SECTION 05 31 23

STEEL ROOF DECKING

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

*Copyright 2020 - 2024 ARCAT, Inc. - All rights reserved*

\*\* NOTE TO SPECIFIER \*\* Vulcraft/Verco Group; steel joists and decking.  
This section is based on the products of Vulcraft/Verco Group, which is located at:6610 CR 60St. Joe, IN 46785Email: [request info (dave.bjork@nucor.com)](https://arcat.com/rfi?action=email&company=Vulcraft%252FVerco%252BGroup&message=RE%253A%2520Spec%2520Question%2520(05312vrc)%253A%2520&coid=36399&spec=05312vrc&rep=&fax=)  
Web: <http://www.vulcraft.com> | <http://www.vercodeck.com>   
 [ [Click Here](https://arcat.com/company/vulcraft-verco-group-36399) ] for additional information.  
We are the SAFEST, highest quality, lowest cost, most productive and most profitable steel and steel products company in the world. We are committed to this while being cultural and environmental stewards in our communities where we live and work. We are succeeding by working together.  
One of Verco's's values is the commitment to safety. Safety is in the forefront of our minds when it comes to fabricating, loading and delivering our products to the site. Safety is also foremost when it comes to our products themselves. Our commitment to safety extends to those who use our products, whether they know it or not. Our products typically carry the weight of floors and roofs in non-residential structures and we take great pride in gathering the information necessary to design and fabricate a product that will safely carry the loads intended for the structure.  
Along with the other values noted in our mission statement, Verco also has a strong commitment to the communities and the environment where our facilities are located. We strive to be "good neighbors" to those who live and work within our communities, both human and nonhuman.

1. GENERAL
   1. SECTION INCLUDES

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

* + 1. Roof Decks; Steel:
       1. Profile: Type B-36.
       2. Profile: Type N3-32.
       3. Profile: Type N-24.
       4. Profile: Type 2.0D
       5. Profile: Type 3.5D
    2. Roof Decks; Steel Acoustical:
       1. Profile: Type B-36.
       2. Profile: Type B-36, 11 percent open fully perforated.
       3. Profile: Type B-36, 21 percent open fully perforated.
       4. Profile: Type N3-32.
       5. Profile: Type N3-32, 11 percent open fully perforated.
       6. Profile: Type N3-32, 21 percent open fully perforated.
       7. Profile: Type N-24.
       8. Profile: Type N-24, 11 percent open fully perforated.
       9. Profile: Type N-24, 21 percent open fully perforated.
       10. Profile: Type 2.0D
       11. Profile: Type 3.5D
    3. Roof Decks; Cellular:
       1. Profile: Type B-36.
       2. Profile: Type N3-32.
       3. Profile: Type N-24.
    4. Roof Decks; Cellular Acoustical:
       1. Profile: Type B-36.
       2. Profile: Type N3-32.
       3. Profile: Type N-24.
  1. RELATED SECTIONS

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

* + 1. Section 03 31 00 - Structural Concrete.
    2. Section 03 34 00 - Low Density Concrete.
    3. Section 03 50 00 - Cast Decks and Underlayment.
    4. Section 05 12 13 - Architecturally-Exposed Structural Steel Framing.
    5. Section 05 50 00 - Metal Fabrications.
    6. Section 09 90 00 - Painting and Coating.
  1. REFERENCES

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

* + 1. American National standards institute (ANSI):
       1. ANSI/SDI-RD - Standard for Steel Roof Deck.
    2. American Welding Society (AWS):
       1. AWS D1.3 - Structural Welding Code-Sheet Steel.
    3. ASTM International (ASTM):
       1. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
       2. ASTM A1063/A1063M - Standard Specification for Steel Sheet, Twin-Roll Cast, Zinc-Coated (Galvanized) by the Hot-Dip Process.
       3. ASTM A 1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
       4. ASTM A 1039/A1039M - Standard Specification for Steel, Sheet, Hot Rolled, Carbon, Commercial, Structural, and High-Strength Low-Alloy, Produced by Twin-Roll Casting Process.
       5. ASTM C423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
       6. ASTM C1513 - Standard Specification for Steel Tapping Screws for Cold-Formed Steel Framing Connections.
       7. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
       8. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.
       9. ASTM E795 - Standard Practices for Mounting Test Specimens During Sound Absorption Tests.
    4. FM Global (FM):
       1. FM - Approval Guide, Building Materials.
       2. FM 4451 - Approval Standard for Class 1 Insulated Steel Roof Decks.
    5. International building Code (IBC):
       1. IBC 1704 - Structural Tests and Special Inspections.
       2. IBC 1705 - Statement of special inspections.
    6. Underwriters Laboratories (UL).
  1. DEFINITIONS
     1. ASD - Allowable Strength Design (ASD) method.
     2. LRFD - Load and Resistance Factor Design method.
     3. TSW - Top Seam Welds.
     4. BP - Button Punch.
  2. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: For each type of decking specified, including dimensions, components, profiles, and finishes.
     3. Shop Drawings: Layout of decks, anchoring, reinforcing, openings, joints, accessories, and attachments details.

\*\* NOTE TO SPECIFIER \*\* Delete welding certificates if not required.

* + 1. Welding certificates.

\*\* NOTE TO SPECIFIER \*\* Delete product certificates if not required.

* + 1. Product certificates.

\*\* NOTE TO SPECIFIER \*\* Delete product test reports if not required.

* + 1. Product Test Reports: Tested by qualified testing agency, showing compliance with specified requirements for acoustical roof deck.

\*\* NOTE TO SPECIFIER \*\* Delete "Field quality-control reports" Paragraph below if Contractor is not responsible for field quality-control testing and inspecting.

* + 1. Field quality-control reports.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraph if LEED is not applicable.

* + 1. LEED Submittals: Provide product data to document recycled content.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: All primary products specified in this section shall be supplied by a single manufacturer with a minimum of ten years' experience in the manufacture of steel deck.
        1. Manufacturer offering deck products must be a member of the Steel Deck Institute.
     2. Installer Qualifications: Minimum two years' experience installing similar products.

\*\* NOTE TO SPECIFIER \*\* Delete if contractor is not responsible for acquiring testing agency.

* + 1. Testing Agency Qualifications per ASTM E 329: For testing indicated.

\*\* NOTE TO SPECIFIER \*\* Delete if welding is not required.

* + 1. Welding Qualifications: Per AWS D1.3/D1.3M, "Structural Welding Code - Sheet Steel."

\*\* NOTE TO SPECIFIER \*\* Delete if FM Global listing is not required.

* + 1. FM Global Listing: Listed steel roof deck in FM Global's "Approval Guide, Building Materials" for Class 1 fire rating and Class 1-90 windstorm ratings.
  1. PRE-INSTALLATION CONFERENCE
     1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Deliver products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.
     2. Store products in clean, dry, sheltered area off the ground until ready for use.
     3. Protect products from exposure to direct sunlight and rain.

\*\* NOTE TO SPECIFIER \*\* Retain subparagraph below if acoustical roof deck with insulation is required.

* + - 1. Protect steel deck from exposure to sunlight and rain. Store steel deck on the jobsite off the ground and covered with waterproof material to prevent exposure to rain or condensation.
      2. Protect and ventilate acoustical insulation to maintain insulation free of moisture.
    1. Handle materials to avoid damage.
  1. PROJECT CONDITIONS
     1. 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 recommended limits.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Vulcraft/Verco Group, which is located at:6610 CR 60St. Joe, IN 46785Email: [request info (dave.bjork@nucor.com)](https://arcat.com/rfi?action=email&company=Vulcraft%252FVerco%252BGroup&message=RE%253A%2520Spec%2520Question%2520(05312vrc)%253A%2520&coid=36399&spec=05312vrc&rep=&fax=);Web: <http://www.vulcraft.com> | <http://www.vercodeck.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.
  1. PERFORMANCE REQUIREMENTS
     1. Structural Characteristics: Calculated per AISI's "North American Specification for the Design of Cold-Formed Steel Structural Members."

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if decking is not part of a fire-resistance rated assembly.

* + 1. Fire-Resistance Ratings per ASTM E 119 or UL 263.

\*\* NOTE TO SPECIFIER \*\* Delete design designation option not required.

* + - 1. Indicate design designations from UL's "Fire Resistance Directory."
         1. Indicate rating and design designation on the Drawings.
      2. Indicate design designations from a qualified testing agency.
         1. Indicate rating and design designation on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete if meeting Factory Mutual requirements are not required.

* + 1. Factory Mutual Approval Ratings per FM Standard 4451 for Class 1 fire and Class 1-90 windstorm ratings.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. ROOF DECKS; STEEL

\*\* NOTE TO SPECIFIER \*\* Delete profile options not required. See individual product data sheets for section properties, loading data.

* + 1. Profile: Type B. Grade 50 steel.

\*\* NOTE TO SPECIFIER \*\* The difference between the PLB-36 profile and HSB-36 profile is the method of sidelap attachment; the panels themselves are identical in both geometry and material properties. The prefix "PL" designates a PunchLok II version of the B profile, while "HS" (high shear) indicates a top seam weld, button punch, or screw version of the same profile. Delete sidelap options not required.

* + - 1. Sidelap: PLB-36 Deck used with PunchLok II System.
      2. Sidelap: HSB-36 Deck used with TSWs or BPs.
      3. Sidelap: HSB-36-SS Deck used with Side-lap Screws.
      4. Structural roof deck, providing vertical load and diaphragm shear capacity. The wide rib profile is ideal to uniformly support roofing systems applied on top of deck. Typically used for span conditions of 10 feet (3048 mm) or less.
         1. Rib Depth: 1.5 inch (38 mm).
         2. Width: 36 inches (914 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      5. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profile: Type N3. Grade 50 steel.

\*\* NOTE TO SPECIFIER \*\* The difference between the PLN3 profile and HSN3 profile is the method of sidelap attachment; the panels themselves are identical in both geometry and material properties. The prefix "PL" designates a PunchLok II version of the N profile, while HSN indicates a top seam weld or button punch version of the same profile. Delete sidelap options not required.

* + - 1. Sidelap: PLN3-32 Deck used with PunchLok II System.
      2. Sidelap: HSN3-32 Deck used with TSWs or BPs.
      3. Sidelap: HSN3-32-NS Deck used with Side-lap Screws.
      4. Sidelap: HSN3-32-SS Deck used with Side-lap Screws.
      5. Structural roof deck, providing vertical load and diaphragm shear capacity. The N deck rib profile is ideal for longer span conditions. Typically used for span conditions greater than 10 feet (3048 mm) or when a specific aesthetic look is desired. The narrow low flutes and wide high flutes of N Deck create a very uniform look from the bottom side.
         1. Rib Depth: 3 inches (76 mm).
         2. Width: 32 inches (813 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      6. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profile: Type N-24. Grade 50 steel.

\*\* NOTE TO SPECIFIER \*\* The difference between the PLN-24 profile and N-24 profile is the method of sidelap attachment; the panels themselves are identical in both geometry and material properties. The prefix "PL" designates a PunchLok version of the N profile, while N alone indicates the top seam weld or button punch version of the same N profile. Delete sidelap options not required.

* + - 1. Sidelap: PLN-24 Deck used with PunchLok II System.
      2. Sidelap: N-24 Deck used with TSWs or BPs.
      3. Sidelap: N-24-SS Deck used with Side-lap Screws.
      4. Structural roof deck, providing vertical load and diaphragm shear capacity. The N deck rib profile is ideal for longer span conditions. Typically used for span conditions greater than 10 feet (3048 mm) or when a specific aesthetic look is desired. The narrow low flutes and wide high flutes of N Deck create a very uniform look from the bottom side.
         1. Rib Depth: 3 inches (76 mm).
         2. Width: 24 inches (610 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      5. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profile: Dovetail Rook Decks. Grade 40 steel.

\*\* NOTE TO SPECIFIER \*\* Delete profile type option not required.

* + - 1. Profile Type: 2.0D.
         1. Rib Depth: 2 inches (51 mm).
         2. Width: 24 inches (610 mm).
         3. Edges: Side lap when installed.
      2. Profile Type: 3.5D
         1. Rib Depth: 3.5 inches (89 mm).
         2. Width: 24 inches (610 mm).
         3. Edges: Side lap when installed.
      3. Standards Compliance:
         1. ASTM A653 SS GR 40 Minimum.

Zinc Coating: G90.

* + - * 1. IAPMO UES ER-423.
        2. FM listed.
        3. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths shorter than 6 ft, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 42 ft (1829 to 12802 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required. For 19 gage contact manufacturer for details.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish options not required.

* + - 1. Finish: Enhanced 2-coat polyester paint.
      2. Finish: White factory primer paint.
      3. Finish: Galvanized.
      4. Finish: \_\_\_\_\_\_\_\_.
      5. Finish: As detailed on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required. See manufacturer's website for noise reduction coefficient data.

* 1. ROOF DECKS; STEEL ACOUSTICAL

\*\* NOTE TO SPECIFIER \*\* Delete profile options not required. See individual product data sheets for section properties, loading data.

* + 1. Profiles: Type B Grade 50 steel.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap options not required.

* + - 1. Sidelap: PLB-36 AC Deck used with PunchLok II System.
      2. Sidelap: HSB-36 AC Deck used with TSWs or BPs.
      3. Sidelap: HSB-36-SS AC Deck used with Side-lap Screws.
      4. Structural roof deck, providing vertical load and diaphragm shear capacity. The wide rib profile is ideal to uniformly support roofing systems applied on top of deck. Typically used for span conditions of 10 feet (3048 mm) or less.
         1. Rib Depth: 1.5 inch (38 mm).
         2. Width: 36 inches (914 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      5. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profiles: Type B 11 Percent Open Fully Perforated,Grade 50 steel.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap options not required.

* + - 1. Sidelap: PLB-36 FP11 Deck used with PunchLok II System.
      2. Sidelap: HSB-36 FP11 Deck used with TSWs or BPs.
      3. Sidelap: HSB-36-SS FP11 Deck used with Side-lap Screws.
      4. Structural roof deck, providing vertical load and diaphragm shear capacity. The wide rib profile is ideal to uniformly support roofing systems applied on top of deck. Typically used for span conditions of 10 feet (3048 mm) or less.
         1. Rib Depth: 1.5 inch (38 mm).
         2. Width: 36 inches (914 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      5. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profiles: Type B 21 Percent Open Fully Perforated, Grade 50 steel. ASD and LRFD.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap options not required.

* + - 1. Sidelap: PLB-36 FP21 Deck used with PunchLok II System.
      2. Sidelap: HSB-36 FP21 Deck used with TSWs or BPs.
      3. Sidelap: HSB-36-SS FP21 Deck used with Side-lap Screws.
      4. Structural roof deck, providing vertical load and diaphragm shear capacity. The wide rib profile is ideal to uniformly support roofing systems applied on top of deck. Typically used for span conditions of 10 feet (3048 mm) or less.
         1. Rib Depth: 1.5 inch (38 mm).
         2. Width: 36 inches (914 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      5. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm)..
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profiles: Type N3 Grade 50 steel.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap options not required.

* + - 1. Sidelap: PLN3-32 AC Deck used with PunchLok II System.
      2. Sidelap: HSN3-32 AC Deck used with TSWs or BPs.
      3. Sidelap: HSN3-32-NS AC Deck used with Side-lap Screws.
      4. Sidelap: HSN3-32-SS AC Deck used with Side-lap Screws.
      5. Structural roof deck, providing vertical load and diaphragm shear capacity. The wide rib profile is ideal to uniformly support roofing systems applied on top of deck. Typically used for span conditions of 10 feet (3048 mm) or less.
         1. Rib Depth: 3 inch (76 mm).
         2. Width: 32 inches (914 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      6. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profiles: Type N3 11 Percent Open Fully Perforated, Grade 50 steel. ASD and LRFD.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap options not required.

* + - 1. Sidelap: PLN3-32 FP11 Deck used with PunchLok II System.
      2. Sidelap: HSN3-32 FP11 Deck used with TSWs or BPs.
      3. Sidelap: HSN3-32-NS FP11 Deck used with Side-lap Screws.
      4. Sidelap: HSN3-32-SS FP11 Deck used with Side-lap Screws.
      5. Structural roof deck, providing vertical load and diaphragm shear capacity. The wide rib profile is ideal to uniformly support roofing systems applied on top of deck. Typically used for span conditions of 10 feet (3048 mm) or less.
         1. Rib Depth: 3 inch (76 mm).
         2. Width: 32 inches (914 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      6. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm)
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profiles: Type N3 21 Percent Open Fully Perforated, Grade 50 steel. ASD and LRFD.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap options not required.

* + - 1. Sidelap: PLN3-32 FP21 Deck used with PunchLok II System.
      2. Sidelap: HSN3-32 FP21 Deck used with TSWs or BPs.
      3. Sidelap: HSN3-32-NS FP21 Deck used with Side-lap Screws.
      4. Sidelap: HSN3-32-SS FP21 Deck used with Side-lap Screws.
      5. Structural roof deck, providing vertical load and diaphragm shear capacity. The wide rib profile is ideal to uniformly support roofing systems applied on top of deck. Typically used for span conditions of 10 feet (3048 mm) or less.
         1. Rib Depth: 3 inch (76 mm).
         2. Width: 32 inches (914 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      6. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profiles: Type N-24 Grade 50 steel.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap options not required.

* + - 1. Sidelap: PLN-24 AC Deck used with PunchLok II System.
      2. Sidelap: N-24 AC Deck used with TSWs or BPs.
      3. Sidelap: N-24-SS AC Deck used with Side-lap Screws.
      4. Structural roof deck, providing vertical load and diaphragm shear capacity. The N deck rib profile is ideal for longer span conditions. Typically used for span conditions greater than 10 feet (3048 mm) or when a specific aesthetic look is desired. The narrow low flutes and wide high flutes of N Deck create a very uniform look from the bottom side.
         1. Rib Depth: 3 inches (76 mm).
         2. Width: 24 inches (610 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      5. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profiles: Type N-24 11 Percent Fully Open Perforated Grade 50 steel. ASD and LRFD.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap options not required.

* + - 1. Sidelap: PLN-24 FP11 Deck used with PunchLok II System.
      2. Sidelap: N-24 FP11 Deck used with TSWs or BPs.
      3. Sidelap: N-24-SS FP11 Deck used with Side-lap Screws.
      4. Structural roof deck, providing vertical load and diaphragm shear capacity. The N deck rib profile is ideal for longer span conditions. Typically used for span conditions greater than 10 feet (3048 mm) or when a specific aesthetic look is desired. The narrow low flutes and wide high flutes of N Deck create a very uniform look from the bottom side.
         1. Rib Depth: 3 inches (76 mm).
         2. Width: 24 inches (610 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      5. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profiles: Type N-24 21 Percent Fully Open Perforated Grade 50 steel.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap options not required.

* + - 1. Sidelap: PLN-24 FP21 Deck used with PunchLok II System.
      2. Sidelap: N-24 FP21 Deck used with TSWs or BPs.
      3. Sidelap: N-24-SS FP21 Deck used with Side-lap Screws.
      4. Structural roof deck, providing vertical load and diaphragm shear capacity. The N deck rib profile is ideal for longer span conditions. Typically used for span conditions greater than 10 feet (3048 mm) or when a specific aesthetic look is desired. The narrow low flutes and wide high flutes of N Deck create a very uniform look from the bottom side.
         1. Rib Depth: 3 inches (76 mm).
         2. Width: 24 inches (610 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.
      5. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60 or G90.

* + - * 1. ASTM A1008 SS GR50 minimum.
        2. IAPMO UES ER-2018.
        3. UL and FM listed.
        4. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths other than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 40 ft (1829 mm to 12192 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Primer: White.
         2. Primer: Gray.
         3. Finish: \_\_\_\_\_\_\_\_.
         4. Finish: As detailed on the Drawings.
    1. Profiles: Type Dovetail Acoustical

\*\* NOTE TO SPECIFIER \*\* Delete profile type option not required.

* + - 1. Profile Type: 2.0DA Acoustical Dovetail Roof Deck Grade 40 steel. ASD and LRFD.
         1. Rib Depth: 2 inches (51 mm).
         2. Width: 24 inches (610 mm).
         3. Edges: Side lap when installed.
      2. Profile Type: 3.5 DA Acoustical Dovetail Roof Deck Grade 40 steel. ASD and LRFD.
         1. Rib Depth: 3.5 inches (89 mm).
         2. Width: 24 inches (610 mm).
         3. Edges: Side lap when installed.
      3. Standards Compliance:
         1. ASTM A653 SS GR 40 Minimum.

Zinc Coating: G90.

* + - * 1. IAPMO UES ER-423.
        2. FM listed.
        3. ANSI/SDI RD-2017.

\*\* NOTE TO SPECIFIER \*\* For lengths shorter than 6 ft, contact manufacturer for details.

* + - 1. Standard Lengths: 6 to 42 ft (1829 to 12802 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required. For 19 gage contact manufacturer for details.

* + - 1. Thickness: 22 gage. 0.0299 inches (0.759 mm).
      2. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      3. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      4. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete finish option not required.

* + - 1. Finish: Enhanced 2-coat polyester paint.
      2. Finish: White factory primer paint.
      3. Finish: Galvanized.
      4. Finish: \_\_\_\_\_\_\_\_.
      5. Finish: As detailed on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete acoustical insulation options not required. Fiberglass plain is standard.

* + - 1. Acoustical Insulation: Fiberglass; plain.
      2. Acoustical Insulation: Fiberglass; encapsulated.
      3. Acoustical Insulation: 1/2 inch (13 mm) roof board; plain.
      4. Acoustical Insulation: 1/2 inch (13 mm) roof board; encapsulated.
      5. Acoustical Insulation: Poly-Iso; plain.
      6. Acoustical Insulation: Poly-Iso; encapsulated.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. ROOF DECKS; CELLULAR

\*\* NOTE TO SPECIFIER \*\* Delete profile options not required. See individual product data sheets for section properties, loading data.

* + 1. Profile: Type B Cellular Roof Deck. Grade 50 steel.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap option not required.

* + - 1. Sidelap: PLBCD-36 Deck used with PunchLok II System.
      2. Sidelap: HSBCD-36 Deck used with TSWs or BPs.
      3. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60.

* + - * 1. IAPMO UES ER-2018.
        2. UL and FM listed.
        3. ANSI/SDI RD-2017 and C-2017.
      1. Profile Attributes:
         1. Rib Depth: 1.5 inch (38 mm).
         2. Width: 36 inches (914 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.

\*\* NOTE TO SPECIFIER \*\* For lengths longer than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 7.5 to 30 ft (2286 to 9144 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      2. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      3. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Finish: \_\_\_\_\_\_\_\_.
         2. Finish: As detailed on the Drawings.
    1. Profile: Type N3 Cellular Roof Deck:

\*\* NOTE TO SPECIFIER \*\* Delete sidelap option not required.

* + - 1. Sidelap: PLN3CD-32 Deck used with PunchLok II System.
      2. Sidelap: HSN3CD-32 Deck used with TSWs or BPs.
      3. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60.

* + - * 1. IAPMO UES ER-2018.
        2. UL and FM listed.
        3. ANSI/SDI RD-2017
      1. Profile Attributes:
         1. Rib Depth: 3 inch (76 mm).
         2. Width: 32 inches (813 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.

\*\* NOTE TO SPECIFIER \*\* For lengths longer than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 7.5 to 30 ft (2286 to 9144 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      2. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      3. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Finish: \_\_\_\_\_\_\_\_.
         2. Finish: As detailed on the Drawings.
    1. Profile: Type N-24 Cellular Roof Deck.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap option not required.

* + - 1. Sidelap: PLNCD-24 Deck used with PunchLok II System.
      2. Sidelap: NCD-24 Deck used with TSWs or BPs.
      3. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60.

* + - * 1. IAPMO UES ER-2018.
        2. UL and FM listed.
        3. ANSI/SDI RD-2017
      1. Profile Attributes:
         1. Rib Depth: 3 inch (76 mm).
         2. Width: 24 inches (610 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.

\*\* NOTE TO SPECIFIER \*\* For lengths longer than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 7.5 to 30 ft (2286 to 9144 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      2. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      3. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Finish: \_\_\_\_\_\_\_\_.
         2. Finish: As detailed on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required. See manufacturer's website for noise reduction coefficient data.

* 1. ROOF DECKS; CELLULAR ACOUSTICAL

\*\* NOTE TO SPECIFIER \*\* Delete profile options not required. See individual product data sheets for section properties, loading data.

* + 1. Profile: Type B Cellular Acoustical Roof Deck. Grade 50 steel.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap option not required.

* + - 1. Sidelap: PLBCD-36 AC Deck used with PunchLok II System.
      2. Sidelap: HSBCD-36 AC Deck used with TSWs or BPs.
      3. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60.

* + - * 1. IAPMO UES ER-2018.
        2. UL and FM listed.
        3. ANSI/SDI RD-2017
      1. Profile Attributes:
         1. Rib Depth: 1.5 inch (38 mm).
         2. Width: 36 inches (914 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.

\*\* NOTE TO SPECIFIER \*\* For lengths longer than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 7.5 to 30 ft (2286 to 9144 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      2. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      3. Thickness: 16 gage. 0.0598 inches (1.519 mm).
      4. Optional Features:
         1. Finish: \_\_\_\_\_\_\_\_.
         2. Finish: As detailed on the Drawings.
    1. Profile: Type N3 Cellular Acoustical Roof Deck.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap option not required.

* + - 1. Sidelap: PLN3CD-32 AC Deck used with PunchLok II System.
      2. Sidelap: HSN3CD-32 AC Deck used with TSWs or BPs.
      3. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60.

* + - * 1. IAPMO UES ER-2018.
        2. UL and FM listed.
        3. ANSI/SDI RD-2017
      1. Profile Attributes:
         1. Rib Depth: 3 inch (76 mm).
         2. Width: 32 inches (813 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.

\*\* NOTE TO SPECIFIER \*\* For lengths longer than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 7.5 to 30 ft (2286 to 9144 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      2. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      3. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Finish: \_\_\_\_\_\_\_\_.
         2. Finish: As detailed on the Drawings.
    1. Profile: Type N-24 Cellular Acoustical Roof Deck

\*\* NOTE TO SPECIFIER \*\* Delete sidelap option not required.

* + - 1. Sidelap: PLNCD-24 AC Deck used with PunchLok II System..
      2. Sidelap: NCD-24 AC Deck used with TSWs or BPs.
      3. Standards Compliance:
         1. ASTM A653 SS GR50 minimum.

Zinc Coating: G60.

* + - * 1. IAPMO UES ER-2018.
        2. UL and FM listed.
        3. ANSI/SDI RD-2017
      1. Profile Attributes:
         1. Rib Depth: 3 inch (76 mm).
         2. Width: 24 inches (610 mm).
         3. Edges: Male and female, creating an interlocking side lap when installed.

\*\* NOTE TO SPECIFIER \*\* For lengths longer than standard, contact manufacturer for details.

* + - 1. Standard Lengths: 7.5 to 30 ft (2286 to 9144 mm).

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - 1. Thickness: 20 gage. 0.0359 inches (0.912 mm).
      2. Thickness: 18 gage. 0.0478 inches (1.214 mm).
      3. Thickness: 16 gage. 0.0598 inches (1.519 mm).

\*\* NOTE TO SPECIFIER \*\* Delete optional features not required or delete all.

* + - 1. Optional Features:
         1. Finish: \_\_\_\_\_\_\_\_.
         2. Finish: As detailed on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete sidelap attachment article if not required.

* 1. SIDELAP ATTACHMENT
     1. VSC2 connection made on interlocking deck sidelaps with the Vulcraft/Verco Group PunchLok II Tool at spacing designated on the approved installation drawings.
     2. Self-Drilling Corrosion Resistant Hex Washer Head Screws: Deck may be installed with short leg on the top or underside. The minimum edge distance for screw must be 1-1/2 times the shank diameter of the screw.

\*\* NOTE TO SPECIFIER \*\* Delete screw size options not required.

* + - 1. No 8 screws spaced as designated on the Drawings.
      2. No 10 screws spaced as designated on the Drawings.
      3. No 12 screws spaced as designated on the Drawings.
      4. No 14 screws spaced as designated on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete if sidelaps are not to be welded.

* + 1. Arc Seam Welds: 3/8 x 1 in (10 x 25 mm) spaced as designated on the Drawings.
    2. Fillet Weds: Sized and spaced as designated on the Drawings.
  1. DECK ATTACHMENT

\*\* NOTE TO SPECIFIER \*\* Delete deck attachment paragraphs not required.

* + 1. Deck attachment pattern will be as indicated on drawings. Attachment pattern will provide sufficient strength to resist shear due to lateral loading and wind uplift.
    2. Hilti Fasteners:

\*\* NOTE TO SPECIFIER \*\* Delete substrate thickness option not required.

* + - 1. Substrate Thickness: 1/8 in (3 mm) minimum, to 3/8 in (10 mm) maximum.
         1. Hilti X-HSN 24 Fastener: Dome style head, red guidance washer and 0.472 inch (11.99 mm) diameter steel silver-colored top-hat washer.
      2. Substrate Thickness: 1/4 in (6 mm) minimum.
         1. Hilti X-ENP-19 L15 Fastener: Fully knurled tip and tapered shank fitted with two 0.590 in (14.99 mm) diameter steel cupped washers.
    1. Pneutek Fasteners:
       1. Pneutek fasteners have 1/2 in (13 mm) diameter heads and must be driven with the Pneutek Air/Safe fastening system to ensure tight contact between the fastener head and attached deck.

\*\* NOTE TO SPECIFIER \*\* Delete substrate thickness options not required.

* + - 1. Substrate Thickness: 0.113 in (2.87 mm) minimum, 0.155 in (3.94 mm) maximum.
         1. Pneutek SDK61.
      2. Substrate Thickness: 0.155 in (3.94 mm) minimum, 0.250 in (6 mm) maximum.
         1. Pneutek SDK63.
      3. Substrate Thickness: 0.187 in (4.75 mm) minimum, 0.312 in (8 mm) maximum.
         1. Pneutek K64.
      4. Substrate Thickness: 0.281 in (7 mm) minimum.
         1. Pneutek K66.
    1. Self-Drilling Screws compliant with ASTM C1513:
       1. No. 12 self-drilling, self-tapping screws.
       2. Minimum Support Attachment Thickness: 0.109 in (2.8 mm); the minimum thickness used on top chord of Vulcraft/Verco Group joists.

\*\* NOTE TO SPECIFIER \*\* Support material thickness impacts the pull-out capacity of a screw subjected to tension loads. To evaluate diaphragms utilizing screws into supports other than 0.109 in (2.8 mm) thick, please contact the manufacturer or manufacturer representative.

* + - 1. Minimum Support Attachment Thickness (in/mm): \_\_\_\_\_\_.
    1. Welding:
       1. Arc Spot Welding:
          1. Decking Welded to Supports: Visible weld diameter, 3/4 in (19 mm) minimum for arc spot (puddle) welds.
       2. Arc Seam Welding:
          1. Required at support locations adjacent to the sidelap.
          2. Visible Weld Size (WxL): 3/8 x 1 in (9 x 25 mm) excluding circular ends of welds.
  1. ACCESSORIES
     1. Miscellaneous Sheet Metal Items Conforming to ANSI/SDI RD:
        1. Sump Pans, Sump Plates, Valley Strips, Eave Strips, Edge Closures, Cell Closures: Fabricated of metal of same type and finish as deck. Galvanized unpainted steel may be used in lieu of primer painted accessories with primer painted steel deck.
     2. Profile Closures: As shown on the design drawings.

1. EXECUTION
   1. EXAMINATION
      1. Do not install roof deck until supporting construction is in place.
      2. Examine support framing and field conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work of this section.
      3. If supporting construction is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. Verify that surfaces to receive roof deck are free of debris.
      2. Place deck in accordance with approved installation drawings.
      3. Locate deck bundles to prevent overloading of support members.
   3. INSTALLATION
      1. Install and fasten deck and accessories in accordance with the Contract Documents, approved installation drawings, manufacturer's documented instructions and requirements of ANSI/SDI-RD or ANSI/SDI C as applicable.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Welds shall comply with AWS D1.3.
    1. Place deck panels on structural supports and adjust to final position with ends aligned. Attach firmly to the supports immediately after placement in order to form a safe working platform.
    2. Cut and neatly fit and reinforce deck units and accessories around openings and other work projecting through or adjacent to the decking as shown on the construction drawings.
    3. End Bearing: Install deck ends over supports with a minimum end bearing as shown on the installation drawings.
    4. Deck End Laps: Where specified on the plans install deck end laps as shown on the installation drawings.
    5. Side Closures: Fasten to supporting structure and deck in accordance with the Contract Documents, approved installation drawings, and requirements of ANSI/SDI RD or ANSI/SDI C as applicable.
    6. Ridge and valley plates, flat plates at changes of deck direction and sump pans, if required shall be fastened to the deck in accordance with the Contract Documents, approved installation drawings and requirements of ANSI/SDI RD or ANSI/SDI C as applicable.
    7. Reinforce steel deck openings per contract documents and approved shop drawings.
    8. Trades that subsequently cut unscheduled openings through the deck are responsible for reinforcing the openings.
    9. Acoustical Batt Insulation: Supplied by the deck manufacturer and installed by the roofing contractor prior to installation of roof insulation.
  1. FIELD QUALITY CONTROL
     1. Do not use deck units as a working platform or storage area until units are in position and permanently attached to the structure.
     2. Construction loads must not exceed load carrying capacity of the deck.
  2. INSPECTION AND REPAIR
     1. Before roof insulation placement, the deck shall be inspected for tears, dents, or other damage that will affect structural performance.
     2. Inspections:

\*\* NOTE TO SPECIFIER \*\* Delete inspection options not required.

* + - 1. In accordance IBC 1705.2.2, 2012.
      2. In accordance IBC 1705.2.2, 2015.
      3. In accordance IBC 1704.3, 2009.
  1. PROTECTION
     1. Protect installed products until completion of project.

END OF SECTION