

AGING IN PLACE PROGRAM
MAY 2019

TABLE OF CONTENTS

<u>DIVISION NUMBER AND SECTION TITLE</u>	<u>Number of Pages</u>
<u>DIVISION 01 GENERAL REQUIREMENTS</u>	
Section 01 74 19 Construction Waste Management and Disposal - See Online <u>Master Guide Specification for Rehabilitation Projects.</u>	6
<u>DIVISION 02 EXISTING CONDITIONS</u>	
Section 02 41 19 Selective Demolition – See Scope of Work.	--
<u>DIVISION 06 WOODS, PLASTICS AND COMPOSITES</u>	
Section 06 10 00 Rough Carpentry	6
<u>DIVISION 07 THERMAL AND MOISTURE PROTECTION</u>	
Section 07 92 00 Joint Sealants	3
<u>DIVISION 08 OPENINGS</u>	
Section 08 71 00 Door Hardware	2
<u>DIVISION 09 FINISHES</u>	
Section 09 29 00 Gypsum Board	3
Section 09 30 13 Bath Tile and Ceramic Accessories	17
Section 09 91 23 Interior Painting	4
Section 09 97 00 Special Coating	2
<u>DIVISION 10 SPECIALTIES</u>	
Section 10 28 00 Bathroom Accessories	3
<u>DIVISION 22 PLUMBING</u>	
Section 22 41 00 Residential Plumbing Fixtures	8
<u>DIVISION 26 ELECTRICAL</u>	
Section 26 51 19 Interior L.E.D. Lighting	1

AGING IN PLACE PROGRAM
MAY 2019

SECTION 06 10 00 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wood blocking.
2. Dimensional lumber.
3. Plywood sheets.

B. Related Sections:

1. Section 09 29 00 Gypsum Board.
2. Section 09 30 00 Bathroom Tile and Ceramic Accessories.
3. Section 10 28 00 Bathroom Accessories.

PART 2 – PRODUCTS

2.1 Dimensional Lumber Framing and Blocking: Construction grade or better.

- A. Species: Western woods; WCLIB or WWPA.**

2.2 Plywood

- A. ¾- inch thick exterior grade plywood with glue that is a waterproof structural adhesive.**

2.3 FASTENERS

- A. Fasteners shall be galvanized with hot-dip zinc coating complying with ASTM A153.**
B. Power-driven fasteners shall comply with ASTM F1667.

PART 3 – EXECUTION

3.1 INSTALLATION, GENERAL

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.**

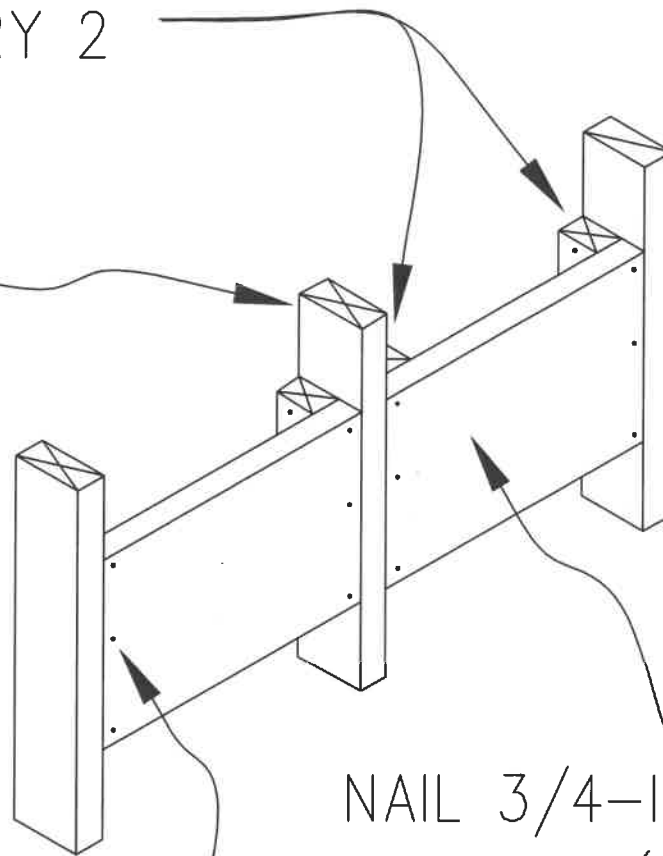
1. Refer to Pages 2, 5 and 6 for reinforcement details for horizontal and vertical grab bars.
2. Refer to Page 3, 5 and 6 for reinforcement details for hinged rear-mounted and end-mounted tub seats.
3. Refer to Page 4 for reinforcement details for surface-mounted Flip-Up Safety Rails.

- B. Do not splice structural members between supports unless otherwise indicated.**

- C. If wall studs are metal, insert wood studs inside them; do not attach reinforcement to metal studs.**

ALONG LENGTH OF
GRAB BARS, NAIL
SOLID BLOCKING
BETWEEN EVERY 2
STUDS (TYP.)

EXISTING WOOD
STUDS (TYP.)



USE 16d GALVANIZED
NAILS AT 3" O.C. FROM
PLYWOOD TO BLOCKING
(TYP.) IF USING WOOD
SCREWS, DRILL PILOT
HOLES FIRST.

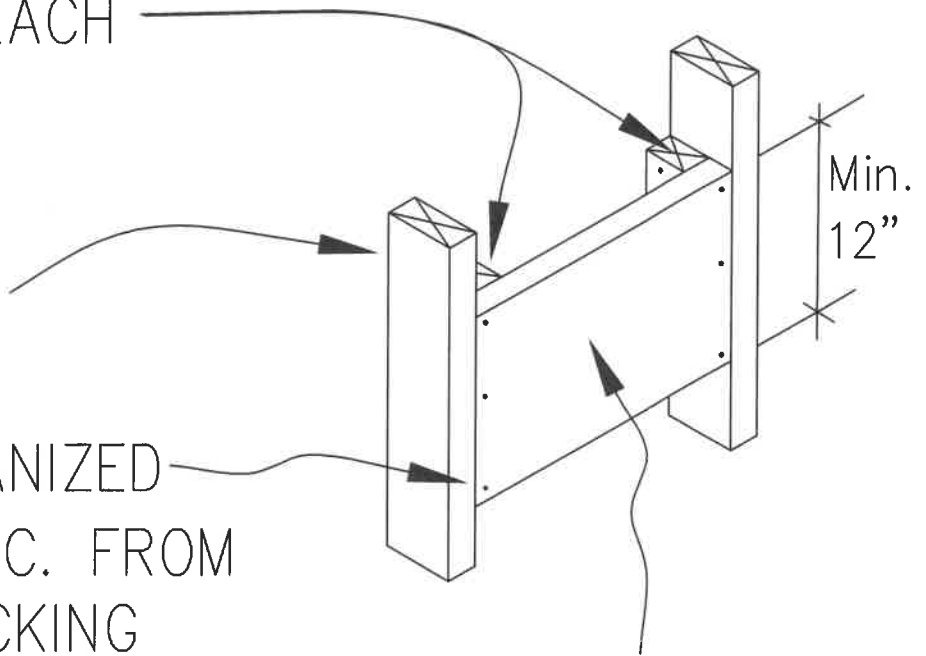
NAIL 3/4-INCH
PLYWOOD (TYP.) TO
BLOCKING; SEE AIP
DIAGRAMS FOR
LOCATIONS OF
REINFORCEMENT.

HORIZONTAL GRAB BAR
REINFORCEMENT DETAIL

BETWEEN EVERY 2
STUDS, NAIL SOLID
BLOCKING AT EACH
STUD (TYP.)

EXISTING WOOD
STUDS (TYP.)

USE 16d GALVANIZED
NAILS AT 3" O.C. FROM
PANEL TO BLOCKING
(TYP.) IF USING WOOD
SCREWS, DRILL PILOT
HOLES FIRST.



2-INCH THICK SOLID
WOOD PANEL.

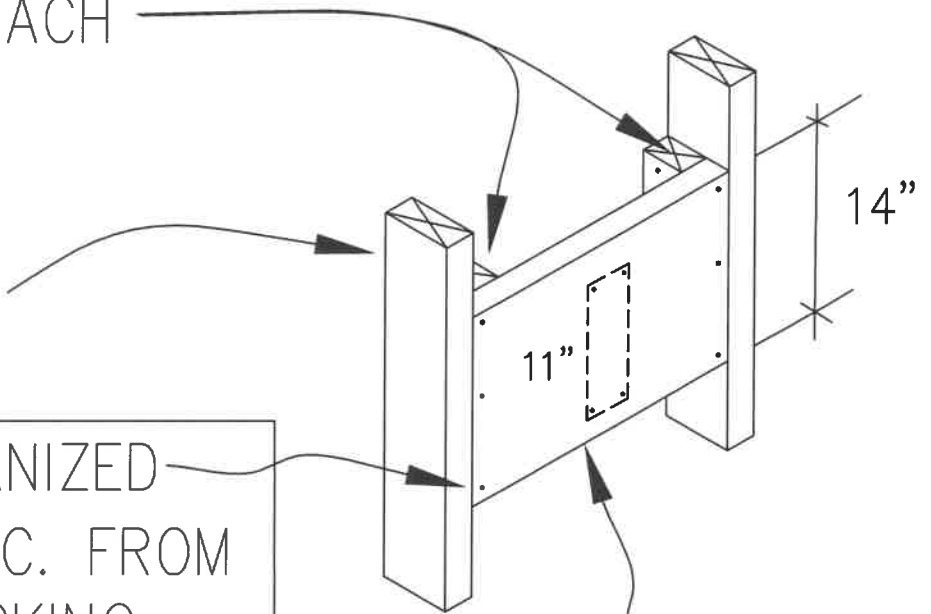
REINFORCEMENT DETAILS FOR
HINGED REAR-MOUNTED AND
END-MOUNTED TUB SEATS

BETWEEN EVERY 2
STUDS, NAIL SOLID
BLOCKING AT EACH
STUD (TYP.)

EXISTING WOOD
STUDS (TYP.)

USE 16d GALVANIZED
NAILS AT 3" O.C. FROM
PANEL TO BLOCKING
(TYP.)

IF USING WOOD SCREWS,
DRILL PILOT HOLE FIRST



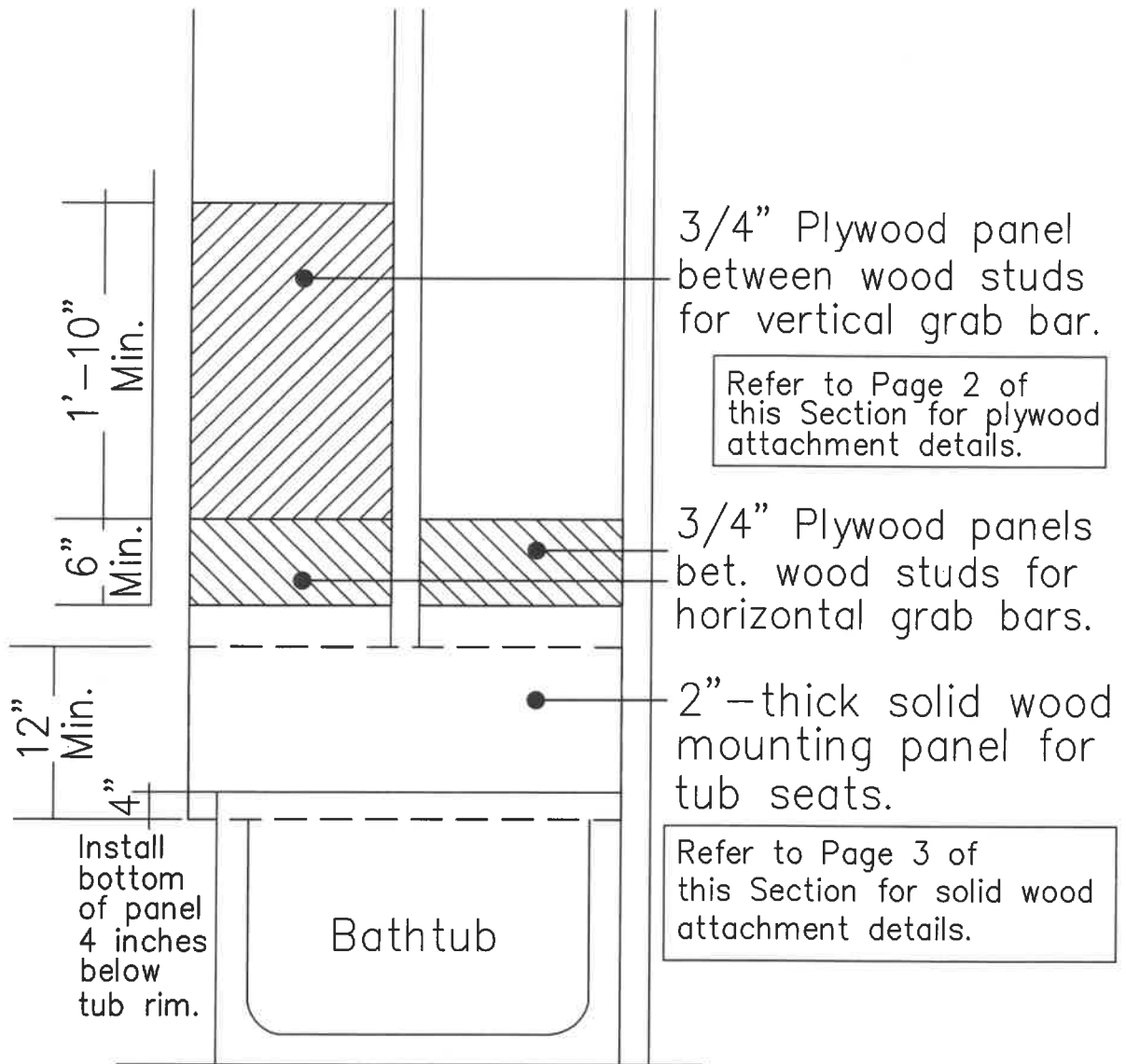
2-INCH THICK SOLID
WOOD.

REINFORCEMENT SHALL BE AT LEAST 3 INCHES
MORE THAN SURFACE-MOUNTED METAL PLATE
(Ex. 11" MOUNTING PLATE REQUIRES 14" BOARD)

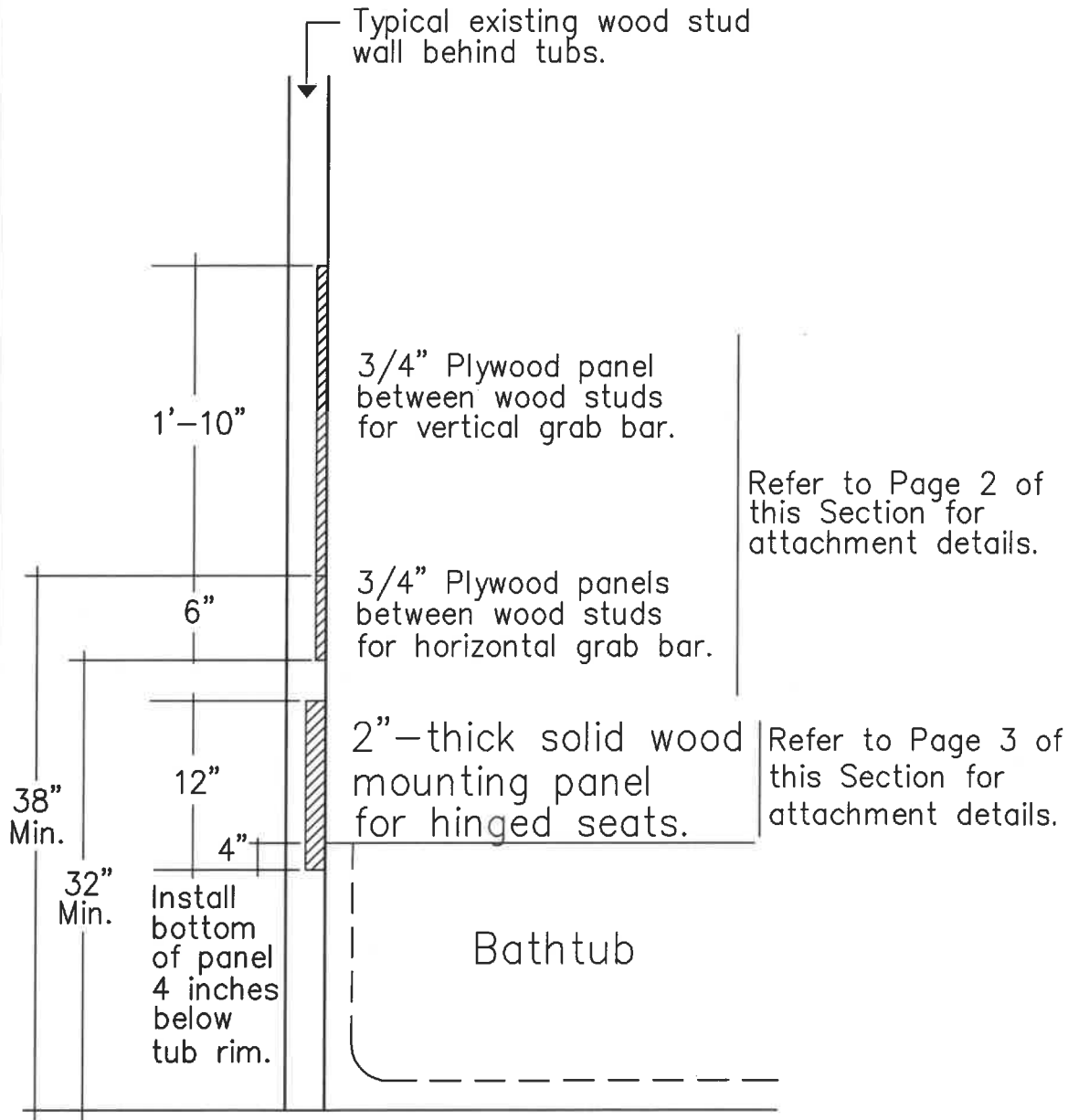
NOTE: Metal plate is mounted after
gypsum board & tile are installed.

REINFORCEMENT DETAILS FOR SURFACE-
MOUNTED FLIP-UP SAFETY RAILS

Typical existing wood stud wall in bathrooms.



REINFORCEMENT DETAILS FOR
HINGED TUB SEATS; AND
HORIZONTAL AND VERTICAL GRAB
BARS (NOT TO SCALE).



SECTIONAL REINFORCEMENT DETAILS FOR HINGED TUB SEATS; AND HORIZONTAL AND VERTICAL GRAB BARS (NOT TO SCALE).

SECTION 07 92 00 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Mildew-resistant joint sealants.

B. Related Sections

1. Section 09 30 00 Bathroom Tile and Ceramic Accessories

1.2 ACTION SUBMITTALS

- ##### A. Product Data: For each joint-sealant product.

1.3 PRE-CONSTRUCTION TESTING

- ##### A. Pre-construction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint substrates.

PART 2 - PRODUCTS

2.1 JOINT SEALANTS, GENERAL

- ##### A. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

2.2 SILICONE JOINT SEALANTS

- ##### A. Mildew-Resistant Silicone Joint Sealant complying with ASTM C 920.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. BASF Building Systems.
 - b. Dow Corning Corporation.
 - c. GE Advanced Materials – Silicones.
 - d. Pecora Corporation.
 - e. Sika Corporation; Construction Products Division.
 - f. Tremco Incorporated.
 - g. HPD-Approved equal.
2. Type: Single component (S).
3. Grade: Non-sag (NS).
4. Class: 25.
5. Uses related to exposure: Non-traffic (NT)

AGING IN PLACE
MAY 2019

2.8 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- B. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 - 1. Remove laitance and form-release agents from concrete.
 - 2. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces.

3.2 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with ASTM C 1193 and joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
- C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 - 1. Place sealants so they directly contact and fully wet joint substrates.
 - 2. Completely fill recesses in each joint configuration.
 - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- E. Tooling of Non-sag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 - 1. Provide concave joint profile per Figure 8A in ASTM C 1193 unless otherwise indicated.

AGING IN PLACE
MAY 2019

3.3 JOINT-SEALANT SCHEDULE

- A. Joint-Sealant Application: Mildew-resistant interior joints in vertical surfaces and horizontal non-traffic surfaces:
 - 1. Joint Locations:
 - a. Joints between plumbing fixtures and adjoining walls, floors, and counters.
 - b. Tile control and expansion joints where indicated.
 - 2. Joint Sealant: Silicone, mildew resistant, acid curing, S, NS, 25, NT.
 - 3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

END OF SECTION 07 92 00

AGING IN PLACE PROGRAM
MAY 2019

SECTION 08 71 00 - DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Door hardware for the following:
 - a. Mechanical locksets for swinging doors.
 - b. Bar pulls for kitchen cabinet drawers and doors.
 - c. Bar pulls for bathroom vanity cabinet drawers and doors.

1.2 ACTION SUBMITTALS

- A. Product Data:** For each type of product.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Accessibility Requirements:** For door hardware on doors in an accessible route, comply with ICC A117.1 and New York City Building Code.

2.2 MECHANICAL LATCHES

- A. Lock Function:** Passage; latchbolt operated by lever either side.
- B. Lock Throw:** Comply with testing requirements for length of bolts required for labeled fire doors, and as follows:
1. Bored Locks: Minimum 1/2-inch latchbolt throw.
- C. Lock Backset:** 2-3/4 inches unless otherwise indicated.
- D. Lock Trim:**
1. Levers: Cast.
 2. Escutcheons (Roses): Wrought.
- E. Strikes:** Provide manufacturer's standard strike for each latchbolt complying with requirements indicated for applicable latch and with strike box and curved lip extended to protect frame; finished to match lock or latch.
- F. Finish:** As selected by tenant(s).
- G. Bored Locks:**

AGING IN PLACE PROGRAM
MAY 2019

Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Sargent Lock - 6500 Series Cylindrical Lever Lock; 65U15.
2. Arrow Lock Mfg. Co., Inc. - RL Series Cylindrical Levers; RL01.
3. Hager Company – Series 2510 Passage Set, Grade 2 Cylindrical Lever.
4. HPD-Approved equal.

2.3 Cabinet Door and Drawer Pulls – 6-inch Hole Spacing

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Stone Mill Hardware – CP4009-66 8.75” Stainless Steel Bar Pull.
2. Amerock Décor – Model No. BP19541-SS.
3. Tenant-Approved equal.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Mounting Heights: Mount door hardware units at existing height unless otherwise indicated or required to comply with governing regulations.

1. Wood Doors: DHI's "Recommended Locations for Architectural Hardware for Wood Flush Doors."

B. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work. Do not install surface-mounted items until finishes have been completed on substrates involved.

C. Stops: Provide wall stops for doors.

3.2 ADJUSTING

A. Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

END OF SECTION 08 71 00

AGING IN PLACE SPECIFICATIONS
MAY 2019

SECTION 09 29 00 - GYPSUM BOARD

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Interior gypsum board.

B. Related Sections:

1. Section 06 10 00 Rough Carpentry
2. Section 07 92 00 Joint Sealants.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 GYPSUM BOARD, GENERAL

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

- B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. USG Corporation
2. Georgia-Pacific Gypsum LLC
3. National Gypsum Company
4. HPD-Approved equal.

- C. Thicknesses: As indicated on Scope of Work.

2.2 INTERIOR GYPSUM BOARD

- A. Gypsum Board, Type X: ASTM C 1396.

1. Thickness: 5/8 inch.
2. Long Edges: Tapered.

- B. Gypsum Ceiling Board: Type X: ASTM C 1396.

1. Thickness: 5/8 inch.
2. Long Edges: Tapered.

- C. Moisture- and Mold-Resistant Gypsum Board: ASTM C 1396 with moisture- and mold-resistant core and paper surfaces.

1. Thickness: 1/2 inch.

AGING IN PLACE SPECIFICATIONS
MAY 2019

2. Long Edges: Tapered.
3. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.

2.3 TRIM ACCESSORIES

- A. Interior Trim: ASTM C 1047.
 1. Material: Galvanized steel sheet.
 2. Shapes:
 - a. Cornerbead.
 - b. Bullnose bead.
 - c. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - d. L-Bead: L-shaped; exposed long flange receives joint compound.
 - e. U-Bead: J-shaped; exposed short flange does not receive joint compound.
 - f. Expansion (control) joint.

2.4 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C 475.
- B. Joint Tape:
 1. Interior Gypsum Board: As recommended by board manufacturer.
- C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.

2.5 AUXILIARY MATERIALS

- A. General: Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.
- B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.
- C. Steel Drill Screws: ASTM C 1002 unless otherwise indicated.
 1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch thick.
 2. For fastening cementitious backer units, use screws of type and size recommended by panel manufacturer.

2.6 APPLYING AND FINISHING PANELS

- A. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- B. Comply with ASTM C 840.

AGING IN PLACE SPECIFICATIONS
MAY 2019

- C. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch-wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- D. For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- E. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- F. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- G. Gypsum Board Finish Levels: Finish panels to levels according to ASTM C 840.

2.7 PROTECTION

- A. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- B. Remove and replace panels that are wet, moisture damaged, and mold damaged.

END OF SECTION 09 29 00

AGING IN PLACE PROGRAM
MAY 2019

SECTION 09 30 00 – BATH TILE AND CERAMIC ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Ceramic tile.
2. Ceramic Bathroom Accessories.
3. Waterproof membrane.
4. Crack isolation membrane.
5. Metal edge strips.

B. Related Sections:

1. Section 07 92 00 Joint Sealants.
2. Section 09 29 00 Gypsum Board.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Samples:

1. Each type and composition of tile and for each color and texture chosen.
2. Each type of ceramic bathroom accessory for each color chosen.

PART 2 - PRODUCTS

2.1 TILE PRODUCTS

A. ANSI Ceramic Tile Standard: Provide Standard grade tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.

B. FloorScore Compliance: Tile for floors shall comply with requirements of FloorScore Standard.

C. Adhesives and Sealants: VOC content not to exceed the following g/L; less water and less exempt compounds:

1. Ceramic Tile Adhesives: 65 g/L
2. Grout Sealer: 200 g/L

D. Tile Type: Factory-mounted unglazed or glazed ceramic mosaic tile where shown on Drawings.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

AGING IN PLACE PROGRAM
MAY 2019

- a. American Olean; Division of Dal-Tile International Inc.
 - b. Crossville, Inc.
 - c. Daltile; Division of Dal-Tile International Inc.
 - d. Interceramic.
 - e. Architect-Approved equal.
2. Composition: Vitreous or impervious natural clay or porcelain.
 3. Module Size: indicated on Drawings.
 4. Thickness: 1/4 inch.
 5. Face: Plain with cushion edges.
 6. Surface: Slip-resistant, with abrasive admixture.
 7. Finish: Mat, clear glaze.
 8. Tile Color and Pattern: As selected by Architect from manufacturer's full range and/or as shown on Drawings.
 9. Grout Color: As selected by Architect from manufacturer's full range and/or as indicated on Drawings.
 10. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile.
- E. Tile Type: Unglazed Paver Tile.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. American Olean; Division of Dal-Tile International Inc.
 - b. Crossville, Inc.
 - c. Daltile; Division of Dal-Tile International Inc.
 - d. Interceramic.
 - e. United States Ceramic Tile Company.
 - f. Architect-Approved equal.
 2. Composition: Vitreous or impervious natural clay or porcelain.
 3. Face Size: 6 by 6 inches.
 4. Thickness: 3/8 inch.
 5. Face: Plain with square or cushion edges.
 6. Finish: Mat, clear glaze.
 7. Tile Color and Pattern: As selected by Architect from manufacturer's full range and/or as shown on Drawings.
 8. Grout Color: As selected by Architect from manufacturer's full range and/or as indicated on Drawings.
 9. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile. Provide shapes as follows, selected from manufacturer's standard shapes:

AGING IN PLACE PROGRAM
MAY 2019

- a. Base Cove: Cove, module size same as adjoining flat tile - 6 inches by 6 inches.
- b. Base Cap: Surface bullnose, module size same as adjoining flat tile.
- c. Wainscot Cap: Surface bullnose, module size same as adjoining flat tile.
- d. External Corners: Surface bullnose, module size same as adjoining flat tile.
- e. Internal Corners: Cove, module size same as adjoining flat tile.
- f. Tapered Transition Tile: Shape designed to effect transition between thickness of tile floor and adjoining floor finishes of different thickness, tapered to provide reduction in thickness from 1/2 to 1/4 inch across nominal 4-inch dimension.

F. Tile Type: Glazed Wall Tile.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. American Olean; Division of Dal-Tile International Inc.
 - b. Daltile; Division of Dal-Tile International Inc.
 - c. United States Ceramic Tile Company.
 - d. Crossville, Inc.
 - e. Architect-Approved equal.
2. Module Size: 4-1/4 by 4-1/4 inches.
3. Thickness: 5/16 inch.
4. Face: Pattern of design indicated, with manufacturer's standard edges.
5. Finish: Mat, clear glaze.
6. Tile Color and Pattern: As selected by Architect from manufacturer's full range and/or as shown on Drawings.
7. Grout Color: As selected by Architect from manufacturer's full range and/or as indicated on Drawings.
8. Mounting: Factory, back mounted.
9. Mounting: Pre-grouted sheets of tiles factory assembled and grouted with manufacturer's standard white silicone rubber.
10. Trim Units: Coordinated with sizes and coursing of adjoining flat tile where applicable and matching characteristics of adjoining flat tile. Provide shapes as follows, selected from manufacturer's standard shapes:
 - a. Base: Coved, module size 6 by 6 inches.
 - b. Wainscot Cap: Bullnose cap, module size 6 by 2 inches.
 - c. External Corners for Thin-Set Mortar Installations: Bullnose shape same size as adjoining flat tile.
 - d. Internal Corners: Field-buttet square corners. For coved base and cap use angle pieces designed to fit with stretcher shapes.

AGING IN PLACE PROGRAM
MAY 2019

- G. Accessories: Provide vitreous china accessories of type and size indicated, suitable for installing by same method as adjoining wall tile.
1. One soap dish at bathroom lavatory.
 2. One combination cup and toothbrush holder at bathroom lavatory.
 3. One toilet paper holder at each water closet.
 4. One soap holder at shower wall.
 5. One soap dish at bathtub.
 6. Towel Bars as indicated on Drawings.
 8. Color and Finish: As selected by Architect from manufacturer's full range and/or as indicated on Drawings.
 9. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Lenape Pro Series
 - LEN-1803 Soap Dish
 - LEN-1883 Toothbrush Holder
 - LEN-1975 Tub Soap Dish
 - LEN-1772 Toilet Paper Holder
 - LEN-1800 Towel Bar
 - b. Architect-Approved equal.

2.2 THRESHOLDS

- A. General: Fabricate to sizes and profiles indicated or required to provide transition between adjacent floor finishes.
1. Bevel edges at 1:2 slope with lower edge of bevel aligned with or up to 1/16 inch above adjacent floor surface. Finish bevel to match top surface of threshold. Limit height of threshold to 1/2 inch or less above adjacent floor surface.
- B. Marble Thresholds: ASTM C 503, with a minimum abrasion resistance of 10 per ASTM C 1353 or ASTM C 241 and with honed finish.
1. Description: Uniform, fine- to medium-grained white stone with gray veining.

2.3 WATERPROOF MEMBRANE

- A. General: Manufacturer's standard product, selected from the following that complies with ANSI A118.10 and is recommended by the manufacturer for the application indicated.
- B. Chlorinated-Polyethylene-Sheet: Nonplasticized, chlorinated polyethylene faced on both sides with nonwoven polyester fabric; 0.030-inch nominal thickness.
1. Products: Subject to compliance with requirements, provide one of the following:

AGING IN PLACE PROGRAM
MAY 2019

- a. Noble Company (The); Nobleseal TS.
 - b. Architect-Approved equal.
- C. PVC Sheet: Two layers of PVC sheet heat-fused together and to facings of nonwoven polyester; 0.040-inch nominal thickness.
- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Compotite Corporation; Composeal Gold.
 - b. Architect-Approved equal.
- D. Polyethylene Sheet: Polyethylene faced on both sides with fleece webbing; 0.008-inch nominal thickness.
- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Schluter Systems L.P.; KERDI.
 - b. Architect-Approved equal.
- E. Fabric-Reinforced, Modified-Bituminous Sheet: Self-adhering, SBS-modified-bituminous sheet with woven reinforcement facing; 0.040-inch nominal thickness.
- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. National Applied Construction Products, Inc.; Strataflex.
 - b. Architect-Approved equal.
- F. Fabric-Reinforced, Fluid-Applied Membrane: System consisting of liquid-latex rubber or elastomeric polymer and continuous fabric reinforcement.
- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Boiardi Products, a QEP company; Elastiment 344 Reinforced Waterproofing and Anti-Fracture/Crack Suppression Membrane.
 - b. Laticrete International, Inc.; Laticrete 9235 Waterproof Membrane.
 - c. MAPEI Corporation; [**Mapelastic L (PRP M19)**] [**Mapelastic HPG with MAPEI Fiberglass Mesh**]
 - d. Summitville Tiles, Inc.; S-9000.
 - e. Architect-Approved equal.
- G. Fluid-Applied Membrane: Liquid-latex rubber or elastomeric polymer.

AGING IN PLACE PROGRAM
MAY 2019

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Boiardi Products, a QEP company; Elastiment 644 Membrane Waterproofing System.
 - b. Laticrete International, Inc.; [**Latapoxy 24hr HydroProofing**] [**Laticrete Watertight Floor N' Wall Waterproofing**].
 - c. MAPEI Corporation; Mapelastic HPG.
 - d. Architect-Approved equal.

H. Latex-Portland Cement: Flexible mortar consisting of cement-based mix and latex additive.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Boiardi Products, a QEP company; Elastiment 323 Cement Based Waterproofing, Anti-Fracture/Crack Suppression Membrane.
 - b. MAPEI Corporation; Mapelastic (PRP 315).
 - c. C-Cure; UltraCure 971.
 - d. TEC, a subsidiary of H. B. Fuller Company; Triple Flex Waterproofing, Crack Isolation Membrane & Mortar.
 - e. Architect-Approved equal.

2.4 CRACK ISOLATION MEMBRANE

A. General: Manufacturer's standard product, selected from the following that complies with ANSI A118.12 for standard performance and is recommended by the manufacturer for the application indicated.

B. Chlorinated-Polyethylene Sheet: Non-plasticized, chlorinated polyethylene faced on both sides with nonwoven polyester fabric; 0.030-inch nominal thickness.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Noble Company (The); Nobleseal CIS.
 - b. Architect-Approved equal.

C. Polyethylene Sheet: Polyethylene faced on both sides with fleece webbing; 0.008-inch nominal thickness.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Schluter Systems L.P.; KERDI.

AGING IN PLACE PROGRAM
MAY 2019

- b. Architect-Approved equal.
- D. Fabric-Reinforced, Modified-Bituminous Sheet: Self-adhering, modified-bituminous sheet with fabric reinforcement facing; 0.040-inch nominal thickness.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. MAPEI Corporation; Mapelastic SM.
 - b. National Applied Construction Products, Inc.; Strataflex.
 - c. Architect-Approved equal.
- E. Latex-Portland Cement: Flexible mortar consisting of cement-based mix and latex additive.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. C-Cure; UltraCure 971.
 - b. MAPEI Corporation; Mapelastic (PRP 315).
 - c. TEC, a subsidiary of H. B. Fuller Company; Triple Flex Waterproofing, Crack Isolation Membrane & Mortar.
 - d. Architect-Approved equal.

2.5 SETTING MATERIALS

- A. Portland Cement Mortar (Thickset) Installation Materials: ANSI A108.02.
- B. Dry-Set Portland Cement Mortar (Thin Set): ANSI A118.1.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Boiardi Products; a QEP company.
 - b. C-Cure.
 - c. Laticrete International, Inc.
 - d. MAPEI Corporation.
 - e. TEC; a subsidiary of H. B. Fuller Company.
 - f. Architect-Approved equal.
 - 2. For wall applications, provide non-sagging mortar.
- C. Latex-Portland Cement Mortar (Thin Set): ANSI A118.4.

AGING IN PLACE PROGRAM
MAY 2019

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Boiardi Products; a QEP company.
 - b. C-Cure.
 - c. Laticrete International, Inc.
 - d. MAPEI Corporation.
 - e. TEC; a subsidiary of H. B. Fuller Company.
 - f. Architect-Approved equal.
 2. Prepackaged, dry-mortar mix to which only water must be added.
 3. Prepackaged, dry-mortar mix combined with liquid-latex additive.
 4. For wall applications, provide non-sagging mortar.
- D. EGP (Exterior Glue Plywood) Latex-Portland Cement Mortar (Thin Set): ANSI A118.11.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Bostik, Inc.
 - b. C-Cure.
 - c. Laticrete International, Inc.
 - d. MAPEI Corporation.
 - e. TEC; a subsidiary of H. B. Fuller Company.
 - f. Architect-Approved equal.
 2. Prepackaged, dry-mortar mix to which only water must be added.
 3. Prepackaged, dry-mortar mix combined with liquid-latex additive
- E. Water-Cleanable, Tile-Setting Epoxy: ANSI A118.3, with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Atlas Minerals & Chemicals, Inc.
 - b. Bostik, Inc.
 - c. C-Cure.
 - d. Laticrete International, Inc.
 - e. MAPEI Corporation.
 - f. TEC; a subsidiary of H. B. Fuller Company.
 - g. Architect-Approved equal.
- F. Organic Adhesive: ANSI A136.1, Type I, with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

AGING IN PLACE PROGRAM
MAY 2019

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Bostik, Inc.
 - b. C-Cure.
 - c. Laticrete International, Inc.
 - d. MAPEI Corporation.
 - e. TEC; a subsidiary of H. B. Fuller Company.
 - f. Architect-Approved equal.

2.6 GROUT MATERIALS

A. Sand-Portland Cement Grout: ANSI A108.10.

B. Standard Cement Grout: ANSI A118.6.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Boiardi Products; a QEP company.
 - b. C-Cure.
 - c. Laticrete International, Inc.
 - d. MAPEI Corporation.
 - e. TEC; a subsidiary of H. B. Fuller Company.
 - f. Architect-Approved equal.

C. Polymer-Modified Tile Grout: ANSI A118.7.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Boiardi Products; a QEP company.
 - b. C-Cure.
 - c. Laticrete International, Inc.
 - d. MAPEI Corporation.
 - e. TEC; a subsidiary of H. B. Fuller Company.
 - f. Architect-Approved equal.

2. Polymer Type: Dry, redispersible form, prepackaged with other dry ingredients.

3. Polymer Type: Liquid-latex form for addition to prepackaged dry-grout mix.

D. Water-Cleanable Epoxy Grout: ANSI A118.3, with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D.

AGING IN PLACE PROGRAM
MAY 2019

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Atlas Minerals & Chemicals, Inc.
 - b. Boiardi Products; a QEP company.
 - c. C-Cure.
 - d. Laticrete International, Inc.
 - e. MAPEI Corporation.
 - f. TEC; a subsidiary of H. B. Fuller Company.
 - g. Architect-Approved equal.

E. Grout for Pre-grouted Tile Sheets: Same product used in factory to pre-grout tile sheets.

2.7 ELASTOMERIC SEALANTS

A. Enterprise Green Communities Criteria: Materials Beneficial To the Environment.

1. Sealants shall have a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

B. One-Part, Mildew-Resistant Silicone Sealant: ASTM C 920; Type S; Grade NS; Class 25; Uses NT, G, A, and, as applicable to nonporous joint substrates indicated, O; formulated with fungicide, intended for sealing interior ceramic tile joints and other nonporous substrates that are subject to in-service exposures of high humidity and extreme temperatures.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. DAP Inc.: 100 percent Silicone Kitchen and Bath Sealant.
 - b. Dow Corning Corporation; Dow Corning 786.
 - c. GE Silicones, a division of GE Specialty Materials; Sanitary 1700.
 - d. Laticrete International, Inc.; Latasil Tile & Stone Sealant.
 - e. Pecora Corporation; Pecora 898 Sanitary Silicone Sealant.
 - f. Tremco Incorporated; Tremsil 600 White.
 - g. Architect -Approved equal.

2.8 MISCELLANEOUS MATERIALS

A. Trowelable Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.

B. Metal Edge Strips: Angle or L-shape, half-hard brass exposed-edge material.

C. Grout Sealer: Manufacturer's standard silicone product for sealing grout joints and that does not change color or appearance of grout.

AGING IN PLACE PROGRAM
MAY 2019

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following
 - a. Bostik, Inc.; CeramaSeal [**Grout & Tile Sealer**] [**Magic Seal**] [**Silox 8**] [**Siloxane 220**].
 - b. C-Cure; Penetrating Sealer 978.
 - c. MAPEI Corporation; KER [**003, Silicone Spray Sealer for Cementitious Tile Grout**] [**004, Keraseal Penetrating Sealer for Unglazed Grout and Tile**].
 - d. TEC, a subsidiary of H. B. Fuller Company; [**TA-256 Penetrating Silicone**] [**TA-257 Silicone**] Grout Sealer.
 - e. Architect-Approved equal.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of installed tile.
 1. Verify that substrates for setting tile are firm, dry, clean, free of coatings that are incompatible with tile-setting materials including curing compounds and other substances that contain soap, wax, oil, or silicone; and comply with flatness tolerances required by ANSI A108.01 for installations indicated.

3.2 PREPARATION

- A. Fill cracks, holes, and depressions in concrete substrates for tile floors installed with thin-set mortar with trowelable leveling and patching compound specifically recommended by tile-setting material manufacturer.
- B. Where indicated, prepare substrates to receive waterproofing by applying a reinforced mortar bed that complies with ANSI A108.1A and is sloped 1/4 inch per foot toward drains.
- C. Blending: For tile exhibiting color variations, use factory blended tile or blend tiles at Project site before installing.
- D. Field-Applied Temporary Protective Coating: If indicated under tile type or needed to prevent grout from staining or adhering to exposed tile surfaces, pre-coat them with continuous film of temporary protective coating, taking care not to coat unexposed tile surfaces.

3.3 INSTALLATION

- A. Comply with TCA's Handbook for Ceramic Tile Installation for TCA installation methods specified in tile installation schedules. Comply with parts of the ANSI A108 Series "Specifications for Installation of Ceramic Tile" that are referenced in TCA installation methods, specified in tile installation schedules, and apply to types of setting and grouting materials used.

AGING IN PLACE PROGRAM
MAY 2019

1. For the following installations, follow procedures in the ANSI A108 Series of tile installation standards for providing 95 percent mortar coverage:
 - a. Tile floors in wet areas.
 - b. Tile floors composed of tiles 8 by 8 inches or larger.
 - c. Tile floors composed of rib-backed tiles.
- B. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- C. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.
- D. Provide manufacturer's standard trim shapes where necessary to eliminate exposed tile edges.
- E. Jointing Pattern: Lay tile in grid pattern unless otherwise indicated. Lay out tile work and center tile fields in both directions in each space or on each wall area. Lay out tile work to minimize the use of pieces that are less than half of a tile. Provide uniform joint widths unless otherwise indicated.
- F. Joint Widths: Unless otherwise indicated, install tile with the following joint widths:
 1. Ceramic Mosaic Tile: 1/16 inch.
 2. Paver Tile: 1/4 inch.
 3. Glazed Wall Tile: 1/16 inch.
- G. Lay out tile wainscots to dimensions indicated or to next full tile beyond dimensions indicated.
- H. Expansion Joints: Provide expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, where indicated. Form joints during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.
 1. Where joints occur in concrete substrates, locate joints in tile surfaces directly above them.
 2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."
- I. Stone Thresholds: Install stone thresholds in same type of setting bed as adjacent floor unless otherwise indicated.
 1. At locations where mortar bed (thickset) would otherwise be exposed above adjacent floor finishes, set thresholds in latex-portland cement mortar (thin set).
- J. Metal Edge Strips: Install where exposed edge of tile flooring meets carpet, wood, or other flooring that finishes flush with top of tile.

AGING IN PLACE PROGRAM
MAY 2019

- K. Grout Sealer: Apply grout sealer to cementitious grout joints in tile floors according to grout-sealer manufacturer's written instructions. As soon as grout sealer has penetrated grout joints, remove excess sealer and sealer from tile faces by wiping with soft cloth.
- L. Install cementitious backer units and fiber-cement underlayment and treat joints according to ANSI A108.11 and manufacturer's written instructions for type of application indicated. Use latex-portland cement mortar for bonding material unless otherwise directed in manufacturer's written instructions.
- M. Install waterproofing to comply with ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness and bonded securely to substrate.
- N. Install crack isolation membrane to comply with ANSI A108.17 and manufacturer's written instructions to produce membrane of uniform thickness and bonded securely to substrate.

3.4 INTERIOR TILE INSTALLATION SCHEDULE

A. Interior Floor Installations, Concrete Subfloor:

- 1. Tile Installation F112: Cement mortar bed (thickset) bonded to concrete; TCA F112.
 - a. Thin-Set Mortar for Cured-Bed Method: [**Dry-set**] [**Latex-**] Portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
- 2. Tile Installation F113: Thin-set mortar; TCA F113.
 - a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] Portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
- 3. Tile Installation F115: Thin-set mortar; epoxy grout; TCA F115.
 - a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] Portland cement mortar.
 - b. Grout: Water-cleanable epoxy grout.
- 4. Tile Installation F116: [**Organic adhesive**] [**Water-cleanable, tile-setting epoxy**]; TCA F116.
 - a. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
- 5. Tile Installation F122: Thin-set mortar on waterproof membrane; TCA F122.
 - a. Thin-Set Mortar: Latex-portland cement mortar.
 - b. Grout: Polymer-modified [**sanded**] [**unsanded**] grout.
- 6. Tile Installation F125A: Thin-set mortar on crack isolation membrane; TCA F125A.
 - a. Thin-Set Mortar: Latex-portland cement mortar.

AGING IN PLACE PROGRAM
MAY 2019

- b. Grout: [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
7. Tile Installation F131: Water-cleanable, tile-setting epoxy; epoxy grout; TCA F131.
- a. Grout: Water-cleanable epoxy grout.

B. Interior Floor Installations, Wood Subfloor:

1. Tile Installation F121: Cement mortar bed (thickset) on waterproof membrane; TCA F121.
- a. Thin-Set Mortar for Cured-Bed Method: [**Dry-set**] [**Latex-**] portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
2. Tile Installation F142: Organic adhesive; TCA F142.
- a. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
3. Tile Installation F143: Water-cleanable, tile-setting epoxy; epoxy grout; TCA F143.
- a. Grout: Water-cleanable epoxy grout.
4. Tile Installation F144: Thin-set mortar on cementitious backer units/fiber cement underlayment; TCA F144.
- a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] Portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
5. Tile Installation F150/160: Thin-set mortar on exterior-glye plywood; TCA F150 or TCA F160.
- a. Thin-Set Mortar: EGP latex-portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.

C. Interior Wall Installations, Masonry or Concrete:

1. Tile Installation W202: Thin-set mortar; TCA W202.
- a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] Portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
2. Tile Installation W223: Organic adhesive; TCA W223.

AGING IN PLACE PROGRAM
MAY 2019

- a. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.

D. Interior Wall Installations, Metal Studs or Furring:

- 1. Tile Installation W223: Organic adhesive on solid backing; TCA W223.
 - a. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
- 2. Tile Installation W242: Organic adhesive on gypsum board; TCA W242.
 - a. Grout: [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
- 3. Tile Installation W243: Thin-set mortar on gypsum board; TCA W243.
 - a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] Portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
- 4. Tile Installation W244: Thin-set mortar on cementitious backer units or fiber cement underlayment[**over cleavage membrane**]; TCA W244.
 - a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] Portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
- 5. Tile Installation W245: [**Thin-set mortar**] [**Organic adhesive**] on coated glass-mat, water-resistant gypsum backer board; TCA W245.
 - a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] Portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.

E. Bathtub Wall Installations, Metal Studs or Furring:

- 1. Tile Installation B413: [**Thin-set mortar**] [**Organic adhesive**] on water-resistant gypsum board; TCA B413.
 - a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] Portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.

F. Bathtub/Shower Wall Installations, Metal Studs or Furring:

- 1. Tile Installation B412: Thin-set mortar on cementitious backer units/fiber cement underlayment; TCA B412.
 - a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] Portland cement mortar.

AGING IN PLACE PROGRAM
MAY 2019

- b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
 - 2. Tile Installation B419: [**Thin-set mortar**] [**Organic adhesive**] on coated glass-mat, water-resistant backer board; TCA B419.
 - a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] Portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] [**Water-cleanable epoxy**] grout.
- G. Shower Receptor and Wall Installations, Concrete or Masonry:
- 1. Tile Installation B421: Thin-set mortar on waterproof membrane; TCA B421.
 - a. Thin-Set Mortar: Latex-portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
 - 2. Tile Installation B422: Thin-set mortar on waterproof membrane with integrated bonding flange for bonded membranes; TCA B422.
 - a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
- H. Shower Receptor and Wall Installations, Metal Studs or Furring:
- 1. Tile Installation B415: Thin-set mortar on cementitious backer units/fiber cement underlayment; TCA B415.
 - a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
 - 2. Tile Installation B420: Thin-set mortar on coated glass-mat, water-resistant backer board; TCA B420.
 - a. Thin-Set Mortar: [**Dry-set**] [**Latex-**] portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.
 - 3. Tile Installation B421: Thin-set mortar on waterproof membrane over cementitious backer units/fiber cement underlayment; TCA B421.
 - a. Thin-Set Mortar: Latex-portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.

AGING IN PLACE PROGRAM
MAY 2019

4. Tile Installation B422: Thin-set mortar on waterproof membrane over cementitious backer units/fiber cement underlayment with integrated bonding flange for bonded membranes; TCA B422.
 - a. Thin-Set Mortar: Latex-portland cement mortar.
 - b. Grout: [**Sand-portland cement**] [**Standard sanded cement**] [**Standard unsanded cement**] [**Polymer-modified sanded**] [**Polymer-modified unsanded**] grout.

END OF SECTION 09 30 00

SECTION 09 91 23 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and the application of paint systems on interior substrates.
 - 1. Gypsum board.
 - 2. Plaster.

1.2 DEFINITIONS

- A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- D. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- E. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
- F. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
- G. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples: For each type of paint system and in each color and gloss of topcoat.
- C. Product List: For each product indicated. Include printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in other Part 2 articles for the paint category indicated.

AGING IN PLACE
MAY 2019

2.2 PAINT, GENERAL

- A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."
- B. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- C. All interior paints and primers must be less than or equal to the following VOC levels, in grams per liter, based on a combination of the MPI and GreenSeal standards:
 - 1. Flat Paints and Coatings: 50 g/L.
 - 2. Nonflat Paints and Coatings: 50 g/L.
 - 3. Primers, Sealers, and Undercoaters: 50 g/L.
 - 4. Anticorrosive and Antirust Paints Applied to Ferrous Metals: 250 g/L.
 - 5. Floor Coatings: 100 g/L.
- D. Avoid epoxy-based paints, even those that comply with VOC standards, as these contain the chemical Bisphenol A. Bisphenol A was identified by the EPA on March 29, 2010, as a "chemical of concern."
- E. Colors: As indicated in a color schedule.

2.3 BLOCK FILLERS

- A. Block Filler, Latex, Interior/Exterior: MPI #4.
 - 1. Benjamin Moore: 206/Super Spec, High Build Int/Ext Block Filler
 - 2. PPG Pittsburgh Paints: 6-15/Speedhide, Int/Ext HiFill Latex Block Filler
 - 3. Sherwin – Williams: B25W00025/PrepRite, Int/Ext Block Filler
 - 4. M.A.B. Paints: MB064145/Block Kote#1000, 100% Acrylic Sprayable Block Filler
 - 5. Or Approved equal

2.4 PRIMERS/SEALERS

- A. Primer Sealer, Latex, Interior: MPI #50.
 - 1. Benjamin Moore: 372/ EcoSpec, Interior Latex Primer
 - 2. PPG Pittsburgh Paints: 6-2/Speedhide, Interior Latex Sealer Quick Drying
 - 3. Sherwin – Williams: B28WB1/Quali-Kote, Interior Latex Primer
 - 4. Or Approved equal
- B. Primer, Latex, for Interior Wood: MPI #39.
 - 1. Benjamin Moore: N023/Fresh Start, Multi-Purpose Latex Primer
 - 2. Sherwin – Williams: B51W00450/Multi-Purpose, Multi-Purpose Latex Primer/Sealer

AGING IN PLACE
MAY 2019

3. Diamond Vogel: DU1508/Mill Max, Latex Enamel Undercoat
4. Or Approved equal

2.5 WATER-BASED PAINTS

- A. Latex, Interior, Flat, (Gloss Level 1): MPI #53.
 1. Benjamin Moore: 373/Eco Spec WB, Interior Latex Flat Finish
 2. PPG Pittsburgh Paints: 72001/Olympic, Olympic Premium Interior Latex Flat
 3. Sherwin – Williams: B30WQ8151/Quali-Kote, Interior Latex Flat
- B. Latex, Interior, (Gloss Level 3): MPI #52.
 1. Benjamin Moore: N374/F374/Eco Spec WB, Interior Latex Eggshell Finish
 2. PPG Pittsburgh Paints: 72101/Olympic, Olympic Premium Interior Latex Satin
 3. Sherwin – Williams: B20W02651/ProMar 200 Zero VOC, Interior Latex Eg-Shel
- C. Latex, Interior, Semi-Gloss, (Gloss Level 5): MPI #54.
 1. Benjamin Moore: N376/Eco Spec WB, Interior Latex Semi-Gloss Finish
 2. PPG Pittsburgh Paints: 72201/Olympic, Premium Interior Latex Semi-Gloss
 3. Sherwin – Williams: A98W01251/Duration Home, Interior Latex Semi-Gloss
- D. Light Industrial Coating, Interior, Water Based, Semi-Gloss (Gloss Level 5): MPI #153.
 1. Rust-Oleum: 238752/Sierra Performance, Metalmax Metalmax DTM Acrylic Enamel
 2. Sherwin-Williams: B66W00651/Pro Industrial, Acrylic Semi-Gloss Coating
 3. Pratt & Lambert: Z6761/Industrial Maintenance, Acrylic Waterborne DTM Semi-Gloss

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 1. Gypsum Board: 12 percent.
 2. Plaster: 12 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Proceed with coating application only after unsatisfactory conditions have been corrected.
 1. Application of coating indicates acceptance of surfaces and conditions.

AGING IN PLACE
MAY 2019

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."

3.4 CLEANING AND PROTECTION

- A. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

3.5 INTERIOR PAINTING SCHEDULE

- A. Wood Substrates: Including wood trim, architectural woodwork, doors, and windows.
 - 1. Latex System:
 - a. Prime Coat: Primer, latex, for interior wood, MPI #39.
 - b. Topcoat: Latex, interior, semi-gloss, (Gloss Level 5), MPI #54.
- B. Gypsum Board and Plaster Substrates:
 - 1. Latex System:
 - a. Prime Coat: Primer sealer, latex, interior, MPI #50.
 - b. Topcoat for kitchen, bathroom wall and ceiling surfaces, closets, staircase and public hall walls: Latex, interior, semi-gloss, (Gloss Level 5), MPI #54.

END OF SECTION 09 91 23

AGING IN PLACE PROGRAM
MAY 2019

SECTION 09 97 00 – SPECIAL COATINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes surface preparation and the application of non-abrasive anti-slip coating systems on the following substrates:
 - 1. Interior Substrates:
 - a. Ceramic tile surfaces.
 - b. Porcelain tile surfaces.
 - c. Vinyl composition tile (VCT).
 - d. Vinyl asbestos tile (VAT).

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.

PART 2 - PRODUCTS

- 2.1 Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. SparkleTuff™ Anti-Slip Floor Coating by Safety Direct America; 1-800-988-6721.
 - 2. HPD-Approved equal.

2.2 NON-ABRASIVE ANTI-SLIP COATINGS, GENERAL

- A. Product shall fully compatible with non-abrasive cleaning methods.
- B. Product shall provide an abrasion-, stain- and water-resistant finish that helps protect the coated surface from wear and damage.
- C. Product shall be without Volatile Organic Compounds (VOCs), and unpleasant fumes or odors shall be minimal.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- C. Proceed with coating application only after unsatisfactory conditions have been corrected.

AGING IN PLACE PROGRAM
MAY 2019

1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations applicable to substrates and coating systems indicated.
- B. Clean substrates of substances that could impair bond of coatings, including dust.

3.3 APPLICATION

- A. Apply coatings according to manufacturer's written instructions and recommendations.

END OF SECTION 09 97 00

SECTION 10 28 00 - BATHROOM ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Grab bars and Safety Rails.
2. Folding tub seats.
3. In-Wall Anchor Systems for Grab Bars, Safety Rails, and Tub Seats.

B. Related Sections:

1. Section 06 10 00 – Rough Carpentry.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include manufacturer's catalog cuts for each accessory scheduled including roughing requirements and proposed method of attachment.

1.3 DELIVERY

- A. Accessories specified herein shall be delivered to the job site in the approved manufacturer's original packaging, complete with labels indicating type of accessory and location in the building for installation.

PART 2 - PRODUCTS

A. **Straight Grab Bar; Satin or white finish with safety-grip surface.**

1. Description: 18-8 S, Type 304, 11-gauge thick, stainless steel plate; end flanges 2" x 3-1/8" with two (2) or four (4) holes for attachment to wall; concealed mounting flanges.
2. Snap Flange Covers: 18-8 S, Type 304, 22-gauge drawn stainless steel with satin finish. 3-1/4" diameter x 1/2" deep. Each cover snaps over mounting flange to conceal mounting screws.
3. Material: 18-8 S, Types 304, 18-gauge stainless steel tubing with satin finish.
4. Outside Diameter: 1-1/2 inch.
5. Configurations and Lengths: As indicated on Drawings.
6. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Bobrick Washroom Equipment Inc.
 - b. Moen Corporation.
 - c. American Specialties, Inc.
 - d. HPD-Approved equal.
7. Devices for Securing Grab Bars to Wall Assemblies

AGING IN PLACE PROGRAM
MAY 2019

- a. WingIts Model WGB5SG for Bobrick grab bars.
- b. SecureMount™ Anchors for Moen grab bars.
- c. In-Wall Anchor Plate Model No. 3929 for American Specialties, Inc. grab bars.

B. Flip-Up Safety Rail/Grab Bar With Support Leg.

1. Material: 18 or 19 gauge Type 304 stainless steel.
2. Tubing: 18-gauge x 1-1/4 inch diameter
3. Mounting: As per manufacturer's written instructions.
4. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Grab Bar Specialists (GBS) of Canton, Ohio
97 Series Flip-Up Safety Grab Bar-with leg, Product ID: 1-Flip-Friction-Leg; 1-1/4 inch Diameter x 30-inch Friction Hinge; *Shur-Grip* Finish; Rated at 250 lbs. Accessorized with 1-1/4 inch diameter toilet paper holder for friction hinge flip-ups, **Product ID**: TP-Holder-friction. Hex bolt heads covered with **Product ID**: 1A-Hex Bolt Cover-White.
 - i. Wall Plate: 4-inch x 11-inch with four (4) mounting holes.
 - ii. Fasteners: Set of four (4) 3/8-inch x 3 inch Type 304 Hex Head Lag Bolts.
 - iii. Finish: Stainless Steel.
 - b. HPD-Approved equal.

C. Rear-Mounted Folding Tub Seat

1. Materials:
 - a. Seat: Solid phenolic material offered in Almond, Teak or White finish.
 - b. Seat Dimensions: 29 inches wide x 16-1/2 inches deep.
 - c. Seat Top Design: 3-inch slats.
 - d. Frame and Bracket: #304 stainless steel (10 gauge .135), welded to stainless steel tubing (1" round x 18 gauge .048).
 - e. Fasteners: Six (6) #12 x 2 1/2 inch stainless steel Phillips Pan Head screws, supplied by tub bench manufacturer.
 - f. Meets and exceeds the minimum 250 lb. load requirement when properly installed.
2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Seachrome Model STR1-290165.
 - b. HPD-Approved equal.

D. End-Mounted Folding Tub Seat

AGING IN PLACE PROGRAM
MAY 2019

1. Materials
 - a. Seat Top: Solid phenolic material offered in Almond, Teak or White finish.
 - b. Seat Top Design: 3-inch slats.
 - c. Seat Dimensions: 32 inches wide x 16 inches deep.
 - d. Frame and Bracket: #304 stainless steel (10 gauge .135), welded to stainless steel tubing (1" round x 18 gauge .048).
 - e. Fasteners: Six (6) #12 x 2½ inch stainless steel Phillips Pan Head screws, supplied by tub bench manufacturer.
 - f. Meets and exceeds the minimum 250 lb. load requirement when properly installed.
2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Seachrome Corporation of Long Beach, CA; Model STE1-320160.
 - b. HPD-Approved equal.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Seachrome Tub Seats and Grab Bar Specialties (GBS) Flip-Up Safety Rails both require continuous 2" x 12" wood blocking between studs at the height that the product is to be mounted. See Rough Carpentry Section 06 10 00 for illustrations.

Once the wall finishes have been applied, use Type 304 Hex Head Lag Bolts to fasten Tub Seats and Flip-Up Safety Rails to blocking as per manufacturer's written instructions.

- B. Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer. Install units level, plumb, and firmly anchored in locations and at heights indicated. Installed accessories shall not interfere with door swings.
- C. Grab Bars and Tub Seats: Install to withstand a downward load of at least 250 lbf, when tested according to ASTM F 446. Provide all necessary wall anchorage for grab bars. See Drawings for location and length of grab bars.
- D. Recessed type accessories shall be mounted in a manner approved by the manufacturer, with no visible screws or attachment devices visible. Flanges of accessories shall completely conceal anchor posts
- E. At gypsum drywall partition surface, accessories shall be secured directly to studs or to reinforcement plates of the same manufacturer as the accessories.
- F. The Contractor shall furnish templates and location drawings for the proper setting of the reinforcement plates. Securing of accessories to the gypsum drywall without reinforcement plates shall not be permitted.

AGING IN PLACE PROGRAM
MAY 2019

- G. Unless otherwise indicated, accessories shall conform to heights from the finished floor as shown on the Drawings.
- H. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.

END OF SECTION 10 28 00

AGING IN PLACE PROGRAM
MAY 2019

SECTION 22 41 00 - RESIDENTIAL PLUMBING FIXTURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Kitchen Sink Faucets.
2. Lavatory Faucets.
3. Bathtub Faucets.
4. Water closets.
5. Toilet seats.
6. ADA-compliant Hand-held Showerhead on slide-bar.

B. Related Sections

1. Section 09 30 00 Bath Tile and Ceramic Accessories

1.2 ACTION SUBMITTALS

- A. Product Data: Catalogue cut for each type of product.

PART 2 - PRODUCTS

2.1 BATHTUB FAUCETS

- A. NSF Standard: Comply with NSF/ANSI 61, "Drinking Water System Components - Health Effects," for faucet materials that will be in contact with potable water.

- B. Bathtub Faucets: Single handle, pressure balance.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

- a. American Standard America.
- b. Briggs Plumbing Products, Inc.
- c. Gerber Plumbing Fixtures LLC.
- d. Kohler Co.
- e. Moen Incorporated.
- f. Symmons Industries, Inc.
- g. Delta Co.
- h. Architect-Approved equal.

2. Standards: ASME A112.18.1/CSA B125.1 and ASSE 1016.

3. Faucet:

- a. Body Material: Solid brass.
- b. Finish: Polished chrome plate.

AGING IN PLACE PROGRAM
MAY 2019

- c. Mounting: Concealed.
 - d. Operation: Single handle, twist or rotate control, with hot- and cold-water indicators.
 - e. Anti-scald Device: Integral with mixing valve.
 - f. Check Stops: Check-valve type, integral with or attached to body; on hot- and cold-water supply connections.
 - g. Diverter: In-tub filler spout.
 - h. Supply Connections: NPS 1/2.
4. Shower Head: WaterSense Certified
- a. Standard: ASME A112.18.1/CSA B125.1.
 - b. Type:
 - 1) Ball joint with arm and flange for non-handicapped adaptable apartments.
 - 2) Hand shower with hose, wall-mounting device for handicapped adaptable apartments.
 - c. Shower Head Material: Metallic with chrome-plated finish.
 - d. Spray Pattern: Fixed.
 - e. Integral Volume Control: Not required.
 - f. Shower-Arm, Flow-Control Fitting (Maximum Flow Rate): 1.5 gpm or less.
5. Bathtub Filler Spout: Chrome-plated brass.

2.2 LAVATORIES

- A. Lavatories: Oval self-rimming drop-in vitreous china, counter mounted.

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Eljer, Inc.
 - b. Kohler Co.
 - c. American Standard America.
 - d. Mansfield Plumbing Products LLC.
 - e. American Standard America.
 - f. Briggs Plumbing Products, Inc.
 - g. Gerber Plumbing Fixtures LLC.
 - h. Sterling; a Kohler company.
 - i. Architect-Approved equal.
- 2. Fixture:
 - a. Standard: ASME A112.19.2/CSA B45.1 for vitreous-china lavatories.
 - b. Type: Self-rimming.
Oval Nominal Size: 20" by 17"
 - Other sizes subject to field conditions.
 - d. Faucet-Hole Punching: One hole.
 - e. Faucet-Hole Location: Rim.
 - f. Color: White

AGING IN PLACE PROGRAM
MAY 2019

3. Faucet: See Section 2.3 "Lavatory Faucets".

2.3 LAVATORY FAUCETS

- A. NSF Standard: Comply with NSF/ANSI 61, "Drinking Water System Components - Health Effects," for faucet materials that will be in contact with potable water.
- B. Lavatory Faucets: WaterSense Certified, Single-handle control mixing valve.
 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Chicago Faucets.
 - b. Delta Faucet Company.
 - c. Niagara Conservation
 - d. Elkay Manufacturing Co.
 - e. Kohler Co.
 - f. Price Pfister, Inc.
 - g. American Standard America.
 - h. Briggs Plumbing Products, Inc.
 - i. Delta Faucet Company.
 - j. Eljer, Inc.
 - k. Gerber Plumbing Fixtures LLC.
 - l. Moen Incorporated.
 - m. Sterling; a Kohler company.
 - n. Architect-Approved equal.
 2. Standard: ASME A112.18.1/CSA B125.1.
 3. General: Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.
 4. Body Material: General-duty, copper or brass underbody with brass cover plate.
 5. Finish: Polished chrome plate.
 6. Maximum Flow Rate: 0.5 gpm or less.
 7. Centers: 4 inches.
 8. Mounting: Deck, exposed.
 9. Valve Handle: Lever.
 10. Inlet(s): NPS 3/8" tubing, plain end.
 11. Spout: Rigid.
 12. Spout Outlet: Aerator.
 13. Drain: Pop up.

2.4 KITCHEN SINKS

- A. Kitchen Sinks: One bowl, counter mounted, stainless steel.

AGING IN PLACE PROGRAM
MAY 2019

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. American Standard America.
 - b. Briggs Plumbing Products, Inc.
 - c. Eljer, Inc.
 - d. Mansfield Plumbing Products LLC.
 - e. Gerber Plumbing Fixtures LLC.
 - f. Elkay Manufacturing Co.
 - g. Kohler Co.
 - h. Revere Sink.
 - i. Sterling; a Kohler company.
 - j. Architect-Approved equal.

2. Fixture:
 - a. Standard: ASME A112.19.3/CSA B45.4 for stainless-steel kitchen sinks.
 - b. Overall Dimensions: 25" x 22", (Different sizes subject to field conditions and HPD approval)
 - c. Metal Thickness: 20 gauge.
 - d. Bowl:
 - 1) Dimensions: 21" x 15-3/4" x 7".(Different sizes subject to field conditions and HPD approval)
 - 2) Drain: 3-1/2"-inch crumb cup.
 - a) Location: Centered in bowl.

3. Faucet: See Section "Sink Faucets".
4. Supply Fittings: Comply with requirements in "Supply Fittings" Article.
5. Waste Fittings: Comply with requirements in "Waste Fittings" Article, except include continuous waste for multi-bowl sinks.
 - a. Disposer: Not required.
 - b. Dishwasher Air-Gap Fitting: Not required.

2.5 SINK FAUCETS

- A. NSF Standard: Comply with NSF/ANSI 61, "Drinking Water System Components - Health Effects," for faucet materials that will be in contact with potable water.
- B. Sink Faucets: Kitchen sink.
 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. American Standard.
 - b. Chicago Faucets.
 - c. Delta Faucet Company.
 - d. Elkay Manufacturing Co.

AGING IN PLACE PROGRAM
MAY 2019

- e. Gerber Plumbing Fixtures LLC.
 - f. Kohler Co.
 - g. Moen Incorporated.
 - h. Price Pfister, Inc.
 - i. Eljer, Inc.
 - j. Niagara Conservation
 - k. Architect-Approved equal.
- 2. Standard: ASME A112.18.1/CSA B125.1.
 - 3. General: Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.
 - 4. Finish: Polished chrome plate.
 - 5. Maximum Flow Rate: 1.5 gpm or less.
 - 6. Mixing Valve: Single control.
 - 7. Backflow-Prevention Device for Hand Spray: Not required.
 - 8. Centers: 8 inches.
 - 9. Mounting: Deck.
 - 10. Handle(s): Lever.
 - 11. Spout Type: Swing, shaped tube.
 - 12. Spout Outlet: Aerator.

2.6 WATER CLOSETS – ADA-Compliant

- A. Water Closets: Floor mounted, floor outlet, gravity tank, vitreous china, 1.2 gpf, WaterSense® Certified.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. American Standard America – Right Height® models.
 - b. Briggs Plumbing Products, Inc. – ComfortFit ADA Series.
 - c. Eljer, Inc. – Diplomat or Belmont Right Height® models.
 - d. Gerber Plumbing Fixtures LLC. - ErgoHeight™ models.
 - e. Kohler Co. – Comfort Height® models.
 - f. Mansfield Plumbing Products LLC. - Smartheight™ models.
 - g. Toto USA, Inc. – Universal Height models.
 - h. Western Pottery – Easy-Height™ models.
 - i. HPD-Approved equal.
 - 2. Bowl:
 - a. Standards: ASME A112.19.2, ASME A112.19.5, and ASSE 1037.
 - b. Bowl Type: Siphon jet.
 - c. Bowl shape: Elongated; Round.

AGING IN PLACE PROGRAM
MAY 2019

- d. Rim Height: 16-1/2 inches minimum.
 - e. Water Consumption: 1.2 gpf
 - f. Color: White.
3. Toilet Seat: See Section "Toilet Seats".
4. Trip Lever: Left or right side depending on position of toilet in bathroom.
5. Supply Fittings:
- a. Standard: ASME A112.18.1/CSA B125.1.
 - b. Supply Piping: Chrome-plated-brass pipe or chrome-plated-copper tube matching water-supply piping size. Include chrome-plated wall flange.
 - c. Stop: Chrome-plated-brass, one-quarter-turn, ball-type or compression stop with inlet connection matching water-supply piping type and size.
 - 1) Operation: Wheel handle.
 - d. Riser:
 - 1) Size: NPS 3/8.
 - 2) Material: Chrome-plated, soft-copper flexible tube, riser.

2.7 TOILET SEATS

A. Toilet Seats with cover shall be molded wood with painted white finish.

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. American Standard America.
 - b. Centoco Manufacturing Corporation.
 - c. Church Seats.
 - d. Crane Plumbing LLC.
 - e. Eljer, Inc.
 - f. Kohler Co.
 - g. Olsonite Seat Co.
 - h. Architect-Approved equal.
- 2. Standard: IAPMO/ANSI Z124.5.
- 3. Material: molded wood with painted white finish.
- 4. Type: Residential.
- 5. Shape: Regular rim.
- 6. Configuration: Closed front with cover.
- 7. Size: Regular.
- 8. Hinge Type: Self-sustaining, check.

AGING IN PLACE PROGRAM
MAY 2019

9. Hinge Material: Plastic.
10. Seat Cover: Required.
11. Color: White.

2.8 ADA-COMPLIANT HANDHELD SHOWERHEAD ON SLIDEBAR

- A. WaterSense®-Labeled Maximum 2.0-gpm handshower with 60-inch smooth hose mounter on 24-inch slidebar.
 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Kohler: Model K-99243-G All-in-One Kit: Awaken® B110 handshower, 24-inch slidebar, and 60-inch smooth hose.
 - b. HPD-Approved equal.
 2. Finish: Polished Chrome.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install plumbing fixtures level and plumb according to roughing-in drawings.
- B. Install floor-mounted water closets on closet flange attachments to drainage piping.
- C. Install counter-mounting fixtures in and attached to casework.
- D. Install water-supply piping with stop on each supply to each fixture to be connected to water distribution piping. Attach supplies to supports or substrate within pipe spaces behind fixtures. Install stops in locations where they can be easily reached for operation.
- E. Install toilet seats on water closets.
- F. Install faucet flow-control fittings with specified flow rates and patterns in faucet spouts if faucets are not available with required rates and patterns. Include adapters if required.
- G. Install shower flow-control fittings with specified maximum flow rates in shower arms.
- H. Install traps on fixture outlets.
- I. Set bathtubs in leveling bed of cement grout.
- J. Install protective shielding pipe covers and enclosures on exposed supplies and waste piping of ADA adaptable lavatories and sinks. Comply with requirements in Section 220719 "Plumbing Piping Insulation."

AGING IN PLACE PROGRAM
MAY 2019

- K. Install wall flanges or escutcheons at piping wall penetrations in exposed, finished locations. Use deep-pattern escutcheons if required to conceal protruding fittings. Comply with escutcheon requirements specified in Section 220518 "Escutcheons for Plumbing Piping."
- L. Seal joints between plumbing fixtures, counters, floors, and walls using sanitary-type, one-part, mildew-resistant silicone sealant. Match sealant color to fixture color. .

3.2 CONNECTIONS

- A. Connect fixtures with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.
- B. Comply with water piping requirements specified in Section 221116 "Domestic Water Piping."
- C. Comply with soil and waste piping requirements specified in Section 221316 "Sanitary Waste and Vent Piping."
- D. Install protective shielding pipe covers and enclosures on exposed supplies and waste piping of accessible ADA adaptable lavatories and sinks. Comply with requirements in Section 22 07 19 "Plumbing Piping Insulation."

3.3 ADJUSTING

- A. Operate and adjust plumbing fixtures and controls. Replace damaged and malfunctioning fixtures, fittings, and controls.
- B. Adjust water pressure at faucets to produce proper flow.

3.4 CLEANING AND PROTECTION

- A. After completing installation of plumbing fixtures, inspect and repair damaged finishes.
- B. Clean plumbing fixtures, faucets, and other fittings with manufacturers' recommended cleaning methods and materials.
- C. Provide protective covering for installed plumbing fixtures and fittings.
- D. Do not allow use of plumbing fixtures for temporary facilities unless approved in writing by Owner.

END OF SECTION 22 41 00

AGING IN PLACE PROGRAM
MAY 2019

SECTION 26 51 19 – LIGHT-EMITTING DIODE (L.E.D.) INTERIOR LIGHTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Interior solid-state luminaires that use LED technology.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product, arranged by designation.

PART 2 - PRODUCTS

2.1 SURFACE MOUNT, RECTANGULAR

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. EShine brand, LED Dimmable Under-Cabinet Lighting; varying lengths; Hand Wave Activated – Touchless Dimming Control, Warm White (3000 K). Power Source: AC Adapter.
2. Black + Decker brand, PureOptics Tool-Free Under-Cabinet Lighting; varying lengths; LED Warm White (2700K), Dimmable, Hands-Free On/Off. Power Source: AC Adapter.
3. HPD-Approved equal.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Installation Options: Screws and/or 3M two-sided tape.
- B. Accessories: Wire Clips to hold power cord and wires between mounted lights.

END OF SECTION 26 51 19