

RIB·ROOF[®]

METAL SYSTEMS

CONSTRUCTION SPECIFICATIONS HANDBOOK

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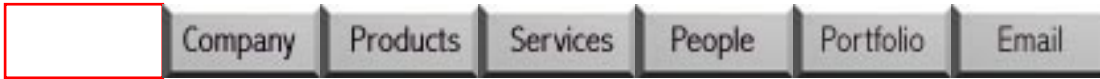
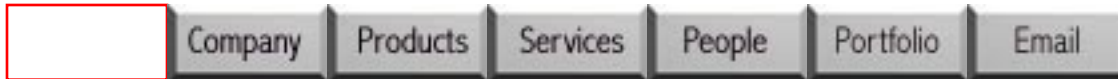


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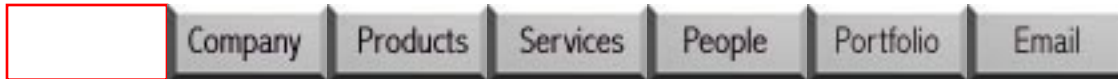
APPLICABLE STANDARDS

I. DESCRIPTION

- A. AISC = American Institute of Steel Construction, Inc., 1221 Avenue of the Americans, New York, New York 10020.
- B. ASTM = American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.
- C. ASTM = American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.
- D. CRSI = (For the purpose of design only) Concrete Reinforcing Steel Institute, 228 LaSalle Street, Chicago, Illinois 60610.
- E. NFPA = National Fire Protection Association, 470 Atlantic Avenue, Boston, Massachusetts 02210.
- F. SDI = Steel Deck Institute, 134 Addison Avenue, Elmhurst, Illinois 60125.
- G. SSPC = Steel Structures painting Council, 4400 5th Avenue, Pittsburgh, Pennsylvania 15213.
- H. UL = Underwriters Laboratories, Inc. 207 East Ohio Street, Chicago, Illinois 60611.
- I. SBCC = Standard Building Code Congress, Birmingham, Alabama 35222. (Southern Standard Building Code).
- J. UBC = Uniform Building Code, International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, California 90601.
- K. SFBC = South Florida Building Code, 140 W. Flagler Street, Miami, Florida 33130.

II. REFERENCE STANDARDS

- A. American Institute of Steel Construction (AISC): Specification for the Design, Fabrication and Erection of Structural Steel for Building; Code of Standard Practice for Steel Buildings and Bridges; Specifications for Architecturally Exposed Structural Steel.
- B. Research Council on Riveted and Bolted Joints of the Engineering Foundation (RCRBJ): Specification for Structural Joints using ASIM A-307 and A-325.



PERFORMANCE REQUIREMENTS

I. MANUFACTURER

- A. The products provided shall be by a manufacturer who has been in the practice of manufacturing light gauge steel components, metal panels and standing seam metal roof systems for a period of not less than 5 years and have been involved in at least 10 projects similar in size and complexity.

II. INSTALLER

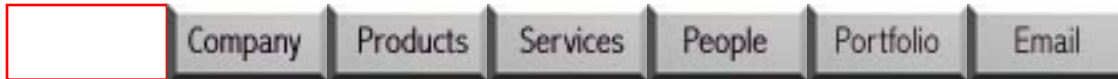
- A. The installer shall be certified by the manufacturer to have the experience in installing the products of the project and have installed at least 3 projects of comparable size, scope and complexity as this project. The installer shall be managed by or employed by the manufacturer.

III. DESIGN

- A. The structural design of the project shall be provided by the manufacturer as a complete system. Member sizes and connections not indicated by customer drawings shall be designed by the manufacturer. Structural components, metal panels, roof system, flashings, accessories and assemblies shall be supplied by the same manufacturer.

IV. PRODUCT

- A. Roof panel testing and certification
 1. Wind Uplift: U.L. 90 Classification
 2. Air Infiltration: Panel without insulation to meet following standard when tested in accordance with ASTM E283-73, with sidelap sealant. 010 CFM/Sq.Ft. at 20 PSF.
 3. Water Penetration: Panel shall meet all the following water penetration standard when tested in accordance with ASTM E-331-70, with sidelap sealant, no leakage at 20 PSF.
- B. Rib Roof product approvals
 1. U.L. 90 Uplift: Report # 10034-9
 2. I.C.B.O.: Report # 3866
 3. Metro Dade: Report #97-0924.02



PRODUCT DELIVERY, HANDLING AND STORAGE

I. PROTECTION

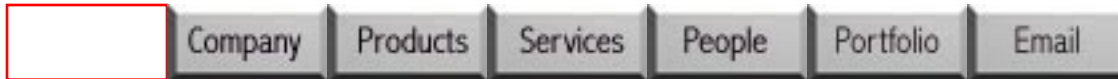
- A. Materials shall be off loaded with a forklift or crane in such a manner to not bend panels and/or material bundles.
- B. Panels shall be stored above ground with one end elevated for drainage.
 - 1. Inspect bundles on arrival at the building site and note on the delivery receipt any exceptions such as damage, corrosion or wet material.
 - 2. Store the bundles on racks at least one foot above ground level. Do not use uncured lumber.
 - 3. Use under-roof storage when possible. If the bundles must be stored in the open on bare ground, a plastic ground cover should be used under the bundles to minimize condensation on the sheets from moisture in the soil.
 - 4. Elevate one end of the bundle to allow moisture to run off rather than puddle on the top of the bundle or between nested panels. Water resistant paper will not keep out puddled moisture beyond its rated moisture vapor transmission time.
- C. Structural materials shall be stored in such a manner to be free of dirt, mud and other trade debris.
- D. Rib Roof shall protect any existing work subject to damage during the installation of specified work and shall adequately protect specified work during installation. The products Rib Roof furnishes are considered finished work that is readily subject to damage by subsequent work or environment conditions shall be protected by the Owner/Contractor immediately following the installation thereof.

II. FIELD QUALITY

- A. Facilities shall be provided by the Owner/Contractor as needed for the proper inspection of the specified work, including temporary platforms, hoists, protective devices, electric current, etc. Improper workmanship, as determined by the Owner/Architect and Rib Roof shall be corrected and replaced, at no additional cost to the project.

III. CONDITIONS OF CONSTRUCTION SITE

- A. Rib Roof requires 10,000 sq. ft. minimum of workable slab area prior to delivery and installation of materials.
- B. Concrete slabs will be broom cleaned and free of debris prior to Rib Roof crew beginning installation.
- C. An area on site is to be designated for material storage and staging of Rib Roof materials.
- D. Temporary power shall be provided by Owner/Contractor to allow for a maximum power lead run of 200 ft. to each structure to be erected.
- E. All underground work such as drainage and electrical shall be complete and driveway areas shall be capped with sub-paving prior to material delivery in order to comply with OSHA Safety Standards.
- F. All sites with multi-story buildings require level grades and access with proper equipment to complete installation of materials in order to comply with OSHA Safety Standards.
- G. Safety railing for multi-story structures shall be provided by the Owner/Contractor when work areas are above grade.
- H. Access to site and all sides of all buildings with equipment is required for timely completion and safety.
- I. Temporary lighting shall be provided by Owner/Contractor for interior work when buildings are designed with hallways.



SHOP DRAWINGS AND COORDINATION DRAWINGS

I. SHOP DRAWINGS

- A. Scale and Measurements: All shop drawings shall accurately be to a scale sufficiently large enough to allow all pertinent aspects of the item and its method of connection to the work.
- B. Three sets of shop drawings shall be included to be reviewed and distributed by the Owner/Architect as part of the proposed project cost, prior to drawings being issued for engineers seal.
- C. Owner/Contractor is required to review and approve all shop drawings prior to sending to Rib Roof as approved. Upon transmittal of shop drawings from the Owner/Contractor, it is understood that he has reviewed the same and that the item submitted complies with the specifications and requirements of the job, unless noted otherwise.
- D. All shop drawings received without evidence of review will be returned.
- E. Rib Roof may require measurements in the field to verify of supplement dimensions indicated and be responsible for accurate fit of specified work.
- F. Production or fabrication of materials may not begin until shop drawings have been approved and returned.
- G. Rib Roof will then make any noted corrections and return up to five stamped drawings by a registered engineer if required. Calculations are furnished only upon request.
- H. Rib Roof will also provide three sets of stamped “for construction” plans to be utilized by Owner/Contractor as necessary for field use.
- I. Additional drawing sets or sepias may be provided at an additional cost to the Owner/Contractor.

II. MANUFACTURER'S LITERATURE

- A. General: Where contents of submitted literature from manufacturer includes data not pertinent to the submittal, clearly indicate which portion of the contents is being submitted for review.
- B. Number of Copies Required: Unless otherwise specified, submit in three copies, for distribution by the Owner/Architect.

III. SAMPLES

- A. Accuracy of Samples: Samples if required shall be of the precise article proposed to be furnished.
- B. Number of Samples Required: Unless otherwise specified, submit all samples in the quantity which is required to be returned plus one which will be retained by the Owner/Architect.
- C. Reuse of Samples: In situations specifically so approved by the Owner/Architect, the Owner/Architect's retained sample may be used in the construction as one of the installed items.

IV. COLORS AND PATTERNS

- A. Unless the precise color and pattern is specifically described in the Rib Roof proposal, and whenever a choice of color or pattern is available in a specified product, submit accurate color and pattern charts from manufacturer's standard color selection to the Owner/Architect for review and selection. Special or spec match colors are available upon request and subject to an adjustment in the contract amount.

V. SUBSTITUTES

- A. The contract is based on the standards of quality established in the Rib Roof proposal.
- B. All products proposed for use, including those specified by required attributes and performance shall require approval by the Owner/Architect before being incorporated into the work.
- C. Do not substitute materials, equipment or methods unless such substitution has been specifically approved for this work by the Owner/Architect/Contractor.
- D. Where the phrase "or equal" or "or equal as approved by the Owner/Architect" occurs in the Contract Documents, do not assume that materials, equipment or methods will be approved as equal unless the item has been specifically approved for this work by the Owner/Architect.

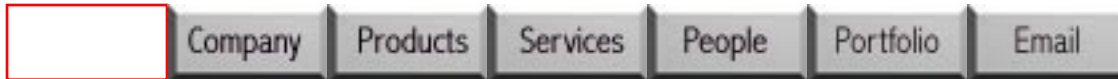
VI. TIMING OF SUBMITTALS

- A. General: Make all submittals far enough in advance of schedule dates for installation to provide all time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery.
- B. Review Time: In scheduling, allow at least 7 to 10 working days for review by the Owner, Architect or Contractor following his receipt of the submittals.
- C. Delays: Delays caused by tardiness in review of submittals may cause delays to delivery, erection and project completion. Rib Roof will not be held responsible for untimely review process.

- D. Partial submittals will not be accepted unless approved in advance by Rib Roof. Additional charges may be deemed necessary if unreasonable changes occur or additional costs are inferred as a result.

VII. PLAN REVIEW

- A. General: Review by the Owner/Architect shall not be construed as a complete check, but only that the design intent, unit mix, building sizes, building heights, general method of construction and detailing is satisfactory. Review shall not relieve the Owner/Contractor from responsibility for errors, which may exist.
- B. The Owner/Architect shall not be responsible for determining and/or verifying quantities. The Owner/Contractor shall be responsible for the overall coordination and correct quantitative analysis of all work.
- C. Authority to Proceed: The notations “Approved as Submitted” or “Approved as Noted” authorizes Rib Roof to proceed with fabrication, purchase or both of the items noted, subject to the revisions, if any, required by the Owner/Architect’s review and comments.
- D. Revisions: Make all revisions required by the Owner/Architect. If Rib Roof considers any required revisions to be a change, they shall so notify the Owner/Architect as provided for under “Changes” in the General Conditions. Show each drawing revision by number, date and subject in a revision block on the drawing. Make only those revisions directed or approved by the Owner/Architect and Rib Roof.
- E. Revisions after Approval: When a submittal has been reviewed by the Owner/Architect, resubmittal for substitution of materials or equipment will not be considered unless accompanied by an acceptable explanation as to why the substitution is necessary. Changes to the approved shop drawings will be subject to an additional charge for, revision time and any additional engineer services needed to complete the revision, and materials required to make the change.



STRUCTURAL STEEL

I. GENERAL

- A. Work under this section consists of providing for the fabrication and erection of structural steel.
- B. **REFERENCE STANDARDS:** Conform to the current edition of the following standards.
 - 1. AISC: Specifications for the design, Fabrication and Erection of Structural Steel for Buildings.
 - 2. AISC: Code of Standard Practice for Steel Buildings and Bridges.
 - 3. AISC: Structural Steel Detailing.
 - 4. AWS D1.1: Structural Welding Code.
Research Council on Riveted and Bolted Structural Joints of the Engineering
 - 5. Foundation: Specifications for Structural Joints using ASTM A307 or A325 bolts.
 - 6. SSPC: Steel Structures Painting Council Systems and Specifications

II. PRODUCTS

- A. Materials
 - 1. AISC: Specifications for the design, Fabrication and Erection of Structural Steel for Buildings.
 - 2. AISC: Code of Standard Practice for Steel Buildings and Bridges.
 - 3. AISC: Structural Steel Detailing.
 - 4. AWS D1.1: Structural Welding Code.
Research Council on Riveted and Bolted Structural Joints of the Engineering
 - 5. Foundation: Specifications for Structural Joints using ASTM A307 or A325 bolts.
 - 6. SSPC: Steel Structures Painting Council Systems and Specifications

III. INTERFACE

- A. Interface and coordinate the work of this phase with the light gauge steel framing composite floor deck and exterior wall systems.

IV. FABRICATION

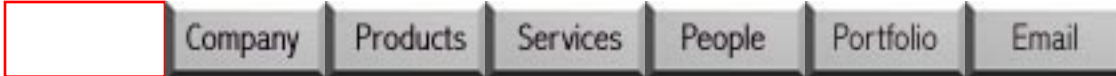
- A. Fabricate structural steel in accordance with AISC Specifications and Code of Standard Practice and approved shop drawings.
- B. Connections shall be as indicated on approved shop drawings. When connections are not detailed they shall be standard beam connections as detailed in the AISC Manual of Steel Construction.
- C. Joints shall be straight and close fitting. Welded members shall have all parts well pinned and firmly drawn together before welding.
- D. Joints shall be straight and close fitting. Welded members shall have all parts well pinned and firmly drawn together before welding.

V. CONNECTIONS

- A. General: All connections shall be designed by fabricator to develop the full working strength of the member in accordance with AISC Standards, unless noted otherwise
- B. General: All connections shall be designed by fabricator to develop the full working strength of the member in accordance with AISC Standards, unless noted otherwise
- C. Use hardened washer under the element turned for high strength bolts.

VI. INSTALLATION

- A. Shop prime structural steel work except members to be welded, members to be connected with high strength friction connections, members to be embedded in concrete, or surfaces to receive sprayed fire proofing are to be painted.
- B. Clean steelwork to be primed. Remove rust, loose mill scale, spatter or flux deposits.
- C. Apply paint to provide full coverage and a dry film thickness of 2 mils.
- D. Erect steel plumb to lines and grades required. Provide temporary bracing necessary to maintain structural integrity; plumb aligned until permanent members are in place and final connections are made.
- E. Column base plates and large bearing plates shall be supported on steel wedges or shims until the structure has been plumbed.
- F. No final bolting or welding shall be started until the surface is properly leveled and plumbed within the tolerances defined in the AISC Code of Standard Practice.
- G. Welded members shall have all parts well-pinned and firmly drawn together with bolts or clamps before welding in commenced. Drift pins may be used only to bring together the several properly fitted parts; they shall not be used in such a manner as to distort or damage the metal. All welded joints must develop the full strength of the members.



COMPOSITE FLOOR DECK

I. GENERAL

- A. Work under this section consists of providing for the fabrication and erection of composite floor deck.
- B. Reference Standards: Conform to the current edition of the following standards.
 - 1. AISI: Specification for the design of cold-formed steel structural members.
 - 2. SDI: Design manual for floor decks and roof decks.
 - 3. SDI: Composite deck design handbook
 - 4. SDI: Diaphragm design manua

II. PRODUCTS

- A. Material
 - 1. Base Metal:
 - a. ASTM A446: Sheet steel, zinc coated (galvanized) by the hot dipped process, structural (physical) quality. 40,000 psi steel minimum.
 - b. ASTM A525: General requirements for the sheet steel, zinc coated (galvanized) by the hot dip process.
 - 2. Configuration: Composite floor deck 36” wide, 2” deep, 18 gauge

III. INTERFACE

- A. Interface and coordinate the work of this phase with structural steel, light gauge steel framing and exterior wall systems.

IV. FABRICATION

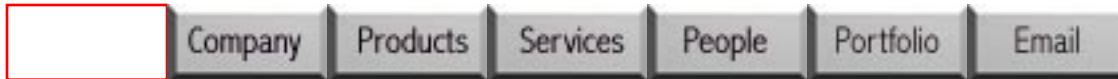
- A. Fabricate composite floor deck units in lengths to span 3 or more supports, unless framing requires otherwise. Panel end joints are to be butted. Sidelaps are to be interlocking type. Composite floor deck shall achieve composite action with concrete by mechanical interlocking with embossments or indentations.

V. CONNECTIONS

- A. Self-drilling, self-tapping screws: ASTM A90, hot dipped galvanized

VI. INSTALLATION

- A. Install deck units in accordance with manufacturer's recommendations and final shop drawings.
- B. Place deck units on supporting steel framework and adjust to final position with ends accurately aligned and breaking on supporting members before being permanently fastened. Place deck units in alignment for entire length of run of flutes and with close alignment between flutes at ends of abutting units. Place deck units flat and square, secured to adjacent framing without warp or excessive deflection.
- C. Immediately after placement and alignment, permanently fasten composite floor deck units to structural supports with screws as shown on final shop drawings.
- D. Do not cut deck units for large openings, unless detailed with supplemental framing in the final shop drawings.



LIGHT GAUGE STEEL FRAMING

I. GENERAL

- A. Work under this section consists of providing for the fabrication and erection of Light Gauge Structural Steel.
- B. Load and non-load bearing formed steel stud exterior wall and interior walls.
- C. All light gauge metal framing shall be of pre-painted primer or galvanized finish.
- D. REFERENCE STANDARDS: Conform to current editions of the following standards.
 - 1. AISC: Specifications for the Design of Light Gauge Cold-Formed Structural Members and Design of Light Gauge Steel Diaphragms.
 - 2. LGSI: Light Gauge Structural Institute Framing and Design Handbook.

II. PRODUCTS

- A. Materials
 - 1. Cee section (16 ga. 14 ga. 12 ga.) Load bearing post located at interior and exterior walls, also used as headers and beams. 55,000 PSI steel minimum. ASTM-570
 - 2. Zee section (16 ga. 14 ga. 12 ga.) Roof purlins supported by load bearing post or roof beams. 55,000 PSI steel. ASTM-570.
 - 3. 4" Channel (16 ga. 14 ga. 12 ga.) for top and bottom track used at continuing wall locations and as eave channels. 55,000 PSI steel minimum. ASTM-570.
 - 4. Door Jamb Section (18 ga. 16 ga. 14 ga.) structural members of three pieces per assembly for roll-up door attachments at exterior walls. 40,000 PSI steel minimum. ASTM-570 and ASTM A525.
 - 5. Channel (12 ga.) Top track at all interior load bearing walls supporting a composite floor deck. 55,000 PSI steel minimum. ASTM-570.
 - 6. Cee Section (22 ga. 20 ga. 18 ga.) infill studs to be used at all exterior walls and any locations between structural studs located at interior walls. 30,000 PSI steel minimum. ASTM-A525.

7. Channel (22 ga. 20 ga. 18 ga.) minimum top and bottom track at all continual non-load bearing wall locations. 33,000 PSI steel minimum. ASTM-A525, A446 and C645.

B. Accessories

1. Base Clip: (PBC) used to attach interior upright columns to concrete slab with designated fasteners and expansion anchor bolts.
2. Endwall Purlin Hangers: (EWPH) used to attach roof purlins to masonry endwalls with designated fasteners and sleeve anchors into solid grouted cell.
3. Mini Clip: (MC) used to secure horizontal framing member to vertical members.
4. Bracing, Furring, Bridging: Formed sheet steel, thickness determined for conditions encountered, manufacturer's shapes, same finish as framing members.

III INTERFACE

- A. Interface and coordinate the work of this phase with the roof panels, partition panels and exterior wall system.

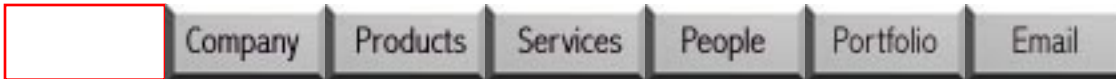
IV. CONNECTIONS

A. General

1. Self-drilling, Self-tapping, Screws: ASTM A90, hot dip galvanized.
2. Anchorage Devices: Power driven, Powder actuated, Drilled expansion bolts and Screws with sleeves.
3. Machine Bolts: ASTM A307 and ASTM A325 as required.
4. Cast in Place Anchors: Not by Rib Roof

III INSTALLATION

- A. Fabricate assemblies of framed sections of sizes and profiles required; with framing members fitted, reinforced and braced to suit design requirements.
- B. Fit and assemble largest practical sections for delivery to site, ready for installation.
- C. Structural members shall be erected plumb to lines and heights as required. Temporary bracing may be necessary for plumb alignment until permanent members are in place and final connections are made
- D. When torch or weld conditions occur, steel is to be cleaned free from burrs, ruff edges and touched up with primer paint of similar finish.



STANDING SEAM ROOFING SYSTEM

I. GENERAL

- A. Work under this section may include sub-framing or roof support members in accordance to the section listed as light gauge metal framing. This section would also include all related roof flashings and accessory items as required or shown on the approved erection drawings

II. PRODUCTS

A. Metal Panels

- 1. Base Metal:
 - a. Material Specification: Steel conforming to ASTM A792 Structural Quality Grade 50(Galvalume®) or ASTM A653 Structural Quality Grade 50 (Galvanized). Material thickness: 24 gauge minimum.

Color: (Choose One)

- a. Manufacturer's standard selection of 9 colors.
- 2. b. Manufacturer's available custom selection available upon request.
- c. Custom color as selected by Owner/Architect to be _____.

- 3. Configuration: Roof panels shall consist of integral self-locking standing seams with a rib height of 2 inches spaced 9 inches o.c., nominal panel width 18 inches.

B. Flashing

- 1. Material, gauge and finish to match panels. Do not use lead or copper

C. Accessories

1. Fastener Clip shall be 18 gauge steel clip coated with galvanized finish, UL-90 rated (Construction #204).
2. Fasteners shall be per manufacturer's recommendation and/or approved shop drawings.
3. End Closures
 - a. Shall be field formed stop end with factory tool provided by Rib Roof.
 - b. Closures: weatherproof, laminated, semi-rigid, cross-linked polyethylene foam, tightly fit to panel configuration.
4. Roof panels shall be drip formed in the field for all pitches below 1:12.
5. Roof panels shall be continuous length from eave to eave when roof pitch is 3/8:12 or less an panels up to 60'

D. Sealants

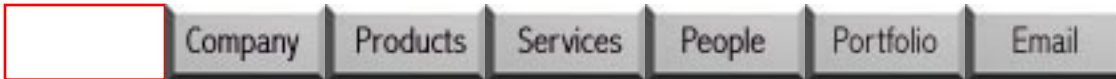
1. Gunable grade caulking as manufactured by Mameco Weatherproofing Vulkem #116 and/or #921.

IV. FABRICATION

- A. Roofing panels shall be factory formed. Field formed panels are not acceptable.
- B. Unless otherwise shown on drawings or specified herein, fabricated panels in continuous one-piece lengths and fabricated flashings and accessories in longest practical lengths.

V. INSTALLATION

- A. Installation shall be in accordance to the Rib Roof Technical Manual or approved shop drawings.



PARTITION PANELS

I. GENERAL

- A. Work under this section may include sub-framing or structural and non-structural supports in accordance to the section listed as light gauge metal framing. This section would include fill-in flashing and accessory items as required or shown on the approved erection drawings.

II. PRODUCT

- A. Metal panels
 - 1. Base Metal:
 - a. Material Specification: Steel conforming to ASTM A792 structural quality grade E (Galvalume).
 - b. Material Thickness: 26 ga. Standard /26 ga. Minimum
 - 2. Configuration:
 - a. U-Panel shall consist of a panel 36” wide with 3/4” high ribs every 6” on center.
 - b. R-Panel shall consist of a panel 36” wide with 1/4” high ribs 12” on center.
- B. Flashings
 - 1. Materials, gauge and finish to match panels. Do not use lead or copper. Fill-in flashings may be used as an alternate to field cut sheets at the top of partition walls.
 - 2. Flashings shall be of the same finish and gauge as partition panels.

C. Accessories

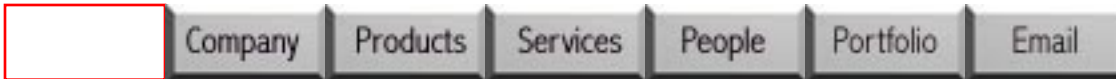
1. Fasteners: per manufacturer's recommendation and/or approved shop drawings.
2. End closures, when required, shall be material weatherproof, laminated semi rigid, cross-linked polyethylene foam tightly fit to panel configuration.
At the request of the Owner/Architect plastic protection devices "mocaps" may be provided for exposed screw tips below 7'-0". Cap shall be sized 3/4" x .172.
- 3.
4. 18 ga. J or L shape section will be provided for non-structural walls, intersection connections and at masonry wall attachments.

III. INTERFACE

- A. Interface and coordinate the work of this phase with the structural framing for roof supports and hallway systems not furnished by Rib Roof.

IV. FABRICATION

- A. Unless otherwise shown on drawings or specified herein, fabricate panels in continuous one-piece lengths not to exceed 30 foot and fabricate flashings and accessories in longest practical lengths that will allow attachments to vertical structural supports.
- B. Partition panels are to be factory formed.



SIDING PANELS

I. GENERAL

- A. Work under this section may include structural framing or girts in accordance to the section listed as Light Gauge Steel Framing. This section would include exterior metal wall panels, pier caps, flashings and accessory items required or shown on the approved erection drawings.

II. PRODUCT

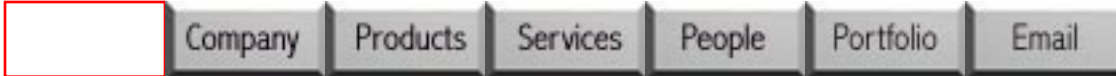
- A. Metal panels
 - 1. Base Metal:
 - a. Material Specification: Steel conforming to ASTM A792 structural quality grade E (Galvalume) or ASTM A653 structural quality grade E (Galvanized).
 - b. Material Thickness: 26 ga. Standard/29 ga. Minimum
 - 2. Configuration:
 - a. U-Panel shall consist of a panel width of 36” wide with ¾” high rib every 6” on center.
 - b. R-panel shall consist of a panel 36” wide with 1 ¼” high ribs 12” on center.
 - c. Pier cap shall be made from the same coil stock as the preformed metal panels.
- B. Flashings
 - 1. Materials, gauge and finish to match panels. Do not use lead or copper.
- C. Accessories
 - 1. Fasteners: per manufacturer’s recommendation and/or approved shop drawings.
 - 2. End closures, when required, shall be material weatherproof, laminated semi rigid, cross-linked polyethylene foam tightly fit to panel configuration.

III. INTERFACE

- A. Interface and coordinate the work of this phase with the structural framing for exterior walls, wall insulation and liner panels.

IV. FABRICATION

- A. Unless otherwise shown on drawings or specified herein, fabricate panels in continuous one-piece lengths not to exceed 20 foot and fabricate flashings and accessories in longest practical lengths.
- B. Siding panels are to be factory formed.



INSULATION

I. GENERAL

- A. Work under this section may include thermal barrier protection at the roof, exterior wall and at interior walls separating temperature control areas from non-controlled areas.

II. PRODUCT

- A. Shall be a light density fibrous glass blanket that may or may not require a laminate facing. This product shall have a flame spread rating of 25 or less and smoke developed rating of 50 or less when tested in accordance with U.L. 723.
- B. Insulation facing shall have a permeability of .02 or less when tested in accordance with ASTM-E-96. Facing shall be white with reinforced fiber strands that are factory applied. The vinyl facing acting as a vapor membrane shall always be placed nearest the interior of the building.
- C. Accessories
 - 1. Double-faced tape is to be used when required to hold insulation edges in place until metal panel is installed
 - 2. Vinyl self adhesive tape of the same laminated finish shall be applied on puncture holes.

III. INTERFACE

- A. Interface and coordinate the work of this phase with the installation of the roof panels, exterior metal wall panels and the partition walls separating temperature-controlled units.

IV. INSTALLATION

- A. Blanket insulation shall be installed perpendicular to the roof purlins in the longest practical length with tabs on one or both sides for face lapping at butt joints. The blanket should be stretched in such a manner to be taut and prevent excessive sag. Double face tape should be applied at starter and stop edges to temporarily hold blanket in place during panel installation. The edge of the insulation blanket shall be terminated in such a manner as not to be exposed to outside moisture by folding vinyl barrier over all finish edges.

- B. A second layer of unfaced insulation may be added between the purlins to provide additional R-value.
- C. Vinyl patch tape of the same barrier finish shall be applied over puncture holes.