

SECTION 07530

ELASTOMERIC SHEET ROOFING

1 PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 specification sections, apply to work of this section.

1.2 SECTION INCLUDES

- A. Elastomeric Sheet Membrane Conventional Roofing System complete with fully adhered roofing membrane, tapered insulation, expansion joints, flashings and accessories.

1.3 SYSTEM DESCRIPTION

- A. Elastomeric sheet membrane roof assembly including insulation and accessories to conform to requirements for a UL Class A fire rated assembly, and FM I 90 requirements for wind uplift resistance.
- B. Wind Speed Rating: Provide roof system capable of meeting requirements of BOCA National Building Code for wind speed of the site.

1.4 SUBMITTALS

- A. Product Data: Provide characteristics on membrane materials, flashing materials, insulation, vapor retarders and walkway pads.
- B. Shop Drawings: Provide shop drawings of installation details recommended by membrane manufacturer, and of tapered insulation layout.
- C. Warranty: Provide warranty signed by roof membrane manufacturer and installer.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with UL 790 (Underwriters Laboratories Inc.) Class A Fire Hazard Classification. FM 4470 (Factory Mutual Engineering Corporation) - Roof assembly Classification wind uplift requirement of I-90, FM Construction Bulletin 1-28, Class 1 A Construction.
- B. Owner will engage an independent roofing consultant to monitor and inspect the roofing installation.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Do not install membrane during inclement weather or when air temperature may fall below 40 degrees F, or as required by manufacturer's instructions.

1.7 WARRANTY

- A. Provide fifteen (15) year total system warranty under provisions of Section 01001.

2 PART 2 PRODUCTS

2.1 MEMBRANE MATERIALS

A. Manufacturers:

1. Carlisle Syntec Systems.
2. Celotex Corp.
3. Dunlop Construction Products Co.
4. Firestone Building Products Co.
5. Goodyear Tire and Rubber Co.
6. Schuller Roofing Systems.

B. Membrane: Reinforced EPDM; 0.060 inch thick.

C. Seaming Materials: As recommended by membrane manufacturer.

2.2 FASTENING

A. Insulation Adhesive: Type recommended by insulation manufacturer.

B. Mechanical Fasteners: Manufacturer's standard type for application intended.

2.3 INSULATION MATERIALS

A. Manufacturers:

1. As approved by roof membrane manufacturer.

B. Insulation: ASTM C 1289-95 Type II, polyisocyanurate closed cell foam core with manufacturer's standard facing; thicknesses as indicated, square edges, R value of 6.0 per inch thickness.

C. Separation Sheet: As recommended by roofing membrane manufacturer for application intended.

D. Insulation Adhesive: As recommended by insulation manufacturer.

2.4 ACCESSORIES

A. Flexible Flashings: Same materials as membrane; black color; manufactured by roofing membrane manufacturer.

B. Prefabricated Control or Expansion Joint Flashing: Sheet EPDM with foam filler, and metal edge flashings.

C. Fiber Cant Strips: Asphalt impregnated wood fiberboard.

D. Roofing Fasteners: Galvanized or non-ferrous type as recommended by membrane manufacturer.

E. Sealants: As recommended by membrane manufacturer.

F. Walkway Pads: As recommended by membrane manufacturer

- G. Fascia System: Custom fabricated fascia system. Mechanically fastened, pre-weathered zinc alloy. Refer to specification section "07610 – Sheet Metal Roofing" for additional information.

3 PART 3 EXECUTION

3.1 COORDINATION

- A. Prior to beginning roofing work, conduct preconstruction conference with all affected trades and roof membrane manufacturer's representative.
- B. At a minimum, discuss procedures for removal of existing roofing, temporary protection of building and installation of new roofing system.
- C. Document conference and distribute copies to all parties, including Owner and Architect.

3.2 REMOVALS

- A. Remove complete existing roofing system, including ballast, membrane, insulation, fascias, flashings and accessories.
- B. Provide temporary protection from water infiltration to building during roofing operations.

3.3 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work; deck is clean and smooth, free of snow or ice; properly sloped to drains.
- B. Verify roof openings, curbs, and protrusions through roof are solidly set; wood cant strips and reglets are in place.

3.4 PREPARATION

- A. Fill concrete surface honeycomb and variations with latex filler.

3.5 INSULATION APPLICATION

- A. Embed into insulation adhesive on deck in accordance with insulation manufacturer's instructions.
- B. Lay second and any succeeding layers of insulation with joints staggered from previous layer.
- C. Minimum Total Insulation Thickness: As required to achieve an insulation R value of 19.
- D. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.

3.6 MEMBRANE APPLICATION

- A. Apply membrane in strict accordance with manufacturer's instructions.

- B. Roll out membrane. Work out air bubbles, wrinkles, and fishmouths. Adhere fully to substrate.
- C. Overlap edges and ends and solvent seal watertight.
- D. Seal membrane to adjoining surfaces.
- E. Shingle joints on sloped substrate in direction of drainage. Apply joint sealant.
- F. Continue membrane up vertical surfaces minimum 8 inches unless otherwise noted. Reinforce membrane with multiple thickness of membrane material over joints.
- G. Seal items penetrating membrane with counterflashing membrane material. Install membrane flashings. Seal watertight to membrane.
- H. Place walkway units at locations noted.

3.7 FLASHINGS AND ACCESSORIES

- A. Apply flexible flashings to seal membrane to vertical elements.
- B. Install prefabricated roofing expansion control joints to isolate roof into areas as indicated in accordance with manufacturer's instructions.
- C. Coordinate installation of roof drains sumps and related flashings.
- D. Seal flashings and flanges of items penetrating membrane.
- E. Install fascias in accordance with manufacturer's instructions.
- F. Replace existing roof drain domes with cast aluminum domes.

3.8 INSPECTION

- A. Upon completion of roofing work, conduct inspection of roof installation with manufacturer's representative and Owner's roofing consultant. Correct any deficiencies noted and have roof reinspected.

...END OF SECTION 07530