SECTION 071800 - TRAFFIC COATINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Pedestrian traffic coating systems including the following applications:

1. Liquid-applied reinforced waterproofing membrane with pedestrian traffic coating and applied decorative finish, at outdoor spaces located over occupied interior spaces.
2. Liquid-applied unreinforced waterproofing system with decorative finish, at outdoor cantilevered balcony spaces.
3. Equipment-room floor finishing systems composed of unreinforced waterproofing system with decorative finish.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product, including installation instructions.

B. Shop Drawings: For traffic coatings.

1. Include details for treating substrate joints and cracks, flashings, deck penetrations, and other termination conditions.

C. Samples: For each exposed product and for each color and texture.

1.4 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of traffic coating.

B. Sample Warranty: For special warranty.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For traffic coatings to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

1.7 WARRANTY

A. Manufacturer's Warranty: Manufacturer agrees to repair or replace traffic coating that fails in materials or workmanship within specified warranty period.

1. Warranty Period for TYPE-A: 20 years from date of Substantial Completion.
2. Warranty Period for TYPE-B and TYPE-C: 5 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Material Compatibility: Provide primers; base-, intermediate-, and topcoat; and accessory materials that are compatible with one another and with substrate under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

2.2 TRAFFIC COATING SYSTEM TYPE-A

A. Traffic Coating: Manufacturer's standard, traffic-bearing, seamless, high-solids-content, cold liquid-applied, elastomeric, waterproofing membrane system with integral wearing surface for pedestrian traffic; according to ASTM C 957.

1. Basis-of-Design Products: Subject to compliance with requirements, provide the following products by Kemper Systems America, Inc., Seneca NY (kempersystem.net):

a. Reinforced Waterproofing System: KEMPEROL® 2K-PUR.
b. Traffic Coating: KEMPERDUR® TC.
c. Decorative Finish: KEMPERDUR® Deko.

B. Primer: Liquid primer recommended for substrate and conditions by traffic-coating manufacturer.

C. Base Coats: Polyurethane resin with polyester reinforcing fleece.

D. Intermediate Traffic Coating: Three-component aromatic polyurethane coating consisting of resin, hardener, and mineral filler.

1. Aggregate Content: As recommended in writing by traffic-coating manufacturer for substrate and service conditions indicated.

E. Topcoat: UV-resistant, polyurethane resin decorative finish.

1. Color: Gray color to match decorative finish on unreinforced waterproofing system as approved by Architect.

F. Aggregate: Manufacturer's standard aggregate for each use indicated of particle sizes, shape, and minimum hardness recommended in writing by traffic-coating manufacturer.

G. Fire-Test-Response Characteristics: Provide traffic-coating materials with the fire-test-response characteristics as determined by testing identical products per test method below for deck type and slopes indicated by an independent testing and inspecting agency that is acceptable to authorities having jurisdiction.

1. Class B roof covering per ASTM E 108 or UL 790.

2.3 TRAFFIC COATING SYSTEM TYPE-B

A. Traffic Coating: Manufacturer's standard, traffic-bearing, seamless, high-solids-content, cold liquid-applied, elastomeric, waterproofing membrane system with integral wearing surface for pedestrian traffic; according to ASTM C 957.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Kemper Systems America, Inc., Seneca NY (kempersystem.net); COELAN Balcony System.

B. Primer: Liquid primer recommended for substrate and conditions by traffic-coating manufacturer.

C. Base Coats: Aromatic polyurethane.

D. Topcoat: Single-component, polyester, aliphatic, liquid-applied, moisture cured polyurethane.

1. Finish Coat Catalyst: Single-component activating agent.
2. Aggregate Content: As recommended in writing by traffic-coating manufacturer for substrate and service conditions indicated and as required to achieve slip-resistant finish.
3. Color: Manufacturer’s standard Gray.

E. Aggregate: Manufacturer's standard aggregate for each use indicated of particle sizes, shape, and minimum hardness recommended in writing by traffic-coating manufacturer.

F. Fire-Test-Response Characteristics: Provide traffic-coating materials with the fire-test-response characteristics as determined by testing identical products per test method below for deck type and slopes indicated by an independent testing and inspecting agency that is acceptable to authorities having jurisdiction.

1. Class B roof covering per ASTM E 108 or UL 790.

2.4 TRAFFIC COATING SYSTEM TYPE-C

A. Traffic Coating: Manufacturer's standard, traffic-bearing, seamless, high-solids-content, cold liquid-applied, elastomeric, waterproofing membrane system with integral wearing surface for equipment-room floor; according to ASTM C 957.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Kemper Systems America, Inc., Seneca NY (kempersystem.net); COELAN.

B. Primer: Liquid primer recommended for substrate and conditions by traffic-coating manufacturer.

C. Base Coats: Aromatic polyurethane.

D. Topcoat: Single-component, polyester, aliphatic, liquid-applied, moisture cured polyurethane.

1. Finish Coat Catalyst: Single-component activating agent.
2. Aggregate Content: As recommended in writing by traffic-coating manufacturer for substrate and service conditions indicated and as required to achieve slip-resistant finish.
3. Color: Manufacturer’s standard Gray.

E. Aggregate: Manufacturer's standard aggregate for each use indicated of particle sizes, shape, and minimum hardness recommended in writing by traffic-coating manufacturer.

2.5 ACCESSORY MATERIALS

A. Joint Sealants: ASTM C 920.

B. Sheet Flashing: Nonstaining sheet material recommended in writing by traffic-coating manufacturer.

C. Adhesive: Contact adhesive recommended in writing by traffic-coating manufacturer.

D. Reinforcing Strip: Fiberglass mesh recommended in writing by traffic-coating manufacturer.

PART 3 - EXECUTION

3.1 PREPARATION

A. General: Clean and prepare substrates according to ASTM C 1127 and manufacturer's written instructions to produce clean, dust-free, dry substrate for traffic-coating application.

1. Application of coating indicates acceptance of surfaces and conditions.

B. Mask adjoining surfaces not receiving traffic coatings to prevent overspray, spillage, leaking, and migration of coatings. Prevent traffic-coating materials from entering deck substrate penetrations and clogging weep holes and drains.

C. Concrete Substrates: Mechanically abrade surface to a uniform profile acceptable to manufacturer, according to ASTM D 4259. Do not acid etch.

1. Remove grease, oil, paints, and other penetrating contaminants from concrete.
2. Remove concrete fins, ridges, and other projections.
3. Remove laitance, glaze, efflorescence, curing compounds, concrete hardeners, form-release agents, and other incompatible materials that might affect coating adhesion.
4. Remove remaining loose material to provide a sound surface, and clean surfaces according to ASTM D 4258.

3.2 TERMINATIONS AND PENETRATIONS

A. Prepare vertical and horizontal surfaces at terminations and penetrations through traffic coatings and at expansion joints, drains, and sleeves according to ASTM C 1127 and manufacturer's written instructions.

B. Provide sealant cants at penetrations and at reinforced and nonreinforced, deck-to-wall butt joints.

C. Terminate edges of deck-to-deck expansion joints with preparatory base-coat strip.

D. Install sheet flashings at deck-to-wall expansion and dynamic joints, and bond to deck and wall substrates according to manufacturer's written recommendations.

3.3 JOINT AND CRACK TREATMENT

A. Prepare, treat, rout, and fill joints and cracks in substrates according to ASTM C 1127 and manufacturer's written recommendations. Before coating surfaces, remove dust and dirt from joints and cracks according to ASTM D 4258.

1. Comply with recommendations in ASTM C 1193 for joint-sealant installation.

B. Apply reinforcing strip in traffic-coating system where recommended in writing by traffic-coating manufacturer.

3.4 TRAFFIC-COATING APPLICATION

A. Apply traffic coating according to ASTM C 1127 and manufacturer's written instructions.

B. Apply number of coats of specified compositions for each type of traffic coating at locations as indicated on Drawings.

C. Apply traffic coatings to prepared wall terminations and vertical surfaces to height indicated; omit aggregate on vertical surfaces.

3.5 PROTECTING AND CLEANING

A. Protect traffic coatings from damage and wear during remainder of construction period.

B. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION