SECTION 017340 - RENOVATION DESIGN GUIDELINES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes general procedural and design requirements applying to all of the alterations and renovation work of the Project. Because of the size and scope of the Project, not every instance of a deviation from shown details can be described; this Section governs overall design intent for renovation work and alterations work.

B. Datum lines are shown on the Drawings; locations of new items are based on datum information shown.

C. Related Requirements:

1. Section 017300 "Execution" for additional requirements for patching existing construction.

1.2 DESIGN GUIDELINES, GENERAL

A. Exterior Windows: The design intent is to match the existing profiles and dimensions at all exterior openings on the Project. For all new window and door openings, all profiles are required to match existing profiles and to match each other.

B. Where new materials are intended to match existing materials either to complete an existing installation, or extend an existing installation. The degree of acceptable color match between materials will be solely the decision of the Architect.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections.

B. In locations of patching and extending existing materials, provide the same material as exists on the building in the immediately adjacent area.

C. Procedure for Patching Existing Roofing and Waterproofing Assemblies:

1. Use Owner's attic stock if available.

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2. If no attic stock is available for use, verify existing material type and manufacturer. Procure compatible new material from the same manufacturer for patching work.
3. If warranty is in place, perform patching to meet all manufacturer requirements for warranty repair and maintenance. Provide manufacturer observation if required for warranty maintenance by material manufacturer.
4. Cut back existing material to area of sound bond and make seams between new and old material at an unstressed location, or in location recommended by membrane/coating manufacturer.

D. Shop Assembly: Preassemble items in the shop to greatest extent possible. Use connections that maintain structural value of joined pieces.

E. Primers and Coatings: Comply with requirements in Section 099123 "Interior Painting."

2.2 |CONCRETE PATCHING AND REPAIR

A. Refer to Structural Drawings for structural concrete repair.

B. Patching Mortar, General:

1. Only use patching mortars that are recommended by manufacturer for each applicable horizontal, vertical, or overhead use orientation.
2. Color and Aggregate Texture: Provide patching mortar and aggregates of colors and sizes necessary to produce patching mortar that matches existing, adjacent, exposed concrete.
3. Coarse Aggregate for Patching Mortar: ASTM C 33, washed aggregate, Size No. 8, Class 5S. Add to patching-mortar mix only as permitted by patching-mortar manufacturer.

C. Epoxy Joint Filler: Two-component, semirigid, 100 percent solids, epoxy resin with a Type A Shore durometer hardness of at least 80 according to ASTM D 2240.

2.3 ROUGH CARPENTRY

A. For items of dimension lumber size, provide Construction or No. 2 Grade lumber of any species.

B. For board stock, provide lumber with 15 percent maximum moisture content and the following species and grades:

1. Western Woods, Construction or No. 2 Common Grade; WCLIB or WWPA.

C. Equipment Backing Panels: DOC PS 1, Exterior, AC, fire-retardant treated, in thickness indicated or, if not indicated, not less than 1/2-inch nominal thickness.

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D. Screws for Fastening to Metal Framing: ASTM C 1002, length as recommended by screw manufacturer for material being fastened.

2.4 MISCELLANEOUS METAL ITEMS

A. Provide loose bearing and leveling plates for steel items bearing on masonry or concrete construction. Drill plates to receive anchor bolts and for grouting.

B. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

C. Stainless-Steel Bars and Shapes: ASTM A 276, Type 304.

D. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.

E. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.

F. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Where deviations between existing conditions and conditions shown on the Drawings materially affect the Work, provide a written report of the existing conditions. Include the following

1. Description of the Work.
2. List of detrimental conditions, including substrates.
3. List of unacceptable installation tolerances.
4. Recommended corrections.

B. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from repair and maintenance work.

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C. Existing Drains: Prior to the start of Work in an area with a floor drain, test drainage system to ensure that it is functioning properly. Notify Architect immediately of inadequate drainage or blockage. Do not begin Work in an area until the drainage system is in working order.

D. Locate areas of deteriorated or delaminated concrete using hammer or chain-drag sounding and mark boundaries. Mark areas for removal by simplifying and squaring off boundaries. At columns and walls make boundaries level and plumb unless otherwise indicated.

3.2 GENERAL REQUIREMENTS

A. Field Welding: Comply with the following requirements:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended.

B. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction.

3.3 NEW WALL CONSTRUCTION

A. Existing Conditions: The degree of plumb; out of line or other wall deviations may not be shown or indicated on the Drawings or in all locations. New walls are shown as level in two planes. New studs will not necessarily be attached directly to the existing concrete walls. Adjust location of runners and studs to provide straight walls in locations shown on the Drawings.

1. Deviations less than 1/2 inch from required location may be shimmed.
2. Deviations of 1/2 to 1 inch from required location; shim using metal channels.
3. Deviations greater than 1 inch from required location: clarify intent with Architect.

3.4 CONFLICTS BETWEEN MATERIAL LOCATIONS

A. If multiple systems must occupy the same space and the Drawings do not resolve the conflict, use the following guidelines for locating utilities in plenum or wall spaces. The items are listed in order of priority:

1. Ceiling framing.
2. Fire sprinkler runs and slopes.
3. Gravity piping, roof drains, and plumbing wastelines.

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4. Mechanical ductwork (including flanges, supports and insulation).
5. Pressure piping.
6. Electrical conduits and cable trays.
7. Light fixtures and clear space around lights.
8. Flex duct for registers and grilles.
9. Electrical J-boxes for exit signs and smoke detectors.

3.5 FLOOR LEVELING

A. Grind down high spots and fill low spots to provide typical 1/4 inch in 10 feet floor levelness. In selected areas, hydraulic cement will be used to achieve levelness of 1/8 inch in 10 feet or greater when required for equipment or installation of finish materials.

3.6 WATERPROOFING MEMBRANES AND OTHER WEATHER BARRIERS

A. Where waterproofing membranes are not being entirely removed and replaced by the new construction, observe the following precautions:

1. Verify compatibility of the new material with the existing material. If existing material is still under warranty, provide for full time observation by the appropriate product representative and whatever procedures are necessary for warranty maintenance.
2. Cut back surface material sufficiently to provide a minimum 3 inch overlap between new waterproofing and existing waterproofing.
3. If new proposed material is not compatible with existing material, inform Architect, who will select an alternative material for application in that location.

END OF SECTION

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