

SECTION 07 01 50 - PREPARATION FOR RE-ROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Partial roof tear-off.
 - 2. Temporary roofing membrane.
 - 3. Removal of base flashings.
 - 4. Protection of existing roofing system that is not reroofed.
- B. Related Sections include the following:
 - 1. Division 01 Section "Summary" for restrictions on use of the premises due to Owner or tenant occupancy.
 - 2. Division 01 Section "Temporary Facilities and Controls" for temporary construction and environmental-protection measures for reroofing preparation.
 - 3. Division 01 Section "Cutting and Patching" for cutting and patching procedures for reroofing preparation.
 - 4. Division 06 Section "Miscellaneous Rough Carpentry" for wood nailers, cants, curbs, and blocking.
 - 5. Division 07 Section "EPDM Membrane Roofing" for roofing membrane, base flashings, roof insulation, and roofing accessories.
 - 6. Division 07 Section "Sheet Metal Flashing and Trim" for metal roof penetration flashings, flashings, and counterflashings.
- C. Unit Prices: Refer to Division 01 Section "Unit Prices" for description of Work in this Section affected by unit prices.

1.2 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.

1.3 DEFINITIONS

- A. Roofing Terminology: Refer to ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.
- B. Existing Membrane Roofing System: EPDM roofing membrane, surfacing, and components and accessories between deck and roofing membrane.
- C. Substrate Board: Rigid board or panel products placed over the roof deck that serve as thermal barriers, provide a smooth substrate, or serve as a component of a fire-resistance-rated roofing system.
- D. Partial Roof Tear-Off: Removal of selected components and accessories from existing membrane roofing system.
- E. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and reinstalled or turned over to the Owner.
- F. Existing to Remain: Existing items of construction that are not indicated to be removed.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Fastener pull-out test report.
- C. Qualification Data: Certificate indicating that Contractor is approved by warrantor of new roofing system.

1.5 QUALITY ASSURANCE

- A. Reroofing Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." Review methods and procedures related to roofing system including, but not limited to, the following:
 - 1. Meet with Owner; Roofing Consultant; Owner's insurer if applicable; testing and inspecting agency representative; roofing system manufacturer's representative; and roofing Installer including project manager, superintendent, and foreman.
 - 2. Review methods and procedures related to reroofing preparation, including membrane roofing system manufacturer's written instructions.
 - 3. Review temporary protection requirements for existing roofing system that is to remain, during and after installation.
 - 4. Review roof drainage during each stage of reroofing and review roof drain plugging and plug removal procedures.
 - 5. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 6. Review procedures to determine condition and acceptance of existing deck for reuse.
 - 7. Review structural loading limitations of deck during reroofing.
 - 8. Review base flashings, special roofing details, drainage, penetrations, equipment curbs, and condition of other construction that will affect reroofing.
 - 9. Review HVAC shutdown and sealing of air intakes.
 - 10. Review shutdown of fire-suppression, -protection, and -alarm and -detection systems.
 - 11. Review procedures for unexpected discovery of asbestos-containing materials.
 - 12. Review governing regulations and requirements for insurance and certificates if applicable.
 - 13. Review existing conditions that may require notification of Roofing Consultant before proceeding.

1.6 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately below reroofing area. Conduct reroofing so Owner's operations will not be disrupted. Provide Owner with not less than 72 hours' notice of activities that may affect Owner's operations.
 - 1. The Contractor is reminded that harmonic or impact vibration may dislodge ceiling materials. The Contractor is to provide adequate protection from falling objects and leaks for floors, equipment, furniture and other surfaces during tear off and reroofing processes. The Contractor will be fully responsible for damage to these areas due to falling debris or leaks caused by the Contractor's negligence during reroofing.
 - 2. Coordinate work activities daily with Owner so Owner can place additional protective dust or water leakage covers over sensitive equipment or furnishings, shut down HVAC and fire-alarm or -detection equipment if needed, and evacuate occupants from below the work area if desired.
- B. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- C. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.

- D. Owner assumes no responsibility for condition of areas to be reroofed.
 - 1. Conditions existing at time of inspection for bidding will be maintained by Owner as far as practical.
- E. Construction Drawings for existing roofing system are available for Contractor's reference. Contractor is responsible for conclusions derived from existing documents.
- F. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering into existing roofing system or building.
- G. Hazardous Materials: It is not expected that hazardous materials such as asbestos-containing materials will be encountered in the Work.
 - 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Roofing Consultant and Owner. Hazardous materials will be removed by Owner under a separate contract.
- H. Contractor shall be responsible for mechanical and electrical work including, but not limited to, removal and reinstallation of rooftop, utility lines, equipment and curbs. Coordinate this work with the Owner.

PART 2 - PRODUCTS

2.1 INFILL MATERIALS

- A. Use infill materials matching existing membrane roofing system materials, unless otherwise indicated.
 - 1. Infill materials are specified in Division 07 Section "EPDM Membrane Roofing".

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect existing roofing system that is indicated not to be reroofed.
 - 1. Limit traffic and material storage to areas of existing roofing membrane that have been protected.
 - 2. Maintain temporary protection and leave in place until replacement roofing has been completed.
- B. Coordinate with Owner to shut down air intake equipment in the vicinity of the Work. Cover air intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.
- C. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
- D. Maintain roof drains and scuppers in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast.
 - 1. If roof drains will be temporarily blocked or unserviceable due to roofing system removal or partial installation of new membrane roofing system, provide alternative drainage

method to remove water and eliminate ponding. Do not permit water to enter into or under existing membrane roofing system components that are to remain.

- E. Verify that rooftop utilities and service piping have been shut off before commencing Work.

3.2 ROOF TEAR-OFF

- A. General: Notify Owner each day of extent of roof tear-off proposed.
- B. Perform demolition in such a manner and by such methods that will avoid and prevent: spread of dust and flying particles, hazards to persons and property, and loud or prolonged noise. Avoid interference with the operation of the facility.
- C. Remove the existing roofing system down to the existing roof deck at areas indicated, clean the existing roof substrate and prepare the roof substrate for reroofing.
- D. Provide all labor, material, equipment, and tools as required to keep the building watertight. The Contractor must keep the building watertight. Special provisions may be necessary due to site or climatic conditions, and any such provisions shall be provided at no additional cost to the Owner. The Contractor will be fully responsible for damage caused leaks attributable to the Contractor's negligence during reroofing.
- E. Provide adequate protection for interior floors, supplies, and equipment to catch all dirt, and falling objects, during the tear-off and reroofing processes. The Roofing Contractor will be fully responsible for damage to these areas due to falling debris attributable to the Contractor's negligence during reroofing.
- F. Do not store debris on roof. Contractor shall take care not to overstress roof deck. Properly dispose of all debris from roof preparation on a daily basis. Provide protection of the existing or new roof systems when transporting debris over the roof surface.
- G. Provide closed trash chutes or other approved means for removal of debris.

3.3 DECK PREPARATION

- A. Inspect exposed roof deck for moisture and deterioration after tear-off of roofing system.
- B. If deck surface is not suitable for receiving new roofing, or if structural integrity of deck is suspect, immediately notify Roof Consultant. Do not proceed with installation until directed by Roof Consultant.

3.4 INFILL MATERIALS INSTALLATION

- A. Immediately after removal of selected portions of existing membrane roofing system, and inspection, fill in the tear-off areas to match existing membrane roofing system construction.
 - 1. Installation of infill materials is specified in Division 07 Section "EPDM Membrane Roofing".

3.5 TEMPORARY ROOFING MEMBRANE

- A. If unforeseen conditions prevent installation of new roofing membrane immediately after tear-off, install approved temporary roofing membrane over area to be reroofed.
- B. Remove temporary roofing membrane before installing new roofing membrane.

3.6 EXISTING BASE FLASHINGS

- A. Remove existing base flashings around parapets, curbs, walls, and penetrations.
 - 1. Clean substrates of contaminants such as asphalt, sheet materials, dirt, and debris.
- B. Do not damage metal counterflashings that are to remain. Replace metal counterflashings damaged during removal with counterflashings of same metal, weight or thickness, and finish as specified in Division 07 Section "Sheet Metal Flashing and Trim."

3.7 FASTENER PULL-OUT TESTING

- A. Perform fastener pull-out tests according to SPRI FX-1, and submit test report to Roof Consultant before installing new membrane roofing system.
 - 1. Obtain Roof Consultant's approval to proceed with specified fastening pattern. Roof Consultant may furnish revised fastening pattern commensurate with pull-out test results.

3.8 DISPOSAL

- A. Collect and place demolished materials in containers. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.
 - 1. Storage or sale of demolished items or materials on-site will not be permitted.
- B. Transport demolished materials off Owner's property and legally dispose of them.

END OF SECTION 07 01 50

