

SECTION 062500 – WOOD REPAIRS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specifications, apply to this section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Removal of decayed and contaminated wood
 - 2. Installation of borate wood preservatives
 - 3. Installation of wood repair compound materials
- B. Related Requirements:
 - 1. Section 099113 "Exterior Painting" for preparation requirements of painted surfaces.

1.3 ACTION SUBMITTALS

- A. Product data: For each type of product.
 - 1. Include installation instructions, and general recommendations from manufacturer for types of repair required including technical data sheets defining performance properties.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for wood repairs indicated.
 - 1. Engage an installer who employs workers for this Project who are trained or certified by manufacturer for installation techniques required.
- B. Mockups:
 - 1. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

1.6 DELIVERY STORAGE AND HANDLING

- A. Deliver all materials in original unopened containers labeled with the manufacturer's name, brand name, item name and installation instructions.
- B. Store materials in compliance with the manufacturer's requirements for temperature, maximum and minimum, and other conditions. Keep all materials under cover and dry. Protect against exposure to the weather.
- C. Discard and remove from the job site any materials damaged in handling or storage and any materials that have been subjected to conditions contrary to the manufacturer's recommendations or whose maximum shelf life has expired.

1.7 PROJECT CONDITIONS

- A. Coordination: Coordinate wood repair with paint stripping so that the effected surfaces are exposed for a minimal time to avoid further damage to bare wood. Coordinate with painting so that all restored surfaces are primed as soon as possible after repair.
- B. Weather: Proceed with the work of this section only when existing and foreseen weather conditions permit the work to be performed in accordance with the manufacturer's recommendations for temperature and humidity range, minimum and maximum.
- C. Substrate Conditions: Do not proceed with product applications until substrates have been inspected and are determined to be in satisfactory conditions. Substrate moisture content shall not be in excess of 18% during preparation and application
 - 1. Remove all decayed wood to a clean, sound, unaffected substrate
 - 2. Remove all built up paints, and other debris to a clean sound substrate.
 - 3. Remove all wood sawdust to a clean sound substrate.
- D. Protection:
 - 1. Use all necessary means to protect interior of building from all damage caused by precipitation and other environmental conditions during the work of the Section
 - 2. Protect all adjacent building surfaces from damage, staining or deterioration resulting from wood restoration work.
 - 3. Protect the restoration work in progress to prevent further deterioration exposed wood surfaces. Protect the completed work until the time of final inspection and acceptance by the architect.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations on Material: Obtain primary repair materials from a single manufacturer. Provide secondary materials as recommended by the manufacturer of the primary materials.

2.2 GENERAL

- A. Compatibility: provide products recommended by the manufacturers to be fully compatible with indicated substrate.

2.3 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Advanced Repair Technology; 'Epoxy Repair System' or comparable product by one of the following:
1. Abatron, Inc.
 2. ConServ Epoxy, LLC.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Inspect all wood surfaces in conjunction with the Architect to determine the extent of restoration and methods to be used.
- B. Joints, Joinery and edges: Check wood members at joints, seams and edges for:
1. Any open seams or failed conditions.
 2. Wood moisture content.
 3. The presence of wood decay, by probing surfaces.
- C. Sills and Trim
1. Inspect wood surfaces for natural defects (knots) cracks and checks.
 2. Determine wood moisture content.
 3. Probe for the presence for wood decay.

3.2 PREPARATION

- A. Removal of Finishes:
1. Remove all peeling and loose paint by scraping. Taking care not to damage sound wood and profiles.
 2. Strip all painted wood surface to bare wood, taking care not to damage sound wood and profiles by the application of stripping paste or by the use of a heat gun or plate
 - a. Remove stripper and finishes as directed by manufacturer.
 - b. Dispose of debris in accordance with approved methods.
- B. Wash all surfaces with recommended neutralizing agents to remove any foreign particle, dust and chemical residue, allow surface to thoroughly dry.

3.3 INSTALLATION

- A. Preservation and Repair of Damaged/Decayed Wood:
1. Remove all decayed soft and discolored wood, to sound bright unaffected material
 - a. Remaining wood should be even color without red-brown and/or gray spots.
 - b. No soft wood, existing brittle compound, or other previous repair materials should remain.
 2. Sand bare wood to remove all loose fibers, paint, compounds. Remove all sawdust and dirt.
 3. Drill holes in effected area to receive borate gel and rods. Follow manufacturer's dose recommendations for dimensional lumber.
 4. Inject recommended dose of borate gel. Gel should not come in contact with exposed wood surface.
 5. Install borate rod in same hole as gel. Gel should not come in contact with exposed wood surface.

6. Pre-treat bare and sanded wood thoroughly with low viscosity epoxy coupling/bonding agent.
 - a. Allow coupling/bonding agent to penetrate wood surface for a minimum of 10 minutes and maximum of 30 minutes, or as recommended by the manufacturer. Avoid applying in direct sunlight
 - b. Remove any excess bonding agent with absorbing paper.
7. Apply epoxy repair compound over the uncured epoxy coupling agent.
 - a. Epoxy fill shall have optimal contact with wood
 - b. Avoid inclusion of air pockets during application
 - c. Fill joints fill, even and smooth in one application
 - d. Allow full cure time as specified by manufacturer before preparing for finishes.
8. After curing, sand surface even and smooth. Transitions and irregularities between wood and epoxy shall not be visible after sanding.
9. If required, smooth any remaining irregularities with an additional application of epoxy repair compound. Always sand between coats.

3.4 ADJUSTMENTS

- A. Repair or replace all defective work at no additional cost to the owner.

END OF SECTION 062500