

**PROPOSED SCOPE OF WORK**  
**Repair Building 1005 Exterior & Interior, New Post Chapel**  
**25 April 2005**

**Project Number KK00110-5J**

**Architectural Scope of Work:**

1. Remove the two trees marked as photograph 1 and three overgrown shrubbery indicated on the photographs marked Photograph 2.



Photograph 1- West side showing two trees



Photograph 2- Northwest side showing shrubs

2. Water test all gutters, downspouts and French drains to determine signs of clogged or defective system. Thoroughly clean out all gutters, downspouts and French drains to prevent water intrusion by backing water up on roof and overflowing around flashing. Repair any damage or defects to gutters, downspouts and French drains. Carefully examine roof over Confessionals 1A, 1B, 1C and Vestibule 1D shall be repair sufficiently to prevent water from entering walls above these areas. Examine all visible flashing for tears, damage or defects. Repair tears damage or defects in flashing. All materials and methods of repair shall be identical to and consistent with the original construction.



Photograph 3- North side showing gutters



Photograph 4- North side showing upper gutters

3. Maintenance of the steel casement windows shall follow the guidelines of US Department of Interior Preservation Brief Number 13, "The Repair and Thermal Upgrading of Historic Steel Windows". <http://www.cr.nps.gov/hps/tps/briefs/brief13.htm> Windows were manufactured by Hope Windows Inc, 84 Hopkins Ave., Jamestown, NY 14702-0580, (716) 665-5124. Thoroughly remove sealant from around all steel windows, between steel window frame and surrounding masonry. Windows

are in basically sound condition. The following steps are to be taken: 1) repair all window levers and mechanisms as required to place all windows in working order, using original parts from the manufacturer, 2) removal of light rust, flaking and excessive paint; 3) priming of exposed metal with a rust-inhibiting primer; 4) replacement of cracked or broken glass and glazing compound; 5) replace missing screws or fasteners; 6) cleaning and lubrication of hinges; 7) repainting of all steel sections with two coats of finish paint compatible with the primer (match existing color); 8) caulking the masonry surrounds with a high quality elastomeric caulk equal to Sonneborn Sonolastic tinted to match; and repair/paint the plaster in the interior window surrounds. (Note: Paint on steel windows may contain lead base paint. Old caulking around windows may contain asbestos.)



Photograph 6- South side steel casement windows    Photograph 7- west side steel casement windows

- Maintenance of the stained glass shall follow the guidelines of US Department of Interior Preservation Brief 33, "The Preservation and Repair of Historic Stained and Leaded Glass". <http://www.cr.nps.gov/hps/tps/briefs/brief33.htm> Stained glass windows are of a relatively contemporary manufacture with a black epoxy matrix (process known as "Dalle de Verre") rather than lead or other metal and were installed in 1976. Windows are very sound structurally but are leaking around the perimeter of the window between the windows and the surrounding cast stone. Employ a stained glass expert recognized by SHPO as an expert in their field to evaluate condition of panels and surrounding seal. Carefully clean the inside and outside of the windows using water and non-ionic detergent. Final rinse the glass with water. Sealants (e.g., putties, caulks, and silicones) are used to seal the panel against the sash, and to seal any open joints around the window frame. Carefully inspect the perimeter of the panels, looking for holes and gaps in sealant. Seal holes with a sealant compatible in color and composition to the surrounding sealant. Do not remove the existing sealant and replace. Repair the existing sealant bead in place.



Photograph 8- West side "Dalle de Verre" windows    Photograph 9- West side "Dalle de Verre" close-up



Photograph 10- South side "Dalle de Verre" windows

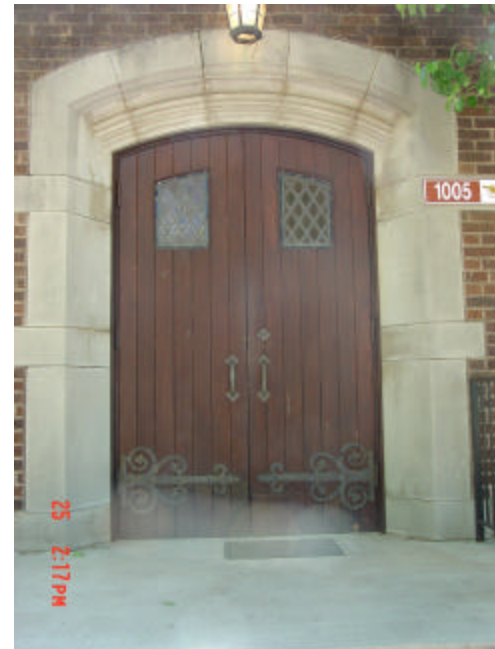


Photograph 11- South side "Dalle de Verre" interior

- Maintenance of exterior doors shall follow the guidelines of US Department of Interior Preservation Brief 10, "Exterior Paint Problems on Historic Woodwork". <http://www.cr.nps.gov/hps/tps/briefs/brief10.htm> Exterior doors and frames have a stained finish with varnish protective coat. Gently sand doors to be refinished to remove existing varnish. Stain doors to match existing woodwork extant in protected areas. Follow up with two coats of a moisture and fungus resistant varnish equal to military specification MIL-V-173C. Sealant between the door frames and the surrounding cast stone are failing or have failed. Thoroughly remove sealant from around all exterior door frames, between exterior door frame and surrounding masonry. Replace sealant with new sealant compatible with masonry surround and steel window frames. Sealant color shall exactly match the surrounding cast stone color. Install new door closers on doors as required by code. New closers shall match material, color and finish of existing hardware.



Photograph 12- Southwest Nave door



Photograph 13- North West nave door



Photograph 14- South Nave door interior



Photograph 15- Southwest office door interior

6. Woodwork throughout the building shall be thoroughly cleaned using non destructive cleaning methods. Touch up blemishes to staining using a matching stain.



Picture 16- Cabinets storage room 3



Picture 17- Cabinets and door Corridor A

7. The crawl space area marked B8 on the attached plan (B8) has pipe insulation that has tested as friable asbestos. Insulation is deteriorated. "Hatch A" into the crawl space is missing and has been replaced with a temporary barrier. Construct and install a new lockable hatch cover at "Hatch A" equal in materials, design and construction to the hatch cover currently installed at "Hatch B". Remove asbestos pipe insulation from pipes and in soil in crawl space. Re-insulate pipes with fiberglass insulation.



Picture 18- Hatch A to crawl space B8

8. Nave 1, Sanctuary, 2, Confessionals 1A, 1B, 1C, Vestibules 1D, 1E storage rooms 3, 4, 9 and Sanctuary 2: Patch and repair of flat plaster shall follow the guidelines of US Department of Interior Preservation Brief 21, "Repairing Historic Flat Plaster Walls and Ceilings". <http://www.cr.nps.gov/hps/tps/briefs/brief21.htm> Repair or replace all damaged plaster including areas of spalling, efflorescence, delaminating and cracking following the specification below, *Specifications Section 09212 Historic Lime Plaster Repair*. Repairs shall be limited to areas of damage only. Do not rework areas of original plaster that are sound. After plaster has thoroughly dried, paint entire surface of plaster in these rooms, including areas of plaster that received no repair. Fresh plaster with a lime finish coat should be perfectly dry before paint is applied--or the paint may peel. (Plasterers traditionally used the "match test" on new plaster. If a match would light by striking it on the new plaster surface, the plaster was considered dry.) Allow new plaster to cure two to three weeks. Prime with alkaline-resistant primer, specifically formulated for new plaster. Final coat with a latex paint with the same sheen and color as the paint on the existing walls.
9. Thoroughly clean the interior surfaces of all supply and return ducts. Thoroughly clean surface of all supply and return grills in all spaces. Bronze surfaces shall be cleaned with water and a non caustic cleaning material. Take great care not to scar or scratch the supply and return grills.



Picture 19- Return Air grill



Picture 20- Supply air grill

10. Throughout building: Remove existing carpet and replace with new. Color, pile and texture to match existing.



Picture 21- Nave center aisle



Picture 22- Fellowship room

11. Rooms B4, B5 and B6: Demolish the existing duct in rooms B4 and B5 “Fellowship” that currently obstructs headroom in the spaces. Construct and install a new duct system in rooms B4 and B5 that increases the headroom to the maximum possible extent. Remove the existing carpet and underlying Vinyl Asbestos Tile. Install new carpet. Install new ceiling mounted fluorescent lights.



Picture 23- Fellowship Room B5



Picture 24- Fellowship Room B5

12. Room B2: Existing counter top is not original to the building and dates from approximately the 1980s. Remove existing counter top. Carefully clean the existing cabinets, conserving the existing finishes. Touch-up existing finish as required to match. Install new solid surface counter top (color as approved by the COR), sink, faucets, refrigerator, dishwasher and electric range. Install electrical service for electric range and new power ventilated range hood along with required ducting and grill. Patch and paint the existing wall and ceiling plaster, conserving the existing finish quality, texture and appearance.



Picture 25- Kitchen Room B2



Picture 26- Kitchen Room B2

13. Room B3 Men's Toilet: Carefully clean all surfaces of tile, wall paint, toilet partitions. Repair plaster as necessary. Repaint ceiling using paint matching gloss and color of existing paint. Remove existing through window vent fan and replace with new working vent fan with higher efficiency. Install new lavatory faucets.



Picture 27- Men's Toilet Room B2



Picture 28- Men's Toilet Room B2

14. Room 7 Women's Toilet: Carefully clean all surfaces of tile, wall paint, toilet partitions. Repair plaster as necessary. Repaint ceiling using paint matching gloss and color of existing paint. Remove existing through window vent fan and replace with new working vent fan with higher efficiency. Install new child's toilet using existing drain and water service points. Install new toilet partitions around large and small toilet providing privacy for both. New toilet partitions shall be compatible with the existing room finishes.



Picture 29- Women's Toilet Room 7



Picture 30- Women's Toilet Room 7

15. Corridor C: Carefully clean all existing surfaces. Paint the entire interior, conserving the existing finish quality, texture and appearance. Remove existing vinyl wall covering and install new vinyl wall covering, type II, medium weight, color as selected by the COR.



Picture 31- Corridor C

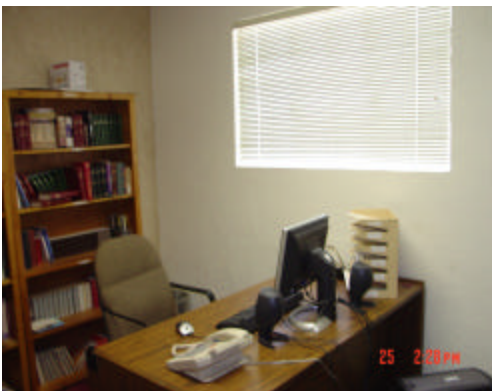
16. Corridor A, offices 6, 6A, 8, and 10: Paint ceiling. Remove the existing vinyl wall covering and install new vinyl wall covering, type II, medium weight, color as selected by the COR.



Picture 32- Corridor A



Picture 33- Office 6



Picture 34- Office 8



17. Nave 1 and Sanctuary 2: Remove existing incandescent lights and replace with 45 watt compact fluorescent lights. Carefully clean the light globes. Remove the existing carpet and replace with new carpet, color matching existing color.



Picture 35- Nave 1



Picture 36- Nave Light Fixtures

18. Nursery 12: Remove the existing simulated fireplace and repair wall. Paint all walls and ceilings. Remove existing carpet and replace with new.

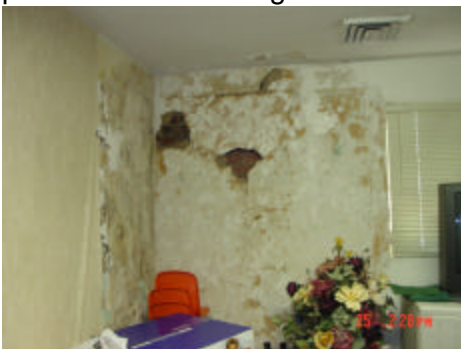


Picture 37- Remove "Fireplace"



Picture 38- Nursery 12 Ceiling

19. Storage 9 and 11: Remove existing vinyl wall covering; restore existing plaster wall surface and paint walls and ceiling.



Picture 39- Storage 9 Wall



Picture 40- Storage 11 Wall

20. Furnish and install three surface mounted fire extinguisher cabinets complete with 10 pound ABC type fire extinguishers; one in the office space corridor leading to vestibule 9A; one at the outside door to Nursery 12; and one in Corridor C of the basement.

**Specifications**  
**Section 09212 Historic Lime Plaster Repair**

**Part I, General**

A. The New Post Chapel (building 1005) was built in 1934, is a significant historic structure and is “eligible” for inclusion in the *Fort Sill Field Artillery Historic District*. All work shall be completed in such a way as to protect existing architectural features from damage and to retain as much historic fabric as possible.

B. The work of this section consists of evaluating the condition and then patching and repairing areas of removed or damaged plaster, repair of cracks larger than hairline, and apply a scratch, float, or setting coat, where required, to restore and preserve wall and ceiling areas to a physically and historically compatible finish. All work shall be undertaken and completed under the guidelines of the US Department of the Interior Preservation Brief 21, “Preserving Historic Flat Plaster Walls and Ceilings”.

C. The scope of work includes plaster restoration in the following areas: nave 1, north and south vestibules 1D, 1E, sanctuary 2, women’s toilet 7, storage room 9, storage room 11, storage room B1, men’s toilet room B3, fellowship room B4 and Confessionals 1A, 1B, 1C.

**1-2 Quality Assurance**

A. Standards:

1. For materials; as noted.
2. For repair determinations, a Historic Plaster Repair Contractor approved by the Contracting Officer Representative (COR) shall be used.

B. Materials: as stated or by approval of the COR.

C. Qualifications of Historic Plaster Repair Contractor: Must be experienced in all phases of historic plaster repair, specifically lime based plasters, the preservation and reproduction thereof. The Contractor must have six years and/or four projects of similar historical significance.

**1-3 Submittals, prior to commencement of work:**

A. Submit written repair procedures to COR.

B. Execute two sample panels of replacement plasters to be used as standards for the patching material.

**1-4 Job conditions**

A. Protect and cover all adjacent architectural features and work completed by other trades.

B. Determine if the substrates to which plaster materials are to be applied are sound and free from defects. Report defective surfaces to the COR.

C. Insure that a minimum temperature of 65 degrees F is maintained for an adequate period prior to, during, and after application of plaster and that heating and/or ventilation is properly regulated to insure correct curing of the plaster.

**1-5 Product Handling**

Follow manufacturers directions, and store materials where directed on site to prevent damage.

## **PART II: Materials**

2-1 Basecoat Plasters (course stuff), for application on lath, metal or wood  
Mix putty, 1:3, with sand, for the scratch coat, well haired  
Mix lime putty, 1:2.0-2.5, with sand, for the float coat, haired  
OR: formulate according to mortar analysis

2-2 Finish coat Plasters or small area, crack repair  
Mix lime putty, 1:1, with graded sand, for the finish coat,  
OR;  
Mix lime putty, 3:1, with gauging plaster  
OR;  
Mix according to the mortar analysis, with the approval of the COR.

### 2-3 Gauging Plaster

USG Champion Quality Gauging Plaster or equal shall be used.

### 2-4 Lime

Fresh hydrated finish lime, or approved equal  
Quicklime, for Chemical uses, slaked for two weeks (granular) or longer as approved by COR depending on lime particle size. If quicklime is used for the putty, then it should be mixed with the sand for a period of time not less than three weeks.

### 2-5 Sand

Sand shall be a well graded, mason's sand, and shall be clean and free of dirt, and organic substances. Or match the existing historic sand as determined by the COR and the mortar analysis.

### 2-6 Fiber for Scratch and Float coats

The allowable fibers are as determined by mortar analysis or as follows in order of priority, cattle hair, goat hair, hog hair, jute, sisal, manila, or hemp. The fiber should be 1" to 1/2", in length. It shall be added in the proportion of 1/2 pound of fiber to 2.25 cubic feet of course stuff.

2-7 Water shall be clean, fresh, potable, and free from organic substances.

2-8 Bonding agents shall be used only with the specific permission for the COR, and shall be used in accordance manufacturer's instructions. The PVA bonding agent shall be WELD-BOND PLUS from SILPRO or equal. PVA's should not be used in a damp or aggressive environment. The methacrylic bonding agent shall be C-21 from SILPRO or equal.

2-9 Adhesive, for the reattachment and stabilization of loose plasters, Ceil-Tite Restoration Adhesive and Conditioner will be used according to, manufacturer's directions.

## **PART 3: EXECUTION**

### 3-0 Evaluation of plaster condition

The Historic Plaster Repair Contractor shall conduct an evaluation and in conjunction with the COR formulate a plan for the plaster repair on these surfaces.

3-1 Adhesive reattachment- Ceil-Tite Restorations Adhesives are to be used according to manufacture's specifications.

3-2 Preparation; for plaster repair

- A. At modern patches, evaluate their soundness and remove if necessary.
- B. At exposed wood lath, re-secure to existing framing with stainless steel nails or pre-drill holes for deck screw attachment. Clean out keys and vacuum clean. allow to coalesce as necessary. Rake perimeter of hole, to cut it back, for replacement plaster to tuck in behind the existing plaster.
- C. Dampen wood lath until the water the surface is damp; using a mix of water with non-detergent surfactant.
- D. At existing sound plaster bases/ delaminating top coats: Determine, in consultation with the COR, which delaminations are to be saved and which are to be removed. Reattach the ones that are to be saved with the conservation adhesive and remove the others.
- E. The cracks to be raked out in an inverted "V", in general 1" to 1/2" in width, up to the entire depth of the existing plaster.

### 3-3 Application of plaster

- A. Large area repair: Adhere the perimeter of the opening and fill with two to three layers of the lime/sand/hair basecoat plaster, no more than 3/8" per coat, and a finish coat, flush with the surrounding surfaces. New surfaces shall duplicate the texture and variegation of existing surfaces.
- B. Small area repair: Two inches or larger, fill with large area material, smaller, fill with crack fill material, flush with the surrounding surfaces.
- C. Crack fill: Rake out crack to approximately 1/2" depth and fill with non sanded finish coat material, flush with the surrounding surfaces.
- D. Surface delaminations: Remove as necessary, and replace with non-sanded finish coat material, flush with the surrounding surfaces.
- E. Up to 10% gypsum can be added if deemed necessary.

End Section 09212 Historic Lime Plaster Repair