

PART 1: GENERAL**1.01. DESCRIPTION AND SCOPE**

- A. Requirements contained within Division I (General Requirements) are applicable to the work required of this section. Provide labor, materials, equipment and supervision necessary to complete the exterior wall and finish systems including:
1. Inspection and preparation of Insulated Concrete Form (ICF) substrate
 2. Application of a Total Wall base coat and Total Wall reinforcing mesh over the substrate
 3. Application of Total Wall Acrylic Finish Coat
 4. Application of backer rod and caulk sealant
- B. Related work specified elsewhere:
1. Masonry, Division 4
 2. Metals, Division 5
 3. Wood Construction, Division 6
 4. Sheathing, Division 9
 5. Caulking/Sealants, Division 7
 6. Portland Cement Plastering, Division 9
- C. Referenced Documents
1. Standards
 - (1) ASTM A526 Specification for Sheet Steel, Zinc Coated (Galvanized) by Hot-Dip Process, Commercial quality
 - (2) ASTM B69 Specification for Rolled Zinc
 - (3) ASTM B117 Test Method for Salt Spray (Fog) Testing
 - (4) ASTM C67 Mod. Test Method for Saturated Freeze/Thaw
 - (5) ASTM C297 Test Method for Tensile Strength of Flat Sandwich Constructions in Flatwise Plane
 - (6) UBC 26-9 Intermediate Scale Multistory Fire Test (ISMA)
 - (7) ASTM C1135 Test Method for Determining Tensile Adhesion Properties of Structural Sealants
 - (8) ASTM D968 Test Method for Abrasion Resistance of Organic Coatings by Falling Abrasive
 - (9) ASTM 1784 Specification for Rigid PVC
 - (10) ASTM D2247 Practice for Testing Water Resistance of Coatings in 100% Relative Humidity
 - (11) ASTM E84 Test Method for Surface Burning Characteristics of Building Materials
 - (12) ASTM E108 Mod. Full Scale Structural Fire Testing of Wall Systems
 - (13) ASTM E330 Test Method for Structural Performance by Uniform Static Air Pressure Difference
 - (14) ASTM E331 Test Method for Water Penetration by Uniform Static Air Pressure Difference

- (15) ASTM E695 Method for Measuring Relative Resistance to Impact Loading
 - (16) ASTM G23/G53 Accelerated Weathering for Exposure of Nonmetallic Materials
 - (17) Fed Mil Spec 810D Test Method for Determining the Resistance to Mold and Fungus Growth
 - (18) NFPA Standard Test Method 268 Radiant Heat Fire Test
2. Building Code Standards
- (1) National Building Code, Building Officials and Code Administrators (BOCA), Section 1406.0
 - (2) Standard Building Code, Southern Building Code Congress International (SBCCI), Sections 717.4 and 717.5
 - (3) Uniform Building Code, International Conference of Building Officials (ICBO), UBC Standard 26-4
 - (4) International Building Code, International Code Council (ICC), Applicable IBC Standards
 - (5) International Residential Code (IRC).
- D. Terms and Definitions
- 1. **Class ICF (Polymer Based) System over ICF**
A class of EIFS where Total Wall reinforcing mesh is embedded into Total Wall base coat at 1/8" (3.2 mm) average thickness. Typically, one layer of base coat and reinforcing mesh are used; however, an additional layer of base coat and reinforcing mesh may be used to increase the impact resistance of the system. The Total Wall reinforcing mesh is a woven glass fiber fabric, which is coated with a protective plastic material. A Total Wall acrylic finish coat in a chosen color and texture is applied over the base.
 - 2. **ICF Substrate**
A preformed rigid insulating foam plastic block that functions to reduce heat flow through a wall and to provide a surface for the Total Wall base coat and Total Wall reinforcing mesh. Typically, a Expanded Polystyrene (EPS) foam block will have an average foam density of 1.5 lb per cubic foot (24.03 g/liter) is used with outer EPS thickness from the concrete core that will not exceed 4" (101.6 mm). The ICF block must meet specific performance and safety specifications as outlined in the ICF manufacturer's specifications.
 - 3. **Base Coat**
A material that is applied to the face of the insulation board and is used to embed the reinforcing mesh and functions as a weather barrier.
 - 4. **Reinforcing Mesh**
An open weave fiberglass fabric that is coated with a protective plastic. It is embedded into a layer of Total Wall base coat to strengthen the system.
 - 5. **Finish Coat**
A premixed, synthetic plaster material. It functions to provide a decorative color and texture coat and to provide additional weather resistance.
 - 6. **Accessories**
Items such as corner beads and casing beads that may be utilized in the assembly of the system. Flashing for window and door treatments, decks, roof kick-out areas and dormers are utilized.
 - 7. **Mechanical Fastener**
A combination screw and plastic washer plate that is used to attach foam plastic insulation boards or architectural trims to a wall.
 - 8. **Sealant**
A permanently flexible self-sticking compound that is used to seal seams in the system such as the seams occurring between the system and windows and doors.

1.02. DESIGN LIMITATIONS AND DETAILING

- A. The maximum allowable system deflection, normal to the plane of the wall is L/240.
- B. All details must conform to Total Wall recommendations and must be consistent with the project requirements.
 - 1. General
 - (1) At all locations, the ICF must be completely encapsulated by the lamina.
 - (2) The ICF must be separated from the interior of the building by 1/2" (12.7 mm) gypsum wallboard or equivalent fire resistive barrier material, which will limit the average temperature rise of the unexposed surface to not more than 250°F (119° C) after 15 minutes of fire exposure, when subjected to the ASTM E-119 time-temperature curve.
 - (3) The minimum thickness of EPS must be 1/4" (6mm); the maximum thickness must be 4" (101.6 mm), with the exception of architectural enhancements.
 - (a) Exception: minimum thickness of EPS over plastic does not apply.
 - (b) Minimum thickness of EPS used for trim, extensions or laminations must be 1" (25.4 mm)
 - (4) The length and slope of inclined surfaces must follow the guidelines listed below:
 - (a) Minimum slope: 6" of rise in 12" of horizontal projection
 - (b) Inclined surfaces must not be used for areas defined as roofs by building codes.
 - (c) Uses not meeting the above criteria must be approved in writing by Total Wall prior to installation.
 - 2. ICF Substrate
 - (1) Must be engineered to withstand all applicable loads. Including live, dead, positive and suction wind; seismic activity; etc. Bond strength, fastener strength, and connection strength must be analyzed and engineered. Appropriate factors of safety must be used.
 - (2) The maximum deflection under positive or suction full designs loads of the substrate system must not exceed L/240.
 - 3. System Joints
 - (1) Continuous expansion joints must be installed at the following locations:
 - (a) Where expansion joints occur in the substrate
 - (b) Where building expansion joints occur
 - (c) Where the system abuts other materials
 - (2) Expansion and contraction of the system and adjacent materials must be taken into account in the design of expansion joints, with proper consideration given to sealant properties, installation conditions, temperature range, coefficient of expansion of materials, joint width-to-depth ratios, etc.
 - (3) Isolation joints are required around all wall penetrations, including doors and windows.
 - 4. Details
 - (1) Total Wall's latest published information must be followed for standard detail treatments.
 - (2) Non-standard detail treatments must follow the recommendations of Total Wall.
 - (3) Corners must be reinforced by wrapping reinforcing fabric around the corner from both directions for a minimum of 8", or with corner mesh, or approved pvc accessory.
 - (4) Openings must be reinforced using a 9" x 12" strip of detail mesh placed at a 45° angle to the opening corner.
 - (5) Commercial and residential window opening must be trimmed, if necessary, with EPS foam lamina to cover dissimilar adjoining materials and to facilitate construction of either a standard isolation joint or fillet bead of approved sealant and backer.
- C. All areas requiring higher than standard impact resistance must be detailed in the drawings and described in the contract documents.
- D. The use of dark colors must be considered in relation to estimated wall surface temperatures as a function of local climate conditions.

1.03. QUALITY ASSURANCES

- A. Contractor
The contractor must have a minimum of two years experience in the wall construction trades, be licensed by Total Wall for application of PB systems, demonstrate the ability to install the system based on projects of similar size and complexity, and meet the approval of the architect. The contractor must provide a list of completed projects, equipment, manpower and supervision necessary to install the system in compliance with the project plans and specifications.
- B. ICF Manufacturer
The ICF manufacturer must be:
 - 1. Reward Wall
 - 2. BuildBlock
 - 3. Polysteel
 - 4. ARXX
 - 5. Keeva
 - 6. Dow
 - 7. Eco Block
 - 8. Owns Corning
 - 9. Amvic
 - 10. Other manufacturer upon written approval by Total Wall and as recognized by Total Wall as capable of producing ICF's to meet the system requirements.

1.04. SUBMITTALS

- A. Sample Panel
The contractor must submit to the architect a sample panel of at least 12" by 12" (30 cm x 30 cm) of Total Wall lamina over EPS board to exhibit the texture and color of finish desired. The general Contractor must review the panel and determine the suitability of the finish presented.
- B. The contractor must submit a list of 5 projects which have been completed within the last five years, exhibiting the contractor's EIFS installation skills. The list must include project name, location, description of work and date completed.
- C. Total Wall's literature, including application instructions, specifications and details.
- D. The ICF manufacturer's systems documentation.

1.05. PRODUCT DELIVERY AND STORAGE

- A. Delivery
Deliver all materials supplied by Total Wall in original, unopened containers with legible manufacturer's identification intact.
- B. Storage
 - 1. Store all products off the ground, under cover and protected from dampness and sunlight.
 - 2. Warning: EPS rigid insulation is combustible and may constitute a fire hazard if improperly used or installed. EPS insulation must be adequately protected. Use only as directed by the specific instructions for those products. During shipping, storage, installation or use these materials must not be exposed to open flame or ignition sources. For proper protection of rigid insulation, consult the National Fire Protection Association (NFPA) standard or the authority having jurisdiction. Store EPS under cover, off the ground with full support, stacked horizontally.
 - 3. All liquid products must be stored at 40° F (4.4° C) or above and protected from freezing. Protect from exposure to direct sunlight during storage.

1.06. JOB CONDITIONS

- A. Install all materials in strict accordance with all safety and weather conditions required by the product literature, and in accordance with ASTM C926, paragraph 7, and as modified by the applicable standards of the authorities having jurisdiction.
- B. Apply all coatings when the ambient temperature is 40° F and rising. A minimum temperature of 40° F must be maintained 24 hours after completion of work. Supplementary heat must be provided if stated temperature conditions do not exist. Do not apply coatings to a frozen surface.
- C. Protect surrounding areas and surfaces during application of the wall system.
- D. Protect system from precipitation during application and for at least 24 hours after application.

1.07. COORDINATION AND SCHEDULING

- A. Closely coordinate work with related sections and trades.
- B. Protect the tops of walls to prevent water from entering behind the system. Any required cap flashing, overhangs or drip edges must be installed as soon as possible after the finish coat has been applied.
- C. Install all sealants in a timely fashion. Protect open joints from water intrusion with backer rod or other means until the sealant has been installed.
- D. When required by code or job requirements, contract with an independent EIFS inspector prior to Total Wall EIFS installation. The inspector must be EDI (Exterior Design Institute), AWCI (Association of the Wall and Ceiling Industry) or by another applicable certifying agency as approved by Total Wall. The inspector must make a minimum of 3 on-site inspections which include the following examinations as applicable:
 - 1. Material storage and environmental application conditions
 - 2. Trim EPS lamina or trim accessory installation
 - 3. ICF Substrate – type and condition
 - 4. ICF Preparation – washing off UV degradation
 - 5. ICF Preparation – planar adjustments
 - 6. ICF Preparation – area rasping as required, proper filling of gaps between blocks, proper block joint alignment
 - 7. Trims and architectural enhancements – configuration and installation (if required)
 - 8. Base coat – type, labeling, mixing and application
 - 9. Mesh – type, labeling, backwrapping, corner reinforcement, general installation
 - 10. Finish – type, labeling, mixing and application
 - 11. Sealant and backer rod – type, labeling, joint dimensions, joint preparation, joint placement, sealant application

The inspector must provide a minimum of 3 interim text reports and one final report which will include photographs. The inspected items must be compared with job documents and Total Wall specifications and reported accordingly. Report copies must be issued to the GC within 3 days of each inspection phase. Report copies will be made available to ICF manufacturer and Total Wall. The payment of monies for the inspection process will be allocated prior to the bidding process.

1.08. SYSTEM WARRANTY

- A. A Total Wall warranty application form must be completed prior to the commencement of the EIFS installation.
- B. Upon completion of the EIFS installation in accordance with specifications, and payment of all monies due to Total Wall Inc., a system warranty will be issued.

PART 2: PRODUCTS

2.01. MANUFACTURER

- A. All materials related to EIFS must originate from:
Total Wall, Inc.
PO Box 366
Rio, WI 53960
(888) 702-9915
- B. The ICF substrate must be supplied by an approved ICF manufacturer.

2.02. EXTERIOR INSULATION SYSTEM COMPONENTS

- A. Any trim accessories must be UV resistant PVC as manufactured by either Vinyl Corporation or Plastic Components. The trim accessories may consist of the following:
 - 1. Window trim
 - 2. Casing bead or corner bead
 - 3. Sloped sill wedge
- B. Rigid insulation board use for lamination, trim, or repairs must be 2' x 4' (0.6096 m x 1.2192 m) Grade 1 EPS, meeting ASTM C578 performance standards, an average density of 1 pound per cubic foot, cured for 6 weeks at 68° F (20° C) or equivalent accelerated conditions, labeled with Total Wall and code markings, and with a minimum thickness of 1" (25.4 mm) and a maximum thickness of 4" (101.6 mm) as specified by drawings.
- C. Adhesive must be Total Wall Blue Mastic Adhesive a ready-to-use water based acrylic adhesive designed to adhere polystyrene to various substrates or EnerFoam Urethane Foam.
- D. Base coat must be Total Wall T – 2000 Base Coat, a dry polymer modified Portland cement based mixture that is mixed with water at the job site; or Total Wall Foam N' Base Coat ES, a wet acrylic polymer slurry that is mixed with Portland cement at the job site; or EZ Base NCB, a pre-mixed ready-to-use base coat. The selected mixture is used to embed the Total Wall reinforcing fabric to the face of the polystyrene board.
- E. Reinforcing mesh must be plastic coated fiberglass reinforcing fabric as required and supplied by Total Wall:
 - 1. 4.3 oz – Standard, 25 – 35 in-lbs impact
 - 2. 6 oz – Standard Plus, 35 – 40 in-lbs. impact
 - 3. 11 oz – Intermediate, 75 – 90 in-lbs impact
 - 4. 15 oz – High, 180 – 220 in-lbs impact
 - 5. 20 oz – Ultra High, 230 – 240 in-lbs impact
 - 6. The High and Ultra High meshes require a second layer of Standard 4.3 oz mesh and base coat.
Note: Impact strengths are tested on specimens with nominal base coat thickness with no finish coat and are considered highly conservative values.
- F. Water must be clear, potable and free of foreign matter.
- G. Sealant Systems
 - 1. Must be one of the following:
 - (1) Tremco, Inc.
 - (a) Sealant: "Dymeric"
 - (b) Prime: use manufacturer's recommended primer
 - (c) Backer rod: Dow "Ethafoam"
 - (d) Bond breaker: 3M #226, 481, 710
 - (2) Pecora Corporation
 - (a) Sealant: "Dynatrol II" or 890 Silicone
 - (b) Prime: use manufacturer's recommended primer

- (c) Backer rod: Dow "Ethafoam"
- (d) Bond breakers: 3M #480 or Valley Industrial Products #90
- (3) Dow Corporation
 - (a) Sealant: Dow 790 series sealants (790, 791, 795)
 - (b) Prime: use manufacturer's recommended primer
 - (c) Backer rod: Dow "Ethafoam"
- (4) Sika Inc.
 - (a) Sealant: Sika LM15
 - (b) Prime: primer not required
 - (c) Backer rod: Dow "Ethafoam"
- (5) Alternate sealant as approved in writing by Total Wall.
- 2. Sealant must be bonded to the base coat layer of the system, not to the finish.
- 3. System materials must be dried prior to sealant installation.
- 4. Color must be selected by the architect or owner.
- H. Finish coat must be a 100% acrylic pre-textured and pre-tinted synthetic finish, as manufactured by Total Wall.

2.03. MIXING AND PREPARATION

- A. Total Wall T-2000 Base Coat
 - 1. Obtain a clean container for mixing. Do not use contaminated or dirty containers.
 - 2. Add 5 qts (4.7 Liters) of fresh, potable water to the container.
 - 3. Open a new 50 lb (22.7 Kg) bag of Total Wall T-2000 Base Coat
 - 4. Using a low speed mechanical mixer, begin stirring while adding the Total Wall T-2000 base coat. After all of the material is added, continue mixing an additional three minutes, being sure to scrape the sides and bottom of the mixing container. Add up to 1 quart (0.95 Liters) of additional water to adjust the mixture to a creamy, trowel-grade consistency.
 - 5. Allow the mixture to stand for 15 minutes and mix again on low speed for an additional minute.
 - 6. Begin using product immediately.
- B. Total Wall EZ Base NCB (an alternative pre-mixed base coat)
 - 1. The Total Wall EZ Base NCB must be stirred for 1 minute with a low speed mixer until a uniform workable consistency is obtained.
 - 2. A small amount of water may be added to adjust workability; maximum water addition not to exceed 6 oz (.0177 Liters) per 5 gallon (18.92 Liter) pail. The water must be clean and potable.
 - 3. No additives or material of any kind, such as rapid binders, antifreeze, accelerators, filters, pigments, etc. must be added unless specified by Total Wall.
 - 4. The Total Wall EZ Base NCB must be used immediately after mixing. The container must be kept closed when not in use.
 - 5. The mixing tool must be cleaned immediately after use.
- C. Total Wall Synthetic Finish Coat
 - 1. The Total Wall Finish Coat must be thoroughly stirred with a clean mixer until a uniform workable consistence is obtained.
 - 2. A small amount of water may be added to adjust workability. Maximum water addition not to exceed 12 oz (0.354 Liter) per 5 gallon (18.92 Liter) pail. The water must be clean and potable.
 - 3. No additives or material of any kind, such as rapid binders, antifreeze, accelerators, fillers, pigments, etc. must be added unless specified by Total Wall.
 - 4. The Total Wall Finish Coat must be used immediately after mixing. The container must be kept closed when not in use.
 - 5. The mixing tool must be cleaned immediately after use.

D. Total Wall Blue Mastic Adhesive

1. The Total Wall Blue Mastic must be thoroughly stirred with a clean mixer until a uniform workable consistency is obtained.
2. A small amount of water may be added to adjust workability. Maximum water addition must not exceed 8 oz (0.237 Liters) per 5 gallon (18.92 Liters) pail.
3. The Total Wall Blue Mastic must be used immediately after mixing. The container must be kept closed when not in use.
4. The mixing tool must be cleaned immediately after use.

2.04. **PERFORMANCE REQUIREMENTS**

The Total Wall system and its components must meet the following performance requirements:

ASTM E84 Surface Burning	FSI = 10, SDI = 35
ASTM E108 mod. Full Scale Fire Test	Pass (no flame spread)
MIL STD 810D Mildew Resistance (Method 508.3)	28 days - no growth
ASTM E695 Full Scale Impact Loading	No damage
ASTM D968 Sand Abrasion 500 liters, 260 L/ml	No deleterious effects
ATM D2247 Water Resistance	No deleterious effects
ASTM B117 Salt Spray (300 hours)	No deleterious effects
ASTM E96 Water Vapor Transmission	1.5 perms
ASTM C67 Mod. Saturated Freeze/Thaw (50 cycles)	No deleterious effects
ASTM C297 Tensile Adhesion	No failure in adhesive, base or finish
ASTM E330 Modified by E72-80 Negative and positive wind load	(Pos.0.079, Neg. 0.079 Kg/cm ²)
ASTM E331 Wind Drive Rain (5 gal/sq.ft./hr rain fall plus 65 mph wind)	No penetration
ASTM D2797 Impact resistance	2.5 Newton-Meters
ASTM G23 Accelerated Weathering (2000 hours)	No deleterious effects
ASTM C209 Tensile Bond	26 PSI (1.846 Kg/cm ²)
ASTM C203 Flexural Strength	1.41 cm deflection @ 33.4 Kg load
Radiant Heat Fire Test, NFPA 268	Pass

PART 3: EXECUTION

3.01. COMPLIANCE

- A. The installation must be performed strictly in accordance with Total Wall's current literature and current job specifications.

3.02. INSTALLATION

- A. Requirements of substrate
 1. Any planar deflections or irregularities in the ICF substrate must not exceed 1/4" in 10 lineal feet. Deflections exceeding this value must be corrected by ICF manufacturer in accordance with their specifications or procedures
 2. Any UV degradation of the EPS must be removed by washing or rasping. Washing the EPS must be done with a controlled pressure fan spray of water solutions of Sodium Metaborate and Surfactant as recommended by Total Wall.
 3. Any small areas of concrete seepages or spatters must be removed by rasping or other suitable mechanical means.
 4. Any gaps in block joints of 1/8" or greater must be filled with EnerFoam and rasped level after drying.
 5. Any block joint misalignments of exceeding 1/16" must be rasped to a tolerance of 1/16" or less. Rasping must be performed in those areas in a manner that will not tend to produce picture framing of the ICF block
 6. Any localized deflections, protrusions or dents exceeding 1/16" must be repaired using a combination of EnerFoam, 1 lb density EPS foam and rasping as required.
 7. Items 2 – 6 above are the responsibility of the EIFS applicator.
- B. Windows and other penetrations
 1. At window jambs, sills and heads, the EPS abutment must be constructed to receive proper wrapping of reinforcing mesh and base coat so as to allow for a proper 1/2" sealant joint or alternatively a fillet bead joint. The EPS abutment may require trimming of existing EPS or lamination of additional EPS using approved adhesive or use of PVC accessory. In addition, the use of trim bands or reveals with properly beveled edges is permitted to aid in design aesthetics and construction of proper sealant joints.
 2. At window heads, a 3/8" groove cut drip edge must be constructed into the EPS if possible. Determination of this must be made by the applicator and Total Wall.
 3. Customized details for specific penetrations and terminations must be provided by Total Wall as deemed necessary by the applicator, the General Contractor, ICF Manufacturer and Total Wall.

3.03. INSTALLATION OF Total Wall LAMINA

- A. Mixing
 1. All materials requiring preparation must be labeled accordingly
 2. The contractor must follow all instructions
- B. System terminations
 1. At all system terminations, the system must be terminated with the proper wrapping of reinforcing mesh and basecoat or PVC accessory.
- C. Installation of rigid EPS insulation for repair or trim or extension
 1. Grade 1 EPS
 - (1) Grade 1 EPS must be applied to the substrate using EnerFoam or Total Wall #11 Mastic.

- (2) Grade 1 EPS Pieces must be precut to fit openings, corners or projections prior to application of the backwrapping and approved adhesive.
 2. Grooves which may be required as design feature must be routed into the outside surface of the Grade 1 EPS, using a high speed router, hot groover or hot knife and proper blade. The remaining thickness of the Grade 1 EPS at any point in the routed groove or feature must not be less than 1/4" (6 mm).
 3. Foam shapes of Grade 1 EPS, if used, must be applied directly to the substrate or surface of the Grade 1 EPS.
 4. Total Wall's latest published detailed instructions and special instructions for this project must be followed regarding installation of the Grade 1 EPS
- D. Total Wall T-2000 Base Coat (or EZ Base NCB)
1. Surface of the Grade 1 EPS must be inspected and repaired as necessary in accordance with Section 3.02.A.
 2. Using a steel trowel, apply the Total Wall base coat to the surface of the ICF to a minimum thickness of approximately 1/16" (1.5875 mm).
 3. The reinforcing mesh must immediately be embedded into the wet base coat using a steel trowel. Working from the center to the edges while smoothing out wrinkles, the surface of the base coating must be smoothed with a trowel until the reinforcing mesh is fully embedded. Apply additional Total Wall base coat as necessary so that the pattern of the reinforcing mesh is not visible beneath the surface of the base coating and a 1/8" (3.17 mm) average thickness is achieved. This may require two passes with the Total Wall base coat in order to achieve the proper thickness. A delay in time of up to 36 hours between passes of base coat is permissible.
 4. The reinforcing fabric pieces must be lapped a minimum of 2.5" (63.5 mm) on all sides.
 5. A period of 18 hours must lapse to allow the Total Wall base coat to cure before the Total Wall finish coat is applied. The base coat must be protected from damage and weather while curing. (Exception: Total Wall EZ Base NCB (Tuff II) requires a 2 hour cure time if Total Wall EZ Base NCB (Tuff II) is also used as the finish coat.
 6. Details of the installation of the base coat at the ends of walls, windows, insulation board edges, corners, etc., must be in accordance with Total Wall's latest detailed installation instructions and current job drawings.
- E. High Impact or Ultra High Impact Mesh (Optional – see drawing for areas if required)
1. Using a steel trowel, the Total Wall Soft Coat Base Coat must be applied to the surface of the ICF to a uniform thickness of 3/32" (2.3813 mm).
 2. The high impact mesh must immediately be embedded into the wet base coating using a stainless steel trowel. The surface of the wet base coating must be smoothed with the trowel until the high impact is fully embedded. The pattern of the high impact must not be visible beneath the surface of the base coating.
 3. Ends of adjacent high impact mesh pieces must be tightly abutted. High impact mesh pieces must not be lapped. High impact mesh sections must be worked into the wet base coating from the center to the edges while smoothing out wrinkles.
 4. A period of 18 hours must lapse to allow the first layer of high impact base coat to form a positive bond, and must be protected from damage and weather while curing.
 5. The surface of the first layer must be examined after curing for projections, loose strands of high impact mesh and corrected to produce a flat surface
 6. A second layer consisting of Total Wall base coat and standard reinforcing mesh must be applied over the high impact layer per section 3.03.D.2-5.
 7. Details of the installation of the high impact mesh base coat at the end of walls, windows, panel edges, corners, etc. must be in accordance with Total Wall's latest published detailed installation instructions.

F. Finish

1. The Total Wall Synthetic Finish coat must be applied:
 - (1) Continuously and in one operation to the entire wall surface, or to a logical break point.
 - (2) A wet edge must be maintained.
 - (3) The Total Wall finish coat must not be allowed to set up in a distinct area.
 - (4) Sufficient manpower, scaffolding and equipment must be employed to insure a continuous operation and a uniform appearance.
 - (5) A clean stainless steel trowel must be used.
 - (6) The thickness of the Total Wall finish coat must be in accordance with Total Wall specifications and job requirements to achieve the desired result.
 - (7) Immediately texture the finish with the appropriate float, trowel or tool required to achieve the specified texture and appearance. All mechanics must use the same design tool, equipment, timing and technique to achieve uniformity.
 - (8) Certain finishes may be spray applied. Total Wall must be contacted for specific information for this project if a spray application is indicated.
 - (9) The finish must be protected from contamination, weather and damage for a minimum of 24 hours.
 - (10) Do not wrap finish into expansion joints of isolation joints.
 - (11) The primer and sealant must be bonded directly to the base coat in the joint.
2. Sealant
 - (1) Insure that proper backer rod, primer and sealant is installed at all required locations, such as expansion joints and isolation joints, in accordance with Total Wall details and the sealant manufacturer specifications.
 - (2) Sealant and backer rod must be of the type and brand as specified in this document or as approved in writing by Total Wall for this application.
 - (3) Primer must be used when specified by the sealant manufacturer.
 - (4) Sealant must be bonded to cured base coat, and not to finish coat.
 - (5) Sealant joint preparation, install be performed by an experienced applicator.

3.04. JOB SITE CLEANUP

- A. All excess Total Wall system material must be removed from job site by the applicator
- B. All surrounding areas where Total Wall EIFS has been applied must be left free of debris and foreign substances.

3.05. INSPECTION

- A. The Total Wall applicator, a representative of the property owner's team and a Total Wall representative must inspect the EIFS installation and prepare an inspection summary with a copy to Total Wall.
- B. If an independent EIFS inspector is used, a copy of the final report must be submitted to Total Wall.

END OF SPECIFICATION