

### **3.3 GENERAL INSTALLATION REQUIREMENTS**

- A. Comply with manufacturer's published recommendations for installation in each area, extending resilient flooring into spaces which are partially concealed. Cut and fit tightly to fixtures, pipes, and other obstructions, as well as to walls and partitions.
- B. Access Covers: Install resilient flooring tightly to removable access covers in field of flooring, taking care that pattern will match when covers are in closed position.
- C. Tightly adhere resilient flooring to substrate with no open joints or cracks, and without raised or blistered areas. Spread adhesive evenly, so that final installation will be without telegraphed markings from adhesive or substrate.
- D. Extend resilient flooring into toe spaces, door reveals, and into closets and similar openings.
- E. Scribe, cut, and fit resilient flooring to permanent fixtures, built-in furniture and cabinets, pipes, outlets and permanent columns, walls and partitions.
- F. Maintain reference markers, holes, or openings that are in place or plainly marked for future cutting by repeating on finish flooring as marked on subfloor. Use chalk or other non-permanent marking device.
- G. Install resilient flooring on covers for telephone and electrical ducts, and similar items occurring within finished floor areas. Maintain overall continuity of color and pattern with pieces of flooring installed on these covers. Tightly cement edges to perimeter of floor around covers and to covers.
- H. Tightly cement resilient flooring to subbase without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, or other surface imperfections. Hand roll resilient flooring at perimeter of each covered area to assure adhesion.

### **3.4 INSTALLATION OF TILE FLOORS**

- A. Lay tile from center marks established with principal walls, discounting minor offsets, so that tile at opposite edges of room area of equal width. Adjust as necessary to avoid use of cut widths less than 1/2 tile at room perimeters. Lay tile square to room axis, unless otherwise shown.
- B. Match tiles for color and pattern by using tile from cartons in same sequence as manufactured and packaged if so numbered. Cut tile neatly around all fixtures. Broken, cracked, chipped, or deformed tiles are not acceptable.
  - 1. Lay tile in pattern shown or as directed by Architect.
- C. Adhere tile flooring to substrates using full spread of adhesive applied in compliance with flooring manufacturer's directions.
- D. Expansion Joints: Locate expansion joints and other sealant filled joints, including control, contraction and isolation joints, where indicated or where joints occur in substrate. Do not saw cut joints.

### **3.5 INSTALLATION OF ACCESSORIES**

- A. Apply wall base to walls, columns, pilasters, casework and other permanent fixtures in rooms or areas where base is required. Install base in lengths as long as practicable, with preformed corner units, or fabricated from base materials with mitered or coped inside corners. Tightly bond base to substrate throughout length of each piece, with continuous contact at horizontal and vertical surfaces.
  - 1. Job-formed Corners:
    - a. Outside Corners: Form by bending without producing discoloration (whitening) at bends.
    - b. Inside Corners: Butt one piece to corner, then scribe next piece to fit.
- B. On masonry surfaces, or other similar irregular substrates, fill voids along top edge of resilient wall base with manufacturer's recommended adhesive filler material.
- C. Place resilient edge strips tightly butted to flooring and secure with adhesive. Install edging strips at edges of flooring which would otherwise be exposed.

### **3.6 CLEANING AND PROTECTION**

- A. Perform following operations immediately upon completion of resilient flooring:
  - 1. Sweep or vacuum floor thoroughly.
  - 2. Do not wash floor until time period recommended by resilient flooring manufacturer has elapsed to allow resilient flooring to become well-sealed in adhesive.
  - 3. Damp-mop floor being careful to remove black marks and excessive soil.
  - 4. Remove any excess adhesive or other surface blemishes, using appropriate cleaner recommended by resilient flooring manufacturers.
- B. Protect flooring against damage during construction period to comply with resilient flooring manufacturer's directions.
  - 1. Apply protective floor polish to resilient flooring surfaces free from soil, excess adhesive or surface blemishes. Use commercially available metal cross-linked acrylic product acceptable to resilient flooring manufacturer.
  - 2. Protect resilient flooring against damage from rolling loads for initial period following installation by covering with plywood or hardboard. Use dollies to move stationary equipment or furnishings across floors.
  - 3. Cover resilient flooring with undyed, untreated building paper until inspection for substantial completion.
- C. Clean resilient flooring not more than 4 days prior to date scheduled for inspections intended to establish date of substantial completion in each area of project. Clean resilient flooring by method recommended by resilient flooring manufacturer.

- D. Strip protective floor polish, which was applied after completion of installation, prior to cleaning.
  - 1. Reapply floor polish after cleaning.

### **3.7 EXTRA STOCK**

- A. Deliver stock of maintenance materials to Owner. Furnish maintenance materials from same manufactured lot as materials installed and enclosed in protective packaging with appropriate identifying labels.
  - 1. Tile Flooring: Furnish not less than one box for each 50 boxes or fraction thereof, for each type, color, pattern and size selected and installed.
  - 2. Accessories: Furnish not less than 2% of each type, size and color selected and installed.

**END OF SECTION 09650**

## SECTION 09682 - CARPET ENTRY MATS (CEM)

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Related Sections:
  - 1. Section 01455 - Concrete In-situ Relative Humidity and pH Testing.
  - 2. Section 03450 - Self Drying Finishing Underlayment
  - 3. Section 09650 - Resilient Flooring for rubber base.

#### 1.2 SUMMARY

- A. Extent, location and details of type of carpet entry mats are indicated on the drawings and in the Finish Schedule.
- B. Work of this section includes furnishing and installation of carpet entry mats, adhesives and accessories.

#### 1.3 DEFINITIONS

- A. Commercial CEM: CEM intended for use in commercial and public spaces with construction, fire ratings, static control and appearance appropriate for this use.

#### 1.4 REFERENCES

- A. American Society for Testing and Materials (ASTM):
  - 1. ASTM E-648, Floor Radiant Panel (Passes)
  - 2. ASTM E-662, Smoke Density  $\leq 450$
  - 3. ASTM F 1869-11, Calcium Chloride Method, 5 lbs.
  - 4. ASTM D 2047, Static Coefficient of Friction:  $> 0.80$  dry
- B. American Association of Textile Chemists and Colorists (AATCC)
  - 1. AATCC 16 - E, Lightfastness:  $\geq 4.0 @ 60$  AFU's
- C. Standard Test Method for Evaluation of Dimensional Stability of Pile Yarn Floor Covering (AACHEN)
  - 1. AACHEN, Dimensional Stability: Din 54318  $<.10\%$

#### 1.5 WARRANTY

- A. Manufacturer's standard **fifteen (15) year** warranty against excessive wear, edge ravel, backing separation, shrinking, stretching and static electricity.

## 1.6 SUBMITTALS

- A. Manufacturer's Data: Submit manufacturer's product literature and installation instructions for type of carpeting material and installation accessory required. Include methods of installation for each type of substrate.
  - 1. Submit written data on physical characteristics, durability, resistance to fading and flame resistance characteristics and showing compliance with the contract requirements, including independent laboratory test reports.
  - 2. Include manufacturer's recommended specifications for primer, adhesive and installation instructions.
- B. Certificate of Compliance:
  - 1. Submit certified test reports that carpet meets all the performance requirements stated above in paragraph 1.4 and 1.5. Submit certified test reports that carpet meets all performance criteria.
- C. Samples:
  - 1. Submit two samples 6" x 8" of type, color, and pattern of CEM materials required.
    - a. Any alternates to specified products must be submitted for approval by the Architect.
  - 2. No carpet shipments are permitted until acceptance of final samples is given by the Architect / Owner.
- D. Shop Drawings:
  - 1. For carpeted areas submit shop drawings showing installation of carpeting, seam diagram, pattern direction, necessary installation accessories, and provisions for work of other trades. Show location of different patterns or styles of carpet. Also show locations of any threshold conditions.
  - 2. The contractor will supply reproducible prints on request, to facilitate shop drawing preparation.
- E. Maintenance Manual:
  - 1. Within sixty (60) days of awarding the Contract, submit two (2) copies of carpet manufacturer's maintenance manual, including his recommendations for the care, cleaning and maintenance programs of type of CEM.
- F. Recycling, Energy Conservation, and Reclamation Programs:
  - 1. Submit manufacturer's written certifications that all indicated programs are established and in full effect at the time of bidding.

G. Testing of Substrate:

1. Submit test reports of testing the concrete or other floor substrate, indicating compliance with manufacturer's requirements for moisture and alkalinity percentage of contents.

H. Closeout Submittals:

1. Maintenance Data: Include maintenance procedures, recommended cleaning and stain removal materials, and recommended cleaning schedule. Include product data and Safety Data Sheets (SDS) for cleaning and stain-removal materials.
2. Installation Instructions: Include detailed installation procedures. Include modular installation procedures, adhesive type(s), trowel sizes, spread rates, open times, and Safety Data Sheets (SDS) for all adhesives.

## 1.7 QUALITY ASSURANCE

- A. Moisture vapor emission testing in accordance with ASTM F 1869-11. Test results should not exceed 5 pounds per 1,000 square feet per 24 hours, unless otherwise specified by the flooring or adhesive manufacturer.
1. ASTM Standard also states that relative humidity inside of the concrete slab should not exceed 80%, per ASTM F2170-11, unless otherwise specified by the flooring or adhesive manufacturer.
- B. Single Source Responsibility: Provide products from a single manufacturer.
- C. Warranties must be manufacturer's standard and not job specific.
- D. All styles must come from the same manufacturer.
- E. Do not install carpet until areas have been fully enclosed and environmental conditions have reached the levels indicated during occupancy.
- F. Maintain ambient temperature and humidity conditions during and after installation of carpet at levels indicated during occupancy.
- G. Allow carpet to reach room temperature or minimum temperature recommended by manufacturer before beginning installation.
- H. Protect adhesives from freezing. Follow manufacturer's recommendations for minimum temperatures to which adhesives are exposed.

## 1.8 QUALIFICATIONS

- A. Manufacturer:
1. Company specializing in manufacturing Commercial Carpet with a recommended minimum five (5) years of documented experience and recommended to have been in continuous operation and using technology that has been in use for a recommended (10) years.

2. The manufacturer must agree to provide on-site supervision during the start up phase of installation without any additional cost to the Owner.
  - a. The manufacturer shall provide the Architect with written documentation of locations within the project that were supervised by the manufacturer.
  - b. Manufacturer shall notify the Architect and the General Construction Work Contractor if installation instructions are not completely followed.

**B. Installer:**

1. Company specializing in installing CEM with a recommended minimum five (5) years of documented experience approved by the manufacturer, and participation in manufacturer's installation programs including responsible carpet removal.
  - a. The installation of the CEM must be guaranteed by the manufacturer of the carpet.
  - b. Installation must be performed by an installer that is pre-approved in writing by the manufacturer of the carpet.
  - c. The agreement between the manufacturer and the installer must specifically address all installation procedures and materials to be used with the specified warranties.
2. Installer shall follow all installation procedures recommended by the manufacturer and use only materials supplied by the manufacturer to assure obtaining required warranties offered by the manufacturer.

**1.9 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials to project site in original factory original wrappings, clearly labeled with identification of manufacturer, brand name, quality or grade, fire hazard classification, and lot number.
- B. Store materials in original undamaged packages and containers, inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, humidity; laid flat, blocked off ground to prevent sagging and warping.
- C. Comply with instructions and recommendations of manufacturer for special delivery, storage, and handling requirements.

**PART 2 - PRODUCTS**

**2.1 MATERIALS**

- A. Basis of Design: "Anthracite - #603059", as manufactured by Interface Flor; or approved equal.
  1. Made for the most demanding applications, Anthracite is durable, anti-slip flooring with outstanding sound absorption properties. Used as a walk-off mat for entryways, lobbies, concourses, and foyers, and other demanding indoor and outdoor applications.

2. Product number: 6003002504
3. Product Construction: Hair Tile (Needlepunch)
4. Yarn System: 55% Nylon; 27.5% Animal Hair; 17.5% Polyester
5. Dye Lots: Non-Mergeable
6. Pile Height: 0.16 inch / 4.2 mm
7. Pile Thickness: 0.165 inch / 4.2 mm
8. Pile Density: 8,945 oz/yd<sup>3</sup>
9. Size: 19.69 inches x 19.69 inches / 50 cm x 50 cm
10. Total Recycled Content: 39%
  - a. Recycled Content (Post Industrial) 39%
  - b. Recycled Content (Post Consumer) 0%

## **2.2 ACCESSORIES**

- A. Floor Primer: Manufacturer's approved floor primer applied to all areas that will receive CEM.
- B. Installation Adhesive: Low VOC Manufacturer's adhesives. No other adhesive materials will be accepted.
- C. Miscellaneous Materials: As recommended by manufacturer of CEM for other products; selected by Installer to meet project circumstances and requirements.
- D. Accessories: Architect shall specify manufacturers' color coordinated rubber accessories as required, including (but not limited to) resilient wall base, reducers or other edgings, etc.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Examine and test substrates for moisture content, high alkalinity, levelness and other conditions under which CEM is to be installed. Notify Contractor in writing of major conditions detrimental to proper completion of the work.
  1. Do not proceed until unsatisfactory conditions have been corrected.
    - a. Commencement of work shall constitute acceptance of conditions. Any necessary remedial work required to correct any unsatisfactory conditions, found after the start of installation, will be provided at no cost to the Owner.
  2. Coordinate with installation of floor leveling underlayment, where indicated or required.



### **3.2 PREPARATION**

- A. Substrate: Prepare substrate to be free of paint, old adhesive, sealers, coatings, finishes, dirt, film-forming curing compounds, and all other substances which may affect the adhesion of floor covering to the substrate.
  - 1. Concrete Substrate: Reference Standard ASTM F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
    - a. Concrete Moisture Test: Per ASTM F 710 Section 5, persons or testing agencies with experience in concrete moisture testing shall perform moisture tests on concrete regardless of its age or grade level or history of use, with a minimum of three tests for the first 1000 square feet and one additional test for each 1000 square feet or fraction thereof, per grade level. A diagram of the area showing the location and results of each test shall be dated and submitted to the architect, general contractor and/or end user. If the test results exceed the floor covering manufacturer's limits, installing shall not commence until results conform to limits.
    - b. Concrete pH Test: Perform pH tests on concrete regardless of its age or grade level or history of use. Readings below 7.0 and above 10.0 can adversely affect resilient flooring or adhesives, or both. If the test results exceed the floor covering manufacturer's limits, installing shall not commence until results conform to limits.
- B. Remove sub-floor ridges and bumps. Fill minor or local low spots, cracks, joints, holes and other defects with sub-floor filler.
- C. Fill, level and make smooth cracks 1/16 inch or more, holes, unevenness, and roughness with compatible latex floor patching compounds. Feather floor filling or leveling compound a minimum of four (4) ft. Sweep floor of loose granular debris prior to filling. After filling, allow filler to dry. Damp mop floor with warm water and allow to dry. Vacuum after mopping to ensure that loose granular debris is removed and to provide a proper substrate. Prohibit traffic until filler is cured.
- D. Vacuum floor again immediately before installation of CEM.
- E. Preheat areas to receive CEM to a minimum temperature of 68°F for 72 hours prior to installation, with a relative humidity of not more than 65%. Maintain minimum temperature of 50°F thereafter. CEM and adhesive must be stored at a minimum temperature of 68°F, for 72 hours prior to installation.

### **3.3 INSTALLATION**

- A. Install CEM in accordance with the Technical Bulletins provided by the manufacturer.
- B. Perform cutting in accordance with manufacturer's recommendation using tools designed for carpet being installed. Verify carpet match before cutting to insure minimal variation between dye lots.
- C. Install CEM from same dye lot and run within each continuous area.

- D. Seal seams with manufacturer recommended seam sealer, if applicable.
- E. Use leveling compound where necessary. Feather floor leveling compounds minimum of 4 ft.
- F. Do not bridge building expansion joints with CEM. Provide for movement.
- G. Roll with appropriate roller for complete contact of adhesive to carpet backing.
- H. Complete installation of edge strips, concealing exposed edges.
- I. Use a fixed reducer strip to secure CEM in open perimeter designs.

### **3.4 CLEANING**

- A. Remove and dispose of debris and unusable scraps. Vacuum CEM using commercial machine with face-beater element. Remove spots and replace CEM where spots cannot be removed.

### **3.5 CALL BACK**

- A. Prior to expiration of warranty, perform all necessary corrections and adjustments.

### **3.6 ADDITIONAL MATERIAL**

- A. Deliver to Owner as directed not less than five percent (5%) additional CEM of type, pattern and color used.

**END OF SECTION 09682**

## SECTION 09685 - CARPET TILE

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Related Sections:
  - 1. Section 01455 - Concrete In-situ Relative Humidity and pH Testing.
  - 2. Section 03450 - Self Drying Finishing Underlayment
  - 3. Section 09650 - Resilient Flooring for rubber base.

#### 1.2 SUMMARY

- A. Extent, location and details of type of carpeting are indicated on the drawings.
- B. Work of this section includes furnishing and installation of carpeting, adhesives and accessories.

#### 1.3 DEFINITIONS

- A. Commercial Carpet: Carpet intended for use in commercial and public spaces, with construction, fire ratings, static control and appearance appropriate for this use.

#### 1.4 REFERENCES

- A. American Association of Textile Chemists and Colorists (AATCC):
  - 1. AATCC 16: Test Method of Colorfastness to Light.
  - 2. ATTCC 134: Test Method for Electrostatic Propensity of Carpets.
  - 3. AATCC 174: Antimicrobial Activity Assessment of Carpets.
- B. American Society for Testing and Materials (ASTM):
  - 1. ASTM E 648: Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.
  - 2. ASTM E 662: Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials.
  - 3. ASTM E 2471: Standard Test Method for Using Seeded-Agar for the Screening Assessment of Antimicrobial Activity In Carpets

#### 1.5 PERFORMANCE REQUIREMENTS

- A. Comply with the following general performance requirements:
  - 1. Radiant Panel: ASTM E-648: Class 1
  - 2. Smoke Density: ASTM E-662  $\leq$ 450
  - 3. Static: AATCC - 134,  $<$ :3.0 KV

4. Lightfastness: AATCC 16 - E,  $\geq 4.0 @ 60 @$  AFU's
5. Indoor Air Quality: Green Label Plus

B. Comply with the following special performance requirements:

1. Carpet must be square, 4 hole cross-section.
2. Carpet must be Post-Consumer Content Type 6 Nylon.
2. Carpet must have permanent anti-static fiber.
3. Carpet must have Soil Protection.
4. Carpet must be "Mergable Dyelots".

C. Warranty Performance Requirements:

[EDUCATIONAL]

1. **Twenty (20) year** excessive surface wear (loss of more than 10% by weight of face fiber), edge ravel, backing separation, shrinking, stretching and static electricity Warranty from the date of invoice.
2. **Twenty (20) year** - Antimicrobial Preservative Protection Warranty.
3. **Special Project Warranty:**
  - a. In addition, a written special project warranty, executed by the Contractor and the Installer, agreeing to repair or replace carpet which fails in material or workmanship within a period of **two (2) years**, which starts at the date of substantial completion, without any cost to the Owner, and agreeing to repair or replace other defects beyond Contractor's/ Installer's / Manufacturer's controls, as judged by the Architect, at Owner's expense at prevailing rates.
- 4.. TacTiles® carpet tile will not be adversely affected by defects in their materials or workmanship for a period of **one (1) year** from the date of invoice when used to install the appropriate Interface® carpet products.
5. Refer to Section 01900 "Warrantees and Guarantees" which include but not limited to the following requirements:
  - a. Excessive wear,
  - b. Edge ravel,
  - c. Backing separation,
  - d. Shrinking,
  - e. Stretching,
  - f. Cupping,
  - g. Doming,
  - h. Static electricity,
  - i. Antimicrobial effectiveness,
  - j. Excessive color loss.

## 1.6 SUBMITTALS

- A. Manufacturer's Data: Submit manufacturer's product literature and installation instructions for each type of carpeting material and installation accessory required. Include methods of installation for each type of substrate.

1. Submit written data on physical characteristics, durability, resistance to fading and flame resistance characteristics and showing compliance with the contract requirements, including independent laboratory test reports.
  2. Include manufacturer's recommended specifications for primer, adhesive and installation instructions.
- B. Fiber Requirements: Submit certification from the fiber producer verifying the following:
1. Use of the specified fiber in the submitted carpet product.
  2. Must have federally registered Branded trademark.
- C. Certificate of Compliance:
1. Submit certified test reports that carpet meets all the performance requirements stated above in paragraph 1.4 (above) Performance requirements. Submit certified test reports that carpet meets all performance criteria.
- D. Samples:
1. Submit two carpet samples 6" x 8" of each type, color, and pattern of carpet materials required. Submit two samples, 6" in lengths of edge guard stripping.
  2. Any alternates to specified products must be submitted for approval by the Architect.
  3. Final Sample Submittal:
    - a. Submit two (2) sets of samples for each carpet type.
    - b. No carpet shipments are permitted until acceptance of final samples is given by the Architect / Owner.
    - c. Samples submitted are assumed to be the manufacturer's best obtainable match to the carpet described under Materials Section.
- E. Shop Drawings:
1. For carpeted areas submit shop drawings showing installation of carpeting, seam diagram, pattern direction, necessary installation accessories, and provisions for work of other trades. Show location of different patterns or styles of carpet. Also show locations of any threshold conditions.
  2. The Contractor will supply reproducible prints on request, to facilitate shop drawing preparation.
- F. Maintenance Manual:
1. Within sixty (60) days of awarding the Contract, submit two (2) copies of carpet manufacturer's maintenance manual, including his recommendations for the care, cleaning and maintenance programs of each type of carpeting.

G. Recycling, Energy Conservation, and Reclamation Programs:

1. Submit manufacturer's written certifications that all indicated programs are established and in full effect at the time of bidding.

H. Testing of Substrate:

1. Submit test reports of testing the concrete or other floor substrate, indicating compliance with manufacturer's requirements for moisture and alkalinity percentage of contents. Tests shall be performed in accordance with requirements of Section 01455.

I. Closeout Submittals:

1. Maintenance Data: Include maintenance procedures, recommended cleaning and stain removal materials, and recommended cleaning schedule. Include product data and Safety Data Sheets (SDS) for cleaning and stain-removal materials.
2. Installation Instructions: Include detailed installation procedures. Include modular installation procedures, adhesive types, trowel sizes, spread rates, open times, and Safety Data Sheets (SDS) for all modular adhesives.
3. Warranties and Performance Certifications:
  - a. Submit written warranties for all products as well as Performance testing results on all items included in Warranty section and Performance section of this specification.

**1.7 QUALITY ASSURANCE**

- A. Single Source Responsibility: Provide products from a single manufacturer.
- B. Warranties must be manufacturer's standard and not job specific.
- C. All styles must come from the same manufacturer.
- D. Carpet must be Post-Consumer Content Type 6 Nylon
- E. Do not install carpet until areas have been fully enclosed and environmental conditions have reached the levels indicated during occupancy.
- F. Maintain ambient temperature and humidity conditions during and after installation of carpet at levels indicated during occupancy.
- G. Allow carpet to reach room temperature or minimum temperature recommended by manufacturer before beginning installation.
- H. Protect adhesives from freezing. Follow manufacturer's recommendations for minimum temperatures to which adhesives are exposed.
- I. IAQ Requirements, Green Label: All products must be CRI Green Label Certified.
- J. Carpet must be 100% recyclable.

## 1.8 QUALIFICATIONS

### A. Manufacturer:

1. Company specializing in manufacturing Commercial Carpet with a recommended minimum five (5) years of documented experience and has been in continuous operation and using technology that has been in use for a recommended ten (10) years.
2. The manufacturer must agree to provide on-site supervision during the start up phase of installation without any additional cost to the Owner.
  - a. The manufacturer shall provide the Architect / Construction Manager with written documentation of locations within the project that were supervised by the manufacturer.
  - b. Manufacturer shall notify the Architect / Construction Manager and the General Construction Work Contractor if installation instructions are not completely followed.
3. The manufacturer must agree to provide a Reclamation Program. Written documentation, indicating that this program is in effect with proof that the mechanics of the program is available at the time of the bid.

### B. Installer:

1. Company specializing in installing carpet with a recommended minimum five (5) years of documented experience approved by the manufacturer, and participation in manufacturer's installation programs including responsible carpet removal.
  - a. The installation of the carpet must be guaranteed by the manufacturer of the carpet.
  - b. Installation must be performed by an installer that is pre-approved in writing by the manufacturer of the carpet.
  - c. The agreement between the manufacturer and the installer must specifically address all installation procedures and materials to be used with the specified warranties.
2. Installer shall follow all installation procedures recommended by the manufacturer and use only materials supplied by the manufacturer to assure obtaining required warranties offered by the manufacturer.

### C. Indoor Air Quality Testing:

1. Submit testing reports furnished by an independent testing laboratory with manufacturers' certification attesting that all carpet supplied for this project have been tested and passed the Indoor Air Quality Testing requirements established by the Carpet and Rug Institute (CRI), Green Label Program for VOC's, which do not exceed the established emission levels. Likewise, the adhesives to be used for installation of the carpet have been tested and determined to be in compliance with the CRI Indoor Air Quality Testing Program requirements.

## 1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to project site in original factory original wrappings, clearly labeled with identification of manufacturer, brand name, quality or grade, fire hazard classification, and lot number.
- B. Store materials in original undamaged packages and containers, inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, humidity; laid flat, blocked off ground to prevent sagging and warping.
- C. Comply with instructions and recommendations of manufacturer for special delivery, storage, and handling requirements.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Provide "Cubic and/or Cubic Colours" as manufactured by InterfaceFLOR, (Local Rep. - Peter Gato, Tel.# 973.986.4706); or approved equal.
  - 1. Type: Tufted Textured Loop.
  - 2. Face Yarn: 100% Recycled Content Type 6 Nylon
  - 3. Color System: 100% Solution Dyed.
  - 4. Yarn Weight: 18.0 ounces per square yard.
  - 5. Pile Density: 6,968 ounces per cubic yard
  - 6. Backing Material: GlasBac® RE
  - 7. Pile thickness: 0.093".
  - 8. Total thickness: 0.28".
  - 9. Stitches: 8.2/in.
  - 10. Size: 19.69 in x 19.69 in.
  - 11. Soil/Stain Protection: Protekt<sup>2</sup>®.
  - 12. Preservative Protection: Intersept® antimicrobial
  - 13. Preservative Efficacy: (AATCC 174 Parts 2&3) 99% Reduction/No Mold 7 Days. (ASTM E-2471) Complete Inhibition.
  - 14. Smoke Density: ASTM E-662 ≤450
  - 15. Static Test: (AATCC - 134) <3.0 KV
  - 16. Flooring Radiant Panel: ASTM E-648, Class 1.
  - 17. Indoor Air Quality: Green Label Plus #GLP0820.
  - 18. Environmental Specifications:
    - a. Total Recycled Content 84%
    - b. Recycled Content (Post Industrial) 68%
    - c. Recycled Content (Post Consumer) 17%
    - d. Other Environmental Claims: 3rd Party Verified Carbon Neutral  
NSF/ANSI 140 Platinum - Sustainability Assessment
    - e. End of Life: Carpet to Carpet Recycling
  - 19. Lightfastness: (AATCC 16-E) ≥4.0 @ 60 AFU's
  - 20. Static: (AATCC-134) <3.0 KV
  - 21. Dimensional Stability: AACHEN Din 54318 <.10%.
  - 22. Traffic Classification: Severe.
  - 23. Warranty: Manufacturer's standard - **Twenty (20) year** (Educational) from the date of invoice.



Special Project Warranty: In addition, a written special project warranty, executed by the Contractor and the Installer, agreeing to repair or replace carpet which fails in material or workmanship within a period of **two (2) years**, which starts at the date of substantial completion, without any cost to the Owner, and agreeing to repair or replace other defects beyond Contractor's/ Installer's / Manufacturer's controls, as judged by the Architect, at Owner's expense at prevailing rates.

TacTiles® carpet tile will not be adversely affected by defects in their materials or workmanship for a period of **one (1) year** from the date of invoice when used to install the appropriate Interface® carpet products.

- B. Patterns and Colors: Patterns as directed by the Architect; allow for as many colors and patterns including borders and accent colors and shall be as per Architect's direction. A maximum of three (3) patterns and five (5) colors shall be used in this project and a maximum of two (2) patterns and three (3) colors shall be used in any given area.
- C. Comparable products of other manufacturers will be considered if it can be clearly shown that their products are tested, equal to or will exceed the construction quality requirements, intended performances and all other design attributes listed above and provided that deviations in dimensions and profiles are minor and do not materially detract from the design concept or intended performances as judged solely by the Architect.
  - 1. Approved equal by Bentley.
  - 2. Approved equal by Bigelow.
  - 3. Approved equal by Prince Street.
  - 4. Approved equal by Mannington.
  - 5. Or approved equal.

## **2.2 ACCESSORIES**

- A. Floor Primer: Manufacturer's approved floor primer applied to all areas that will receive carpeting.
- B. Carpet Edge Guard, Non-metallic: Extruded or molded heavy-duty vinyl or rubber carpet edge guard of size and profile indicated; minimum 2" wide anchorage flange; colors selected by Architect from standard colors.
- C. Installation Adhesive: Water-resistant, non-staining as recommended by carpet manufacturer, which complies with flammability requirements for installed carpet.
- D. Miscellaneous Materials: As recommended by manufacturers of carpet, cushions, and other carpeting products; selected by Installer to meet project circumstances and requirements.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine and test substrates for moisture content, high alkalinity, levelness and other conditions under which carpeting is to be installed. Notify contractor in writing of major conditions detrimental to proper completion of the work.
  - 1. Do not proceed until unsatisfactory conditions have been corrected.
  - 2. **Commencement of work shall constitute acceptance of conditions. Any necessary remedial work required to correct any unsatisfactory conditions, found after the start of installation, will be provided at no cost to the Owner.**
  - 3. Coordinate with installation of floor leveling underlayment where indicated or required.

### 3.2 PREPARATION

- A. Repair minor holes, cracks, depressions, and rough areas using material recommended by carpet or adhesive manufacturer.
- B. Clear away debris and scrape up cementitious deposits from surfaces to receive carpeting; vacuum clean immediately before installation. Check concrete surfaces to ensure no dusting through installed carpet; apply sealer where required to prevent dusting.

### 3.3 GENERAL

- A. Install work in strict conformance with manufacturer's printed recommendations and as shown on approved seaming layouts.
- B. Substrates shall be free from dust, oils, grease or other foreign matter. Cracks, holes and unevenness shall be filled with latex base floor filler.
- C. During winter conditions, building shall be preheated to 72°F for at least 24 hours prior to installation. During summer conditions, air conditioning shall be in operation or other provisions shall be made to obtain temperatures and humidity within limits recommended by the manufacturer.
  - 1. Temperatures shall be kept constant night and day during installation.
  - 2. Concrete shall have cured for at least sixty (60) days prior to installation.

### 3.4 CARPET TILE

- A. Butt Fitting and Joints: Brush pile back and tip individual tiles into place to avoid catching pile in the joint.
  - 1. Frequently check joints for proper alignment and firm abutment.
  - 2. Avoid excessively tight joints which will cause tile to peak or buckle.
  - 3. Check tightness and establishing gain factor.

4. Cut tile from the back and secure cuts or partial tiles with manufacturer's standard or approved releasable compatible adhesive or double sided tape.
5. Install all carpet tile with pile orientation in the proper direction, as recommended by the manufacturer for each carpet type, follow manufacturer's embossed arrows on the back of tiles as guide for the proper direction.
  - a. If carpet product will be installed in parquet pattern only, arrows should point in the same direction every other tile and diagonally.
6. Center floor trench headers directly under a full tile row.
7. Install tile rows adjacent to walls as per manufacturer's recommended instructions.
8. In open perimeter designs, use a fixed reducer and carpet keeper strips to secure the tile area. Use types and sizes recommended by the tile carpet manufacturer.
9. Remove and replace damaged tiles, protect carpet tile until inspection for substantial completion of carpet tile work.
10. Install every tile with releasable adhesive in accordance with manufacturer's instructions and information for using of appropriate tools and methods of applications.

**OR/**

Install carpet tile using "GlasBac®/GlasBacRE TacTiles® Connectors", as manufactured by InterfaceFLOR. The clear 3" x 3" polyester squares replace adhesives when used to install InterfaceFLOR modular carpet with GlasBac® and GlasBac RE backings only.

**3.5 CLEANING**

- A. Remove and dispose of debris and unusable scraps. Vacuum carpet using commercial machine with face-beater element. Remove spots and replace carpet where spots cannot be removed. Remove any protruding face yarn using sharp scissors.

**3.6 CALL BACK**

- A. Prior to expiration of **two (2) year warranty**, perform all necessary corrections and adjustments.

**3.7 ADDITIONAL MATERIAL**

- A. Deliver to Owner as directed not less than five percent (5%) additional carpet tile of each type, pattern and color used.

**END OF SECTION 09685**

## **SECTION 09900 - PAINTING**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.
- B. Related Section(s):
  - 1. Section 05500 - Metal Fabrications
  - 2. Section 08110 - Hollow Metalwork.
  - 3. Section 08211 - Wood Doors for light frames.
  - 4. Section 09250 - Gypsum Drywall.
  - 5. Division 15 - Mechanical Work.
  - 6. Division 16 - Electrical Work.

#### **1.2 DESCRIPTION OF WORK**

- A. Extent of painting work is indicated on drawings and schedules, and as herein specified.
- B. Work includes painting and finishing of interior exposed items and surfaces throughout project, except as otherwise indicated.
  - 1. Surface preparation, priming and coats of paint specified are in addition to shop-priming and surface treatment specified under other sections of work.
- C. "Paint" as used herein means all coating systems materials, including primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.
- D. Surfaces to be Painted: Except where natural finish of material is specifically noted as a surface not to be painted, paint exposed surfaces whether or not colors are designated in "schedules". Where items or surfaces are not specifically mentioned, paint the same as similar adjacent materials or areas. If color or finish is not designated, Architect will select these from standard colors or finishes available.
- E. Following categories of work are not included as part of field-applied finish work.
  - 1. Shop Priming: Unless otherwise specified, shop priming of ferrous metal items is included under various sections for structural steel, steel windows, miscellaneous metal, hollow metal work, and similar items. Also, for fabricated components such as architectural woodwork, wood casework, and shop fabricated or factory built mechanical and electrical equipment or accessories. This is in addition to the prime coat specified herein.
  - 2. Pre-Finished Items: Unless otherwise indicated, do not include painting when factory-finishing or installer-finishing is specified for such items as (but not limited to) metal toilet enclosures, prefinished partition systems, acoustic materials, architectural woodwork and casework, and shop fabricated or factory built mechanical and electrical equipment, including light fixtures, switchgear and distribution cabinets.

3. Concealed Surfaces: Unless otherwise indicated, painting is not required on surfaces such as walls or ceilings in concealed areas and generally inaccessible areas, foundation spaces, furred areas, utility tunnels, pipe spaces, duct shafts and elevator shafts.
  4. Finished Metal Surfaces: Unless otherwise indicated, metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze and similar finished materials will not require finish painting.
  5. Operating Parts: Unless otherwise indicated, moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sinkages, sensing devices, motor and fan shafts will not require finish painting.
  6. Do not paint over any code-required labels, such as Underwriters' Laboratories and Factory Mutual, or any equipment, identification, performance rating, name, or nomenclature plates.
- F. Mechanical and Electrical Work: Painting of mechanical and electrical work is specified herein.
1. Painting of mechanical and electrical work is limited to those items exposed to view.
  2. Mechanical items to be painted include, but are not limited to, the following:
    - a. Piping, pipe hangers and supports.
    - b. Ductwork, insulation.
    - c. Access doors and service panels.
  3. Electrical items to be painted include, but are not limited to, the following:
    - a. Conduit and fittings.
    - b. Backboxes.
    - c. Junction boxes.

### **1.3 QUALITY ASSURANCE**

- A. Single Source Responsibility: Provide primers and other undercoat paint produced by same manufacturer as finish coats. Use only thinners approved by paint manufacturer, and use only within recommended limits.
- B. Coordination of Work: Review other sections of these specifications in which prime paints are to be provided to ensure compatibility of total coatings system for various substrates. Upon request from other trades, furnish information or characteristics of finish materials provided for use, to ensure compatible prime coats are used.
- C. Coefficient of Friction: The Federal and industry standard for testing coefficient of friction or the slip resistance of a surface is tested to the requirements, as outlined, in ASTM D-2047, which utilizes a friction measurement machine, commonly referred to as the James Machine.
- D. Industry Standards: Comply with industry standard established by the Painting and Decorating Contractors of America PDCA for applications, methods and recommendations and use of tools and equipment for paint and stain coatings, primers and block fillers.

- E. Lead and Chromate Contents:
1. All paint products must be free of any lead or chromate contents.
- F. Volatile Organic Compound Compliant (VOC.):
1. All paint products must meet the State VOC environmental regulations (OTC Regulation compliant) and the following:
    - a. Chemical Components of Interior Paints and Coatings: Provide products that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24) and the following chemical restrictions:
      - (1) Primer, Sealer and Undercoater: VOC content of not more than 200 g/L.
      - (2) Specialty Primer, Sealer and Undercoater: VOC content of not more than 350 g/L.
      - (3) Rust Preventative Coating: VOC content of not more than 400 g/L.
      - (4) Flat Paints and Coatings: VOC content of not more than 100 g/L.
      - (5) Non-Flat Paints and Coatings: VOC content of not more than 150 g/L.
      - (6) Nonflat High Gloss Coatings: VOC content of not more than 250 g/L.
      - (7) Varnishes and Sanding Sealers: VOC content of not more than 350 g/L.
      - (8) Stains: VOC content of not more than 250 g/L.
      - (9) Aromatic Compounds: Paints and coatings shall not contain more than 1.0 percent by weight of total aromatic compounds (hydrocarbon compounds containing one or more benzene rings).
- G. Paint Coordination: Provide finish coats which are compatible with prime paints used. Review other sections of these specifications in which prime paints are to be provided to ensure compatibility of total coatings system for various substrates. Upon request from other trades, furnish information on characteristics of finish materials proposed for use, to ensure compatible prime coats are used. Provide barrier coats over incompatible primers or remove and reprime as required. Notify Architect in writing of any anticipated problems using specified coating systems with substrates primed by others.
1. At galvanized surfaces, primer shall be a zinc dust-zinc oxide coating.

#### **1.4 SUBMITTALS**

- A. Product Data: Submit manufacturer's technical information including paint label analysis and application instructions for each material proposed for use.
- B. Samples: Prior to beginning work, Contractor shall furnish color chips (2 fan decks) for surfaces to be painted. Use representative colors when preparing samples for review. Submit samples for Architect's review of color and texture only. Provide a listing of material and application for each coat of each finish sample.
1. On 12" x 12" hardboard, provide two samples of each color and material, with texture to simulate actual conditions. Resubmit samples as requested by Architect until acceptable sheen, color, and texture is achieved.
  2. On actual wood surfaces, provide two 4" x 8" samples of natural and stained wood finish. Label and identify each as to location and application.

3. On concrete masonry, provide complete walls or portions of walls as sample mock-ups and in sizes and locations as directed by the Architect;
  - a. Mock-up wall samples shall be for painting on masonry for each type of finish and color, defining filler, prime and finish coat.
  - b. Mock-up wall samples shall remain until authorized by the Architect for use as part of the work.
- C. Acknowledgment of Contract Documents: Contractor / Installer shall submit to the Architect certifications signed by each of the Contractor and Installer attesting acknowledgment of requirements of the Contract Documents for specific project requirements indicated in this specifications.
  1. Installer shall submit proof of evidence, (this project specification section) with his letter of certificate.
  2. Contractor / Installer shall not proceed with painting work of this section until submittal of required certifications are completed.
  3. Any work performed prior to completion of this submittal shall be subject to total rejection by the Architect. All rejected work shall be rectified without any additional cost to the Owner.
- D. Coating Maintenance Manual: Upon conclusion of the project, the contractor in conjunction with the coating manufacturer shall furnish a coating maintenance manual such as the Sherwin-Williams "Custodian Project Color and Product Information" report or equal. Manual shall include an area summary with finish schedule, area detail designating where each product/color/finish was used, product data pages, SDS pages, care and cleaning instructions, touch up procedures and color samples of each color and finish used.

## **1.5 DELIVERY AND STORAGE**

- A. Deliver materials to job site in original, new and unopened packages and containers bearing manufacturer's name and label, and following information:

Name or title of material.

Fed. Spec. number, if applicable.

Manufacturer's stock number and date of manufacturer.

Manufacturer's name.

Contents by volume, for major pigment and vehicle constituents.

Thinning instructions.

Application instructions.

Color name and number.

## **1.6 JOB CONDITIONS**

- A. Apply solvent-thinned paints only when temperature of surfaces to be painted and surrounding air temperatures are between 45°F (7°C) and 95°F (35°C), unless otherwise permitted by paint manufacturer's printed instructions.

- B. Do not apply paint in snow, rain, fog or mist, or when relative humidity exceeds 85%, or to damp or wet surfaces, unless otherwise permitted by paint manufacturer's printed instructions.
- C. Painting may be continued during inclement weather if areas and surfaces to be painted are enclosed and heated within temperature limits specified by paint manufacturer during application and drying periods.
- D. Provide sufficient temporary illumination producing overall space/room minimum illumination level of 50 ft. candles while preparing or painting of surfaces and to assure the production of quality finishes.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include but are not limited to the following:
  - 1. M A B
  - 2. Benjamin Moore
  - 3. PPG Architectural Coatings
  - 4. The Sherwin-Williams Company

### **2.2 COLORS AND FINISHES**

- A. Prior to beginning work, Contractor shall furnish color chips for surfaces to be painted from manufacturers full line of products. This shall include custom colors.
  - 1. Contractor shall allow for split frames at all new and existing hollow metal door frames to be painted.
  - 2. Final acceptance of colors will be from samples supplied on the job.
- B. Color Pigments: Pure, non-fading, applicable types to suit substrates and service indicated.

### **2.3 MATERIALS**

- A. Material Quality: Provide best quality grade of various types of coatings as regularly manufactured by acceptable paint materials manufacturers. Materials not displaying manufacturer's identification as a standard, best-grade product will not be acceptable.
- B. Provide undercoat paint recommended and produced by the same manufacturer as the finish coats. Use only thinners approved by the paint manufacturer, and use only within recommended limits.

### **2.4 INTERIOR PAINT SCHEDULE**

- A. Semi-Gloss (Satin) Enamel:
  - 1. 1st Coat: Sherwin-Williams, Pro Industrial Pro-Cryl Universal Primer, B66W310.



2. 2nd Coat: Acrylic Enamel, Sherwin-Williams, Pro Industrial HP Acrylic, B66-650.
3. 3rd Coat: Acrylic Enamel, Sherwin-Williams, Pro Industrial HP Acrylic, B66-650.
4. Apply to following interior surfaces: Hollow metal work, metal lites for wood doors, miscellaneous steel and ferrous metal fabrications.
5. Apply as many coats as necessary to produce a uniform substrate and finish appearance.

B. Egg-Shell / Satin Enamel - Acrylic Latex:

1. Base Coats: Enamel Undercoat; Primer-Sealer to suit substrate or Loxon Block Surfacer.
2. 2nd Coat: Sherwin-Williams, ProMar 200 Zero VOC Eg-Shel, B20-2600 Series.
3. 3rd Coat: Sherwin-Williams, ProMar 200 Zero VOC Eg-Shel, B20-2600 Series.
4. Apply to the following interior surfaces: Concrete masonry units, gypsum drywall and other interior assemblies to receive paint.
5. Apply as many coats as necessary to produce a uniform substrate and finish appearance.

## 2.5 EXTRA STOCK

- A. Contractor shall provide one gallon of extra stock for each color/type selected for use on the project. Provide unopened containers clearly marked with manufacturers color number and name.

## PART 3 - EXECUTION

### 3.1 INSPECTION

- A. Applicator must examine areas and conditions under which painting work is to be applied and notify Contractor in writing of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions, included rotted or otherwise defective materials, have been observed by all concerned and corrected in a manner acceptable to Applicator.
- B. Starting of painting work will be construed as Applicator's acceptance of surfaces and conditions within any particular area.
- C. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to formation of a durable paint film.

### 3.2 SURFACE PREPARATION

- A. General:
1. Perform preparation and cleaning procedures in accordance with paint manufacturer's instructions and as herein specified, for each particular substrate condition.

2. Provide barrier coats over incompatible primers or remove and reprime as required. Notify Architect in writing of any anticipated problems in using the specified coating systems with substrates primed by others.
  3. Remove hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place and not to be finish-painted, or provide surface-applied protection prior to surface preparation and painting operations. Remove, if necessary, for complete painting of items and adjacent surfaces. Following completion of painting of each space or area, reinstall removed items.
  4. Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Program cleaning and painting so that contaminants from cleaning process will not fall onto wet, newly-painted surfaces.
  5. Painting of materials shall commence only when the moisture content of the materials complies with manufacturer's recommendations as follows:
    - a. Gypsum drywall - 12% maximum.
- B. Cementitious Materials:
1. Prepare cementitious surfaces of concrete, concrete block, cement plaster and gypsum drywall board to be painted by removing efflorescence, chalk, dust, dirt, grease, oils, and by roughening as required to remove glaze.
  2. Determine alkalinity and moisture content of surfaces to be painted by performing appropriate tests. If surfaces are found to be sufficiently alkaline to cause blistering and burning of finish paint, correct this condition before application of paint. Do not paint over surfaces where moisture content exceeds that permitted in manufacturer's printed directions.
- C. Ferrous Metals:
1. Clean ferrous surfaces, which are not galvanized or shop-coated, of oil, grease, dirt, loose mill scale and other foreign substances by solvent or mechanical cleaning.
  2. Touch-up shop-applied prime coats wherever damaged or bare, where required by other sections of these specifications. Clean and touch-up with same type shop primer.
  3. Galvanized Surfaces: Clean free of oil and surface contaminants with non-petroleum based solvent.

### **3.3 MATERIALS PREPARATION**

- A. Mix and prepare painting materials in accordance with manufacturer's directions.
- B. Maintain containers used in mixing and application of paint in a clean condition, free of foreign materials and residue.
- C. Stir materials before application to produce a mixture of uniform density, and stir as required during application. Do not stir surface film into material. Remove film and, if necessary, strain material before using.

- D. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

### 3.4 APPLICATION

- A. General: Apply paint in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.
- B. Where finish schedule calls for walls, or ceilings to be painted, paint all new and existing surfaces in same area. Paint from corner to corner on walls, or ceilings, or to a major change in direction of surface to be painted. Provide crisp, clean, sharp lines where new painted surfaces abut existing painted surfaces.
- C. **Apply additional coats when undercoats, stains or other conditions show through final coat of paint, until paint film is of uniform finish, color and appearance. Give special attention to insure that surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.**
- D. Sand lightly between each succeeding enamel coat.
- E. Scheduling Painting: Apply first-coat material to surfaces that have been cleaned, pretreated or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
- F. Allow sufficient time between successive coatings to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.
- G. **Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate, to establish a total dry film thickness as recommended by coating manufacturer and an acceptable finished appearance in finish, color and appearance as determined by the Architect.**
- H. Primer Coat: Apply primer coat of material which is required to be painted or finished, and which has not been prime coated by others.
  - 1. **Re-coat primed and sealed surfaces where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing.**
- I. Pigmented (Opaque) Finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness or other surface imperfections will not be acceptable.
- J. Completed Work: Match approved samples for color, texture and coverage. Remove, refinish or repaint work not in compliance with specified requirements.

### **3.5 CLEAN-UP AND PROTECTION**

- A. Clean-Up: During progress of work, remove from site discarded paint materials, rubbish, cans and rags at end of each work day.
- B. Upon completion of painting work, clean all paint-spattered surfaces. Remove spattered paint by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surfaces.
- C. Protection: Protect work of other trades, whether to be painted or not, against damage by painting and finishing work. Correct any damage by cleaning, repairing or replacing, and repainting, as acceptable to Architect.
  - 1. Provide "Wet Paint" signs as required to protect newly-painted finishes. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations.
  - 2. At completion of work of other trades, touch-up and restore all damaged or defaced painted surfaces.

**END OF SECTION 09900**

## **SECTION 10161 - SOLID PLASTIC TOILET COMPARTMENTS**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

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

#### **1.2 SUMMARY**

- A. Extent of minimum Class "C", fire-rated solid toilet compartments is indicated on the drawings.
- B. Style of toilet compartments includes: Floor-anchored, overhead braced.
- C. Style of screens include: Wall-hung.
- D. Related Work:
  - 1. Section 10800 - Toilet Accessories.

#### **1.3 SUBMITTALS**

- A. Product Data: Submit manufacturer's detailed technical data for materials, fabrication, and installation, including catalog cuts of anchors, hardware, fastenings, and accessories.
- B. Shop Drawings: Submit shop drawings for fabrication and erection of toilet partition assemblies not fully described by product drawings, templates, and instructions for installation of anchorage devices built into other work.
- C. Samples: Submit full range of color samples for each type of unit required. Submit 4" square samples of each color and finish on same substrate to be used in work, for color verification after selections have been made.
- D. Test Reports: Submit manufacturer's reports of testing of rigid plastic products indicating compliance with indicated performance requirements.

#### **1.4 QUALITY ASSURANCE**

- A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication where possible, to ensure proper fitting of work. However, allow for adjustments within specified tolerances where ever taking of field measurements before fabrication might delay work.
- B. Coordination: Furnish inserts and anchorages which must be built into other work for installation of toilet partitions and related work; coordinate delivery with other work to avoid delay.
- C. Manufacturer's Qualifications: A company regularly engaged in manufacture of products specified in this section, and whose products have been in satisfactory use under similar service conditions for a recommended 5 years.

- D. Installer's Qualifications: A company regularly engaged in installation of products specified in this section, with a recommended minimum of 5 years of experience.
- E. **Code Compliance: Privacy partitions (including toilet partitions) shall be tested in accord and comply with NFPA 286 Room-Corner Test.**
- F. Interior Wall and Ceiling Finish Materials in accordance with IBC, Section 8031.1. shall be classified in accordance with ASTM E84 or UL 723. Interior finishes shall be grouped in the following classes:
- |    |           |                    |        |
|----|-----------|--------------------|--------|
| 1. | Class A = | Flame spread index | 0-25   |
|    |           | Smoke developed    | 0-450  |
|    | Class B = | Flame spread index | 26-75  |
|    |           | Smoke developed    | 0-450  |
|    | Class C = | Flame spread index | 76-200 |
|    |           | Smoke developed    | 0-450  |

**Exception:** "Room corner test for interior wall or ceiling finish materials"

- a. Interior wall or ceiling finish materials shall be permitted to be tested in accordance with NFPA 286 and shall comply with IBC Section 803.1.2.1.
2. In accordance with IBC 803.9 - High-density polyethylene (HDPE) and polypropylene (PP), when the material is used as an interior finish, it shall comply with IBC Section 803.1.2.
- G. Regulatory Requirements: Products and finished installations to be used by persons with disabilities must comply with requirements of the Uniform Construction Code, American National Standard, Accessible and Usable Buildings and Facilities, ICC / ANSI A117.1-2009.

## 1.5 WARRANTY

- A. Manufacturer's Warranties: Provide manufacturer's standard **twenty-five (25) year** warranty for all solid plastic compartments, products and all other assemblies.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Basis of Design: Provide products as manufactured by Scranton Products, Scranton, PA, Tel.# 800.445.5148, [www.scrantonproducts.com](http://www.scrantonproducts.com), or approved equal, from their full line of standard textures and colors.
1. Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
- Metpar Corp., Westbury, NY, Tel.# 516.333.2600, [www.metpar.com](http://www.metpar.com).
  - ASI Global Partitions, Eastanollee, GA, Tel.# 706.827.2700, [www.globalpartitions.com](http://www.globalpartitions.com).
  - Bradley, Menomonee Falls, WI, Tel.# 800.272.3539, [www.bradleycorp.com](http://www.bradleycorp.com).
  - Or approved equal.

## 2.2 MATERIALS

- A. General: Provide materials which have been selected for surface flatness and smoothness. Exposed surfaces which exhibit pitting, seam marks, roller marks, stains, discolorations, or other imperfections on finished units are not acceptable.
- B. Solid Plastic: One piece seamless, one inch thick solid HDPE plastic with a homogenous color throughout fabricated from polymer resins.
- C. **Interior Wall and Ceiling Requirements by Occupancy** for flame spread index per (IBC, Table 803.11):

GROUP	SPRINKLERED			NONSPRINKLERED		
	Interior exit stairways, ramps & passageways	Corridors & enclosure for exit access stairways and ramps	Rooms & enclosed spaces <sup>c</sup>	Interior exit stairways, ramps & passageways <sup>a, b</sup>	Corridors & enclosure for exit access stairways and ramps	Rooms & enclosed spaces <sup>c</sup>
A-1, A-2	B	B	C	A	A <sup>d</sup>	B <sup>e</sup>
A-3 <sup>f</sup> , A-4, A-5	B	B	C	A	A <sup>d</sup>	C
B, E, M	B	C	C	A	B	C

### Notes:

- a. Class C interior finish materials shall be permitted for wainscoting or paneling of not more than 1,000 sf of applied surface area in the grade lobby where applied directly to a noncombustible base or over furring strips applied to a noncombustible base and fireblocked as required by Section 803.13.1.
- b. In other than Group I-3 occupancies in buildings less than three stories above grade plane, Class B interior finish for nonsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted in interior exit stairways and ramps.
- c. Requirements for rooms and enclosed spaces shall be based upon spaces enclosed by partitions. Where a fire-resistance rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered enclosing spaces and the rooms or spaces on both sides shall be considered one. In determining the applicable requirements for rooms and enclosed spaces, the specific occupancy thereof shall be the governing factor regardless of the Group classification of the building or structure.
- d. Lobby areas in Group A-1, A-2 and A-3 shall not be less than Class B materials.
- e. Class C interior finish materials shall be permitted in places of assembly with an occupant load of 300 persons or less.
- f. For places of religious worship, wood used for ornamental purposes, trusses, paneling or chancel furnishing shall be permitted.

## 2.3 FABRICATION

- A. General: Furnish standard doors, panels, screens, and pilasters fabricated for partition system, unless otherwise indicated. Furnish units with cutouts, drilled holes, and internal reinforcement to receive partition-mounted hardware, accessories, and grab bars, as indicated.
- B. Overhead-Braced Partitions: Furnish galvanized steel supports and leveling bolts at pilasters, as recommended by manufacturer to suit floor conditions. Make provisions for setting and securing continuous extruded aluminum anti-grip overhead-bracing at top of each pilaster. Furnish shoe at each pilaster to conceal supports and leveling mechanism.
- C. Wall-Hung Screen: Furnish panel units in sizes indicated, of same construction and finish as partition system panels.
- D. Minimum requirements for partitions are as follows:
  - 1. Doors: 1-inch thick equipped with gravity type hinges and push-pull hardware. Provide out-swinging, over-sized doors at water closet compartments for handicapped users.
  - 2. Pilasters: Adjustable, 1 inch thick; provide overhead headrail bracket.
  - 3. Fasteners: Stainless steel 1/4 inch tamper proof shoulder screws and barrel nuts.
  - 4. #14 Screw: Stainless steel #14 x 1-1/2 inch screw used along with plastic anchors for attachments to floor and building walls.
  - 5. End Cap: Aluminum cap fastened to the ends of headrail bracing.
  - 6. Headrail Bracket: 16 gauge stainless steel used to connect headrail bracing.
  - 7. Door Pull: Heavy duty Zamac chrome-plated used on out-swinging doors only. Provide on inside and outside of door.
  - 8. Latch: Anodized aluminum with bright-dip finish. Specially black hard coat slide bolt for extra long wear.
  - 9. Strike: Heavy-duty aluminum extrusion with bright-dip anodized finish: rubber door stop.
  - 10. Bumper/Coat Hook: Heavy Zamac chrome-plated with rubber bumper. All doors are furnished with hook. Bumper functions as a stop on in-swinging doors. Mounting height to be 48" above finish floor.
  - 11. Door Stop: Zamac chrome-plated used on out-swinging doors only as a stop.
  - 12. The Architect selects brackets, hinges and shoes as follows:
    - a. Wall Brackets shall be 1½" stirrup type made of heavy-duty aluminum (6463-T5 alloy) with a bright dip anodized finish. Stirrup brackets shall be fastened to pilasters and panels with stainless steel tamper resistant torx head sex bolts.



- b. Hinges: Manufacturer's Stealth™ integral hinge system. Pilaster to be machined to accept door, and chrome plated Stealth™ integral hinge mechanism anchored to the door and pilaster. Door closures to be factory set to accommodate all conditions and allow for a positive opening and closing action free of impediment.
  - b. Shoes: 20 gauge stainless steel construction to secure the pilaster to the floor.
13. Provide manufacturer's special hardware and accessories to accommodate all loads and conditions of partitions and screens.

## **2.4 COLORS AND FINISHES**

- A. Selection from manufacturer's full line of standard fire-rated colors and finishes. Allow for two colors per room, with a total of four colors.
  - 1. Stainless steel items shall have a polished finish.
  - 2. Aluminum items shall have a natural color anodized finish.
  - 3. Chrome plated items shall have a polished finish.

## **PART 3 - EXECUTION**

### **3.1 INSTALLATION**

- A. General: Comply with manufacturer's recommended procedures and installation sequence. Install partitions rigid, straight, plumb, and level. Provide clearances of not more than 1/2" between pilasters and panels, and not more than 1" between panels and walls. Secure panels to walls with not less than two stirrup brackets attached near top and bottom of panel. Locate wall brackets so that holes for wall anchorages occur in masonry or tile joints. Secure panels to pilasters with not less than two stirrup brackets located to align with stirrup brackets at wall. Secure panels in position with manufacturer's recommended anchoring devices.
- B. Overhead-Braced Partitions: Secure pilasters to floor and level, plumb, and tighten installation with devices furnished. Secure overhead-brace to each pilaster with not less than two fasteners. Hang doors and adjust so that tops of doors are parallel with overhead-brace when doors are in closed position.
- C. Screens: Attach with concealed anchoring devices, as recommended by manufacturer to suit supporting structure. Set units to provide support and to resist lateral impact.

### **3.2 ADJUST AND CLEAN**

- A. Hardware Adjustment: Adjust and lubricate hardware for proper operation. Set hinges on inswinging doors to hold open approximately 30 degrees from closed position when unlatched. Set hinges on outswinging doors (and entrance swing doors) to return to fully closed position.
- B. Clean exposed surfaces of partition systems using materials and methods recommended by manufacturer, and provide protection as necessary to prevent damage during remainder of construction period.

**END OF SECTION 10161**

## **SECTION 10440 - SPECIALTY SIGNS**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

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

#### **1.2 DESCRIPTION OF WORK**

- A. Extent of specialty signs is shown on the drawings.
- B. Forms of specialty signs required include the following:
  - 1. Panel signs (Room Identification Signs).
  - 2. Installation of all specialty signs.

#### **1.3 QUALITY ASSURANCE**

- A. Uniformity of Manufacturer: For each sign form and graphic image process indicated furnish products of a single manufacturer.
- B. All signs shall conform to the International Building Code and ICC/ANSI A117.1. - 2009 requirements for accessible building elements.
  - 1. All signs to permanent rooms and spaces shall include Braille in accordance with N.J.A.C. 5:23-7.11 (j).

#### **1.4 SUBMITTALS**

- A. Product Data: Submit manufacturer's technical data and installation instructions for each type of sign required.
- B. Samples: Submit samples of each sign form and material showing finishes, colors, surface textures and qualities of manufacturer and design of each sign component including graphics.
  - 1. Submit full-size sample units, if requested by the Architect. Acceptable units may be installed as part of the work.
- C. Shop Drawings: Submit shop drawings for fabrication and erection of specialty signs. Include plans, elevations, and large scale details of sign wording and lettering layout. Show anchorages and accessory items. Furnish location template drawings for items supported or anchored to permanent construction.

### **PART 2 - PRODUCTS**

#### **2.1 MANUFACTURERS**

- A. Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:
  - 1. Americraft Inc.
  - 2. Architectural Graphics Inc.

3. ASI Sign Systems, Inc.
4. Bayuk Graphic Systems, Inc.
5. Brandon Signage Co.
6. Designer Sign Company.
7. Gemini
8. Mohawk Sign Systems.
9. Or approved equal.

## **2.2 MATERIALS**

- A. GENERAL: Provide manufacturer's standard plastic signage which comply with the requirements established in the International Building Code and ICC/ANSI 117.1 - 2009 Barrier Free Standards. All signs to permanent rooms and spaces shall include Braille in accordance with N.J.A.C. 5:23-7.11 (j).
  1. Acrylic sheet material to be cut to the desired sizes with radius or square corners as indicated, or as per approved shop drawings.
  2. Manufacturer's standard acrylic material, as indicated, for Barrier Free Accessible signage indicating International Symbol of Accessibility.
  3. "Helvetica Regular" letter style, Domed Grade II Braille and other pictograms as described herein.
  4. Colors: As selected by the Architect from manufacturer's standards after award of contract, or as specified herein.

## **2.3 FABRICATION**

- A. Unframed Panel Signs: Fabricate unframed panel signs with edges mechanically and smoothly finished to conform with the following requirements:
  1. Edge Condition: Square cut.
  2. Corner Condition: Provide radius corners for each sign type.

## **2.4 SIGNAGE**

- A. GENERAL: ALL signage MUST comply with the requirements established in the International Building Code and ICC/ANSI 117.1 - 2009. All signs to permanent rooms and spaces shall include Braille in accordance with N.J.A.C. 5:23-7.11 (j).
- B. INTERIOR SIGNAGE:
  1. Barrier Free Accessibility Signs:
    - a. Basis of Design; "Vandal-resistant signs" as manufactured by Americraft Inc. Tel.# 800.237.3984.
      - 1) Provide injection molded process, 1/8" thick acrylic with non-glare clear front surface, graphics and colors on second surface (Back surface), with radius corners and stepped edging. Provide mounting holes with stainless steel screws. Colors to be selected by the Architect from manufacturer's available full range of colors.

- 2) Provide tactile plastic signs displaying international symbol of accessibility in tactile form and accompanied by Grade II Braille.
  - 3) Provide signage at the following locations and as indicated on the Contract Drawings:
    - a) Accessible toilet, including stalls.
2. Signage Locations:
- a. Along the door on the latch side and shall be mounted as follows:
    - 1) 48" minimum to the lowest tactile character on the sign measured from the finish floor.
    - 2) 60" maximum to baseline of highest tactile character on the sign measured from the finish floor.
  - b. Where there is no wall space on the latch side of the door, including double leaf doors, signs shall be placed on the nearest adjacent wall.
3. Graphic Content and Style: Provide sign copy to comply with the requirements indicated for sizes, styles, spacing, content, positions, materials, finishes and colors of letters, numbers, symbols and other graphic devices.
- a. Raised Copy Thickness: Not less than 1/32" from the sign face.
  - b. Raised characters shall be in different color and meets the Barrier Free requirements for a 70% contrast ratio of colors. Colors shall be selected from manufacturer's available full range of colors.
  - c. Raised characters and symbols for tactile signs shall be 5/8" high minimum and 2" high maximum. Sign size shall suit the required letters and numbers.
4. Braille Copy: Braille Copy shall be Grade II and shall conform to Specification 800, National Library Service, Library of Congress. Braille shall be raised integral .0625 diameter.
- a. Braille shall be separated 1/2" minimum from the corresponding raised characters or symbols.
5. Mounting: As directed by the Architect using required fasteners.

## **PART 3 - EXECUTION**

### **3.1 INSTALLATION**

- A. General: Locate sign units and accessories where shown or scheduled, using mounting methods of the type described and in compliance with the applicable Codes and regulation.
- B. Install sign units level, plumb and at the height indicated, with sign surfaces free from distortion or other defects in appearance.
- C. Wall Mounted Panel Signs: Attach panel signs to wall surfaces using the methods indicated below:

1. Silicone Adhesive Mounting: Use liquid silicone adhesive recommended by the sign manufacturer to attach sign units to irregular, porous or vinyl-covered surfaces.
  - a. Use double-sided vinyl tape where recommended by the sign manufacturer to hold the sign in place until the adhesive has fully cured.
  - b. Fasteners and Anchors: Manufacturer recommended concealed types for indicated signage and substrate materials.

### **3.2 CLEANING AND PROTECTION**

- A. At completion of the installation, clean soiled sign surfaces in accordance with the manufacturer's instructions. Protect units from damage until acceptance by the Owner.

**END OF SECTION 10440**

## SECTION 10800 - TOILET AND BATH ACCESSORIES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 DESCRIPTION OF WORK

- A. Extent of each type of toilet accessory is indicated on the drawings and schedules.
- B. Type of toilet accessories required includes but are not limited to the following:
  - 1. Mirrors
  - 2. Grab bars
  - 3. Napkin disposals
  - 4. Mop and broom holder
  - 5. Hand dryers
- C. Refer to the Toilet Room Accessories Schedule which identifies items supplied by the Owner and installed by the General Contractor.

#### 1.3 QUALITY ASSURANCE

- A. Inserts and Anchorages: Furnish inserts and anchoring devices which must be set in concrete or built into masonry; coordinate delivery with other work to avoid delay.
- B. Accessory Locations: Coordinate accessory locations with other work to avoid interference and to assure proper operation and servicing of accessory units.
- C. Products: Provide products of same manufacturer for each type of accessory unit and for units exposed in same areas, unless otherwise acceptable to Architect.

#### 1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's technical data and installation instructions for each toilet accessory.
- B. Setting Drawings: Provide setting drawings, templates, instructions, and directions for installation of anchorage devices and cut-out requirements in other work.

#### 1.5 WARRANTY

- A. Bradley Washroom Accessories: Warranty is limited to replacing or repairing, at the manufacturer's option, transportation charges prepaid by the purchaser, any washroom accessory unit or part thereof which their inspection shall show to have been defective within the limitation of the warranty. Period of warranty is measured from the date of their invoice as follows:
  - 1. Complete unit (except mirrors) - **One (1) year**.
  - 2. Stainless Steel Mirror Frames - **Fifteen (15) years** - against corrosion.

3. Plate Glass Mirrors - **Fifteen (15) years** - against silver spoilage.
4. Tempered Glass Mirrors - **Five (5) years** - against silver spoilage.
5. Laminate Glass - **Five (5) years** - against silver spoilage.
6. Hand Dryers - **Ten (10) years**.
7. Polished #8 Architectural Grade Finish on 304 Series Stainless Steel - **One (1) year** against corrosion.
8. Bright Annealed Finish on 430 Series Stainless Steel - **One (1) year** against corrosion.

Note: Warranty does not cover installation labor charges and does not apply to any units which have been damaged by accident, abuse, improper installation, improper maintenance, or altered in any way.

- B. Hand Dryer - Dyson Airblade: Manufacturer's standard warranty from date of substantial completion:
1. **Five (5) years** on parts.
  2. **One (1) year** limited labor.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURERS**

- A. Basis of Design: Catalog numbers used herein are Bradley Washroom Accessories, or approved equal. Refer to drawings for schedule and additional information. Similar products for other indicated manufacturers will be acceptable.
- B. Subject to compliance with requirements, manufacturers offering toilet accessories which may be incorporated in the work include one of the following:
1. American Specialties, Inc.
  2. Bobrick Washroom Equipment, Inc.
  3. Or approved equal

### **2.2 MATERIALS, GENERAL**

- A. Stainless Steel: AISI Type 302/304, with polished No. 4 finish, 22 gauge (.034") minimum, unless otherwise indicated.
- B. Brass: Leaded and unleaded, flat products, FS QQ-B-613; Rods, shapes, forgings, and flat products with finished edges, FS QQ-B-626.
- C. Sheet Steel: Cold-rolled, commercial quality ASTM A 366, 20-gauge (.040") minimum, unless otherwise indicated. Surface preparation and metal pretreatment as required for applied finish.
- D. Galvanized Steel Sheet: ASTM A 527, G60.
- E. Chromium Plating: Nickel and chromium electro-deposited on base metal, ASTM B 456, Type SC 2.
- F. Baked Enamel Finish: Factory-applied, gloss white, baked acrylic enamel coating.

- G. Mirror Glass: ASTM C-1048, Type I, Class 1, Quality q2, 1/4" thick, with silver coating, copper protective coating, and non-metallic paint coating complying with FS DD-M-411. Provide tempered safety glass for all mirrors.
- H. Galvanized Steel Mounting Devices: ASTM A 153, hot-dip galvanized after fabrication.
- I. Fasteners: Screws, bolts, and other devices of same material as accessory unit or of galvanized steel where concealed.

### **2.3 PRODUCT DESCRIPTIONS**

- A. Mirror Units: #780 Series, Mirror plates shall be of No. 1 quality 1/4" polished safety glass, silvered and electrolytically copper backed.
  - 1. Frames shall be 3/4" x 3/4", type 304, 18 gauge satin finish stainless steel angle with mitered corners, welded and polished smooth, with 20 gauge angle stiffeners welded to frame, 20 gauge galvanized steel back with formed edges secured to frame with concealed screws and equipped with integral 18 gauge cold rolled steel all welded construction wall hangers.
  - 2. Mirror units shall guaranteed by the manufacturer for a period of **fifteen (15) years** which starts on approved date of installation.
  - 3. Sizes as indicated on drawings and schedules.
- B. Grab Bars: ( Provide quantity and types indicated)
  - 1. Stainless Steel Type: Provide grab bars with wall thickness not less than 18 (.050") gauge and as follows:
    - a. Mounting: Concealed, manufacturer's standard flanges and anchorages.
    - b. Clearance: 1-1/2" clearance between wall surface and inside face of bar.
    - c. Gripping Surfaces: Manufacturer's non-slip texture.
    - d. Heavy-Duty Size: Outside diameter of 1-1/2".
- C. Napkin Disposals: Surface mounted, Model 4722-15, one toilet compartment, fabricated of type 304, 22 gauge stainless steel with exposed surfaces in satin finish. Self-closing push flap door and stainless steel removable receptacle with tumbler lock. Overall dimensions - 10-3/4" w x 15-1/8" h x 4" d.

### **2.4 MISCELLANEOUS ACCESSORIES**

- A. Mop and Broom Holder: No. 9953, Type 304 stainless steel-wall mounted unit with three (3) spring-loaded rubber cam type mop/broom holders, 24" long.
- B. Electric Hand Dryers: Dyson Airblade dB Electric Hand Dryer Model AB14; Item No. 300681-01 Gray.
  - 1. Mounting: Surface mounted on pressed galvanized steel backplate.
  - 2. Construction: Polycarbonate-ABS casing with anti-microbial molded additive in fascia and blades. Anti-tamper M6 exterior machine screws. Water ingress protection to IP35.
  - 3. Bacterial Reduction Rate from External Surfaces: Up to 99.9 percent over 24 hours.



4. Color Finish: Gray or White (color as selected by Architect).
5. Light Reflective Value: Gray - 28.3 / White - 77.4.
6. Filtration: 99.97 percent at 0.3 microns particulate efficiency HEPA filter with anti-microbial coating.
7. Operation: Touch-free infra-red activation.
  - a. Hand dry time: 12 seconds
  - b. Airspeed at nozzle: 420 mph
  - c. Operation Lock-out Period: 30 seconds
  - d. Operating Airflow: Up to 9.25 gallons/second
  - e. Rated Operating Noise Power: 81 db(A)
8. Motor: Dyson Digital Motor (DDM), V4 switched reluctance brushless DC type; 92,000 rpm motor speed; less than 0.5 watt standby power consumption.
9. Electrical Requirements: 120-127 V AC, 50 & 60 Hz, 1400 W.

## **2.5 FABRICATION**

- A. General: No names or labels are permitted on exposed faces of toilet accessory units. On either the interior surface of the accessory or on the back surface, the manufacturer shall indicate the manufacturer's information, model number on a printed waterproof label or a stamped nameplate attached to the accessory.
- B. Surface-Mounted Toilet Accessories, General: Except where otherwise indicated, fabricate units with tight seams and joints, exposed edges rolled. Hang doors or access panels with continuous stainless steel piano hinge. Provide concealed anchorage wherever possible.

## **PART 3 - EXECUTION**

### **3.1 INSPECTION**

- A. Examine the areas and conditions under which work is to be installed and notify the Architect in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

### **3.2 INSTALLATION**

- A. Install toilet accessory units in accordance with manufacturers' instructions, using fasteners which are appropriate to substrate and recommended by manufacturer of unit. Install units plumb and level, firmly anchored in locations and at heights indicated.
- B. Use all metal type fasteners such as anchors, plates, screws, bolts and expansion shields, type as required by the construction to which accessories are to be secured. Exposed hardware shall match finish of the accessory.

### **3.3 ADJUSTING AND CLEANING**

- A. Adjust toilet accessories for proper operation and verify that mechanisms function smoothly. Replace damaged or defective items.
- B. Clean and polish all exposed surfaces after removing temporary labels and protective coatings.

## **END OF SECTION 10800**