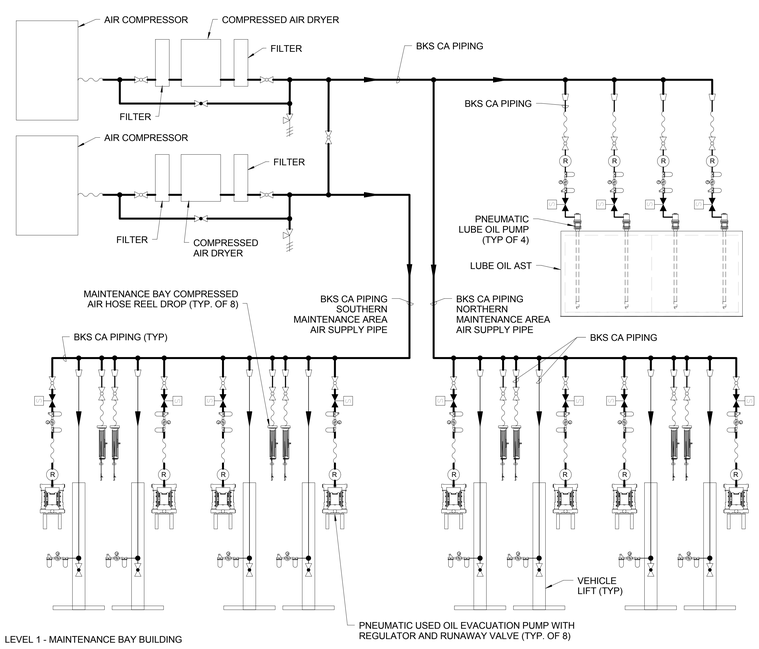
LEVEL 3 - MAIN BUILDING



LEVEL 2 - MAIN BUILDING



LEVEL 1 - MAIN BUILDING



LEVEL 1 - MAINTENANCE BAY BUILDING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK:	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1/2" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

COMPRESSED AIR PIPING SCHEMATIC (BUILDING B)

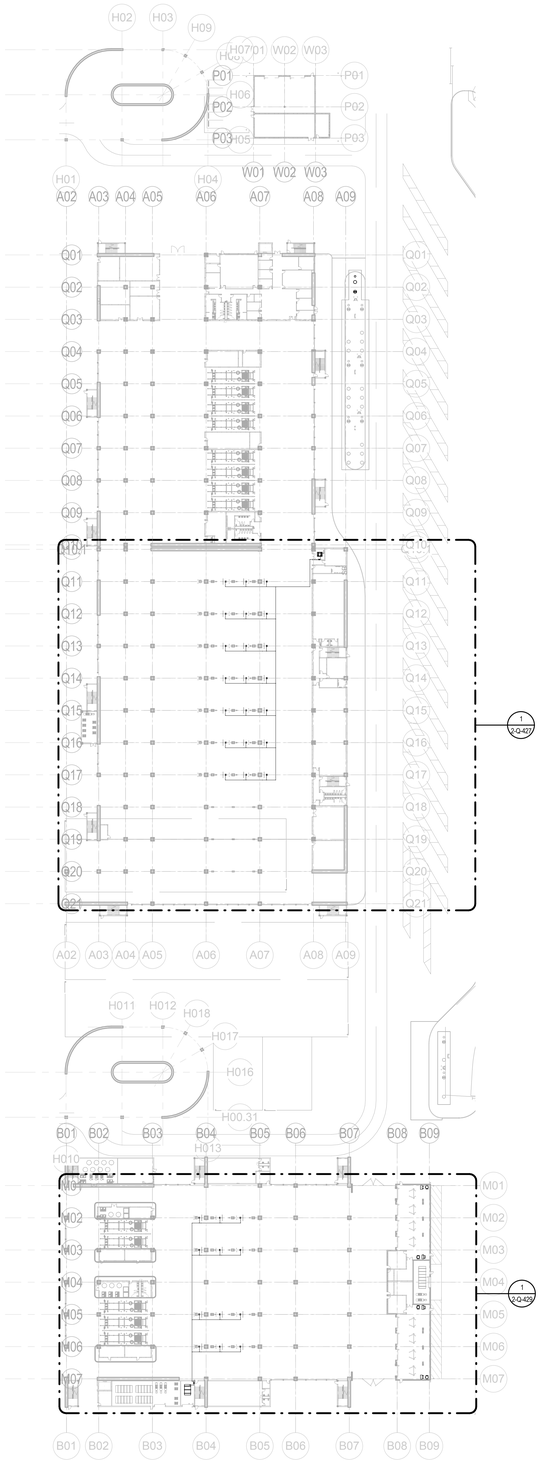
SHEET NO.

2-Q-361

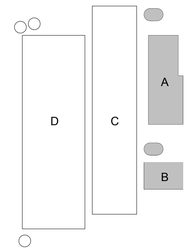
C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

9/22/2016 4:23:08 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-411 WWF PIPING PLAN LEVEL 1_60_SCALE
1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

LAX ANY ON PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

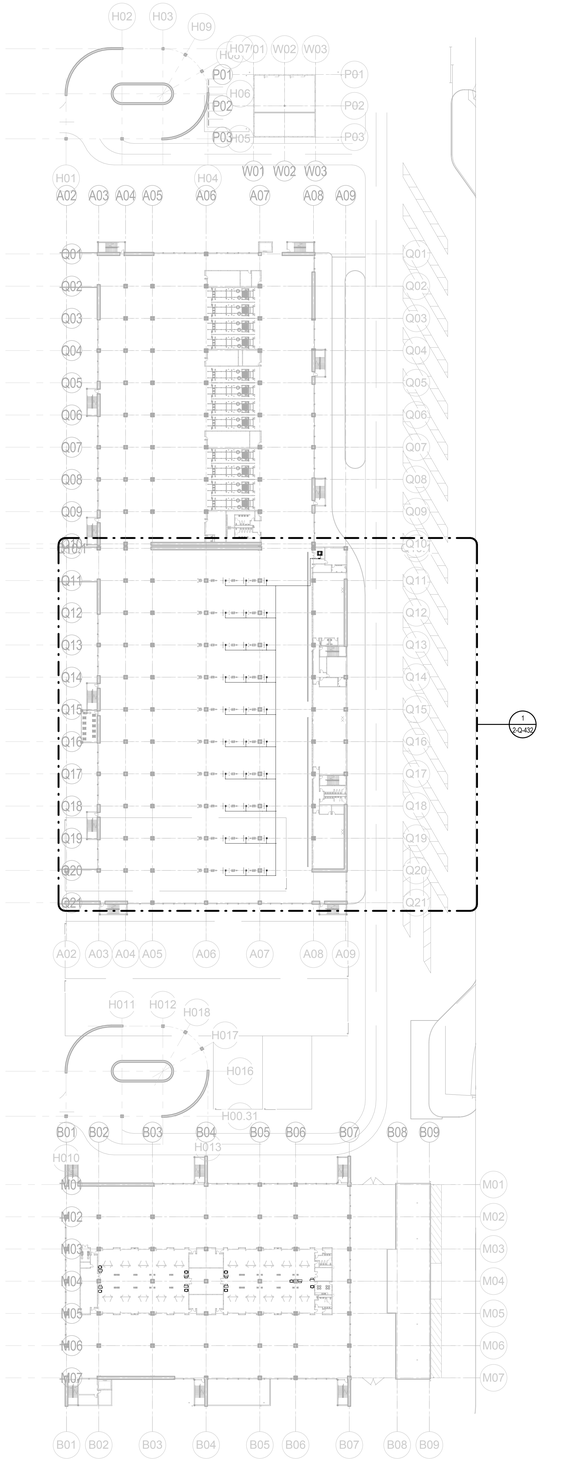
OVERALL WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 1

SHEET NO.

2-Q-411

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

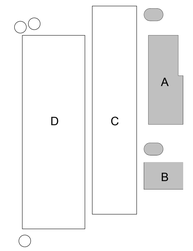
9/22/2016 4:23:21 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt



1 WWF PIPING PLAN LEVEL 2_60_SCALE

2-Q-412

1" = 60'-0"



KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:23:33 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jrwilson.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

LAX ANY ON PMD

REVISIONS:

MARK	DATE	DESCRIPTION

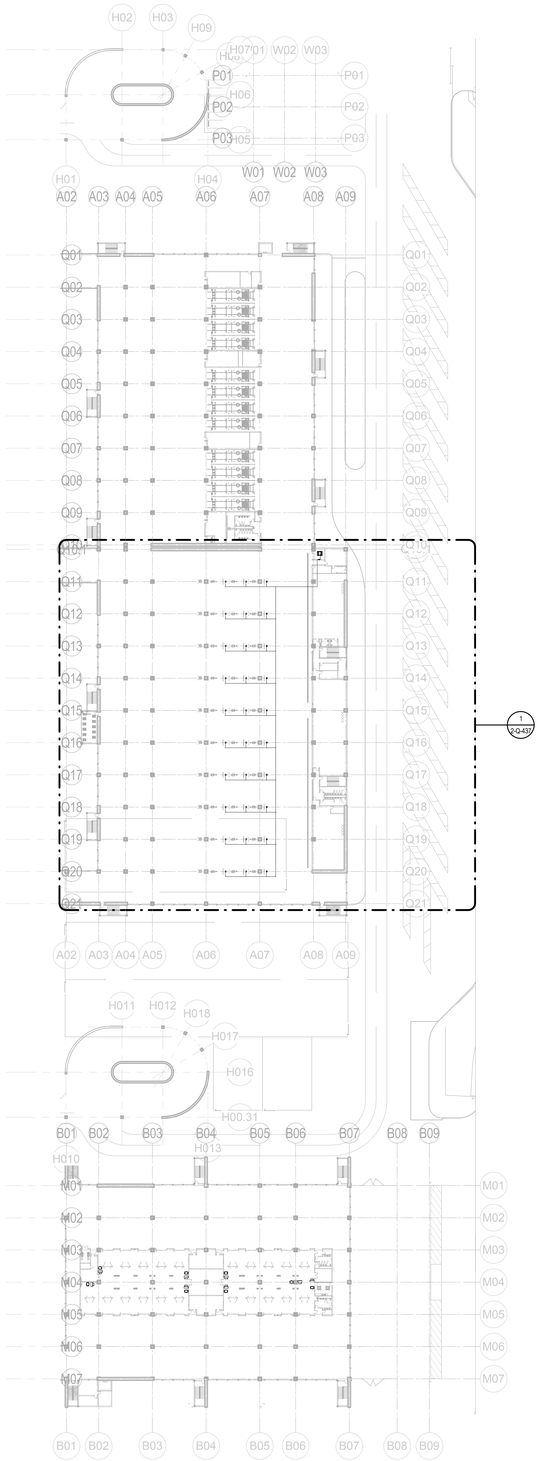
PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

OVERALL WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 2

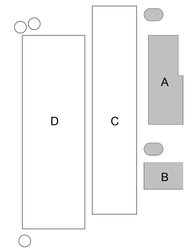
SHEET NO.

2-Q-412



1 WWF PIPING PLAN LEVEL 3_60_SCALE

1 / 2-Q-413 — 1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

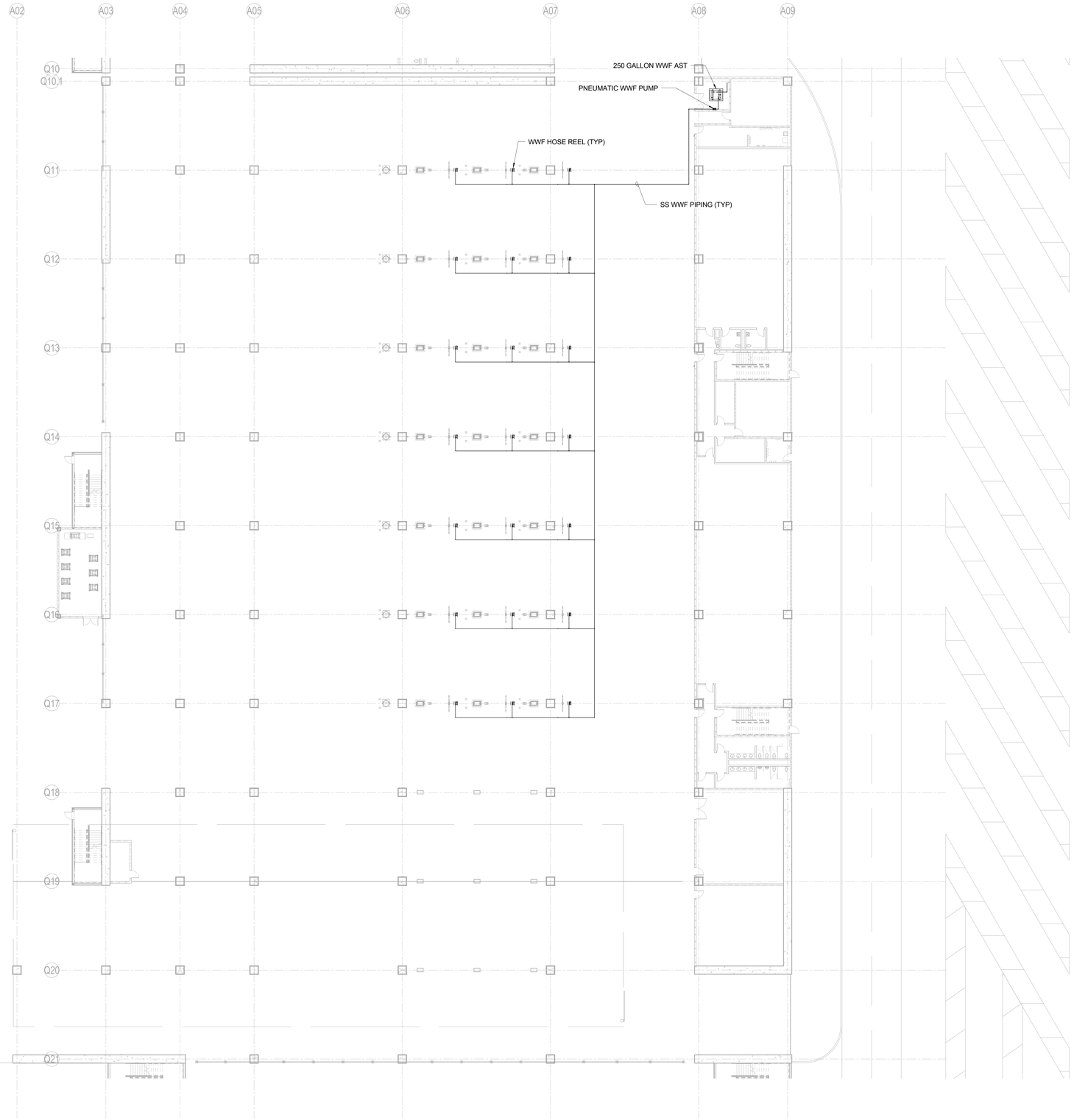
OVERALL WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 3

SHEET NO.

2-Q-413

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:23:44 PM C:\Users\PublicDocuments\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jrwilson.rvt



1 / 2-Q-427 WWF PIPING PLAN LEVEL 1_16th_SCALE ZONE 3

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

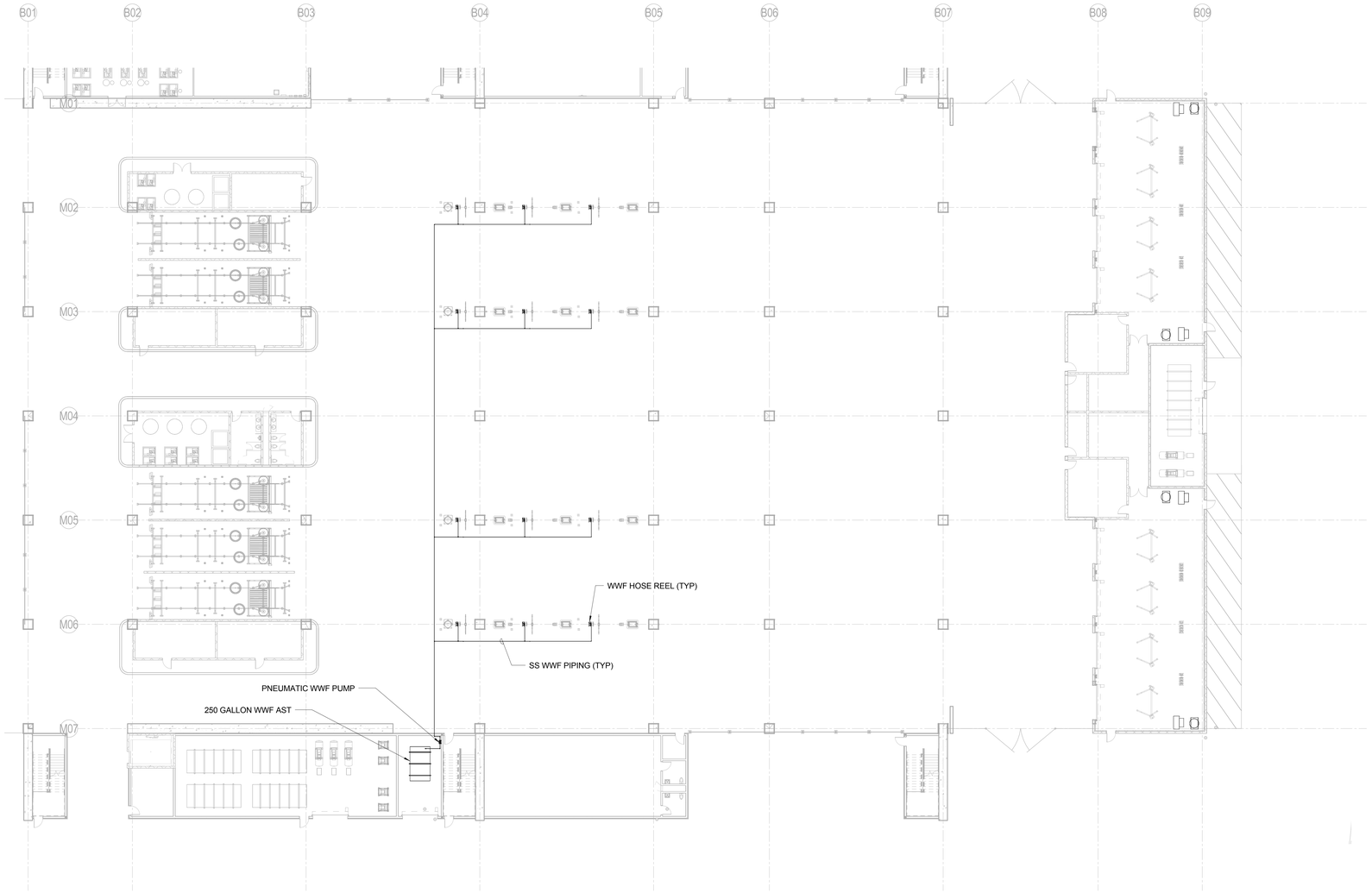
SHEET TITLE:

WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 1 ZONE 3

SHEET NO.

2-Q-427

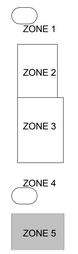
9/22/2016 4:23:52 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt



1
2-Q-429

WWF PIPING PLAN LEVEL 1_16th_SCALE ZONE 5

1/16" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

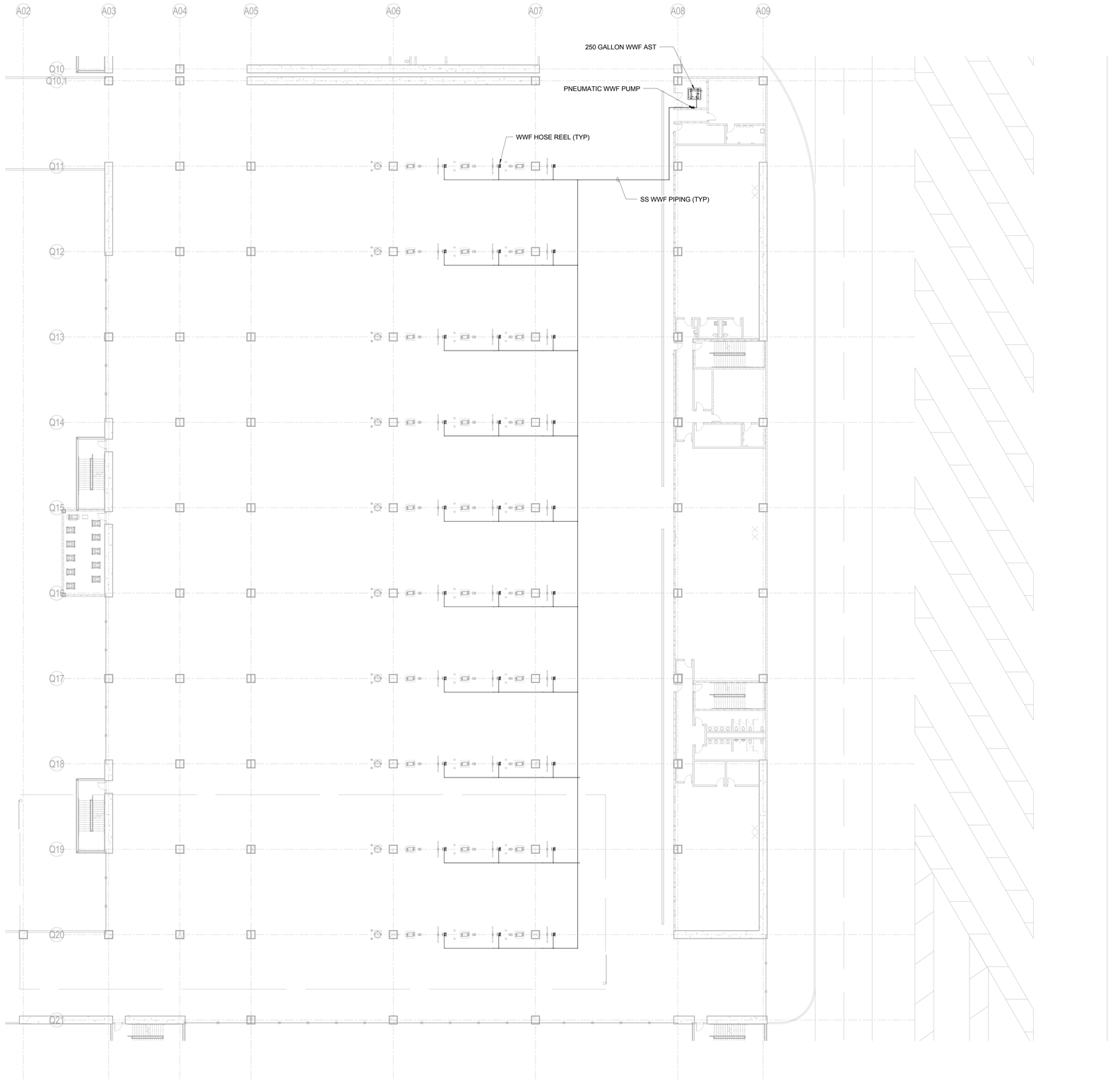
WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 1 ZONE 5

SHEET NO.

2-Q-429

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt
9/22/2016 4:23:58 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-432 **WWF PIPING PLAN LEVEL 2_16th_SCALE ZONE 3**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:			
MARK:	DATE	DESCRIPTION	

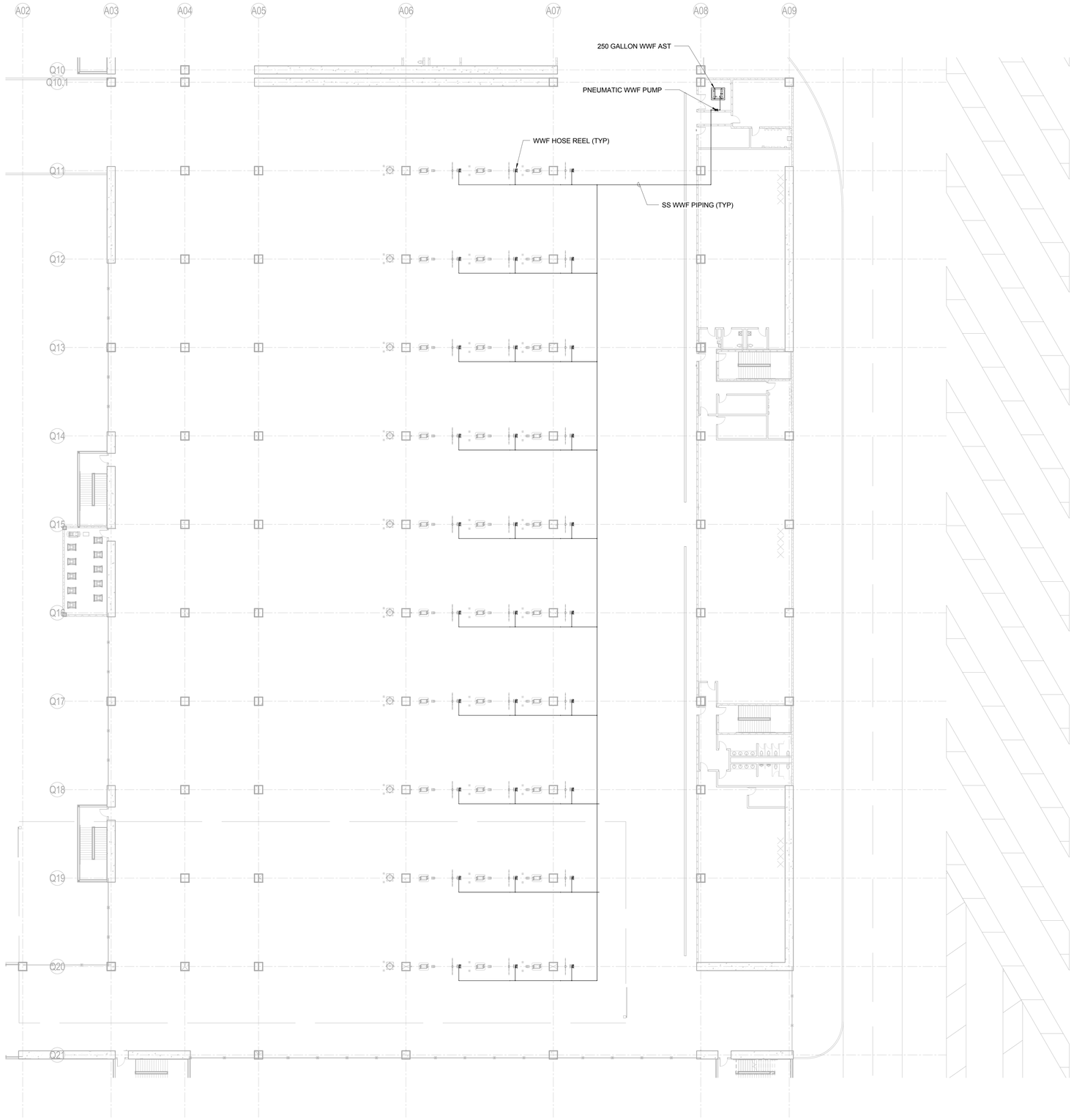
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:
WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 2 ZONE 3

SHEET NO.
2-Q-432

9/22/2016 4:24:16 PM C:\Users\Public\Documents\Local_Revit_Files\r2-DA4881-BLDG_A_B_R16_jwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-437 WWF PIPING PLAN LEVEL 3_16th_SCALE ZONE 3

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS: MARK: DATE DESCRIPTION

PROJ NO.	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

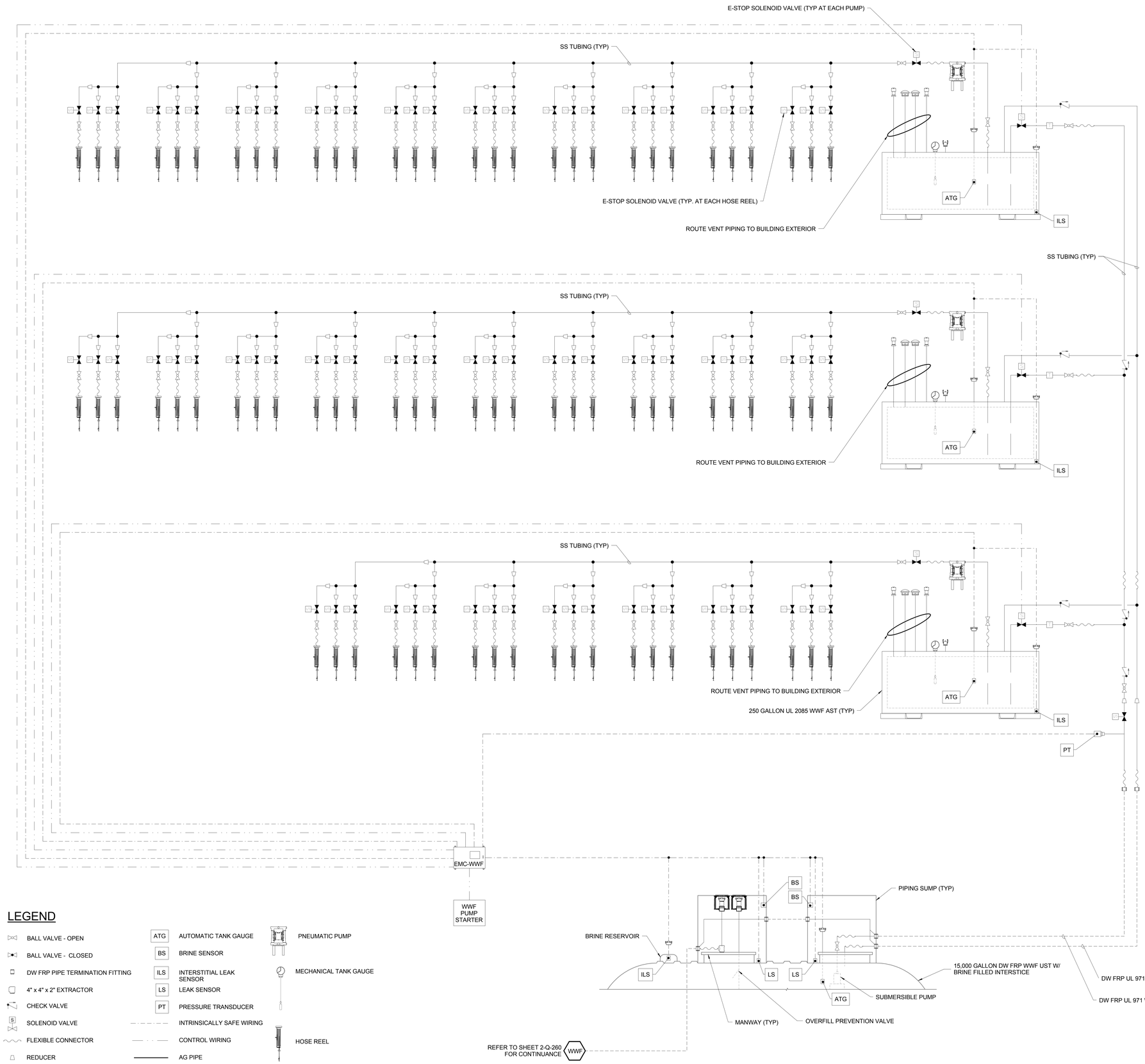
SHEET TITLE:

WINDSHIELD WASHER FLUID PIPING PLAN LEVEL 3 ZONE 3

SHEET NO.

2-Q-437

C:\Users\Public\Documents\Local_Revit_Files\d3-DA4881-BLDG_A_B_R16_jwilson.rvt
9/22/2016 4:24:43 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



LEGEND

BALL VALVE - OPEN	ATG	AUTOMATIC TANK GAUGE	PNEUMATIC PUMP
BALL VALVE - CLOSED	BS	BRINE SENSOR	MECHANICAL TANK GAUGE
DW FRP PIPE TERMINATION FITTING	ILS	INTERSTITIAL LEAK SENSOR	
4" x 4" x 2" EXTRACTOR	LS	LEAK SENSOR	
CHECK VALVE	PT	PRESSURE TRANSDUCER	
SOLENOID VALVE		INTRINSICALLY SAFE WIRING	HOSE REEL
FLEXIBLE CONNECTOR		CONTROL WIRING	
REDUCER		AG PIPE	
CAP & ADAPTER		UG PIPE	SPILL BUCKET
PRESSURE/VACUUM VENT CAP		INSPECTION PORT	
MECHANICAL TOTALIZER		EMERGENCY VENT	

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:	DESCRIPTION	DATE	MARK

PROJ NO:	DA4881
SCALE:	1" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	

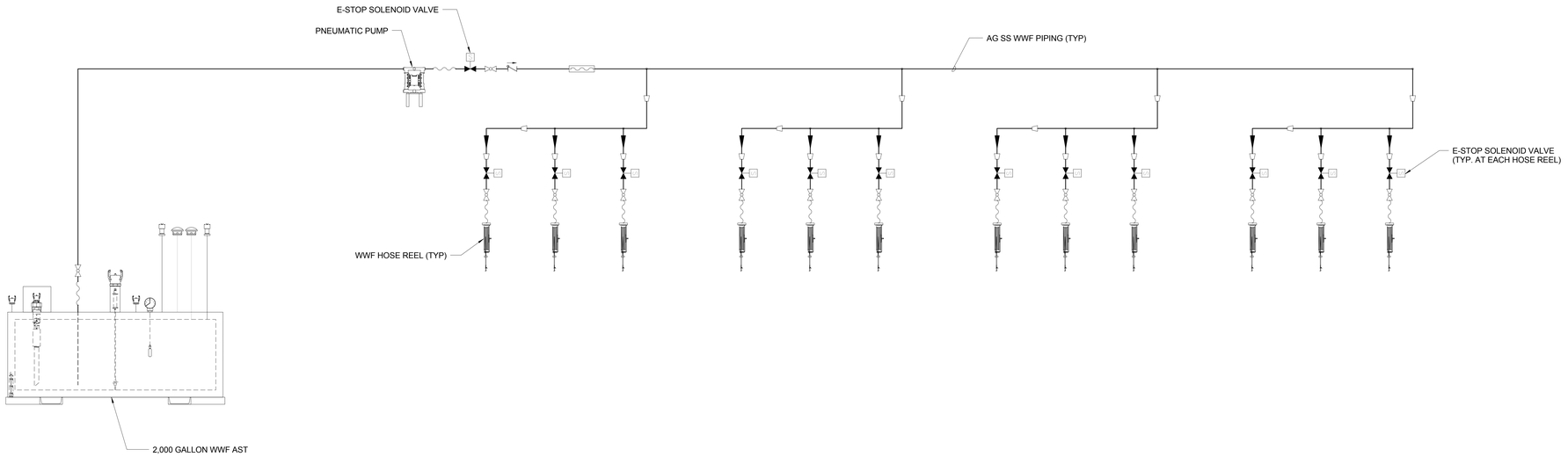
SHEET TITLE:

WINDSHIELD WASHER FLUID P&ID (BUILDING A)

SHEET NO.

2-Q-460

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt
9/22/2016 4:24:45 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1
2-Q-461

WWF PIPING SCHEMATIC BUILDING B (LVL1)

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CONSOLIDATED RENTAL CAR FACILITY
LAX
PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	

SHEET TITLE:

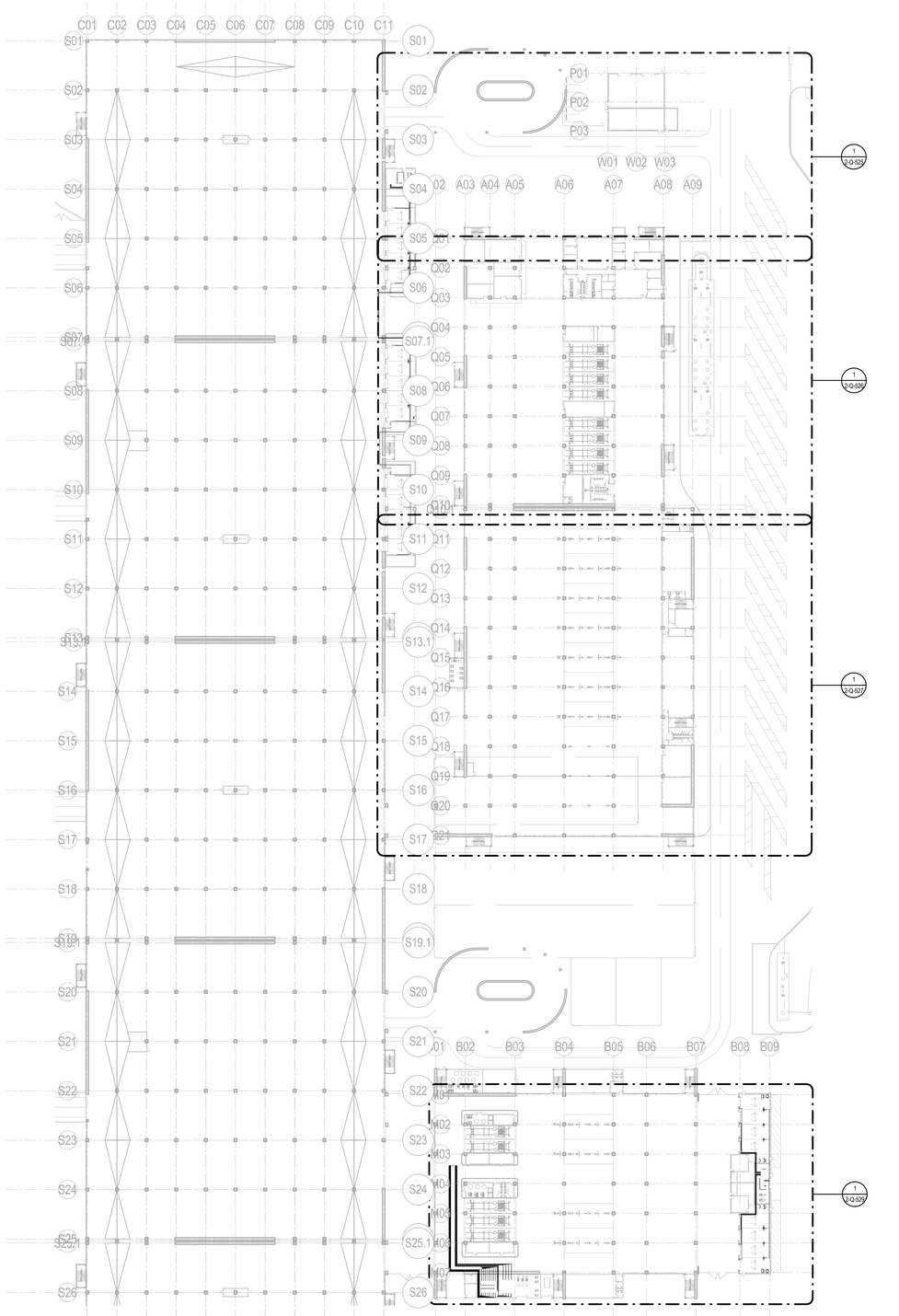
WINDSHIELD WASHER FLUID PIPING SCHEMATIC (BUILDING B)

SHEET NO.

2-Q-461

9/22/2016 4:24:48 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

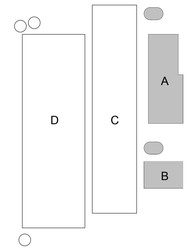
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-511 MOTOR OIL PIPING PLAN LEVEL 1_60_SCALE

1" = 60'-0"

C01 C02 C03 C04 C05 C06 C07 C08 C09 C10 C11



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

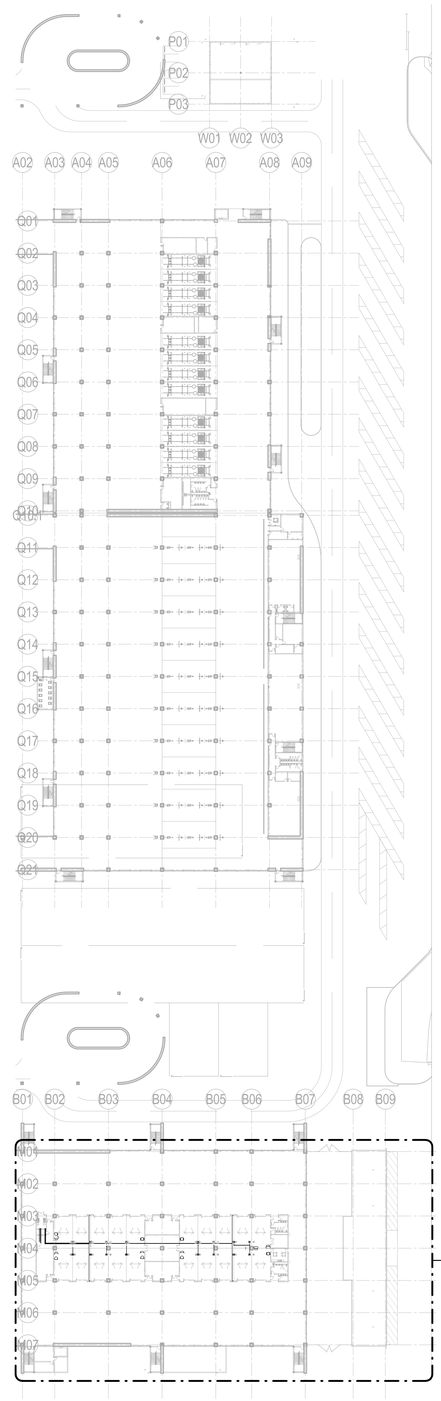
OVERALL LUBE OIL SYSTEM PIPING PLAN LEVEL 1

SHEET NO.

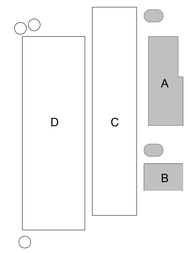
2-Q-511

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:25:49 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt



1 / 2-Q-512 **MOTOR OIL PIPING PLAN LEVEL 2_60_SCALE**
1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

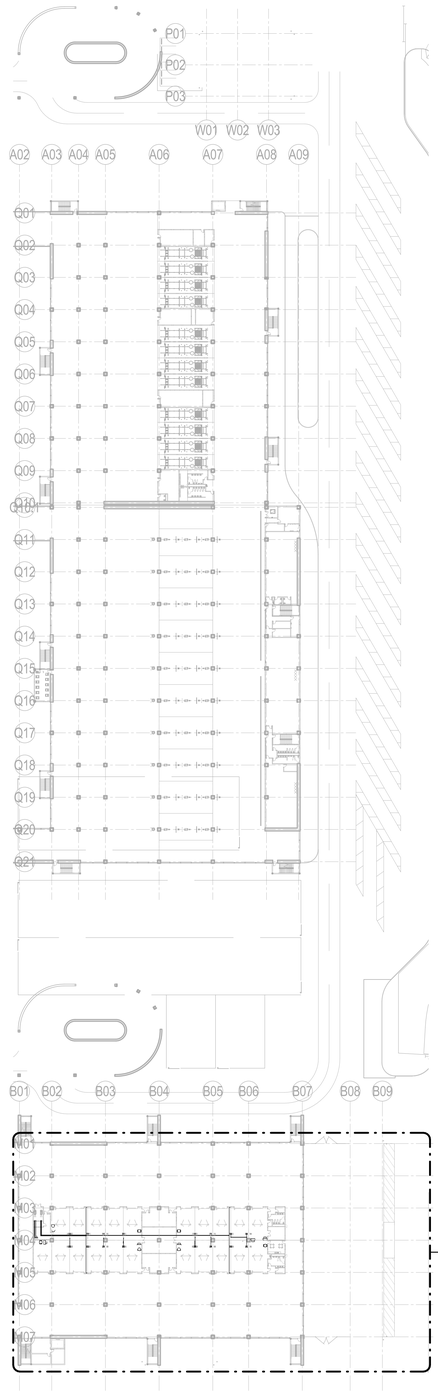
PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

OVERALL LUBE OIL SYSTEM PIPING PLAN LEVEL 2 (BUILDING B)

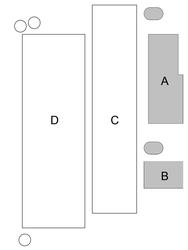
SHEET NO.
2-Q-512

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt
8/22/2018 4:26:39 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-513 **MOTOR OIL PIPING PLAN LEVEL 3_60_SCALE**

1" = 60'-0"



KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

8/22/2018 4:27:31 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

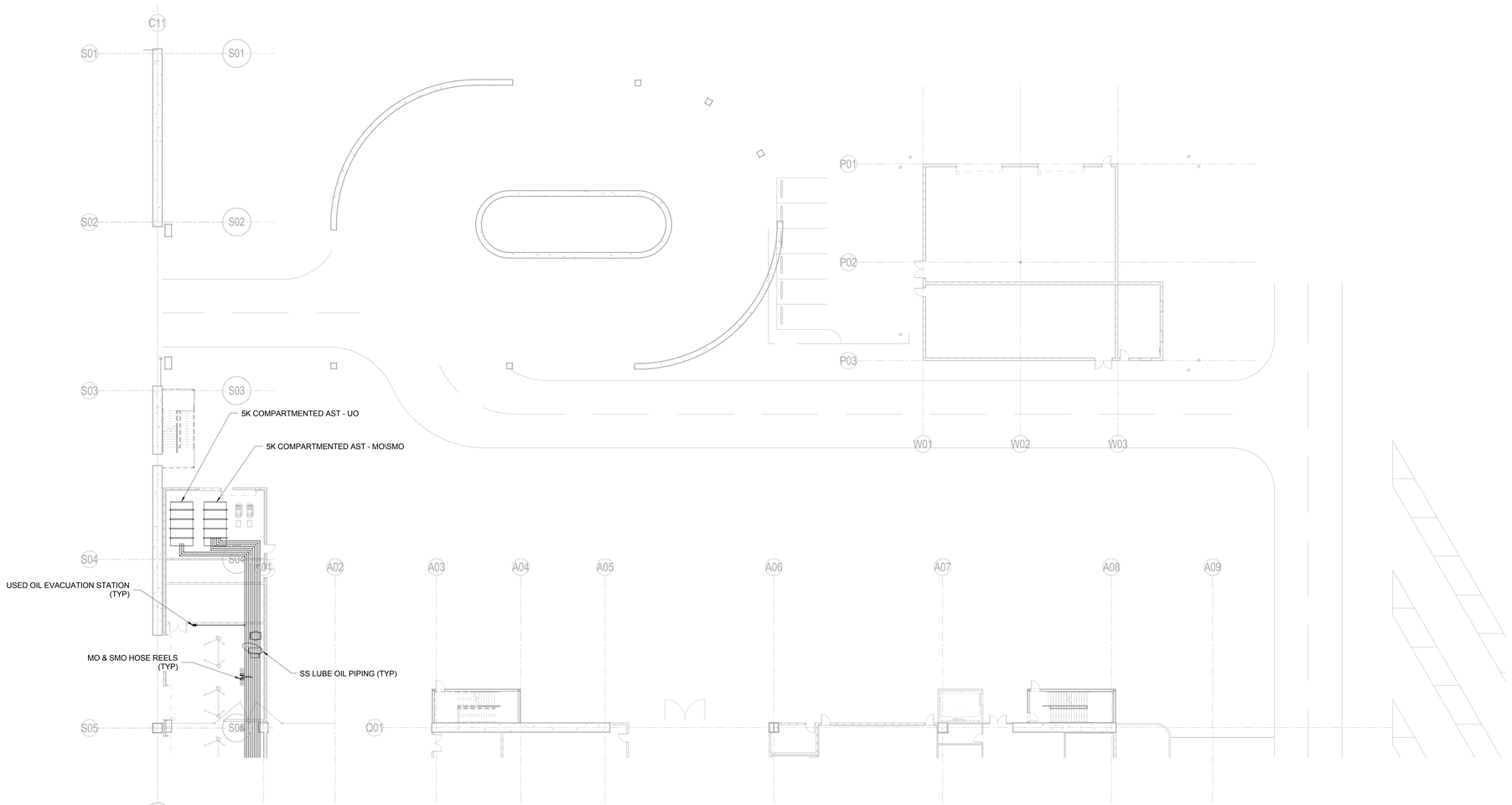
PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

OVERALL LUBE OIL SYSTEM PIPING PLAN LEVEL 3 (BUILDING B)

SHEET NO.

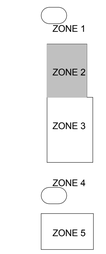
2-Q-513



C11

1 / 2-Q-525 **MOTOR OIL PIPING PLAN LEVEL 1_16th_SCALE ZONE 1**

1/16" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

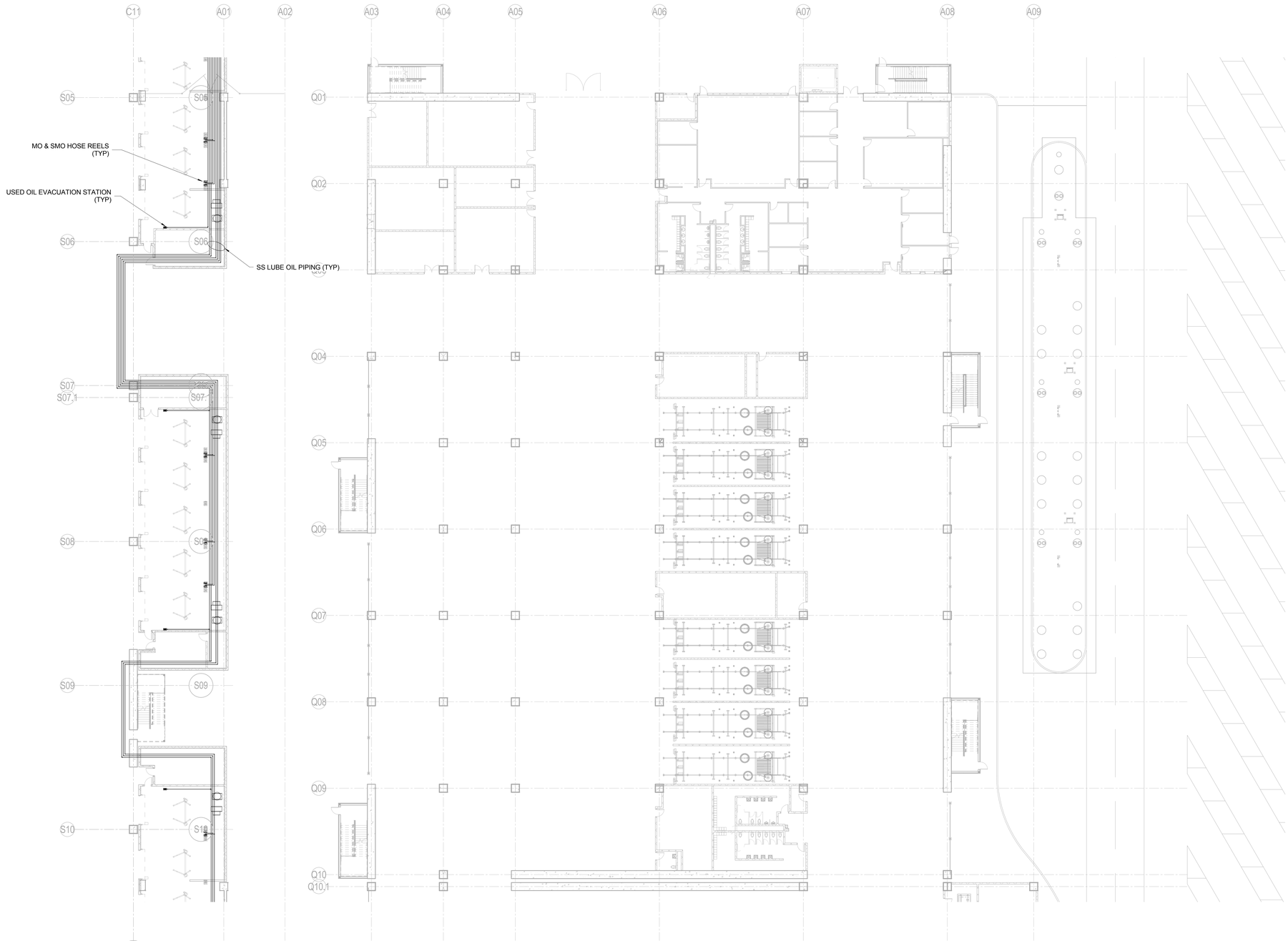
LUBE OIL SYSTEM
PIPING PLAN LEVEL 1
ZONE 1

SHEET NO.

2-Q-525

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

8/22/2018 4:27:33 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt



1 / 2-Q-526 **MOTOR OIL PIPING PLAN LEVEL 1_16th_SCALE ZONE 2**

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

LUBE OIL SYSTEM
PIPING PLAN LEVEL 1
ZONE 2

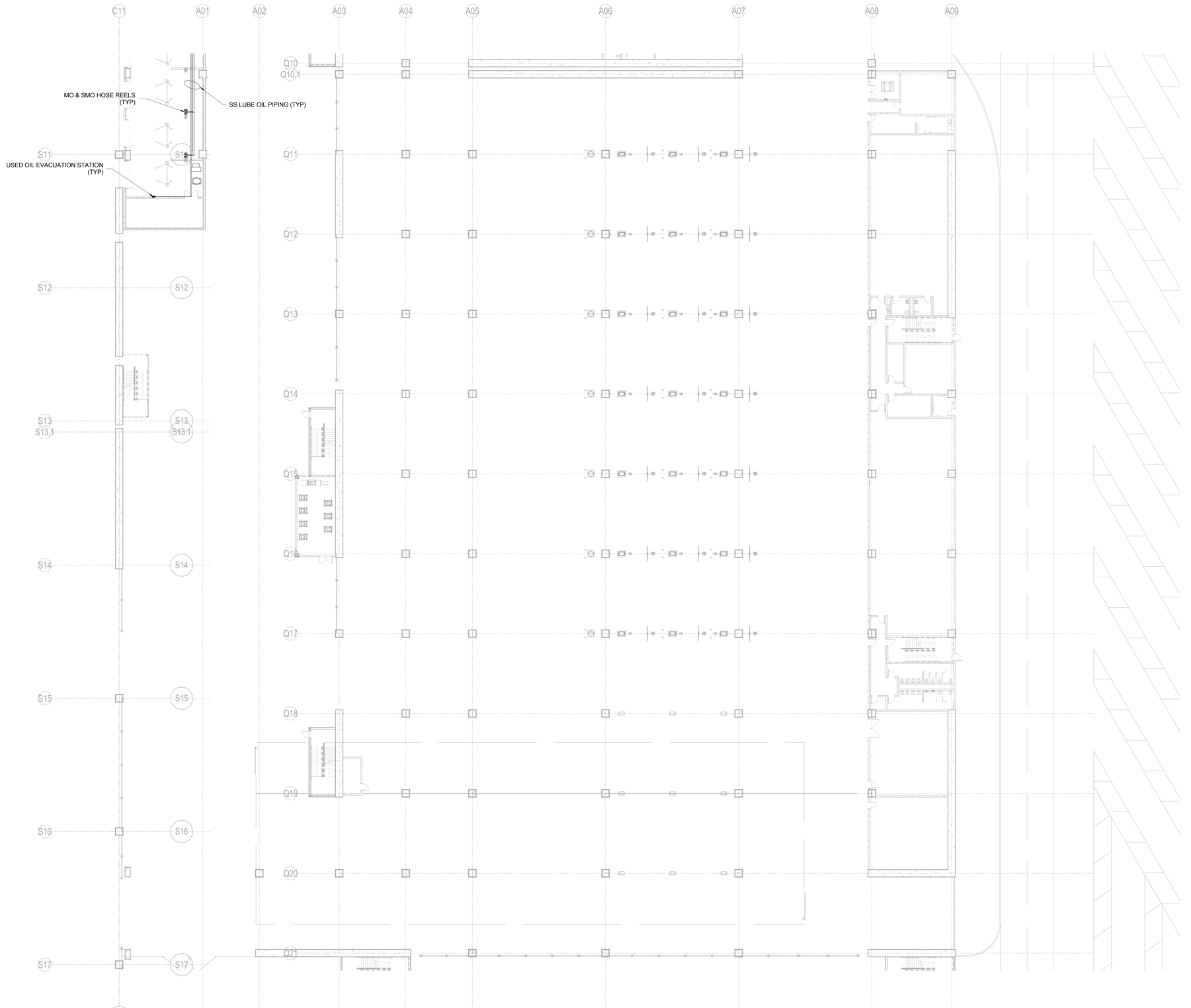
SHEET NO.

2-Q-526

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jjwilson.rvt

8/22/2018 4:27:38 PM



1 / 2-Q-527 **MOTOR OIL PIPING PLAN LEVEL 1_16th_SCALE ZONE 3**

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT LAX ANA PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

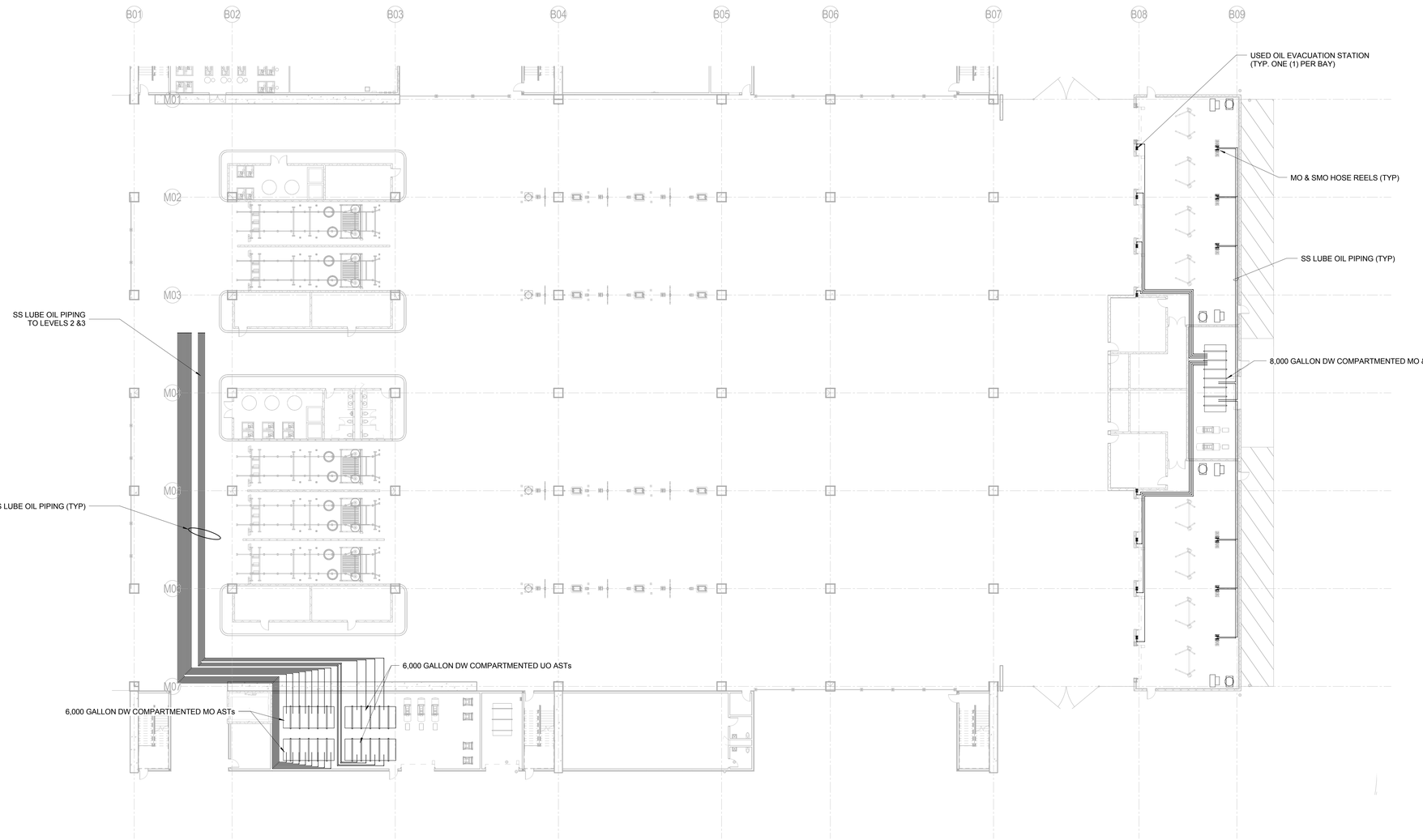
LUBE OIL SYSTEM
PIPING PLAN LEVEL 1
ZONE 3

SHEET NO.

2-Q-527

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jlwilson.rvt

9/22/2016 4:27:47 PM



1
2-Q-529

MOTOR OIL PIPING PLAN LEVEL 1_16th_SCALE ZONE 5

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

LUBE OIL SYSTEM
PIPING PLAN LEVEL 1
ZONE 5 (BUILDING B)

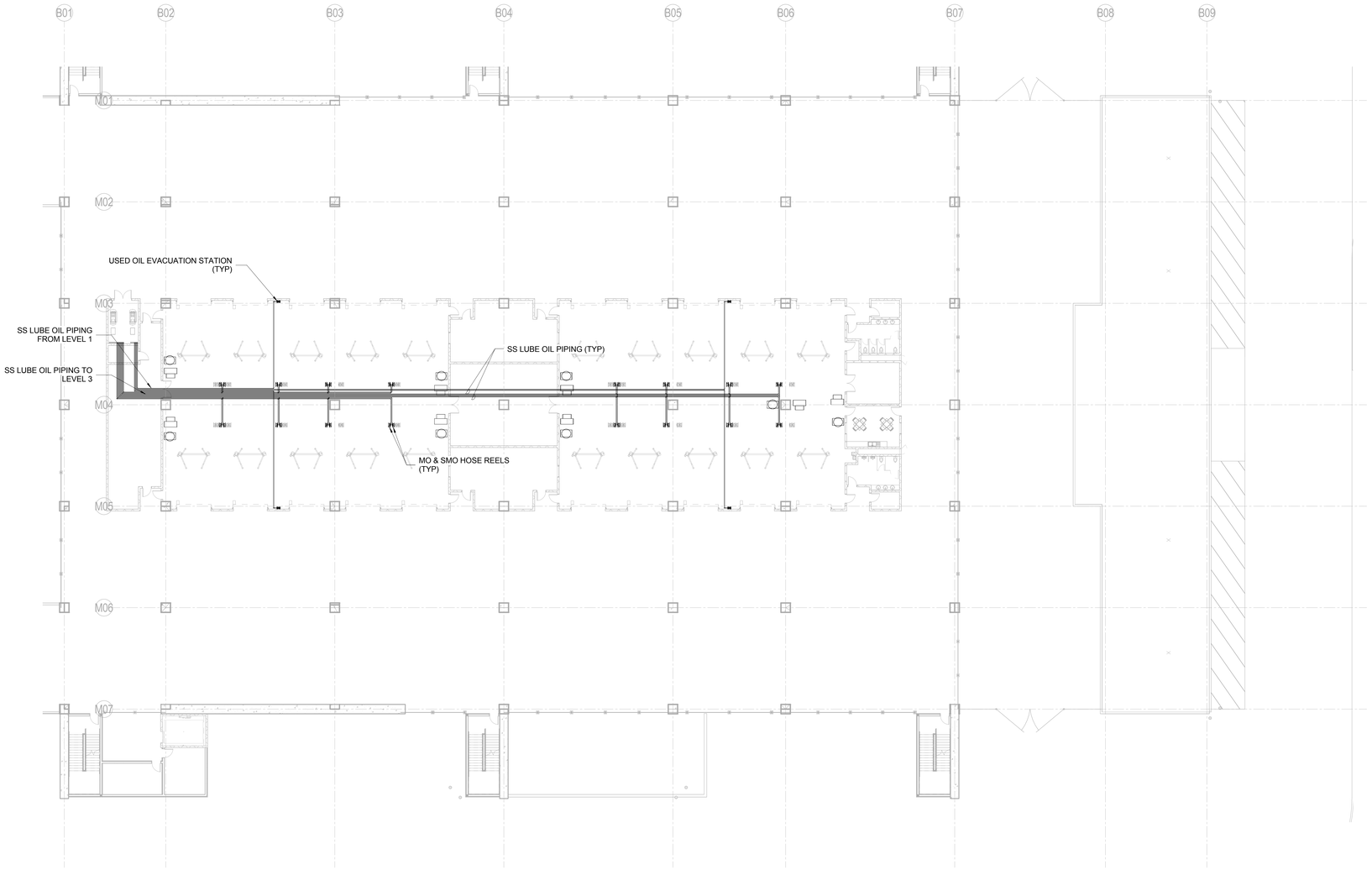
SHEET NO.

2-Q-529

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jjwilson.rvt

8/22/2016 4:27:54 PM



1
2-Q-534

MOTOR OIL PIPING PLAN LEVEL 2_16th_SCALE ZONE 5

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:
MARK | DATE | DESCRIPTION

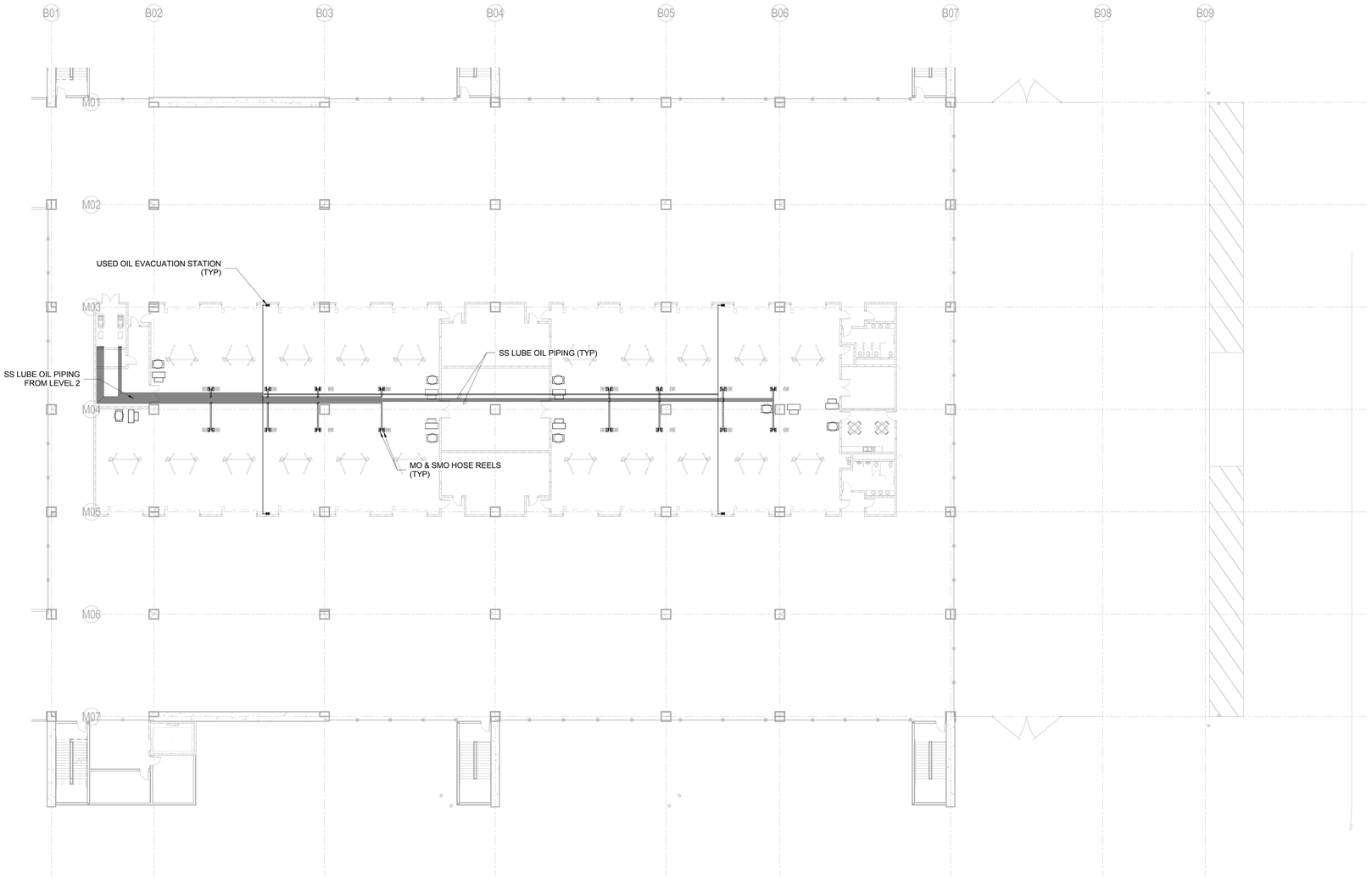
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:
LUBE OIL SYSTEM
PIPING PLAN LEVEL 2
ZONE 5 (BUILDING B)

SHEET NO.
2-Q-534

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt
9/22/2016 4:27:57 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-539 **MOTOR OIL PIPING PLAN LEVEL 3_16th_SCALE ZONE 5**

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK | DESCRIPTION | DATE

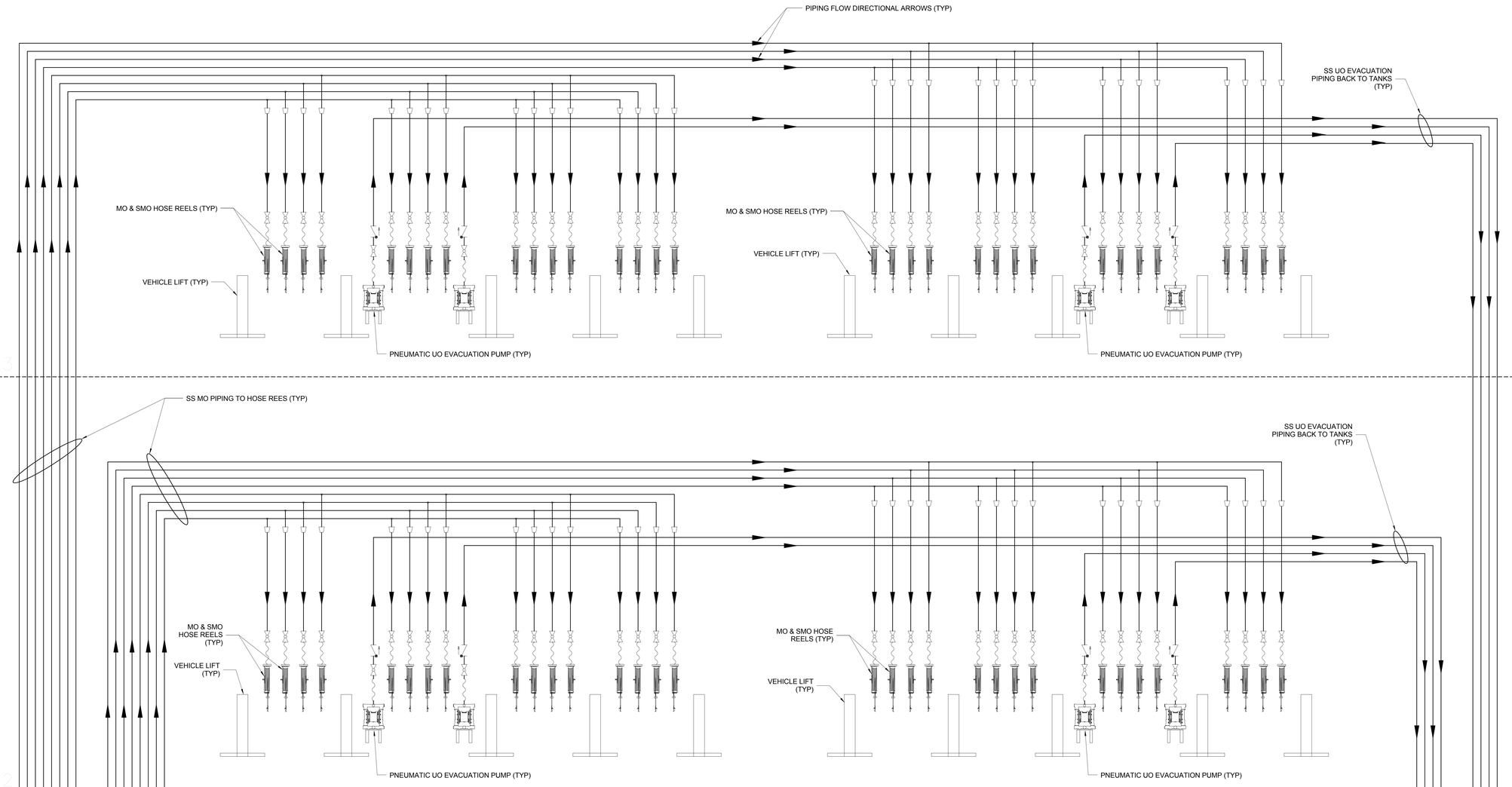
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

LUBE OIL SYSTEM
PIPING PLAN LEVEL 3
ZONE 5 (BUILDING B)

SHEET NO.
2-Q-539

C:\Users\PUblic\Documents\Local_Revit_2Tier\Q-DA4881-RLDG_A_B_R16_jwilson.rvt
9/22/2016 4:28:00 PM



IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:28:02 PM C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jwilson.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

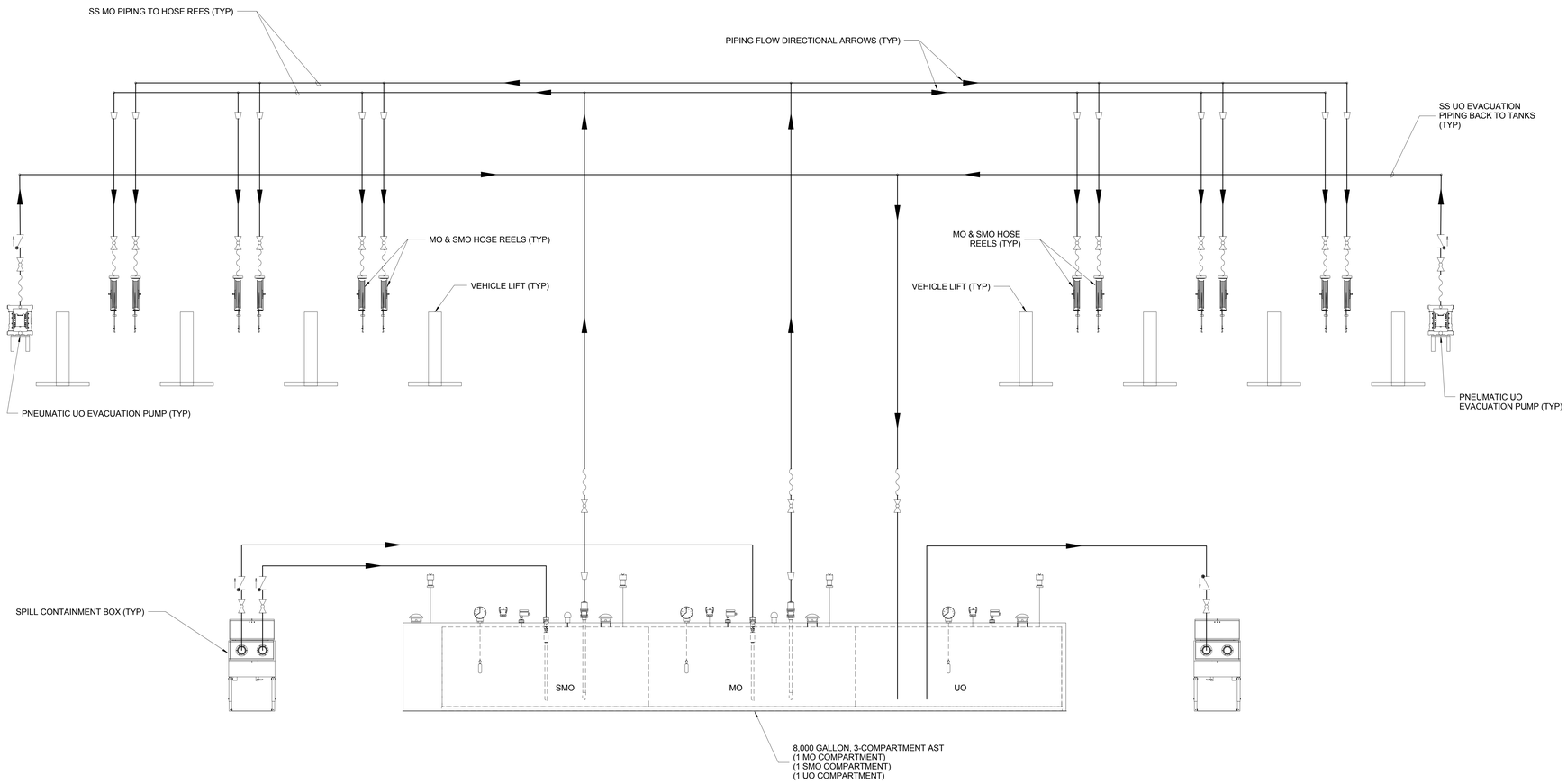
PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Z.Rich
DRAWN BY:	Z.Rich
CHECKED BY:	J.Wilson

SHEET TITLE:

LUBE OIL SYSTEM PIPING SCHEMATIC (BUILDING B - MAIN BUILDING)

SHEET NO.

2-Q-560



1 / 2-Q-561 LUBE PIPING SCHEMATIC BUILDING B (2 OF 2)

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

LAX ANY ONE PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

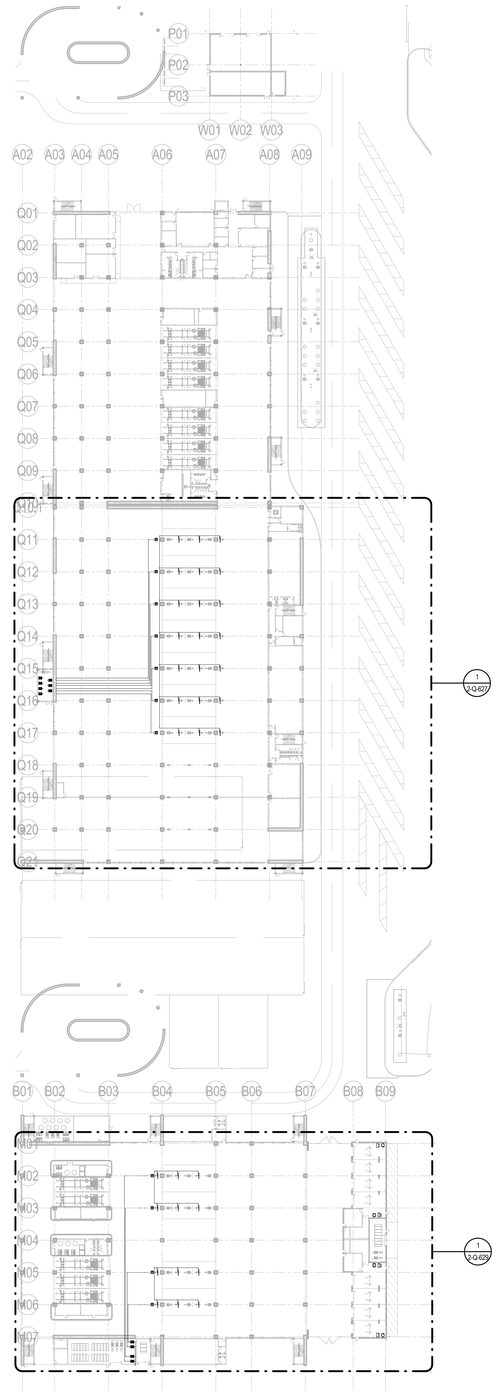
LUBE OIL SYSTEM PIPING SCHEMATIC (BUILDING B - MAINTENANCE BUILDING)

SHEET NO.

2-Q-561

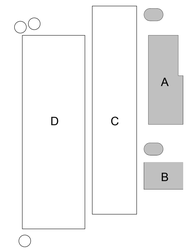
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:28:03 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jrwilson.rvt



1 / 2-Q-611 VACUUM SYSTEM PIPING PLAN LEVEL 1_60_SCALE

1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

NOT FOR CONSTRUCTION

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

LAX ANY ON PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

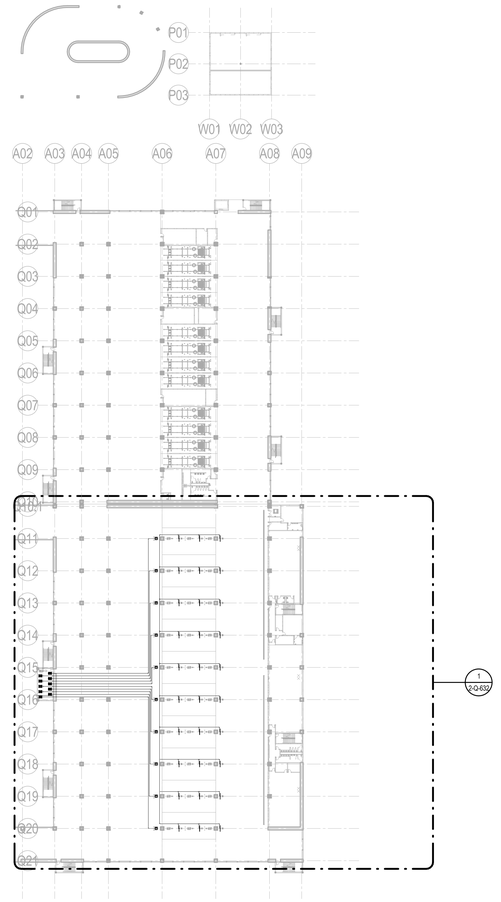
OVERALL VACUUM SYSTEM PIPING PLAN LEVEL 1

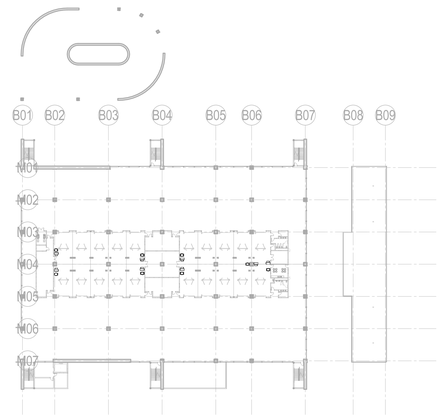
SHEET NO.

2-Q-611

9/22/2016 4:28:18 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

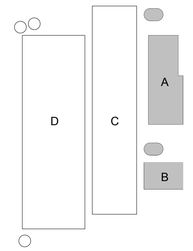
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING





1 / 2-Q-612 VACUUM SYSTEM PIPING PLAN LEVEL 2_60_SCALE

1" = 60'-0"



KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:28:31 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jrwilson.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

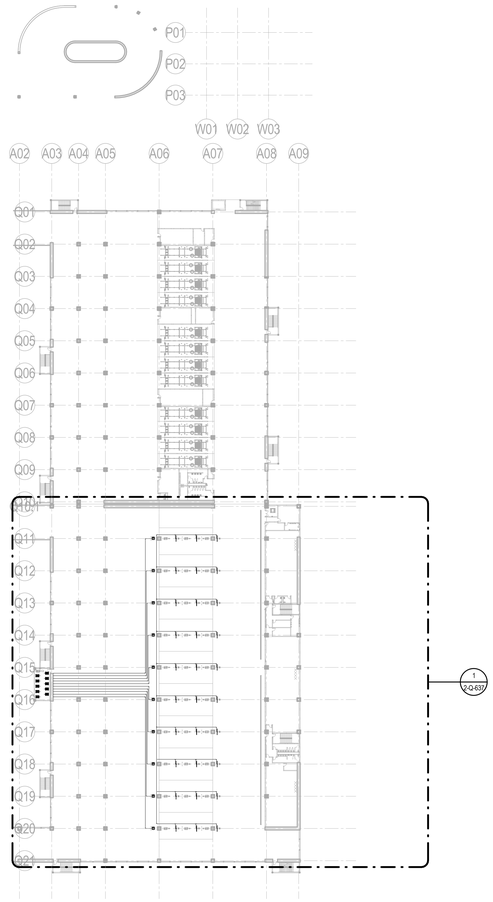
PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

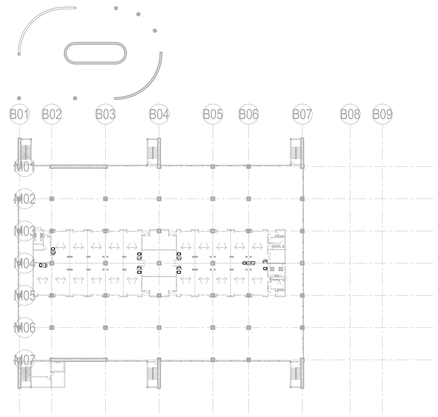
SHEET TITLE:

OVERALL VACUUM SYSTEM PIPING PLAN LEVEL 2

SHEET NO.

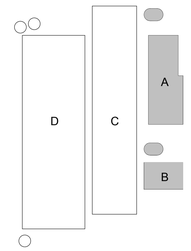
2-Q-612





1 / 2-Q-613 VACUUM SYSTEM PIPING PLAN LEVEL 3_60_SCALE

1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

LAX ANY ON PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

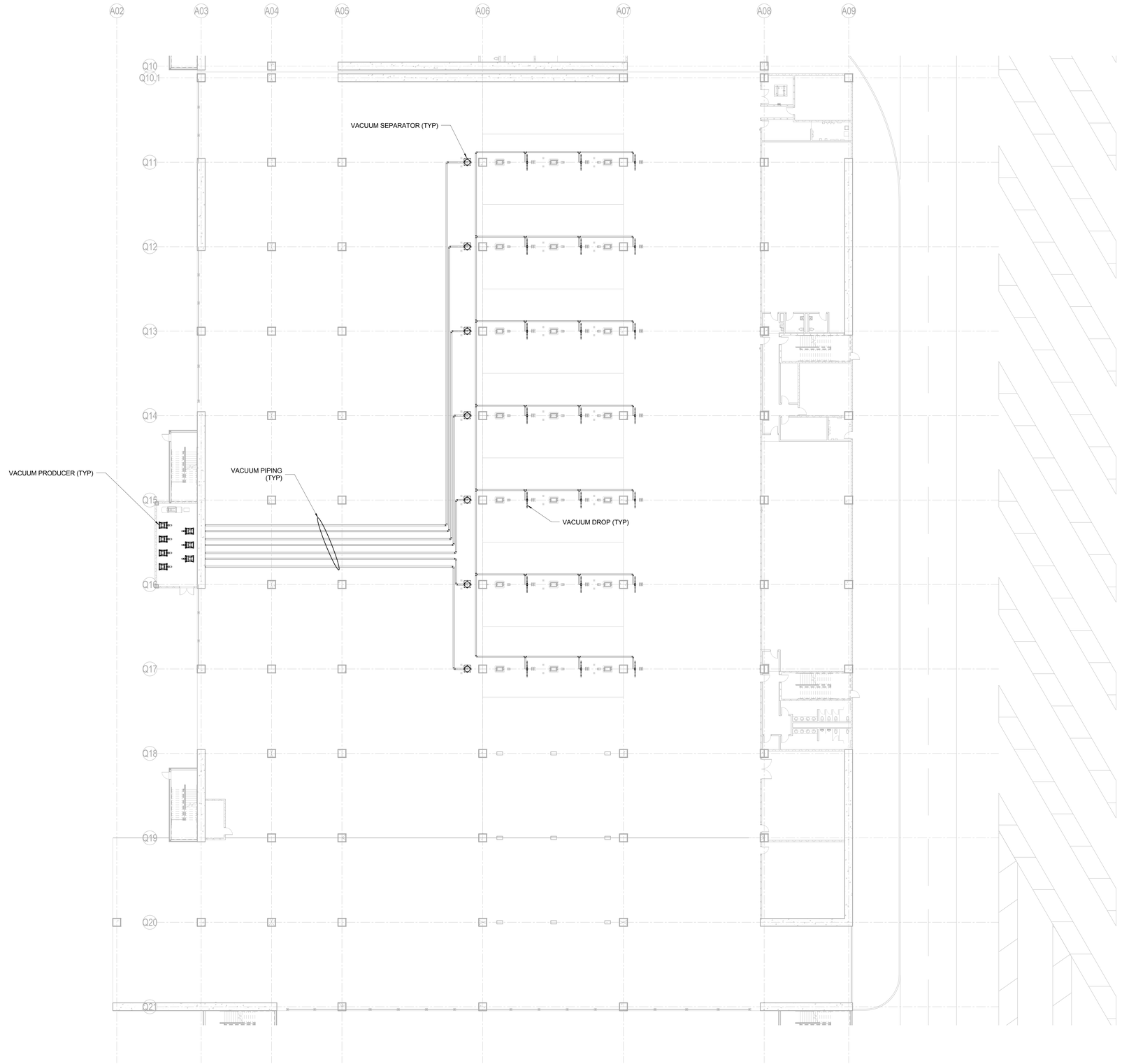
SHEET TITLE:

OVERALL VACUUM SYSTEM PIPING PLAN LEVEL 3

SHEET NO.

2-Q-613

9/22/2016 4:28:45 PM
C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jrwilson.rvt
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-627 **VACUUM SYSTEM PIPING PLAN LEVEL 1_16th_SCALE ZONE 3**

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

VACUUM SYSTEM PIPING PLAN LEVEL 1 ZONE 3

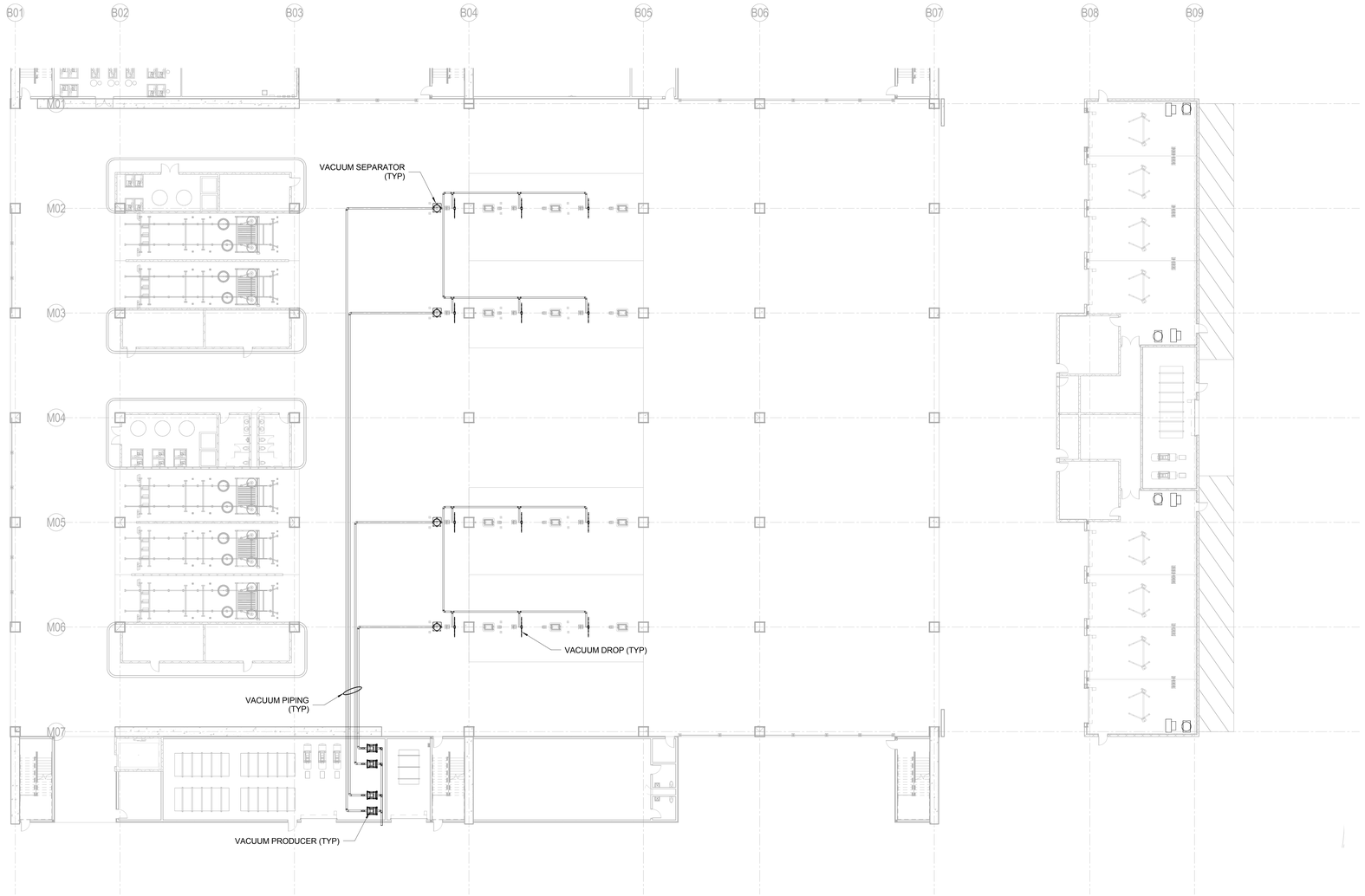
SHEET NO.

2-Q-627

C:\Users\Public\Documents\Local_Rev_Files\Q-DA4881-RLDG_A_B_R16_jwilson.rvt

9/22/2016 4:28:54 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-629 VACUUM SYSTEM PIPING PLAN LEVEL 1_16th_SCALE ZONE 5

1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

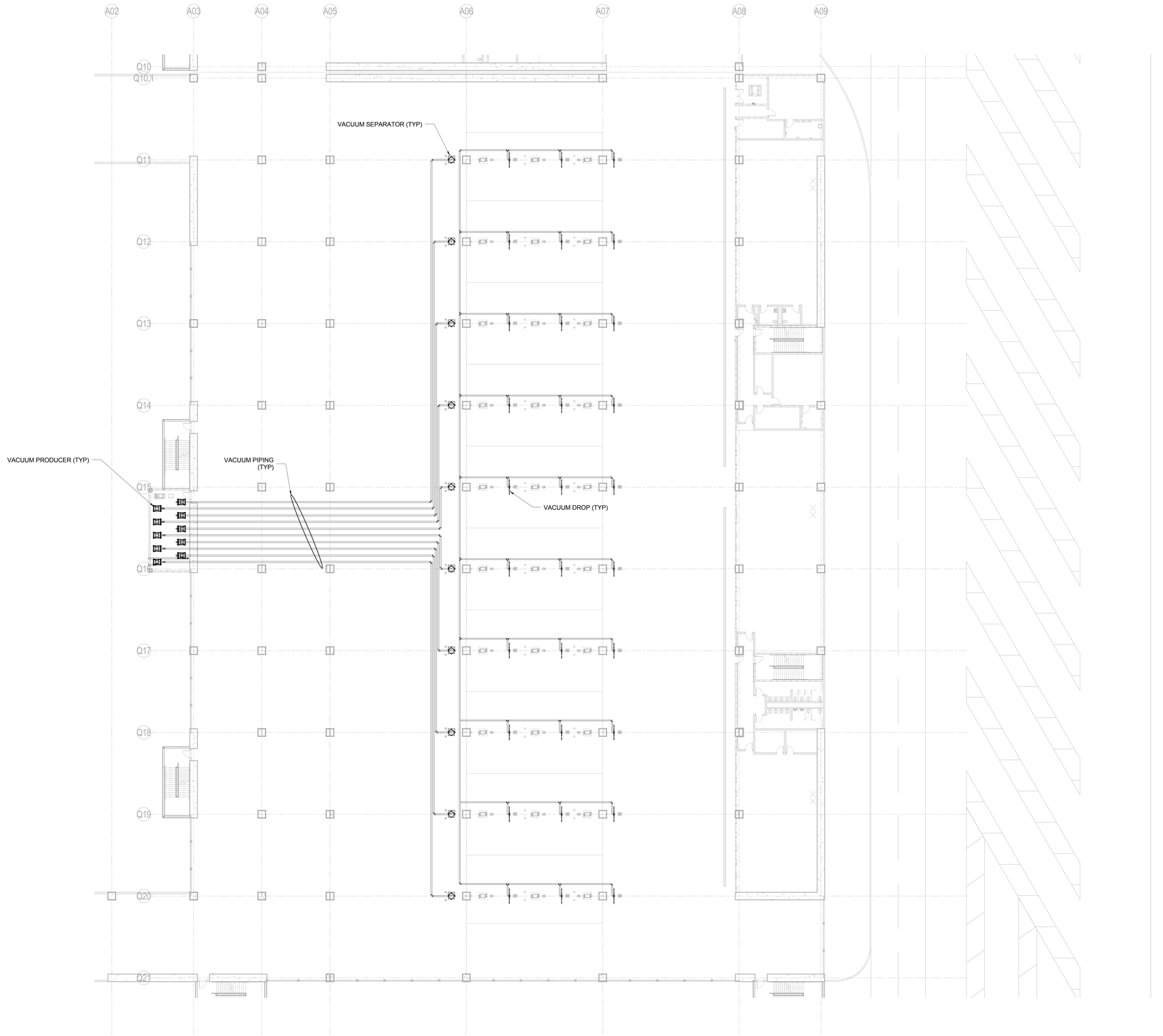
SHEET TITLE:

VACUUM SYSTEM PIPING PLAN LEVEL 1 ZONE 5

SHEET NO.

2-Q-629

8/22/2018 4:29:02 PM
C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-632 **VACUUM SYSTEM PIPING PLAN LEVEL 2_16th_SCALE ZONE 3**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

VACUUM SYSTEM PIPING PLAN LEVEL 2 ZONE 3

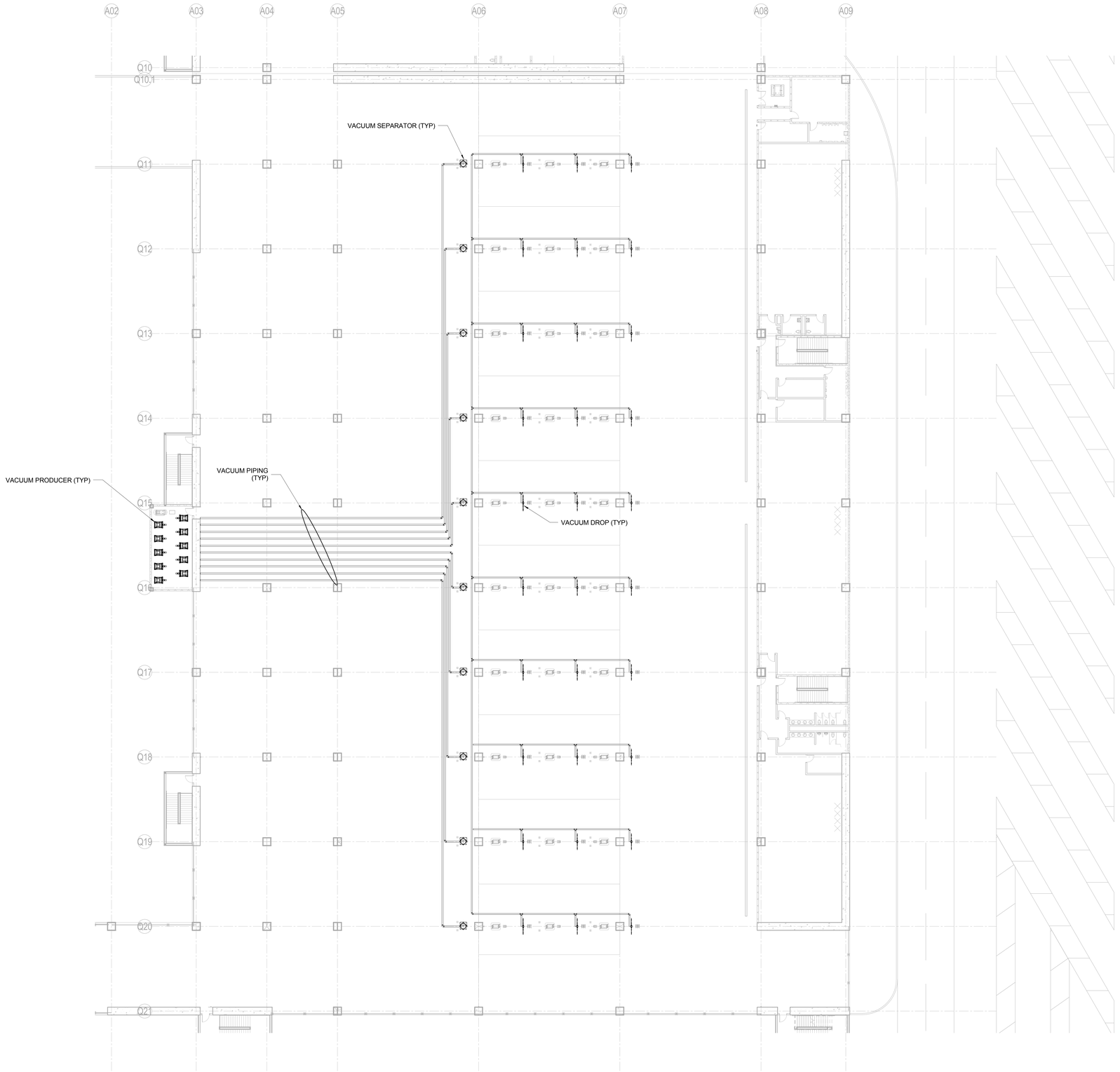
SHEET NO.

2-Q-632

C:\Users\JPuhlet\Documents\Local_Rev_Files\Q-DA4881-BLDG_A_B_R15_jpwilson.rvt

9/22/2016 4:29:13 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-637 **VACUUM SYSTEM PIPING PLAN LEVEL 3_16th_SCALE ZONE 3**
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

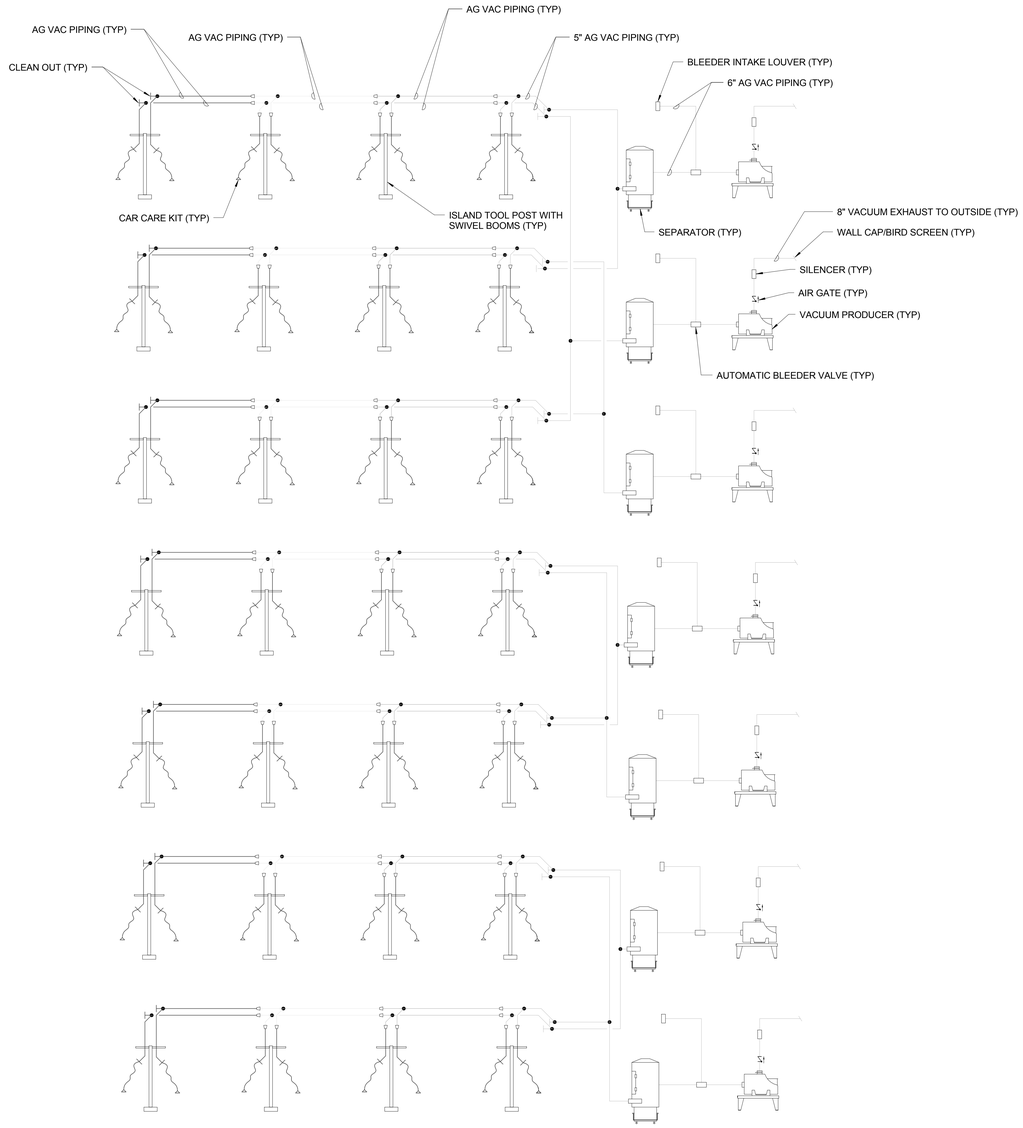
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:
VACUUM SYSTEM PIPING PLAN LEVEL 3 ZONE 3

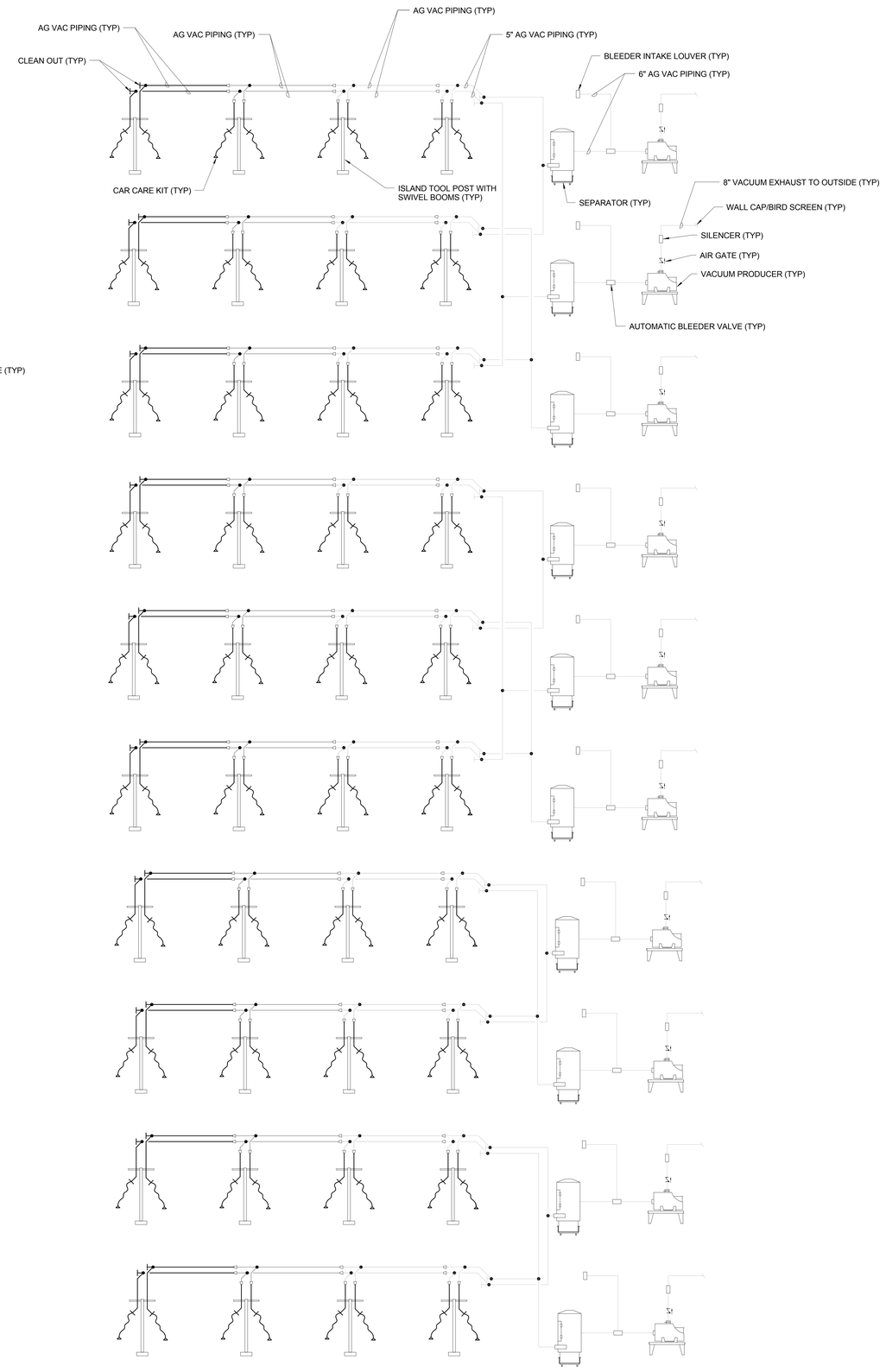
SHEET NO.
2-Q-637

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:29:25 PM
C:\Users\Public\Documents\Local_Rev_Files\Q-DA4881-RLDG_A_B_R16_jwilson.rvt



1 2-Q-660 **VACUUM SYSTEM PIPING SCHEMATIC BUILDING A (LEVEL 1)**
12" = 1'-0"



2 2-Q-660 **VACUUM SYSTEM PIPING SCHEMATIC BUILDING A (TYPICAL FOR LEVELS 2 & 3)**

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	N. Devoe
DRAWN BY:	N. Devoe
CHECKED BY:	Z.Rich

SHEET TITLE:

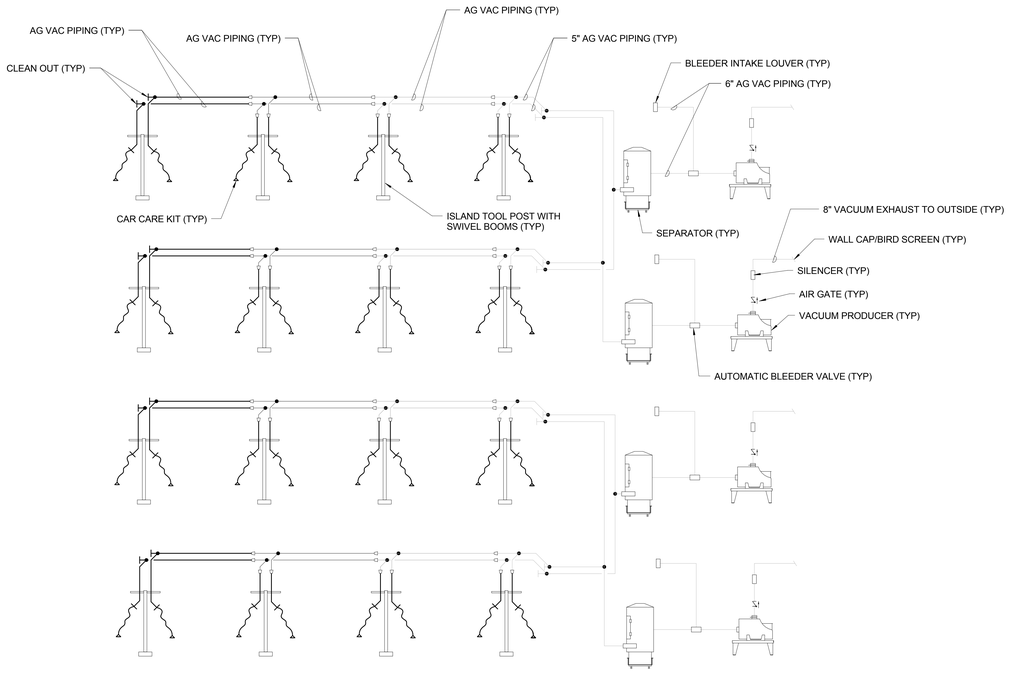
VACUUM SYSTEM PIPING SCHEMATIC (BUILDING A)

SHEET NO.

2-Q-660

8/22/2016 4:29:26 PM C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jlweldon.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1
2-Q-661

VACUUM SYSTEM PIPING SCHEMATIC BUILDING B (LEVEL 1)

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CONCEPT LAX ANA PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	N. Devoe
DRAWN BY:	N. Devoe
CHECKED BY:	Z.Rich

SHEET TITLE:

VACUUM SYSTEM PIPING SCHEMATIC (BUILDING B)

SHEET NO.

2-Q-661

8/22/2016 4:29:26 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jdwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

IMPORTANT NOTE ON QTA SYSTEMS

THIS FACILITY HAS BEEN DESIGNED UNDER THE AUTHORITY OF MULTIPLE CODE MODIFICATION REQUESTS, WHICH ALLOW FOR INDOOR FUELING BEYOND THAT NORMALLY PERMITTED BY CODE. THESE CODE MODIFICATION REQUESTS HAVE BEEN GRANTED WITH CONDITIONS REQUIRING MULTIPLE MITIGATING DESIGN FEATURES. AS SUCH, MANY DESIGN ELEMENTS DEPICTED IN THESE CONSTRUCTION DOCUMENTS EXCEED THE REQUIREMENTS OF APPLICABLE CODES AND TYPICAL STANDARDS. IN THESE CASES, DESIGN ELEMENTS DEPICTED THAT EXCEED CODE REQUIREMENTS SHALL BE CONSIDERED REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

THE ELECTRICAL CONTRACTOR WORKING ON THE FUEL SYSTEM SHALL BE EXPERIENCED WITH PETROLEUM INSTALLATIONS AND HAZARDOUS LOCATIONS.

THE ELECTRICAL HAZARDOUS LOCATIONS HAVE BEEN EXPANDED FOR THIS PROJECT. REFER TO THE ELECTRICAL HAZARD DIAGRAMS FOR MORE INFORMATION.

ELECTRICAL NOTES:

1. UNLESS NOTED AS EXISTING TO BE REUSED, ALL EQUIPMENT, WIRING, DEVICES, ETC., SHALL BE NEW.
2. ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, LATEST EDITION (NEC) AND THE LATEST EDITION OF ALL LOCAL CODES, RULES AND ORDINANCES HAVING JURISDICTION. DUE TO THE NATURE OF THIS INSTALLATION, THE CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO ARTICLES 501, 511, 514 AND 515 OF THE NEC.
3. ALL CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY, EXACT ROUTING SHALL BE DETERMINED IN THE FIELD, UNLESS OTHERWISE NOTED.
4. UNLESS OTHERWISE SPECIFIED ALL ELECTRICAL EQUIPMENT SHALL BE RAIN TIGHT WHERE EXPOSED TO THE WEATHER. ALL FLEX CONDUITS CONNECTED TO SUCH EQUIPMENT SHALL BE LIQUID TIGHT. ALL ELECTRICAL EQUIPMENT IN THE CAR WASH BAYS SHALL BE NEMA 4X.
5. WIREWAYS SHALL BE SIZED AS REQUIRED, PER NEC, UNLESS OTHERWISE NOTED.
6. COORDINATE ALL ELECTRICAL SITE WORK WITH GENERAL CONTRACTOR.
7. FOR UNDERGROUND ELECTRICAL CONDUITS, PROVIDE PULL BOXES, SUCH THAT NO SINGLE CONDUIT RUN HAS BENDS IN EXCESS OF 360°. PULL BOXES SHALL BE SUITABLE AND APPROVED FOR THE INTENDED USE, WARNING TAPE WHICH SAYS "WARNING BURIED ELECTRIC" SHALL BE PLACED IN TRENCHES ABOVE ALL UNDERGROUND ELECTRIC CONDUITS.
8. ALL CIRCUIT BREAKERS SHALL BE INVERSE TIME TYPE (THERMAL MAGNETIC). TWO AND THREE POLE CIRCUIT BREAKERS SHALL BE COMMON TRIP. NO TIE HANDLES PERMITTED.
9. ALL ELECTRICAL EQUIPMENT, DEVICES, WIRE, ETC., SHALL BE LISTED, FOR THE INTENDED USE, WITH UNDERWRITER'S LABORATORIES INC. (U.L.) WHERE STANDARDS HAVE BEEN ESTABLISHED BY U.L.
10. ALL CONDUCTORS SHALL BE IN CONDUITS.
11. COORDINATE ELECTRIC SERVICE AND OTHER ELECTRICAL ELEMENTS WITH BUILDING ELECTRICAL PLANS.
12. ELECTRICAL CONTRACTOR SHALL NOT SCALE DRAWINGS. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT UNLESS OTHERWISE NOTED.
13. ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS AND CONDUITS AS SHOWN AND/OR NOTED ON THE DRAWINGS. THIS SHALL INCLUDE ANY AND ALL FABRICATIONS PRIOR TO INSTALLATION.
14. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR FOR THE ADVANCED ORDERING OF LONG LEAD ITEMS, AS NOT TO INTERFERE WITH THE PRODUCTION OF OTHER TRADES RESULTING IN ANY DOWN TIME OR LAG TIME.
15. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK AS SHOWN AND/OR NOTED ON THE DRAWINGS.
16. IT SHALL BE UNDERSTOOD THAT ALL WORK PERFORMED SHALL BE DONE BY A LICENSED ELECTRICAL CONTRACTOR AND IN A FIRST CLASS WORKMANLIKE MANNER. CONTRACTOR SHALL MEET ALL REQUIREMENTS SET FORTH BY ANY LOCAL ORDINANCE AND GOVERNING AUTHORITIES.
17. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR TO ORIGINAL CONDITIONS ANY AND ALL DAMAGES TO BUILDING SURFACES, EQUIPMENT AND FURNISHINGS CAUSED DURING PERFORMANCE OF WORK.
18. THE ELECTRICAL CONTRACTOR SHALL KEEP ALL AREAS IN WHICH WORK IS BEING PERFORMED, FREE FROM DEBRIS AT ALL TIMES AND AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY.
19. IT SHALL NOT BE THE INTENT OF THESE PLANS AND/OR SPECIFICATION TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE ELECTRICAL CONTRACTOR SHALL BE EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
20. WHERE CORE DRILLING OF FLOOR/WALLS IS REQUIRED, CONTRACTOR SHALL SEAL OPENINGS WATERTIGHT AFTER UTILITIES HAVE BEEN INSTALLED. LOCATION OF CORED HOLES SHALL COORDINATE WITH LOCATION OF EQUIPMENT IN A MANNER TO BE CLEAN AND FUNCTIONAL. THE CONTRACTOR SHALL INSTALL ONLY ONE CONDUIT PER HOLE AND SEAL THE OPENING AROUND THE CONDUIT AS SPECIFIED, USING A U.L. LISTED FIRE SAFING COMPOUND.
21. ELECTRICAL CONTRACTOR SHALL VERIFY CIRCUIT PROTECTIVE DEVICE RATING FOR EQUIPMENT PRIOR TO CONSTRUCTION.
22. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
23. AS A MINIMUM, ALL EQUIPMENT SHALL MEET APPLICABLE STANDARDS, FOR THE TYPE OF EQUIPMENT AND INTENDED USE, OF THE FOLLOWING:
    A. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
    B. ILLUMINATING ENGINEERS SOCIETY (IES).
    C. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
    D. NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).

NOTE: THESE STANDARDS ARE SUBORDINATE TO CODES AND STANDARDS SET BY U.L.

24. ALL PANEL DIRECTORIES SHALL BE TYPE WRITTEN. HAND WRITTEN DIRECTORIES ARE UNACCEPTABLE.
25. ALL CONNECTIONS TO GROUND RODS SHALL BE MADE WITH U.L. APPROVED WELDED CONNECTIONS, UNLESS NOTED OTHERWISE.
26. PROVIDE FIRE RETARDANT U.L. APPROVED SEALANT ON ALL PENETRATIONS OF FIRE RATED PARTITIONS, WALLS AND STRUCTURAL SLABS. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY, PRIOR TO SUBMITTING BID, LOCSUCHS OF ALL FIRE RATED PARTITIONS, WALL AND STRUCTURAL SLABS.
27. CONTRACTOR TO VERIFY AVAILABLE SERVICE VOLTAGE AND PHASES WITH THE LOCAL UTILITY COMPANY PRIOR TO BID, AND PROVIDE BID ALLOWANCE FOR ALTERNATIVES.
28. ELECTRICAL CONDUITS SHALL COMPLY WITH THE FOLLOWING:
    A. RIGID CONDUIT: CONDUITS SHALL BE NEW RIGID GALVANIZED STEEL SIZED IN ACCORDANCE WITH NFPA 70, BUT NO SMALLER THAN 3/4" DIAMETER.
    B. FLEXIBLE CONDUIT: FLEXIBLE CONDUIT IN NEC, CLASS I, DIVISION 1 CLASSIFIED AREAS SHALL BE CROUSE-HINDS, FLEXIBLE COUPLINGS TYPE "ED" SERIES OR EQUAL. FLEXIBLE CONDUIT IN NEC, CLASS I, DIVISION 2 OR NON-CLASSIFIED AREAS SHALL BE LIQUID-TIGHT METALLIC-CORE GALVANIZED STEEL, GROUNDING TYPE WITH EXTRUDED PVC COVER. ADAPTERS AND CONNECTORS SHALL BE LIQUID-TIGHT CROUSE-HINDS "LT" TYPE CONNECTORS OR EQUAL.
29. JUNCTION/OUTLET BOXES IN CLASSIFIED HAZARDOUS AREAS SHALL BE EXPLOSION PROOF, CLASS I, DIVISION 1 OR DIVISION 2, CROUSE-HINDS, APPLETON, OR APPROVED EQUAL, AND SIZED IN ACCORDANCE WITH NEC REQUIREMENTS.
30. ALL ELECTRICAL WIRE AND CABLE FOR CIRCUITS SHALL BE PROPERLY SIZED TO CONFORM TO NFPA 70. ALL POWER CABLE SHALL BE MINIMUM #12 AWG AND ALL BRANCH CIRCUITS MINIMUM 20 AMPS.
31. ALL WIRE AND CABLE INSTALLED WITHIN CONDUITS THAT EXIT, ENTER, OR GO THROUGH A HAZARDOUS AREA MUST CONFORM TO NEC, ARTICLE 501-13 FOR CONDUCTOR INSULATION.
32. CONTROL CABLE SHALL CONSIST OF MULTI-CONDUCTORS OF STRANDED WIRES, 95% SHIELD COVERAGE, BLACK PVC JACKET; MANUFACTURED BY BELDEN.
33. ALL CONDUCTORS SHALL BE THHN OR XHHW.
34. METALLIC SAFETY TAPE SHALL BE USED ABOVE ALL UNDERGROUND CONDUIT.
35. ALL CIRCUITS AND SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH APPLICABLE SECTIONS OF ARTICLES 250 AND 500 OF THE NEC.
36. ALL CONTROL DEVICES, MOTORS OR OTHER APPARATUS, INCLUDING NON-CURRENT CARRYING ENCLOSURES, FRAMES, AND CONDUIT FOR POWER AND CONTROL, ARE TO BE PERMANENTLY AND EFFECTIVELY GROUNDED.
37. ALL WIRING SHALL BE LABELED AND COLOR-CODED TO IDENTIFY EACH WIRE FROM THE POINT OF ORIGIN, INTERMEDIATE JUNCTION POINTS, AND POINT OF TERMINATION. IN ENCLOSURES CONTAINING NUMBERED TERMINAL BOARDS, A DIRECTORY OF THE PURPOSE OF THE WIRE CONNECTED TO EACH TERMINAL BOARD SHALL BE SUFFICIENT. AN AS-BUILT DRAWING OF THE COLOR CODED WIRES IDENTIFYING EACH AS ACTUALLY INSTALLED SHALL BE PROVIDED TO THE OWNER UPON COMPLETION OF THE PROJECT.
38. THE CONTRACTOR SHALL FURNISH AND INSTALL AN EMERGENCY ELECTRICAL DISCONNECT SWITCH THAT PROVIDES A MEANS TO DISCONNECT ALL ELECTRICAL POWER TO THE MOTOR FUEL DISPENSING EQUIPMENT AND ALL ASSOCIATED POWER, CONTROL, SIGNAL CIRCUITS AND OTHER ELECTRICAL EQUIPMENT IN HAZARDOUS/CLASSIFIED AREAS DURING AN EMERGENCY, AS SPECIFIED ON THE CONSTRUCTION DRAWINGS.
39. UNLESS SO SPECIFIED ON THE CONSTRUCTION DRAWINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING AND SPECIFYING ALL CIRCUIT BREAKERS AND CONDUCTORS. ALL CONDUCTORS SHALL BE SIZED TO MEET THE RECOMMENDATIONS FOR MAXIMUM VOLTAGE DROP IN THE NEC.
40. THE EMERGENCY ELECTRICAL DISCONNECT SWITCH SHALL BE LOCATED NOT LESS THAN 20 FEET OR MORE THAN 100 FEET FROM THE FUEL DISPENSERS.
41. ALL CONTROL SYSTEMS SHALL BE IN PROPER OPERATING CONDITION AND APPROVAL MUST BE GIVEN BY THE CONTROL SYSTEM APPARATUS MANUFACTURER, AS WELL AS BY THE OWNER, BEFORE ANY FINAL ACCEPTANCE IS MADE.
42. THE CONTRACTOR SHALL THOROUGHLY TEST ALL WIRING FOR SHORTS AND GROUNDS BEFORE CURRENT IS TURNED ON.
43. ALL PANEL BOARDS SHALL INCLUDE A CIRCUIT DIRECTORY OR CIRCUIT IDENTIFICATION IN ACCORDANCE WITH THE NEC. IN ADDITION, THE INSIDE PANEL OF ALL ENCLOSURES SHALL INCLUDE A DIAGRAMMATIC DEPICTION OF THE PURPOSE OF EACH DEVICE IN THAT ENCLOSURE, AS SHOWN ON THE CONSTRUCTION DRAWINGS. FOR EXAMPLE, EACH ENCLOSURE CONTAINING RELAYS SHALL BE LABELED WITH A QUICK REFERENCE DIAGRAM SHOWING THE LOCATION OF EACH RELAY AND ITS PURPOSE. TEXT ASSOCIATED WITH THE DIAGRAM SHALL BE ARIAL FONT, OR EQUIVALENT, NO SMALLER THAN 18 POINT.
44. ALL CONDUITS SHALL BE LABELED AS INDICATED ON THE CONSTRUCTION DRAWINGS. LABELS SHALL BE INCLUDED ON ALL INTERIOR AND EXTERIOR CONDUITS AT THE POINT OF EXIT FROM A PANEL BOARD OR ENCLOSURE AND AT THE POINT THE CONDUIT ENTERS THE GROUND, REALIZING THAT SOME OR ALL CONDUITS MAY BE LABELED MORE THAN ONCE.
45. THE CONTRACTOR SHALL SECURELY FASTEN CONDUITS TO OUTLET BOXES, PANEL-BOARDS, ETC., WITH TWO NUTS AND ONE BUSHING OR THREAD HUB. CONDUITS SHALL HAVE ENDS BUTTED INSIDE COUPLINGS.
46. ALL BELOW-GRADE CONDUIT SHALL BE BEDDED WITH SUITABLE MATERIAL, FREE FROM MUCK, ASPHALT, DELETERIOUS MATERIAL, BROKEN CONCRETE OR DEBRIS OF ANY KIND. THE BACKFILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

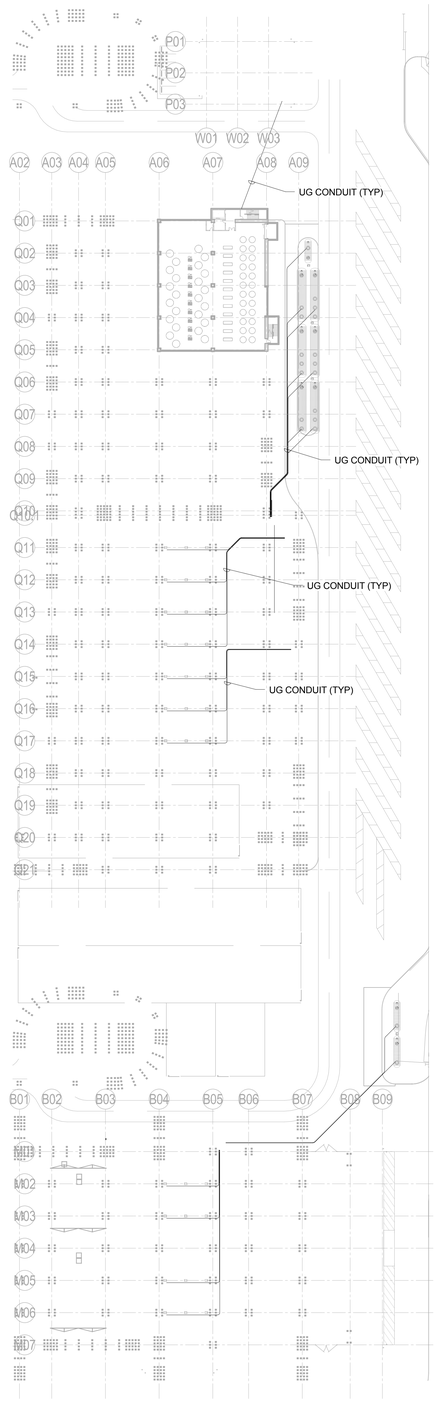
QTA SYSTEM
ELECTRICAL NOTES

SHEET NO.
2-Q-700

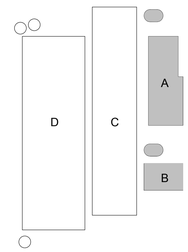
C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

9/22/2016 4:29:27 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-710 CONDUIT PLAN LEVEL 0_60_SCALE
1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

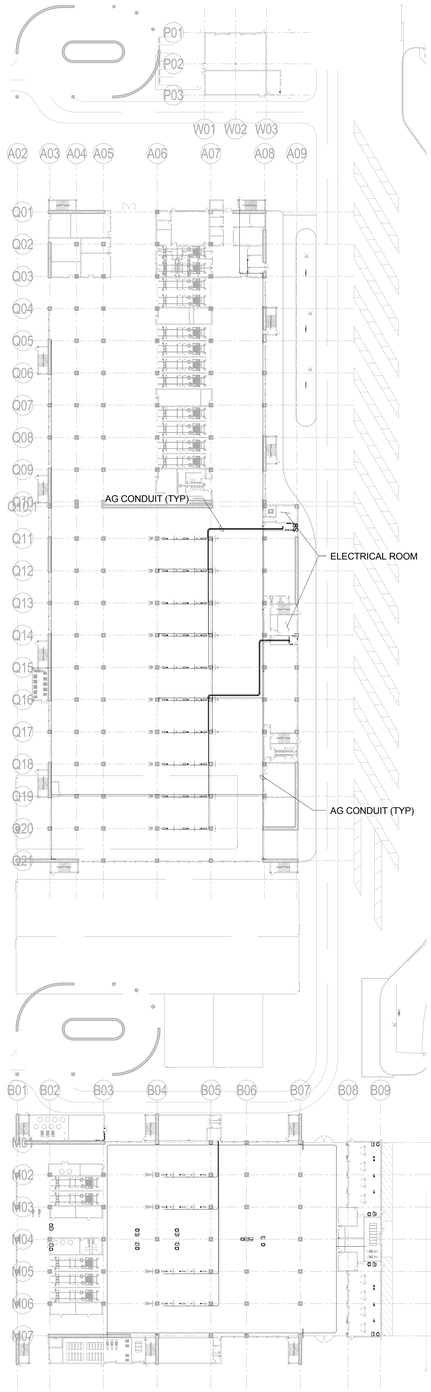
OVERALL ELECTRICAL CONDUIT PLAN LEVEL 0 (UNDERGROUND)

SHEET NO.

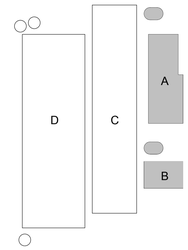
2-Q-710

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:29:31 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt



1 / 2-Q-711 **CONDUIT PLAN LEVEL 1_60_SCALE**
1" = 60'-0"



KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

8/22/2018 4:29:52 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

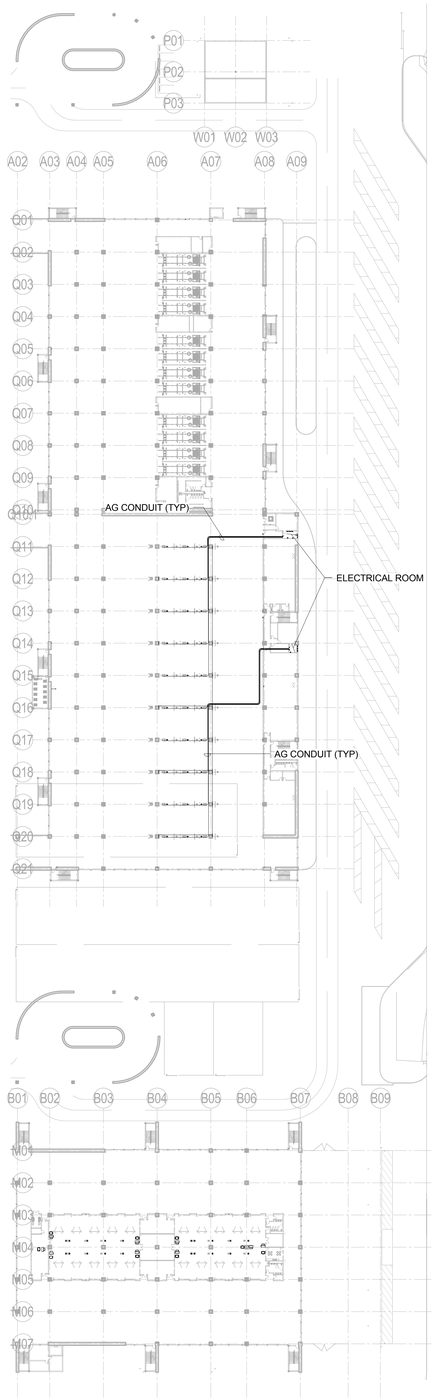
PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

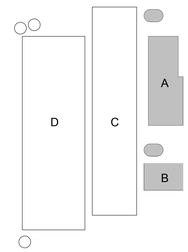
OVERALL ELECTRICAL CONDUIT PLAN LEVEL 1

SHEET NO.

2-Q-711



1
2-Q-712
CONDUIT PLAN LEVEL 2_60_SCALE
1" = 60'-0"



KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

8/22/2018 4:30:13 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT LAN PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

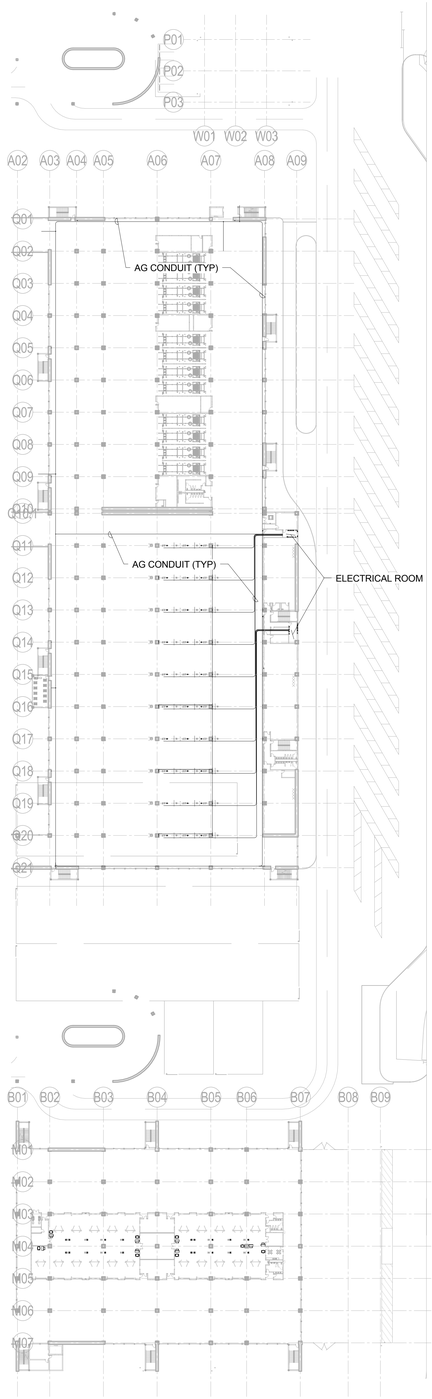
PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

OVERALL ELECTRICAL CONDUIT PLAN LEVEL 2

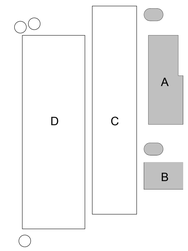
SHEET NO.

2-Q-712



1 / 2-Q-713 **CONDUIT PLAN LEVEL 3_60_SCALE**

1" = 60'-0"



KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

8/22/2016 4:30:28 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

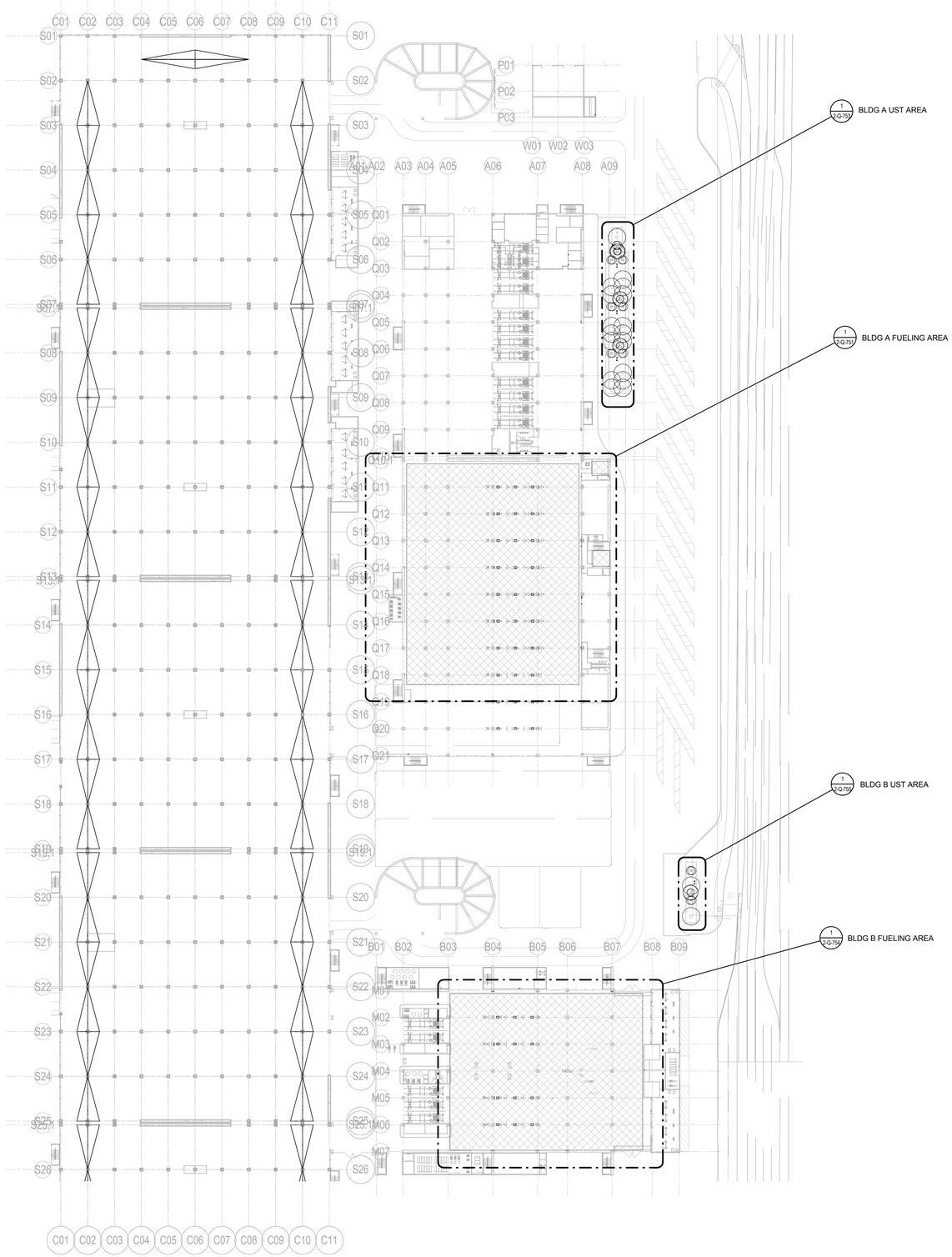
PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

OVERALL ELECTRICAL CONDUIT PLAN LEVEL 3

SHEET NO.

2-Q-713



1 2-Q-750 OVERALL HAZARD AREA PLAN LEVEL 1

1" = 60'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	N.MacAloney

SHEET TITLE:

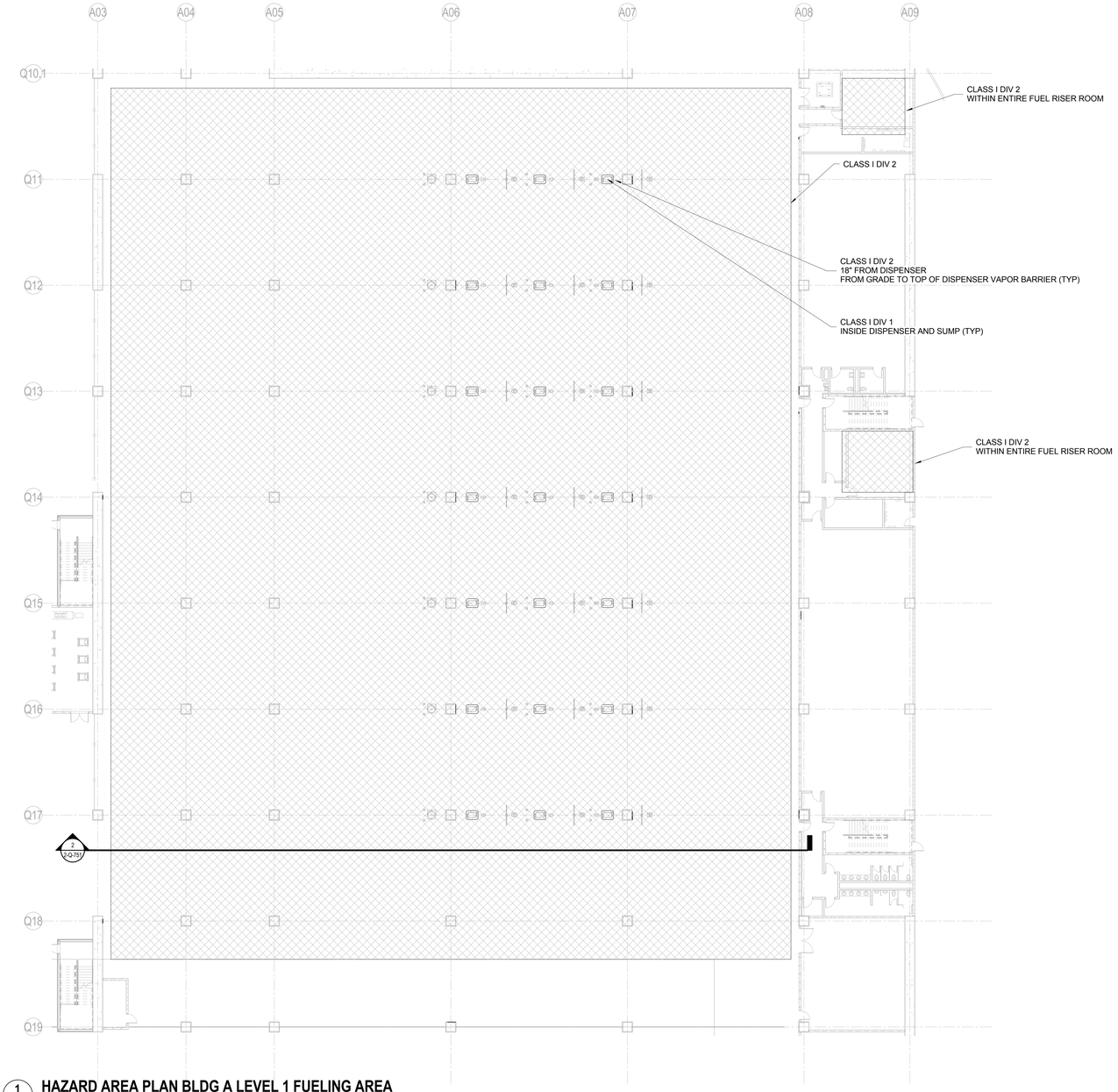
OVERALL HAZARD AREA PLAN - LEVEL 1

SHEET NO.

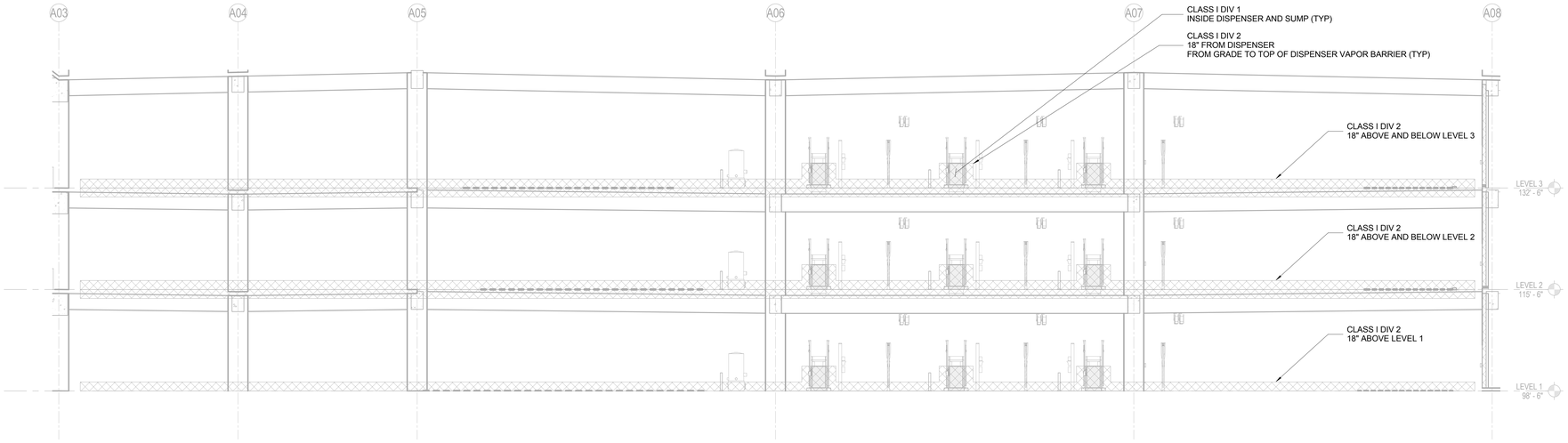
2-Q-750

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:30:53 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt



1 / 2-Q-751 HAZARD AREA PLAN BLDG A LEVEL 1 FUELING AREA
1/16" = 1'-0"



2 / 2-Q-751 BLDG A TYPICAL FUELING AREA HAZARD ELEVATION
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:31:10 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

LAX ONT PMD

REVISIONS:

MARK	DATE	DESCRIPTION

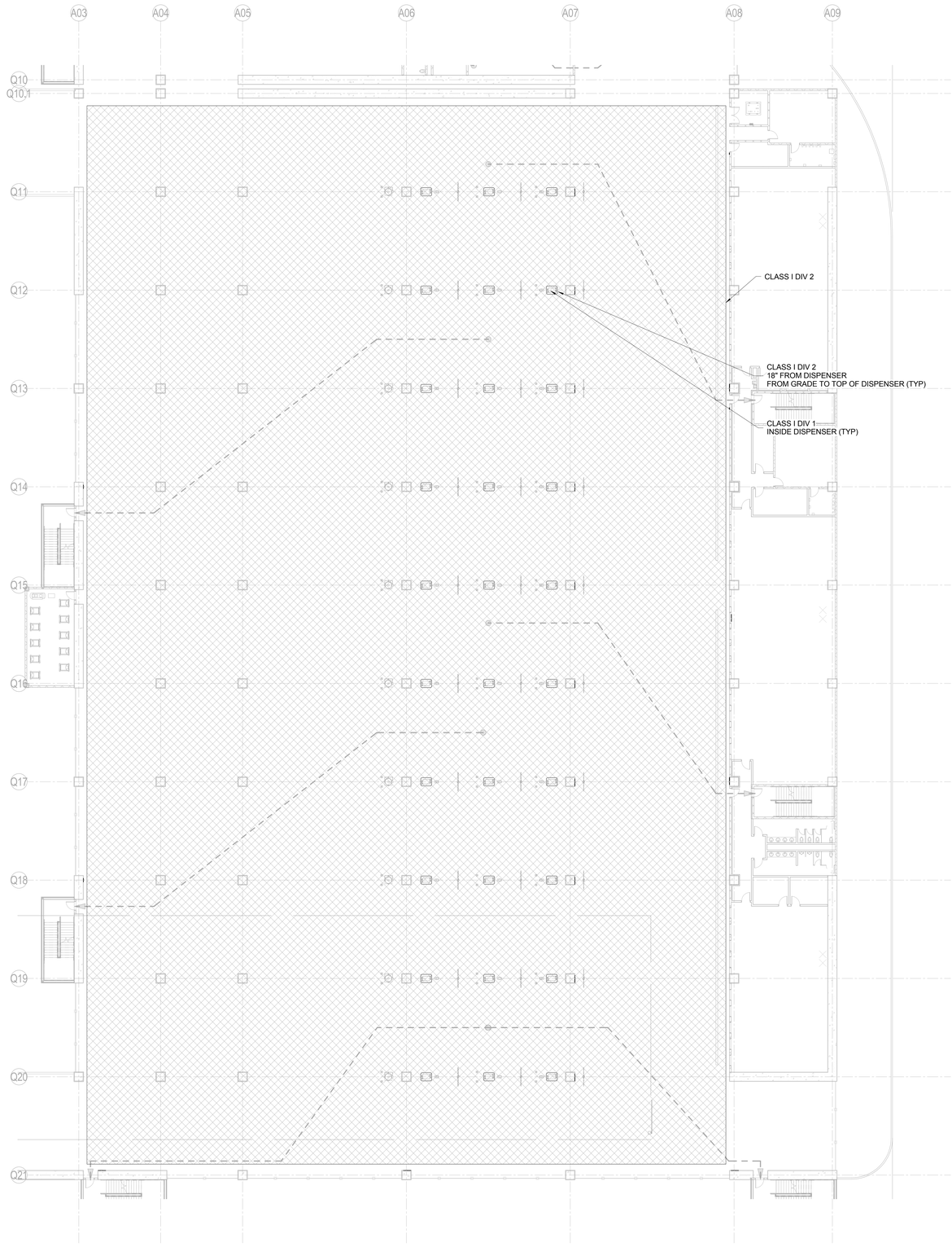
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

HAZARD CLASSIFICATION AREA DETAILS BLDG A LEVEL 1 FUELING AREA

SHEET NO.

2-Q-751



1 / 2-Q-752 **HAZARD AREA PLAN BLDG A LEVELs 2/3 FUELING AREA**

1/16" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:31:19 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

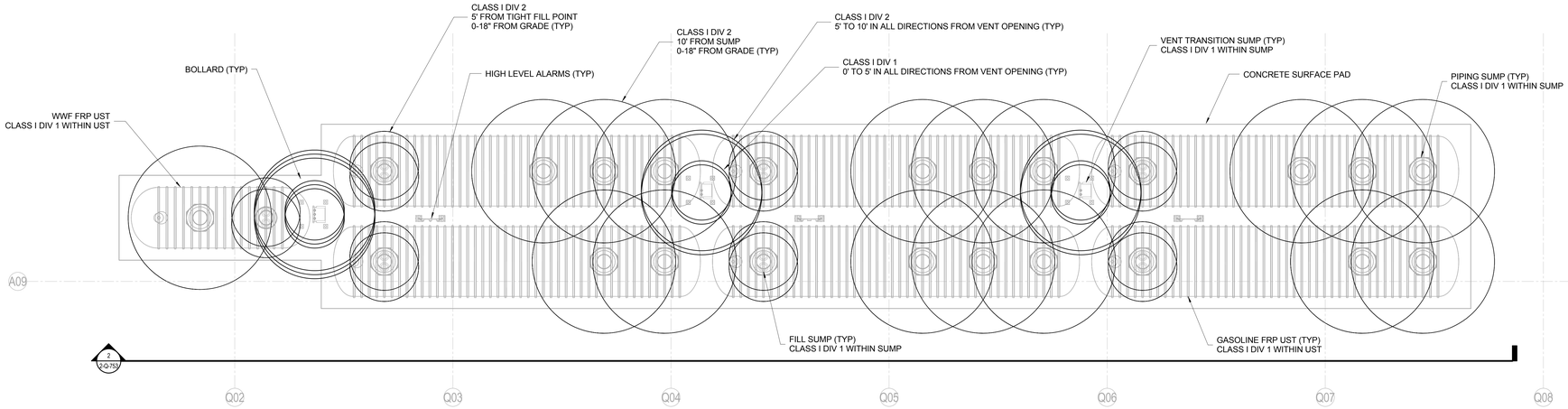
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

HAZARD CLASSIFICATION AREA PLAN BUILDING A, LEVELS 2 & 3

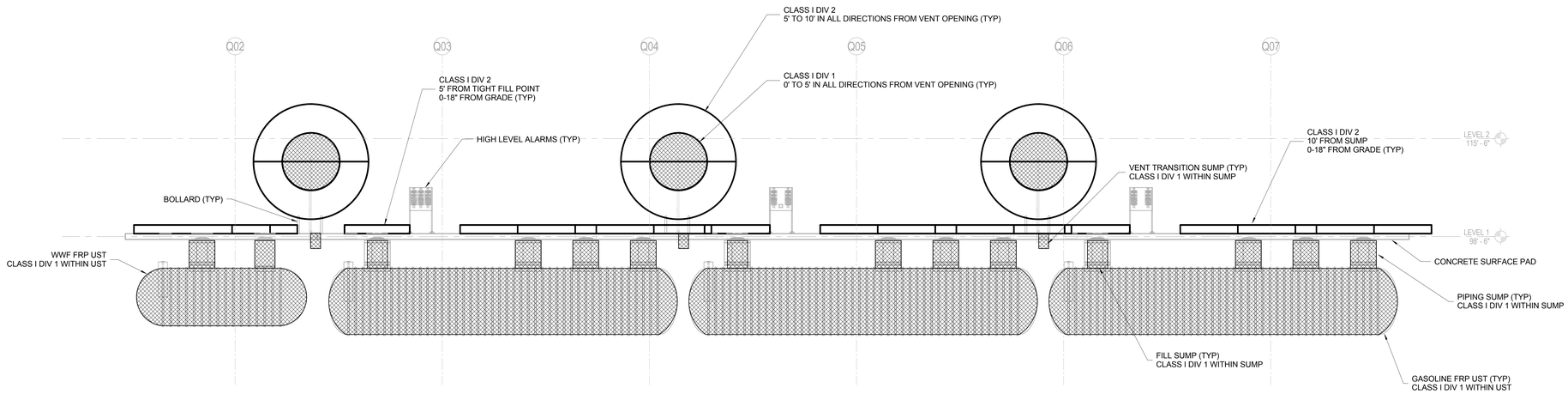
SHEET NO.

2-Q-752



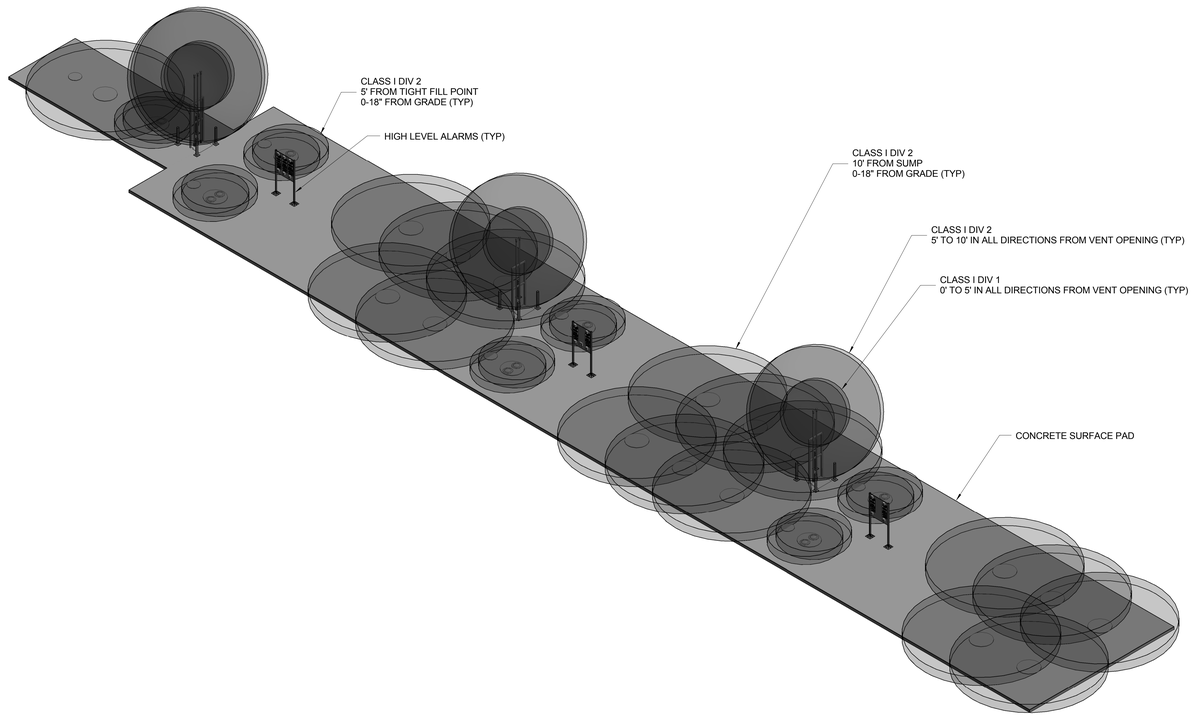
1 HAZARD AREA PLAN - BLDG A UST FIELD

2-Q-753 1/8" = 1'-0"



2 HAZARD AREA ELEVATION - BLDG A UST FIELD

2-Q-753 1/8" = 1'-0"



3 HAZARD AREA PERSPECTIVE - BLDG A UST FIELD

2-Q-753

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	N.MacAloney

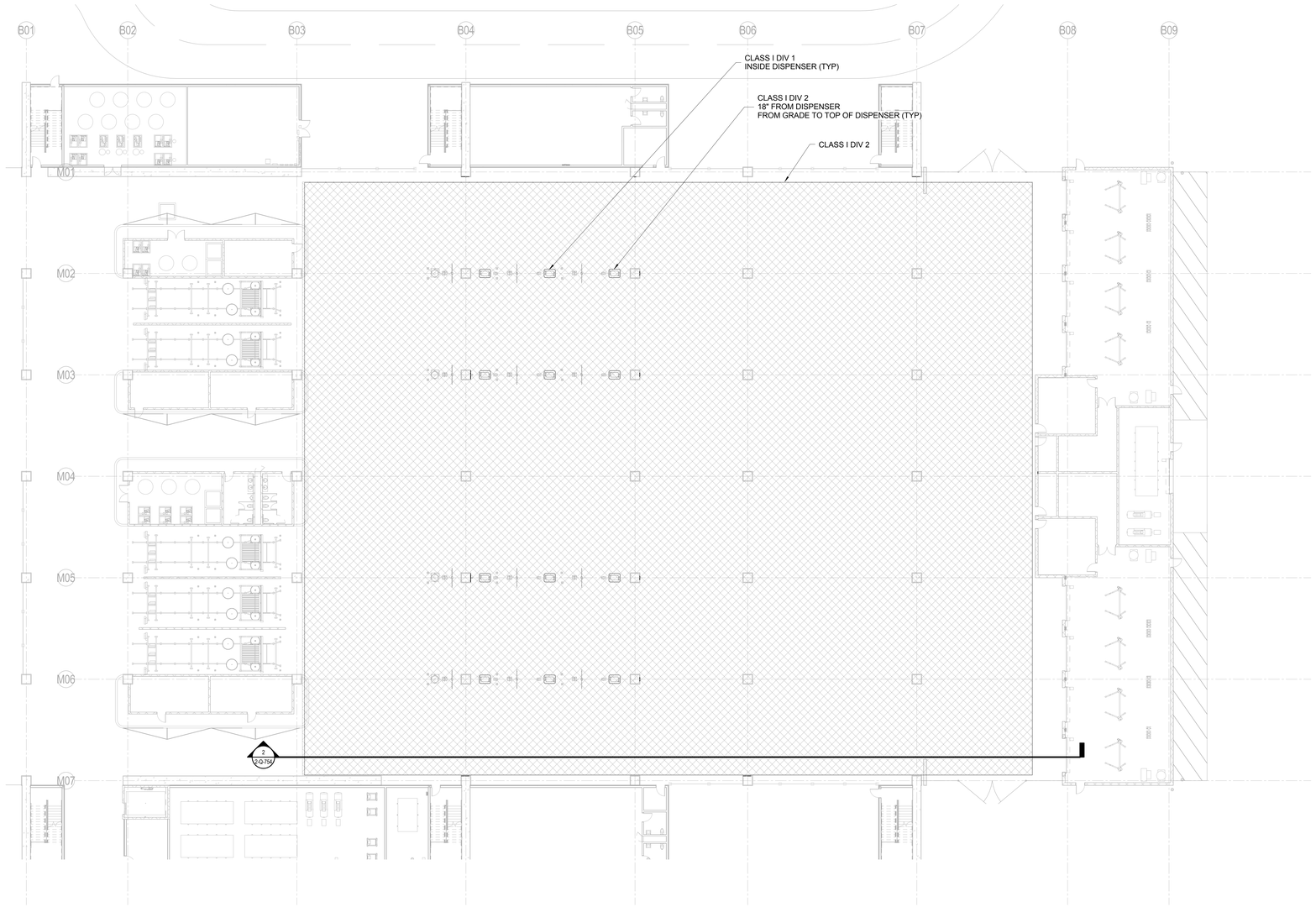
SHEET TITLE:

HAZARD CLASSIFICATION AREA DETAILS BLDG A UST AREA

SHEET NO.

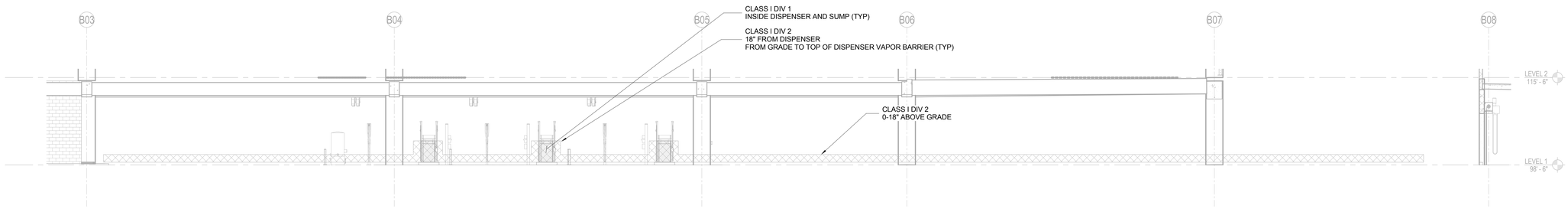
2-Q-753

9/22/2016 4:31:45 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt



1 2-Q-754 HAZARD AREA PLAN BLDG B FUELING AREA

1/16" = 1'-0"



2 2-Q-754 BLDG B FUELING AREA HAZARD ELEVATION

1/8" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

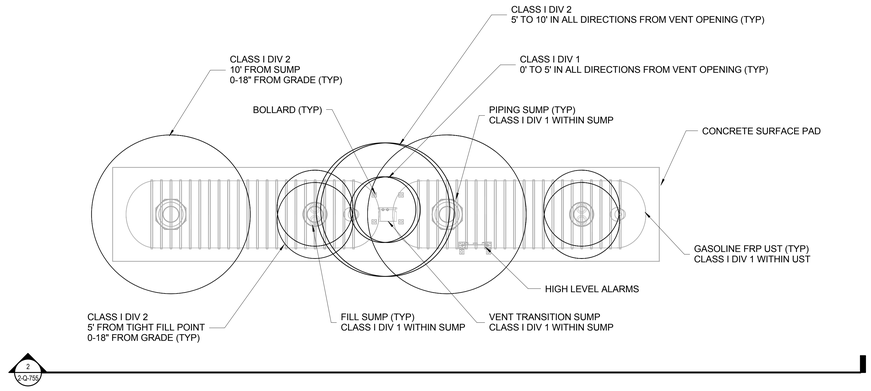
HAZARD
CLASSIFICATION PLAN
BUILDING B

SHEET NO.

2-Q-754

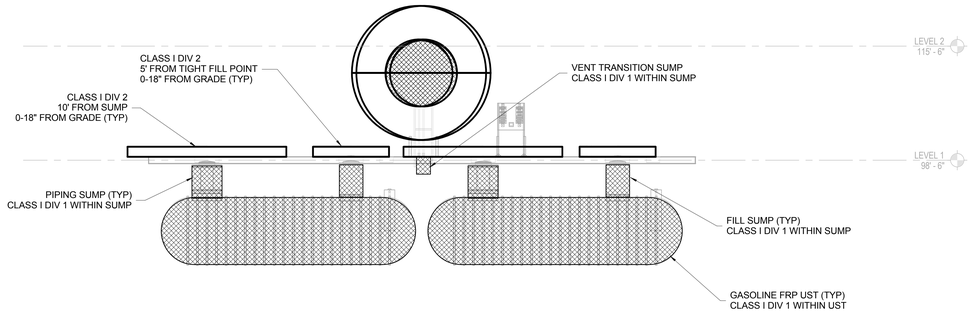
9/22/2016 4:32:02 PM C:\Users\Public\Documents\Local_Revit_Files\DA4881-BLDG_A_B_R15_jwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



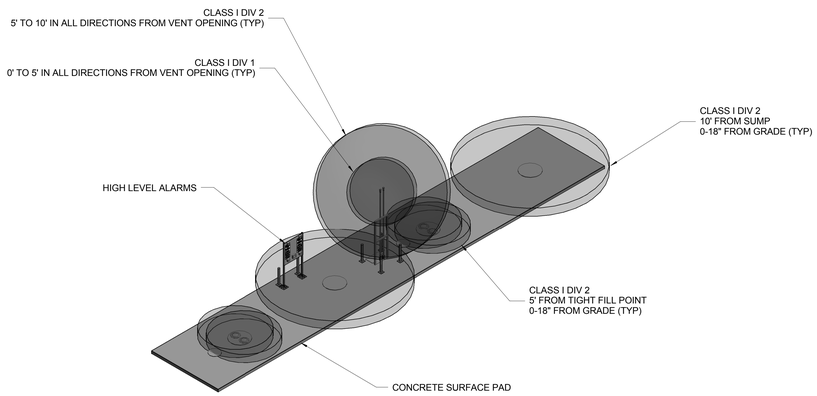
1 2-Q-755 HAZARD CLASSIFICATION AREA DETAILS BLDG B UST AREA

1/8" = 1'-0"



2 2-Q-755 HAZARD AREA ELEVATION - BLDG B UST FIELD

1/8" = 1'-0"



3 2-Q-755 HAZARD AREA PERSPECTIVE - BLDG B UST FIELD

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	N.MacAloney

SHEET TITLE:

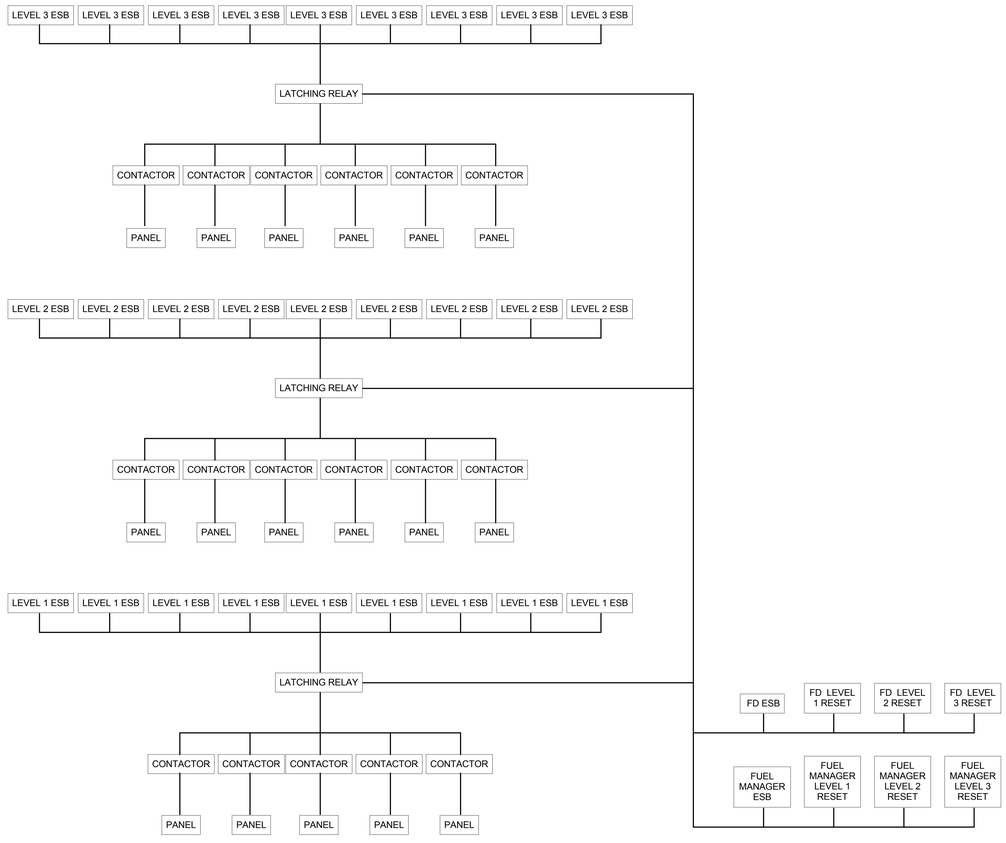
HAZARD AREA DETAILS - BLDG B UST FIELD

SHEET NO.

2-Q-755

8/22/2016 4:32:07 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 / 2-Q-764 **BLOCK DIAGRAM - BLDG A - E-STOP**

12" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

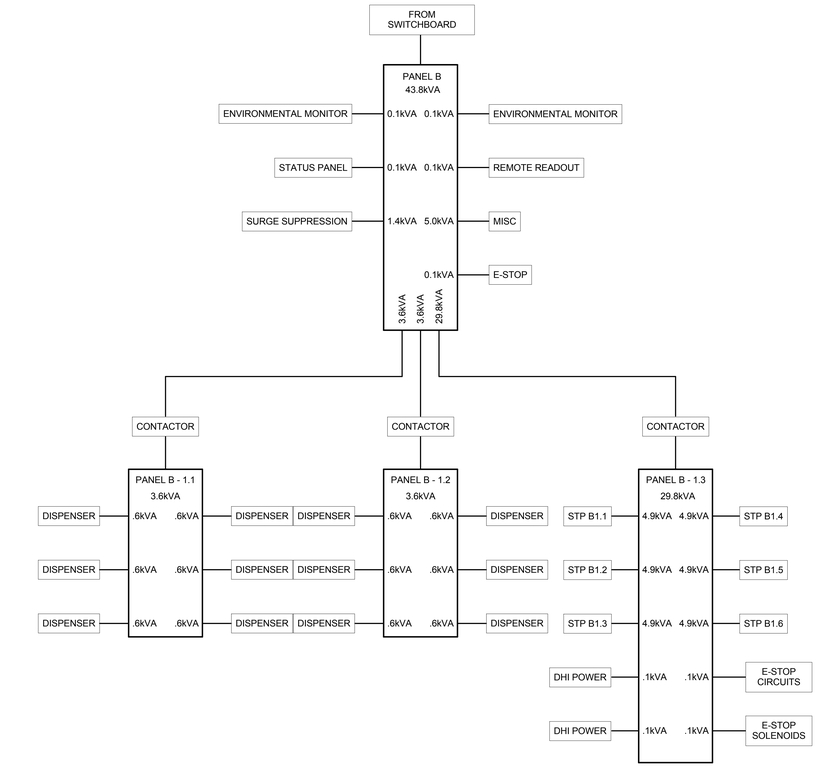
FUEL SYSTEM E-STOP BLOCK DIAGRAMS

SHEET NO.

2-Q-764

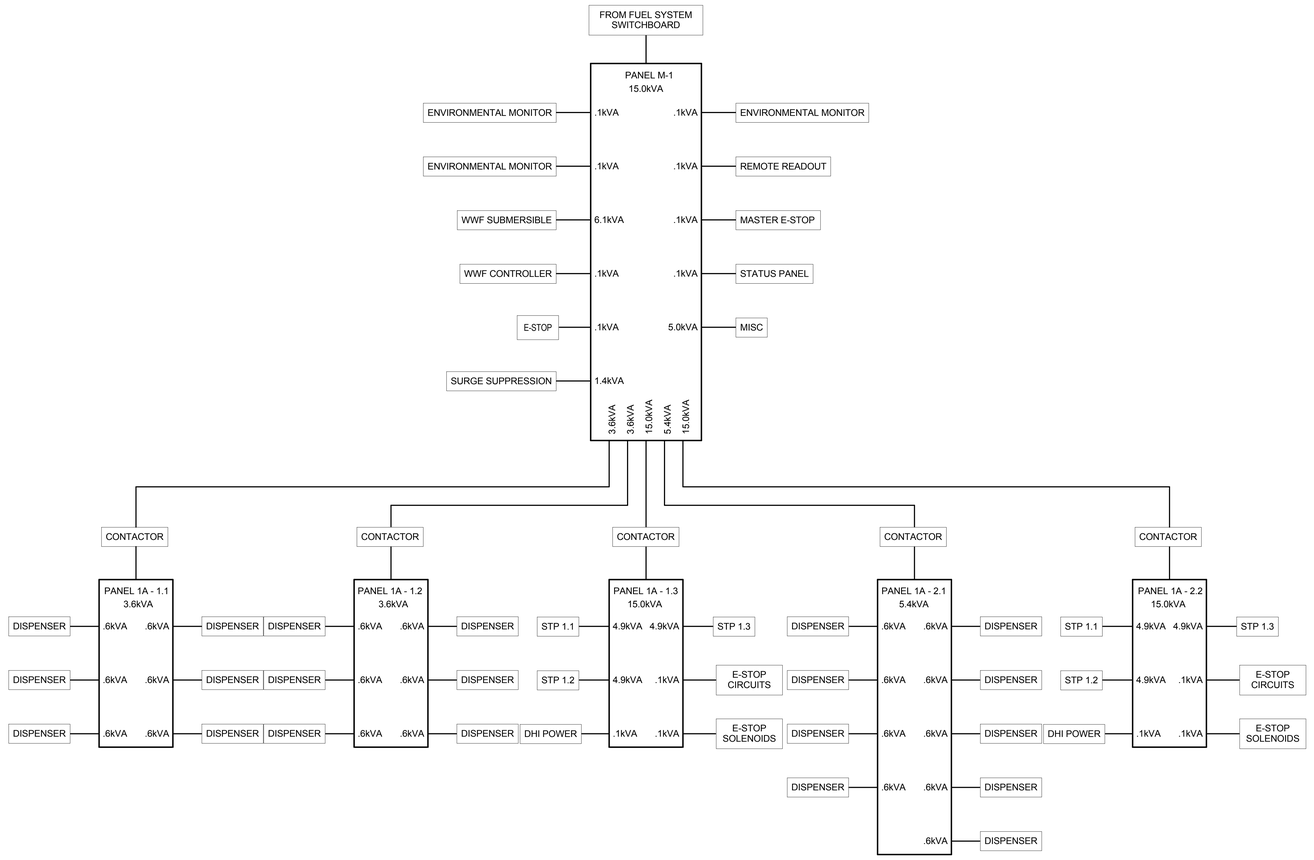
9/22/2016 4:32:07 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 2-Q-765 **BLOCK DIAGRAM - BLDG B - FS POWER**

12" = 1'-0"



2 2-Q-765 **BLOCK DIAGRAM - BLDG A - LEVEL 1 POWER**

12" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

FUEL SYSTEM POWER BLOCK DIAGRAMS

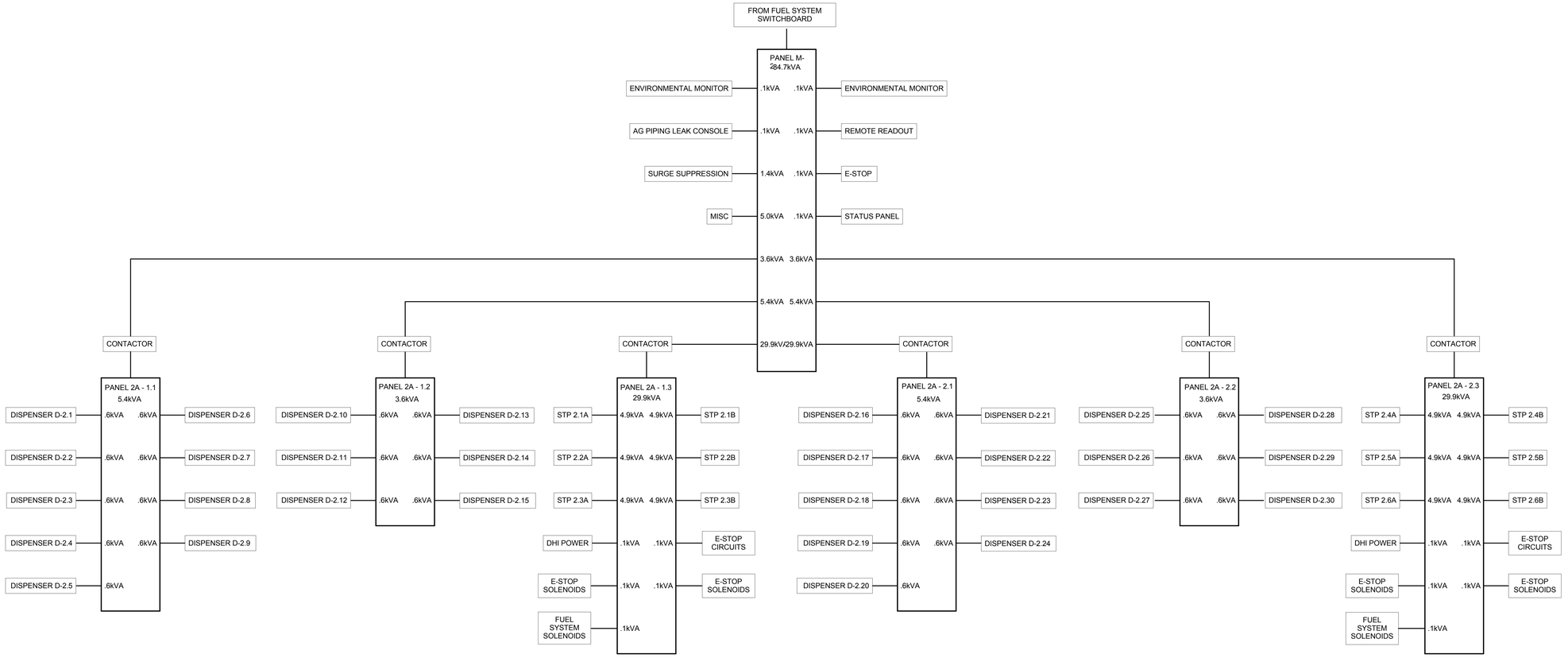
SHEET NO.

2-Q-765

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

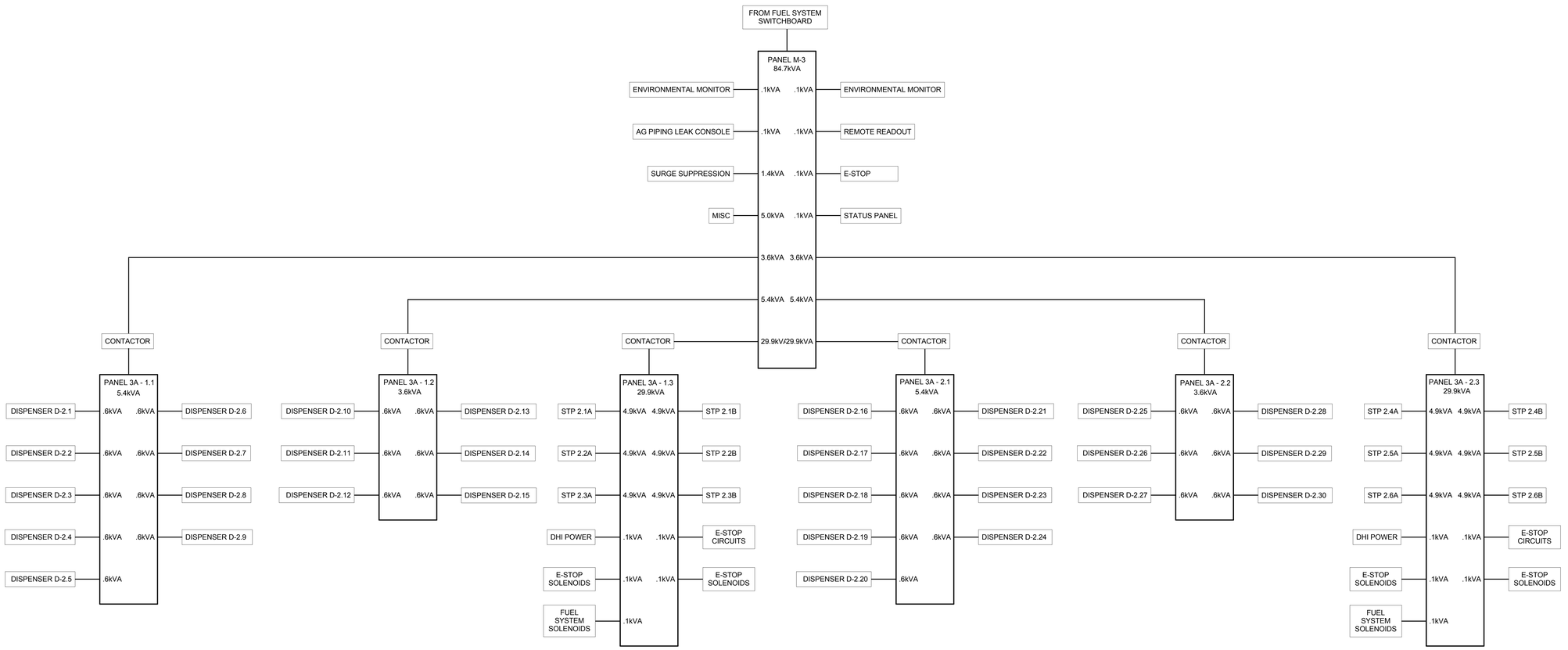
8/22/2016 4:32:08 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 2-Q-766 **BLOCK DIAGRAM - BLDG A - LEVEL 2 POWER**

12" = 1'-0"



2 2-Q-766 **BLOCK DIAGRAM - BLDG A - LEVEL 3 POWER**

12" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS: MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

FUEL SYSTEM POWER BLOCK DIAGRAMS

SHEET NO.

2-Q-766

C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jwilson.rvt

9/22/2016 4:32:19 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

DISPENSER 1.1
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.2
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.3
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.4
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.5
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.6
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.7
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.8
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.9
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.10
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.11
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.12
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 2.1
LEAK SENSOR

DISPENSER 2.2
LEAK SENSOR

DISPENSER 2.3
LEAK SENSOR

DISPENSER 2.4
LEAK SENSOR

DISPENSER 2.5
LEAK SENSOR

DISPENSER 2.6
LEAK SENSOR

DISPENSER 2.7
LEAK SENSOR

DISPENSER 2.8
LEAK SENSOR

DISPENSER 2.9
LEAK SENSOR

DISPENSER 2.10
LEAK SENSOR

DISPENSER 2.11
LEAK SENSOR

DISPENSER 2.12
LEAK SENSOR

DISPENSER 2.13
LEAK SENSOR

DISPENSER 2.14
LEAK SENSOR

DISPENSER 2.15
LEAK SENSOR

DISPENSER 3.1
LEAK SENSOR

DISPENSER 3.2
LEAK SENSOR

DISPENSER 3.3
LEAK SENSOR

DISPENSER 3.4
LEAK SENSOR

DISPENSER 3.5
LEAK SENSOR

DISPENSER 3.6
LEAK SENSOR

DISPENSER 3.7
LEAK SENSOR

DISPENSER 3.8
LEAK SENSOR

DISPENSER 3.9
LEAK SENSOR

DISPENSER 3.10
LEAK SENSOR

DISPENSER 3.11
LEAK SENSOR

DISPENSER 3.12
LEAK SENSOR

DISPENSER 3.13
LEAK SENSOR

DISPENSER 3.14
LEAK SENSOR

DISPENSER 3.15
LEAK SENSOR

DISPENSER 1.13
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.14
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.15
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.16
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.17
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.18
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.19
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.20
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 1.21
SUMP BRINE RES.
LEAK SENSOR

DISPENSER 2.16
LEAK SENSOR

DISPENSER 2.17
LEAK SENSOR

DISPENSER 2.18
LEAK SENSOR

DISPENSER 2.19
LEAK SENSOR

DISPENSER 2.20
LEAK SENSOR

DISPENSER 2.21
LEAK SENSOR

DISPENSER 2.22
LEAK SENSOR

DISPENSER 2.23
LEAK SENSOR

DISPENSER 2.24
LEAK SENSOR

DISPENSER 2.25
LEAK SENSOR

DISPENSER 2.26
LEAK SENSOR

DISPENSER 2.27
LEAK SENSOR

DISPENSER 2.28
LEAK SENSOR

DISPENSER 2.29
LEAK SENSOR

DISPENSER 2.30
LEAK SENSOR

DISPENSER 3.16
LEAK SENSOR

DISPENSER 3.17
LEAK SENSOR

DISPENSER 3.18
LEAK SENSOR

DISPENSER 3.19
LEAK SENSOR

DISPENSER 3.20
LEAK SENSOR

DISPENSER 3.21
LEAK SENSOR

DISPENSER 3.22
LEAK SENSOR

DISPENSER 3.23
LEAK SENSOR

DISPENSER 3.24
LEAK SENSOR

DISPENSER 3.25
LEAK SENSOR

DISPENSER 3.26
LEAK SENSOR

DISPENSER 3.27
LEAK SENSOR

DISPENSER 3.28
LEAK SENSOR

DISPENSER 3.29
LEAK SENSOR

DISPENSER 3.30
LEAK SENSOR

VENT RISER TRANSITION SUMP
SUMP BRINE RES.
SUMP LEAK SENSOR

VENT RISER TRANSITION SUMP
SUMP BRINE RES.
SUMP LEAK SENSOR

VENT RISER TRANSITION SUMP
SUMP BRINE RES.
SUMP LEAK SENSOR

EMC-UST

EMC-1.1
EMC-1.2
EMC-2.1
EMC-2.2
EMC-3.1
EMC-3.2

PS-UST5.1
ATG
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 2
PRESSURE XDUCER

PS-UST5.2
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 2
PRESSURE XDUCER
PRESSURE XDUCER

PS-UST5.3
SUMP BRINE RES.
LEAK SENSOR
INT.SENSOR

UST 5 - SERVICES LEVEL 1 DISPENSERS

PS-UST6.1
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 2
PRESSURE XDUCER

PS-UST6.2
ATG
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 1
PRESSURE XDUCER

PS-UST6.3
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 2
PRESSURE XDUCER

PS-UST6.4
SUMP BRINE RES.
LEAK SENSOR
INT.SENSOR

UST 6 - SERVICES LEVEL 2 DISPENSERS

PS-UST3.1
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 2
PRESSURE XDUCER

PS-UST3.2
ATG
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 1
PRESSURE XDUCER

PS-UST3.3
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 2
PRESSURE XDUCER

PS-UST3.4
SUMP BRINE RES.
SUMP LEAK SENSOR
INT.SENSOR

UST 3 - SERVICES LEVEL 3 DISPENSERS

PS-UST4.1
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 1
VAC SENSOR 2
PRESSURE XDUCER

PS-UST4.2
ATG
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 1
PRESSURE XDUCER

PS-UST4.3
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 1
PRESSURE XDUCER

PS-UST4.4
SUMP BRINE RES.
LEAK SENSOR
INT.SENSOR

UST 4 - SERVICES LEVEL 2 DISPENSERS

PS-UST1.1
ATG
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 2
PRESSURE XDUCER

PS-UST1.2
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 2
PRESSURE XDUCER
PRESSURE XDUCER

PS-UST1.3
SUMP BRINE RES.
SUMP LEAK SENSOR
INT.SENSOR

UST 1 - SERVICES LEVEL 1 DISPENSERS

PS-UST2.1
ATG
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 1
PRESSURE XDUCER

PS-UST2.2
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 1
PRESSURE XDUCER

PS-UST2.3
SUMP BRINE RES.
SUMP LEAK SENSOR
VAC SENSOR 1
PRESSURE XDUCER

PS-UST2.4
SUMP BRINE RES.
SUMP LEAK SENSOR
INT.SENSOR

UST 2 - SERVICES LEVEL 3 DISPENSERS

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

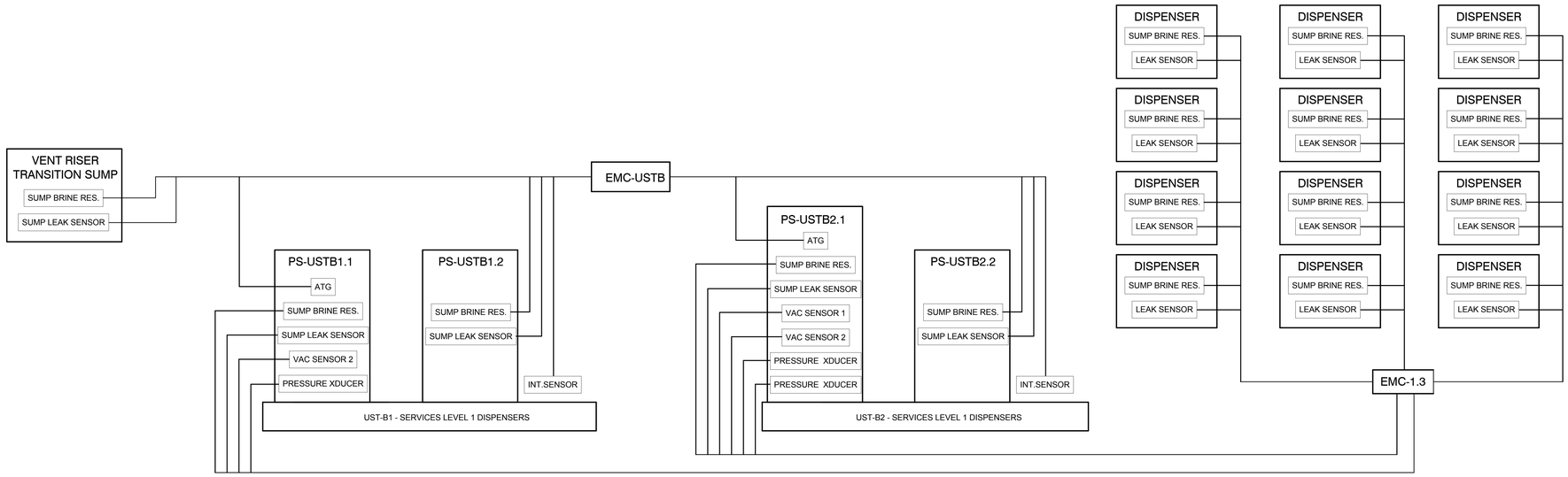
SHEET TITLE:
FUEL SYSTEM LEAK DETECTION BLOCK DIAGRAM BLDG A

SHEET NO.
2-Q-767

C:\Users\PUblic\Documents\Local_Revit_Files\Q-DA4881-BLDG_A_B_R15_jwilson.rvt

9/22/2016 4:32:12 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1
2-Q-768

BLOCK DIAGRAM - LEAK DETECTION BUILDING B

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CONSOLIDATED RENTAL CAR FACILITY
ONT ANA
PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	N.Devoe
DRAWN BY:	N.Devoe
CHECKED BY:	J.Wilson

SHEET TITLE:

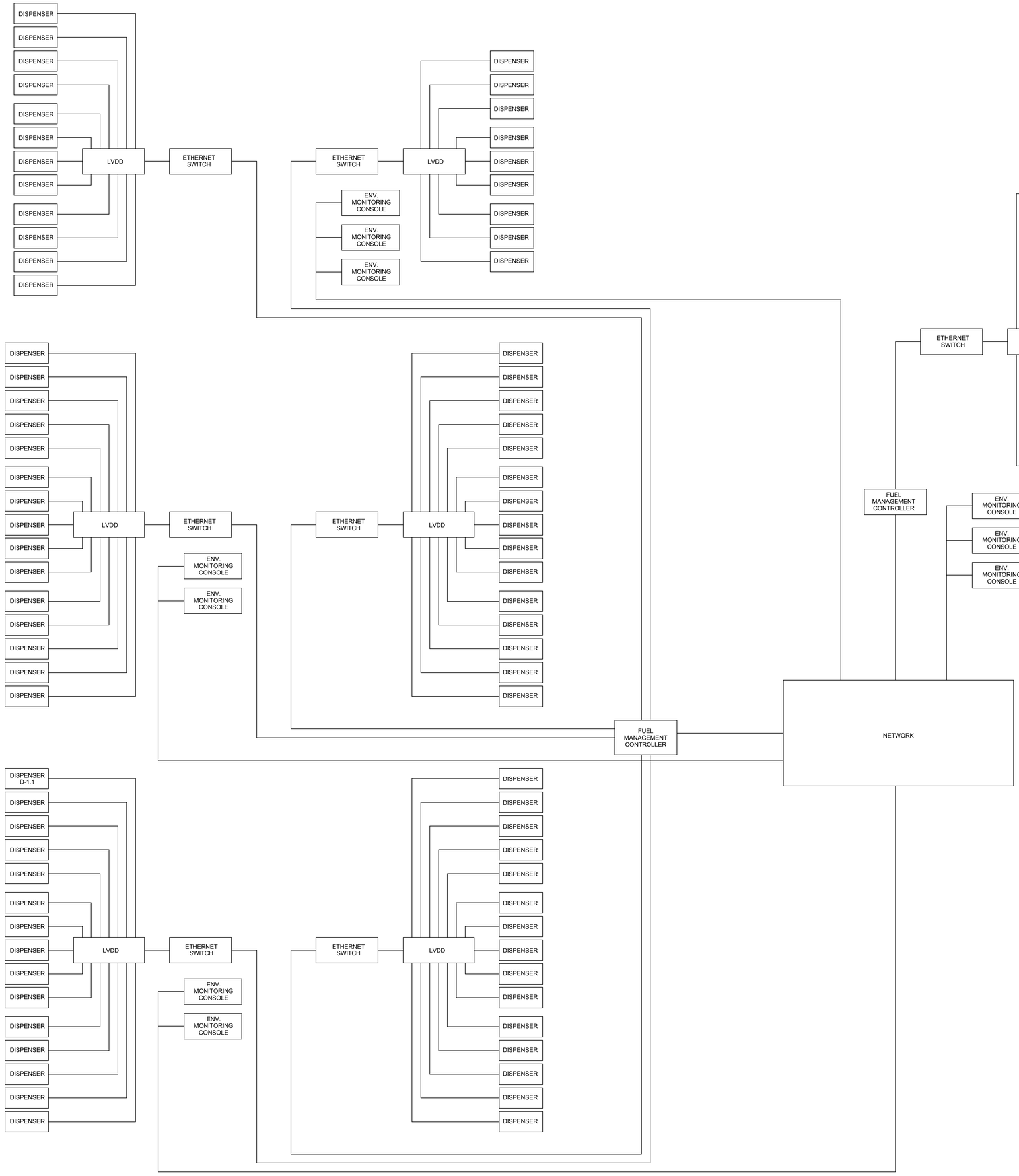
FUEL SYSTEM LEAK DETECTION BLOCK DIAGRAM BLDG B

SHEET NO.

2-Q-768

9/22/2016 4:32:12 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jjwilson.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

LAX Consolidated Rental Car Facility

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

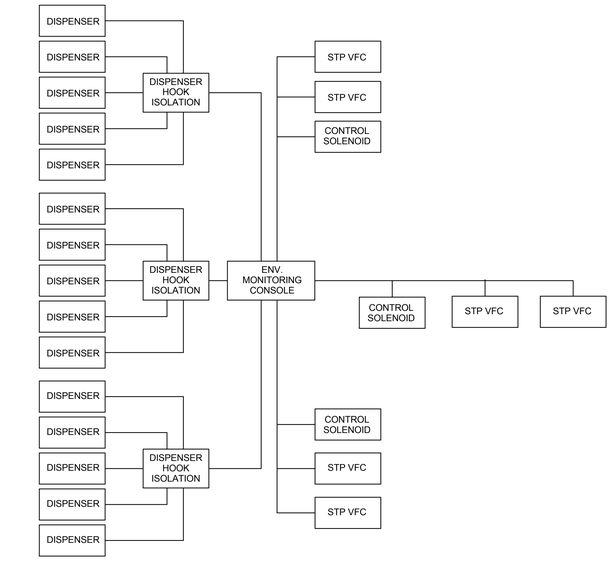
FUEL SYSTEM COMMUNICATION BLOCK DIAGRAMS

SHEET NO.

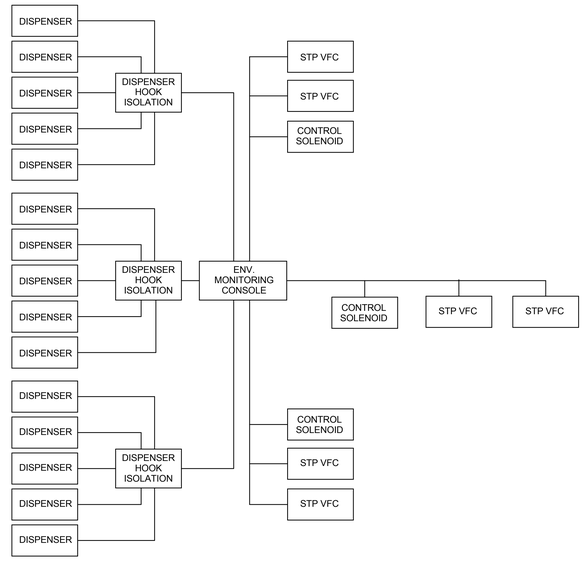
2-Q-769

8/22/2018 4:32:13 PM C:\Users\Public\Documents\Local_Revit_Files\24-DA4881-BLDG_A_B_R15_jwilson.rvt

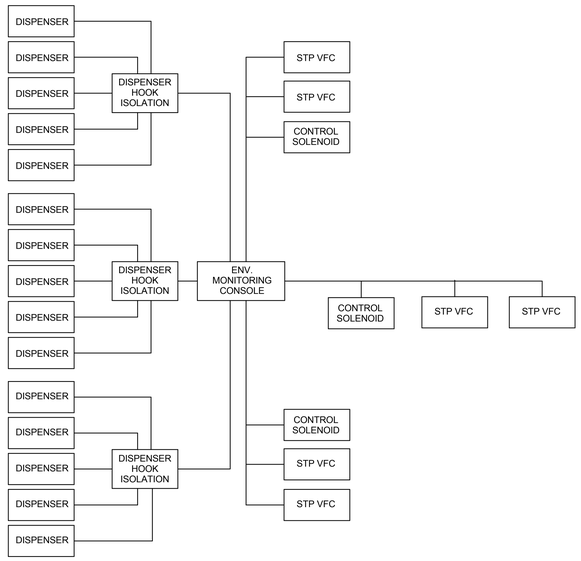
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



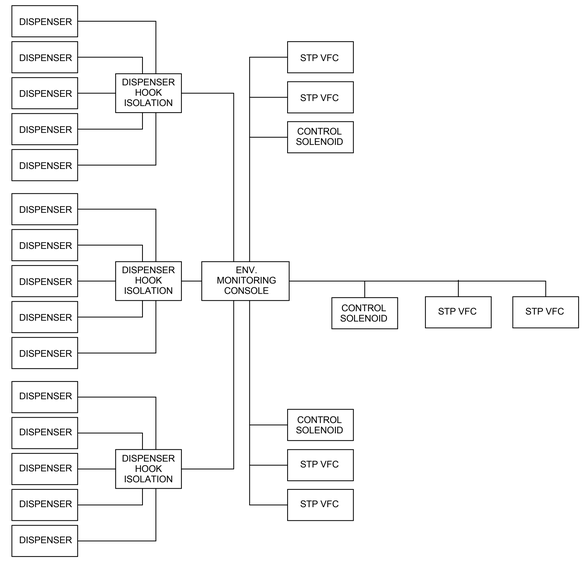
1 2-Q-770 **BLOCK DIAGRAM - BLDG A - LEVEL 3 NORTH CONTROL**
12" = 1'-0"



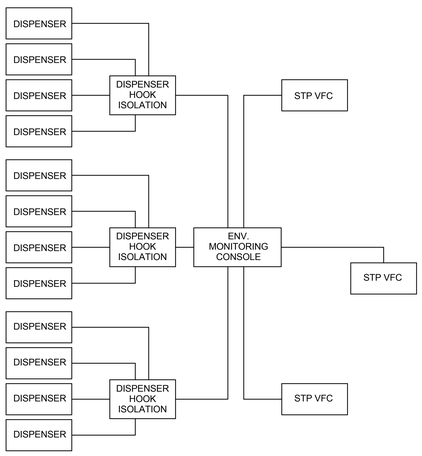
2 2-Q-770 **BLOCK DIAGRAM - BLDG A - LEVEL 3 SOUTH CONTROL**
12" = 1'-0"



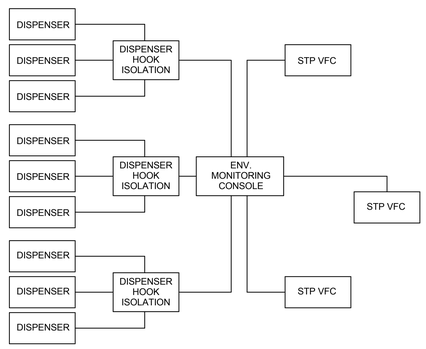
3 2-Q-770 **BLOCK DIAGRAM - BLDG A - LEVEL 2 NORTH CONTROL**
12" = 1'-0"



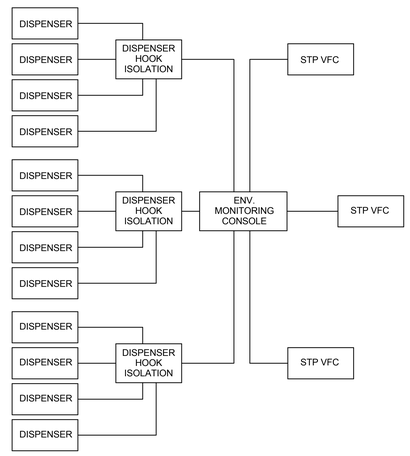
4 2-Q-770 **BLOCK DIAGRAM - BLDG A - LEVEL 2 SOUTH CONTROL**
12" = 1'-0"



5 2-Q-770 **BLOCK DIAGRAM - BLDG A - LEVEL 1 NORTH CONTROL**
12" = 1'-0"



6 2-Q-770 **BLOCK DIAGRAM - BLDG A - LEVEL 1 SOUTH CONTROL**
12" = 1'-0"



7 2-Q-770 **BLOCK DIAGRAM - BLDG B CONTROL**
12" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA ON PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

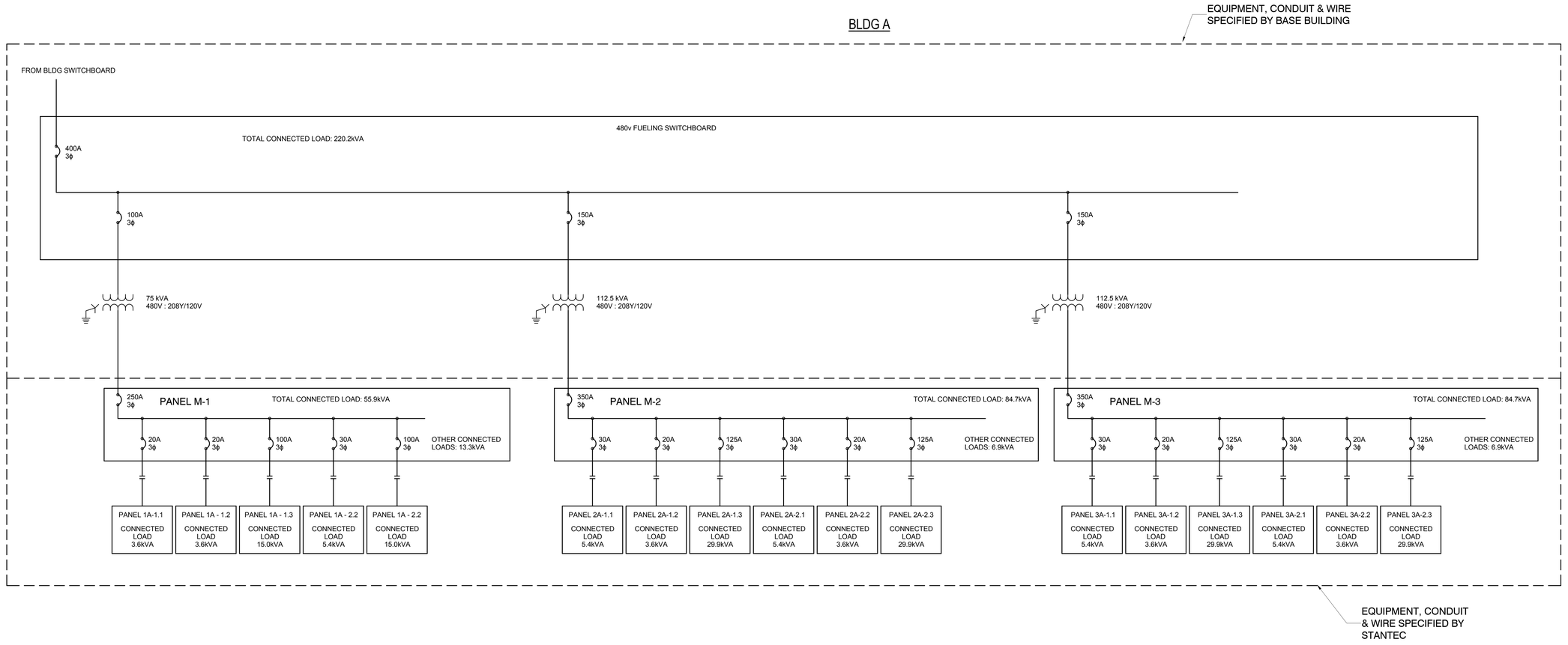
PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:
FUEL SYSTEM CONTROL BLOCK DIAGRAMS

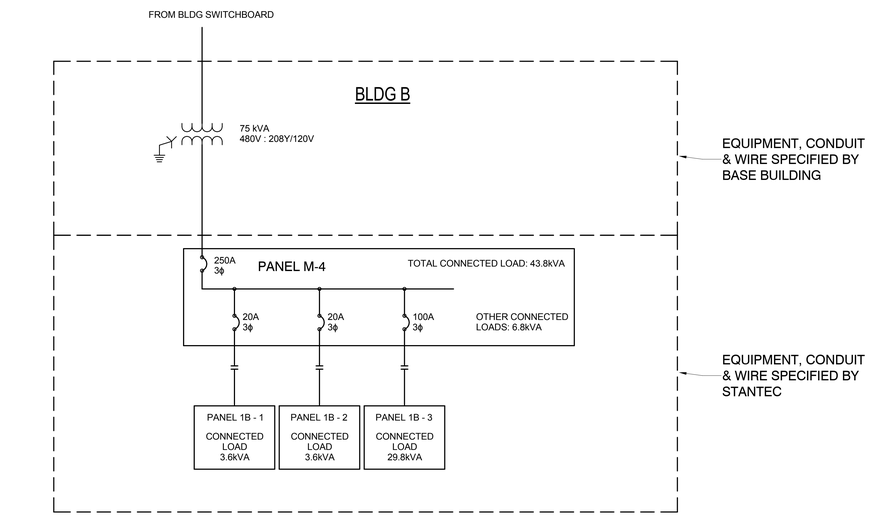
SHEET NO.
2-Q-770

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 4:32:15 PM C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt



1 / 2-Q-771 **BUILDING A LINE DIAGRAM**



2 / 2-Q-771 **BUILDING B LINE DIAGRAM**
12" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Stantec
5 Dartmouth Drive Suite 101
Auburn NH 03032-3984

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	12" = 1'-0"
DATE:	09-23-2016
DESIGNED BY:	J.Wilson
DRAWN BY:	J.Wilson
CHECKED BY:	Z.Rich

SHEET TITLE:

FUEL SYSTEMS ELECTRICAL SINGLE LINE DIAGRAMS

SHEET NO.

2-Q-771

C:\Users\Public\Documents\Local_Revit_Files\2-DA4881-BLDG_A_B_R15_jwilson.rvt
8/22/2018 4:32:18 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

CODE ANALYSIS

THE CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO THE REQUIREMENTS OF:

PARTIAL LIST OF APPLICABLE CODES

BUILDING OCCUPANCY CLASSIFICATION: GROUP S2

THE CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO THE REQUIREMENTS OF:

2013	CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R. (2009 INTERNATIONAL BUILDING CODE AND 2010 CALIFORNIA AMENDMENTS)
2013	CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. (2011 NATIONAL ELECTRICAL CODE AND 2013 CALIFORNIA AMENDMENTS)
2013	CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R. (2009 UNIFORM MECHANICAL CODE AND 2010 CALIFORNIA AMENDMENTS)
2013	CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. (2009 UNIFORM PLUMBING CODE AND 2010 CALIFORNIA AMENDMENTS)
2013	CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R.
2013	CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R. (2009 INTERNATIONAL FIRE CODE AND 2010 CALIFORNIA AMENDMENTS)
2013	CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 C.C.R.
2013	CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R. TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	AUTOMATIC SPRINKLER SYSTEMS	2013 EDITION
NFPA 14	STANDPIPE SYSTEMS (CA AMENDED)	2013EDITION
NFPA 17a	WET CHEMICAL SYSTEMS	2013 EDITION
NFPA 20	STATIONARY PUMPS	2013 EDITION
NFPA 24	PRIVATE FIRE MAINS (CA AMENDED)	2013 EDITION
NFPA 72	NATIONAL FIRE ALARM CODE (CA AMENDED)	2013 EDITION
NFPA 80	FIRE DOOR AND OTHER OPENING PROTECTIVES	2013 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2012 EDITION

REFERENCE CODE SECTION FOR NFPA STANDARDS - 2010 CBC (SFM) CHAPTER 35. SEE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO NFPA STANDARDS.

STANDARDS INFORMATION: LOS ANGELES WORLD AIRPORTS

1. LAWA Design and Construction Hand Book JULY, 2016
http://www.lawa.org/uploadedFiles/LAXDev/News_for_LAXDev/Design_Construction_HandbookFinal.pdf

1. THE SEISMIC BRACING AND ANCHORAGE OF ELECTRICAL CONDUITS, BUS DUCT, WIREWAY, AND CABLE TRAY SHALL BE IN ACCORDANCE WITH THE UNIFORM BUILDING CODE, CHAPTER 23 AND "GUIDELINE FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS," PUBLISHED BY SMACNA AND PPIC, OR THE SUPERSTRUT-SEISMIC RESTRAINT SYSTEM, OR THE KIN-LINE SEISMIC RESTRAINT SYSTEM.

2. ALL ELECTRICAL PREFABRICATED EQUIPMENT SHALL BE DESIGNED AND CONSTRUCTED IN SUCH A MANNER THAT ALL PORTIONS, ELEMENTS, SUB-ASSEMBLIES AND/OR PARTS OF SAID EQUIPMENT, AND THE EQUIPMENT AS A WHOLE INCLUDING ITS ATTACHMENTS, WILL RESIST A LOAD WHICH EXCEEDS THE FORCE LEVEL USED TO RESTRAIN AND ANCHOR THE EQUIPMENT TO THE SUPPORTING STRUCTURE.

3. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY WHERE UL DOES NOT HAVE A LISTING. CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY. IN ADDITION, THE MATERIALS, EQUIPMENT, AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING:

   AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)
   INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
   NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
   AMERICAN STANDARD ASSOCIATION (ASA)
   NATIONAL FIRE PROTECTION AGENCY (NFPA)
   AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
   CALIFORNIA ELECTRICAL CODE (CEC) - LATEST EDITION
   CALIFORNIA CODE OF REGULATIONS TITLE 24 (CCR)
   INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
   ALL LOCAL CODES HAVING JURISDICTION. WHERE THE CODES HAVE DIFFERENT LEVELS OF REQUIREMENTS, THE MOST STRINGENT RULE SHALL APPLY AS DETERMINED BY ENGINEER.

4. LIST OF DEFERRED APPROVAL BY CONTRACTOR (DESIGN-BUILD SCOPE)
   a. FIRE ALARM SYSTEM

5. ALL ITEMS SUCH AS SERVICE CONDUIT, CONDUCTORS, DUCTS, CONCRETE PADS, TRANSFORMERS, RISERS, MANHOLES, PULL BOXES, AND PROTECTIVE COVERING FROM SERVICE LOCATION SHALL BE PROVIDED AND SHALL BE VERIFIED WITH THE SERVING UTILITY COMPANY. THE CONTRACTOR SHALL PROVIDE THE SERVICE IN COMPLIANCE WITH THE SERVING UTILITY AGENCY, AND SHALL PAY ALL CHARGES LEVIED BY THE SERVING UTILITY AGENCY FOR SERVICE EXCEPT THE FIRST BILLING DEPOSIT.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE TEMPORARY POWER FACILITIES AND CONNECTIONS FOR ALL SYSTEMS REQUIRED THROUGH THE COURSE OF CONSTRUCTION AND TO COORDINATE SERVICES WITH THE UTILITY AGENCY.

7. ALL FINAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTOR.

8. COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION AND CONFIGURATION OF THEIR RESPECTIVE EQUIPMENT. SUPPLY POWER AND MAKE CONNECT TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON THE SINGLE LINE DIAGRAM, ELECTRICAL DRAWINGS, AND DRAWINGS OF OTHER TRADES. REVIEW THE DRAWINGS OF OTHER TRADES FOR CONTROL DIAGRAMS, SIZE AND LOCATION OF EQUIPMENT. DISCONNECT SWITCHES, STARTERS, WIRING, CONTROLS, CONDUIT FOR MECHANICAL, MISC. 120V POWER REQUIREMENTS AND PLUMBING OPERATIONS SHALL BE PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGHING IN ALL CONDUIT TO THIS EQUIPMENT.

9. EXACT METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENINGS IN CONCRETE OR MASONRY WALLS, GRADEBEAMS, FLOORS OR STRUCTURAL STEEL MEMBERS SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER. PERFORM CORING, SAWCUTTING, PATCHING, AND REFINISHING OF WALLS AND SURFACES WHEREVER IT IS NECESSARY TO PENETRATE. OPENINGS SHALL BE SEALED IN AN APPROVED METHOD TO MEET THE FIRE RATING OF THE PARTICULAR WALL, FLOOR OR CEILING. EXACT METHOD AND LOCATIONS OF CONDUIT PENETRATIONS AND OPENINGS IN CONCRETE WALLS OR FLOORS SHALL BE FOR UL APPROVED SYSTEMS.

10. CONNECTIONS TO VIBRATING EQUIPMENT, MECHANICAL AND PLUMBING EQUIPMENT AND SEISMIC SEPARATIONS: LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN ALL LOCATIONS MAXIMUM LENGTH OF FLEXIBLE CONDUIT RUNS SHALL BE 6'-0" UNLESS OTHERWISE NOTED.

11. CONDUIT SHALL NOT BE INSTALLED IN ANY FLOOR SLAB. CONDUIT SHALL BE INSTALLED CONCEALED IN THE CEILING SPACE, CONCEALED IN WALLS, OR BELOW SLAB UNLESS NOTED OTHERWISE.

12. ATTENTION IS CALLED TO THE FACT THAT THE CEILING SYSTEMS FOR THE MOST PART ARE CONSIDERED TO BE INACCESSIBLE. THE CONTRACTOR SHALL STRATEGICALLY LOCATE BOXES, ETC., IN AN ACCESSIBLE CEILING SPACE. COORDINATE ROUTING WITH ARCHITECT.

13. COORDINATE REQUIRED ACCESS DOORS IN NON-ACCESSIBLE CEILINGS TO SUIT FIELD CONDITIONS. THE EXACT SIZES AND PHYSICAL LOCATIONS SHALL SUIT ACCESSIBILITY AND CONSTRUCTION CONDITIONS. ACCESS DOORS SHALL BE PROVIDED IN OTHER SECTIONS OF THE SPECIFICATIONS. ACCESS DOORS SHALL HAVE A FIRE RATING EQUAL TO THE CEILING OR WALL ASSEMBLY IN WHICH THEY ARE INSTALLED.

14. WHENEVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, GROUND FAULT PROTECTION SYSTEMS, ETC. (ALL MATERIALS), ARISES ON THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER AND ARCHITECT/ENGINEER.

15. UTILITY PENETRATIONS OF ANY KIND IN FIRE AND SMOKE PARTITIONS AND CEILING ASSEMBLIES, SHALL BE FIRESTOPPED AND SEALED WITH AN APPROVED MATERIAL SECURELY INSTALLED STEEL ELECTRICAL OUTLET BOXES WHICH DO NOT EXCEED 16 SQUARE INCHES IN AREA, NEED NOT BE PROTECTED IN ONE HOUR OR TWO HOUR FIRE RATED WALLS, PARTITIONS, CEILINGS, OR AREA SEPARATION UNLESS THEY:

    OCCUR ON OPPOSITE SIDES OF THE WALL WITHIN 24 INCH HORIZONTAL DISTANCE OF ONE ANOTHER. IN THIS CASE, ONLY ONE OUTLET BOX NEED TO PROTECTED BY AN APPROVED FIRESTOP MATERIAL OR DETAIL TO CORRECT THIS CONDITION.

    OCCUR IN COMBINATION WITH OUTLET BOXES OF ANY SIZE SUCH THAT THE AGGREGATE AREA OF UNPROTECTED OUTLET BOXES EXCEEDS 100 SQUARE INCHES IN ANY 100 SQUARE FEET OF WALL AREA. IN THIS CASE, ONLY A SUFFICIENT NUMBER OF OUTLET BOXES NEED BE PROTECTED BY AN APPROVED MATERIAL OR DETAIL TO DECREASE THE AGGREGATE AREA OF UNPROTECTED UTILITY BOXES TO LESS THAN 100 SQUARE INCHES IN ANY 100 SQUARE FEET OF WALL.

    STEEL ELECTRICAL OUTLET BOXES WHICH EXCEED 16 SQUARE INCHES IN AREA, AND ALL OTHER STEEL UTILITY OUTLET BOXES REGARDLESS OF SIZE, SHALL BE PROTECTED BY AN APPROVED FIRESTOP MATERIAL AS LISTED.

    UTILITY AND ELECTRICAL OUTLETS OR BOXES SHALL BE SECURELY FASTENED TO THE STUD OF FRAMING OF THE WALL, PARTITION OR CEILING ASSEMBLY. THE OPENING IN THE GYPSUM BOARD FACING SHALL BE CUT SO THAT THE CLEARANCE BETWEEN THE BOX AND THE GYPSUM BOARD DOES NOT EXCEED 1/8 INCH IN SMOKE WALLS OR PARTITIONS, THE 1/8 INCH CLEARANCE SHALL BE FILLED WITH AN APPROVED FIRE-RATED SEALANT.
    REFER TO SINGLE LINE DIAGRAM AND FEEDER SCHEDULES FOR CONDUIT AND CONDUCTOR SIZE TO PANELS, TRANSFORMERS, ETC., CONDUIT RUNS MAY NOT BE SHOWN ON DRAWINGS, BUT ARE PART OF THIS CONTRACT.

16. STRAIGHT FEEDER, BRANCH CIRCUIT, AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES OR JUNCTION BOXES AS REQUIRED BY CODE. PULL BOXES SHALL BE SIZED PER CODE OR AS INDICATED ON DRAWINGS. LOCATIONS SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.

17. MAXIMUM NUMBER OF CONDUCTORS IN OUTLET OR JUNCTION BOXES SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE, ARTICLE 314-16, BUT IN NO CASE SHALL CONTAIN MORE THAN THE FOLLOWING NUMBER OF #12 AWG CONDUCTORS FOR THE SIZE OF BOX INDICATED. THE MINIMUM SIZE OUTLET OR JUNCTION BOX PERMITTED IN A WALL IS FOUR INCHES SQUARE BY 1 1/2 INCHES DEEP. SQUARE BY 1 1/2" D=9 CONDUCTORS 4" SQUARE BY 2 1/8" D=13 CONDUCTORS 4 11/16" SQUARE BY 1 1/2" D=11 CONDUCTORS 4 11/16" SQUARE BY 2 1/8" D=18 CONDUCTORS ALL OUTLET BOXES CONTAINING MORE THAN ONE DEVICE SHALL BE GANGED. TWO DEVICES DOUBLE GANGED, MINIMUM.

18. WHERE MULTI-HOMERUNS ARE INDICATED ON DRAWINGS INDICATING THE SAME PANELBOARD CIRCUIT NUMBER, PROVIDE JUNCTION BOX ABOVE ACCESSIBLE CEILING AND ROUTE ONE SET OF WIRES TO CIRCUIT BREAKERS.

19. THE EXACT LOCATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE COORDINATED IN THE FIELD PRIOR TO INSTALLATION.

20. DRAWINGS ARE DIAGRAMMATIC ONLY AND DO NOT SHOW SPECIAL CONDUIT ROUTING OR LENGTHS REQUIRED FOR A COMPLETE INSTALLATION. ROUTING OF RACEWAYS SHALL BE COORDINATED IN THE FIELD WITH OTHER TRADES BUT SHALL BE IN STRICT COMPLIANCE WITH STRUCTURAL REQUIREMENTS AND SPECIFICATIONS UNLESS OTHERWISE NOTED AND SHALL BE COORDINATED WITH OTHER TRADES. NO CONDUIT SHALL BE ROUTED HORIZONTALLY IN MASONRY WALLS IN EXCESS OF 48". DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS OF ANY ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL, OR MECHANICAL ITEMS OR FEATURES, REFER TO ARCHITECTURAL AND STRUCTURAL DIMENSIONAL DRAWINGS.

21. THE EQUIPMENT GROUNDING CONDUCTOR ALTHOUGH NOT SHOWN ON CONDUIT RUNS, SHALL BE INSTALLED AND RUN CONTINUOUS FROM PANEL TO LAST OUTLET. THIS WIRE SHALL BE PIGTAILED IN EACH OUTLET FOR CONNECTION TO BOX AND DEVICE SO THAT IF DEVICE IS REMOVED, GROUND WILL NOT BE INTERRUPTED. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED GREEN CONDUCTORS-ALTERNATE METHODS OF IDENTIFICATION SHALL NOT BE USED. CONTRACTOR SHALL NOTIFY ELECTRICAL ENGINEER TO EXAMINE CONDUCTOR INSTALLATION PRIOR TO INSTALLATION OF DEVICES.

22. FURNISH AND INSTALL POWER DISTRIBUTION PANELBOARDS AS INDICATED ON THE DRAWINGS. PANELBOARDS SHALL COMPLY WITH NEMA STANDARD FOR PANELBOARDS AND FEDERAL SPECIFICATION W-P-115A. PANELBOARDS SHALL BE COMPLETE WITH COPPER BUS BARS AND 75 DEGREE CELSIUS THERMAL MAGNETIC BOLT-ON TYPE CIRCUIT BREAKERS AS INDICATED ON DRAWINGS, U.O.N.

23. PROVIDE CONCRETE HOUSEKEEPING PADS FOR ALL FLOOR STANDING EQUIPMENT. PROVIDE SIZES REQUIRED FOR EQUIPMENT TO BE INSTALLED. REFER TO SPECIFICATION SECTION 260530 3.5A FOR MORE INFO

24. JUNCTION AND PULL BOXES: FOR INTERIOR DRY LOCATIONS, BOXES SHALL BE GALVANIZED ONE-PIECE, DRAWN STEEL, KNOCKOUT TYPE WITH REMOVABLE MACHINE SCREW SECURED COVERS. FOR OUTSIDE, DAMP, OR SURFACE LOCATIONS, BOXES SHALL BE HEAVY CAST ALUMINUM OR CAST IRON WITH REMOVABLE, GASKETED, NON-FERROUS MACHINE SCREW SECURED COVERS. BOXES SHALL BE SIZED FOR THE NUMBER AND SIZES OF CONDUCTORS AND CONDUIT ENTERING THE BOX AND EQUIPPED WITH PLASTER EXTENSION RINGS WHERE REQUIRED. BOXES SHALL BE LABELED TO INDICATE PANEL AND CIRCUIT NUMBER, OR TYPE OF SIGNAL OR COMMUNICATIONS SYSTEM.

25. DURING CONSTRUCTION AND AT CLOSE OF PROJECT CONTRACTOR SHALL MODIFY/UPDATE PANEL SCHEDULES TO REFLECT ACTUAL ROOMS/SPACES WHERE OUTLETS WERE INSTALLED, USING OWNERS DESIGNATION. TYPEWRITTEN IS REQUIRED.

26. WHEN CONFLICTS OCCUR ON DRAWINGS, THE MOST STRINGENT APPLICATION SHALL APPLY AND SHALL BE PART OF THE BASE BID.

27. REFER TO DETAIL-5 ON SHEET E501 FOR CONDUIT SEISMIC SEPARATION JOINT DETAIL.

28. IT IS THE INTENT OF THE DRAWINGS THAT A COMPLETE AND WORKABLE ELECTRICAL INSTALLATION BE PROVIDED FOR ALL THE EQUIPMENT DESCRIBED OR SHOWN AS BEING IN THIS CONTRACT. FURNISH ALL LABOR AND TOOLS NECESSARY AND FURNISH AND INSTALL ALL APPARATUS, MATERIALS AND EQUIPMENT IN A FASHION COMPLYING WITH ALL APPLICABLE CODES, INCLUDING ITEMS REQUIRED BUT NOT NORMALLY SHOWN, SUCH AS LAMPS,HANGERS, BRACKETS, CLAMPS, COUPLINGS, BOXES, CONNECTORS AND HARDWARE REFER ALSO TO WRITTEN SPECIFICATIONS FOR GENERAL, MECHANICAL AND ELECTRICAL SECTIONS.

29. PROCURE ALL PERMITS FROM CITY OF LOS ANGELES, ARRANGE FOR ALL INSPECTIONS AND PAY ALL COST FOR FEES AND TESTS IN CONNECTION THEREWITH. COMPLY WITH CODES: NOTHING IN THESE PLANS AUTHORIZES DEVIATION FROM APPLICABLE CODES.

30. DETERMINE EXACT ROUTING OF CONCEALED FEEDERS AND BRANCH HOMERUNS IN COOPERATION WITH OTHER TRADES TO SIMPLIFY INSTALLATION WHEREVER POSSIBLE BUT SUBJECT TO APPROVAL OF OWNER AND ENGINEER FOR VISUAL AND STRUCTURAL REASONS. IT IS THE CONTRACTORS RESPONSIBILITY TO BE FAMILIAR WITH THE EXISTING CONGESTED CONDITIONS AND PROVIDE NEW CONDUIT ROUTING WITHIN THESE EXISTING SPACES AS REQUIRED.

31. EXAMINE PLANS TO DISCERN CEILINGS WITH A FIRE RATING OF ONE HOUR OR MORE, PROVIDE A ONE HOUR FIRE-RATED ENCLOSURE OVER EACH LIGHT FIXTURE RECESSED THEREIN.

32. LIST LENGTH OF FEEDERS OR BRANCH CIRCUITS SHOWN ON ALL DRAWINGS ARE FOR USE IN DESIGN CALCULATIONS ONLY AND NOT TO BE USED FOR ANY OTHER PURPOSES.

33. THE ELECTRICAL CONTRACTOR SHALL MAKE ARRANGEMENTS FOR TEMPORARY POWER AS NEEDED AND SHALL COORDINATE WITH THE OAR (OWNER'S AUTHORIZED REPRESENTATIVE) FOR ALL POWER OUTAGES SCHEDULE WHEN TRANSFERRING BUILDING POWER SERVICE TO DISTRIBUTION/PANELBOARD.

34. THE CONTRACTOR SHALL RUN AN X-RAY, SURVEY OF THE UNDERGROUND STRUCTURES ON THE PATH OF THE NEW TRENCH SHOWN ON THESE PLANS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ACCURATELY LOCATE ANY BELOW GROUND STRUCTURE THAT MAY INTERFERE WITH THIS WORK, ANY DAMAGE TO EXISTING STRUCTURES RESULTING FROM THIS WORK SHALL BE REPAIRED IMMEDIATELY TO MATCH EXISTING AT NO ADDITIONAL COST TO THE OWNER.

35. NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT.

36. ALL FUSED DISCONNECTS SHALL BE FUSE-REJECTION TYPE.

37. ALL DOORS OF ELECTRICAL ROOMS WITH ELECTRICAL DISTRIBUTIONS EQUIPMENTS, ETC., RATED AT 1200 AMPERES OR GREATER SHALL BE OPEN OUTWARD AND SHALL PROVIDED WITH PANIC HARDWARE.

38. ALL NEW EQUIPMENT SHOWN SHALL BE FIELD VERIFIED FOR ITS EXACT LOCATION TO ENSURE ALL CLEARANCE REQUIREMENTS ARE MET WITH EXISTING CONDITIONS AND APPLICABLE CODE REQUIREMENTS.

39. CONTRACTOR SHALL ADJUST ALL ELECTRICAL ROOM EQUIPMENT LAYOUTS TO HAVE CODE COMPLIANCE CLEARANCES.

40. ALL ELECTRICAL EQUIPMENT LOCATIONS SHALL BE FIELD VERIFIED AND APPROVED BY "LAWA" PRIOR TO THEIR INSTALLATION.

41. ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL BE NEMA 4X AND 3R STAINLESS STEEL ENCLOSURE PER SPECIFICATIONS. NEMA 3R STAINLESS STEEL SHALL ADDITIONALLY BE GASKETED.

42. ALL THE SWITCHGEARS SHALL BE FULLY RATED, INCLUDING BRANCH CIRCUIT BREAKERS.

43. ALL SERVICES, FEEDERS OR BRANCH CIRCUITS SUPPLYING A BUILDING SHALL HAVE COMMON GROUNDING ELECTRODE SYSTEM.

44. ALL GROUNDING ELECTRODES THAT ARE PRESENT AT EACH BUILDING OR STRUCTURE SHALL BE BONDED TOGETHER.

45. SEPARATE GROUNDING CONDUCTOR SHALL BE INSTALLED IN NON-METALLIC CONDUIT RUNS.

46. INDOOR DRY TYPE TRANSFORMERS OVER 112.5KVA SHALL BE INSTALLED IN MINIMUM 1-HOUR FIRE RATED ROOM.

47. TRANSFORMERS OVER 50KVA SHALL NOT BE INSTALLED IN HOLLOW SPACES, CEILING SPACES OF THE BUILDING.

48. REFER TO SPECIFICATION SECTION 260533 FOR TYPE OF CONDUITS USED.

49. PROVIDE SEISMIC BRACING AS REQUIRED BY CODE AND SUPPORT FOR ALL NEW EXPOSED CONDUIT, PIPING, NETWORK, ETC. CONTRACTOR TO FIELD VERIFY LOCATION.

50. EQUIPMENT SUBMITTALS TO SHOW THE EXACT LOCATIONS FOR ALL PANELS SHOWN ON THE DRAWINGS.

51. LOW VOLTAGE POWER CONDUCTORS AND CABLES
    A. #12 AWG FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE SOLID.
    B. ALL OTHER FEEDER AND BRANCH CIRCUIT CONDUCTORS SHALL BE STRANDED.

52. RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS
    CONDUIT
    A. ALL CONDUITS, CABLES AND WIRING SHALL BE CONCEALED FROM PUBLIC VIEW.
    B. ALL CONDUITS SHALL BE ELECTRICAL METALLIC TUBING (EMT) FOR BUILDING INTERIOR DRY LOCATIONS ONLY AND RIGID GALVANIZED STEEL (RGS) FOR BUILDING EXTERIOR & U.O.N. RGS CONDUIT SHALL BE INSTALLED IN ALL AREAS SUBJECT TO PHYSICAL DAMAGE. DRY LOCATIONS, EXPOSED AND CONCEALED: PROVIDE ELECTRICAL METALLIC TUBING CONDUIT. RIGID GALVANIZED STEEL CONDUIT SHALL BE USED IN AREA SUBJECT TO PHYSICAL DAMAGE. PROVIDE SHEET METAL BOXES. PROVIDE FLUSH MOUNTING OUTLET BOX IN FINISHED AREAS.

    C. SPARE CONDUITS SHALL BE PROVIDED WITH PULL LINES.
    D. THE MINIMUM CONDUIT SIZE SHALL BE 3/4 INCH.
    E. ROMEX, MC CABLE AND ALUMINUM FLEX CONDUITS ARE NOT ALLOWED.

    ENCLOSURES
    A. INDOOR DRY ENCLOSURES SHALL BE NEMA TYPE 1.
    B. OUTDOOR ENCLOSURES SHALL BE NEMA TYPE 4X STAINLESS STEEL.
    C. ENCLOSURES EXPOSED TO DUST OR MOISTURE SHALL BE NEMA TYPE 12 OR TYPE 3R/12.

    NOTE: CONTRACTOR TO CONFIRM WITH LAWA FOR ENCLOSURE REQUIREMENTS PRIOR TO ANY PROCUREMENT.

53. IDENTIFICATION FOR ELECTRICAL SYSTEMS

    NAMEPLATES ON EQUIPMENT
    A. ENGRAVED PLASTIC NAMEPLATES AND SIGNS: ENGRAVING STOCK, MELAMINE PLASTIC LAMINATE, MINIMUM 1/16 INCH (1.6 MM) THICK FOR SIGNS UP TO 20 SQ. IN. (129 SQ. CM) AND 1/8 INCH (3.2 MM) THICK FOR LARGER SIZES. ENGRAVED LEGEND WITH WHITE LETTERS ON BLACK FACE FOR NORMAL POWER, WHITE LETTERS ON RED FACE FOR EMERGENCY POWER.
    PUNCHED OR DRILLED FOR MECHANICAL FASTENERS.
    TEXT IS AT 1/2-INCH (13 MM) HIGH LETTERING

    B. NAMEPLATES SHALL ADEQUATELY DESCRIBE THE FUNCTION OF THE PARTICULAR EQUIPMENT INVOLVED. WHERE NAMEPLATES ARE DETAILED ON THE DRAWINGS, INSCRIPTION SHALL BE AS SHOWN ON DRAWINGS.

    C. NAMEPLATES SHALL BE SECURED TO EQUIPMENT FRONT USING STAINLESS STEEL SCREWS OR RIVETS.

    D. CUSTOM METAL MASTER NAMEPLATES SHALL BE FURNISHED AND INSTALLED BY THE MANUFACTURER ON EACH DISTRIBUTION SECTION, SWITCHBOARD SECTION AND MOTOR CONTROL CENTER INDICATING THE MANUFACTURER'S NAME, AMPERE RATING, SHORT-CIRCUIT RATING (BUS BRACING) AND DATE. PAPER STICKERS ARE NOT ACCEPTABLE.
    FOR EXAMPLE, ABC SWITCHBOARD CO.
    AMPERE RATING: 5000A
    SHORT CIRCUIT RATING: 100KAIC
    DATE: 01/01/2011

54. PANELBOARD DIRECTORIES
    A. PANELBOARD DIRECTORIES SHALL BE TYPEWRITTEN, ARRANGED IN NUMERICAL ORDER, AND SHALL LIST EACH CIRCUIT LOAD AND ROOM NUMBER IN WHICH EACH LOAD IS LOCATED. DIRECTORIES SHALL BE MOUNTED IN A 6 BY 8 INCH METAL FRAME UNDER TRANSPARENT PLASTIC INSIDE EACH PANELBOARD DOOR.

55. PERMANENT MARKING
    A. ALL CONDUITS, BUSWAYS, CABLE TRAYS AND PULLBOXES SHALL BE IDENTIFIED WITH PERMANENT BLACK LETTERS AND NUMBERS WHICH INDICATE THE SOURCE PANEL (FEEDER SUPPLY SOURCE), CIRCUIT NUMBERS, AND DESIGNATED PANEL OR LOAD. FOR EXAMPLE, "PA-1,3,5 TO MG" FOR CONDUITS, THE LETTER HEIGHT SHALL BE ONE-THIRD (1/3) THE CONDUIT SIZE WITH 1/4 INCH MINIMUM HEIGHT. FOR PULLBOXES AND BUSWAYS, THE LETTER HEIGHT SHALL BE 1/2 INCH MINIMUM HEIGHT AND NOT LARGER THAN 3/4 INCH HEIGHT.

    B. THE IDENTIFICATIONS FOR CONDUITS, BUSWAYS AND CABLE TRAYS SHALL BE PLACED AT EVERY 50 FEET INTERVALS AND WITHIN 10 FEET OF WALL AND FLOOR PENETRATIONS, PULLBOXES, PANELS, DISTRIBUTION BOARDS, SWITCHBOARDS, AND ELECTRICAL EQUIPMENT.

    C. THE PERMANENT MARKING IDENTIFICATIONS ON THE RACEWAYS AND PULLBOXES SHALL BE VISIBLE AFTER THE INSTALLATIONS ARE MADE.

    D. ALL RECEPTACLE AND SWITCH FACEPLATES SHALL BE LABELED WITH THE SOURCE PANEL AND CIRCUIT NUMBER. THE LABEL SHALL BE BLACK ARIAL FONT ON WHITE OR CLEAR TAPE, PRODUCED BY A P-TOUCH OR OTHER LABEL MACHINE.

    F. REFER TO SPECIFICATION SECTION 260554 FOR ADDITIONAL INFORMATION.

56. CONDUCTOR IDENTIFICATION
    A. ALL POWER AND BRANCH CIRCUIT CONDUCTORS SHALL BE PROVIDED WITH COLOR-CODED INSULATION OR COLOR-CODED SELF-ADHESIVE VINYL TAPE NOT LESS THAN 3 MILS THICK BY 1 TO 2 INCHES WIDE. VINYL TAPE SHALL BE USED IN VAULTS, PULL AND JUNCTION BOXES, MANHOLES AND HANDHOLES. IDENTIFY THE SOURCE AND CIRCUIT NUMBER OF EACH SET OF CONDUCTORS WITH WRITE-ON TAGS.

    B. COLOR CODING SHALL BE AS FOLLOWS:

PHASE	208Y/120V	480Y/277V
A	BLACK	BROWN
B	RED	ORANGE
C	BLUE	YELLOW
NEUTRAL	WHITE	WHITE WITH BLACK STRIPE
GROUND	GREEN	GREEN

57. UNDERGROUND WARNING TAPE
    A. DESCRIPTION: PERMANENT, DETECTABLE, RED COLORED, CONTINUOUS PRINTED, POLYETHYLENE TAPE WITH SUITABLE WARNING LEGEND DESCRIBING BURIED ELECTRICAL LINES. TAPE SHALL BE MINIMUM 6 INCHES WIDE BY 4 MILS THICK. OTHER COLOR CODES INCLUDE:
    SAFETY RED ELECTRIC AND LIGHTING CONDUIT AND CABLES
    SAFETY YELLOW GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
    SAFETY ORANGE TELEPHONE, ALARM, OR SIGNAL CABLES AND CONDUIT
    SAFETY BLUE POTABLE WATER OR IRRIGATION
    SAFETY GREEN SEWER OR DRAIN LINES

58. MANHOLE AND UNDERGROUND PULLBOX COVER LABEL
    A. ALL MANHOLE AND UNDERGROUND PULLBOX COVERS SHALL HAVE THE FOLLOWING CAST-IN OR BEAD WELDED AND GALVANIZED IDENTIFICATION LABEL PERMANENTLY AFFIXED TO THE EXTERIOR:
    "ELEC-LV" FOR ELECTRICAL POWER CIRCUITS 600 VOLTS OR LESS
    "ELEC-HV" FOR ELECTRICAL POWER CIRCUITS OVER 600 VOLTS
    "COMM" FOR COMMUNICATIONS CIRCUITS
    B. A CUSTOM 3-DIGIT NUMBER SHALL BE ADDED TO THE COVER. CONTACT THE ENGINEER FOR NUMBER ASSIGNMENT.
    C. THE MINIMUM LETTER HEIGHT SHALL BE ONE (1) INCH.

59. LOW VOLTAGE TRANSFORMERS
    A. THE EQUIPMENT, MAJOR COMPONENTS AND ANCHORAGE SHALL BE SUITABLE FOR AND CERTIFIED TO MEET ALL APPLICABLE SEISMIC REQUIREMENTS DEFINED IN DIVISION 26 SECTION VIBRATION AND SEISMIC CONTROLS FOR ELECTRICAL SYSTEMS.
    B. TRANSFORMER COILS SHALL BE WOUND OF ELECTRICAL GRADE COPPER WITH CONTINUOUS WOUND CONSTRUCTION.

60. SWITCHBOARDS
    A. SWITCHBOARDS SHALL BE "FULLY-RATED" FOR THE AVAILABLE SHORT CIRCUIT CURRENT. "SERIES-RATED" EQUIPMENT IS NOT ACCEPTABLE. MAIN 480 VOLT SERVICE SWITCHBOARDS IN THE TERMINALS SHALL BE RATED 100KAIC.
    B. THE MANUFACTURER OF THE SWITCHBOARD ASSEMBLY SHALL BE THE SAME AS THE MANUFACTURER OF THE CIRCUIT BREAKERS INSTALLED WITHIN THE ASSEMBLY.
    C. THE EQUIPMENT, MAJOR COMPONENTS AND ANCHORAGE SHALL BE SUITABLE FOR AND CERTIFIED TO MEET ALL APPLICABLE SEISMIC REQUIREMENTS DEFINED IN DIVISION 26 SECTION VIBRATION AND SEISMIC CONTROLS FOR ELECTRICAL SYSTEMS.
    D. DISTRIBUTION BUS BARS SHALL BE SILVER-PLATED OR TIN-PLATED COPPER AND SHALL HAVE BUS EXTENSIONS PROVIDED AT THE ENDS WHERE FUTURE SECTIONS CAN BE ADDED. BUS BARS SHALL BE FULLY RATED FOR THE ENTIRE LENGTH OF THE SWITCHBOARD.
    E. SWITCHBOARDS SHALL BE POSITIONED SO THERE IS OPEN SPACE ON EITHER SIDE FOR FUTURE ADDITIONAL SECTIONS.

61. PANELBOARDS
    A. PANELBOARDS SHALL BE FULLY-RATED FOR THE AVAILABLE SHORT CIRCUIT CURRENT. SERIES-RATED EQUIPMENT IS NOT ACCEPTABLE.
    B. THE MANUFACTURER OF THE PANELBOARD ASSEMBLY SHALL BE THE SAME MANUFACTURER OF THE MAJOR COMPONENTS WITHIN THE ASSEMBLY, INCLUDING THE CIRCUIT BREAKERS.
    C. THE EQUIPMENT, MAJOR COMPONENTS AND ANCHORAGE SHALL BE SUITABLE FOR AND CERTIFIED TO MEET ALL APPLICABLE SEISMIC REQUIREMENTS DEFINED IN DIVISION 26 SECTION VIBRATION AND SEISMIC CONTROLS FOR ELECTRICAL SYSTEMS.
    D. PANELBOARD MAIN BUS BARS SHALL BE COPPER WITH FULL CAPACITY NEUTRAL AND EQUIPMENT GROUND BUS.
    E. PANELBOARDS SHALL BE INSTALLED IN ROOMS OR AREAS NOT WITHIN PUBLIC VIEW.

62. MOTOR CONTROL CENTERS
    A. MOTOR CONTROL CENTER SHALL BE HEAVY DUTY INDUSTRIAL GRADE.
    B. ALL INDICATOR AND PILOT LIGHTS SHALL BE LED WITH METAL HOUSING AND EASILY REPLACEABLE PARTS.
    C. ALL CONTROL WIRING SHALL BE INSTALLED IN PANDUIT WIRING DUCTS. WIRING SHALL BE STRANDED COPPER.
    D. PROVIDE WIRE MARKERS OR TAGS FOR ALL CONTROL WIRING AT ALL TERMINATION POINTS.
    E. EACH PLUG-IN UNIT SHALL CONTROL ONLY ONE MOTOR, NO DUAL STARTERS.
    F. PROVIDE A CIRCUIT BREAKER FOR THE UNIT DISCONNECT DEVICE, NOT A FUSIBLE SWITCH.
    G. PROVIDE SIDE MOUNTED, LATCHED PULL-APART TERMINAL BLOCKS FOR ALL REMOTE CONTROL WIRING. PROVIDE25% SPARE TERMINALS.
    H. NO INTERLOCK FOR A-B MOTOR CONFIGURATION
    I. OVERLOAD RESET BUTTON SHALL BE OPERABLE WITHOUT WIRES BLOCKING ACCESS
    J. PROVIDE THREE (3) POSITION SELECTOR SWITCH, HAND-OFF-AUTO, NOT START-STOP BUTTON
    K. FOR MOTORS WITH TWO (2) SPEEDS, PROVIDE A SEPARATE SELECTOR SWITCH, HIGH-LOW.
    L. WIRE TIES SHALL BE ATTACHED TO THE UNIT WITH SCREWS OR EPOXY, NOT ADHESIVE TAPE.

63. ENCLOSED BUS ASSEMBLIES
    A. ALL BUSWAY COMPONENTS SHALL BE OF THE SAME MANUFACTURER AS THE BUSWAY.
    B. INDOOR BUSWAY FEEDERS SHALL BE SPRINKLER-PROOF, IP54 RATING COPPER.
    C. THE EQUIPMENT, MAJOR COMPONENTS AND ANCHORAGE SHALL BE SUITABLE FOR AND CERTIFIED TO MEET ALL APPLICABLE SEISMIC REQUIREMENTS DEFINED IN DIVISION 26 SECTION VIBRATION AND SEISMIC CONTROLS FOR ELECTRICAL SYSTEMS.

64. WIRING DEVICES
    A. ALL RECEPTACLES SHALL BE FLUSHED AND RECESSED IN THE WALL OR FLOOR, U.O.N.

    INTERIOR LIGHTING
    A. ALL LIGHT FIXTURES SHALL BE INSTALLED IN AREAS ACCESSIBLE BY LADDER OR LIFT TO ALLOW FOR EASE OF MAINTENANCE.

65. EXTERIOR LIGHTING (REFER TO LIGHTING SPECS AS SHOWN ON FIXTURE SCHEDULE)

66. APPROVED EQUIPMENT
    A. ALL ELECTRICAL EQUIPMENT INSTALLED SHALL BE LISTED BY A CITY OF LOS ANGELES RECOGNIZED ELECTRICAL TESTING LABORATORY OR APPROVED BY THE DEPARTMENT.

67. CONTRACTOR TO COORDINATE WITH OTHER TRADES FOR MISCELLANEOUS 120V POWER REQUIREMENTS THIS INCLUDES BUT NOT LIMITED TO FOR HVAC CONTROLS, FIRE ALARM, SECURITY SYSTEM, CCTV AND OTHER LOW VOLTAGE SYSTEM.

68. ALL EQUIPMENT MOUNTED ON ROOF FOR CONNECTION OF HVAC EQUIPMENT SHALL BE MOUNTED ON UNISTRUT STANDS UTILIZING APPROVED PITCH POCKETS, FLASHING, ETC.. AS DIRECTED BY ARCHITECT. EQUIPMENT "SHALL NOT" BE MOUNTED ON HVAC EQUIPMENT.

69. EQUIPMENT OUTLETS, LIGHTING FIXTURES, CONDUIT, WIRE, AND CONNECTION METHODS IN HVAC AIR-PLENUMS SHALL BE APPROVED FOR USE IN PLENUMS AND SHALL CONFORM TO THE "CEC".

70. LIGHT FIXTURE SUPPORT:
    SUSPENDED ACOUSTICAL CEILINGS: COORDINATE WITH ARCHITECTURAL DRAWINGS.

    HEAVY DUTY GRID SYSTEM: FLUSH OR RECESSED LIGHT FIXTURES WEIGHING LESS THAN 56 POUNDS MAY BE SUPPORTED DIRECTLY ON THE RUNNERS OF A HEAVY DUTY GRID SYSTEM. IN ADDITION, THEY SHALL HAVE A MINIMUM OF TWO 12 GAUGE SLACK SAFETY WIRES ATTACHED TO THE FIXTURE AT DIAGONAL CORNERS AND ANCHORED TO THE STRUCTURE ABOVE. ALL 4 FOOT BY 4 FOOT LIGHT FIXTURES SHALL HAVE SLACK SAFETY WIRES AT EACH CORNER.

    ALL FLUSH OR RECESSED LIGHT FIXTURES WEIGHING 56 POUNDS OR MORE SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR TAUT 12 GAUGE WIRES EACH ATTACHED TO THE FIXTURE AND TO THE STRUCTURE ABOVE REGARDLESS OF THE TYPE OF CEILING GRID SYSTEM USED. THE FOUR TAUT 12 GAUGES WIRES INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE SHALL BE CAPABLE OF SUPPORTING FOUR TIMES THE WEIGHT OF THE UNIT.

    INTERMEDIATE DUTY GRID SYSTEM: ALL FIXTURES SUPPORTED ON INTERMEDIATE DUTY GRID SYSTEMS SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR TAUT 12 GAUGE WIRES EACH ATTACHED TO THE FIXTURE AND TO THE STRUCTURE ABOVE.

    SURFACE MOUNTED FIXTURES: SUPPORT SURFACE MOUNTED LIGHT FIXTURES BY AT LEAST TWO POSITIVE DEVICES WHICH SURROUND THE CEILING RUNNER AND WHICH ARE EACH SUPPORTED FROM THE STRUCTURE ABOVE BY A 12 GAUGE WIRE. SPRING CLIPS OR CLAMPS THAT CONNECT ONLY TO THE RUNNER ARE NOT ACCEPTABLE. PROVIDE ADDITIONAL SUPPORTS WHEN LIGHT FIXTURES ARE EIGHT FEET OR LONGER.

71. PENDANT MOUNTED FIXTURES: SUPPORT PENDANT MOUNTED LIGHT FIXTURES DIRECTLY FROM THE STRUCTURE ABOVE WITH HANGER WIRES OR CABLES PASSING THROUGH EACH PENDANT HANGER, AND CAPABLE OF SUPPORTING FOUR TIMES THE WEIGHT OF THE FIXTURE.

72. SUSPENDED DRYWALL CEILINGS: ALL RECESSED OR DROP-IN LIGHT FIXTURES SHALL BE SUPPORTED DIRECTLY BY MAIN RUNNERS OR BY SUPPLEMENTAL FRAMING WHICH IS SUPPORTED BY MAIN RUNNERS. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE CEILING CONTRACTOR TO PROVIDE APPROPRIATE FRAMING AND LOCATION FOR FIXTURES.

73. SURFACE MOUNTED FIXTURES SHALL BE ATTACHED TO A MAIN RUNNER WITH A POSITIVE CLAMPING DEVICE MADE OF MATERIAL WITH A MINIMUM OF 14 GAUGE. ROTATIONAL SPRING CATCHES SHALL NOT BE ALLOWED.

74. THE EXACT LOCATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS, DETAILS, OR SECTIONS PRIOR TO INSTALLATION. ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE RECESSED IN WALLS UNLESS OTHERWISE NOTED. OUTLETS NOT INDICATED ON ARCHITECTURAL ELEVATIONS SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO ROUGH-IN. UNLESS OTHERWISE NOTED, MOUNT ELECTRICAL DEVICES AS PER 2013 CBC CHAPTER 11B-308:

    OUTLETS AT COUNTERS +6" ABOVE COUNTERS WITHOUT SPLASHES OR CENTERED IN SPLASH SET HORIZONTALLY

75. REVIEW ARCHITECTURAL ELEVATIONS OF CASEWORK. OUTLETS MOUNTED ABOVE OR BELOW, OR ADJACENT TO CASEWORK SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS, PRIOR TO FINAL ROUGH-IN. ELECTRICAL DRAWINGS SHALL GOVERN NUMBER AND TYPE OF OUTLETS. HOWEVER, LOCATIONS SHALL BE AS INDICATED ON ARCHITECTURAL ELEVATIONS. PROVIDE CONDUIT, WIRES, AND OUTLETS FOR WORK REQUIRED IN CASEWORK INSTALLATIONS. REFERENCE ARCHITECTURAL DETAILS FOR METHOD OF ROUTING CONDUIT WITHIN CASEWORK CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUT-OUTS IN TILE OR COUNTER SPLASHES WHERE RECEPTACLES, OUTLETS, ETC., OCCUR. PROVIDE BOX EXTENSIONS THROUGH ALL CASEWORK. FINISH FLUSH WITH FACE OF SPLASH, CABINET, ETC.

76. MOUNTING HEIGHTS OF ALL DEVICES AND EQUIPMENT ARE FROM FINISHED FLOOR TO CENTER OF DEVICES AND EQUIPMENT UNLESS OTHERWISE NOTED. BOXES INSTALLED IN LOCATIONS NOT APPROVED BY THE ARCHITECT SHALL BE RELOCATED AS DIRECTED BY THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.

77. WHERE FIXTURES ARE SHOWN TO BE DUAL SWITCHED, SWITCH "Sa" SHALL CONTROL THE TWO OUTSIDE LAMPS IN EACH FIXTURE, "Sb" SHALL CONTROL THE REMAINING LAMPS IN EACH FIXTURE.

    LAMPS: ALL FIXTURES SHALL BE SUPPLIED WITH LAMPS OF PROPER SIZE AND TYPE.

    INCANDESCENT LAMPS SHALL BE NEW, RATED FOR 120 VOLTS, 60 CYCLES, AC OPERATION AND SHALL BE GENERAL SERVICE INSIDE FROSTED UNLESS SPECIFICALLY NOTED OTHERWISE.

    FLUORESCENT LAMPS SHALL BE INSTANT START ENERGY SAVING TYPE, GENERAL ELECTRIC OR EQUAL BY SYLVANIA OR PHILIPS UNLESS NOTED OTHERWISE.

    FIXTURES WITH DIMMING BALLASTS SHALL BE FULLY COMPATIBLE WITH DIMMING CONTROL SWITCH OR SYSTEM AND SHALL BE OORDINATED WITH FIXTURE MANUFACTURER. ALL FLUORESCENT BALLAST SHALL BE UL AND CEC LISTED.

    METAL HALIDE AND HIGH PRESSURE SODIUM LAMPS SHALL BE AS RECOMMENDED BY THE FIXTURE MANUFACTURER AND AS INDICATED IN THE FIXTURE SCHEDULE.

78. WHERE LIGHTING FIXTURES REQUIRE THE USE OF ACRYLIC PLASTIC LENSES, THEY SHALL BE 100 PERCENT VIRGIN ACRYLIC THERMOPLASTIC NOT LESS THAN 0.187 INCHES THICK EQUAL TO KSH-K12 UNLESS NOTED OTHERWISE. REFER TO LIGHTING SPECS. FOR MORE INFORMATION.

79. MOTION SENSORS USED FOR BOTH LIGHTING AND SECURITY SYSTEMS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS FOR OPTIMUM COVERAGE.

80. REVIEW STRUCTURAL DRAWINGS FOR LOCATIONS AND SIZES OF FOOTINGS AND GRADE BEAMS. SEE ELECTRICAL DETAILS/PLANS FOR REQUIREMENTS FOR INSTALLATION OF CONDUIT THROUGH GRADE BEAMS.

81. WHERE OUTLETS OCCUR AT TACKABLE WALL PANELS OR OTHER WALL FINISHES, PROVIDE EXTENSION RINGS AS REQUIRED SO THAT NO SPACE WILL EXIST BETWEEN DEVICE PLATE AND BACKBOX, PER NEC 370.20, TYPICAL. SEE ARCHITECTURAL ELEVATIONS FOR WALL FINISHES AND LOCATIONS.

82. FOR CONNECTIONS TO EXHAUST FANS, PUMPS, COMPRESSORS, SPACE HEATERS, WATER HEATERS, AQUASTATS, SOLENOID VALVES AND OTHER MECHANICAL EQUIPMENT AND FOR CONDUITS AND WIRE REQUIRED BUT NOT NECESSARILY SHOWN ON THESE DRAWINGS REFER TO MECHANICAL PLANS AND DETERMINE EXACT LOCATIONS UNDER DIRECTION OF HEATING AND VENTILATING CONTRACTOR.

83. FOR CIRCUITS FED THROUGH FLUORESCENT FIXTURE CHANNELS AND FEEDS TO RECESSED INCANDESCENT FIXTURES USE INSULATED WIRE OF 90 DEGREES CELSIUS RATING.

84. ALL LINE VOLTAGE WIRING SHALL BE MINIMUM #12 AWG COPPER WITH THWN/THHN INSULATION AND IN 3/4" DIAMETER CONDUIT MINIMUM. IN EACH CONDUIT WITHOUT CONDUCTORS, PROVIDE STRING OR PULL CORD WITH TAG IDENTIFYING LOCATION OF OPPOSITE END.

85. THE CENTER OF ELECTRICAL AND COMMUNICATION SYSTEM RECEPTACLE OUTLETS SHALL BE INSTALLED NOT LESS THAN 15" OR MORE THAN 48" ABOVE THE FLOOR OR WORKING PLATFORMS, (ADA).

86. ROUTE EXPOSED CONDUIT AND CONDUIT ABOVE ACCESSIBLE CEILING SPACES PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING. ARRANGE CONDUIT TO MAINTAIN HEADROOM AND TO PRESENT A NEAT APPEARANCE.

87. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAWCUTTING, TRENCHING, BACKFILLING, COMPACTION AND PATCHING OF CONCRETE AND ASPHALT AS REQUIRED TO PERFORM HIS WORK. ATTENTION IS CALLED TO THE FACT THAT THERE ARE EXISTING UNDERGROUND UTILITY LINES. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN TRENCHING FOR HIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER AND APPROVED REPAIR OF ANY AND ALL DAMAGES CAUSED BY HIM OR HIS WORK.

88. CONDUCTORS SHALL BE BASED ON THE TERMINALS NOT TO EXCEED 60°C (140°F) FOR CONDUCTOR SIZE 14 THROUGH 1AWG OR 75°C (167°F) FOR CONDUCTOR SIZES OVER 1AWG.

89. ALL LIGHTING CONTROL DEVICES SHALL BE CALIFORNIA ELECTRICAL CODE AND CEC CERTIFIED.

90. ALL EXTERIOR ELECTRICAL EQUIPMENT SHALL BE WEATHERPROOF.

91. PROJECT SPECIFICATIONS ARE INTEGRAL PART OF THESE DRAWINGS.

92. REFER TO DETAIL 2 & 3 ON SHEET E501 FOR CONDUIT PENETRATION THRU 1 & 2 HOUR FIRE RATED WALL.

93. ALL RACEWAYS SHALL BE CONCEALED FROM PUBLIC VIEW, UNLESS APPROVED BY LAWA.

94. FOR SMALL AC MOTORS NOT HAVING BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE MANUAL MOTOR STARTERS WITH OVERLOAD HEATER ELEMENTS SIZED TO THE NAMEPLATE CURRENT RATING OF THE MOTOR. SMALL AC MOTORS WITH BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE A HORSEPOWER RATED TOGGLE TYPE DISCONNECT SWITCH.

95. FOR ALL SCHEDULED OUTAGES OR DISRUPTION OF SERVICE (POWER OR SIGNAL SYSTEMS), CONTRACTOR TO FURNISH A WRITTEN PLAN WHICH WOULD INCLUDE DESCRIPTION OF OUTAGE AND RECOMMENDATION OF ALTERNATE SERVICE FOR ANY EXTENDED PERIOD OF TIME. CONTRACTOR TO SUBMIT USR (UTILITY SHUT DOWN REQUEST AS MENTIONED IN DIVISION 1 FOR INTENDED DISRUPTION OF SERVICE AND OBTAIN WRITTEN AUTHORIZATION FROM OWNER TO PROCEED. CONTRACTOR SHALL IDENTIFY IMPACTS TO ALL DOWNSTREAM SYSTEMS AFFECTED BY POWER OUTAGES.

96. CONTRACTOR SHALL PROVIDE ALL REQUIRED MOTOR STARTERS AND DISCONNECTS FOR MECHANICAL. EQUIPMENT CONTRACTOR SHALL COORDINATE WITH MECHANICAL FOR EXACT REQUIREMENTS.

97. IN SOME INSTANCES IT MAY BE NECESSARY TO DEFER WORK IN CERTAIN AREAS AND LOCATIONS UNTIL SUCH TIME AS EXISTING FACILITIES CAN CAN BE TEMPORARILY OR PERMANENTLY REARRANGED BY THE OWNER. THEREFORE WHENEVER IT BECOMES NECESSARY FOR THE CONTRACTOR TO PERFORM WORK UNDER THIS CONTRACT IN EXISTING AREAS IN WHICH THE OWNERS WORK IS BEING PERFORMED. THE CONTRACTOR SHALL ADVISE THE ARCHITECT AND THE OWNER RELATIVE TO THIS REQUIREMENT AND SHALL FOLLOW CLOSELY THE DIRECTIVE ISSUED BY THE OWNER IN SO FAR AS TIME AND PROCEDURE ARE CONCERNED.

98. A COMPLETELY INDEPENDENT RACEWAY AND WIRING SYSTEM SHALL BE INSTALLED FOR EMERGENCY CIRCUITS.

99. EXIT SIGN SHALL BE SUPPLIED BY TWO CIRCUITS. ONE FROM THE NORMAL SOURCE, AND ONE FROM AN EMERGENCY SOURCE.

100. ALL EQUIPMENT FASTENED IN PLACE OR CONNECTED BY PERMANENT WIRING METHOD SHALL BE GROUNDED.

101. ALL LIGHTING CONTROL OCCUPANCY SENSORS SHALL BE SET FOR MAXIMUM TIMEOUT SETTING AFTER INSTALLATION. TYPICAL.

102. TESTING AND ADJUSTING OF ALL NEW SYSTEM IS REQUIRED. A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED AND PROVIDED TO THE FIELD INSPECTOR PRIOR TO FINAL APPROVAL. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.

103. ALL CONDUITS SHALL BE ROUTED ABOVE ANY MECHANICAL DUCT, NOT BELOW.

104. DEVELOP A WRITTEN PLAN OF PROCEDURES FOR TESTING AND ADJUSTING NEW SYSTEMS. SYSTEMS SHALL INCLUDE AT A MINIMUM AS APPLICABLE:
     HVAC SYSTEMS AND CONTROLS INDOOR AND OUTDOOR LIGHTING AND CONTROLS WATER HEATING SYSTEMS RENEWABLE ENERGY SYSTEMS LANDSCAPE IRRIGATION SYSTEMS WATER REUSE SYSTEMS.

105. PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH INDUSTRY BEST PRACTICES AND APPLICABLE STANDARDS ON EACH SYSTEM AS DETERMINED BY THE BUILDING OFFICIAL.

106. PROVIDE THE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES/WARRANTIES FOR EACH NEW SYSTEM. O&M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CCR, TITLE 8, SECTION 5142 AND OTHER RELATED REGULATIONS.

107. INCLUDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS REQUIRED BY THE DEPARTMENT.

108. PROVIDE AND MAINTAIN REQUIRED WORK SPACE, ADEQUATE ILLUMINATION, ACCESS TO WORK SCALE AND HEAD ROOM ABOUT ELECTRICAL EQUIPMENT.

109. CONTRACTOR SHALL KEEP THE PROVISION FOR LAWA INSPECTION FEES AT THE TIME OF BIDDING THE CONTRACT.

NOTES FOR ELECTRICAL WORK IN A HAZARDOUS AREA

1. INSTALL CONDUIT OR CABLE SEALS WITHIN OR OUTSIDE OF THE HAZARDOUS AREA BOUNDARIES IN ACCORDANCE WITH THE PROVISIONS OF THE LOS ANGELES CITY ELECTRICAL CODE. (501-5)
2. ANY CONDUIT RUN OR MULTI-CONDUCTOR CABLE LEAVING THE CLASS I, DIVISION 1 OR CLASS I, DIVISION 2 LOCATION SHALL BE PROVIDED WITH A CONDUIT OR CABLE SEAL. THE CABLE SHALL BE INCAPABLE OF TRANSMITTING GASSES OR VAPORS THROUGH THE CABLE CORE. THE SEAL SHALL BE INSTALLED ON EITHER SIDE WITHIN 10 FEET OF THE SPECIFIED HAZARDOUS AREA BOUNDARY, UNLESS SHORTER DISTANCE IS REQUIRED BY THE STANDARD PLAN - METHANE HAZARD MITIGATION. (501-5(A)(4), (B)(2), (D)(3))
3. CABLES INSTALLED IN CLASS 1, DIVISION 1 SHALL BE SEALED AT ALL TERMINATIONS. (501-5(D)(1))
4. CABLE WITHOUT A GAS/VAPOR-TIGHT CONTINUES SHEATHS SHALL BE SEALED AT THE BOUNDARY OF THE CLASS I, DIVISION 2 TO UNCLASSIFIED AREA. (501-5(E)(4))
5. THE CROSS-SECTIONAL AREA OF CONDUCTORS IN A CONDUIT SEAL SHALL NOT EXCEED 25 PERCENT FILL OF A RIGID METAL CONDUIT OF THE SAME TRADE SIZE, UNLESS THE SEAL IS SPECIFICALLY APPROVED FOR A HIGHER PERCENTAGE OF A FILL (I.E., 40%). (93.0204, 501-5(C)(6))
6. THE SEAL FITTING THAT IS SUBJECT TO A LIQUID OR WATER CONDENSATION TRAP WITHIN A RACEWAY SYSTEM (TYPICALLY IN OUTDOOR AREAS) SHALL CONTAIN AN APPROVED DRAIN TO PREVENT ACCUMULATION OR TO PERMIT PERIODIC DRAINAGE. (501-5(F)).
7. WIRING METHOD AND EQUIPMENT INSTALLED WITHIN OR OUTSIDE OF A HAZARDOUS AREA BOUNDARY SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE LOS ANGELES ELECTRICAL CODE. (ART. 500, 93.515-17 AND 93.515-18)
8. WIRING METHOD IN UNDERGROUND INSTALLATIONS SHALL BE OF MATERIALS SUITABLE FOR THE EXPOSED CORROSIVE ENVIRONMENT. (300-6). PROVIDE PULL BOX FITTED WITH A BREATHER SUITABLE FOR CLASS 1, GROUP D LOCATION WERE: STANDARD PLAN - METHANE HAZARD MITIGATION, PART V, SEC. C.3.a.iii)
   a. THE BREATHER SHALL BE LOCATED ON THE SIDE OF THE ENCLOSURE WITHIN 2 INCHES FROM THE TOP OF THE PULL BOX.
   ii. THE BREATHER SHALL HAVE MINIMUM DIMENSIONS OF 1.5 INCHES LONG, AND 5/16 INCH IN DIAMETER.
   PROVIDE A PULL BOX FITTED WITH LOUVERS AS FOLLOWS: (STANDARD PLAN - METHANE HAZARD MITIGATION, PART V, SEC. C.3.a.iii)
   i. THE LOUVERED OPENINGS SHALL BE WITHIN 2 INCHES FROM THE TOP OF THE BOX.
   ii. THE MINIMUM TOTAL ENCLOSURE VENTILATION OPENING SHALL BE 1.41 SQUARE INCHES. A LOUVERED PULL BOX SHALL BE INSTALLED IN A NON CLASSIFIED AREA.
9. ALL OUTDOOR EQUIPMENTS WITH OPEN BOTTOMS WHEN INSTALLED ON GRADE OR A FINISHED FLOOR SHALL BE MOUNTED ON A MINIMUM 2 INCHES THICK CONCRETE PADS THAT ARE INSTALLED ON TOP OF A 30-MIL HIGH DENSITY POLYETHYLENE (HDPE) OR EQUIVALENT IMPERVIOUS MEMBRANE. ALL PENETRATIONS THROUGH THE MEMBRANE SHALL BE SEALED AGAINST GAS MIGRATION WITH APPROVED MATERIAL.(STANDARD PLAN - METHANE HAZARD MITIGATION, PART V, SEC. C.3.B).
10. THE DWP PULL BOX AND THE SERVICE PULL BOX SHALL BE INSTALLED AS FOLLOWS: (STANDARD PLAN - METHANE HAZARD MITIGATION, PART V, SEC. C.3.C). THE DWP PULL BOX SHALL BE LOCATED OUTSIDE OF THE BUILDING. THE WIRING SYSTEM FROM THE DWP PULL BOX TO A SERVICE PULL BOX SHALL BE SUPPLEMENTED WITH A CODE APPROVED SEAL FITTINGS. THE SERVICE PULL BOX SHALL BE AT A LOCATION EITHER OUTSIDE OF A BUILDING OR STRUCTURE OR INSIDE NEAREST TO THE POINT OF ENTRANCE OF THE SERVICE CONDUCTORS. THE CONDUIT OR CABLE SEAL FITTINGS SHALL BE INSTALLED AT THE POINT OF SERVICE ENTRANCE CONDUCTOR EMERGENCE INTO THE SERVICE PULL BOX OR WITHIN 18 INCHES FROM THE SERVICE PULL BOX.
11. POLYVINYL CHLORIDE CONDUITS (PVC) ARE NOT PERMITTED TO BE INSTALLED IN CLASS I DIVISION 2 HAZARDOUS AREA, UNLESS IT IS INSTALLED IN ACCORDANCE WITH PROVISIONS OF CLASS! DIVISION 1 WIRING METHOD. (501-4(B), STANDARD PLAN - METHANE HAZARD MITIGATION, PART V, SEC. C.3.E).
12. PVC INSTALLED IN A CLASS I DIVISION 1 HAZARDOUS AREA SHALL BE ENCASED IN CONCRETE ENVELOP THAT IS MINIMUM OF 2 INCHES THICK THERE SHALL BE NO LESS THAN 24 INCHES OF COVER MEASURED FROM THE TOP OF THE PVC CONDUIT TO THE GRADE. (501-4(A)(EXCEPTION 1))
13. IN CLASS I DIVISION 1 HAZARDOUS AREA, THE LAST 24 INCHES OF THE UNDERGROUND RUN OF PVC BEFORE EMERGENCE FROM A GRADE OR TO THE ABOVE GROUND INSTALLED RACEWAYS SHALL BE A THREADED RIGID METAL CONDUIT OR THREADED STEEL INTERMEDIATE CONDUIT. (501-4(A)(EXCEPTION 1))
14. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR FOR ANY PVC INSTALLED IN HAZARDOUS CLASSIFIED AREA. (501-4(A)(EXCEPTION 1), 501-16) MANHOLES AND OTHER UNDERGROUND ELECTRIC ENCLOSURES INTENDED FOR PERSONNEL ENTRY TO AS "UNDERGROUND ENCLOSURES"
   a. UNDERGROUND ENCLOSURES SUCH AS VAULTS THAT ARE MORE THAN 4 FEET IN DEPTH AND WIDTH SHALL BE SUBMITTED TO BUILDING PLAN CHECK FOR METHANE MITIGATION AND OTHER STRUCTURAL APPROVAL.
   b. VENT SYSTEM:
   i. NON EXPLOSION PROOF UNDERGROUND ENCLOSURES INSTALLED IN HAZARDOUS CLASSIFIED AREA INTENDED FOR PERSONNEL ENTRY SHALL BE VENTILATED PER STANDARD PLAN - METHANE HAZARD MITIGATION AND AS DESCRIBED IN PART V, SEC. C 4.a.i.
15. ELECTRICAL SYSTEMS SHALL BE GROUNDED USING ONLY ONE OF THE FOLLOWING GROUNDING ELECTRODE SYSTEM: (STANDARD PLAN - METHANE HAZARD MITIGATION PART V, SEC. C 3.D.I) METAL UNDERGROUND WATER PIPE GROUND RING, OR MADE AND OTHER (APPROVED) ELECTRODES. MODIFIED OR ALTERED APPROVED GROUNDING ELECTRODE SYSTEMS SHALL BE DESIGNED BASED ON SITE INVESTIGATION OF THE SOIL ELECTRICAL RESISTIVITY AS SPECIFIED BELOW: (STANDARD PLAN - METHANE HAZARD MITIGATION, PART V, SEC. C 3.d.ii)
   i. SOIL ELECTRICAL RESISTANCE -
   (1) THE SOIL RESISTIVITY SHALL BE MEASURED BY THE FOUR-POINT METHOD AS DESCRIBED IN IEEE STANDARD 81, 1983-EDITION.
   (2) THE SOIL RESISTIVITY MEASUREMENT SHALL TAKE INTO ACCOUNT THE GEOLOGICAL FEATURES OF THE SOIL AS DETERMINED BY THE ENGINEER. WHENEVER DRIVEN GROUND RODS ARE TO BE USED, THE MEASUREMENT SHALL CORRELATE WITH THE INSTALLED EFFECTIVE DEPTH OF THE GROUND ELECTRODES.
   (3) THE ENGINEERING ANALYSIS SHALL TAKE INTO ACCOUNT THE EXPECTED DEVIATIONS IN SOIL TEMPERATURE, MOISTURE AND GAS OR SOLUBLE CHEMICAL CONTENTS.
16. ALL THE INTERVENING RACEWAYS, FITTINGS, BOXES, ENCLOSURES, ETC., BETWEEN CLASS I LOCATIONS AND THE POINT OF GROUNDING FOR SERVICE EQUIPMENT OR POINT OF GROUNDING OF SEPARATELY DERIVED SYSTEMS SHALL BE BONDED USING BONDING JUMPERS WITH PROPER FITTINGS OR OTHER APPROVED BONDING MEANS. LOCKNUT-BUSHING AND DOUBLE LOCKNUT TYPES OF CONTACTS ARE NOT PERMITTED FOR BONDING. (500-16(A))
17. ALL DEVICES, CONTROL UNIT(S) AND WIRING SHALL BE LISTED BY A RECOGNIZED TESTING LABORATORY AND SUITABLE FOR THE INTENDED USE IN THE CLASSIFIED HAZARDOUS OR CORROSIVE ENVIRONMENTS WHEN INSTALLED IN SUCH AREAS.
18. THE ASSOCIATED WIRING AND ASSOCIATED RACEWAYS SHALL BE MOUNTED TO A SECURE SURFACE INDEPENDENT OF DETECTORS AND THEIR ASSOCIATED TRANSMITTER AND PROTECTED FROM ANY PHYSICAL DAMAGE.
19. THE CONDUIT SEAL SHALL BE FILLED WITH AN APPROVED SEALING COMPOUND. THE COMPOUND SHALL HAVE A MELTING POINT OF MORE THAN 200. F.
20. THE CONDUIT SEAL COMPOUND SHALL HAVE MINIMUM THICKNESS NOT LESS THAN THE TRADE SIZE OF THE CONDUIT, BUT IN NO CASE SHALL BE SMALLER THAN 5/8 INCHES.
21. NO SPLICING OR TAPS SHALL BE MADE WITHIN A CONDUIT SEAL.
22. WIRING MATERIAL SHALL BE SUITABLE FOR THE CORROSION EXPOSURE. FIELD APPLIED CORROSION PROTECTIVE COATINGS ARE NOT ACCEPTABLE.
23. THE ANCHOR FOR THE MANHOLE COVER RESTRAINING SYSTEM SHALL HAVE A MINIMUM STRENGTH OF 2500 PSI.
24. THE GROUND ELECTRODES AND INTERCONNECTING CONDUCTORS SHALL BE INSTALLED IN THE BACKFILL AROUND NEW BUILDING FOUNDATIONS ONLY AFTER THE SOIL HAS BEEN COMPACTED TO 90% RELATIVE COMPACTION.
25. THE ELECTRODE SYSTEM SHALL BE INSTALLED IN AN AREA EITHER BELOW OR AT LEAST 3 FEET AWAY FROM ANY IMPERMEABLE MEMBRANE.
26. THE GROUNDING ELECTRODE CONDUCTOR SHALL NOT BE INSTALLED IN GRAVEL BEDS INTENDED FOR A DRAINAGE PURPOSE.
27. THE CONTROL PANEL SHALL INDICATE A FAULT OR TROUBLE CONDITION BY A VISUAL ALARM AT THE CONTROL UNIT.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.650.0350 F 626.650.0352
Job No. 2015-067-00 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY	ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY	CHIEF AIRPORTS ENGINEER

ONT VNY LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	PP/NB
DRAWN BY:	HL
CHECKED BY:	KS

SHEET TITLE:
GENERAL NOTES

SHEET NO.
2-E-001

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:18:05 PM

LADWP NOTES

LADWP METHANE NOTES:

1. ALL HOMERUN AND FEEDER CONDUITS ENTERING OR LEAVING THE GROUND SHALL BE SEALED.
2. THE CROSS SECTIONAL AREA OF CONDUCTORS IN A CONDUIT SEAL SHALL NOT EXCEED 25 PERCENT FILL OF A RIGID METAL CONDUIT OF THE SAME TRADE SIZE, UNLESS THE SEAL IS SPECIFICALLY APPROVED FOR A HIGHER PERCENTAGE FILL.
3. THE SEAL FITTING THAT IS SUBJECT TO A LIQUID OR WATER CONDENSATION TRAP WITHIN A RACEWAY SYSTEM SHALL CONTAIN AN APPROVED DRAIN TO PREVENT ACCUMULATION OR TO PERMIT PERIODIC DRAINAGE.
4. CONDUIT SEALS SHALL BE FILLED WITH AN APPROVED SEALING COMPOUND. THE COMPOUND SHALL HAVE MELTING POINT OF MORE THAN 200 DEGREES F
5. THE CONDUIT SEAL SHALL HAVE A MINIMUM THICKNESS NOT LESS THAN THE TRADE SIZE OF THE CONDUIT, BUT IN NO CASE SHALL BE SMALLER THAN 5/8 IN.
6. NO SPLICING OR TAPS SHALL BE MADE WITHIN CONDUIT.

LADWP GENERAL:

1. ALL WORK PERFORMED ACCORDING TO THE DRAWINGS LADWP SHALL BE DONE AS TO COMPLY WITH ALL THE CONDITIONS, RESTRICTIONS, CONSTRUCTION METHODS AND SAFETY REQUIREMENTS IMPOSED BY THE EXCAVATION PERMIT ISSUED TO DWP, AND THOSE REQUIREMENTS IMPOSED BY CAL OSHA. OWNERSHIP OF CONDUIT SYSTEM WITHIN DEDICATED STREET SHALL BE TRANSFERRED TO THE DEPARTMENT OF WATER AND POWER.
2. THE DEVELOPER IS RESPONSIBLE FOR THE FINAL RESURFACING OF THE STREET, IF APPLICABLE.
3. DWP ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE SUBSTRUCTURE INFORMATION PROVIDED. THE USER ASSUMES RESPONSIBILITY FOR VERIFYING SUBSTRUCTURE LOCATIONS BEFORE EXCAVATING AND ASSUMES ALL LIABILITY FOR DAMAGE TO UNDERGROUND FACILITIES AS A RESULT OF SUCH EXCAVATION. CALL UNDERGROUND SERVICE ALERT ON (800) 227-2600 TWO (2) DAYS BEFORE DIGGING.

LADWP SURVEY

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL HAVE THE REQUIRED CONSTRUCTION REQUIRED LAID OUT BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
2. CONTRACTOR SHALL MAINTAIN ALL SURVEY MARKS REQUIRED TO COMPLETE CONSTRUCTION. MISSING OR DAMAGED SURVEY MARKS SHALL BE REPLACED BY THE CONTRACTOR'S SURVEYOR AS REQUIRED.
3. CONTRACTOR SHALL PROVIDE A COPY OF THE SURVEYOR'S FIELD NOTES TO THE DEPARTMENT REPRESENTATIVE ON THE FIRST DAY OF CONSTRUCTION.
4. CONTRACTOR SHALL PROVIDE AN AS-BUILT FOR THE CONSTRUCTED ELECTRICAL UNDERGROUND CONDUIT AND SUBSTRUCTURES. THE INFORMATION SHOWN ON THE AS BUILT SURVEY SHALL INCLUDE, BUT NOT BE LIMITED TO, CONDUIT DEPTHS, PRECAST SUBSTRUCTURE INFORMATION, AND APPROVED CHANGES. CONDUIT DEPTHS SHALL BE SHOWN AT 50 FOOT INTERVALS AND WHENEVER THERE IS A SUDDEN CHANGE IN THE CONDUIT DEPTH. ALL DEPTHS SHALL BE GOVERN FROM THE STREET GUTTER GRADE TO THE TOP OF THE CONCRETE ENCASEMENT. PRECAST SUBSTRUCTURE INFORMATION SHALL INCLUDE THE DEPTH OF INSTALLED SUBSTRUCTURE FROM THE FINISH GRADE TO THE TOP OF THE ROOF, AND THE DEPTH FROM FINISH GRADE TO THE CONDUIT ENTERING THE SUBSTRUCTURE. THE AS BUILT ALIGNMENT OF THE CONDUIT SYSTEM SHALL BE VERIFIED AND RECORDED BY THE CONTRACTOR'S SURVEYOR PRIOR TO THE CONCRETE ENCASEMENT OF THE CONDUIT.
5. WHERE CONDUIT WORK REQUIRES SURVEY, THE LOCATION OF CURBS AS SHOWN ON THE DRAWING SHALL BE VERIFIED AND NOTED AT THE TIME OF SUCH SURVEY.
6. SURVEY WILL CONTACT THE ENGINEER AFTER JOB HAS BEEN STAKED.

LADWP CONDUIT DRAWING NOTES

1. NO CHANGES FROM DESIGN, EITHER HORIZONTAL OR VERTICAL, SHALL BE MADE WITHOUT FIRST OBTAINING PERMISSION FROM THE LADWP DESIGN ENGINEER. FOREMAN'S COMPLETED PRINT MUST SHOW DEPTH OF CONDUIT AT MANHOLES AND DEPTHS OF MANHOLES. ANY CHANGE IN CONDUIT POSITION SHALL BE SHOWN AND ANY CHANGE IN DEPTH SHALL BE SHOWN AT THAT POINT.
2. ALL PLASTIC CONDUIT IS PVC ENCASED BURIED (EB) UNLESS OTHERWISE NOTED.
3. COVER OVER ALL CONDUIT SHALL BE 30 INCHES MINIMUM BELOW GUTTER GRADE.

LADWP NOTIFICATION AND INSPECTION

1. FULL INSPECTION AND APPROVAL BY THE DEPARTMENT OF WATER AND POWER (DWP) IS REQUIRED BEFORE FINAL ACCEPTANCE OF UNDERGROUND CONSTRUCTION. ACCEPTANCE IS REQUIRED PRIOR TO THE INSTALLATION OF CABLE AND EQUIPMENT.
2 NOTIFY DWP AT THE FOLLOWING TELEPHONE NUMBER, TWO (2) NORMAL WORKING DAYS IN ADVANCE OF CONSTRUCTION: # (213) 367-2697.

LADWP SPECIFICATIONS AND STANDARDS

1. UNDERGROUND CONDUIT AND SUBSTRUCTURE WILL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH DEPARTMENT OF WATER AND POWER STANDARD SPECIFICATION 104 AND APPENDIX I OF SAME AS LAST REVISED AND U.G. CONSTRUCTION STANDARDS 1-120.1, STANDARD DWG H-168 R-31, UB745-06, UB730-01, AND C730-10, UNLESS MODIFIED HEREON.
2. MAINTAIN A MINIMUM CLEARANCE OF 6" WHEN CROSSING AND 36" WHEN PARALLELING FOREIGN SUBSTRUCTURES.
3. ALL DIMENSIONS ARE BASED ON STREET CENTERLINE AS SHOWN ON CITY ENGINEER'S DRAWINGS.
4. ALL PLASTIC CONDUIT SHALL CONFORM TO ASTM F 512, TYPE EB-35 FOR STRAIGHT PORTIONS, AND TYPE DB-120 FOR SWEEPS AND BENDS.
5. IN GENERAL, TRENCHES FOR DUCT WORK SHALL NOT BE WIDER THAN NECESSARY FOR PROPER PLACEMENT OF SUCH WORK. REMOVAL OF SURFACING SHALL BE IN STRAIGHT AND PARALLEL LINES. PAVEMENT SHALL BE SAW CUT TO A MINIMUM DEPTH OF TWO INCHES PRIOR TO REMOVAL.
6. COVER OVER ALL CONDUIT ENCASEMENT SHALL BE 30" MINIMUM BELOW GUTTER GRADE IN IMPROVED AREAS AND 36" MINIMUM BELOW FINISHED GRADE IN UNIMPROVED AREAS, UNLESS OTHERWISE NOTED.
7. CONCRETE FOR ENCASEMENT SHALL CONFORM TO DWP MIX STANDARD 330-C-1700 OR EQUAL. INSPECTION AND APPROVAL OF INSTALLED CONDUIT IS REQUIRED PRIOR TO ENCASING IN CONCRETE.
8. ALL EXCAVATING AND BACKFILL SHALL BE DONE IN ACCORDANCE WITH SECTIONS 62.00 TO 62.05 OF THE LOS ANGELES MUNICIPAL CODE. WHEN CONDUIT ENCASED IN CONCRETE IS REQUIRED, BACKFILL SHALL NOT BE MADE UNTIL CONDUIT HAS BEEN INSPECTED AND CONCRETE ENCASEMENT HAS BEEN PLACED FOR NOT LESS THAN TWO (2) HOURS UNLESS OTHERWISE APPROVED. BACKFILL SHALL E SAND-CEMENT SLURRY STANDARD MIX 100-E-100.
9. ALL CONDUIT THAT THE DEPARTMENT ACCEPTS AS PART OF ITS DISTRIBUTION SYSTEM WILL BE APPROVED AND TESTED BY THE DEPARTMENT OF WATER AND POWER. TEST SAMPLES OF CONDUIT SHALL BE MADE AVAILABLE FOR INSPECTION TWO (2) NORMAL WORKING DAYS PRIOR TO INSTALLATION. WHERE CONDUIT FAILS TO MEET DEPARTMENT OF WATER AND POWER'S (DWP) STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF THE SUBSTANDARD WITH STANDARD CONDUIT.
10. ALL PRECAST SUBSTRUCTURES IN PUBLIC PROPERTY SHALL BE APPROVED BY THE LOS ANGELES DEPARTMENT OF PUBLIC WORKS, BUREAU OF ENGINEERING, AND BE ACCEPTABLE TO DWP. CERTIFICATES OF APPROVAL MAY BE REQUIRED FROM THE SUPPLIERS OF ANY PRECAST STRUCTURE. BUILDING PERMIT IS REQUIRED BY DEPARTMENT OF BUILDING AND SAFETY FOR STRUCTURES ON PRIVATE PROPERTY.
11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PLACE AND MAINTAIN TEMPORARY RESURFACING ON ALL EXCAVATIONS IN PAVED STREETS AND SIDEWALK. THE MAINTENANCE ON THE TEMPORARY RESURFACING SHALL CONTINUE UNTIL PERMANENT RESURFACING IS PLACED BY THE CONTRACTOR.
12. NO FOREIGN SUBSTRUCTURES SHALL ENTER ANY PART OF PRECAST SUBSTRUCTURES.
13. PRECAST SUBSTRUCTURES SHALL BE SET ON WELL COMPACTED SOIL WITH 6 INCH MINIMUM DEPTH OF TAMPED CRUSHED AGGREGATE BASE, MEETING THE REQUIREMENTS OF SECTION 200-2 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION. THE SUMPS SHALL BE LEFT SEALED.
14. PRECAST SUBSTRUCTURES SHALL NOT HAVE MORE THAN 4'-0" OF COVER, UNLESS THE CONTRACTOR HAS THE APPROVAL OF THE LADWP DESIGN ENGINEER.
15. ALL WATER AND DEBRIS SHALL BE REMOVED FROM COMPLETE STRUCTURES.
16. SPECIAL ATTENTION IS CALLED TO APPENDIX I OF DWP STANDARD SPECIFICATION NO. 104 (INSTALLATION INSTRUCTIONS FOR PLASTIC CONDUIT)
17. PRIOR TO ACCEPTANCE, A CYLINDRICAL MANDREL, AS SPECIFIED IN UNDERGROUND CONSTRUCTION STANDARD 2-210, SHALL BE DRAWN, BY THE CONTRACTOR, THROUGH EACH COMPLETED DUCT BY HAND WITHOUT MECHANICAL ASSISTANCE. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING ANY DUCT SECTION THROUGH WHICH THE MANDREL WILL NOT PASS. REPLACED OR REPAIRED CONDUIT SHALL BE LEFT EXPOSED FOR INSPECTION.
18. NO FIELD BEND SHALL HAVE LESS THAN A 12 TIMES THE CONDUIT TRADE SIZE. NO FIELD BEND SHALL BE MADE UNLESS APPROVED AND INSPECTED BY THE ENGINEER.
19. ALL CONDUIT SPACERS SHALL BE SO INSTALLED AS TO BE SELF SUPPORTING AND SHALL TRANSMIT NO VERTICAL LOAD TO ANY CONDUIT.
20. PULL TAPE SHALL BE INSTALLED IN EACH DUCT PER SPECIFICATION 104.
21. A CLASS "A" LICENSED CONTRACTOR IS REQUIRED TO WORK ON THIS JOB.
22. EXCAVATIONS/SHORING SHALL COMPLY WITH REQUIREMENTS OF "CAL-OSHA" EXCAVATIONS TRENCHES EARTHWORK, CONSTRUCTION SAFETY ORDERS, SECTIONS 1504, 1539-1543 LATEST EDITION. DEPTH OF EXCAVATION SHALL NOT EXCEED 20 FT.

UTILITIES NOTES

1. THE EXISTENCE, LOCATION, AND DEPTH OF EXISTING UTILITIES SHOWN ON THESE PLANS WERE OBTAINED THROUGH A SEARCH OF AVAILABLE RECORDS AND ARE THEREFORE APPROXIMATE. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, REPAIR ANY DAMAGE TO ANY UTILITY OR STRUCTURE CAUSED BY HIS OPERATIONS, TO THE SATISFACTION OF THE ENGINEER.
2. THE CONTRACTOR SHALL EXPOSE AND VERIFY BY SURVEY THE DEPTH AND ALIGNMENT OF ALL EXISTING UNDERGROUND UTILITIES ON THE CONSTRUCTION SITE FOR EACH PHASE. THE CONTRACTOR SHALL LOCATE ALL UTILITIES WHERE THEY ENTER THE HORIZONTAL LIMITS OF ANY PROPOSED PAVEMENT CONSTRUCTION AND ANYWHERE THEY CROSS A PROPOSED ELECTRICAL DUCT INSTALLATION.
3. THE CONTRACTOR SHALL PROVIDE PROTECTION FOR EXISTING UTILITIES AS SHOWN ON THE PLANS. WERE PROTECTION IS NOT SPECIFICALLY STATED, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO EXCAVATION OR DEMOLITION, BUT SHALL NOT BE RELIEVED OF ANY LIABILITY OF DAMAGES TO UTILITIES CAUSED BY THE CONTRACTOR'S ACTIONS.

SYMBOLS LIST

POWER SYMBOLS LIST

CONDUIT RUN, CONCEALED IN CEILING, WALLS OR UNDER FLOORS.

CONDUIT RUN EXPOSED.

CONDUIT RUN UNDERGROUND.

CONDUIT STUBBED OUT AND CAPPED. PULL LINE IN PLACE.

AIC "AMPERES INTERRUPTING CAPACITY"

RMS "ROOT MEAN SQUARED"

KW "KILOWATT"

KVA "KILOVOLT - AMPERES"

V "VOLTS"

A "AMPS"

WP WEATHERPROOF, NEMA 3R

KWH KILOWATT HOURS

AFF ABOVE FINISHED FLOOR

O.C. "ON CENTER"

UNO UNLESS NOTED OTHERWISE

C.O. "CONDUIT ONLY". PROVIDE PULL ROPE FOR ALL EMPTY CONDUIT.

C. "CONDUIT", WITH CONDUCTORS AS REQUIRED BY DRAWINGS OR SPECIFICATIONS.

B-1,3 CONDUIT HOMERUN TO PANELBOARD. LETTER AND NUMERALS INDICATE ELECTRICAL PANEL AND CIRCUIT NUMBER.

ISOLATED GROUND WIRE. RUN IN ADDITION TO REGULAR GROUND WIRE.

SURFACE MOUNTED BRANCH CIRCUIT PANELBOARD.

RECESSED BRANCH CIRCUIT PANELBOARD.

P1 PANEL DESIGNATION.

RECESSED COMMUNICATION TERMINAL CABINET. REFER TO DRAWINGS AND SPECIFICATIONS.

SURFACE MOUNTED COMMUNICATION TERMINAL CABINET. REFER TO DRAWINGS AND SPECIFICATIONS.

J JUNCTION BOX IN ACCESSIBLE CEILING SPACE OR FLUSH IN WALL WITH BLANK COVER PLATE TO MATCH DEVICE PLATES.

J JUNCTION BOX FLUSH FLOOR MOUNTED.

J JUNCTION BOX PEDESTAL TYPE FLOOR MOUNTED.

J JUNCTION BOX STEM MOUNTED.

DUPLEX GROUNDING TYPE RECEPTACLE, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE.

DUPLEX GROUNDING TYPE RECEPTACLE, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE CONNECTED TO EMERGENCY CIRCUIT.

DUPLEX GROUND FAULT INTERRUPTING TYPE RECEPTACLE, (UNCONTROLLED) 20 AMP, 125 VOLT, 2 POLE, 3 WIRE.

DUPLEX GROUND FAULT INTERRUPTING TYPE RECEPTACLE, (UNCONTROLLED) 20 AMP, 125 VOLT, 2 POLE, 3 WIRE CONNECTED TO EMERGENCY CIRCUIT.

DUPLEX TRANSIENT VOLTAGE SURGE SUPPRESSOR RECEPTACLE, (UNCONTROLLED) 20 AMP, 125 VOLT, 2 POLE, 3 WIRE.

DUPLEX TRANSIENT VOLTAGE SURGE SUPPRESSOR RECEPTACLE, (UNCONTROLLED) 20 AMP, 125 VOLT, 2 POLE, 3 WIRE CONNECT TO EMERGENCY CIRCUIT.

TWO DUPLEX GROUNDING TYPE RECEPTACLES (UNCONTROLLED) IN 4S BOX, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE.

C CEILING MOUNTED TWO DUPLEX GROUNDING TYPE RECEPTACLES, (UNCONTROLLED) IN 4S BOX, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE.

TWO DUPLEX GROUNDING TYPE RECEPTACLES, (UNCONTROLLED) IN 4S BOX, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE CONNECTED TO EMERGENCY CIRCUIT.

FLUSH FLOOR MOUNTED QUAD GROUNDING TYPE RECEPTACLE, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE.

FLUSH FLOOR MOUNTED DUPLEX GROUNDING TYPE RECEPTACLE, (UNCONTROLLED) 20 AMP, 125 VOLT, 2 POLE, 3 WIRE CONNECTED TO EMERGENCY CIRCUIT.

PEDESTAL TYPE FLOOR MOUNTED DUPLEX GROUNDING TYPE RECEPTACLE, (UNCONTROLLED) 20 AMP, 125 VOLT, 2 POLE, 3 WIRE.

PEDESTAL TYPE FLOOR MOUNTED DUPLEX GROUNDING TYPE RECEPTACLE, (UNCONTROLLED) 20 AMP, 125 VOLT, 2 POLE, 3 WIRE CONNECTED TO EMERGENCY CIRCUIT.

IG ANY RECEPTACLE INDICATED WITH"IG" ADJACENT SHALL BY ISOLATED GROUND TYPE WITH INDIVIDUAL GROUND WIRE TO PANELBOARD.

A SPECIAL PURPOSE OUTLET (UNCONTROLLED) MOUNTED IN FLUSH WALL BOX. LETTER INDICATES TYPE.

- A - NEMA TYPE 14-20R (125/250V, 3 POLE, 4 WIRE, GROUNDING, 20 AMP)
- B - NEMA TYPE 6-20R (250V, 2 POLE, 3 WIRE, GROUNDING, 20 AMP)
- C - NEMA TYPE 6-30R (250V, 2 POLE, 3 WIRE, GROUNDING, 30 AMP)
- D - NEMA TYPE 14-50R (125/250V, 3 POLE, 4 WIRE, GROUNDING, 50 AMP)
- E - NEMA TYPE 5-30R (125V, 2 POLE, 3 WIRE, GROUNDING, 30 AMP)
- F - NEMA TYPE 15-30R (250V, 3 PHASE, 3 POLE 4 WIRE, GROUNDING, 30 AMP)
- G - NEMA TYPE 15-60R (250V, 3 PHASE, 3 POLE, 4 WIRE, GROUNDING, 60 AMP)
- H - NEMA TYPE L5-20R (125 V, 1 PHASE, 2 POLE, 3 WIRE, GROUNDING, 20 AMP, TWIST LOCK)
- K - NEMA TYPE 15-60R (250 V, 3 PHASE, 3 POLE, 4 WIRE, GROUNDING, 60 AMP)
- M - NEMA TYPE 10-20R (125/250 VOLT, 1 PHASE, 3 POLE, 3 WIRE, UNGROUNDED, 20 AMP)
- N - NEMA TYPE L6-20R (250 VOLT, 1 PHASE, 2 POLE, 3 WIRE, GROUNDING, 20 AMP TWIST LOCK)
- P - NEMA TYPE 5-20R (120 VOLT, 1 PHASE, 2 POLE, 3 WIRE, GROUNDING, SINGLE, 20 AMP)

FLUSH FLOOR MOUNTED SPECIAL PURPOSE OUTLET (UNCONTROLLED). TYPE AS INDICATED ABOVE.

PEDESTAL TYPE SPECIAL PURPOSE OUTLET (UNCONTROLLED). TYPE AS INDICATED ABOVE.

100AS NON-FUSED DISCONNECT SWITCH. "AS" INDICATES SWITCH AMPERE RATING.

100AS / 60AFU FUSED DISCONNECT SWITCH. "AS" INDICATES SWITCH AMPERE RATING. "AFU" INDICATES FUSE AMPERE RATING.

VFD II MAGNETIC MOTOR STARTER. ROMAN NUMERAL INDICATES NEMA STARTER SIZE. ADDITIONAL SUBSCRIPTS INDICATE STARTER TYPE AND SIZE. (TYPICAL FOR ALL MAGNETIC STARTER SYMBOLS.)

- NO SUBSCRIPT - FULL VOLTAGE, NON REVERSING
- PR - PRIMARY RESISTOR REDUCED VOLTAGE
- AT - AUTOTRANSFORMER REDUCED VOLTAGE
- WD - WYE-DELTA REDUCED VOLTAGE
- PW - PART WINDING REDUCED VOLTAGE
- SS - SOLID STATE REDUCED VOLTAGE
- REV - REVERSING TYPE
- 2S - TWO SPEED
- 2W - TWO WINDINGS
- CH - CONSTANT HORSEPOWER
- CT - CONSTANT TORQUE
- VT - VARIABLE TORQUE
- VFD - VARIABLE FREQUENCY DRIVE

COMBINATION MAGNETIC MOTOR STARTER AND NON-FUSED DISCONNECT SWITCH.

I COMBINATION MAGNETIC MOTOR STARTER AND CIRCUIT BREAKER.

I COMBINATION MAGNETIC MOTOR STARTER AND MOTOR CIRCUIT PROTECTOR.

SINGLE PHASE FRACTIONAL OR INTEGRAL HORSEPOWER MOTOR.

T THERMOSTAT OUTLET. MOUNT AT +48 INCHES UNLESS OTHERWISE NOTED.

T TRANSFORMER, PRIMARY & SECONDARY VOLTAGE AND KVA RATING AS NOTED. TYPE AND CONFIGURATION AS SPECIFIED. PROVIDE DRY TYPE, COPPER WOUND, WALL OR BOX MOUNTED UNLESS NOTED OTHERWISE.

E EQUIPMENT WITH "E" ADJACENT IS EXISITNG TO REMAIN.

R EQUIPMENT WITH "R" ADJACENT IS EXISTING TO BE COMPLETELY DISCONNECTED AND REMOVED.

R-REL EQUIPMENT WITH "R-REL" ADJACENT IS EXSTING TO BE DISCONNECTED, REMOVED AND RELOCATED TO NEW LOCATION AND RECONNECTED AS REQUIRED.

E-REL RELOCATED EQUIPMENT SHOWN IN NEW LOCATION.

RR EXISTING EQUIPMENT WITH "RR" ADJACENT IS TO BE DISCONNECTED REMOVED AND REPLACED WITH NEW AND RECONNECTED AS REQUIRED UNLESS OTHERWISE NOTED

—E— EXISTING CONDUIT RUN TO REMAIN. EXISTING CONDUCTORS TO REMAIN UNLESS NOTED OTHERWISE ON DRAWINGS.

—EA— EXISTING CONDUIT RUN TO BE ABANDONED. REMOVE CONDUCTORS AND CAP ENDS OF CONDUIT.

—EX— EXISTING CONDUIT RUN TO BE REWIRED. REFER TO PLANS FOR WIRING REQUIREMENTS.

—R— EXISTING CONDUIT AND WIRE RUN TO BE COMPLETELY DISCONNECTED AND REMOVED BACK TO LAST REMAINING OUTLET OR DEVICE.

—R—X—E— "X" INDICATES APPROXIMATE POINT OF INTERCEPTION OF EXISTING CONDUIT RUN. CONDUIT TO BE REMOVED AT "R" SIDE OF "X". REMOVE ALL CONDUCTORS PRIOR TO CUTTING CONDUIT. EXACT LOCATION OF ALL CONDUITS SHALL BE FIELD VERIFIED. EXTEND CONDUIT AS INDICATED ON PLANS.

PANELBOARD

M THREE PHASE FRACTIONAL OR INTEGRAL HORSEPOWER MOTOR. NUMERAL IN PLACE OF "M" INDICATES HORSEPOWER.

100AF / 70AT 3P MOLDED CASE CIRCUIT BREAKER. "AF" INDICATES AMPERE FRAME, "AT" INDICATES AMPERE TRIP RATING AND NUMBER OF POLES AS INDICATED. SUBSCRIPT INDICATES TYPE.

- NO SUBSCRIPT THERMAL MAGNETIC
- NA NON-AUTOMATIC
- MO MAGNETIC ONLY
- CL CURRENT LIMITING
- SS SOLID STATE
- EM ELECTRONIC METERING PACKING

DRAW-OUT TYPE CIRCUIT BREAKER.

100AS / 90FU 3P FUSED SWITCH. "AS" INDICATED AMPERE SWITCH RATING, "AFU" INDICATES AMPERE FUSE RATING, NUMBER OF POLES AS INDICATED.

VOLTAGE TRANSFORMER. FLOOR MOUNTD, COPPER WOUND, DRY TYPE UNLESS SPECIFIED OTHERWISE.

CURRENT TRANSFORMERS, "C.T.s"

POTENTIAL TRANSFORMER, P.T.s".

M UTILITY METER SOCKET, WITH C.T.s, CLIPS, ETC., PER SERVING UTILITY COMPANY.

GROUND, "GRD".

GFI "GROUND FAULT INTERRUPTER"

G GROUND FAULT PROTECTION DEVICE.

GFS GROUND FAULT SENSOR.

AS AMMETER SWITCH, FOUR POSITION "PHASE A", "PHASE B", "PHASE C", AND OFF.

VS VOLTMETER SWITCH, SEVEN POSITION "PHASE A-N", "PHASE B-N", "PHASE C-N", "PHASE AB", "PHASE BC", "PHASE CA", AND OFF.

A AMMETER.

V VOLTMETER.

KWH DEMAND (KILOWATT) METER.

KW USAGE (KILOWATT HOUR) METER.

LIGHTING SYMBOLS LIST

1a CEILING LIGHT FIXTURE AND OUTLET, HID, OR LED. FLUORESCENT, OR INCANDESCENT. LOWER CASE LETTER INDICATES CONTROLLING SWITCH, NUMERAL INDICATES CIRCUIT. SHADED SYMBOL INDICATES FIXTURE WITH EMERGENCY POWER PROVISIONS.

1a FLUORESCENT LIGHT FIXTURE OUTLET. LOWER CASE LETTER INDICATES CONTROLLING SWITCH, NUMERAL INDICATES CIRCUIT. SHADED CIRCLE DENOTES FIXTURE WITH EMERGENCY POWER PROVISIONS.

1a FLUORESCENT OR LED STRIP FIXTURE. LOWER CASE LETTER INDICATES CONTROLLING SWITCH. NUMERAL INDICATES CIRCUIT. SHADED CIRCLE DENOTES FIXTURE WITH EMERGENCY POWER PROVISIONS.

1a BRACKET OR WALL MOUNTED LIGHT FIXTURE AND OUTLET, HID, FLUORESCENT OR INCANDESCENT OR LED. LOWER CASE LETTER INDICATES CONTROLLING SWITCH, NUMERAL INDICATES CIRCUIT. SHADED CIRCLE DENOTES FIXTURE WITH EMERGENCY POWER PROVISIONS.

TANDEM WIRED, MASTER-SLAVE COMBINATION FLUORESCENT LIGHTING FIXTURE. CIRCLE INDICATES MASTER. DASHED LINE INDICATES FACTORY FURNISHED, PREWIRED FIXTURE WHIP.

1a CEILING DOWNLIGHT FIXTURE. LOWER CASE LETTER INDICATES CONTROLLING SWITCH, NUMERAL INDICATES CIRCUIT. SHADED SYMBOL INDICATES FIXTURE WITH EMERGENCY POWER PROVISIONS.

ILLUMINATED LED EXIT LIGHT FIXTURE. SIDE, BACK, CEILING, OR PENDANT MOUNTED, SINGLE OR DOUBLE FACED AS NOTED BY SHADED ARC, WITH OR WITHOUT DIRECTIONAL ARROW AS NOTED ON THE DRAWINGS. NOT TO BE USED AS JUNCTION BOX OR "THROUGH-WIRE" DEVICE.

Q / 106 / +9'-0" LIGHTING FIXTURE IDENTIFICATION SYMBOL. LETTER INDICATES FIXTURE TYPE. NUMERALS IN LOWER HALF OF HEXAGON INDICATE FIXTURE WATTAGE (INCLUDING BALLAST WHERE APPLICABLE). NUMERAL OUTSIDE BOTTOM OF HEXAGON INDICATES MOUNTING HEIGHT FROM FLOOR TO BOTTOM OF FIXTURE. OMISSION OF MOUNTING HEIGHT INDICATES CEILING MOUNTING.

FCU / X MECHANICAL / PLUMBING IDENTIFICATION SYMBOL. REFER TO MECHANICAL / PLUMBING DRAWING FOR EXACT EQUIPMENT LOCATION AND TYPE.

WALL MOUNTED DUAL HEAD EMERGENCY LIGHTING FIXTURE UNIT.

D 0-10V LIGHTING DIMMER SWITCH. REFER TO SPECIFICATIONS.

DF FLUORESCENT LIGHTING DIMMER. REFER TO SPECIFICATIONS.

S WALL MOUNTED PASSIVE INFRARED OCCUPANCY SENSOR. MOUNT AT + 48 INCHES.

OS CEILING MOUNTED OCCUPANCY SENSOR COMPLETE WITH ALL POWER SUPPLIES, RELAY PACKS AND CONNECTIONS. REFER TO SPECIFICATIONS FOR TYPE AND DESCRIPTION.

S_a^{3k} SWITCH. LOWER CASE LETTER AT BOTTOM INDICATES OUTLETS CONTROLLED. CAPITAL SUPERSCRIPT INDICATES SWITCH TYPE.

- NO SUPERSCRIPT - SINGLE POLE SWITCH
- 2 - DOUBLE POLE
- 3 - THREE WAY
- 4 - FOUR WAY
- I - ILLUMINATED HANDLE
- K - KEYED SWITCH
- LC - LOCKABLE COVER
- M - MANUAL MOTOR STARTER WITH THERMAL OVERLOAD PROTECTION
- MC - MOMENTARY CONTACT
- P - PILOT LIGHT
- PR - PRESS TYPE
- TP - THREE POSITION
- T - TIMER, 0-6 HR ROTARY OR AS NOTED

—EP— LOW LEVEL EXIT PATHWAY MARKING SYSTEM. REFER TO SPECIFICATIONS. MOUNT AT +6 INCHES ABOVE FINISHED FLOOR.

EPP LOW LEVEL EXIT PATHWAY POWER SUPPLY , "EPPS". LOCATE AS CALLED FOR ON DRAWINGS. PROVIDE CONNECTION TO FIRE ALARM SYSTEM AND EMERGENCY POWER PROVISIONS.

DETAIL NO.
ENLARGED REFERRENCE
SHEET NO.

KEYNOTES

TYPICAL KEYNOTE SYMBOL

PC PHOTOCELL.

DS DAYLIGHT SENSOR. COORDINATE EXACT LOCATION AND QUANTITY.

QSM SENSOR MODULE. COORDINATE EXACT LOCATION AND QUANTITY.

ABBREVIATIONS

AFF	AMPERE FRAME RATING OF CIRCUIT BREAKERS
AFU	AMPERE FUSE RATING
AIC	AMPS INTERRUPTING CAPACITY RATING (RMS SYMMETRICAL)
AMP, A	AMPERES
AS	AMPERE SWITCH RATING
AT	AMPERE TRIP RATING OF BREAKER
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
BIDS	BAGGAGE INFORMATION DISPLAY SYSTEM
BIR	BAGGAGE INSPECTION ROOM
C.	CONDUIT
CAB	CABINET
CAT.	CATEGORY
CCTV	CLOSE CIRCUIT TELEVISION
C.O.	CONDUIT ONLY
CR	CONTROL RELAY (MAGNETICALLY HELD UNLESS NOTED OTHERWISE)
CU	COPPER
D	DEMOLISH/REMOVE
DISTR	DISTRIBUTION
DWG	DRAWING
ELEV	ELEVATION
EMERG	EMERGENCY
EQPT	EQUIPMENT
EXH	EXHAUST
E, EX, (E)	EXISTING TO REMAIN
FAA	FIRE ALARM ANNUNCIATOR
FDR	FEEDER
FF	FINISHED FLOOR
FG	FINISHED GRADE
FS	FLOW SWITCH
FIDS	FLIGHT INFORMATION DISPLAY SYSTEM
FIS	FEDERAL INSPECTION SERVICES
FLEX	FLEXIBLE
FLUOR	FLUORESCENT
F.O.	FIBER OPTIC
FUT	FUTURE
GND	GROUND
HTR	HEATER
HZ	HERTZ
IDF	INTERMEDIATE DISTRIBUTION FRAME
INS	IMMIGRATION & NEUTRALIZATION SERVICES
J.B.	JUNCTION BOX
K	THOUSAND (KILO)
KV	KILOVOLTS
KW	KILOWATTS
KWH	KILOWATT HOURS
KVA	KILOVOLT AMPERES
LAWA	LOS ANGELES WORLD AIRPORTS
LS	LIMIT SWITCH
LT, LTS	LIGHT, LIGHTS
LTG	LIGHTING
MDF	MAIN DISTRIBUTION FRAME
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MH	MANHOLE
MS	MANUAL MOTOR STARTER
MT, MTD, MTG	MOUNT, MOUNTED, MOUNTING
NEC	NATIONAL ELECTRICAL CODE
NO, NOS	NUMBER, NUMBERS
NTS	NOT TO SCALE
PNL	PANEL
PWR	POWER
R,(R)	REMOVE
RR	REMOVE AND REPLACE
REL/REP	EXISTING EQUIPMENT IS TO BE REPLACED WITH NEW &RELOCATED AT NEW LOCATION
RECPTS	RECEPTACLES
REQD	REQUIRE
SCH	SCHEDULE
SEC	SECONDS, SECONDARY
SEQ	SEQUENCE
SHT	SHEET
SM	SINGLE MODE
SPECS	SPECIFICATIONS
STA	STATION
SYS	SYSTEM
TBD	TO BE DETERMINED
TR	TIME DELAY RELAY
TS	TAMPER SWITCH
TTB	TELEPHONE TERMINAL BACKBOARD
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UGPS	UNDERGROUND PULL SECTION
V	VOLTMETER
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
WHM	WATT HOUR METER
WP	WEATHERPROOF
XR	EXISTING TO BE RELOCATED
XFMR	TRANSFORMER

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.650.0350 F 626.650.0352
Job No. 2015-067-00 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT VNY LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	PP/NB
DRAWN BY:	HL
CHECKED BY:	KS

SHEET TITLE:

GENERAL NOTES SYMBOLS LIST AND ABBREVIATIONS

SHEET NO.
2-E-002

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

1 2-E-002-GENERAL NOTES SYMBOLS LIST AND ABBREVIATIONS
NTS

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:18:06 PM

LAX CONRAC Facility Preliminary Electrical Load (kVA)			
Area Description	Sq Ft	KVA	Remarks
RAC Ready/Return Garage	3,169,776	2,621	
Idle Storage Garage	2,505,294	1,348	
Customer Service Building	95,280	2,695	
QTA Buildings	1,118,143	6,818	
	6,888,493	13,483	KVA
		1,873	AMPS @4160V

LAX CONRAC									09/13/16
Load Type		Lighting	General Power	Electric Vehicle Charging	Plumbing	HVAC	Spare Capacity (15%)	Total	Remarks
		0.30	0.15	0.30	0.04	0.02	0.12	0.93	VA/sq Ft
RAC Ready/Return Garage (levels 1, 2 & 3)	2,448,791	735	367	730	98	49	297	2,275	
		0.10	0.00	0.33	0.00	0.00	0.06	0.49	
RAC Ready/Return Garage (level 4 = roof))	704,984	70	0	230	0	0	45	346	
Roof (APM)	16,001								
	3,169,776								
							Grand Total		2,621 KVA
									364 AMPS @4160V

Assumptions:

Lighting- 0.3W/Sq.ft for RAC garage, considering 10-20FC for sales floor.
Power- General power includes power for receptacles and misc. items such as IT/Security and signage.
Electric Vehicle Charging- Includes 5% of 7600 cars (lvl 1,2,3) =380 carsx16A@120V=729,600VA + 10% of 1200 cars (lvl 4) =120 cars x16A@120V=230,400VA.
HVAC- HVAC includes power for HVAC equipment for booths.

LAX CONRAC									09/13/16
Load Type		Lighting	General Power	Electric Vehicle Charging	Plumbing	HVAC	Spare Capacity (15%)	Total	Remarks
		0.20	0.10	0.00	0.04	0.01	0.05	0.40	VA/sq Ft
Idle Storage Garage (levels 1, 2 & 3)	1,882,667	377	188	0	75	19	99	758	
		0.10	0.00	0.72	0.00	0.00	0.12	0.95	
Idle Storage Garage (level 4 = roof)	622,627	62	0	451	0	0	77	591	
	2,505,294								
		Sq Ft					Grand Total		1,348 KVA
									187 AMPS @4160V

Assumptions:

Lighting- 0.2W/Sq.ft for parking at 10FC on levels 1, 2 & 3, and 0.10W/sf for paking at 5FC on roof.
Power- General power includes power for receptacles and misc. items such as IT/Security and signage(if required).
Electric Vehicle Charging- Includes 0% of 10,600 cars (lvl 1,2,3) and 10% of 2350 employee/visitor cars on roof = 235 x 16A @120V = 451,200 VA.

LAX CONRAC									09/13/16
Load Type		Lighting	General Power	Vertical Transport	Plumbing	HVAC	Spare Capacity (15%)	Total	Remarks
		1.00	3.00	12.60	1.00	7.00	3.69	28.29	VA/sq Ft
Customer Service Building	95,280	95	286	1,201	95	667	352	2,695	
	Sq Ft					Grand Total		2,695	KVA
								375	AMPS @4160V

Assumptions:

VT = (18 Elevators x 40KVA = 720KVA) + (24 Escalators x 20KVA = 480KVA) = 1200KVA
Lighting- 1W/Sq.ft for CSB considering 30-40 FC
Power- General power includes power for receptacles and misc. items such as IT/Security.
HVAC- HVAC includes power for HVAC equipment such AHUs, VAVs, split system and exhaust fans.

LAX CONRAC									09/13/16
Load Type		Lighting	General Power	Vertical Transport	Plumbing	HVAC	Spare Capacity (15%)	Total	Remarks
		0.60	0.50	0.14	0.40	0.50	0.32	2.47	VA/sq Ft
QTA Buildings	847,968	509	424	122	339	424	273	2,091	This total KVA does not include QTA System load
QTA roof (green roof)	270,175	0	0	0	0	0	0	0	
"QTA System Load (See Separate Calculations)"								4,727	
	1,118,143								
	Sq Ft					Grand Total		6,818	KVA
								947	AMPS @4160V

Assumptions:

VT = 3 Elevators = 3 x 40KVA = 120KVA
Lighting- 0.6W/Sq.ft for QTA considering different FC levels for different areas
Power- General power includes power for receptacles and misc. items such as IT/Security
HVAC- HVAC includes power for HVAC equipment in restrooms/Offices

QTA SYSTEM LOAD CALCULATIONS

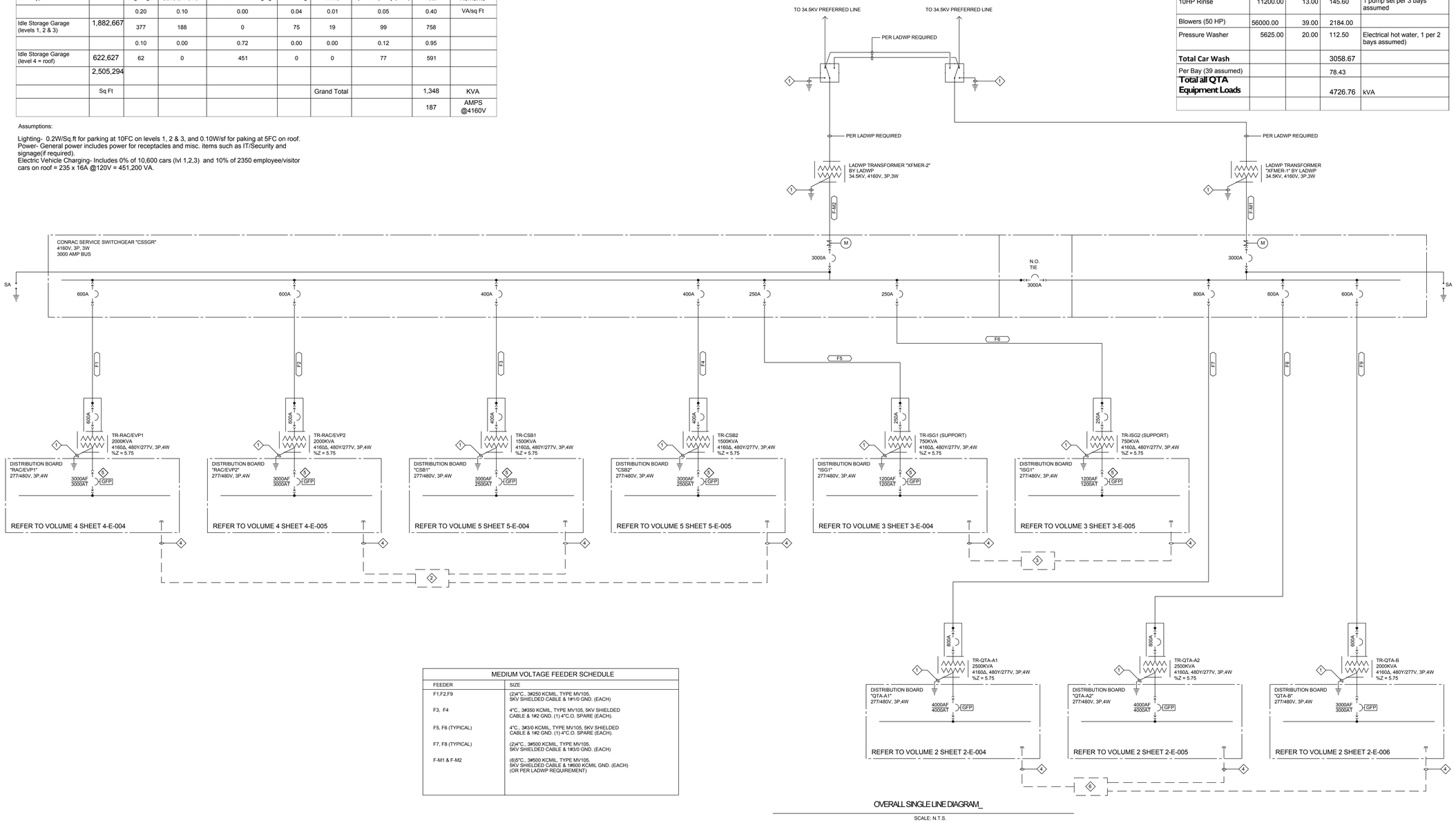
	VA, each	QTY	kVA	
Gasoline, WWF				
STP 4 HP w VFD	5200.00	30.00	156.00	
Dispenser	600.00	90.00	54.00	
Monitoring	150.00	6.00	0.90	
WWF Pump	6400.00	2.00	12.80	
Misc Control Loads			10.00	
Total Gas, WWF			233.70	
Per Fuel Position		180.00	1.30	
Per Dispenser		90.00	2.60	
Vacuum				
25HP/6 Positions	27100.00	30.00	813.00	
Compressors (15 HP+ Dryer)	16800.00	10.00	168.00	
Lifts (20A/208V)	7196.80	63.00	453.40	
Car Wash (based on 39 Bays Total)				
	VA	Qty	kVA	
Brush Motors - 6.5A/480V	5397.60	39.00	210.51	
RO System (2 HP)	2240.00	24.00	53.76	6000 GPD units assumed, 144,000 GPD total
25HP Reclaim	27100.00	13.00	352.30	1 pump set per 3 bays assumed - assumeds flooder arch
10HP Rinse	11200.00	13.00	145.60	1 pump set per 3 bays assumed
Blowers (50 HP)	56000.00	39.00	2184.00	
Pressure Washer	5625.00	20.00	112.50	Electrical hot water, 1 per 2 bays assumed)
Total Car Wash			3058.67	
Per Bay (39 assumed)			78.43	
Total all QTA Equipment Loads			4726.76	kVA

GENERAL NOTES

1. ELECTRICAL EQUIPMENT SHOWN ON THIS DRAWING LOCATED OUTDOORS, SHALL BE GASKETTED NEMA 3R STAINLESS STEEL.
2. ENTIRE ELECTRICAL SWITCHBOARD SHALL BE PROVIDED WITH BOTTOM SEAL TO PREVENT GAS INTRUSION COMING FROM THE GROUND.
3. ALL CONDUIT OPENINGS (KNOCK-OUTS) AT BOTTOM OF SWITCHBOARD SHALL BE PROVIDED WITH LADBS APPROVED SEAL TO MAINTAIN EQUIPMENT INTEGRITY.
4. ALL ELECTRICAL CONDUITS FOR THE ENTIRE PROJECT SHALL BE PROVIDED WITH LA CITY APPROVED CONDUIT SEALS FOR METHANE MITIGATION AFTER INSTALLATION OF CONDUCTORS.
5. ALL ELECTRICAL EQUIPMENT, DEVICES AND METHOD OF CONSTRUCTION SHALL COMPLY WITH LOS ANGELES CITY ORDINANCE NO. 175790 FOR METHANE MITIGATION.
6. ALL EQUIPMENT SHOWN ON THIS PLAN SHALL HAVE MINIMUM RATING OF 130%/%% OF AVAILABLE FAULT CURRENT AT THAT LOCATION.
7. CONTRACTOR TO COORDINATE WITH LADWP FOR CONSTRUCTION DRAWINGS AND SPECIFICATIONS FOR ALL ELECTRICAL WORK RELATED LADWP.

KEY NOTES

1. 1*C., 1#4/0 BARE COPPER TO GROUNDING ELECTRODE SYSTEM. SEE SHEET 1-E-XXX DETAIL #XX.
2. PV POWER COLLECTOR/ IN VERTER BY PV CONTRACTOR AT CONRAC/ CSB BUILDING.
3. PV POWER IN VERTER BY PV CONTRACTOR AT IDLE STORAGE BUILDING.
4. (10)4*C.0. EACH FOR FUTURE PV POWER AND CONTROL AS REQUIRED . VERIFY IN FIELD.
5. PROVIDE DOUBLE INCOMING TERMINAL FOR FUTURE TAP IN PV POWER AT MAIN BREAKER. VERIFY IN FIELD.
6. PV POWER IN VERTER BY PV CONTRACTOR AT QTA BUILDING.



OVERALL SINGLE LINE DIAGRAM_

SCALE: N.T.S.

MEDIUM VOLTAGE FEEDER SCHEDULE	
FEEDER	SIZE
F1,F2,F9	(2)4"C., 3#250 KCMIL, TYPE MV105, 5KV SHIELDED CABLE & 1#1/0 GND. (EACH)
F3, F4	4"C., 3#350 KCMIL, TYPE MV105, 5KV SHIELDED CABLE & 1#2 GND. (1) 4"C.O. SPARE (EACH).
F5, F6 (TYPICAL)	4"C., 3#3/0 KCMIL, TYPE MV105, 5KV SHIELDED CABLE & 1#2 GND. (1) 4"C.O. SPARE (EACH).
F7, F8 (TYPICAL)	(2)4"C., 3#500 KCMIL, TYPE MV105, 5KV SHIELDED CABLE & 1#3/0 GND. (EACH)
F-M1 & F-M2	(6)5"C., 3#500 KCMIL, TYPE MV105, 5KV SHIELDED CABLE & 1#600 KCMIL GND. (EACH) (OR PER LADWP REQUIREMENT)

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruether Ave, Ste 100 Gardena, CA 91746
T 424.4000000
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

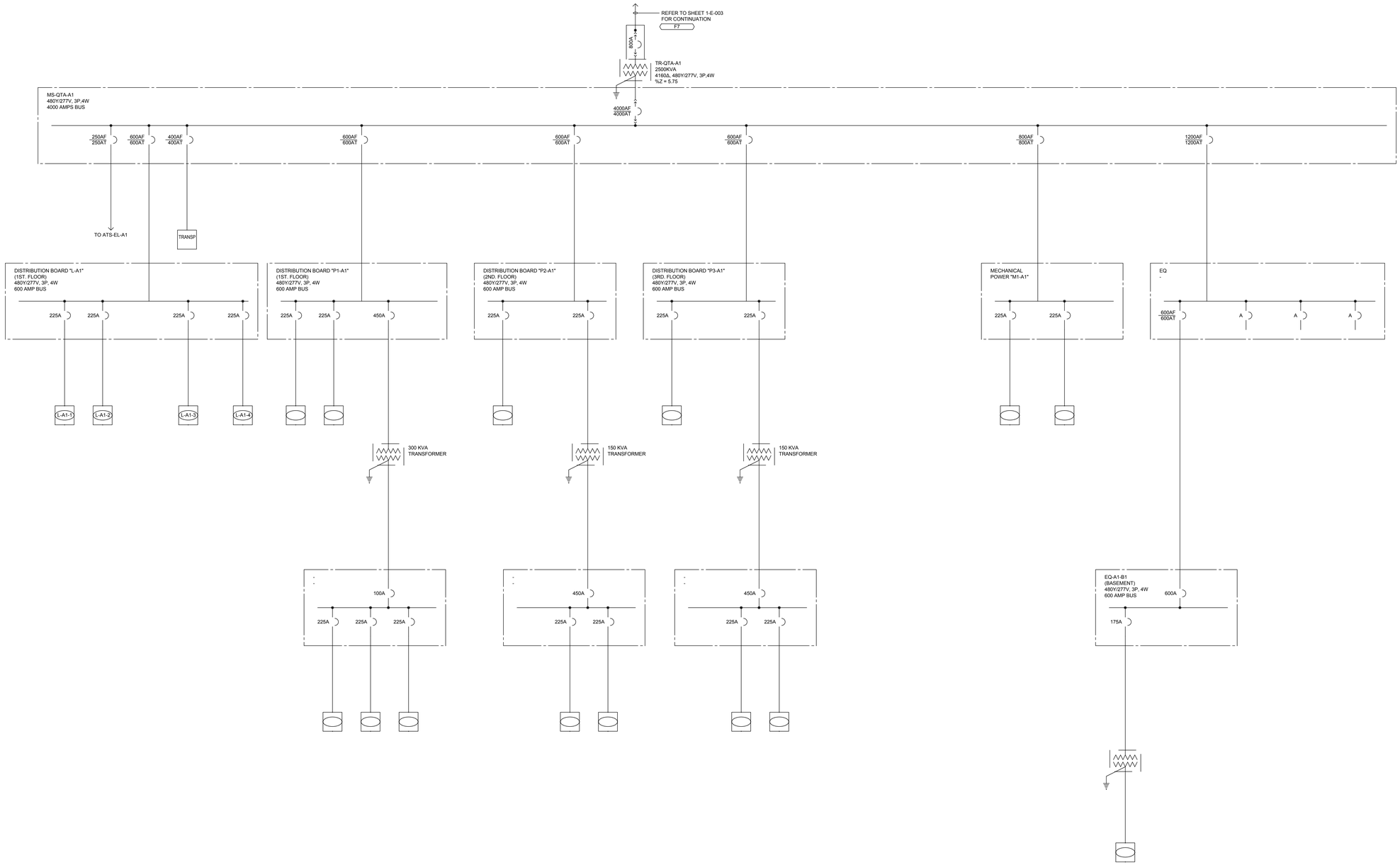
OVERALL SINGLE LINE DIAGRAM

SHEET NO.
2-E-003

9/21/2016 4:18:07 PM
C:\Users\henry\Documents\2015-PBS-REVIT PROJECT\2015-067-00-REVIT 2015\ELEC-DA4881-BLOCK_A_B-R15.rvt
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. ELECTRICAL EQUIPMENT SHOWN ON THIS DRAWING LOCATED OUTDOORS, SHALL BE GASKETTED NEMA 3R STAINLESS STEEL.
2. ENTIRE ELECTRICAL SWITCHBOARD SHALL BE PROVIDED WITH BOTTOM SEAL TO PREVENT GAS INTRUSION COMING FROM THE GROUND.
3. ALL CONDUIT OPENINGS (KNOCK-OUTS) AT BOTTOM OF SWITCHBOARD SHALL BE PROVIDED WITH LADBS APPROVED SEAL TO MAINTAIN EQUIPMENT INTEGRITY.
4. ALL ELECTRICAL CONDUITS FOR THE ENTIRE PROJECT SHALL BE PROVIDED WITH LA CITY APPROVED CONDUIT SEALS FOR METHANE MITIGATION AFTER INSTALLATION OF CONDUCTORS.
5. ALL ELECTRICAL EQUIPMENT, DEVICES AND METHOD OF CONSTRUCTION SHALL COMPLY WITH LOS ANGELES CITY ORDINANCE NO. 175790 FOR METHANE MITIGATION.
6. ALL EQUIPMENT SHOWN ON THIS PLAN SHALL HAVE MINIMUM RATING OF 130%%% OF AVAILABLE FAULT CURRENT AT THAT LOCATION.
7. CONTRACTOR TO COORDINATE WITH LADWP FOR CONSTRUCTION DRAWINGS AND SPECIFICATIONS FOR ALL ELECTRICAL WORK RELATED LADWP.



SINGLE LINE DIAGRAM FOR SUB-TR-QTA-A1

SCALE: N.T.S.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruether Ave, Suite 100 Gardena, CA 91746
T 424.4000006
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA BUILDING SINGLE LINE DIAGRAM QTA-A1

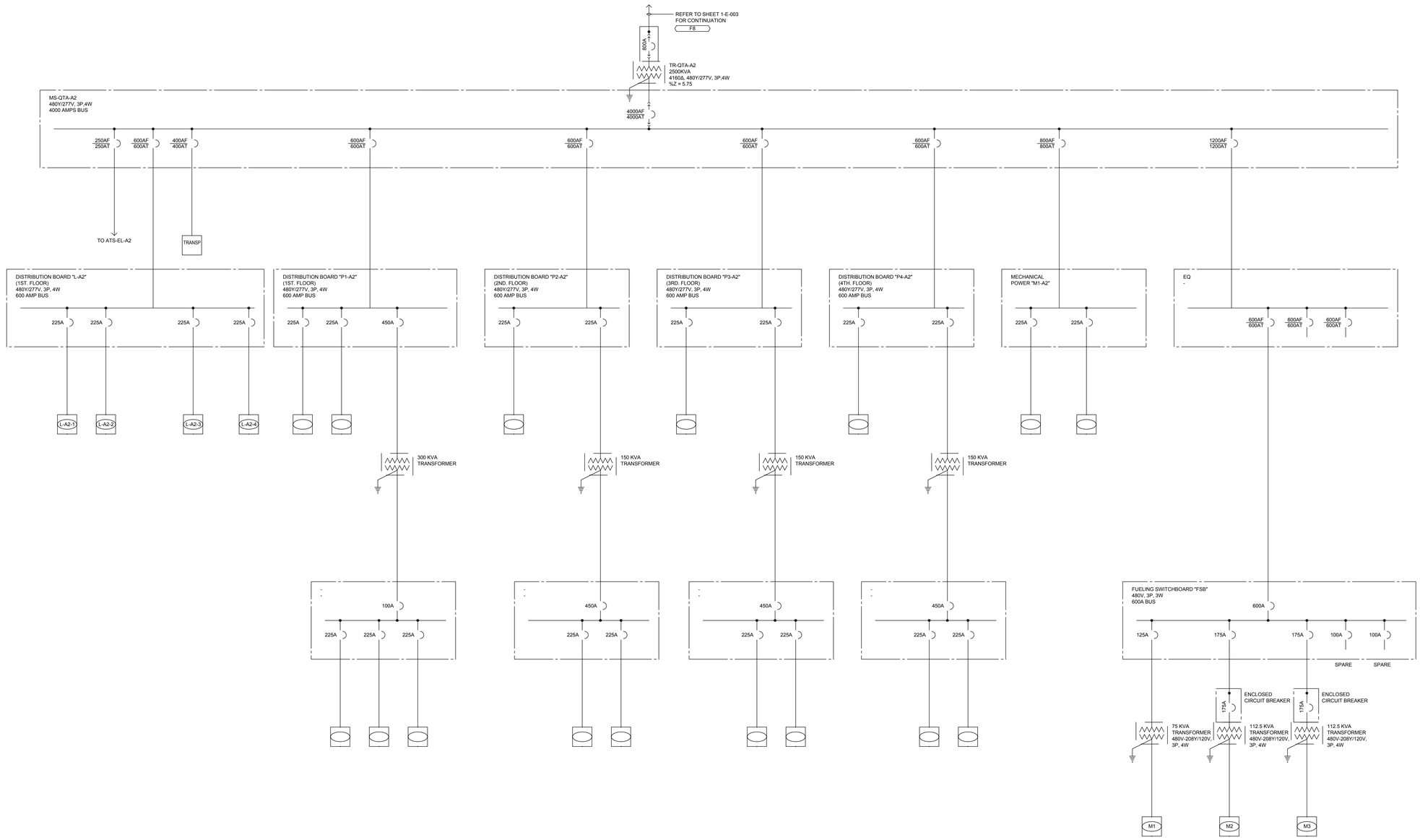
SHEET NO.

2-E-004

9/21/2016 4:18:07 PM C:\Users\henry\Documents\2015-RBS-REVIT PROJECT\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. ELECTRICAL EQUIPMENT SHOWN ON THIS DRAWING LOCATED OUTDOORS, SHALL BE GASKETTED NEMA 3R STAINLESS STEEL.
2. ENTIRE ELECTRICAL SWITCHBOARD SHALL BE PROVIDED WITH BOTTOM SEAL TO PREVENT GAS INTRUSION COMING FROM THE GROUND.
3. ALL CONDUIT OPENINGS (KNOCK-OUTS) AT BOTTOM OF SWITCHBOARD SHALL BE PROVIDED WITH LADBS APPROVED SEAL TO MAINTAIN EQUIPMENT INTEGRITY.
4. ALL ELECTRICAL CONDUITS FOR THE ENTIRE PROJECT SHALL BE PROVIDED WITH LA CITY APPROVED CONDUIT SEALS FOR METHANE MITIGATION AFTER INSTALLATION OF CONDUCTORS.
5. ALL ELECTRICAL EQUIPMENT, DEVICES AND METHOD OF CONSTRUCTION SHALL COMPLY WITH LOS ANGELES CITY ORDINANCE NO. 175790 FOR METHANE MITIGATION.
6. ALL EQUIPMENT SHOWN ON THIS PLAN SHALL HAVE MINIMUM RATING OF 130%%% OF AVAILABLE FAULT CURRENT AT THAT LOCATION.
7. CONTRACTOR TO COORDINATE WITH LADWP FOR CONSTRUCTION DRAWINGS AND SPECIFICATIONS FOR ALL ELECTRICAL WORK RELATED LADWP.



SINGLE LINE DIAGRAM FOR SUB-TR-QTA-A2

SCALE: N.T.S.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 Oceangate, Ste. 600 Long Beach, CA 90802
T 562.628.0500 F 562.628.0501
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA BUILDING SINGLE LINE DIAGRAM QTA-A2

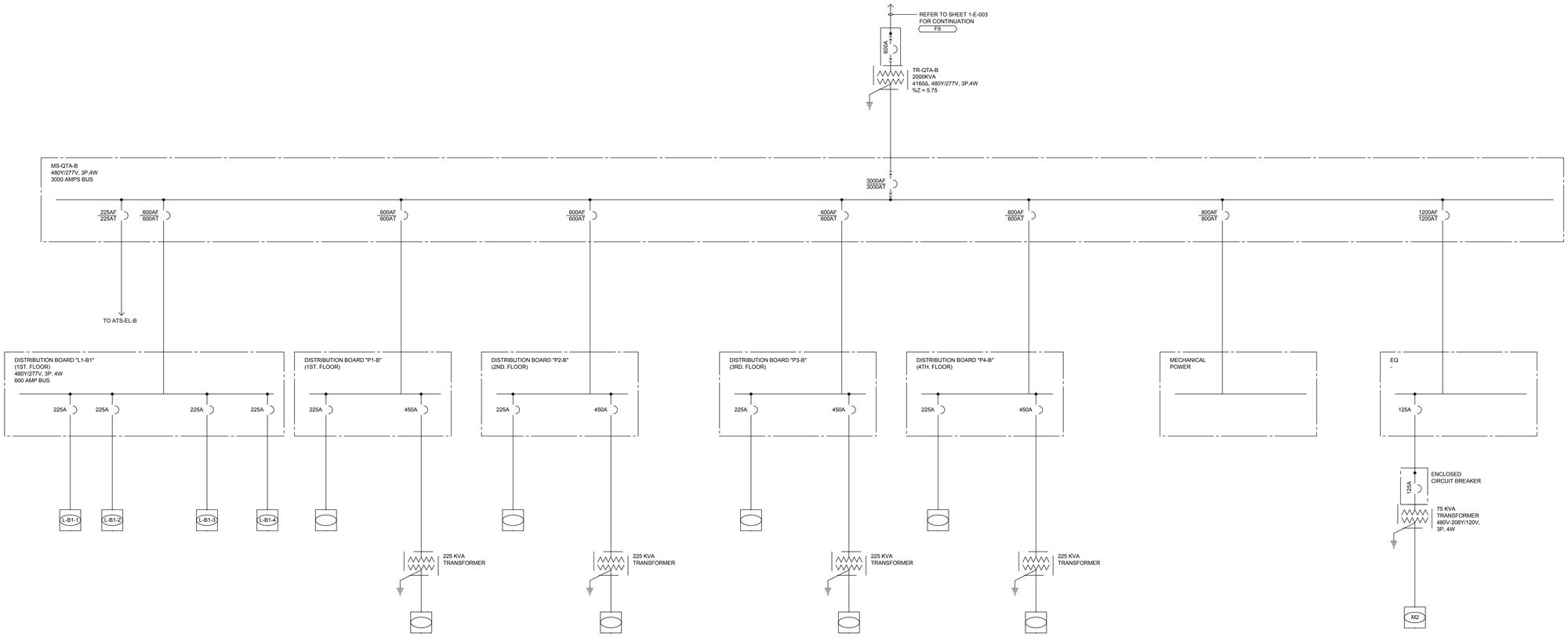
SHEET NO.

2-E-005

C:\Users\henry\Documents\2015-RSS-REVIT-PROJECT\2015-06F-00-REVIT-2015\ELEC-DA4881-BLDG_A_BR15.rvt
9/21/2016 4:18:08 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. ELECTRICAL EQUIPMENT SHOWN ON THIS DRAWING LOCATED OUTDOORS, SHALL BE GASKETTED NEMA 3R STAINLESS STEEL.
2. ENTIRE ELECTRICAL SWITCHBOARD SHALL BE PROVIDED WITH BOTTOM SEAL TO PREVENT GAS INTRUSION COMING FROM THE GROUND.
3. ALL CONDUIT OPENINGS (KNOCK-OUTS) AT BOTTOM OF SWITCHBOARD SHALL BE PROVIDED WITH LADBS APPROVED SEAL TO MAINTAIN EQUIPMENT INTEGRITY.
4. ALL ELECTRICAL CONDUITS FOR THE ENTIRE PROJECT SHALL BE PROVIDED WITH LA CITY APPROVED CONDUIT SEALS FOR METHANE MITIGATION AFTER INSTALLATION OF CONDUCTORS.
5. ALL ELECTRICAL EQUIPMENT, DEVICES AND METHOD OF CONSTRUCTION SHALL COMPLY WITH LOS ANGELES CITY ORDINANCE NO. 175790 FOR METHANE MITIGATION.
6. ALL EQUIPMENT SHOWN ON THIS PLAN SHALL HAVE MINIMUM RATING OF 130%/V% OF AVAILABLE FAULT CURRENT AT THAT LOCATION.
7. CONTRACTOR TO COORDINATE WITH LADWP FOR CONSTRUCTION DRAWINGS AND SPECIFICATIONS FOR ALL ELECTRICAL WORK RELATED LADWP.



SINGLE LINE DIAGRAM FOR SUB-TR-QTA-C

SCALE: N.T.S.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1300 East Acacia Ave, Suite 100, Glendora, CA 91740
T 626.852.0200 F 626.852.0201
Mechanical · Electrical · Plumbing | Consulting · Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO.:	DA4881
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA BUILDING SINGLE LINE DIAGRAM QTA-B

SHEET NO.

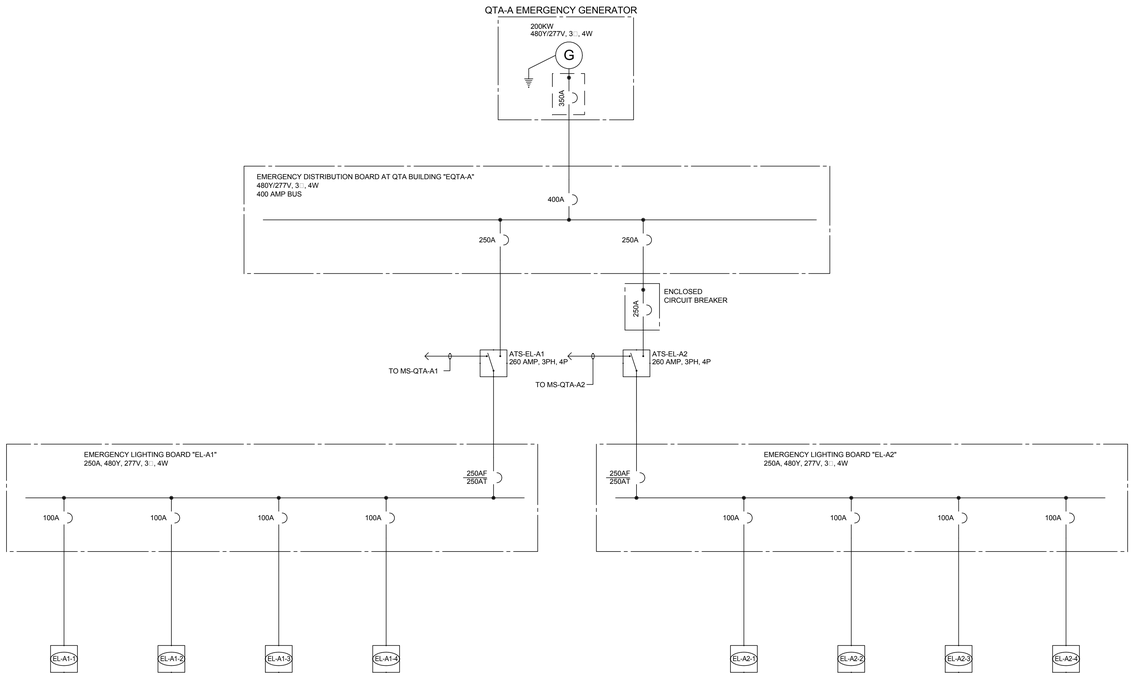
2-E-006

9/21/2016 4:18:58 PM C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-06F-00-REVIT-2015ELEC-DA4881-BLDG_A_B-R15.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. ELECTRICAL EQUIPMENT SHOWN ON THIS DRAWING LOCATED OUTDOORS, SHALL BE GASKETTED NEMA 3R STAINLESS STEEL.
2. ENTIRE ELECTRICAL SWITCHBOARD SHALL BE PROVIDED WITH BOTTOM SEAL TO PREVENT GAS INTRUSION COMING FROM THE GROUND.
3. ALL CONDUIT OPENINGS (KNOCK-OUTS) AT BOTTOM OF SWITCHBOARD SHALL BE PROVIDED WITH LADBS APPROVED SEAL TO MAINTAIN EQUIPMENT INTEGRITY.
4. ALL ELECTRICAL CONDUITS FOR THE ENTIRE PROJECT SHALL BE PROVIDED WITH LA CITY APPROVED CONDUIT SEALS FOR METHANE MITIGATION AFTER INSTALLATION OF CONDUCTORS.
5. ALL ELECTRICAL EQUIPMENT, DEVICES AND METHOD OF CONSTRUCTION SHALL COMPLY WITH LOS ANGELES CITY ORDINANCE NO. 175790 FOR METHANE MITIGATION.
6. ALL EQUIPMENT SHOWN ON THIS PLAN SHALL HAVE MINIMUM RATING OF 130%%% OF AVAILABLE FAULT CURRENT AT THAT LOCATION.
7. CONTRACTOR TO COORDINATE WITH LADWP FOR CONSTRUCTION DRAWINGS AND SPECIFICATIONS FOR ALL ELECTRICAL WORK RELATED LADWP.



QTA BUILDING EMERGENCY SINGLE LINE DIAGRAM

SCALE: NTS

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruether Ave, Suite 100, Covina, CA 91723
T 626.6000500
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA BUILDING EMERGENCY SINGLE LINE DIAGRAM

SHEET NO.

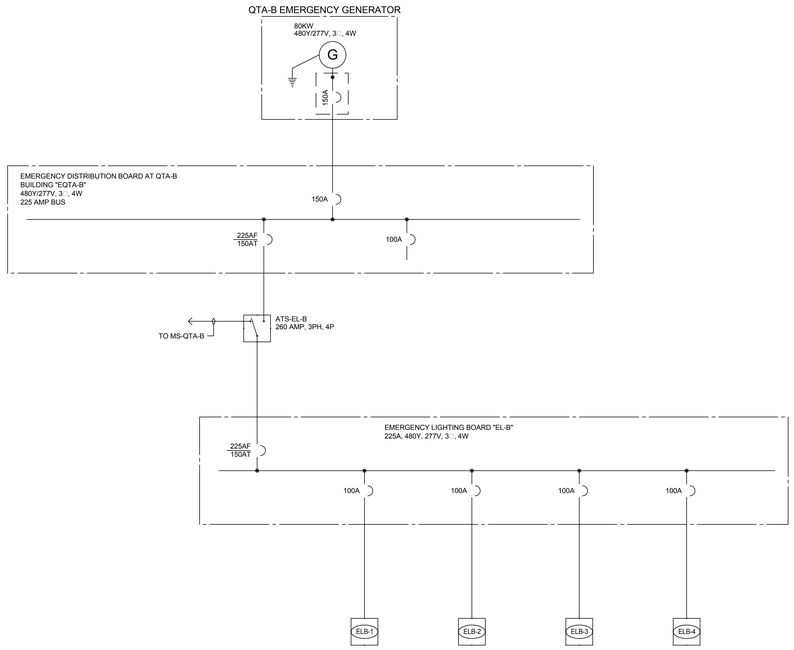
2-E-007

9/21/2016 4:18:10 PM C:\Users\hlevy\Documents\2015-PBS-REVIT PROJECT\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

1. ELECTRICAL EQUIPMENT SHOWN ON THIS DRAWING LOCATED OUTDOORS, SHALL BE GASKETTED NEMA 3R STAINLESS STEEL.
2. ENTIRE ELECTRICAL SWITCHBOARD SHALL BE PROVIDED WITH BOTTOM SEAL TO PREVENT GAS INTRUSION COMING FROM THE GROUND.
3. ALL CONDUIT OPENINGS (KNOCK-OUTS) AT BOTTOM OF SWITCHBOARD SHALL BE PROVIDED WITH LADBS APPROVED SEAL TO MAINTAIN EQUIPMENT INTEGRITY.
4. ALL ELECTRICAL CONDUITS FOR THE ENTIRE PROJECT SHALL BE PROVIDED WITH LA CITY APPROVED CONDUIT SEALS FOR METHANE MITIGATION AFTER INSTALLATION OF CONDUCTORS.
5. ALL ELECTRICAL EQUIPMENT, DEVICES AND METHOD OF CONSTRUCTION SHALL COMPLY WITH LOS ANGELES CITY ORDINANCE NO. 175790 FOR METHANE MITIGATION.
6. ALL EQUIPMENT SHOWN ON THIS PLAN SHALL HAVE MINIMUM RATING OF 130%/%% OF AVAILABLE FAULT CURRENT AT THAT LOCATION.
7. CONTRACTOR TO COORDINATE WITH LADWP FOR CONSTRUCTION DRAWINGS AND SPECIFICATIONS FOR ALL ELECTRICAL WORK RELATED LADWP.



QTA BUILDING EMERGENCY SINGLE LINE DIAGRAM EQTA

SCALE: NTS

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl, Ste. 100, Glendora, CA 91741
T 626.963.6026
F 626.963.6030
www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA BUILDING EMERGENCY SINGLE LINE DIAGRAM EQTA

SHEET NO.

2-E-008

9/21/2016 4:18:11 PM C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-587-00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt

GENERAL LIGHTING NOTES

General Provisions

1. Provide all materials as detailed on drawings, specifications and/or schedules, and labor as required to achieve a complete and operating lighting system.
2. Contractor shall be responsible for all electrical permits and inspection fees. It is the responsibility of the contractor to schedule all electrical inspections required by the building department and serving utilities.
3. Contractor shall perform all work in strict accordance with all local and national governing codes, including seismic, if applicable. Work not in conformance with applicable codes shall be brought into compliance at the Contractor's expense.
4. All electrical material and equipment shall be in new condition when installed. All equipment shall be listed, labeled or certified by a nationally recognized testing laboratory. Immediately notify lighting designer if any specified lighting equipment is not appropriately listed, or arrives without appropriate labeling.
5. All equipment shall be factory tested to ensure proper operation prior to shipment to job site.
6. Contractor shall guarantee all materials and workmanship related to the electrical installation for a minimum period of one year from the date of ownership turnover. Any defects in materials or workmanship during this guarantee period shall be corrected at the contractor's expense.
7. Contractor shall visit site prior to bid date, to verify all existing conditions to be encountered in the installation of all new equipment, fixtures, devices, feeders, etc. Exact installation method and requirements shall be verified and determined prior to bid date. Contractor shall immediately notify lighting designer of any required modifications that are not shown on the drawings. Submittal of bid indicates contractor is cognizant of all job site conditions and work to be performed.
8. All equipment, electrical characteristics, locations, and connection requirements shall be verified prior to any rough-in work.
9. The complete electrical system shall be grounded in accordance with NEC requirements.
10. Electrical contractor shall be licensed in the jurisdiction where the project is located, and capable of employing the proper labor force necessary to complete the installation as instructed by owner.
11. Provide shipment of all lighting and related equipment to be delivered to the job site.
12. Delivery of equipment to the job site shall be in clearly identified crates, cartons, or appropriate shipping containers as to item, quantity, and installation location. Once received, lighting equipment shall be secured and protected from the elements.
13. Contractor shall be capable of making emergency warranty repairs within twenty-four (24) hours of notification when a system or component malfunctions during use.
14. All measurements found in lighting plans are approximate. Contractor shall make field measurements based on actual site conditions to develop complete orders and install systems per drawings and specifications.
15. Emergency egress lighting shall be the responsibility of the electrical engineer in consultation with the owner's representative.
16. Contractor shall properly verify all circuitry, dimming and control prior to test and adjust phase commencing.
17. Contractor to refer to Architectural (A) and Lighting Drawings (EL) and specification packages for all mounting heights and details for special mounting requirements.
18. Contractor services shall include necessary systems integration and engineering, project management and interface with owner, consultants, architects, contractors and all other parties necessary to provide a complete and working lighting system.
19. Contractor services shall include a Systems Integrator (SI) to properly coordinate the installation and set up of the specialty fixtures and control equipment (e.g. DMX, Ethernet, RS232, SMPTE etc.) on the job site regardless of the manufacturer of the fixtures or control equipment.

Installation

1. All fixture voltages shall be verified by the contractor prior to the release of fixture order
2. Fixtures shall have appropriate UL or other recognized testing agency label, as well as damp or wet listing as required by local codes.
3. Fixtures shall include accessories for installation according to local and national codes.
4. Prior to ordering lighting equipment, the contractor shall verify:
   a. Fixture locations
   b. Fixture mounting conditions
   c. Ceiling trim compatibility
   d. Recess depths
   e. Existence of IC or other restrictive conditions
   f. Fire rated ceiling or locations
   g. Fixture voltage
6. Contractor to provide and coordinate approved fire-rated enclosures for lighting fixtures located in a fire-rated ceiling.
7. Contractor to coordinate IC housing requirements, if any, as required.
8. Lamps and accessories (e.g. color filters, louvers, etc.) shall be installed in fixtures in accordance with the provided fixture schedule.
9. Ceiling thickness in excess of ¾" or 20mm shall be identified in writing by the Contractor or Architect.
10. Fixtures shall be ordered with the appropriate ballasts complete UL , CBM or other recognized testing lab labels. Where required, ballasts shall conform to Title 24 or other energy code requirements for performance, switching, and wiring (e.g. tandem wired, bi-level switching, etc.).
11. Walls directly illuminated by uplight or downlight wall wash shall be installed and finished in a manner to eliminate shadows or blemishes (e.g. hang dry wall vertically, and level 5 drywall finish).
12. The drawings are diagrammatic and represent the design intent of the equipment, devices, etc. to be connected and the circuits to which they are to be connected to. Contractor shall install all conduit, j-boxes, etc., as required for a complete and operating system.
13. All custom length fixtures (e.g. continuous wall slot fixtures) shall be field measured prior to ordering, and manufacturer shop drawings issued to the lighting designer for review prior to release for manufacture
14. Contractor shall include all miscellaneous items required to complete work and make fixture and lighting systems fully operational.
15. Lighting fixtures, shown in these drawings, shall not be used as worklights during construction and shall be fully operational at the time of opening to the public.
16. Contractor shall provide Owner and Lighting Designer with one set each of electrical "As-Builts" at the completion of job.
17. Lighting Design Alliance specifically reserves the right to relocate any equipment or outlet at no increase in contract cost prior to its installation (in case of standard product) or release for manufacture (in the case of custom product), regardless of prior shop or design drawing review.
18. Contractor shall be responsible for rough and final aiming and focus of all lighting fixtures as directed by lighting designer during Test and Adjust phase.

Execution

1. All conduit runs shall be concealed unless shown otherwise, or approved.
2. Existing conditions shown are from available record drawings and visual field survey and are shown for reference only. Contractor shall verify actual existing conditions at site.
3. Contractor to supply a minimum of two electricians for each Lighting Designer directing focus during the Test and Adjust phase (AKA Focus and Programming). Electricians to be minimum journeyman level experience. Contractor must supply adequate support including ladders, lifts or other equipment required to access fixtures at the time for focus, including evening or night work as may be required due to schedule conflict or daylight impact.
4. Contractor to have all necessary equipment available throughout Test and Adjust phase including, but not limited to:
   - Standard contractor electrician hand tools.
   - Socket set
   - Clean lint-free towels or wipes to clean lenses and reflectors
   - Spare lamps for fixtures being focused
   - Ladders, fully-charged lifts or other means of access to areas being focused.
   - Safety harnesses or other devices as required.

Submittals

1. Contractor to submit for approval on the products he intends to furnish within (7) days of award of contract. Failure to submit within deadline constitutes a guarantee that only the base specified products will be supplied and that no other products, whether listed as alternates or not, will be considered.
2. Requests for approval of non-specified products must be accompanied by the following at least five (5) business days in advance of the bid submittal date:
   a. Specification data sheet complete with manufacturer name and specified model number, as well as manufacturer's published photometrics
   b. A list of comparable projects where the product has been used in the last (2) years
   c. Functioning sample of product, complete with cord and plug and specified lamp
3. Manufacturers of submitted products must have been in business for five years and in no instance will this project be the occasion of the first installation of this product if it is not listed on the specification.
4. Contractor shall allow proper ordering time for procurement of fixtures. Lighting Design Alliance shall be notified immediately of any product substitutions as a result of delivery, prior to ordering alternate product. Failure to order fixtures with adequate lead-time to meet the installation schedule does not relieve the contractor of the responsibility to provide and install the specified product, even after substantial completion, with all labor and material charges for other trades at the contractor's expense.
5. Should a manufacturer fail to deliver a product that has been ordered within reasonable lead-time, contractor shall notify Lighting Design Alliance with a proposed alternate fixture. Lighting Design Alliance shall maintain final authority for authorization of any substitution.
6. Lamps and any accessories specified shall be included in the submittal package for all fixtures. If no submittal is made on lamps, lamps must be provided as specified, or from approved manufacturers: Philips, Osram Sylvania, General Electric, Ushio, and Venture.
7. Contractor shall provide Complete Maintenance Manuals including, but not limited to:
   a. Required scheduled maintenance.
   b. Original Manufacturer's Equipment (OME) technical data sheets.
   c. Detailed operating procedures.
   d. A list of recommended spare parts and lamps.
   e. Installation wiring diagrams.
   f. Shop drawings
   g. Installation and/or construction As-Built drawings.

Fixture Specifications

1. All lighting fixtures shall be mounted and supported in accordance with applicable safety standards and all national and local electrical codes.
2. All exterior equipment shall be rated for wet location and the IP rating of all equipment shall conform to the conditions in which the fixture is mounted.
3. Contractor shall provide fixture-mounting kits as required to suit the exact type of ceiling or condition to which they are mounted.
4. All fixtures shall be supplied with accessories as listed.
5. All remote transformers and /or ballasts are to be located as close to the fixture as possible, hidden from guest view in an accessible compartment that is well ventilated to provide heat dissipation.
6. All transformers shall be fused on the secondary side.
7. Contractor to supply lamps only from approved lamp manufacturers. Approved manufacturers: Philips, Osram Sylvania, General Electric, Ushio, Venture
8. Color filters shall be glass or dichroic unless otherwise indicated in drawings or specifications.
   a. Where a specific color has not been called for in specifications, contractor shall confirm color with lighting designer prior to ordering.
   b. Contractor to provide 20% additional color filters for each color and size.
9. Contractor to permanently label all color media in a manner that does not interfere with light output.
10. Contractor to verify all fixtures specified with a color filter are supplied with any and all attachment devices for the filter. This includes frames, snap rings, attachment hardware and/or filter standoff. All attachment hardware must be submitted by supplier for review prior to ordering of fixture. Review and approval shall be by lighting designer.
11. Contractor to verify all fixtures specified with a template (pattern or "gobo") are supplied with any and all attachment devices for the pattern. This includes pattern holders, snap rings, and/or installation hardware. Contractor to verify size and type of template material in conjunction with fixture specifications and lighting instrument schedule. All attachment hardware must be submitted by supplier for review prior to ordering of fixture. Review and approval shall be by lighting designer.
12. Contractor to provide lamps for all fixtures in full cases to exceed the number required by no less than 10%.
13. Contractor to replace all burned out or inoperative lamps at the end of the construction phase prior to Test and Adjust (also known as "aiming" of "focusing") phase and once again prior to Owner occupancy or project opening.

System Integrator

1. Lighting "System Integrator" (SI) shall mean the contractor responsible to provide, furnish and/or install, as noted, the specialty lighting equipment, dimming and control systems.
2. The SI shall terminate all lighting control data connections including, but not limited to, remote console data stations, lighting dimmer cabinets, lighting relay cabinets, architectural lighting control stations, lighting control rack, and all other low voltage lighting controls required to provide a functioning and complete lighting control network.
3. The SI shall set all necessary DMX Network addresses for each fixture or device requiring or receiving control signal according to lighting design paperwork/instrument schedule.
4. The SI shall certify that all lighting data cables are terminated correctly and functioning.
5. Services shall include necessary systems integration and engineering, project management and interface with owner, consultants, architects, contractors and all other parties necessary to provide a complete and working lighting system.
6. Services may include site visits and or attendance at coordination meetings with installation personnel. A minimum of two (2) site visits and two (2) coordination meetings are required during project duration and shall be included in base bid. Additional meetings and onsite time, as required, will be negotiable.
7. Termination of Ethernet lighting network wiring may be completed by a qualified subcontractor under the direction of the SI. SI remains responsible for certifying or accepting certification that Ethernet system meets all Ethernet standards.
8. All equipment shall be thoroughly tested, addressed, configured and "burned in" by the SI prior to shipment to the site to ensure mechanical and electrical integrity.
9. The SI shall have been in the specialty lighting distribution and installation business for a minimum of (5) years and shall have provided complete engineering and installation services on a minimum of five jobs of similar size and scope in the past five years.
10. The SI shall include the services of a factory engineer, who shall be available to report to the job site within fourteen (14) days of receipt of request from the Owner, contractor, or Lighting Design Alliance, and shall remain at the job site until the system is fully operational to the satisfaction of the lighting designer and/or owner's representative.
11. Specialty lighting equipment, such as automated luminaires and any device transmitting or receiving lighting control data shall be provided by SI
12. Systems Integrators are subject to approval by Lighting Design Alliance and Owner

FIXTURE TYPE LABELING NOMENCLATURE

FIRST LETTER DENOTES MOUNTING:
- A RECESSED ADJUSTABLE
- B BOLLARD / POLE
- C DECORATIVE (SPEC'D BY LDA)
- D DECORATIVE (SPEC'D BY ID)
- E ELLIPSOIDAL/FRAMING PROJECTOR
- F SURFACE FIXED
- G IN-GRADE / WELL LIGHT / IN GROUND
- J SURFACE ADJUSTABLE
- L LANDSCAPE/STAKE MOUNT
- M MOVING LIGHT/DMX DEVICE (REQUIRES REMOTE DATA SOURCE)
- P PENDANT/STEM/CHANDELIER
- R RECESSED FIXED DOWNLIGT
- S LINEAR STRIPLIGHTS (FLUORESCENT, NEON, LOW VOLTAGE)
- T TRACK AND TRACK HEADS
- U UNDERWATER
- W WALL/BRACKET/STEPLIGHT
- X FIBER OPTICS (ILLUMINATOR AND FIBER)
- Z MISCELLANEOUS/SPECIALTY

SECOND LETTER DENOTES LAMP:
- A LINE VOLTAGE A LAMPS
- C COMPACT FLUORESCENT
- D LED/SOLID STATE LIGHTING
- F FLUORESCENT
- H HIGH/LOW PRESSURE SODIUM
- L LINE VOLTAGE (ALL OTHER LINE VOLTAGE)
- M METAL HALIDE
- N NEON / COLD CATHODE
- P LINE VOLTAGE PAR LAMPS / PENDANT
- R LOW VOLTAGE REFLECTOR LAMPS (E.G. MR16, AR111)
- S SURFACE MOUNT
- T TRACK/CABLE LIGHTING SYSTEMS (NOT TRACK HEADS THEMSELVES)
- V LOW VOLTAGE - MINIATURE LAMPS/STRIPLIGHTS
- W WALL MOUNT
- Y MERCURY VAPOR
- Z MISCELLANEOUS/SPECIALTY

ADDITIONAL NOTES:
1. A 2-LETTER CODE IS FOLLOWED BY A NUMBER, DENOTING DIFFERENT FIXTURE TYPES. (E.G. 'RR1' IS A DIFFERENT STYLE OF LIGHT FIXTURE THAN 'RR2')
2. SUBTLE VARIATIONS BETWEEN FIXTURES MAY BE NOTED WITH A 4TH LETTER CHARACTER (E.G. 'RR1' IS A RECESSED DOWNLIGHT, WHILE 'RR1A' IS AN IDENTICAL FIXTURE WITH A MINOR VARIATION SUCH AS A DIFFERENT REFLECTOR COLOR, LAMPING OR ACCESSORY)
3. WHERE POSSIBLE, THE 4TH LETTER DESIGNATION MAY INFER THE ACCESSORY TYPE (E.G. 'RR1G' MAY BE A RECESSED DOWNLIGHT WITH GREEN COLOR FILTER)

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	FINISH	LAMP(S)	REMARKS	MANUFACTURER & NO.
A1 / 51	RECESSED MOUNTED. 2'x4' LED W/0-10VDC DIMMABLE DRIVER.	-	LED 51.4W	UNV	LITHONIA LIGHTING #2ALL4 49L D50 LP835/ NULITE #L2D-4-50-L35-UNV-DIM METALUX #24EN-LD1-49-UNV-L835-CD1-U
A3 / 51	RECESSED MOUNTED. 1'x4' LED W/0-10VDC DIMMABLE DRIVER.	-	LED 51.4W	UNV	LITHONIA LIGHTING #ALL4 49L D50 LP835/ NULITE #L2D-4-50-L35-UNV-DIM METALUX #14EN-LD1-43-UNV-L835-CD1-U
A4 / 51	RECESSED MOUNTED. 1'x4' LED W/0-10VDC DIMMABLE DRIVER.	-	LED 84W	UNV	BEGHELLI #BS100LED4SA80WWT35277SS TEXAS FLUORESCENT #CIT4BLRWB0000LDMV35KSSEMB METALUX #4VT2BDRUNVL835WLSSLEM (LOCATION CAR WASH AREA).
A5 / 28	SUSPENDED CEILING.	-	(2)T5 28W	UNV	RIG-A-LITE#MHDAT242 U P BEGHELLI #HZ100T5 4 HT 228W 120/277 CH/CROUSE HINDS #SPA 42671XX CLASS 1 DIV. 2 HAZARDOUS LOCATION FIXTURE. (LOCATION IN FUEL ISLAND AREA).
A7 / 192	SURFACE MOUNTED. DAMP LISTED LED HIGH BAY FIXTURE. W/0-10VDC DIMMABLE DRIVER.	BY ARCHITECTURE	LED 192W	UNV	LITHONIA LIGHTING #IBL 18L WD LP740 DECO #DHBXLED18040RUNVFINISHDMMTG METALUX #HBLED-LD4-18-N2A-UNV-L840-CD2 (LOCATION IN MAINTENANCE BAYS).
C / 41	RECESSED MOUNTED. 6" APERTURE RECESSED LED DOWNLIGHT WITH SEMI-SPECULAR REFLECTOR AND 10VDC DIMMABLE DRIVER.	-	LED 41W	UNV	FOCAL POINT #FL6D-R0-30LED-35K-277-LD1-T-XX-L6-RD-DN-XX ATLANTIC #LED6-DLM15-X-6LED10CL HALO #PDM12ED01D-PDM5835-61VC
E / 3.2	EXIT SIGN, SINGLE FACE EXIT SIGN WITH DIE CAST ALUMINUM HOUSING, BLACK TRIM AND BATTERY BACK-UP, PROVIDE EXIT SIGN WITH CHEVRONS AS INDICATED ON DRAWINGS.	-	LED 3.2W	UNV	LITHONIA LIGHTING #TLE1REL N DECO #DCK-R-1-A-BL-EM/ SURELITES #CX-71-R
G1 / 53	SURFACE MOUNTED. TOPTIER PARKING GARAGE FIXTURE IS BASIS OF DESIGN.	-	LED 53W	UNV	LITHONIA LIGHTING #DSXPG LED 20C 700 50K T5W MVOLT SRM DWHXP MCGRAW EDISON #TT A3 LED E1 WQ/CREE #PKG-EDG/ LSI #XPGSD-5-LED50-450-CW-UE-XX
R / -	SURFACE MOUNTED.	-	LED 12W PER SQ. FT.	UNV	TIVOLI LIGHTING, ILLUMIWALL, LED BACKLIGHTING SYSTEM.
S1 / 41	4' SUSPENDED STRIP WITH 10VDC DIMMABLE DRIVER. REFER TO ARCHITECTURE DRAWINGS FOR MOUNTING HEIGHTS.	-	LED 12W PER SQ. FT.	UNV	LITHONIA LIGHTING #ZL1NL48 5000LM FST MVOLT 35K 80CRI. DECO #DCH-LED-4-4S-35-UNM-DM METALUX SNLED-LED-50-LW-UNV-L835-CD1
SP / -	(1)FULL CUTOFF AREA LIGHT MOUNTED TO 25' POLE WITPE 3 OPTICS AND 1 FIXTURE AT 90 DEGREES.		N.A	McGraw Edison - GLEON-AE-05-LED-E1-T4FT	LITHONIA #DSXO LED 30C 700 50K T3M MVOLT R90 SSS 20 4G DM19AS DDB McGraw Edison - GLEON-AE-05-LED-E1-T4FT
SP1 / -	(1)FULL CUTOFF AREA LIGHT MOUNTED TO 12' POLE WITPE 3 OPTICS AND 1 FIXTURE AT 90 DEGREES.		N.A	UNV	VALMONT DS330-S400Q120-D1-FP-DB
ST / -	SURFACE MOUNTED. 4" LOW PROFILE STAIRWELL LED FIXTURE WITH EMERGENCY BATTERY PACK.	-	N.A	UNV	LITHONIA #WL4-30-LP835 MSD7 EL14L DECO #DSBL-C-LED-BL-4-45-UNV-MV-PA-EM
SW / -	SURFACE MOUNTED. FULL CUTOFF WALL MOUNT LED LUMNAIRE	-	N.A	UNV Lumark - XTOR9A	LITHONIA #DSXW2 LED 30C 700 40K T3M MVOLT DDBXD/ US ENERGY #WAS-03-90W/LUMARK #XTOR90A
	-	-	-	UNV	-
	-	-	-	UNV	-

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 Oceangate, Suite 1000, Long Beach, CA 90802
T 562.628.0008 F 562.628.0020
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY _____ CHIEF AIRPORTS ENGINEER

SUBMITTED BY _____ ASST. CHIEF AIRPORTS ENGINEER

LAX ONT PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

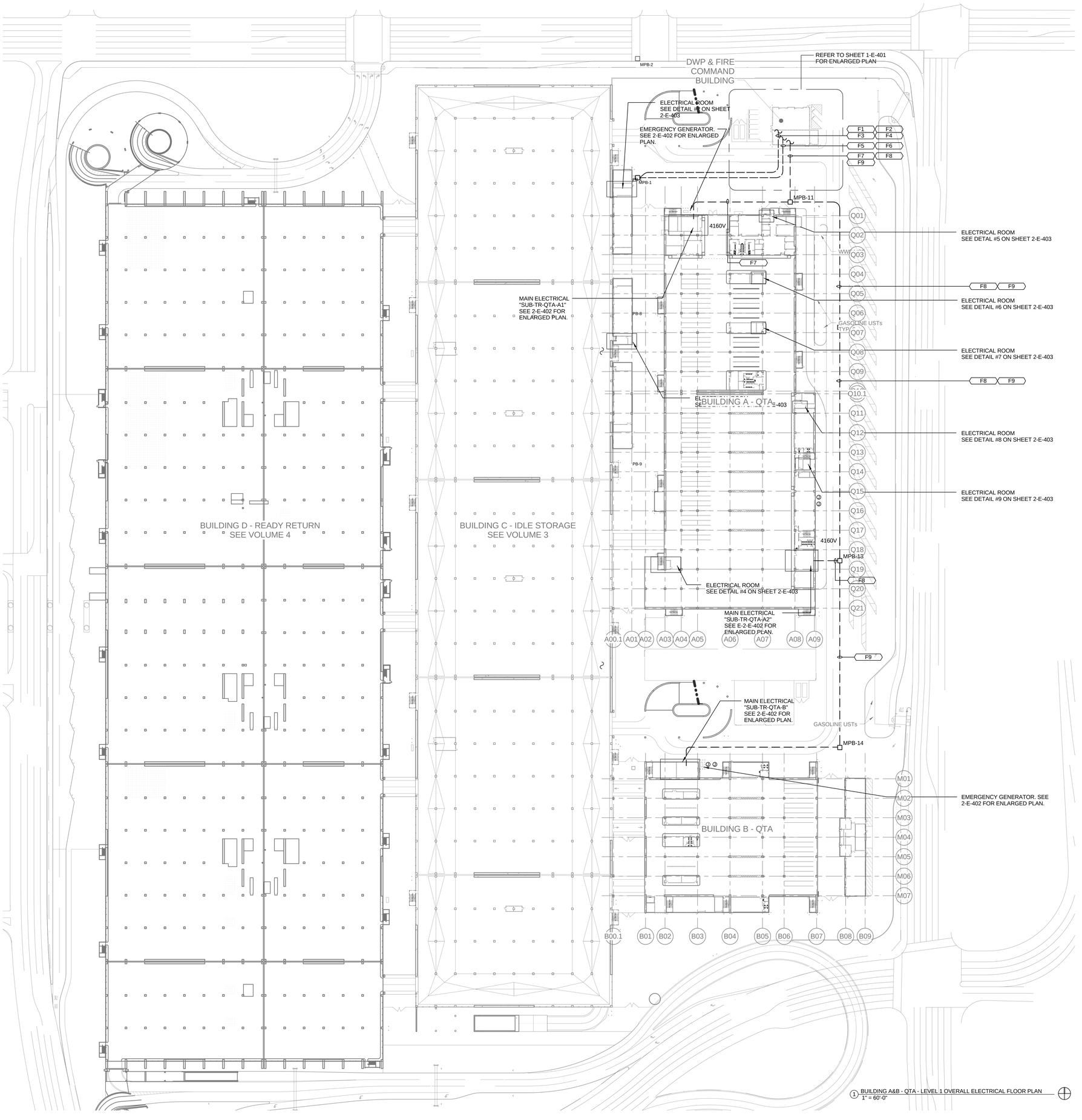
SHEET TITLE:

LIGHTING GENERAL NOTES AND FIXTURE SCHEDULES

SHEET NO.

2-E-009

C:\Users\Penny\Documents\2015-PBS-REVIT-PROJECT\2015-06\7-00-RE-VIT-2015EEEC-DA4881-BLDG_A_B R15.rvt
9/21/2016 4:18:12 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 1 OVERALL ELECTRICAL FLOOR PLAN
1" = 60'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
3530 East Ana St, Suite 100, Compton, CA 90221
T 310.638.0500 F 310.638.0501
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1 OVERALL FLOOR PLAN

SHEET NO.

2-E-010

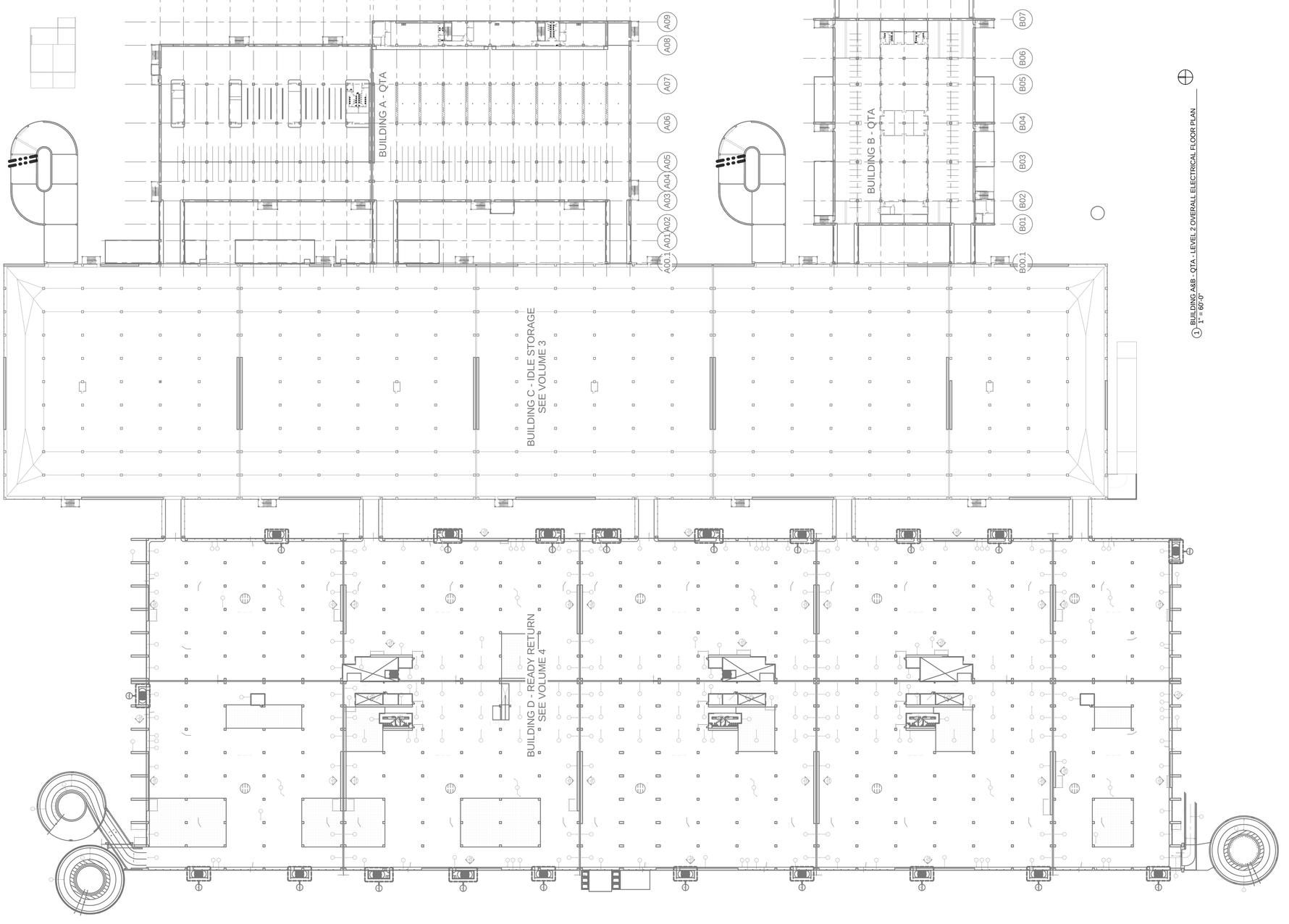
KEYPLAN

D C A B

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\0315-067-SD-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt

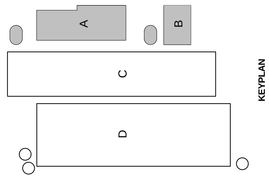
9/21/2016 4:18:18 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 2 OVERALL ELECTRICAL FLOOR PLAN
1" = 60'-0"

KEYPLAN



REVISIONS:			
MARK	DATE	DESCRIPTION	

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

Los Angeles International Airport

LAX Consolidated Rental Car Facility

Project

Los Angeles World Airports

LAX MASTER PLAN

JOB NO:	DeA8ah
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE: QTA LEVEL 2 OVERALL FLOOR PLAN

SHEET NO. 2-E-020

CONSULTANTS:

PBS ENGINEERS
3100 East Ryan Rd, Suite 101 Oakbrook, CA 91748
T 626.6260200 F 626.6260202
Job No. 2015-067-00 www.pbsengineers.com
Technical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:18:22 PM C:\Users\hlevy\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015\ELEC-DA#881-BLDG_A_B-R15.rvt

CONSULTANTS:

PBS ENGINEERS
2100 East Route 66, Suite 100, Glendora, CA 91740
T 626.6260200 F 626.6260202
Los Angeles Interntional Airport Terminal Expansion

TransSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

LAX Consolidated Rental Car Facility

Project

Los Angeles World Airports

Los Angeles International Airport

CHIEF AIRPORTS ENGINEER

ONT LAX PMD

MARK	DATE	DESCRIPTION

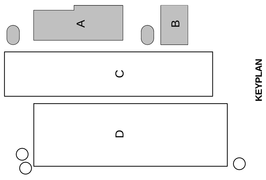
REVISIONS:

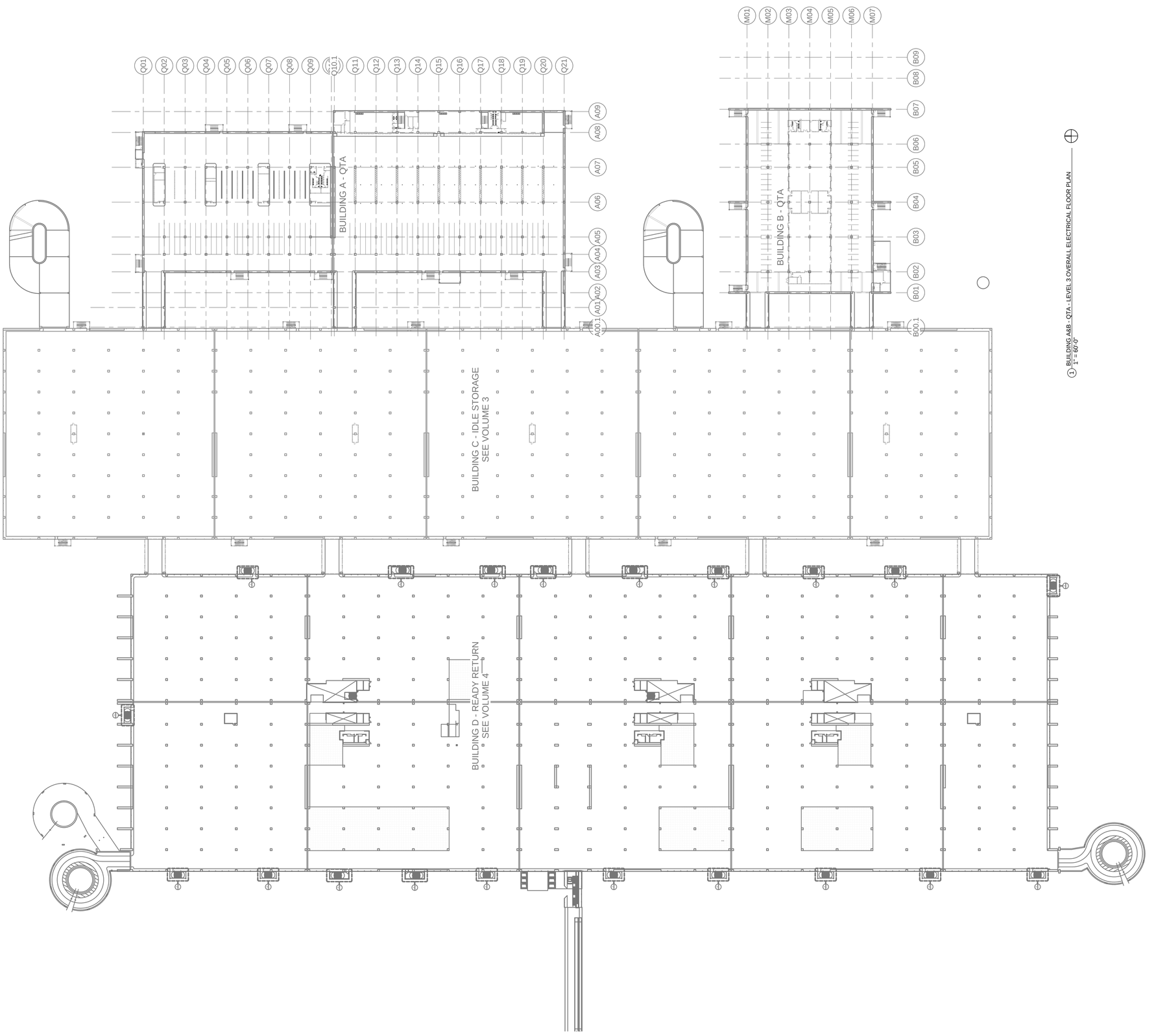
DRAWN: DeAlan
SCALE: 1" = 60'-0"
DATE: 09/23/2016
DESIGNED BY: P.P.
DRAWN BY: H.L.
CHECKED BY: K.S.

SHEET TITLE: QTA LEVEL 3 OVERALL FLOOR PLAN

SHEET NO. 2-E-030

KEYPLAN

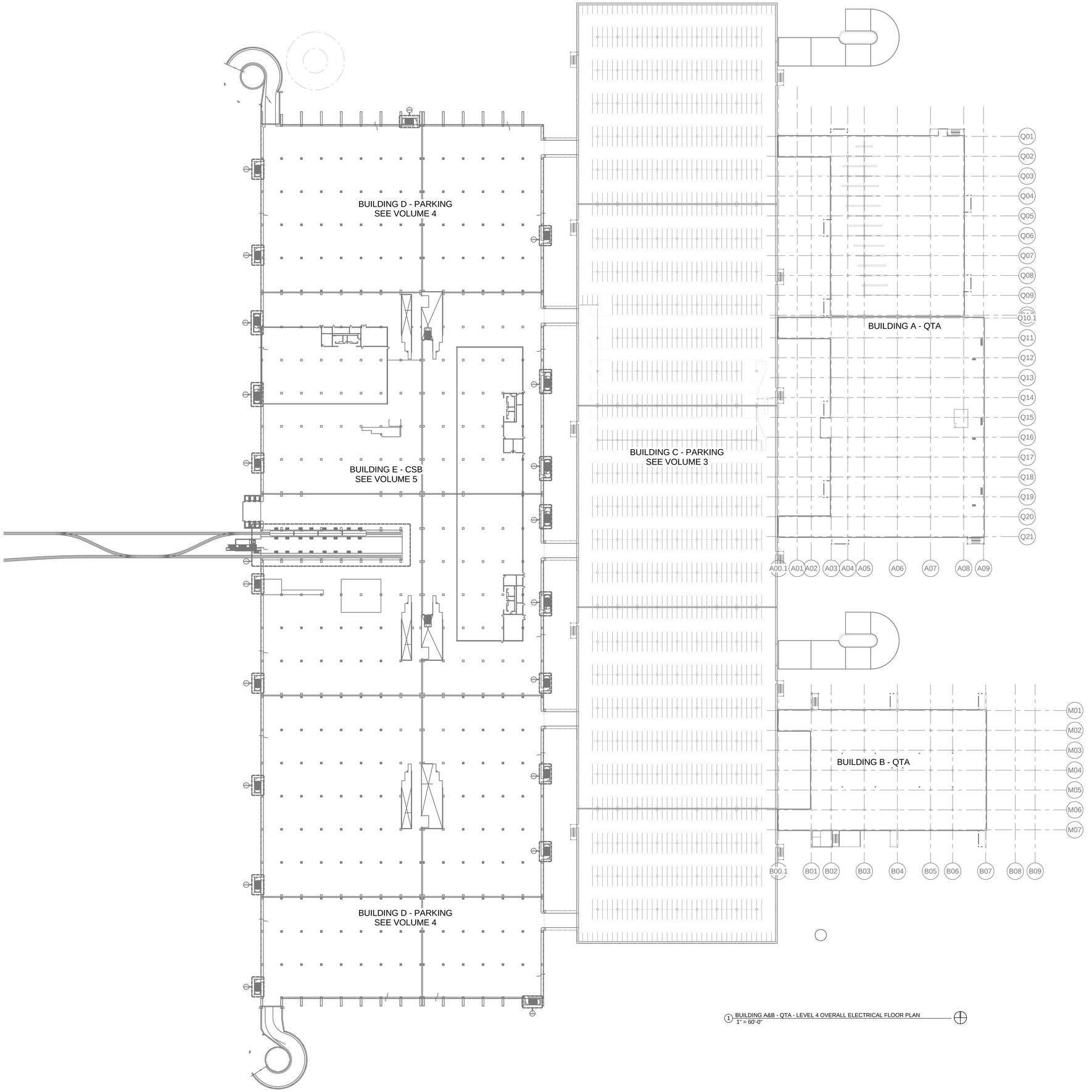




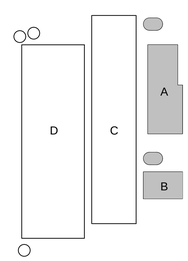
1 BUILDING A&B - QTA - LEVEL 3 OVERALL ELECTRICAL FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:18:27 PM C:\Users\pkeny\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015ELEC-DA4681-BLDG_A_B-R15.rvt



1 BUILDING A&B - QTA - LEVEL 4 OVERALL ELECTRICAL FLOOR PLAN
1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
1000 East Acacia, Suite 100, Ontario, CA 91764
T 909.466.0000 F 909.466.0001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

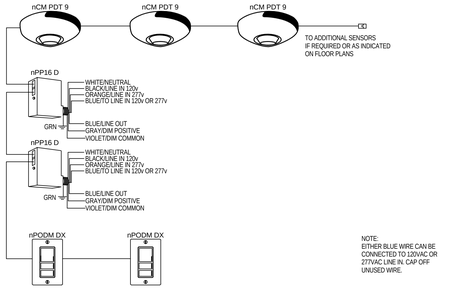
QTA LEVEL 4 OVERALL FLOOR PLAN

SHEET NO.

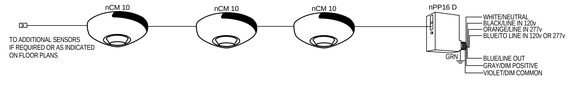
2-E-040

C:\Users\hwry\Documents\2015-PBS-REVIT PROJECT\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt
9/21/2016 4:18:31 PM

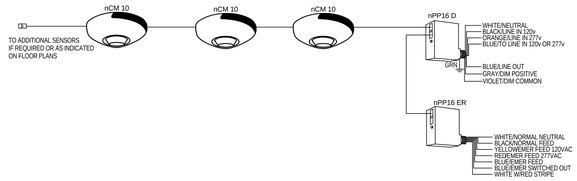
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



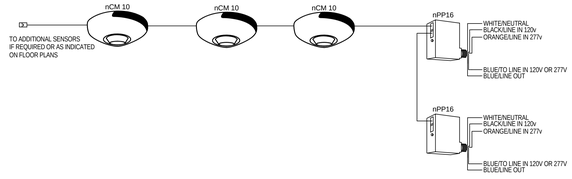
N/S TWO ZONE CONTROLLER w/ DIMMER CONTROL



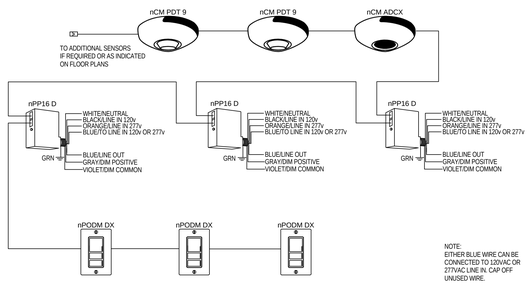
N/S TYPICAL CORRIDOR



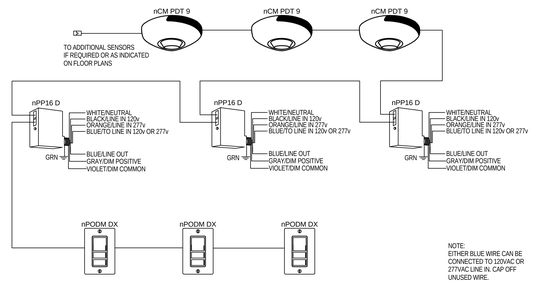
N/S TYPICAL CORRIDOR w/ EMERGENCY



N/S TYPICAL CORRIDOR / 2 CIRCUITS



N/S THREE ZONE CONTROLLER w/ DIMMER CONTROL w/ DAYLIGHT CONTROL



N/S THREE ZONE CONTROLLER w/ DIMMER CONTROL

FOR REFERENCE ONLY

NOTE: FINAL LIGHTING CONTROL DESIGN TO BE COORDINATED AND SELECTED BASED ON COORDINATION AND DETAILED INPUT FROM TRADE PARTNER. INFORMATION PROVIDED TO OUTLINE DESIGN INTENT

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ocean Blvd., Suite 200, Long Beach, CA 90802
T 562.432.2000 F 562.432.2001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

LIGHTING CONTROL DIAGRAM

SHEET NO.

2-E-301

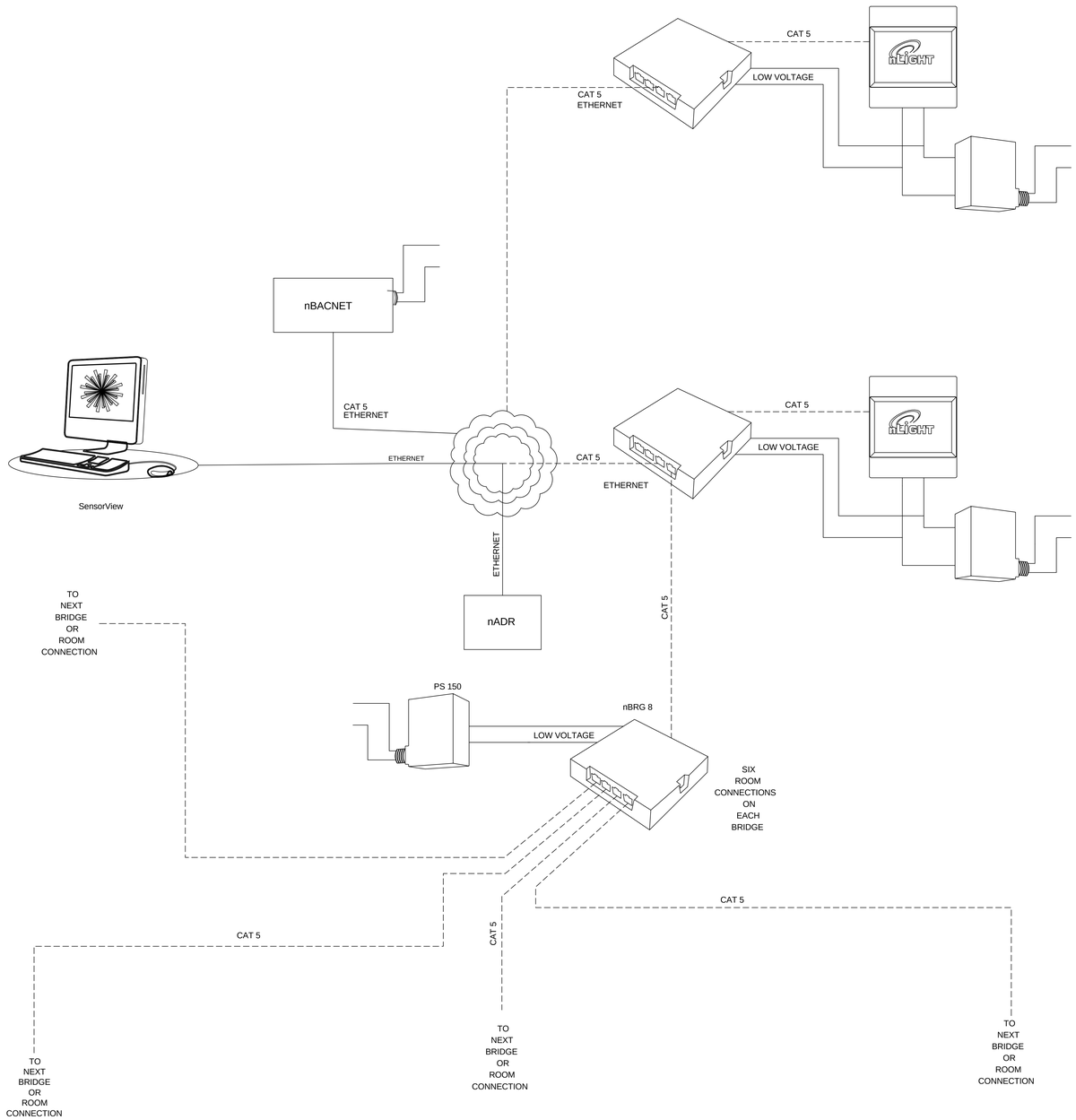
C:\Users\henry\Documents\2015-PBS-REVIT PROJECT\2015-067.00-REVIT 2015\ELEC\ DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:18:32 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

NOTES

1) IF TOTAL BUILDING SQUARE FOOTAGE IS >10,000 SQ.FT. AUTOMATIC DEMAND RESPONSE IS REQUIRED FOR 2013 T24. *per section 130.1(E)

2) PRODUCTS CAN MEET ANY AND ALL T24 REQUIREMENTS, MUST BE CONFIGURED APPROPRIATELY.



FOR REFERENCE ONLY

NOTE: FINAL LIGHTING CONTROL DESIGN TO BE COORDINATED AND SELECTED BASED ON COORDINATION AND DETAILED INPUT FROM TRADE PARTNER. INFORMATION PROVIDED TO OUTLINE DESIGN INTENT.

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ninth St., Ste 100, Cleveland, OH 44114
T 216.623.0556 F 216.623.0570
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE:

LIGHTING CONTROL DIAGRAM

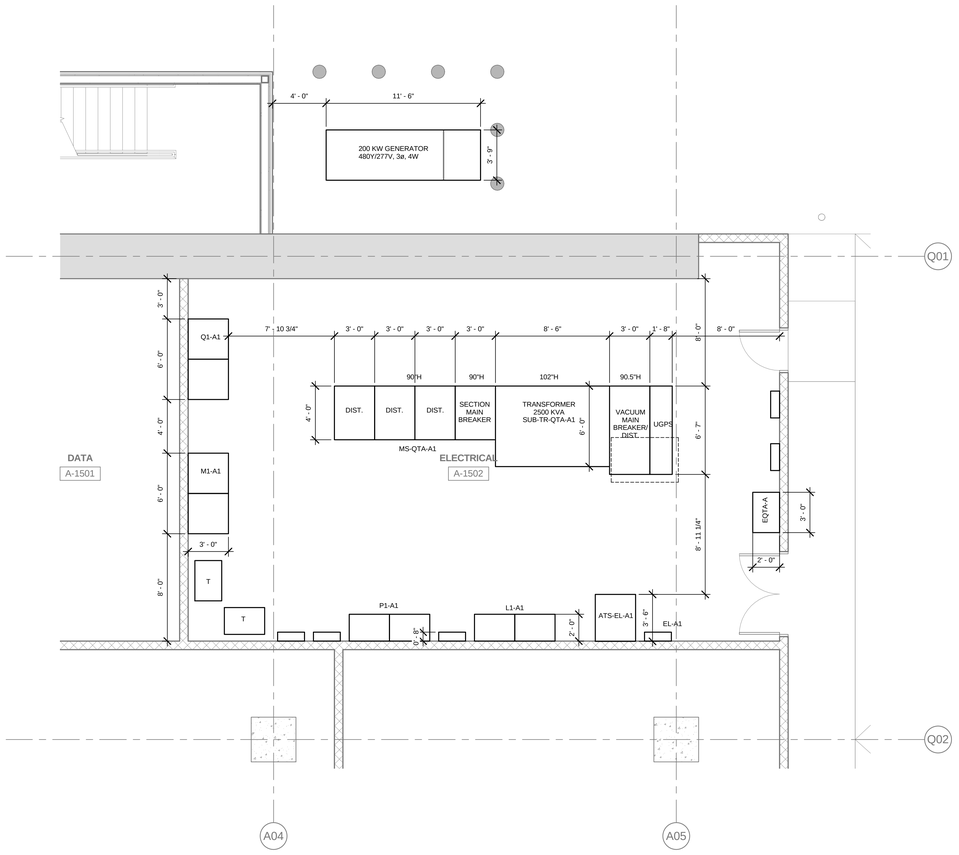
SHEET NO.

2-E-302

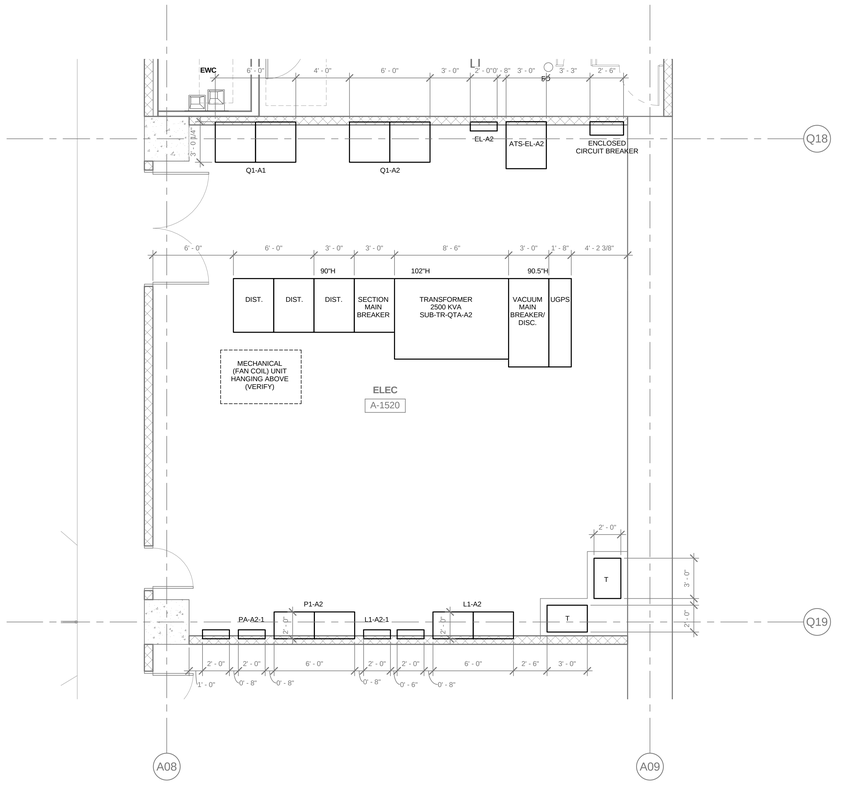
C:\Users\henry\Documents\2015-PBS-REVIT-PROJECTS\2015-06\7-00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:18:33 PM

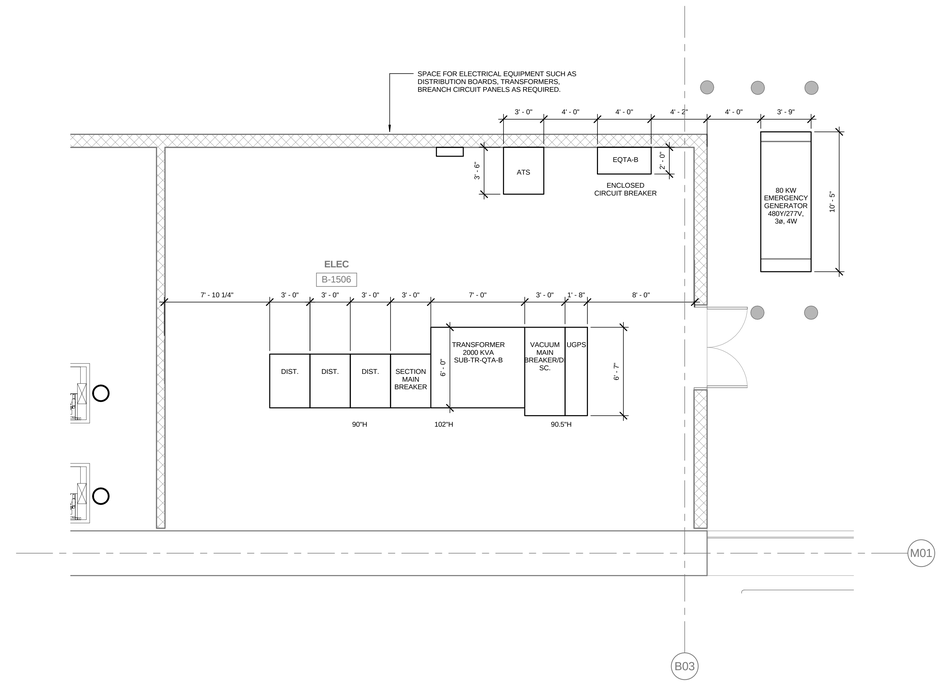
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA-A1 - LEVEL 1 - "SUB-TR-QTA-A1" - ENLARGED ELECTRICAL ROOM A-1502
1/4" = 1'-0"



2 BUILDING A - QTA-A2 LEVEL 1 - "SUB-TR-QTA-A2" - ENLARGED ELECTRICAL ROOM A-1520
1/4" = 1'-0"



3 BUILDING B - QTA-B LEVEL 1 - "SUB-TR-QTA-B" - ENLARGED ELECTRICAL ROOM B-1506
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 100, Long Beach, CA 90802
P 562.432.2000 F 562.432.2001
Electrical Mechanical Plumbing Engineers
www.pbsengineering.com

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

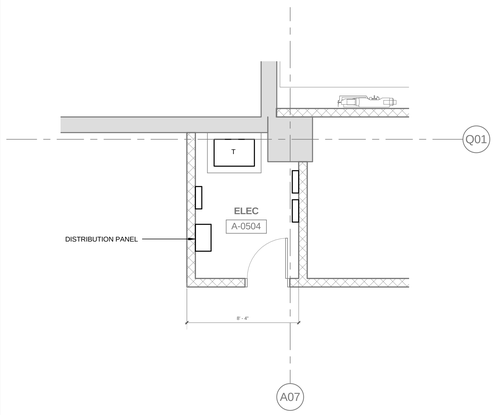
PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
ENLARGED ELECTRICAL ROOMS

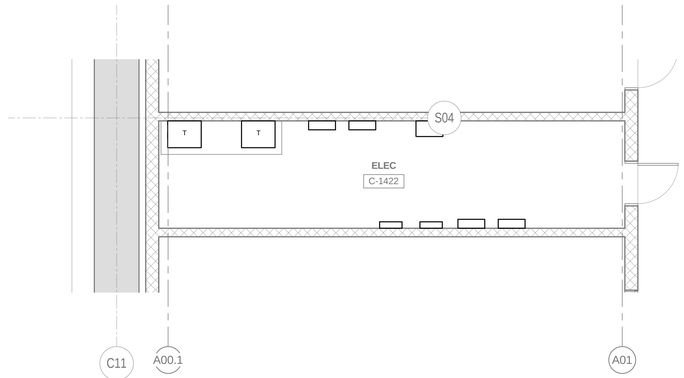
SHEET NO.
2-E-402

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

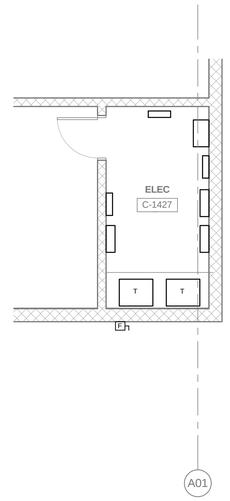
9/21/2016 4:18:34 PM
C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt



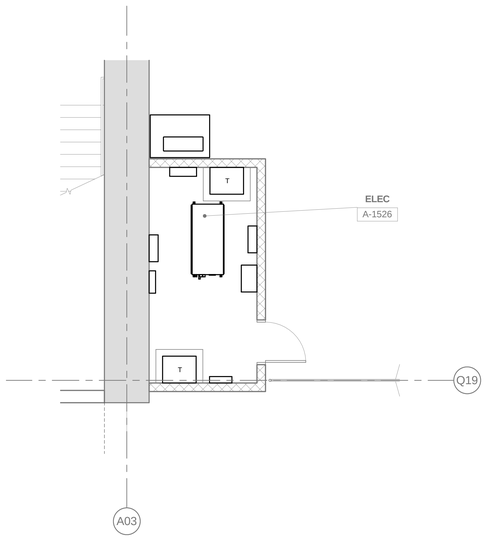
1 BUILDING A - QTA - LEVEL 0 ENLARGED PLAN ELECTRICAL ROOM A-0504 - PART A5
1/4" = 1'-0"



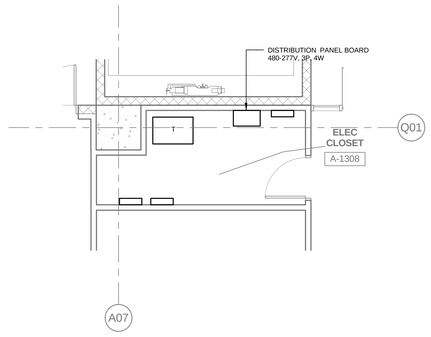
2 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN ELECTRICAL ROOM C-1402 - PART A1
1/4" = 1'-0"



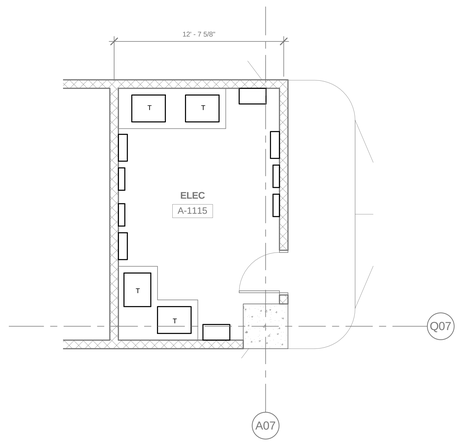
3 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN ELECTRICAL ROOM A-14XX - PART A2
1/4" = 1'-0"



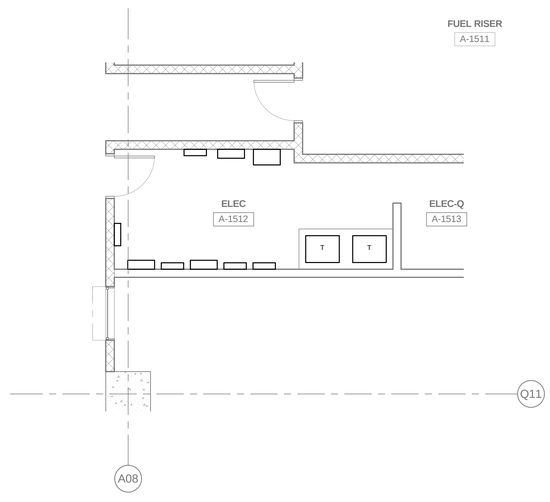
4 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN ELECTRICAL ROOM A-1526 - PART A4
1/4" = 1'-0"



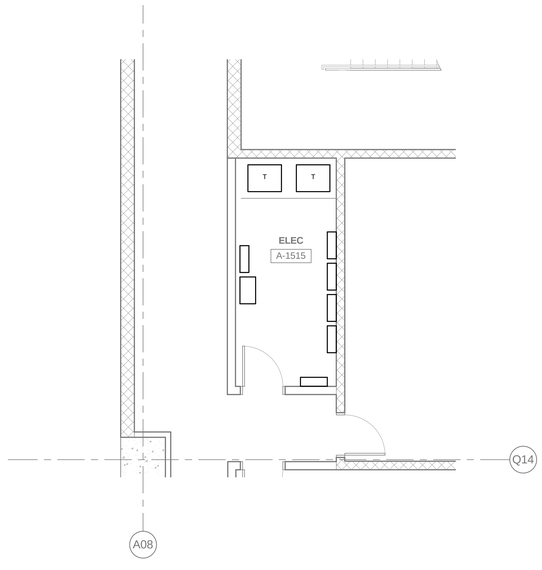
5 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN ELECTRICAL ROOM A-1308 - PART A5
1/4" = 1'-0"



6 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN ELECTRICAL ROOM A-1115 - PART A6
1/4" = 1'-0"



7 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN ELECTRICAL ROOM A-1512 - PART A7
1/4" = 1'-0"



8 BUILDING A - QTA - LEVEL 1 ENLARGED PLAN ELECTRICAL ROOM A-1515 - PART A7
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 Oceangate, 6th Floor, Long Beach, CA 90802
T 562.628.0000 F 562.628.0001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L
CHECKED BY:	K.S.

SHEET TITLE:

BUILDING A - QTA
LEVEL 1 ENLARGED
ELECTRICAL ROOMS

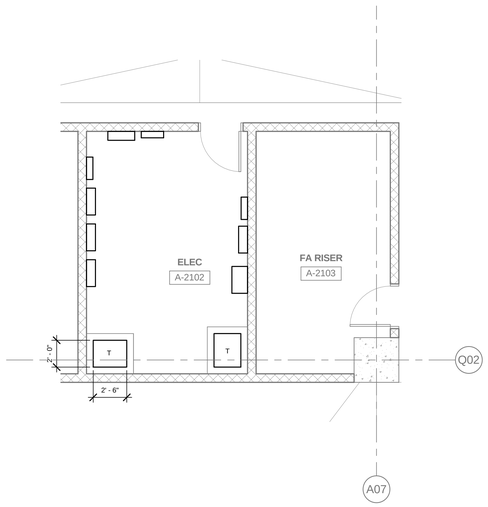
SHEET NO.

2-E-403

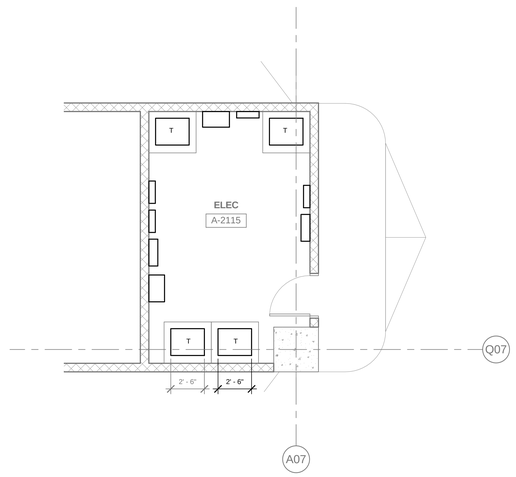
C:\Users\Henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015\ELEC-DA4881-BLDG_A_R15.rvt

9/21/2016 4:18:37 PM

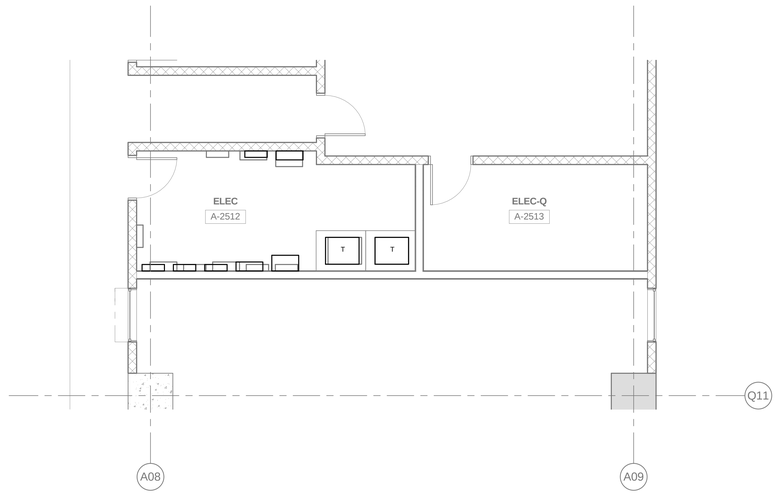
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



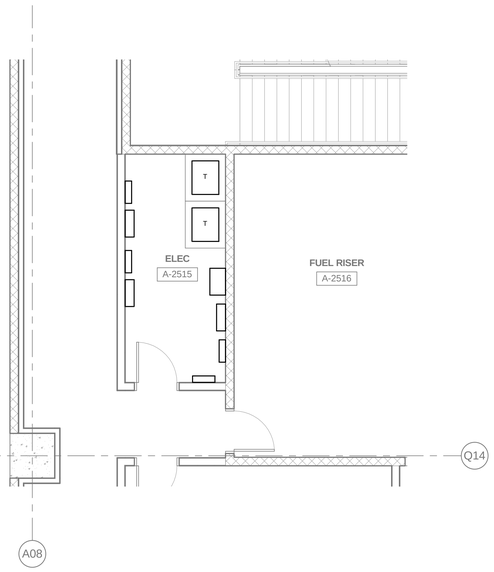
1 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN ELECTRICAL ROOM A-2102 - PART A5
1/4" = 1'-0"



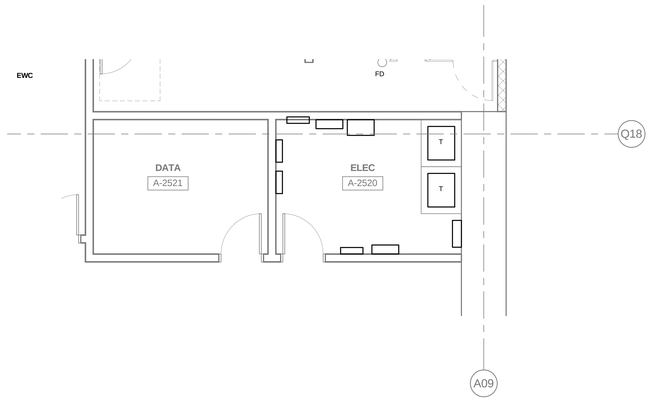
2 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN ELECTRICAL ROOM A-2115 - PART A6
1/4" = 1'-0"



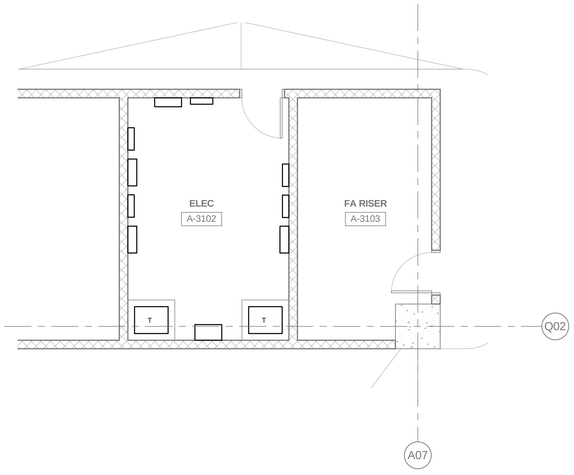
3 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN ELECTRICAL ROOM A-2512 - PART A7
1/4" = 1'-0"



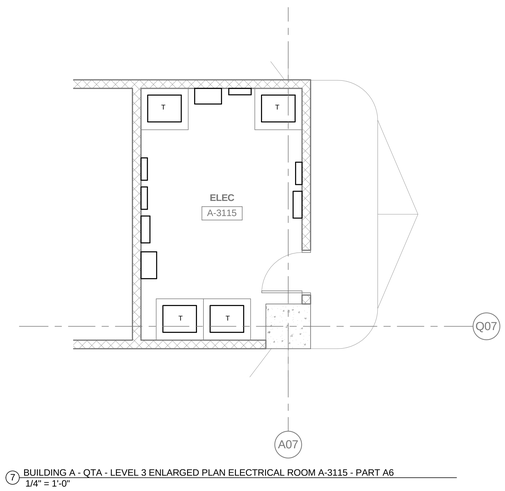
4 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN ELECTRICAL ROOM A-2515 - PART A7
1/4" = 1'-0"



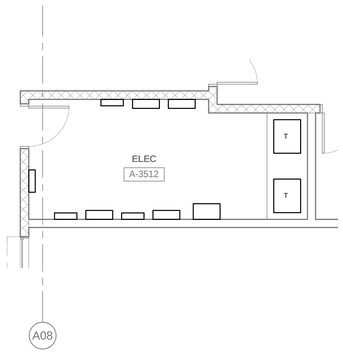
5 BUILDING A - QTA - LEVEL 2 ENLARGED PLAN ELECTRICAL ROOM A-2520 - PART A8
1/4" = 1'-0"



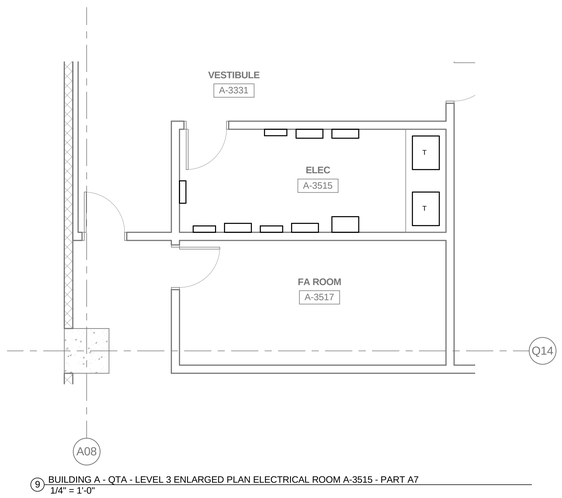
6 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN ELECTRICAL ROOM A-3102 - PART A5
1/4" = 1'-0"



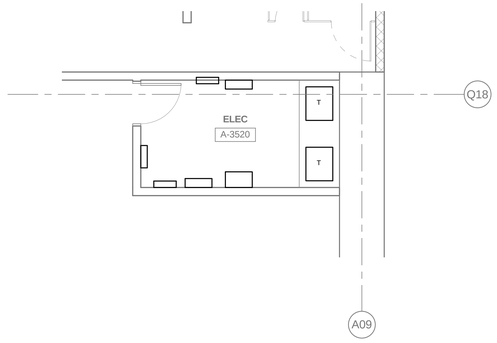
7 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN ELECTRICAL ROOM A-3115 - PART A6
1/4" = 1'-0"



8 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN ELECTRICAL ROOM A-3512 - PART A7
1/4" = 1'-0"



9 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN ELECTRICAL ROOM A-3515 - PART A7
1/4" = 1'-0"



10 BUILDING A - QTA - LEVEL 3 ENLARGED PLAN ELECTRICAL ROOM A-3520 - PART A8
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruth A. Fuel (El Camino), CA 91776
T 626.600.0000
F 626.600.0020
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK:	DATE:	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L
CHECKED BY:	K.S.

SHEET TITLE:

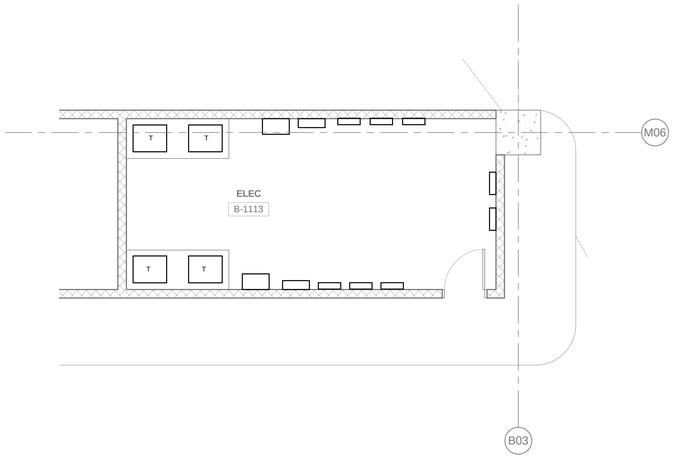
BUILDING A - QTA
LEVELS 2 & 3
ENLARGED
ELECTRICAL ROOMS

SHEET NO.

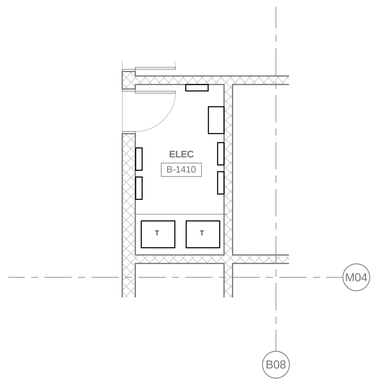
2-E-404

C:\Users\Henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:18:39 PM

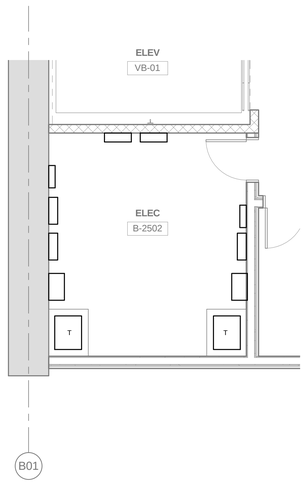
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 1 ENLARGED PLAN ELECTRICAL ROOM B-1113 - PART B2
1/4" = 1'-0"

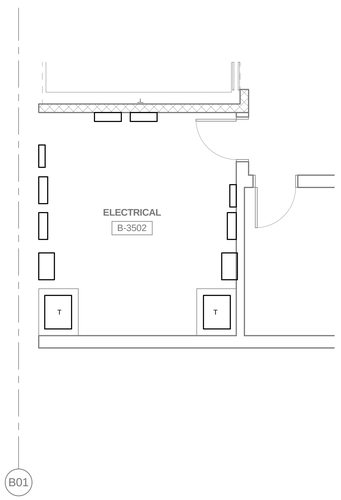


2 BUILDING B - QTA - LEVEL 1 ENLARGED PLAN ELECTRICAL ROOM B-1406 - PART B3
1/4" = 1'-0"

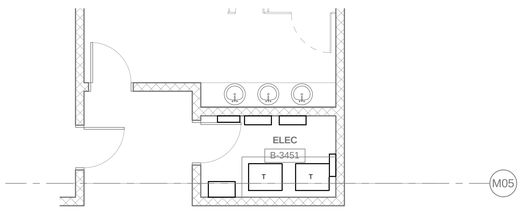


3 BUILDING B - QTA - LEVEL 2 ENLARGED PLAN ELECTRICAL ROOM B-2502 - PART B2
1/4" = 1'-0"

4 BUILDING B - QTA - LEVEL 2 ENLARGED PLAN ELECTRICAL ROOM B-2416 - PART B4
1/4" = 1'-0"



5 BUILDING B - QTA - LEVEL 3 ENLARGED PLAN ELECTRICAL ROOM B-3502 - PART B2
1/4" = 1'-0"



6 BUILDING B - QTA - LEVEL 3 ENLARGED PLAN ELECTRICAL ROOM B-3416 - PART B4
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
1000 East Acacia Ave, Suite 100, Glendora, CA 91741
T 626.852.0000 F 626.852.0001
3 Park Plaza, Suite 1000, Irvine, CA 92614 949.417.0000
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

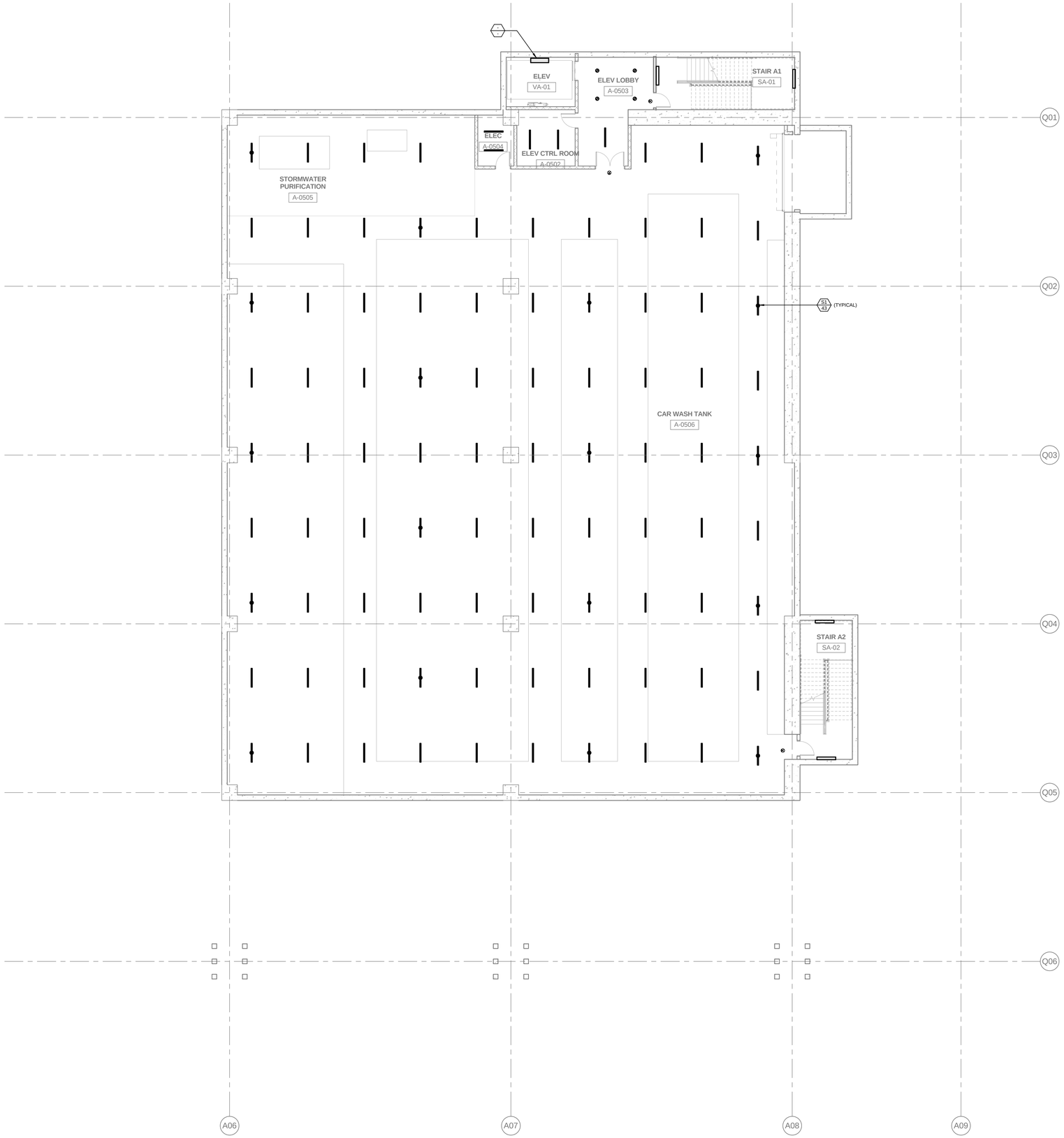
BUILDING B - QTA
ENLARGED
ELECTRICAL ROOMS

SHEET NO.

2-E-405

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt
9/21/2016 4:18:41 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 0 ENLARGED CEILING PLAN - A5
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 200, Long Beach, CA 90802
T 562.628.0008 F 562.628.0021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ON ANX
PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	Designer
DRAWN BY:	Author
CHECKED BY:	Checker

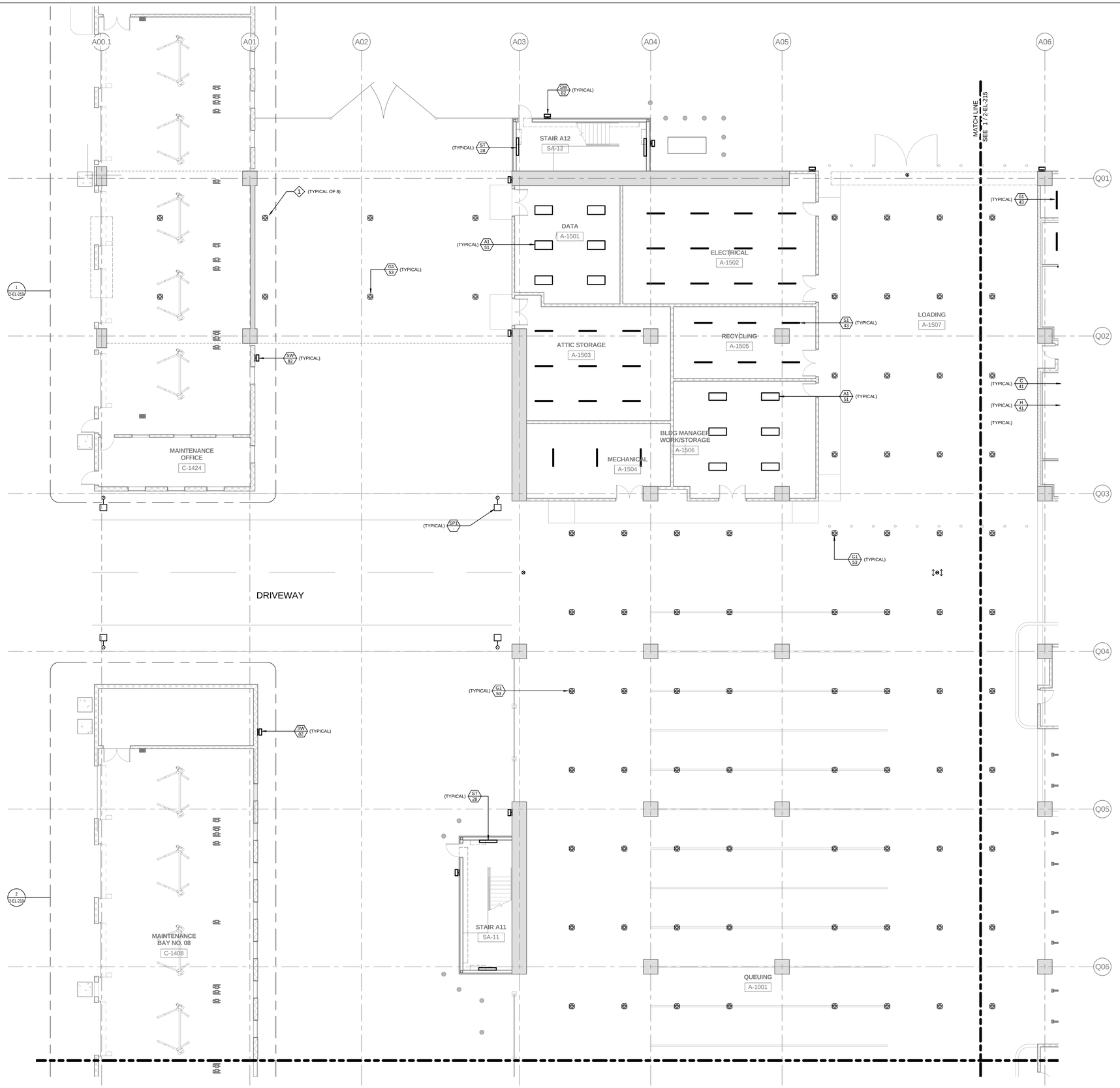
SHEET TITLE:

QTA LEVEL 0 ENLARGED CEILING PLAN - PART A5

SHEET NO.

2-EL-205

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt
9/21/2016 4:18:43 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART A1
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

KEY NOTES

1 LIGHT FIXTURES MOUNTED UNDER THE BRIDGE.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ocean Blvd., Suite 100, Long Beach, CA 90802
T 562.432.0508 F 562.432.0520
www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1
ENLARGED CEILING
PLAN - PART A1

SHEET NO.
2-EL-211

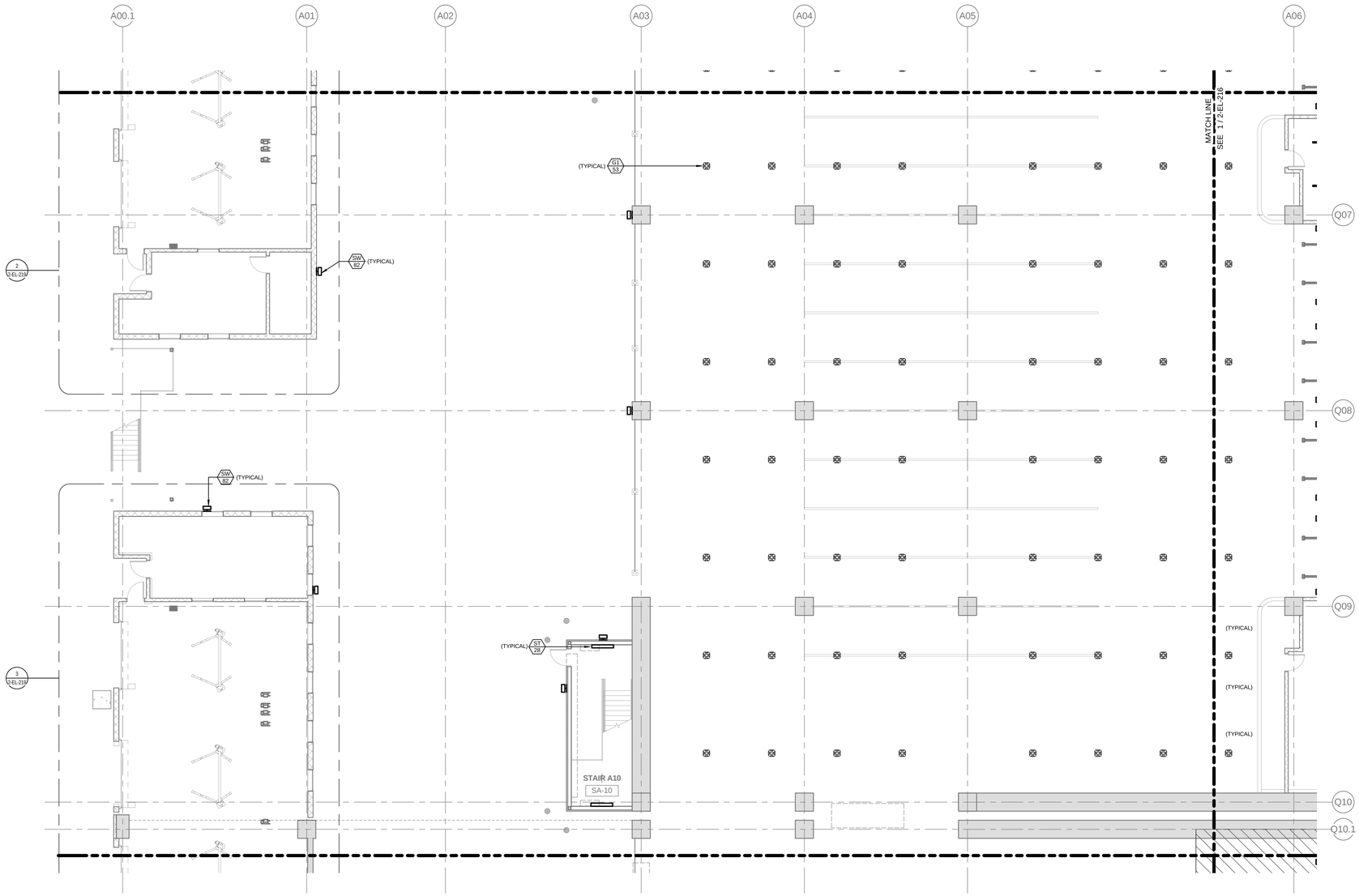
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT PROJECT\2015-04\7-00-REVIT 2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:18:45 PM



1 BUILDING A - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
3300 East Guasti Rd., Suite 100, Ontario, CA 91761
T 909.390.0006 F 909.390.0030
Electrical Mechanical Plumbing Fire Protection

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 1 ENLARGED CEILING PLAN - PART A2

SHEET NO.
2-EL-212

BUILDING A & B KEYPLAN

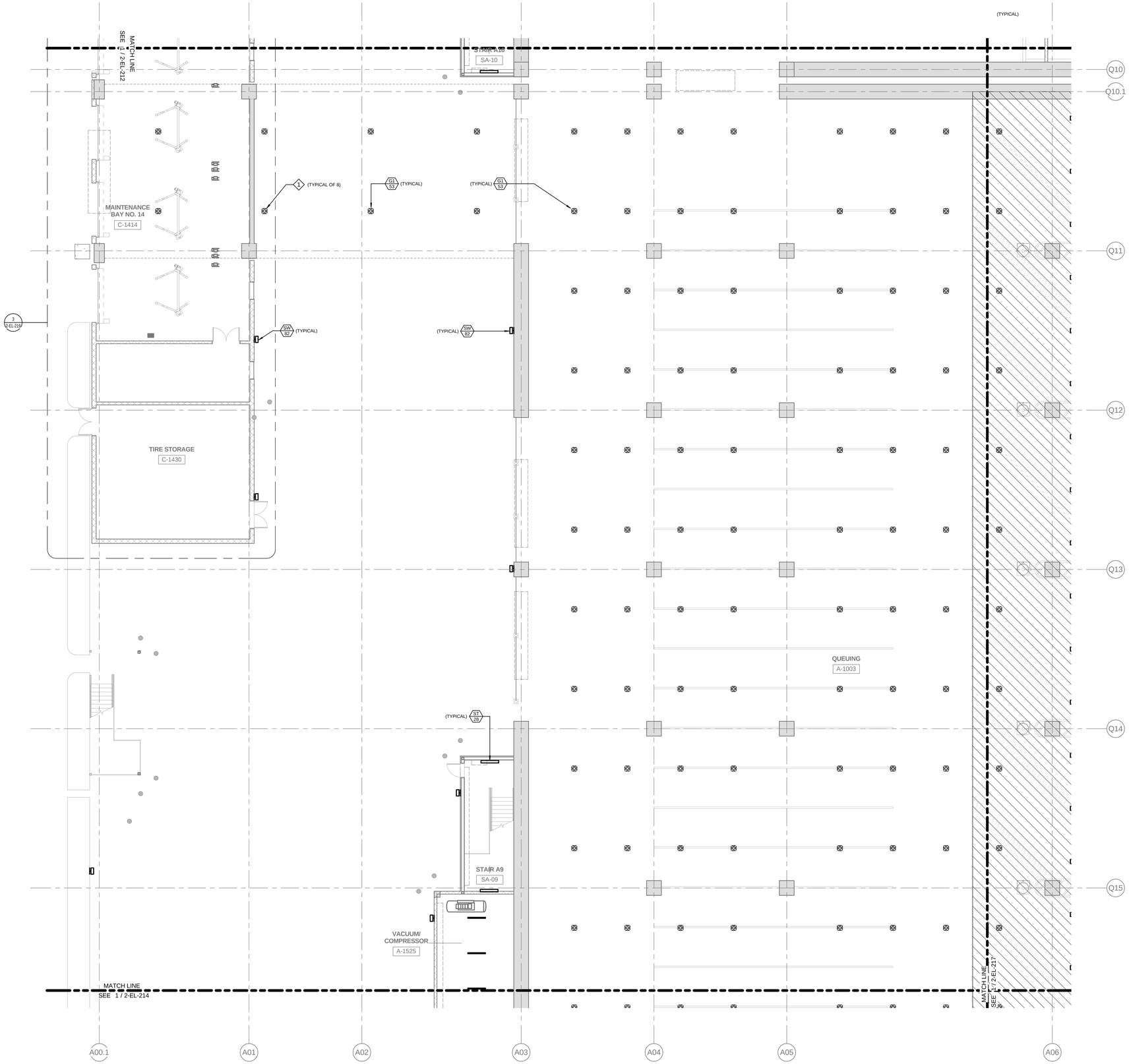
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Penny\Documents\2015-PBS-REVIT-PROJECTS\2015-06\T-00-REVIT-2015ELEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:18:47 PM



1 BUILDING A - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

KEY NOTES

1 LIGHT FIXTURES MOUNTED UNDER THE BRIDGE.

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl, E-Ave 05 Gentry, CA 91740
T 626.8600000
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1 ENLARGED CEILING PLAN - PART A3

SHEET NO.

2-EL-213

BUILDING A & B KEYPLAN

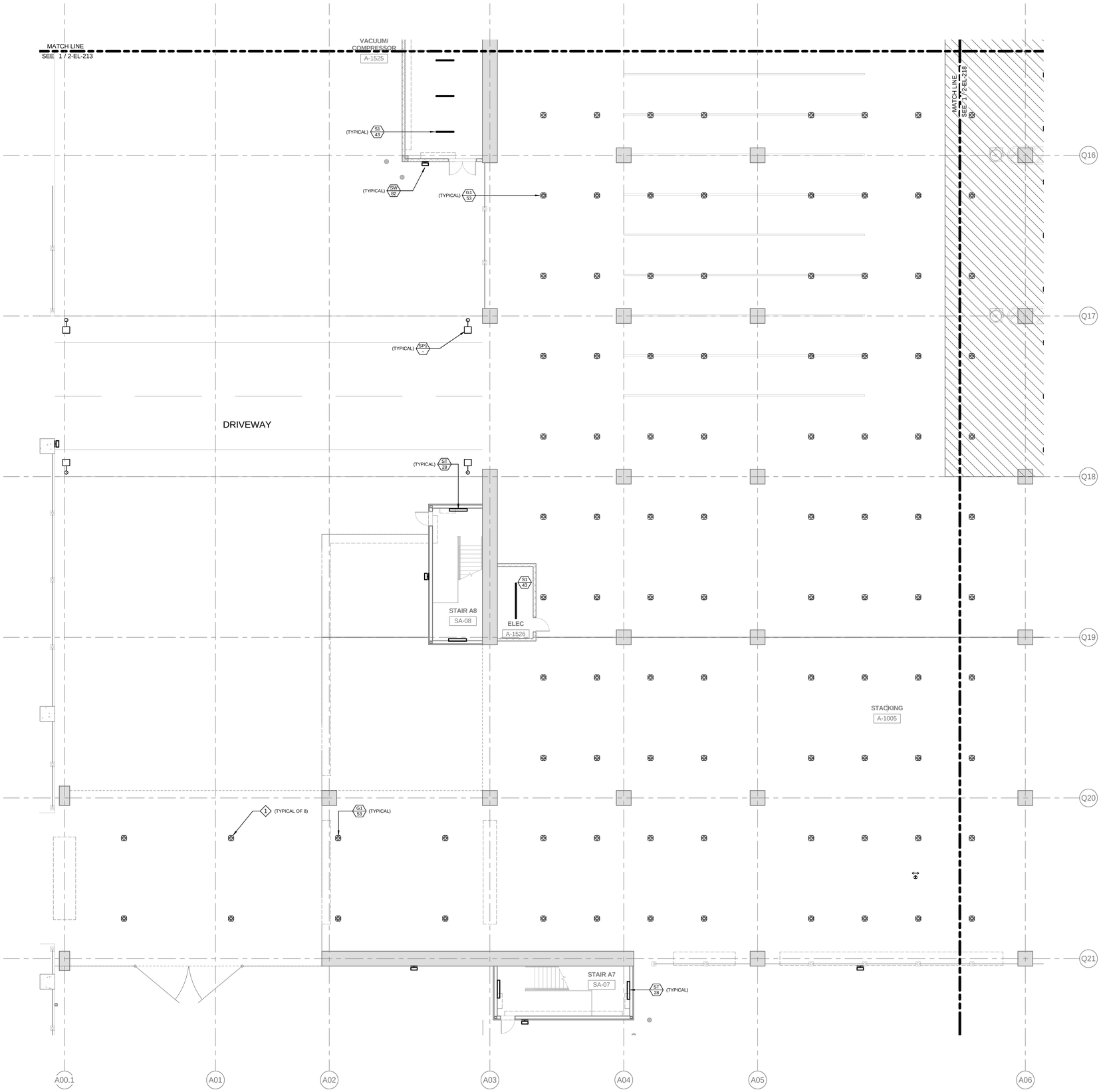
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015_06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:18:50 PM



1 BUILDING A - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

KEY NOTES

1 LIGHT FIXTURES MOUNTED UNDER THE BRIDGE.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl, E-Ave 05 Gentry, CA 91740
T 626.600.0000
www.pbsengineering.com
Electrical Electrical Planning | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1
ENLARGED CEILING
PLAN - PART A4

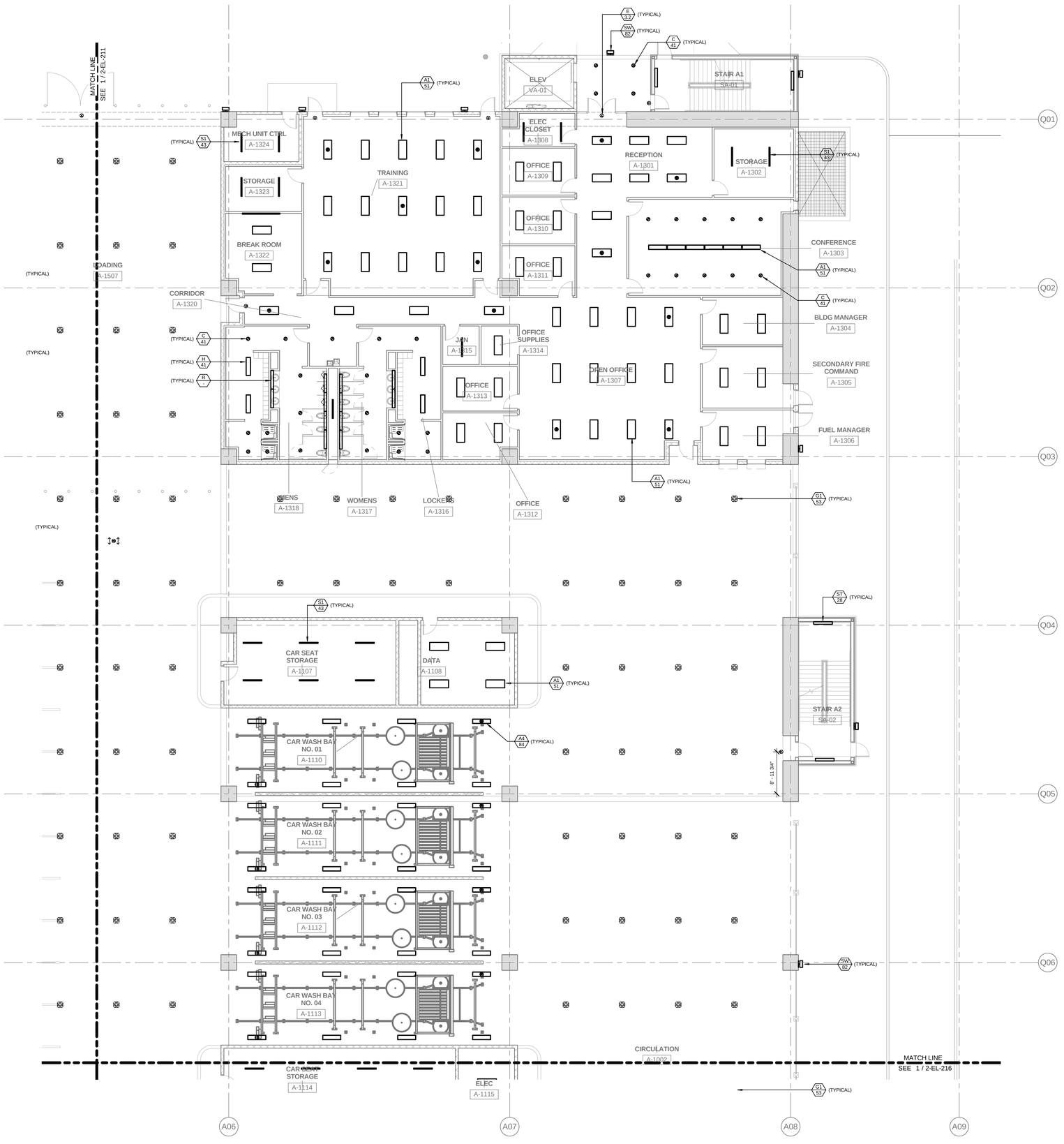
SHEET NO.
2-EL-214

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\PennyI\Documents\20315-PBS-REVIT-PROJECT\20315-067-03-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:18:52 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl, E-Fuel 05 Gentry, CA 91740
T 626.8000
F 626.8000
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

JOINT PMD — ANA — LAX

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 1 ENLARGED CEILING PLAN - PART A5

SHEET NO.
2-EL-215

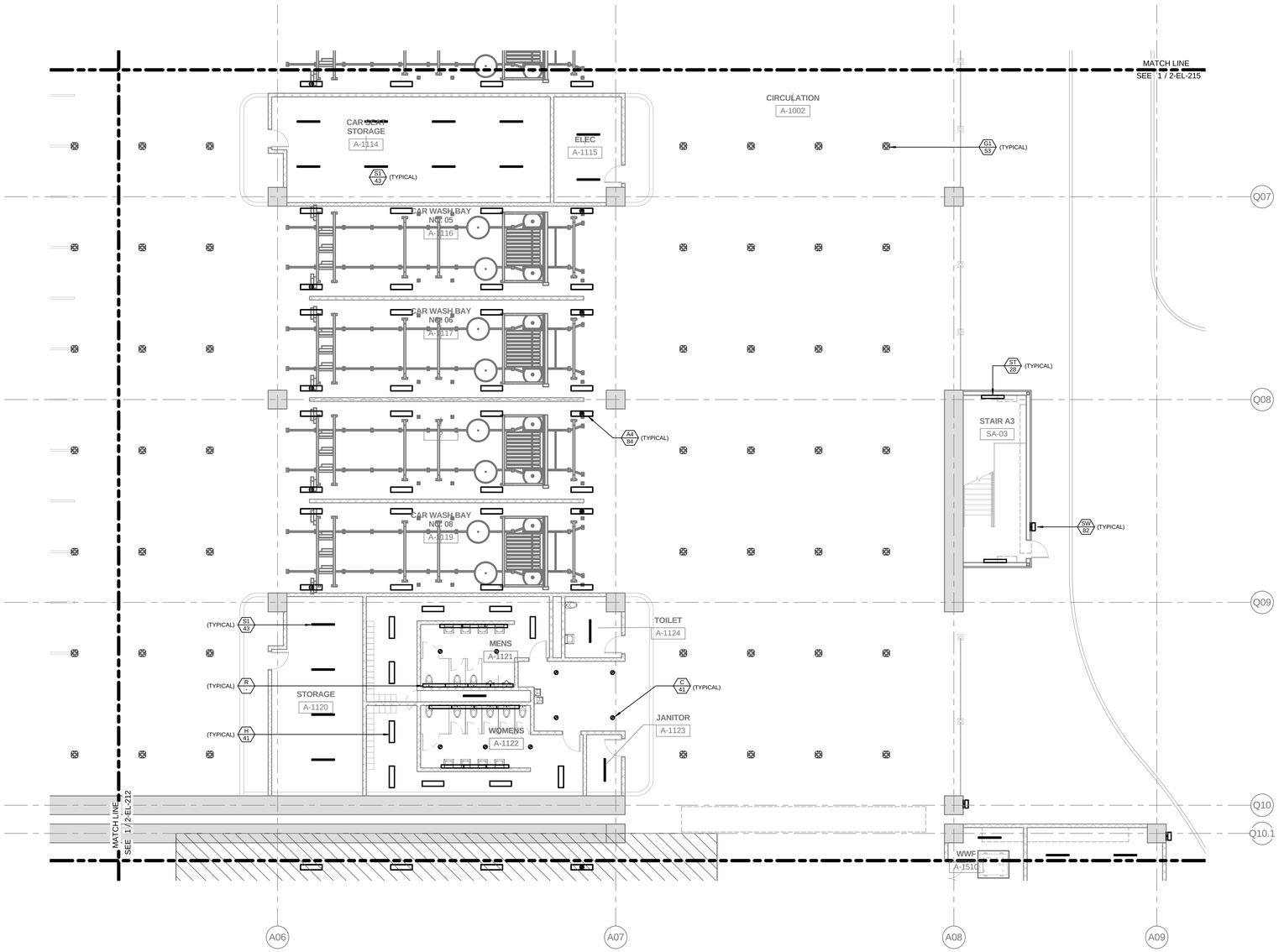
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\hlenry\Documents\0315-PBS-REVIT-PROJECT\0315-06F-A0-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:16:56 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART A6
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 West Broadway, Suite 200, Glendale, CA 91210
T 818.409.0090 F 818.409.0093
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

JOINT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1 ENLARGED CEILING PLAN - PART A6

SHEET NO.

2-EL-216

A1	A5
A2	A6
A3	A7
A4	A8

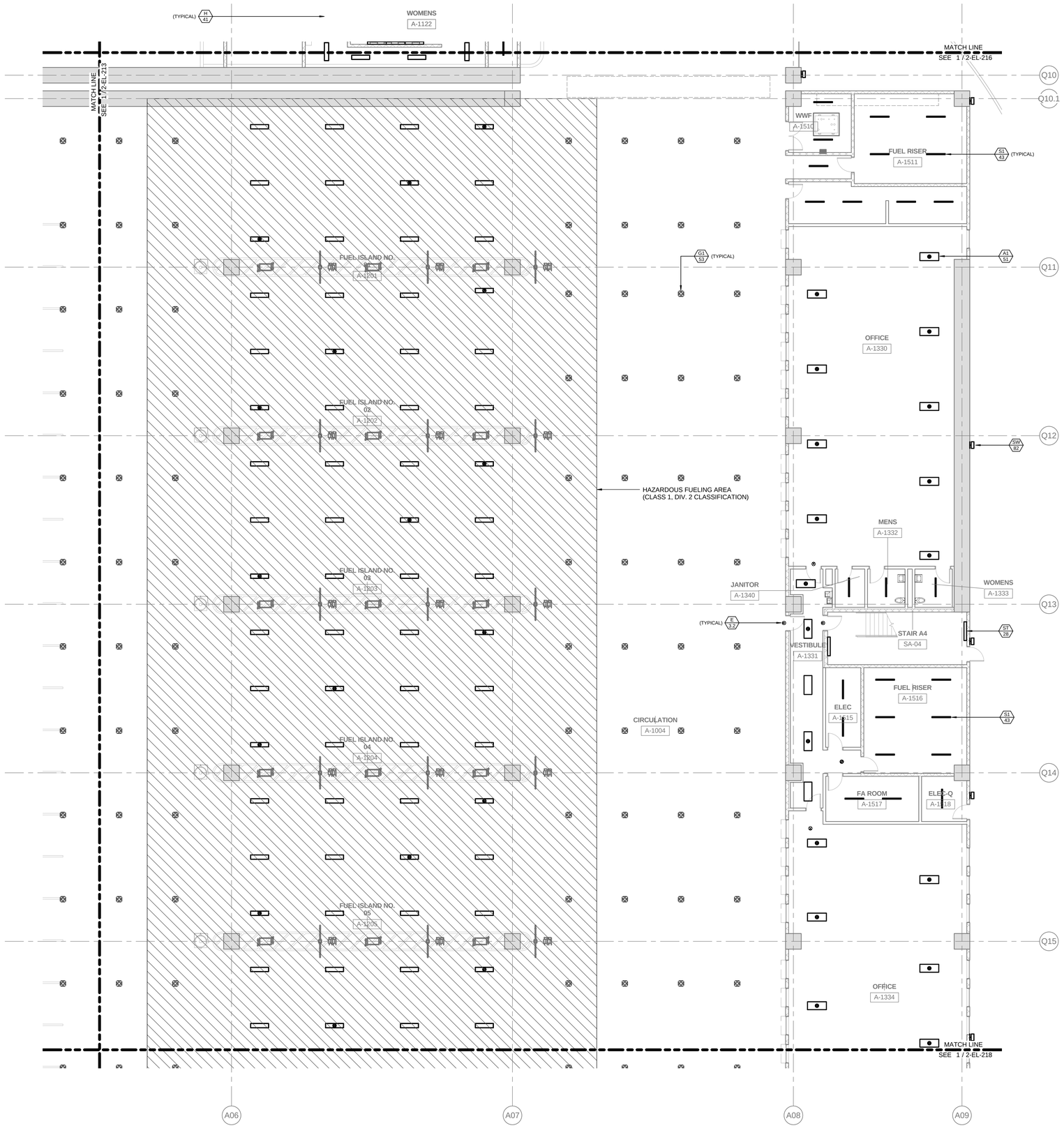
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015 PBS-REVIT PROJECT\2015-06F-AX-REVIT-2015ELEC-DA4881-R15_A_B.rvt

9/21/2016 4:19:00 PM



1 BUILDING A - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART A7
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2181
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
1000 East Acacia, Suite 100, Ontario, CA 91761
T 909.390.0006 F 909.390.0001
T 626.405.0030 F 626.405.0031
www.pbsengineers.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1
ENLARGED CEILING
PLAN - PART A7

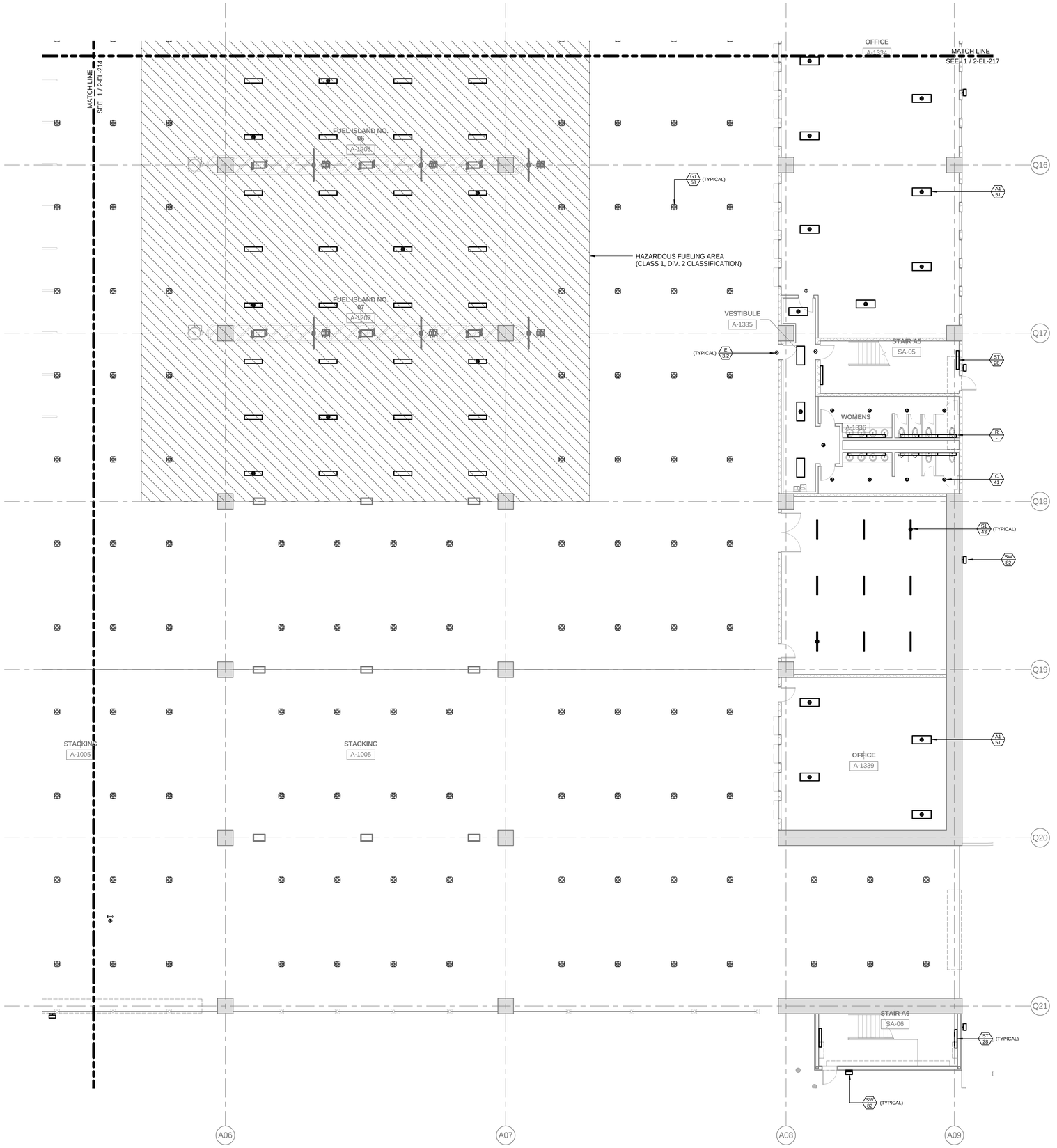
SHEET NO.
2-EL-217

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:18:14 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART A8
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ocean Blvd, Suite 200, Long Beach, CA 90802
T 562.432.2000 F 562.432.2001
www.pbsengineering.com
Mechanical Electrical Plumbing Fire Protection Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1 ENLARGED CEILING PLAN - PART A8

SHEET NO.

2-EL-218

A1	A5
A2	A6
A3	A7
A4	A8

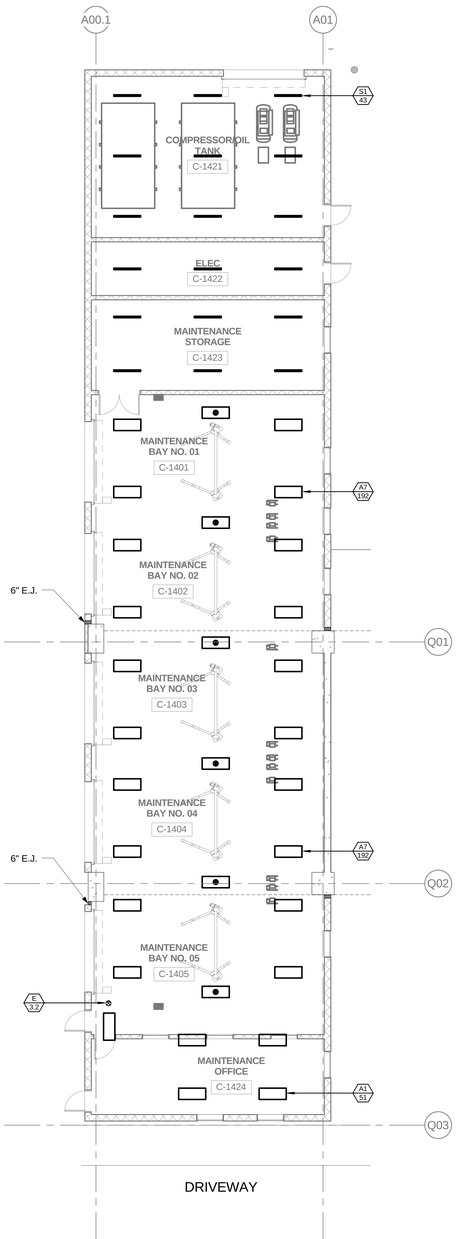
B1	B3
B2	B4

BUILDING A & B KEYPLAN

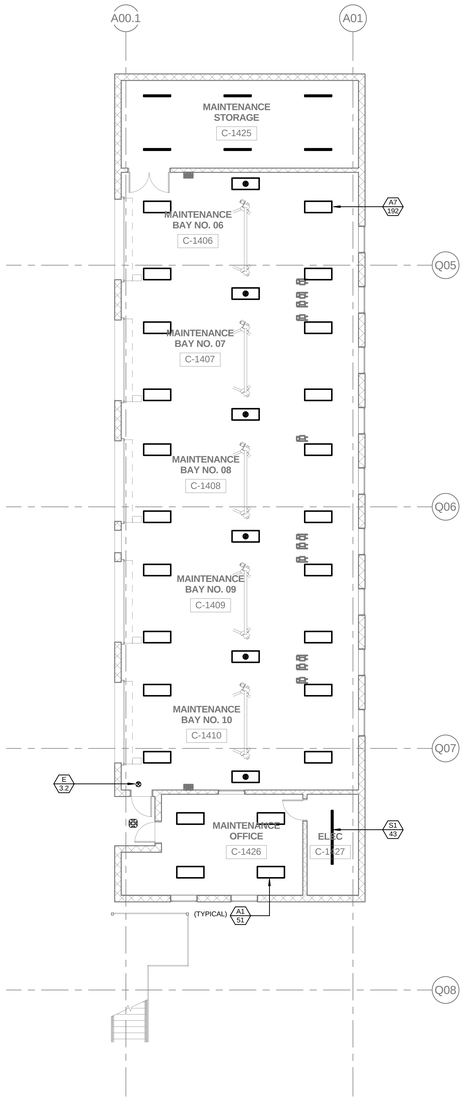
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:19:22 PM

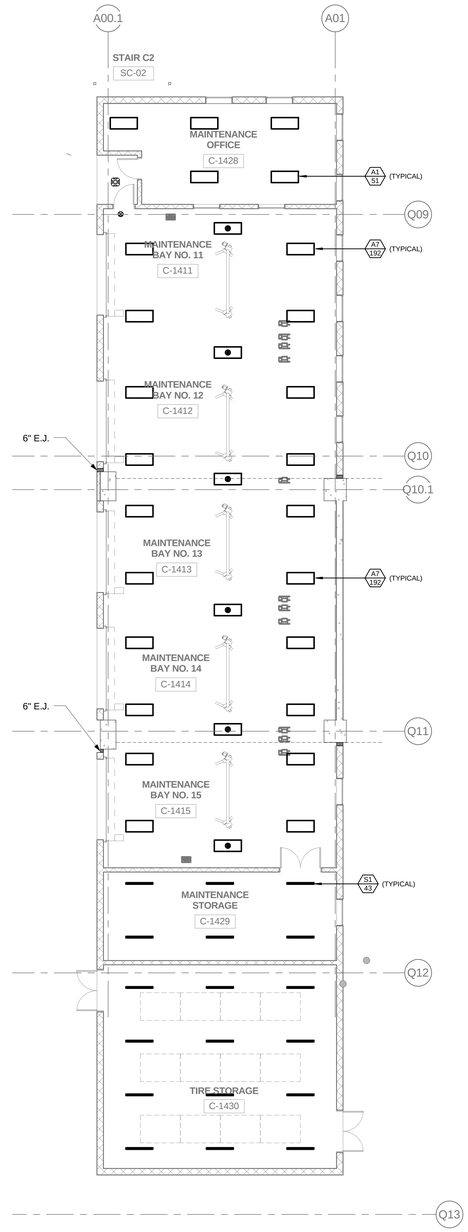
C:\Users\Henry\Documents\2015-PBS-REVIT PROJECT\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt



1 BUILDING A - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - MAINTENANCE NORTH
1/8" = 1'-0"



2 BUILDING A - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - MAINTENANCE CENTER
1/8" = 1'-0"



3 BUILDING A - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - MAINTENANCE SOUTH
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

CONSULTANTS:
PBS ENGINEERING
1000 East Ash, Suite 100 Glendora, CA 91741
T 626.852.0000 F 626.852.0001
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	KS/NB

SHEET TITLE:
QTA LEVEL 1 ENLARGED LIGHTING PLAN - MAINTENANCE

SHEET NO.
2-EL-219

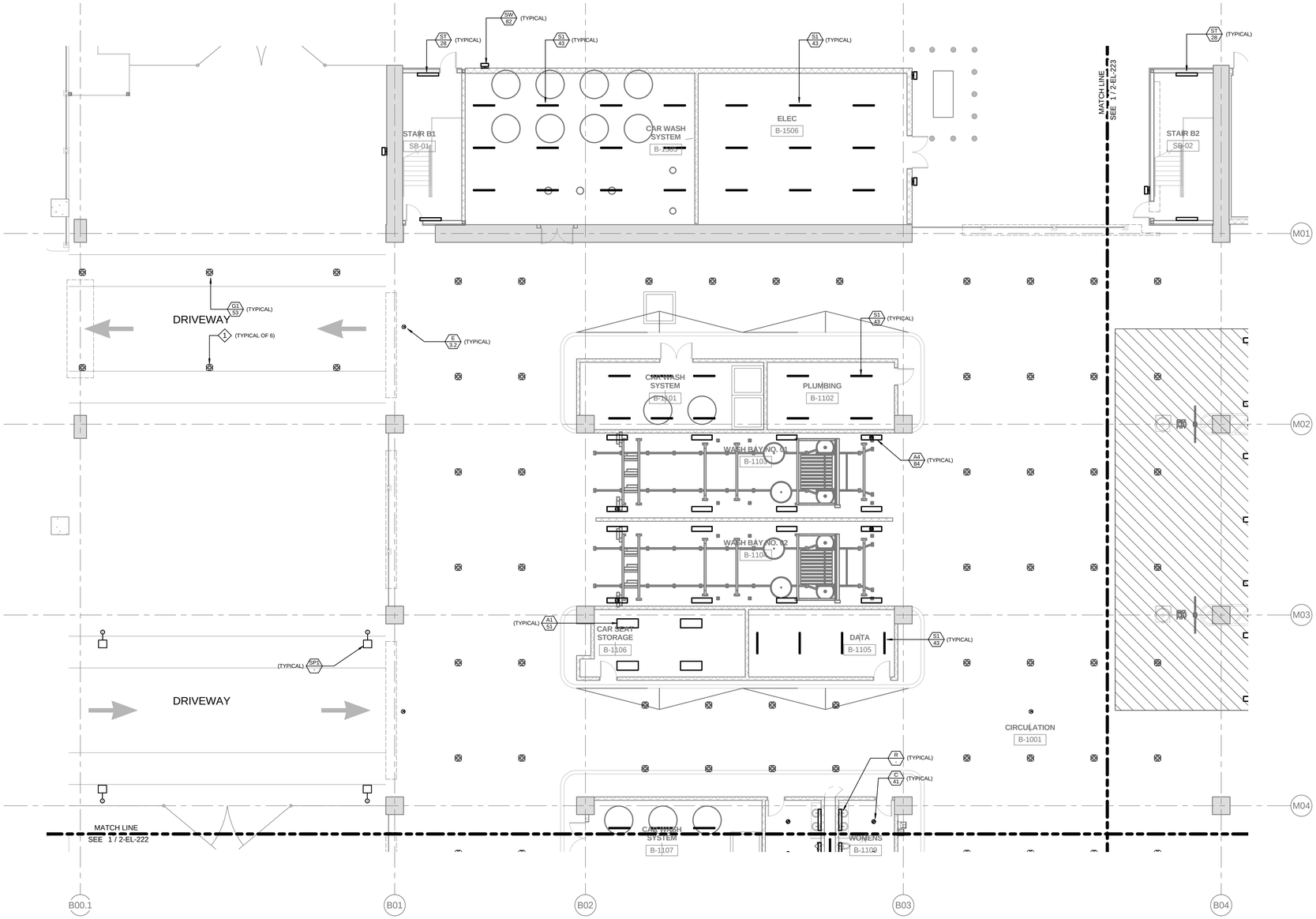
C:\Users\henry\Documents\2015 PBS-REVIT PROJECT\2015-06F-AX-REVIT-2015ELEC-DA4881-R15LOG_A_B-R15.rvt
9/21/2016 4:18:24 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES

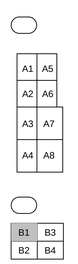
1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

KEY NOTES

1 LIGHT FIXTURES MOUNTED UNDER THE BRIDGE.



1 BUILDING B - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART B1
1/8" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl, Suite 100, Gentry, CA 91740
T 626.600.0000 F 626.600.0001
Electrical Mechanical Plumbing Fire Protection Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ZONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

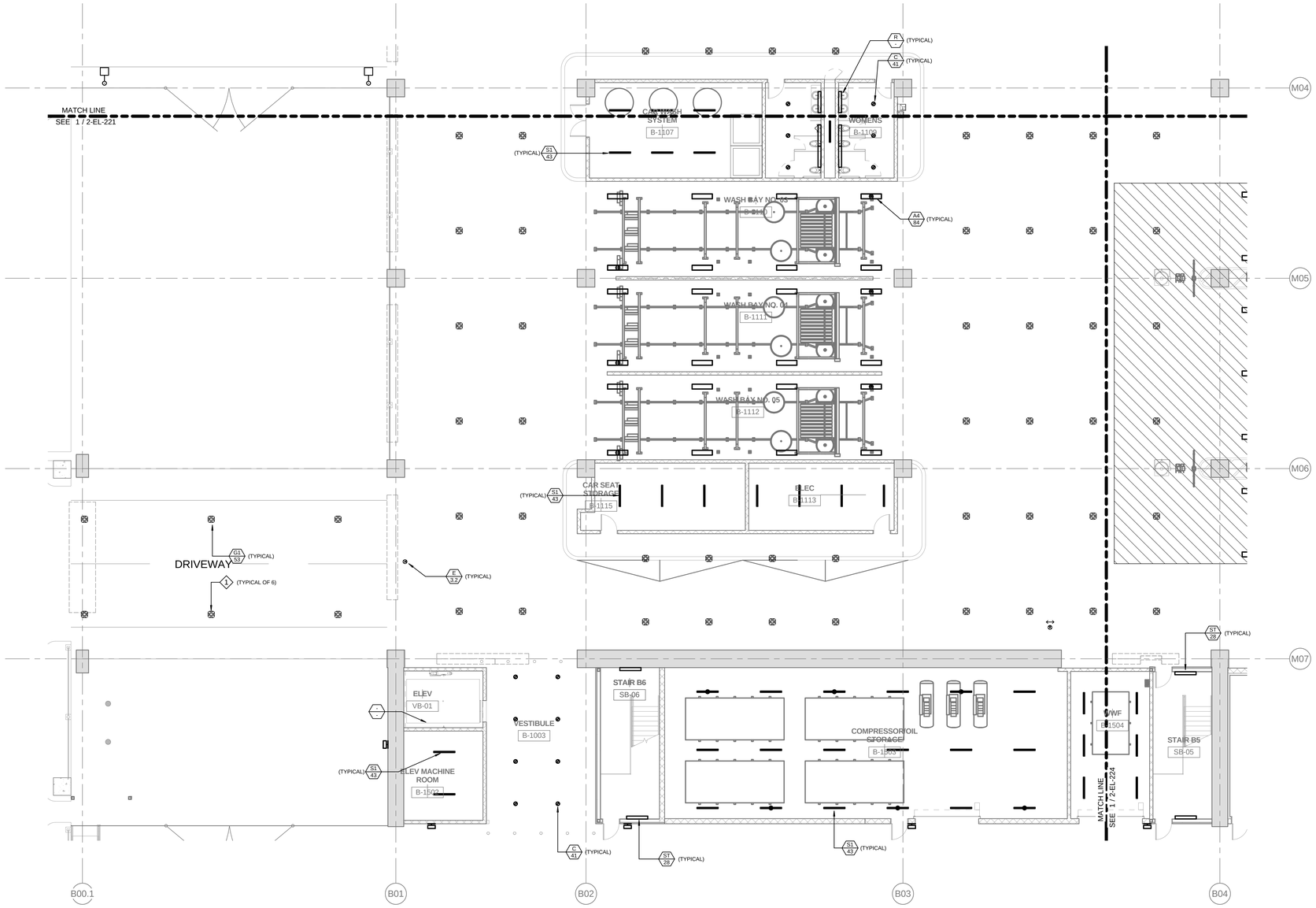
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 1 ENLARGED CEILING PLAN - PART B1

SHEET NO.
2-EL-221

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Perry\Documents\2015-PBS-REVIT-PROJECT\2015-06\7-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:19:28 PM



1 BUILDING B - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART B2
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

KEY NOTES

1 LIGHT FIXTURES MOUNTED UNDER THE BRIDGE.

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ocean Blvd., Suite 100, Long Beach, CA 90802
T 562.432.0508 F 562.432.0520
Electrical Mechanical Plumbing Fire Protection Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 1 ENLARGED CEILING PLAN - PART B2

SHEET NO.
2-EL-222

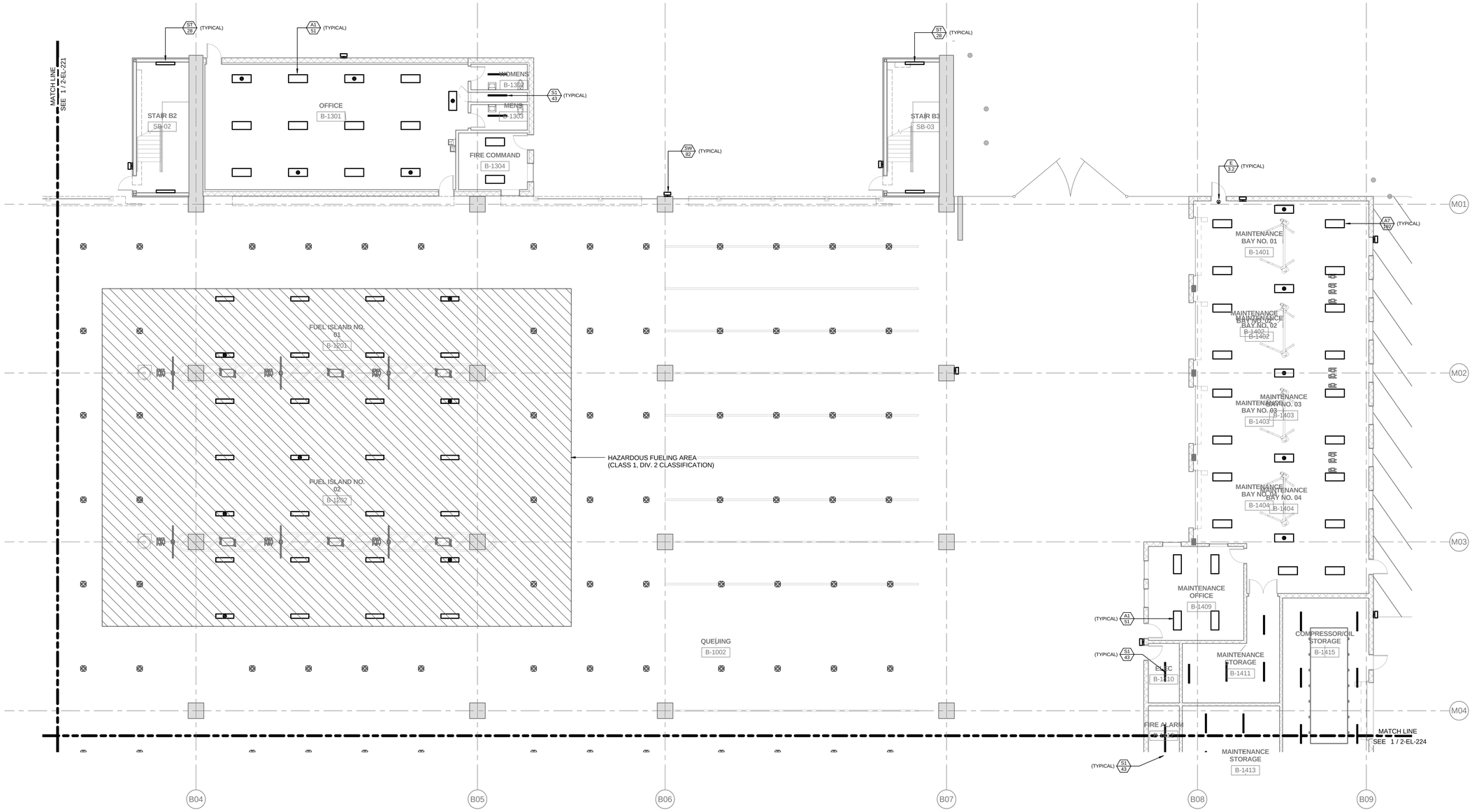
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\Penny\Documents\2015-PBS-REVIT-PROJECT\2015-06\7-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:19:31 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART B3
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 1000, Long Beach, CA 90802
T 562.432.0508 F 562.432.0520
www.pbsengineering.com
Mechanical Electrical Plumbing Fire Protection Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1 ENLARGED CEILING PLAN - PART B3

SHEET NO.

2-EL-223

BUILDING A & B KEYPLAN

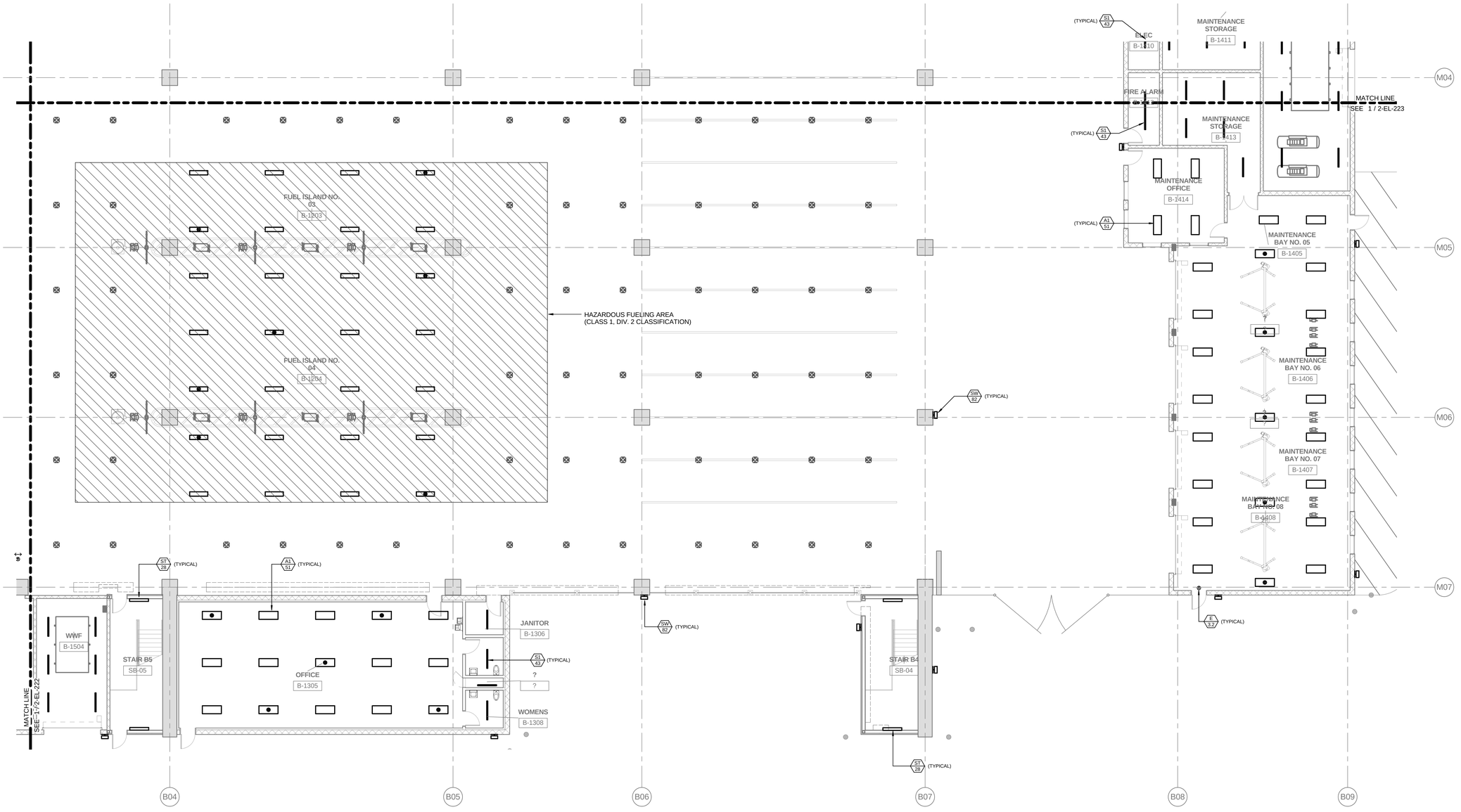
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Perry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:19:36 PM



1 BUILDING B - QTA - LEVEL 1 ENLARGED LIGHTING PLAN - PART B4
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 Oceangate, Suite 600, Long Beach, CA 90802
T 562.628.0500 F 562.628.0501
Mechanical Electrical Plumbing / Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 1 ENLARGED CEILING PLAN - PART B4

SHEET NO.
2-EL-224

A1	A5
A2	A6
A3	A7
A4	A8

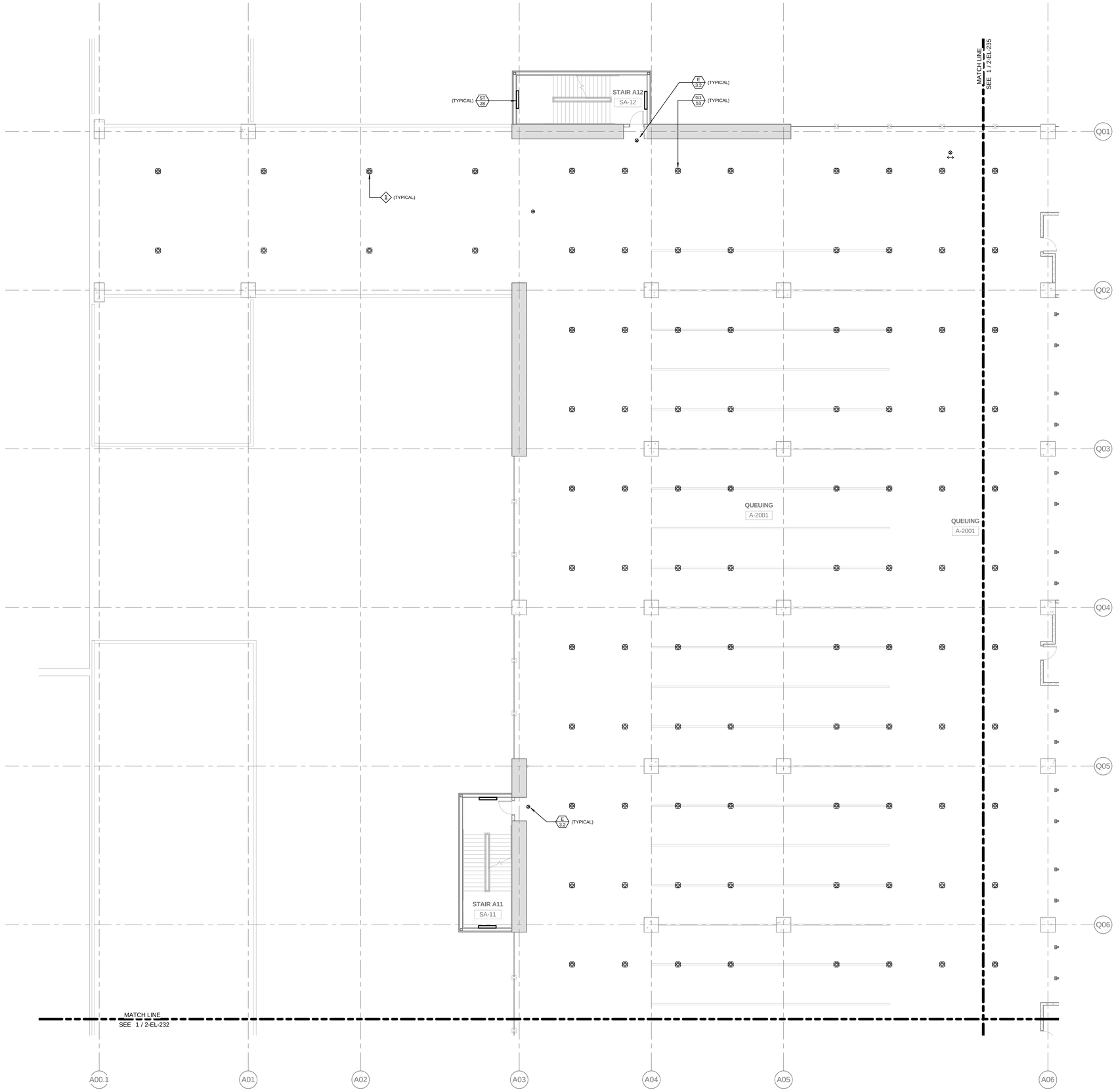
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\Henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015\ELEC-DA4881-BLDG_A_B_R15.rvt

9/21/2016 4:19:43 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART A1
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 1000, Long Beach, CA 90802
T 562.628.0500 F 562.628.0501
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2
ENLARGED CEILING
PLAN - PART A1

SHEET NO.
2-EL-231

A1	A5
A2	A6
A3	A7
A4	A8

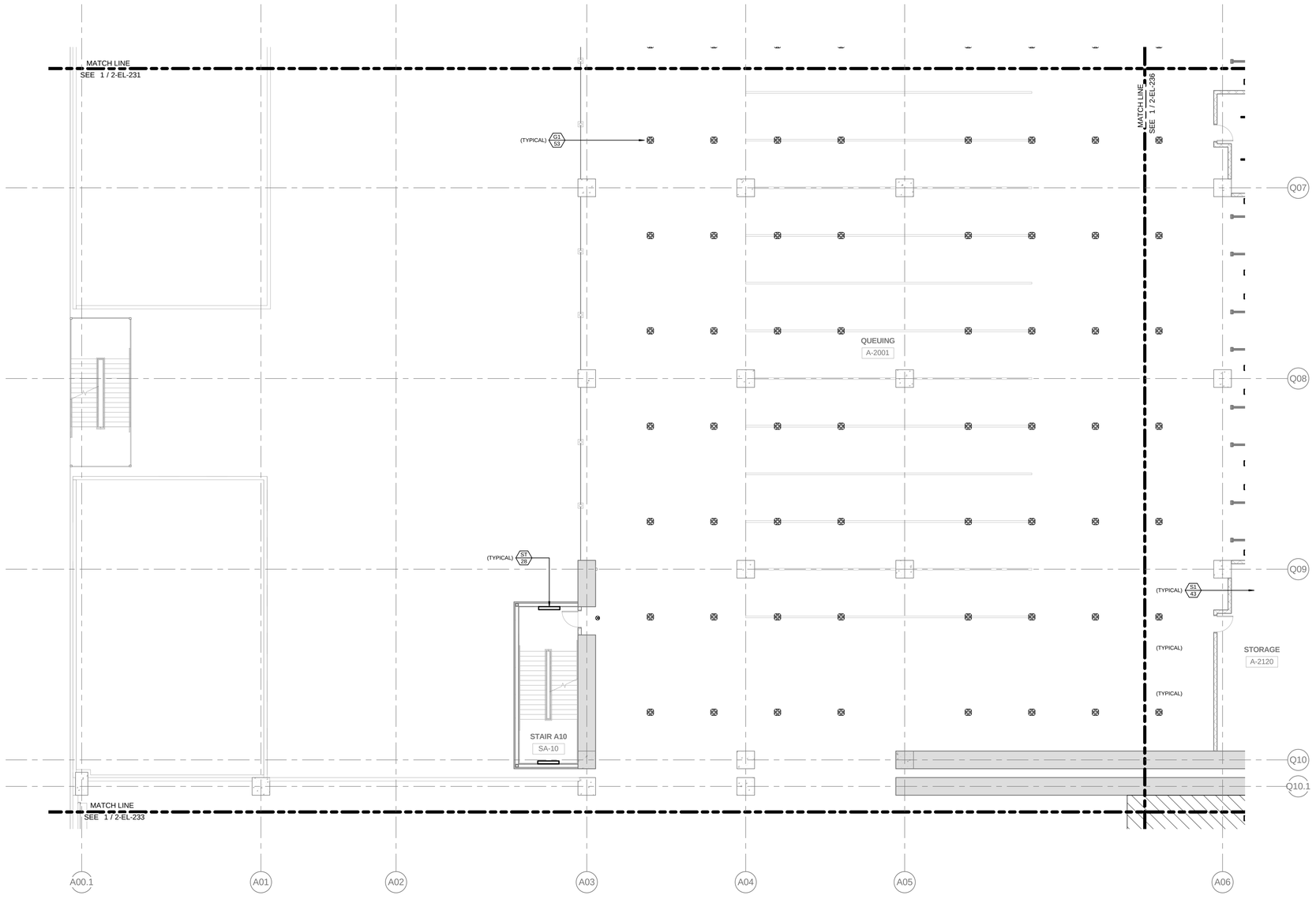
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT PROJECT\2015-067-SD-RE-V17-2015ELEEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:19:45 PM



1 BUILDING A - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ocean Blvd., Suite 100, Long Beach, CA 90802
T 562.432.0508 F 562.432.0520
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2
ENLARGED CEILING
PLAN - PART A2

SHEET NO.

2-EL-232

A1	A5
A2	A6
A3	A7
A4	A8

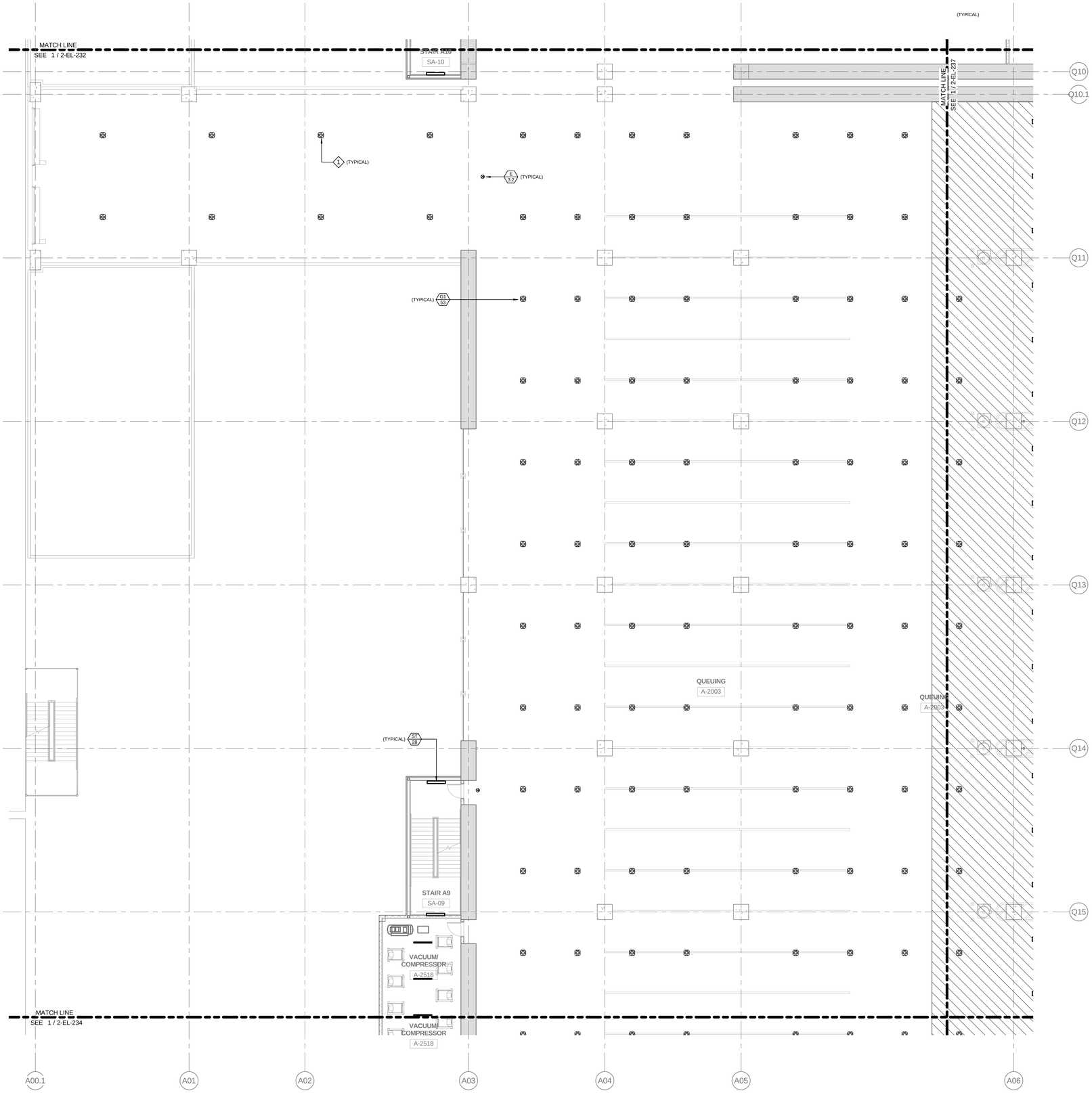
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015\EL\EC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:19:47 PM



1 BUILDING A - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl, Ste 100 Glendora, CA 91741
T 626.852.0006 F 626.852.0021
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

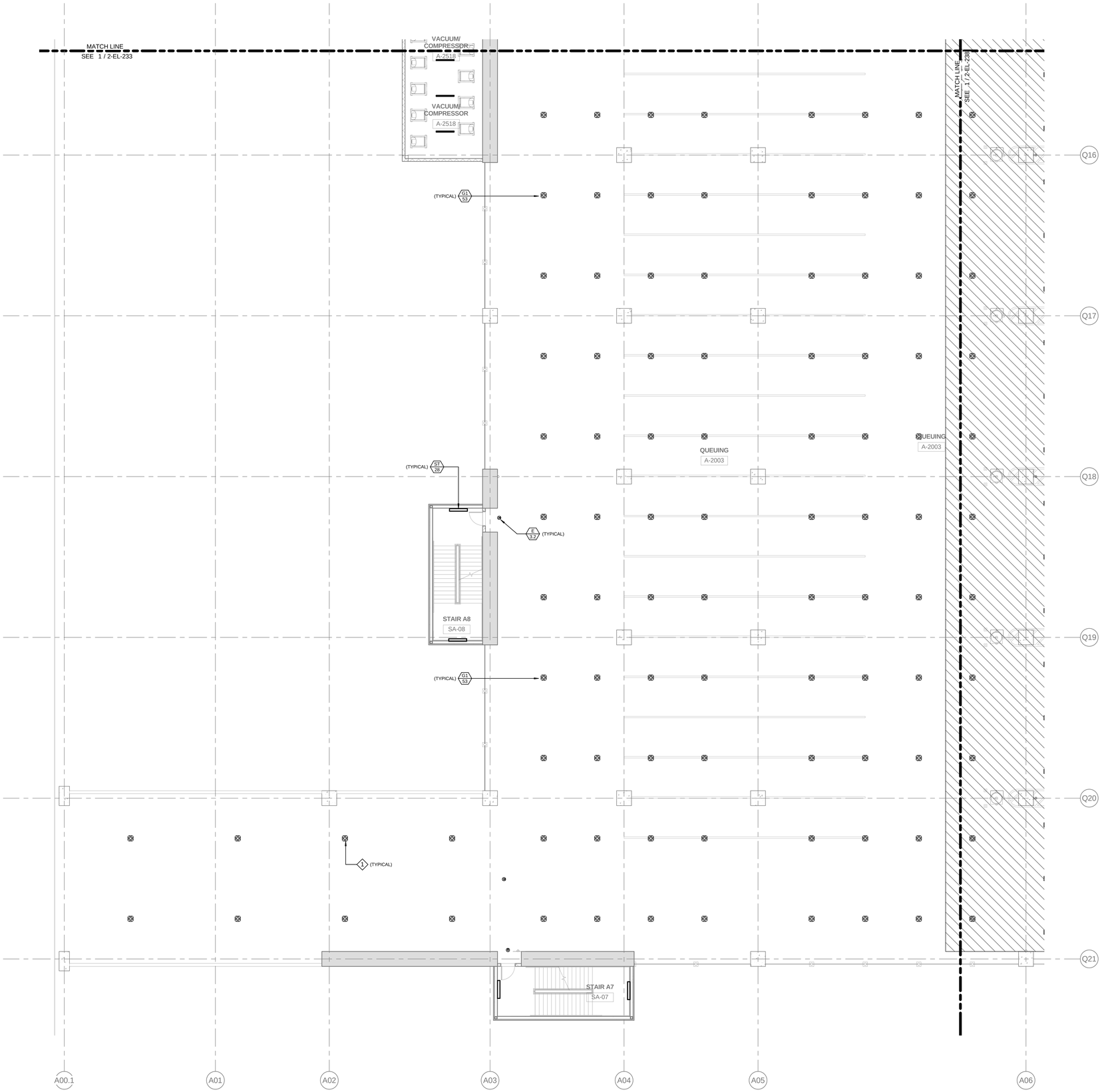
SHEET TITLE:

QTA LEVEL 2 ENLARGED CEILING PLAN - PART A3

SHEET NO.

2-EL-233

C:\Users\Perry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt
9/21/2016 4:19:49 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl St., Suite 100, Glendora, CA 91741
T 626.852.0000
F 626.852.0030
www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

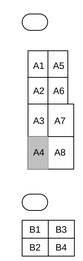
PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2 ENLARGED CEILING PLAN - PART A4

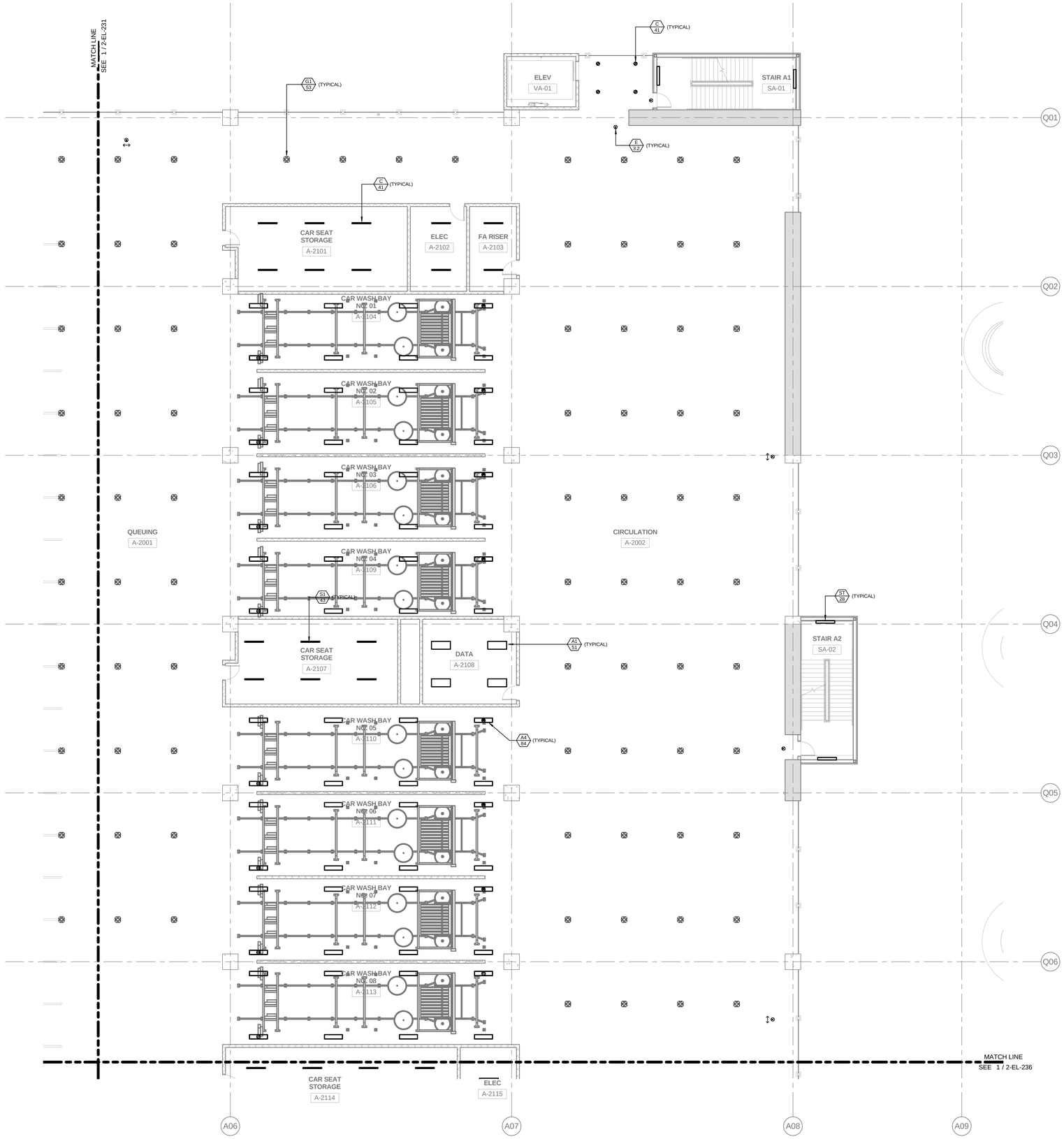
SHEET NO.

2-EL-234



BUILDING A & B KEYPLAN

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt
9/21/2016 4:19:51 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ocean Blvd, Suite 200, Long Beach, CA 90802
T 562.432.2000 F 562.432.2001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2 ENLARGED CEILING PLAN - PART A5

SHEET NO.

2-EL-235

A1	A5
A2	A6
A3	A7
A4	A8

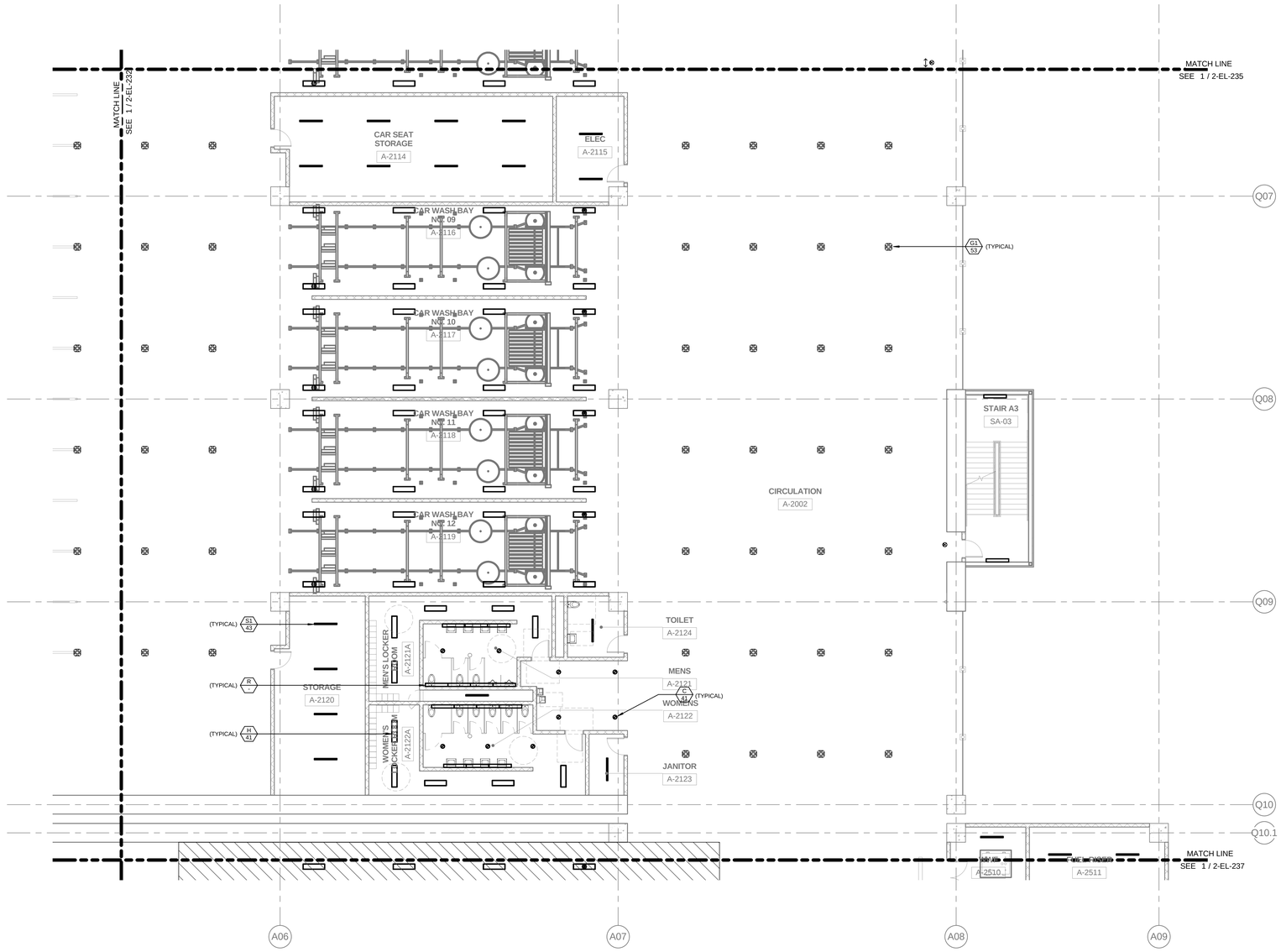
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Perry\Documents\2015-PBS-REVIT-PROJECTS\2015-067-00-RES-VIT-2015ELEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:19:57 PM



1 BUILDING A - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART A6
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 1600, Long Beach, CA 90802
T 562.628.0500 F 562.628.0501
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CONCESSION ANALYSIS
PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2 ENLARGED CEILING PLAN - PART A6

SHEET NO.

2-EL-236

A1	A5
A2	A6
A3	A7
A4	A8

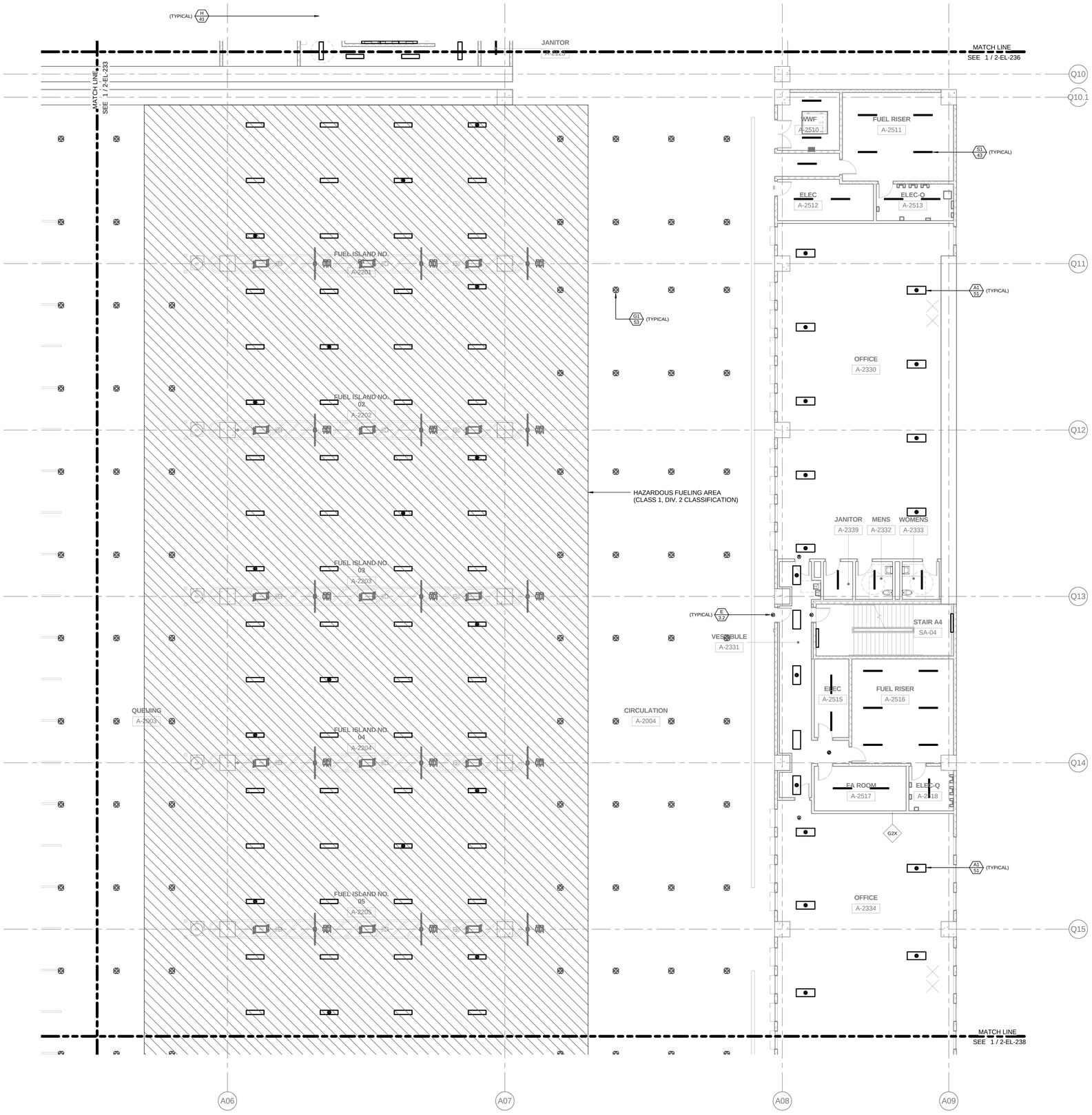
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015 PBS-REVIT PROJECT\2015-067-XX-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt

9/23/2016 4:23:02 PM



1 BUILDING A - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART A7
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 1000, Long Beach, CA 90802
T 562.432.0508 F 562.432.0520
www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2
ENLARGED CEILING
PLAN - PART A7

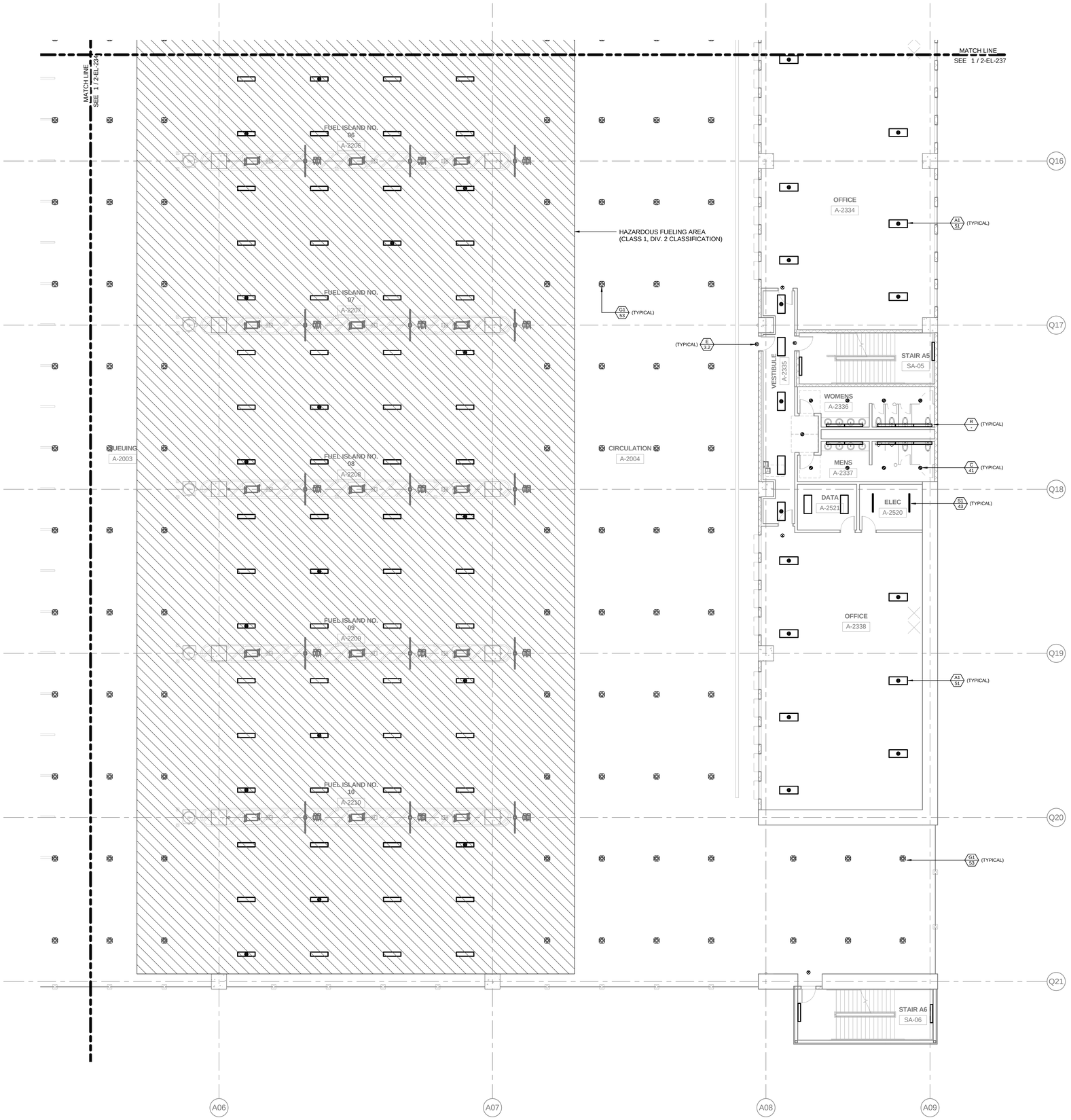
SHEET NO.

2-EL-237

C:\Users\henry\Documents\2015-PBS-REVIT PROJECT\2015-04\7-20\REVIT 2015\ELEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:20:25 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART A8
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

PBS ENGINEERS
100 East Ruehl, Suite 100, Gentry, CA 91765
T 626.8600000
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

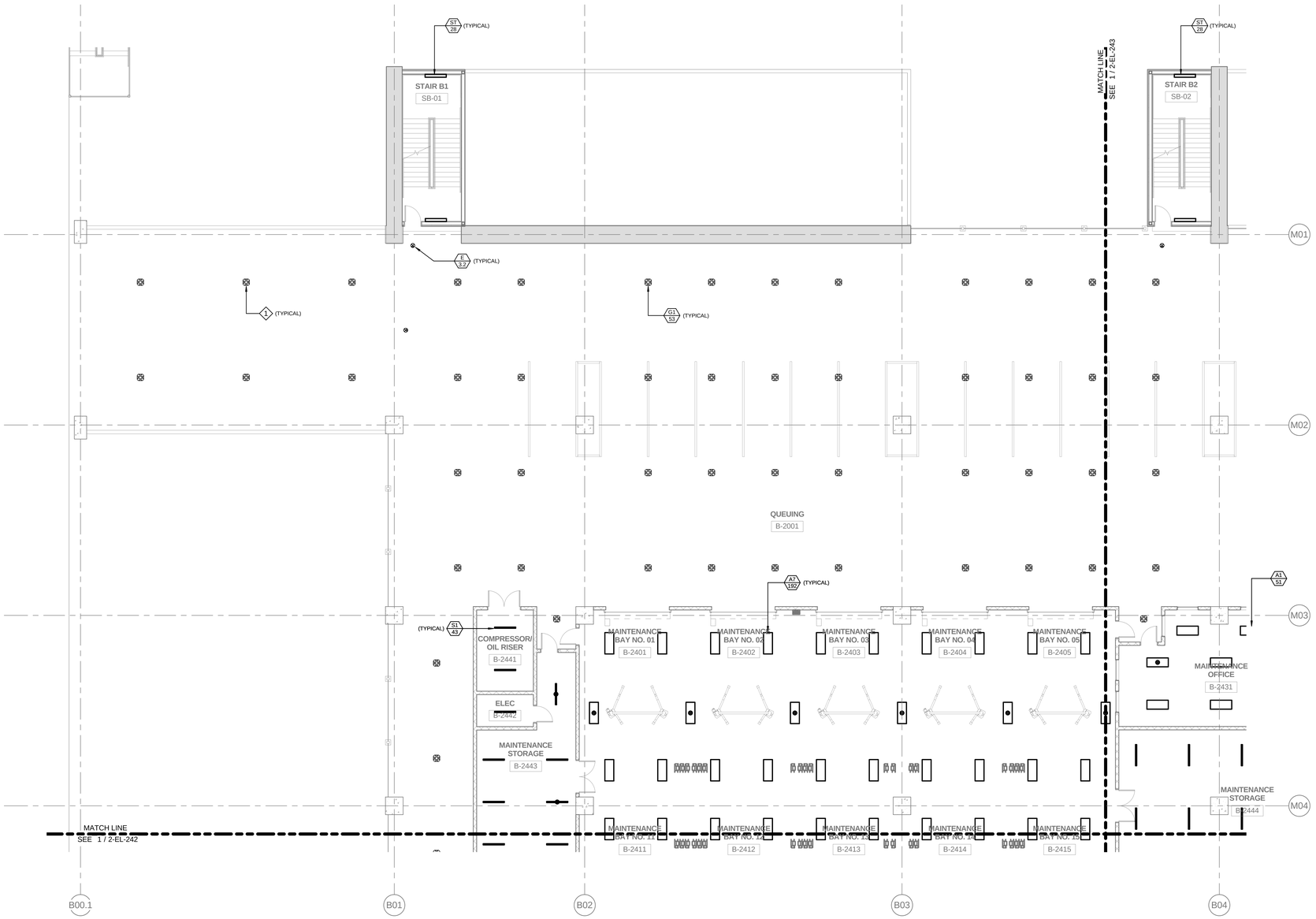
QTA LEVEL 2
ENLARGED CEILING
PLAN - PART A8

SHEET NO.
2-EL-238

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\hherry\Documents\2015-PBS-REVIT-PROJECT\2015-04\TASKS\EL-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:20:49 PM



1 BUILDING B - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART B1
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ocean Blvd, Suite 200, Long Beach, CA 90802
T 562.432.0508 F 562.432.0520
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2 ENLARGED CEILING PLAN - PART B1

SHEET NO.

2-EL-241

A1	A5
A2	A6
A3	A7
A4	A8

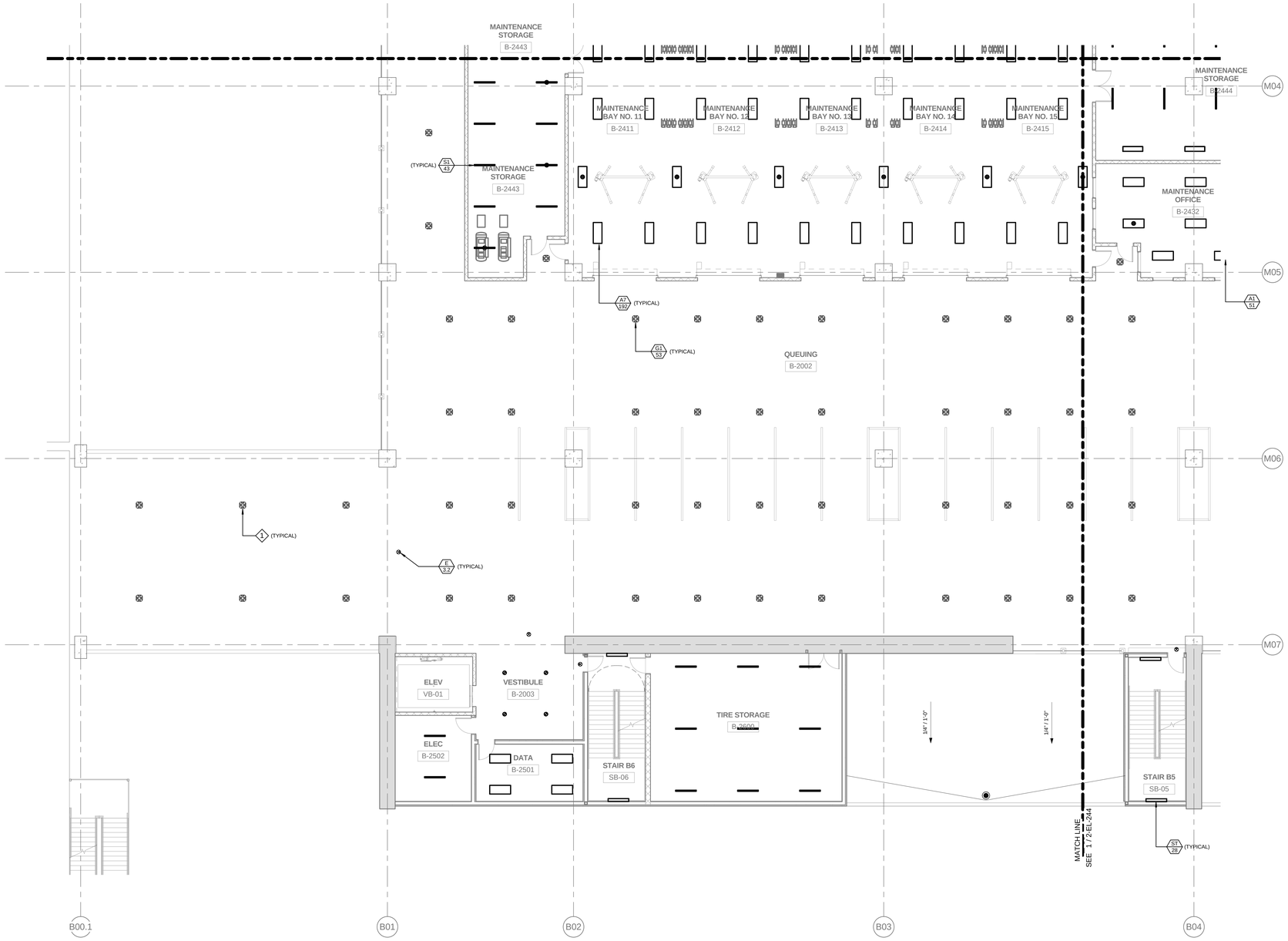
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECT\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:20:51 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART B2
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 1000, Long Beach, CA 90802
T 562.628.1000 F 562.628.1001
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 2 ENLARGED CEILING PLAN - PART B2

SHEET NO.
2-EL-242

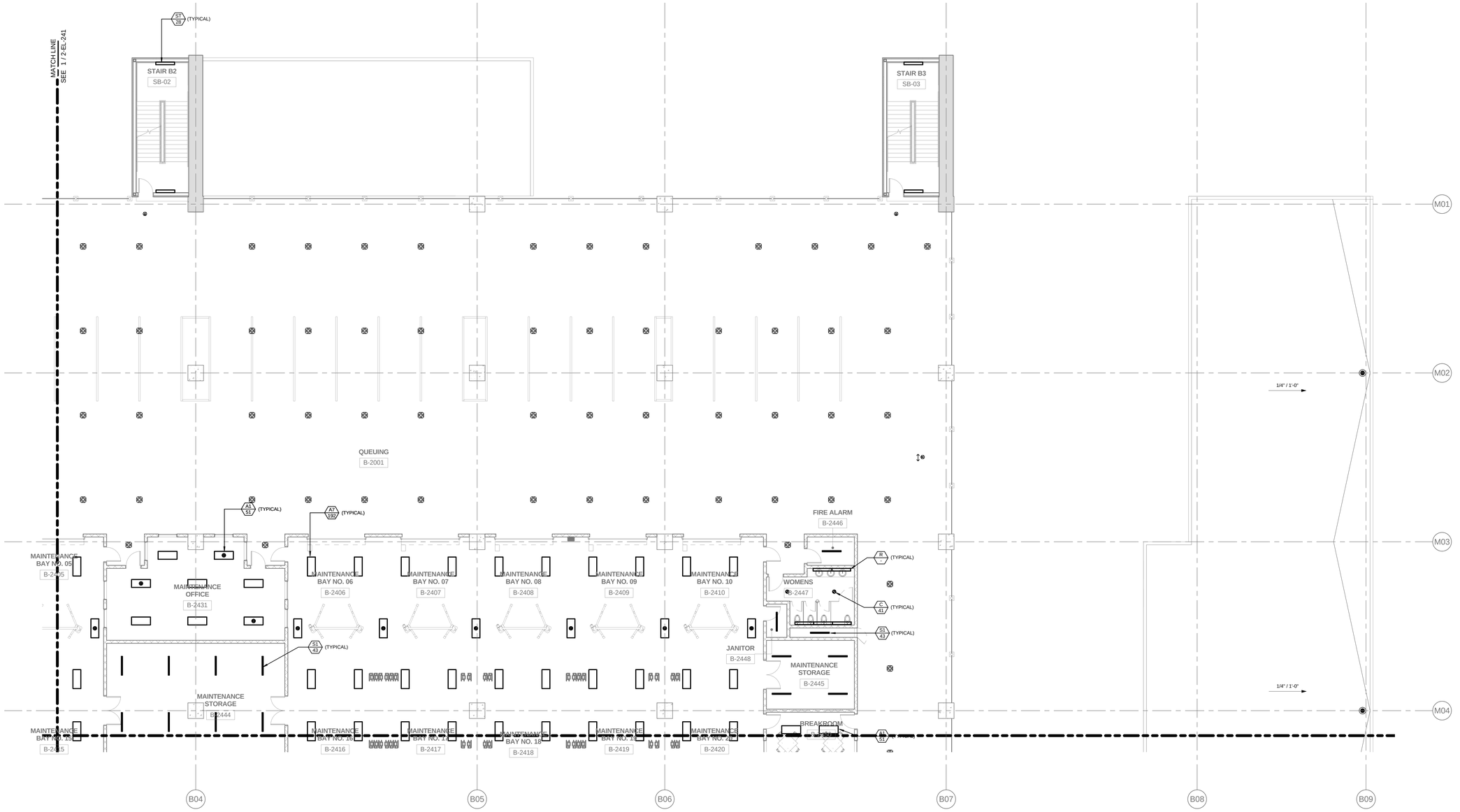
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:20:54 PM
C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt



1 BUILDING B - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART B3
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 1000, Long Beach, CA 90802
T 562.628.0008
F 562.628.0020
www.pbsengineering.com
Mechanical · Electrical · Plumbing | Consulting · Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2
ENLARGED CEILING
PLAN - PART B3

SHEET NO.
2-EL-243

BUILDING A & B KEYPLAN

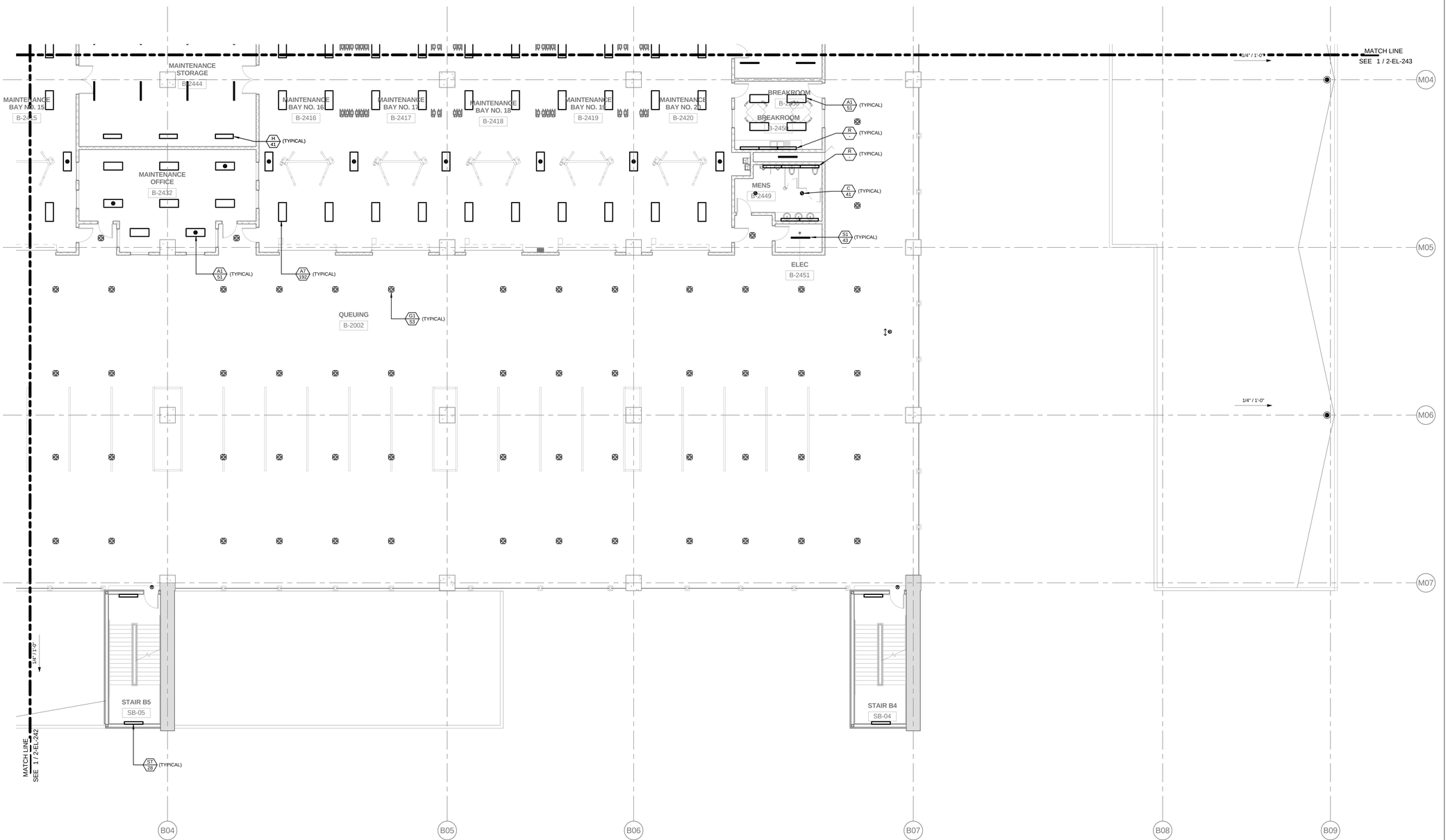
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\HenryI\Documents\20315-PBS-REVIT-PROJECT\20315-00-REVIT-2015ELEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:20:56 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 2 ENLARGED LIGHTING PLAN - PART B4
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl St, Suite 100, Glendora, CA 91741
T 626.852.0000
F 626.852.0030
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2 ENLARGED CEILING PLAN - PART B4

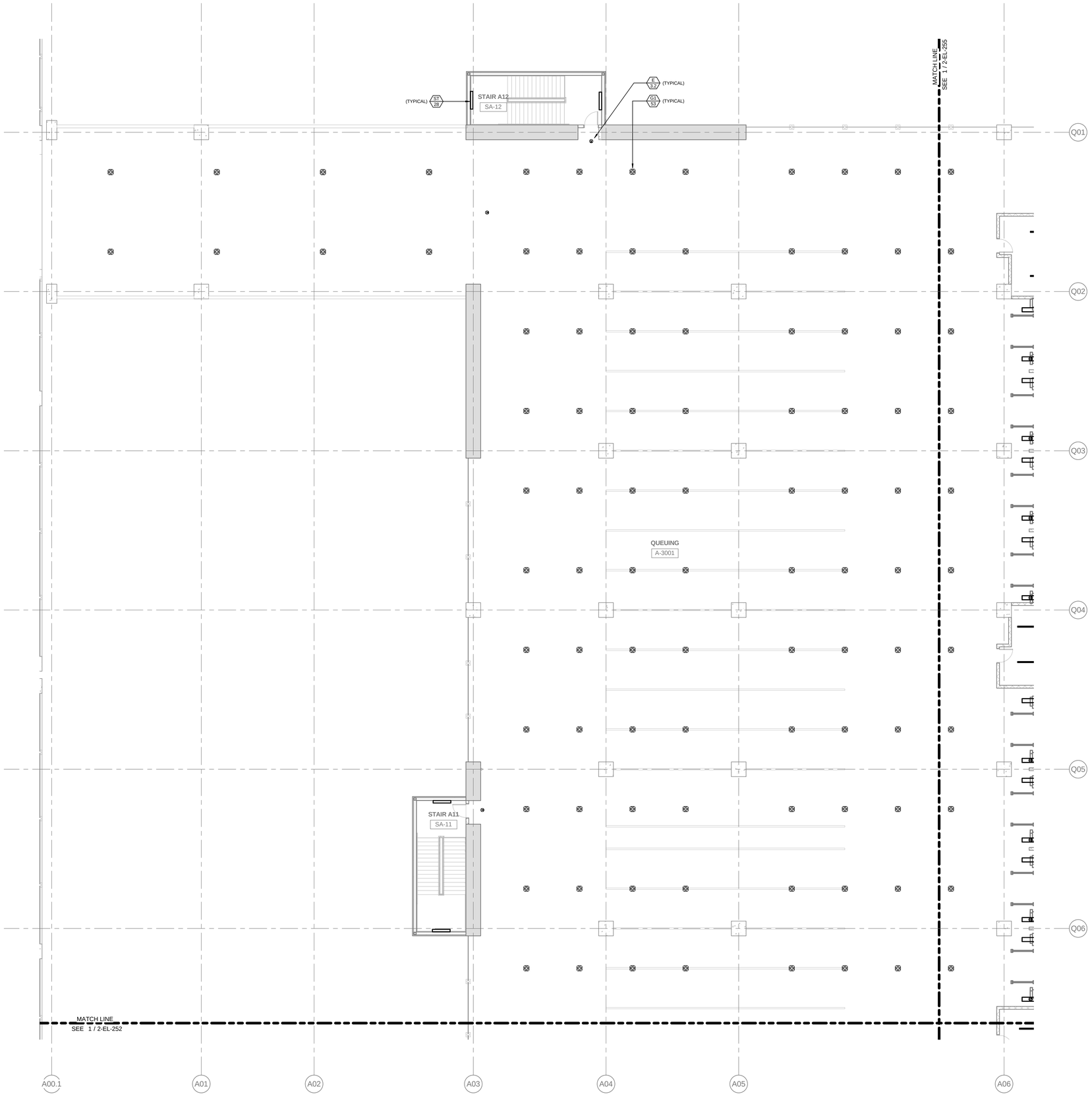
SHEET NO.

2-EL-244

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECTS\2015-06\7-00-REVIT-2015\ELEC-DA4881-BLXO_A_B R15.rvt

9/21/2016 4:20:39 PM



1 BUILDING A - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART A1
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 Wilshire Blvd., Suite 600 Glendale, CA 91760
818.500.8008
818.500.8090
www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

JOINT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ.NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 CEILING LIGHTING PLAN - PART A1

SHEET NO.

2-EL-251

BUILDING A & B KEYPLAN

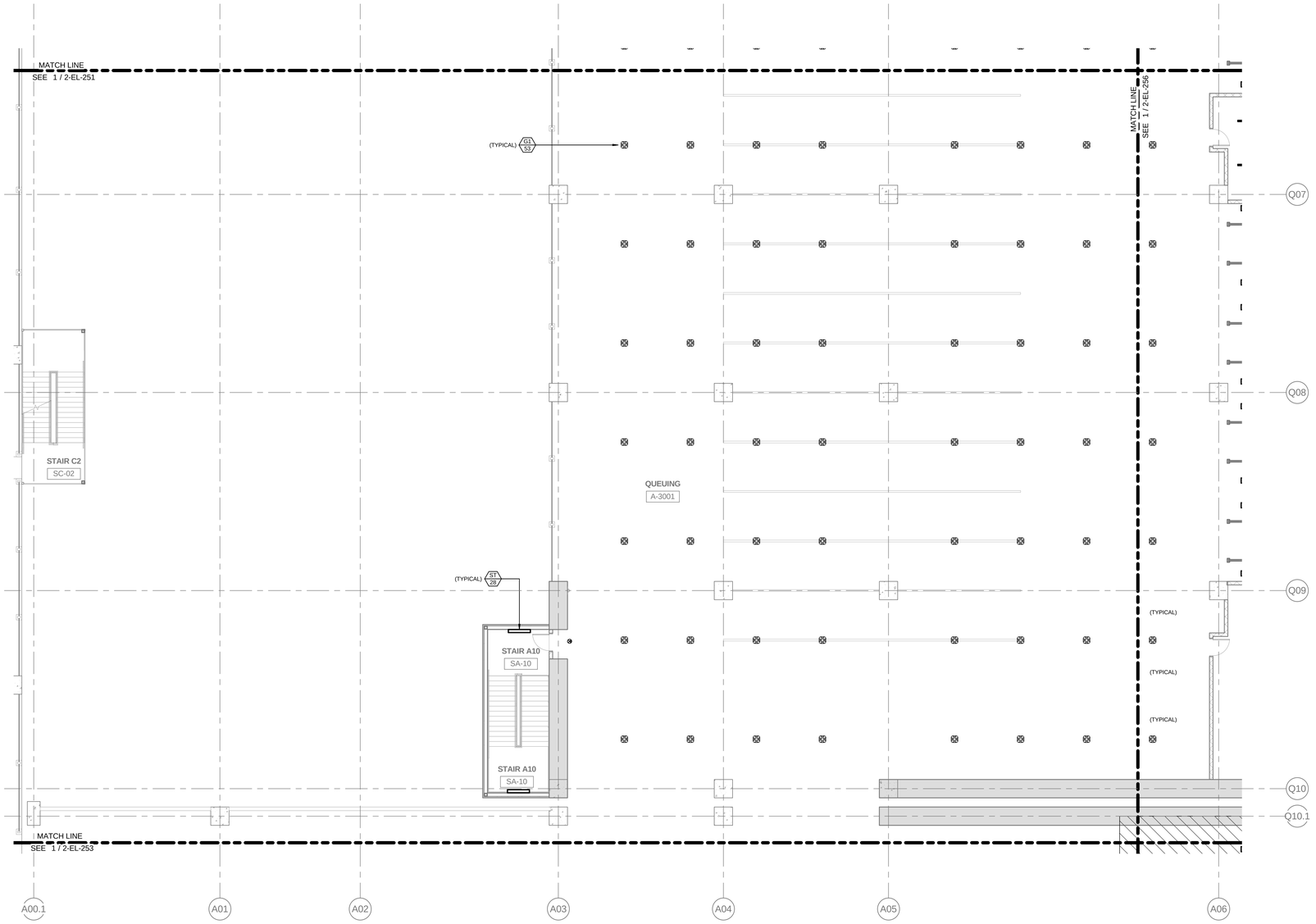
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\henry\Documents\0015-PBS-REVIT-PROJECT\0015-907-XX-REVIT-2015\EL\EC-DA4881-BLDG_A_B-R13.rvt

9/23/2016 4:21:01 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE, PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl, Ste 100, Glendora, CA 91741
T 626.852.0000
F 626.852.0020
www.pbsengineering.com
Electrical Electrical Planning / Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 CEILING LIGHTING PLAN - PART A2

SHEET NO.

2-EL-252

BUILDING A & B KEYPLAN

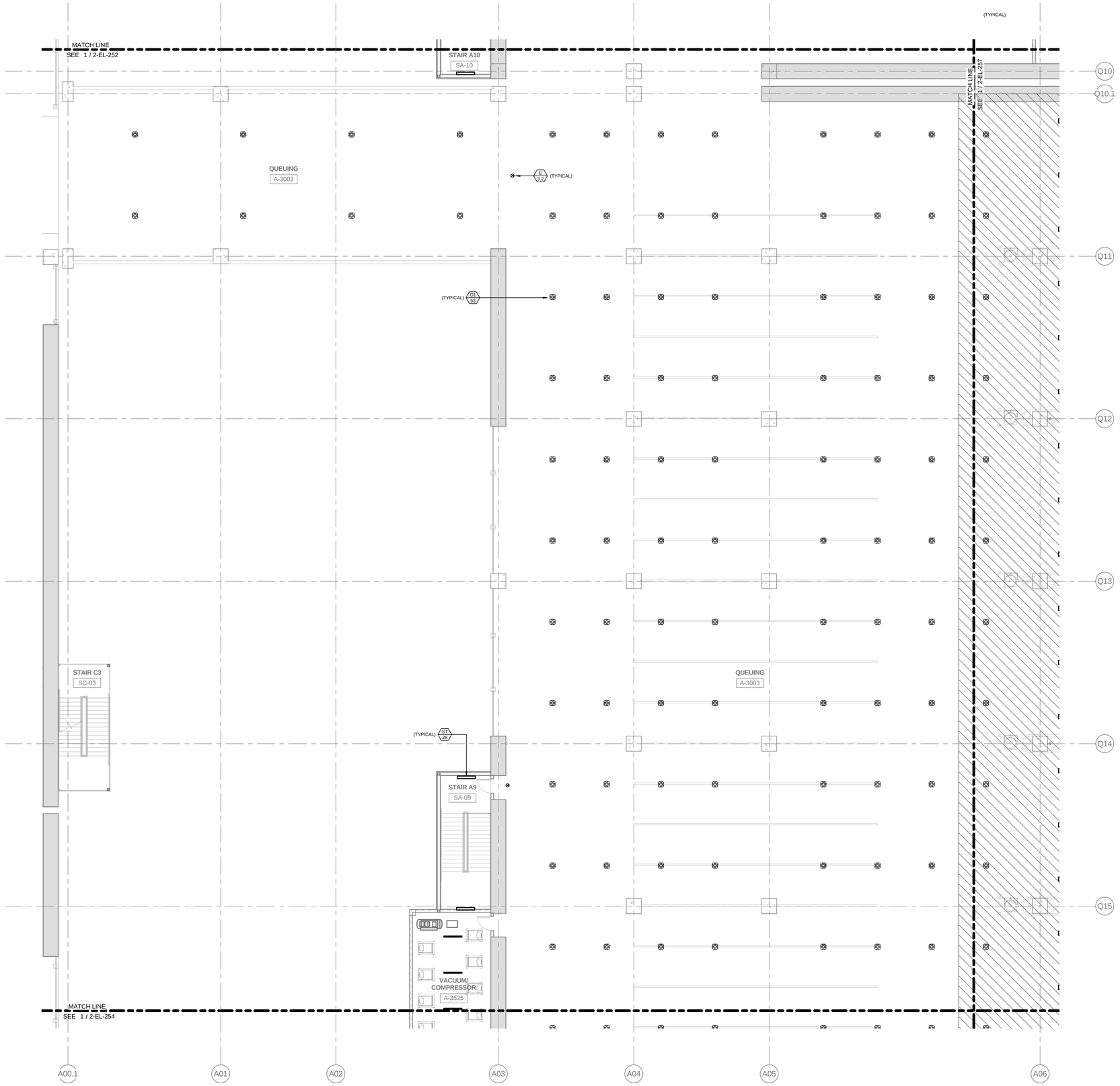
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Henry\Documents\2015-PBS-REVIT-PROJECTS\2015-06\7-00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:21:03 PM



1 BUILDING A - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 200, Long Beach, CA 90802
T 562.432.0508 F 562.432.0520
www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

REVISIONS:

MARK	DATE	DESCRIPTION

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 CEILING LIGHTING PLAN - PART A3

SHEET NO.

2-EL-253

A1	A5
A2	A6
A3	A7
A4	A8

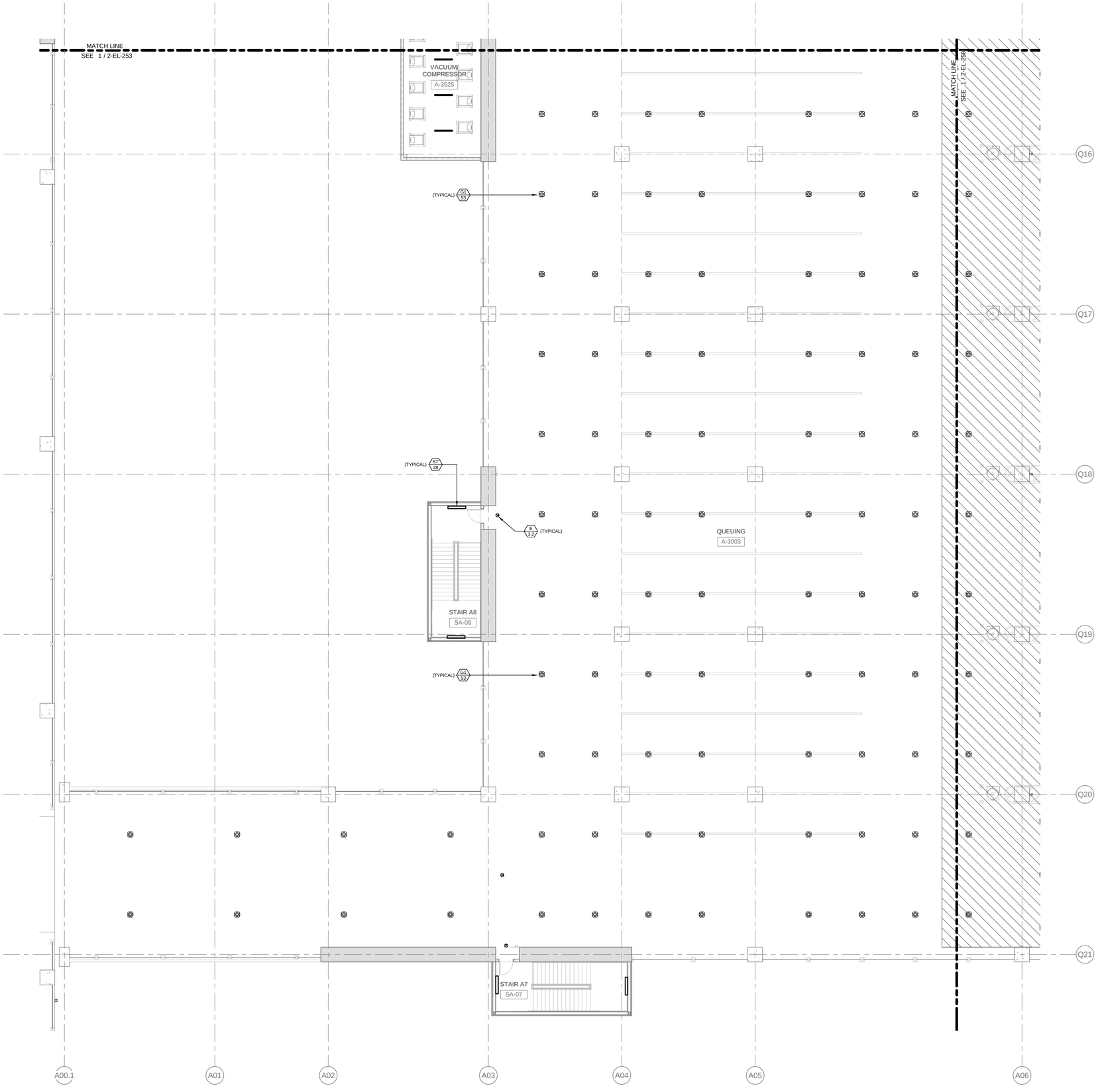
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015_06\100-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:21:05 PM



1 BUILDING A - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

CONSULTANTS:
PBS ENGINEERING
100 East Ruether, E. Ave 05 Gentry, CA 91746
T 626.8000000
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 CEILING LIGHTING PLAN - PART A4

SHEET NO.
2-EL-254

A1	A5
A2	A6
A3	A7
A4	A8

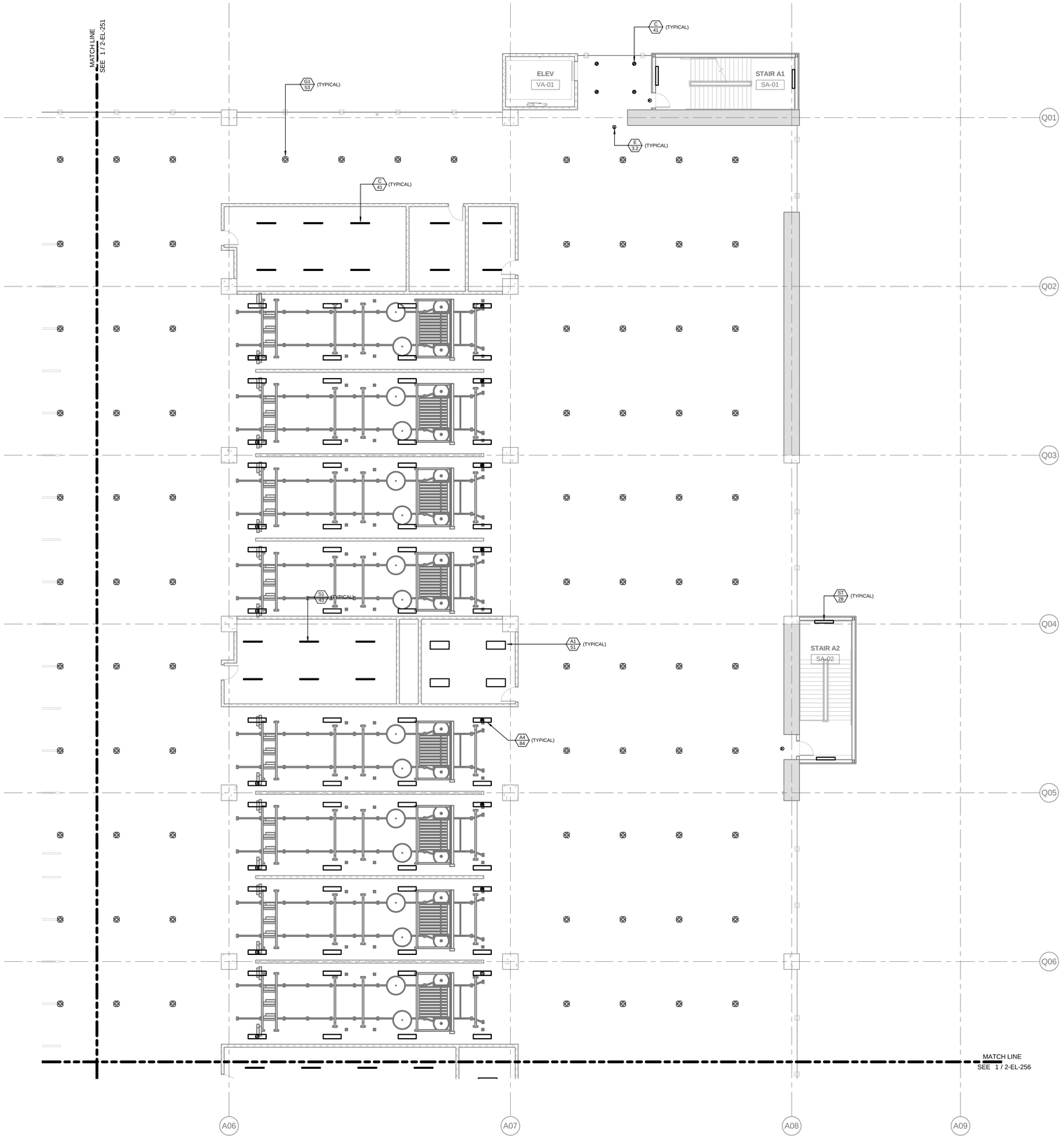
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\0015-067-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:21:08 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruether E, Suite 100 Gardena, CA 91746
T 424.4000936 F 424.4000931
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ.NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 CEILING LIGHTING PLAN - PART A5

SHEET NO.

2-EL-255

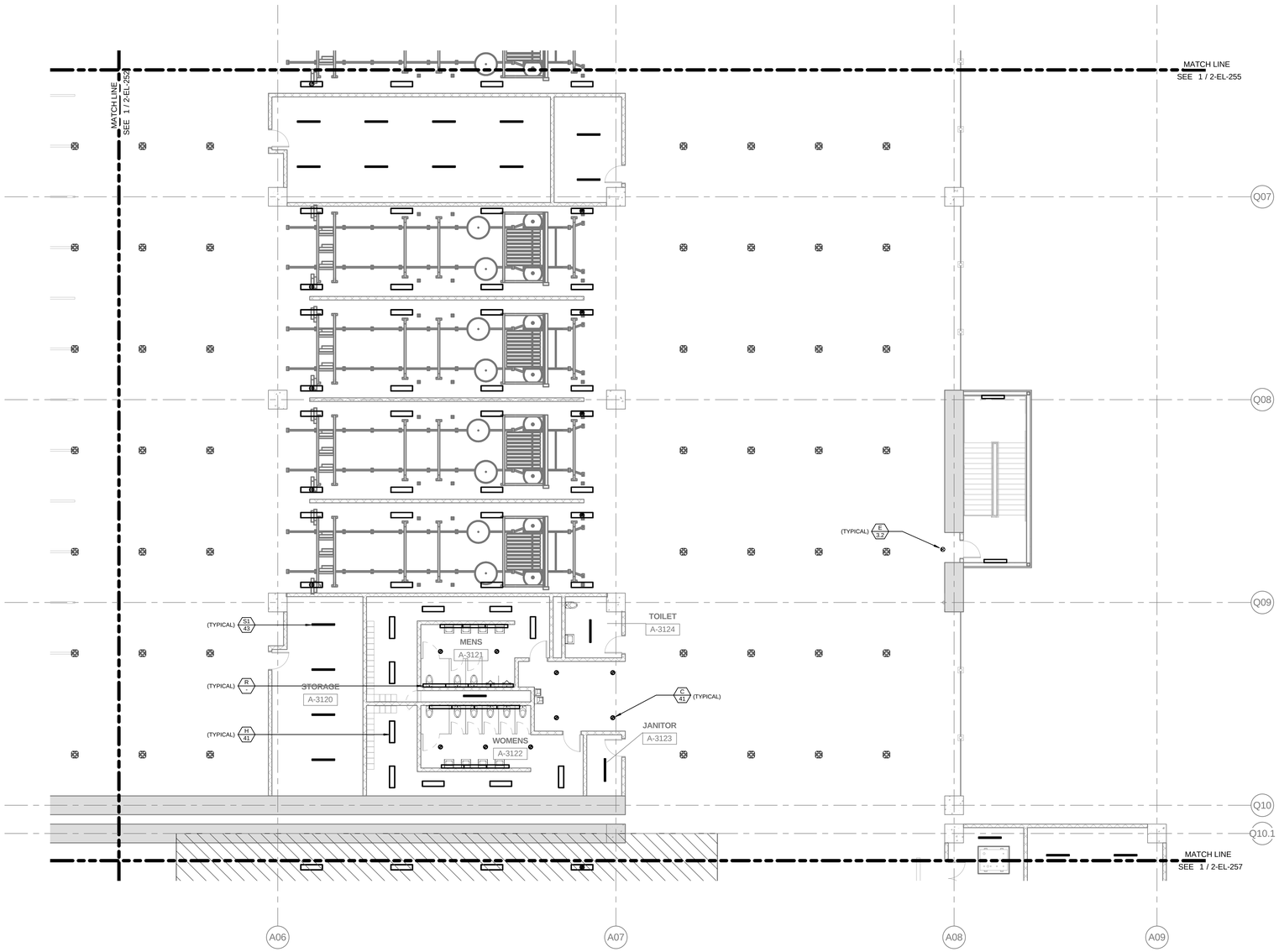
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/23/2016 4:21:14 PM C:\Users\henry\Documents\0015 PBS-REVIT PROJECT\0015-007-X9-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt



1 BUILDING A - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART A6
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl, Ste 05 Gentry, CA 91740
T 626.800.0000
www.pbsengineering.com
Electrical Electrical Planning Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

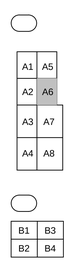
REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

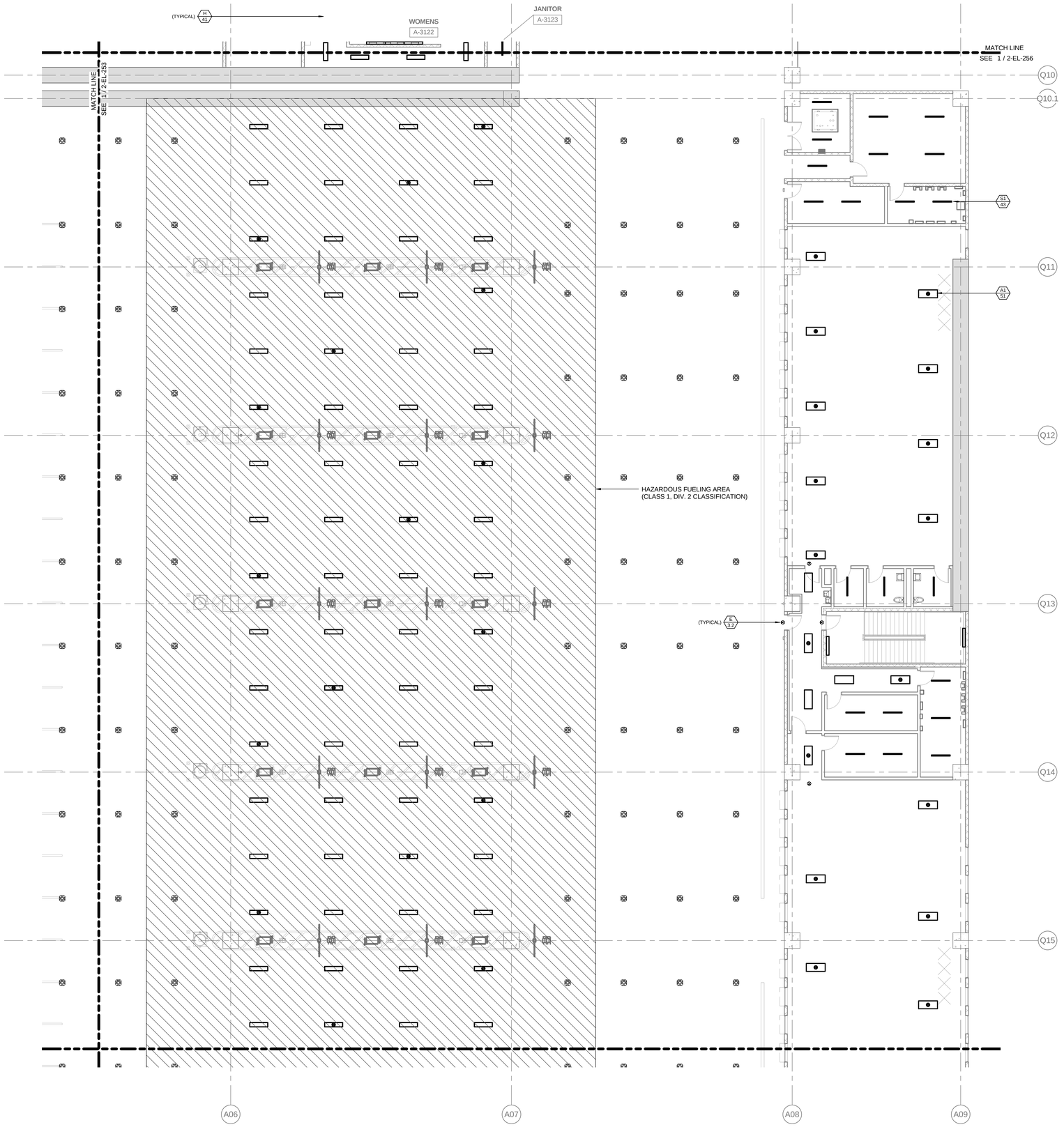
SHEET TITLE:
QTA LEVEL 3 CEILING LIGHTING PLAN - PART A6

SHEET NO.
2-EL-256



BUILDING A & B KEYPLAN

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-XX-REVIT-2015\EL\EC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:21:18 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART A7
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl, Suite 100, Glendora, CA 91741
T 626.852.0556 F 626.852.0521
Mechanical Electrical Plumbing Consulting Engineers

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 CEILING LIGHTING PLAN - PART A7

SHEET NO.
2-EL-257

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

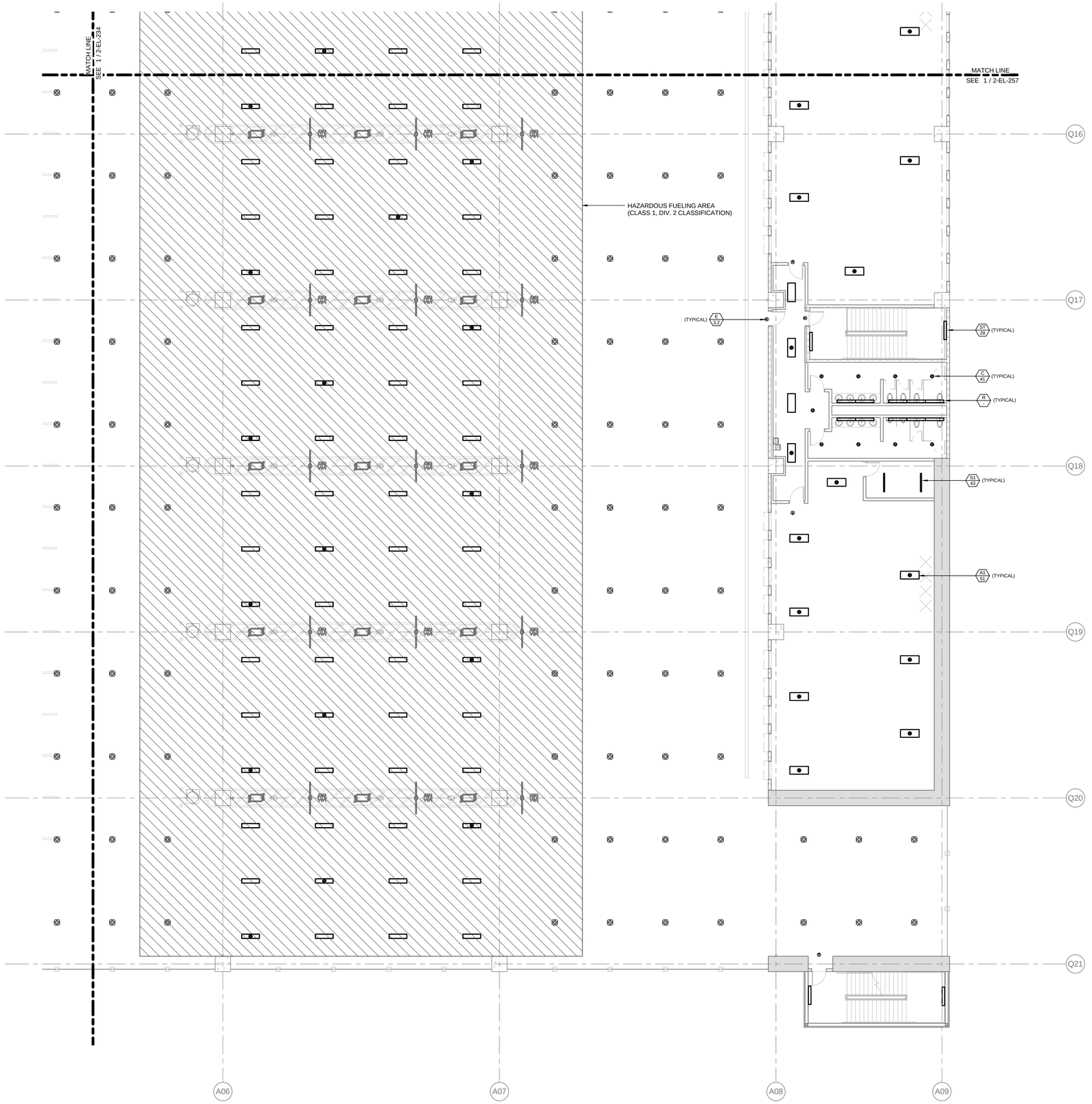
APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANY PMD LAX

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:21:26 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART A8
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl St, Ste 100, Glendora, CA 91741
T 626.852.0556 F 626.852.0553
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 3 CEILING LIGHTING PLAN - PART A8

SHEET NO.
2-EL-258

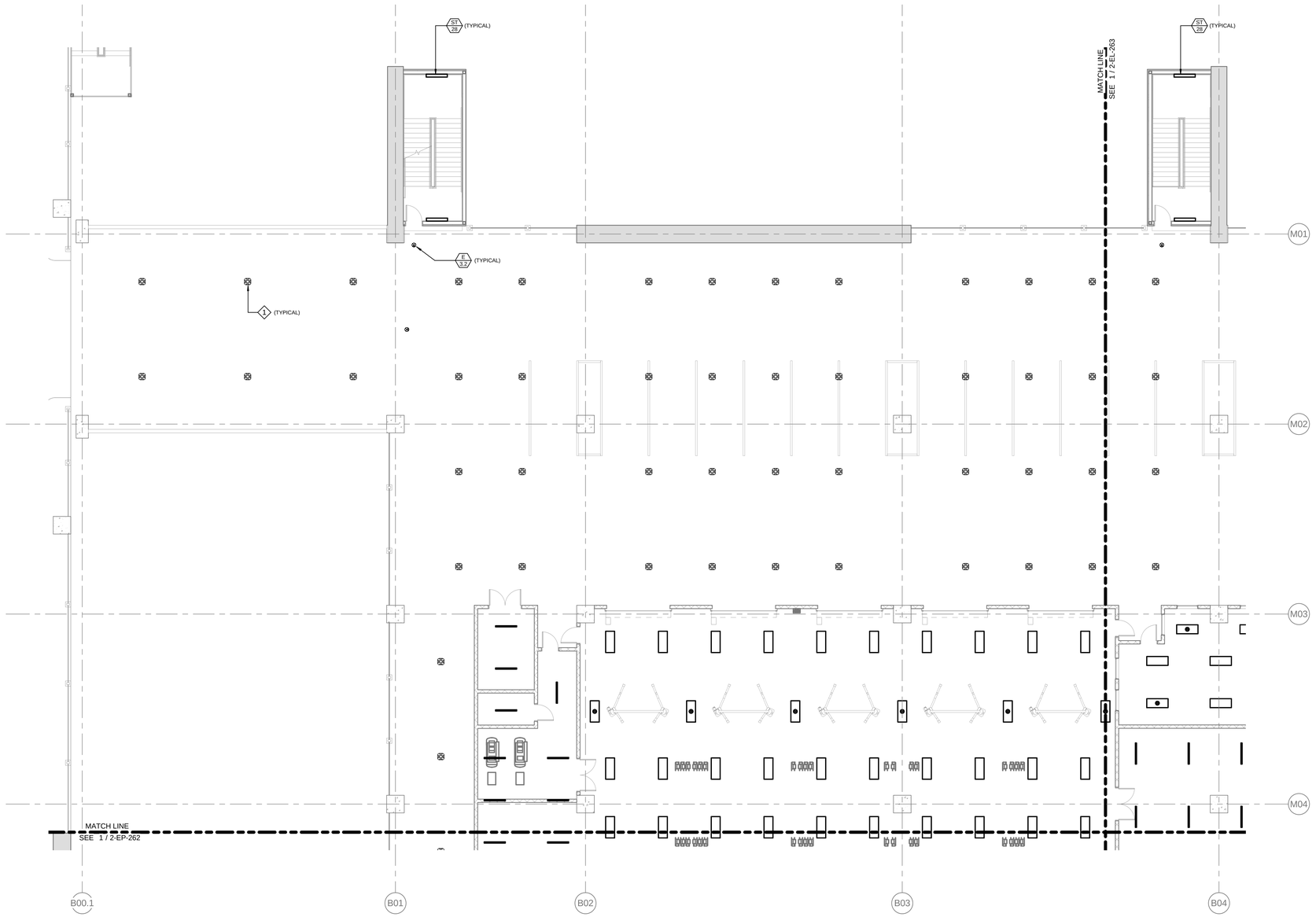
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-04\7-00-REVIT-2015ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:21:48 PM



1 BUILDING B - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART B1
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl St., Suite 100, Glendora, CA 91741
T 626.852.0500 F 626.852.0520
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:

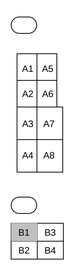
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 CEILING LIGHTING PLAN - PART B1

SHEET NO.
2-EL-261

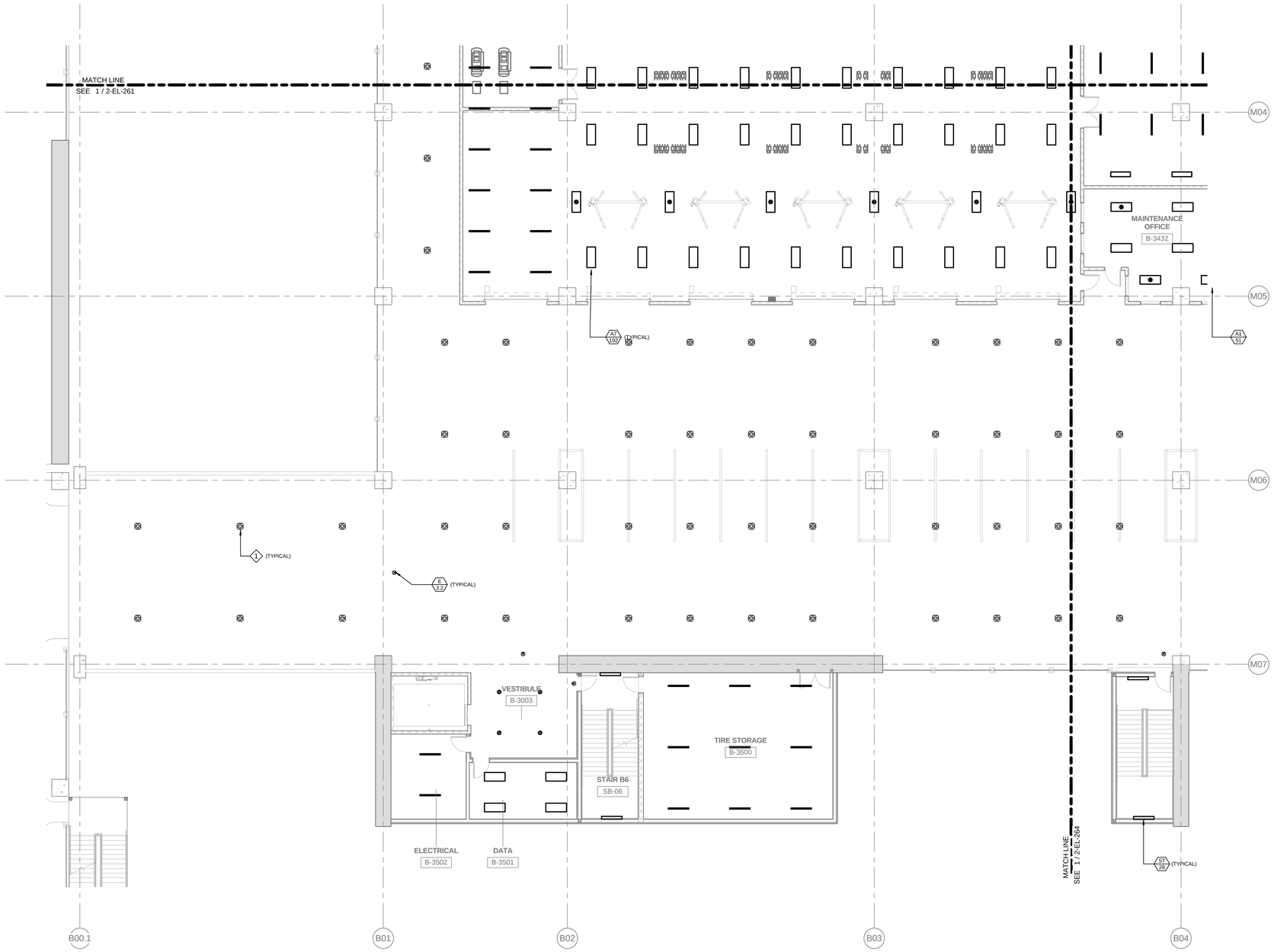


BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Penny\Documents\2015-PBS-REVIT-PROJECTS\2015-067-00-RE-VIT-2015EEEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:21:47 PM



1 BUILDING B - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART B2
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED. THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl, Suite 100, Gretna, CA 91745
T 626.960.0006
F 626.960.0030
www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

NOT FOR CONSTRUCTION

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 CEILING LIGHTING PLAN - PART B2

SHEET NO.

2-EL-262

A1	A5
A2	A6
A3	A7
A4	A8

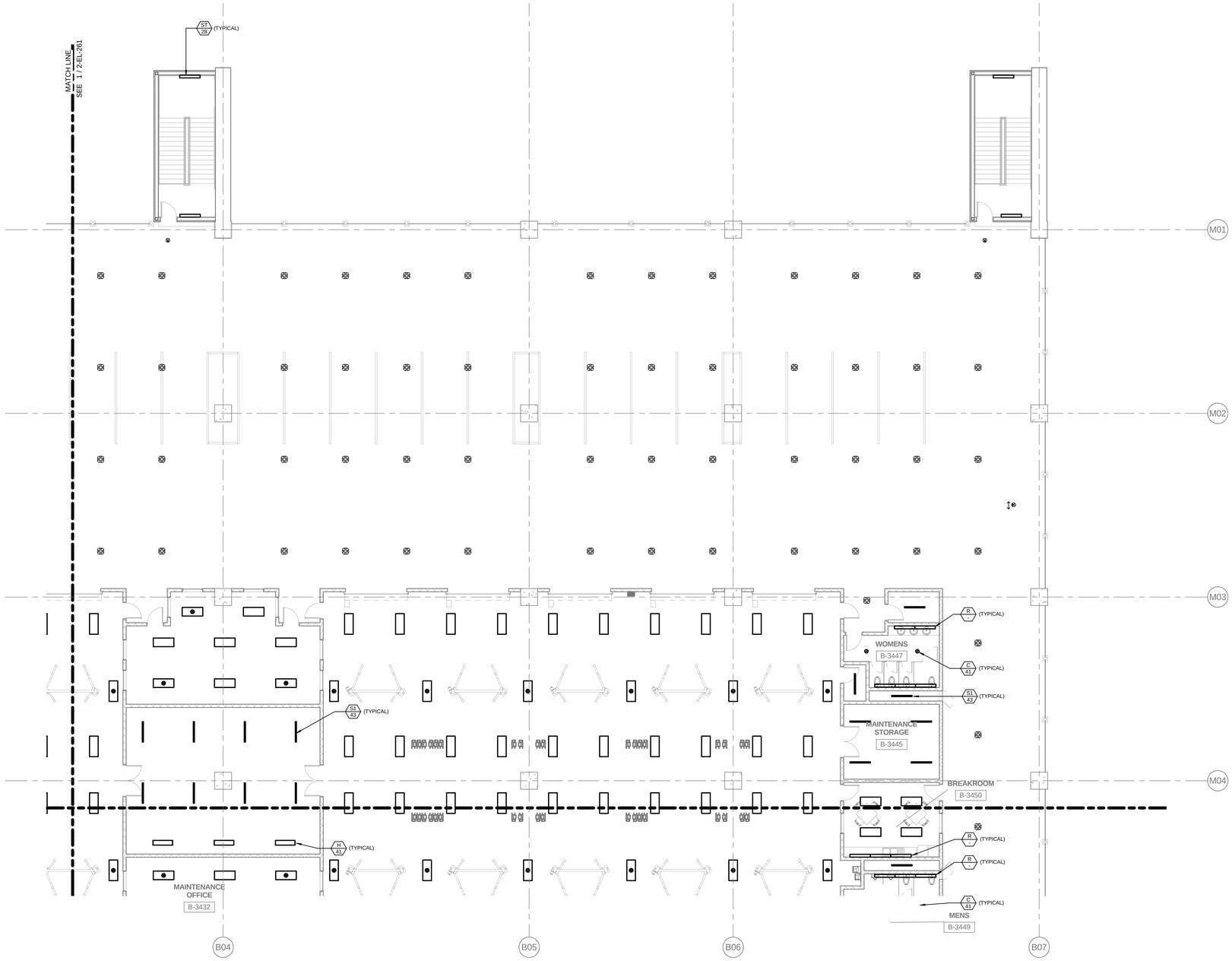
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:21:49 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART B3
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruether St., Suite 100 Gardena, CA 91746
T 424.4000500
www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 3 CEILING LIGHTING PLAN - PART B3

SHEET NO.
2-EL-263

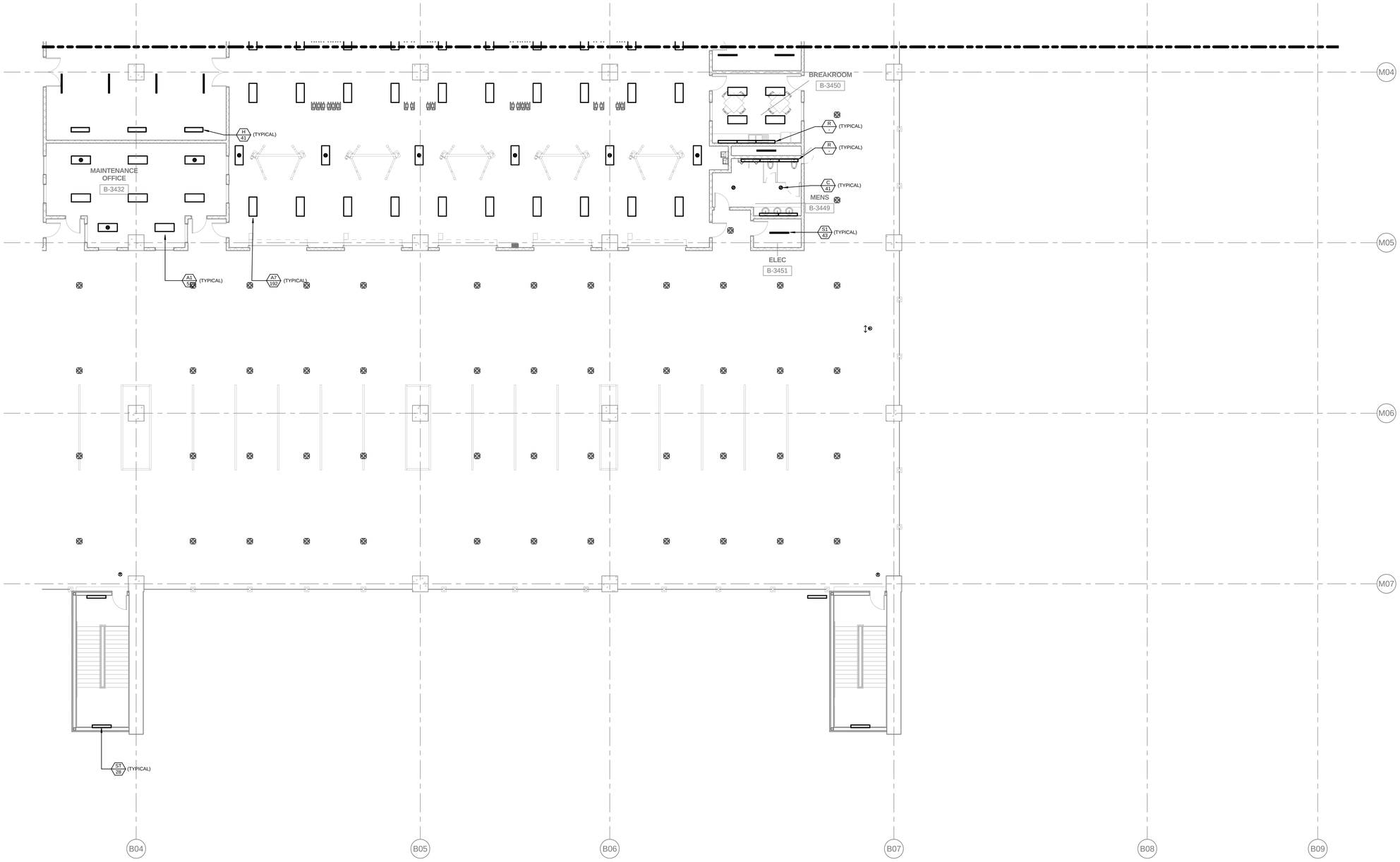
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Perry\Documents\2015-PBS-REVIT-PROJECT\2015-06\7-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:21:32 PM



1 BUILDING B - QTA - LEVEL 3 ENLARGED LIGHTING PLAN - PART B4
1/8" = 1'-0"

GENERAL NOTES

1. VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES AND TYPE OF CEILING WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO ANY WORK.
2. SEE ARCHITECTURAL ELEVATION DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL WALL-MOUNTED FIXTURES.
3. WHERE MORE THAN ONE LIGHT SWITCH OCCURS AT THE SAME LOCATION SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX UNDER A SINGLE COVER PLATE. PROVIDE BARRIER BETWEEN SWITCHES DERIVED FROM OPPOSITE PHASES OF A 277 VOLT SYSTEM AND/OR BETWEEN 277 VOLT & 120 VOLT SYSTEMS, AND/OR BETWEEN CIRCUITS DERIVED FROM DIFFERENT SYSTEMS.
4. PROVIDE LARGER CUBIC-INCH CAPACITY J-BOX DUE TO THE QUANTITY OF WIRES, CONDUIT-TO-BOX CONNECTIONS, DEVICES, ETC. IN THE BOX PER NEC 314.16.
5. WHERE SWITCH ENCLOSURE IS USED AS JUNCTION BOX, PROVIDE ADEQUATE SPACE PER NEC 312.8.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL, ELECTRICAL AND OTHER UTILITY AREAS WHERE CONDUITS, DUCT WORK, PIPING, ETC. ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION AND LIGHT DISTRIBUTION.
7. FOR LOW-VOLTAGE FIXTURES REQUIRING SEPARATE LOW-VOLTAGE TRANSFORMER/DRIVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND SIZE THE TRANSFORMER BASED ON CONNECTED CIRCUITS, COORDINATE LOCATION OF REQUIRED LOW-VOLTAGE TRANSFORMERS WITH THE ARCHITECT.
8. OCCUPANCY SENSOR CONTROLS IN OPEN AREAS SHALL BE SUBMITTED FOR REVIEW WITH FURNITURE ORIENTATIONS INDICATED TO OBTAIN THE DESIRED SWITCHING AND IDENTIFY ZONED AREAS. BASED ON FIXTURES CONTROLLED, THE OCCUPANCY SENSOR PROVIDED SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS FOR BEST COVERAGE AND PERFORMANCE.
9. ALL FIXTURES AND DEVICES THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WET LOCATION LISTED.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 West Broadway, Suite 200, Glendale, CA 91210
T 818.500.8090 F 818.500.8095
Electrical Electrical Planning | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 CEILING LIGHTING PLAN - PART B4

SHEET NO.

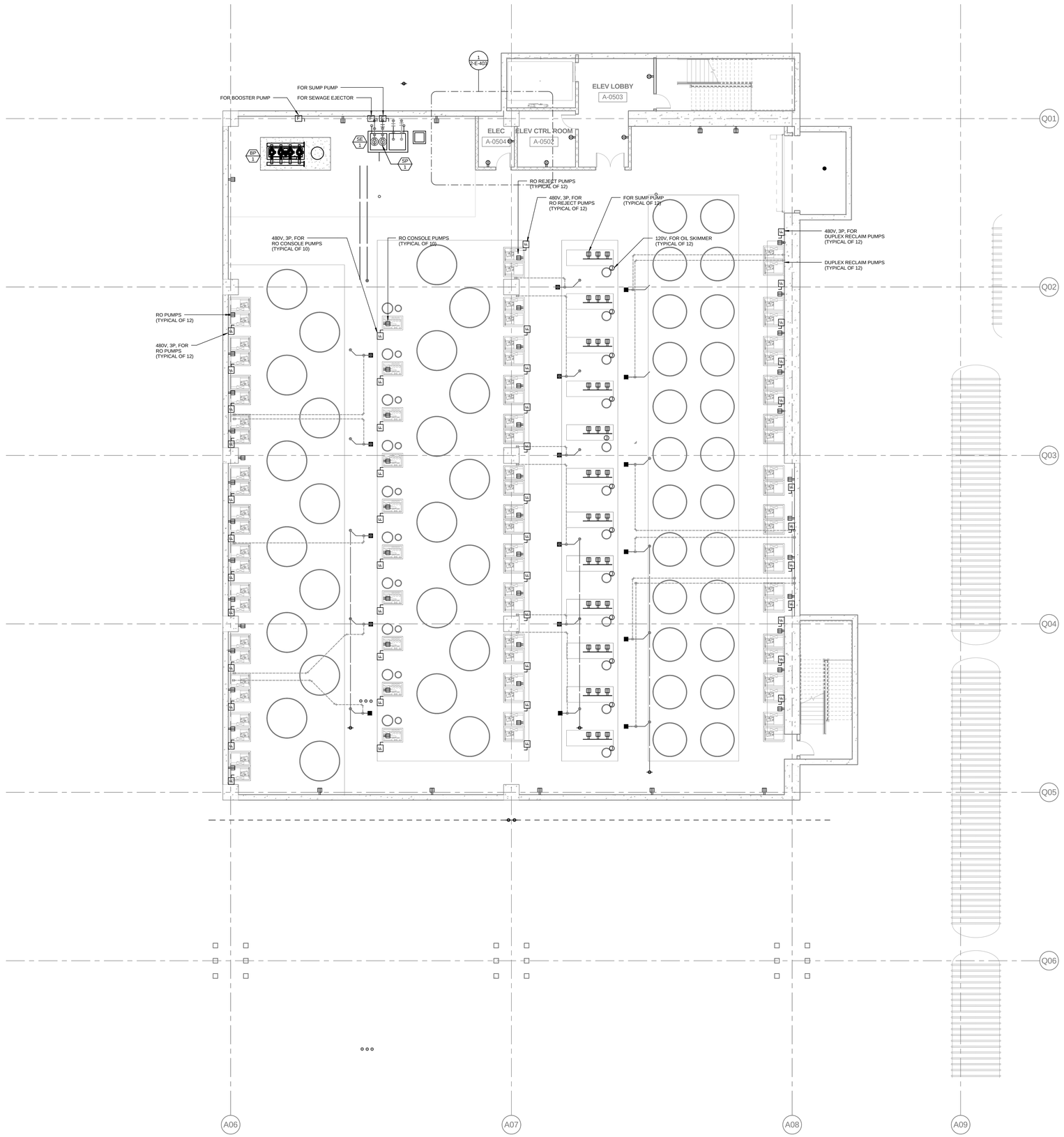
2-EL-264

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt
9/21/2016 4:21:54 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 0 ENLARGED PLAN - A5
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.
9. CONTRACTOR SHALL PROVIDE 480V, DISCONNECT SWITCH FOR ELEVATOR AND (2) 120V CIRCUITS FOR MISC. POWER IN EACH ELEVATOR MACHINE ROOM.

KEY NOTES

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2150
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl, Suite 100, Glendora, CA 91741
T 626.852.0556 F 626.852.0520
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

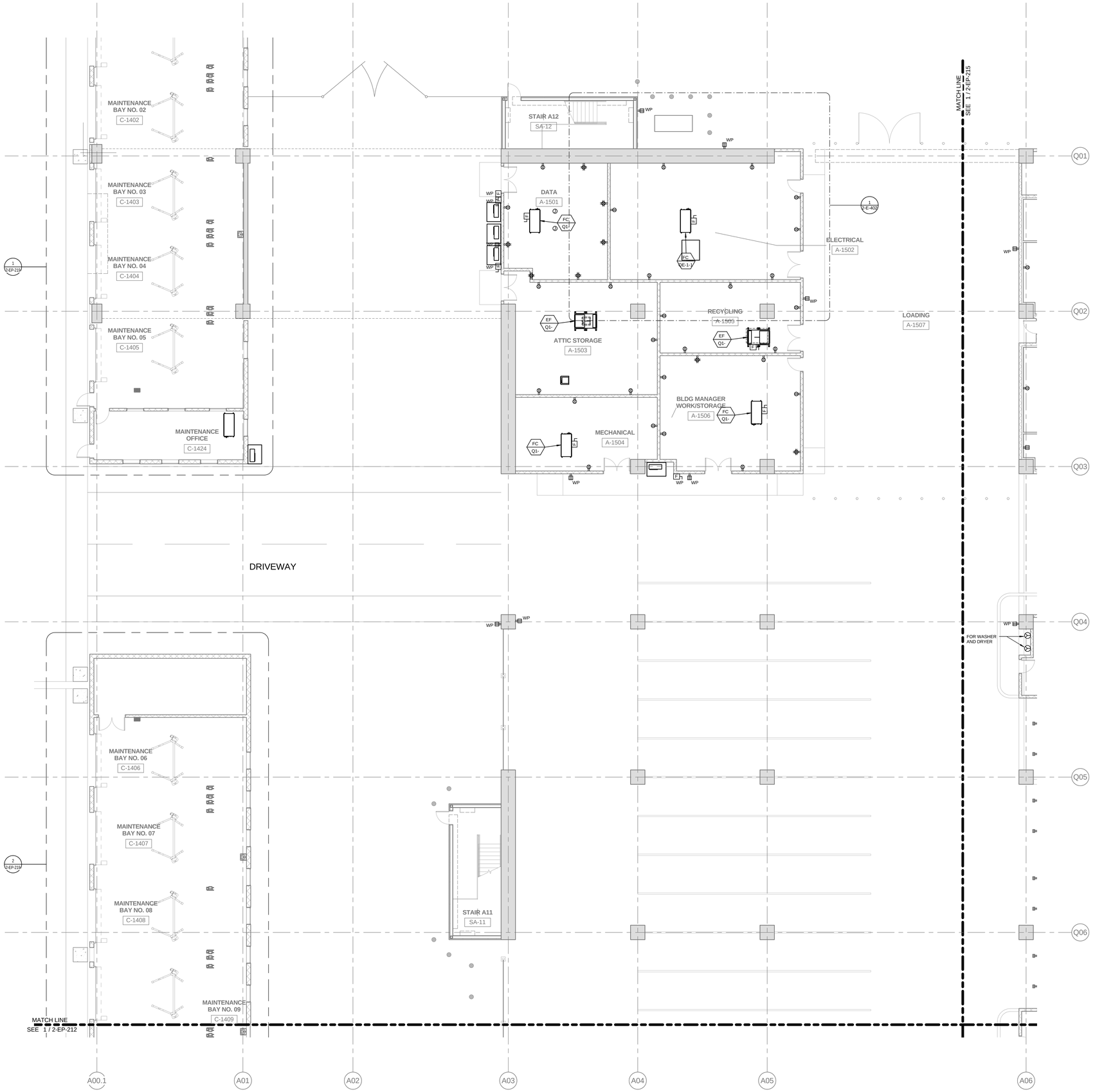
SHEET TITLE:

QTA LEVEL 0 ENLARGED PLAN - PART A5

SHEET NO.

2-EP-205

C:\Users\Henry\Documents\2015-PBS-REVIT-PROJECT\2015-06\7-00-REVIT-2015\E1\EC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:21:57 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 ENLARGED POWER PLAN - PART A1
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ocean Blvd., Suite 1000, Long Beach, CA 90802
T 562.628.0008 F 562.628.0020
Mechanical Electrical Plumbing | Consulting Engineers

REVISIONS:

MARK	DATE	DESCRIPTION

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 1 ENLARGED POWER PLAN - PART A1

SHEET NO.
2-EP-211

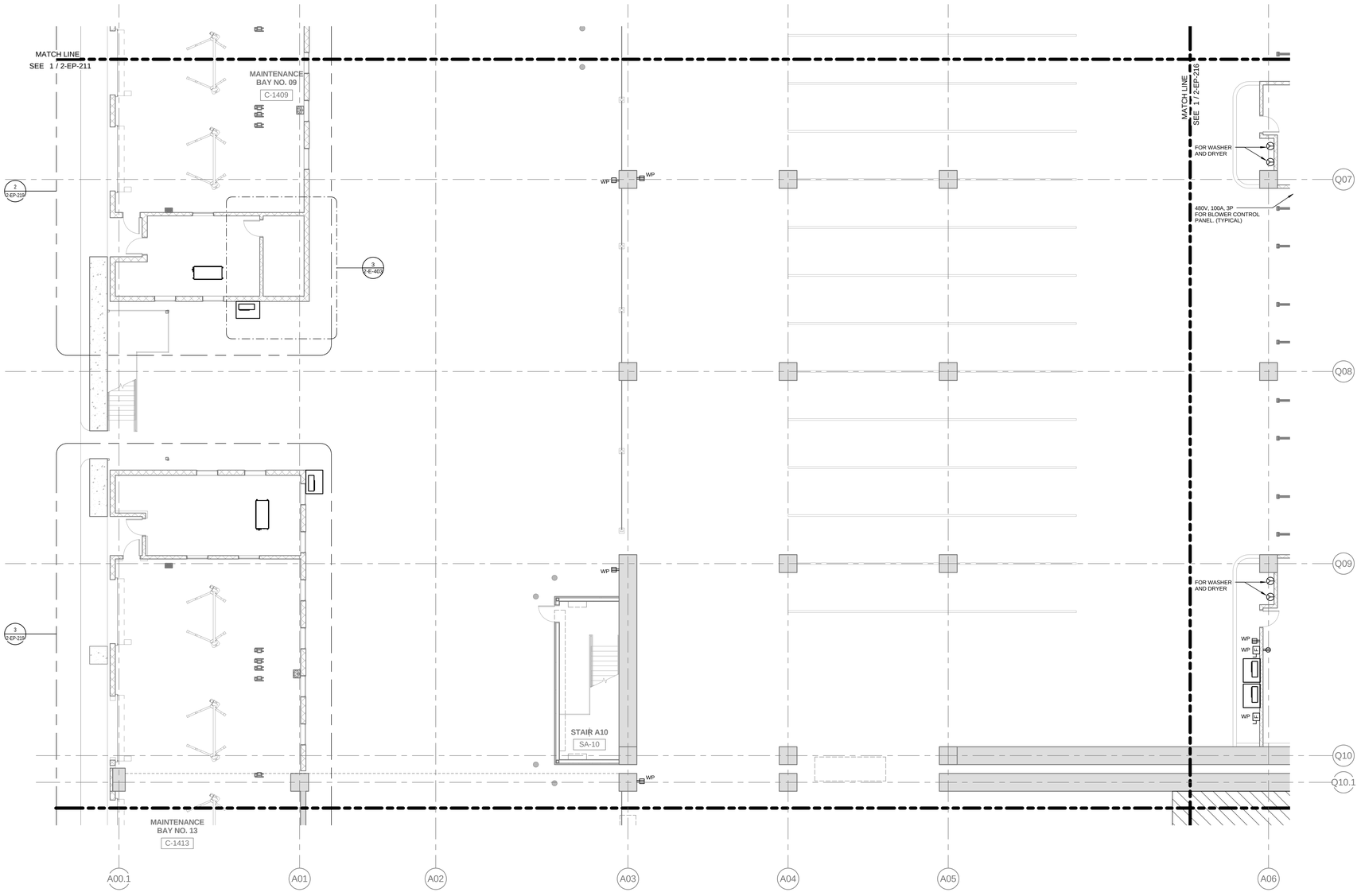
BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\hmy\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt
9/21/2016 4:21:09 PM



1 BUILDING A - QTA - LEVEL 1 ENLARGED POWER PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl, Suite 100, Gentry, CA 91740
T 626.8600008
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ.NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1
ENLARGED POWER
PLAN - PART A2

SHEET NO.

2-EP-212

BUILDING A & B KEYPLAN

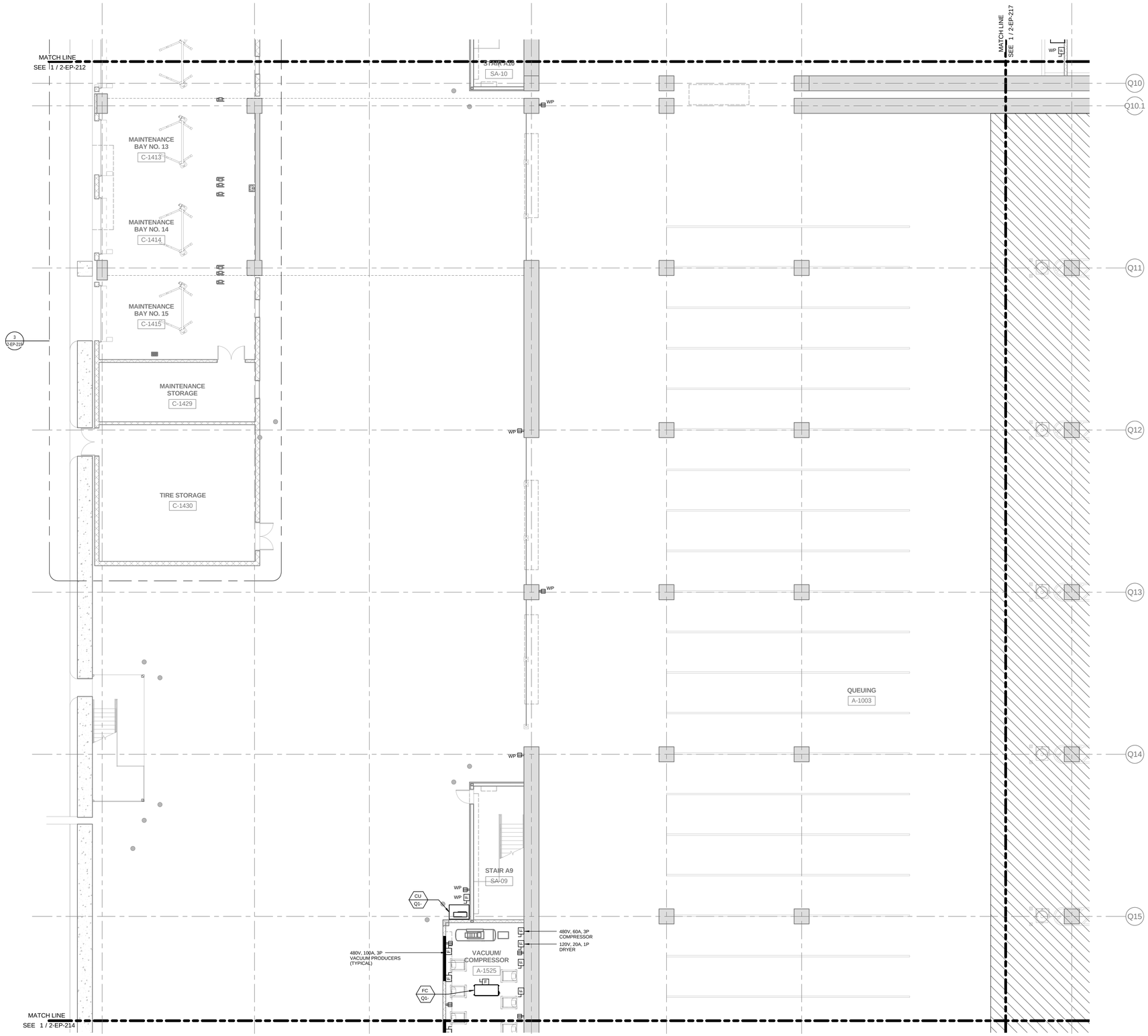
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-907-XX-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt

9/23/2016 4:22:01 PM



1 BUILDING A - QTA - LEVEL 1 ENLARGED POWER PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.
9. PROVIDE CONTACTOR ON EACH PRODUCER FOR C-STOP. POWER TO EACH PRODUCER SHALL GO TO VACUUM CONTROL PANEL.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Acacia, Suite 100, Ontario, CA 91761
T 909.390.0008 F 909.390.0020
Electrical Electrical Planning / Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1 ENLARGED POWER PLAN - PART A3

SHEET NO.

2-EP-213

BUILDING A & B KEYPLAN

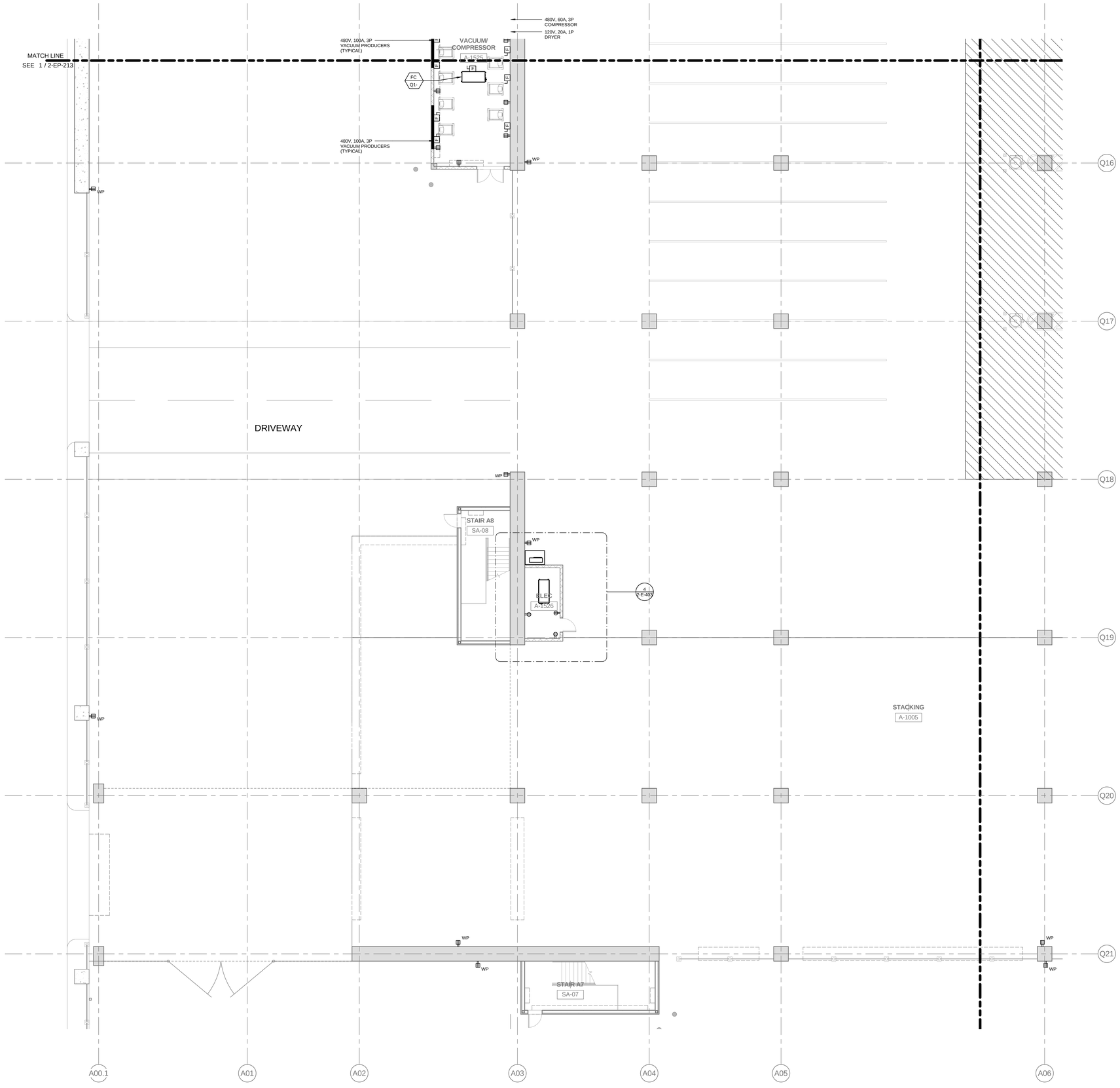
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT PROJECT\2015-067.03-REVIT 2015\EE\EEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:22:04 PM



1 BUILDING A - QTA - LEVEL 1 ENLARGED POWER PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.
9. PROVIDE CONTACTOR ON EACH PRODUCER FOR C-STOP. POWER TO EACH PRODUCER SHALL GO TO VACUUM CONTROL PANEL.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruett A, Ave 05 Century, CA 91765
T.626.8000
F.626.8000
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1
ENLARGED POWER
PLAN - PART A4

SHEET NO.

2-EP-214

A1	A5
A2	A6
A3	A7
A4	A8

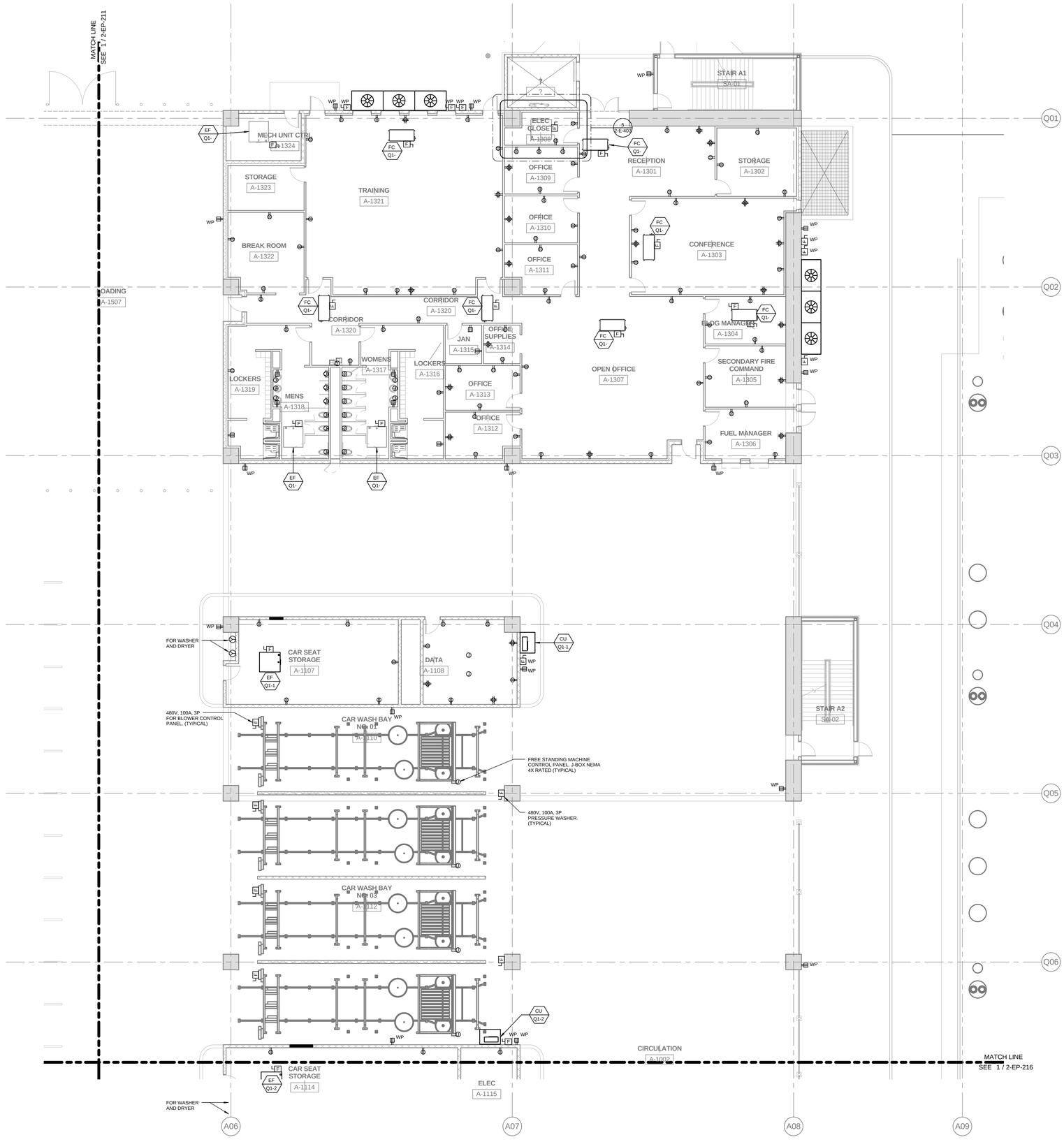
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-06\7-SD-REVIT-2015ELEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:21:56 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 ENLARGED POWER PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.
9. CONTRACTOR SHALL PROVIDE 480V, DISCONNECT SWITCH FOR ELEVATOR AND (2) 120V CIRCUITS FOR MISC. POWER IN EACH ELEVATOR MACHINE ROOM.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 Oceangate, Suite 600, Long Beach, CA 90802
T 562.628.0500 F 562.628.0501
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 1 ENLARGED POWER PLAN - PART A5

SHEET NO.
2-EP-215

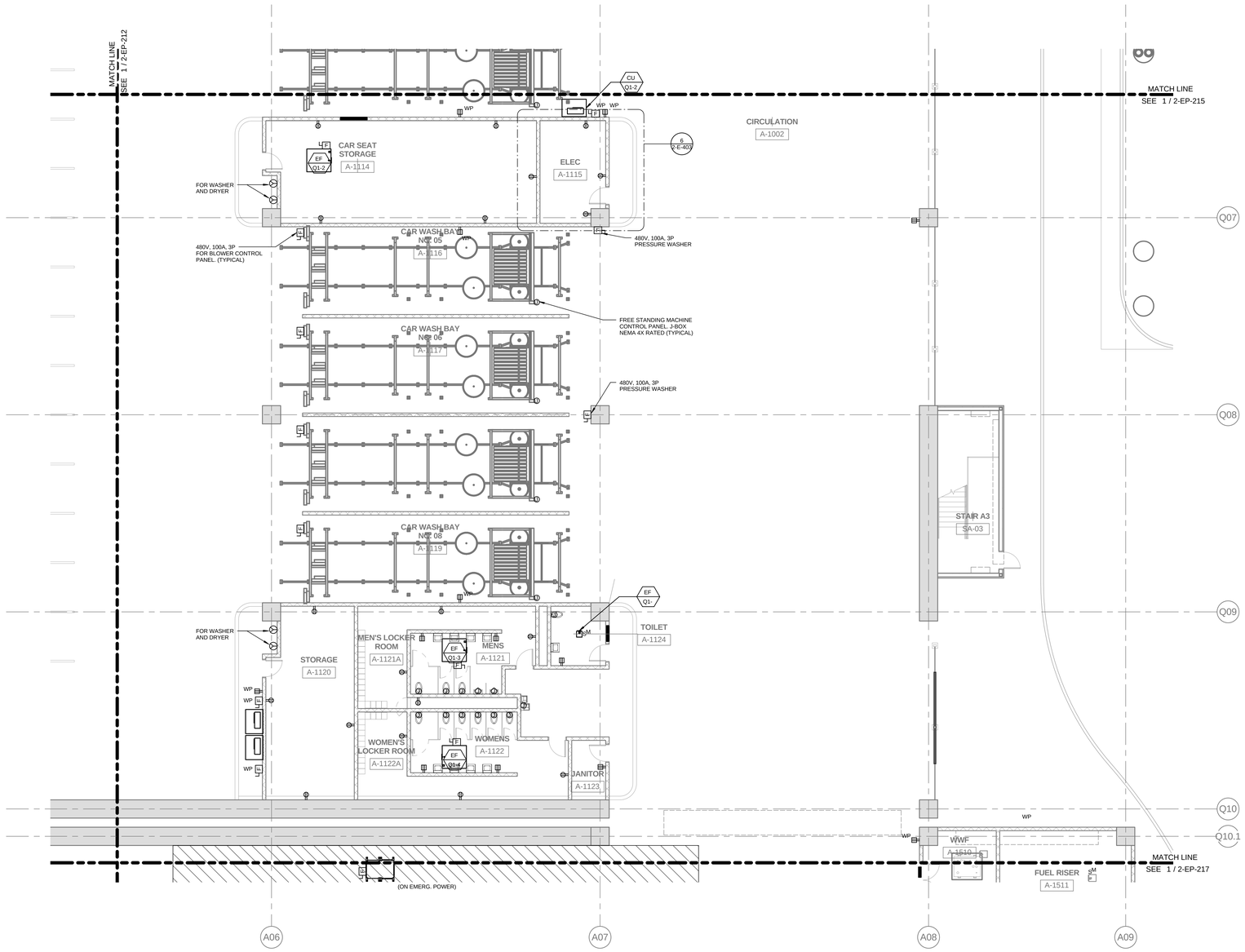
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\hlerry\Documents\2015-PBS-REVIT-PROJECT\2015-06\7-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:22:11 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 ENLARGED POWER PLAN - PART A6
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl St, Suite 100, Glendora, CA 91741
T 626.852.0006 F 626.852.0021
X 626.852.0030 www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

ONE LAX PMD

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1
ENLARGED POWER
PLAN - PART A6

SHEET NO.

2-EP-216

A1	A5
A2	A6
A3	A7
A4	A8

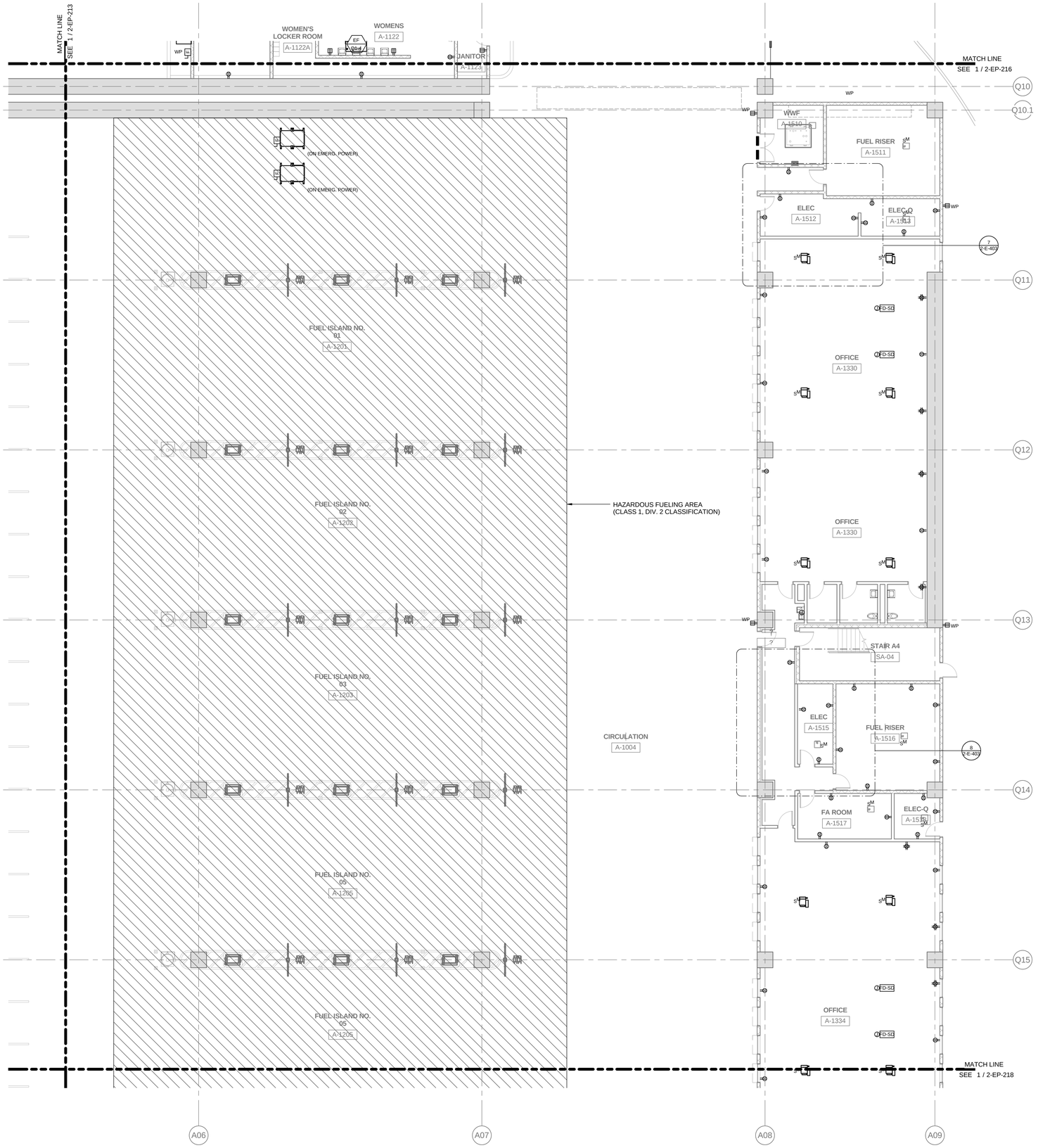
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015ELEC-DA4881-B1.DG_A_B-R15.rvt

9/21/2016 4:22:16 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 ENLARGED POWER PLAN - PART A7
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl, Suite 100, Gretna, CA 91776
T 504.835.5000 F 504.835.5001
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1 ENLARGED POWER PLAN - PART A7

SHEET NO.

2-EP-217

A1	A5
A2	A6
A3	A7
A4	A8

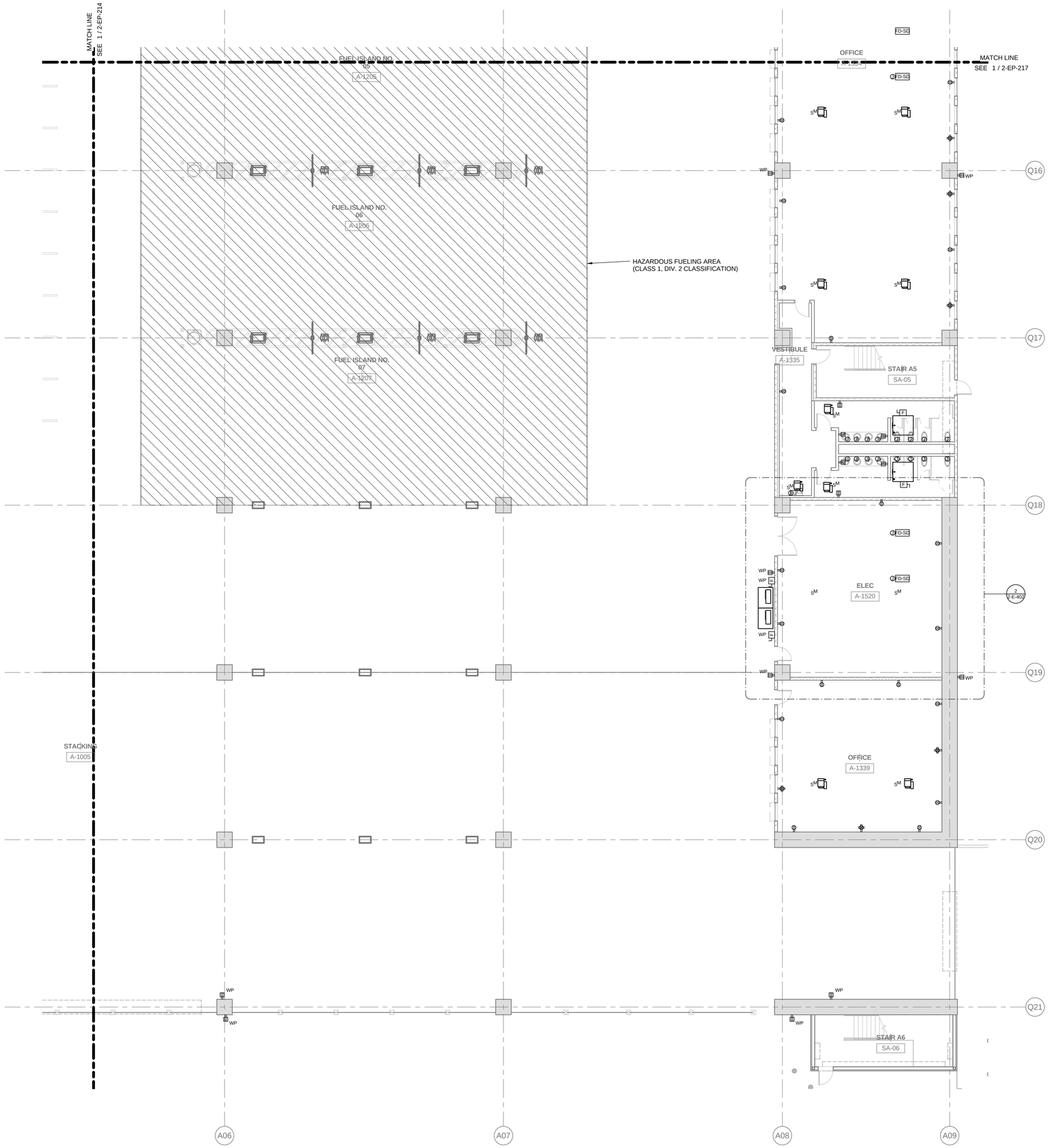
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 4:22:27 PM

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt



1 BUILDING A - QTA - LEVEL 1 ENLARGED POWER PLAN - PART A8
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2150
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl, Ste 100, Gerlach, CA 91748
P.E.#24000
310.410.0000 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 1 ENLARGED POWER PLAN - PART A8

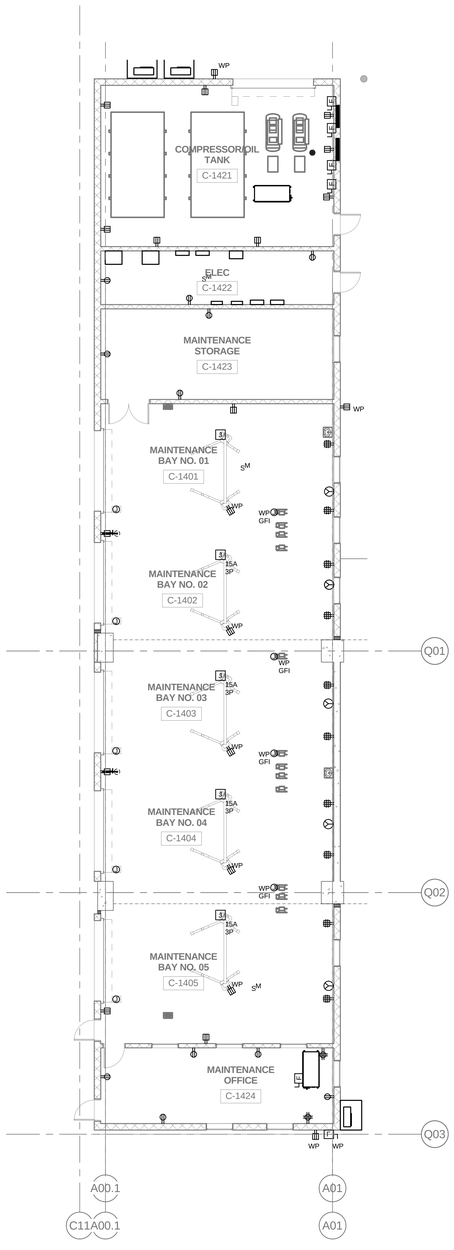
SHEET NO.
2-EP-218

A1	A5
A2	A6
A3	A7
A4	A8

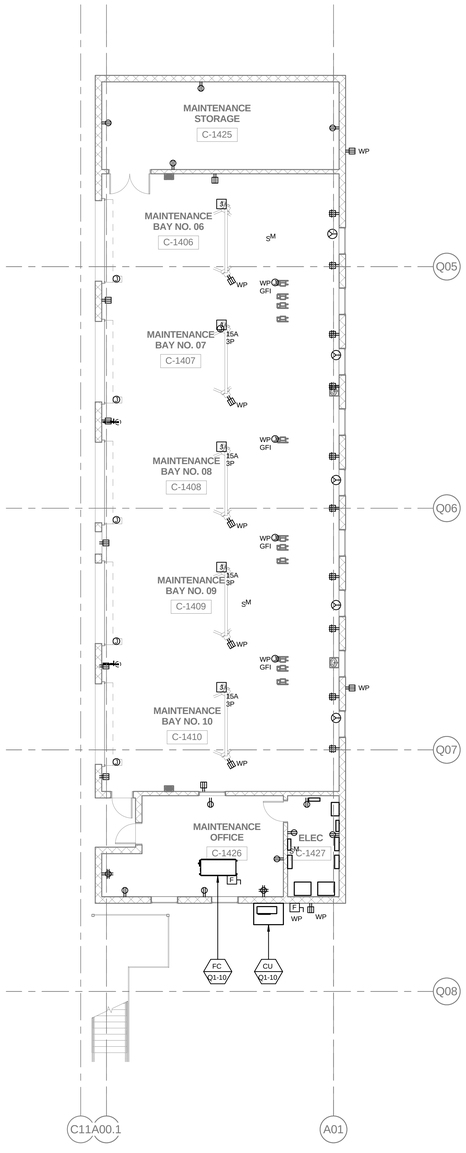
B1	B3
B2	B4

BUILDING A & B KEYPLAN

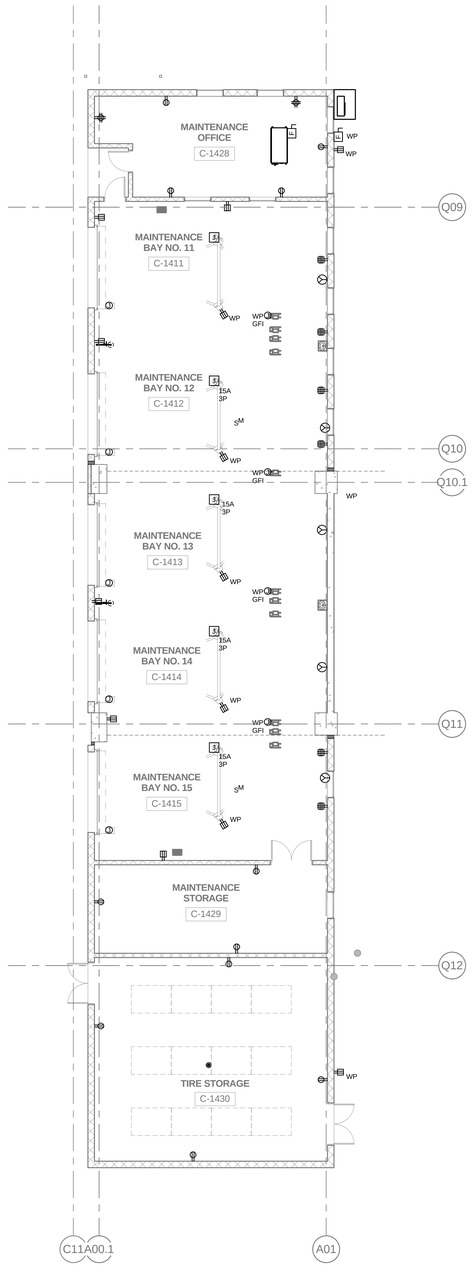
C:\Users\henryl\Documents\20315-PBS-REVIT-PROJECT\20315-067-X0-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:22:32 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 ENLARGED POWER PLAN - MAINTENANCE NORTH
1/8" = 1'-0"



2 BUILDING A - QTA - LEVEL 1 ENLARGED POWER PLAN - MAINTENANCE CENTER
1/8" = 1'-0"



3 BUILDING A - QTA - LEVEL 1 ENLARGED POWER PLAN - MAINTENANCE SOUTH
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.
9. PROVIDE CONTACTOR ON EACH PRODUCER FOR C-STOP. POWER TO EACH PRODUCER SHALL GO TO VACUUM CONTROL PANEL.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ash St, Ste 101 Gentry, CA 91745
T 626.480.0500
F 626.480.0520
www.pbsengineering.com
Electrical Electrical Planning | Controls Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS:

MARK:	DATE:	DESCRIPTION

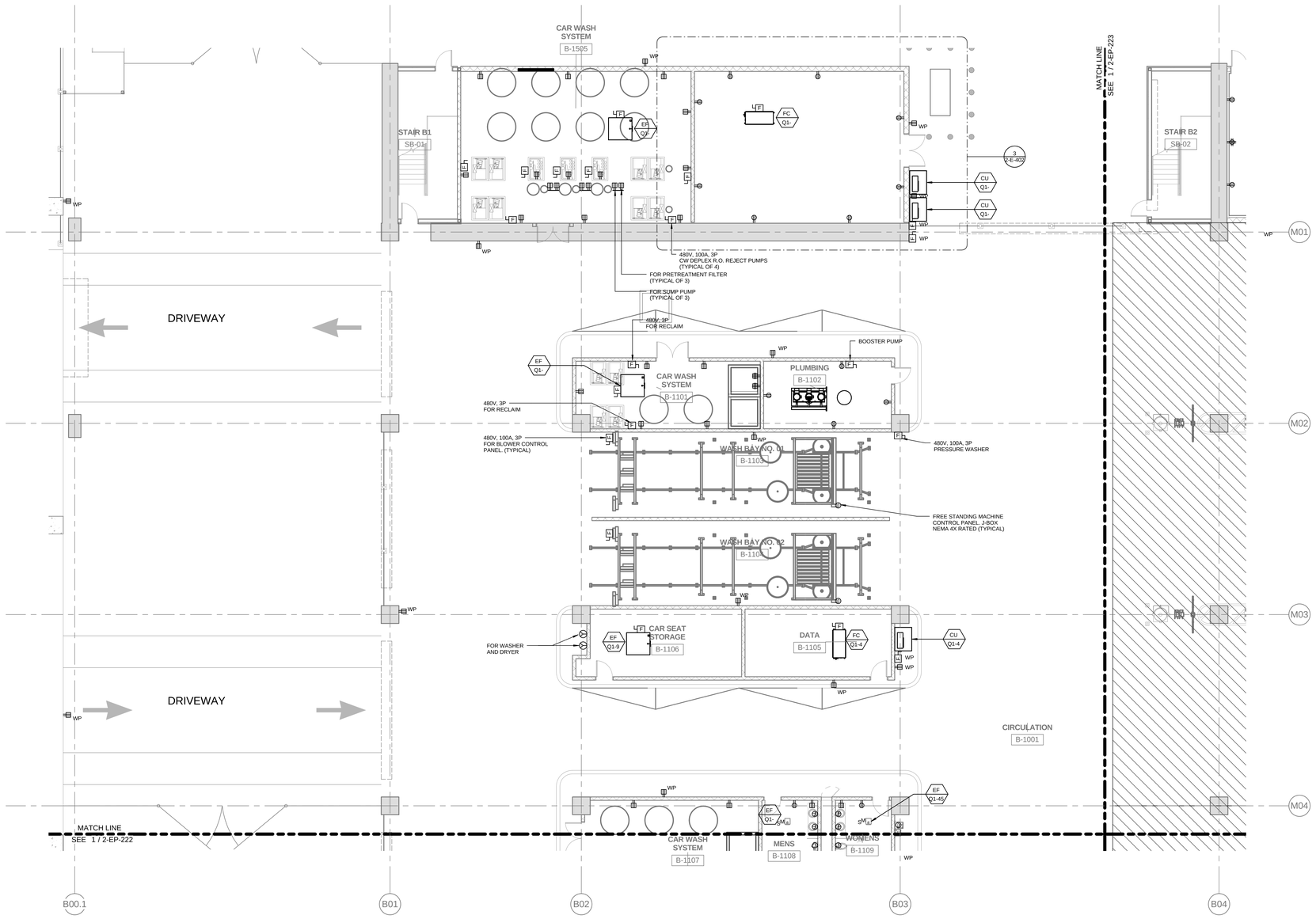
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L
CHECKED BY:	KS/NB

SHEET TITLE:
QTA LEVEL 1 ENLARGED POWER PLAN - MAINTENANCE

SHEET NO.
2-EP-219

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015ELEC-DA4881-BLDG_A_R15.rvt
9/21/2016 4:22:36 PM



1 BUILDING B - QTA - LEVEL 1 ENLARGED POWER PLAN - PART B1
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
1000 East Ash St, Ste 101 Gentry, CA 91745
T 626.800.8000
F 626.800.8001
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

LAX ONT PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1
ENLARGED POWER
PLAN - PART B1

SHEET NO.

2-EP-221

A1	A5
A2	A6
A3	A7
A4	A8

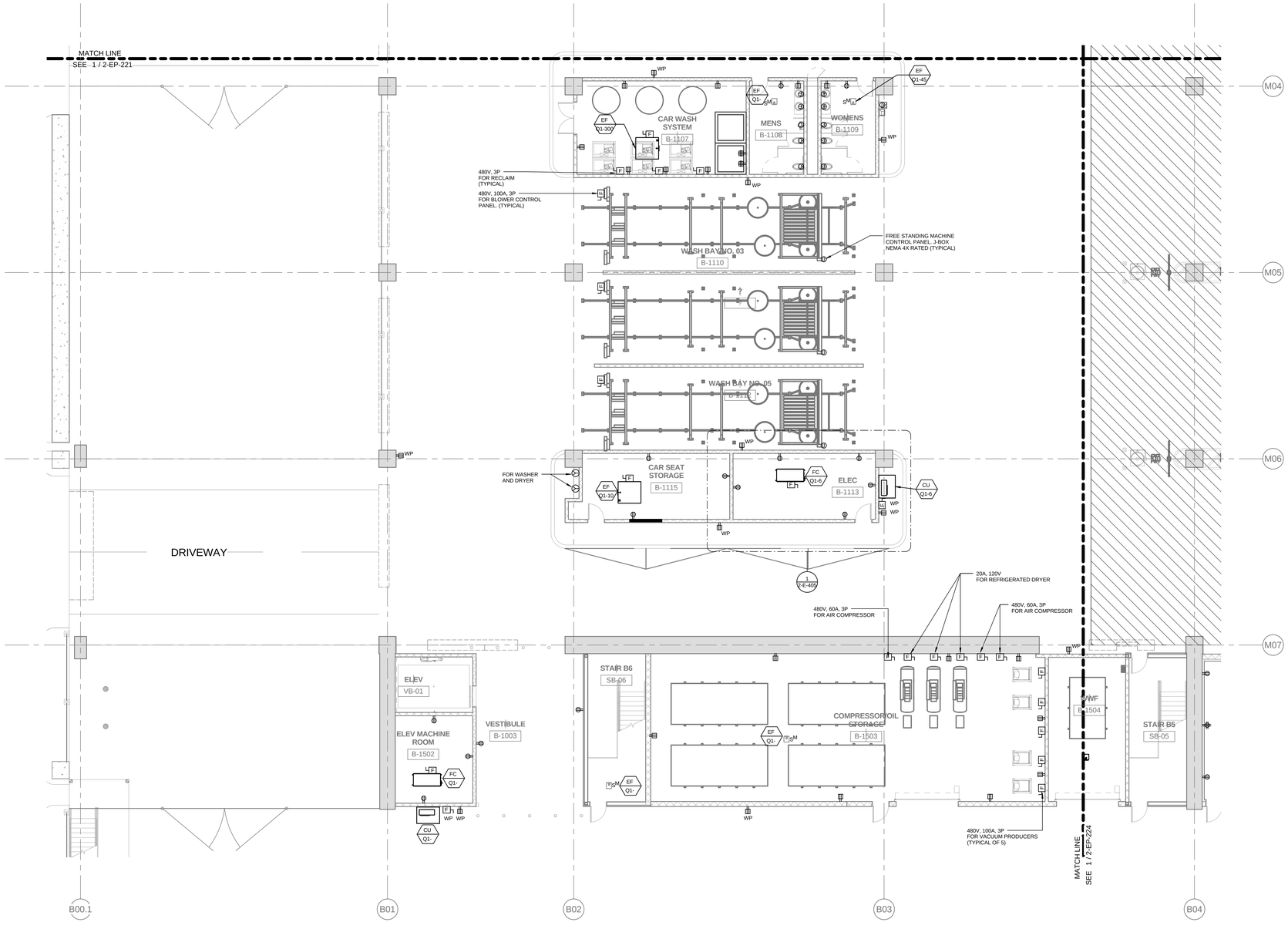
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECT\2015-06\7-03-REVIT 2015\E\E-EC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:22:40 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 1 ENLARGED POWER PLAN - PART B2
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2150
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ash & Ash St Century, CA 91765
T 626.8920000
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 1
ENLARGED POWER
PLAN - PART B2

SHEET NO.
2-EP-222

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\henry\Documents\2015-PBS-REVIT PROJECT\2015-067-00-REVIT 2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:22:44 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

MATCH LINE
SEE 1 / 2-EP-221

STAIR B2
SB-02

OFFICE
B-1301

WOMENS
B-1302

MENS
B-1303

FIRE COMMAND
B-1304

CU
V1-7

CU
V1

WP

FUEL ISLAND NO. 01
B-1201

FUEL ISLAND NO. 02
B-1202

HAZARDOUS FUELING AREA
(CLASS 1, DIV. 2 CLASSIFICATION)

QUEUING
B-1002

STAIR B3
SB-03

FOR GARAGE DOOR
(TYPICAL)

MAINTENANCE
BAY NO. 01
B-1401

MAINTENANCE
BAY NO. 02
B-1402

MAINTENANCE
BAY NO. 03
B-1403

MAINTENANCE
BAY NO. 04
B-1404

MAINTENANCE
OFFICE
B-1409

ELEC
B-1410

MAINTENANCE
STORAGE
B-1411

FIRE ALARM
B-1412

COMPRESSOR/OIL
STORAGE
B-1415

480V, 15A, 3P
FOR VEHICLE LIFT
(TYPICAL)

208V, 1P
TIRE CHANGER
(TYPICAL)

208V, 1P
TIRE BALANCER
(TYPICAL)

120V, 20A
FOR HOSE REEL
(TYPICAL)

GFI

sM

2
S-E-405

FOR GARAGE DOOR
(TYPICAL)

MATCH LINE
SEE 1 / 2-EP-224

M01 M02 M03 M04

B04 B05 B06 B07 B08 B09

1 BUILDING B - QTA - LEVEL 1 ENLARGED POWER PLAN - PART B3
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ocean Blvd., Suite 200, Long Beach, CA 90802
T 562.432.0508 F 562.432.0520
www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 1
ENLARGED POWER
PLAN - PART B3

SHEET NO.
2-EP-223

A1	A5
A2	A6
A3	A7
A4	A8

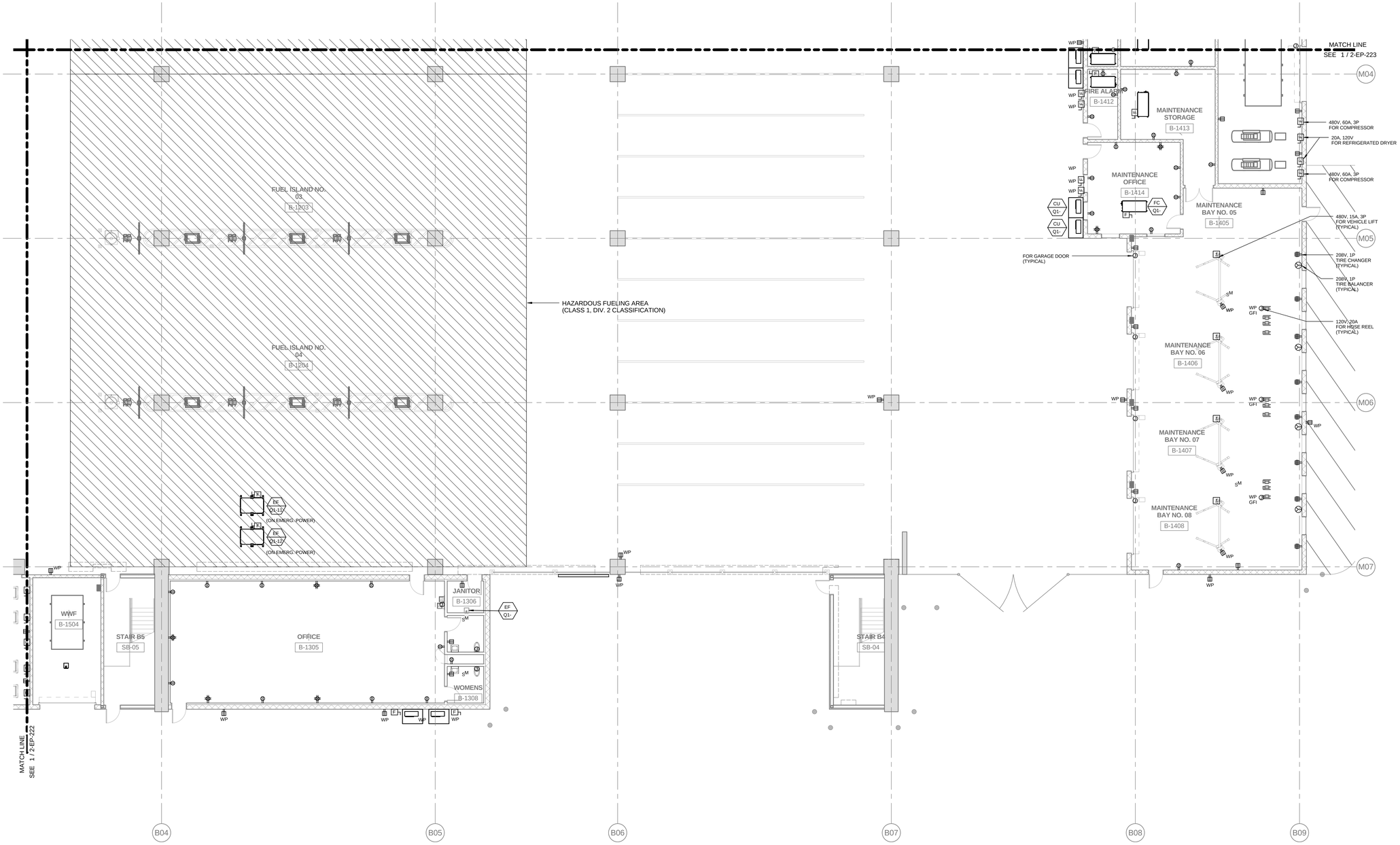
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015ELEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:22:48 PM



1 BUILDING B - QTA - LEVEL 1 ENLARGED POWER PLAN - PART B4
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
1000 East Acacia St., Suite 100, Ontario, CA 91761
T 909.390.0006 F 909.390.0020
Electrical Mechanical Plumbing Fire Protection

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 1 ENLARGED POWER PLAN - PART B4

SHEET NO.
2-EP-224

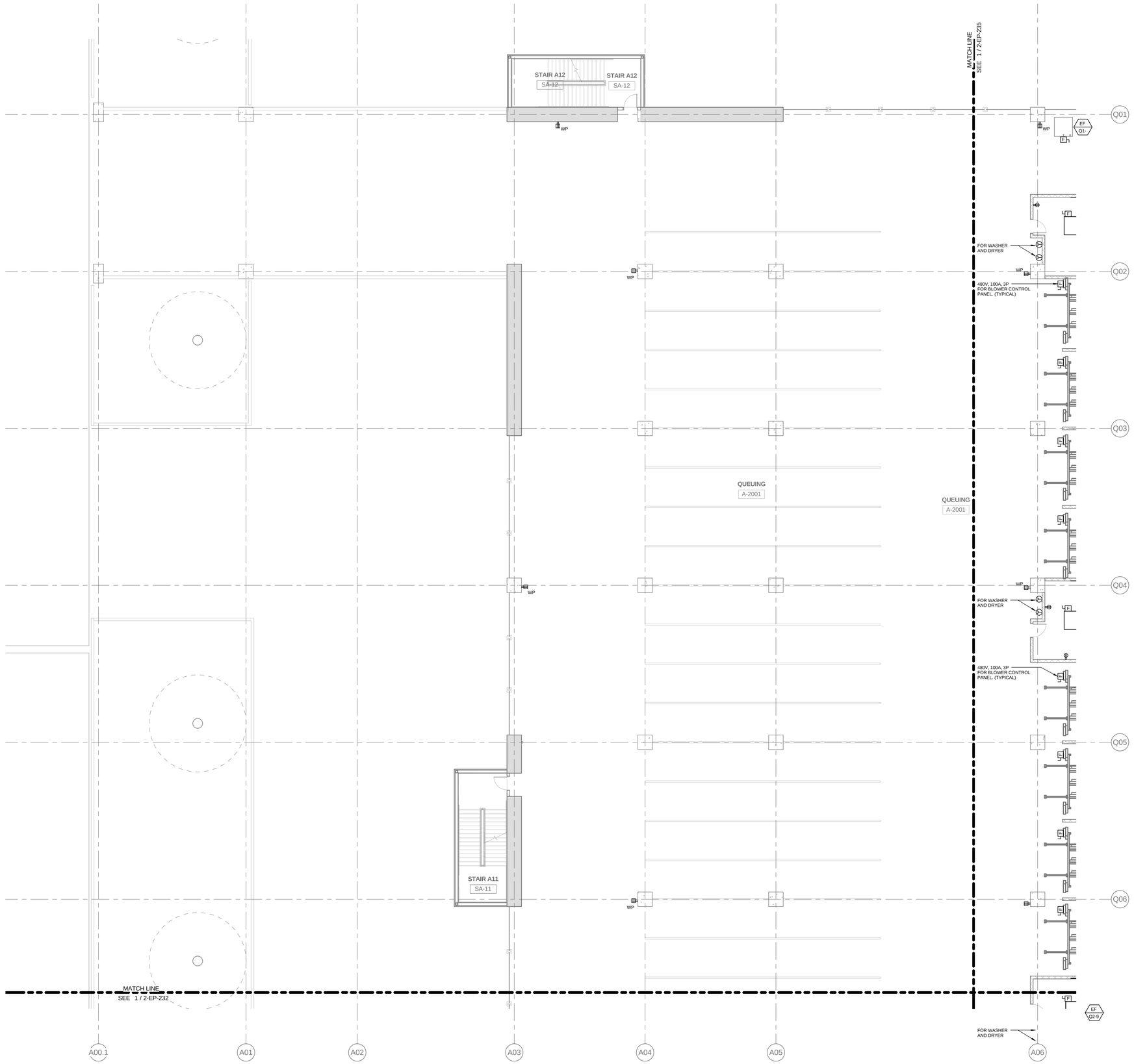
BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Perry\Documents\2015-PBS-REVIT-PROJECTS\2015-06\7-00-RE\VT-2015EE\EC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:22:35 PM



1 BUILDING A - QTA - LEVEL 2 ENLARGED POWER PLAN - PART A1
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ash A, Suite 100, Campbell, CA 95008
T 831.426.0100
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 2
ENLARGED POWER
PLAN - PART A1

SHEET NO.
2-EP-231

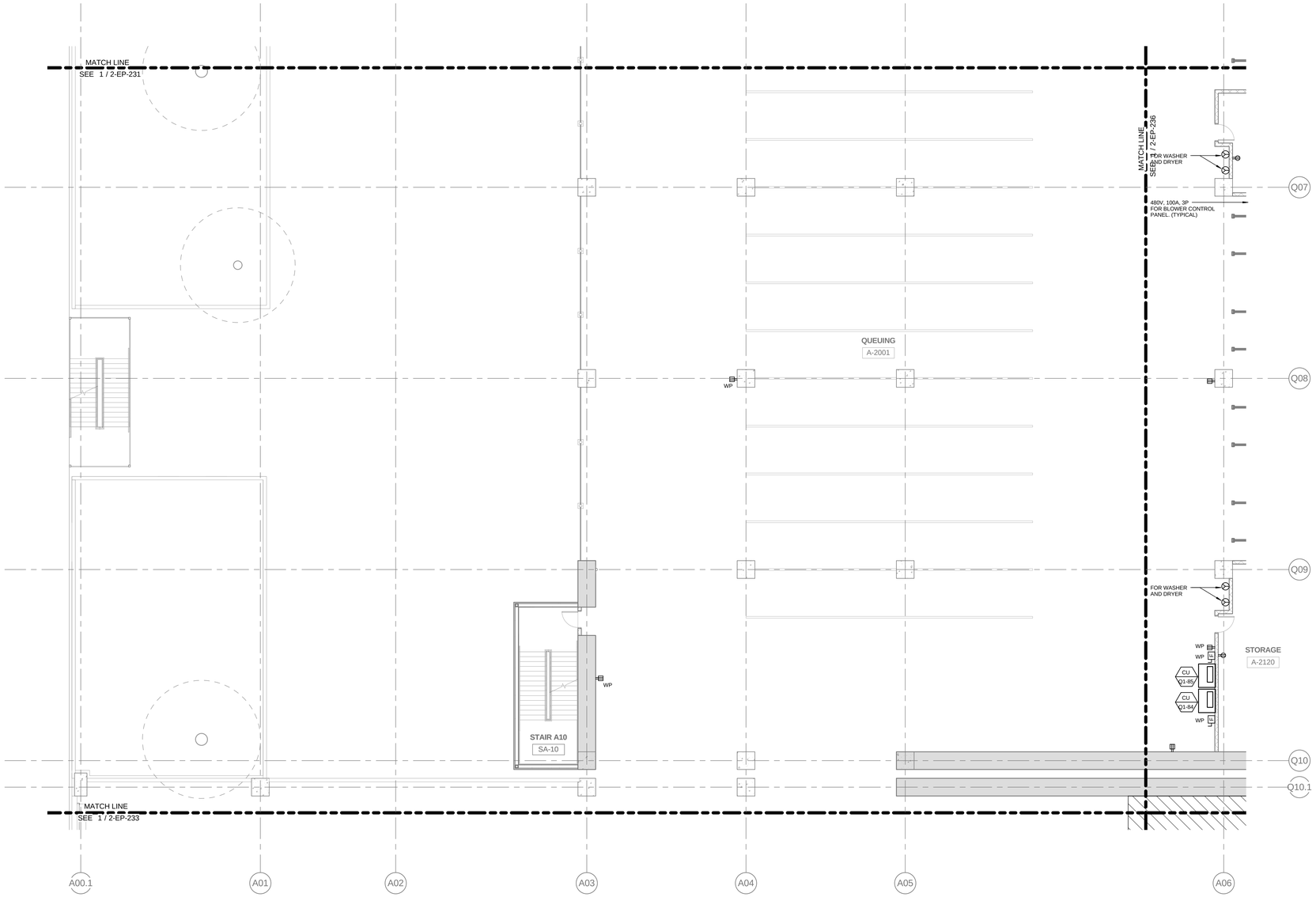
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-04\-10-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:22:57 PM



1 BUILDING A - QTA - LEVEL 2 ENLARGED POWER PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl, Ste 100 Glendora, CA 91741
T 626.852.0000 F 626.852.0001
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 2 ENLARGED POWER PLAN - PART A2

SHEET NO.
2-EP-232

A1	A5
A2	A6
A3	A7
A4	A8

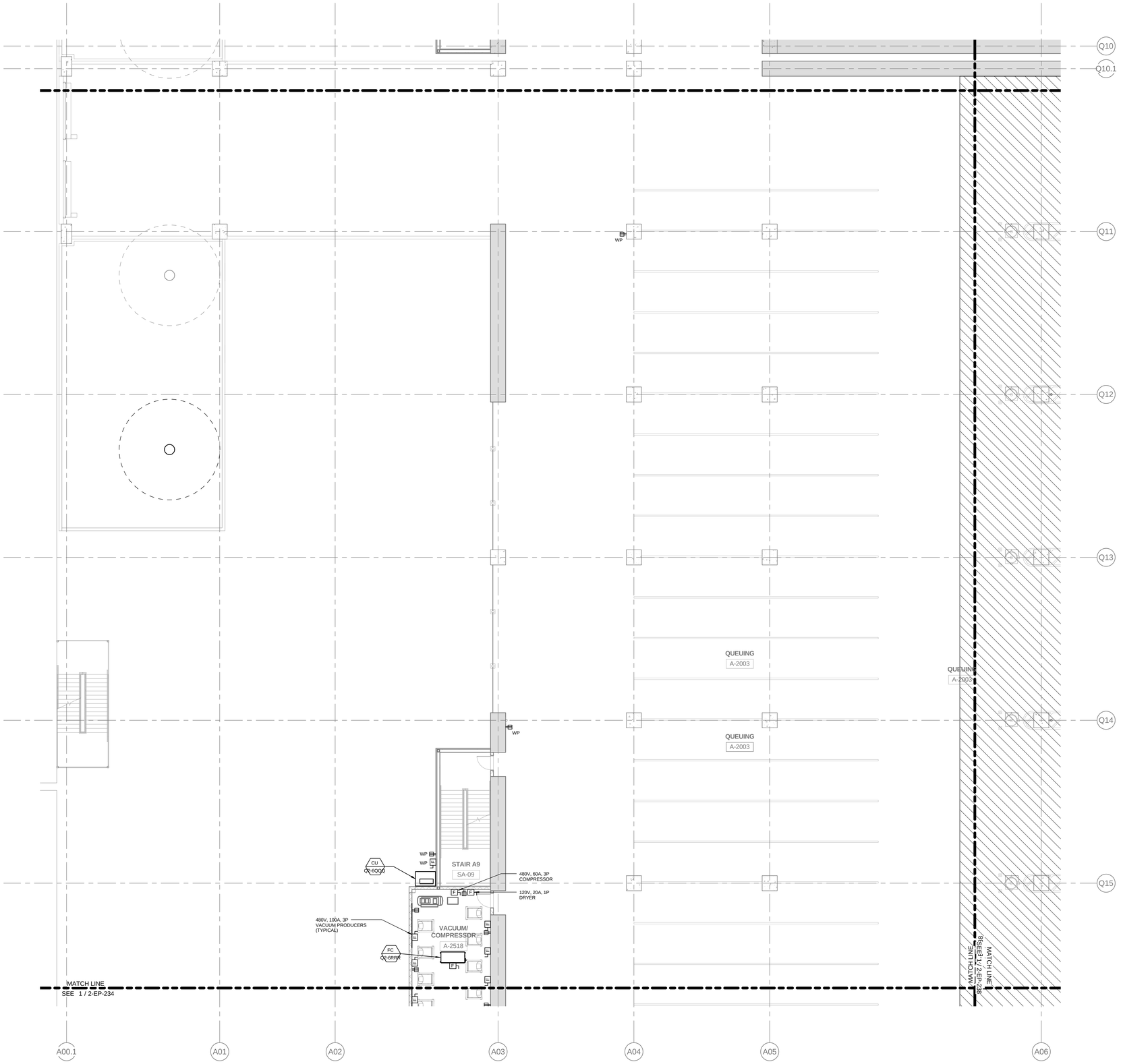
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\henry\Documents\2015-PBS-REVIT PROJECT\2015-067.03-RE-VIT 2015\EE\EC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:22:08 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 2 ENLARGED POWER PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.
9. PROVIDE CONTACTOR ON EACH PRODUCER FOR C-STOP. POWER TO EACH PRODUCER SHALL GO TO VACUUM CONTROL PANEL.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2150
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ash, Suite 101 Gerlach, CA 96130
T 530.825.0200 F 530.825.0201
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2 ENLARGED POWER PLAN - PART A3

SHEET NO.

2-EP-233

BUILDING A & B KEYPLAN

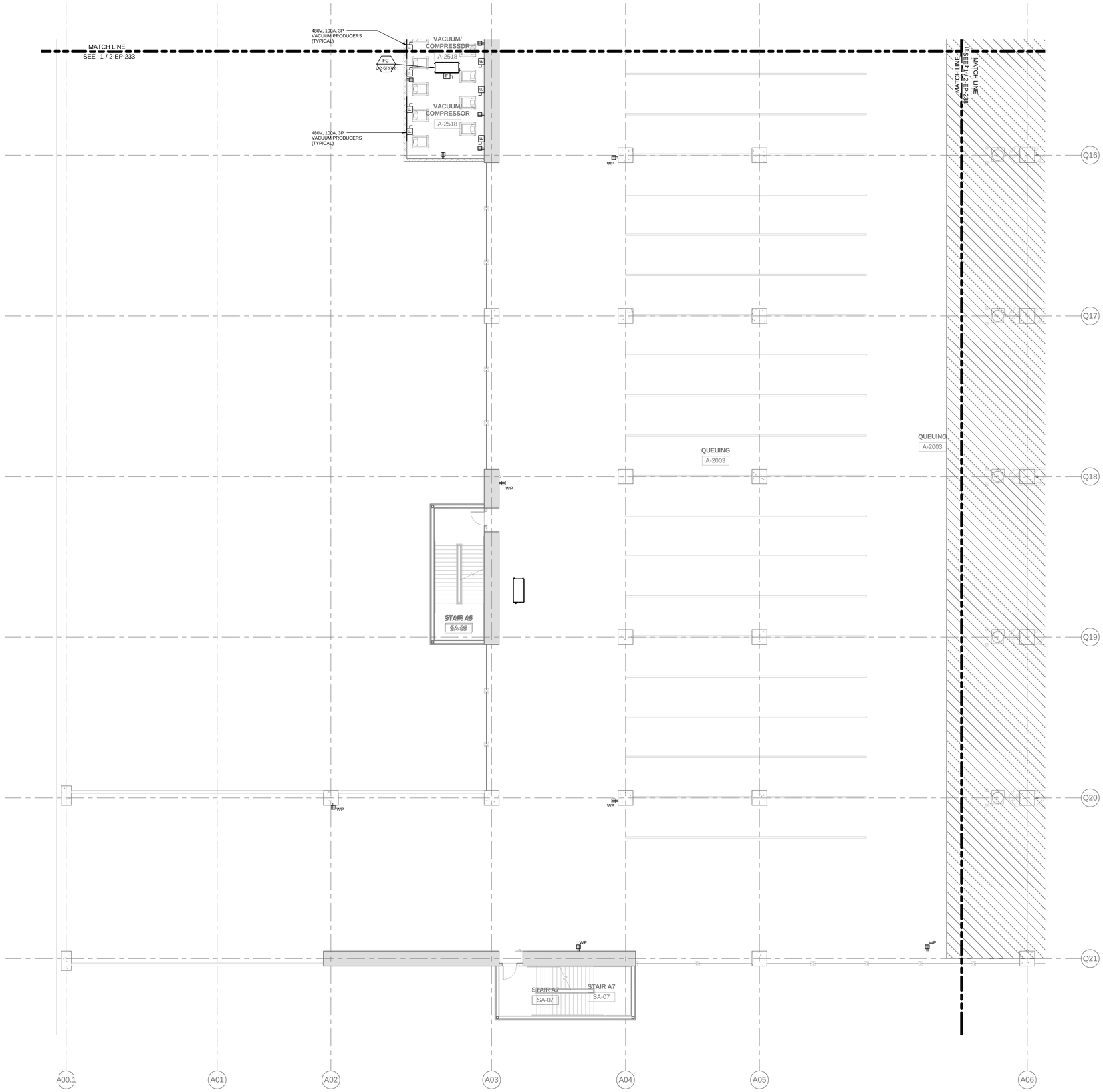
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECT\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:23:00 PM



1 BUILDING A - QTA - LEVEL 2 ENLARGED POWER PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.
9. PROVIDE CONTACTOR ON EACH PRODUCER FOR C-STOP. POWER TO EACH PRODUCER SHALL GO TO VACUUM CONTROL PANEL.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1500 East Hunter Ave, Suite 100 Santa Ana, CA 92705
T 714.460.0606
F 714.460.0620
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2 ENLARGED POWER PLAN - PART A4

SHEET NO.

2-EP-234

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-06\7-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:23:01 PM

MATCH LINE
SEE 1 / 2-EP-231

ELEV
VA-01

STAIR A1
SA-01

STAIR A1
SA-01

EF
Q1-

EF
Q1-

WP

F

CAR SEAT STORAGE
A-2101

ELEC
A-2102

FA RISER
A-2103

1
2-E-404

FOR WASHER AND DRYER

WF

480V, 100A, 3P
FOR BLOWER CONTROL PANEL. (TYPICAL)

CAR WASH BAY NO. 01
A-2104

480V, 100A, 3P
PRESSURE WASHER.

FREE STANDING MACHINE CONTROL PANEL, J-BOX NEMA 4X RATED (TYPICAL)

CAR WASH BAY NO. 02
A-2105

CAR WASH BAY NO. 03
A-2106

QUEUING
A-2001

CIRCULATION
A-2002

CAR WASH BAY NO. 04
A-2109

480V, 100A, 3P
PRESSURE WASHER.

FOR WASHER AND DRYER

CAR SEAT STORAGE
A-2107

DATA
A-2108

480V, 100A, 3P
FOR BLOWER CONTROL PANEL. (TYPICAL)

CAR WASH BAY NO. 05
A-2110

FREE STANDING MACHINE CONTROL PANEL, J-BOX NEMA 4X RATED (TYPICAL)

CAR WASH BAY NO. 06
A-2111

480V, 100A, 3P
PRESSURE WASHER.
(TYPICAL)

CAR WASH BAY NO. 07
A-2112

CAR WASH BAY NO. 08
A-2113

CU
Q2-3

EF
Q2-9

CAR SEAT STORAGE
A-2114

ELEC
A-2115

FOR WASHER AND DRYER

STAIR A2
SA-02

MATCH LINE
SEE 1 / 2-EP-236

Q01 Q02 Q03 Q04 Q05 Q06

A06 A07 A08 A09

1 BUILDING A - QTA - LEVEL 2 ENLARGED POWER PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 1000, Long Beach, CA 90802
T 562.628.0000 F 562.628.0001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2 ENLARGED POWER PLAN - PART A5

SHEET NO.

2-EP-235

BUILDING A & B KEYPLAN

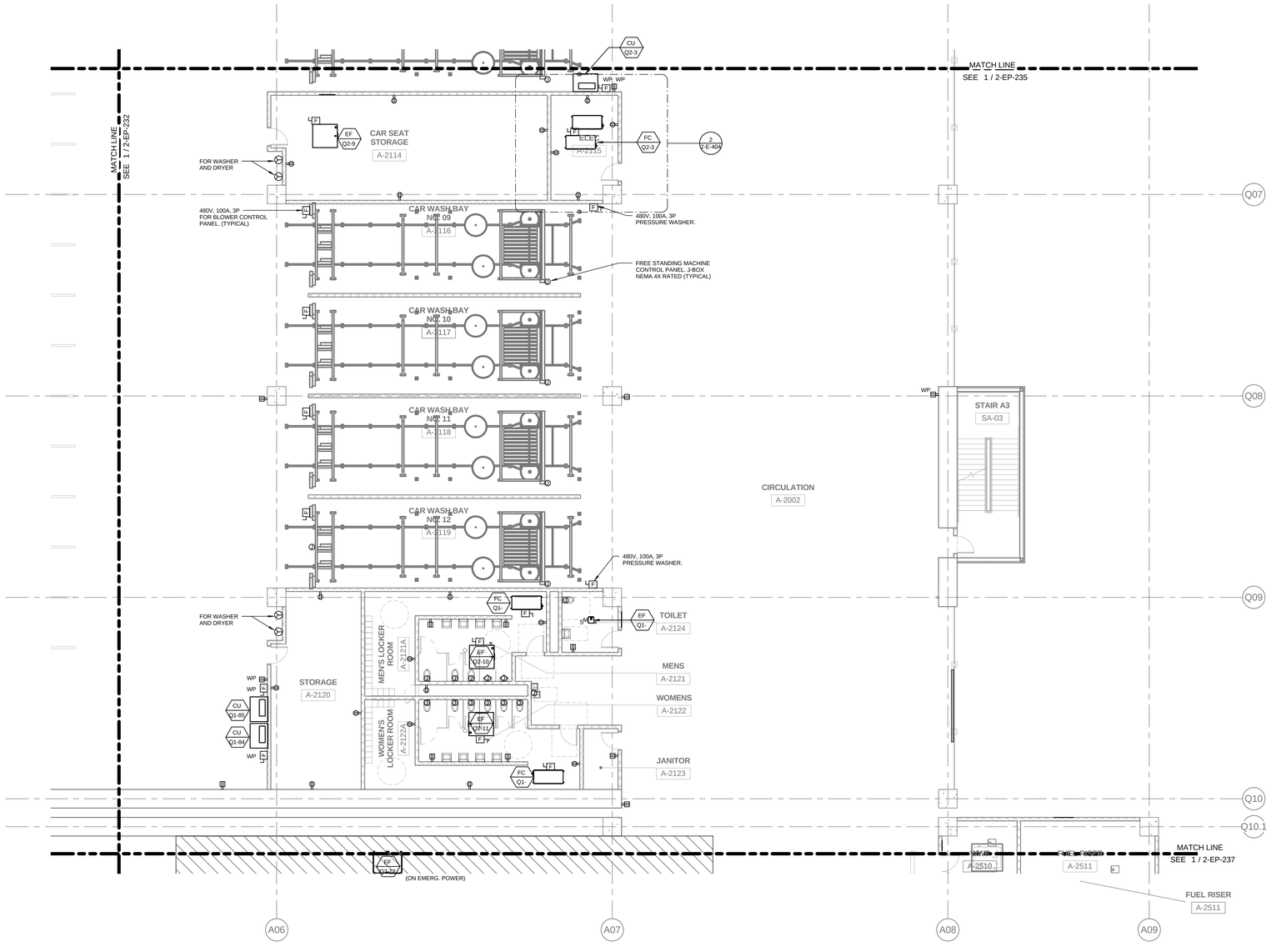
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Henry\Documents\2015-PBS-REVIT-PROJECT\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:23:06 PM



1 BUILDING A - QTA - LEVEL 2 ENLARGED POWER PLAN - PART A6
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2150
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl, Ste 100 Glendora, CA 91741
T 626.852.0556 F 626.852.0521
Electrical Structural Plumbing Civil Mechanical Planning Engineering

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER
CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 2
ENLARGED POWER
PLAN - PART A6

SHEET NO.
2-EP-236

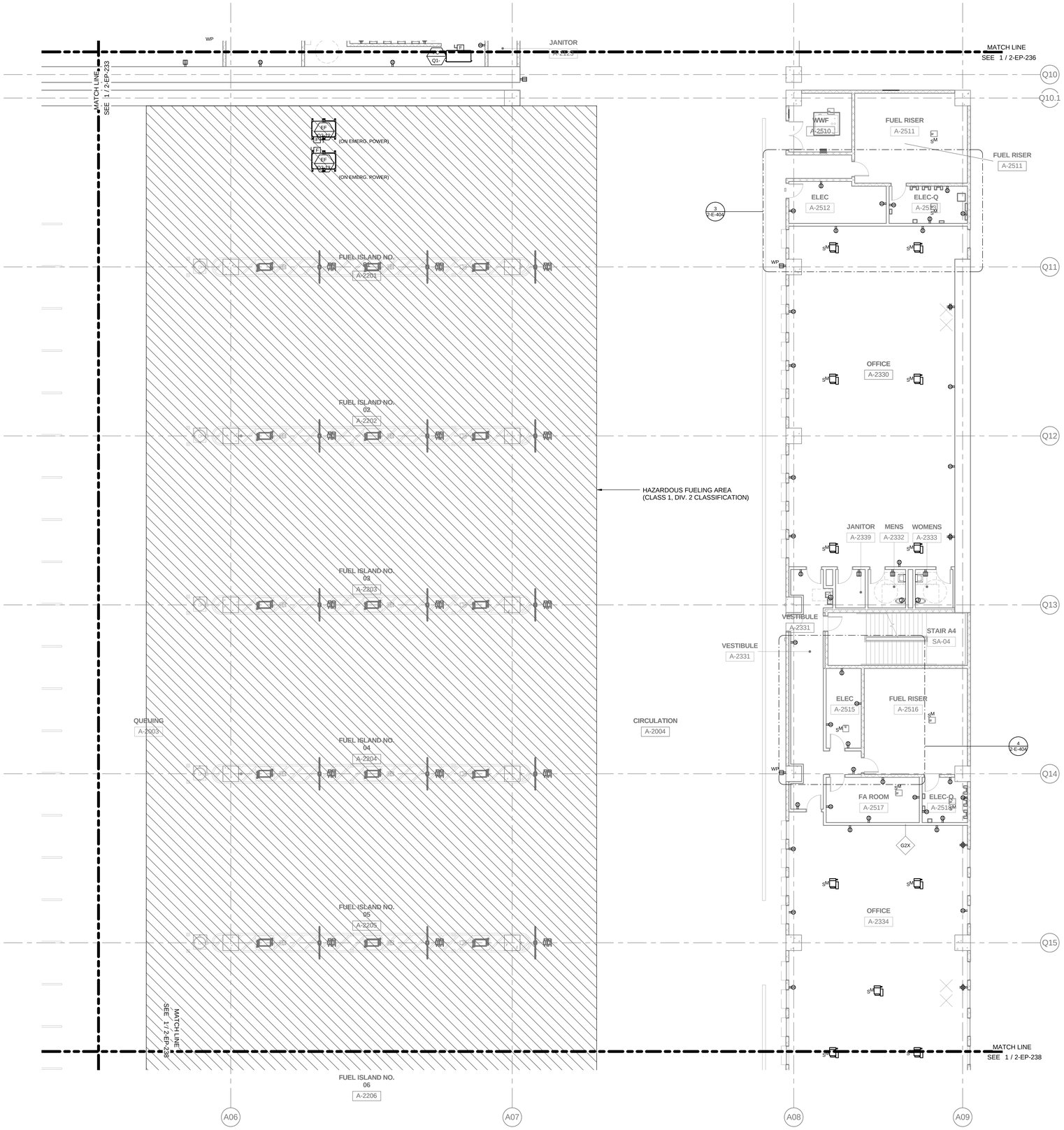
BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015ELEC-DA4881-BLOG_A_B-R15.rvt
9/21/2016 4:23:09 PM



1 BUILDING A - QTA - LEVEL 2 ENLARGED POWER PLAN - PART A7
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2160
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl St, Suite 100, Glendora, CA 91741
T 626.852.0000
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2 ENLARGED POWER PLAN - PART A7

SHEET NO.

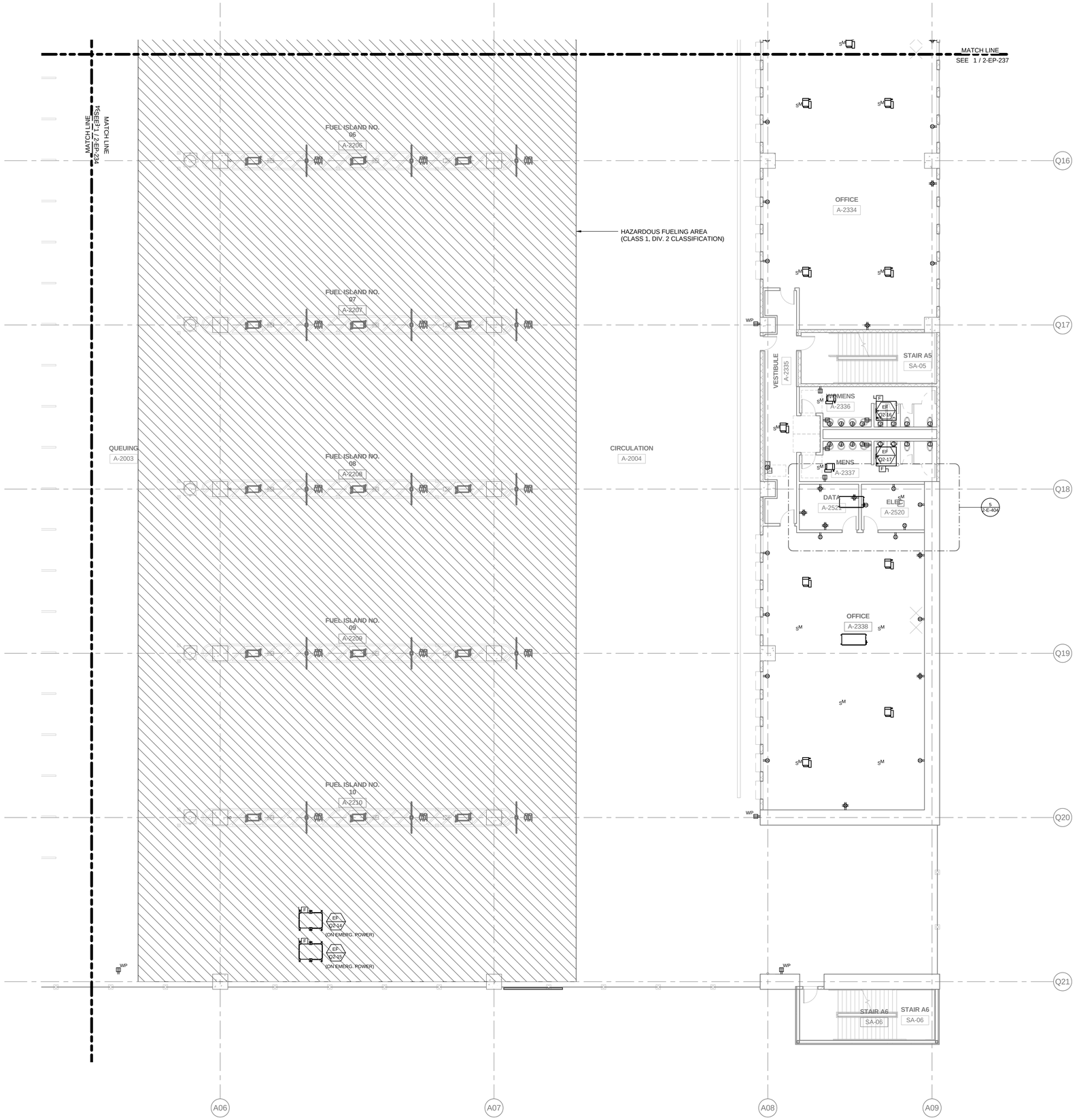
2-EP-237

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.04-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt
9/21/2016 4:23:29 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 2 ENLARGED POWER PLAN - PART A8
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

A1 A5
A2 A6
A3 A7
A4 A8

B1 B3
B2 B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
1000 East Acacia St., Suite 100, Ontario, CA 91764
T 909.483.2000 F 909.483.2001

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2 ENLARGED POWER PLAN - PART A8

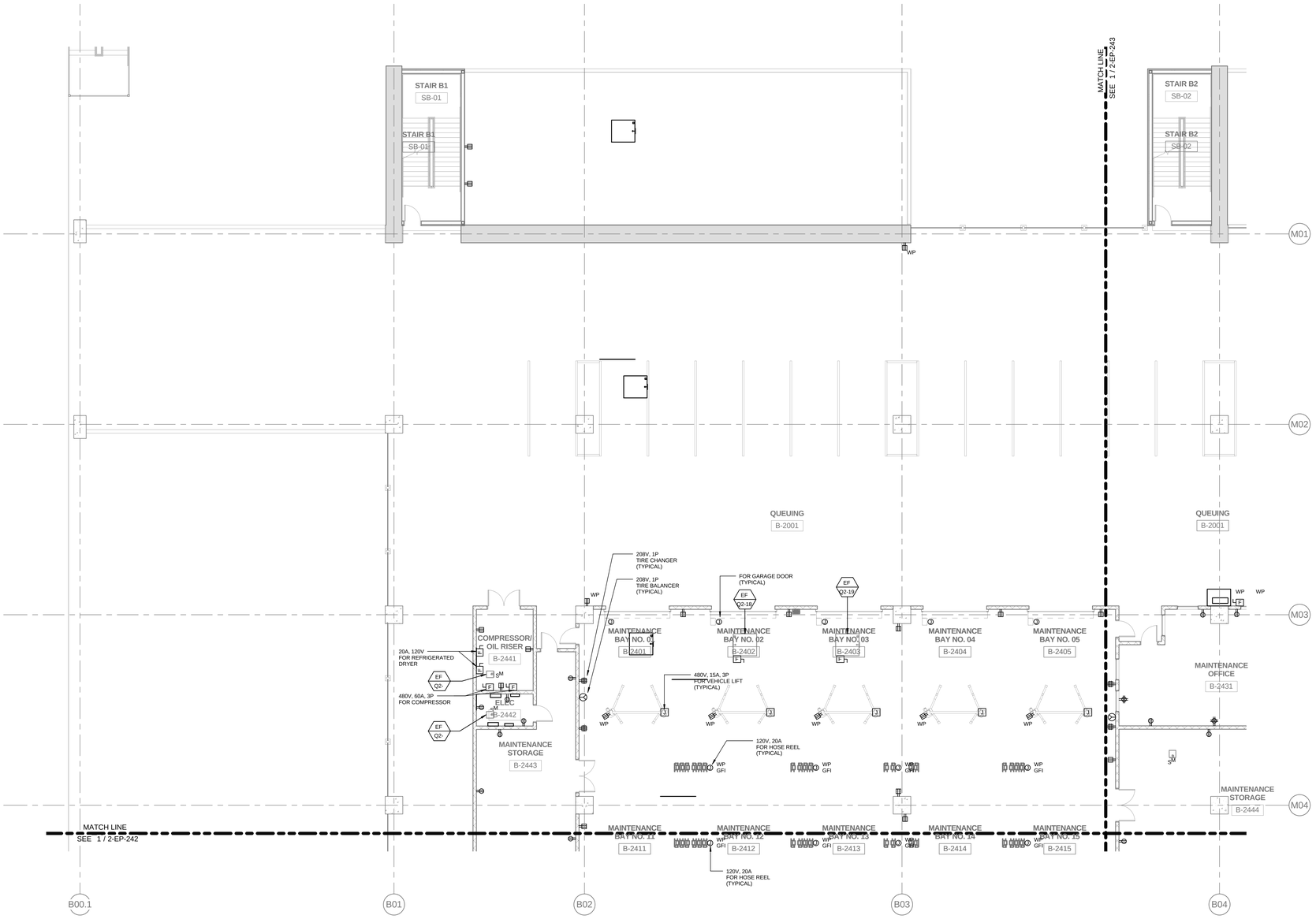
SHEET NO.

2-EP-238

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECT\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:23:51 PM



1 BUILDING B - QTA - LEVEL 2 ENLARGED POWER PLAN - PART B1
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.
9. PROVIDE CONTACTOR ON EACH PRODUCER FOR C-STOP. POWER TO EACH PRODUCER SHALL GO TO VACUUM CONTROL PANEL.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl St., Suite 101 Glendora, CA 91741
T 626.8260006
F 626.8260020
www.pbsengineers.com
Electrical Electrical Planning Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

CONT ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 2 ENLARGED POWER PLAN - PART B1

SHEET NO.
2-EP-241

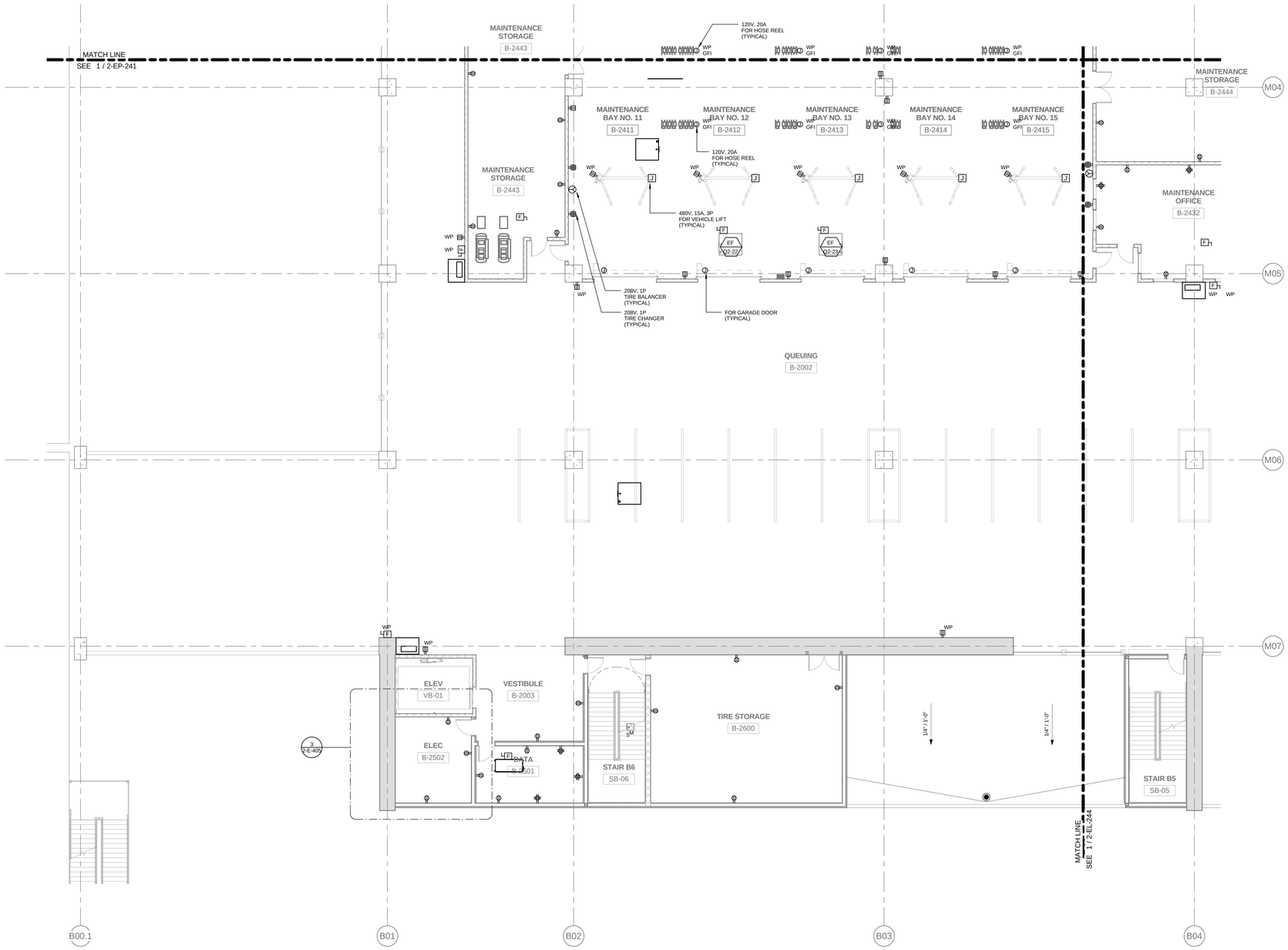
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\hlee\y\Documents\2015 PBS-REVIT PROJECT\2015-007-XX-REVIT-2015\ELEC\ DA4881-B1.DG_A_B R15.rvt
9/21/2016 4:23:53 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 2 ENLARGED POWER PLAN - PART B2
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.
9. PROVIDE CONTACTOR ON EACH PRODUCER FOR C-STOP. POWER TO EACH PRODUCER SHALL GO TO VACUUM CONTROL PANEL.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2160
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl St, Suite 150 Glendora, CA 91741
T 626.8600500
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

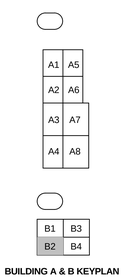
REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

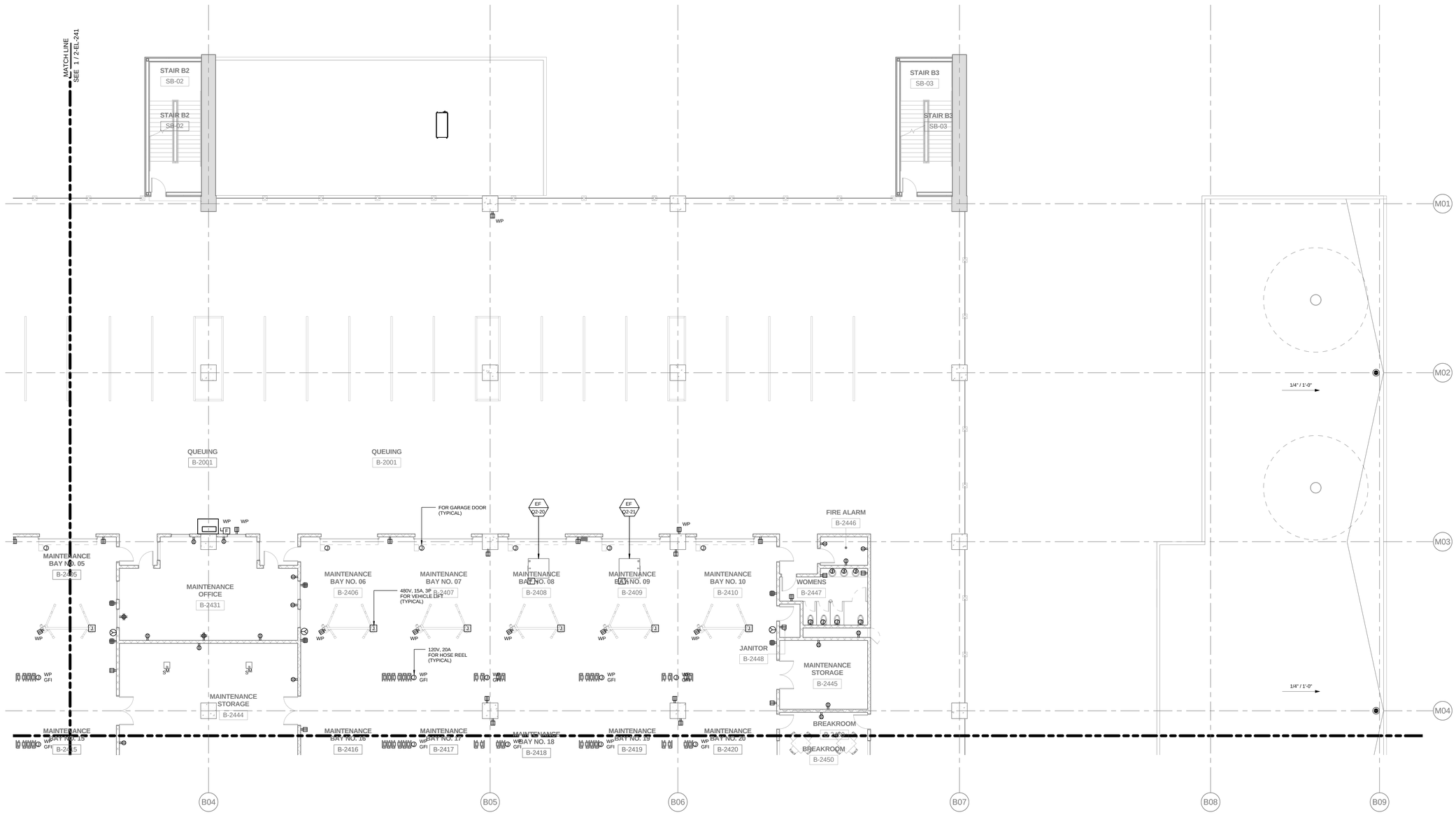
SHEET TITLE:
QTA LEVEL 2 ENLARGED POWER PLAN - PART B2

SHEET NO.
2-EP-242



BUILDING A & B KEYPLAN

C:\Users\hlim\Documents\2015-PBS-REVIT-PROJECT\2015-06T-DD-REVIT-2015ELEC-DA4881-BLKS_A_B R15.rvt
9/21/2016 4:23:54 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 2 ENLARGED POWER PLAN - PART B3
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl St, Suite 100, Glendora, CA 91741
T 626.852.0000
F 626.852.0020
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 2
ENLARGED POWER
PLAN - PART B3

SHEET NO.
2-EP-243

A1	A5
A2	A6
A3	A7
A4	A8

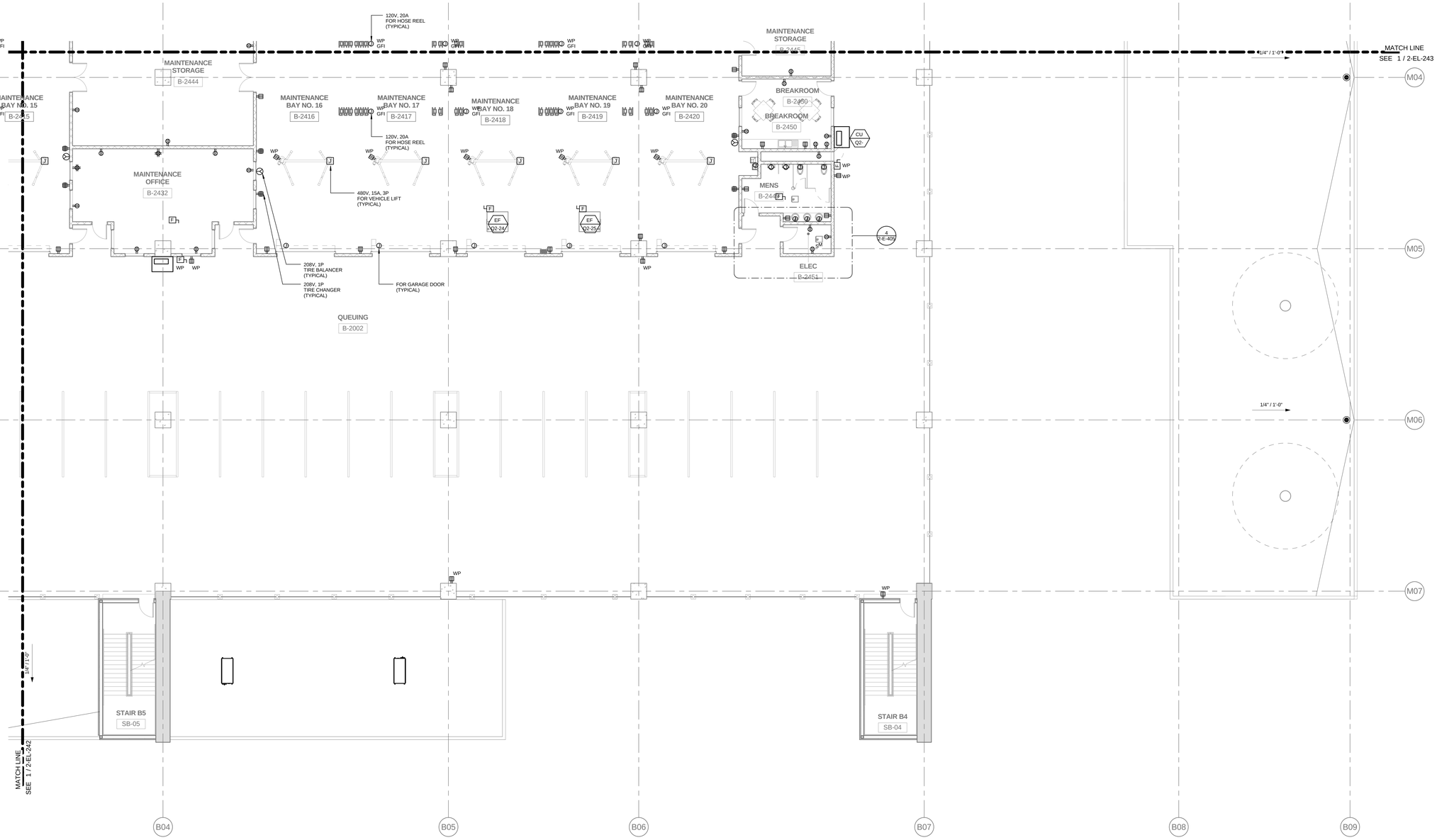
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\henry\Documents\2015-PBS-REVIT PROJECT\2015-067-00-REVIT-2015\EE\EC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:23:08 PM

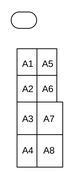


GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

1 BUILDING B - QTA - LEVEL 2 ENLARGED POWER PLAN - PART B4
1/8" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2181
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruth St, Fuller III Gentry, CA 91745
T 626.820.0556
F 626.820.0520
www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

SHEET TITLE:
QTA LEVEL 2 ENLARGED POWER PLAN - PART B4

SHEET NO.
2-EP-244

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECT\2015-06*.00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt
9/21/2016 4:23:38 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

1 BUILDING A - QTA - LEVEL 3 ENLARGED POWER PLAN - PART A1
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
1000 East Acacia Ave, Suite 100, Glendora, CA 91740
T 626.852.0008 F 626.852.0021
Electrical Mechanical Plumbing Fire Protection

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 ENLARGED POWER PLAN - PART A1

SHEET NO.

2-EP-251

BUILDING A & B KEYPLAN

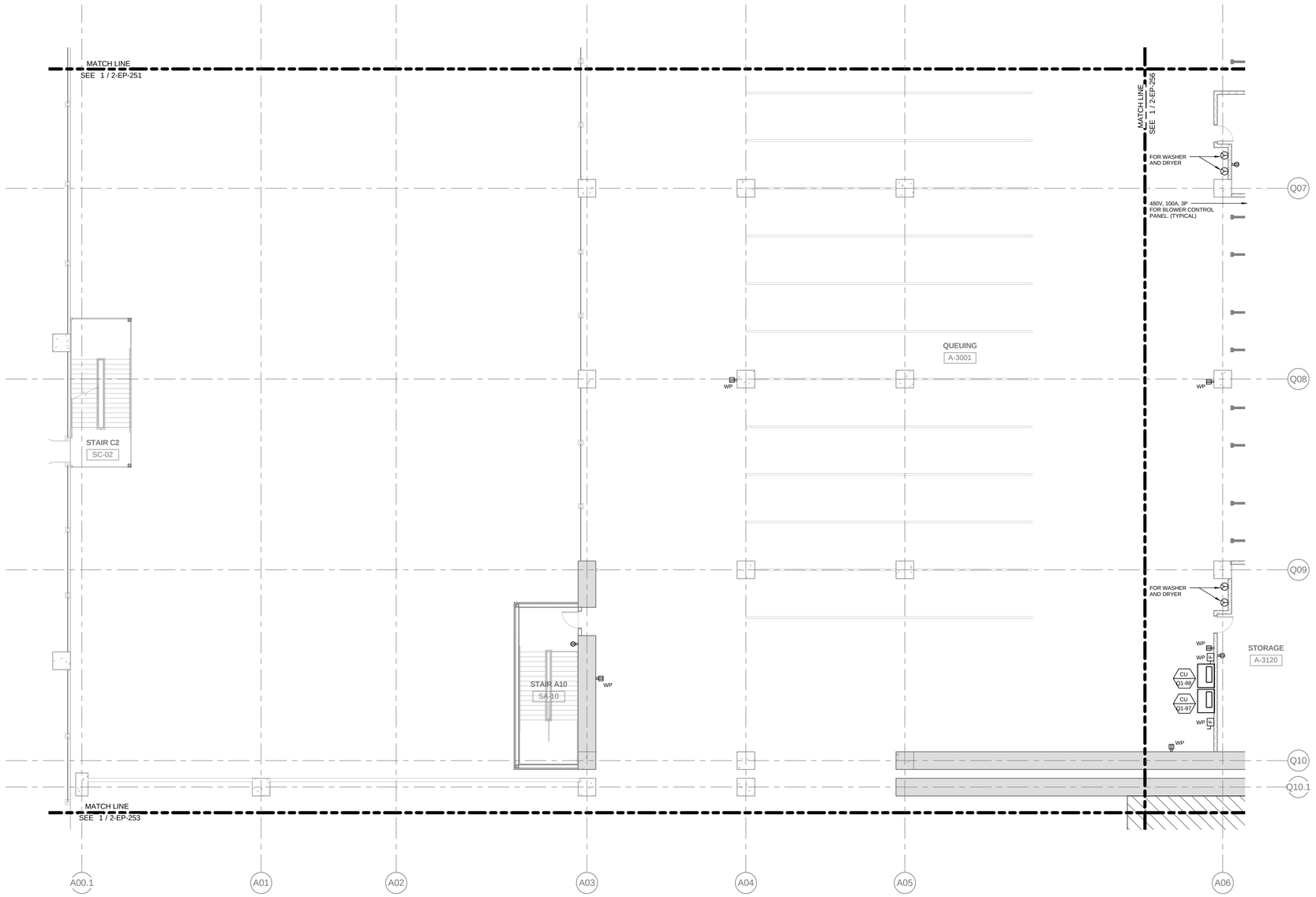
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\henry\Documents\2015-PBS-REVIT-PROJECT\2015-06F-SD-REVIT-2015ELEC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:21:59 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 ENLARGED POWER PLAN - PART A2
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

A1 A5
A2 A6
A3 A7
A4 A8

B1 B3
B2 B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl St., Ste 105 Glendora, CA 91741
T 626.852.0008 F 626.852.0020
www.pbsengineering.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA
PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

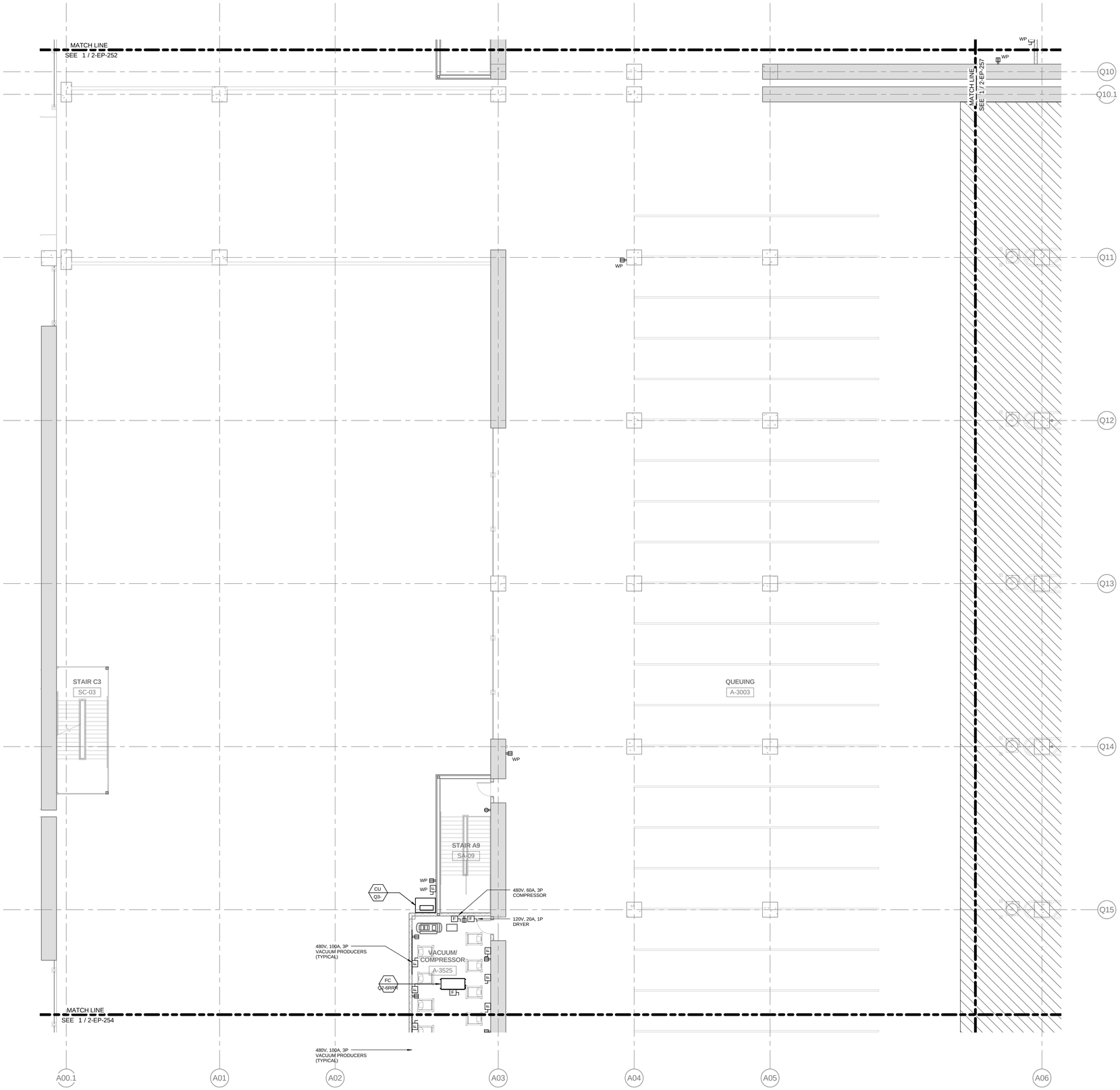
PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 3 ENLARGED POWER PLAN - PART A2

SHEET NO.
2-EP-252

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\hemy\Documents\2015-PBS-REVIT-PROJECT\2015-06\7-00-REVIT-2015ELEC-DA4881-BLXO_A_B R15.rvt
9/21/2016 4:24:01 PM



1 BUILDING A - QTA - LEVEL 3 ENLARGED POWER PLAN - PART A3
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 1000, Long Beach, CA 90802
T 562.628.0000 F 562.628.0001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 3 ENLARGED POWER PLAN - PART A3

SHEET NO.
2-EP-253

BUILDING A & B KEYPLAN

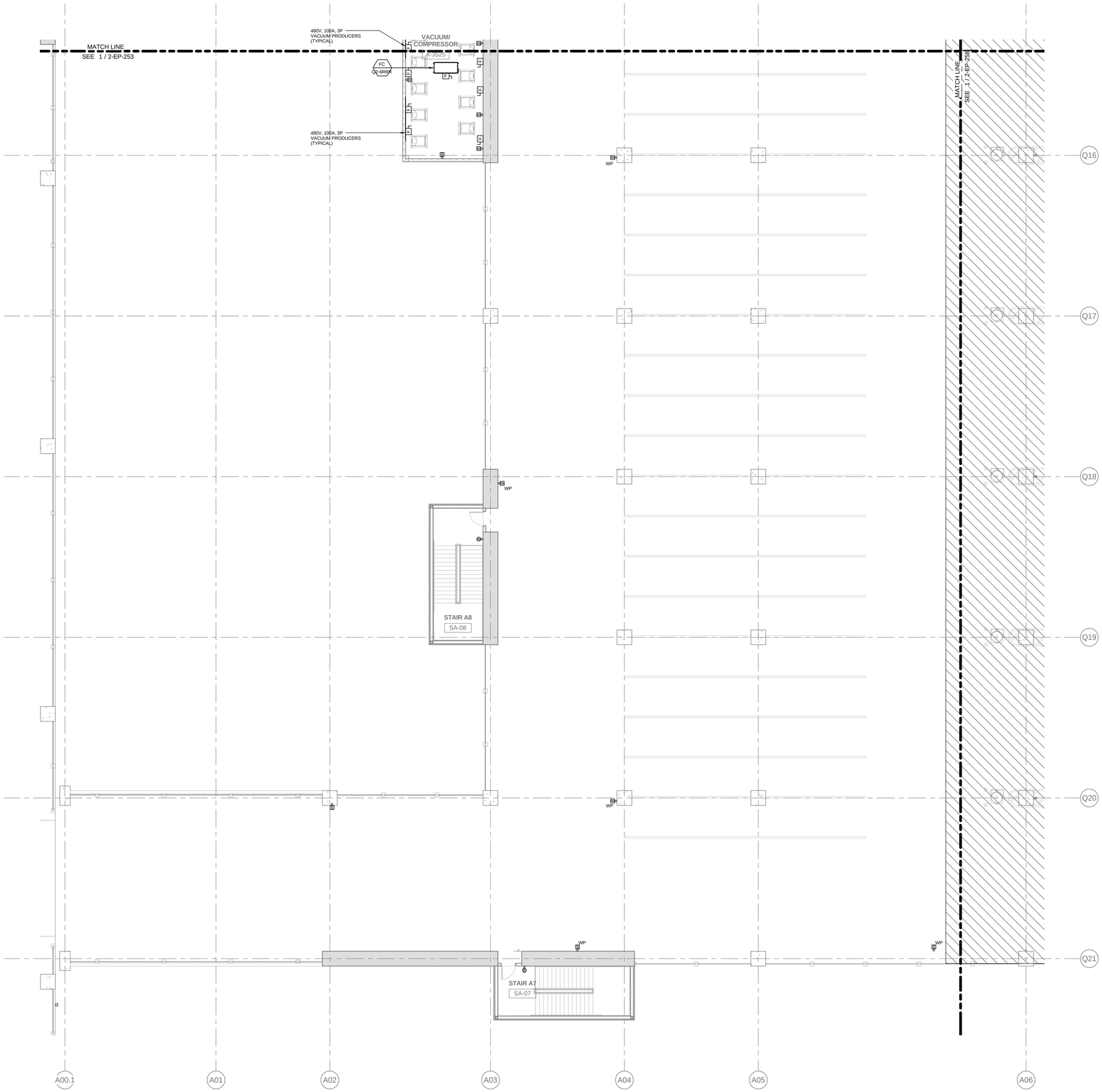
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\hwyu\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:24:02 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 ENLARGED POWER PLAN - PART A4
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL, PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE (562) 594-6974
FAX (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl, Ste 05 Gentry, CA 91740
T 626.800.0000
www.pbsengineers.com
Electrical Electrical Planning / Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 ENLARGED POWER PLAN - PART A4

SHEET NO.

2-EP-254

A1	A5
A2	A6
A3	A7
A4	A8

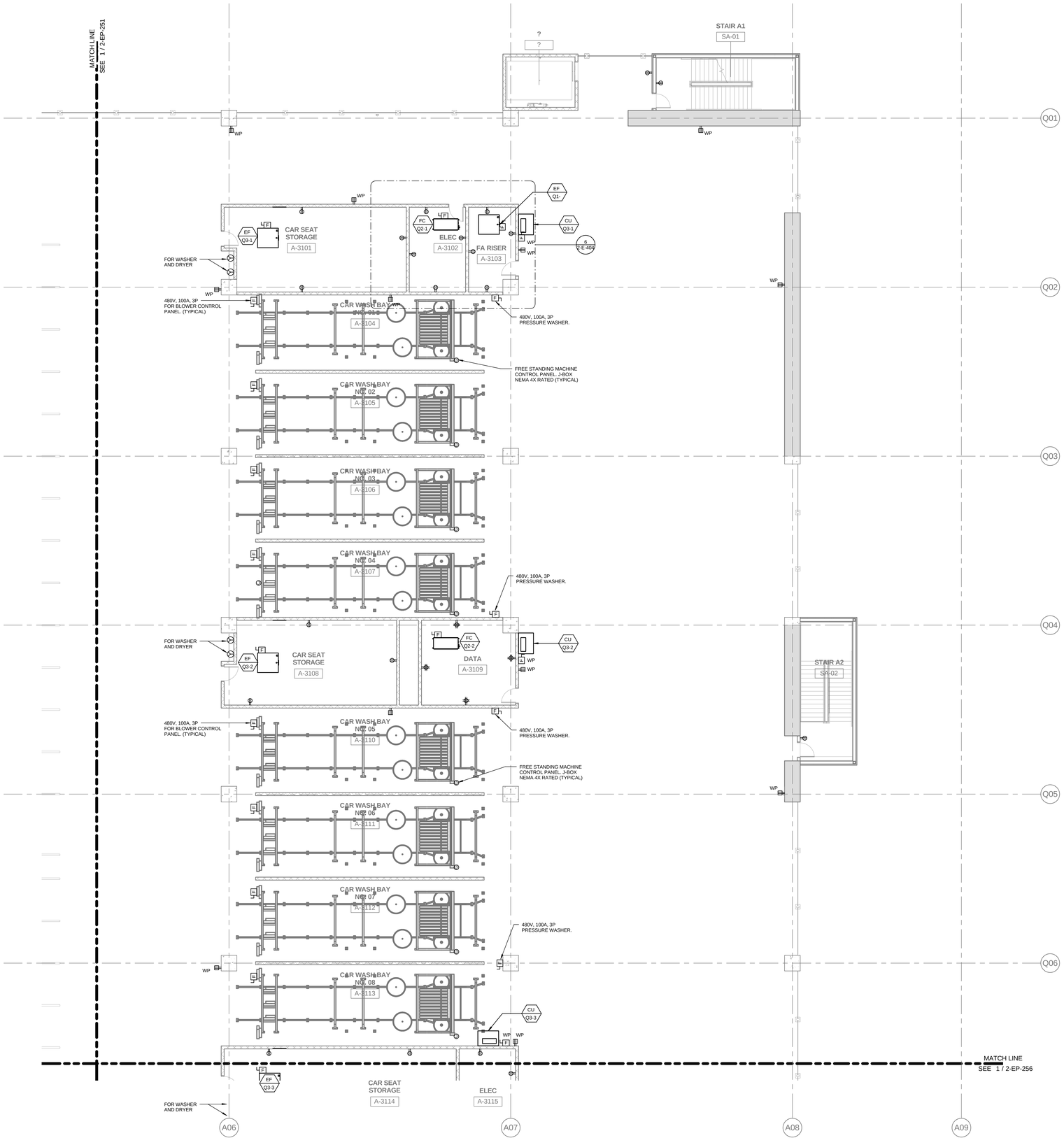
B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Henry\Documents\2015-PBS-REVIT-PROJECTS\2015-06\7-00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:24:04 PM



1 BUILDING A - QTA - LEVEL 3 ENLARGED POWER PLAN - PART A5
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
1000 East Ocean Blvd, Suite 200, Long Beach, CA 90802
T 562.432.0508 F 562.432.0520
www.pbsengineers.com
Mechanical Electrical Plumbing Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

JOINT PMD ANA LAX

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3
ENLARGED POWER
PLAN - PART A5

SHEET NO.

2-EP-255

BUILDING A & B KEYPLAN

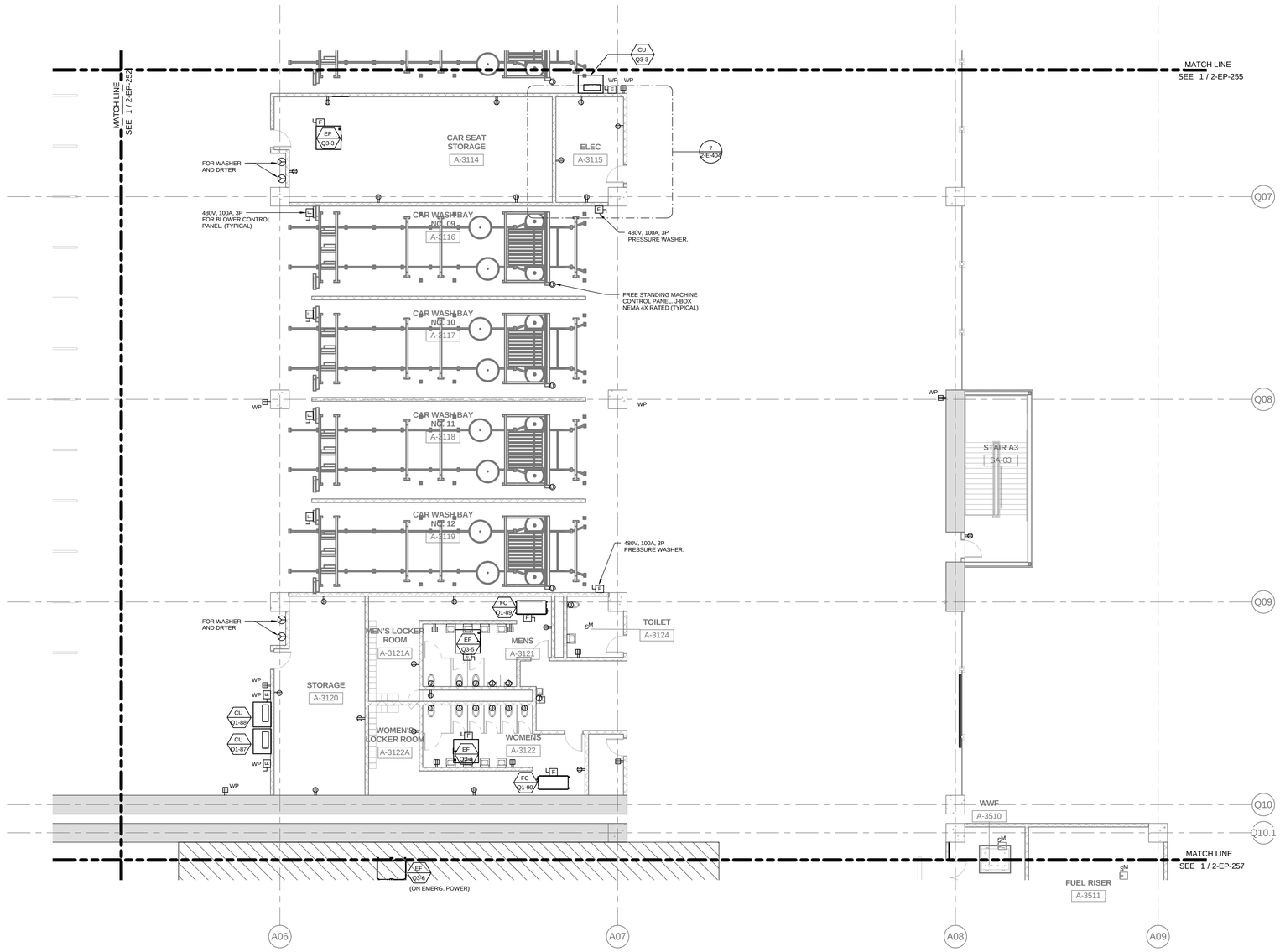
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\hlenny\Documents\0315-PBS-REVIT-PROJECT\0315-567-A0-REVIT-2015\ELEC-DA4881-R15D_A_B R15.rvt

9/21/2016 4:24:08 PM



1 BUILDING A - QTA - LEVEL 3 ENLARGED POWER PLAN - PART A6
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl St, Suite 100, Glendora, CA 91741
P.626.852.0000
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3
ENLARGED POWER
PLAN - PART A6

SHEET NO.

2-EP-256

BUILDING A & B KEYPLAN

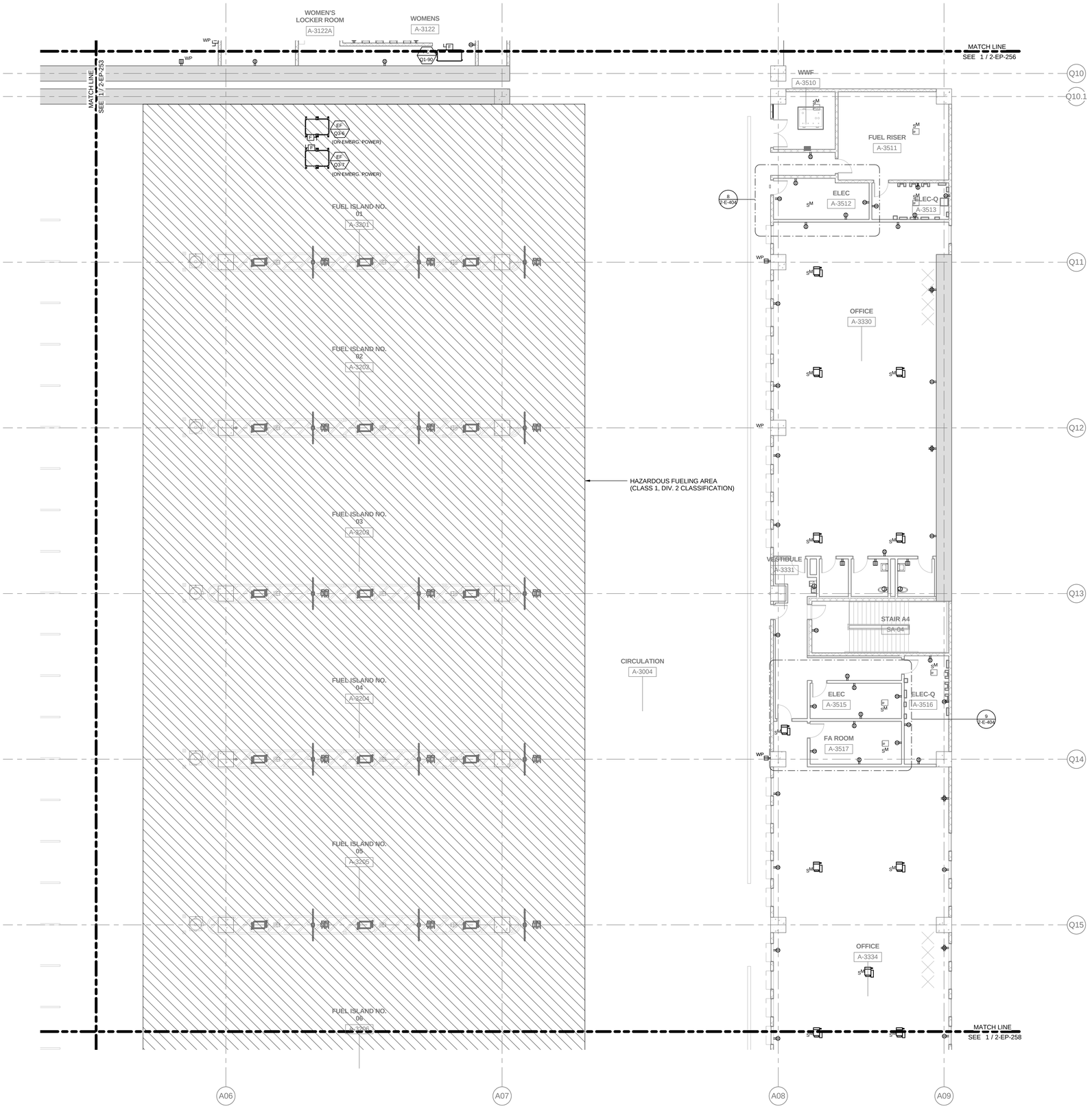
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\Henry\Documents\2015-PBS-REVIT-PROJECT\2015-06\7-00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:24:11 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 ENLARGED POWER PLAN - PART A7
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2160
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl St, Suite 100, Glendora, CA 91741
T 626.852.0000 F 626.852.0001
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 ENLARGED POWER PLAN - PART A7

SHEET NO.

2-EP-257

A1	A5
A2	A6
A3	A7
A4	A8

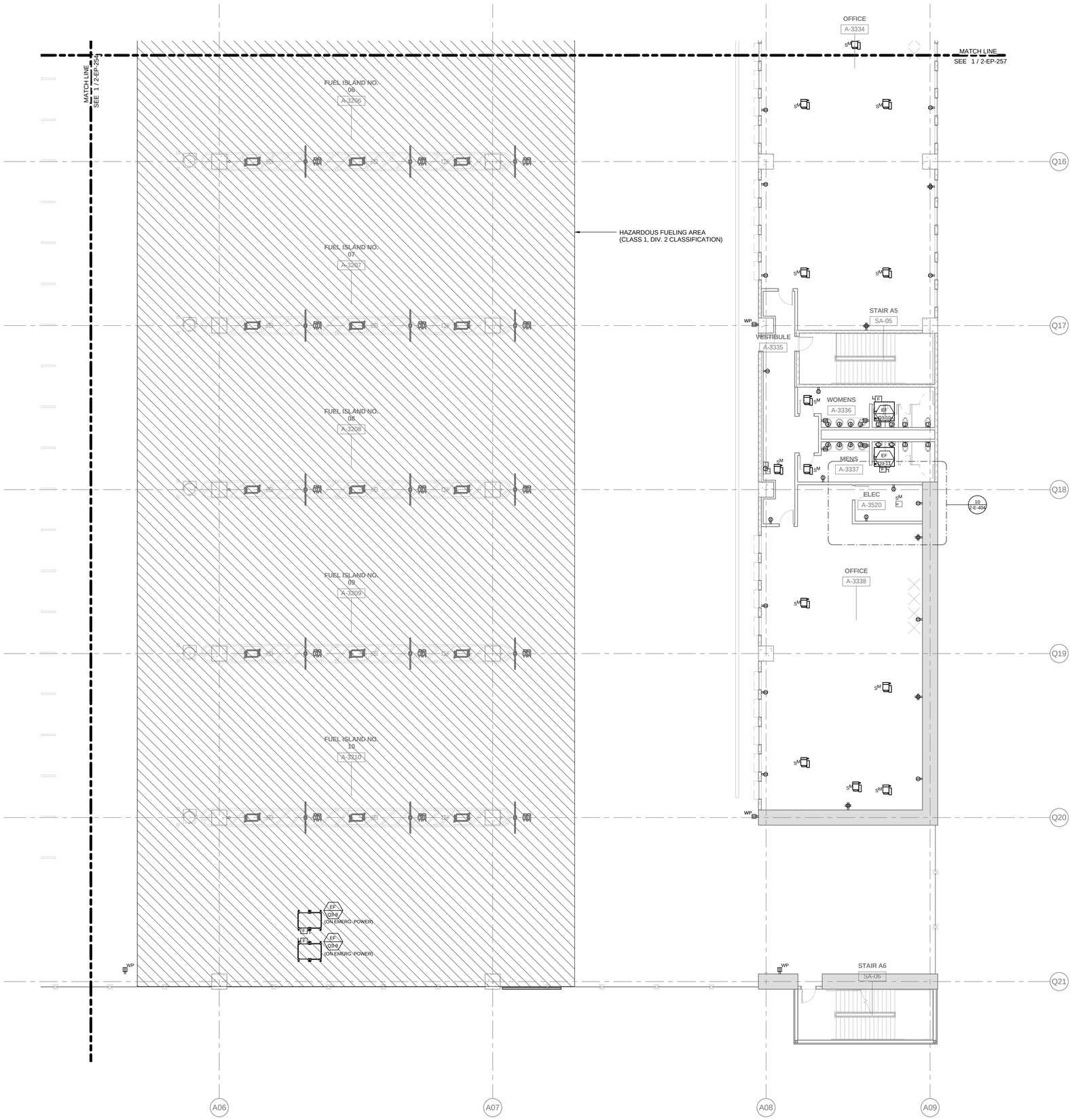
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\henry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.04-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt

9/21/2016 4:24:24 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 ENLARGED POWER PLAN - PART A8
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

TranSystems
801 SOUTH GRAND
SUITE 2160
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
1500 East Busch St. Ste 101 Gentry, CA 91776
T 626.8600000
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

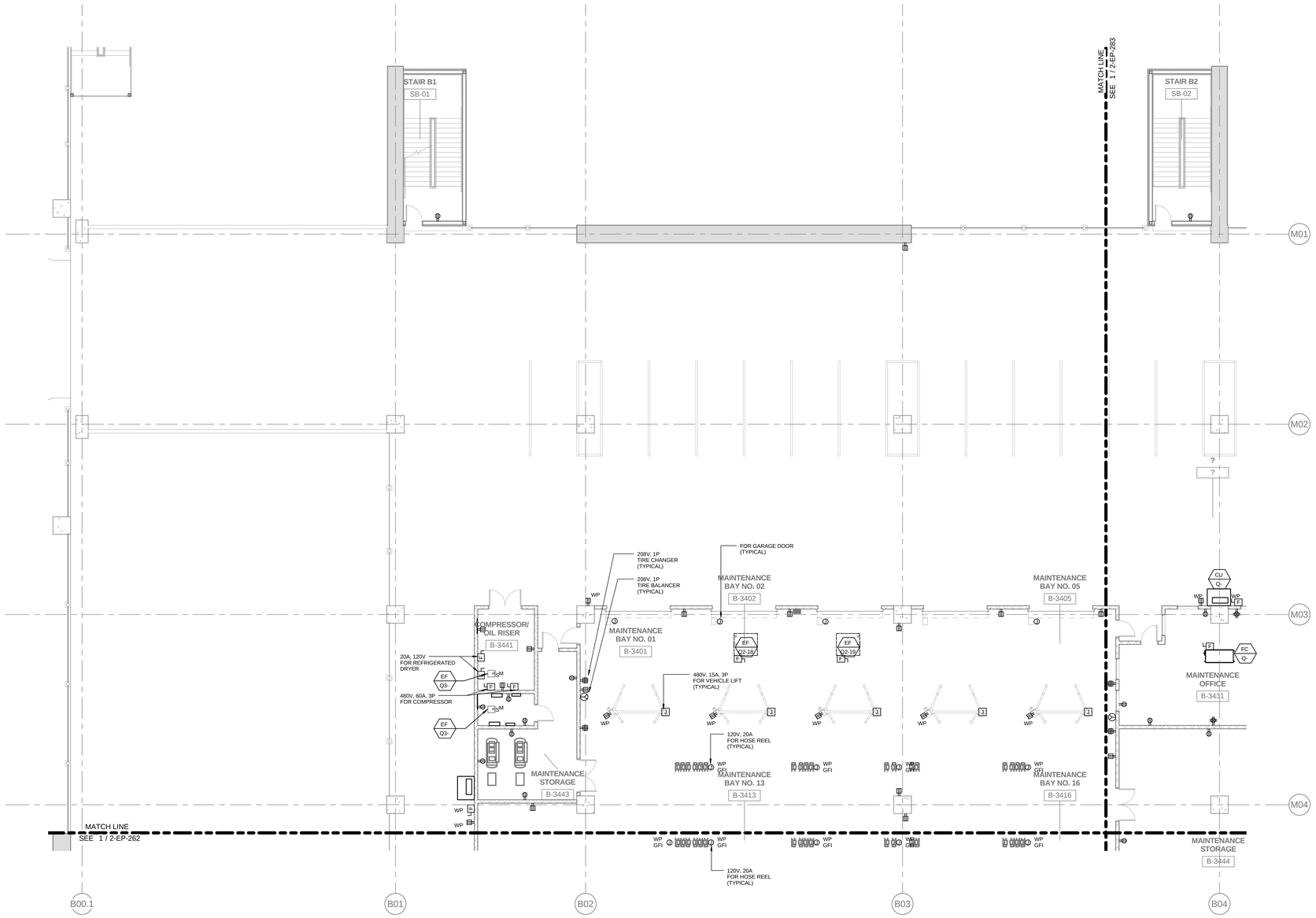
SHEET TITLE:

QTA LEVEL 3 ENLARGED POWER PLAN - PART A8

SHEET NO.

2-EP-258

C:\Users\hlam\Documents\2015-PBS-REVIT-PROJECTS\2015-06\7-00-REVIT-2015\ELEC-DA4881-BLDG_A_B R15.rvt
9/21/2016 4:24:37 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 3 ENLARGED POWER PLAN - PART B1
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.
9. PROVIDE CONTACTOR ON EACH PRODUCER FOR C-STOP. POWER TO EACH PRODUCER SHALL GO TO VACUUM CONTROL PANEL.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl, Ste 100, Gentry, CA 91740
T 626.820.0556 F 626.820.0521
www.pbsengineering.com
Electrical Electrical Planning Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 3 ENLARGED POWER PLAN - PART B1

SHEET NO.
2-EP-261

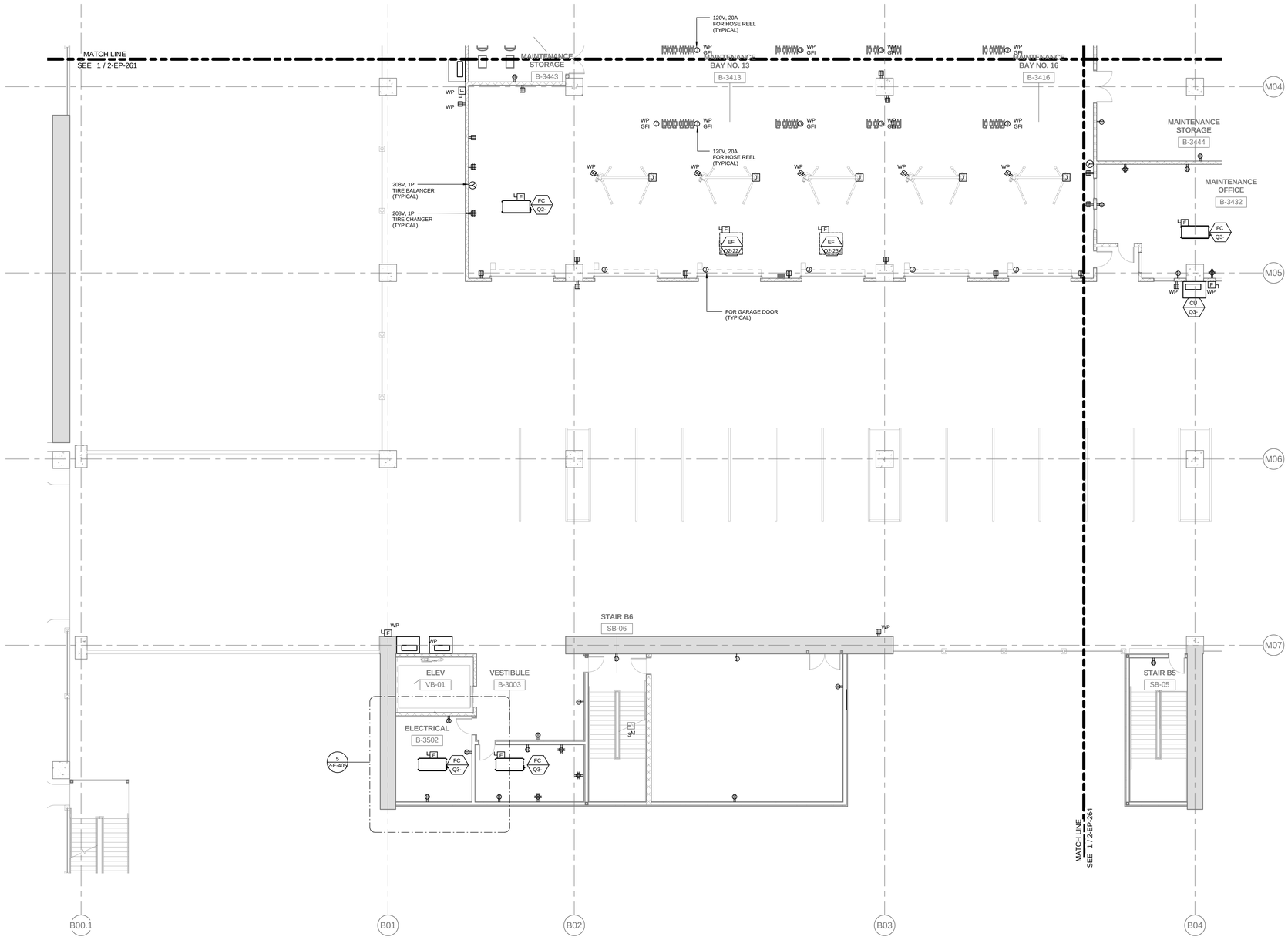
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\henry\Documents\2015-PBS-REVIT PROJECT\2015-06\T-3D-RE\VT-2015EELEC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:24:28 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 3 ENLARGED POWER PLAN - PART B2
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.
9. PROVIDE CONTACTOR ON EACH PRODUCER FOR C-STOP. POWER TO EACH PRODUCER SHALL GO TO VACUUM CONTROL PANEL.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2160
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruth E. Fuller Dr. Gentry, CA 91740
T 626.6600
F 626.6600
www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA LEVEL 3 ENLARGED POWER PLAN - PART B2

SHEET NO.
2-EP-262

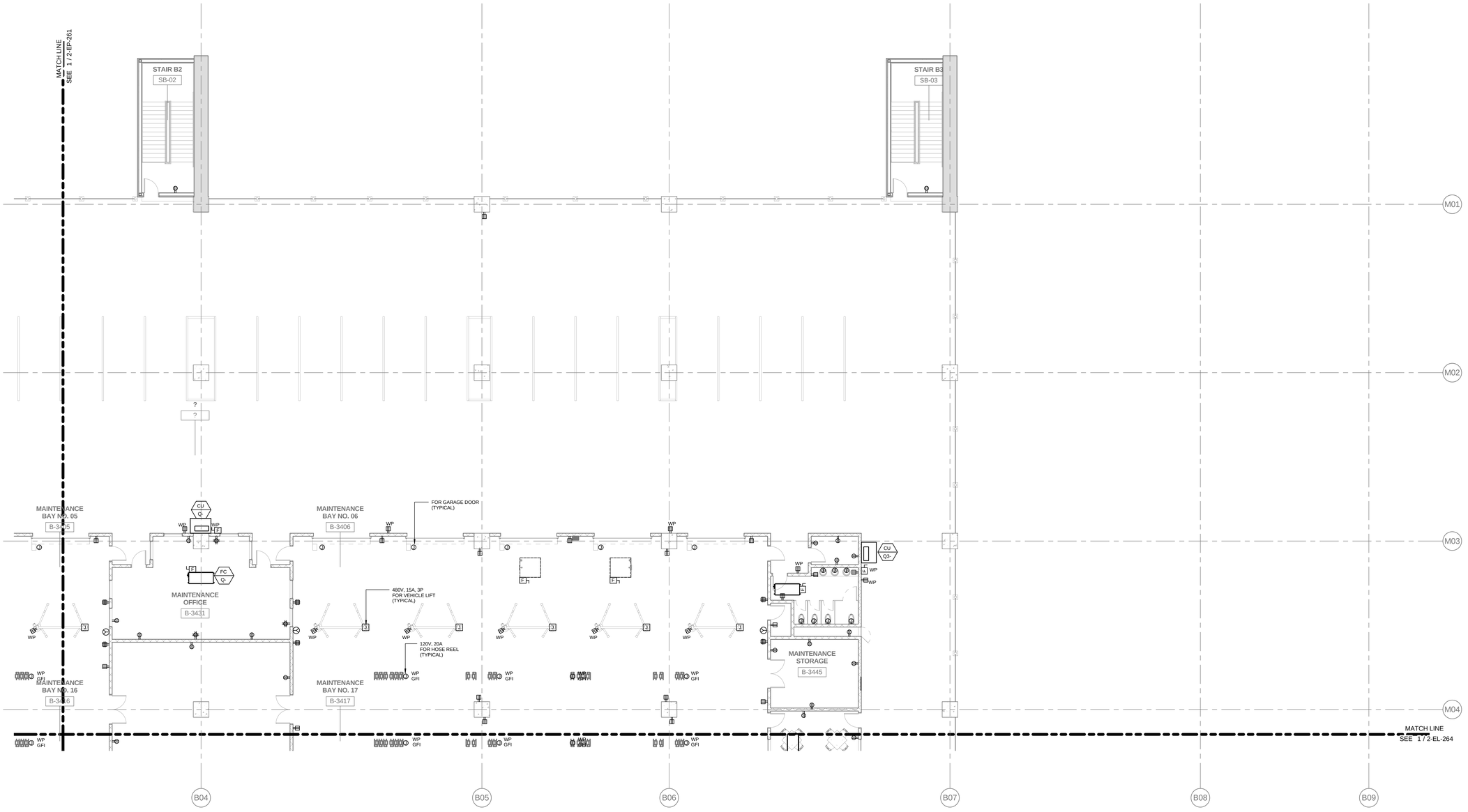
BUILDING A & B KEYPLAN

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

C:\Users\Henry\Documents\20151-PBS-REVIT PROJECT\2015-067-00-REVIT-2015\EE\EC-DA4881-BLDG_A_B-R15.rvt
9/21/2016 4:24:41 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 3 ENLARGED POWER PLAN - PART B3
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 2160
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruehl St, Suite 100, Glendora, CA 91741
T 626.852.0000
F 626.852.0020
www.pbsengineering.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3
ENLARGED POWER
PLAN - PART B3

SHEET NO.
2-EP-263

A1	A5
A2	A6
A3	A7
A4	A8

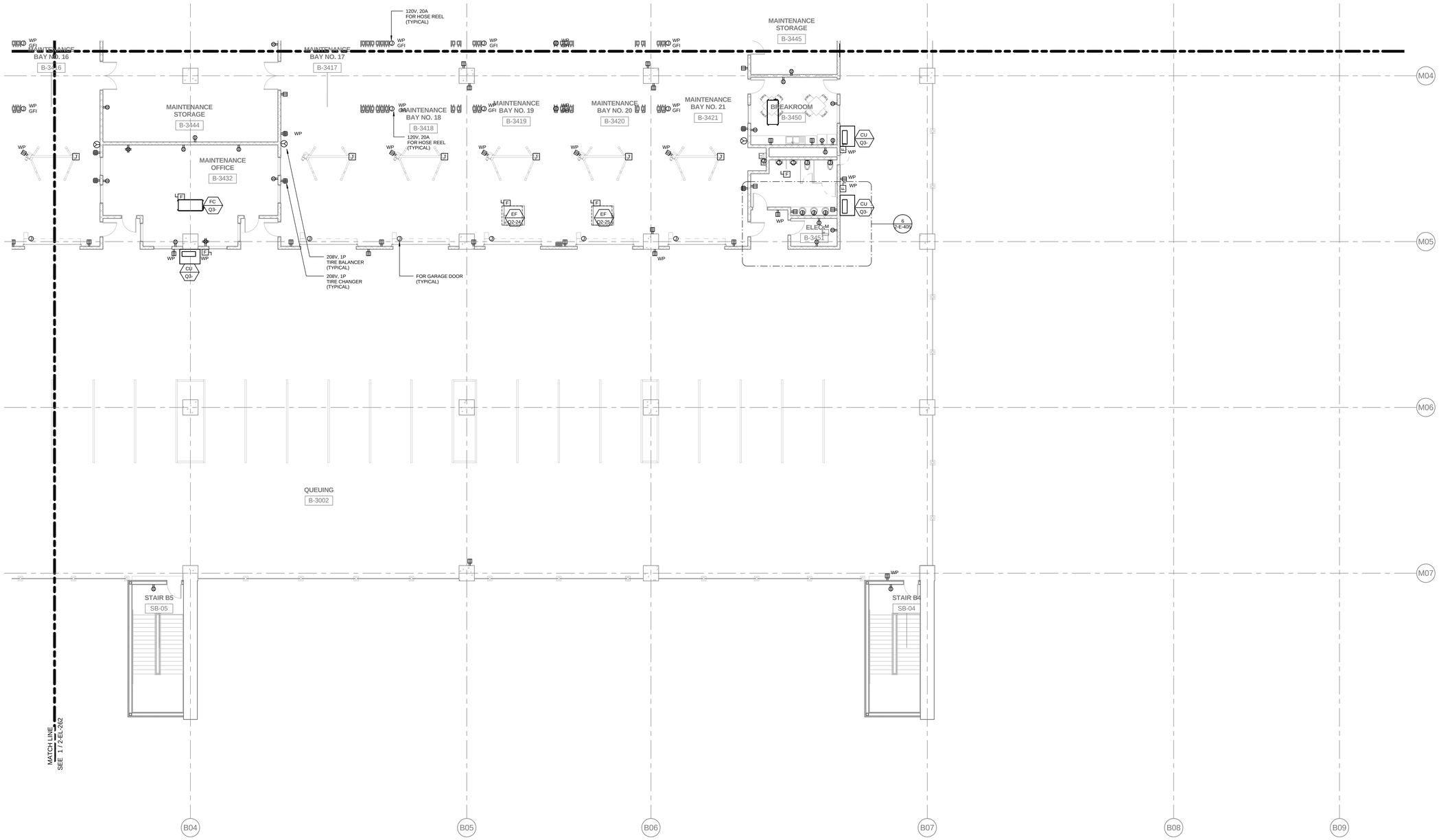
B1	B3
B2	B4

BUILDING A & B KEYPLAN

C:\Users\Henry\Documents\20151-PBS-REVIT PROJECT\2015-067-00-RE-VIT 2015\EE\EC-DA4881-BLDG_A_B-R15.rvt

9/21/2016 4:24:42 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 3 ENLARGED POWER PLAN - PART B4
1/8" = 1'-0"

GENERAL NOTES

1. EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE PANEL, IN COMPLIANCE WITH CEC 210.4 (B)&(D).
2. NO HOME RUNS UNDER TOILET AND WET AREA.
3. FOR ALL OUTLETS, CONTRACTOR TO PROVIDE SUFFICIENT CONDUITS BENDS AND CLEARANCE WITH STRUCTURE.
4. CONTRACTOR SHALL WIRE THE FIRE SMOKE DAMPERS TO THE FIRE ALARM CONTROL PANEL. PROVIDE RELAY AND CONTROL MODULE.
5. CONTRACTOR TO PROVIDE BREAKER TIE FOR ALL MULTI CIRCUITS HOME RUN.
6. PROVIDE MOTOR RATED SWITCH PER MANUFACTURER RATING REQUIREMENT. FIELD COORDINATE THE EXACT LOCATION.
7. REFER TO REMODEL SINGLE LINE DIAGRAM ON SHEET E1.20 TO E1.27 & REMODEL FEEDER SCHEDULE ON SHEET E1.40.
8. THE CIRCUIT FOR FIRE SMOKE DAMPERS & FIRE ALARM POWER SUPPLY SHALL BE PROVIDED WITH LOCK-ON DEVICE.

KEY NOTES

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ocean Blvd., Suite 100, Long Beach, CA 90802
T 562.432.0508 F 562.432.0520
www.pbsengineering.com
Mechanical Electrical Plumbing Fire Protection Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA LEVEL 3 ENLARGED POWER PLAN - PART B4

SHEET NO.

2-EP-264

BUILDING A & B KEYPLAN

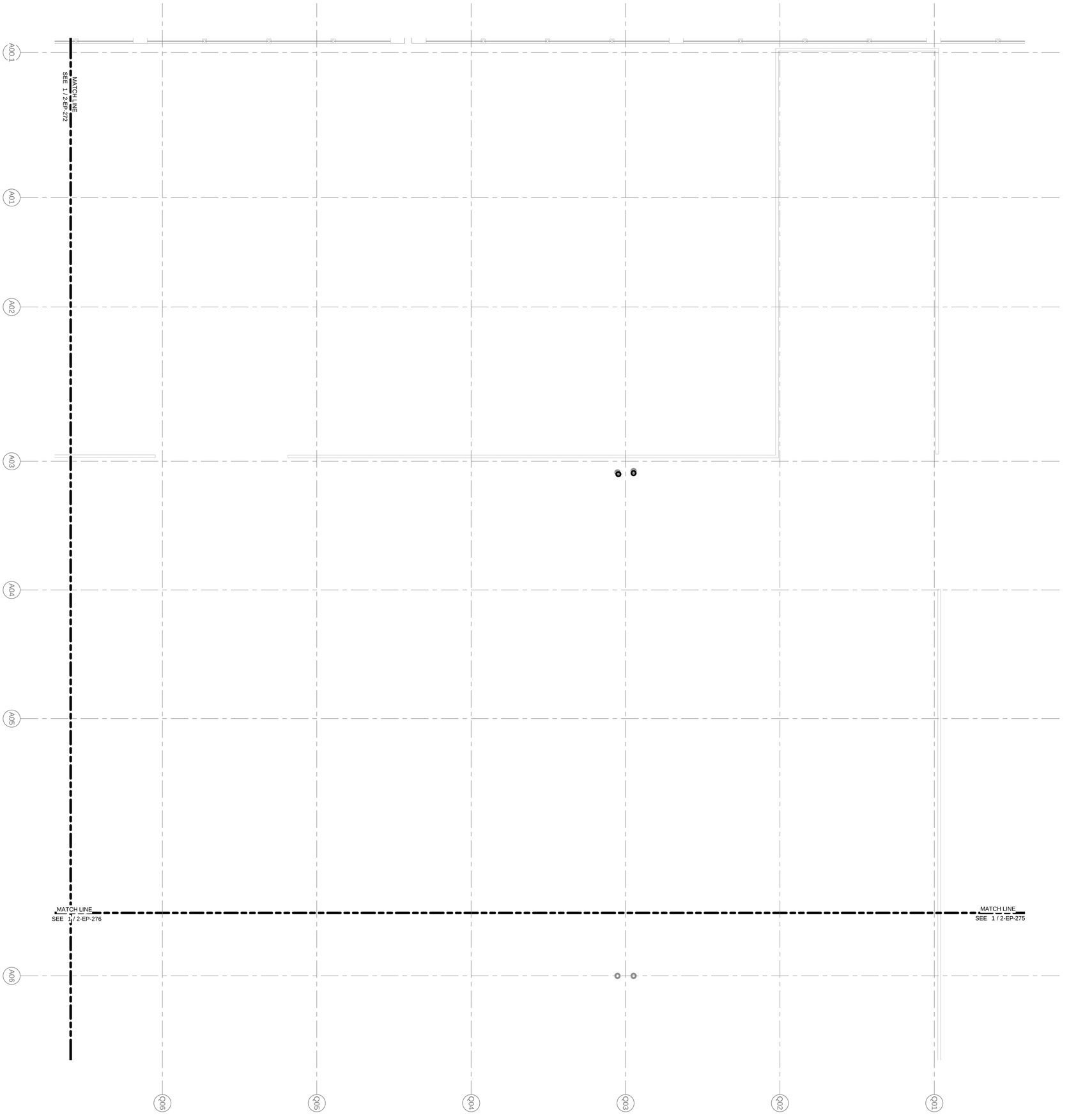
A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Henry\Documents\2015-PBS-REVIT-PROJECT\2015-06\T-00-REVIT-2015ELEC-DA4881-BLKS_A_B R15.rvt

9/21/2016 4:24:44 PM



1 BUILDING A - QTA - LEVEL 4 ENLARGED POWER PLAN - PART A1
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

BUILDING A & B KEYPLAN

B1			A1
B2			A5
B4	B3	A6	
A4	A3	A2	
A8	A7		

SHEET NO.
2-EP-271

SHEET TITLE:
QTA ENLARGED ROOF POWER PLAN - PART A1

DRAWN BY: T.L.
CHECKED BY: K.S.
DESIGNED BY: P.P
DATE: 09/23/2016
SCALE: 1/8" - 1'-0"
PROJECT NO: 2015-067-00

REVISIONS:

MARK	DATE	DESCRIPTION

ONTARIO PMD LAX

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

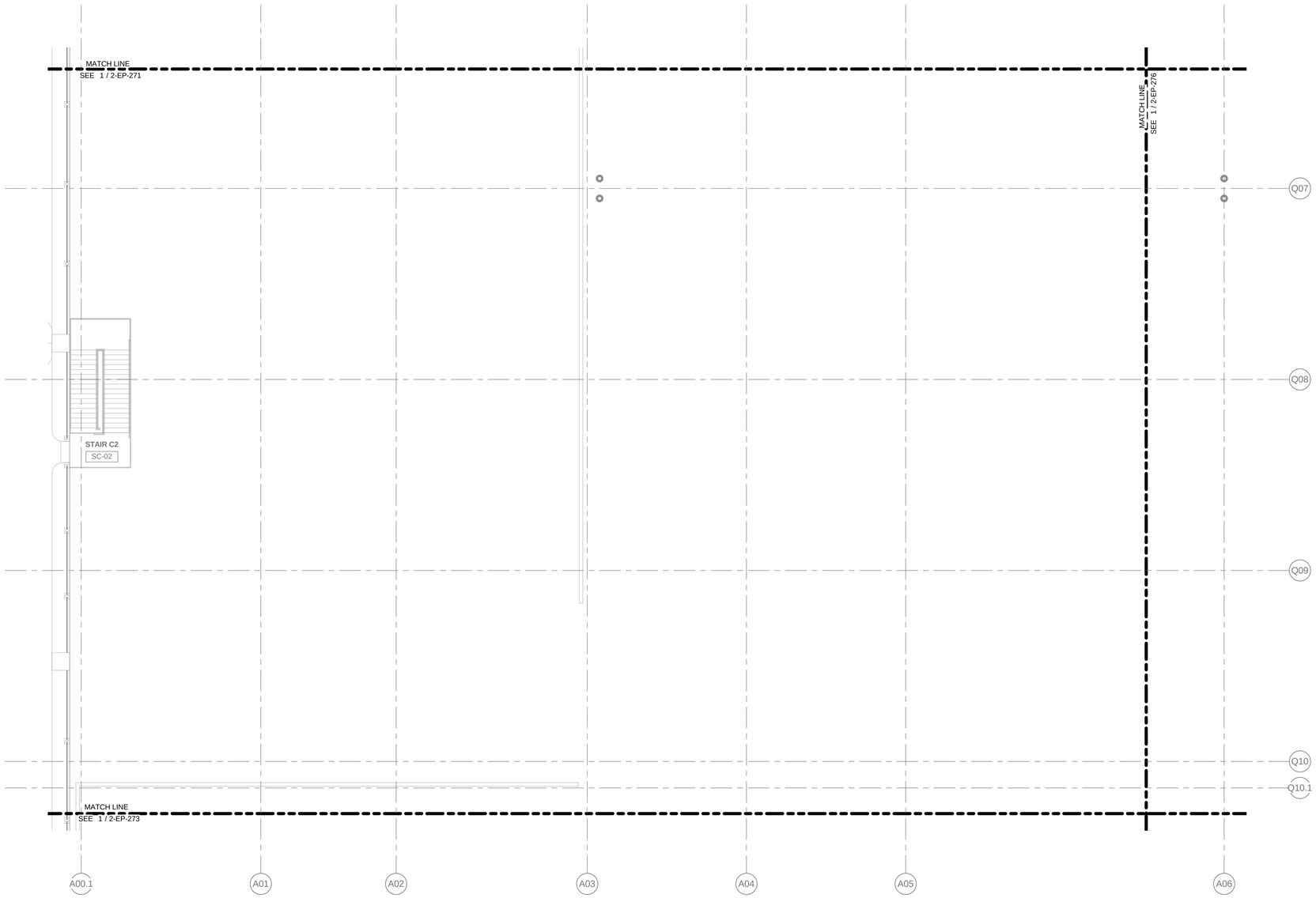
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONSULTANTS:
PBS ENGINEERS
3100 East Route 66, Suite 101 Glendora, CA 91740
T 626.650.0350 F 626.650.0352
Job No. 2015-067-00 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975



1 BUILDING A - QTA - LEVEL 4 ENLARGED POWER PLAN - PART A2
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruehl, Ste 100, Glendora, CA 91741
T 626.852.0000 F 626.852.0001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

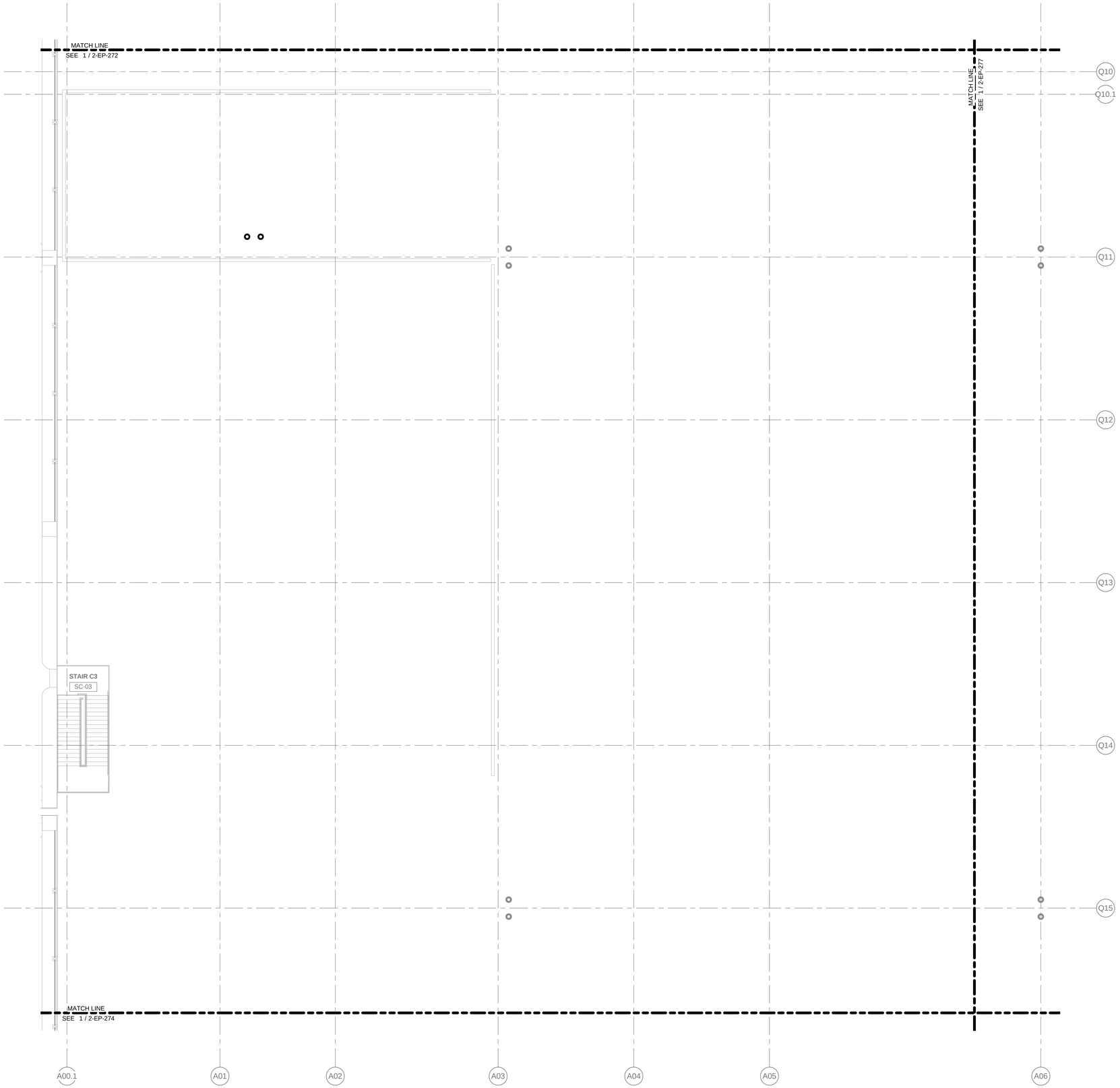
SHEET TITLE:

QTA ENLARGED ROOF POWER PLAN - PART A2

SHEET NO.

2-EP-272

C:\Users\hlerry\Documents\2015-PBS-REVIT-PROJECT\2015-06F-XX-REVIT-2015ELEC-DA4881-BLDG_A_B-R15.rvt
9/22/2016 3:09:54 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 4 ENLARGED POWER PLAN - PART A3
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2161
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
1000 East Ocean Blvd, Suite 1000, Long Beach, CA 90802
T 562.432.0508 F 562.432.0520
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA ENLARGED ROOF POWER PLAN - PART A3

SHEET NO.

2-EP-273

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECTS\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt
9/22/2016 3:09:56 PM

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
3100 Bristol Street 6th & Sixth 100 | Santa Ana, CA 92704
T 6264200200 F 6264200202
Job No. 20150200 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

LAWA ONT PMD LAX

MARK	DATE	DESCRIPTION

REVISIONS:

DRAWN
JOB NO:
SCALE: 1/8"=1'-0"
DATE: 09/23/2016
DESIGNED BY: P.P.
DRAWN BY: H.L.
CHECKED BY: K.S.

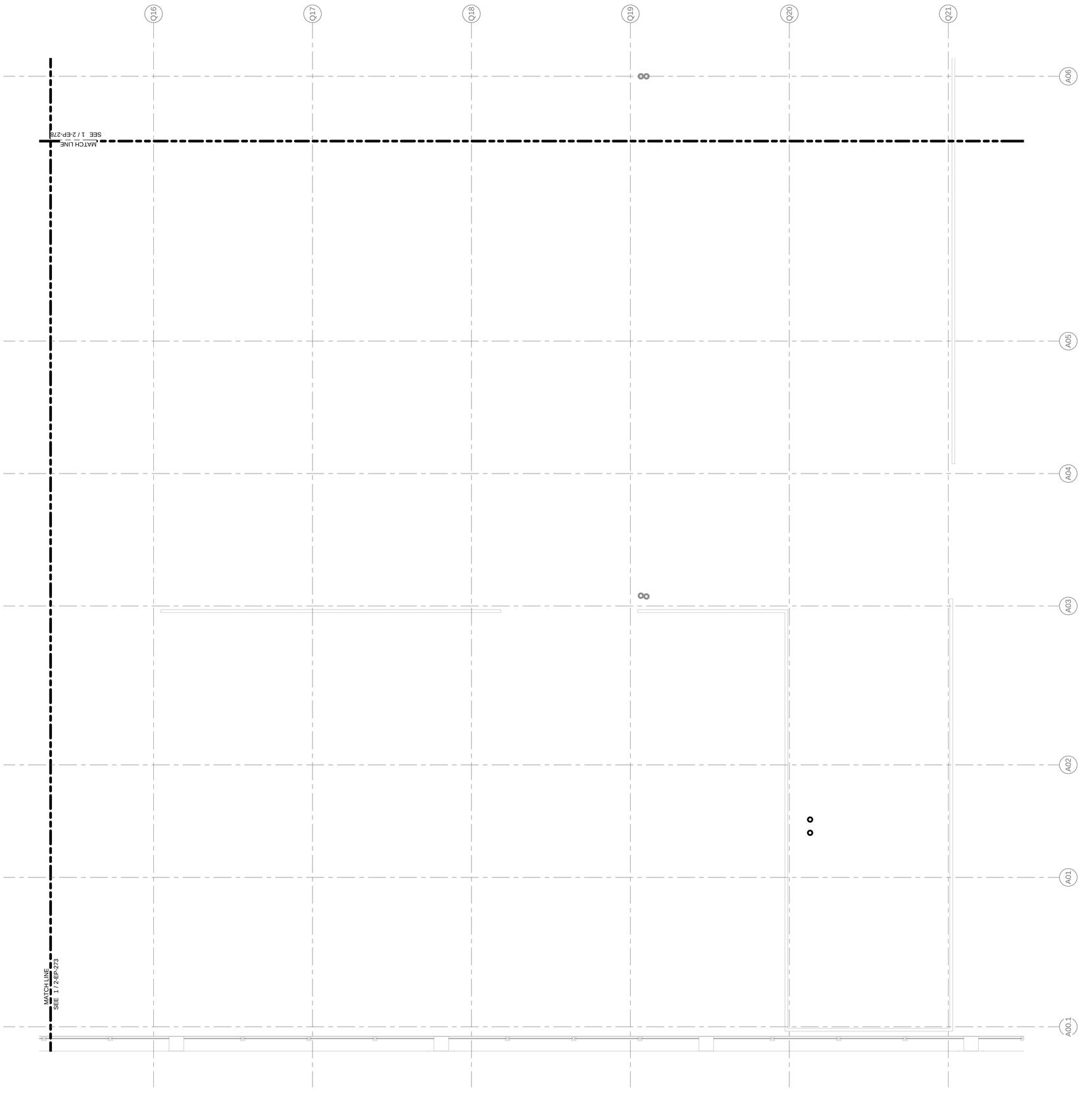
SHEET TITLE:
QTA ENLARGED ROOF POWER PLAN - PART A4

SHEET NO.
2-EP-274

BUILDING A & B KEYPLAN

A5	A6	A7	A8
A1	A2	A3	A4

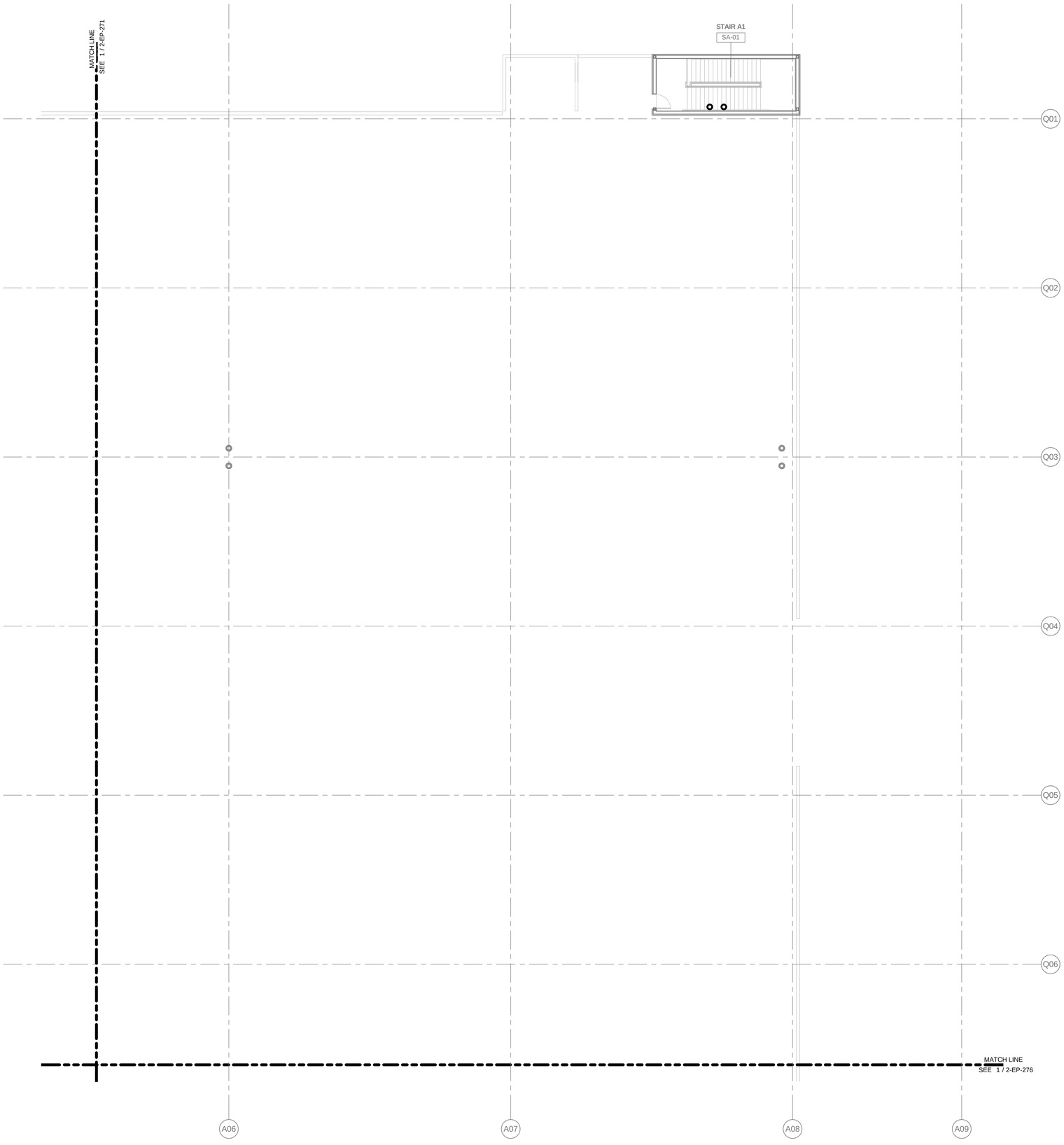
B3	B4
B1	B2



1 BUILDING A - QTA - LEVEL 4 ENLARGED POWER PLAN - PART A4
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 3:09:57 PM C:\Users\pkerry\Documents\d2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015ELEC-DA4881-BLDG_A_B-R15.rvt



1 BUILDING A - QTA - LEVEL 4 ENLARGED POWER PLAN - PART A5
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
100 East Ruether Ave, Suite 100, Glendora, CA 91741
T 626.963.6000 F 626.963.6001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

LAX CONSOLIDATED RENTAL CAR FACILITY

LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA ENLARGED ROOF POWER PLAN - PART A5

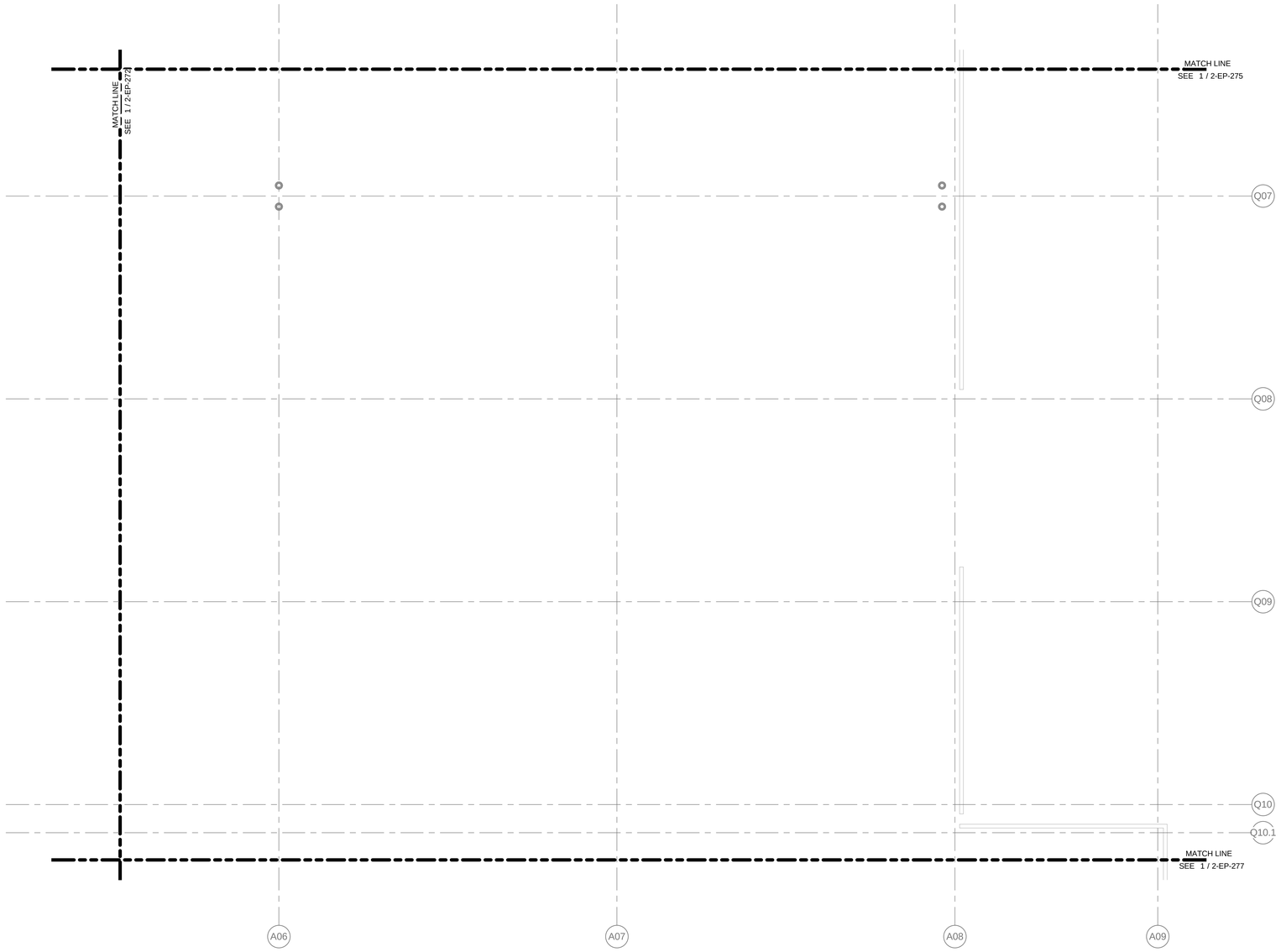
SHEET NO.

2-EP-275

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Penny\Documents\20151-PBS-REVIT PROJECT\2015-067-00-RE-VIT 2015\EE\EC-DA4881-BLDG_A_B-R15.rvt

9/22/2016 3:09:57 PM



1 BUILDING A - QTA - LEVEL 4 ENLARGED POWER PLAN - PART A6
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECT\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt

9/22/2016 3:09:58 PM

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
1000 East Acacia Ave. #B Glendora, CA 91741
T 626.335.0000 F 626.335.0020 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:
QTA ENLARGED ROOF POWER PLAN - PART A6

SHEET NO.
2-EP-276

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 100, Glendora, CA 91740
T 626.6260200 F 626.6260202
Los Angeles | Irvine | Riverside | Las Vegas | Phoenix
www.pbsengineers.com

APPROVED BY
CHIEF AIRPORTS ENGINEER

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

LAX Consolidated Rental Car Facility

Project

Los Angeles World Airports

MARK	DATE	DESCRIPTION

REVISIONS:

PROJ. NO:	DA6681
SCALE:	1/8"=1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

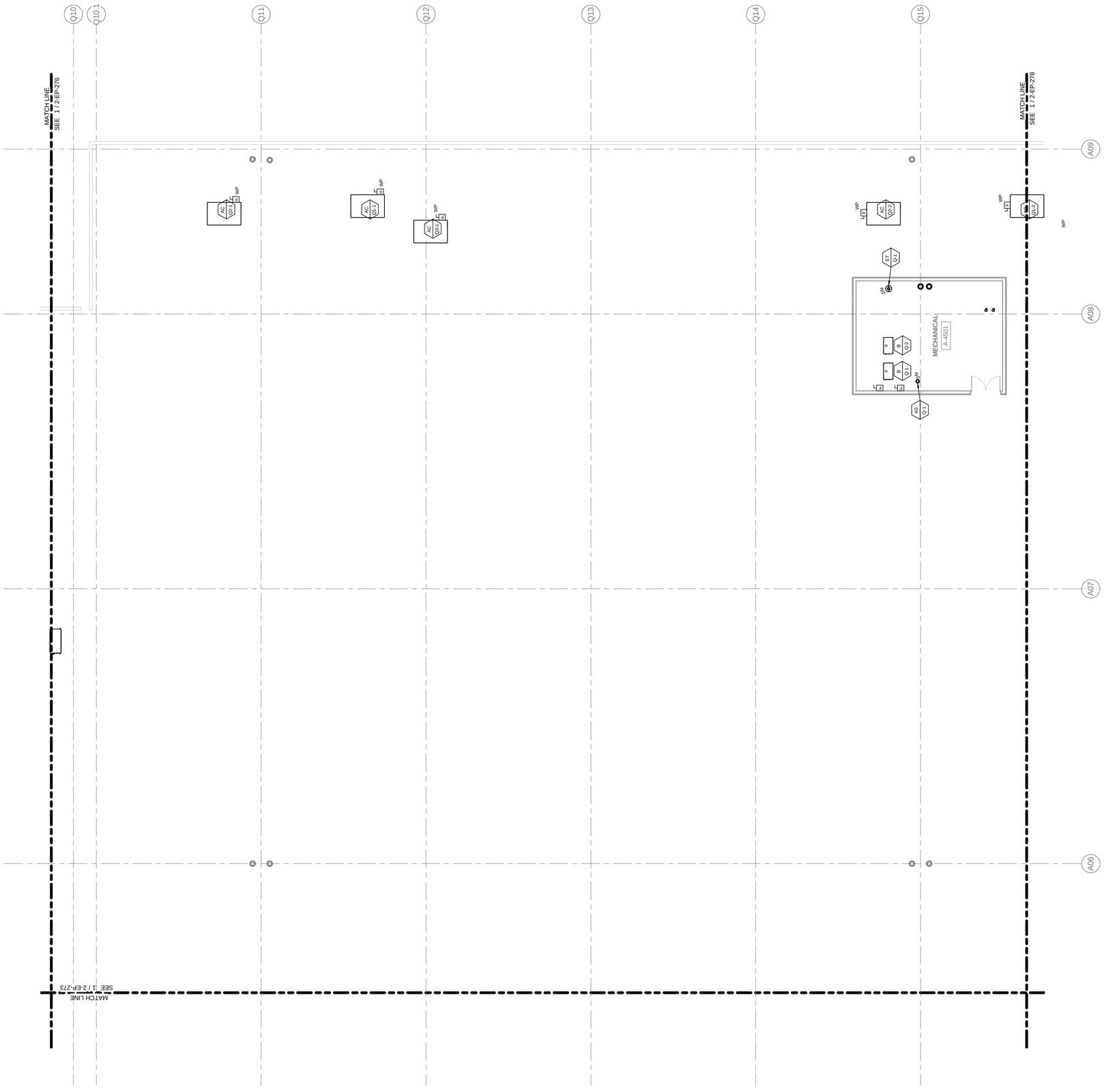
SHEET TITLE:
QTA ENLARGED ROOF POWER PLAN - PART A7

SHEET NO.
2-EP-277

A5	A6	A7	A8
A1	A2	A3	A4

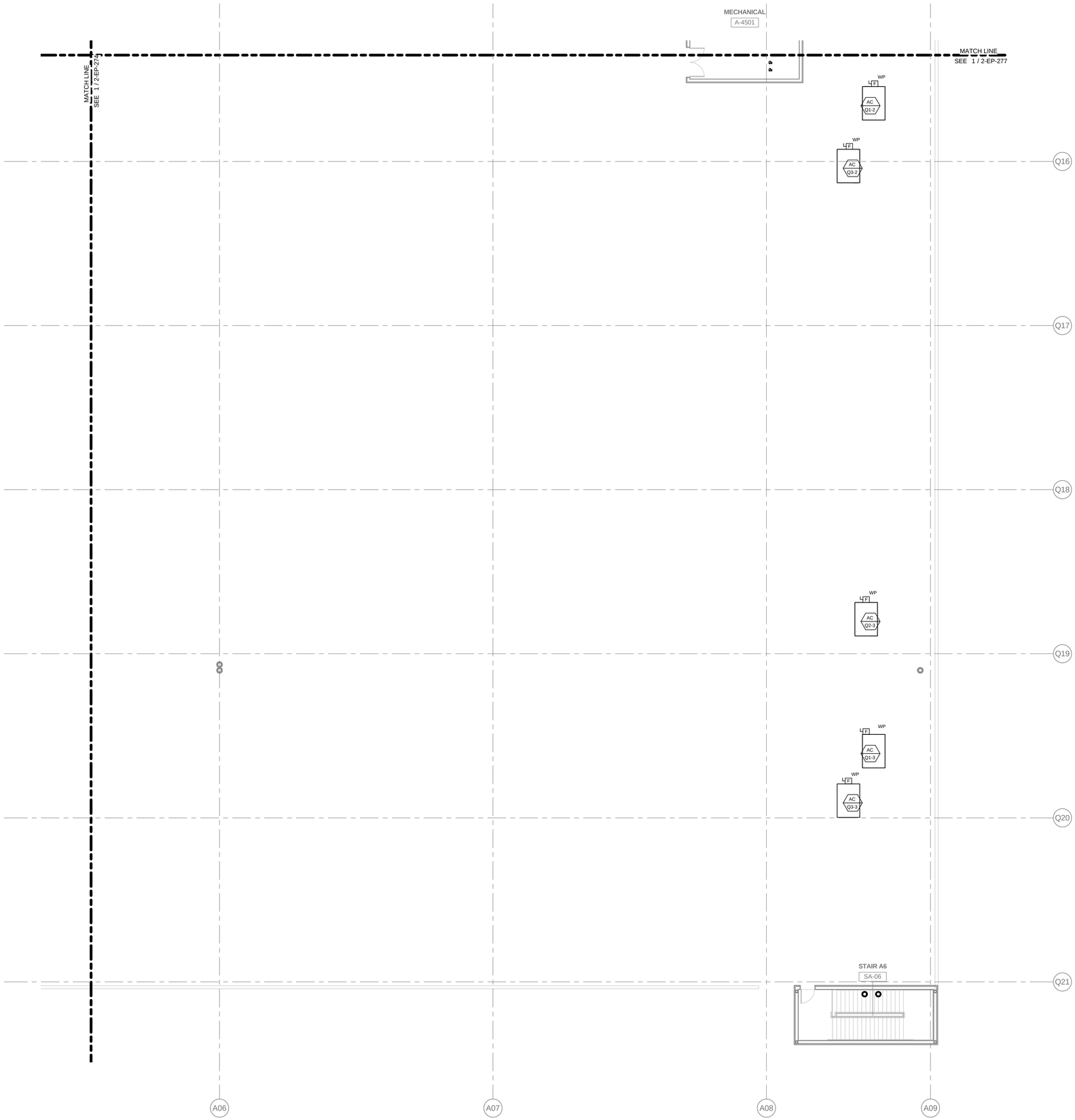
B3	B4
B1	B2

BUILDING A & B KEYPLAN

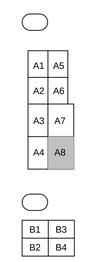


1 BUILDING A - QTA - LEVEL 4 ENLARGED POWER PLAN - PART A7
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 4 ENLARGED POWER PLAN - PART A8
1/8" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERING
1000 East Ocean Blvd., Suite 1000, Long Beach, CA 90802
T 562.432.2000 F 562.432.2001
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

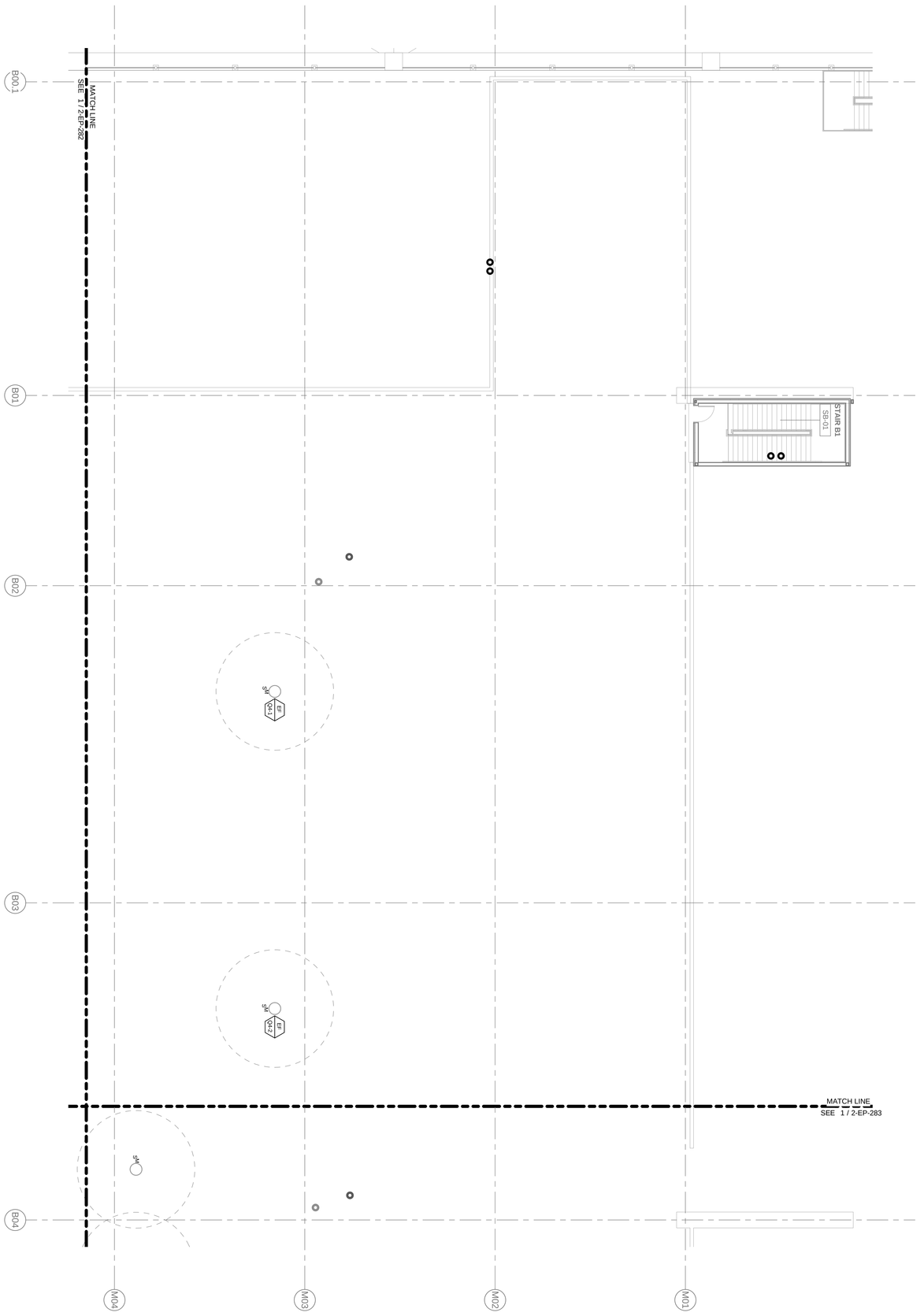
SHEET TITLE:

QTA ENLARGED ROOF POWER PLAN - PART A8

SHEET NO.

2-EP-278

C:\Users\Henry\Documents\2015-PBS-REVIT PROJECT\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B R15.rvt
9/22/2016 3:10:00 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 4 ENLARGED POWER PLAN - PART B1
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

BUILDING A & B KEYPLAN

B2	B1			A2	A1		
B4	B3	A4	A3	A6	A5		
		A8	A7				

SHEET NO.
2-EP-281

QTA ENLARGED ROOF POWER PLAN - PART B1

SHEET TITLE

PROJECT NO: 2015-067-00
SCALE: 1/8" = 1'-0"
DATE: 09/22/2016
DESIGNED BY: P.P
DRAWN BY: H.N
CHECKED BY: K.S.

REVISIONS:

MARK	DATE	DESCRIPTION

ONTARIO INTERNATIONAL AIRPORT LAX

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

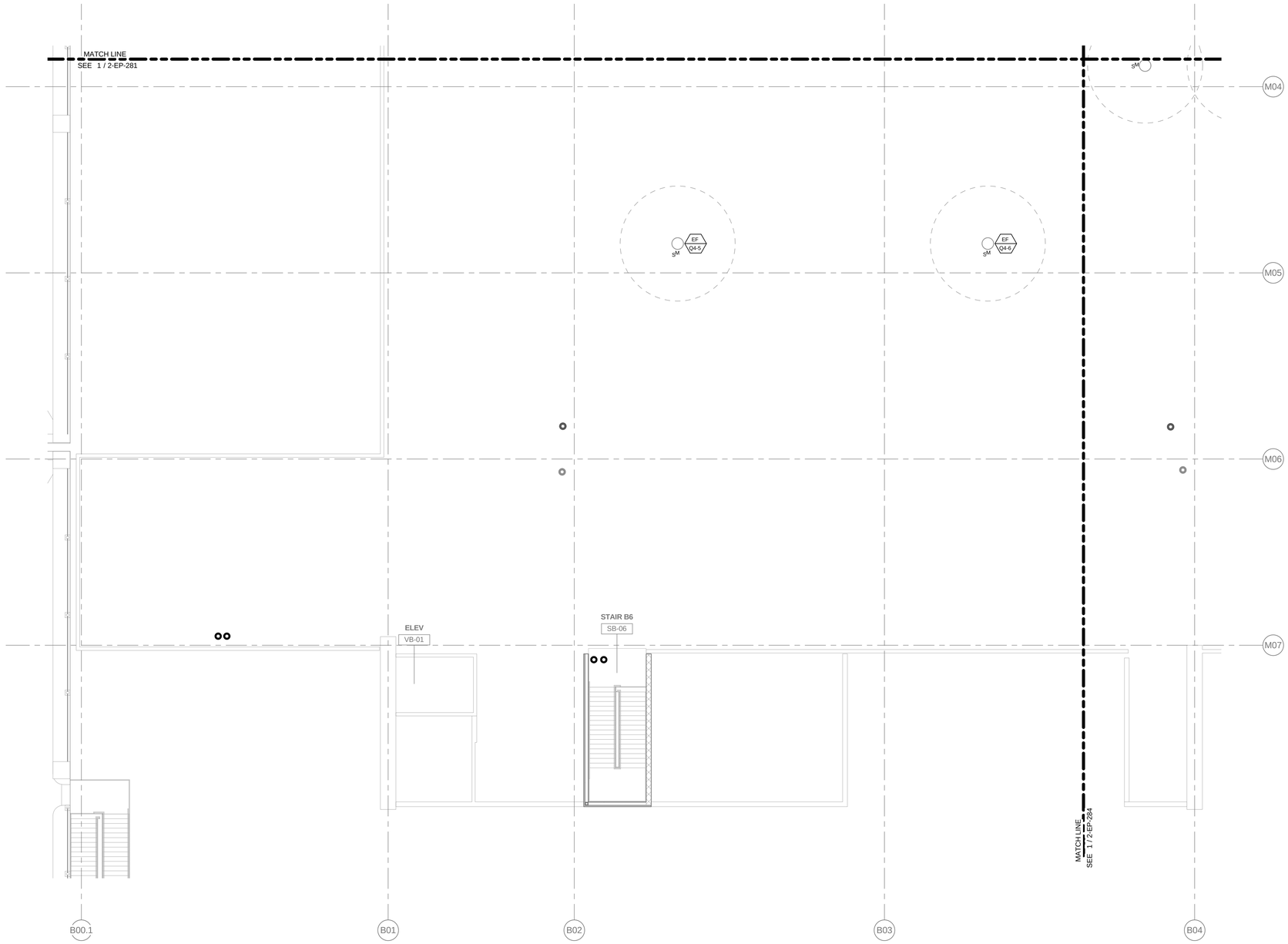
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.650.0350 F 626.650.0352
Job No. 2015-067-00 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975



1 BUILDING B - QTA - LEVEL 4 ENLARGED POWER PLAN - PART B2
1/8" = 1'-0"

A1	A5
A2	A6
A3	A7
A4	A8

B1	B3
B2	B4

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
100 East Ruether Ave, Suite 100, Gardena, CA 90248
T 310.630.2000 F 310.630.2020
Mechanical Electrical Plumbing | Consulting Engineers

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P
DRAWN BY:	H.L.
CHECKED BY:	K.S.

SHEET TITLE:

QTA ENLARGED ROOF POWER PLAN - PART B2

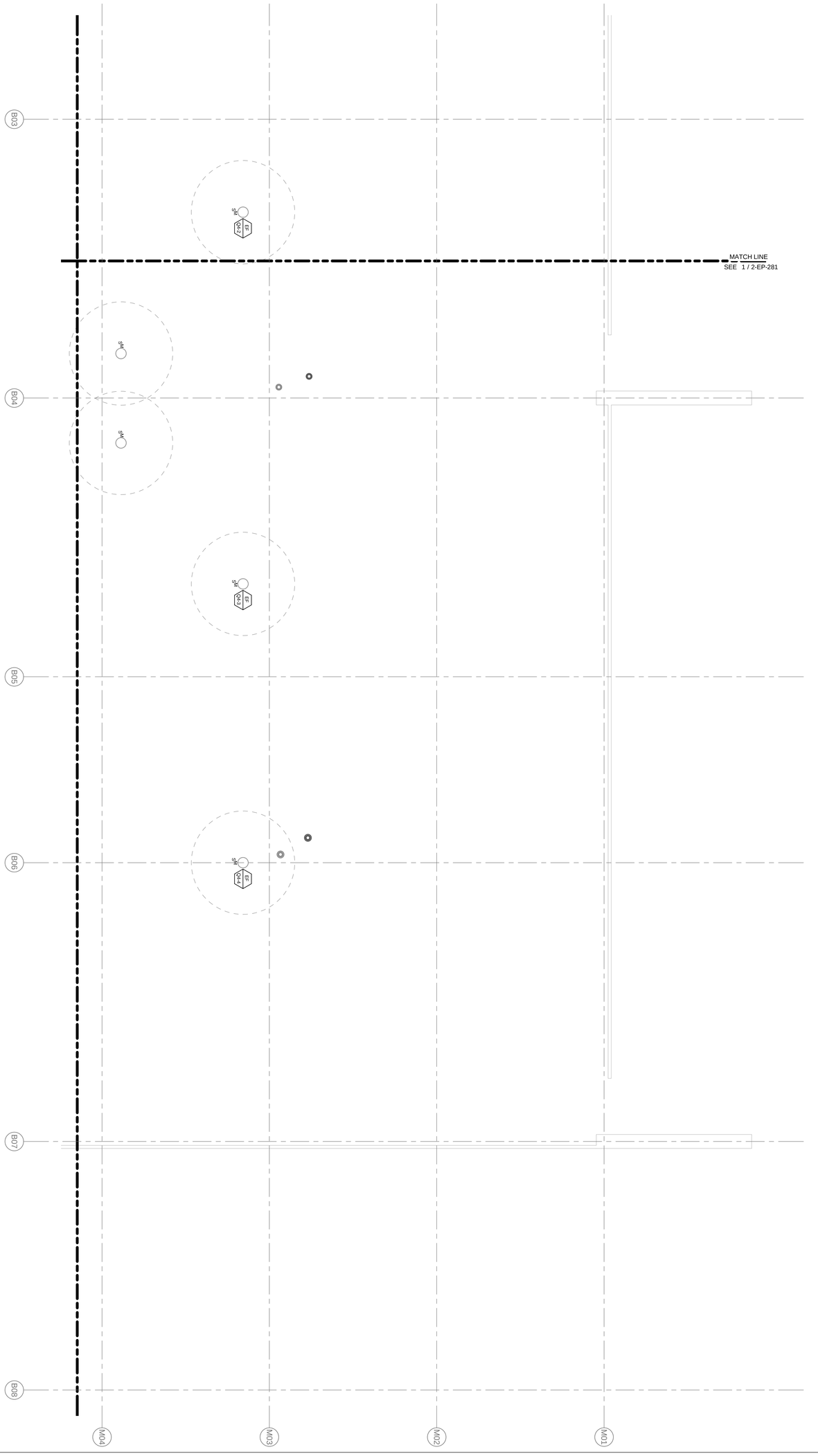
SHEET NO.

2-EP-282

C:\Users\Perry\Documents\2015_PBS-REVIT-PROJECT\2015-06*.00-REVIT-2015ELEC-DA4881-BLDG_A_B-R15.rvt

9/22/2016 3:10:02 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 4 ENLARGED POWER PLAN - PART B3
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

BUILDING A & B KEYPLAN

B1		A4	A3	A2	A1
B2	B3	A8	A7	A6	A5
B4					

SHEET NO. 2-EP-283

SHEET TITLE: QTA ENLARGED ROOF POWER PLAN - PART B3

PROJECT NO: DA4880
SCALE: 1/8" = 1'-0"
DATE: 09/22/2016
DESIGNED BY: P.P
DRAWN BY: P.P
CHECKED BY: K.S.

REVISIONS:

MARK	DATE	DESCRIPTION

ONT PMD LAX

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 101 Glendora, CA 91740
T 626.6502050 F 626.6502053
Job No. 2015-067-00 www.pbsengineers.com
Mechanical Electrical Plumbing | Consulting Engineers

NOT FOR CONSTRUCTION

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
PBS ENGINEERS
2100 East Route 66, Suite 100 Glendora, CA 91740
T 626.6300200 F 626.6300202
Job No. 2015-067-00 www.pbsengineers.com
Technical Electrical Plumbing | Consulting Engineers

SUBMITTED BY	ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY	CHIEF AIRPORTS ENGINEER

Los Angeles International Airport

LAX Consolidated Rental Car Facility

Project

Los Angeles World Airports

LAX PMD CONT MANT

REVISIONS:

MARK	DATE	DESCRIPTION

DRAWN:	
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	P.P.
DRAWN BY:	H.L.
CHECKED BY:	K.S.

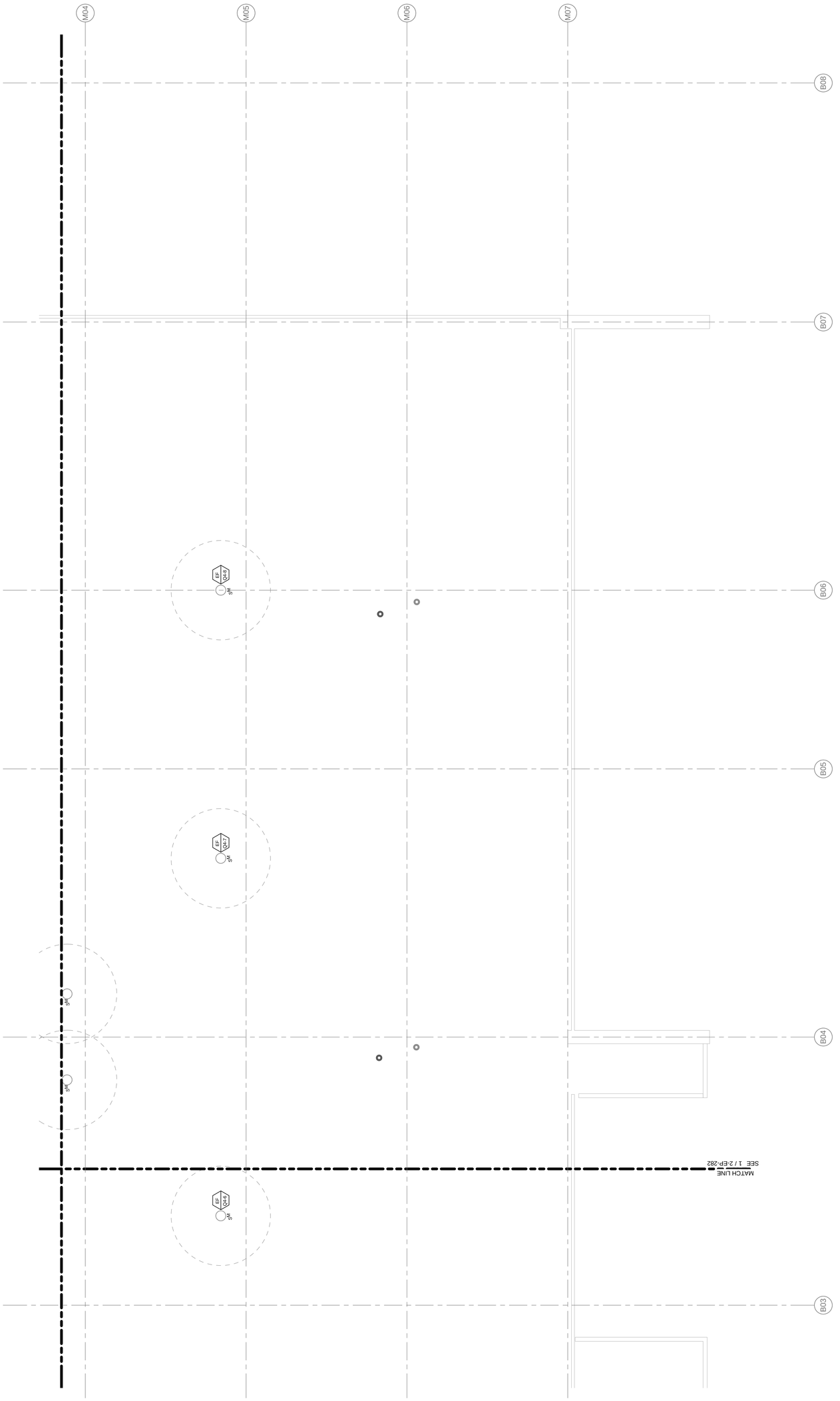
SHEET TITLE:
QTA ENLARGED ROOF POWER PLAN - PART B4

SHEET NO.
2-EP-284

BUILDING A & B KEYPLAN

A5	A6	A7	A8
A1	A2	A3	A4

B3	B4
B1	B2



1 BUILDING B - QTA - LEVEL 4 ENLARGED POWER PLAN - PART B4
1/8" = 1'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/22/2016 3:10:04 PM C:\Users\jtenry\Documents\2015-PBS-REVIT-PROJECT\2015-067-00-REVIT-2015\ELEC-DA4881-BLDG_A_B-R15.rvt

TELECOM SYMBOL LEGENDS

NOTE:

1. ALL SYMBOLS ARE NOT NECESSARILY USED ON THESE PLANS.
2. ALL MOUNTING HEIGHTS ARE TO CENTERLINE OF ALL DEVICES AND EQUIPMENT UON.
3. IN GENERAL, SYMBOLS SHOWN WITH LIGHT LINES DENOTE EXISTING WORK, SYMBOLS SHOWN WITH HEAVY LINES DENOTE NEW WORK.

DRAWING REFERENCES

- 1 / A101 — DETAIL REFERENCE TAG
- A / TXXX — EXTERIOR/INTERIOR ELEVATION
- A / TXXX / B — INTERIOR MULTI-VIEW ELEVATION
- NORTH ARROW
- X — KEYNOTE
- 1 — REVISION NUMBER

JUNCTION AND PULL BOXES

- J — JUNCTION BOX
- P — PULL BOX
- H — HANDHOLE
- MH — MAINTENANCE HOLE

CONDUIT AND RACEWAY

- CONDUIT RUN CONCEALED IN CEILING OR WALL CONSTRUCTION
- CONDUIT RUN IN FLOOR CONSTRUCTION OR UNDERGROUND DUCTBANK
- CONDUIT RUN EXPOSED
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- CABLE TRAY (REFER TO PLANS FOR SIZE)

WIRELESS

- M / DAS-XY-Z-## — DAS ANTENNA
  - SEQUENCE
  - LEVEL
  - AREA
  - BUILDING

EVIDS

- EVIDS / XXX-Y / XY-Z-## — EVIDS DISPLAY
  - TYPE
    BID BAGGAGE INFORMATION
    FID ARRIVALS / DEPARTURES INFORMATION
    GID GATE INFORMATION
  - DISPLAY TYPE, REFER TO EVIDS DETAILS
  - SEQUENCE
  - LEVEL
  - AREA
  - BUILDING

STRUCTURED CABLING

- DATA OUTLET (SURFACE MOUNT)
- DATA OUTLET (FLOOR MOUNT)
- DATA OUTLET (CEILING MOUNT)
- X-# / XYZ-## — DATA OUTLET TAG
  - TYPE, REFER TO OUTLET DETAILS
  - TOTAL PORT QUANTITY
  - SEQUENTIAL NUMBER
  - AREA
  - LEVEL
  - BUILDING
- CP — CONSOLIDATION POINT
- ENCLOSED EQUIPMENT CABINET
  - FRONT OF CABINET
  - CABINET ALLOCATION TAG
  - CABINET CLEARANCE (TYP)
- FOUR POST EQUIPMENT RACK
  - CABINET ALLOCATION TAG
  - FRONT OF CABINET
  - CABINET CLEARANCE (TYP)
- WALL MOUNT ENCLOSURE
  - FRONT OF CABINET
  - CLEARAN
    CE
    TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (+18" AFF)
  - TELECOMMUNICATIONS GROUNDING BUSBAR (+18" AFF)
  - PLYWOOD BACKBOARD SHOWN FOR REFERENCE ONLY, REFER TO GENERAL TRADES

TELECOM ABBREVIATIONS

AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
BBH	BACKBONE HUB
BC	BELOW CEILING
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CAT	CATEGORY
CCT	COMMUNICATION CABLE TRAY
CH	CHANNEL
CLG	CEILING
COMM	COMUNICATIONS
CPU	CENTRAL PROCESSING UNIT
CR	COMMUNICATIONS ROOM
DEMO	DEMOLISH
DWG	DRAWING
EA	EACH
EC	EMPTY CONDUIT
ELC	ELECTRICAL CONTRACTOR
ELEC	ELECTRIC/ELECTRICAL
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EQ	EQUALIZER
EX	EXISTING
FAR	FEDERAL AVIATION REGULATION
FIS	FEDERAL INSPECTION SERVICE
FO	FIBER OPTIC
GC	GENERAL CONTRACTOR
GRD	GROUND
GRS	GALVANIZED RIGID STEEL
HH	HANDHOLE
IC	INTERCOM
IDF	INTERMEDIATE DISTRIBUTION FRAME
IR	INFRARED
IRM	INFORMATION AND RESOURCE MANAGEMENT
IT	INFORMATION TECHNOLOGY
JB	JUNCTION BOX
LAN	LOCAL AREA NETWORK
LFMC	LIQUIT TIGHT FLEXIBLE METALLIC CONDUIT
LVL	LEVEL
MCR	MAIN COMMUNICATIONS ROOM
MDF	MAIN DISTRIBUTION FRAME
MH	MANHOLE
MMFO	MULTI-MODE FIBER OPTIC
MOD	MODULE
MUFIDS	MULTI-USER FLIGHT INFORMATION DISPLAY SYSTEM
MPOE	MINIMUM POINT OF ENTRY
NIC	NOT IN CONTRACT
O/P	OUTPUT
OTS	OFF THE SHELF
PA	PUBLIC ADDRESS
PBX	PRIVATE BRANCH EXCHANGE
PC	PERSONAL COMPUTER
PP	PATCH PANEL
PR	PAIR
PVC	POLYVINYL CHLORIDE CONDUIT
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMU	RACK UNIT
RU	RACK MOUNTED UNIT
SHLD	SHIELDED (AS IN CABLE)
SMFO	SINGLE-MODE FIBER OPTIC
SPP	SYSTEM POWER PANEL
SS	STAINLESS STEEL
TBD	TO BE DETERMINED
TDS	TELECOMMUNICATION DISTRIBUTION SYSTEM
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
USCBP	UNITED STATES CUSTOMS AND BORDER PROTECTION
USCS	UNITED STATES CUSTOMS SERVICE
VA	VETERANS ADMINISTRATION
VAC	VOLT ALTERNATING CURRENT
VDC	VOLT DIRECT CURRENT
VE	VOICE EVACUATION
VoIP	VOICE OVER INTERNET PROTOCOL (IP)
VSS	VISUAL SURVEILLANCE SYSTEM
W	WALL
WT	WATERTIGHT
XMTR	TRANSMITTER

TELECOM GENERAL NOTES

INSTALLATION REQUIREMENTS

1. BASIC ELECTRICAL RACEWAY SPECIFICATIONS REQUIREMENTS SHALL APPLY TO THIS WORK. REFER TO ELECTRICAL SPECIFICATIONS.
2. CONTRACTOR SHALL PROVIDE ALL OPTICAL FIBER CABLE, INNERDUCT, EQUIPMENT CABINET, PATCH CORDS, PATCH PANELS, RELATED HARDWARE, TERMINATION EQUIPMENT, AND ANY OTHER APPURTENANCES. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, LABOR, AND SERVICES NECESSARY TO TEST, LABEL, AND DOCUMENT THE CABLING SYSTEM, AND TO ENSURE THAT IT IS IN COMPLIANCE WITH REQUIREMENTS STATED HEREIN.
3. CONTRACTOR SHALL VERIFY THE SIZE OF ALL CONDUCTORS, CONDUIT, AND JUNCTION BOXES (40% MAXIMUM FILL). INSTALLATION SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL CODES HAVING JURISDICTION. TELECOM CONDUIT FILL SHALL NOT EXCEED 40%.
4. 120 VAC INPUT POWER CONDUCTORS SHALL NOT BE INSTALLED IN THE SAME CONDUIT OR CABLE TRAY AS LOW VOLTAGE AUDIO, VIDEO, DC POWER, UTP OR ANY OTHER LOW VOLTAGE CABLES.
5. CONTRACTOR SHALL PROMPTLY NOTIFY ENGINEER PRIOR TO INSTALLAION OF WORK OF ANY MOUNTING LOCATIONS NOTED ON THE DRAWINGS ARE OBSTRUCTED AND/OR IF ANY CONFLICTS OR PROBLEMS ARE DISCOVERED.
6. INNERDUCT SHALL BE INSTALLED IN ALL CONDUITS IN WHICH FIBER CABLING IS TO BE INSTALLED. ALL OPTICAL FIBER CABLES SHALL BE PLACED WITHIN INNERDUCT. INNERDUCT SHALL BE MAXCELL (3) CELL.
7. INSTALL TRUE TAPE TYPE PULL STRINGS IN ALL DUCTS, CONDUITS OR INNERDUCTS. REPLACE PULL STRINGS THAT ARE USED WITH EQUIVALENT PULL STRINGS.
8. OPTICAL FIBER PATCH PANELS SHALL BE PROVIDED AS SHOWN ON DRAWINGS AND SHALL INCLUDE THE FOLLOWING IN QUANTITIES AS NECESSARY:
   A. BEJED, BJ-1646-047, METAL 6 PORT, SC DIE-CUT ADAPTER PLATE
   B. ALCOA FUJIKURA CSB0810, GREEN, SC-APC ADAPTERS
   C. BEJED BJ-1742C-011, 24 FIBER SPLICE TRAY(INCLUDING METAL ROD REINFORCED HEATH SHRINKABLE FUSION SPLICE PROTECTOR SLEEVES).
   E. CORNING SC-APC POLISHED PIGTAILS OR EQUIVALENT
   F. PROVIDE CORNING ULTRA-PC POLISHED PIGTAILS OR EQUIVALENT
9. PROVIDE PATCH CABLES OR DUPLEX JUMPERS FROM EXISTING PATCH PANELS TO NEW FIBER PATCH PANELS. VERIFY WITH OWNER CONNECTOR TYPE ON EXISTING PATCH PANELS BEFORE ORDERING PATCH CABLES OR JUMPERS.
10. CONTRACTOR SHALL ONLY FUSION SPLICE PIGTAILS THAT HAVE HAD CONNECTORS INSTALLED AND POLISHED BY THE MANUFACTURER OR LOCAL CABLE ASSEMBLY HOUSE. THE CONTRACTOR SHALL NOT INSTALL OR POLISH FIBER OPTIC CONNECTORS, EITHER IN THE FIELD OR IN THEIR SHOP. PIGTAILS SHALL HAVE THE SAME GLASS SPECIFICATION AS THE FIBER CABLE. FOR SINGLEMODE FIBER, ONLY SC-APC, ANGLE POLISHED PRE-CONNECTORIZED, PRE-TERMINATED PIGTAILS SHALL BE FUSION SPLICED TO THE CABLE. ACCEPTABLE PRODUCTS: CORNING SMF-28e+ GLASS.
11. OUTSIDE PLANT FIBER SHALL BE SINGLEMODE OUTSIDE PLANT RATED CORNING OPTICAL FIBER SMF28e+ OR BETTER APPROVED EQUIVALENT. FIBER CABLE JACKETING SHALL BE EITHER CORNING ALTOS ALL DIELECTRIC GEL FREE OR APPROVED EQUIVALENT.
12. ALL CABLES SHALL BE CONTINUOUS FROM THE SOURCE TO THE DESTINATION AND SHALL NOT HAVE SPLICES IN BETWEEN PATCH PANELS EXCEPT IN MANHOLE 235 AS NOTED ON DRAWINGS.
13. CONTRACTOR SHALL USE FUSION SPLICER WITH VIEWING OPTICS, MAGNIFIED VISUAL DISPLAY, OR OTHER IMAGE PROCESSING SOFTWARE TO PERFORM CORE ALIGNMENT AND QUALITY VERIFICATION (FUJIKURA FSM-50S OR EQUIVALENT). PERMITTED FUSION SPLICE LOSS IS 0. 015DB MAXIMUM. SPLICES THAT DO NOT MEET MAXIMUM SPLICE LOSS REQUIREMENTS SHALL BE RESPLICED AND RETESTED.
14. SERVICE LOOPS OF 15 FEET SHALL BE PROVIDED AT ALL CABLE ENDS. OUTDOOR CABLES IN MANHOLES SHALL HAVE 30 FEET OF SLACK FOR A SERVICE LOOP.
15. PROVIDE (1) 48-STRAND FIBER CABLE (CORNING MIC CABLE 052) FROM THE QTA MPOE TO EACH DATA ROOM IN EACH BUILDING.
16. PROVIDE (1) 100 PAIR COPPER CABLE (CAT3) FROM THE QTA MPOE TO EACH DATA ROOM IN EACH BUILDING.
17. PROVIDE (1) 6AWG COPPER GROUND CONDUCTOR FROM THE QTA BUILDING MPOE TO EACH DATA ROOM IN EACH BUILDING.
18. PROVIDE MAXCEL INNERDUCT FOR FIBER CABLES.
19. DO NOT RUN FIBER AND COPPER IN THE SAME CONDUIT.

TESTING AND LABELING REQUIREMENTS

1. CONTRACTOR SHALL TEST ALL STRANDS OF OPTICAL FIBER WITH AN APPROVED POWER METER AND LIGHT SOURCE. TESTER SHALL BE CAPABLE OF PERFORMING THE TESTS REQUIRED BY ANSI/TIA/EIA-568-C 2.1 ANNEX H, ANSI/TIA/EIA-526-14A, AND ANSI/TIA/EIA-526-7.
2. PRIOR TO SHIPMENT OF THE OPTICAL FIBER CABLE, 100 PERCENT OF THE FIBERS SHALL BE TESTED WITH AN OPTICAL TIME DOMAIN REFLECTOMETER (OTDR). COPIES OF THE TRACES SHALL BE FURNISHED AS PART OF THE SUBMITTALS. UPON DELIVERY TO THE SITE ALL FIBER STRANDS SHALL BE TESTED WITH AN OTDR BEFORE INSTALLATION BEGINS. SUBMIT (2) PAPER COPIES BEFORE INSTALLATION BEGINS.
3. THE CONTRACTOR SHALL VERIFY THE INTEGRITY OF THE INSTALLED FIBER BY TESTING WITH AN OTDR. TEST SHALL BE PERFORMED ON 100 PERCENT OF THE FIBERS AND REPEATED FROM THE OPPOSITE END OF EACH FIBER OR PERFORMED WITH A LAUNCH CABLE AT EACH END. SUBMIT COPIES OF TRACES.
4. IF OTDR TEST RESULTS ARE UNSATISFACTORY DUE TO CABLE DAMAGE, CABLE SEGMENT IS UNACCEPTABLE AND SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
5. PROVIDE END-TO-END ATTENUATION TESTING USING AN APPROVED POWER METER AND LIGHT SOURCE PER ANSI/TIA/EIA 455-53A.
6. FIBER SHALL BE TESTED IN BOTH DIRECTIONS AT BOTH 1310 NM AND 1550 NM. PERFORM OPTICAL ATTENUATION MEASUREMENTS FOR EACH OPTICAL FIBER AFTER CABLES HAVE BEEN CONNECTORIZED, DRESSED AND MOUNTED INTO PANELS TO SHOW LOSSES OF CABLE, CONNECTORS AND COUPLERS. ACCEPTABLE ATTENUATION FOR OSP BACKBONE CABLING IS 0.5 DB/KM AT BOTH TEST FREQUENCIES.
7. ALL CABLES AND PATCH CABLES SHALL HAVE A PERMANENT LABEL ATTACHED AT BOTH ENDS.
8. ALL INDOOR CABLE AND PATCH CABLE LABELS SHALL BE PRE-PRINTED USING BRADY TLS 2200 PRINTER OR EQUIVALENT AND SHALL BE PLACED LOOSE ON THE PATCH CABLE NEAR THE CONNECTOR END WITHOUT HEAT SHRINKING LABELS. LABELS SHALL USE A THREE LINE FORMAT WITH THE ORIGINATION PATCH PANEL AND PORT ON THE FIRST LINE, THE DESTINATION PATCH PANEL AND PORT ON THE SECOND LINE AND THE SYSTEM OR OTHER DESCRIPTIVE INFORMATION ON THE THIRD LINE. SEE LAWA ITMG FOR SAMPLE LABELS.
9. PATCH PANELS SHALL BE LABELED ON THE FRONT PANEL WITH 1" BLACK CHARACTERS ON A "SAFETY ORANGE" BACKGROUND LETTERING 3M KIT 5005-KIT OR EQUIVALENT.
10. ALL OUTDOOR CABLES SHALL BE LABELED WITH ACP FT-LAWATAG-2.5X4 PLASTIC TAGS AND PRE-PRINTED WITH PERMANENT INK. OUTDOOR CABLES SHALL BE LABELED (AND SECURED WITH HEAVY DUTY STRAPS) IN EVERY MANHOLE AND HANDHOLE WITHIN 12 INCHES OF WHERE THE CABLE INTERS THE MANHOLE, WITHIN 12 INCHES OF WHERE THE CABLE EXITS THE MANHOLE AND ON THE SLACK COIL.

SUBMITTAL REQUIREMENTS

1. SUBMIT FOR APPROVAL MANUFACTURER'S DATA SHEETS FOR ALL PROPOSED MATERIALS AND EQUIPMENT. SUBMIT A TWO-FOOT LENGTH SAMPLE OF EACH FIBER CABLE TYPE/COUNT TO BE INSTALLED.
2. SUBMIT CALIBRATION REPORTS FOR ALL TEST EQUIPMENT. THE CALIBRATION SHALL BE PERFORMED BY A MANUFACTURER CERTIFIED CALIBRATION FACILITY AND BE DATED NO MORE THAN SIXTY (60) DAYS PRIOR TO THE START OF TESTING.
3. SUBMIT (5) HARDBOUND COPIES OF ALL CABLE TEST RESULTS AND ONE ELECTRONIC COMPACT DISC.
4. SUBMIT ALL PROPOSED LABELING MATERIALS AND NOMENCLATURE FOR APPROVAL.
5. CONTRACTOR SHALL MAINTAIN A SET OF CONTRACT DRAWINGS DURING INSTALLATION AND RED-LINE MARK THEM TO INDICATE ANY CHANGES AS THEY OCCUR.
6. CONTRACTOR SHALL PROPOSE A TEAM THAT IS QUALIFIED TO PERFORM THE WORK OF THIS PROJECT (SUBMIT PROJECT BRIEFS AND RESUMES) INCLUDING AN EXPERIENCED PROJECT MANAGER THAT WILL SERVE AS A SINGLE POINT OF CONTACT AND RESPONSIBILITY FOR THE CONTRACTORS TEAM.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC MANAGEMENT AND SHALL SUBMIT TO LAWA AIRPORT AND FACILITIES PLANNING DIVISION ALL PROPOSED TRAFFIC MANAGEMENT METHODS AND PRODUCTS FOR APPROVAL. OUTSIDE PLANT CABLE INSTALLATION THAT REQUIRES OBSTRUCTION OF TRAFFIC SHALL BE DONE ON THE NIGHT SHIFT.
8. THE FIBER CABLING CONTRACTOR SHALL BE A CERTIFIED CORNING OPTICAL CABLE INSTALLER, WITH THE CAPABILITY OF PROVIDING A MANUFACTURER'S CERTIFICATION OF NOT LESS THAN FIFTEEN (15) YEARS FOR THE INSTALLED CABLING AND ASSOCIATED TERMINATION EQUIPMENT. THE CONTRACTOR SHALL SUBMIT PROOF OF CERTIFICATION TO OWNER PRIOR TO COMMENCING WORK. PROVIDE MAXIMUM INSTALLATION WARRANTY OFFERED BY THE MANUFACTURER.
9. PROJECT RECORD DOCUMENTS (AS-BUILTS) WILL BE PROVIDED UPON COMPLETION OF THE INSTALLATION. DRAWINGS WILL BE UPDATED ELECTRONICALLY AND SUBMITTED TO LAWA IN ACCORDANCE WITH THE SCHEDULE PROVIDED FOR THIS BY LAWA. DO NOT WAIT UNTIL THE END OF THE PROJECT. SUBMIT RECORD DRAWING FILES IN AUTOCAD RELEASE 2008 OR LATER.
10. CONTRACTOR WILL BE REQUIRED TO ATTEND REGULAR WEEKLY PROGRESS MEETINGS AND SUBMIT PROJECT STATUS REPORTS AND UPDATED SCHEDULES.

TELECOM KEYED NOTES

T01 PROVIDE 28"" X 38"" X 84"" HIGH EQUIPMENT CABINETS, DAMAC MODEL CSN1284Z22477-3 IT.

T02 PROVIDE 28" X 44" X 84" HIGH EQUIPMENT CABINETS, DAMAC MODEL CSN1284Z22477-3 IT.

T03 PROVIDE 4' X 8' FIRE RATED AC PLYWOOD WITH CUTOUTS FOR BRACKETS AND OUTLETS AS REQUIRED. PAINT WHITE AND LEAVE FIRE RATING STAMP EXPOSED.

T04 PROVIDE ELECTRICAL PANELBOARDS. REFER TO ELECTRICAL SHEETS.

T05 PROVIDE GROUND BUS BAR. REFER TO SHEET T3, DETAIL 12 BOND TO GROUND BUSBAR IN ELECTRICAL ROOM.

T06 PROVIDE 12" WIDE X 6" DEEP SUSPENDED CHALFANT SERIES 6 VENTED CABLE TRAY.

T07 PROVIDE (2) 2"C TO MPOE. REFER TO SHEET 2-T-112.

T08 PROVIDE (2) 2"C TO FIRE COMMAND CENTER. REFER TO SHEET 2-T-111.

T09 UNDERGROUND TELECOMMUNICATIONS DUCT BANK, REFER TO ELECTRICAL AND CIVIL DRAWINGS.

T10

T11 (4) 4"C FROM EXISTING MANHOLE TO MPOE.

T12 (2) 4"C FROM PULLBOX TO COMM ROOM EACH LEVEL, TYP.

T13 PROVIDE (1) 48-STRAND SINGLE MODE FIBER CABLE FROM THE MPOE TO EACH DATA ROOM.

T14 PROVIDE (1) 100 PR. CAT3 COPPER CABLE FROM THE MPOE TO EACH DATA ROOM.

T15 PROVIDE (1) 6 AWG COPPER CABLE FROM MPOE TO EACH DATA ROOM.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1783
FAX: (314) 918-1788

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/2" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A & B - QTA TELECOM LEGEND, NOTES, AND ABBREVIATIONS

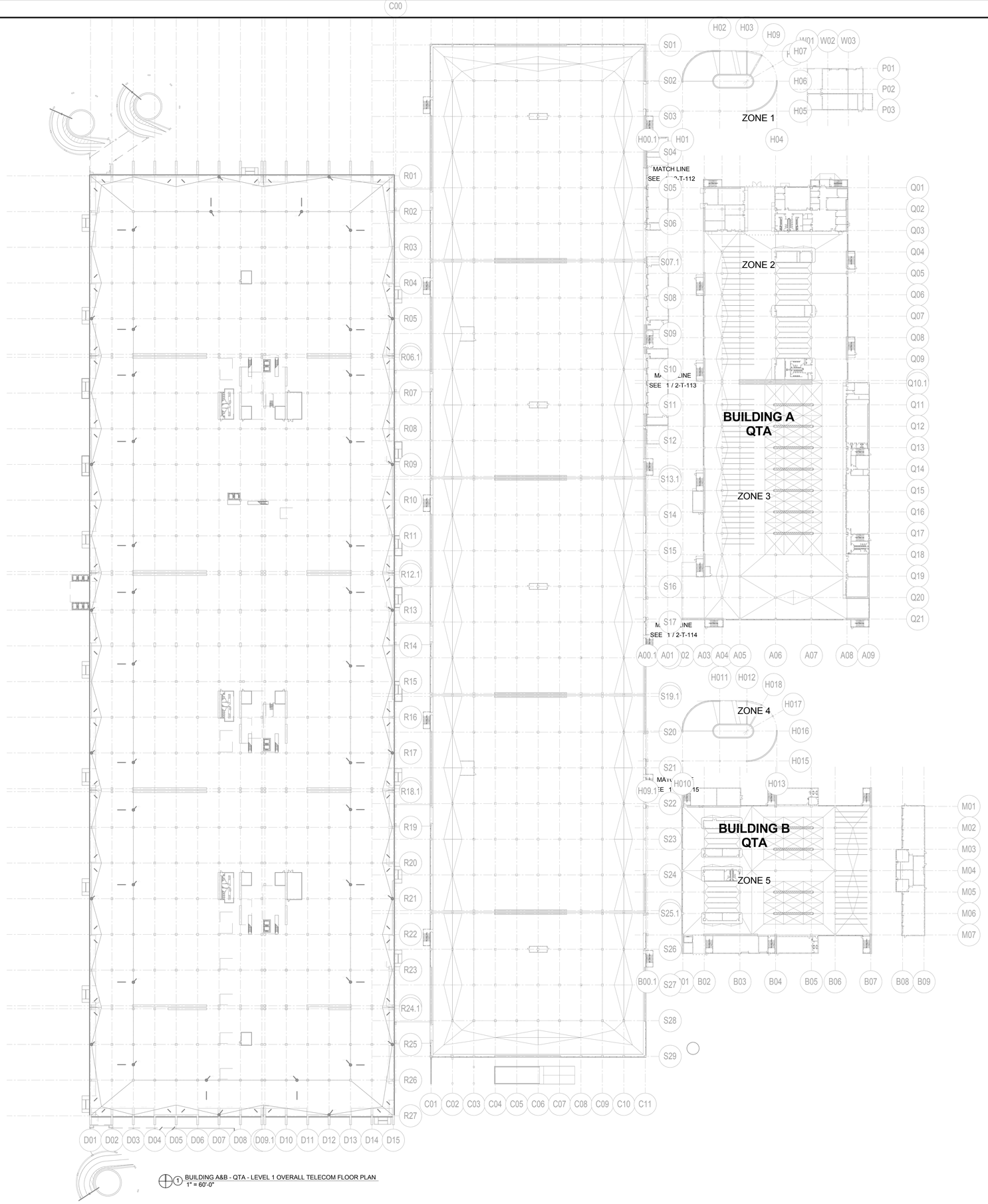
SHEET NO.

2-T-001

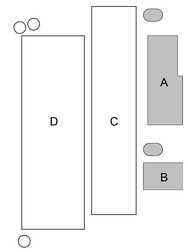
C:\Users\tdavis\ITTY DA4881 BLDG_A_B_C-R15_jdavis.rvt

9/14/2016 2:42:58 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 1 OVERALL TELECOM FLOOR PLAN
1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1583
FAX: (314) 918-1786

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

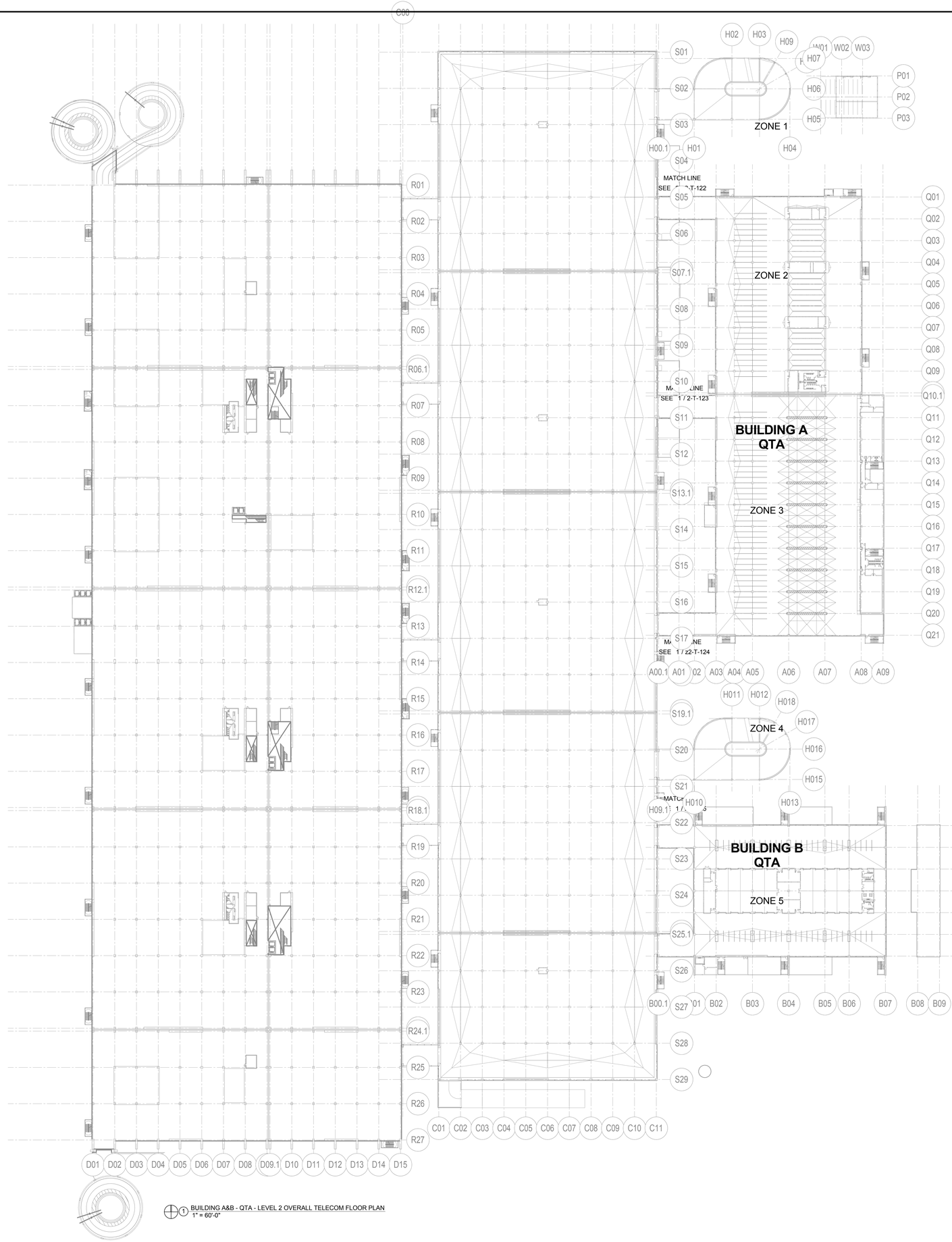
BUILDING A&B - QTA - LEVEL 1 OVERALL TELECOM FLOOR PLAN

SHEET NO.
2-T-010

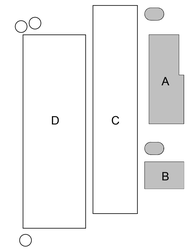
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\tedkra\TTY DA4881 (BLDG_A_B_C-R15_ed4kn.rvt

8/14/2018 2:43:00 PM



1 BUILDING A&B - QTA - LEVEL 2 OVERALL TELECOM FLOOR PLAN
1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1683
FAX: (314) 918-1786

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A&B - QTA - LEVEL 2 OVERALL TELECOM FLOOR PLAN

SHEET NO.

2-T-020

C:\Users\tdelkot\TTY DA4881 BLDG_A_B_C-R15_tdelkot.rvt

8/14/2016 2:43:04 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C00

H02 H03 H09 H01 W02 W03 H07 S01 S02 S03 H06 H05 P01 P02 P03 ZONE 1 H00.1 H01 H04 S04

MATCH LINE SEE [illegible]-T-132

S05 S06 S07.1 S08 S09 S10 ZONE 2 Q01 Q02 Q03 Q04 Q05 Q06 Q07 Q08 Q09 Q10.1

MA[illegible]INE SEE [illegible]2-T-133

S11 S12 S13.1 S14 S15 S16 S17 BUILDING A QTA ZONE 3 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18 Q19 Q20 Q21

[illegible] LINE SEE [illegible]2-T-134

A00.1 A01 02 A03 A04 A05 A06 A07 A08 A09

H011 H012 H018 S19.1 H017 ZONE 4 S20 H016 S21 H015

MA[illegible]E SEE [illegible]-134

H09.1 H010 H013 S22 S23 S24 S25.1 S26 S27 BUILDING B QTA ZONE 5 M01 M02 M03 M04 M05 M06 M07

B00.1 01 B02 B03 B04 B05 B06 B07 B08 B09

S28 S29

R01 R02 R03 R04 R05 R06.1 R07 R08 R09 R10 R11 R12.1 R13 R14 R15 R16 R17 R18.1 R19 R20 R21 R22 R23 R24.1 R25 R26 R27

C01 C02 C03 C04 C05 C06 C07 C08 C09 C10 C11

D01 D02 D03 D04 D05 D06 D07 D08 D09.1 D10 D11 D12 D13 D14 D15

1 BUILDING A&B - QTA - LEVEL 3 OVERALL TELECOM FLOOR PLAN
1" = 60'-0"

KEYPLAN

D C A B

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\tedwit\TTY-DA4881-BLDG_A_B_C-R15_tedwit.rvt

8/4/2016 2:43:07 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1583
FAX: (314) 918-1788

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ.NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

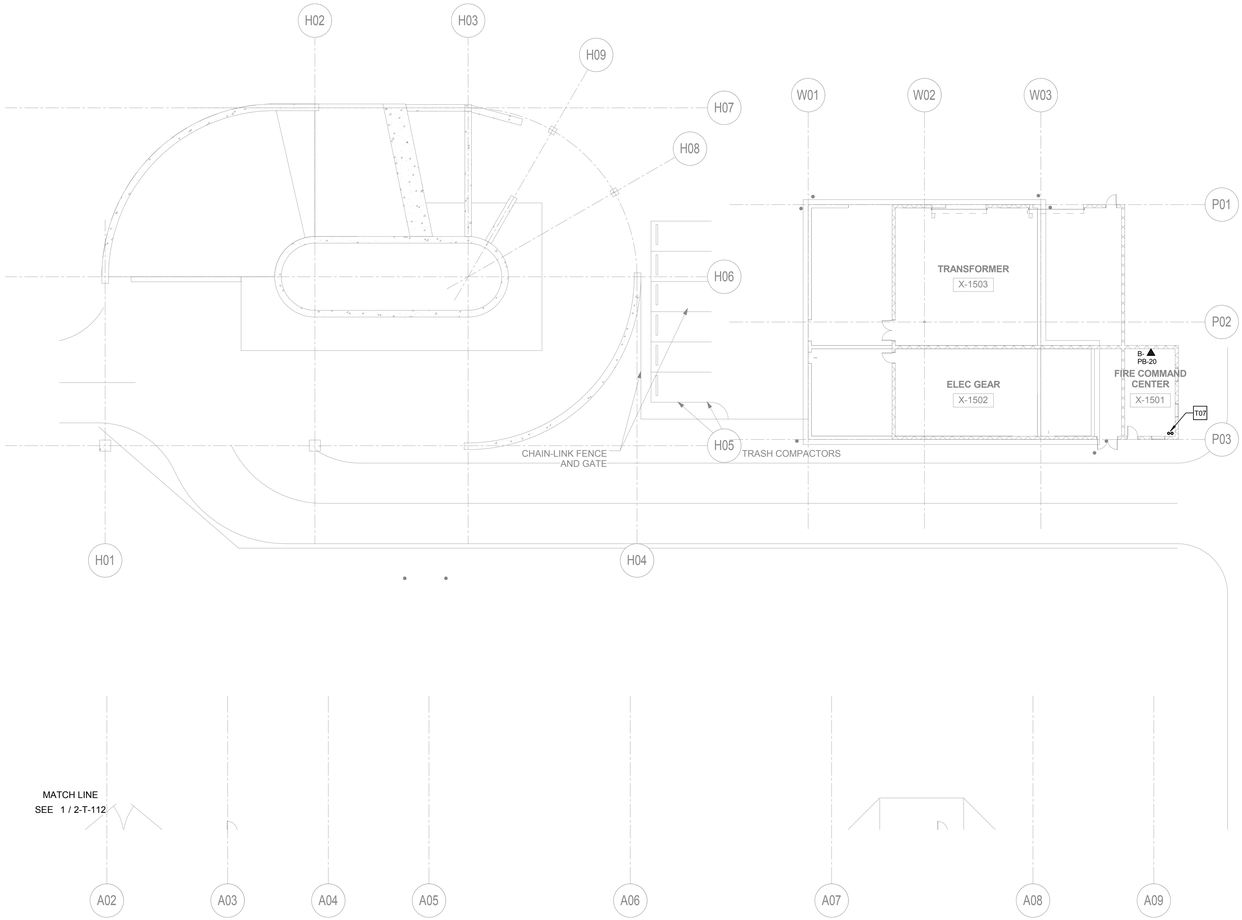
BUILDING A&B - QTA - LEVEL 3 OVERALL TELECOM FLOOR PLAN

SHEET NO.

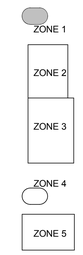
2-T-030

TELECOM KEYED NOTES

T07	PROVIDE (2) 2"C TO MPOE. REFER TO SHEET 2-T-112.



1 BUILDING A - QTA - LEVEL 1 TELECOM FLOOR PLAN - ZONE 1
1/16" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1683
FAX: (314) 918-1768

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A - QTA - LEVEL 1 TELECOM FLOOR PLAN ZONE 1

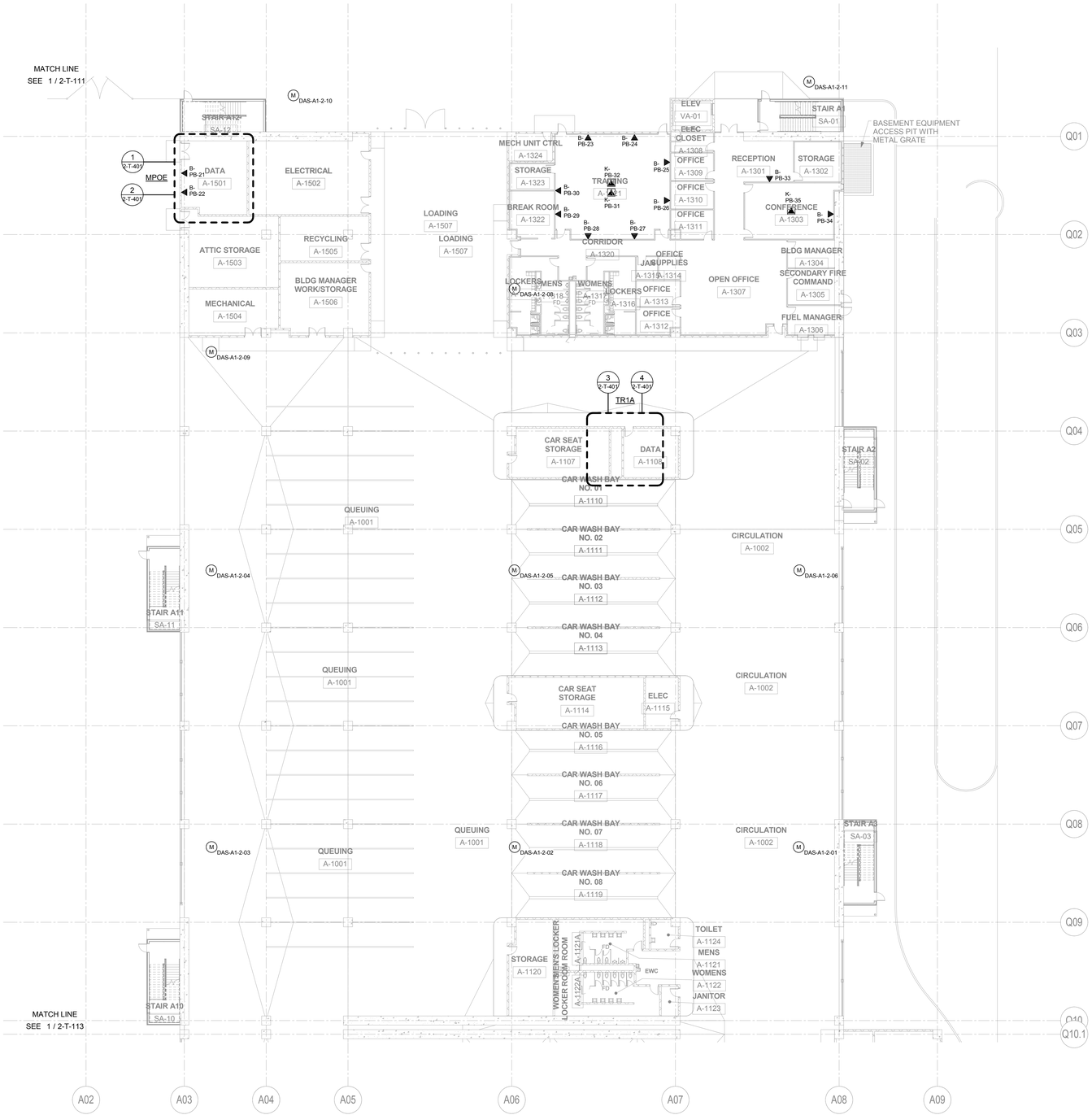
SHEET NO.

2-T-111

C:\Users\tdelkot\TTY DA4881 BLDG_A_B_C-R15_tdelkot.rvt

8/14/2018 2:43:08 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



BUILDING A - QTA - LEVEL 1 TELECOM FLOOR PLAN - ZONE 2
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1303
FAX: (314) 918-1788

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

CONCEPT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A - QTA - LEVEL 1 TELECOM FLOOR PLAN ZONE 2

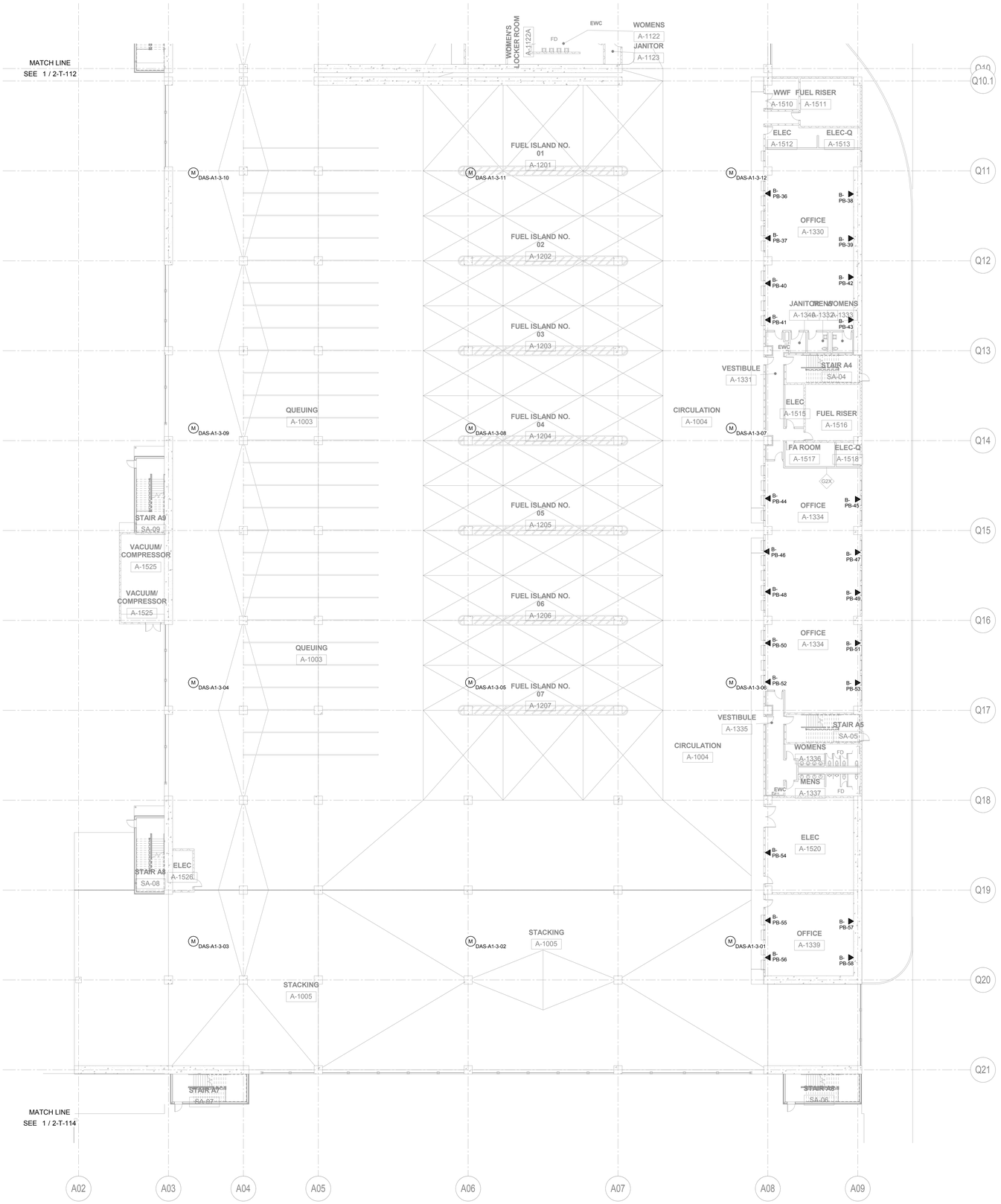
SHEET NO.

2-T-112

C:\Users\tedtew\TTY DA4881 (BLDG_A_B_C-RTL_ed4tw).rvt

8/14/2018 2:43:09 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 TELECOM FLOOR PLAN - ZONE 3
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-8383
FAX: (314) 918-1788

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

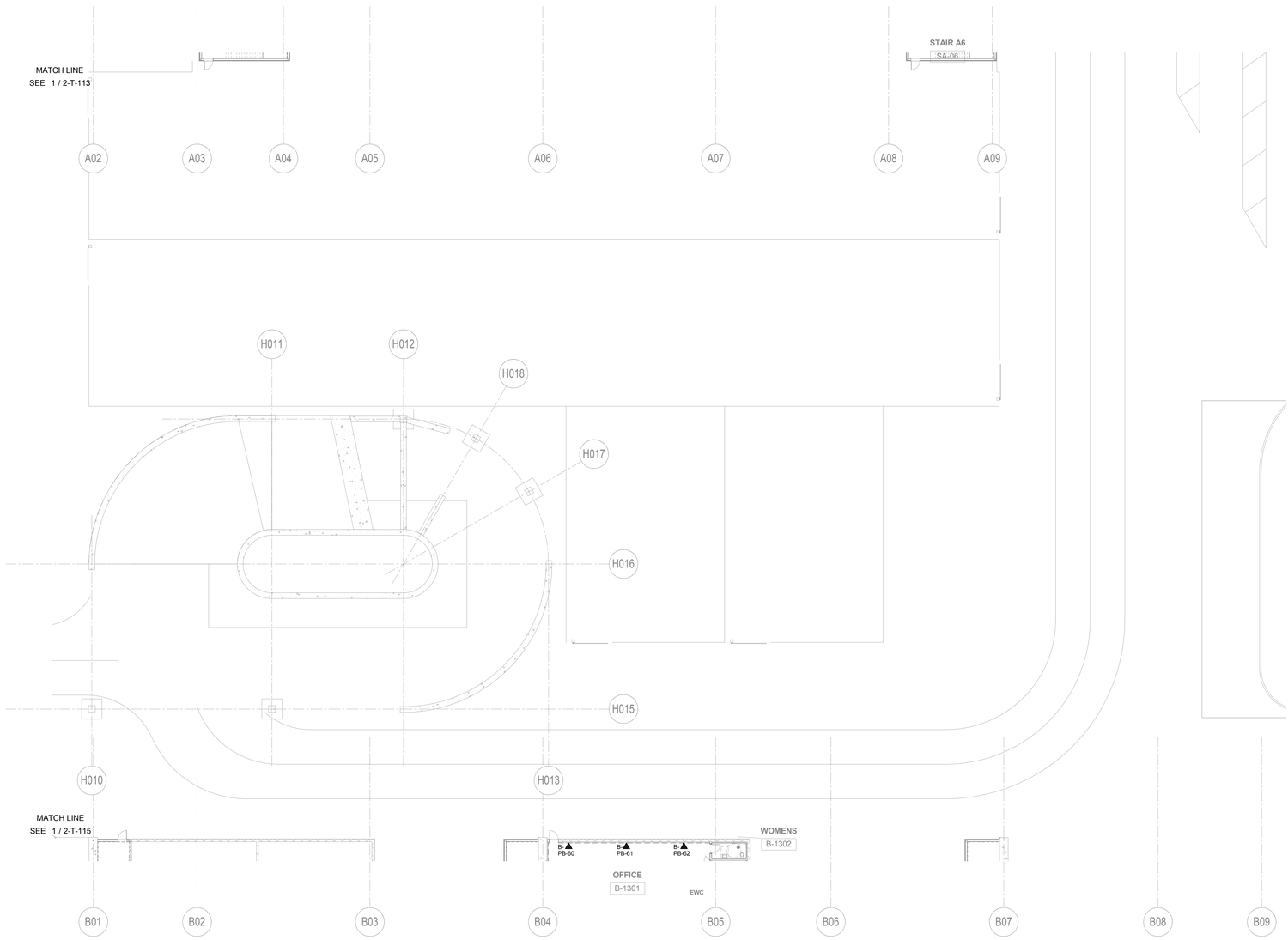
BUILDING A - QTA - LEVEL 1 TELECOM FLOOR PLAN ZONE 3

SHEET NO.
2-T-113

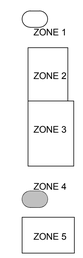
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\dakota\TTI\DA4881 BI\DG_A_B_C-R15_dakota.rvt

9/14/2016 2:43:10 PM



1 BUILDING B - QTA - LEVEL 1 TELECOM FLOOR PLAN - ZONE 4
1/16" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1583
FAX: (314) 918-1788

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING B - QTA - LEVEL 1 TELECOM FLOOR PLAN ZONE 4

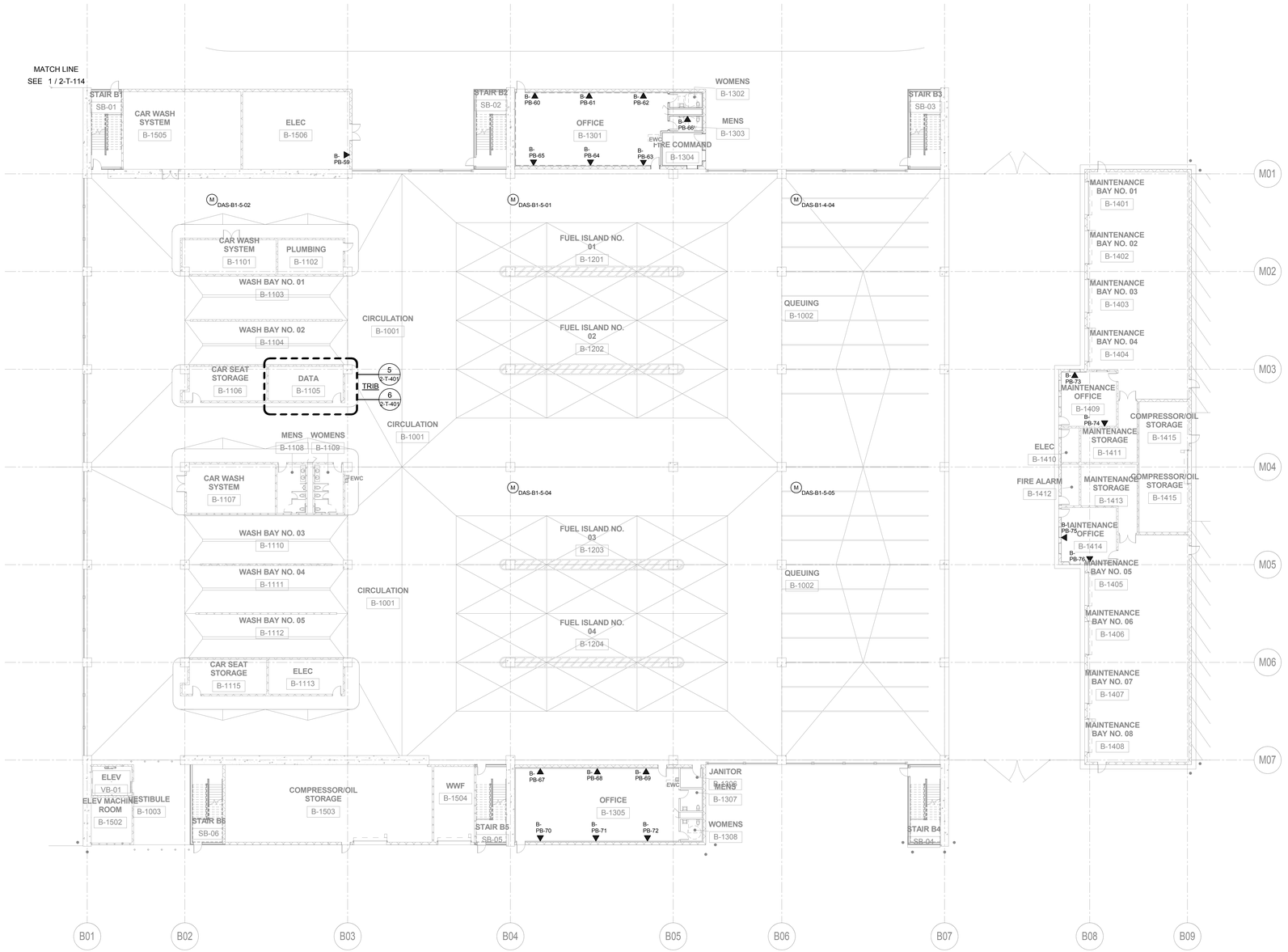
SHEET NO.

2-T-114

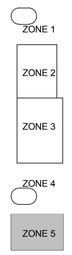
C:\Users\tdelkot\TTY DA4881 BLDG_A_B_C-R15_tdelkot.rvt

8/14/2018 2:50:18 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 1 TELECOM FLOOR PLAN - ZONE 5
1/16" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1800
FAX: (314) 918-1786

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING B - QTA - LEVEL 1 TELECOM FLOOR PLAN ZONE 5

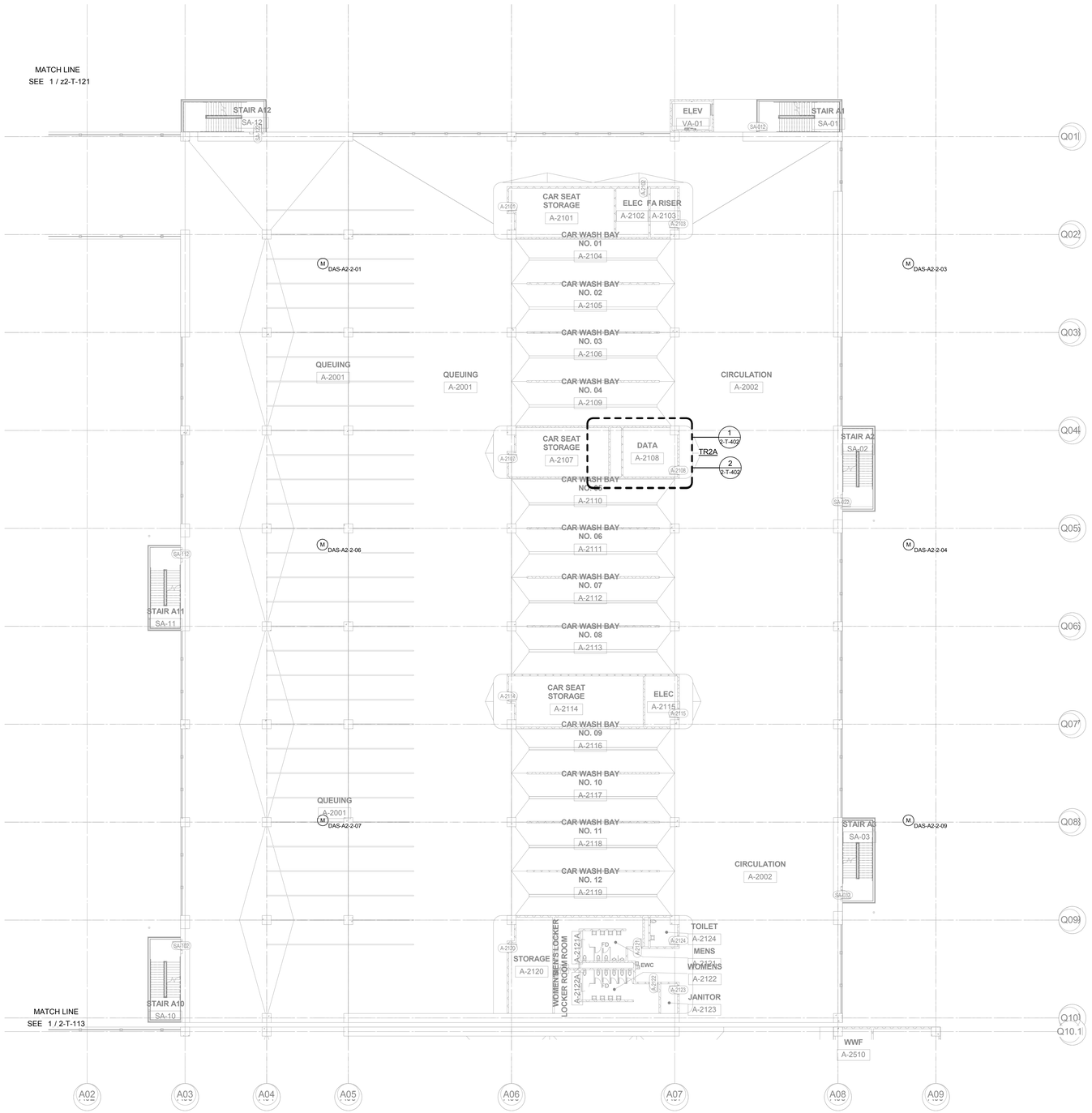
SHEET NO.

2-T-115

C:\Users\tewton\DTTY\DA4881-BLDG_A_B_C-R15_tewton.rvt

8/14/2016 2:43:12 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



BUILDING A - QTA - LEVEL 2 TELECOM FLOOR PLAN - ZONE 2
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1663
FAX: (314) 918-1766

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A - QTA - LEVEL 2 TELECOM FLOOR PLAN ZONE 2

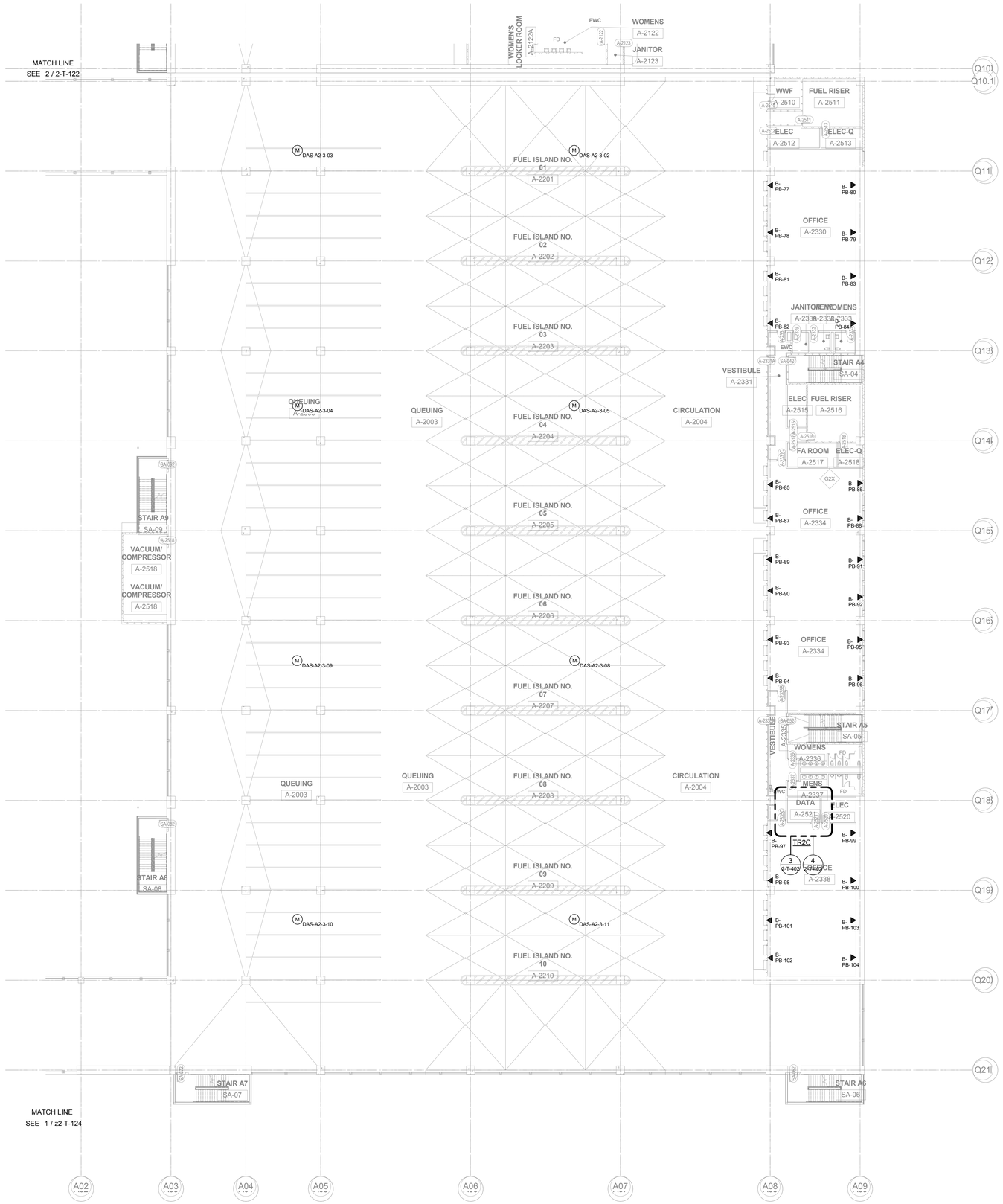
SHEET NO.

2-T-122

C:\Users\tdavis\AppData\Local\Temp\AcPublish_5116\DA4881 BLDG_A_B_C-R15_tdavis.rvt

9/14/2016 2:43:12 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 2 TELECOM FLOOR PLAN - ZONE 3
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1683
FAX: (314) 918-1766

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

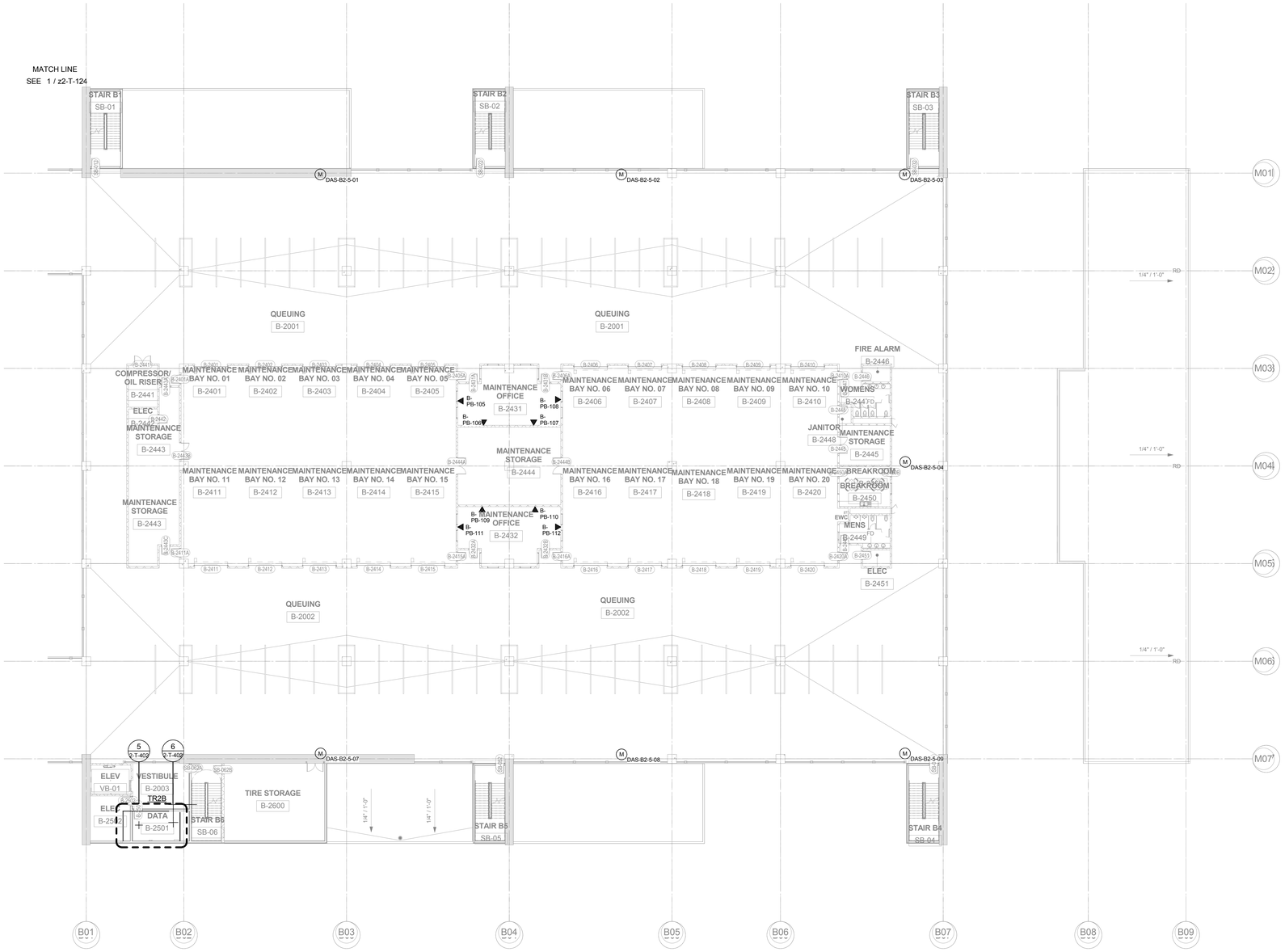
SHEET TITLE:

BUILDING A - QTA - LEVEL 2 TELECOM FLOOR PLAN ZONE 3

SHEET NO.
2-T-123

C:\Users\tedtew\TTY DA4881 (BLDG_A_B_C-RTL_ed4tx).rvt

8/14/2018 2:43:14 PM



1 BUILDING B - QTA - LEVEL 2 TELECOM FLOOR PLAN - ZONE 5
1/16" = 1'-0"

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1793
FAX: (314) 918-1788

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING B - QTA - LEVEL 2 TELECOM FLOOR PLAN ZONE 5

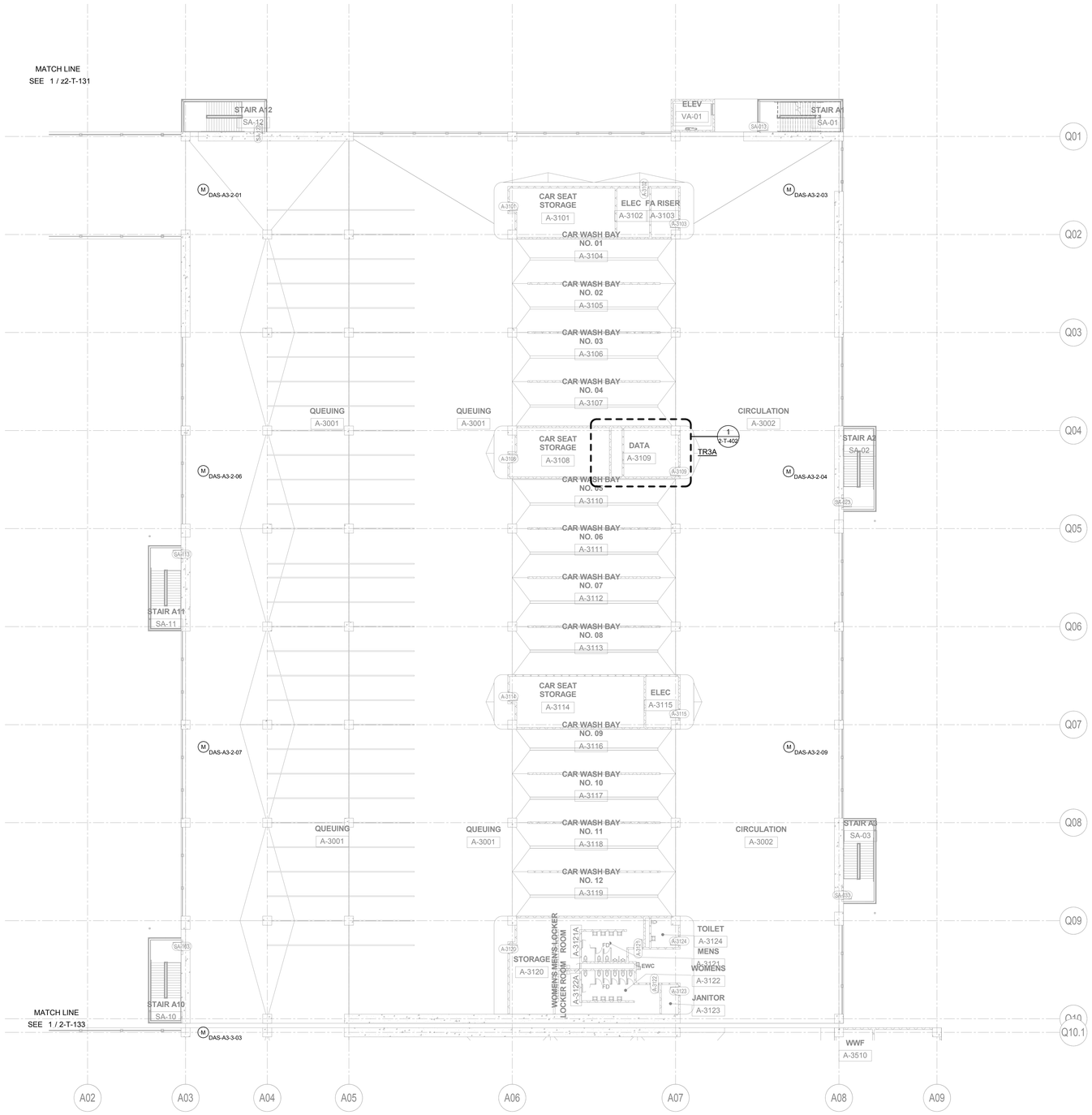
SHEET NO.

2-T-125

C:\Users\dadeux\TTY.DA4881.BLDG_A_B_C-R15_dadeux.rvt

9/14/2016 2:43:13 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 TELECOM FLOOR PLAN - ZONE 2
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\rbbdocs\TTY DA4881 BLDG_A_B_C-R15_jbellio.rvt

9/14/2016 2:43:15 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1663
FAX: (314) 918-1766

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

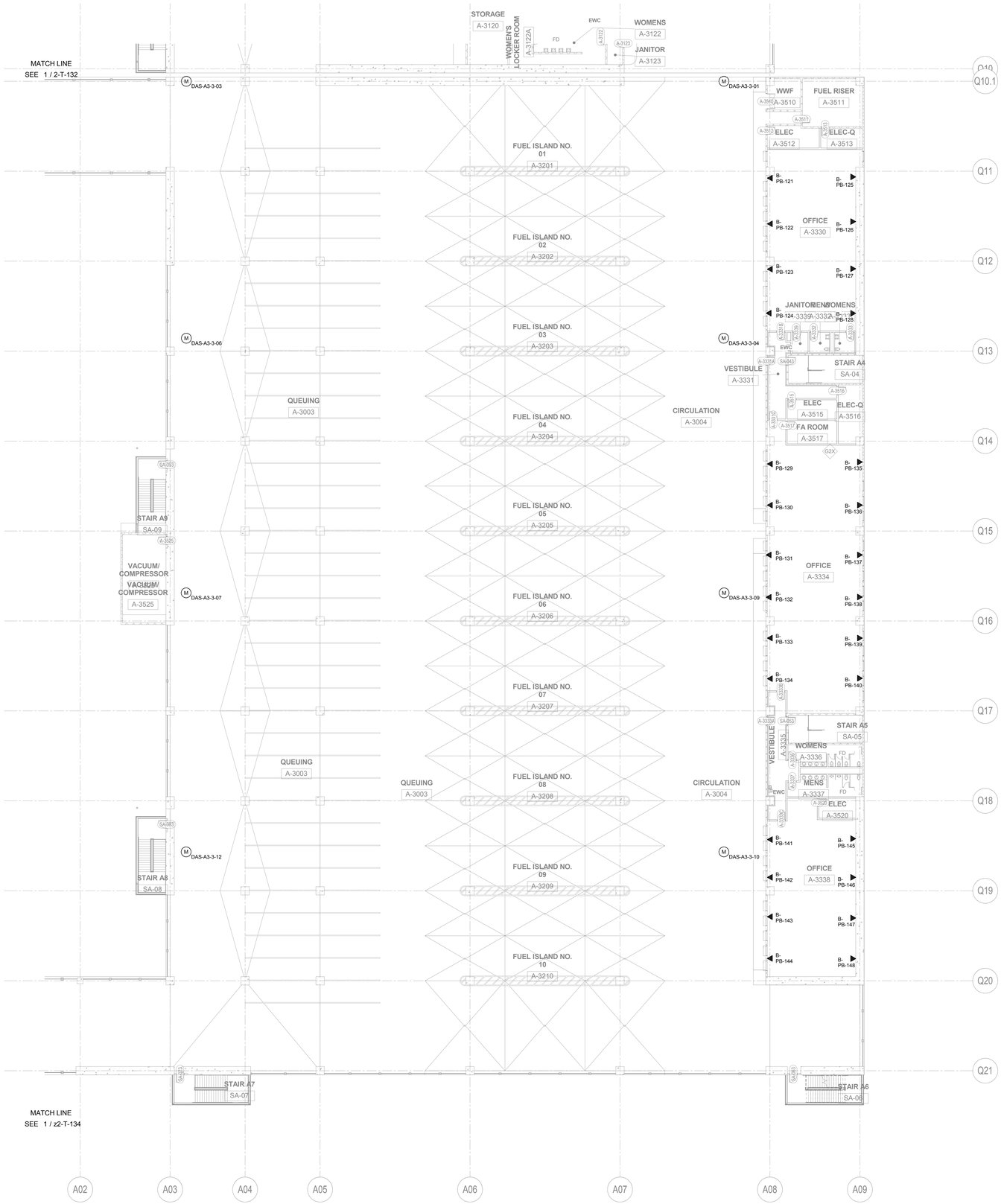
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A - QTA - LEVEL 3 TELECOM FLOOR PLAN ZONE 2

SHEET NO.

2-T-132



1 BUILDING A - QTA - LEVEL 3 TELECOM FLOOR PLAN - ZONE 3
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1800
FAX: (314) 918-1766

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONT ANA PMD LAX

REVISIONS: MARK	DATE	DESCRIPTION
08/23/2016		QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

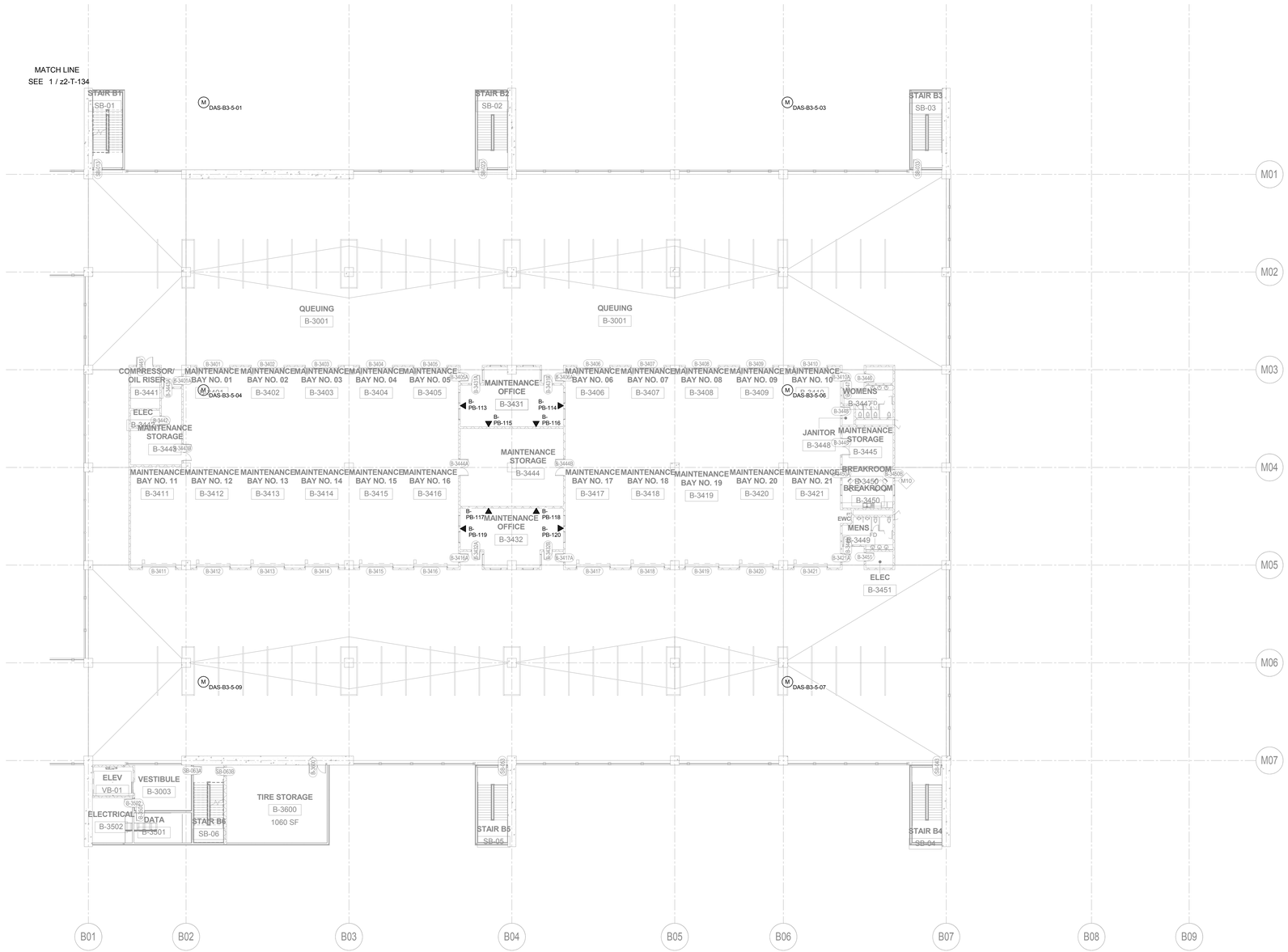
BUILDING A - QTA - LEVEL 3 TELECOM FLOOR PLAN ZONE 3

SHEET NO.
2-T-133

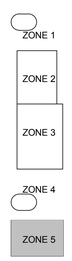
C:\Users\dsheid177\1-DA4881-RLDG_A_B_C-R15_dsheid.rvt

8/14/2016 2:43:16 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 3 TELECOM FLOOR PLAN - ZONE 5
1/16" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1663
FAX: (314) 918-1766

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

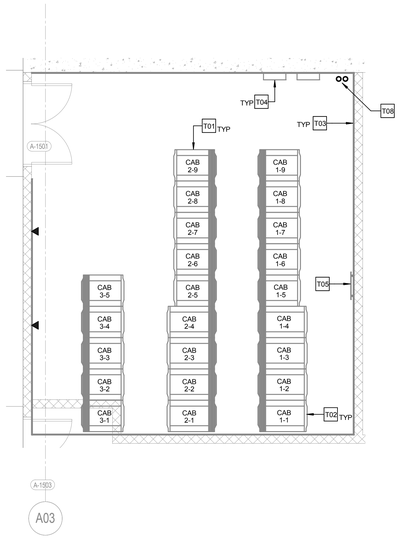
BUILDING B - QTA - LEVEL 3 TELECOM FLOOR PLAN ZONE 5

SHEET NO.
2-T-135

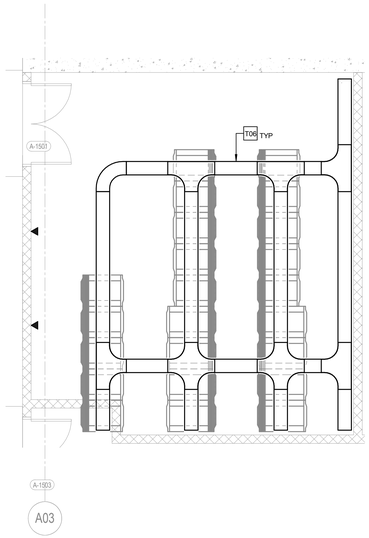
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\tedlow\TTY\DA4881 (BLDG_A_B_C-RTI)_edlow.rvt
8/14/2018 2:43:17 PM

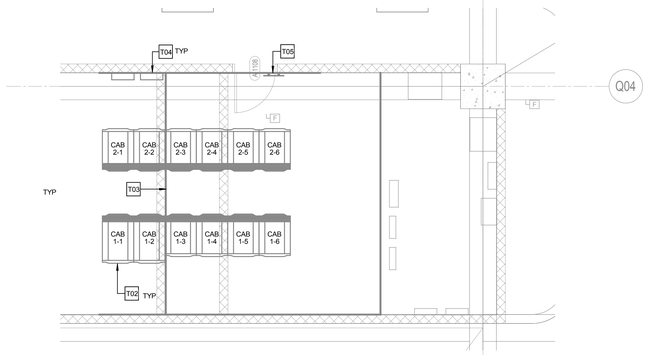
TELECOM KEYED NOTES	
T01	PROVIDE 28"" X 36"" X 84"" HIGH EQUIPMENT CABINETS, DAMAC MODEL CSN1284Z22477-3 IT.
T02	PROVIDE 28" X 44" X 84" HIGH EQUIPMENT CABINETS, DAMAC MODEL CSN1284Z22477-3 IT.
T03	PROVIDE 4' X 8' FIRE RATED AC PLYWOOD WITH CUTOUTS FOR BRACKETS AND OUTLETS AS REQUIRED. PAINT WHITE AND LEAVE FIRE RATING STAMP EXPOSED.
T04	PROVIDE ELECTRICAL PANELBOARDS. REFER TO ELECTRICAL SHEETS.
T05	PROVIDE GROUND BUS BAR. REFER TO SHEET T3, DETAIL 12 BOND TO GROUND BUSBAR IN ELECTRICAL ROOM.
T06	PROVIDE 12" WIDE X 6" DEEP SUSPENDED CHALFANT SERIES 6 VENTED CABLE TRAY.
T08	PROVIDE (2) 2"C TO FIRE COMMAND CENTER. REFER TO SHEET 2-T-111.



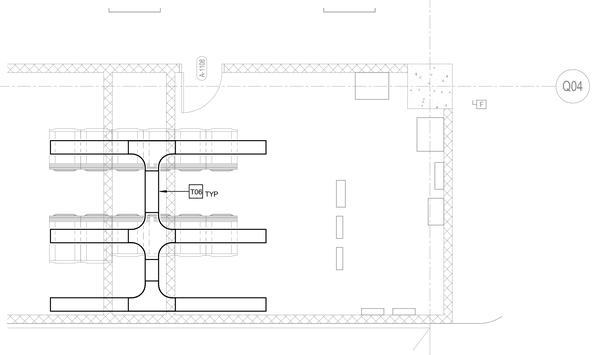
1 ENLARGED COMM ROOM FLOOR PLAN - MPOE
1/4" = 1'-0"



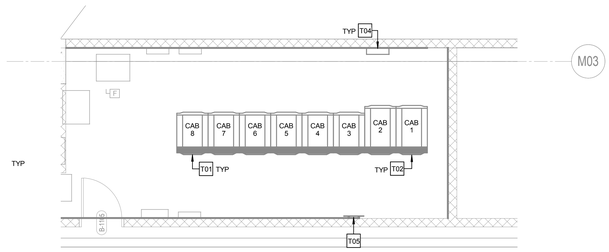
2 ENLARGED COMM ROOM OVERHEAD PLAN - MPOE
1/4" = 1'-0"



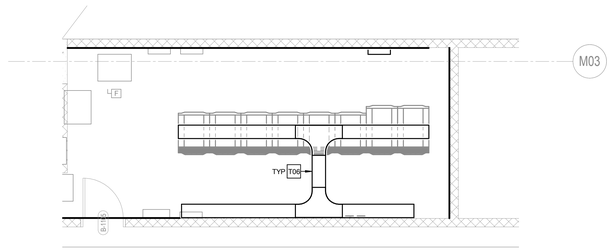
3 ENLARGED TYPICAL COMM ROOM FLOOR PLAN
1/4" = 1'-0"



4 ENLARGED TYPICAL COMM ROOM OVERHEAD PLAN
1/4" = 1'-0"



5 ENLARGED TYPICAL COMM ROOM FLOOR PLAN
1/4" = 1'-0"



6 ENLARGED TYPICAL COMM ROOM OVERHEAD PLAN
1/4" = 1'-0"

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1583
FAX: (314) 918-1768

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

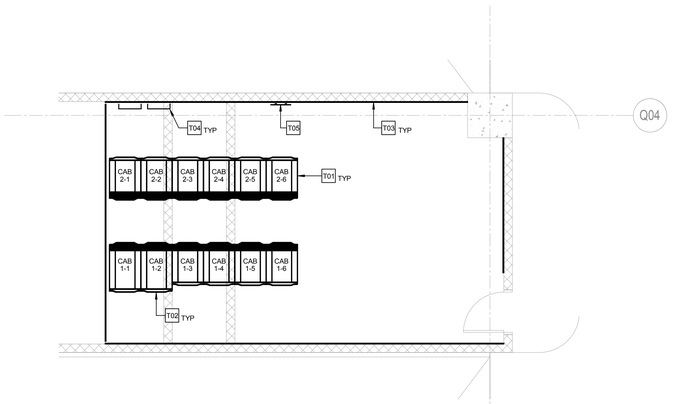
BUILDING A&B
ENLARGED PLANS

SHEET NO.
2-T-401

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

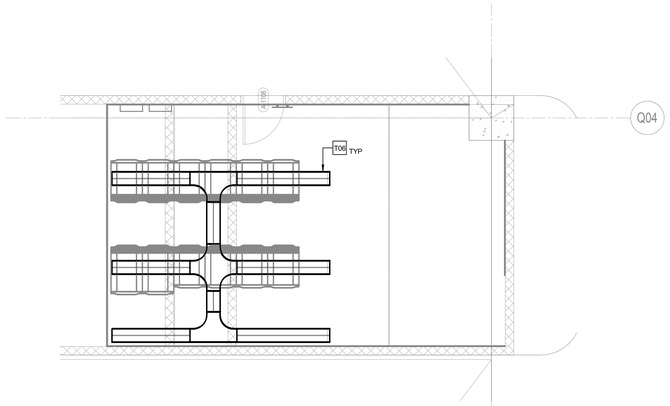
C:\Users\tdekoff\TTY-DA4881-BLDG_A_B_C-R15_tdekoff.rvt
9/14/2016 2:43:24 PM

TELECOM KEYED NOTES	
T01	PROVIDE 28"" X 36"" X 84"" HIGH EQUIPMENT CABINETS, DAMAC MODEL CSN1284Z22477-3 IT.
T02	PROVIDE 28" X 44" X 84" HIGH EQUIPMENT CABINETS, DAMAC MODEL CSN1284Z22477-3 IT.
T03	PROVIDE 4' X 8' FIRE RATED AC PLYWOOD WITH CUTOUTS FOR BRACKETS AND OUTLETS AS REQUIRED. PAINT WHITE AND LEAVE FIRE RATING STAMP EXPOSED.
T04	PROVIDE ELECTRICAL PANELBOARDS. REFER TO ELECTRICAL SHEETS.
T05	PROVIDE GROUND BUS BAR. REFER TO SHEET T3, DETAIL 12 BOND TO GROUND BUSBAR IN ELECTRICAL ROOM.
T06	PROVIDE 12" WIDE X 6" DEEP SUSPENDED CHALFANT SERIES 6 VENTED CABLE TRAY.



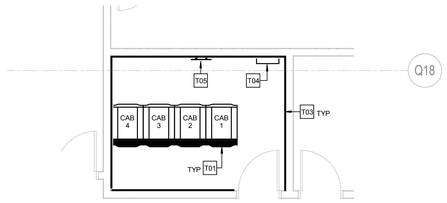
1 ENLARGED TYPICAL COMM ROOM FLOOR PLAN
1/4" = 1'-0"

A07

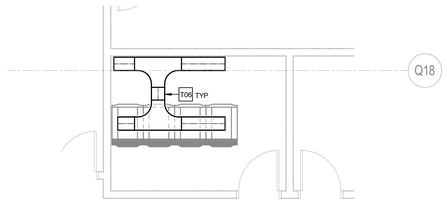


2 ENLARGED TYPICAL COMM ROOM OVERHEAD PLAN
1/4" = 1'-0"

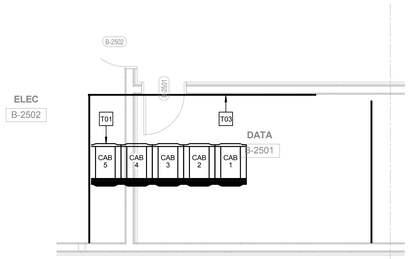
A07



3 ENLARGED TYPICAL COMM ROOM FLOOR PLAN
1/4" = 1'-0"

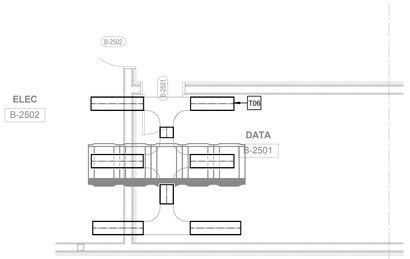


4 ENLARGED TYPICAL COMM ROOM OVERHEAD PLAN
1/4" = 1'-0"



5 ENLARGED COMM ROOM FLOOR PLAN
1/4" = 1'-0"

B02



6 ENLARGED COMM ROOM OVERHEAD PLAN
1/4" = 1'-0"

B02

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1793
FAX: (314) 918-1768

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DESCRIPTION	DATE
	QTA 30% SUBMITTAL	09/23/2016

PROJ NO:	DA4881
SCALE:	1/4" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A&B
ENLARGED PLANS

SHEET NO.

2-T-402

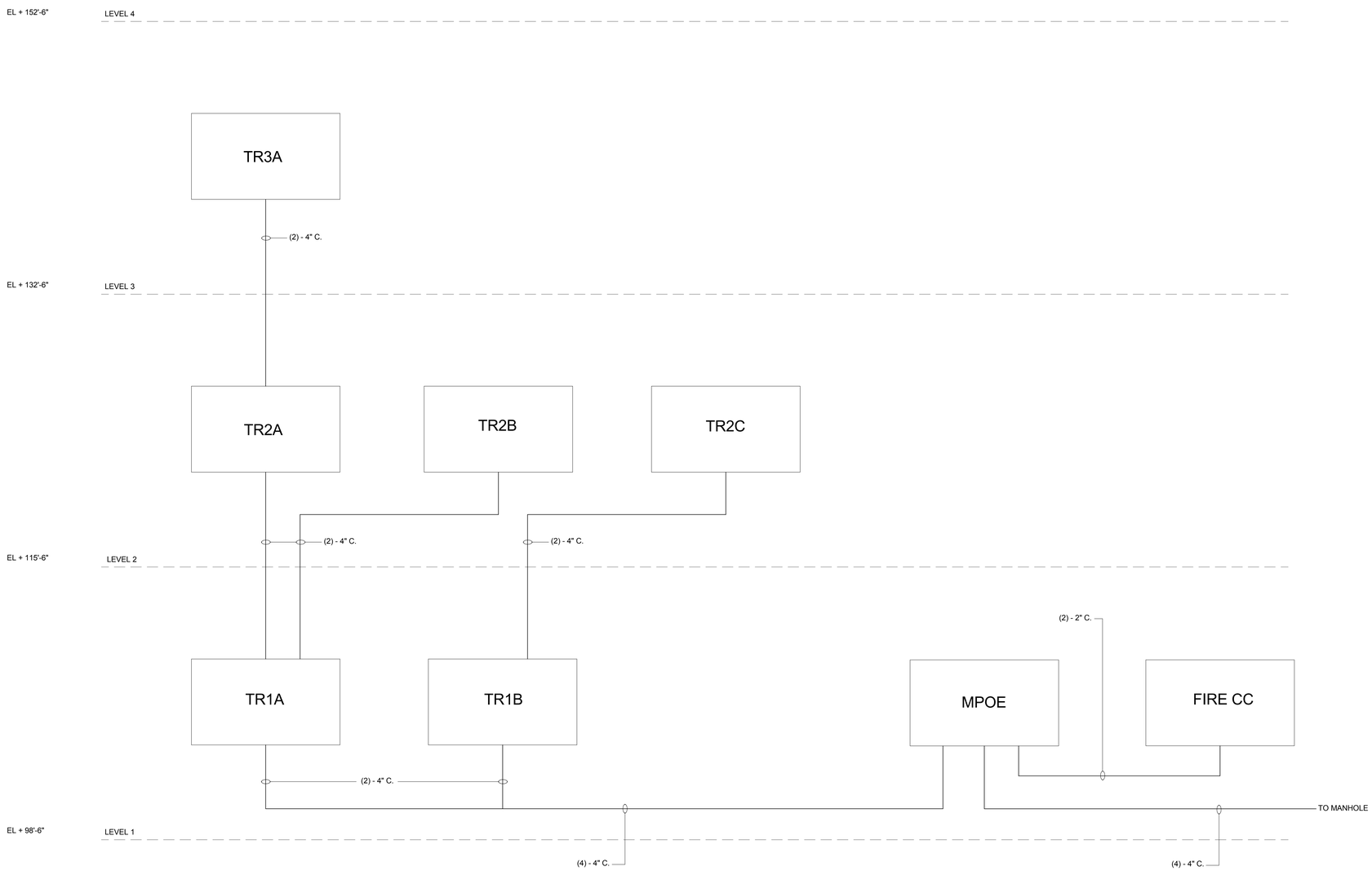
C:\Users\tedtew\TTY DA4881 (BLDG_A_B_C-RTI)_ted2v.rvt

8/14/2018 2:43:30 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

GENERAL NOTES:

1. PROVIDE (1) 48-STRAND SINGLE MODE FIBER CABLE FROM THE MPOE TO EACH DATA ROOM.
2. PROVIDE (1) 100 PR. CAT3 COPPER CABLE FROM THE MPOE TO EACH DATA ROOM.
3. PROVIDE (1) 6 AWG COPPER CABLE FROM MPOE TO EACH DATA ROOM.



1 IT ROOM RISER DIAGRAM BUILDING A & B
NTS

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1583
FAX: (314) 918-1788

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

TELECOM DATA ROOM RISER DIAGRAM BUILDING A & B

SHEET NO.

2-T-501

C:\Users\tdelkot\TTY DA4881 BLDG_A_B_C-R15_tdelkot.rvt
9/14/2016 2:43:31 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

SECURITY SYMBOL LEGENDS

NOTE:

1. ALL SYMBOLS ARE NOT NECESSARILY USED ON THESE PLANS.
2. ALL MOUNTING HEIGHTS ARE TO CENTERLINE OF ALL DEVICES AND EQUIPMENT UON.
3. IN GENERAL, SYMBOLS SHOWN WITH LIGHT LINES DENOTE EXISTING WORK, SYMBOLS SHOWN WITH HEAVY LINES DENOTE NEW WORK.

DRAWING REFERENCES

- 1 / A101 — DETAIL REFERENCE TAG
- A / TXXX — EXTERIOR/INTERIOR ELEVATION
- A / TXXX / B — INTERIOR MULTI-VIEW ELEVATION
- NORTH ARROW
- X — KEYNOTE
- REVISION NUMBER

CONDUIT AND RACEWAY

- CONDUIT RUN CONCEALED IN CEILING OR WALL CONSTRUCTION
- CONDUIT RUN IN FLOOR CONSTRUCTION OR UNDERGROUND DUCTBANK
- CONDUIT RUN EXPOSED
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- CABLE TRAY (REFER TO PLANS FOR SIZE)

JUNCTION AND PULL BOXES

- J — JUNCTION BOX
- P — PULL BOX
- H — HANDHOLE
- MH — MAINTENANCE HOLE

ACCESS CONTROL SYSTEM

- X / ### — DOOR TYPE; SACS DOOR DETAIL REFERENCE; ARCHITECTURAL DOOR NUMBER
- DOOR SECURITY LEVEL; HIGHER LEVEL OF SECURITY; LOWER LEVEL OF SECURITY
- SECURE/SIDA DEMARCATION LINE
- STERILE DEMARCATION LINE
- INTERNATIONAL FIS / DOMESTIC LINE
- A — AUDIBLE ALARM
- A/V — COMBINATION AUDIBLE/VISUAL ALARM
- DPS — DOOR POSITION SWITCH
- CR — CARD READER
- CR — CARD READER / KEYPAD
- CP — CONTROL PANEL (BY DOOR MANUFACTURER)
- D — DOOR INTERFACE BOX
- DA — DURESS ALARM
- HANDSET
- PANIC HARDWARE
- ELEVATOR FLOOR CONTROL BUTTON PANEL
- ELEVATOR CALL CONTROL BUTTON PANEL
- H — DOOR HOLD DEVICE
- INTERCOM STATION
- KP — KEYPAD
- KS — KEYSWITCH
- IFP — INTELLIGENT FIELD PANEL
- MAG — MAGNETIC LOCK
- MAG DE — DELAYED EGRESS MAGNETIC LOCK
- M — MICROPHONE
- MOTOR / CONVEYOR START/STOP STATION
- OVERHEAD DOOR UP/DOWN CONTROL
- PIR — MOTION DETECTOR
- PS — POWER SUPPLY
- POWER TRANSFER HINGE
- PB — PUSHBUTTON
- V — VISUAL ALARM
- CWS — COMPUTER WORKSTATION

VISUAL SURVEILLANCE SYSTEM

- VSS CAMERA - FIXED POSITION TYPE
- VSS CAMERA - PTZ TYPE
- CAM-X-Y-## — LEVEL; ZONE; SEQUENTIAL NUMBER; VSS CAMERA TAG
- X — CAMERA TYPE
- CWS — COMPUTER WORKSTATION
- FPD — FLAT PANEL DISPLAY

SECURITY ABBREVIATIONS

A/V	AUDIO/VISUAL
AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIF	ALARM INTERFACE UNIT
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BBH	BACKBONE HUB
BC	BELOW CEILING
BMS	BALANCED MAGNETIC SWITCH
C	CONDUIT
CAM	VSS CAMERA
CAT	CATEGORY
CBIS	CHECKED BAGGAGE INSPECTION SYSTEM
CBP	CUSTOMS AND BORDER PATROL
CBRA	CHECKED BAGGAGE RESOLUTION AREA
CCT	COMMUNICATION CABLE TRAY
CH	CHANNEL
CIB	CAMERA INTERFACE BOX
CLG	CEILING
COMM	COMUNICATIONS
CPU	CENTRAL PROCESSING UNIT
CR	CARD READER
CTX	COMPUTER TOMOGRAPHY X-RAY
DEMO	DEMOLISH
DIB	DOOR INTERFACE BOX
DPDT	DOUBLE POLE DOUBLE THROW
DPS	DOOR POSITION SWITCH
DVR	DIGITAL VIDEO RECORDING
DWG	DRAWING
EA	EACH
EC	EMPTY CONDUIT
EGR	EGRESS
ELC	ELECTRICAL CONTRACTOR
ELEC	ELECTRIC/ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EQ	EQUALIZER
EX	EXISTING
F	FIXED POSITION CAMERA
FACP	FIRE ALARM CONTROL PANEL
FAR	FEDERAL AVIATION REGULATION
FIS	FEDERAL INSPECTION SERVICE
FO	FIBER OPTIC
GC	GENERAL CONTRACTOR
GRD	GROUND
GRS	GALVANIZED RIGID STEEL
HH	HANDHOLE
IC	INTERCOM
IDF	INTERMEDIATE DISTRIBUTION FRAME
IDS	INTRUSION DETECTION SYSTEM
IFP	INTELLIGENT FIELD PANEL
IR	INFRARED
IRM	INFORMATION AND RESOURCE MANAGEMENT
IT	INFORMATION TECHNOLOGY
LAN	LOCAL AREA NETWORK
LFMC	LIQUIT TIGHT FLEXIBLE METALLIC CONDUIT
LMP	LOCAL MICRO PROCESSOR (PANEL)
LVL	LEVEL
MAG	ELECTROMAGNETIC LOCK
MCR	MAIN COMMUNICATIONS ROOM
MDF	MAIN DISTRIBUTION FRAME
MH	MANHOLE
MMFO	MULTI-MODE FIBER OPTIC
MOD	MODULE
MPOE	MINIMUM POINT OF ENTRY
NIC	NOT IN CONTRACT
O/P	OUTPUT
OH	OVERHEAD
OPS	OPERATIONAL
OTS	OFF THE SHELF
PA	PUBLIC ADDRESS
PB	PUSH BUTTON
PBX	PRIVATE BRANCH EXCHANGE
PC	PERSONAL COMPUTER
PIN	PERSONAL IDENTIFICATION NUMBER
PIR	PASSIVE INFRARED
PP	PATCH PANEL
PR	PAIR
PS	PUBLIC SIDE
PTZ	PAN/TILT/ZOOM CAMERA
PVC	POLYVINYL CHLORIDE CONDUIT
REX	REQUEST FOR EXIT
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMU	RACK UNIT
RU	RACK MOUNTED UNIT
SACS	SECURITY ACCESS CONTROL SYSTEM
SHLD	SHIELDED (AS IN CABLE)
SIDA	SECURE IDENTIFICATION DISPLAY AREA
SJB	SECURITY JUNCTION BOX
SMFO	SINGLE-MODE FIBER OPTIC
SPP	SYSTEM POWER PANEL
SS	STAINLESS STEEL
SSCP	SECURITY SCREENING CHECKPOINT
TBD	TO BE DETERMINED
TDS	TELECOMMUNICATION DISTRIBUTION SYSTEM
TSA	TRANSPORTATION SECURITY AGENCY
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
USCBP	UNITED STATES CUSTOMS AND BORDER PROTECTION
VA	VOLT AMPS
VAC	VOLT ALTERNATING CURRENT
VDC	VOLT DIRECT CURRENT
VE	VOICE EVACUATION
VoIP	VOICE OVER INTERNET PROTOCOL (IP)
VSS	VIDEO SURVEILLANCE SYSTEM
W	WALL
WT	WATERTIGHT
XMTR	TRANSMITTER

SECURITY GENERAL NOTES

INSTALLATION REQUIREMENTS

1. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING FINAL SECURITY SYSTEM EQUIPMENT LAYOUT AND INSTALLATION AS SHOWN ON DRAWINGS WITH SITE CONDITIONS. ALL CONDUIT IN PUBLIC AREAS TO BE CONCEALED. CONFLICTS, IF ANY, SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER WHO WILL APPROVE CHANGES PRIOR TO THE INSTALLATION OF WORK.
2. CONTRACTOR TO INSURE PROPER SEPARATION OF CLASS 1, CLASS 2, AND CLASS 3 CIRCUITS PER NEC 725-54.
3. CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS INSTALLED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL CODES HAVING JURISDICTION. NUMBERS OF CONDUCTORS REQUIRED MAY VARY DEPENDENT ON THE MANUFACTURERS OF EQUIPMENT SELECTED BY CONTRACTOR. IF EQUIPMENT THAT THE CONTRACTOR INTENDS TO FURNISH AND INSTALL HAS ANY SPECIAL REQUIREMENTS, CONTRACTOR SHALL PROVIDE FOR THESE REQUIREMENTS IN THE PROPOSAL AT NO COST TO THE OWNER.
4. PROVIDE PRIMARY 120 VAC POWER FOR POWER SUPPLIES AND OTHER SYSTEM COMPONENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER REQUIREMENTS, BOTH PRIMARY AND EMERGENCY. CONTRACTOR SHALL PROVIDE UPS BATTERY BACK UP UNITS FOR ALL SYSTEM SERVERS AND OTHER CRITICAL COMPONENTS.
5. 120 VAC INPUT POWER CONDUCTORS SHALL NOT BE INSTALLED IN THE SAME CONDUIT AS LOW VOLTAGE AUDIO, VIDEO, CONTROL, DC POWER, OR ANY OTHER LOW VOLTAGE CABLES.
6. CONTRACTOR SHALL PROMPTLY NOTIFY ENGINEER PRIOR TO INSTALLATION OF WORK IF ANY MOUNTING LOCATIONS NOTED ON THE DRAWINGS ARE OBSTRUCTED AND/OR IF ANY CONFLICTS OR PROBLEMS ARE DISCOVERED.
7. CONTRACTOR SHALL PROVIDE AND INSTALL EQUIPMENT AND HARDWARE IN ORDER TO MEET THE INTENT OF THE DESIGN AND TO PROVIDE OWNER WITH A COMPLETE AND FULLY OPERATIONAL SYSTEM AS SPECIFIED. QUESTIONS REGARDING THE INTENT OF THE DESIGN SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF THE ENGINEER.
8. WIRING SYSTEMS SHALL BE CONSISTENTLY COLOR CODED AND TAGGED. COORDINATION OF EXACT WIRE CODING AND TAGGING IS MANDATORY. CONTRACTOR IS DIRECTLY RESPONSIBLE FOR COORDINATING WIRING FROM EQUIPMENT MANUFACTURERS TERMINAL STRIPS TO FINAL CONNECTION POINTS OF EQUIPMENT WITHIN THE SCOPE OF THE PROJECT.
9. THE EXACT LOCATIONS FOR SENSORS CAMERAS AND EQUIPMENT WILL BE DETERMINED IN THE FIELD.
10. CONTRACTOR SHALL SUBMIT FOR APPROVAL AN EQUIPMENT IDENTIFICATION PLAN LISTING ASSOCIATED SYSTEMS, LOCATION AND IDENTIFICATION METHOD, AND MATERIALS TO BE USED FOR LABELING.
11. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND LICENSES REQUIRED BY GOVERNING MUNICIPALITY, AGENCIES, UTILITIES, OR AUTHORITIES HAVING JURISDICTION PRIOR TO START OF ANY CONSTRUCTION. COPIES OF PERMITS OR LICENSES SHALL BE SUBMITTED TO PROJECT MANAGER.
12. CONDUIT AND JUNCTION BOXES INSTALLED BY CONTRACTOR EXPOSED TO VIEW IN FINISHED SPACES SHALL BE PAINTED TO MATCH EXISTING ADJACENT SURFACES.
13. ELECTRICAL POWER CABLES SHALL NOT BE INSTALLED IN OR ATTACHED TO CABLE TRAYS.
14. ALL CONDUIT TO COMMUNICATIONS CLOSETS SHALL TURN DOWN OR UP WITHIN 12' OF WALL OR IN AREAS INDICATED ON FLOOR PLANS WHERE CABLE TRAY IS INSTALLED. CONDUITS FROM BELOW SHALL STUB UP 4" A.F.F. CONDUITS FROM ABOVE SHALL STUB DOWN 9'-8" A.F.F.
15. IN PUBLIC AREAS, COORDINATE WITH ENGINEER/ARCHITECT FOR EXACT MOUNTING LOCATION OF DEVICES.
16. PROVIDE NYLON PULL ROPE IN ALL EMPTY CONDUITS.
17. ALL CONDUITS THROUGH WALL AND FLOOR SHALL BE SEALED AIRTIGHT AROUND CONDUIT OPENING WITH CODE APPROVED MATERIAL. FIRE RATING OF WALLS OR FLOORS SHALL BE MAINTAINED.
18. ALL JUNCTION BOX COVER PLATES SHALL BE CLEARLY MARKED IN NEATLY PRINTED LETTERING USING A PERMANENT FELT TIP MARKER. REFER TO SECTION 16195.
19. CONTRACTOR SHALL MAINTAIN AND PROVIDE PROJECT RECORD DOCUMENTS.
20. ALL MATERIAL USED OUTDOORS SHALL BE WEATHERPROOF GALVANIZED, PLATED, STAINLESS STEEL OR OTHERWISE PROTECTED FROM RUST OR CORROSION WITH CORTEC VAPOR CORROSION INHIBITOR (OR APPROVED EQUAL).
21. VERIFY ALL INDICATED CONDITIONS AND DIMENSIONS IN THE FIELD BEFORE COMMENCING ANY FABRICATION, ORDERING OF MATERIAL, OR PERFORMING ANY WORK. NOTIFY THE ENGINEER IMMEDIATELY, IN WRITING, OF ANY CONDITIONS OR DIMENSIONS THAT WOULD PREVENT OR HAMPER THE PERFORMANCE OF THE WORK IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.
22. ALL PULLBOXES, ELECTRICAL EQUIPMENT AND DEVICES INSTALLED EXPOSED TO WEATHER SHALL BE WEATHERPROOF TYPE NEMA 4 WHETHER INDICATED ON THE DRAWINGS OR NOT.
23. BENDING RADIUS FOR ALL CONDUIT SHALL BE A MINIMUM OF 6 TIMES THE TRADE SIZE. PULL BOXES WITH CONNECTED CONDUITS 2" AND LARGER SHALL NOT BE USED TO CHANGE CONDUIT DIRECTION.
24. JUNCTION BOXES AND CONDUIT ROUTING ON FLOOR PLANS ARE MINIMUM REQUIREMENTS. CONTRACTOR SHALL ROUTE CONDUIT AS REQUIRED AND SHALL INSTALL A PULL BOX A MINIMUM OF EVERY 100 FEET OR AT THE EQUIVALENT OF EVERY THIRD QUARTER BEND (270 DEGREES) TOTAL.
25. MINIMUM CONDUIT SIZE IS 3/4 INCHES.
26. ALL CONDUIT SHALL BE INSTALLED AT THE SAME (OR HIGHER) HEIGHT ABOVE FINISHED FLOOR OR ABOVE FINISHED GRADE AS EXISTING INSTALLED CONDUIT OF THE SAME TRADE SIZE.
27. REFER TO SPECIFICATION 28 23 00 FOR VIDEO MANAGEMENT SYSTEMS REQUIREMENTS.

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1363
FAX: (314) 918-1766

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	NTS
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A & B - QTA SECURITY LEGEND, NOTES, AND ABBREVIATIONS

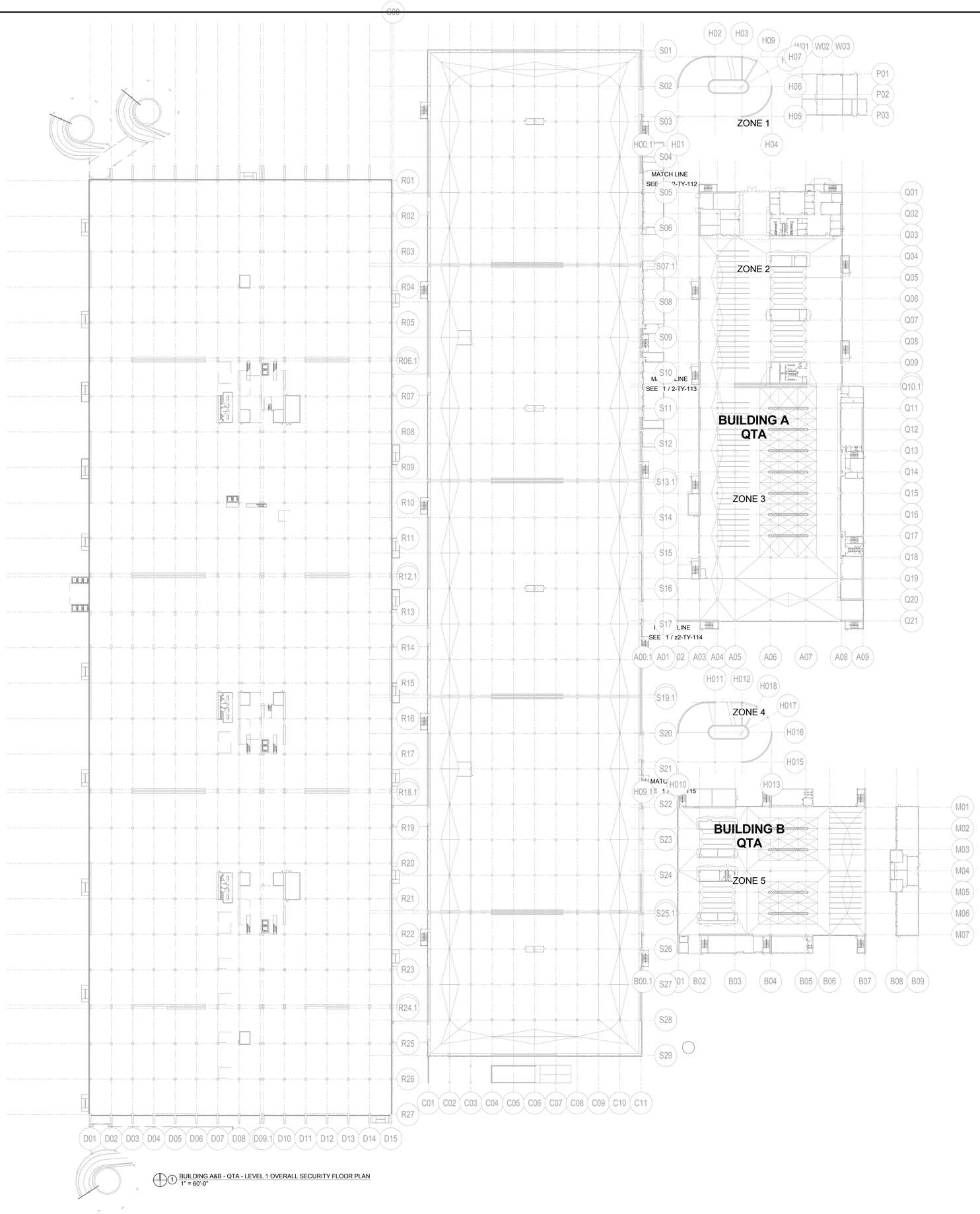
SHEET NO.

2-TY-001

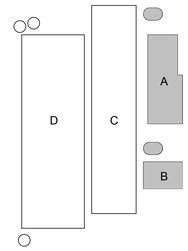
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\tdolton\TTY DA4881 BLDG_A_B_C-R15_dolton.rvt

8/14/2016 2:43:32 PM



1 BUILDING A&B - QTA - LEVEL 1 OVERALL SECURITY FLOOR PLAN
1" = 60'-0"



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1683
FAX: (314) 918-1786

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A&B - QTA - LEVEL 1 OVERALL SECURITY FLOOR PLAN

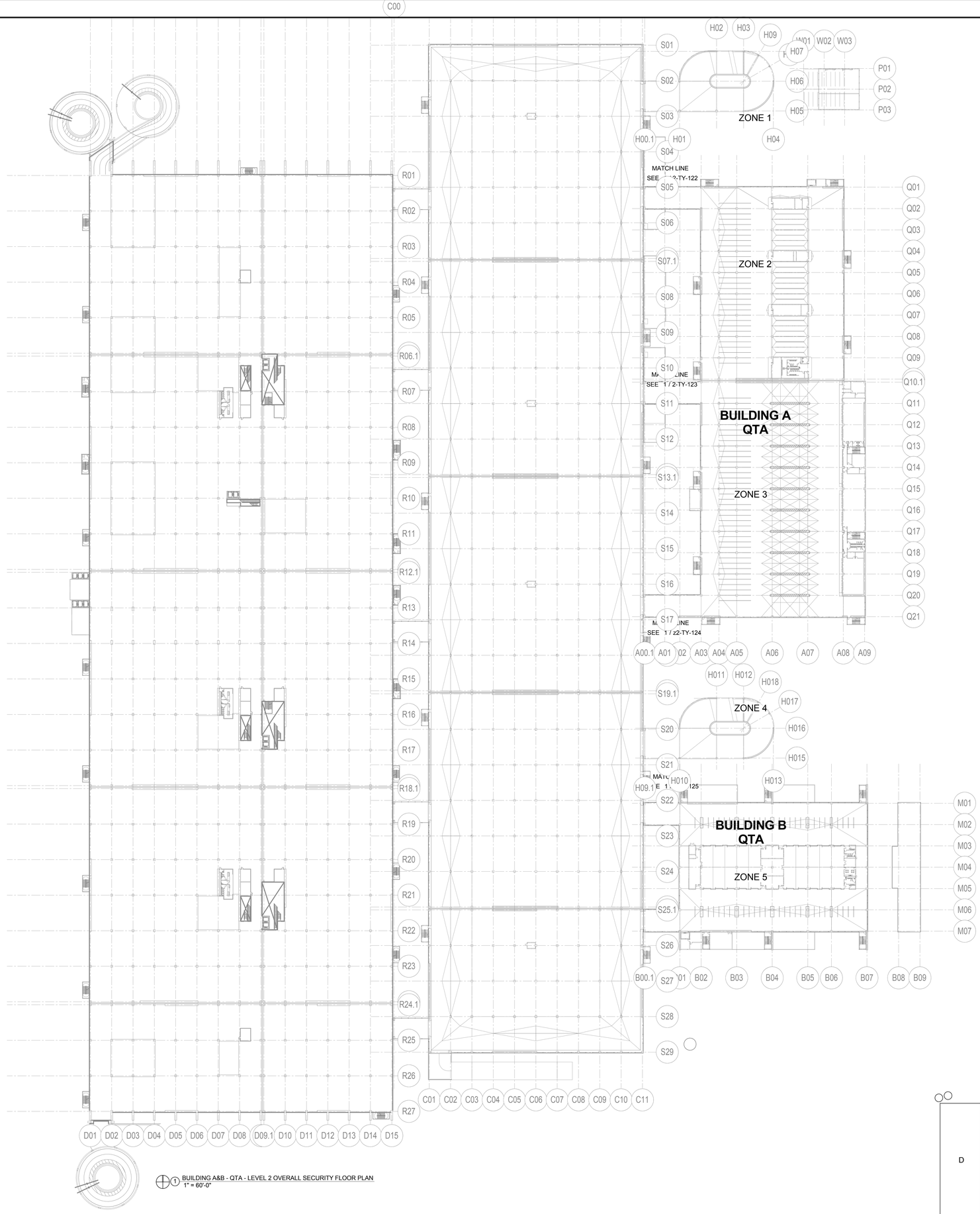
SHEET NO.

2-TY-010

C:\Users\tewton\TTY DA4881 (BLDG_A_B_C-R15_ade9cv.rvt

8/14/2018 2:43:38 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A&B - QTA - LEVEL 2 OVERALL SECURITY FLOOR PLAN
1" = 60'-0"

KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1583
FAX: (314) 918-1788

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A&B - QTA - LEVEL 2 OVERALL SECURITY FLOOR PLAN

SHEET NO.

2-TY-020

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

8/14/2016 2:43:39 PM C:\Users\tedwo\TTY\DA4881 RLDG_A_B_C-R15_tedwo.rvt

CONSULTANTS:

Ross Barruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-8383
FAX: (314) 918-1766

TransSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

REVISIONS:

PLAN NO: DA4881
SCALE: 1" = 60'-0"
DATE: 09/23/2016
DESIGNED BY: TEW
DRAWN BY: HSM
CHECKED BY: TEW

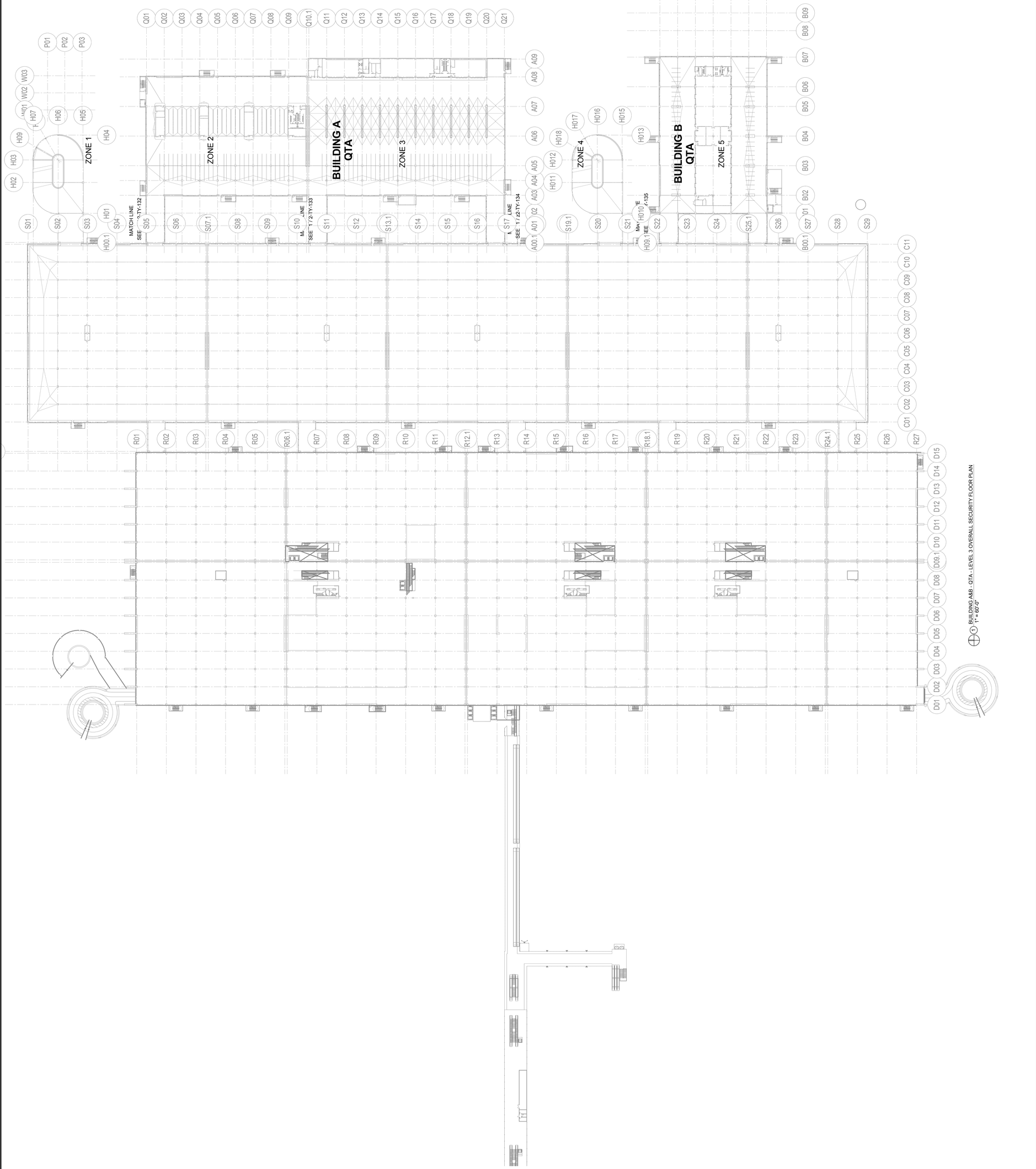
SHEET TITLE:

BUILDING A&B - QTA - LEVEL 3 OVERALL SECURITY FLOOR PLAN

SHEET NO.

2-TY-030

KEYPLAN



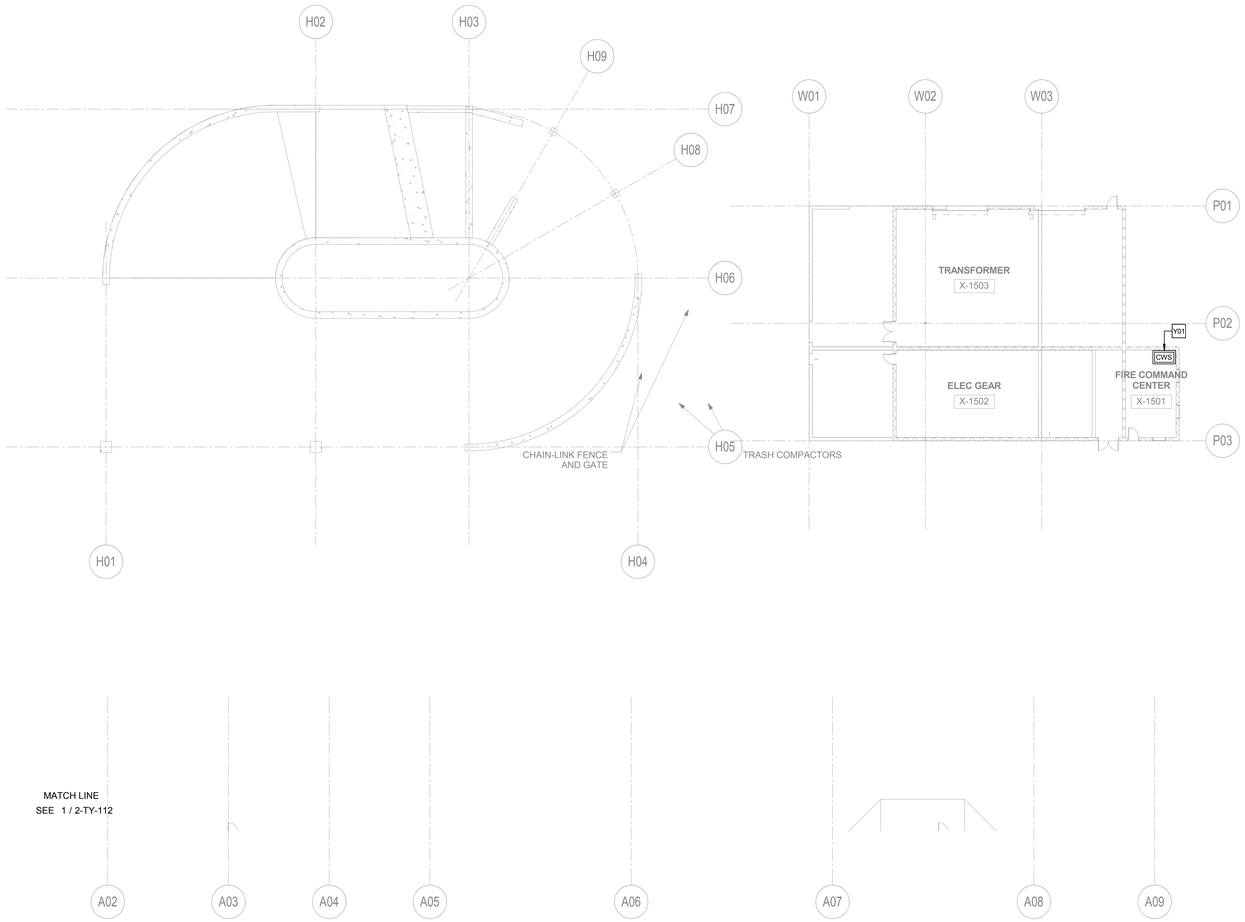
BUILDING A&B - QTA - LEVEL 3 OVERALL SECURITY FLOOR PLAN
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\tewalTTY.DA4881.BLDG_A_B_C-R15_tewal.rvt

9/14/2016 2:43:42 PM

SECURITY KEYED NOTES	
Y01	FIRE COMMAND CENTER WILL REQUIRE A VIDEO MANAGEMENT WORKSTATION.



1 BUILDING A - QTA - LEVEL 1 SECURITY FLOOR PLAN - ZONE 1
1/16" = 1'-0"

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1683
FAX: (314) 918-1768

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A - QTA - LEVEL 1 SECURITY FLOOR PLAN ZONE 1

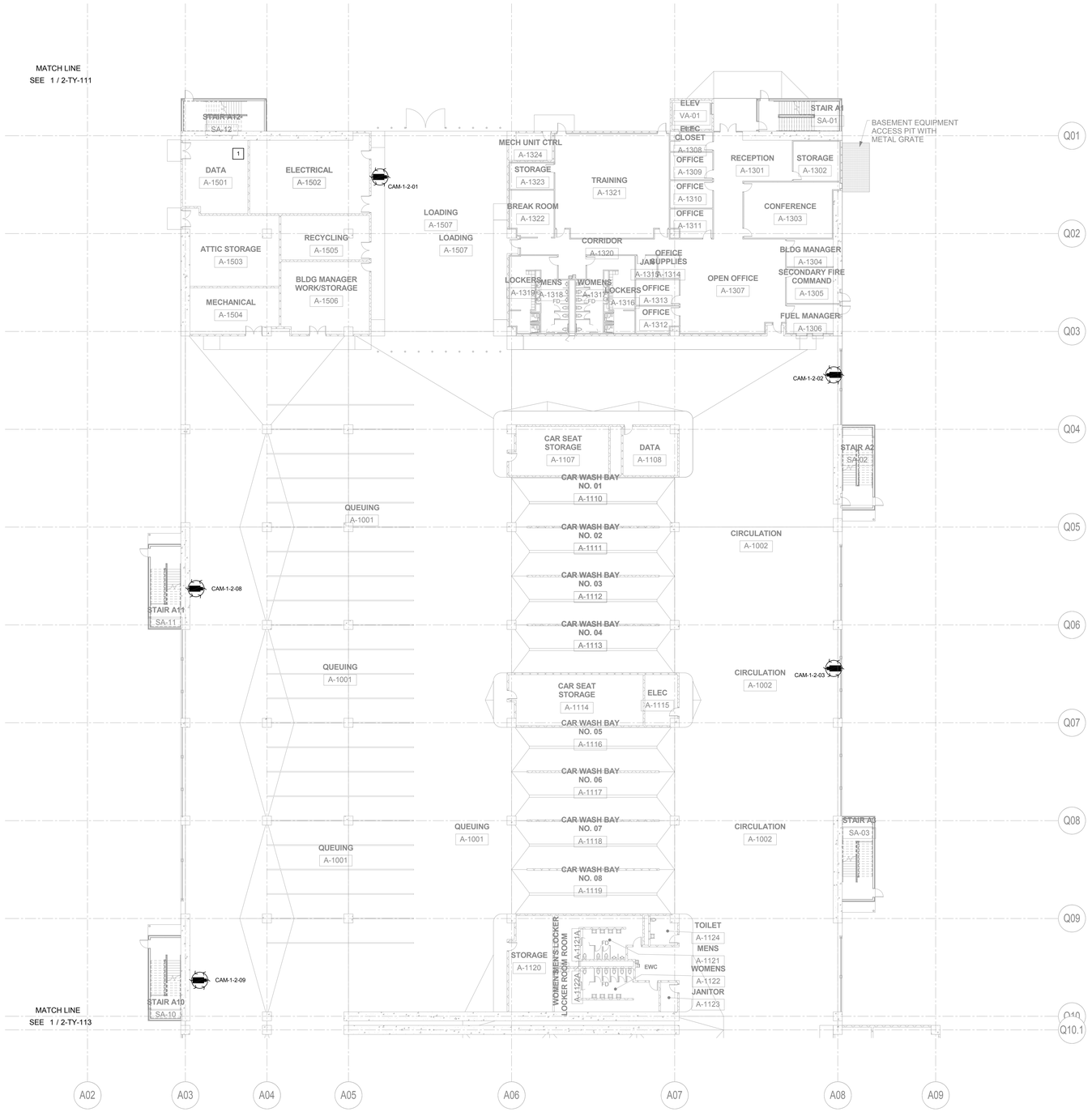
SHEET NO.

2-TY-111

8/14/2018 2:43:43 PM C:\Users\tdelkot\TTY DA4881 BLDG_A_B_C R15_tdelkot.rvt

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

SECURITY GENERAL NOTES:
1. CCTV VMS HEADEND SERVER(S) AND WORKSTATION



1 BUILDING A - QTA - LEVEL 1 SECURITY FLOOR PLAN - ZONE 2
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1263
FAX: (314) 918-1768

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

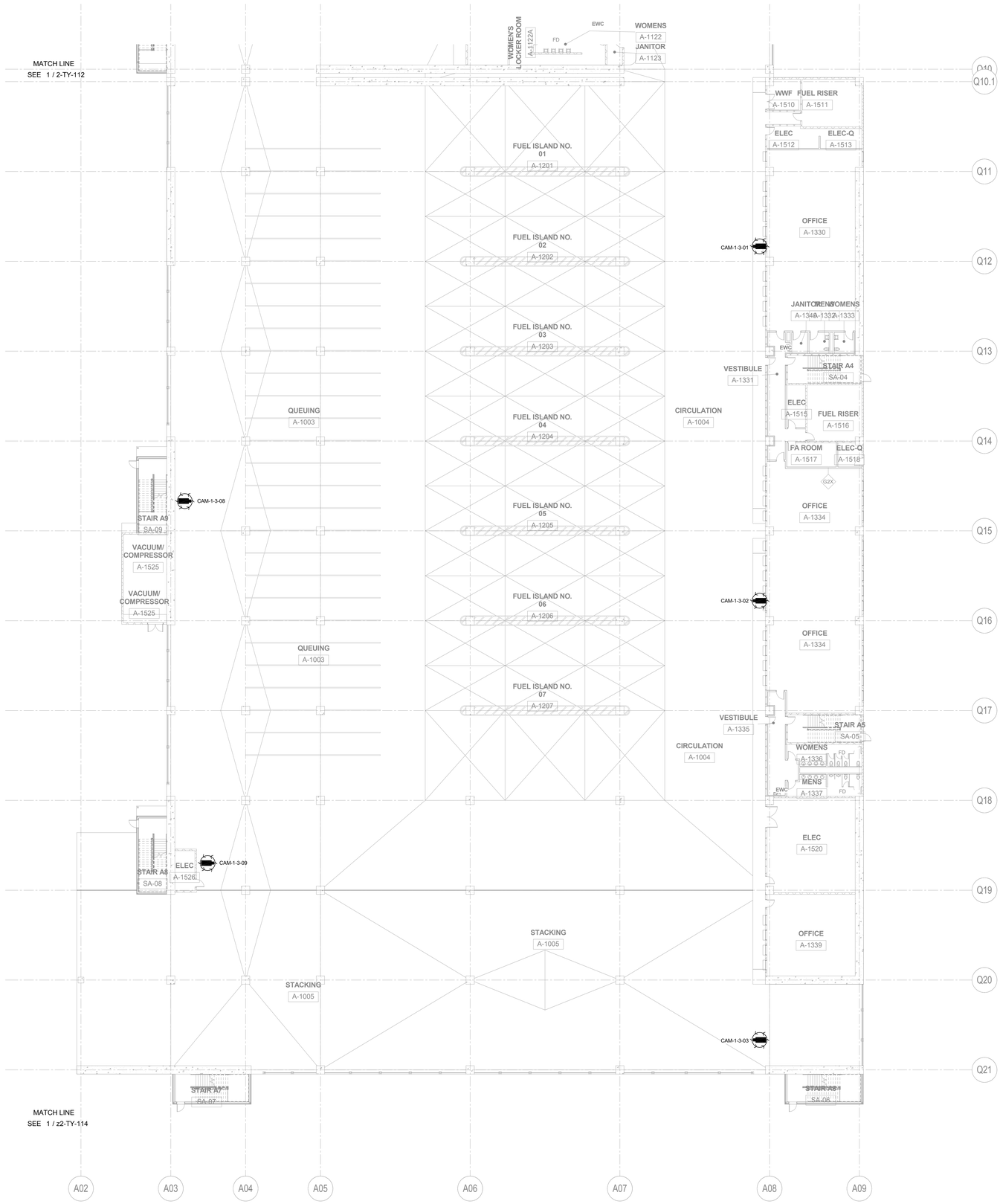
SHEET TITLE:

BUILDING A - QTA - LEVEL 1 SECURITY FLOOR PLAN ZONE 2

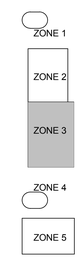
SHEET NO.
2-TY-112

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\tbolick\ITTY DA4881 BLDG_A_B_C-R15_tbolick.rvt
9/14/2016 2:43:44 PM



1 BUILDING A - QTA - LEVEL 1 SECURITY FLOOR PLAN - ZONE 3
1/16" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:

Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1583
FAX: (314) 918-1786

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A - QTA - LEVEL 1 SECURITY FLOOR PLAN ZONE 3

SHEET NO.
2-TY-113

C:\Users\dakkol\TTY\DA4881 BLDG_A_B_C-R15_dakko.rvt
9/14/2016 2:43:43 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

MATCH LINE
SEE 1 / z2-TY-114

STAIR B1
SB-01
CAR WASH SYSTEM
B-1505
ELEC
B-1506
STAIR B2
SB-02
OFFICE
B-1301
WOMENS
B-1302
MENS
B-1303
EWC
FIRE COMMAND
B-1304
STAIR B3
SB-03
CAM-1-5-04
CAM-1-5-01
CAR WASH SYSTEM
B-1101
PLUMBING
B-1102
WASH BAY NO. 01
B-1103
WASH BAY NO. 02
B-1104
CAR SEAT STORAGE
B-1106
DATA
B-1105
CIRCULATION
B-1001
FUEL ISLAND NO. 01
B-1201
FUEL ISLAND NO. 02
B-1202
QUEUING
B-1002
MENS
B-1108
WOMENS
B-1109
CAR WASH SYSTEM
B-1107
EWC
WASH BAY NO. 03
B-1110
WASH BAY NO. 04
B-1111
WASH BAY NO. 05
B-1112
CIRCULATION
B-1001
FUEL ISLAND NO. 03
B-1203
FUEL ISLAND NO. 04
B-1204
QUEUING
B-1002
CAR SEAT STORAGE
B-1115
ELEC
B-1113
CAM-1-5-05
CAM-1-5-02
ELEV
VB-01
ELEV MACHINE ROOM
B-1502
VESTIBULE
B-1003
STAIR B6
SB-06
COMPRESSOR/OIL STORAGE
B-1503
WWF
B-1504
STAIR B5
SB-05
OFFICE
B-1305
EWC
JANITOR
B-1306
MENS
B-1307
WOMENS
B-1308
STAIR B4
SB-04
MAINTENANCE BAY NO. 01
B-1401
MAINTENANCE BAY NO. 02
B-1402
MAINTENANCE BAY NO. 03
B-1403
MAINTENANCE BAY NO. 04
B-1404
MAINTENANCE OFFICE
B-1409
COMPRESSOR/OIL STORAGE
B-1415
MAINTENANCE STORAGE
B-1411
ELEC
B-1410
FIRE ALARM
B-1412
MAINTENANCE STORAGE
B-1413
COMPRESSOR/OIL STORAGE
B-1415
MAINTENANCE OFFICE
B-1414
MAINTENANCE BAY NO. 05
B-1405
MAINTENANCE BAY NO. 06
B-1406
MAINTENANCE BAY NO. 07
B-1407
MAINTENANCE BAY NO. 08
B-1408
M01
M02
M03
M04
M05
M06
M07
B01
B02
B03
B04
B05
B06
B07
B08
B09

1 BUILDING B - QTA - LEVEL 1 SECURITY FLOOR PLAN - ZONE 5
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5
BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

8/14/2018 2:43:48 PM C:\Users\tdavis\TTY-DA4881-BLDG_A_B_C-R15_tdavis.rvt

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1683
FAX: (314) 918-1766

Los Angeles World Airports
Project
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

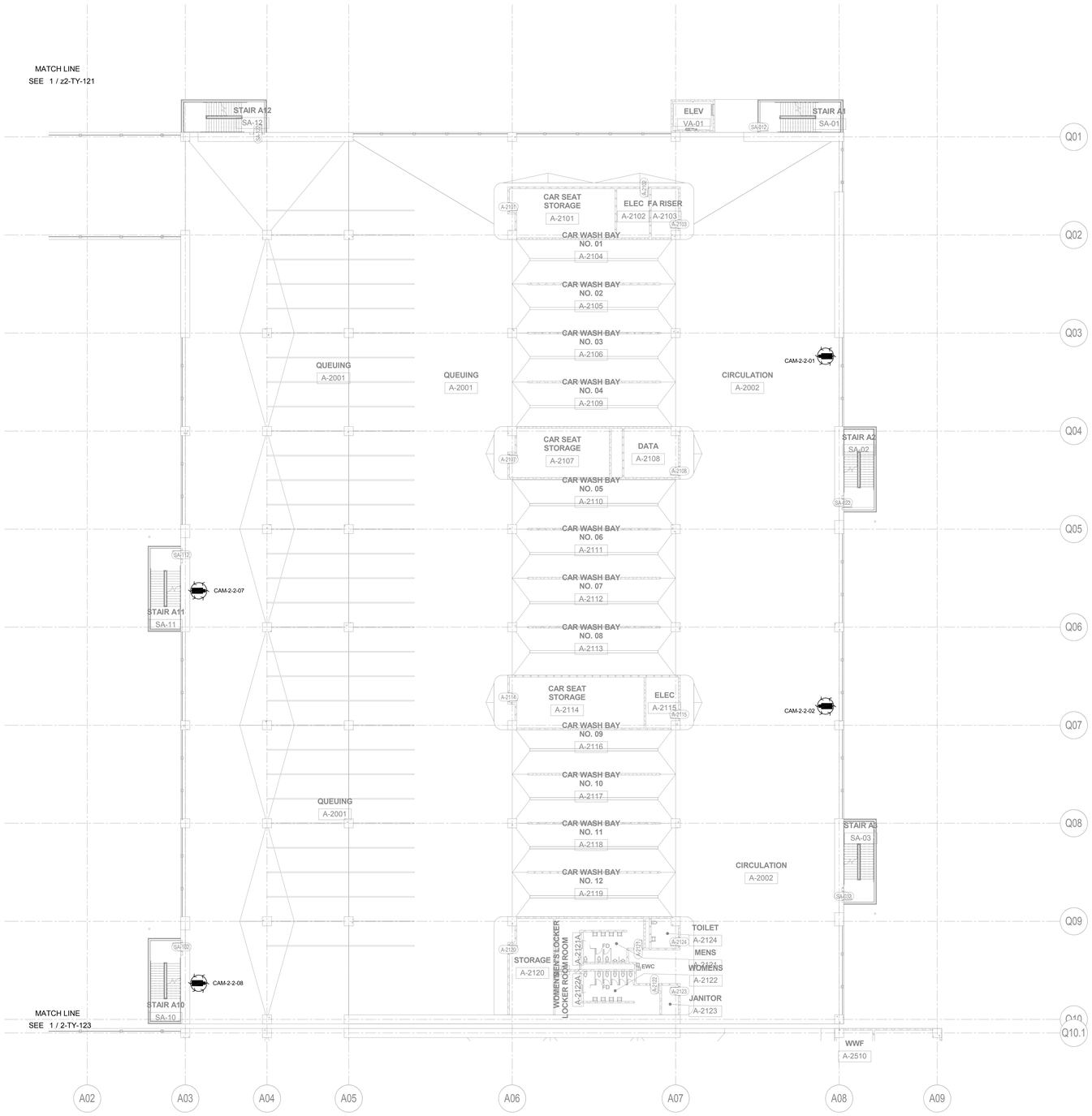
REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:
BUILDING B - QTA - LEVEL 1 SECURITY FLOOR PLAN ZONE 5

SHEET NO.
2-TY-115



1 BUILDING A - QTA - LEVEL 2 SECURITY FLOOR PLAN - ZONE 2
1/16" = 1'-0"

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1663
FAX: (314) 918-1766

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION
	09/23/2016	QTA 30% SUBMITTAL

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

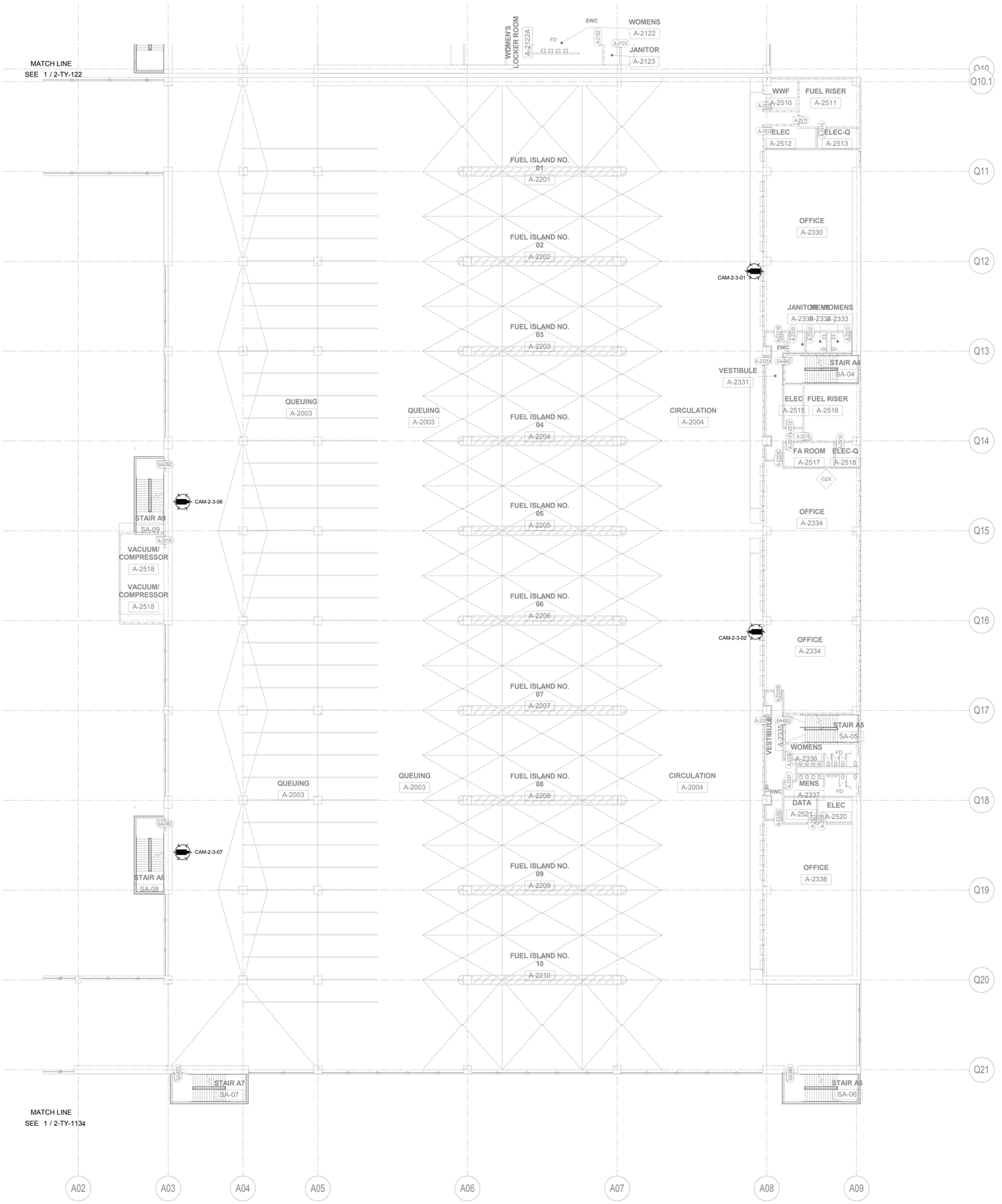
BUILDING A - QTA - LEVEL 2 SECURITY FLOOR PLAN ZONE 2

SHEET NO.
2-TY-122

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\tbolick\TTY\DA4881-BLDG_A_B_C-R15_tbolick.rvt

9/14/2016 2:43:47 PM



1 BUILDING A - QTA - LEVEL 2 SECURITY FLOOR PLAN - ZONE 3
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\tewhite\TTY\DA4881 RELDG_A_B_C-R15_tewhite.rvt
8/4/2016 2:43:48 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-8383
FAX: (314) 918-1786

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

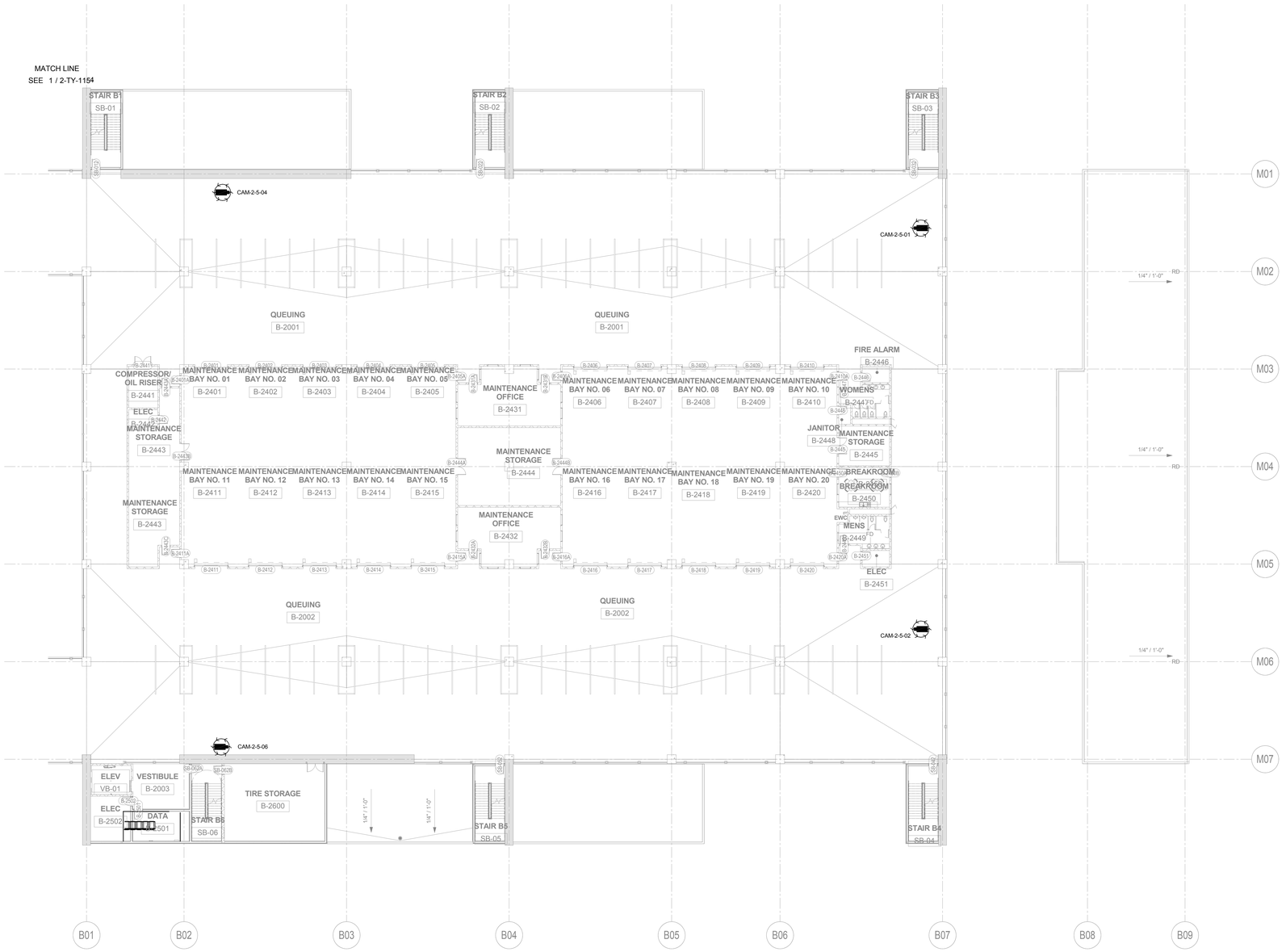
REVISIONS:			
MARK	DATE	DESCRIPTION	
	08/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

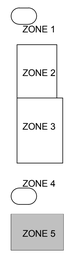
SHEET TITLE:

BUILDING A - QTA - LEVEL 2 SECURITY FLOOR PLAN ZONE 3

SHEET NO.
2-TY-123



1 BUILDING B - QTA - LEVEL 2 SECURITY FLOOR PLAN - ZONE 5
1/16" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1583
FAX: (314) 918-1766

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING B - QTA - LEVEL 2 SECURITY FLOOR PLAN ZONE 5

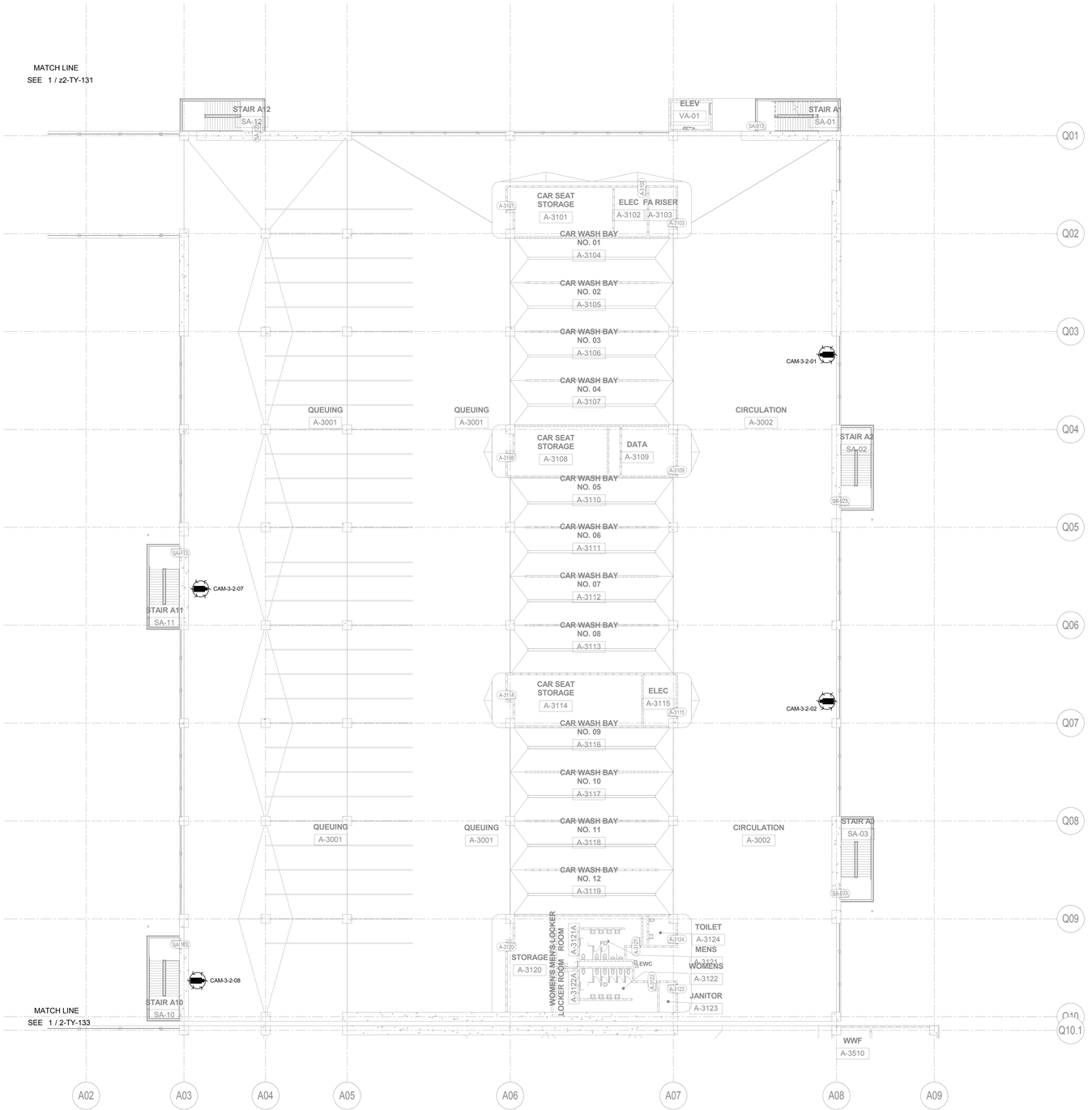
SHEET NO.

2-TY-125

C:\Users\tdavis\TTY DA4881 IB_B2C-R15_tdavis.rvt

9/14/2016 2:43:49 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 SECURITY FLOOR PLAN - ZONE 2
1/16" = 1'-0"

ZONE 1
ZONE 2
ZONE 3
ZONE 4
ZONE 5

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1863
FAX: (314) 918-1766

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A - QTA - LEVEL 3 SECURITY FLOOR PLAN ZONE 2

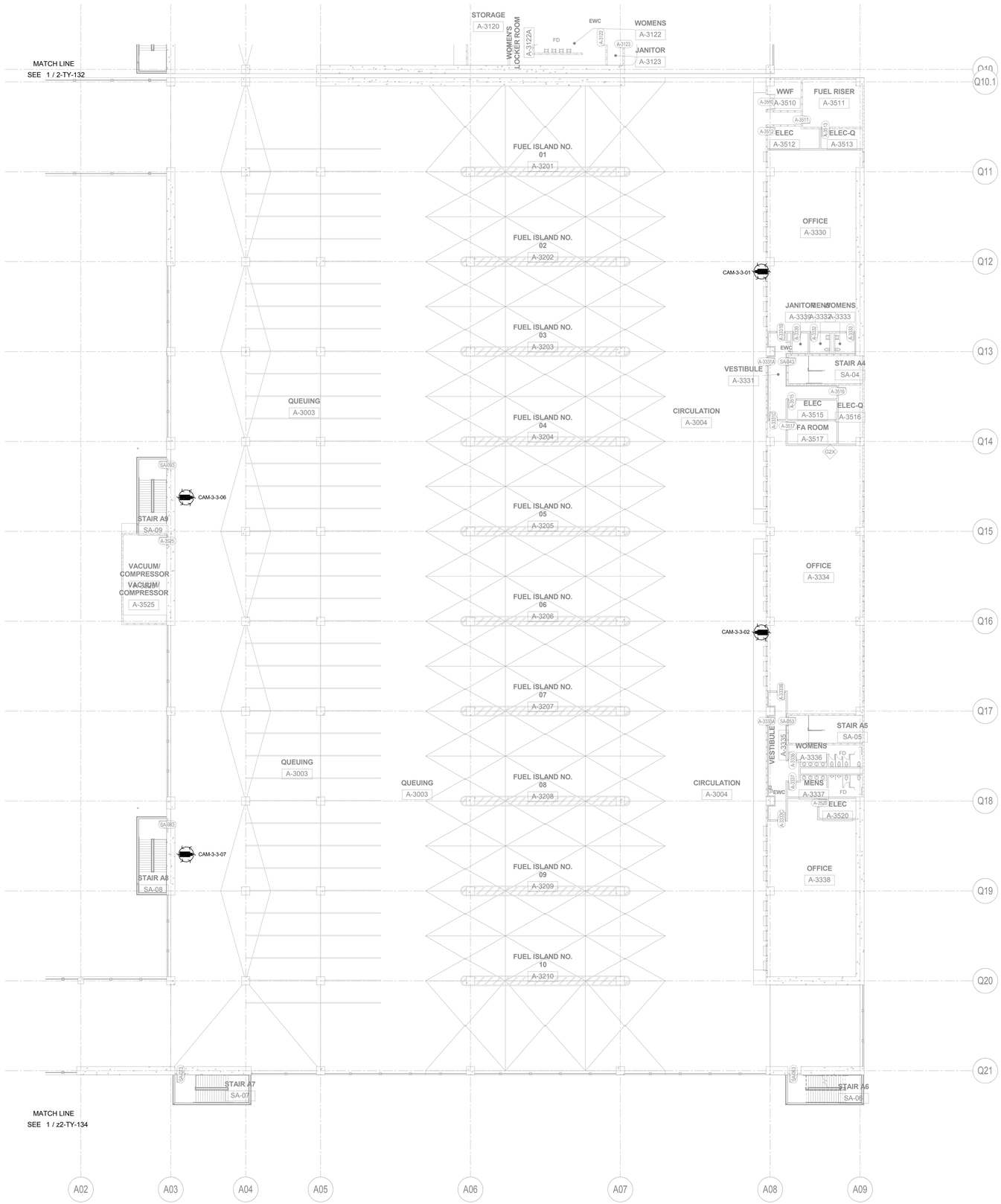
SHEET NO.

2-TY-132

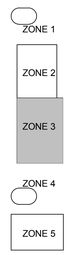
C:\Users\tdelker\TTY DA4881 BLDG_A_B_C R15_delker.rvt

8/14/2016 2:43:59 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 SECURITY FLOOR PLAN - ZONE 3
1/16" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-8383
FAX: (314) 918-1788

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	
	09/23/2016	QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

SHEET TITLE:

BUILDING A - QTA - LEVEL 3 SECURITY FLOOR PLAN ZONE 3

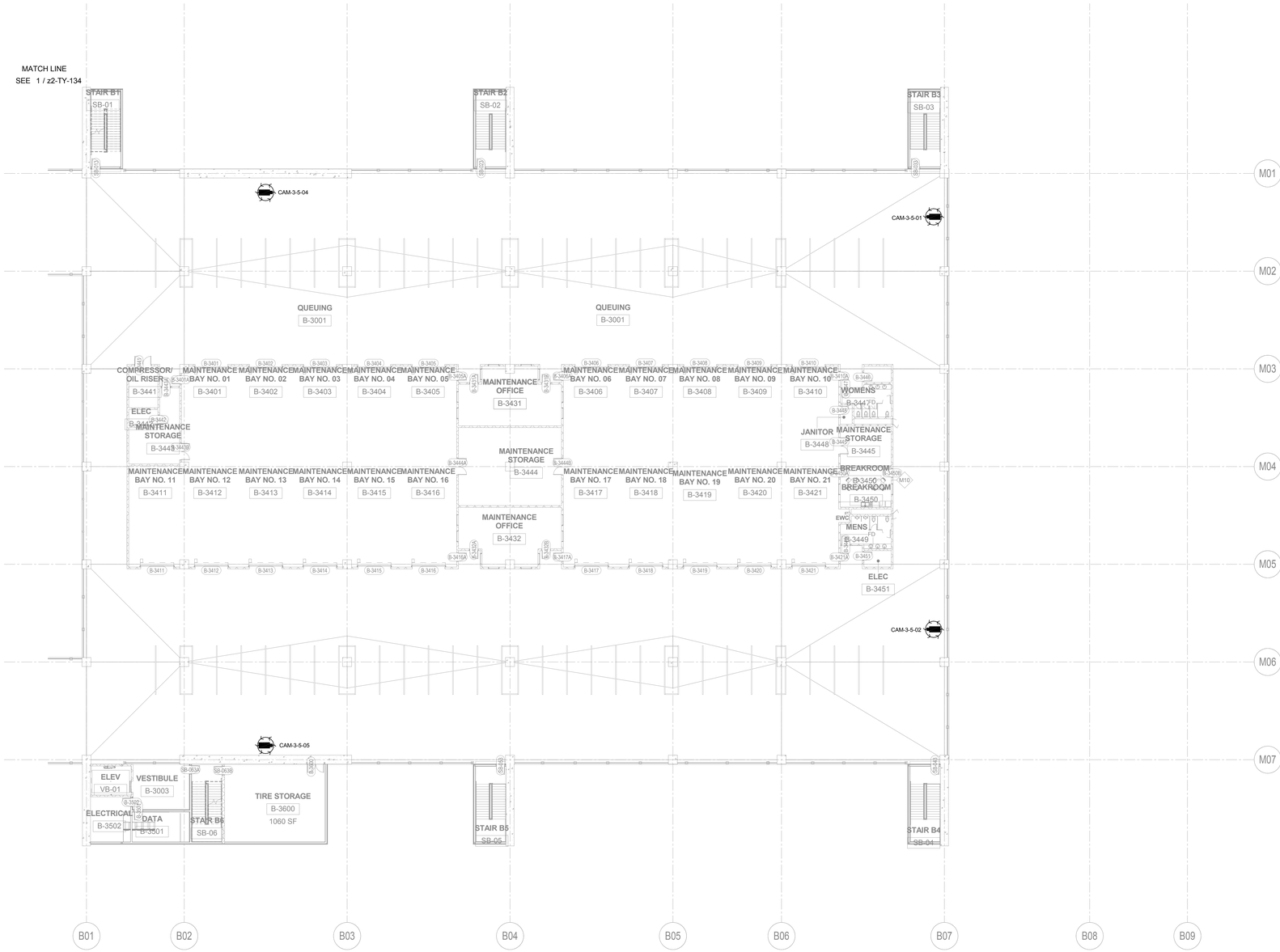
SHEET NO.
2-TY-133

C:\Users\tedtew\TTY\DA4881 (BLDG_A_B_C-RTL_ed4v).rvt

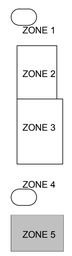
8/14/2018 2:43:51 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

MATCH LINE
SEE 1 / z2-TY-134



1 BUILDING B - QTA - LEVEL 3 SECURITY FLOOR PLAN - ZONE 5
1/16" = 1'-0"



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
Ross&Baruzzini
6 SOUTH OLD ORCHARD AVENUE
ST. LOUIS, MO 63119
PHONE: (314) 918-1683
FAX: (314) 918-1788

Los Angeles World Airports

Project

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	
09/23/2016		QTA 30% SUBMITTAL	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	TEW
DRAWN BY:	R&B
CHECKED BY:	TEW

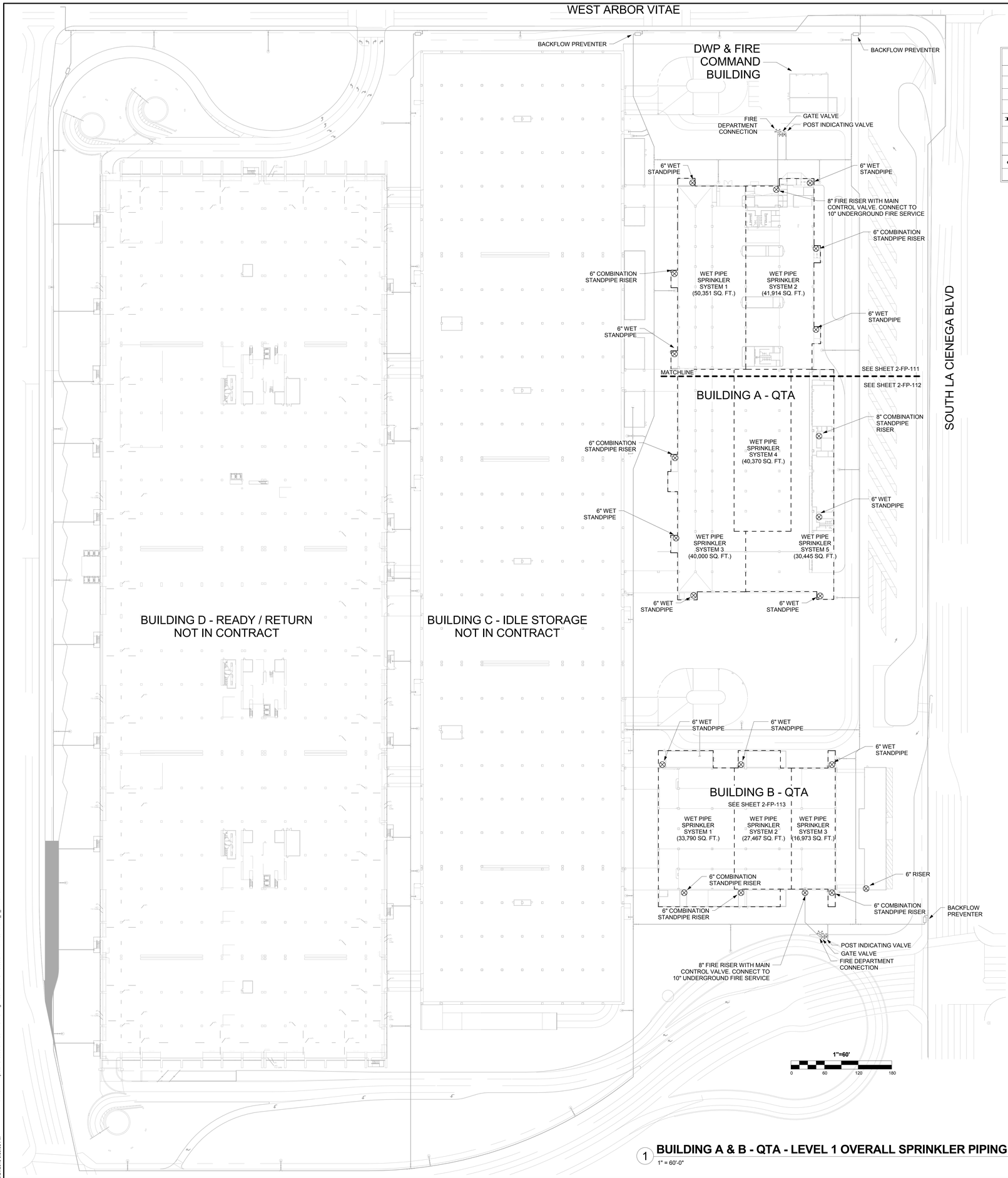
SHEET TITLE:

BUILDING B - QTA - LEVEL 3 SECURITY FLOOR PLAN ZONE 5

SHEET NO.
2-TY-135

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

C:\Users\dakota\TTY\DA4881 BLDG_A_B_C-R15_dakota.rvt
9/14/2016 2:43:53 PM



SYMBOL LEGEND	
⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION

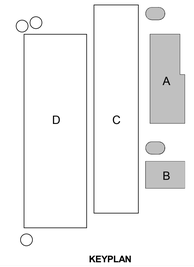
GENERAL NOTES

1. DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE FOLLOWING CODES:
   2013 CALIFORNIA BUILDING CODE
   2013 CALIFORNIA FIRE CODE
   2013 NFPA 14 STANDARD FOR THE INSTALLATION OF STAND PIPE AND HOSE SYSTEMS
   2013 NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
   2013 NFPA 24 STANDARD FOR INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCE
   2014 LOS ANGELES FIRE CODE
2. PROJECT SCOPE:
   INSTALLATION OF NEW WET PIPE FIRE SPRINKLER SYSTEMS THROUGHOUT THE QUICK TURN AROUND (QTA) BUILDINGS "A" AND "B" LOCATED AT THE CONSOLIDATED RENTAL CAR FACILITY (ConRAC) NEAR THE LOS ANGELES INTERNATIONAL AIRPORT (LAX). CLASS I STANDPIPES WITH 2 1/2" HOSE CONNECTIONS SHALL BE INSTALLED IN THE STAIRWELLS.
3. SPRINKLER CONTRACTOR SHALL PREPARE FIRE SPRINKLER SHOP DRAWINGS AND HYDRAULIC CALCULATIONS IN ACCORDANCE WITH NFPA 13 CHAPTER 23 "PLANS AND CALCULATIONS".
4. THE SPRINKLER SYSTEMS IN THESE BUILDINGS SHALL BE MONITORED BY A CENTRAL STATION SIGNALING SYSTEM FURNISHED AND INSTALLED BY THE ALARM CONTRACTOR. ALL TAMPER SWITCHES AND WATER FLOW INDICATORS SHALL BE INSTALLED BY THE SPRINKLER CONTRACTOR AND WIRED TO THE CENTRAL STATION SIGNALING SYSTEM BY THE ALARM CONTRACTOR.
5. THE SPRINKLER SUBCONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, SEALING, PATCHING, AND PAINTING REQUIRED FOR INSTALLATION OF THE SPRINKLER SYSTEM. ALL PENETRATIONS OF RATED ASSEMBLIES SHALL BE FIRE STOPPED WITH AN APPROVED MATERIAL AS PRESCRIBED IN THE CALIFORNIA BUILDING CODE.
6. THE SPRINKLER SUBCONTRACTOR SHALL BE C-16 LICENSED BY THE STATE OF CALIFORNIA FOR DESIGN AND INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS.
7. SYSTEM DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 13. MATERIALS TO BE UL LISTED OR FM APPROVED.
8. ALL PIPE SHALL BE BLACK STEEL, SCHEDULE 10 FOR PIPES 2 1/2" AND LARGER AND SCHEDULE 40 FOR PIPES 2" AND SMALLER. ALL PIPING IN BUILDINGS "A" & "B" SHALL BE PRIMED AND PAINTED WITH EXTERIOR ACRYLIC RED GLOSS PAINT.
9. ALL PIPE LENGTHS SHOWN ARE CENTER TO CENTER DIMENSIONS.
10. HANGER LOCATION FOR ALL PIPING SHALL BE IN ACCORDANCE WITH NFPA 13, SECTIONS 9.2 THROUGH 9.2.6.2. SEE HANGER SCHEDULE AND/OR DETAILS FOR TYPES OF HANGERS USED. ALTERNATE UL AND FM HANGER METHODS ARE ACCEPTED AT NO ADDITIONAL COST TO THE OWNER. PROVIDE UL AND FM LITERATURE TO JENSEN HUGHES AND THE CITY OF LOS ANGELES FOR APPROVAL PRIOR TO INSTALLATION.
11. PROVIDE RIGID COUPLINGS THROUGHOUT, EXCEPT FLEXIBLE COUPLINGS SHALL BE INSTALLED AS FOLLOWS:
    a. WITHIN 24 IN. OF THE TOP AND BOTTOM OF ALL RISERS;
    b. ON BOTH SIDES OF CONCRETE OR MASONRY WALLS WITHIN 3 FT. OF THE WALL SURFACE;
    c. WITHIN 24 IN. OF BUILDING EXPANSION JOINTS;
    d. WITHIN 24 IN. OF THE TOP AND BOTTOM OF DROPS TO HOSE LINES, RACK SPRINKLERS, AND MEZZANINES, REGARDLESS OF PIPE SIZE;
    e. WITHIN 24 IN. OF THE TOP OF DROPS EXCEEDING 15 FT. IN LENGTH TO PORTION OF SYSTEMS SUPPLYING MORE THAN ONE SPRINKLER, REGARDLESS OF PIPE SIZE;
    f. ABOVE AND BELOW ANY INTERMEDIATE POINTS OF SUPPORT FOR A RISER OR OTHER VERTICAL PIPE.
12. ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS.
13. JOINING OF PIPE AND FITTINGS SHALL BE DONE WITH GROOVED COUPLINGS WHEN LIGHTWALL PIPE IS USED OR THREADED CAST IRON OR DUCTILE IRON FITTINGS WITH THREADABLE PIPE.
14. ALL INSPECTOR'S TEST CONNECTIONS AND LOW POINT DRAINS SHALL BE IN ACCORDANCE NFPA 13 (UNLESS NOTED OTHERWISE) AND SHALL BE DISPLAYED ON SHOP DRAWINGS. MOUNTING HEIGHTS OF CONTROL VALVES SHALL BE 5'-0" A.F.F. MOUNT CONTROL VALVES FOR INSPECTOR'S TEST CONNECTION AND LOW POINT DRAINS INSIDE BUILDING. PIPE DRAIN LINES TO EXTERIOR OF BUILDING. AUXILIARY DRAINS AND INSPECTOR'S TEST CONNECTIONS SHALL BE LOCATED TIGHT AGAINST THE PERIMETER WALLS. COORDINATE WITH THE ARCHITECT FOR ACCEPTABLE LOCATIONS.
15. THE OVERHEAD PORTION OF THIS SYSTEM SHALL BE TESTED AT 200 PSI FOR 2 HOURS. THIS SYSTEM SHALL BE FLUSHED IN ACCORDANCE WITH NFPA 24 BEFORE CONNECTION WITH THE OVERHEAD SYSTEM AND BE TESTED AT 200 PSI FOR TWO HOURS.
16. SPRINKLERS IN T-BAR CEILING SHALL BE WHITE RECESSED QUICK RESPONSE WITH WHITE RECESSED ESCUTCHEONS AND SHALL BE PLACED IN QUARTER POINT OR CENTER OF 2 x 4 TILE.
17. SPRINKLER CONTRACTOR TO COORDINATE AND ADJUST SPRINKLERS TO ELECTRICAL, MECHANICAL, STRUCTURE AND ALL OTHER TRADES AT NO ADDITIONAL COST. INSTALL OFFSETS AS REQUIRED FOR COORDINATION WITH OTHER TRADES.
18. OWNER SHALL BE PROVIDED WITH TEST CERTIFICATES, CARE & MAINTENANCE BOOK, AND A SPARE HEAD CABINET WITH SPRINKLERS AND A WRENCH IN ACCORDANCE WITH NFPA 13.
19. DELIVERY OF ALL MATERIALS AND EQUIPMENT TO THE JOB SITE SHALL BE SCHEDULED TO ASSURE COMPLIANCE WITH THE PREDETERMINED CONSTRUCTION SCHEDULE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STORAGE AND HANDLING ALL MATERIALS AND EQUIPMENT ON THE JOB SITE, INCLUDING FURNISHING OF ANY STORAGE FACILITIES OR STRUCTURE REQUIRED.
20. SIGNAGE SHALL BE PROVIDED AS REQUIRED, INCLUDING "RISER ROOM IDENTIFICATION".
21. FLOW SWITCH SHALL BE CONNECTED TO A 10-INCH OUTSIDE ALARM BELL OR OTHER AUDIBLE ALARM DEVICE AT EACH RISER. APPROVED IDENTIFICATION SIGNS SHALL BE PROVIDED ON THE OUTSIDE ALARM BELL "SPRINKLER FIRE ALARM - WHEN ALARM SOUNDS CALL 911 / FIRE DEPARTMENT".
22. SPRINKLER CONTRACTOR SHALL COMPLETE AND SIGN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR THE ABOVEGROUND PIPING. THIS FORM SHALL BE GIVEN TO THE PROJECT INSPECTOR WHO WILL FORWARD TO THE CITY OF LOS ANGELES FOR FILLING IN PROJECT RECORDS.
23. REFERENCE THE CIVIL DRAWINGS FOR ADDITIONAL FIRELINE INFORMATION AND ACTUAL LENGTHS OF PIPE. THE LAYOUT SHOWN ON THE CIVIL DRAWINGS WILL SUPERCEDE WHAT IS SHOWN ON THE FIRE PROTECTION SITE PLAN.
24. REFER TO THE ARCHITECTURAL DRAWINGS FOR ACTUAL BUILDING DIMENSIONS AND DETAILS. DO NOT SCALE "FP" DRAWINGS FOR CONSTRUCTION PURPOSES.
25. REFER TO THE FIRE PROTECTION SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING THE FIRE PROTECTION SYSTEM.
26. EACH FLOOR SPRINKLER SYSTEM RISER SHALL BE PROVIDED WITH A FLOOR CONTROL VALVE ASSEMBLY TO INCLUDE A CONTROL VALVE, CHECK VALVE, PRESSURE GAUGES, WATER FLOW SWITCH, INSPECTOR'S TEST/DRAIN VALVE, AND 1/2" RELIEF VALVE SET AT 175 PSI.

DESIGN CRITERIA

1. OFFICE, RESTROOM, CORRIDOR: LIGHT HAZARD WET PIPE SPRINKLER SYSTEM DESIGNED TO PROVIDE 0.15 GPM/SQ. FT. OVER THE MOST REMOTE 1,500 SQ. FT. INCLUDING A HOSE DEMAND OF 250 GPM. MAXIMUM SPRINKLER SPACING SHALL BE 15 FT. X 15 FT. WITH 165 FDEGREE RATED, 5.6 K-FACTOR, QUICK RESPONSE UPRIGHT SPRINKLERS.
2. WASH BAYS, MAINTENANCE BAYS: ORDINARY HAZARD GROUP II WET PIPE SPRINKLER SYSTEM DESIGNED TO PROVIDE 0.20 GPM/SQ. FT. OVER THE MOST REMOTE 1,500 SQ. FT. INCLUDING A HOSE DEMAND OF 250 GPM. MAXIMUM SPRINKLER SPACING SHALL BE 16 FT. X 16 FT. WITH 200 F DEGREE RATED, 11.2 K-FACTOR, EC-11 EXTENDED COVERAGE ORDINARY HAZARD STANDARD RESPONSE UPRIGHT SPRINKLERS.
3. FUELING ISLANDS AND TIRE STORAGE: EXTRA HAZARD GROUP I WET PIPE SPRINKLER SYSTEM DESIGNED TO PROVIDE 0.30 GPM/SQ. FT. OVER THE MOST REMOTE 2,500 SQ. FT. INCLUDING A HOSE DEMAND OF 500 GPM. MAXIMUM SPRINKLER SPACING SHALL BE 100 SQ. FT WITH 212 F DEGREE RATED, 11.2 K-FACTOR ELO-231 STANDARD RESPONSE UPRIGHT SPRINKLERS.

SHEET LIST	
SHEET NUMBER	SHEET NAME
2-FP-010	QTA LEVEL 1 OVERALL SPRINKLER PIPING PLAN
2-FP-020	QTA LEVEL 2 OVERALL SPRINKLER PIPING PLAN
2-FP-030	QTA LEVEL 3 OVERALL SPRINKLER PIPING PLAN
2-FP-040	QTA ROOF LEVEL OVERALL SPRINKLER PIPING PLAN
2-FP-101	BLDG A QTA LEVEL 0 SPRINKLER PIPING PLAN
2-FP-111	BLDG A QTA LEVEL 1 SPRINKLER PIPING PLAN NORTH
2-FP-112	BLDG A QTA LEVEL 1 SPRINKLER PIPING PLAN SOUTH
2-FP-113	BLDG B QTA LEVEL 1 SPRINKLER PIPING PLAN
2-FP-121	BLDG A QTA LEVEL 2 SPRINKLER PIPING PLAN NORTH
2-FP-122	BLDG A QTA LEVEL 2 SPRINKLER PIPING PLAN SOUTH
2-FP-123	BLDG B QTA LEVEL 2 SPRINKLER PIPING PLAN
2-FP-131	BLDG A QTA LEVEL 3 SPRINKLER PIPING PLAN NORTH
2-FP-132	BLDG A QTA LEVEL 3 SPRINKLER PIPING PLAN SOUTH
2-FP-133	BLDG B QTA LEVEL 3 SPRINKLER PIPING PLAN



KEYPLAN

1 **BUILDING A & B - QTA - LEVEL 1 OVERALL SPRINKLER PIPING PLAN**
1" = 60'-0"

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 120
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191008-000

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	As indicated
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

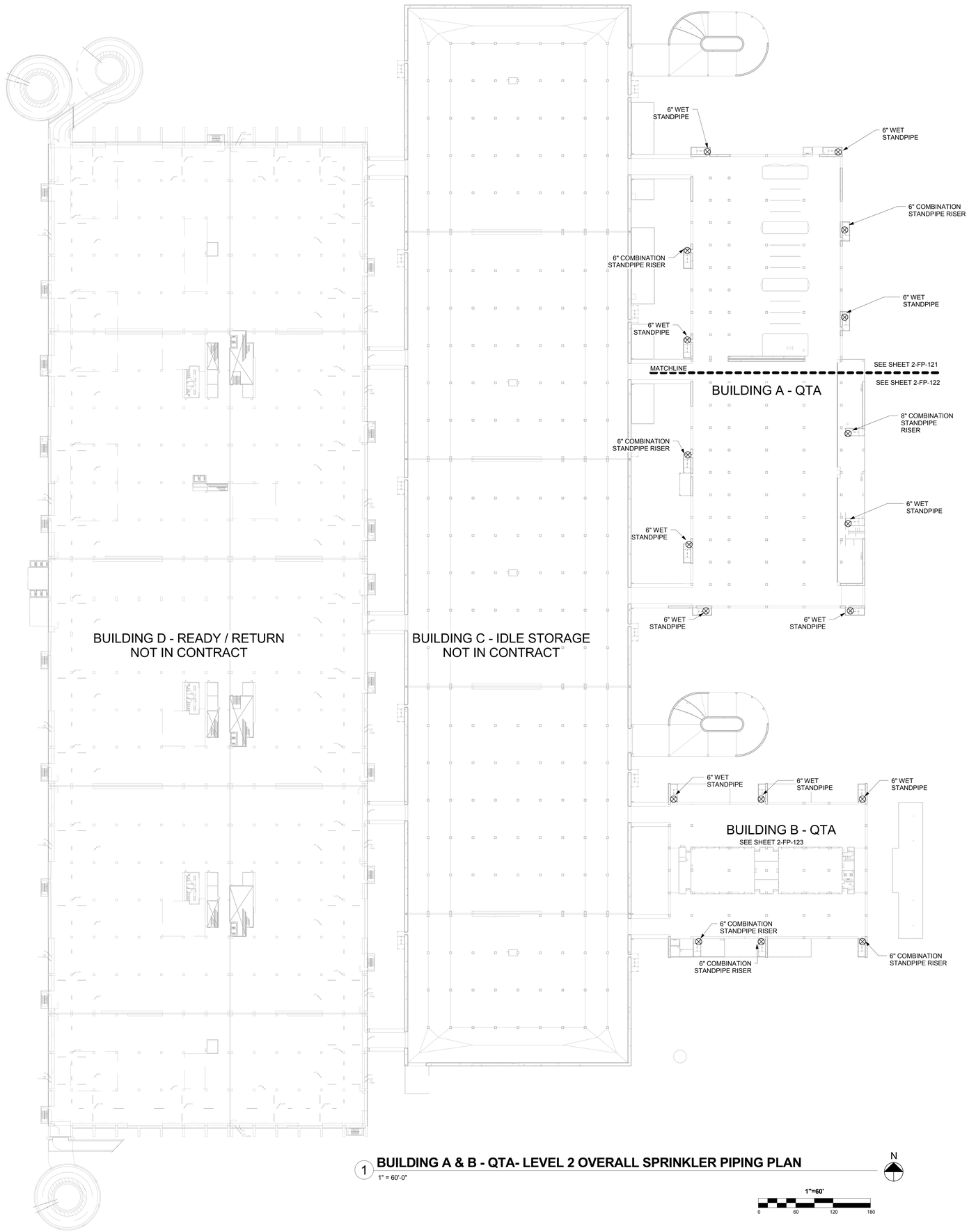
SHEET TITLE:
QTA LEVEL 1 OVERALL SPRINKLER PIPING PLAN

SHEET NO.
2-FP-010

D:\REVIT Projects\191008 LAX ConRAC\Working Files\Revit\Fire Protection\FP-DA4881-BLDG_A_B-R15.rvt
9/21/2016 6:30:08 PM

SYMBOL LEGEND

⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION



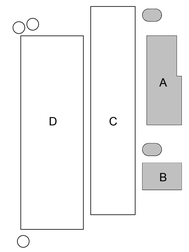
1 BUILDING A & B - QTA- LEVEL 2 OVERALL SPRINKLER PIPING PLAN

1" = 60'-0"

N

1"=60'

0 60 120 180



KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

D:\REVIT Projects\1915936 LAX CoreAC\Working Files\Revit\Fire Protection\FP-DA4881-BLDG_A_B-R15.rvt

8/21/2016 6:30:12 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 101
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191539-000

Los Angeles World Airports

QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

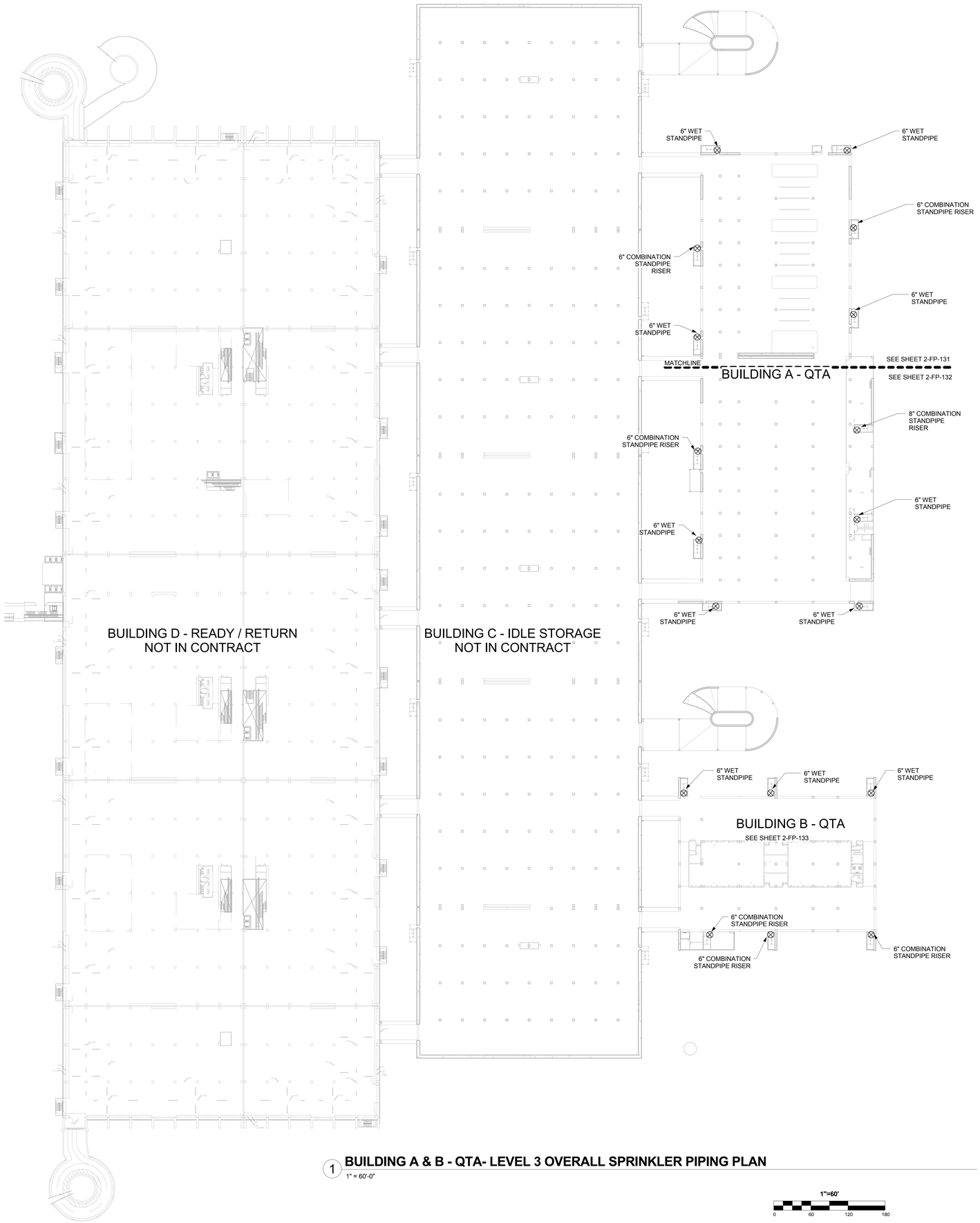
SHEET TITLE:

QTA LEVEL 2 OVERALL SPRINKLER PIPING PLAN

SHEET NO.

2-FP-020

SYMBOL LEGEND	
⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION



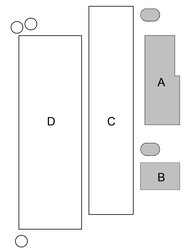
1 BUILDING A & B - QTA- LEVEL 3 OVERALL SPRINKLER PIPING PLAN

1" = 60'-0"

N

1"=60'

0 60 120 180



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 114
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191036-000

Los Angeles World Airports

QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE ANA PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ.NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

SHEET TITLE:

QTA LEVEL 3 OVERALL SPRINKLER PIPING PLAN

SHEET NO.

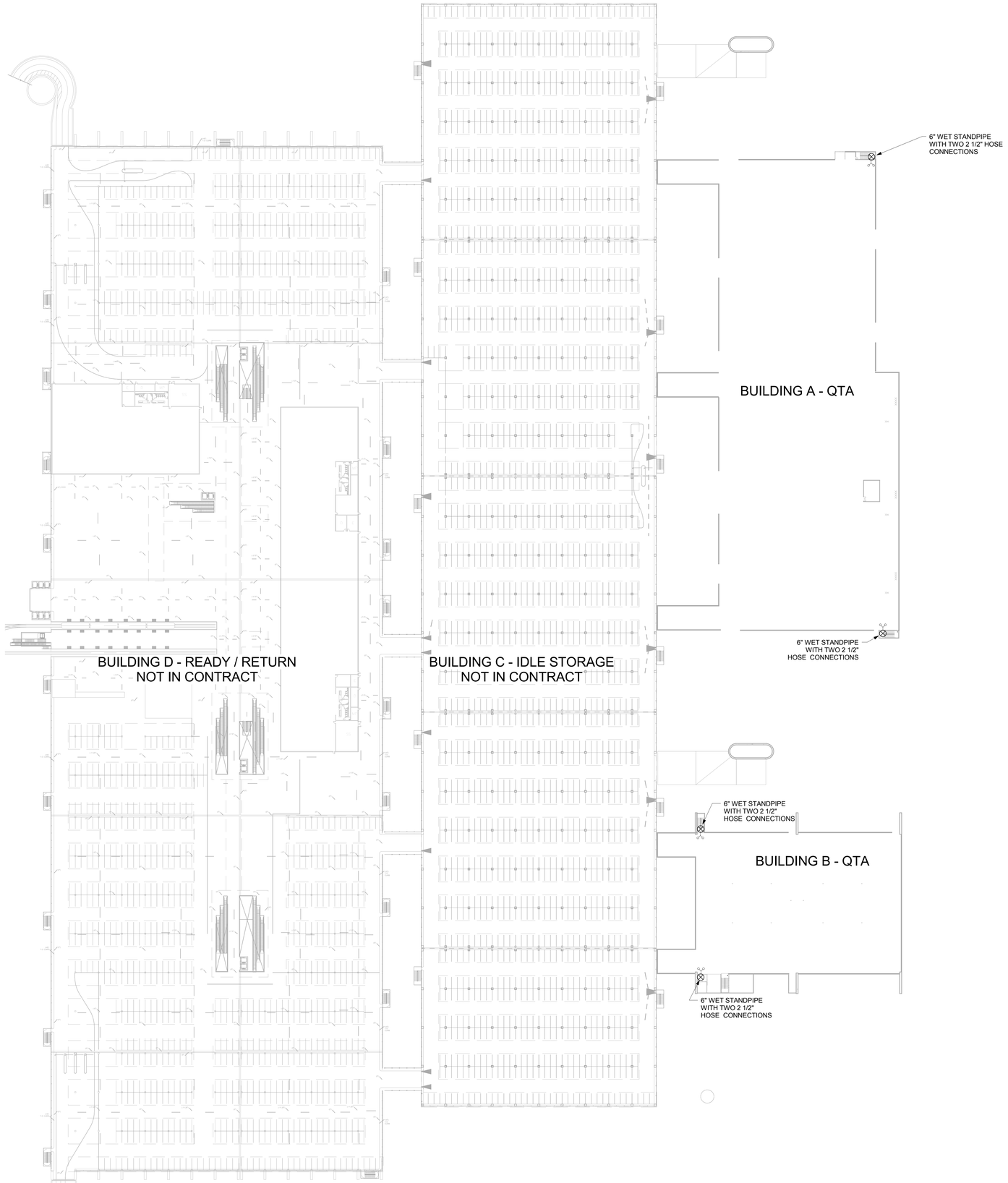
2-FP-030

D:\REVIT Projects\191036 LAX Con\HAC\Working Files\Revit\Fire Protection\FP-DA4881 BLDG_A_B-R16.rvt

9/21/2016 6:30:16 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

SYMBOL LEGEND	
⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION



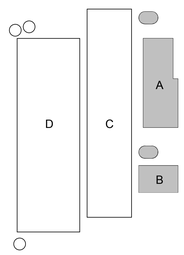
1 **BUILDING A & B - QTA- ROOF LEVEL OVERALL SPRINKLER PIPING PLAN**

1" = 60'-0"

N

1"=60'

0 60 120 180



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 151
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 19150358-000

Los Angeles World Airports

QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

SHEET TITLE:

QTA ROOF LEVEL OVERALL SPRINKLER PIPING PLAN

SHEET NO.

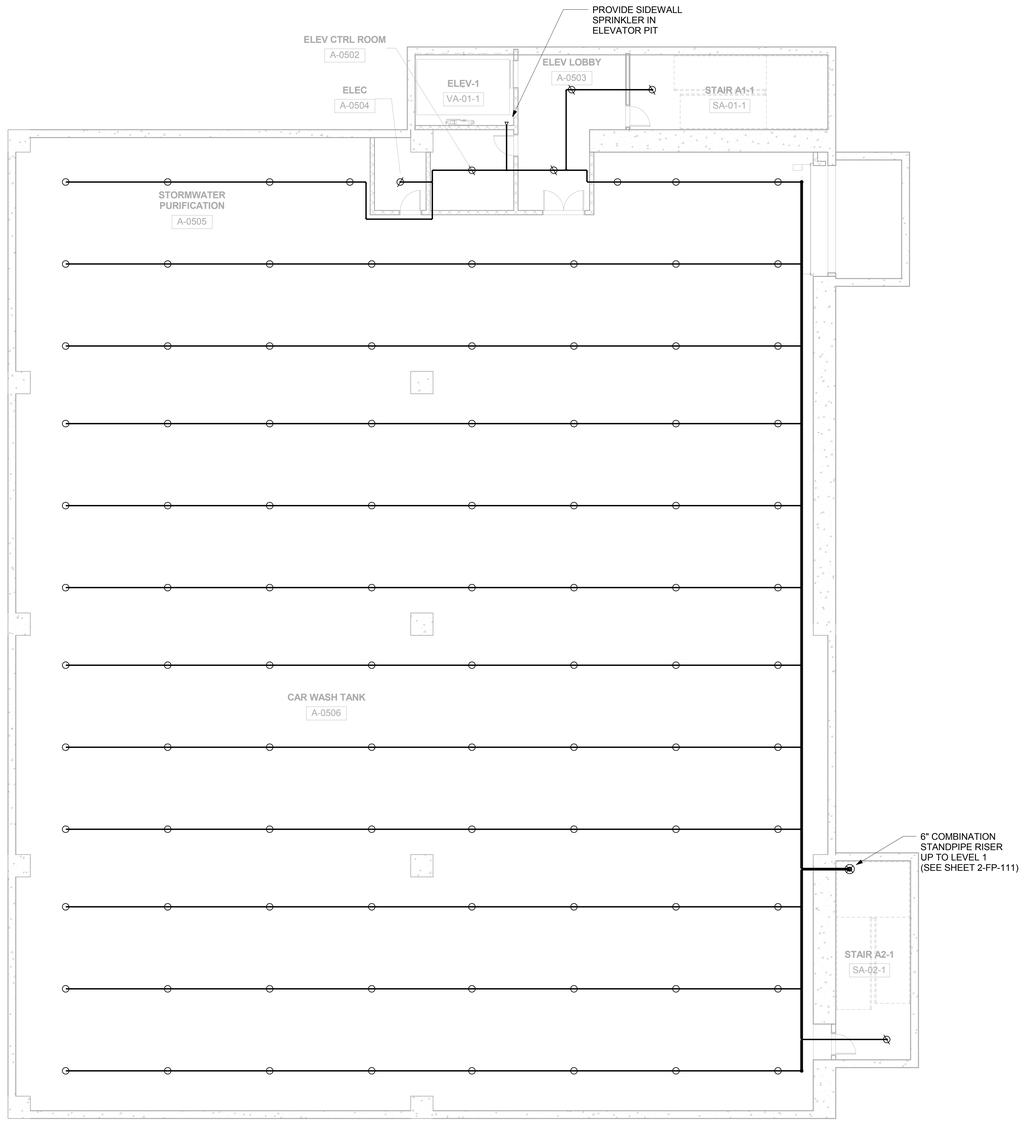
2-FP-040

D:\REVIT Projects\19150358 LAX Civil\RAC\Working Files\Revit\Fire Protection\FP-DA4881-BLDG_A_B-R15.rvt

9/21/2016 6:30:21 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

SYMBOL LEGEND	
⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION



1 BUILDING A - QTA - LEVEL 0 SPRINKLER PIPING PLAN

1/8" = 1'-0"

N

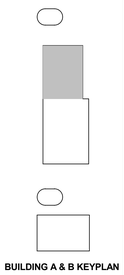
1/8" = 1'

0 8 16 24

SPRINKLER SCHEDULE & LEGEND

SYMBOL	SPRINKLER DESCRIPTION	K-FACTOR	TEMP.	FINISH	MAKE	MODEL	SIN	QUANTITY
○	UPRIGHT EXTENDED COVERAGE SPRINKLER - STANDARD RESPONSE - MAX 16' X 16'	11.2	200° F	BRASS	TYCO	EC-11	TY5231	95
⊠	UPRIGHT SPRINKLER - QUICK RESPONSE	11.2	212° F	BRASS	TYCO	ELO-231FRB	TY5111	0
◉	PENDENT SPRINKLER CONCEALED - QUICK RESPONSE	5.6	165° F	WHITE	TYCO	TY-FRB	TY3231	0
▷	HORIZONTAL SIDE WALL SPRINKLER - QUICK RESPONSE	5.6	200° F	BRASS	TYCO	TY-FRB	TY3331	1
∅	UPRIGHT SPRINKLER - QUICK RESPONSE	5.6	165° F	BRASS	TYCO	TY-FRB	TY3131	6
								0
	HEAD CAB'T & WRENCH(ES) PROVIDED					TOTAL COUNT THIS BUILDING =		102

NOTES: WHERE SPRINKLERS ARE EXPOSED TO ATMOSPHERIC CONDITIONS PROVIDE CORROSION PROTECTION.
WHERE SURFACE MOUNTED LIGHTS OCCUR, INSTALL 401 CANOPY TYPE.



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 101
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191039-000

Los Angeles World Airports

QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/8" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

SHEET TITLE:

BLDG A QTA LEVEL 0 SPRINKLER PIPING PLAN

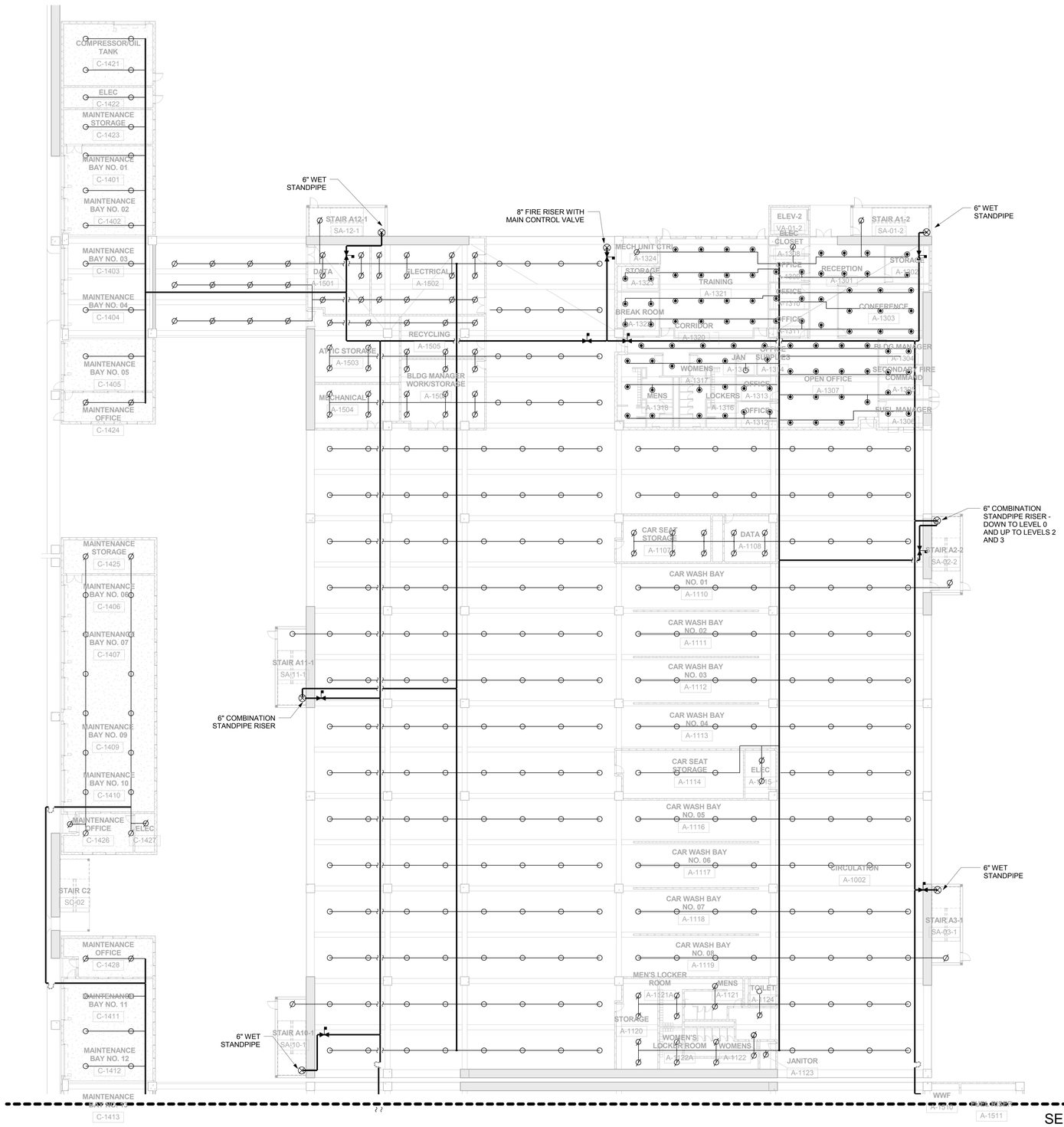
SHEET NO.

2-FP-101

D:\REVIT Projects\191039 LAX CarRAC\Working Files\Revit\Fire Protection\FP DA4881 BLDG_A_B R15.rvt

8/21/2018 6:30:22 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 1 SPRINKLER PIPING PLAN - NORTH

1/16" = 1'-0"

1/8" = 1'

0 8 16 24

N

SYMBOL LEGEND	
⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION

SPRINKLER SCHEDULE & LEGEND

SYMBOL	SPRINKLER DESCRIPTION	K-FACTOR	TEMP.	FINISH	MAKE	MODEL	SIN	QUANTITY
○	UPRIGHT EXTENDED COVERAGE SPRINKLER - STANDARD RESPONSE - MAX 16' X 16'	11.2	200° F	BRASS	TYCO	EC-11	TY5231	269
⊠	UPRIGHT SPRINKLER - QUICK RESPONSE	11.2	212° F	BRASS	TYCO	ELO-231FRB	TY5111	0
◉	PENDENT SPRINKLER CONCEALED - QUICK RESPONSE	5.6	165° F	WHITE	TYCO	TY-FRB	TY3231	93
▷	HORIZONTAL SIDE WALL SPRINKLER - QUICK RESPONSE	5.6	200° F	BRASS	TYCO	TY-FRB	TY3331	0
∅	UPRIGHT SPRINKLER - QUICK RESPONSE	5.6	165° F	BRASS	TYCO	TY-FRB	TY3131	100
								0
	HEAD CAB'T & WRENCH(ES) PROVIDED					TOTAL COUNT THIS SHEET =		462

NOTES: WHERE SPRINKLERS ARE EXPOSED TO ATMOSPHERIC CONDITIONS PROVIDE CORROSION PROTECTION.
WHERE SURFACE MOUNTED LIGHTS OCCUR, INSTALL 401 CANOPY TYPE.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 120
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191026-000

NOT FOR CONSTRUCTION

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS: MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 1 SPRINKLER PIPING PLAN NORTH

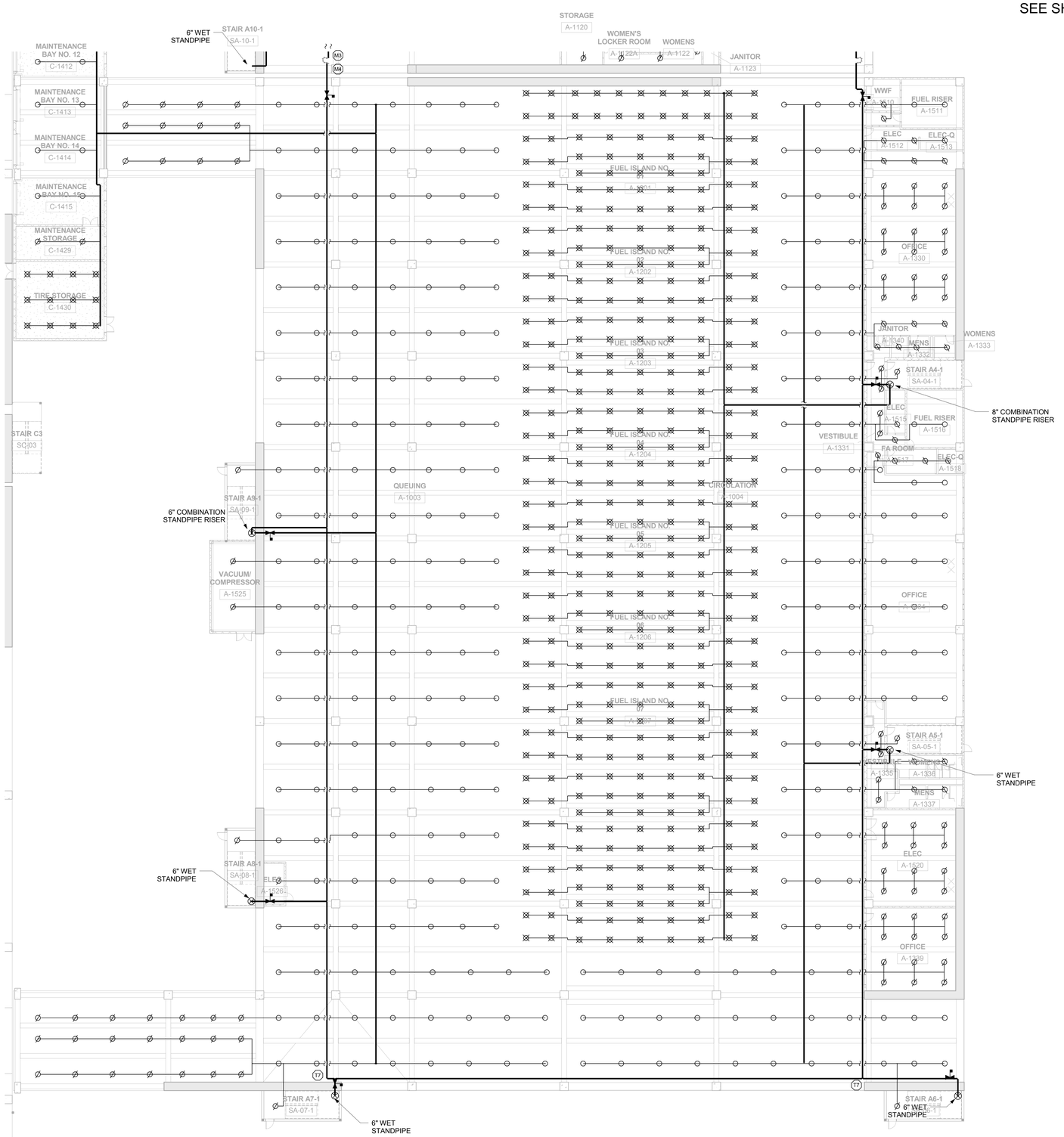
SHEET NO.
2-FP-111

D:\REVIT Projects\1915036 LAX ConRAC\Working Files\Revit\Fire Protection\FP-DA4881 BLDG_A_B-R15.rvt
9/21/2016 6:30:26 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

MATCHLINE

SEE SHEET 2-FP-111



SYMBOL LEGEND	
⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION

SPRINKLER SCHEDULE & LEGEND

SYMBOL	SPRINKLER DESCRIPTION	K-FACTOR	TEMP.	FINISH	MAKE	MODEL	SIN	QUANTITY
○	UPRIGHT EXTENDED COVERAGE SPRINKLER - STANDARD RESPONSE - MAX 16' X 16'	11.2	200° F	BRASS	TYCO	EC-11	TY5231	273
⊠	UPRIGHT SPRINKLER - QUICK RESPONSE	11.2	212° F	BRASS	TYCO	ELO-231FRB	TY5111	403
◉	PENDENT SPRINKLER CONCEALED - QUICK RESPONSE	5.6	165° F	WHITE	TYCO	TY-FRB	TY3231	0
▷	HORIZONTAL SIDE WALL SPRINKLER - QUICK RESPONSE	5.6	200° F	BRASS	TYCO	TY-FRB	TY3331	0
∅	UPRIGHT SPRINKLER - QUICK RESPONSE	5.6	165° F	BRASS	TYCO	TY-FRB	TY3131	123
								0
	HEAD CABT & WRENCH(ES) PROVIDED					TOTAL COUNT THIS BUILDING =		799

NOTES: WHERE SPRINKLERS ARE EXPOSED TO ATMOSPHERIC CONDITIONS PROVIDE CORROSION PROTECTION.
WHERE SURFACE MOUNTED LIGHTS OCCUR, INSTALL 401 CANOPY TYPE.

1 BUILDING A - QTA - LEVEL 1 SPRINKLER PIPING PLAN - SOUTH

1/16" = 1'-0"

1/8" = 1'

0 8 16 24

N

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

D:\REVIT Projects\181803B LAX ConRAC\Working Files\Revit\Fire Protection\FP-DA4881 BLDG_A_B R15.rvt

8/21/2018 6:30:29 PM

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 120
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 181039.000

Los Angeles World Airports
QTA 30% SUBMITTAL
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:

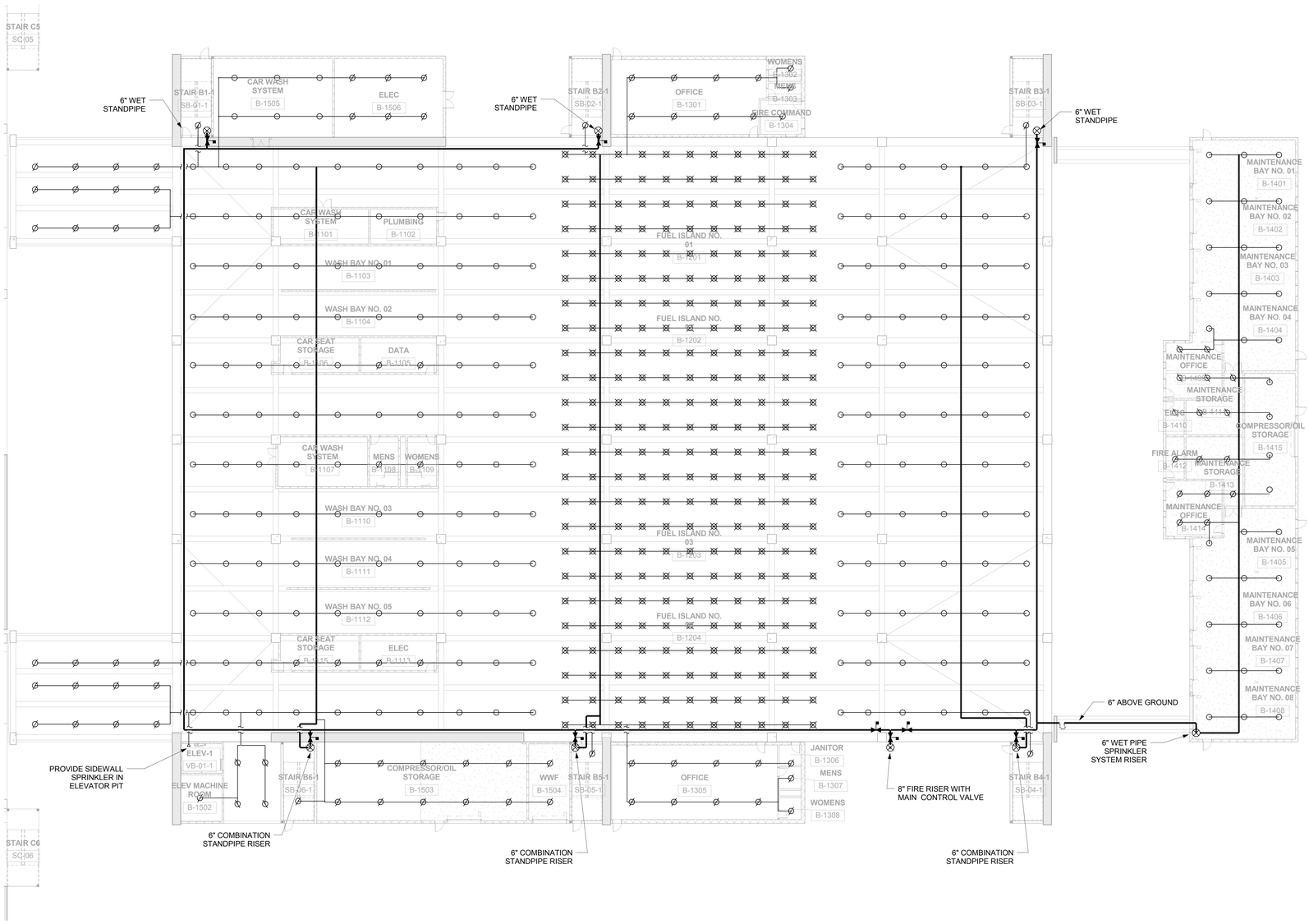
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 1 SPRINKLER PIPING PLAN SOUTH

SHEET NO.
2-FP-112

SYMBOL LEGEND	
⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION



1 BUILDING B - QTA - LEVEL 1 SPRINKLER PIPING PLAN

1/16" = 1'-0"

N

1/8" = 1'

0 8 16 24

SPRINKLER SCHEDULE & LEGEND

SYMBOL	SPRINKLER DESCRIPTION	K-FACTOR	TEMP.	FINISH	MAKE	MODEL	SIN	QUANTITY
○	UPRIGHT EXTENDED COVERAGE SPRINKLER - STANDARD RESPONSE - MAX 16' X 16'	11.2	200° F	BRASS	TYCO	EC-11	TY5231	224
⊠	UPRIGHT SPRINKLER - QUICK RESPONSE	11.2	212° F	BRASS	TYCO	ELO-231FRB	TY5111	264
◉	PENDENT SPRINKLER CONCEALED - QUICK RESPONSE	5.6	165° F	WHITE	TYCO	TY-FRB	TY3231	0
▷	HORIZONTAL SIDE WALL SPRINKLER - QUICK RESPONSE	5.6	200° F	BRASS	TYCO	TY-FRB	TY3331	1
∅	UPRIGHT SPRINKLER - QUICK RESPONSE	5.6	165° F	BRASS	TYCO	TY-FRB	TY3131	99
								0
	HEAD CAB'T & WRENCH(ES) PROVIDED					TOTAL COUNT THIS BUILDING =		588

NOTES: WHERE SPRINKLERS ARE EXPOSED TO ATMOSPHERIC CONDITIONS PROVIDE CORROSION PROTECTION.
WHERE SURFACE MOUNTED LIGHTS OCCUR, INSTALL 401 CANOPY TYPE.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 110
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191039-000

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

SHEET TITLE:

BLDG B QTA LEVEL 1 SPRINKLER PIPING PLAN

SHEET NO.

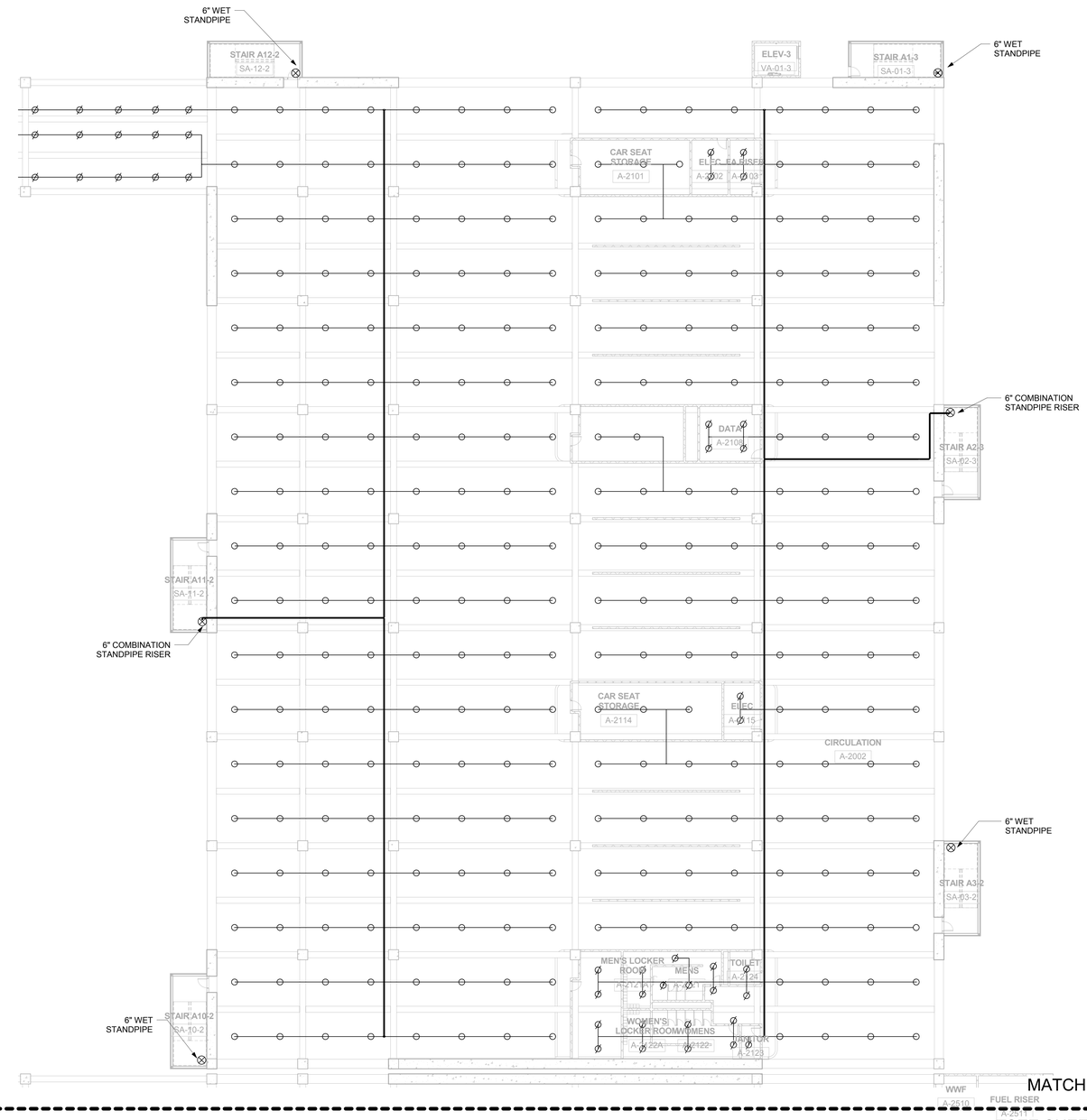
2-FP-113

D:\REVIT Projects\191039 LAX Con\RAC\Working Files\Revit\Fire Protection\FP-DA4881 BLDG_A_B-R15.rvt

8/21/2018 6:30:32 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

SYMBOL LEGEND	
⊗	SPRINKLER RISER
	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION



1 BUILDING A - QTA - LEVEL 2 SPRINKLER PIPING PLAN - NORTH

1/16" = 1'-0"

N

1/8" = 1'

0 8 16 24

SPRINKLER SCHEDULE & LEGEND								
SYMBOL	SPRINKLER DESCRIPTION	K-FACTOR	TEMP.	FINISH	MAKE	MODEL	SIN	QUANTITY
○	UPRIGHT EXTENDED COVERAGE SPRINKLER - STANDARD RESPONSE - MAX 16' X 16'	11.2	200° F	BRASS	TYCO	EC-11	TY5231	276
⊠	UPRIGHT SPRINKLER - QUICK RESPONSE	11.2	212° F	BRASS	TYCO	ELO-231FRB	TY5111	0
◉	PENDENT SPRINKLER CONCEALED - QUICK RESPONSE	5.6	165° F	WHITE	TYCO	TY-FRB	TY3231	0
▷	HORIZONTAL SIDE WALL SPRINKLER - QUICK RESPONSE	5.6	200° F	BRASS	TYCO	TY-FRB	TY3331	0
∅	UPRIGHT SPRINKLER - QUICK RESPONSE	5.6	165° F	BRASS	TYCO	TY-FRB	TY3131	45
								0
	HEAD CABT & WRENCH(ES) PROVIDED					TOTAL COUNT THIS BUILDING =		321

NOTES: WHERE SPRINKLERS ARE EXPOSED TO ATMOSPHERIC CONDITIONS PROVIDE CORROSION PROTECTION.
WHERE SURFACE MOUNTED LIGHTS OCCUR, INSTALL 401 CANOPY TYPE.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 101
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191039-000

Los Angeles World Airports

QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

SHEET TITLE:

BLDG A QTA LEVEL 2 SPRINKLER PIPING PLAN NORTH

SHEET NO.

2-FP-121

D:\REVIT Projects\191039\LAX Con\RAC\Working Files\Revit\Fire Protection\FP-DA4881 BLDG_A_B R15.rvt

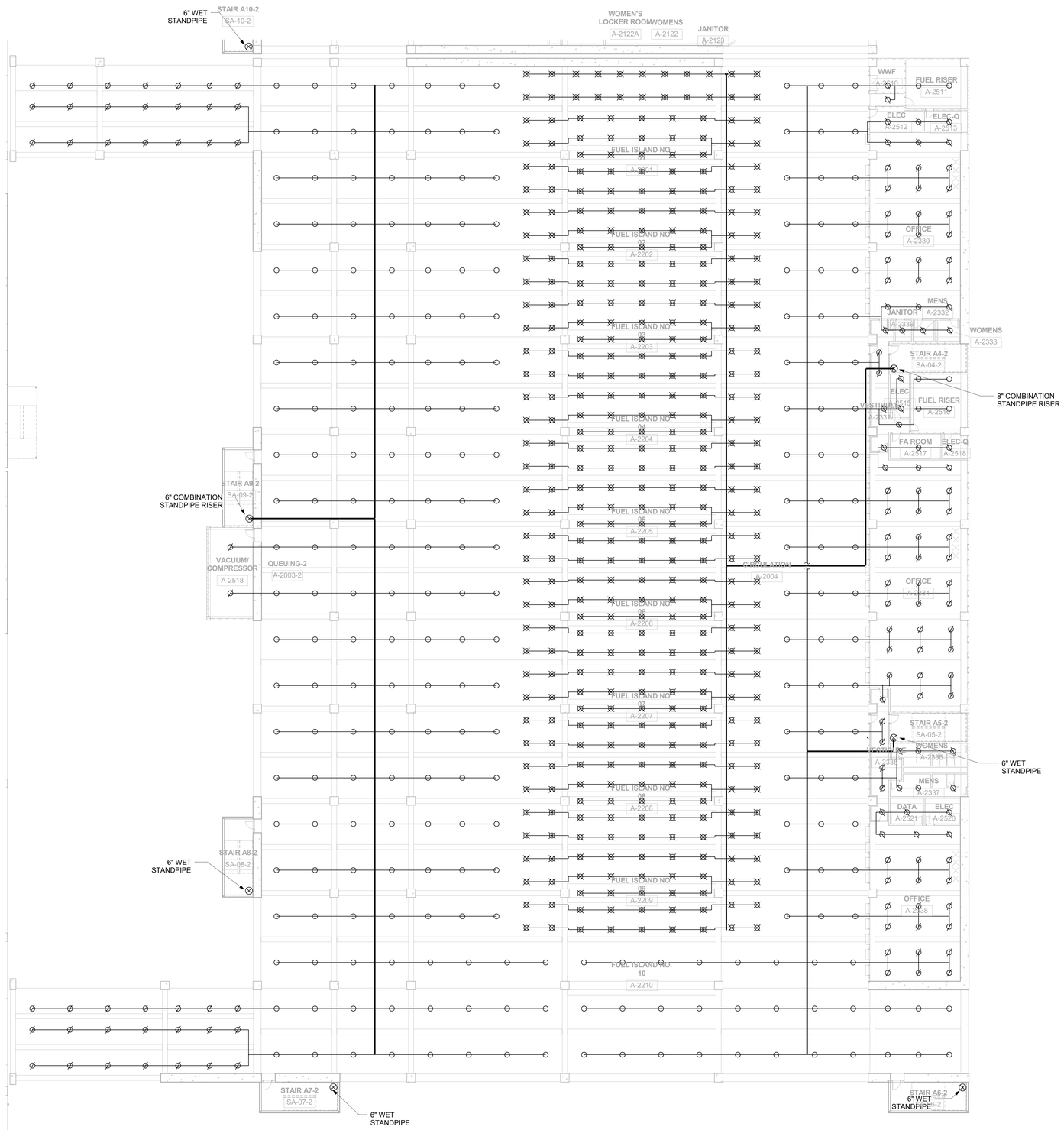
9/21/2016 6:30:33 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

MATCHLINE

SEE SHEET 2-FP-121

SYMBOL LEGEND	
⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION



1 BUILDING A - QTA - LEVEL 2 SPRINKLER PIPING PLAN - SOUTH

1/16" = 1'-0"

N

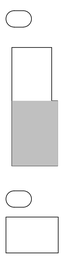
1/8" = 1'

0 8 16 24

SPRINKLER SCHEDULE & LEGEND

SYMBOL	SPRINKLER DESCRIPTION	K-FACTOR	TEMP.	FINISH	MAKE	MODEL	SIN	QUANTITY
○	UPRIGHT EXTENDED COVERAGE SPRINKLER - STANDARD RESPONSE - MAX 16' X 16'	11.2	200° F	BRASS	TYCO	EC-11	TY5231	250
⊠	UPRIGHT SPRINKLER - QUICK RESPONSE	11.2	212° F	BRASS	TYCO	ELO-231FRB	TY5111	391
◉	PENDENT SPRINKLER CONCEALED - QUICK RESPONSE	5.6	165° F	WHITE	TYCO	TY-FRB	TY3231	0
▷	HORIZONTAL SIDE WALL SPRINKLER - QUICK RESPONSE	5.6	200° F	BRASS	TYCO	TY-FRB	TY3331	0
∅	UPRIGHT SPRINKLER - QUICK RESPONSE	5.6	165° F	BRASS	TYCO	TY-FRB	TY3131	153
								0
	HEAD CABT & WRENCH(ES) PROVIDED						TOTAL COUNT THIS BUILDING =	794

NOTES: WHERE SPRINKLERS ARE EXPOSED TO ATMOSPHERIC CONDITIONS PROVIDE CORROSION PROTECTION.
WHERE SURFACE MOUNTED LIGHTS OCCUR, INSTALL 401 CANOPY TYPE.



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 101
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191035-000

Los Angeles World Airports

QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:	DESCRIPTION	DATE	MARK

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

SHEET TITLE:

BLDG A QTA LEVEL 2 SPRINKLER PIPING PLAN SOUTH

SHEET NO.

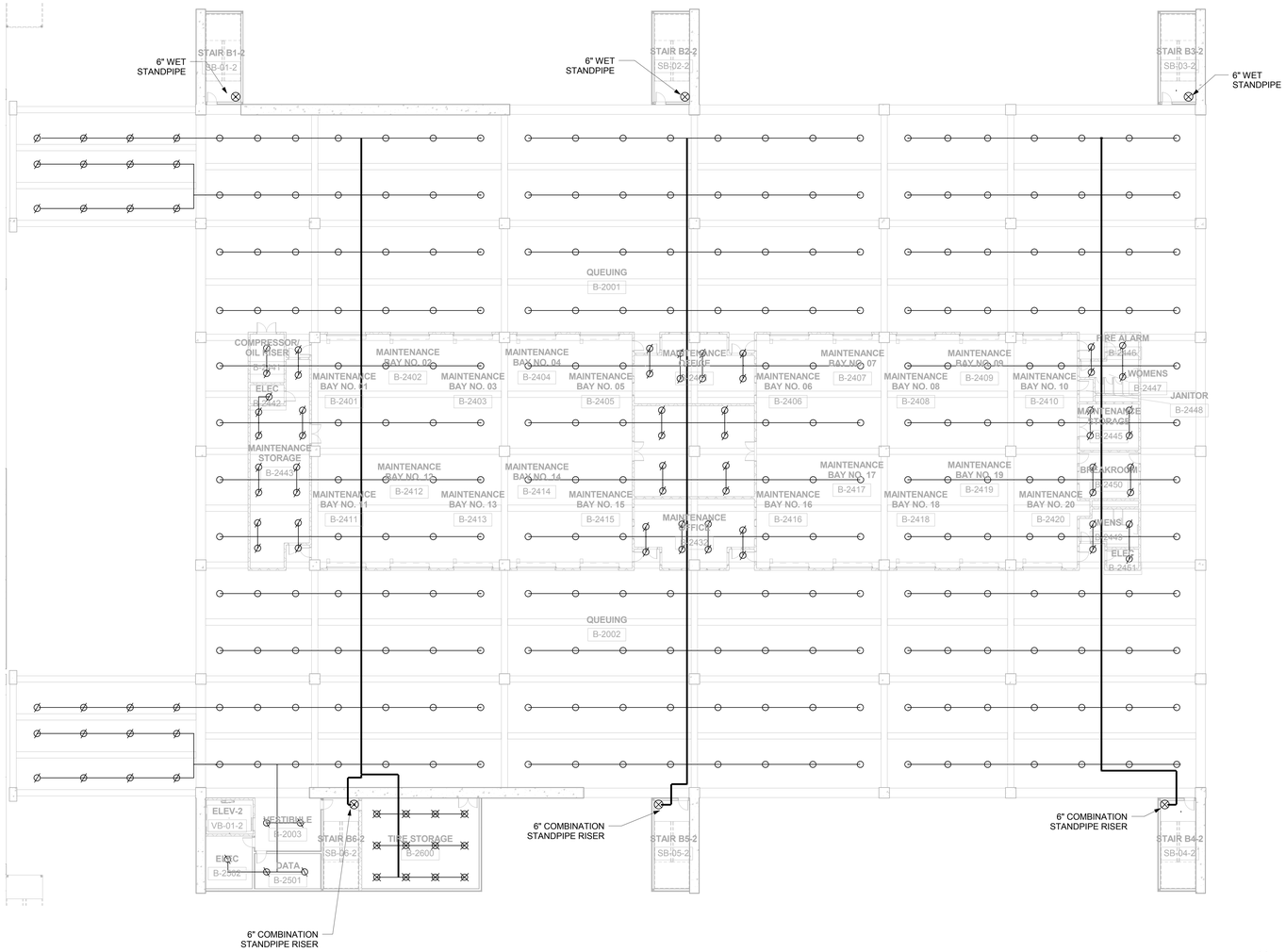
2-FP-122

D:\REVIT Projects\191035\LAX Con\RAC\Working Files\Revit\Fire Protection\FP-DA4881 BLDG_A_B-R15.rvt

9/21/2016 8:30:38 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

SYMBOL LEGEND	
⊗	SPRINKLER RISER
	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION



1 BUILDING B - QTA - LEVEL 2 SPRINKLER PIPING PLAN

1/16" = 1'-0"

N

1/8" = 1'

0 8 16 24

SPRINKLER SCHEDULE & LEGEND								
SYMBOL	SPRINKLER DESCRIPTION	K-FACTOR	TEMP.	FINISH	MAKE	MODEL	SIN	QUANTITY
○	UPRIGHT EXTENDED COVERAGE SPRINKLER - STANDARD RESPONSE - MAX 16' X 16'	11.2	200° F	BRASS	TYCO	EC-11	TY5231	244
⊠	UPRIGHT SPRINKLER - QUICK RESPONSE	11.2	212° F	BRASS	TYCO	ELO-231FRB	TY5111	0
◉	PENDENT SPRINKLER CONCEALED - QUICK RESPONSE	5.6	165° F	WHITE	TYCO	TY-FRB	TY3231	0
▷	HORIZONTAL SIDE WALL SPRINKLER - QUICK RESPONSE	5.6	200° F	BRASS	TYCO	TY-FRB	TY3331	0
∅	UPRIGHT SPRINKLER - QUICK RESPONSE	5.6	165° F	BRASS	TYCO	TY-FRB	TY3131	86
								0
	HEAD CAB'T & WRENCH(ES) PROVIDED					TOTAL COUNT THIS BUILDING =		330

NOTES: WHERE SPRINKLERS ARE EXPOSED TO ATMOSPHERIC CONDITIONS PROVIDE CORROSION PROTECTION.
WHERE SURFACE MOUNTED LIGHTS OCCUR, INSTALL 401 CANOPY TYPE.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 101
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191039-000

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DATE	DESCRIPTION	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

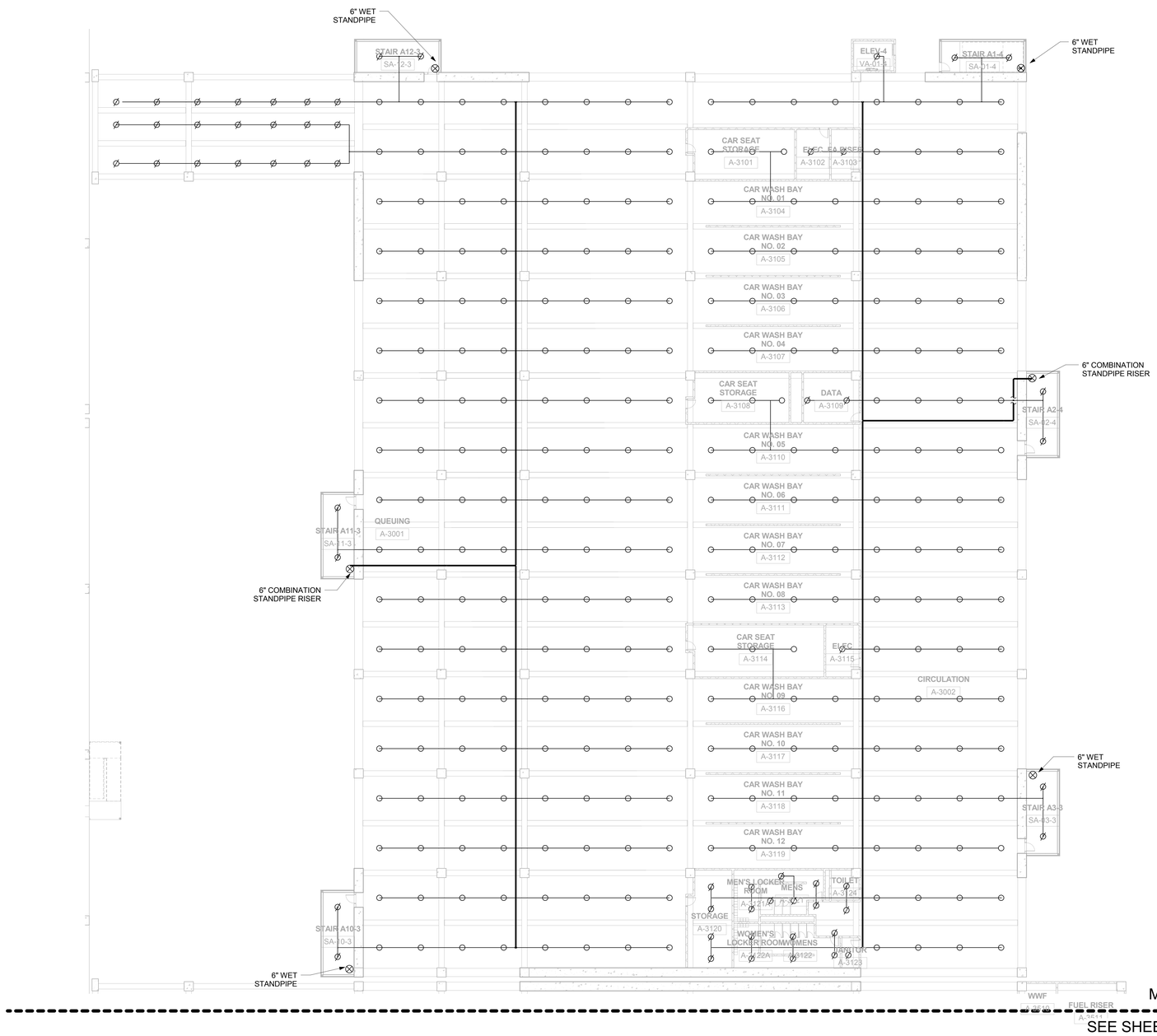
SHEET TITLE:
BLDG B QTA LEVEL 2 SPRINKLER PIPING PLAN

SHEET NO.
2-FP-123

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

9/21/2016 8:30:37 PM D:\REVIT Projects\191039\LAX Con\RAC\Working Files\Revit\Fire Protection\FP-DA4881-BLDG_A_B-R15.rvt

SYMBOL LEGEND	
⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION



1 BUILDING A - QTA - LEVEL 3 SPRINKLER PIPING PLAN - NORTH

1/16" = 1'-0"

N

1/8" = 1'

0 8 16 24

SPRINKLER SCHEDULE & LEGEND

SYMBOL	SPRINKLER DESCRIPTION	K-FACTOR	TEMP.	FINISH	MAKE	MODEL	SIN	QUANTITY
○	UPRIGHT EXTENDED COVERAGE SPRINKLER - STANDARD RESPONSE - MAX 16' X 16'	11.2	200° F	BRASS	TYCO	EC-11	TY5231	277
⊠	UPRIGHT SPRINKLER - QUICK RESPONSE	11.2	212° F	BRASS	TYCO	ELO-231FRB	TY5111	0
◉	PENDENT SPRINKLER CONCEALED - QUICK RESPONSE	5.6	165° F	WHITE	TYCO	TY-FRB	TY3231	0
▷	HORIZONTAL SIDE WALL SPRINKLER - QUICK RESPONSE	5.6	200° F	BRASS	TYCO	TY-FRB	TY3331	0
⌀	UPRIGHT SPRINKLER - QUICK RESPONSE	5.6	165° F	BRASS	TYCO	TY-FRB	TY3131	59
								0
	HEAD CABT & WRENCH(ES) PROVIDED						TOTAL COUNT THIS BUILDING =	336

NOTES: WHERE SPRINKLERS ARE EXPOSED TO ATMOSPHERIC CONDITIONS PROVIDE CORROSION PROTECTION.
WHERE SURFACE MOUNTED LIGHTS OCCUR, INSTALL 401 CANOPY TYPE.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 151
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191039-000

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 3 SPRINKLER PIPING PLAN NORTH

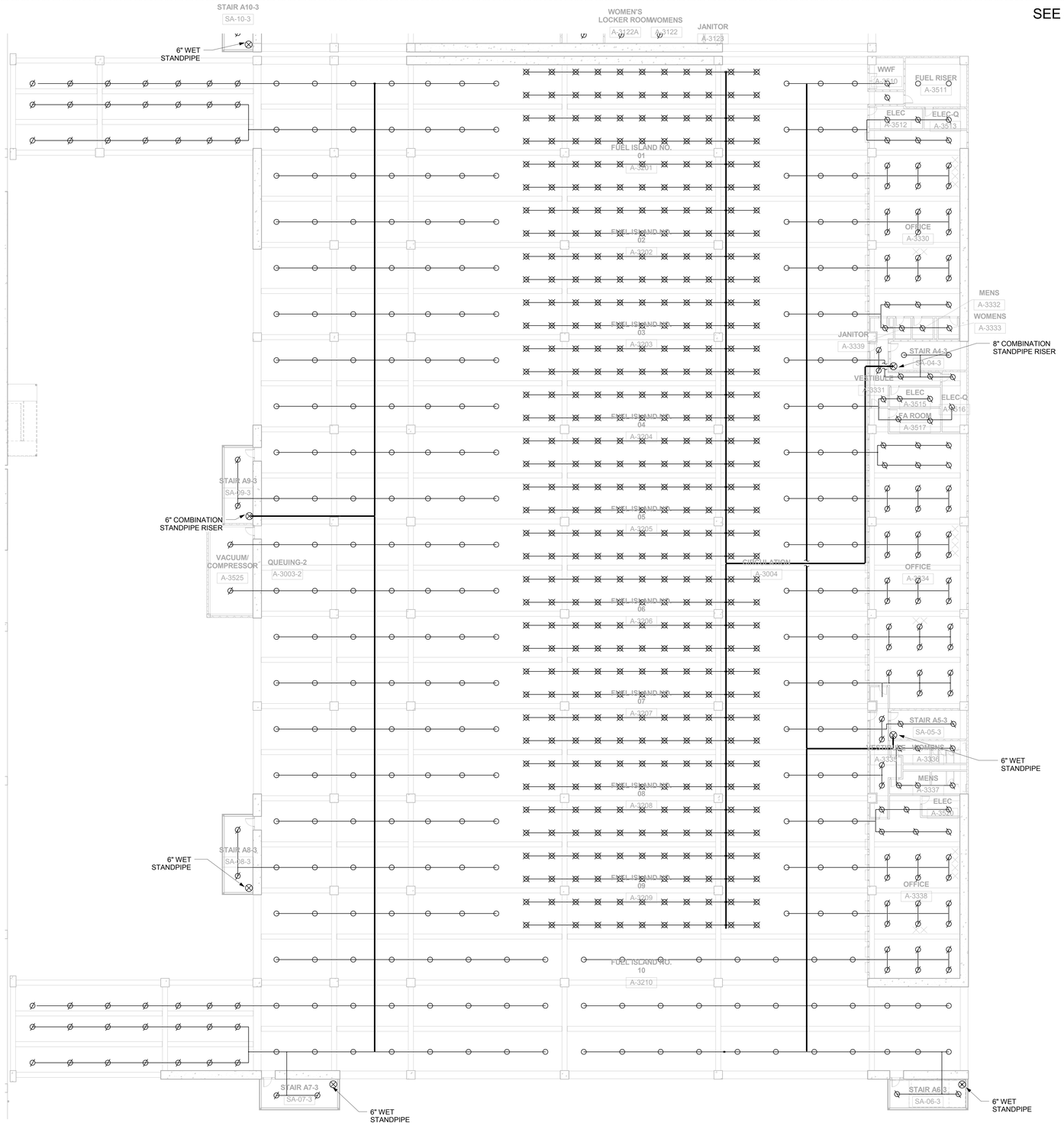
SHEET NO.
2-FP-131

D:\REVIT Projects\191039 LAX ConRAC\Working Files\Revit\Fire Protection\FP-DA4881-BLDG_A_B-R15.rvt
9/21/2016 6:30:39 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

MATCHLINE

SEE SHEET 2-FP-131



1 BUILDING A - QTA - LEVEL 3 SPRINKLER PIPING PLAN - SOUTH

1/16" = 1'-0"

N

1/8" = 1'

0 8 16 24

SYMBOL LEGEND	
⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION

SPRINKLER SCHEDULE & LEGEND

SYMBOL	SPRINKLER DESCRIPTION	K-FACTOR	TEMP.	FINISH	MAKE	MODEL	SIN	QUANTITY
○	UPRIGHT EXTENDED COVERAGE SPRINKLER - STANDARD RESPONSE - MAX 16' X 16'	11.2	200° F	BRASS	TYCO	EC-11	TY5231	248
⊠	UPRIGHT SPRINKLER - QUICK RESPONSE	11.2	212° F	BRASS	TYCO	ELO-231FRB	TY5111	418
◉	PENDENT SPRINKLER CONCEALED - QUICK RESPONSE	5.6	165° F	WHITE	TYCO	TY-FRB	TY3231	0
▷	HORIZONTAL SIDE WALL SPRINKLER - QUICK RESPONSE	5.6	200° F	BRASS	TYCO	TY-FRB	TY3331	0
∅	UPRIGHT SPRINKLER - QUICK RESPONSE	5.6	165° F	BRASS	TYCO	TY-FRB	TY3131	171
								0
	HEAD CABT & WRENCH(ES) PROVIDED						TOTAL COUNT THIS BUILDING =	837

NOTES: WHERE SPRINKLERS ARE EXPOSED TO ATMOSPHERIC CONDITIONS PROVIDE CORROSION PROTECTION.
WHERE SURFACE MOUNTED LIGHTS OCCUR, INSTALL 401 CANOPY TYPE.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 101
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191039-000

Los Angeles World Airports

QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY

CHIEF AIRPORTS ENGINEER

ONT LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

SHEET TITLE:

BLDG A QTA LEVEL 3 SPRINKLER PIPING PLAN SOUTH

SHEET NO.

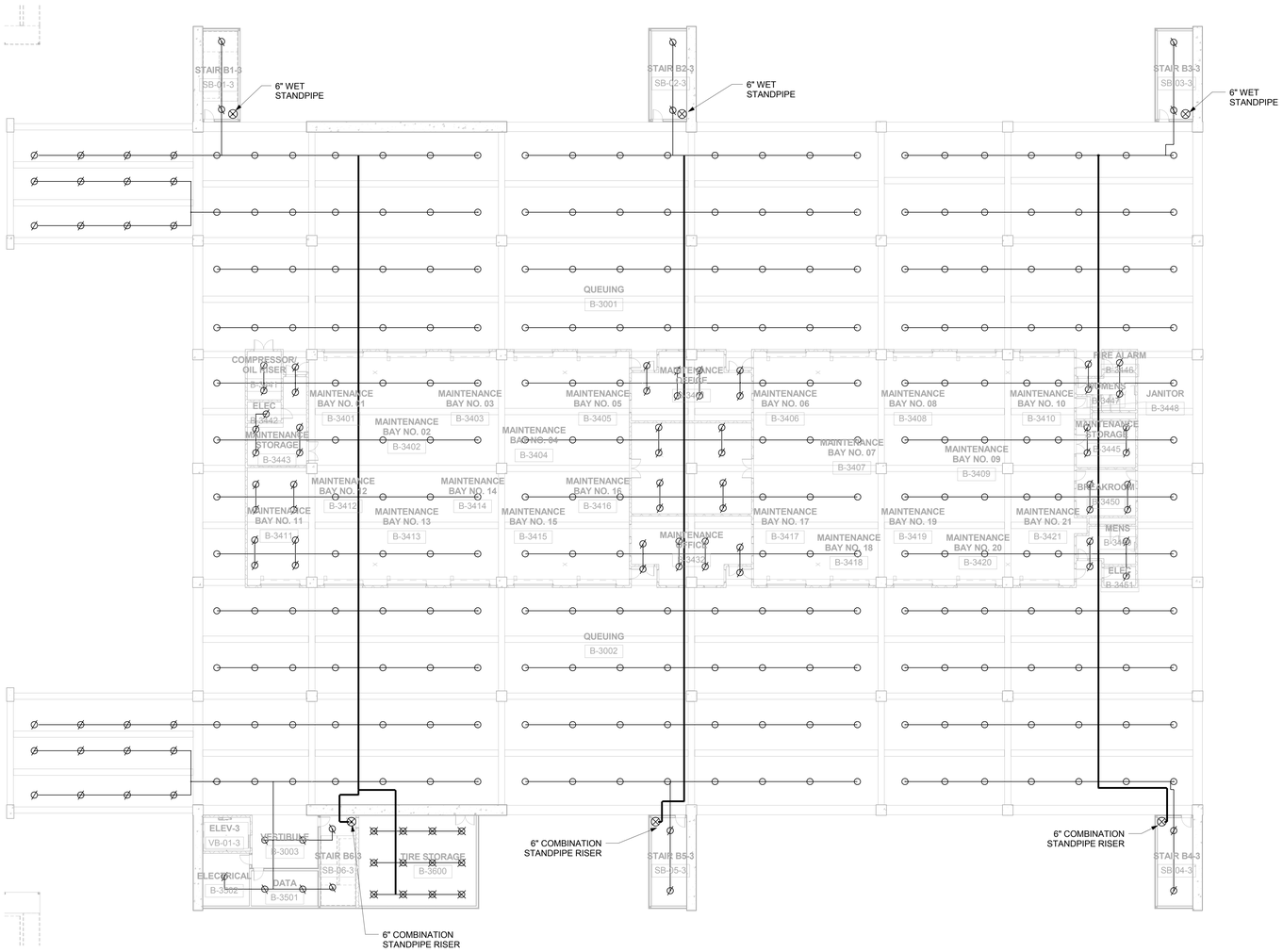
2-FP-132

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

D:\REVIT Projects\191503\8 LAX Con\RAC\Working Files\Revit\Fire Protection\FP-DA4881-BLDG_A_B-R15.rvt

9/21/2016 8:30:42 PM

SYMBOL LEGEND	
⊗	SPRINKLER RISER
∩	PIPE UP / DOWN
	FIRE HYDRANT
	SEISMIC SEPARATION ASSEMBLY
	2-HOUR FIRE RATED CONSTRUCTION
	BUTTERFLY VALVE
	2 - 2 1/2" HOSE CONNECTION
	4 - 2 1/2" FIRE DEPARTMENT CONNECTION



1 BUILDING B - QTA - LEVEL 3 SPRINKLER PIPING PLAN

1/16" = 1'-0"

N

SPRINKLER SCHEDULE & LEGEND								
SYMBOL	SPRINKLER DESCRIPTION	K-FACTOR	TEMP.	FINISH	MAKE	MODEL	SIN	QUANTITY
○	UPRIGHT EXTENDED COVERAGE SPRINKLER - STANDARD RESPONSE - MAX 16' X 16'	11.2	200° F	BRASS	TYCO	EC-11	TY5231	244
⊠	UPRIGHT SPRINKLER - QUICK RESPONSE	11.2	212° F	BRASS	TYCO	ELO-231FRB	TY5111	0
◉	PENDENT SPRINKLER CONCEALED - QUICK RESPONSE	5.6	165° F	WHITE	TYCO	TY-FRB	TY3231	0
▷	HORIZONTAL SIDE WALL SPRINKLER - QUICK RESPONSE	5.6	200° F	BRASS	TYCO	TY-FRB	TY3331	0
∅	UPRIGHT SPRINKLER - QUICK RESPONSE	5.6	165° F	BRASS	TYCO	TY-FRB	TY3131	98
								0
	HEAD CABT & WRENCH(ES) PROVIDED					TOTAL COUNT THIS BUILDING =		342

NOTES: WHERE SPRINKLERS ARE EXPOSED TO ATMOSPHERIC CONDITIONS PROVIDE CORROSION PROTECTION.
WHERE SURFACE MOUNTED LIGHTS OCCUR, INSTALL 401 CANOPY TYPE.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 101
SAN DIEGO, CA 92128
+1 858.673.3345
WWW.JENSENHUGHES.COM
Project # 191035-000

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

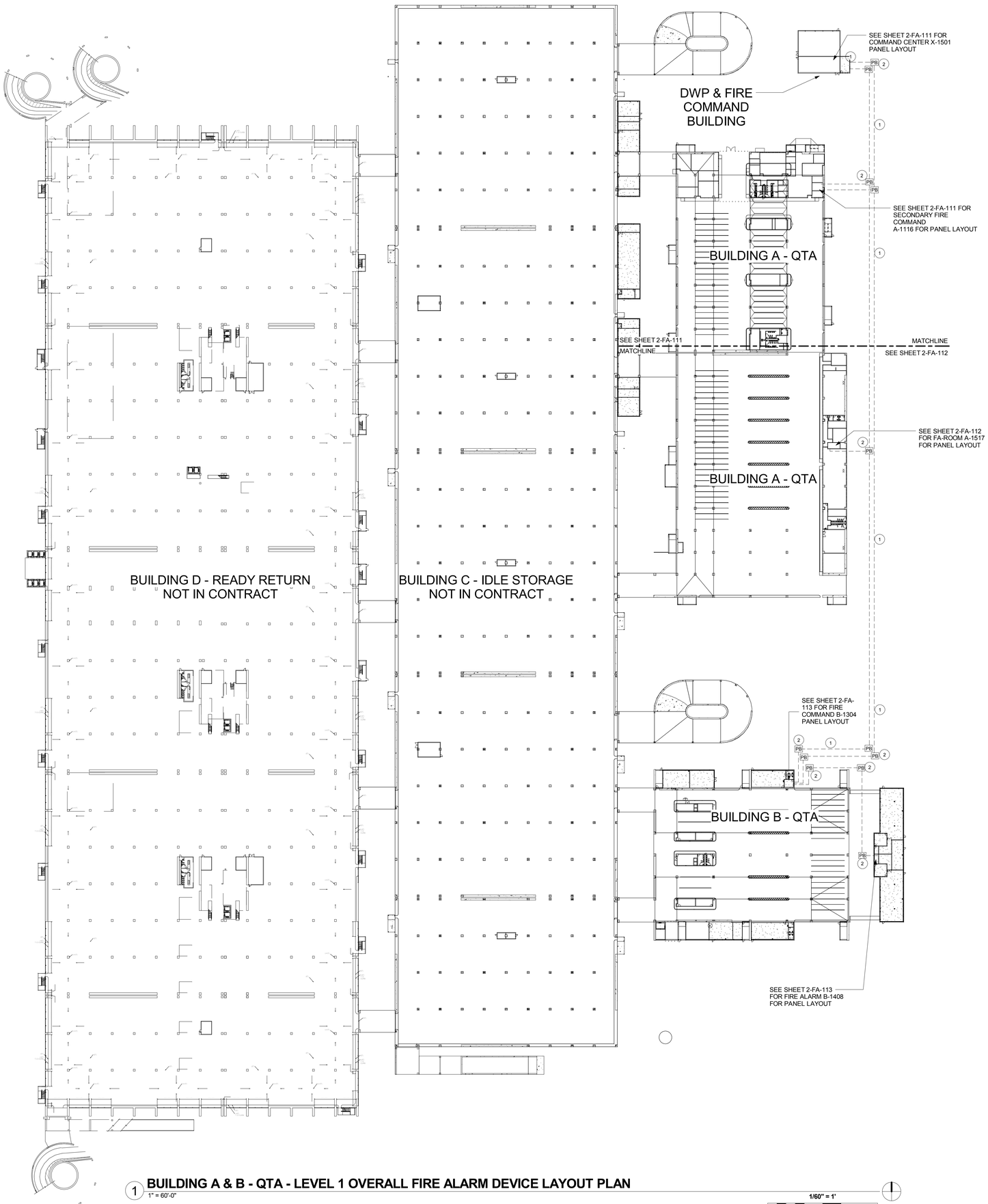
REVISIONS:		
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	BK
DRAWN BY:	BK
CHECKED BY:	QD

SHEET TITLE:
BLDG B QTA LEVEL 3 SPRINKLER PIPING PLAN

SHEET NO.
2-FP-133

9/21/2016 8:30:44 PM D:\REVIT Projects\191035\LAX Con\RAC\Working Files\Revit\Fire Protection\FP-DA4881 BLDG_A_B R15.rvt
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A & B - QTA - LEVEL 1 OVERALL FIRE ALARM DEVICE LAYOUT PLAN

1" = 60'-0"

1/60" = 1'

0 60 120 180

APPLICABLE CODES AND STANDARDS:

DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE FOLLOWING CODES:

CALIFORNIA BUILDING CODE (CBC), 2013 EDITION

CALIFORNIA FIRE CODE (CFC), 2013 EDITION

CALIFORNIA MECHANICAL CODE (CMC), 2013 EDITION

CALIFORNIA ELECTRICAL CODE (CEC), 2013 EDITION

NFPA 701 (NATIONAL ELECTRIC CODE), 2008 EDITION

NFPA 72 (NATIONAL FIRE ALARM CODE), 2013 EDITION

NFPA 2001 (NATIONAL FIRE PROTECTION ASSOCIATION), 2012 EDITION

2014 LOS ANGELES FIRE CODE

SCOPE OF WORK:

PROVIDE A NEW POINT-ADDRESSABLE MULTIPLEX FIRE ALARM SYSTEM TO THE LAX CONSOLIDATED RENTAL CAR FACILITY, QTA BUILDINGS A AND B AT THE LOS ANGLES INTERNATIONAL AIRPORT. THE WORK SHALL INCLUDE THE FOLLOWING:

1. INSTALL NEW POINT-ADDRESSABLE MULTIPLEX IRE ALARM CONTROL PANELS, MULTIPLEX TRANSPONDERS, INITATING DEVICES, NOTIFICATION APPLIANCES, SWITCHES, RELAYS, SOFTWARE AND ACCESSORIES.
2. INSTALL REQUIRED CONDUIT, WIRING, EQUIPMENT AND LABOR FOR A COMPLETE SYSTEM INSTALLATION.
3. INSTALL REQUIRED FIRESTOPPING OF ANY PENETRATIONS RELATED TO THE FIRE ALARM SYSTEM.

GENERAL NOTES:

THE INSTALLING FIRE ALARM CONTRACTOR SHALL PROVIDE:

1. DETAILED SHOP DRAWINGS INCLUDING CONTROL PANEL WIRING, BATTERY AND VOLTAGE DROP CALCULATIONS, SEQUENCE OF OPERATIONS, DEVICE WIRING DETAILS AND ANY OTHER COMPONETS NEEDED TO INSTALL A COMPLETE AND FUNCTIONAL SYSTEM.
2. COORDINATION OF THE WORK WITH OTHER TRADES FOR THIS PROJECT AND COORDINATION WITH ANY OTHER OWNER PROJECTS IN THE FACILITY ONGOING AT THE TIME OF THE FIRE ALARM CONTRACTOR'S WORK.
3. ON-SITE PROJECT SUPERVISION.
4. PERMITS, FEES, AND OTHER CHARGES REQUIED FOR THE WORK.
5. RECORD DOCUMENTRS, INCLUDING ELECTRONIC CAD DRAWINGS.
6. DETAILED AND CUSTOMIZED OPERATING AND MAINTENANCE INSTRUCTIONS.
7. TRAINNIG OF OWNER'S PERSONNEL.
8. OPERATIONAL GUIDELINES.
9. SYSTEM PRE-TESTING AND FINAL TESTING.
10. WARRANTY OF EQUIPMENT AND LABOR.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
	MULTI CANDELA STROBE, WALL MOUNTED
	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW. ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

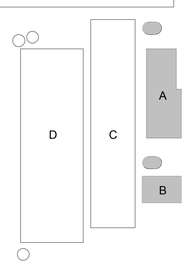
FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
– – – – – – – – – –	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.



KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 101
SAN DIEGO, CA 92128
+1 858.673.5845
WWW.JENSENHUGHES.COM
JH Project No.: 18150S.000

Los Angeles World Airports
QTA 30% SUBMITTAL
Los Angeles International Airport

LAX Consolidated Rental Car Facility

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:			DESCRIPTION
MARK	DATE		

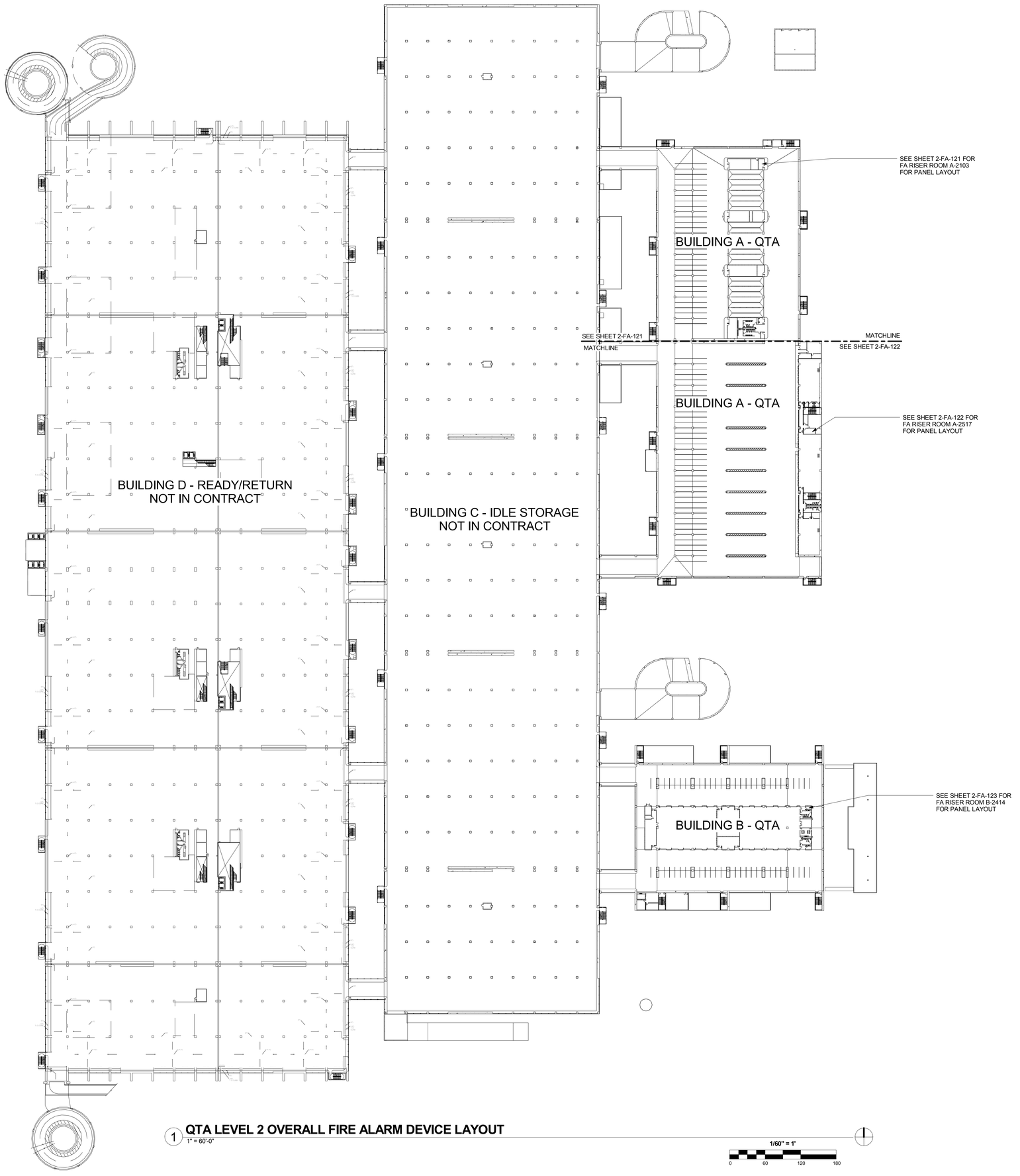
PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
QTA LEVEL 1 OVERALL FIRE ALARM DEVICE LAYOUT

SHEET NO.
2-FA-010

E:\Jobs\LAX Con\RAC\CAD\Working Files\Rev#\Fire Alarm\FA DA4881 BLDG_A_B-R15.rvt
9/21/2016 5:16:54 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 QTA LEVEL 2 OVERALL FIRE ALARM DEVICE LAYOUT

1" = 60'-0"

1/60" = 1'

0 60 120 180

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
#	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
#	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#	MULTI CANDELA STROBE, WALL MOUNTED
#	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING, MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT, MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
F	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WT	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW. ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
– – – – – – – – –	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 151
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM
JH Project No.: 18150S-000

Los Angeles World Airports
QTA 30% SUBMITTAL
Los Angeles International Airport

LAX Consolidated Rental Car Facility

APPROVED BY
CHIEF AIRPORTS ENGINEER
SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

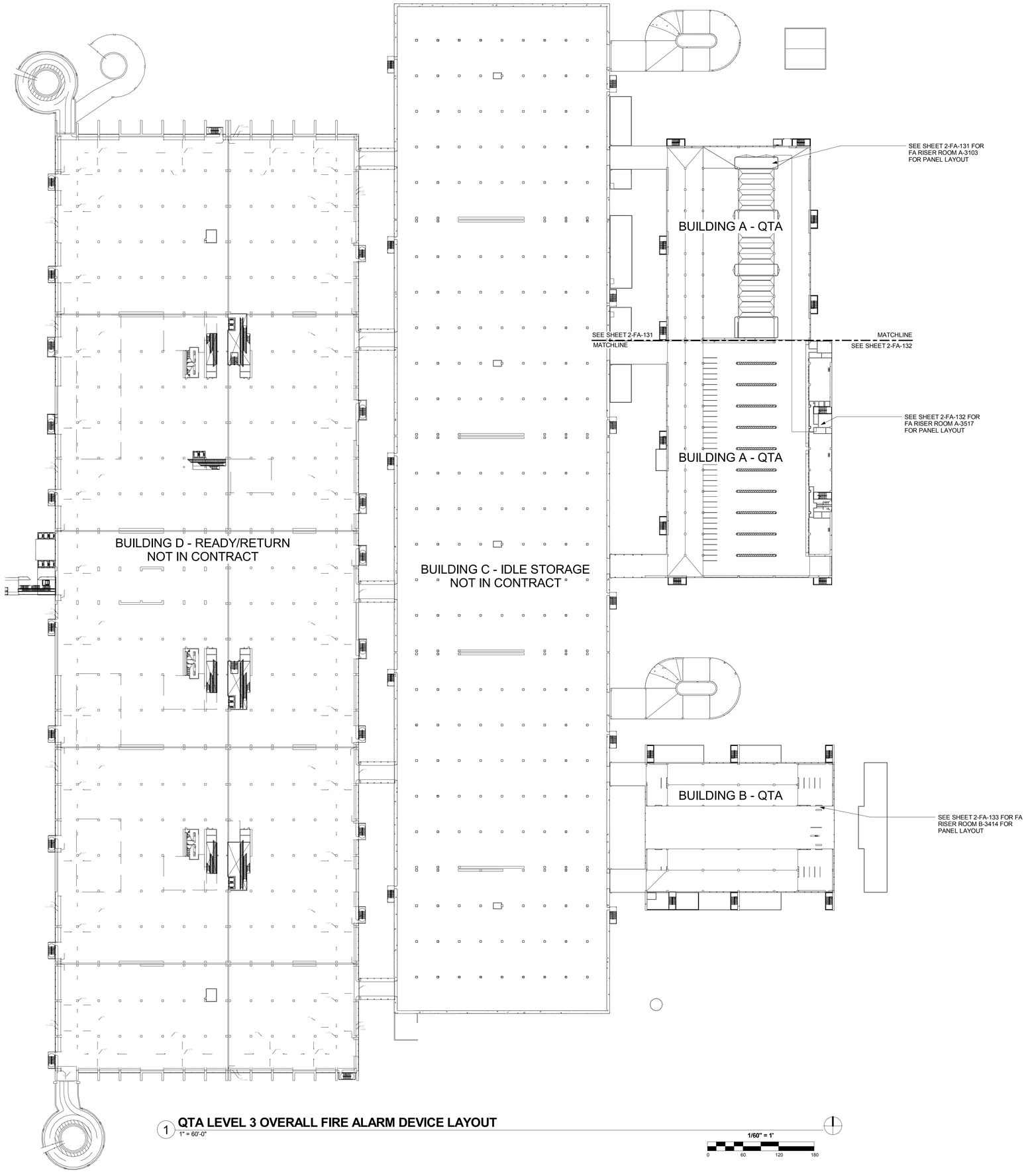
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
QTA LEVEL 2 OVERALL FIRE ALARM DEVICE LAYOUT

SHEET NO.
2-FA-020

E:\Jobs\LAX Cost\RAC\CAD\Working Files\Revit\Fire Alarm\FA-DA4881-BLDG_A_B-R15.rvt
9/21/2016 5:18:59 PM



1 **QTA LEVEL 3 OVERALL FIRE ALARM DEVICE LAYOUT**
1" = 60'-0"

1/60" = 1'
0 60 120 180

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
	MULTI CANDELA STROBE, WALL MOUNTED
	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW.
ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
- - - - - - - - - -	2" UNDERGROUND CONDUIT
———	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2150
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 151
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM
JH Project No.: 18150026.000

Los Angeles World Airports
QTA 30% SUBMITTAL
Los Angeles International Airport

LAX Consolidated Rental Car Facility

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

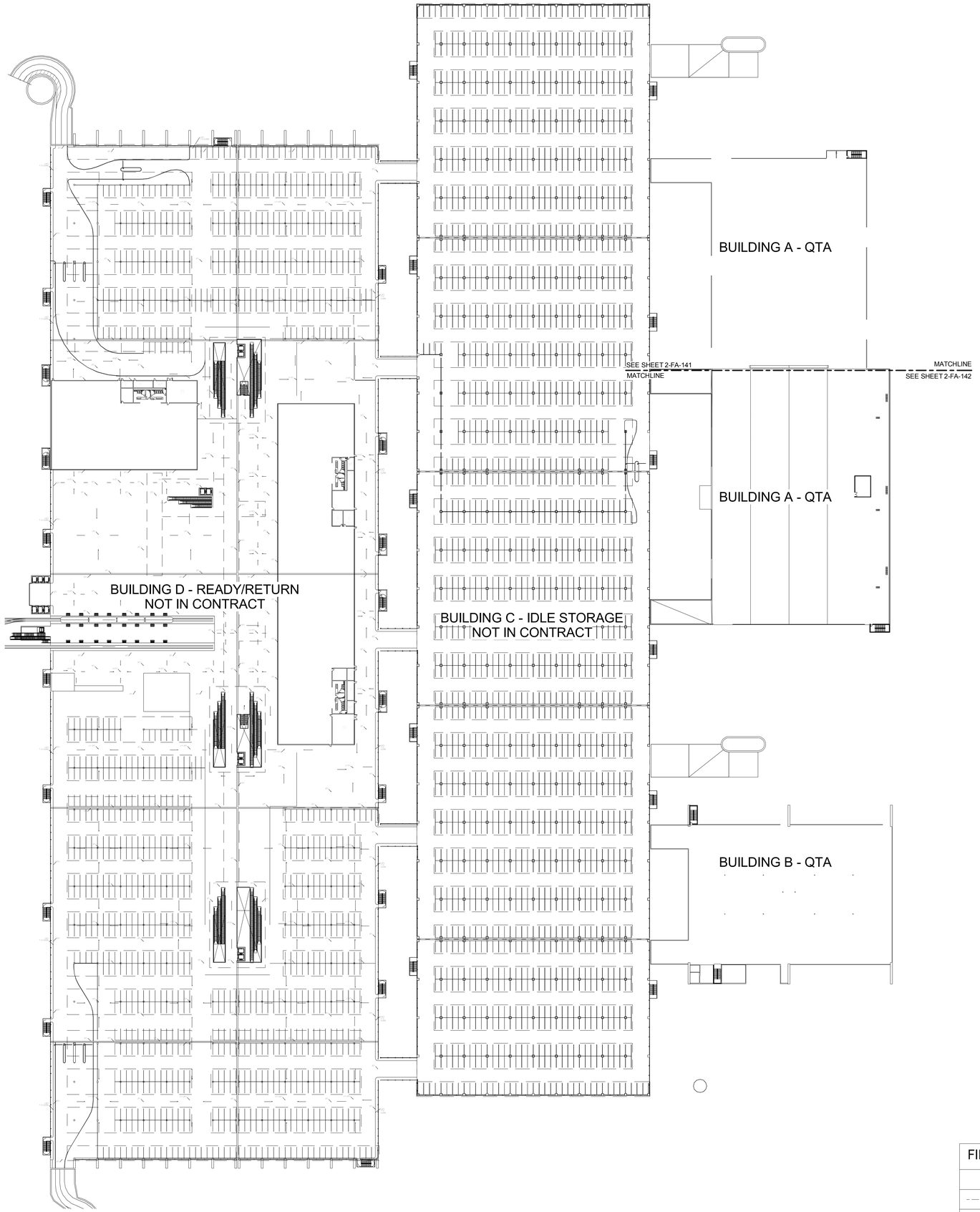
MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
QTA LEVEL 3 OVERALL FIRE ALARM DEVICE LAYOUT

SHEET NO.
2-FA-030

E:\Jobs\LAX Con\RAD\CAD\Working Files\Revit\Fire Alarm\FA-DA4881-RLDG_A_BR15.rvt
9/21/2016 5:17:03 PM
IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 QTA LEVEL 4 OVERALL FIRE ALARM DEVICE LAYOUT

1" = 60'-0"

1/60" = 1"

0 60 120 180

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
	MULTI CANDELA STROBE, WALL MOUNTED
	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING, MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT, MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW.
ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

FIRE ALARM KEY NOTES

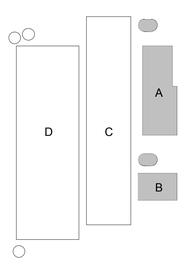
1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
- - - - - - - - - -	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

KEYPLAN



TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 101
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM

JH Project No.: 18150S6.000

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1" = 60'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
QTA LEVEL 4 OVERALL FIRE ALARM DEVICE LAYOUT

SHEET NO.
2-FA-040

E:\Jobs\LAX Cor\PAC\CAD\Working Files\Revit\Fire Alarm\FA-DA4881-BLDG_A_R15.rvt
9/21/2016 5:17:07 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
– – – – – – – – – –	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

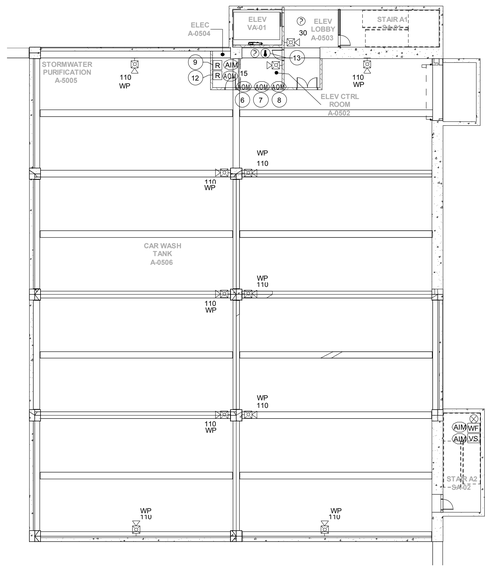
NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
#	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
#	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#	MULTI CANDELA STROBE, WALL MOUNTED
#	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW.
ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.



1 **BUILDING A - QTA - LEVEL 0 FIRE ALARM DEVICE LAYOUT PLAN**
1/16" = 1'-0"

1/16" = 1'
0 16 32 48

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 105
SAN DIEGO, CA 92128
+1 858.673.5845
WWW.JENSENHUGHES.COM
JH Project No.: 18150S.000

Los Angeles World Airports
QTA 30% SUBMITTAL
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

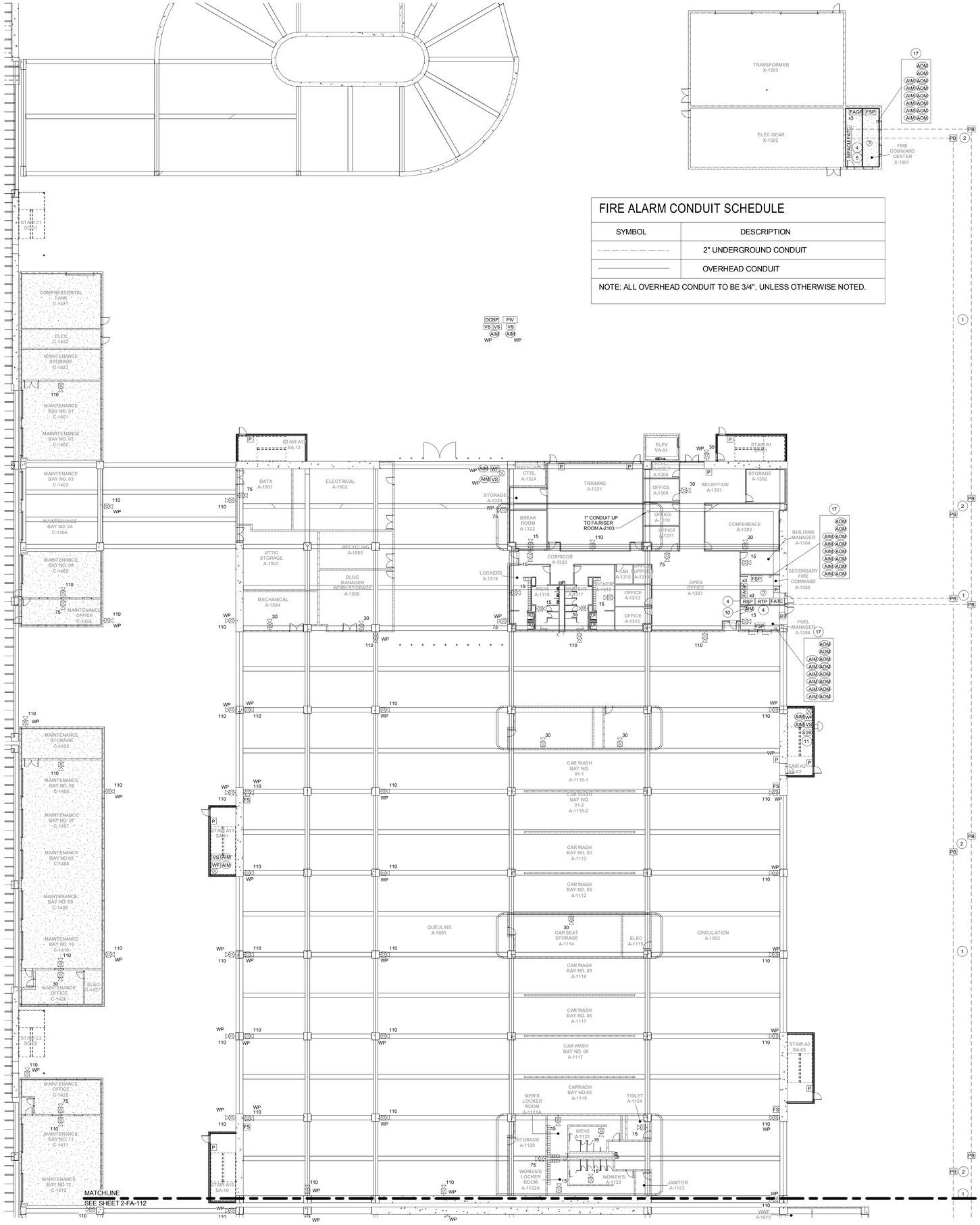
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 0 FIRE ALARM DEVICE LAYOUT

SHEET NO.
2-FA-101

E:\Jobs\LAX Con\PACC\ADs\Working Files\Revit\Fire Alarm\FA-DA4881-BLDG_A_QTA_L0_R15.rvt
02/1/2018 5:17:08 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
- - - - - - - - - -	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
#,	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
#	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#	MULTI CANDELA STROBE, WALL MOUNTED
#	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW. ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

1 **BUILDING A - QTA - LEVEL 1 FIRE ALARM DEVICE LAYOUT PLAN - NORTH**
1/16" = 1'-0"

1/16" = 1'
0 16 32 48

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 150
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM
JH Project No.: 18.10535.000

NOT FOR CONSTRUCTION

Los Angeles World Airports
QTA 30% SUBMITTAL
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONE LAX PMD

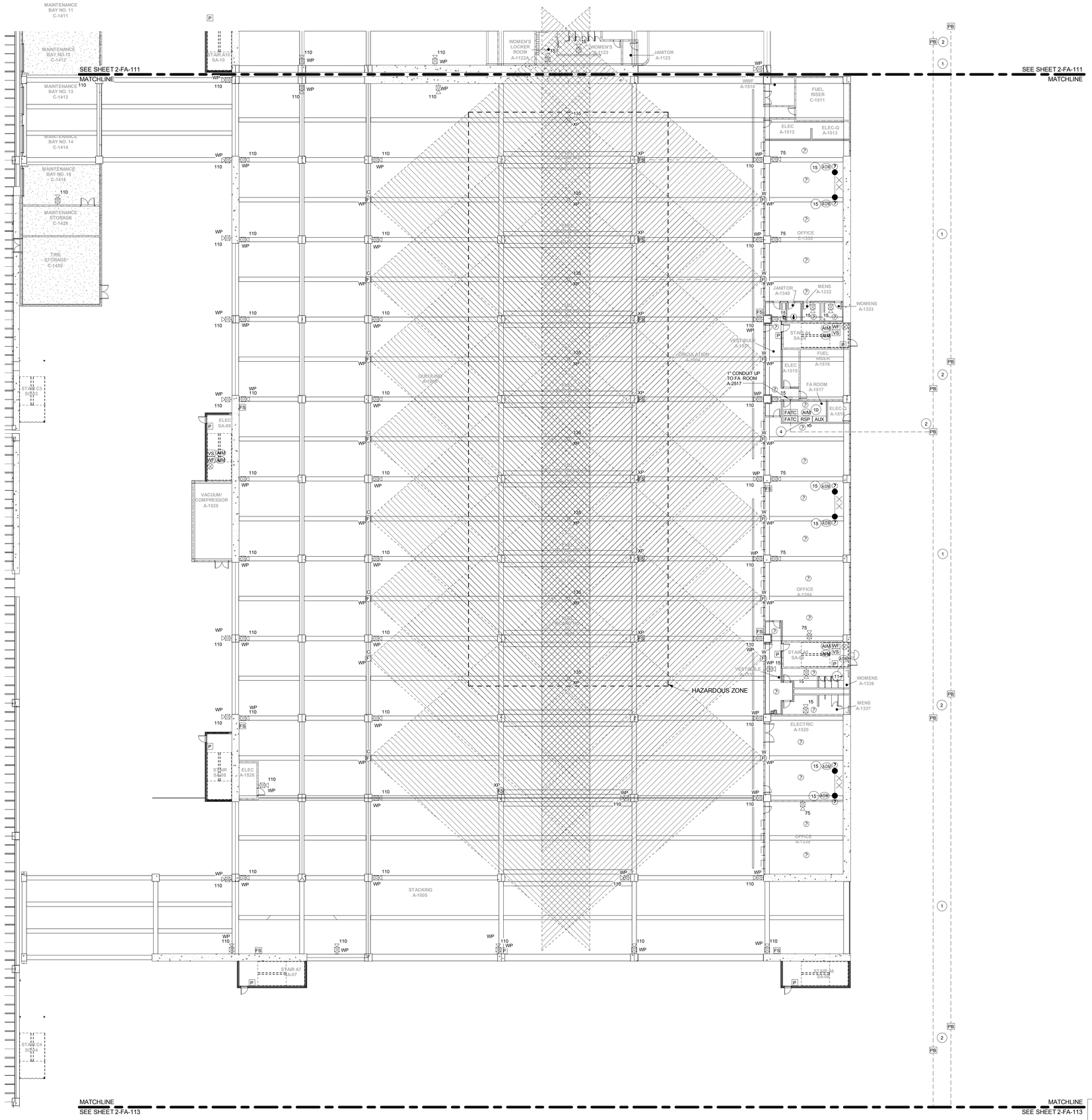
REVISIONS:	MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 1 FIRE ALARM DEVICE LAYOUT NORTH

SHEET NO.
2-FA-111

E:\Jobs\LAX Con\PROCAD\Working Files\Rev#\Fire Alarm\FA-DA4881-BLDG_A_B-R15.rvt
09/21/2016 5:17:09 PM



FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
#	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
#	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#	MULTI CANDELA STROBE, WALL MOUNTED
#	MULTI CANDELA STROBE, CEILING MOUNTED
?	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
?	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
?	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW. ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

NOTE: 173 FT. OF UNDERGROUND CONDUIT NOT SHOWN BETWEEN SHEETS 2-FA-112 AND 2-FA-113

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
- - - - - - - - - -	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

1 **BUILDING A - QTA - LEVEL 1 FIRE ALARM DEVICE LAYOUT PLAN - SOUTH**
1/16" = 1'-0"

1/16" = 1'
0 16 32 48

BUILDING A & B KEYPLAN

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

TranSystems
801 SOUTH GRAND
SUITE 2100
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 155
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM
JH Project No.: 18105S.000

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 1 FIRE ALARM DEVICE LAYOUT SOUTH

SHEET NO.
2-FA-112

E:\Jobs\LAX Co-Ref\CCAD\Working Files\Revit\Fire Alarm\FA-DA4881-BLDG_A_B R18.rvt
9/21/2016 5:17:11 PM

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
- - - - - - - -	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
#F	MULTI CANDELA HORN/STROBE, WALL MNTD
F	HORN, CEILING MOUNTED
#F	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#F	MULTI CANDELA STROBE, WALL MOUNTED
#F	MULTI CANDELA STROBE, CEILING MOUNTED
?	ADDRESSABLE SMOKE DETECTOR
?	ADDRESSABLE HEAT DETECTOR
?	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
?	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

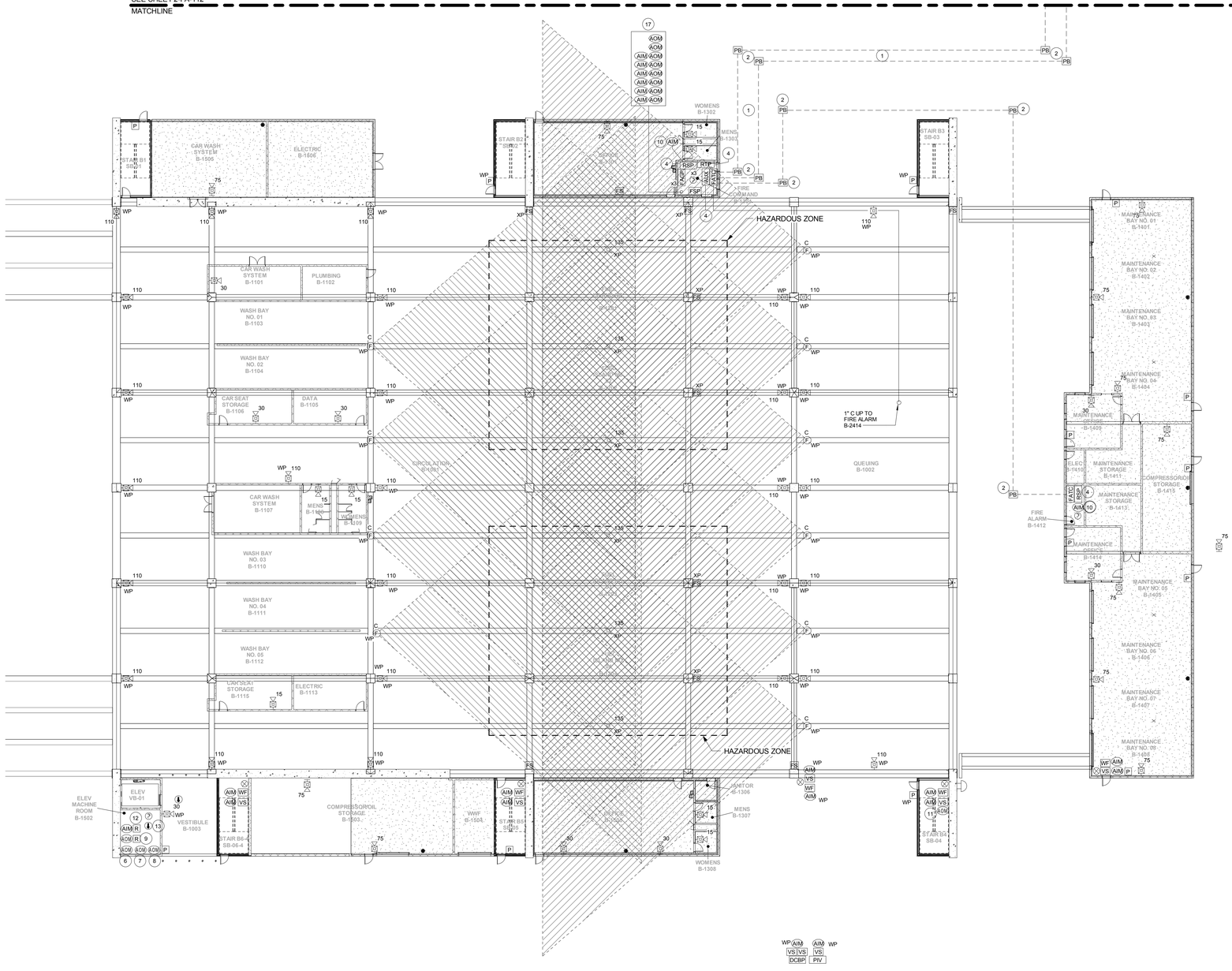
WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW.
ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

NOTE: 173 FT. OF UNDERGROUND CONDUIT NOT SHOWN BETWEEN SHEETS 2-FA-112 AND 2-FA-113

SEE SHEET 2-FA-112 MATCHLINE

SEE SHEET 2-FA-112 MATCHLINE



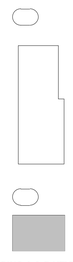
1 BUILDING B - QTA - LEVEL 1 FIRE ALARM DEVICE LAYOUT PLAN

1/16" = 1'-0"

1/16" = 1'
0 16 32 48

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 105
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM
JH Project No.: 18150S.000

Los Angeles World Airports
QTA 30% SUBMITTAL
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

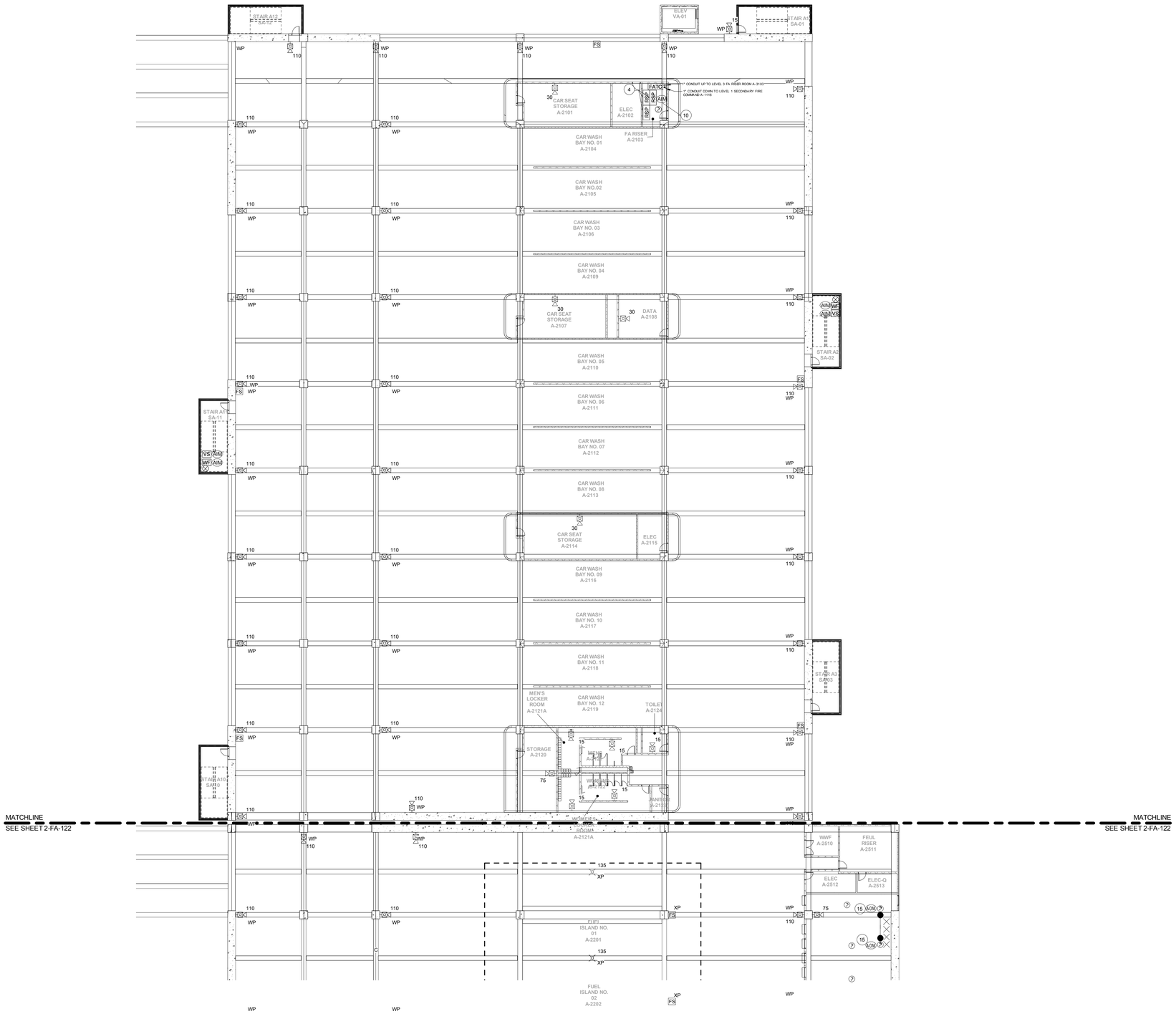
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
BLDG B QTA LEVEL 1 FIRE ALARM DEVICE LAYOUT

SHEET NO.
2-FA-113

E:\Jobs\LAX Co-Pak\CAD\Working Files\Revit\Fire Alarm\FA-DA4881-BLDG_A_B-R15.rvt
9/21/2016 5:17:12 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 2 FIRE ALARM DEVICE LAYOUT PLAN - NORTH

1/16" = 1'-0"

1/16" = 1'
0 16 32 48

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
- - - - - - - - - - - -	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
#"	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
#	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#"	MULTI CANDELA STROBE, WALL MOUNTED
#	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW.
ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 105
SAN DIEGO, CA 92128
+1 858.673.5845
WWW.JENSENHUGHES.COM
JH Project No.: 18150526.000

Los Angeles World Airports
QTA 30% SUBMITTAL
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:	DESCRIPTION	DATE	MARK

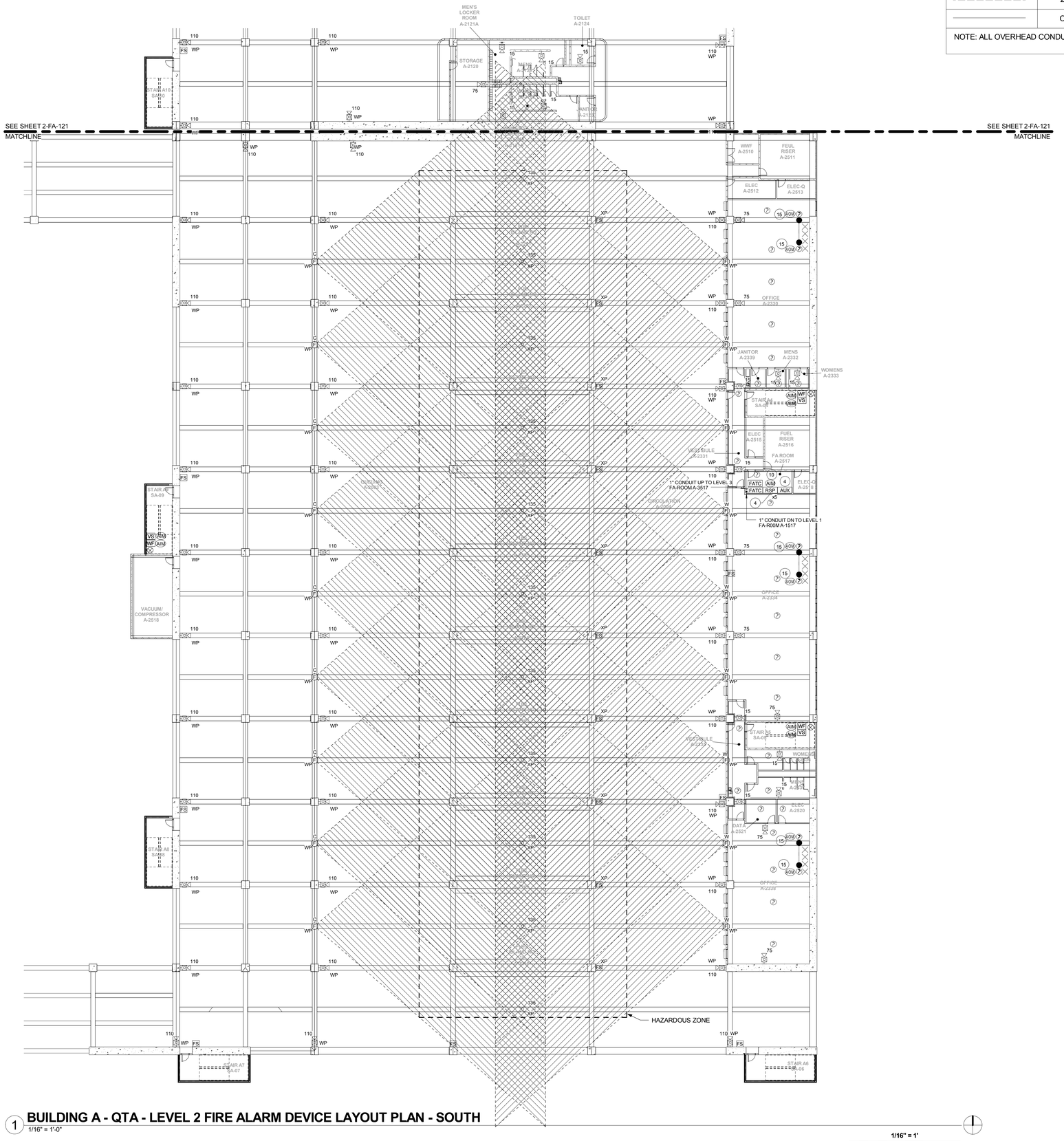
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 2 FIRE ALARM DEVICE LAYOUT NORTH

SHEET NO.
2-FA-121

E:\Jobs\LAX Con\PROJ\CAD\Working Files\Rev#\Fire Alarm\FA DA4881 BLDG_A_B-R15.rvt
9/21/2016 5:17:14 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 **BUILDING A - QTA - LEVEL 2 FIRE ALARM DEVICE LAYOUT PLAN - SOUTH**
1/16" = 1'-0"

1/16" = 1'
0 16 32 48

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
– – – – – – – – – –	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
#	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#	MULTI CANDELA STROBE, WALL MOUNTED
#	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW. ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2150
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 105
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM
JH Project No.: 18150530.500

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:

MARK	DATE	DESCRIPTION

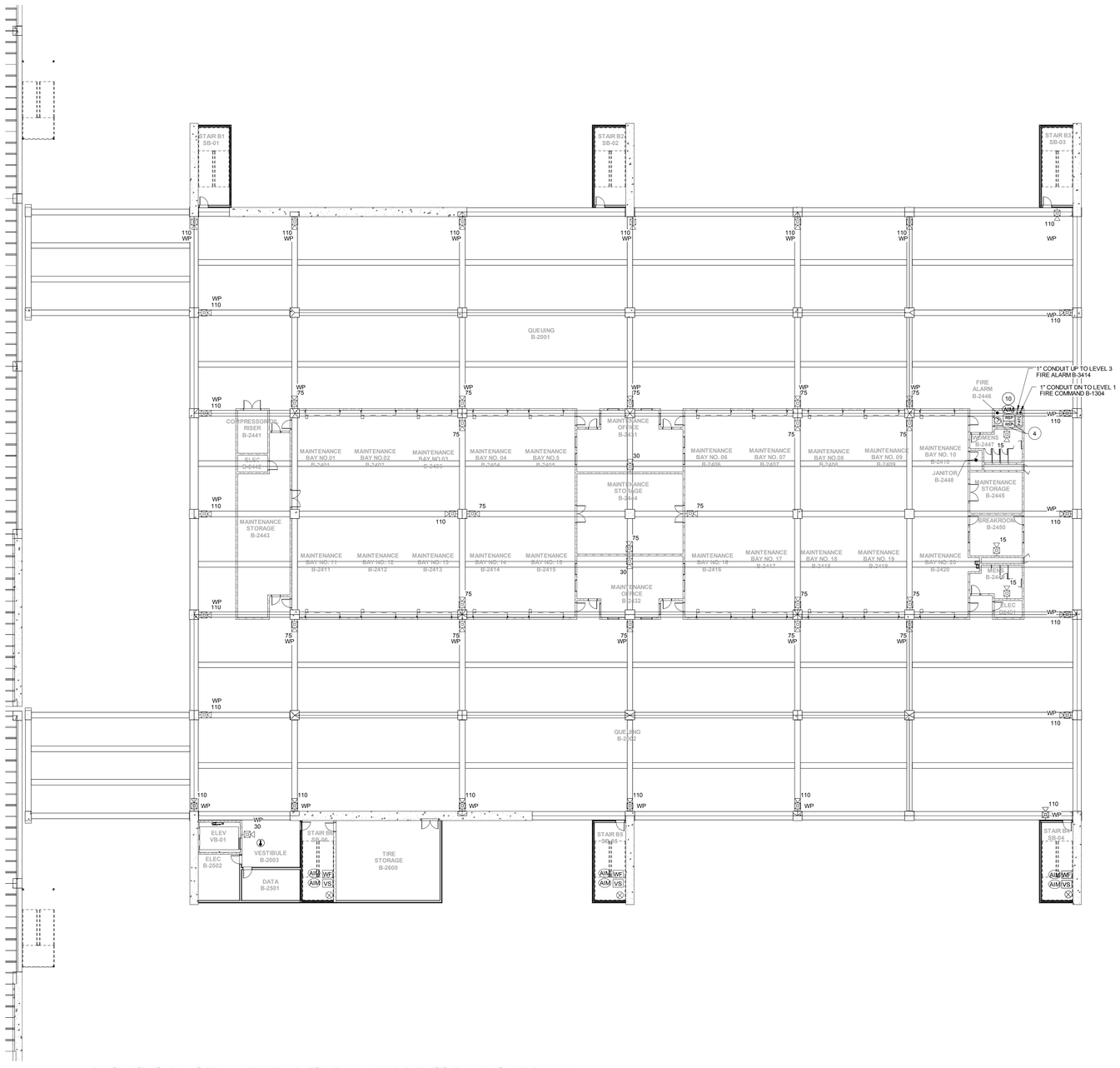
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 2 FIRE ALARM DEVICE LAYOUT SOUTH

SHEET NO.
2-FA-122

E:\Jobs\LAX Con\RAC\CAD\Working Files\Revit\Fire Alarm\FA-DA4881-BLDG_A_B-R15.rvt
9/21/2016 5:17:15 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 2 FIRE ALARM DEVICE LAYOUT PLAN

1/16" = 1'-0"

1/16" = 1'
0 16 32 48

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
– – – – – – – – – –	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
#	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
#	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#	MULTI CANDELA STROBE, WALL MOUNTED
#	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BPP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW.
ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 155
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM
JH Project No.: 18.10530.500

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:			
MARK	DATE	DESCRIPTION	

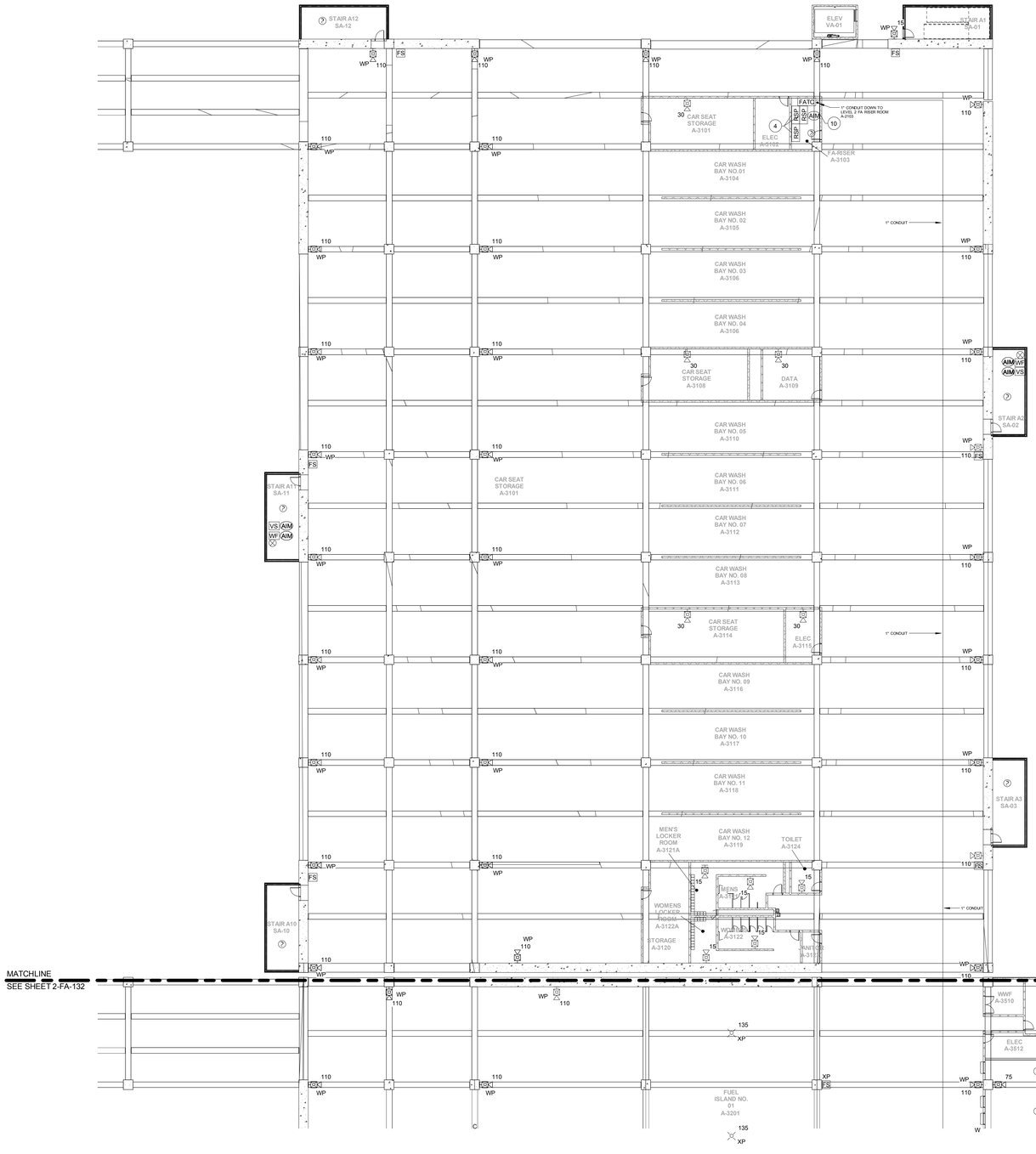
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
BLDG B QTA LEVEL 2 FIRE ALARM DEVICE LAYOUT

SHEET NO.
2-FA-123

E:\Jobs\LAX Con\RAC\CAD\Working Files\Revit\Fire Alarm\FA-DA4881-BLDG_A_B-R15.rvt
9/21/2016 5:17:17 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 FIRE ALARM DEVICE LAYOUT PLAN - NORTH

1/16" = 1'-0"

1/16" = 1'
0 16 32 48

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
– – – – – – – – – –	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
	MULTI CANDELA STROBE, WALL MOUNTED
	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
WFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW,
ALL DETECTORS TO BE MOUNTED TO AVOID
OBSTRUCTIONS IN FIELD OF VIEW.

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 115
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM
JH Project No.: 18150536.000

Los Angeles World Airports
QTA 30% SUBMITTAL
LAX Consolidated Rental Car Facility
Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

ONT ANA LAX PMD

REVISIONS:

MARK	DESCRIPTION	DATE

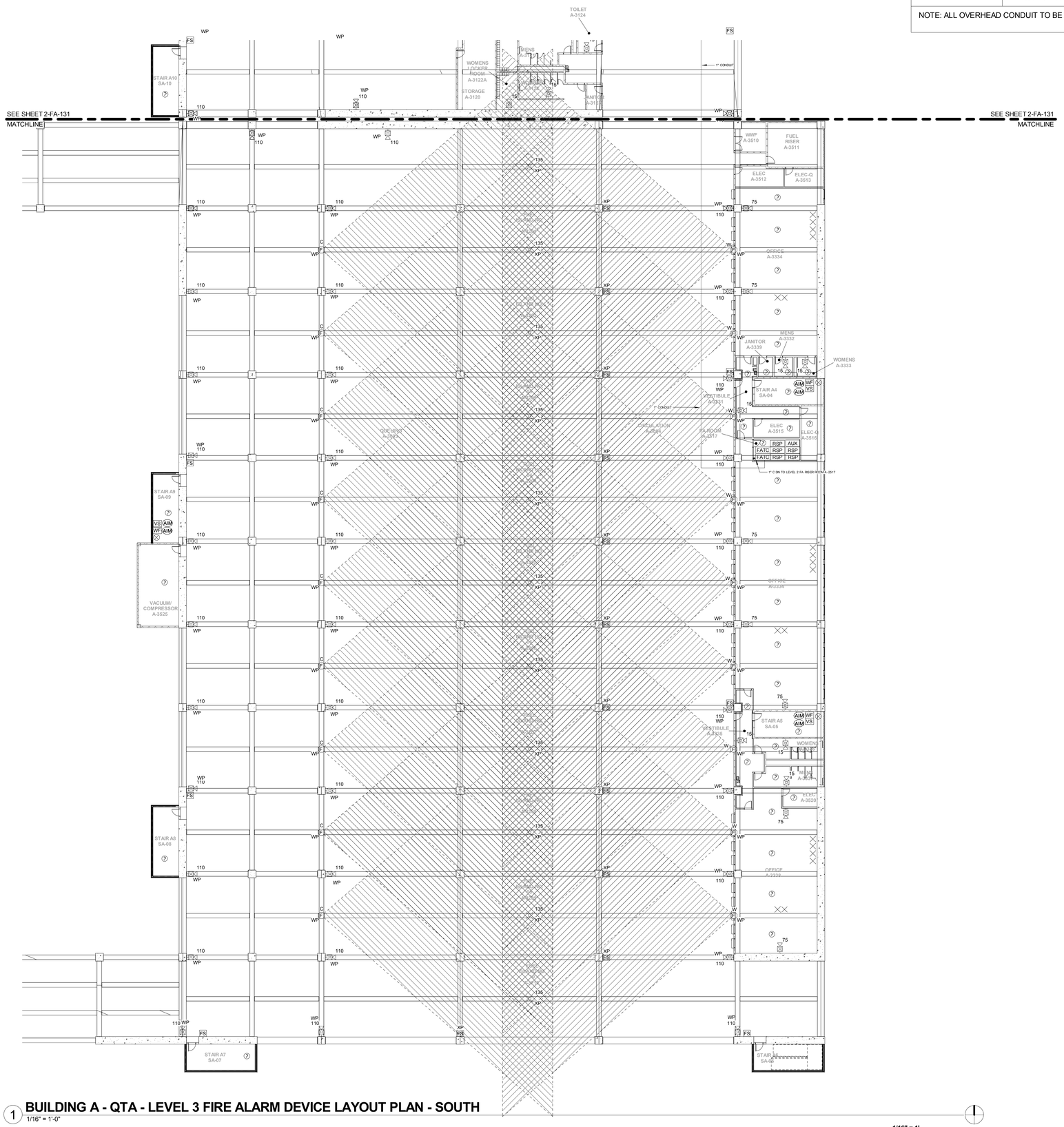
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 3 FIRE ALARM DEVICE LAYOUT NORTH

SHEET NO.
2-FA-131

E:\Jobs\LAX Con\MAC\CAD\Working Files\Revit\Fire Alarm\FA-DA4881-BLDG_A_B-R18.rvt
9/21/2016 5:17:18 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING A - QTA - LEVEL 3 FIRE ALARM DEVICE LAYOUT PLAN - SOUTH

1/16" = 1'-0"

1/16" = 1'
0 16 32 48

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
- - - - - - - - - - -	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
#	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#	MULTI CANDELA STROBE, WALL MOUNTED
#	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW.
ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 115
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM
JH Project No.: 18150S8.000

Los Angeles World Airports
QTA 30% SUBMITTAL
LAX Consolidated Rental Car Facility
Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS:	DESCRIPTION	DATE	MARK

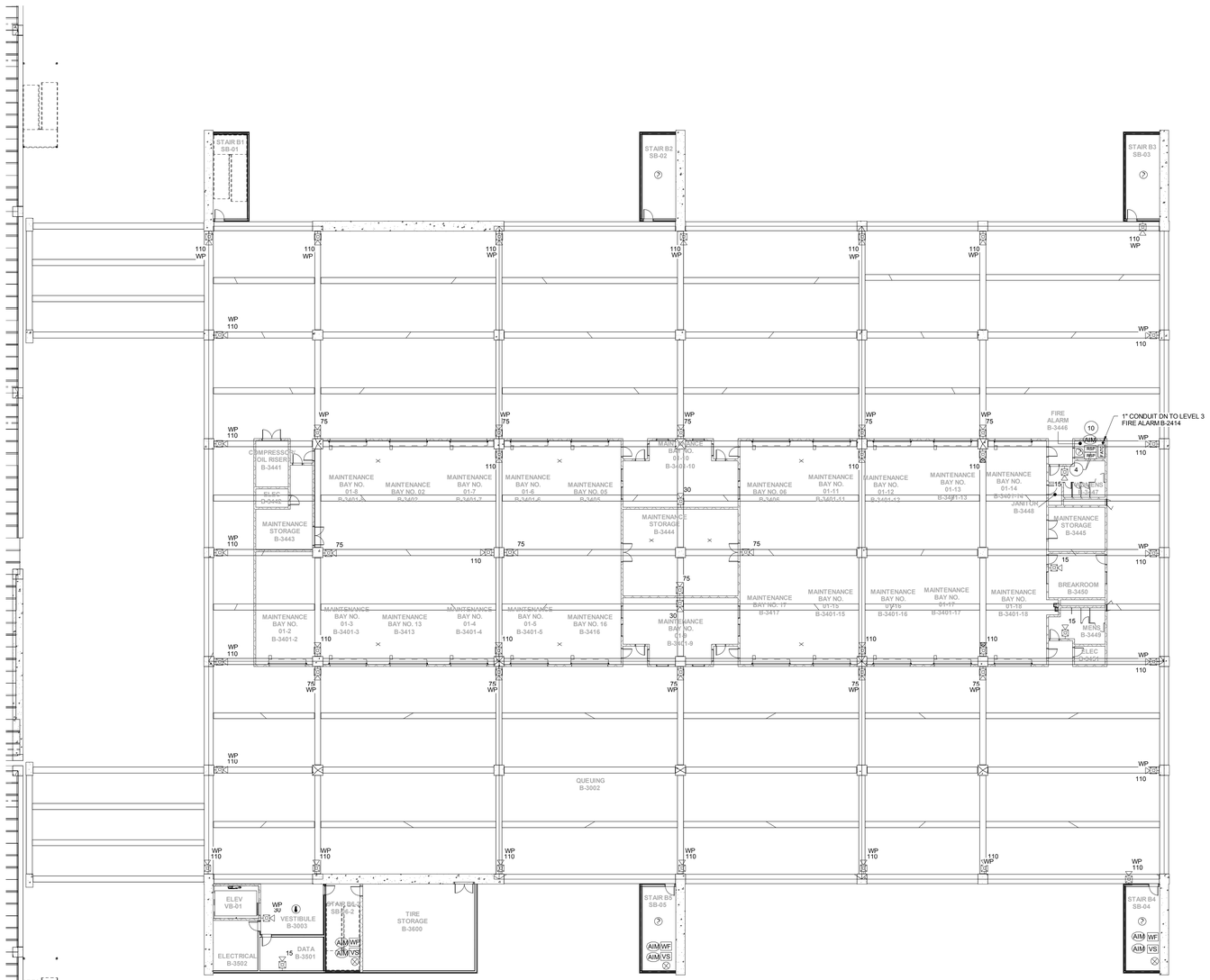
PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 3 FIRE ALARM DEVICE LAYOUT SOUTH

SHEET NO.
2-FA-132

E:\Jobs\LAX Con\PDC\CAD\Working Files\Revit\Fire Alarm\FA-DA4881-BLDG_A_BR15.rvt
09/21/2016 5:17:19 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING



1 BUILDING B - QTA - LEVEL 3 FIRE ALARM DEVICE LAYOUT PLAN

1/16" = 1'-0"

1/16" = 1'
0 16 32 48

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
- - - - - - - - - -	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

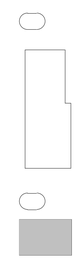
SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
#	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
#	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#	MULTI CANDELA STROBE, WALL MOUNTED
#	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WT	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW.
ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.



BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 155
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM
JH Project No.: 18150530.000

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY

CHIEF AIRPORTS ENGINEER

SUBMITTED BY

ASST. CHIEF AIRPORTS ENGINEER

ONE LAX PMD

REVISIONS: | MARK | DATE | DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:

BLDG B QTA LEVEL 3 FIRE ALARM DEVICE LAYOUT

SHEET NO.

2-FA-133

E:\Jobs\LAX Con\PACC\ACD\Working Files\Rev#\Fire Alarm\FA DA4881 BLDG_A_B-R15.rvt

9/21/2016 5:17:21 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
– – – – – – – – – –	2" UNDERGROUND CONDUIT
————	OVERHEAD CONDUIT

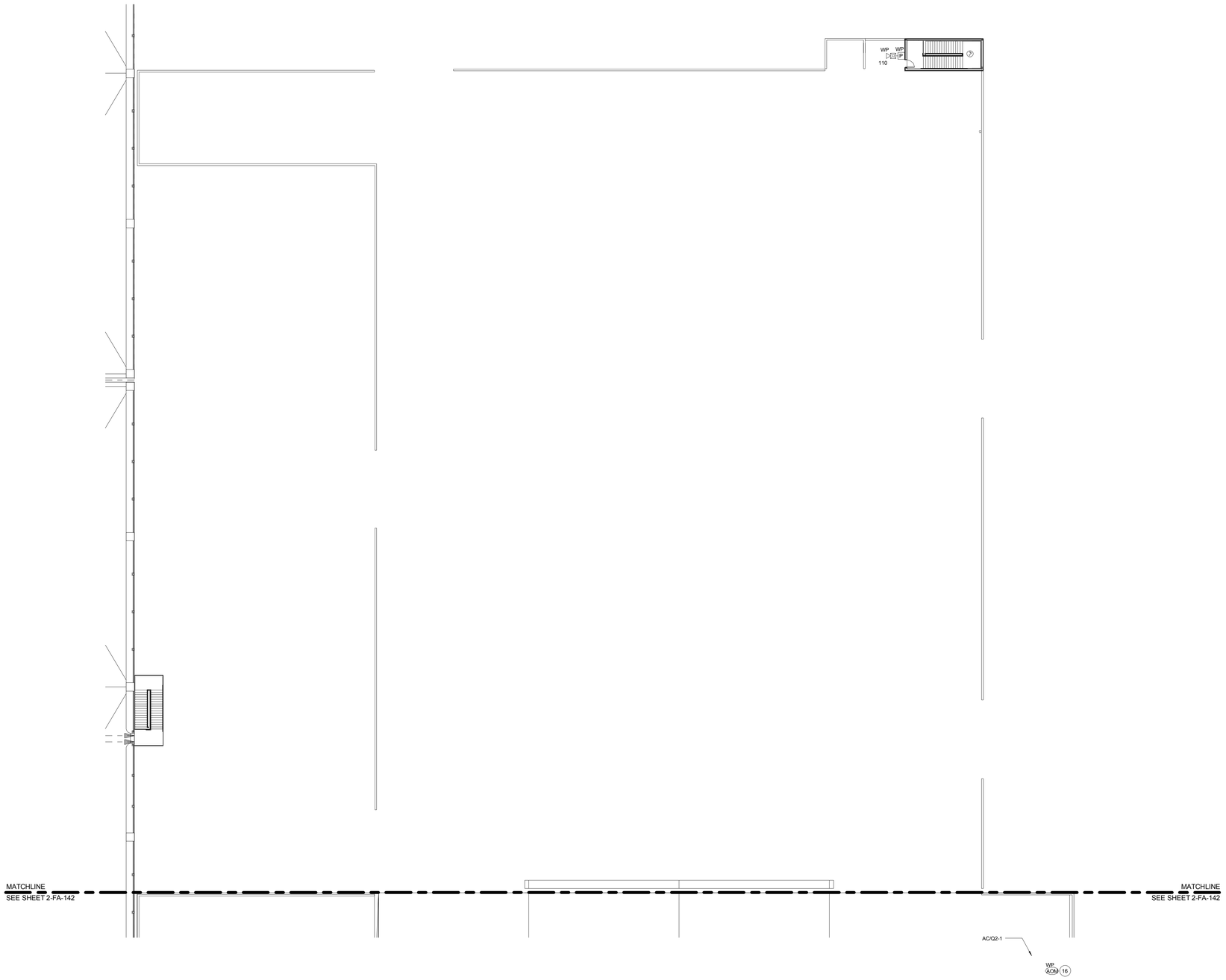
NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
#/#	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
#/#	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#	MULTI CANDELA STROBE, WALL MOUNTED
#	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW.
ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.



1 BUILDING A - QTA LEVEL 4 OVERALL FIRE ALARM DEVICE LAYOUT - NORTH

1/16" = 1'-0"

1/16" = 1'
0 16 32 48

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 101
SAN DIEGO, CA 92128
+1 858.673.5845
WWW.JENSENHUGHES.COM
JH Project No.: 18.10535.000

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

APPROVED BY
CHIEF AIRPORTS ENGINEER

REVISIONS:			
MARK	DESCRIPTION	DATE	

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 4 FIRE ALARM DEVICE LAYOUT NORTH

SHEET NO.
2-FA-141

E:\Jobs\LAX Cor\PAC\CAD\Working Files\Rev#\Fire Alarm\FA-DA4881 BLDG_A_B-R15.rvt
8/21/2016 5:17:22 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
- - - - - - - - - - - -	2" UNDERGROUND CONDUIT
———————	OVERHEAD CONDUIT

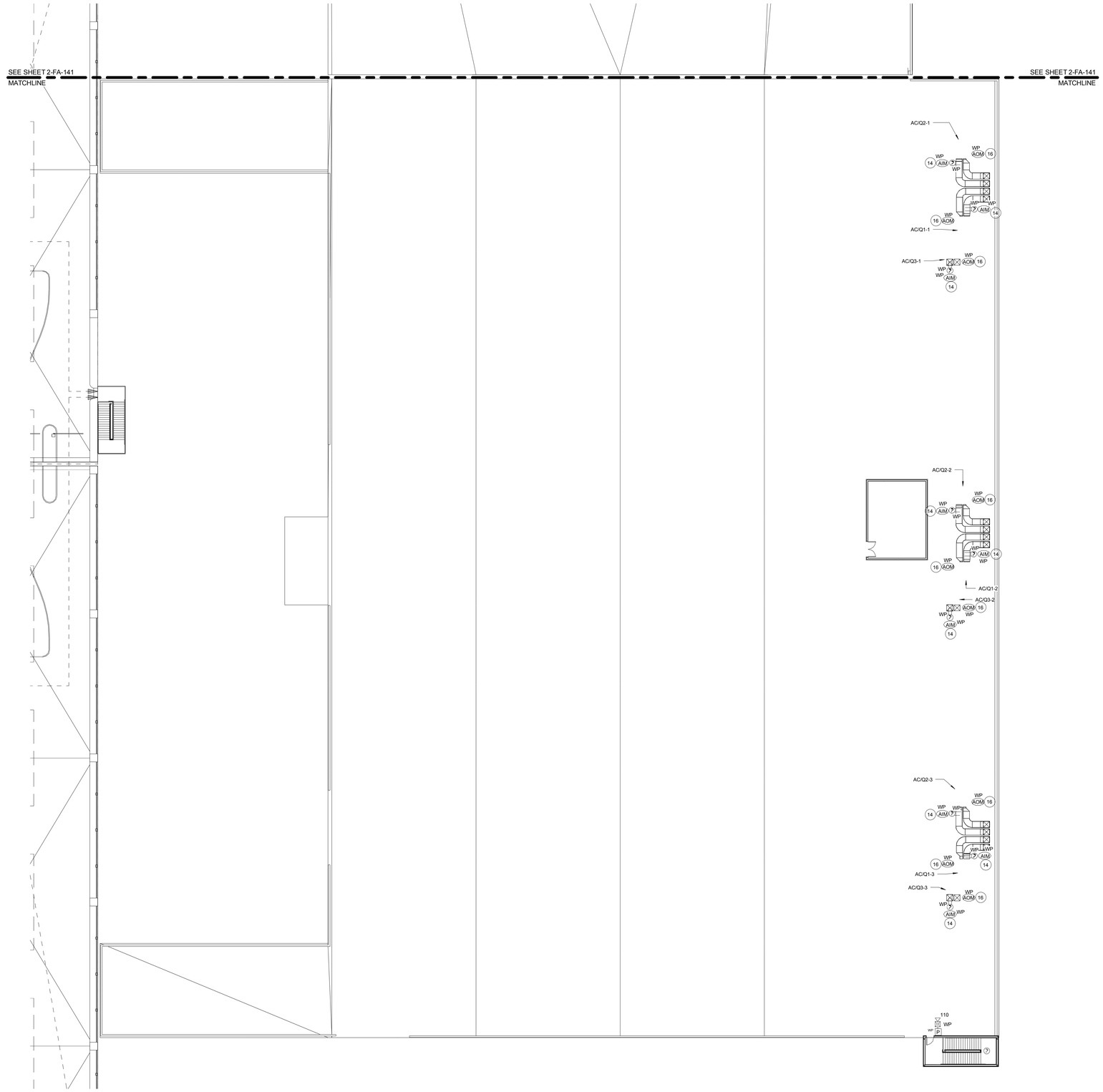
NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
	MULTI CANDELA STROBE, WALL MOUNTED
	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW.
ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.



FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

1 BUILDING A - QTA LEVEL 4 OVERALL FIRE ALARM DEVICE LAYOUT - SOUTH

1/16" = 1'-0"

1/16" = 1'
0 16 32 48

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 210
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 105
SAN DIEGO, CA 92128
+1 858.673.5845
WWW.JENSENHUGHES.COM

JH Project No.: 18150S.000

Los Angeles World Airports
QTA 30% SUBMITTAL
Los Angeles International Airport

LAX Consolidated Rental Car Facility

SUBMITTED BY: ASST. CHIEF AIRPORTS ENGINEER
APPROVED BY: CHIEF AIRPORTS ENGINEER

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
BLDG A QTA LEVEL 4 FIRE ALARM DEVICE LAYOUT SOUTH

SHEET NO.
2-FA-142

E:\Jobs\LAX Con\RAC\CAD\Working Files\Revit\Fire Alarm\FA-DA4881-BLDG_A_B-R15.rvt
9/21/2016 5:17:23 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING

FIRE ALARM CONDUIT SCHEDULE

SYMBOL	DESCRIPTION
- - - - - - - - -	2" UNDERGROUND CONDUIT
———————	OVERHEAD CONDUIT

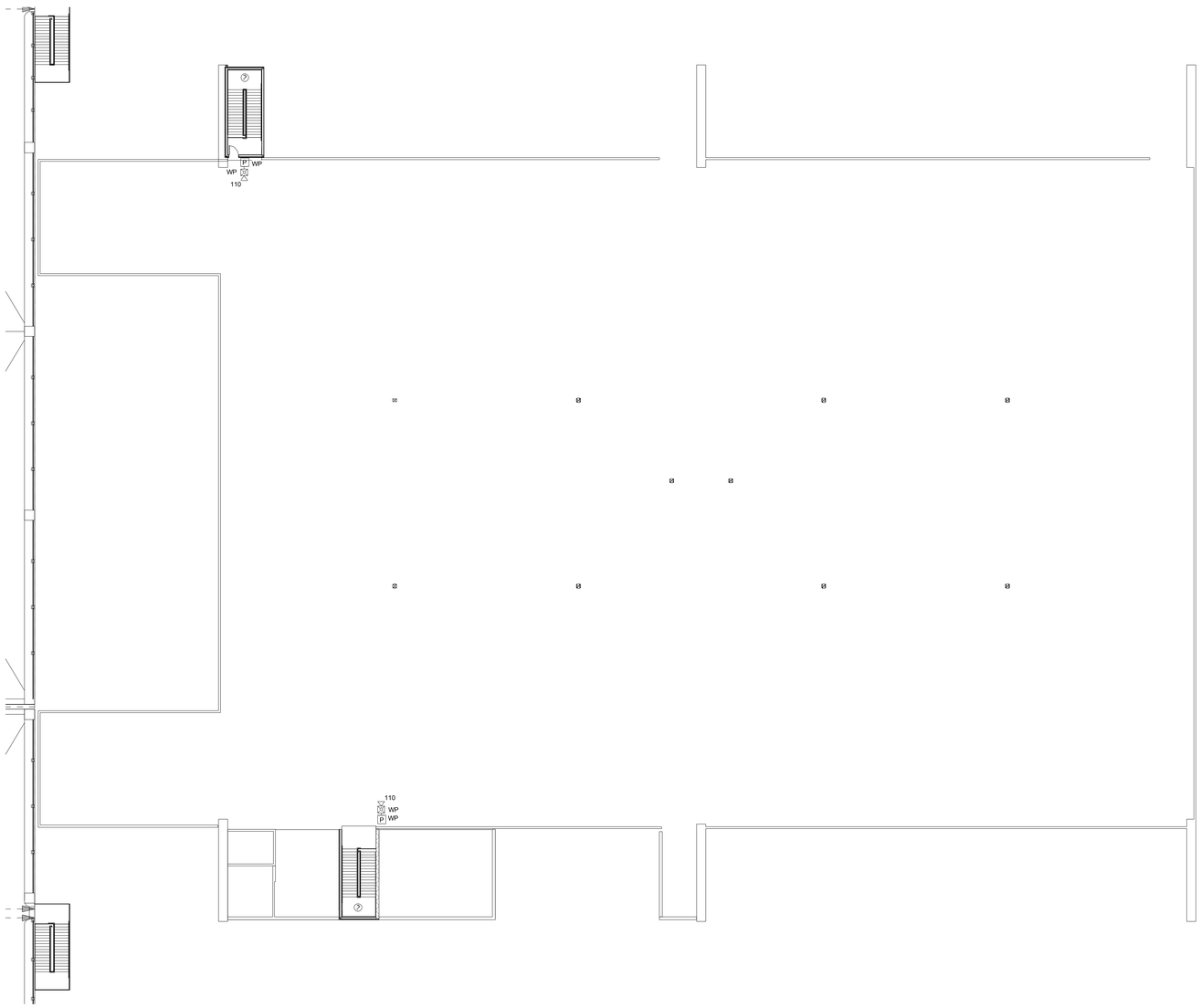
NOTE: ALL OVERHEAD CONDUIT TO BE 3/4", UNLESS OTHERWISE NOTED.

FIRE ALARM EQUIPMENT LEGEND

SYMBOL	DEVICE DESCRIPTION
MFACU	FIRE ALARM CONTROL UNIT (MAIN)
RTP	FIRE ALARM REMOTE TRANSPONDER PANEL
FSP	FUEL SYSTEM STATUS PANEL
RSP	FIRE ALARM REMOTE STROBE POWER SUPPLY
AUX	FIRE ALARM AUXILIARY POWER SUPPLY
FATC	FIRE ALARM TERMINAL PANEL
FAGP	FIRE ALARM GRAPHIC ANNUNCIATOR PANEL
PB	FIRE ALARM PULL BOX
#	MULTI CANDELA HORN/STROBE, WALL MNTD
	HORN, CEILING MOUNTED
#	MULTI CANDELA HORN/STROBE, CEILING MOUNTED
#	MULTI CANDELA STROBE, WALL MOUNTED
#	MULTI CANDELA STROBE, CEILING MOUNTED
	ADDRESSABLE SMOKE DETECTOR
	ADDRESSABLE HEAT DETECTOR
	DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26)
F	ULTRAVIOLET / INFRARED FLAME DETECTOR (VIDEO) C = SUSPENDED FROM CEILING. MOUNTING HEIGHT - 9'-8" A.F.F. W = WALL MOUNT. MOUNTING HEIGHT - 11'-0" A.F.F.
P	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MODULE
AOM	ADDRESSABLE OUTPUT MODULE
ISO	ADDRESSABLE ISOLATOR MODULE
SYN	ADDRESSABLE SYNCHRONIZATION MODULE
R	POWER SUPERVISION RELAY
FS	EMERGENCY FUEL STOP STATION (BY OTHERS)
	FIRE/SMOKE DAMPER
BFP	BACKFLOW PREVENTER
VS	SPRINKLER CONTROL VALVE
WF	SPRINKLER WATERFLOW SWITCH
	10" SPRINKLER WATERFLOW BELL (BY SPRINKLER CONTRACTOR)
DCBP	DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
PIV	POST INDICATOR VALVE

WP = WEATHER PROOF DEVICE
XP = EXPLOSION PROOF DEVICE

= FLAME DETECTOR RANGE OF VIEW.
ALL DETECTORS TO BE MOUNTED TO AVOID OBSTRUCTIONS IN FIELD OF VIEW.



1 **BUILDING B - QTA LEVEL 4 FIRE ALARM DEVICE LAYOUT**
1/16" = 1'-0"

1/16" = 1'
0 16 32 48

FIRE ALARM KEY NOTES

1. MAINTAIN A 4'-0" HORIZONTAL SEPARATION BETWEEN OUTGOING AND INCOMING NETWORK CONDUITS.
2. INSTALL FIRE ALARM PULL BOXES AT EACH CHANGE OF DIRECTION OF CONDUITS AND AT 150'-0" INTERVALS.
3. ALL UNDERGROUND FIRE ALARM CONDUIT ROUTING TO BE COORDINATED WITH CIVIL AND UTILITIES.
4. CONNECTION TO DEDICATED 120 VAC POWER FOR PANEL POWER. (FIELD VERIFY PANEL AND CIRCUIT NUMBER).
5. CONNECTION TO CENTRAL STATION FOR MONITORING SERVICE. INSTALLING CONTRACTOR TO PROVIDE TWO METHODS OF COMMUNICATION TO CENTRAL STATION PER CHAPTER 26, NFPA 72, 2013 EDITION.
6. CONTROL RELAY CONNECTED TO ELEVATOR PRIMARY RECALL CIRCUIT.
7. CONTROL RELAY CONNECTED TO ELEVATOR SECONDARY RECALL CIRCUIT.
8. CONTROL RELAY CONNECTED TO ELEVATOR THIRD CIRCUIT.
9. CONTROL RELAY WITH MULTI- VOLTAGE RELAY CONNECTED TO ELEVATOR SHUNT-TRIP CIRCUIT. (FIELD VERIFY SHUNT-TRIP CIRCUIT LOCATION)
10. CONNECTION TO FIRE ALARM REMOTE STROBE POWER SUPPLY FOR MONITORING LOSS OF AC POWER.
11. CONNECTION TO SPRINKLER WATERFLOW FOR MONITORING ACTIVATION OF SPRINKLER WATERFLOW SWITCH.
12. MONITOR MODULE AND MULTI-VOLTAGE RELAY FOR MONITORING LOSS OF ELEVATOR SHUNT TRIP CONTROL CIRCUIT. (FIELD VERIFY SHUNT TRIP CIRCUIT LOCATION)
13. MOUNT HEAT DETECTOR WITHIN 24" OF SPRINKLER HEAD.
14. MONITOR MODULE FOR MONITORING AN ALARM CONDITION OF DUCT SMOKE DETECTOR (PROVIDED BY DIVISION 26) LOCATED AT AIR HANDLING UNIT.
15. CONTROL RELAY CONNECTED TO FIRE/SMOKE DAMPER FOR SHUTDOWN UPON ALARM.
16. CONTROL RELAY CONNECTED TO HVAC EQUIPMENT FOR SHUTDOWN UPON ALARM.
17. INSTALLING FIRE ALARM CONTRACTOR TO PROVIDE (6) CONTACT INPUTS AND (8) CONTACT OUTPUTS FOR EMERGENCY STOP SYSTEM INTERFACE. INSTALLING FIRE ALARM CONTRACTOR AND EMERGENCY STOP SYSTEM CONTRACTOR TO COORDINATE FINAL LOCATIONS, QUANITIES AND SEQUENCING OF ALL INPUT/OUTPUT CONTACTS PER SPECIFICATIONS, CODE REQUIREMENTS AND OWNER.

BUILDING A & B KEYPLAN

TranSystems
801 SOUTH GRAND
SUITE 2101
LOS ANGELES, CA 90017
PHONE: (562) 594-6974
FAX: (562) 594-6975

NOT FOR CONSTRUCTION

CONSULTANTS:
JENSEN HUGHES
11770 BERNARDO PLAZA COURT
SUITE 215
SAN DIEGO, CA 92128
+1 858.673.3845
WWW.JENSENHUGHES.COM
JH Project No.: 18.10535.000

Los Angeles World Airports
QTA 30% SUBMITTAL

LAX Consolidated Rental Car Facility

Los Angeles International Airport

APPROVED BY
CHIEF AIRPORTS ENGINEER

SUBMITTED BY
ASST. CHIEF AIRPORTS ENGINEER

ONT ANY PMD LAX

REVISIONS:

MARK	DATE	DESCRIPTION

PROJ NO:	DA4881
SCALE:	1/16" = 1'-0"
DATE:	09/23/2016
DESIGNED BY:	PP
DRAWN BY:	PP
CHECKED BY:	QD

SHEET TITLE:
- BLDG B QTA LEVEL 4 FIRE ALARM DEVICE LAYOUT

SHEET NO.
2-FA-143

E:\Jobs\LAX Con\RAC\CAD\Working Files\Rev#\Fire Alarm\FA-DA4881-BLDG_A_B-R15.rvt
9/21/2016 5:17:25 PM

IF THIS DRAWING IS LESS THAN 36" X 48" IT IS A REDUCED SIZE DRAWING