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GSA U.S. General Services Administration Removing Painted Graffiti from Sandstone

Procedure code: 447009S Source: National Capitol Region Specifications - ITC Building Division: Masonry Section: Sandstone Last Modified: 08/17/2016

PREFACE

The cleaning or removal of stains from stone may involve the use of liquids, detergents or solvents which may run off on adjacent material, discolor the stone or drive the stains deeper into porous stones. Use the products and techniques described here only for the combinations of dirt/stain and stone specified. Products containing chemicals known to present health or environmental hazards should be used only as a last resort, where permissible, in accordance with manufacturer's directions and government requirements. Test milder formulations for effectiveness before proceeding to stronger alternatives.

PART 1---GENERAL

- A. This specification provides guidance on the removal of paint-based graffiti from sandstone using a chemical paint stripper or poultice.
- B. Latex paints tend to remain primarily on the surface of stone materials as opposed to oil based paints, which tend to penetrate into the stone and remain there.
- C. Historic Structures Precautions:
 - 1. Do not use acids or flame tools to strip paint from stone, as it will damage the surface.
 - 2. Do not use steel or metal spatulas or tools to scrape stone because of the likelihood of scratching, chipping, gouging, or otherwise marring the surface.
- D. Read "General Project Guidelines" along with this specification. These guidelines should be reviewed prior to performing this procedure and should be followed, when applicable, along with recommendations from the Regional Historic Preservation Officer (RHPO). The guidelines cover the following sections:
 - 1. Safety Precautions

- 2. Historic Structures Precautions
- 3. Submittals
- 4. Quality Assurance
- 5. Delivery, Storage and Handling
- 6. Project/Site Conditions
- 7. Sequencing and Scheduling
- 8. General Protection (Surface and Surrounding)
- E. See also:
 - 1. "Sandstone: Characteristics, Uses and Problems"
 - 2. "Removal of Adhesive Residue from Brick, Granite and Limestone".

PART 2---PRODUCTS

2.01 MANUFACTURERS

ProSoCo, Inc.

Lawrence, KS 66117

1-800-255-4255

2.02 MATERIALS

A. Paint Stripper to remove multiple layers of paint coatings and graffiti from exterior masonry surfaces (remains active for up to 24 hours), such as "Sure Klean Heavy Duty Paint Stripper" (ProSoCo, Inc.), or approved equal.

NOTE: CHOOSE ONLY THE "WASHABLE IN WATER" TYPE OF COMMERCIAL STRIPPERS. DO NOT USE THOSE THAT CONTAIN WAX.

- B. Clean, potable water
- C. Clean, natural fiber rags for drying
- D. Solvents such as acetone or denatured alcohol:
 - 1. Acetone (C3H6O):
 - a. A volatile, fragrant, flammable liquid ketone used chiefly as a solvent and in organic synthesis.
 - b. Other chemical or common names include Dimethyl ketone; Propanone
 - c. Potential Hazards: VOLATILE AND FLAMMABLE.
 - d. Available from chemical supply house or hardware store.
 - 2. Denatured Alcohol:

- a. Other chemical or common names include Methylated spirit*.
- b. Potential hazards: TOXIC AND FLAMMABLE.
- c. Available from hardware store, paint store or printer's supply distributor.
- d. Denatured alcohol should be a satisfactory substitute for ethyl alcohol for stain removing purposes.
- E. Filler material such as attapulgite clay, kaolin clay, Fuller's earth, talc, chalk, cotton pads, acid-free paper (do not use chalk or iron-containing clay when using an acid solvent, as their chemical reaction will cancel the effectiveness of the acid).

2.03 EQUIPMENT

- A. Garden hose and nozzle
- B. Wood or plastic spatulas
- C. Stiff fiber or jute bristle brushes (No Metallic)

PART 3---EXECUTION

3.01 EXAMINATION

- A. Examine the sandstone surface CAREFULLY to determine the cause of staining before proceeding with any cleaning operation.
- B. Identify the substance used to create the graffiti.
- C. Examine the surrounding area for signs of what may have been used to create the graffiti (i.e. spray cans or other debris).

3.02 ERECTION, INSTALLATION, APPLICATION

NOTE: SANDBLASTING OR OTHER ABRASIVE TECHNIQUES TO REMOVE PAINT SHOULD BE AVOIDED. INSTEAD, SMALL TEST PATCHES SHOULD BE TRIED USING SUCH SOLVENTS AS ACETONE, DENATURED ALCOHOL, AND COMMERCIAL PAINT STRIPPERS.

- A. Thoroughly rinse the stained area with clean, clear water while carefully removing loose paint using a wooden scraper.
- B. Allow surface to thoroughly dry.
- C. Use a brush to apply a coat of commercial paint stripper over the surface (approximately 1/8" thick), and allow to dwell until paint is lifted from the surface; follow manufacturer's instructions.

-OR-

- D. Use a brush to apply a solvent such as acetone or denatured alcohol.
- E. Scrape off softened paint with a wooden spatula.
- F. Thoroughly rinse the surface with clean, clear water and allow to dry.
- G. Repeat the process as necessary to sufficiently remove the stain.
- H. For stubborn paint stains, poulticing may be required.

- 1. Create a poultice by mixing an appropriate solvent with a filler material.
- 2. Apply the mixture to the stained area in a 1/4" to 3/4 " thick layer using a wood or plastic spatula and allow to dry. Be sure to spread the poultice well beyond the stained area. The liquid portion of the paste will migrate into the masonry where it will dissolve some of the staining material. Then the liquid will gradually move back beyond the masonry surface and into the poultice, where it will evaporate, leaving the dissolved staining material in the poultice.
- 3. Allow poultice to dwell, keeping it moist until the stain has lifted. Secure a polyethylene sheet over the poultice to reduce evaporation. Exact length of dwell time will vary and will require periodic inspection of the substrate.
- 4. Once it appears that the stain has lifted, allow the poultice to dry out. As the poultice dries, the solvent is reabsorbed by the poultice material bringing with it the stain.
- 5. The poultice should fall off naturally as it dries. Remove remaining material with a wooden spatula and natural bristle brush.
- 6. Rinse the surface thoroughly with clean, clear water and allow to dry.
- 7. Repeated applications of poultice may be required.

3.03 ADJUSTING/CLEANING

Upon completion of the masonry cleaning work, clean window glass and spattered adjacent surfaces.

Last Reviewed: 2018-10-25