

Systems Roof & Wall Guide Specifications

This Guide Specification is used to develop an office master specification or specifications for a project. In either case, this Guide Specification must be edited to fit the conditions of use. Particular attention should be given to the deletion of inapplicable provisions. Include necessary items related to a particular project. Include appropriate requirements where blank spaces have been provided.

SECTION 07411 – Preformed (Manufactured) Roof & Wall Panels

PART 1 – GENERAL

1.01 SECTION INCLUDES

The work includes, but is not necessarily limited to, furnishing and installation of all preformed metal roofing and walls, and accessories as indicated on the drawings and specified herein.

1.02 RELATED SECTIONS

Edit for project conditions. Section Numbers indicated are those recommended by CSI Masterformat; revise if Numbers differ from those used in Project Manual.

- A. Structural Steel Supports: Section 05100
- B. Structural Metal Roof and Floor Decking: Section 05300
- C. Miscellaneous Fabricated Steel: Section 05500
- D. Structural Lumber Supports: Section 06100
- E. Structural Glue Laminated Lumber Supports: Section 06181
- F. Thermal Insulation: Section 07200
- G. Fireproofing: Section 07250
- H. Sheetmetal Gutters and Downspouts: Section 07600
- I. Joint Sealants not specified herein: Section 07900
- J. Finish Painting not specified herein: Section 09900

1.03 SUBMITTALS

- A. PRODUCT DATA
 - 1. Submit Manufacturer's technical product data, installation instructions and recommendations for each type of roofing and wall panels required. Include data substantiating that materials comply with requirements.
- B. SAMPLES
 - 1. Prior to ordering products, submit Manufacturer's standard color Samples for Architect's/Engineer's selection.
 - 2. Prior to starting work, submit (quantity) 12" long Panel Samples showing shape and a representative color chip for Architect's/Engineer's acceptance.
- C. SHOP DRAWINGS
 - 1. Show panel layout, trim installation, and panel attachment.
- D. SITE CONDITIONS
 - 1. Provide completed site condition form for the specified finish to suit project conditions.

1.04 QUALITY ASSURANCE

- A. INSTALLER'S QUALIFICATIONS
 - 1. Installation of panels and accessories by installers with a minimum of 5 years experience on panel projects of this nature.
- B. MANUFACTURER'S QUALIFICATIONS

1. Manufacturer shall have a minimum of 10 years experience supplying metal roofing/siding to the region where the work is to be done.
2. Manufacturer shall provide proof of \$2,000,000 liability insurance for their metal roof system and comply with current independent testing and certification as specified. See specific product literature for testing information.
3. Panel manufacturers without full supporting literature, Flashings & Details Guides, Guide Specifications and Technical Support shall not be considered equal to the specified product.

C. REGULATORY AGENCY REQUIREMENTS

1. Comply with UBC and local Building Code requirements if more restrictive than those specified herein.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Protect against damage and discoloration
- B. Handle panels with non-marring slings.
- C. Do not bend panels.
- D. Store panels above ground, with one end elevated for drainage.
- E. Protect panels against standing water and condensation between adjacent surfaces.
- F. If panels become wet, immediately separate sheets, wipe dry with clean cloth, and allow to air dry.
- G. Remove any strippable film coating prior to installation and do not allow it to remain on the panels in extreme cold, heat or in direct sunlight.

1.06 WARRANTY

A. MANUFACTURER'S PRODUCT WARRANTY

1. Manufacturer's standard coating performance warranty, as available for specified installation and environmental conditions. (Contact an AEP Span representative to determine actual warranty criteria.)

B. CONTRACTOR'S WARRANTY

1. Warrant panels, flashings, sealants, fasteners and accessories against defective materials and/or workmanship, to remain watertight and weatherproof with normal usage for two (2) years following Project Substantial Completion date.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

A. ASC Profiles Inc., 2110 Enterprise Boulevard, West Sacramento, California 95691-3493, 800-726-2727, 916-372-6851, Fax: 916-372-7606
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Fontana: AEP Span Division 10905 Beech Avenue, Fontana, California 92337, 909-823-0401

Tacoma: AEP Span Division 2141 Milwaukee Way, Tacoma, Washington 98421, 253-383-4955.

B. PANEL DESIGNATION: (Choose one)

1. HR-36™ [Roof and Wall]. Net coverage 36", rib depth 1-1/2" @7.2" o.c.
2. Reverse HR-36™ [Wall]. Net coverage 36", rib depth 1-1/2" @7.2" o.c.
3. Reverse Box Rib™ [Roof and Wall]. Net coverage 36", rib depth 1-1/2" @ 7-13/64" o.c.
4. Box Rib™ [Wall]. Net coverage 36", rib depth 1-1/2" @ 7-13/64" o.c.
5. Mini-V-Beam™ [Roof and Wall]. Net coverage 32", rib depth 1-3/8" @ 4-9/16" o.c.
6. Reverse Mini-V-Beam™ [Wall]. Net coverage 32", rib depth 1-3/8" @ 4-9/16" o.c.
7. Nu-Wave® Corrugated [Roof and Wall]. Net coverage 32" (roof) or 34-2/3" (wall), rib depth 7/8" @ 2-2/3" o.c.
8. Super Span® [Roof and Wall]. Net coverage 36", rib depth 1" @ 12" o.c.
9. U Panel [Roof and Wall]. Net coverage 36", rib depth 1" @ 6" o.c.

2.02 MATERIALS

A. PANELS

1. Base Metal:

a. Material:

- (1) Steel conforming to ASTM A792 Zincolume[®], grade 40 for 22, 24 gauge or grade 80 for 26 and 29 gauge.
- (2) [For primers thicker than 0.5 mil] Steel conforming to ASTM A653 (formerly ASTM A446), G-90 Galvanized, grade 40 for 24 gauge or grade 80 for 26 and 29 gauge.

Note: Panel/gauge availability – Information only

Panel	Gauge
HR-36 TM Roof & Wall ¹	26 ³ , 29 ³
Reversed HR-36 TM Wall ¹	26 ³ , 29 ³
Reverse Box Rib TM Roof and Wall ¹	26 ³ , 29 ³
Box Rib TM Wall ¹	26 ³ , 29 ³
Mini-V-Beam TM	26 ⁴
Nu-Wave [®] Corrugated ¹	26 ³
Super Span [®]	24 ² , 26 ⁴ , 22 ⁸
U Panel	24 ⁷ , 26 ⁴ , 29 ⁶

¹See Architectural Roof and Wall Guide Specifications for heavier gauge/coating options in these profiles.

² 24 gauge Super Span[®] available in bare Zincolume[®] Plus, DuraTechTM nt Surf White, ZACTique[®] II, and 25 DuraTechTM5000 colors.

³ 29 gauge is available in 2 standard colors.

⁴ 26 gauge Mini-V-BeamTM, Super Span[®] and U Panel available in Zincolume[®] Plus and 10 standard DuraTech[®] nt colors.

⁵ 26 gauge Nu-Wave[®] Corrugated, HR-36TM and Box RibTM are available in 6 standard DuraTech[®] nt colors.

⁶ 29 gauge available only in bare Zincolume[®] Plus.

⁷ 24 gauge U Panel available in Zincolume[®] Plus and DuraTechTM nt Surf White.

⁸ 22 gauge available in Zincolume[®] Plus, ZACTique[®] II, and 4 DuraTech[®]5000 colors.

b. Protective Coating:

- (1) Conform to ASTM A792, AZ50 (Zincolume[®]).
- (2) [For primers thicker than 0.5 mil] Conform to ASTM A653 (formerly ASTM A525) G-90 Galvanized.

2. Exterior Finish: (choose one)

- a. Zincolume[®] Plus [standard] or G-90 Galvanized [non-standard]
- b. DuraTechTM nt exterior finish includes a 0.2 mil thick corrosion-resistant primer and a 0.8 mil thick finish coat for a total 1.0 mil dry film thickness.
- c. DuraTechTM 5000 (polyvinylidene fluoride), full 70% Kynar[®] 500/Hylar 5000[®] consisting of a baked-on 0.2 mil corrosion resistant primer and a baked-on 0.8 mil finish coat for a total of 1.0 mil dry film thickness, with a specular gloss of 10-15% when tested in accordance with ASTM D-523-89 at 60°.
- d. ZACTique[®] II Treatment.

3. Interior Finish:

- a. Primer Coat Material: Corrosion-resistant primer; primer coat dry film thickness: 0.15 mils; finish coat material: polyester paint, finish coat dry film thickness: 0.35 mils.
- b. Total Interior Dry Film Thickness: 0.50 mils.
- c. Color: Off-White.

4. Color: (choose one)

- a. Manufacturer's standard selection of not less than 10 colors (see footnotes above for product specific information).

- b. Custom color as selected by Architect to be _____ FABRICATION
3. Unless otherwise shown on drawings or specified herein, panels shall be full length. Fabricate flashings and accessories in longest practical lengths.
 4. Roofing panels shall be factory formed. Field formed panels are not acceptable.

PART 3 – EXECUTION

3.01 EXAMINATION

A. EXISTING CONDITIONS

1. Inspect installed work of other trades and verify that such work is complete to a point where this work may continue.
2. Verify that installation may be made in accordance with approved shop drawings and manufacturer's instructions.

3.02 PREPARATION

A. FIELD MEASUREMENTS

1. Verify prior to fabrication.
2. If field measurements differ from drawing dimensions, notify Architect/Engineer prior to fabrication.

B. PROTECTION

1. Treat, or isolate with protective material, and contacting surfaces of dissimilar materials to prevent electrolytic corrosion.
2. Require workmen who will be walking on Roofing Panels to wear clean, soft-soled work shoes that will not pick up stones or other abrasive material, which could cause damage or discoloration.
3. Protect work of other trades against damage and discoloration.

C. SURFACE PREPARATION

1. Clean and dry surfaces prior to applying sealant.

3.03 INSTALLATION

A. PANELS

1. Follow roof panel manufacturer's directions.
2. Install panel seams (choose one) vertically or horizontally. [horizontal choice for wall only].
3. Lap panels away from prevailing wind direction.
4. Do not stretch or compress panel side-laps.
5. Secure panels without warp or deflection.

B. ALLOWABLE ERECTION TOLERANCE

1. Maximum Alignment Variation: 1/2 inch in 40 feet.

C. FLASHING

1. Follow manufacturer's directions and architect approved Shop Drawings.
2. Overlap roof panels at least 6 inches.
3. Install flashings to allow for thermal movement.
4. Remove strippable protective film, if used, immediately preceding flashing installation.

D. CUTTING AND FITTING

1. Neat, square and true. Torch cutting is prohibited where cut is exposed to final view.
2. Openings 6 inches and larger in any direction: Shop fabricate and reinforce to maintain original load capacity.
3. Where necessary to saw-cut panels, deburr cut edges.

3.02 CLEAN UP AND CLOSE OUT

A. PANEL DAMAGE AND FINISH SCRATCHES

1. Do not apply touch-up paint to damaged paint areas that involve minor scratches.

2. Panels or flashings that have severe paint and/or substrate damage shall be replaced as directed by the Architect's or Owner's representative.

Note: AEP Span does not recommend using touch-up paint on damaged surfaces (minor scratches, etc.) due to fading and weathering differences of the touch-up paints in comparison to factory applied paint systems.

B. CLEANING AND REPAIRING

1. At completion of each day's work and at work completion, sweep panels, flashings and gutters clean. Do not allow fasteners, cuttings, filings or scraps to accumulate.
2. Remove debris from project site upon work completion or sooner, if directed.

END OF SECTION

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