

ARCHITECTURAL WOODWORK RESTORATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Architectural woodwork restoration includes the following:
  - 1. Repair, cleaning and restoration of existing wood base, wall panels, trim, chair rails, stair handrails, wood benches, cabinetry, wainscot, picture molding and crown molding at Jury Room 819, Courtroom 816, elevator cars and as required by Program.
  - 2. Replication of deteriorated or missing components.

1.02 SUBMITTALS

- A. Product Data: Manufacturer' s product literature for each product used.
- B. Samples: Full size samples of each component profile required for each type of replicated woodwork item.
- C. Woodwork Repair Schedule: Schedule for each architectural woodwork item to be repaired outlining in detail proposed repair work to be performed on each item.
- D. Qualification data for firms and persons specified in Quality Assurance article to demonstrate their capabilities and experience. Include name of contact person and telephone number for the two submitted similar projects.

1.03 QUALITY ASSURANCE

- A. Architectural Woodwork Standards: Architectural Woodwork Standards (AWS) quality standards apply to the work of this Section. Except as otherwise indicated, provide Premium Grade work as defined. Where conflicts occur between these standards and this Section, the more stringent requirement governs.
- B. Developer Design/Builder Qualifications: All work shall be performed by skilled Developer Design/Builder having not less than 5-years satisfactory experience in comparable architectural woodwork restoration including work on at least two projects similar in scope and scale to this Project.
  - 1. Only skilled journeymen carpenters who are thoroughly trained and experienced in architectural woodwork restoration work and the skills required and completely familiar with the materials and methods specified shall be used for the work.
  - 2. One skilled journeymen carpenter shall be present at all times during execution of the work and shall personally direct the architectural woodwork restoration work.
- C. Field Sample: Repair one architectural woodwork item of each type to be restored, in location directed by the County' s Representative, using materials and methods specified in this Section to demonstrate materials and methods intended to be used in the finished work.
  - 1. Obtain County Representative' s approval of field sample before proceeding with remaining restoration work.
  - 2. Protect approved field sample until completion of work.
  - 3. Approved field sample shall serve as the quality standard for all architectural woodwork to be restored.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Architectural Woodwork Components: Keep all materials and fabricated items dry and protected from damage, soiling, and deterioration.

1.05 JOB CONDITIONS

- A. Field Measurements: The Design/Builder shall be responsible for field measuring all dimension for any required replacement parts, treatments or repairs.

- B. Safety: Take all means necessary to ensure that no person is harmed or injured due to the work of this Section.
- C. Coordination: Coordinate work of this Section with work specified in other Sections to ensure proper completion of all work. Where required, architectural woodwork shall be stripped of all finishes before repair work commences.

## PART 2 – PRODUCTS

### 2.01 CONSOLIDATION MATERIALS

- A. Liquid Epoxy Consolidant: Abatron " LiquidWood" , Astro Chemical Company " Astro Special 1101 and 2958" , Gougeon Brothers, Inc. " 105 Epoxy Resin mixed with 205 Fast Hardner" or approved equal two-part epoxy consolidant.
- B. Structural Adhesive Putty: Abatron, Inc. " WoodEpoxy" , Conservation Services " Flexible Epoxy Patch 200" , Astro Chemical Company " Astro Special 3388" or approved equal two-component epoxy paste for filling, patching and building-up damaged wood.

### 2.02 FUNGICIDE TREATMENT MATERIALS

- A. Fungicide: PPG/Olympic Paints and Stain " Mildew Check" or approved equal de-ionized water-based mildewcide/algicide for cleaning and prevention of regrowth of mildew and algae.

### 2.03 REPAIR AND REPLACEMENT MATERIALS

- A. Wood for Replacement Members: Preservative treated wood components of species, cut, grade to match existing architectural woodwork to be repaired.
  - 1. Wood shall bear the grade and trademark of the association under whose rules it is produced and a mark of mill identification.
  - 2. Lumber and finished woodwork throughout shall be of sound stock thoroughly seasoned, kiln-dried to a moisture content not exceeding 12-percent.
  - 3. Work shall be free from defects or blemishes that will show on surfaces exposed after the finish coat is applied. Any material which is in any way defective or fails to meet specifications for quality and grade, or is otherwise not in proper condition, will be rejected.
- B. Wood Filler: Benjamin Moore " Benwood Paste Wood Filler (238)" or approved equal solvent-based, air-drying, past-type wood filler. Color to match color of wood being patched.
- C. Adhesive: Aliphatic resin, non-staining, heat and water resistant, glue for repair.

### 2.04 OTHER MATERIALS

- A. Water-Repellent Preservative: Thompson & Formby " Wood Protector-Clear Wood Preservative" , DAP, Inc. " Woodlife Classic Wood Preservative" or NWWDA tested and approved preservative and water-repellent formulation containing 3-iodo-2-propynyl butyl carbamate (IPBC) as its active ingredient.
- B. All other materials required for work of this Section shall be selected by the Developer Design/Builder.

### 2.05 FINISHES

- A. Existing Architectural Woodwork: Site-finish by sanding, scraping or otherwise removing existing loose, damaged, or deteriorated finish where required. Refinish as specified in Section 09 91 00.

## PART 3 – EXECUTION

### 3.01 GENERAL

- A. The restoration of architectural woodwork shall be executed in accordance with the requirements of this Section.

### 3.02 EXAMINATION

- A. Take all necessary field measurements and verify all conditions prior to ordering and fabrication of material.
- B. Examine each architectural woodwork item carefully to determine the extent of work required for repair and refinish. Determination of work is subject to approval of the County's Representative whose decision shall be final.

### 3.03 ARCHITECTURAL WOODWORK REPAIR SEQUENCE

- A. Where required for repair, carefully remove architectural woodwork in a manner to avoid damage.
- B. Remove dirt and debris and extraneous nails, staples, bolts, hooks, etc.
- C. Label each member prior to removal for repair.
- D. Proceed with required repair work.
- E. Strip paint and loose finishes from architectural woodwork using approved stripping chemicals. Paint removal may take place off site. No dip stripping is permitted.
- F. Inspect all architectural woodwork components for condition. If repairs other than filler are required, carefully remove deteriorated components and replace with replicated components.
- G. Replace all architectural woodwork that is missing or deteriorated.
- H. Dutchman Repairs: Where practicable, repair deteriorated, split, or missing wood with Dutchman repairs.
  - 1. Neatly cut out defective material and enough sound wood to bond Dutchman to sound substrate. Form a prismatic void in existing wood with square corners and edges. Cut Dutchman to exactly fit void, with exposed portion matching original profile and grain of woodwork. Fabricate and install Dutchman with grain parallel to original wood grain direction.
  - 2. Secure Dutchman with waterproof adhesive and clamp or nail in place until glue is set.
  - 3. Use a diagonal scarf joint for end-to-end joints where the end of a component is to be cut off and replaced with a dutchman.
- I. Tighten loose and open joints in woodwork with galvanized finishing nails properly countersunk. Fill all joints which cannot be closed without dismantling the architectural woodwork with non-shrinking epoxy wood filler.
- J. Fill all miscellaneous holes, cracks, and open joints in woodwork with epoxy wood filler.
- K. Sand and refinish surfaces to a uniform and smooth finish. Refinish as specified in Section 09900.
- L. Reinstall architectural woodwork in original locations.

### 3.04 WOOD CONSOLIDATION

- A. General:
  - 1. Remove existing deteriorated, damaged, or loose architectural woodwork items as required to accommodate new work.
  - 2. Replace existing members that are completely deteriorated.
  - 3. Close existing open joints with approved adhesive.
- B. Patching:
  - 1. Mix, use and cure structural adhesive putty following manufacturer's directions.
  - 2. Form exact, sharp and accurate profiles to match existing.

3. File and sand to match desired profile and to produce uniformly smooth surface. No coarse-grained sandpaper mark or other imperfections will be permitted.

C. Consolidation:

1. Mix, use and cure epoxy consolidants following manufacturer' s directions.
2. Drill holes in areas of deteriorated wood as required to ensure complete penetration of consolidant into deteriorated portions of member.
3. Flow consolidant onto wood with a brush until wood is saturated.

- D. At completion of work, all restored architectural woodwork members shall match original in profile and shall be sound and true.

3.05 CLEANING

- A. Clean architectural woodwork surfaces promptly after installation. Take care to avoid damage to protective coatings and finishes. Remove excess sealants, dirt, and other substances.

3.06 ADJUSTMENTS

- A. Repair or replace all defective work to the satisfaction of the County' s Representative at no additional cost to the County.

3.07 PROTECTION

- A. Protect architectural woodwork from damage or deterioration until time of Substantial Completion.

END OF SECTION