

SECTION 09 68 16 – SHEET CARPETING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes broadloom carpet.

1.2 STANDARDS

- A. Except as modified by governing codes and by the Contract Documents, comply with the applicable provisions and recommendations of the following:
 - 1. The Carpet and Rug Institute "The Carpet Specifiers' Handbook."
 - 2. The Carpet and Rug Institute "CRI 104 Commercial Carpet Installation Standard."

1.3 SUBMITTALS

- A. Product Data: Submit product data, specifications, installation instructions for materials specified herein and other data as may be required to show compliance with the Contract Documents. Include installation recommendations for each type of substrate required.
- B. Shop Drawings: Submit shop drawings showing the following:
 - 1. Existing floor materials to be removed.
 - 2. Existing floor materials to remain.
 - 3. Columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet.
 - 4. Dye lots, pattern types, repeats, locations, pile direction, and starting points per floor.
 - 5. Seam locations, types, and methods.
 - 6. Type of installation.
 - 7. Type, color, and location of insets and borders.
 - 8. Type, color, and location of edge, transition, and other accessory strips.
 - 9. Show details of cutouts.
 - 10. Type of cushion.
 - 11. Include on shop drawings dimensions which verify field conditions.
 - 12. Transition, and other accessory strips.
 - 13. Transition details to other flooring materials.
- C. Samples: Submit samples showing full range of color, texture, and pattern variations expected. Prepare samples from same material to be used for the Work. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules. Submit the following:
 - 1. Carpet: 24-inch- (600-mm-) square Samples of each carpet required.
 - 2. Exposed Edge Stripping and Accessory: 12-inch- (300-mm-) long Samples.
 - 3. Carpet Cushion: 6-inch- (150-mm-) square Sample.
 - 4. Mitered Carpet Border Seam: 12-inch- (300-mm-) square Sample. Show carpet pattern alignment.



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- D. Maintenance Data: Submit copies of instructions for care, cleaning, maintenance and repair of carpeting.
 - 1. Each carpet manufacturer shall meet with the authorized LAWA personnel, to review the characteristics of their product and to recommend appropriate maintenance procedures, prior to occupancy of the finished spaces.
- E. Warranties: Submit special warranties specified in this Section.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Engage a carpet installer who has completed a minimum of three (3) projects over the last 10 years which were similar in material, design and extent to that indicated for the project - as determined by LAWA – and which have resulted in construction with a record of successful in service performance.
 - 1. In the case where the Installer is actually a Dealer, it is understood that the terms Installer, Dealer, Carpeting Contractor and Contractor shall be one and the same for purposes of this Contract. He shall assume responsibility for all of the work, including acquisition of the materials from the manufacturers herein specified.
- B. Mill Inspection: The carpeting may be inspected to determine compliance with the Contract Documents with respect to manufacture, materials, pattern and colors. Inspection may be made at the mill by a representative of LAWA at any time during the process of manufacture.
- C. Sample Installations: Before installing carpet, install sample installations for each type of carpet installation required to demonstrate aesthetic effects and qualities of materials and execution. Install sample installations to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Size and Location: Provide 250 square foot (23.23 sq.m) sample installations in locations as directed by LAWA. Subdivide the sample installation with one continuous seam of the type specified.
 - 2. Demonstrate the proposed range of aesthetic effects and workmanship.
 - 3. Obtain LAWA's approval of sample installations before starting work.
 - 4. Maintain sample installations during construction in an undisturbed condition as a standard for judging the completed Work.
 - 5. Approved sample installations may become part of the completed Work if undamaged at time of Substantial Completion.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver carpeting in original mill protective wrapping with mill register numbers and tags attached.
- B. Deliver other materials in manufacturers unopened containers identified with name, brand, type, grade, class, and other qualifying information.
- C. Store materials in a dry location, in such a manner as to prevent damage.



1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install carpet until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use. Stack rolls horizontally no higher than two high on a flat surface.
- B. Do not install carpet over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by carpet manufacturer.

1.7 WARRANTY

- A. Carpet Manufacturer's Warranty: Written warranty, signed by carpet manufacturer agreeing to replace carpet that does not comply with requirements or that fails within specified warranty period. Warranty does not include deterioration or failure of carpet due to unusual traffic, failure of substrate, vandalism, or abuse. Failures include, but are not limited to, more than 10 percent loss of face fiber, wear, static buildup in excess of 3.0 kV when tested under the Standard Shuffle Test at 70 deg. F (21 deg. C) and 20% RH, edge raveling, tuft bind loss, shrinkage, zippering (wet or dry), and delamination. Warrantees shall be full term, not pro-rated for the specified warranty period.
 - 1. Warranty Period: 10 years from date of Substantial Completion.

1.8 EXTRA MATERIALS AND ATTIC STOCK

- A. Attic Stock: Package and deliver usable remnants of carpet to a storage room as directed by LAWA at the conclusion of the job. Include pieces of broadloom 20 square feet (1.86 sq.m) in area or greater.

PART 2 - PRODUCTS

2.1 CARPET

- A. Carpet Types: Provide manufacturers commercial grade broadloom carpet for **100% glue down** installation.
- B. Provide carpet tile by one of the following:
 - 1. Interface
 - 2. Lees / Mohawk Industries
 - 3. Milliken
 - 4. Mannington
 - 5. Shaw
- C. Fiber Content: **Nylon 6,6.**
- D. Pile Characteristics: **No Over-Tufting.**
- E. Dye Process: **Solution-dye or injection-dye is required.**



- F. Density: Greater than 7000.

2.2 CARPET CUSHION

- A. Product as recommended in writing by the carpet manufacturer for the application indicated and which will not void the specified warranties, (*if required*).

2.3 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Portland cement based formulation provided by or recommended by the following. Do not use gypsum based compounds.
 - 1. Carpet manufacturer.
 - 2. Carpet cushion manufacturer.
- B. Carpet Adhesives: Water-resistant, mildew resistant, and nonstaining, high solids, low VOC emitting formulations that are specifically recommended by the carpet manufacturer, as verified through compatibility and adhesion testing for the intended substrate and application, and that comply with flammability requirements for installed carpet:
- C. Tackless Carpet Stripping (Stretch-In Installations): Water-resistant plywood in minimum 1 inch (25 mm) wide strips, thickness to match cushion thickness, with minimum 3 rows of prenailed angular pins protruding from the top designed to grip and hold stretched carpet at backing.
- D. Plastic Coated Fabric Tape (Stretch-In and Double Stick Broadloom Cushion Installations): Woven fabric impregnated with plastic and coated with adhesive having high-tack adhesion forming a secure bond for application to cushion top seams to resist peaking. Provide water-resistant plastic-coated tape which will unwind without adhesive transfer.
- E. Seaming Tape: Hot melt adhesive tape, 6" wide, recommended by the carpet mill as suitable for backing specified.
- F. Seaming Cement: Water-resistant and flame-resistant carpet adhesive for sealing raw edges, seaming, reinforcing seams and patching. Provide fast drying, easy spreading carpet seaming adhesive having excellent aging characteristics recommended by the carpet manufacturer.
- G. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to protect exposed edge of carpet, and of maximum lengths to minimize running joints.
- H. Carpet Edging: Provide rubber composition carpet edging in single lengths wherever possible, keeping the number of joints or splices to a minimum. Provide in quantities and locations as job required based upon the recommended good practice of the industry; include in every location where carpet terminates and other flooring continues. Color to match adjacent carpet types.
- I. Floor Sealer: Type as recommended and manufactured by the carpet manufacturer for the applications indicated.



PART 3 - EXECUTION

3.1 PRE-INSTALLATION MEETING

- A. Prior to the installation, meet at the project site to review the material selections, substrate preparations, installation procedures, coordination with other trades, special details and conditions, standard of workmanship, and other pertinent topics related to the Work. The meeting shall include the LAWA, the Architect of Record, the Contractor, the installer, material manufacturer's representatives, and representatives of other trades or subcontractors affected by the installation.

3.2 PREPARATION

- A. Coordinate the installation of carpet so as not to delay the occupancy of the site or interfere with the completion of construction.
- B. Examine the substrates, adjoining construction and the conditions under which the Work is to be installed. Verify recommended limits for moisture content and alkalinity of concrete substrates with carpet manufacturer.
 - 1. **Moisture Content:** Verify moisture content using a standard calcium chloride crystal test or a 1 square yard (0.84 sq.m) clear plastic test. Perform testing at a frequency of not less than once every 1,000 square feet (93 sq.m).
 - 2. **Alkalinity Test:** Verify alkalinity of concrete substrates by drilling a 3/8 inch (9.5 mm) diameter hole approximately 1/4 inch (6.35 mm) deep, remove all residue; fill with distilled water, allow water to stand 3 minutes and test with a calibrated electronic meter or Ph paper. Perform testing at a frequency of not less than once every 1,000 square feet (93 sq.m).
 - 3. Alternative test procedures for moisture content and alkalinity may be acceptable subject to the carpet manufacturer's review and written acceptance.
- C. **Concrete Subfloors:** Verify that concrete slabs comply with the following:
 - 1. Remove coatings, including curing compounds, existing floor covering adhesive residues, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by the carpet manufacturer.
 - 2. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by the carpet manufacturer.
 - 3. Use leveling and patching compounds recommended by flooring manufacturer for filling cracks, holes and depressions in the substrate. Surface shall be smooth, level and at proper elevation. Remove ridges, roughness and protrusions from concrete surfaces by grinding.
- D. Broom and vacuum clean substrates to be covered immediately before installing carpet.



- E. Carpet installation shall not commence until painting and finishing work are complete and ceiling and overhead work is tested, approved, and completed.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 INSTALLATION

- A. 100% Direct Glue Down of Broadloom Carpet: Comply with the manufacturer's instructions, specified industry standards and recommendations, and as required to match the accepted sample installations.
 - 1. Carpet Layout, Cutting and Edge Trim Seaming: Prior to applying adhesives, place seams at locations indicated on accepted shop drawings. All carpet rolls shall be installed in the exact roll number sequence as listed on the carpet rolls. Maintain direction of pattern, texture and lay of pile. Side to end seaming shall not be allowed. All edges of all rolls of carpet shall be finish trimmed prior to laying to assure a perfect seam condition and carpet match. All trimmed edges shall then be treated with latex seaming adhesive to assure that loose and cut yarns are not left to ravel or pull out.
 - a. Cut and fit carpet to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet manufacturer.
 - b. Extend carpet into closets and offsets, and under movable equipment of the rooms and spaces shown or scheduled to receive carpet, including recessed covers within those spaces.
 - c. Provide cutouts as required for removable access covers in substrates except do not cutout for floor closer cover plates. Bind edges neatly and secure to substrate. Cut only 3 sides wherever it is feasible to provide carpet flap in lieu of fully removable cutout.
 - d. At doorways, center seams under door in closed position; do not place seams perpendicular to door frame in direction of traffic through doorway.
 - e. Cut openings in carpet for electrical outlets, piping and other penetrations. Maintain close tolerances so that edges of carpet will be covered by plates and escutcheons.
 - f. Seams shall be located away from areas subject to pivoting traffic.
 - 2. Apply adhesive in accordance with adhesive manufacturer's directions.
 - 3. Adhere carpet with a full spread of adhesive. Ensure uniform bond over the entire area.
 - a. Butt carpet tightly together to form seams without gaps or entrapped pile yarns and aligned with adjoining rolls of carpet. Seams shall be pressed by hand and/or suitable tool to produce the best possible even top pile width-to-width. Adjacent widths of carpet must be installed to finish at exactly the same elevation.
 - b. Roll carpet uniformly, removing air pockets and bubbles.
 - c. If the pile of the carpet has been compressed while laying in storage, so that there appears to be a difference in color in adjacent widths of material, the Contractor shall neutralize the pile with a steam machine and obtain a uniform pile direction



throughout by brushing the carpet while it is still damp, at no additional cost to LAWA.

4. Edge Strip Installation: Install edge strip at every location where edge of carpet is exposed to traffic, unless otherwise indicated. Unless otherwise directed by the Architect of Record, install in single lengths and secure in accordance with manufacturer's directions.
 5. Traffic over adhesive installations shall be restricted until adhesive has properly cured in accordance with the adhesive manufacturers recommendations.
- B. Stair Carpeting: Comply with the manufacturer's instructions, specified industry standards and recommendations, and as follows:
1. Glue Down Installation: Tightly secure carpet to treads and risers using carpet adhesive. Stairs with a return nosing shall be cut and installed with the tread and risers being separate pieces.

3.4 CLEANING AND PROTECTION

- A. Cleaning: As the carpeting is installed, remove and dispose of all trimmings, excess pieces of carpeting and laying materials from each area as it is completed. Vacuum carpeting with a commercial vacuum, having a cylindrical brush or beater bar and high suction. Remove adhesives, stains, and soil spots in accordance with the carpet manufacturer's recommendations.
- B. Protection: Protect carpeting against damage of every kind as damaged carpeting shall be rejected. Use non-staining cover material for protection. Tape joints of protective covering.
1. Plastic and polyethylene sheet protective coverings shall not be permitted over glue down installations.
 2. Remove and replace rejected carpeting with new carpeting. At the completion of the work and when directed by LAWA, remove covering, vacuum clean carpeting and remove soiling and stains (if any) to the satisfaction of LAWA.

END OF SECTION 09 68 16
