## Number:



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OLDCASTLE ARCHITECTURAL 3 Glenlake Parkway 11<sup>th</sup> Floor Atlanta, Georgia 30328 www.amerimix.com

AMERIMIX 740 PREMIUM 1-COAT WALL COATING SYSTEM

ADDITIONAL COMPANY NAMES AND PRODUCT NAMES:

MAGNA WALL, AN OLDCASTLE CO. 16745 W. Hardy Road, Houston, TX 77060 www.magnawall.com

### MAGNA WALL<sup>TM</sup> FRS STUCCO

STO CORP. 3800 Camp Creek Parkway, Bldg. 1400, Ste. 120 Atlanta, Georgia 30331

**STO POWERWALL<sup>™</sup> STUCCO** 

DRYVIT SYSTEMS, INC. One Energy Way, West Warwick, Rhode Island 02893

COMMERCIAL CEMENT PLASTER (CCP) SYSTEM

CSI Sections: 09 24 00 Cement Plastering

### **1.0 RECOGNITION**

Amerimix 740 Premium 1-Coat Wall Coating System recognized in this report has been evaluated for use as an exterior wall covering in compliance with Chapters 14 and 25 of the IBC and Chapter 7 of the IRC. The exterior stucco system consists of cement plaster, metal or wire fabric lath, weather-resistant barrier, and backings of concrete, masonry, foam plastic insulation, gypsum board, fiberboard wood structural panel wall sheathing. The exterior stucco system has been evaluated for exterior durability, wind resistance, interior exposure, fire-resistance ratings, and installation on walls required to be of Types I, II, III, IV, or V construction subject to the requirements in this report. The exterior wall covering complies with the intent of the following codes and regulations:

- 2021, 2018, 2015, 2012, and 2009 International Building Code<sup>®</sup> (IBC)
- 2021, 2018, 2015, 2012, and 2009 International Residential Code<sup>®</sup> (IRC)
- 2019 California Building Code (CBC) attached Supplement
- 2019 California Residential Code (CRC) attached Supplement
- 2020 Florida Building Code, Building (FBC, Building) attached Supplement
- 2020 Florida Building Code, Residential (FRC, Residential) attached Supplement

### 2.0 LIMITATIONS

Use of the exterior stucco system recognized in this report is subject to the following limitations:

**2.1** The information in this report is valid only when installation complies with this report, the code, and Amerimix's installation instructions. Where conflicts occur, the more restrictive shall govern.

**2.2** All inspections required by the building official in accordance with IBC Section 110 or IRC Section R109, including lath inspection, shall be completed.

**2.3** Buildings shall be provided with braced wall lines or shear walls in accordance with the IBC or IRC.

**2.4** The Amerimix 740 Premium 1-Coat Wall Coating System shall be moist-cured in accordance with the manufacturer's installation instructions and the finish coat installation instructions, but no less than 48 hours.

**2.5** Where foam plastic insulation is used, a thermal barrier complying with IBC Section 2603.4 or IRC Section R316 is required.

**2.6** Where foam plastic insulation is used, installations shall comply with 2021, 2018, 2015, and 2009 IBC Section 2603.8 (2012 IBC Section 2603.9) or IRC Section R318.4, as applicable, for protection against termites.

**2.7** Under the 2021 IBC, the installation of water-resistive barriers shall comply with IBC Sections 2510.6.1 and 2510.6.2, as applicable. When compliance with Item No.2 of Section 2510.6.2 of the 2021 IBC is desired, a drainage test in accordance with ASTM E2273 or Annex A2 of ASTM E2925 shall be submitted to the building official for approval.

**2.8** Where applied over wood-based sheathing, installation shall include a water-resistive barrier conforming with IBC Section 2510.6 or IRC Section R703.7.3, as applicable, and under the 2018 IBC where installed in Climate Zone 1A, 2A,



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 IBC Section 104.11. This document shall only be reproduced in its entirety.

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or 3A, a ventilated air space shall be provided between the stucco and water-resistive barrier.

**2.9** The Amerimix 740 Premium 1-Coat Wall Coating System shall be manufactured in Auburndale, FL; Burnet, TX; Chandler, AZ; Conley, GA; Denver, CO; Franklin Park, IL; Harrisonville, MO; Hurst, TX; Jackson, MS; Memphis, TN; North Little Rock, AR.

### **3.0 PRODUCT USE**

The exterior stucco system in this report complies with Chapter 14 and 25 of the IBC and Chapter 7 of the IRC as an alternative exterior wall covering. The system also complies with Chapter 8 of the IBC and Chapter 7 of the IRC as an interior wall covering. The system may be used as standard <sup>3</sup>/<sub>4</sub>-inch-thick (19.1 mm) first and second (scratch and brown) coats complying with ASTM C926 in accordance with Sections 2510.3 and 2512.1 of the IBC. When applied in accordance with Section 4.4.2 of this report, the exterior stucco system is a component of one-hour fire-resistancerated exterior wall assemblies. The manufacturer's published installation instructions shall be considered part of this report. The manufacturer's installation instructions shall be strictly adhered to and be available at the jobsite during application.

### 4.0 PRODUCT DESCRIPTION

**4.1** The exterior stucco system addressed in this report complies with Chapter 14 and 25 of the IBC and IRC Chapter 7 as an alternative exterior wall covering. The exterior stucco system also complies with Chapter 8 of the IBC and Chapter 7 of the IRC as an interior wall covering. When applied in accordance with the specific sections of this report, the exterior stucco system is a component of a one-hour fire-resistance-rated exterior wall.

### 4.2 Exterior Stucco System Components:

4.2.1 Amerimix 740 Premium 1-Coat: Amerimix 740 Premium 1-Coat is a factory prepared, dry-blended, fiberreinforced, modified portland cement and sand exterior plaster packaged in 80 lb. (36.3 kg) bags. Amerimix 740 Premium 1-Coat is also available as one-coat concentrate in 80 lb. (36.3 kg) bags without sand, requiring approximately 250 pounds (36.3 kg) of sand, in accordance with Section 4.2.2 of this report. The plaster complies as noncombustible material in accordance with Section 703.3 of the 2021 IBC (Section 703.5 of the 2018, 2015, 2012, and 2009 IBC). Bags shall be kept indoors, or if stored outdoors, shall be adequately covered to keep dry, and shall be stored off the ground. Each bag of Amerimix 740 Premium 1-Coat is mixed with 1 to  $1 \frac{1}{3}$  gallons (3.78 to 5.05 L) of water. Each bag of one-coat concentrate is mixed with 5 to 6 gallons of water (19 to 23 L).

**4.2.2 Sand**: The sand shall be free of deleterious substances and injurious amounts of organic impurities in accordance with ASTM C144 or ASTM C897, as applicable. Sampling and testing shall comply with ASTM C144 or C897, as applicable. The sand shall be graded in accordance with ASTM C144 or ASTM C897, as shown in <u>Table 1</u> of this report. The concentrate, sand, and water shall be mixed for a minimum of five minutes.

### 4.3 Foam Plastic Insulation

**4.3.1 General requirements:** All foam plastic insulation shall have a flame spread index and smoke-developed index complying with Section 2603.5.4 of the IBC. Verification of compliance is beyond the scope of this report. <u>Table 2</u> of this report provides information when foam plastic insulation is installed over sheathing or open studs.

**4.3.2 Expanded Polystyrene (EPS) Foam Plastic Insulation Board:** EPS foam plastic insulation boards shall be Type II as set forth in ASTM C578, with a minimum nominal density of 1.5 pcf (24 kg/m<sup>3</sup>).

**4.3.3 Extruded Polystyrene (XPS) Foam Plastic Insulation Board:** Extruded polystyrene XPS foam plastic insulation boards shall be Type IV as set forth in ASTM C578, with a minimum nominal density of 1.5 pcf (24 kg/m<sup>3</sup>).

**4.3.4 Polyisocyanurate Foam Plastic Insulation Board:** Polyisocyanurate foam plastic insulation boards shall be Type II as set forth in ASTM C1289, with a minimum nominal density of 2.0 pcf (32 kg/m<sup>3</sup>).

**4.3.5 Lath:** Lath shall be regular or self-furring wire fabric lath or metal lath complying with Section 2510.3 of the IBC or Section R703.7 of the 2021, 2018, and 2015 IRC (Section R703.6 of the 2012 and 2009 IRC) as applicable, or with ICC-ES AC191.Verification of compliance with AC191 is beyond the scope of this report. Lath shall be corrosion-resistant, furred or self-furring with self-furring distance complying with Section 2510.3 of the IBC, 2021, 2018, and 2015 IRC Section R703.7, or 2012 Section R703.6 of the IRC, as applicable. Wire fabric lath shall be minimum No. 20 gauge [0.035 inch (0.89 mm)], 1-inch (25.4 mm), galvanized steel, woven-wire fabric. The furring distance of self-furring lath shall comply with ASTM C1063 as required by IBC Section 2510.3, or 2021, 2018, and 2015 IRC Section R703.7 (2012 and 2009 IRC Section R703.6), as applicable.

Other allowable lath specifications:

• Furred No. 20 gauge lath shall be used with the Amerimix 740 Premium 1-Coat product up to ½-inch (12.7 mm) thick including finish coats. For coating thicknesses, greater than ½-inch (12.7 mm), furred No. 17 gauge wire fabric lath shall be used.



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• Furring crimps shall be spaced at 6-inch (152 mm) maximum each way. Furring crimps shall hold the body of the lath a minimum of 1/8-inch (3.2 mm) from solid surfaces to which it is applied.

• When Amerimix 740 Premium 1-Coat is applied over unbacked polystyrene boards, unfurred lath is permitted.

**4.3.6 Gypsum Board:** Gypsum Boards shall be minimum ½inch (12.7 mm) thick and shall comply with Section 2506 of the IBC or Section R702 of the IRC, as applicable. Permitted types include Water-Resistant Gypsum Backing Board and Gypsum Sheathing Board complying with ASTM C1396; and Glass Mat Gypsum Substrate complying with ASTM C1177. In addition, Gypsum Wallboard complying with ASTM C1396 is permitted on the interior side of walls where specifically mentioned in this report. Verification of compliance is beyond the scope of this report.

**4.3.7 Cellulosic Fiber Insulating Board:** Cellulosic Fiber Insulating Board (fiberboard) shall comply with Section 2303.1.6 of the 2021, 2018, and 2015 IBC (Section 2303.1.5 of the 2012 and 2009 IBC) and be Type IV, Grade 1 or Grade 2 wall sheathing as set forth in ASTM C208, minimum <sup>1</sup>/<sub>2</sub>-inch (12.7 mm) thick. Verification of compliance is beyond the scope of this report.

**4.3.8 Wood Structural Panel Sheathing:** Wood structural panel sheathing shall comply with Sections 2303.1.5 of the 2021, 2018, and 2015 IBC (2303.1.4 of the 2012 and 2009 IBC), 2304.6.1, and Table 2304.6.1 of the IBC or Section R602.3 and Table R602.3(3) of the IRC. Wood Structural Panel Sheathing includes exterior grade Plywood complying with DOC PS-1 and Oriented strand board (OSB) Exposure 1 complying with DOC PS-2. Verification of compliance is beyond the scope of this report.

**4.3.9 Caulking:** Caulking shall be acrylic latex complying with ASTM C834 or polysulfide, polyurethane, polyurethane modified, or silyl-terminated polyether elastomeric sealant complying with ASTM C920.

**4.3.10 Water-resistive Barrier:** Water-resistive barriers (WRB) shall comply with Sections 1404.2 and 2510.6 of the 2021, 2018, and 2015 IBC, Section 1405.2 and 2510.6 of the 2012 and 2009 IBC, or Section R703.2 of the IRC, or a WRB evaluation report, as approved by the building official, to prevent water from entering the substrate. For installation of WRB's under the 2021 and 2018 IBC, refer to Section 2.7 and 2.8, respectively of this report.

**4.3.11 Over Wood-based Sheathing:** For installations over wood-based sheathing (Cellulosic Fiber Insulating Board or Wood Structural Panel Sheathing), the WRB shall be in accordance with Section 2510.6 of the IBC or Section R703.7.3 of the 2021, 2018, and 2015 IRC (Section R703.6.3 of the 2012 and 2009 IRC), as applicable. Alternatively, the WRB may consist of one layer of polystyrene (EPS or XPS) foam plastic insulation board in accordance with Sections

4.3.1 through 4.3.4 of this report, applied over one layer of 60-minute Grade D building paper.

**4.3.12 Other Sheathing:** For installations without wood-based sheathing the WRB shall be a minimum of one layer of WRB.

**4.3.13 Vapor Retarder:** Vapor retarders shall comply with Section 1404.3 of the 2021 and 2018 IBC (Section 1405.3 of the 2015, 2012, and 2009 IBC) or Section R702.7 of the IRC (Section R601.3 of the 2009 IRC), as applicable. Verification of compliance is beyond the scope of this report.

**4.3.14 Flashing:** Flashing shall comply with Section 1404.4 of the 2021 and 2018 IBC (Section 1405.4 of the 2015, 2012, and 2009 IBC) or Section R703.4 of the 2021, 2018, and 2015 IRC (Section R703.8 of the 2012 and 2009 IRC), as applicable. Membrane flashing shall be self-adhering flexible rubberized asphalt and polyethylene 0.030 inch (0.76 mm) thick. Verification of compliance is beyond the scope of this.

**4.3.15 Foundation Weep Screed:** Weep Screeds shall comply with Section 2512.1.2 of the IBC or Sections R703.7.2.1 of the 2021, 2018, and 2015 IRC (Section R703.6.2.1 of the 2012 and 2009 IRC), and ASTM C1063. Verification of compliance is beyond the scope of this report.

### 4.4 Documented Values

**4.4.1 Wind Load:** The maximum allowable wind loads on the stucco system are set forth in <u>Table 3</u> of this report. Fastening of backing to framing and lath to framing shall comply with the applicable code and this report.

**4.4.2 One-hour Fire-Resistant Wall Construction:** The assemblies in Table 6 of this report comply with IBC Section 703.2.

**4.5 Exterior Walls on Buildings of Type I, II, III, or IV Construction:** Sections 1402.5 and 2603.5 of the 2021 and 2018 IBC (Sections 1403.5 and 2603.5 of the 2015 and 2012 IBC) limit walls with stucco system, foam plastic, and weather resistive barrier to 40 feet (12,192 mm) in height above grade. When constructed under the 2009 IBC, Section 2603.5 permits walls with the stucco system, foam plastic insulation, and weather resistive barrier to be of any height allowed in 2009 IBC Section 504. Concrete and masonry walls with direct stucco application in accordance with Section 4.6.3 of this report are permitted to be of any height allowed in 2009 IBC Section 504.

### 4.6 Application

**4.6.1 General:** Application of the Amerimix 740 Premium 1-Coat Wall Coating System shall comply with this report. Additional requirements not mentioned herein shall comply with the IBC or IRC, ASTM C926, ASTM C1063, and Oldcastle Architectural's published installation instructions.



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Where conflicts occur, the more restrictive shall govern. Figures 2 and 3 in this report shall be referenced as needed.

**4.6.2 Applicators:** Application of the Stucco System shall be by a plastering contractor approved by the manufacturer as qualified to perform the application. The manufacturer shall maintain a list of approved contractors which shall be made available to the building official. An application card, similar to Figure 1 of this report, shall be completed by the plastering contractor and presented to the building official upon completion of each project.

**4.6.3 Concrete or Masonry:** Direct application of the stucco system to concrete or masonry is permitted when done in accordance with ASTM C926 or 2021, 2018, and 2015 IRC Section R703.7 (2012 and 2009 IRC Section R703.6). Concrete surfaces shall be cleaned of foreign matter. Smooth concrete surfaces shall be roughened and an approved bonding agent applied to the concrete. No bituminous, water repellent coatings or other foreign matter shall be present on masonry surfaces. Masonry surfaces shall be dampened to prevent excessive moisture loss.

**4.6.4 Lathing:** Lathing for wood or steel framed walls shall be in accordance with and in the same sequence as the following:

4.6.5 Weep Screed: IBC or IRC and ASTM C1063.

**4.6.6 Water-Resistive Barrier:** 2021 and 2018 IBC Section 1403.2 (2015, 2012, and 2009 IBC Section 1404.2) or IRC Section R703.2 or applicable research report.

4.6.7 Casing Beads and Corner Beads: ASTM C1063.

**4.6.8 Flashing:** 2021 and 2018 IBC Section 1404.4 (2015, 2012, and 2009 IBC Section 1405.4) or 2021, 2018, and 2018 IRC Section 703.4 (2012 and 2009 IRC Section R703.8), and manufacturer's instructions.

**4.6.9 Foam Plastic Insulation:** Foam plastic insulation boards shall be in accordance with Section 4.3 of this report. The EPS or XPS foam plastic shall be placed horizontally over the WRB beginning at the wall base with tongued edges facing up. Vertical edges shall be over stud framing and staggered at least one stud bay as the layers progress upwards. The boards shall be attached to wood framing using No. 11 gauge roofing nails or No. 16 gauge staples with  $\frac{7}{16}$ -inchwide (11.1 mm) crowns complying with ASTM F1667 and penetrate no less than 1 inch (25.4 mm) into the wood framing. Boards shall be attached to steel framing using No. 6 Type S screws and penetrate no less than  $\frac{1}{4}$  inch (6.3 mm). Fastener spacing shall be 6 inches (152 mm) or less.

**4.6.10 Metal Lath or Wire Fabric Lath:** Metal lath or wire fabric lath shall be in accordance with IBC Section 2510 through 2512 or IRC Section R703, ASTM C1063 and Section 4.3.5 of this report. Fastening shall penetrate through foam plastic insulation and sheathing into framing. The

brown coat shall be hard floated to promote densification and cut through full depth with trowel at intersection of plastered walls and plastered soffits.

**4.6.11 Control or Expansion joints:** Control or expansion joints shall be as specified by the designer, builder, or stucco manufacturer, in that order. In addition, joints shall be provided in accordance with the manufacturer's installation instructions and when required by ASTM C1063.

**4.7 Plastering: ASTM C926.** Base Coat shall be  ${}^{3}/{}_{8}$  to  ${}^{1}/_{2}$  inch (9.5 to 12.7 mm) thick without cold joints. Finish coats may be applied in accordance with the finish coat application instructions after base coat fully cures. The permitted air temperatures during application are 40°F to 120°F (4.4°C to 49°C). Note: Applications during cold or hot weather construction shall take appropriate precautions that are in compliance with ACI, PCA, ASTM IMIAC, and Masonry Institute standards, as applicable. The stucco shall be hard floated to promote densification.

**4.8 Unbacked Installations:** Minimum 0.50 SG (Douglas Fir) wood framing or structural (load bearing) steel framing with No. 20 gauge and greater thickness shall be spaced 24 inches (610 mm) o.c. or less. The WRB is installed direct to framing. For Dow Styrofoam Tongue and Groove XPS<sup>1</sup> as noted in <u>Table 2</u> of this report, installation shall comply with Section 3 of this report. <sup>1</sup>*Verification of compliance is beyond the scope of this.* All foam plastic shall be covered by plaster or galvanized steel casing beads. Joints formed where the boards abut dissimilar materials such as at window, door, and other penetrations shall be filled with caulk. Lathing and plastering shall comply with Sections 4.4.5 and 4.5 of this report.

**4.8.1 Rigid Backing:** Rigid backings include gypsum board, fiberboard, and wood structural panel sheathing. All backings shall be covered by plaster or galvanized steel casing beads. Joints formed where the backings abut dissimilar materials such as at window, door, and other penetrations shall be filled with caulk. The weather-resistive barrier shall be applied over the backing. Lathing and plastering shall comply with Sections 4.4.5 and 4.5 of this report.

**4.8.2 Gypsum Board:** The boards shall be installed to minimum 0.50 SG (Douglas Fir) wood framing at 16-inch (406 mm) or less spacing or structural (load bearing) steel framing of No. 20 gauge and greater thickness at 24-inch (610 mm) or less spacing in accordance with IBC Section 2508.2 and ASTM C1280.

**4.8.3 Fiberboard:** The boards shall be installed to minimum 0.50 SG (Douglas Fir) wood framing at 16-inch (406 mm) or less spacing in accordance with Sections 2304.6 and 2304.10.1 of the 2021, 2018, and 2015 IBC (2304.9.1 of the 2012 and 2009 IBC) or IRC Table R602.3(1), as applicable.

**4.8.4 Wood Structural Panel Sheathing:** The OSB or plywood panels shall be installed to minimum 0.50 SG



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(Doulas Fir) wood framing at 24-inch (610 mm) or less spacing in accordance with IBC Sections 2304.6.1 and Table 2304.6.1 or IRC Section R602.3 and Table R602.3(3), as applicable.

**4.9 Soffits:** Application to soffits shall comply with ASTM C1063 as for ceilings, except wire fabric lath is not permitted. Fasteners shall penetrate into framing.

**4.10 Sills:** Installation to sills at windows or pop-outs may be done for walls where the sill is up to 6 inches wide. Wider sills require lumber or WSPS fastened to framing as set forth in Section 2304.10.2 of the 2020 IBC (Section 2304.10.1 of the 2018, and 2015 IBC; Section 2304.9.1 of the 2012 and 2009 IBC) or IRC Section R602.3. Lathing and plastering shall comply with Sections 4.4.5 and 4.5 of this report.

### **5.0 IDENTIFICATION**

Product packaging shall include the company name or trademark, product name or model number, The IAPMO Uniform ES Mark of Conformity, the name of the inspection agency (when applicable) and the Evaluation Report Number (ER-427) to identify the products recognized in this report. Either Mark of Conformity may be used as shown below:



**IAPMO UES ER-427** 

6.0 SUBSTANTIATING DATA

**6.1** Data in accordance with the Acceptance Criteria for Cementitious Exterior Wall Coatings (ICC-ES AC11), dated January 2013 (editorially revised October 2020).

**6.2** Manufacturer's descriptive literature and installation instructions.

**6.3** Reports of testing in accordance with ASTM E72, E136, G155, C926, C1063, C840, C1396, C1177, C834 and C920.

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

### 7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on Amerimix 740 Premium 1-Coat Wall Coating System to assess its conformance to the codes and standards shown in Section 1.0 of this report and documents the product's certification. The product is produced at locations noted in Section 2.9 of this report under a quality control program with periodic inspections under a surveillance program by IAPMO UES.

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

TABLE 1 – Sand Gradation			
U.S. Standard Sieve	Weight Percent of Aggregate Retained ± 2 Percent		
	Minimum	Maximum	
No. 4	-	0	
No. 8	0	10	
No. 16	10	40	
No. 30	30	65	
No. 50	70	90	
No. 100	95	100	



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TABLE 2 – Foam Plastic Boards				
Backing	Configuration			
	Nominal 1" to $1\frac{1}{2}$ " thick with $\frac{3}{8}$ " high tongue and groove horizontal joints,			
On en Enemine	complying with Figure 2 of this report.			
Open Framing	1" thick, 2' x 8' Dow StyroFoam Tongue and Groove XPS with 4-sided tongue			
	and groove edge. <sup>1</sup>			
Wood structural panel sheathing	0.5" thick minimum			
Wood Structural panel sheathing where foam plastic forms	1" thick minimum with <sup>3</sup> / <sub>8</sub> " high tongue and groove horizontal joints complying			
part of the water-resistive barrier	with Figure 1			
Solid sheathing	<sup>1</sup> / <sub>2</sub> " thick (min.), 1.0 pcf minimum density, with vertical drainage grooves <sup>2</sup> ( $^{1}/_{4}$ " wide x $^{1}/_{8}$ " deep spaced 12" on-center) on the back face of the EPS.			

<sup>1</sup>Verification of compliance is beyond the scope of this report.

<sup>2</sup> As an alternative to the vertical drainage grooves, the EPS may be installed over Tyvek<sup>®</sup> Stuccowrap<sup>®</sup> or Tyvek<sup>®</sup> DrainWrap<sup>TM</sup> water-resistive barrier.

	TA	BLE 3 – Allowable Wind Lo	bads <sup>2</sup>	I
Wall type <sup>1</sup>	Minimum Specific Gravity	Backing	Maximum Framing spacing (inch) <sup>1</sup>	Maximum Load (psf)
		Foam Plastic	24	35
	SG = 0.50 (Douglas Fir)	Gypsum	24	35
Wood frame		Fiberboard or WSPS <sup>3</sup>	24	35
Steel	No. 20 gauge (0.0359 inch)	Foam Plastic or any rigid sheathing	24	35
Concrete and Concrete Masonry	-	Direct	-	Limited by wall capacity

SI conversions: 1 inch = 25.4 mm, 1 psf = 47.9 Pa <sup>1</sup> Supporting wall shall have a maximum deflection of l/240 of the span and be designed to support the design load.

<sup>2</sup> See Tables 4 and 5 of the report for installation over wood structural sheathing.

<sup>3</sup> Wind pressures for WSPS shall not exceed those set forth in IBC Table 2304.6.1 or IRC Table R602.3(3), as applicable.

			Staple Fastener – Gauge <sup>4</sup> (inch)					
Wood Species	Specific Gravity	16 (0.0626)	15 (0.0731)	14 (0.0775)	13 (0.0875)	12 (0.0975)	10 (0.129	
Douglas Fir-Larch	0.50	6	6	6	6	6	6	
Western Hemlock	0.47	6	6	6	6	6	6	
Douglas Fir-South; Hem-Fir (North)	0.46	6	6	6	6	6	6	
Hem-fir	0.43	5	6	6	6	6	6	
Spruce-Pine-Fir	0.42	5	6	6	6	6	6	
Western Woods	0.36	3	4	5	5	5	6	

SI conversions: 1 inch = 25.4 mm

<sup>1</sup> Foam plastic insulation boards shall be installed over wood structural sheathing fastened to wood studs.

<sup>2</sup> Wood structural sheathing shall be attached to wood studs in accordance with the applicable code.

<sup>3</sup> Staple or fasteners shall penetrate a minimum of 1-inch into wood framing and sheathing combined.

<sup>4</sup> Alternatively No. 11 gauge roofing nails with minimum 3/8-inch diameter heads can be used.



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TABLE 5 – Staple Spacing for Attaching Lath Over 1-inch Thick FoamPlastic Boards (inch)							
Staple Fastener - Gauge (inch) <sup>4</sup>							
Wood Species	Specific Gravity	16	15	14	13	12	10
		(0.0626)	(0.0731)	(0.0775)	(0.0875)	(0.0975)	(0.129)
Western Hemlock	0.47	6	6	6	6	6	6
Douglas Fir-South; Hem-Fir (North)	0.46	6	6	6	6	6	6
Hem-fir	0.43	5	5	6	6	6	6
Spruce-Pine-Fir	0.42	5	5	6	6	6	6
Western Woods	0.36	3	4	4	5	5	6

SI conversions: 1 inch = 25.4 mm

<sup>1</sup> Foam plastic insulation boards shall be installed over wood structural sheathing fastened to wood studs.

<sup>2</sup> Wood structural sheathing shall be attached to wood studs in accordance with the applicable code.

<sup>3</sup> Staple fasteners shall penetrate a minimum of 1-inch into wood framing.

<sup>4</sup> Alternatively No. 11 gauge roofing nails with minimum 3/8-inch-diameter heads can be used.

	TABLE 6 - Fire-Resistance-Rated Walls					
Item	Material	Construction	Axial Loading (Allowable Stress Design)			
1	Exterior Walls	2-by-4 wood studs spaced at maximum 24 inches (610 mm) on center. Interior face has one layer of 5/8-inch-thick (16 mm) Type X gypsum wallboard applied vertically with all joints backed by framing and attached with 6d x 1 5/8 inch (41.3 mm) cupped-head drywall nails complying with ASTM C514 at 7 inches (178 mm) on-center (o.c.) to studs, plates, and blocking (alternatively: No. 6 drywall screws of equivalent length). Nail heads and joints of wallboard shall be taped and treated with joint compound in accordance with IBC Section 2508.4, and either ASTM C840 or GA-216. Faced or Unfaced glass fiber or mineral wool batts or blankets complying with Section 720 of the IBC or Section R302.10 of the IRC may be installed in the stud cavities. The outside face has one layer of 5/8-inch-thick (16 mm) Type X exterior gypsum sheathing board applied vertically or horizontally with all joints backed by framing and attached to wood studs using 6d x 1 5/8 inch (41.3 mm) cupped-head drywall nails complying with ASTM C514 at 7 inches (178 mm) o.c. to studs, plates, and blocking (alternatively: No. 6 drywall screws of equivalent length). The wire fabric or lath and stucco coating is applied with or without foam plastic insulation board in accordance with Sections 4.1 and 4.3 of this report. The installation of wood structural panel sheathing between the face of the studs and the exterior gypsum sheathing is allowed, with the length of the fasteners used to attach the gypsum sheathing increased to accommodate the additional thickness of the wood sheathing. Optional nominal 1-inch-thick, 1.5 pcf EPS of XPS, or 2 pcf polyisocyanurate foam plastic insulation installed over the WRB and exterior sheathing is allowed. The woven wire fabric or lath must be fastened through the foam insulation board to studs and plates at 6" o.c. according to this report. Fasteners used for the attachment of the wire fabric or lath must be of sufficient length to penetrate the wood framing by a minimum of 1 inch and may include either No. 11 roofing nails	Lesser of: 1. "For studs with a slenderness ratio, <i>le/d</i> , greater than 33, the design stress shall be reduced to 78 percent of allowable <i>F</i> ' <sub>c</sub> (IBC)" or 2. "For studs with a slenderness ratio, <i>le/d</i> , not exceeding 33, the design stress shall be reduced to 78 percent of the adjusted stress <i>F</i> ' <sub>c</sub> calculated for studs having a slenderness ratio <i>le/d</i> of 33 (IBC)"			

Table 6 continued on next page.

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	TABLE 6 - Fire-Resistance-Rated Walls (Continued)					
Item	Material	Construction	Axial Loading (Allowable Stress Design)			
2	Exterior Walls	2x4 or 2x6 wood studs spaced at maximum 24 inches (610 mm) o.c. The interior face has one layer of 5/8-inch-thick (15.9 mm) Type X gypsum wallboard with the long dimension applied horizontally or vertically with all joints backed by framing and attached with 6d x 1 5/8" cupped-head drywall nails complying with ASTM C514 at 7" o.c. to studs, plates, and blocking. No 6 drywall screws of equivalent length are allowed. Nail heads and wallboard joints shall be taped and treated with joint compound in accordance with IBC Section 2508.4 and either ASTM C840 or GA-216. Any faced or unfaced glass fiber insulation having a minimum density of 0.5 pcf blankets must be installed in the stud cavities. Mineral wool insulation with a corresponding minimum density can be substituted. One layer of minimum 7/16" wood structural panel sheathing (plywood or OSB) is applied to the outside face of studs in accordance with the code. A code-compliant water-resistive barrier (WRB) is installed over the sheathing. As an option, unclassified ½ in. exterior gypsum sheathing may be substituted or used together with the wood sheathing. The wire fabric or lath and stucco coating is applicable installation instructions. Optional nominal 1-inch-thick, 1.5 pcf EPS or XPS, or 2 pcf polyisocyanurate foam plastic insulation installed over the exterior sheathing is allowed. The woven wire fabric or lath must be fastened through the sheathing and foam insulation board to studs and plates at 6" o.c. per this report. Fasteners used for the attachment of the wire fabric or lath must be of sufficient length to penetrate the wood framing by a minimum of 1 inch and may include either No. 11 roofing nails or galvanized staples having a minimum crown width of 3/8". Nail heads and joints shall be taped and treated with joint compound in accordance with ASTM C840 or GA-216. The water-resistive barrier, galvanized wire fabric lath, and the stucco shall comply with Section 4.0 of this report and shall be applied as described in Sections 3.1 of this report.	Lesser of: 1. 1,100 pounds (4,893 N) per stud for 2x4 construction 2. 3,000 pounds (13,340 N) per stud for 2x6 construction 3. For 2x4 construction, a maximum of 51.3 percent of the load calculated in accordance with Sections and 3.7 of the NDS 4. For 2x6 construction, a maximum of 51.3 percent of the load calculated in accordance with Sections 3.6 and 3.7 of the NDS 5. "For studs with a slenderness ratio, <i>le/d</i> , greater than 33, the design stress shall be reduced to 78 percent of allowable $F_c'$ (IBC)" or 6. "For studs with a slenderness ratio, <i>le/d</i> , not exceeding 33, the design stress shall be reduced to 78 percent of the adjusted stress <i>F</i> <sub>c</sub> ' calculated for studs having a slenderness ratio <i>le/d</i> of 33 (IBC)"			
3	Exterior Walls	2-by-4 or 2-by-6 wood studs spaced at maximum 24-inches (610 mm) on center. Interior face has one layer of 5/8-inch-thick (15.9 mm) Type X gypsum wallboard applied vertically or horizontally to the interior face of wood studs with joints backed by framing and solid blocking installed horizontally at the wall mid-height and attached with 6dx1 5/8" cupped-head drywalls nails complying with ASTM C514 at 7" OC to studs, plates, and blocking (No 6 drywall screws of equivalent length are allowed). Nail heads and board joints shall be taped and treated with joint compound in accordance with IBC Section 2508.4 and either ASTM C840 or GA- 216. The space between the studs must be filled with fiberglass insulation having a minimum density of 0.5 pcf and shall comply with Section 720 or the IBC or Section R302.10 of the IRC. Mineral wool insulation with a corresponding minimum density can be substituted as an option. The outside face of the studs shall be covered with a code compliant water- resistive barrier (WRB) and the foam plastic insulation shall be fastened in place over the WRB. Optional nominal 1-inch-thick, 1.5 pcf EPS or XPS, or 2 pcf polyisocyanurate foam plastic insulation are allowed. The woven wire fabric or lath must be fastened through the foam insulation board to studs and plates at 6 inches on center per manufacturer's instructions. As an option, the foam insulation board may be omitted. Fasteners used to attach the wire fabric or lath must be of sufficient length to penetrate the wood framing by a minimum of 1 inch and may include either No. 11 roofing nails or galvanized staples having a minimum crown width of 3/8". The water-resistive barrier, lath, and stucco shall comply with Section 4.0 of this report and shall be applied as described in Sections 3.1 of this report.	Lesser of: 1. 1,100 pounds (4,893 N) per stud for 2x4 construction 2. 3,000 pounds (13,340 N) per stud for 2x6 construction 3. A maximum of 51.3 percent of the load calculated in accordance with Sections 3.6 and 3.7 of the NDS 4. "For studs with a slenderness ratio, $le/d$ , greater than 33, the design stress shall be reduced to 78 percent of allowable $F_c'$ (IBC)" or 5. "For studs with a slenderness ratio, $le/d$ , not exceeding 33, the design stress shall be reduced to 78 percent of the adjusted stress ratio, $le/d$ , not exceeding 33, the design stress shall be reduced to 78 percent of the adjusted stress $F_c'$ calculated for studs having a slenderness ratio $le/d$ of 33 (IBC)"			

## Number:



Figure 1 - Foam Plastic Tongue and Groove Horizontal Edge



Note: Grooves are placed on the backside of the board, vertically, at least 1/4" x 1/4" every 12 inches (min.). Check with local Code for acceptance.

Check with local Code for acceptance.

### Figure 2 – Typical Wall Details



## Number:

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Figure 3 - Typical Installation Card



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### CALIFORNIA SUPPLEMENT

OLDCASTLE ARCHITECTURAL 3 Glenlake Parkway 11<sup>th</sup> Floor Atlanta, Georgia 30328 <u>www.amerimix.com</u>

AMERIMIX 740 PREMIUM 1-COAT WALL COATING SYSTEM

ADDITIONAL COMPANY NAMES AND PRODUCT NAMES:

MAGNA WALL, AN OLDCASTLE CO. 16745 W. Hardy Road, Houston, Tx 77060 www.magnawall.com

MAGNA WALL<sup>™</sup> FRS STUCCO

STO CORP. 3800 Camp Creek Parkway Bldg. 1400, Ste. 120 Atlanta, Georgia 30331

**STO POWERWALL<sup>™</sup> STUCCO** 

DRYVIT SYSTEMS, INC. One Energy Way, West Warwick, Rhode Island 02893

COMMERCIAL CEMENT PLASTER (CCP) SYSTEM

CSI Sections: 09 24 00 Cement Plastering

#### **1.0 RECOGNITION**

Amerimix 740 Premium 1-Coat Stucco System evaluated in IAPMO UES ER-427 is a satisfactory alternative to the following codes and regulations:

- 2019 California Building Code (CBC)
- 2019 California Residential Code (CRC)

### 2.0 LIMITATIONS

**2.1** Amerimix 740 Premium 1-Coat Stucco System complies with Section 707A.3, Item 5 of the CBC and may be "used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area" [Section 701A.1 of the CBC] when the additional provisions of Section 707A of the CBC are satisfied.

**2.2** Amerimix 740 Premium 1-Coat Stucco System complies with Section R337.7.3 Item 5 of the CRC and may be "used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area" [Section R337.1.1 of the CRC] when the additional provisions of Section R337.7 of the CRC are satisfied.

**2.3** Protection against condensation shall be provided in accordance with Section R703.1.1 of the CRC.

**2.4** This supplement expires concurrently with ER-427.

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



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### FLORIDA SUPPLEMENT

OLDCASTLE ARCHITECTURAL 3 Glenlake Parkway 11<sup>th</sup> Floor Atlanta, Georgia 30328 <u>www.amerimix.com</u>

AMERIMIX 740 PREMIUM 1-COAT WALL COATING SYSTEM

ADDITIONAL COMPANY NAMES AND PRODUCT NAMES:

MAGNA WALL, AN OLDCASTLE CO. 16745 W. Hardy Road, Houston, Tx 77060 <u>www.magnawall.com</u>

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COMMERCIAL CEMENT PLASTER (CCP) SYSTEM

CSI Sections: 09 24 00 Cement Plastering

#### **1.0 RECOGNITION**

Amerimix 740 Premium 1-Coat Stucco System evaluated in IAPMO UES ER-427 is a satisfactory alternative to the following codes and regulations:

- 2020 Florida Building Code, Building (FBC, Building)
- 2020 Florida Residential Code, Residential (FBC, Residential)

### 2.0 LIMITATIONS

**2.1** Use of the Amerimix 740 Premium 1-Coat Stucco System for compliance with the high-velocity hurricane zone provisions of the FBC, Building and FBC, Residential has not been evaluated and are outside the scope of this evaluation report.

**2.2** "In order to provide for inspection for termite infestation, clearance between exterior wall coverings and final earth grade on the exterior of a building shall not be less than 6 inches (152 mm)." as per Section 1403.8 of the FBC, Building and Section R318.7 of the FBC, Residential.

**2.3** See Section R301.2.1.1of the FBC, Residential for prescriptive installations.

**2.4** Verification shall be provided that a quality assurance agency audits the manufacturers quality assurance program and audits the production quality of products, in accordance with Section (5)(d) of Florida Rule 61G20-3.008. The quality assurance agency shall be approved by the Commission (or the building official when the report holder does not possess an approval by the Commission).

2.5 This supplement expires concurrently with ER-427.

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