

SECTION 09680
CARPET

PART 1 - GENERAL

1.01 PROVISIONS INCLUDED

- A. The general provisions of the Contract, including General and Supplementary Conditions and Division 1 General Requirements, apply to this Section.

1.02 SUMMARY

- A. Work Included: Broadloom carpet, direct-glued-down installation.
- B. Related Work Specified in Other Sections:
 - 1. Resilient Base: Section 09650.
 - 2. Room Finish Schedule: Section 09000.

1.03 REFERENCED STANDARD

- A. Carpet and Rug Institute, "Standard for Installation of Commercial Textile Floor Covering Materials," CRI 104.

1.04 SUBMITTALS

- A. Product data: Submit manufacturer's carpet data sheets, specifications and installation instructions. Submit written data on physical characteristics, durability, resistance to fading, and flame resistance characteristics.
- B. Shop drawings: Submit layout and seaming diagrams. Indicate pile or pattern direction and locations and types of edge strips. Indicate columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet. Show installation details at special conditions.
- C. Samples for initial selection in the form of manufacturer's color charts or Samples of materials showing the full range of colors, textures, and patterns available for carpet specified.
- D. Samples for verification, showing full range of color, texture, and pattern variations expected. Prepare samples from same material to be used for the Work.
 - 1. 12-inch-square samples of each type of carpet material required.
 - 2. 12-inch-long samples of each type exposed edge stripping and accessory item.
- E. Schedule of carpet using same room designations indicated on Drawings.
- F. Closeout Submittals: Maintenance data for carpet to include in the operation and maintenance manual specified in Division 1. Include the following:

1. Methods for maintaining carpet, including manufacturer's recommended frequency for maintaining carpet.
2. Precautions for cleaning materials and methods that could be detrimental to finishes and performance. Include cleaning and stain-removal products and procedures.

1.05 QUALITY ASSURANCE

- A. **Installer Qualifications:** A specialty contractor normally engaged in carpet installation, able to demonstrate successful installation of carpet on at least 5 projects in the past 2 years of size and scope similar to this project, and acceptable to the carpet manufacturer as qualified to install the specified carpet.
- B. **Single-Source Responsibility:** Obtain all carpet for the Project from a single supplier.
- C. **Carpet Radiant Panel Test:** Test identical carpet by the Critical Radiant Flux method, ASTM E 648/NFPA 253. Furnish certified test results showing performance specified in Part 2 of this Section.
- D. **Carpet Fire-Test-Response Characteristics:** Provide carpet with the fire-test-response characteristics specified in Part 2 of this Section, as determined by testing identical products per test method indicated, by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify carpet with appropriate markings of applicable testing and inspecting agency.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. **General:** Comply with the Carpet and Rug Institute's CRI 104, Section 5: "Storage and Handling."
- B. Deliver materials to project site in original factory wrappings and containers, labeled with identification of manufacturer, brand name, and lot number.
- C. Store materials in original undamaged packages and containers, inside well-ventilated area protected from weather, moisture, soilage, extreme temperatures, and humidity. Lay flat, blocked off ground. Maintain minimum temperature of 68 deg F (20 deg C) at least three days prior to and during installation in area where materials are stored.
- D. Allow the carpet to relax unrolled in a well-ventilated area for at least 24 hours prior to installation.

1.07 PROJECT CONDITIONS

- A. **General:** Comply with CRI 104, Section 6, "Site Conditions."
- B. **Space Enclosure and Environmental Limitations:** Do not install carpet until wet-work in space, including installation and finishing of drywall construction, is completed and nominally dry, work above ceilings is complete, and ambient temperature and humidity conditions are and will be continuously maintained at values near those indicated for final occupancy.

- C. Concrete Subfloor: Test for moisture and proper pH range as specified in article 3.01.
- D. Ventilation during and after installation for at least 72 hours: Operate the ventilating system to maintain a minimum temperature of 68 deg F. Provide an adequate supply of fresh air. Exhaust chemicals to the outdoors; avoid the recirculation of air within the installation space.

1.08 WARRANTY

- A. Special Carpet Warranty: Submit a written warranty executed by carpet manufacturer and Installer agreeing to repair or replace carpet that does not meet requirements or that fails in materials or workmanship within the specified warranty period. Failures include, but are not limited to, more than 10 percent loss of face fiber, edge raveling, snags, runs, and delamination.
 - 1. Warranty Period: 10 years from date of Substantial Completion.
- B. The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

PART 2 - PRODUCTS

2.01 CARPET

- A. Subject to compliance with requirements, furnish one of the following carpets:
 - 1. Bigelow Commercial Carpet; "McCormick," Style No. W021
 - 2. Mohawk Commercial Carpet; "Structures."
 - 3. Shaw's; "Stratus," Style No. 50351
- B. Carpet Data: Basis of specification is the Bigelow carpet named.
 - 1. Construction: Textured patterned loop.
 - 2. Fiber: 100% Nylon.
 - 3. Dye Method: Solution dyed, or yarn dyed.
 - 4. Machine Gauge: 1/10
 - 5. Pile Thickness: 0.130 minimum.
 - 6. Yarn Weight: 28 oz./sq. yd. to 32 oz./sq. yd.
 - 5. Primary and Secondary Backing: Woven Polypropylene; Shaw's "ActionBac" is acceptable as secondary backing.
 - 6. Density: 6500 or greater.
 - 7. Width: 12 feet

8. Performance Characteristics: As follows:
 - a. Pill Test: CPSC-FF-1-70 (ASTM D2859) passes
 - b. Flooring Radiant Panel: NFPA-253 (ASTM E648) Direct Glue Down Mode – Class 1, 0.45 watts/square cm.
 - c. Flame Spread: 25 or less per ASTM E 84.
 - d. NBS Smoke Chamber: NFPA-258 (ASTM E662) Flaming Mode – 450 or less
 - e. Static Propensity: 3.5 KV or less
 9. Stain Resistance: Treat carpet for soil release or stain resistance, using manufacturer's standard method, equal to "Scotchgard" stain and soil protection or 3M "Commercial Carpet Protection."
 10. IAQ Certification: Furnish carpet that has CRI IAQ Certification, or passes "Green Label Certification."
- C. Colors: To be selected by the Architect from full range of the approved carpet.

2.02 ACCESSORIES

- A. Trowelable Underlayment and Patching Compound: Latex-modified, portland-cement-based formulation provided or approved by carpet manufacturer.
- B. Seaming Cement: Hot-melt adhesive tape or similar product recommended by carpet manufacturer for taping seams and butting cut edges at backing to form secure seams and to prevent pile loss at seams.
- C. Carpet Adhesive: Water resistant and nonstaining, complying with flammability requirements for installed carpet, with VOC Content not exceeding 50 g/L, and as recommended by carpet manufacturer to suit substrate conditions and carpet backing.
- D. Carpet Edge Guard: Extruded or molded heavy-duty vinyl or rubber of size and profile indicated; minimum 2-inch-wide anchorage flange; manufacturer's standard colors.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. In company of carpet installer, examine areas where carpet will be installed, to verify that substrates and conditions under which carpet is to be installed are satisfactory for glued-down installation. A satisfactory subfloor is dry, not too alkylene, flat, smooth and free from cracks, holes and ridges and free from chalking.
- B. Subfloor Moisture Conditions: Moisture emission rate of not more than 3 lb/1000 sq. ft./24 hours (14.6 kg/1000 sq. m/24 hours) when tested by calcium chloride moisture test in compliance with CRI 104, 6.2.1, with subfloor temperatures not less than 55 deg F (12.7 deg C).
- C. Subfloor Alkalinity Conditions: A pH range of 5 to 9 when subfloor is wetted with potable water and pHydron paper is applied.

- D. Frequency of Testing: Perform one test for subfloor moisture and subfloor alkalinity for each 5000 square feet of floor area or portion thereof, at representative locations.
- E. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. General: Comply with CRI 104, Section 6.2, "Site Conditions; Floor Preparation," and carpet manufacturer's written installation instructions for preparing substrates indicated to receive carpet installation.
- B. Cut carpet bails open to full length of rolls to allow the carpet to ventilate a minimum of 72 hours prior to installation.
- C. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, and depressions in substrates.
- D. Remove coatings, including curing compounds, 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.
- E. Broom and vacuum clean substrates to be covered immediately before installing carpet. After cleaning, examine substrates for moisture, alkaline salts, carbonation, or dust. Proceed with installation only after unsatisfactory conditions have been corrected.
- F. If alkaline content is greater than 9, or is such that it may cause future delaminating of the carpet, per manufacturer's printed instructions, apply carpet manufacturer's recommended primer, adhesives and seam sealers. Provide written disclosures for material, adhesives, and seam sealers.

3.03 INSTALLATION

- A. Direct-Glue-Down Installation: Install carpet in strict accordance with the Carpet and Rug Institute's IAQ (indoor air quality) installation guidelines. Install carpet in accordance with the recommendations in CRI 104 and the carpet manufacturer's specifications.
 - 1. Unless otherwise directed by the manufacturer's instructions, apply adhesive uniformly using a notched trowel to control amount of adhesive. Allow proper "open time."
 - 2. After carpet has been laid, roll entire area lightly to eliminate air pockets and ensure uniform bond. Butt edges tight to form seams without gaps.
- B. Comply with carpet manufacturer's written recommendations for seam locations and direction of carpet; maintain uniformity of carpet direction and lay of pile. At doorways, center seams under the door in closed position.
- C. 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.

- D. Extend carpet into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- E. Install pattern parallel to walls and borders.
- F. Install carpet edge guard where edge of carpet is exposed; anchor guards to substrate.

3.04 MAINTENANCE MATERIALS

- A. Salvage useable left-over pieces of carpet (larger than 2 square feet and over 12 inches wide) for Owner's use in repair and maintenance. Neatly roll and wrap these leftover materials in kraft paper wrapping; wrap each type and color separately. Tag and label tag, as specified for extra materials. Deliver to storage area designated by Owner.

3.05 CLEANING AND PROTECTION

- A. Immediately after installing carpet:
 - 1. Remove excess adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet manufacturer.
 - 2. Remove yarns that protrude from carpet surface.
 - 3. Vacuum carpet using commercial machine with face-beater element.
 - 4. Remove and dispose of debris and unuseable scraps.
- B. Protect installed carpet to comply with CRI 104, Section 15, "Protection of Indoor Installations."
- C. Protect carpet against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet manufacturer.

3.06 BUILDING VENTILATION

- A. In areas where carpet has been installed, operate the building ventilation systems at maximum outdoor air flow before, during and 72 hours after the new carpet installation.

END OF SECTION 09680