

SECTION 07 01 50 - ROOFING DEMOLITION AND REPAIR

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes

1. Removal of existing roofing, insulation, and flashing to deck.
2. Required minor renovation for reroofing work.

1.2 PROJECT COORDINATION

- A. Sequence minor demolition and renovation with work sequence of work being installed.
- B. Coordinate with reroofing work so that all existing items removed in one day can be replaced along with the new roofing work in the same day.
- C. Coordinate additional renovation work to maintain the facility in a watertight condition.

1.3 SUBMITTALS

- A. Warranty: Existing warranty letter.

1.4 QUALITY ASSURANCE

- A. Source Limitations: For repair of existing roof under warranty, obtain components for membrane roofing system, including membrane, flashing metal flashing, and insulation from same manufacturer as roofing membrane.
- B. Preinstallation Conference: Conduct conference at Project site.
1. Prior to repair of existing roofing, conduct a pre-installation conference at the project site.
 2. Attendance: Owner, Contractor, Roofing installer, job superintendent and roof manufacturer's technical representative.
 3. Agenda:
 - a. Maintaining water tightness of the building during roofing repair, including night seal procedures.
 - b. Roofing details and procedures.

1.5 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing repairs to be installed according to manufacturer's written instructions and warranty requirements.

1.6 WARRANTY

- A. Provide letter from roofing repair installers that existing warranty remains in effect after repairs.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Plywood Sheathing: Fir or Southern Yellow Pine Plywood, C-C plugged, NCX exterior type, fire retardant treated FR-S U.L. rating, 5/8 inch (16 mm) minimum thickness or match existing.
- B. Wood Nailers and blocking: Preservative treated complying with requirements in Division 06 Section "Miscellaneous Carpentry" and with preservatives that are compatible with the roof membrane.
- C. Steel Roof Deck: Panels, without top-flange stiffening grooves, complying with "SDI Specifications and Commentary for Steel Roof Deck," in SDI Publication No. 30, either galvanized or prime painted to match existing deck and with profile matching existing deck.
- D. Fasteners:
 - 1. Nails: Non-ferrous, cement coated, or hot dip galvanized.
 - 2. Factory Mutual approved, non-corrosive coated, case-hardened steel screw with FM approved steel plate.
 - 3. Tapcons or Rawl Spikes.
- E. Miscellaneous Materials: Best grade of quality approved by roofing manufacturer for specific application.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Verify that required barricades and other protective measures are in place as specified in Division 01 Section "General Conditions."
- B. As a minimum requirement one layer minimum of 1 inch (25 mm) isocyanurate insulation covered by 1 layer minimum of 3/4 inch (19 mm) CDX plywood must be utilized for any areas of traffic, (foot traffic, roof top equipment or any other type traffic), across any roof area.

1. The covering must be installed in a manner to withstand applicable wind loads expected at the site during construction.

3.2 MINOR DEMOLITION OPERATIONS:

- A. Perform demolition activities in a careful and orderly manner with the least amount of disturbance or damage to adjoining surfaces and structures.
- B. Avoid excessive vibrations in demolition procedure that would be transmitted through the existing structure and finish materials.
- C. Coordinate work with Owner's operational requirements.

3.3 DISPOSAL

- A. Materials, equipment and debris resulting from demolition operations shall become property of the Contractor. Remove and dispose of demolition debris in accordance with requirements of Division 01 Section "General Conditions."

3.4 MINOR RENOVATION WORK:

- A. Nailers:
 1. Verify manufacturer's recommended details and installation procedures to maintain existing roofing warranty.
 2. Replace damaged or deteriorated wood nailers with new nailers and curbs as required. Install additional nailers as required.
 3. Clean and prepare existing surfaces to receive wood nailers and curbs.
 4. Install nailers and curbs continuously without gaps and level and true with joints flush.
 5. Securely fasten nailers to structure with expansion fasteners. Use of power-actuated fasteners is prohibited.
 6. Apply sealant to voids.
- B. Flashings: Raise flashings to **8 inches (203 mm)** high minimum.
- C. Equipment Renovation: Refer to Drawings.
- D. Rooftop Equipment: Refer to Drawings.
- E. Abandoned Equipment Curbs & Supports: Remove all abandoned equipment curbs & supports down to deck. Repair or install new steel decking as needed to match existing. Refer to Drawings.
- F. Plumbing Vents: Extend plumbing vents or modify as necessary to accommodate new flashing installation; minimum height as required by local code.
- G. Drains, Sleeves and Curbs: Secure and seal drains, sleeves, curbs, ducts and other work which pass through roof as required to receive new roofing system.

- H. Prevent adhesive from dripping into building.
- I. Existing Metal Decking:
 - 1. Remove loose rust, bitumen, or foreign material from deck.
 - 2. Resecure, repair, or replace decking as required to provide suitable substrate for new roofing insulation. Perform replacement of damaged decking on unit cost basis when approved by Owner.
- J. New Metal Decking
 - 1. Install new decking of like type, gauge and dimensions to provide suitable substrate in areas where penetrations through deck are removed. Extend new decking **18 inches (457 mm)** minimum past next nearest bar joist or support member. Include demolition and related work in Bid.
 - 2. Coordinate demolition work and removal with reroof project to maintain facility in dry watertight condition. Promptly dispose of removed equipment and materials at an authorized disposal site.

END OF SECTION 07 01 50