PART I – GENERAL

1.01 SUMMARY
A. This document is to be used in preparing specifications for projects utilizing the Master Wall Inc.® Interior Coatings for Wet Areas applied over approved moisture resistant substrates such as cement board. Related Master Wall Inc.® documents:
   1. Master Wall Inc.® Interior Coatings for Wet Areas Data Sheet
   2. Master Wall product data sheets
B. Related Sections
   1. Unit Masonry – Section 04200
   2. Concrete – Sections 03300 and 03400
   3. Light Gauge Cold Formed Steel Framing – Section 05400
   4. Wood Framing – Section 06100
   5. Sealant – Section 07900

1.02 SUBMITTALS
A. Manufacturer's specifications, details, installation instructions and product data
B. Manufacturer's standard warranty
C. Applicator's industry training credentials
D. Samples for approval as directed by architect or owner
E. Sealant manufacturer's certificate of compliance with ASTM C 1382
F. Prepare and submit project-specific details (when required by contract documents)

1.03 REFERENCES
A. ASTM Standards:
   ASTM C150 Standard Specification for Portland Cement
   ASTM C297 Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions
   ASTM C1177 Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing
   ASTM C1396 (formerly C 79) Standard Specification for Gypsum Board
   ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
ASTM E96 Test Methods for Water Vapor Transmission of Materials
ASTM G23 Standard Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) with and without Water for Exposure of Nonmetallic Materials
ASTM G53 Practice for Operating Light- and Water-Exposure Apparatus (Fluorescent UV-Condensation Type) for Exposure of Nonmetallic Materials

B. Other Referenced Documents
   American Association of Textile Chemists and Colorists AATCC-127 Water Resistance: Hydrostatic Pressure Test

1.04 SYSTEM DESCRIPTION
A. General: Master Wall Inc.® Interior Coatings for Wet Areas applied over approved cement board or other moisture-resistant substrates, consisting base coat, reinforcing mesh and finish. The substrate shall be attached over a structural support.

B. Methods of Installation
   1. Field Applied: The Interior Coatings for Wet Areas System is applied to the substrate system in place.
   2. Panelized: The Interior Coatings for Wet Areas System is shop-applied to the prefabricated wall panels.

C. Design Requirements
   1. Substrate
      a. The maximum deflection under full flexural design loads of the substrate system shall not exceed L/360.
      b. Acceptable sheathings for the Interior Coatings for Wet Areas shall be designed for their intended use by the design professional.
      c. Since the surface of the substrate cannot be rasped smooth, the flatness and finished appearance of the Interior Coatings for Wet Areas application will depend on the structural members that support the sheathing.
      d. The project architect or engineer shall engineer the framing, sheathing and stucco substrate with regard to the required structural performance.
   2. The substrate shall be flat within 6.4 mm (1/4 in) in a 3.05 m (10 ft) radius.
   3. Vapor barriers shall be incorporated into the wall assembly if needed by the design professional.
   4. When the outside temperatures differ considerably from the building’s interior temperature, airborne dirt can accumulate on colder regions of walls causing “shadowing” or “spotting”, particularly over fasteners and framing. This is not considered a failure of the system or the Master Wall materials.

   6. Expansion Joints
      a. Design and location of expansion joints in the Interior Coatings for Wet Areas System is the responsibility of the project designer and shall be noted on the project drawings. As a minimum, expansion joints shall be placed at the following locations:
         1) Where expansion joints occur in the substrate system.
         2) Where building expansion joints occur.
         3) At floor lines in wood frame construction (Reference Technical Bulletin #140).
         4) At floor lines of non-wood framed buildings where significant movement is expected.
         5) Where the Interior Coatings for Wet Areas System abuts dissimilar materials.
         6) Where the substrate type changes
         7) Where prefabricated panels abut one another
         8) Where significant structural movement occurs such as changes in roofline, building shape or structural system.

   7. Control Joints
      a. Control joints may be required and located by the designer in the stucco substrate at the following locations: (Reference construction documents for specific locations).
         1) Where required by the substrate manufacturer.

1.05 PERFORMANCE REQUIREMENTS

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A. Interior Coatings for Wet Areas System shall have been tested as follows:

**Weather Resistance and Durability Performance**

<table>
<thead>
<tr>
<th>TEST</th>
<th>METHOD</th>
<th>CRITERIA</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Accelerated Weathering</td>
<td>ASTM G 153 (Formerly ASTM G 23)</td>
<td>No deleterious effects at 2000 hours when viewed under 5x magnification</td>
<td>Pass</td>
</tr>
<tr>
<td>2. Accelerated Weathering</td>
<td>ASTM G 154 (Formerly ASTM G 53)</td>
<td>No deleterious effects at 2000 hours</td>
<td>Pass</td>
</tr>
<tr>
<td>3. Freeze/Thaw Resistance</td>
<td>ASTM E 2485</td>
<td>No deleterious effects at 10 cycles when viewed under 5x magnification</td>
<td>Pass</td>
</tr>
<tr>
<td>4. Water Resistance</td>
<td>ASTM D 2247</td>
<td>No deleterious effects at 14 day exposure</td>
<td>Pass @ 28 days</td>
</tr>
<tr>
<td>5. Salt Spray</td>
<td>ASTM B 117</td>
<td>No deleterious effects at 300 hours</td>
<td>Pass @ 300 hrs</td>
</tr>
<tr>
<td>6. Abrasion Resistance</td>
<td>ASTM D 968</td>
<td>No cracking or loss of film integrity at 528 quarts (500 L) of sand</td>
<td>Pass</td>
</tr>
<tr>
<td>7. Mildew Resistance</td>
<td>ASTM D 3273</td>
<td>No growth supported during 28 day exposure period</td>
<td>Pass</td>
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</table>

**Fire Performance**

<table>
<thead>
<tr>
<th>TEST</th>
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<th>CRITERIA</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Surface Burning</td>
<td>ASTM E 84</td>
<td>Individual components shall each have a flame spread of 25 or less, and smoke developed of 450 or less</td>
<td>Flame Spread: 0 Smoke Developed: 0</td>
</tr>
</tbody>
</table>

**Component Performance**

<table>
<thead>
<tr>
<th>TEST</th>
<th>METHOD</th>
<th>CRITERIA</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alkali Resistance of Reinforcing Mesh</td>
<td>ASTM E2098 (formerly EIMA 105.01)</td>
<td>Greater than 120 pli (21 dN/cm) retained tensile strength</td>
<td>Pass</td>
</tr>
</tbody>
</table>

**1.06 QUALITY ASSURANCE**

A. Qualifications

1. System Manufacturer: Shall be Master Wall Inc.®. All materials shall be manufactured or sold by Master Wall Inc.® and shall be purchased from Master Wall Inc.® or its authorized distributors.
2. Contractor: Shall be knowledgeable in the proper installation of the Master Wall Inc.® coatings and finishes. Additionally, the contractor shall possess a current Master Wall Inc.® applicator certificate issued by Master Wall Inc.®

B. Mock-Up

1. The contractor shall, before the project commences, provide the owner/architect with a mock-up for approval.
2. The mock-up shall be of suitable size as required to accurately represent the products being installed, as well as each color and texture to be utilized on the project.
3. The mock-up shall be prepared with the same products, tools, equipment and techniques required for the actual application. The finish used shall be from the same batch that is being used on the project.
4. The approved mock-up shall be available and maintained at the job site.
5. For panelized construction, the mock-up shall be available and maintained at the panel fabrication location.

1.07 DELIVERY, STORAGE AND HANDLING
A. All Master Wall Inc.® materials shall be delivered to the job site in the original, unopened packages with labels intact.
B. Upon arrival, materials shall be inspected for physical damage, freezing, or overheating. Questionable materials shall not be used.
C. Deliver all materials in original unopened packages with labels intact. Verify all quantities, colors, and textures against bill of lading.
D. Store all materials protected from direct exposure to weather conditions and at temperatures not less than 40°F (4°C) or greater than 110°F (43°C).
E. Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) shall be supplied for the components of the system and be available at the job site.

1.08 PROJECT CONDITIONS
A. Ambient air temperatures shall be 40°F (4°C) or greater and rising at the time of installation of the Master Wall Inc.® products and shall remain at 40°F (4°C) or greater for at least 24 hours after application.
B. Provide supplemental heat and protection as required when the temperature and conditions are not in accordance with installation requirements. Sufficient ventilation and time shall be provided to ensure that materials have sufficiently dried prior to removing supplemental heat.
C. Adequate protection shall be provided to prevent weather conditions (humidity, temperature, and precipitation) from having an affect on the curing or drying time of Master Wall Inc.® materials.
D. Adjacent materials and the Interior Coatings for Wet Areas System shall be protected during installation and while curing from weather and shall be protected from site damage.
E. Coordinate installation of the Interior Coatings for Wet Areas System with related work specified in other sections to ensure that the wall assembly is protected to prevent water from getting behind the system.
F. All sealant work shall be installed in a timely manner. Protect open joints from water intrusion during construction with backer rod, or temporary covering, until permanently sealed.
G. Sufficient manpower and equipment shall be employed to ensure a continuous operation, free of cold joints, scaffolding lines, and texture variations, etc.
H. Existing Conditions - The contractor shall have access to electric power, clean water, and a clean work area at the location where the Master Wall Inc.® materials are to be applied.

1.09 SEQUENCING AND SCHEDULING
A. Installation of the Interior Coatings for Wet Areas System shall be coordinated with other construction trades.
B. Sufficient manpower and equipment shall be employed to ensure a continuous operation, free of cold joints, scaffolding lines, texture variations, etc.

1.10 LIMITED MATERIALS WARRANTY
A. Provide a manufacturer’s warranty against defective material upon request.

1.11 MAINTENANCE
A. Maintenance and repair shall follow the procedures noted in Master Wall Inc.® Technical Bulletins #112 and #129.
PART II – PRODUCTS

2.01 MANUFACTURER
A. All components of the Interior Coatings for Wet Areas System shall be supplied or obtained from Master Wall Inc.® or its authorized distributors. Substitutions or additions of materials other than specified will void the warranty.

2.02 MATERIALS
A. Portland Cement: Shall be Type I or II, meeting ASTM C 150, white or gray in color, fresh and free of lumps.
B. Water: Shall be potable, clean and free of foreign matter.
C. Metal Flashing Components: Complying with SMACNA Recommendations. Reference Section 07620.
E. Window & Door Systems: Detailed by the designer and suitable for the regional application. Reference Section 08000.

2.03 COMPONENTS
(Typical Application/Optional Component)
A. Substrates (by others)
   1. Gypsum Substrates: Applied over framing and may be designed to satisfy structural requirements or fire-resistive construction. Exterior gypsum sheathing (ASTM C1396) Glass Mat Gypsum Sheathing (ASTM C1177)
   2. Cement Board: Cementitious panels meeting ASTM C-1325. National Gypsum PermaBase (1/2” min.), USG Durock (1/2” min.), James Hardie Hardiepanel Smooth (5/16”) or approved equal.
B. Reinforcing Mesh
      1. Detail Mesh
      2. Standard Mesh
C. Base Coats
   1. Master Wall Inc.® Foam & Mesh (F&M) Adhesive: An acrylic-based product mixed one-to-one by weight with Portland cement for use with reinforcing mesh as the base coating over the approved substrate.
   2. Master Wall Bagged Base Coat (MBB): A polymer based cementitious product mixed with 5 to 6 quarts of water for use with reinforcing mesh as the base coating over the substrate.
   3. F&M Plus: An acrylic-based high build product mixed one-to-one by weight with Portland cement designed for use with reinforcing mesh as the base coating over the substrate. (This product shall be used where indicated on the construction drawings when a leveling base coat is required.)
   4. Expanded Polystyrene Base (EPSB): a 100% pure acrylic polymer based noncementitious base coat.
D. Water Resistant Adhesive & Base Coat
   1. Guardian – An acrylic-based product mixed one-to-one by weight with Portland cement for use as a base coat with reinforcing mesh over substrate. (This product should be used as designated on the construction drawings where additional resistance to moisture is needed.)
   2. WeatherStop – Weather-resistant acrylic-based product mixed one-to-one by weight with Portland cement use as a base coat with reinforcing mesh over substrate.
E. Primer – Especially useful under dark colors
   1. Primecoat Primer - Acrylic-based tintable primer
   2. Sanded Primecoat Primer - Acrylic-based tintable primer with sand
F. Superior Finishes: Master Wall Inc.® Superior Finishes are acrylic-based wall coatings available in a variety of colors and textures. The following textures are available:
   1. Perfect2.0 (Perfect) - riled texture
   2. Fine Sand 1.0 (Spray) – sand type texture
   3. Medium Sand 1.5 (Desert Sand) – coarse sand texture
5. Versatex 0.5 (Refinish) – Fine texture used to create numerous finishes

G. Finish Enhancements
   1. Silicone Coat - Factory added silicone enhancement for better water resistance and to keep buildings cleaner.
   2. Excel Mildew Enhancement - Factory added mildew booster exceeding ASTM D3273 requirements.
   3. Elastomeric Plus - Increases flexibility and bridges minor hairline cracks.

H. Specialty Finishes
   1. Superior Stone
   2. Aggrestone
   3. Luma
   4. Plaster Flex
   5. Metallic Cote
   6. Savannah
   7. Marbleflex
   8. Travertine
   9. Eco Glass
   10 Aggrelime
   11. Brick Finish System

I. Accents & Coatings
   1. Clearshield clear protective coating
   2. Vintique antiquing accent

PART III – EXECUTION

3.01 EXAMINATION
   A. Prior to installation of the Interior Coatings for Wet Areas System, the contractor shall verify that the substrate:
      1. Is of a type listed in the specifications.
      2. Is flat within 6.4 mm (1/4 in) in a 3 m (10 ft) radius.
      3. Is sound, dry, connections are tight, has no surface voids, projections or other conditions that may interfere with the Interior Coatings for Wet Areas System installation or performance.

3.02 PREPARATION
   A. Interior Coatings for Wet Areas materials shall be protected by permanent or temporary means from inclement weather and other sources of damage prior to, during, and following application until completely dry.
   B. Protect adjoining work and property during Interior Coatings for Wet Areas installation.
   C. The substrate shall be prepared as to be free of foreign materials, such as, oil, dust, dirt, form release agents, efflorescence, paint, wax, water repellents, moisture, frost and any other condition that inhibit adhesion.

3.03 GENERAL GUIDELINES
   A. The system shall be installed in accordance with the current Master Wall Inc.® product application Instructions.
   B. The overall minimum base coat thickness shall be sufficient to fully embed the mesh.
   C. Sealant shall not be applied directly to textured finishes.
   D. When installing the Interior Coatings for Wet Areas System, adhere according to Master Wall Inc.® and local requirements.
3.04 INTERIOR COATINGS FOR WET AREAS INSTALLATION

A. Design Considerations
   1. It is the responsibility of the architect and the purchaser to determine if a product is suitable for their intended use. The architect or designer of the project shall be responsible for all decisions pertaining to the design, details, structural capability, attachment details, shop drawings and the like. Master Wall Inc.® has prepared specifications, details and data sheets to assist as guidelines for the use and installation of the products. Master Wall Inc.® is not responsible for the design, details, structural capability, attachment details and shop drawings whether it is based on Master Wall Inc.® information or not.

B. Mixing
   1. Mix the products following the instructions on the product data sheets.
   2. Additives shall not be added to Master Wall Inc.® materials unless written approval has been received from Master Wall Inc.®

C. Preparation
   1. Protect contiguous work from damage during application of the Interior Coatings for Wet Areas. Temporary covering may be required to prevent over spray or splattering of finish coatings on other work.
   2. Protect substrate from inclement weather during installation. Prevent infiltration of moisture behind the system.
   3. Adhesive, Base Coats and Finishes shall not be installed when ambient air temperature is below 40°F (4°C). The temperature shall remain at or above 40°F (4°C) during mixing, application and until materials have cured.
   4. Sufficient scaffolding, manpower and tools shall be provided to prevent cold joints.

D. Installation, General
   1. Reference architectural details for full wall system requirements.
   2. Comply with the manufacturers’ current published instructions, (specifications, details, data sheets and technical bulletins) for the installation of the Interior Coatings for Wet Areas System.
   3. Comply with local building codes.
   4. Verify that all flashings and other items are in place.

3.05 FIELD QUALITY CONTROL

A. The contractor shall be responsible for the proper application of the Interior Coatings for Wet Areas materials.
B. Master Wall Inc.® assumes no responsibility for on-site inspections or application of its products.
C. If required, the contractor shall certify in writing the quality of work performed relative to the substrate system, details, installation procedures, workmanship and as to the specific products used.
D. Master Wall Inc.’s current published details, specifications, data sheets, technical bulletins and other literature/information are minimum standards and guidelines that shall be followed when designing and detailing a project with the Interior Coatings for Wet Areas System.
E. Master Wall Inc. must approve deviations from the standard published documents in writing.
F. The architect, engineer or the designer of the project should determine where the dew point would occur in relationship to the wall assembly and the project location during summer and winter conditions.

3.06 BASE COAT PREPARATION

A. Inspect substrate to ensure the installation meets the requirements set forth in the sheathing manufacturer’s installation instructions, Master Wall Inc.’s specification, details, data sheets, technical bulletins and the construction documents. Make necessary repairs to ensure the installation meets the requirements prior to commencement of the base coat application.
3.07 BASE COAT APPLICATION
A. Base Coat Application
1. Apply the base coat to the entire surface of the substrate to the thickness required for the specified reinforcing mesh to be applied in a given area.
   a. Standard, Detail and Hi-Tech Mesh require a nominal 1/16” (1.6 mm).
2. Immediately embed Master Wall Inc.® reinforcing mesh into wet base coat with a trowel, working from the center toward the edges, until the mesh is fully covered and a smooth surface is achieved. The color of the mesh shall not be visible but a slight mesh pattern may be visible.
3. Lap mesh 2½” (64 mm) minimum on all sides.
4. Reinforcing Mesh shall be continuous through all interior and exterior corners extending beyond the corner a minimum of 12” from both directions creating a minimum of two layers of standard reinforcing mesh on all interior and exterior corners.
5. Allow the base coat to cure a minimum of 12 hours prior to additional base coat or finish coat applications.

3.08 FINISH COAT APPLICATION
A. Superior Finish Coat Application
1. Surface irregularities in the base coat, such as trowel marks and reinforcing mesh laps shall be corrected prior to the finish application.
2. Apply the Master Wall Inc.® Superior Finish in the color and texture as approved by the project owner or the project architect with sufficient manpower and equipment to insure a continuous operation without cold joints, scaffolding lines etc. Texture finish shall match approved jobsite samples. Thickness and coverage will vary depending on the specified final appearance.
3. Trowel Application – (Perfect 2.0, Fine Sand 1.0, Medium Sand 1.5, Versatex 0.5)
   a. Apply the Superior Finish to the clean, dry and cured base coat with a stainless steel trowel.
   b. Level the surface to a uniform thickness of 3/32” to 1/8” (2.4-3.2 mm).
   c. Float the Finish with a plastic float in a uniform motion to achieve the desired texture. (Versatex 0.5 cannot be floated easily. A second application of the Versatex 0.5 may be applied to create the desired texture.)
4. Spray Application – (Perfect 2.0, Fine Sand 1.0, Medium Sand 1.5, Versatex 0.5)
   a. Prime surface with Master Wall Inc.® Primecoat or Sanded Primecoat tinted to match the selected finish color. Allow Primecoat or Roller-Flex to cure a minimum of 12 hours prior to finish coat application.
   b. Using a conventional plaster hopper gun or a proven pump, spray finish over the primed base coat to achieve desired texture using a circular overlapping pattern keeping the spray gun at a 90° angle to the surface and maintaining the same distance to the wall at all times.
   c. Be cautious of flooding an area with too much finish because it may appear shinier when it dries.
5. Specialty Finishes: Follow individual product data sheet application instructions.

3.09 JOB SITE CLEANUP
A. Clean work area in accordance with contract documents removing all excess materials, droppings and debris. Clean adjacent surfaces.
B. Other trades may now install their work – Sheet Metal (Section 07620), Sealants (Section 07900), Mechanical (Section 15000), Electrical (Section 16000).

3.10 PROTECTION
A. Protect finished application from inclement weather and other sources of damage until ready for use.

Disclaimer
This Specification is published for general informational purposes only and is not intended to imply that these are the only materials, procedures, or methods, which are available or suitable. Materials, procedures, or methods may vary according to the particular circumstances, local building code requirements, design conditions, or statutory and regulatory requirements. While the information in this specification is believed to be accurate and reliable, it is presented without guarantee or responsibility on the part of Master Wall Inc.®