

SECTION 07500

TEMPORARY ROOFING MEMBRANE INSTALLATION

PART 1 GENERAL

1.01 APPLICATIONS

- A. Areas of the roof deck for asbestos abatement.
- B. Areas of the roof deck exposed to the structural roof deck substrate.
- C. Areas of the outer roof membrane penetrated to a lower level roof membrane or system.
- D. Related Sections:
 - 1. 01045 - Cutting and Patching.
 - 2. 02070 - Selective Demolition (Reroofing)
 - 3. 02072 - Removals.
 - 4. 03342 - Insulating Cellular Concrete.
 - 5. 03600 - Grout.
 - 6. 05310 - Steel Deck.
 - 7. 06100 - Carpentry.
 - 8. 06300 - Wood Treatment.
 - 9. Division 7 - Thermal and Moisture Protection.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Materials used in the temporary roofing system shall be submitted to and approved by A/E.
- B. Temporary roof materials used for a new roof system shall be sourced from a single manufacturer and approved in writing by the roofing manufacturer providing the roofing system warranty.

PART 3 EXECUTION

3.01 ROOF DECK REPAIR OR REPLACEMENT

- A. Concrete Decks: Grout joints, cracks, elevation changes

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greater than 1/4", holes greater than 2 inches, and spalled areas exposing steel reinforcing rods.

B. Tectum Decks (precast plank decks or cement/wood fiber panels): Replace panels cracked across any transverse axis, panels with greater than 1/2" deflection, and soft panels that deflect significantly when walked on.

C. Gypsum Decks:

1. Replace any washed out gypsum and supporting form board panel.
2. Repair spalled or gouged areas with a transition greater than 1/2" or holes larger than 2-1/2" in diameter with grout.
3. Replace sagged panels.

D. Lightweight Concrete Decks:

1. Assure original or old fasteners are flush with deck surface.
2. Repair spalled or gouged areas with a transition greater than 1/2" or holes larger than 2-1/2" in diameter with lightweight grout.
3. Remove any areas failing fastener pullout resistance test and replace with new lightweight concrete.

E. Wood Decks:

1. Assure roof or other non-structural fasteners are removed.
2. Assure original or old structural fasteners are flush with deck surface.
3. Re-nail structural deck boards to meet current building code standards.
4. Replace rotten, broken, or insect damaged boards and boards with holes greater than 1-1/2" measured in any direction with pressure treated panels of similar size.
5. Any rotten, broken, or insect damaged roof rafters or roof joists shall be replaced and as directed by A/E.

3.02 PREPARATION

A. Thoroughly clean deck surface before application of roofing materials.

3.03 DECK INSPECTION

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- A. Assure clean, smooth surface.
 - B. Make photographic record and keep on file.
- 3.04 TEMPORARY ROOF MEMBRANE
- A. Tie-in to Existing Roof System:
 - 1. Shingle Roofs:
 - a. Remove old shingles back 12 inches from the edge of the tie-in point. The original ASTM 30 pound felt shall remain in place.
 - b. Remove the nails and tin caps for a minimum of 6 inches from the edge of the original ASTM 30 pound felt.
 - c. Install new ASTM 30 pound felt under the existing 30 pound felt 6 inches minimum.
 - d. Trowel the connecting lap of ASTM 30 pound felts with a 4 inch band of roof cement centered on the lapped edge and seal with membrane fabric.
 - 2. Tile Roofs:
 - a. Remove old tiles back 12 inches minimum from the edge of the tie-in point. The original underlayment membrane shall remain in place.
 - b. Lift edge of original underlayment membrane and install new ASTM 30 pound felt under the original membrane 4 inches minimum.
 - c. Trowel the connecting lap with a 4 inch band of roof cement and seal with membrane fabric.
 - 3. Gravel Roofs:
 - a. General:
 - 1) Spud gravel back 12 inches minimum from edge of the original membrane.
 - b. Gravel Roofs on Concrete Roof Decks:
 - 1) Install 43 pound base ply under the original roof membrane 8 inches minimum.
 - 2) Install 2 plies of ply IV fiberglass felt 10 inches minimum over the edge of the original

roof membrane in hot asphalt and top mop.

c. Gravel Roofs on All Other Roof Decks:

- 1) Install 43 pound base ply under the original roof membrane 2 inches minimum.
- 2) Install 2 plies of type IV fiberglass felt a minimum of 10 inches over the edge of the original roof membrane with hot asphalt and top mop.

4. Single Ply Roof Tiles:

- a. Install a base ply under the original roof membrane 4 inches minimum.
- b. Hot mop in 2 plies of ply IV fiberglass felts over the base sheet and extend them over the single ply 10 inches minimum in hot asphalt and then top mop.

5. All Other Roof Systems:

- a. Install a base ply under the original roof membrane 4 inches minimum.
- b. Hot mop in 2 plies or ply IV fiberglass felts over the base ply and over the original membrane 10 inches minimum and then top mop.

B. Installation by Roof Deck Type:

1. Concrete Roof Decks:

- a. Prime roof deck with approved primer at 3/4 gallons per roof square and allow for specified drying time.
- b. Install 43 pound minimum base sheet lapped 9 inches and 2 plies of ply IV fiberglass felt lapped 19 inches and 17 inches to the weather.
- c. Mop down plies with 25 pounds per square minimum with a continuous application of asphalt.
- d. Install top mopped surface coating at a rate of 25 pounds per square minimum of asphalt.

2. Tectum Decks:

- a. Mechanically attach 43 pound minimum base sheet lapped 9 inches with approved fasteners.
- b. Install 2 plies of ply IV fiberglass felt lapped 19

inches and 17 inches to the weather with a top mopped surface coating asphalt applied a rate of 25 pounds per square minimum.

3. Gypsum Decks:

- a. Mechanically attach 43 pound minimum base sheet lapped 9 inches with approved fasteners.
- b. Install 2 plies of ply IV fiberglass felt lapped 19 inches and 17 inches to the weather with a top mopped surface coating.
- c. Apply asphalt at a rate of 25 pounds per square minimum.

4. Light Weight Concrete Decks:

- a. Mechanically attach 43 pound minimum ventilated base sheet, lapped 9 inches with approved fasteners.
- b. Install 2 plies of ply IV fiberglass felt lapped 19 inches and 17 inches to the weather with a top mopped surface coating.
- c. Apply asphalt at a rate of 25 pounds per square minimum.

5. Wood Decks:

a. Sloped Roofs for Tile or Shingles:

- 1) Mechanically attach an ASTM 30 pound felt lapped 4 inches minimum with approved fasteners and tin caps. (Note: Nailing pattern is dependent on nail length and exposed underside of roof deck).

b. Low Sloped Roofs for built-up roofs (BUR), SBS Modified, or Single Ply Roof Membranes:

- 1) Apply a rosin sheet tacked off followed by a mechanically attached fiberglass reinforced base sheet lapped 4 inches with approved fasteners and tin caps.
- 2) Install 2 plies of ply IV fiberglass felt lapped 24 inches and 11 inches to the weather with a top mopped surface coating.
- 3) Apply asphalt at a rate of 25 pounds per square minimum.

c. Temporary Roof Wall Flashing and Curb Flashing:

- 1) Concrete walls and concrete curbs shall be primed with approved asphalt primer at 3/4 gallons per roof square.
- 2) Allow for specified drying time.

6. Concrete Roof Decks:

a. Insulated Concrete Decks:

- 1) A 43 pound base ply and 2 plies of ply IV type fiberglass felt shall be hot mopped to the wall and extend up the wall a minimum of 8 inches above the highest point of the intersection of the sloped insulation and the wall flashing and shall be top mopped.
- 2) Nail wall flashing 18 inches on centers, 1 inch from the top edge with approved fasteners.
- 3) The top nailed edge shall then be troweled in roof cement with a 4 inch wide band centered on the top edge of the flashing and sealed with a membrane fabric.

b. Light weight Concrete Insulated Decks:

- 1) Install 43 pound base ply extending up the wall a minimum of 6 inches above the highest point of the intersection of the lightweight concrete and the wall flashing and nail 18 inches on center 1 inch from the top edge with approved fasteners.
- 2) Hot mop 2 plies of IV type fiberglass felt to the base ply extending up the wall 8 inches minimum above the highest point of the intersection of the light weight concrete and the wall flashing.
- 3) The top edge of the wall flashing shall then be troweled in with roof cement with a 4 inch wide band centered on the top edge of the flashing and sealed with a membrane fabric.

7. Wood Deck Types:

a. Sloped Roofs for Tile or Shingles:

- 1) Install ASTM 30 pound felt extending up the wall a minimum of 8 inches.
- 2) Nail wall flashing 18 inches on centers 1 inch from the top edge, with approved fasteners.
- 3) The top edge of the flashing shall be troweled with a 4 inch band of roof cement centered on the top edge and then sealed with a membrane fabric.

b. Low Sloped Roofs for BUR, Modified, or Single Ply Roof Membranes:

- 1) Install fiberglass reinforced base sheet extending up the wall 8 inch minimum and nailed 18 inches on center, 1 inch from the top edge with approved fasteners.
- 2) Hot mop 2 plies of IV type fiberglass felts to the base ply extending 8 inches up the wall minimum.
- 3) The top edge shall then be troweled with a 4 inch band of roof cement centered on the top edge of the flashing and sealed with a membrane fabric.

8. All Other Deck Types:

- a. A 43 pound base ply shall be installed extending up the wall a minimum of 8 inches and be attached within 1 inch of the top edge with approved fasteners 18 inches on center.
- b. Hot mop 2 plies of ply IV type fiberglass felt to the base ply and then top mop.
- c. Install a 4 inch troweled band of roofing cement, centered on the top edge and sealed with a membrane fabric.

C. Roof Penetrations (Vents thru roof, Conduit, Round Ducts, Solid Rod Tie down Penetrations, A/C Ducts, Vents, and Roof Stands).

1. Wood Decks:

a. Sloped Decks for Shingles or Tile:

- 1) Install ASTM 30 pound target snugly around the penetration and lapped under the succeeding ply.

- 2) Apply a seal of roof cement at the base of the roof penetration.
- b. Sloped Decks for BUR, Modified, or Single Ply Roofs:
 - 1) Install 43 pound base ply and fiberglass ply targets snugly around the roof deck penetration.
 - 2) Apply a seal of roof cement at the base of the roof penetration.
2. All Other Decks:
 - a. Assure 43 pound base ply and fiberglass ply targets fit snugly around the roof deck penetration.
 - b. Apply a seal of roof cement at the base of the roof penetration.

3.05 Temporary Roof Maintenance

- A. Weekly inspect temporary roof membrane for fish mouths, splits, open laps, holes, separations, or vandalism that may result in potential leaks. Repair with troweled roof cement and seal with a membrane fabric.

END OF SECTION