SECTION 09 97 00

SPECIAL CONCRETE COATINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

A. Graffiti-resistant coating system.
   1. Location:
      a. Exterior exposed concrete at first floor. Except where an elastomeric coating is called for.
      b. Exterior tile below storefront at first floor.
      c. Exterior painted metal panels at first floor.

B. Water resistant coating system.
   1. Location: Interior exposed concrete columns.

C. Concrete floor sealer.
   1. Location: Interior exposed concrete floors except where polished on first floor.
   2. Alternate No. 8: Sealer at upper floor Trash Rooms.

1.3 RELATED SECTIONS

A. Section 012300 – Alternates: Alternate No. 8.

B. Section 013543 – Special Environmental Requirements: GreenPoint related product and submittal requirements.

C. Section 033100 – Cast-in-Place Concrete: Preparation of concrete prior to application of special coating.

D. Section 033500 – Exposed Architectural Concrete Finishing: Preparation of concrete prior to application of special coating and special polishing of concrete floors.

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's product data sheets for all products to be used for the work, including installation instructions, physical, chemical, and coating properties. Submit description for protection of surrounding surfaces not scheduled to receive coating, surface preparation, application, and final cleaning.

B. Samples: Manufacturer's color charts showing the full range of colors available for each type of finish-coat material indicated.

C. Application Qualifications: Submit qualifications for applicator as follows:

1. Certification stating applicator is experienced in the application of the specified products.

D. VOC Certification: Submit certification that coatings furnished comply with regulations controlling use of volatile organic compounds.

E. Project Closeout Submittals: Submit to Owner upon completion of project maintenance information on method of removing graffiti. Include name, address, and phone number of nearest service representative.

1.5 QUALITY ASSURANCE

A. Applicator Qualifications: Installation shall be performed by applicators with satisfactory experience in the application of the material to be used and trained for the application of the specified coating materials.

B. Pre-installation Meeting: Convene a pre-installation meeting one week before the start of application of special coatings. Require attendance of parties directly affecting the work of this section, including the Contractor, Architect, applicator and his foreman, and manufacturer's representative. Items to review include, but are not limited to the following:
   1. Environmental regulations.
   2. Test panel procedures.
   3. Protection of surrounding areas not scheduled to receive coating.
   4. Surface preparation.
   5. Application procedures.
   6. Field quality control.
   7. Final cleaning.
   8. Coordination with other work.
   9. Final approval of finishes will be made from benchmark samples.

C. Coordination: Coordinate related trades for installation of the Work. Advise concrete and other trades on proper cleaning and protection of their materials for successful application of coatings.

D. Mock-ups:
   1. Before proceeding with full-scale application, review manufacturer's product data sheet to determine the suitability of product for the specific surfaces. Apply each coating to test panel **of each different material type** at the jobsite to determine number of applications, coverage rates, compatibility, effectiveness, surface preparation, application procedures, and desired results.
   2. **Spray a**~~A~~pply coating to test panels in accordance with manufacturer's written instructions. Allow 48 hours or until test panels are thoroughly dry before evaluating final appearance and results. Do not begin full-scale application until test panels are approved by the Architect.
   3. Test Panel Requirements:
      a. Size: Minimum 4- x 4-feet each, or as determined by Architect.
      b. Locations: As determined by Architect.
      c. Number: as required to completely test each coating application method with each type of substrate to be protected.
   4. Retain and protect test panels approved by the Architect in undisturbed condition during the work of this Section for use as a standard for judging the final coating work.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the Project site in manufacturer's original unopened containers and packaging with labels identifying product name and manufacturer.

B. Store containers in a cool, dry, well-ventilated place, away from heat. Store away from all other chemicals and potential sources of contamination. Keep lights, fire, sparks, and heat away from containers. Do not drop containers or slide across sharp objects. Keep containers tightly closed when not in use. Store and handle materials in accordance with manufacturer's written instructions.

1.7 PROJECT CONDITIONS

A. Apply coatings only when temperature of surfaces to be coated and surrounding air temperatures are between 40and 90deg F during application and for a minimum of eight hours after application, unless otherwise indicated in manufacturer's written instructions.

B. Wind Conditions: Do not apply under windy conditions such that the coating may be blown to surfaces, either on site or off, not intended to be treated.

C. Rain Conditions: Do not apply earlier than 24 hours after rain or if rain is predicted for a period of 8 hours after application, unless otherwise indicated in manufacturer's written instructions.

D. Protect sealed floor areas during drying from traffic, damage and contamination.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Graffiti-Resistant Products: Provide Sacrificial Coating. Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following, or approved equal:
1. ProSoCo, Inc.; Sacrificial Coating SCI
2. Textured Coatings of America, Inc.; Sacrificial Graffiti Gard.
3. Genesis; Graffiti Melt
4. Rusto-oleum/ Okon; Okon Graffiti Barrier Coat

B. Water-Resistant Sealer Products: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following, or approved equal:
1. Kemex Corporation; Kemseal 15
2. Kemex Corporation; Kemseal SMC
3. LM Scofield; CEMENTONE Clear Sealer.
4. ProSoCo, Inc.; SL100 Water Repellant
5. Substitutions: Refer to Section 01630.

C. Concrete Floor Sealer Product: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following, or approved equal:
1. Tammis Industries: Clearseal WB 150, 800-862-2667, or approved equal.

2.2 MATERIALS, GENERAL

A. Material Quality: Provide manufacturer's best-quality material for each coating material specified.

B. Graffiti-Resistant Coating Material Characteristics:
1. Silicone elastomer graffiti control coating.
2. Compliant with California VOC regulations.
3. Clear, single component.
4. Non-yellowing.
5. Non-glossy penetrating liquid forming a durable invisible barrier.
6. Specifically designed for porous masonry**, granite tile with a thermal finish,** and plaster to provide protection against water and waterborne staining.
7. Vapor permeable.
8. ~~Non-s~~**S**acrificial type coating.
9. Efflorescence-inhibiting.

C. Water-Resistant Sealer Material Characteristics:
1. Waterborne, modified acrylic emulsion.
2. Compliant with California VOC regulations.
3. Clear, single component.
4. Non-yellowing.
5. Non-glossy penetrating liquid forming a durable invisible barrier.

D. Concrete Floor Sealer Material Characteristics:
1. Gloss: Low Sheen.
2. Abrasion Resistance: CS-17 Wheel, 1000 gms/1000 cycles, 0.0132 gms. Weight loss.
3. Compliant with California VOC regulations.
4. Coefficient of Friction: non-slip with minimum wet and dry value of 0.60 coefficient of friction in accordance with ASTM C1028.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine the conditions and surfaces on which the coating is to be applied. Do not proceed with the Work until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Protect surrounding areas, landscaping, pedestrians, vehicles, and other surfaces not designated to receive coating during the work from contact with coatings, masonry or concrete cleaners if used, residues, rinse water, fumes, wastes, and effluents in accordance with manufacturer’s written instructions.

B. Protect surrounding painted surfaces, metal, glass, foliage, and items from damage due to contact with graffiti coatings, in accordance with manufacturer’s written recommendations.

C. Clean all dirt, dust, oil, grease, and other contaminants from surfaces that interfere with penetration or performance with coatings. Use appropriate masonry or concrete cleaners approved by the coating manufacturer where necessary. Rinse thoroughly using pressure

water spray to remove cleaner residues. Allow surfaces to dry completely before application of coatings.

D. Seal all open joints.

E. Allow repointed surfaces to cure completely before application of coating.

3.3 APPLICATION

A. General: Application of coatings indicates Applicator's acceptance of surfaces and conditions.

B. Apply coatings to substrates in accordance with the manufacturer's written instructions, environmental regulations, and application procedures determined from test panel results approved by the Architect.

C. Apply to clean, dry, cured, and properly prepared surfaces.

D. Consult manufacturer's written instructions for information on application equipment to be used and precautions to be taken with the specified products.

E. Do no dilute or alter coatings. Apply as packaged.

F. Do not apply coatings to the following surfaces:
   1. Below-grade surfaces.
   2. Asphalt or other non-masonry materials.
   3. Painted or factory-finished surfaces.

G. Do not apply to compensate for structural or material defects in substrates.

H. **Spray apply.** Avoid overspray, wind drift, and splash of coatings.

I. Remove graffiti from treated surfaces using **graffiti remover product recommended by manufacturer of the sacrificial coating** ~~PRoSoCo "Defacer Eraser Graffiti Wipe"~~ applied in accordance with manufacturer's written instructions.

3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Obtain the services of a manufacturer's authorized field representative to verify protection, surface preparation, and application of coatings are in accordance with the manufacturer's written instructions and the test panel results approved by the Architect.

3.5 CLEANING AND PROTECTION

A. Clean site of all unused coatings, residues, rinse water, wastes, and effluents in accordance with environmental regulations.

B. Remove from the site and dispose of all materials used to protect surrounding areas and non-masonry surfaces following completion of the Work. Discard coating materials, rubbish, cans and rags at the end of each work day.

C. Upon completion of Work, clean coating-splattered surfaces. Remove splattered coating by proper methods of washing, using care not to scratch or otherwise damage finished surfaces.

D. Repair, restore, or replace to the satisfaction of the Architect, all materials, landscaping, and non-masonry surfaces damaged by exposure to coatings.

E. Provide Owner with a minimum of one gallon of additional sealer of each type for future use.

END OF SECTION 09 97 00

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