SECTION 07 42 00

METAL WALL PANEL SYSTEM

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\*\* NOTE TO SPECIFIER \*\* TransAmerican Strukturoc, Inc.; Strukturoc textured and embossed wall panel system products.
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This section is based on the products of TransAmerican Strukturoc, Inc., which is located at:
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Eagan, MN 55121
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Web: <http://www.strukturoc.com>
 [ [Click Here](https://www.arcat.com/arcatcos/cos45/arc45756.html) ] for additional information.
Strukturoc textured and embossed wall panel systems are available in multiple specifications, offering superior functionality for a wide variety of commercial designs. The panels may be used in both vertical and horizontal applications. The panel is universal in design, being used as wall, fascia and soffit panels. Other uses include fencing, ceilings and screening.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Metal wall panel system.
		2. Metal soffit panel system.
		3. Metal framing support system.
		4. Rainscreen.
		5. Insulation.
		6. Associated flashing and trim.
		7. Clips, anchoring devices, fasteners, and accessories for installation of panel system.
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 05 10 00 - Structural Metal Framing.
		2. Section 05 40 00 - Cold-Formed Metal Framing.
		3. Section 06 10 00 - Rough Carpentry.
		4. Section 07 25 00 - WeatherBarriers.
		5. Section 07 60 00 - Flashing and Sheet Metal.
		6. Section 07 91 26 - Joint Fillers.
		7. Section 08 41 13 - Aluminum-Framed Entrances and Storefronts.
		8. Section 08 44 13 - Glazed Aluminum Curtain Walls.
		9. Section 09 25 23 - Lime Based Plastering.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. AAMA 501.1 - Standard Test Method for Exterior Windows, Curtain Walls and Doors for Water Penetration Using Dynamic Pressure.
		2. AAMA 501.2-09. Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefront's, Curtain Walls, and Sloped Glazing Systems.
		3. AAMA 621-2-02, Voluntary Specification for High Performance Coatings on Coil-Coated Architectural Hot-Dipped Galvanized (HDG) and Zinc-Aluminum Coated Substrates.
		4. ASCE 7 - Minimum Design Loads for Buildings and Other Structures
		5. ASTM A 653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
		6. ASTM A 666, Standard Specification for Annealed or Cold Worked Austenitic Stainless Steel Sheet, Strip, Plate, and flat Bar
		7. ASTM A 924 - Standard Specification for General Requirements For Steel Sheet Metallic-Coated by the Hot-Dip Process.
		8. ASTM B117 - Standard Specification for Operating Salt Spray (Fog) Apparatus
		9. ASTM C 578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
		10. ASTM C 1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board
		11. ASTM D 870- Standard Test Method for Testing Water Resistance of Coatings Using Water Immersion.
		12. ASTM D 897 - Standard Test Method for Tensile Properties of Adhesive Bonds
		13. ASTM D 1761
		14. ASTM D 3363 - Standard Test Method tor Film Hardness by Pencil Test
		15. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
		16. ASTM E 283 - Standard Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.
		17. ASTM E 330 - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.
		18. ASTM E 331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
		19. ASTM E 1996 - Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes.
		20. ASTM G7- Standard Practice for Atmospheric Environmental Exposure Testing of Nonmetallic Materials.
		21. NOA 13-0206-18 - Miami-Dade Notice of Acceptance Reports
		22. NOA 13-0206-18 - Miami-Dade Notice of Acceptance Reports
		23. SMACNA - Architectural Sheet Metal Manuel; 6th Edition
	1. SYSTEM DESCRIPTION
		1. System: Preformed and prefinished composite metal building panel system of horizontal and vertical profile; shop fabricated with field assembled subgirt framing assembly; thermal insulation, air barrier and accessories necessary for a complete weathertight wall system, installed over the buildings structural substrate with concealed fasteners.
	2. DESIGN / PERFORMANCE REQUIREMENTS

\*\* NOTE TO SPECIFIER\*\* Requirements under each set of performance criteria in subparagraphs below are examples only. Insert Design Loads to suit Project. Consult with manufacturer for Design Load capabilities of the system specified.

* + 1. Design Requirements; design to withstand:
			1. Positive and negative design wind loads acting normal to wall plane in accordance with Building Code and ASCE 7 as indicated on the Drawings, as tested to ASTM E 330.
			2. Maximum Allowable Deflection of Panel: Not to exceed L/120, as tested to ASTM E 330
			3. Movement caused by an ambient temperature range of 120 degrees F and a surface temperature range of 160 degrees F.
		2. Performance Requirements:
			1. Air infiltration: Maximum 0.07 CFM per square foot, tested to ASTM E 283 at pressure differential across assembly of 6.24 PSF.
			2. Static Water Resistance: No leakage, tested to ASTM E 331 at 10.0 PSF.
			3. Dynamic Water Penetration: No uncontrolled water penetration through panel joints when subjected to a dynamic pressure equal to 20 percent of inward-acting wind-load design pressure of not less than 6.24 PSF and not more than 12 PSF for 15 minute period in accordance with AAMA 501.1.
			4. Shear load strength for riveted brackets: Average of 172 PSI, tested to ASTM D 1761.

SPECIFIER: Include the following paragraphs for textured stucco finished panel products only. Delete if not applicable.

* + 1. Stucco Finish Performance Requirements: Stucco Appearance Factory-applied acrylic formulation and synthetic aggregate finish consisting shall meet the following performance requirements:
			1. Salt Spray: When tested in accordance with ASTM B 117, there shall be no corrosion, blistering, or other film defects when exposed for 100 continuous hours in the salt fog chamber.
			2. Weathering: When tested in accordance with ASTM G7, with 12 month exposure, the panels shall exhibit not less than the following:
				1. Color Change (Fading). 9F
				2. Chalking: 10
				3. Dirt Pickup: 9
				4. Mildew: 10.
			3. Water Resistance: When tested in accordance with ASTM D 870, the coating shall exhibit not more than a slight darkening, little to no change in gloss level, and minor surface irregularly.
			4. Film Hardness: Following water resistance testing specified above and when tested in accordance with ASTM D 3363 the coating shall retain not less than (softer) a B rating (Pencil hardness) for scratching after 1/2 hour and after 6 hours, and; net less than a B rating for gouging after 1/2 hour and an HB rating after 5 hours.
			5. Impact resistance: No penetration, tested to ASTM E 1996 at 50 FPS.
			6. Freeze/thaw resistance: No delamination, cracking, chipping, or visible distortion; tested to GB/T 9966.1 at 25 cycles.
			7. Adhesive bond: Average bond strength of 284 PSI, tested to ASTM D 897.
			8. Tensile bond strength for adhesive: Average of 358 PSI, tested to ASTM D 897 after 25 thermocycles.
			9. Fire hazard classification: Maximum flame spread/smoke developed rating of 10/155, tested to ASTM E 84.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data: Manufacturer's data sheets on each product to be used, including:
			1. Preparation instructions and recommendations.
			2. Storage and handling requirements and recommendations.
			3. Installation methods.
		3. Shop Drawings: Include plans, elevations, and details, size and layout of panels, trim, accessories, supports, and attachments.
			1. Indicate panel numbering erection system.
			2. Differentiate between shop and field fabrication.
			3. Indicate substrates and adjacent work with which the wall system must be coordinated.
			4. Include large-scale details of anchorages and connecting elements.
			5. Include large-scale details or schematic, exploded or isometric diagrams to fully define flashing at a scale of not less than 1-1/2 inches per 12 inches.
		4. Design Data:
			1. Submit manufacturers structural calculations showing sizes of framing members and loads applied to supporting structure based on design loads.
			2. Structural calculations shall be prepared by a professional engineer qualified in design of porcelain faced cladding systems and licensed in the state where wall system is to be installed.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
		2. Verification Samples: For each finish product specified, two samples, minimum size 4 inches (101 mm) square, representing actual product, color, and patterns.
		3. Panel Sample: Submit 1 foot (305 mm) high by full width sample panel for each profile specified indicating the metal, texture, color and finish.
		4. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
		5. Closeout Submittals: Provide manufacturer's maintenance instructions executed copies of manufacturer and installer's warranty.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Minimum of 10 years experience in the manufacturing of the panel product specified.
		2. Installer Qualifications: Minimum 5 years documented experience in work of this Section and acceptable to the manufacturer.
		3. Design metal panels under direct supervision of a professional engineer experienced in design of this Work and licensed at the place where the Project is located.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a 4 foot high by 2 panels wide mock-up, including backup construction, air barrier, insulation, supports, attachments and accessories for evaluation of aesthetic effects and quality standards for fabrication and application workmanship.
			1. Finish areas designated by Architect.
			2. Do not proceed with remaining work until aesthetic effects and application workmanship are approved by Architect.
			3. Refinish mock-up area as required to produce acceptable work.
			4. Approved mockup may remain as part of the Work.
		2. Pre-Installation Conference:
			1. Convene at site 2 weeks prior to beginning work of this Section.
			2. Attendance: Architect, Owner, Contractor, panel manufacturer's representative, panel installer, and related trades.
			3. Review and discuss: Project conditions, scheduling, related work and other matters affecting erection.
			4. Examine support conditions for compliance with requirements including alignment between and attachment to structural members.
			5. Review back-up construction including planar conditions and other surface irregularities if any.
			6. Review temporary protection requirements for metal panel assembly during arid after installation.
	1. DELIVERY, STORAGE, AND HANDLING
		1. Deliver wall panels and related materials in manufacturers original packaging properly labeled for identification and erection purposes.
		2. Store prefinished materials with factory applied protective film. Protect from the sun's ultraviolet rays until ready tor installation.
		3. Store panel products off the ground, with panels sloped for drainage and covered to protect factory finishes from damage.
		4. Store insulation and other components under cover in manufacturers original packaging properly labeled packaging. Protect from exposure to high ambient temperatures, excessive exposure to sunlight.
	2. SEQUENCING
		1. Ensure that locating drawings and other information required for installation of products of this section are furnished in time to prevent interruption of construction progress.
	3. PROJECT CONDITIONS
		1. Field Measurements: Verify locations of structural members and wall opening dimensions by field measurements before metal wall panel fabrication, as the project schedule permits.
		2. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
	4. WARRANTY
		1. Manufacturer's Warranty: Manufacturer's twenty year limited warranty that panels are free of manufacturing defects..

\*\*NOTE TO SPECIFIER\*\* Extended warranties are available for exterior finishes. Consult with panel manufacturer for additional information and complete the warranty period below for the finish specified. Delete if not required.

* + 1. Submit exterior paint manufacturer's written \_\_\_\_ year limited warranty on paint finish against cracking, peeling, blistering, chalk and color change.
		2. Installers Warranty: Installer warrants that the metal wall panels are installed in accordance with the manufacturers instructions and final shop drawings, and agrees to repair or replace components, which fail in workmanship within two years form data of Substantial Completion.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: TransAmerican Strukturoc, Inc., which is located at: 920 Apollo Rd. Suite 120; Eagan, MN 55121; Toll Free Tel: 866-328-4982; Tel: 952-884-7694; Fax: 952-887-2716; Email: [request info (smeyer@strukturoc.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=TransAmerican+Strukturoc,+Inc.&coid=45756&rep=&fax=952-887-2716&message=RE:%20Spec%20Question%20(07400ame):%20%20&mf=); Web: <http://www.strukturoc.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

\*\* NOTE TO SPECIFIER \*\* Edit the Wall Panel System required from the following paragraphs and delete those not required. Consult with manufacturer for Design Load capabilities of the system specified.

* 1. WALL PANEL SYSTEM
		1. Standard Wall Panel Systems: Preformed (roll-formed), prefinished, 20 gage hot-dipped galvanized G-90 steel panels complying with ASTM A 653 and A 924, with interlocking horizontal (side) joints for concealed fastening installation
			1. STURUKTUROC Painted Wall System, Series No. STK1000 panel
				1. Size: 7/8 inch deep with 16 inches of coverage width; lengths from 14 inches to 24 feet.
				2. Texture: Embossed finish.
				3. Painted Finish:

Two Coat Fluoropolymer: Fluoropolymer finish containing not than 70 percent PVDF resin by weight in color coat. Prepare, pretreat and apply coating to exposed metal surfaces to comply with AAMA 621 and coating and resin manufacturers requirements.

Color:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. There are 6 standard colors to choose from or select custom colors. A minimum Quantity of 10,000 SF is required for custom colors.

Selected by the Architect from manufacturers full range of standard colors.

Custom color as selected by the Architect.

* + - 1. STRUKTUROC Wall System, Series. No. STK2000 panel.
				1. Size: 7/8 inch deep with 16 inches of coverage width; lengths from 14 inches to 24 feet.
				2. Texture: Textured finish.
				3. Primer: Coated both sides of panel with coil manufacturer's standard epoxy coating.
				4. Stucco Finish;

Stucco Appearance Finish: Factory-applied finish consisting of a proprietary acrylic formulation and synthetic aggregate.

Color:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. There are 24 standard colors to choose from or select custom colors. A minimum Quantity of 10,000 SF is required for custom colors.

Selected by the Architect from manufacturers full range of standard colors.

Custom color as selected by the Architect.

* + - 1. STRUKTUROC Wall System, Series. No. STK3000 panel.
				1. Size: 7/8 inch deep with 16 inches of coverage width; lengths from 14 inches to 26 feet.
				2. Texture: Textured finish.
				3. Primer: Coated both sides of panel with coil manufacturer's standard epoxy coating.
				4. Stucco Finish;

Stucco Appearance Finish: Factory-applied finish consisting of a proprietary acrylic formulation and synthetic aggregate.

Color:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. There are 24 standard colors to choose from or select custom colors. A minimum Quantity of 10,000 SF is required for custom colors.

Selected by the Architect from manufacturers full range of standard colors.

Custom color as selected by the Architect.

* + - 1. STRUKTUROC Wall System, Series. No. STK4000 panel.
				1. Size: 7/8 inch deep with 16 inches of coverage width; lengths from 14 inches to 30 feet.
				2. Flat Panel: Patterns available with minimum order quantities
				3. Primer: Coated both sides of panel with coil manufacturer's standard epoxy coating.
				4. Painted Finish:

Two Coat Fluoropolymer: Fluoropolymer finish containing not than 70 percent PVDF resin by weight in color coat. Prepare, pretreat and apply coating to exposed metal surfaces to comply with AAMA 621 and coating and resin manufacturers requirements.

Color:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. There are 6 standard colors to choose from or select custom colors. A minimum Quantity of 10,000 SF is required for custom colors.

Selected by the Architect from manufacturers full range of standard colors.

Custom color as selected by the Architect.

* + - 1. Flashing and Trim: Same material, gage, finish and color as the panels unless otherwise indicated, furnished in 12 foot lengths.
				1. Refer to manufacturer's standard trim profiles for selection.

\*\* NOTE TO SPECIFIER \*\* Select for the following systems for increased wind-resistance panels available from manufacturer. Indicate which base panel is utilized.

* + 1. Wind-Resistant Wall Panel Systems: Preformed (roll-formed), prefinished, 20 gage hot-dipped galvanized G-90 steel panels complying with ASTM A 653 and A 924, with interlocking horizontal (side) joints for concealed fastening installation and specially designed fastening system, utilizing hurricane clips specified.
			1. STURUKTUROC Force Five Wall System, Series. No. STK1500 panel.
				1. Size: 7/8 inch deep with 16 inches of coverage width; lengths from 14 inches to 30 feet.
				2. Texture: Embossed finish.
				3. Painted Finish:

Two Coat Fluoropolymer: Fluoropolymer finish containing not than 70 percent PVDF resin by weight in color coat. Prepare, pretreat and apply coating to exposed metal surfaces to comply with AAMA 621 and coating and resin manufacturers requirements.

Color:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. There are 6 standard colors to choose from or select custom colors. A minimum Quantity of 10,000 SF is required for custom colors.

Selected by the Architect from manufacturers full range of standard colors.

Custom color as selected by the Architect.

* + - * 1. Miami Dade County approved NOA 13-0206.18 - Large Missile and Impact Resistant at Design Pressure of plus or minus 75 psf and 48 inch maximum support spacing with fasteners 16 inches o.c.
			1. STURUKTUROC Force Five Wall System, Series. No. STK2500 panel.
				1. Size: 7/8 inch deep with 16 inches of coverage width; lengths from 14 inches to 28 feet.
				2. Stucco Finish;

Stucco Appearance Finish: Factory-applied finish consisting of a proprietary acrylic formulation and synthetic aggregate.

Color:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. There are 24 standard colors to choose from or select custom colors. A minimum Quantity of 10,000 SF is required for custom colors.

Selected by the Architect from manufacturers full range of standard colors.

Custom color as selected by the Architect.

* + - * 1. Miami Dade County approved NOA 13-0206.19 - Large Missile and Impact Resistant at Design Pressure plus or minus 120 psf and 24 inch maximum support spacing with fasteners 16 inches o.c.
			1. STRUKTUROC Force Five Wall System, Series. No. STK4500 panel.
				1. Size: 7/8 inch deep with 16 inches of coverage width; lengths from 14 inches to 30 feet.
				2. Flat Panel: Patterns available with minimum order quantities
				3. Painted Finish:

Two Coat Fluoropolymer: Fluoropolymer finish containing not than 70 percent PVDF resin by weight in color coat. Prepare, pretreat and apply coating to exposed metal surfaces to comply with AAMA 621 and coating and resin manufacturers requirements.

Color:

\*\* NOTE TO SPECIFIER \*\* Select one of the following two paragraphs and delete the one not required. There are 6 standard colors to choose from or select custom colors. A minimum Quantity of 10,000 SF is required for custom colors.

Selected by the Architect from manufacturers full range of standard colors.

Custom color as selected by the Architect.

* + - * 1. Miami Dade County approved NOA 13-0206.18 - Large Missile and Impact Resistant at Design Pressure of plus or minus 75 psf and 48 inch maximum support spacing with fasteners 16 inches o.c.
			1. Hurricane Clips; T-shaped locking clips for use in vertical factory-formed panel seams, with offset and predrilled fastener holes, fabricated from ASTM A 666, Type 301, full hard spring temper stainless steel. 0.024 inch gage for use with wind-resistant wall panel system specified.
				1. Closures: Provide metal profile closures of the same material, gage, finish and color as adjacent metal panels where required, and elsewhere as shown on the Drawings\_
				2. Fasteners: Provide sufficient fasteners of the size, type, and holding strength required for proper installation. in accordance with manufacturers standards and engineering requirements
				3. Fasteners: Concealed non-corrosive type. Exposed fasteners are not permitted.
			2. Flashing and Trim: Same material, gage, finish and color as the panels unless otherwise indicated, furnished in 12 foot lengths.
				1. Refer to manufacturer's standard trim profiles for selection.
		1. Furring Subgirts: Hat channels: 20-gage galvanized steel, hat-shaped; one of the following sizes:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs and delete the those not required.

* + - 1. No. 300A. 7/8 inch deep hat channel with 3/4 inch face width; 10 to 20 foot lengths.
			2. No. 400A. 1-1/2 inch deep hat channel with 3/4 inch face width; 10 to 20 foot lengths.
			3. No. CR209. 7/8 inch deep stacking hat channel with 3 inch face width; 12 foot lengths.
			4. No. CR409. 1-1/2 inch deep stacking hat channel with 3 inch face width 12 foot lengths.

\*\* NOTE TO SPECIFIER \*\* The following Weatherwall paragraphs are optional delete if not required. Weatherwall system combines the Strukturoc exterior wall panels with AirGuard air/vapor barrier and insulation. Select the water/vapor barrier and insulation combination required and delete those not required.

* + 1. Weatherwall Water/Vapor Barrier:

\*\* NOTE TO SPECIFIER \*\* Select desired AirGuard product from the following three paragraphs and delete those not required.

* + - 1. AirGuard AG4000: AG4000 is a rubberized polymer elastomeric air and liquid moisture barrier
				1. Vapor permeable, water based formula
				2. Product can be applied by brush, roller or spray.
				3. Recommended application temperature of 35 degrees F or higher
				4. Seamless and self sealing around penetrations
				5. UV resistant for 12 months
			2. AirGuard AG3000: AG3000 is a rubberized polymer elastomeric air, vapor and liquid moisture barrier
				1. Non permeable, water based formula
				2. Product can be applied by brush, roller or spray.
				3. Recommended application temperature of 35 degrees F or higher
				4. Seamless and self sealing around penetrations
				5. UV resistant for 12 months
			3. AirGuard AG2000: AG2000 is a rubberized polymer elastomeric air/vapor and liquid moisture barrier
				1. Non permeable, solvent based formula
				2. Product can be applied by brush, roller or spray.
				3. Can be applied at temperatures as low as minus 10 degrees F.
				4. UV resistant for 12 months
			4. Transition Tape: Provide AirGuard Transition Tape as required.
		1. Insulation:

\*\* NOTE TO SPECIFIER \*\* Select desired insulation product from the following paragraphs and delete those not required.

* + - 1. Extruded Polystyrene Board Insulation: ASTM C 578, Type X, 1-35 pcf density,15 psi compressive strength, with maximum flame spread and smoke-developed indexes of 75 and 450 respectively, per ASTM E 84; thickness as shown on the Drawings.
			2. Foil-Faced, Polyisocyanurate Board Insulation: ASTM C 1289, Type I, Class 1, 20 psi, with flame spread and smoke developed indexes of 75 and 450 respectively per ASTM E 84: thickness as shown on the Drawings.
			3. Foil-Faced. Polyisocyanurate Board Insulation: ASTM C 1289, Type I, Class 2, 2.0 pcf density, 25 psi compressive strength with maximum flame spread and smoke developed of 25 and 450 respectively per ASTM E 84: thickness as shown on the Drawings.
	1. FABRlCATlON
		1. Fabricate and finish wall panels and accessories at the manufacturing facility, to the greatest extent possible, by manufacturer's standard procedures and processes, and as required to comply with specified performance requirements. Comply with profiles. dimensions, structural and field verified requirements as indicated on final shop drawings
			1. Form wall panels to specific dimensions and profiles with tolerances to accommodate expansion and contraction between panels and to accommodate structural movement tolerances.
			2. Factory fabricate (including applied finishes) wall panel system accessories and trim components, ready for field installation to the greatest extent possible.
			3. Fabricate wall panels in lengths as long as practicable to minimize field joints.
			4. Make panel lines, breaks and angles sharp and true, with surfaces free from warp, buckle, or oil canning prior to installation.
			5. Panel dimensions shall allow for field adjustments, as recommended by manufacturer. Where final dimensions cannot be established by field measurement before completion of panel manufacturing.
			6. Apply specified finishes in compliance with the manufacturers' standards.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared.
		2. Verify framing members and substrate are ready to receive panel system
		3. Verify wall openings, windows, doors, or louvers through walls are properly located.
		4. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

\*\* NOTE TO SPECIFIER \*\* The following Weatherwall paragraphs are optional delete if not required and specified under Products. Weatherwall system combines the Strukturoc exterior wall panels with AirGuard air/vapor barrier and insulation.

* 1. WEATHERWALL INSTALLATION
		1. Install in accordance with wall panel manufacturer's instructions.
		2. Air Barrier: Apply water/vapor barrier in strict compliance with of the water/vapor barrier manufacturer.
		3. Insulation:
			1. Comply with insulation manufacturers' written installation instructions applicable to products and applications indicated.
				1. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.
				2. Extend insulation to envelope entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
				3. Provide sizes to fit applications indicated and selected from manufacturer's standard thicknesses, widths, and lengths.
				4. Apply single layer of insulation units to produce thickness indicated.
	2. PANEL INSTALLATION
		1. Install in accordance with wall panel manufacturer's instructions.

\*\* NOTE TO SPECIFIER \*\* Panels may be attached directly to steel, wood or concrete backing in accordance with the manufacturers requirements. Delete if not required.

* + 1. Install furring girts and subgirts perpendicular to structural supports unless otherwise indicated. Permanently fasten to structural supports; aligned, level, and plumb, within specified tolerances.
		2. Install panels perpendicular to girts and sub girts unless otherwise indicated.
			1. Anchor metal wall panels and other components of the Work securely in p/ace with fastening system that allows for necessary thermal and structural movement.

\*\* NOTE TO SPECIFIER \*\* Add the following for projects specified using Wind-Resistant Wall Panel Systems.

* + - * 1. Install hurricane clips spaced at intervals indicated on the final shop drawings to provide wind-resistant installation meeting specified requirements.
			1. Locate panel slices over, but not attached to, structural supports.
			2. Align bottom of metal wall panels and fasten with blind rivets, bolts, or self-tapping screws. Use concealed fasteners wherever possible.

\*\* NOTE TO SPECIFIER \*\* Delete Paragraph below if soffit panels are not required.

* + 1. Metal Soffit Panels: Provide metal soffit panels full width of soffits. Install panels perpendicular to support framing unless otherwise indicated.
		2. Flashing and Trim: Comply with performance requirements, manufacturers written installation instructions, and SMACNA's "Architectural Sheet Metal Manual. Provide concealed fasteners where possible and set units true to line and level as indicated. Install work with laps, joints and seams that will be permanently watertight and weather resistant.
			1. Flash metal panels perimeters of all openings. Fasten with recommended self-tapping screws.
			2. Install flashing arid trim as metal wall panel work proceeds and fasten with recommended self-tapping screws.
			3. Provide weathertight escutcheons for pipe and conduit penetrating exterior walls.
		3. Seal panel joints with joint sealer specified in Section 07 91 26 - Joint Fillers.
		4. Allowable Tolerances:
			1. Maximum offset from alignment of adjacent members in same plane: 1/16 inch.
			2. Maximum variation from plane: 1/8 inch in 10 feet, noncumulative.
			3. Maximum variation from indicated position: 1/4 inch.
		5. Separate dissimilar metals and use gasket fasteners where needed to eliminate the possibility of corrosive or electrolytic action between metals.
	1. CLEANING
		1. Replace damaged panels and other components of work, which cannot be repaired by finish touch-up or similar minor repair.
		2. Wipe finished surfaces clean of any filings caused by drilling or cutting to prevent rust staining.
		3. Clean and wash prefinished surfaces with mild soap and water; rinse with clean water.
	2. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION