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METAL
ROOFING SPECIFICATION

SECTION 07610
PREFORMED BATTEN SEAM ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Prefinished, prefabricated batten seam roof system with Snap-On Battens.
2. Coordinate with installation of roofing substructure.
3. Provide color coordination hip, gable, and valley flashings, ridge and peak caps, eave and shelf drips, and counterflashings.
4. Provide clips, fasteners, closures, and sealants as necessary to meet design criteria and ensure weathertight installation.

B. Related Sections:

- | | | |
|----|----------------|--------------------------|
| 1. | Section 05120: | Structural Steel Framing |
| 2. | Section 05500: | Metal Fabrications |
| 3. | Section 06100: | Rough Carpentry |

1.2 SYSTEM DESCRIPTION

A. Design Requirements:

1. Provide factory preformed panel system that has been certified by manufacturer to comply with specified requirements under installed conditions.
2. Provide one piece, single length roof panel where possible.
3. Provide clips and other accessories as required by specific job conditions for a complete installation.

B. Substrate Criteria:

1. Solid 5/8" minimum thickness plywood substrate.
2. Insulated metal deck with 5/8" minimum thickness nailable substrate.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's specifications, standard detail drawings, and installation instructions.
- B. Shop Drawings:
 - 1. Submit shop drawings indicating thickness and dimensions of parts, fastenings and anchoring methods, details and locations of joints, transitions and other provisions necessary for thermal expansion and contraction.
 - 2. Indicate roof terminations, clearly showing flashings and change of direction caps.
 - 3. Clearly indicate locations of field applied sealant.
 - 4. Show locations and types of hold-down clips and fasteners.
 - 5. Provide plan showing layout of entire roof.
- C. Samples:
 - 1. Submit two samples, 12" long x full width panel showing proposed metal gauge, seam profile, and required finish.
 - 2. Submit standard color samples of metal for Architect's selection.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Ten years minimum experience in factory fabrication of Snap-On Batten seam roofs.
 - 2. Products listed in this specification section are as manufactured by AEP-SPAN.
 - 3. No other bidder of batten seam roof panels will be accepted without prior written approval of Architect based upon other manufacturer's products meeting specified requirements.
 - 4. Substitution requests must be submitted in writing minimum ten days prior to bid date accompanied by product literature, technical information, and product sample. Approved substitutions will be set forth in an addendum.
 - 5. No substitutions will be permitted after bid date.
- B. Applicator Qualifications:
 - 1. Three years minimum experience in application of Snap-On Batten seam roofs.
 - 2. Minimum of five satisfactory projects on similar types of roofs.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Protect products and accessories from damage and discoloration during transit and at project site. Store sheets and components in dry storage area to prevent condensation.
- B. Do not overload roof structure with stored materials. Do not permit material storage or traffic on completed roof surfaces.

1.6 WARRANTY

- A. Furnish manufacturer's standard 20-year warranty stating architectural fluorocarbon finish will be:
 - 1. Free of fading or color change in excess of 5 NBS units as measured per ASTM D 2244-68;
 - 2. Will not chalk in excess of numerical rating of 7 when measured in accordance with standard procedures specified in ASTM D 659-74;
 - 3. Will not peel, crack, chip, or delaminate.
- B. Furnish written warranty signed by applicator for two year period from date of substantial completion of the building covering repairs required to maintain roof and flashings in watertight condition.

PART 2 – PRODUCTS

2.1 MANUFACTURER

- A. Acceptable Product: **SNAP-ON BATTEN PANELS (BS16 OR BS24)** as manufactured by AEP-SPAN.
- B. Substitutions:
 - 1. Substitutions must fully comply with specified requirements.
 - 2. Refer to specification Section 01630 - Product Options and Substitutions for substitution request procedures.

2.2 MATERIALS

- A. Panels
 - 1. Prefinished Galvalume™ sheet, ASTM AZ50 made up of 55% aluminum, 1.6% silicon and the balance zinc as described in ASTM specification A792.

SPECIFIER: Standard offering is 24 gauge, additional benefits may be perceived with the use of 22 gauge. Consult AEP-SPAN for optional gauges, finishes and other types of metals.

- 1. Batten size: 1 1/2" wide x 2" high.
 - 2. Batten Spacing: BS24 at 16" on center or BS16 at 24" on center.
- B. Clip/Fastener Assemblies:
 - 1. Standard Clip: 24 gauge steel with gusseted base to enhance bending resistance.
 - 2. Nailable Substrate Fasteners: #10 - 12 x 1" long A-point fastener, pancake head Phillips drive screws for plywood; noncorrosive base material.
- C. Accessories:
 - 1. Provide manufacturer's standard accessories and other items essential to completeness of batten seam roof installation including anchor clips, trim, ridge and hip caps, closures, flashing, and fascia.
 - 2. Form flashings from same gauge and finish as roof panels.

- D. Field Sealant:
 - 1. Color coordinated primerless silicone or high grade, nondrying butyl as recommended by panel manufacturer.
 - 2. Do not use sealant containing asphalt.
- E. Felt underlayment (solid substrate) 30#, asphalt saturated fiberglass felt, nonperforated.

2.3 FABRICATION

- A. Panels:
 - 1. Provide factory formed panel width of (22 1/2" for BS24 or 14 1/2" for BS6) with 1 1/2" wide x 2" high battens.
 - 2. Provide panels in full length from ridge to eave where possible.
- B. Battens:
 - 1. Provide full length Snap-On Battens where possible.
- C. Engineer panels to use concealed anchors that permit expansion and contraction. Exposed fasteners in roofing panels will not be permitted.
- D. Provide factory eave notch for eave termination (to be utilized with joggle cleat detail).

2.4 FINISH

- A. Fluorocarbon Coating:
 - 1. Full strength 70% Kynar 500® coating baked on for 15 minutes at 450 degrees F to a dry-film thickness of 1.0 mil.
 - 2. 15% reflective gloss (ASTM D 523). (Low Gloss).
 - 3. 0.3 mil baked on epoxy primer.
 - 4. Color: As selected by Architect from manufacturer's standard. (Custom colors available, consult manufacturer).
- OR**
- Weathering Copper®: Provide 2.0 mil thick coil coating system comprised of actual copper particles suspended in base resin applied over primer. System is designed to deepen in color (weather) to achieve an appearance similar to Pure Copper.

SPECIFIER: Special handling requirements are necessary when specifying Weathering Copper.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Plywood Deck:

1. Examine decking to ensure substrate is properly secured and prepared to receive metal roofing.
2. Ensure decking is installed flat, free from objectionable warp, wave, and buckle.
3. Refer to Specification Section _____ for roof insulation.
4. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Felt Underlayment (solid substrate):

1. Provide one layer of 30# felt with horizontal overlaps and end laps staggered between layers.
2. Lay parallel to ridgeline with 2 1/2" horizontal laps and 6" vertical laps.
3. Start application at low point; work up roof laying plies in shingle fashion.

3.3 INSTALLATION

- A.** Comply with manufacturer's instructions for assembly, installation, and erection in order to achieve weathertight installation. Install in accordance with approved shop drawings.
- B.** Install sheet metal with lines, rises and angles sharp and true and plane surfaces free from objectionable wave, warp, or buckle. Fold back exposed edges of sheet metal to form 1/2" wide hem on side concealed from view.
- C.** Anchor component parts securely in place allowing for expansion and contraction resulting from thermal and structural movement. Provide expansion joints in sheet metal work at necessary intervals.
- D.** Batten Seam System:
 1. Install panels and batten in accordance with manufacturer's instructions and recommendations.
 2. Anchor securely in place using clips and fasteners spaced in accordance with manufacturer's recommendations for design wind load criteria.
 3. Fully seat adjacent panel to achieve continuous engagement of Snap-On Batten seam.

4. Make end cuts and install sealant and flashings to achieve weathertight installation.
- E. Dissimilar Metals:
1. Where sheet metal is in contact with dissimilar metals, execute juncture to facilitate drainage and minimize possibility of galvanic action.
 2. At point of contact with dissimilar metal, coat metal with protective paint or tape which can be placed between metals.
- F. Field apply sealant to penetrations, transitions, and other locations necessary (not batten seam) for airtight, waterproof installation.

3.4 CLEANING

- A. Clean exposed surfaces of work promptly after completion of installation.
- B. Clean roofs in accordance with manufacturer's recommendations.

3.5 PROTECTION

- A. Protect work as required to ensure roofing will be without damage at time of final completion.
- B. Replace damaged work that cannot be restored to original condition.

END OF SECTION

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METAL
ROOFING SPECIFICATION

SECTION 07610
PREFORMED STANDING SEAM ROOFING
SS12 AND SB12

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Prefinished, prefabricated Standing Seam Roof/Mansard System; continuous integral seams.
2. Coordinate with installation of roofing substructure.
3. Provide color coordinated hip, gable, and valley flashings, ridge and peak caps, eave and shelf drips, and counterflashings.
4. Provide clips, fasteners, closures, and sealants as necessary to meet design criteria and ensure weathertight installation.

B. Related Sections:

- | | | |
|----|----------------|--------------------------|
| 1. | Section 05120: | Structural Steel Framing |
| 2. | Section 05500: | Metal Fabrications |
| 3. | Section 06100: | Rough Carpentry |

1.2 SYSTEM DESCRIPTION

A. Design Requirements:

1. Provide factory preformed panel system that has been certified by manufacturer to comply with specified requirements under installed conditions.
2. Provide one piece, single length roof panel where possible.
3. Provide clips and other accessories as required by specific job conditions for a complete installation.
4. Provide panel with continuous interlocking seams.

- B. Structural Requirements:
 - 1. Panel structural properties determined in accordance with latest edition of American Iron and Steel Institute's "Cold Formed Steel Design Manual" using "effective width concepts".
- C. Substrate Criteria:
 - 1. Solid 5/8" minimum thickness plywood substrate for roofing systems.
 - 2. Cold formed steel members (in accordance with latest edition of AISI) for Mansard Systems.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's specifications, standard detail drawings, and installation instructions.
- B. Shop Drawings:
 - 1. Submit shop drawings indicating thickness and dimensions of parts, fastenings and anchoring methods, details and locations of joints, transitions and other provisions necessary for thermal expansion and contraction.
 - 2. Indicate roof terminations, clearly showing flashing and change of direction caps.
 - 3. Clearly indicate locations of field applied sealant.
 - 4. Show locations and types of hold-down clips and fasteners.
 - 5. Provide plan showing layout of entire roof.
- C. Samples:
 - 1. Submit two samples, 12" long x full width panel showing proposed metal gauge, seam profile and required finish.
 - 2. Submit standard color samples on metal for Architect's selection.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Ten years minimum experience in factory fabrication of standing seam Roofs and Mansard Systems.
 - 2. Products listed in this specification section are as manufactured by AEP-SPAN.
 - 3. No other bidder of standing seam roof panels will be accepted without prior written approval of Architect based upon other manufacturer's products meeting specified requirements.
 - 4. Substitution requests must be submitted in writing minimum ten days prior to bid date accompanied by product literature, technical information, and product sample. Approved substitutions will be set forth in an addendum.

5. No substitutions will be permitted after bid date.
- B. Applicator Qualifications:
1. Three years minimum experience in application of standing seam roofs and Mansard Systems.
 2. Minimum of five satisfactory projects on similar types of roofs.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Protect products and accessories from damage and discoloration during transit and at project site. Store sheets and components in dry storage area to prevent condensation.
- B. Do not overload roof structure with stored materials. Do not permit material storage or traffic on completed roof surfaces.

1.6 WARRANTY

- A. Furnish manufacturer's standard 20-year warranty stating architectural fluorocarbon finish will be:
1. Free of fading or color change in excess of 5 NBS units as measured per ASTM D 2244-68;
 2. Will not chalk in excess of numerical rating of 7 when measured in accordance with standard procedures specified in ASTM D 659-74;
 3. Will not peel, crack, chip, or delaminate.
- B. Furnish written warranty signed by applicator for two year period from date of substantial completion of building covering repairs required to maintain roof and flashings in watertight condition.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Acceptable Product: **STANDING SEAM PANELS (SS12) OR SQUARE BATTEN (SB12)** as manufactured by AEP-SPAN.
- B. Substitutions:
 - 1. Substitutions must fully comply with specified requirements.
 - 2. Refer to specification Section 01630 - Product Options and Substitutions for substitution request procedures.

2.2 MATERIALS

- A. Panels:
 - 1. Prefinished Galvalume™ sheet, ASTM AZ50 made up of 55% aluminum, 1.6% silicon and the balance zinc as described in ASTM specification A792.

SPECIFIER NOTE: Standard offering is 24 gauge.

- 2. Factory fabricated panels with integral standing seam without need for separate seam.
 - 3. Seam size:
 - a. Male leg: ¾" minimum.
 - b. Female leg: 1" high minimum
 - 4. Acceptable Standing Seam System: **STANDING SEAM 12 (SS12) OR SQUARE BATTEN (SB12)** as manufactured by AEP-SPAN.
- B. Clip/Fastener Assemblies:
 - 1. Standard Clip: 24 gauge stainless steel.
 - 2. Nailable Substrate Fasteners: #12 x 1" long A-Point fastener, hex washer head screws for plywood; noncorrosive base material.
 - 3. Provide manufacturer's standard fasteners #12 x 3/4" long self-drilling hex head screws for metal; noncorrosive coated.
- C. Accessories:
 - 1. Provide manufacturer's standard accessories and other items essential to completeness of standing seam roof installation including anchor clips, trim, ridge and hip caps, closures, flashing, and fascia.
 - 2. Form flashings from same gauge and finish as roof panels.
 - 3. Provide transition rib covers for changes in roof slope.

D. Field Sealant:

1. Color coordinated primerless silicone or high grade, nondrying butyl as recommended by panel manufacturer.
2. Do not use sealant containing asphalt.

2.3 FABRICATION

A. Panels:

1. Provide factory formed panel width of 12" x 1" high standing seam with 1 1/2" wide x 2" high battens.
2. Provide panels in full length from ridge to eave where possible.

B. Engineer panels to use concealed anchors that permit expansion and contraction. Exposed fasteners in roofing panels will not be permitted.

2.4 FINISH

A. Fluorocarbon Coating:

1. Full strength 70% Kynar 500® coating baked on for 15 minutes at 450 degrees F to a dry-film thickness of 1.0 mil.
2. 15% reflective gloss (ASTM D 523). (Low Gloss).
3. 0.3 mil baked on epoxy primer.
4. Color: As selected by Architect from manufacturer's standard. (Custom colors available, consult manufacturer.)

OR

Weathering Copper®: Provide 2.0 mil thick coil coating system comprised of actual copper particles suspended in base resin applied over primer. System is designed to deepen in color (weather) to achieve an appearance similar to pure copper.

SPECIFIER: Special handling requirements are necessary when specifying Weathering Copper.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Plywood, Metal Deck, or Subgirts:
 - 1. Examine decking to ensure substrate is properly secured and prepared to receive metal roofing.
 - 2. Ensure decking is installed flat, free from objectionable warp, wave, and buckle.
 - 3. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Felt Underlayment (solid substrate):
 - 1. Provide one layer of 30# felt with horizontal overlaps and end laps staggered between layers.
 - 2. Lay parallel to ridgeline with 2 1/2" horizontal laps and 6" vertical laps.
 - 3. Start application at low point; work up roof laying plies in shingle fashion.

3.3 INSTALLATION

- A. Comply with manufacturer's instructions for assembly, installation, and erection in order to achieve weathertight installation. Install in accordance with approved shop drawings.
- B. Anchor component parts securely in place allowing for expansion and contraction resulting from thermal and structural movement. Provide expansion joints in sheet metal work at necessary intervals.
- C. Standing Seam System:
 - 1. Install panels in accordance with manufacturer's instructions and recommendations.
 - 2. Anchor securely in place using clips and fasteners spaced in accordance with manufacturer's recommendations for design wind load criteria.
 - 3. Fully seat adjacent panel to achieve continuous engagement of standing seam joint.
 - 4. Make end cuts and install sealant and flashings to achieve weathertight installation.

- D. Dissimilar Metals:
 - 1. Where sheet metal is in contact with dissimilar metals, execute juncture to facilitate drainage and minimize possibility of galvanic action.
 - 2. At point of contact with dissimilar metal, coat metal with protective paint or tape which can be placed between metals.
- E. Field apply sealant to penetrations, transitions, and other locations necessary (not standing seam) for airtight, waterproof installation.

3.4 CLEANING

- A. Clean exposed surfaces of work promptly after completion of installation.
- B. Clean roofs in accordance with manufacturer's recommendations.

3.5 PROTECTION

- A. Protect work as required to ensure roofing will be without damage at time of final completion.
- B. Replace damaged work that cannot be restored to original condition.

END OF SECTION

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METAL
ROOFING SPECIFICATION

SECTION 07610
PREFORMED MANSARD
SPAN-RIB (SR 12)

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Prefinished, prefabricated Mansard System; continuous integral seams.
2. Coordinate with installation of roofing substructure.
3. Provide color coordinated hip, gable, and valley flashings, ridge and peak caps, eave and shelf drips, and counterflashings.
4. Provide fasteners, closures, and sealant as necessary to meet design criteria and ensure weathertight installation.

B. Related Sections:

- | | | |
|----|----------------|--------------------------|
| 1. | Section 05120: | Structural Steel Framing |
| 2. | Section 05500: | Metal Fabrications |
| 3. | Section 06100: | Rough Carpentry |

1.2 SYSTEM DESCRIPTION

A. Design Requirements:

1. Provide factory preformed panel system that has been certified by manufacturer to comply with specified requirements under installed conditions.
2. Provide one piece, single length roof panel where possible.
3. Provide accessories as required by specific job conditions for a complete installation.
4. Provide panel with continuous interlocking seams.

B. Structural Requirements:

1. Panel structural properties determined in accordance with latest edition of American Iron and Steel Institute's "Cold Formed Steel Design Manual" using "effective width concepts".

C. Substrate Criteria:

1. Solid 5/8" minimum thickness plywood substrate for roofing systems.
2. Cold formed steel members (in accordance with latest edition of AISI) for Mansard Systems.

1.3 SUBMITTALS

A. Product Data: Submit manufacturer's specifications, standard detail drawings, and installation instructions.

B. Shop Drawings:

1. Submit shop drawings indicating thickness and dimensions of parts, fastenings and anchoring methods, details and locations of joints, transitions and other provisions necessary for thermal expansion and contraction.
2. Indicate roof terminations, clearly showing flashing and change of direction caps.
3. Clearly indicate locations of field applied sealant.
4. Show locations and type of fasteners.
5. Provide plan showing layout of entire roof.

C. Samples:

1. Submit two samples, 12" long x full width panel showing proposed metal gauge, seam profile, and required finish.
2. Submit standard color samples on metal for Architect's selection.

1.4 QUALITY ASSURANCE

A. Manufacturer's Qualifications:

1. Ten years minimum experience in factory fabrication of Mansard Systems.
2. Products listed in this specification section are as manufactured by AEP-SPAN.
3. No other bidder of Mansard roof panels will be accepted without prior written approval of Architect based upon other manufacturer's products meeting specified requirements.
4. Substitution requests must be submitted in writing minimum ten days prior to bid date accompanied by product literature, technical information, and product sample. Approved substitutions will be set forth in an addendum.
5. No substitutions will be permitted after bid date.

B. Applicator Qualifications:

1. Three years minimum experience in application of Mansard roofs.
2. Minimum of five satisfactory projects on similar types of roofs.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Protect products and accessories from damage and discoloration during transit and at project site. Store sheets and components in dry storage area to prevent condensation.
- B. Do not overload roof structure with stored materials. Do not permit material storage or traffic on completed roof surfaces.

1.6 WARRANTY

- A. Furnish manufacturer's standard 20-year warranty stating architectural fluorocarbon finish will be:
 - 1. Free of fading or color change in excess of 5 NBS units as measured per ASTM D 2244-68;
 - 2. Will not chalk in excess of numerical rating of 7 when measured in accordance with standard procedures specified in ASTM D 659-74;
 - 3. Will not peel, crack, chip or delaminate.
- B. Furnish written warranty signed by applicator for two year period from date of substantial completion of building covering repairs required to maintain roof and flashings in watertight condition.

PART 2 – PRODUCTS

2.1 MANUFACTURER

- A. Acceptable Product: **SPAN-RIB (SR12)** as manufactured by AEP-SPAN.
- B. Substitutions:
 - 1. Substitutions must fully comply with specified requirements.
 - 2. Refer to specification section 01630 - Product Options and Substitutions for substitution request procedures.

2.2 MATERIALS

- A. Panels:
 - 1. Prefinished Galvalume™ sheet, ASTM AZ50 made up of 55% aluminum, 1.6% silicon and the balance zinc as described in ASTM specification A792.

SPECIFIER NOTE: Standard offering is 24 gauge. Consult AEP-SPAN for optional gauges, finishes and other types of metals.

- 2. Factory fabricated panels with integral standing seam without need for separate seam.
 - 3. Seam size:
 - a. Male leg: $\frac{3}{4}$ " minimum.
 - b. Female leg: 1" high minimum.
 - 4. Acceptable Product: **SPAN-RIB SYSTEM (SR12)** as manufactured by AEP-SPAN.
- B. Fastener Assemblies:
 - 1. Nailable Substrate Fasteners: #12 x 1" A-Point fastener, pancake head Phillips drive screws for plywood; noncorrosive base material.
 - 2. Provide manufacturer's standard fasteners #12 x 3/4" long self-drilling head screws for metal; noncorrosive coated.
- C. Accessories:
 - 1. Provide manufacturer's standard accessories and other items essential to completeness of standing seam roof installation including trim, ridge and hip caps, closures, flashing, and fascia.
 - 2. Form flashings from same gauge and finish as roof panels.

D. Field Sealant:

1. Color coordinated primerless silicone or high grade, nondrying butyl as recommended by panel manufacturer.
2. Do not use sealant containing asphalt.

2.3 FABRICATION

A. Panels:

1. Provide factory formed panel width of 12" with 1 1/2" wide x 1" high standing seam.
2. Provide panels in full length from ridge to eave where possible.

B. Seams:

1. Provide full length from ridge to eave where possible.

C. Engineer panels to use concealed anchors that permit expansion and contraction. Exposed fasteners in roofing panels will not be permitted.

2.4 FINISH

A. Fluorocarbon Coating:

1. Full strength 70% Kynar 500® coating baked on for 15 minutes at 450 degrees F to a dry-film thickness of 1.0 mil.
2. 15% reflective gloss (ASTM D 523). (Low Gloss).
3. 0.3 mil baked on epoxy primer.
4. Color: As selected by Architect from manufacturer's standard. (Custom colors available, consult manufacturer.)

OR

Weathering Copper®: Provide 2.0 mil thick coil coating system comprised of actual copper particles suspended in base resin applied over primer. System is designed to deepen in color (weather) to achieve an appearance similar to pure copper.

SPECIFIER NOTE: Special handling requirements are necessary when specifying Weathering Copper.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Plywood, Metal Deck, or Subgirts:
 - 1. Examine decking to ensure substrate is properly secured and prepared to receive metal roofing.
 - 2. Ensure decking is installed flat, free from objectionable warp, wave, and buckle.
 - 3. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Felt Underlayment (solid substrate):
 - 1. Provide one layer of 30# felt with horizontal overlaps and end laps staggered between layers.
 - 2. Lay parallel to ridgeline with 2 1/2" horizontal overlaps and end laps staggered between layers.
 - 3. Lay parallel to ridgeline with 2 1/2" horizontal laps and 6" vertical laps.
 - 4. Start application at low point; work up roof laying plies in shingle fashion.

3.3 INSTALLATION

- A. Comply with manufacturer's instructions for assembly, installation, and erection in order to achieve weathertight installation. Install in accordance with approved shop drawings.
- B. Anchor component parts securely in place allowing for expansion and contraction resulting from thermal and structural movement. Provide expansion joints in sheet metal work at necessary intervals.
- C. Standing Seam System:
 - 1. Install panels in accordance with manufacturer's instructions and recommendations.
 - 2. Anchor securely in place using fasteners spaced in accordance with manufacturer's recommendations for design wind load criteria.
 - 3. Fully seat adjacent panel to achieve continuous engagement of standing seam joint.
 - 4. Make end cuts and install sealant and flashings to achieve weathertight installation.

- D. Dissimilar Metals:
 - 1. Where sheet metal is in contact with dissimilar metals, execute juncture to facilitate drainage and minimize possibility of galvanic action.
 - 2. At point of contact with dissimilar metal, coat metal with protective paint or tape which can be placed between metals.
- E. Field apply sealant to penetrations, transitions, and other locations necessary (not standing seam) for airtight, waterproof installation.

3.4 CLEANING

- A. Clean exposed surfaces of work promptly after completion of installation.
- B. Clean roofs in accordance with manufacturer's recommendations.

3.5 PROTECTION

- A. Protect work as required to ensure roofing will be without damage at time of final completion.
- B. Replace damaged work that cannot be restored to original condition.

END OF SECTION