MASTER WALL® INC.
Post Office Box 397
Fortson, Georgia 31808
(800) 755-0825
www.masterwall.com

MASTER WALL® EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS): AGGRE-FLEX CLASS PB EIFS; AGGRE-FLEX DRAINAGE™ CLASS PB EIFS; ROLLERSHIELD DRAINAGE CIFS® CLASS PB EIFS; and QRW1 DRAINAGE™ CLASS PI EIFS

CSI Sections:
07 24 00 Exterior Insulation and Finish Systems
07 42 43 Composite Wall Panels

1.0 RECOGNITION

Master Wall® EIFS recognized in this report have been evaluated for use as exterior, non-bearing, insulation and wall finishes in compliance with 2024, 2021, and 2018 IBC Section 1407, and IRC Section R703.9 over exterior walls or used as interior wall finish material. The EIFS have been evaluated for structural strength, weather resistance, water-resistive barrier, water drainage, surface-burning characteristics, ignition resistance, noncombustible construction, and installation, as applicable. The Master Wall® EIFS evaluated in this report are satisfactory for use under the following codes and regulations:

- 2024, 2021, and 2018 International Building Code® (IBC)*
- 2024, 2021, and 2018 International Residential Code® (IRC)*
- 2024 International Wildland-Urban Interface Code (IWUIC)
- 2025 and 2022 California Building Code (CBC) – Supplement attached
- 2025 and 2022 California Residential Code (CRC) – Supplement attached
- 2025 California Wildland-Urban Interface Code (CWUIC)
- 2023 Florida Building Code-Building – Supplement attached
- 2023 Florida Building Code-Residential – Supplement attached
- 2023 City of Los Angeles Building Code (LABC) – Supplement attached
- 2023 City of Los Angeles Residential Code (LARC) – Supplement attached

*Applicable code sections are detailed in Section 7.0 of this report.

2.0 LIMITATIONS

Use of the Master Wall® EIFS recognized in this report is subject to the following limitations:

2.1 An approved thermal barrier shall be installed in accordance with IBC Section 2603.4, 2024 IRC Section R303.4, or 2021 and 2018 IRC Section R316.4, as applicable.

2.2 Installation of Master Wall® EIFS recognized in this report shall be by contractors recognized by Master Wall, Inc., as being trained to perform such installations. A list of the names and addresses of recognized contractors shall be maintained by Master Wall, Inc., and shall be made available to the building official or IAPMO UES upon request.

2.3 EIFS shall have a clearance of a minimum of 6-inches (152 mm) above grade and exposed earth in accordance with IBC Section 2603.8, 2024 IRC Sections R305.4 and R703.9.1, or 2021 and 2018 IRC Section R318.4, as applicable.

2.4 Adequacy of fasteners for attaching foam plastic insulation boards to brick, masonry, concrete, and cement plaster substrates shall comply with Section 4.2.4.3 of this report.

2.5 Exterior use of the Master Wall®, Inc. EIFS shall conform to Sections 3.1.1 through 3.1.4 of this report, and interior use of the Master Wall® EIFS lamina (base coats, mesh, and finish coats) shall conform to Section 3.1.5 of this report.

2.6 Special inspection shall be provided as required by 2024 IBC Section 1407.7, or 2021 and 2018 IBC Section 1407.6.

3.0 PRODUCT USE

3.1 Exterior Insulation and Finish Systems (EIFS): Master Wall® Aggre-Flex Class PB EIFS, Master Wall® Aggre-Flex Drainage Class PB EIF, Master Wall® Rollershield Drainage CIFS® Class PB EIFS, and Master Wall® QRW1 Drainage Class PI EIFS are used as an exterior wall covering on framed construction and comply with IRC Section R703.9 and with IBC Section 1407. The systems provide drainage in accordance with IBC Section 1407.4.1 and IRC Section R703.9.2, as applicable

The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provision of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety, as applicable, in accordance with Section 104.2.3 of the 2024 IBC and Section 104.11 of previous editions. This document shall only be reproduced in its entirety.

Copyright © 2025 by International Association of Plumbing and Mechanical Officials. All rights reserved. Printed in the United States. Ph: 1-877-4IESRPT • Fax: 909.472.4171 web: www.uniform-es.org • 4755 East Philadelphia Street, Ontario, California 91761-2816 – USA

3.1.1 Master Wall® Aggre-Flex Class PB EIFS may be used in Type V Group R1, R2, R3, and R4 Occupancies under the IBC, and in Type I, II, III, or IV construction under the IBC when installed in accordance with Section 3.12 of this report.

Exception: The Master Wall® Aggre-Flex Class PB EIFS system is recognized for use on concrete or masonry walls of buildings of Type V construction.

3.1.2 Master Wall® Aggre-Flex Drainage Class PB EIFS may be used in Type V Group R1, R2, R3, and R4 Occupancies under the IBC.

3.1.3 Master Wall® Rollershield Drainage CIFS® Class PB EIFS may be used in Type V Group R1, R2, R3, and R4 Occupancies under the IBC, and in Type I, II, III, or IV construction under the IBC when installed in accordance with Section 3.13 of this report.

3.1.4 Master Wall® QRW1 Drainage Class PI EIFS may be used in Type V Group R1, R2, R3, and R4 Occupancies under the IBC.

3.1.5 Surface-Burning Characteristic: Master Wall EIFS lamina (base coats, mesh, and finish coats) is permitted in accordance with IBC Section 803.1 and IRC Section R302.9, provided the lamina components are installed without foam plastic insulation boards. The Master Wall® Foam & Mesh (F&M) Adhesive/Base Coat, standard mesh, and Master Wall® Finish coat described in this report have a Class A interior finish rating as defined in IBC Section 803.1.2 (flame-spread index 0-25; smoke-developed index 0-450).

3.2 General Installation Requirements

3.2.1 Master Wall® EIFS shall be installed in accordance with this report; the manufacturer's published installation instructions, specifications, applicable technical bulletins and details; and applicable sections of the IBC or IRC. In the event of a conflict between the manufacturer's instructions and this report, the more restrictive governs. The manufacturer's installation instructions for the systems evaluated in this report are available at www.masterwall.com.

3.2.2 Installation shall be performed by an applicator recognized by the applicant (Master Wall®, Inc.) as properly trained to carry out such installations. Master Wall®, Inc. shall maintain a list of the names and addresses of recognized contractors which can be provided to the building official upon request.

3.2.3 The wall assembly shall be constructed and designed to resist the minimum design requirements and loads as detailed in Chapter 16 of the IBC, and in accordance with Section 1407.3 of the IBC.

3.2.4 Expansion joints shall be required in the EIFS where the substrate material changes, at floor lines in wood-frame construction in which lumber shrinkage will occur, where the EIFS abuts another material, and where structural movement is anticipated. Expansion joints are required at each floor level when the EIFS is located over platform-frame construction with dimensional lumber. All joints shall be installed as specified by the designer or registered design professional.

3.2.5 An approved sealant, described in Section 4.2.2.5, shall be applied at EIFS terminations, exposed joints, floor lines of wood-frame construction, changes in building shape or roof line, substrate changes, and expansion joints. The sealant shall be bonded to the base coat, not to the finish coat. All edges of the system, except at drainage track locations, shall be back-wrapped or edge-wrapped. The details of sealant installation, including width and thickness of the sealant, shall be designed by a registered design professional.

3.2.6 Structural wall components shall have a maximum allowable deflection not greater than 1/240 of the span, unless a more restrictive requirement governs.

3.2.7 Substrates shall be structurally sound, clean, dry, and smooth, with all dust and deleterious material removed. There shall be no planar irregularities exceeding ¼-inch (6.3 mm) in a 10-foot (3.04 m) radius.

3.2.8 All exposed edges of the insulation board shall be wrapped with the reinforcing fabric and embedded in the base coat; alternatively, an approved plastic trim accessory shall be used.

3.2.9 Corrosion-resistant flashing shall be provided as part of the Master Wall® EIFS and shall be in accordance with IBC Section 1404.4 or IRC Section R703.4.

3.3 Installation of Aggre-Flex Class PB EIFS

3.3.1 A water-resistive barrier is not required for installation of this system.

3.3.2 Foam plastic insulation boards are adhered to the approved substrate in accordance with Section 3.7 of this report or are mechanically fastened to the approved substrate in accordance with Section 3.8 of this report.

3.3.3 The base coat, reinforcing mesh, and the finish coat shall be installed in accordance with Sections 4.8 and 4.9 of this report.

3.3.4 Special inspection is not required for Aggre-Flex Class PB EIFS when installed over masonry or concrete walls in accordance with Exception 2 to IBC Section 1705.17 or 2018 IBC Section 1705.16, as applicable.

3.4 Installation of Aggre-Flex Drainage Class PB EIFS

3.4.1 A water-resistive barrier and weather-protection components complying with Section 4.2.2 of this report shall be installed in accordance with applicable sections of the IBC or IRC.

3.4.2 A drainage track, as described in Section 4.2.2.7 of this report, shall be installed at all horizontal terminations of the EIFS installed on approved gypsum-based or wood-based sheathing substrates, such as heads of windows and doors, and at the base of the wall.

3.4.3 A drainage mechanism shall be installed and may be one of the following: (1) Drainage mat, as described in Section 4.2.2.4 of this report; (2) Grooved (waved patterned) insulation boards; (3) Flat insulation board installed over Tyvek Stucco Wrap (documentation for Tyvek Stucco Wrap shall be provided to the building official demonstrating compliance as a drainage plane to the applicable code).

3.4.4 Foam plastic insulation boards shall be mechanically fastened to the approved substrate in accordance with Section 3.8 of this report.

3.4.5 The base coat, reinforcing mesh, and the finish coat shall be installed in accordance with Sections 3.9 and 3.10 of this report.

3.4.6 Special Inspection is not required for Aggre-Flex Drainage Class PB EIFS in accordance with Exception 1 to IBC Section 1705.17, or 2018 IBC Section 1705.16, as applicable. Special inspections are not required under the IRC.

3.5 Installation of Master Wall® Rollershield Drainage CIFS® Class PB EIFS

3.5.1 Rollershield Water Barrier shall be applied by first treating the joints and fastener locations where sheathing is used, then coating the entire surface using brush, roller, trowel, or airless spray equipment techniques. Sheathing joints shall be treated by applying a thin layer of Rollershield to the joints and embedding Rollershield Flashing Tape into the wet mixture with a trowel. Alternatively, Rollershield Mesh may be installed over all joints, corners, and gaps in the substrate. Installation of the Rollershield Flashing Tape and the Rollershield Mesh shall be in accordance with the manufacturer's installation instructions.

3.5.2 The Rollershield Water Barrier material shall be applied in an even, continuous coat, maintaining a wet edge of approximately 15 mils thickness. Oriented Strand Board and other porous substrates require two coats of Rollershield Water Barrier material. For moisture protection, Rollershield shall be applied as a continuous barrier of 10 mils dry thickness with no breaks or skips.

3.5.3 A drainage track, as described in Section 4.2.2.7 of this report, shall be installed at all horizontal terminations of the EIFS installed on approved gypsum-based or wood-based sheathing substrates, such as heads of windows and doors, and at the base of the wall.

3.5.4 Foam plastic insulation boards shall be adhered to the approved substrate in accordance with Section 3.7 of this report. The adhesive shall be applied such that vertical drainage channels are formed between the insulation boards and the substrate, as described in Section 3.7.2.2 of this report. The ribbon and dab method of adhering the insulation boards to the substrate is not permitted.

3.5.5 The base coat, reinforcing mesh, and the finish coat shall be installed in accordance with Sections 3.9 and 3.10 of this report.

3.5.6 Special Inspections: In accordance with 2024 and 2021 IBC Section 1705.17.1 or 2018 IBC Section 1705.16.1, special inspection shall be provided as applicable. A description of the responsibilities of the special inspector shall be included in the installation instructions. Insulation board installation at wall openings shall stagger vertical joints.

3.6 Installation of QRW1 Drainage Class PI EIFS

3.6.1 A water-resistive barrier and weather-protection components complying with Section 4.2.2 of this report shall be installed in accordance with applicable sections of the IBC or IRC.

3.6.2 A drainage track, as described in Section 4.2.2.7 of this report, shall be installed at all horizontal terminations of the EIFS installed on approved gypsum-based or wood-based sheathing substrates, such as heads of windows and doors, and at the base of the wall.

3.6.3 A drainage mechanism shall be installed and may be one of the following: (1) Drainage mat, as described in Section 4.2.2.4 of this report; (2) Grooved (waved patterned) insulation boards; (3) Flat insulation board installed over Tyvek Stucco Wrap (documentation for Tyvek Stucco Wrap shall be provided to the building official demonstrating compliance to the applicable code).

3.6.4 Foam plastic insulation boards shall be mechanically fastened to the approved substrate in accordance with Section 3.8 of this report.

3.6.5 The base coat, reinforcing mesh, and the finish coat shall be installed in accordance with Sections 3.9 and 3.10 of this report.

3.6.6 Special Inspection is not required for QRW1 Drainage Class PI EIFS in accordance with Exception 1 to 2024 and 2021 IBC Section 1705.17, or 2018 IBC Section 1705.16, as applicable. Special inspections are not required under the IRC.

3.7 Adhered Insulation Board Installation

3.7.1 Master Wall® EPSA Application

3.7.1.1 The EPSA Adhesive is mixed using a heavy duty $^{1}/_{2}$-inch (12.7 mm) drill at 400–500 rpm and a heavy-duty mixing paddle. Water shall not be added. The EPSA Adhesive is applied directly to the back of the insulation board using a $^{3}/_{8}$-inch x $^{1}/_{2}$-inch (9.5 mm x 12.7 mm) U-notched trowel with the ribbons no further than 2 inches (50.8 mm) on center.

3.7.1.2 The entire surface of the back of the insulation board shall be covered with full beads of adhesive formed by the notched trowel. The prepared insulation board is immediately placed on the substrate. All edges of the insulation board shall be abutted tightly and no EPSA Adhesive shall get into the board joints. The EPSA Adhesive shall not form a skin prior to placing the insulation board on the substrate. Firm pressure is applied to the entire surface of the insulation board to ensure solid contact between the insulation board and the substrate. The EPSA Adhesive shall not be applied directly onto the substrate.

3.7.2 Master Wall® F&M Adhesive/Basecoat Application

3.7.2.1 The F&M Adhesive is thoroughly stirred using a heavy duty $^{1}/_{2}$-inch (12.7 mm) drill at 400–500 rpm and a heavy-duty mixing paddle. One half of the stirred F&M Adhesive is poured into a clean plastic pail. Type I or I-II (Type 10) Portland cement is added to the pail of F&M Adhesive in a ratio of one-to-one by weight and is mixed to a homogenous consistency. The mixture shall stand for 3 to 5 minutes and then shall be stirred to a creamy consistency. Up to 30 ounces (0.9 L) of clean, potable water may be added to a pail to adjust workability. Over mixing shall be avoided as faster setting or reduced working time may occur. Accelerators or retarders shall not be added to the F&M Adhesive.

3.7.2.2 When adhering foam plastic insulation board to gypsum substrates, the F&M Adhesive/Basecoat mixture shall be applied directly to the back of the insulation board using a $^{3}/_{8}$-inch x $^{3}/_{8}$-inch x $^{3}/_{8}$-inch (9.5 × 9.5 × 9.5 mm) or a $^{3}/_{8}$-inch x $^{1}/_{2}$-inch x $1^{1}/_{2}$-inch (9.5 x 12.7 x 38.1 mm) stainless steel notched trowel. The entire back of the insulation board shall be covered with full beads that stand out $^{3}/_{8}$ inch (9.5 mm) from the insulation board, and the beads shall form vertical drainage grooves when the insulation boards are adhered to the substrate.

3.7.2.3 When adhering foam plastic insulation board to non-gypsum substrates, the above described notched trowel method or the ribbon and dab method may be used. Using a stainless steel plastering trowel, a 2-inch (50.8 mm) wide by $^{3}/_{8}$-inch (9.5 mm) high ribbon of the F&M Adhesive/Basecoat mixture is placed around the entire perimeter of the insulation board. Eight $^{3}/_{8}$-inch-thick (9.5 mm) by 4-inch-diameter (102 mm) dabs of the mixture are placed approximately 8 inches (204 mm) on center inside the ribbon.

3.7.2.4 The prepared insulation board is immediately placed on the substrate. All edges of the insulation board shall be abutted tightly, and no mixture shall get into the board joints. The mixture shall not form a skin prior to placing the insulation board on the substrate.

3.8 Mechanically Fastened Insulation Board Installation

3.8.1 Fasteners and plates described in Section 4.2.4 of this report are used to attach the foam plastic insulation boards to approved substrates.

3.8.2 When fastening through sheathing into wood stud framing, fasteners shall be installed a minimum of 12 inches (305 mm) on center vertically and 16 inches or 24 inches (406 or 610 mm) on center horizontally, depending on the stud spacing.

3.8.3 When fastening to wood-based sheathing, fasteners shall be installed according to Figure 2 for Aggre-flex Drainage EIFS and Figure 4 QRW1 Drainage EIFS.

3.8.4 When fastening to brick, masonry, or concrete walls, fasteners shall be installed a maximum of 24 inches (610 mm) on center vertically and 16 inches (406 mm) on center horizontally.

3.9 Base Coat and Mesh Application

All imperfections in the insulation board shall be rasped flush and any gaps in the insulation board shall be filled with slivers of insulation. The F&M Adhesive/Basecoat mixture is applied over the entire surface of the insulation board in a thickness greater than that of the reinforcing fabric being used [approximately $^{1}/_{16}$ inch (1.6 mm) for standard mesh and $^{3}/_{32}$ inch (2.4 mm) for Ultra Mesh]. The reinforcing fabric is immediately embedded into the wet mixture and smoothed

from the center to the edge to avoid wrinkles. The reinforcing fabric shall be continuous at all corners and lapped or abutted in accordance with Master Wall® specifications. The color of the mesh shall not be visible but a slight mesh pattern may be visible. The mixture shall cure a minimum of 12 hours and be flat, dry, hard, and free of visible efflorescence before application of Superior Finish coat.

3.10 Finish Coat Application

3.10.1 Master Wall® Superior Finish is thoroughly stirred using a heavy duty ½ inch (12.7 mm) drill at 400–500 rpm and a heavy-duty mixing paddle. Small amounts of clean, potable water may be added to obtain a workable consistency. To avoid color variations, the same amount of water is added to each pail. The amount of water added to each pail shall not exceed 24 ounces (0.7 L).

3.10.2 A uniform thickness of approximately $^{1}/_{16}$-inch (1.6 mm) of Master Wall® Superior Finish is applied using a stainless steel trowel. The finish coat shall be spread evenly and then scraped down to a thickness no greater than the largest aggregate in the material. The finish coat shall be immediately floated using a plastic float to the desired texture.

3.11 Wind Resistant EIFS Assemblies

Table 3 of this report presents allowable wind load resistance (psf) for mechanically attached and adhered EIFS described in this report.

3.12 Types I, II, III, and IV Construction-Aggre-Flex Class PB EIFS

3.12.1 The interior surface of the exterior wall shall consist of one layer of $^{5}/_{8}$-inch-thick (15.9 mm), Type X gypsum wallboard, installed horizontally with $1^{5}/_{8}$-inch-long (41.3 mm) drywall screws spaced 8 inches (203 mm) on center.

3.12.2 Wall studs shall be C-shaped steel studs, minimum No. 18 gage [0.0486 inch (1.234 mm) base-metal thickness], $3^{5}/_{8}$ inches (92 mm) in depth, complying with the applicable provisions of the IBC or IRC. Stud spacing is maximum 24 inches (610 mm) on center. Fiberglass batt insulation (faced or unfaced) complying with the applicable code, or any noncombustible insulation, such as mineral wool, may be used.

3.12.3 Wall openings shall be framed with minimum 0.0428-inch-thick (1.09 mm) aluminum or steel framing.

3.12.4 The exterior surface shall be one layer of minimum ½-inch-thick (12.7 mm) Type X gypsum sheathing attached horizontally to the steel studs in accordance with the IBC. Maximum 4-inch-thick (102 mm) EPS foam plastic insulation boards are applied as described in this report. The base coat, reinforcing mesh, and finish coat are applied as noted in this report.

3.12.5 Fire-stopping material, consisting of mineral wool safing, shall be installed to be securely retained in place as required by IBC Section 718.2.1 at floor/wall interfaces. Minimum density of the fire-stopping material shall be 4 pcf (64.1 kg/m^3).

3.13 Types I, II, III, and IV Construction-Master Wall® Rollershield Drainage CIFS® Class PB EIFS

3.13.1 The interior surface of the exterior wall shall consist of one layer of $^{5}/_{8}$-inch-thick (15.9 mm) Type X gypsum wallboard installed horizontally with $1^{1}/_{4}$-inch-long (31.7 mm) self-drilling drywall screws spaced 8 inches (203 mm) on center around the perimeter and 12 inches (305 mm) on center in the field.

3.13.2 Wall studs shall be C-shaped steel studs, minimum No. 18 gage [0.0486-inch (1.234 mm) base-metal thickness], $3^{5}/_{8}$ inches (92 mm) in depth, complying with the applicable provisions of the IBC or IRC. Stud spacing is maximum 24 inches (610 mm) on center. Fiberglass batt insulation (faced or unfaced) complying with the applicable code, or any noncombustible insulation, such as mineral wool, may be used.

3.13.3 Wall openings shall be framed with minimum 0.0428-inch-thick (1.09 mm) aluminum or steel framing.

3.13.4 The exterior surface shall be one layer of minimum $^{5}/_{8}$-inch-thick (15.9 mm), DensGlass® Exterior Sheathing (documentation for DensGlass® Exterior Sheathing shall be provided to the building official demonstrating compliance to the applicable code) attached horizontally to the steel studs with No. 6 × $1^{1}/_{4}$-inch-long (31.7 mm) self-drilling screws spaced 8 inches (203 mm) on center at the perimeter and 12 inches (305 mm) on center in the field.

3.13.5 Rollershield mesh tape shall be applied to all sheathing joints, and Rollershield Weather Barrier shall be applied at a nominal 15 mils wet coat thickness onto the entire wall surface. Sections 3.5.1 and 3.5.2 of this report describe additional requirements.

3.13.6 Maximum 4-inch-thick (102 mm) EPS foam plastic insulation boards are adhered to the exterior sheathing with the Master Wall® F&M (Foam & Mesh) Adhesive as described in Section 3.7.2 of this report. The base coat, reinforcing mesh, and finish coat are applied as noted in this report.

3.13.7 Fire-stopping material, consisting of mineral wool safing, shall be installed to be securely retained in place as required by IBC Section 718.2.1 at floor/wall interfaces. Minimum density of the fire-stopping material shall be4 pcf (64.1 kg/m^3).

4.0 PRODUCT DESCRIPTION

4.1 General

4.1.1 Master Wall® Aggre-Flex Class PB (Polymer Based) EIFS: The system is field-installed on substrates of masonry, concrete, cement plaster, exterior grade gypsum sheathing, and wood-based sheathing, or approved exterior fiber-reinforced cement or calcium silicate boards. The components of the system are mechanical or adhesive attachment, flat expanded polystyrene (EPS) foam plastic insulation boards, fiberglass reinforcing mesh, and base and finish coats. The minimum total thickness of the EPS insulation boards is 1 inch (25.4 mm), and the maximum dimensions of the EPS insulation boards are 2 feet by 4 feet (610 mm by 1219 mm). The maximum total thickness of the EPS insulation boards is 4 inches (102 mm) for applications to buildings of Type I, II, III, or IV construction.

4.1.2 Master Wall® Aggre-Flex Drainage Class PB (Polymer Based) EIFS: The system is field-installed on substrates of masonry, concrete, exterior grade gypsum sheathing, wood-based sheathing, or approved cementitious sheathings. The components of the system are a drainage mat (optional), mechanical attachment; expanded polystyrene (EPS) foam plastic insulation boards; fiberglass reinforcing mesh; and base and finish coats. The minimum total thickness of the EPS insulation boards is $1^1/_2$ inches (38 mm), and $^1/_8$-inch-deep (3.2 mm) wave patterned grooves shall be across the width of the EPS board. When applied to gypsum sheathing, wood-based sheathing or approved exterior fiber-reinforced cement or calcium silicate boards, the EIFS shall include a code compliant water-resistive barrier applied over the substrate, and a code compliant flashing material.

4.1.3 Master Wall® Rollershield Drainage CIFS® Class PB (Polymer Based) EIFS: The system is field installed on substrates of masonry, concrete, exterior grade gypsum sheathing having a water-resistant core gypsum board with fiberglass mat facers, wood-based sheathing, or approved exterior fiber-reinforced cement or calcium silicate boards. The components of the system are adhesive attachment, expanded polystyrene (EPS) foam plastic insulation boards, fiberglass reinforcing mesh, and base and finish coats. The minimum total thickness of the EPS insulation boards is $1^1/_2$ inches (38 mm). The maximum total thickness of the EPS insulation boards is 4 inches (102 mm) for applications to buildings of Type I, II, III, or IV construction. When applied to gypsum sheathing, wood-based sheathing or approved cementitious sheathing, the EIFS shall include Rollershield Water-resistive Coating (referenced in Section 4.2.2.3 of this report) applied over the substrate, and code-compliant flashing.

4.1.4 Master Wall® QRW1 Drainage Class PI (polyisocyanurate) EIFS: The system is field installed on substrates of masonry, concrete, exterior grade gypsum sheathing, wood-based sheathing, or approved cementitious sheathings. The components of the system are a drainage mat (optional), mechanical attachment, polyisocyanurate (PI) foam plastic insulation boards with coated glass-fiber facing, fiberglass reinforcing mesh, and base and finish coats. The minimum total thickness of the polyisocyanurate (PI) insulation boards is $^5/_8$ inch (15.9 mm). When applied to gypsum sheathing, wood-based sheathing or approved exterior fiber-reinforced cement or calcium silicate boards, the EIFS shall include a code-compliant water-resistive barrier applied over the substrate, and a code-compliant flashing.

4.2 Materials

4.2.1 Substrates

4.2.1.1 Wood Structural I panel sheathing shall be Exterior or Exposure 1 grade plywood complying with US DOC PS-1, or Exposure 1 oriented strand board (OSB) complying with US DOC PS-2. Table 3 of this report provides thicknesses.

4.2.1.2 Exterior grade gypsum sheathing shall comply with ASTM C1396. Exterior sheathing having a water-resistant core with fiberglass mat facers shall comply with ASTM C1177. Type X exterior grade gypsum sheathing shall comply with ASTM C1396.

4.2.1.3 Substrates consisting of unglazed brick, unpainted brick, cement plaster, concrete or concrete masonry shall comply with the applicable sections of the IBC or the IRC.

4.2.2 Water-resistive Barriers and Weather-protection Components

4.2.2.1 Asphalt felt shall be No. 15 felt complying with ASTM D226 as Type 1, or an approved equivalent in accordance with Section 1404.2 of the IBC.

4.2.2.2 Building paper shall be Grade D kraft building paper with a 60-minute water resistance.

4.2.2.3 Master Wall® Rollershield Water-resistive coating is a proprietary, pre-mixed, liquid-applied, noncementitious, polymer-based, water-resistive coating. Wall sheathing joint treatment and transition treatment shall include the 4-inch-wide (102 mm) Rollershield Flashing Tape.

4.2.2.4 Recognized drainage mat material is the Colbond® Enkadrain 5006 series and the Dupont™ Tyvek® StuccoWrap®.

4.2.2.5 Exterior sealants used with the Master Wall® EIFS shall be single-part polyurethane sealants conforming to Federal Specification TT-S-00230C, Type II, Class A; and ASTM C920, Type S, Grade NS, Class 25, Use NT, M, G, and I. Sealant backer rods shall be of closed cell material.

4.2.2.6 Corrosion-resistant flashing shall be provided as part of the Master Wall® EIFS and shall be in accordance with IBC Section 1404.4 or IRC Section R703.4.

4.2.2.7 Drainage tracks shall be provided as part of the Master Wall® drainage EIFS described in this report. The drainage track shall be polyvinyl chloride (PVC) with weep holes. Weep holes are optional for the Aggre-Flex Drainage EIFS. Alternatively, a corrosion-resistant weep screed complying with IBC Section 2512.1.2 is permitted when recommended by Master Wall® Inc.

4.2.3 Foam Plastic Insulation

4.2.3.1 Expanded polystyrene (EPS) foam plastic insulation board shall comply with ASTM C578, Type I and ASTM E2430 and shall demonstrate a flame spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL 723.

4.2.3.2 Polyisocyanurate (PI) foam plastic insulation boards shall comply with ASTM C1289, Type II, with a nominal density of 2 pcf (32 kg/m^3), and shall demonstrate a flame spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL 723.

4.2.3.3 The EPS and PI insulation boards shall be produced by a manufacturer who participates in an approved third-party quality assurance program and shall be labeled in accordance with IBC Section 2603.2, 2024 IRC Section R303.2, or 2021 and 2018 IRC Section 316.2. When installed on buildings of Type I, II, III, or IV construction, the foam plastic insulation shall be labeled in accordance with IBC Section 2603.5.6.

4.2.4 Plates and Fasteners

4.2.4.1 The plates in Table 1 of this report are recognized for use with specific Master Wall® EIFS:

TABLE 1 - Plates

Plate Manufacturer	Plate Model for Master Wall® EIFS	
	Aggre-Flex EIFS and Aggre-Flex Drainage EIFS	QRW1 Drainage EIFS
ITW Buildex	Gridmate PB	Gridmate
Demand Products	PB Washer PBH Washer Gridmaster Washer	DP300 DP400
Wind-Lock	Wind Devil 2	ULP302 ULP402

4.2.4.2 Wind-Lock Corporation, No. 6 by minimum 1 5/8-inch-long (41.3 mm) screws or an approved equivalent, shall be used to attach maximum 1-inch-thick (25.4 mm) foam plastic insulation boards to wood-based substrates. For thicker foam plastic, fastener length shall be sufficient to penetrate through and a minimum 1/8-inch (3.2 mm) past the back surface of the wood-based sheathing.

4.2.4.3 Fasteners, when used to attach foam plastic insulation to brick, concrete, and masonry, shall be qualified for tension load resistance when installed into substrates. The fastener type and fastener schedule shall be specified by a design professional.

A tension-load test program, consisting of fastener withdrawal from the applicable wall(s) of the building(s) at the specified location, shall be utilized when qualifying the adequacy of fasteners in concrete or masonry substrates. Testing shall be conducted by an accredited independent testing laboratory.

- **Withdrawal Strength Requirement:** The average fastener withdrawal strength, expressed in pound-force (lbf), shall be no less than six times the specified design wind pressure applicable to the project location.
- **Testing Protocol:** A minimum of five withdrawal tests shall be conducted per evaluation program. The individual test results must not deviate by more than 15 percent from the calculated average. If 10 or more tests are performed within a single fastener assembly, the 15 percent variation deviation in the calculated average is not required.
- **Masonry Substrate Testing:** For evaluations involving masonry substrates, a minimum of 40 percent of the total tests shall be performed at mortar joints to ensure representative performance data.
- **Compliance Documentation:** Prior to installation of EIFS fasteners, a certificate of compliance shall be submitted to and approved by the building official. This certificate must verify that the test results meet or exceed the load performance criteria specified in the applicable evaluation report.

4.2.5 Adhesive and/or Basecoat

4.2.5.1 Master Wall® F&M Adhesive/Basecoat is a liquid, acrylic-based admixtures combined at the jobsite with Type I or I-II Portland cement complying with ASTM C150. Master Wall® Bagged Base (MBB) is a dry version of the F&M Adhesive. The F&M material is supplied in 5-gallon (18.9 L) pails and is mixed at the jobsite 1:1 with Portland cement to a creamy consistency. Application and storage temperatures are from 40°F (5°C) to 110°F (43°C).

4.2.5.2 Master Wall® EPSA (Expanded Polystyrene Adhesive) is a one-part noncementitious translucent gray adhesive that is ready to use directly from the pail as an adhesive over prepared approved substrates. The EPSA material is supplied in 5-gallon (18.9 L) pails. Application and storage temperatures are from 40°F (5°C) to 110°F (43°C).

4.2.6 Reinforcing Mesh

Master Wall® Aggre-flex Mesh is an open-weave, glass-fiber mesh, complying with ASTM D579, with an AR (Alkali Resistive) coating. Rolls of mesh shall not be stored on end or in direct sunlight. Seven grades of the mesh are available with differing mesh size, weight, and warp/fill tensile strength, as shown in Table 2 of this report.

TABLE 2 – Reinforcing Mesh

Reinforcing Mesh Grade	Weight (oz/yd^2)	Roll Width by Length
Detail	4.5	9.5” × 150’
Standard	4.5	38” × 150’
Hi-Tech	6.0	48” × 250’
Medium	12.0	38” × 75’
Strong	15.4	38” × 75’
Ultra	21.0	38” × 75’
Corner	9.5	9.5” × 150’

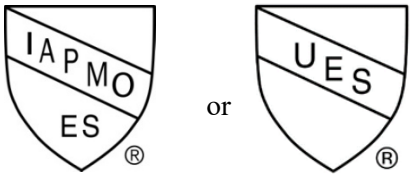
For **SI:** 1 inch = 25.4 mm, 1 oz/yd^2 = 0.012 kg/m^2, 1 ft = 305 mm

4.2.7 Finish Coat

Master Wall® Superior Finishes are acrylic-based materials with Dirt Pickup Resistant (DPR) polymers and are available in assorted colors and textures. The finish coat material is supplied in 5-gallon (18.9 L) pails. Application and storage temperatures are from 40°F (5°C) to 110°F (43°C).

5.0 IDENTIFICATION

Packaging and identification of the Master Wall® products recognized in this report shall include “the name (Master Wall® Inc.) and address of the manufacturer; identification of components, lot or batch number, quantity of material in the packaged mix, storage instructions, pot life, expiration date (when applicable), the name of the accredited inspection agency (when applicable)” in accordance with ASTM E2568, and the IAPMO UES evaluation report number (IAPMO UES ER-433). Either IAPMO UES Mark of Conformity may also be used as shown below:



IAPMO UES ER-433

6.0 SUBSTANTIATING DATA

6.1 ASTM E2568-Standard Specification for PB Exterior Insulation and Finish Systems.

6.2 ASTM E2273-Standard Test Method for Determining the Drainage Efficiency of Exterior Insulation and Finish Systems (EIFS) Clad Wall Assemblies.

6.3 NFPA 285-Standard Fire Test Method for the Evaluation of Fire Propagation Characteristics of Exterior Nonload-bearing Wall Assemblies Containing Combustible Components.

6.4 Independent analysis and extension of NFPA 285 testing.

6.5 Acceptance Criteria for Exterior Insulation and Finish Systems (AC219), October 2009 (editorially revised December 2022).

6.6 Acceptance Criteria for EIFS Clad Drainage Wall Assemblies (AC235), January 2015 (editorially revised April 2024).

6.7 Acceptance Criteria for Water-resistive Coatings Used as Water-resistive Barriers over Exterior Sheathing (AC212), February 2015 (editorially revised June 2024).

6.8 Manufacturer’s descriptive literature and installation instructions.

6.9 Test reports are from laboratories in compliance with ISO/IEC 17025.

7.0 REFERENCE CODE SECTIONS

The code references apply to the recognition provided in this report but may not include every code section related to the use of this product. Section numbers that differ from the 2024 Code are shown in parenthesis.

7.1 International Building Code®:

- Section 104.2.3 - Alternative materials, design and methods of construction and equipment.
  (2021 and 2018 IBC Section 104.11 - Alternative materials, design and methods of construction and equipment.)
- Section 202 - Definitions (Exterior Insulation and Finish Systems (EIFS); Exterior Insulation and Finish Systems (EIFS) with Drainage).
- Section 718.2.6 - Exterior wall coverings.
- Section 803.1 - General (Wall and Ceiling Finishes).
- Section 1402.5 - Vertical and lateral flame propagation.
  (2021 IBC Section 1402.5 - Water-resistive barriers.)
- Section 1404.4 - Flashing.
- Section 1405 - Combustible Materials on the Exterior Side of Exterior Walls.
- Section 1407 - Exterior Insulation and Finish Systems (EIFS).
- Section 1407.2 - Performance characteristics.
- Section 1407.4.1 - EIFS with drainage.
- Section 1407.7 - Special inspections.
  (2021 and 2018 IBC Section 1407.6 - Special inspections.)
- Section 1705.17 - Exterior insulation and finish systems (EIFS).
  (2018 IBC Section 1705.16 - Exterior insulation and finish systems (EIFS).)
- Section 2603.2 - Labeling
- Section 2603.3 - Surface-burning characteristics.
- Section 2603.4 - Thermal barrier.
- Section 2603.5.5 - Vertical and lateral flame propagation.
- Section 2603.5.6 - Label required.
- Section 2603.8 - Protection against termites.

7.2 International Residential Code®:

- Section R104.2.2 - Alternative materials, design and methods of construction and equipment.
  and 2018 IRC Section R104.11 - Alternative materials, design and methods of construction and equipment.)
- Section R202 - Definitions. (Exterior Insulation and Finish Systems (EIFS); Exterior Insulation and Finish Systems (EIFS) with Drainage).
- Section R302.9 - Flame spread index and smoke-developed index for wall and ceiling finishes.
- Section R303.1 - General (Foam Plastic).
  (2021 2018 IRC R316.1 - General.)
- Section R303.2 - Labeling and Identification.
  (2021 and 2018 IRC R316.2 - Labeling and Identification.)
- Section R303.3 - Surface burning characteristics.
  (2021 and 2018 IRC Section R316.3 - Surface burning characteristics.)
- Section R303.4 - Thermal barrier.
  (2021 and 2018 IRC Section R316.4 - Thermal barrier.)
- Section R305.4 - Foam plastic protection.
  (2021 and 2018 IRC Section R318.4 - Foam plastic protection.)
- Section R703.1.1 - Water resistance.
- Section R703.1.2 - Wind resistance.
- Section R703.2 - Water-resistive barrier.
- Section R703.3.2 - Wind limitations.
- Section R703.4 - Flashing.
- Section R703.9 - Exterior insulation and finish system (EIFS)/EIFS with drainage.

8.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on Master Wall® products to assess their conformance to the codes and standards shown in Section 1.0 of this report and serves as documentation of the products' certification. Products are manufactured under a quality control program with periodic inspection under the supervision of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org

TABLE 3—WIND LOAD RESISTANCE (psf)

EIFS	FRAMING		Exterior Sheathing[1]	FOAM PLASTIC INSULATION		ALLOWABLE WIND LOAD (psf)	
	Type	Spacing (in.)		Thickness (in.)	Attachment Method	Positive	Negative
Aggre-Flex Class PB EIFS & Rollershield Drainage Class PB EIFS	2×4 Wood (Minimum SG = 0.42)	16	1/2-inch-thick plywood, exterior grade	3/4	Adhered	65	60
			1/2-inch-thick gypsum	3/4	Adhered	55	45
	4-inch-deep C-studs, No. 18 gage [0.0486 inch (1.234 mm)]	16	1/2-inch-thick gypsum	3/4	Adhered	90	50
		16	5/8-inch-thick gypsum	3/4	Adhered	95	75
		12	5/8-inch-thick gypsum	3/4	Adhered	90	60
		16	1/2-inch-thick Dens Glass Gold	3/4	Adhered	65	45
		16	7/16-inch-thickOSB	3/4	Adhered	55	55
Aggre-Flex Class PB EIFS & QRW1 Drainage Class PI EIFS	2×4 Wood (Minimum SG = 0.42)	16	1/2-inch-thick plywood, exterior grade	1	Mechanically Fastened	60	25
		16	1/2-inch-thick plywood, exterior grade	1 1/2	Mechanically Fastened	60	35
		16	7/16-inch-thick OSB	5/8	Mechanically Fastened	55	30

SI: 1 inch = 25.4 mm, 1 psf = 47.9 Pa.
[1]The interior of the wall is minimum 1/2-inch-thick gypsum wall board.

MASTER WALL® EIFS

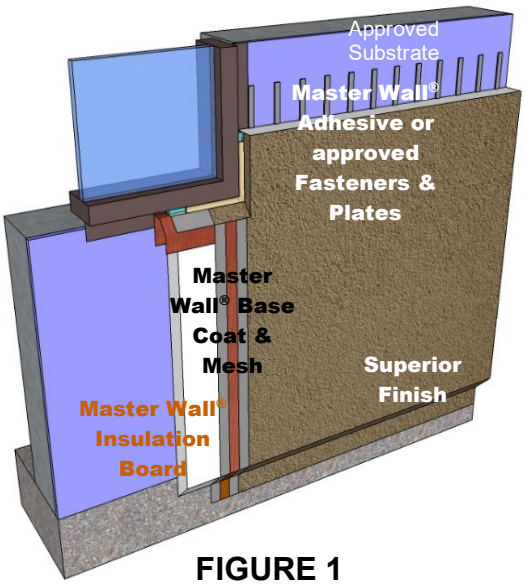


FIGURE 1
Aggre-flex EIFS

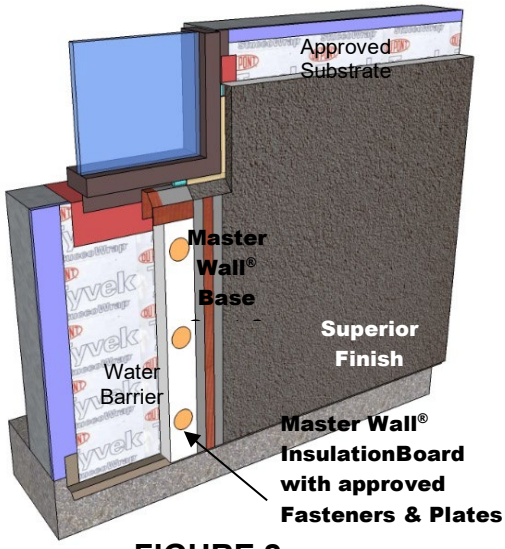


FIGURE 2
Aggre-flex Drainage EIFS

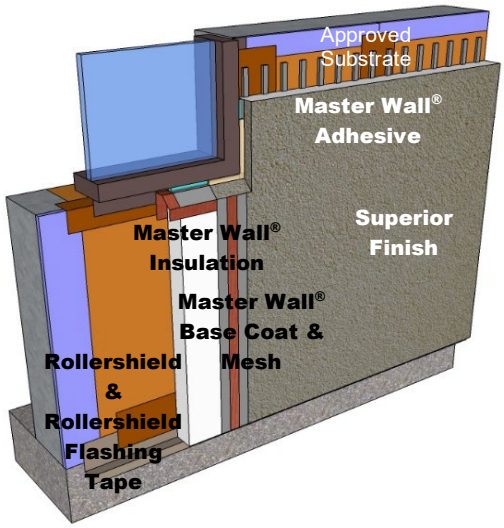


FIGURE 3
Rollershield Drainage EIFS

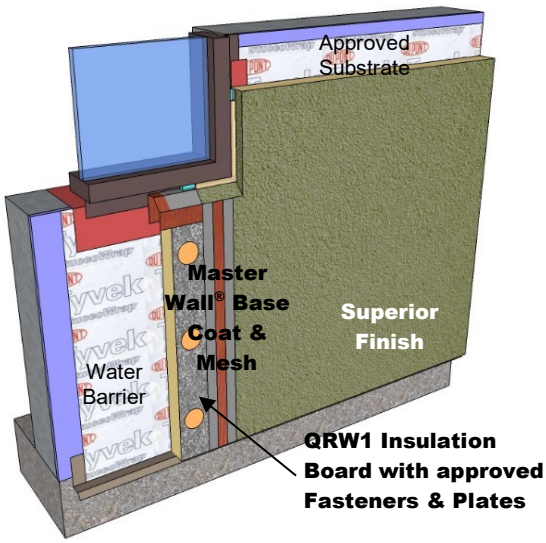


FIGURE 4
QRW1 Drainage EIFS

CALIFORNIA SUPPLEMENT

MASTER WALL® INC.
Post Office Box 397
Fortson, Georgia 31808
(800) 755-0825
www.masterwall.com

MASTER WALL® EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS):
AGGRE-FLEX CLASS PB EIFS;
AGGRE-FLEX DRAINAGE™ CLASS PB EIFS;
ROLLERSHIELD DRAINAGE CIFS ® CLASS PB EIFS; and
QRW1 DRAINAGE™ CLASS PI EIFS

CSI Sections:

07 24 00 Exterior Insulation and Finish Systems
07 42 43 Composite Wall Panels

1.0 RECOGNITION

The Master Wall® EIFS as evaluated and represented in IAPMO UES Evaluation Report ER-433 and with changes as noted in this supplement is a satisfactory alternative for use in buildings built under the following codes (and regulations):

- 2025 and 2022 California Building Code (CBC)
- 2025 and 2022 California Residential Code (CRC)
- 2025 California Wildland-Urban Interface Code (CWUIC)

2.0 LIMITATIONS

Use of the Master Wall® EIFS recognized in this report is subject to the following additional limitations:

2.1 The Master Wall® EIFS shall comply with the provisions in IAPMO UES ER-433 applicable to the 2024 International Wildland-Urban Interface Code (IWUIC) for use under the 2025 CWUIC, 2024 IBC or IRC for use under the 2025 CBC or 2025 CRC, or 2021 IBC or IRC for use under the 2022 CBC or 2022 CRC.

2.2 Design requirements shall be determined in accordance with the applicable code.

2.3 The Master Wall® EIFS has not been evaluated for use in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area described in Sections 101.2 and 504 of the 2025 CWUIC and Sections 701A.1 and 707A of the 2022 CBC.

2.4 The Master Wall® EIFS has not been evaluated for use in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area described in Sections 101.2 and 504 of the 2025 CWUIC and Section R337.1 of the 2022 CRC.

2.5 This supplement expires concurrently with IAPMO UES ER-433.

FLORIDA SUPPLEMENT

MASTER WALL® INC.
Post Office Box 397
Fortson, Georgia 31808
(800) 755-0825
www.masterwall.com

MASTER WALL® EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS):
AGGRE-FLEX CLASS PB EIFS;
AGGRE-FLEX DRAINAGE™ CLASS PB EIFS;
ROLLERSHIELD DRAINAGE CIFS ® CLASS PB EIFS; and
QRW1 DRAINAGE™ CLASS PI EIFS

CSI Sections:

07 24 00 Exterior Insulation and Finish Systems
07 42 43 Composite Wall Panels

1.0 RECOGNITION

Master Wall® EIFS evaluated in IAPMO UES ER-433 are satisfactory alternatives to the cladding systems in the following codes:

- 2023 Florida Building Code-Building
- 2023 Florida Building Code-Residential

Evaluation of the Master Wall® EIFS to the high-velocity hurricane zone (HVHZ) provisions of the Florida Building Code-Building, and the Florida Building Code-Residential is outside the scope of this report.

2.0 LIMITATIONS:

Master Wall® EIFS meets the requirements of the Florida Building Code-Building, and Florida Building Code-Residential, as applicable, when installed as specified in IAPMO UES Evaluation Report ER-433 for the 2021 International Building Code® or International Residential Code®, as applicable, subject to the following conditions:

2.1 Design requirements shall be determined in accordance with the applicable code.

2.2 Flashing shall be installed in accordance with Section 1405.4 of the Florida Building Code-Building.

2.3 The clearance between the Master Wall® EIFS and exposed earth shall be in accordance with Sections 1403.8 and 2603.8 of the Florida Building Code-Building, or Sections R318.7 and R318.8 of the Florida Building Code-Residential, as applicable.

2.4 For products falling under Section (5)(d) of Florida Rule 61G20-3.008, verification is required that the report holder's quality assurance program is audited by a quality assurance entity, approved by the Florida Building Commission (or the building official when the report holder does not possess an approval by the Commission), to provide oversight and determine that the products are being manufactured as described in this evaluation report to establish continual product performance.

2.5 This supplement expires concurrently with IAPMO UES ER-433.

CITY OF LOS ANGELES SUPPLEMENT

MASTER WALL® INC.
Post Office Box 397
Fortson, Georgia 31808
(800) 755-0825
www.masterwall.com

MASTER WALL® EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS): AGGRE-FLEX CLASS PB EIFS; AGGRE-FLEX DRAINAGE™ CLASS PB EIFS; ROLLERSHIELD DRAINAGE CIFS ® CLASS PB EIFS; and QRW1 DRAINAGE™ CLASS PI EIFS

CSI Sections:

07 24 00 Exterior Insulation and Finish Systems
07 42 43 Composite Wall Panels

1.0 RECOGNITION

Master Wall® EIFS evaluated in IAPMO UES ER-433 are satisfactory alternatives to the cladding systems in the following codes:

- 2023 City of Los Angeles Building Code (LABC)
- 2023 City of Los Angeles Residential Code (LARC)

2.0 LIMITATIONS

Use of the Master Wall® EIFS recognized in this report is subject to the following additional limitations:

2.1 The design, installation, and conditions of use, and identification of the Master Wall® EIFS shall be in accordance with the 2021 International Building Code or the 2021 International Residential Code, as applicable, as noted in IAPMO UES ER-433.

2.2 Design and installation shall be in accordance with Chapters 14, 17, and 26 of the LABC or Chapters 3 and 7 of the LARC, as applicable.

2.3 This supplement expires concurrently with IAPMO UES ER-433.