

ITEM #0601020A – STAMPED CONCRETE

Construct Stamped Concrete Pavement Surfaces as shown on the plans and in accordance with Article 4.01, supplemented as follows:

Article 4.01.01 - Description: Add the following:

Work under this item includes construction of truck apron and splitter islands using integral concrete pavement color, pattern, textural surface, dry-shake color hardener, test slabs, and application of a sealant solution.

Work under this item also includes furnishing and installing joints in accordance with the plans and this specification.

Article 4.01.02 – Materials: Add the following:

Concrete must have a minimum 28-day compressive strength of 4500 psi concrete for the truck apron and splitter islands, with a maximum aggregate size of ½". The cement must be from the same mill, raw material type, and brand for all the stamped concrete and test slabs in order to make colors uniform.

Patterns: Use the following patterns or approved equals:

- For the truck apron: LITHOTEX ® Pavecrafters ® Limestone – European Fan Pattern No. 423A. Viewed on the following website:
http://www.scofield.com/stampedconcrete_patterns23.html
- For the splitter islands: LITHOTEX ® Pavecrafters ® Traditional Bricks – Used Brick Herringbone Pattern No. 2570. Viewed on the following website:
http://www.scofield.com/stampedconcrete_BRICKS.html .

Colors: Use the following colors as found on the Scofield Website (http://www.scofield.com/lkch_cchart.html) or approved equals:

- For the truck apron: LITHOCHROME ® Color Hardener Color selection Guide Nos. A-59 Beige Cream for the small inner ring, and 4471 Saddle Brown for the larger outer ring (see Radius Layout Plan).
- For the splitter islands: LITHOCHROME ® Color Hardener Color selection Guide No. A-26 Brick Red.

- Color Admixture: shall contain colored, water-reducing, coloring agents that are lime proof and UV resistant, and without calcium chloride. The color admixture shall conform to the requirements of ASTM C979 and ASTM C494.
- Curing and Sealing Compound: SCOFIELD® Cureseal-W™ [Semi Gloss]. Curing and sealing compound shall conform to the requirements of ASTM C309 and matching the color admixture manufacturer, for use with integrally colored concrete.
- Release Agent: pattern tool manufacturer recommended and compatible with integral color additives.
- Dry-shake Colored Hardener: LITHOCHROME® Color Hardener or approved equal. As recommended by the pattern tool manufacturer and of a heavy duty grade.

Preformed expansion joint filler shall conform with Article M.03.01 Part 5.(b).(1).

Joint Sealant: Select one of the following silicone joint sealants or an approved equal:

Dow Corning 888 or 890-SL
 Manufactured by: The Dow Corning Corporation
 PO Box 994
 Midland, MI 48686-0994

Other silicone joint sealants expressly manufactured for use with concrete will be considered for use provided they are submitted in advance for approval to the Engineer. Other joint sealants will be considered for use only if a complete product description is submitted, as well as documentation describing at least five installations of the product. These documented installations must demonstrate that the product has performed successfully for at least three years under traffic conditions.

Backer Rod: An open-cell type rod with an impervious skin that will not outgas when ruptured. Use the backer rod together with the joint sealant. Select one of the following or an Engineer approved equal:

SOF ROD, manufactured by Nomaco Inc.,
 CERA-ROD, manufactured by W.R.Meadows, Inc.,
 Sandells Open-Cell Backer Rod, manufactured by
 Sandell Mfg. Co., Inc.

Submit a Materials Certificate for the above joint sealant conforming to Article 1.06.07.

Article 4.01.03 – Construction Methods: Add the following:

The contractor shall have at least 5 years of experience performing the installation of patterned and colored concrete on various state and/or municipal contracts. The prime Contractor submits a

minimum of 5 references proving the satisfactory completion of such work performed by the concrete contractor within 7 calendar days of the award of the contract for Engineer approval. The submittal shall include the names, addresses, and phone numbers of the personnel responsible for the administrating the contracts, and the location of the prior work. If the Engineer determines that the contractor proposed has insufficient experience, or has performed unsatisfactory work on other contracts, the prime Contractor will be required to resubmit documentation for an alternate contractor for the approval of the Engineer.

Submit proof of experience to: Mark T. Daley
 Manager of Contracts
 2800 Berlin Turnpike
 Newington, CT 06131-7546

TEST SLABS: Cast a stamped and colored concrete test slab to show the pattern, texture relief, surface finish, color, and standard of workmanship. Minimum size is 5' x 5'. Construct the test slab the same methods as outlined in the above Construction Methods and using the same Materials. The test slab shall be patterned. Include a repaired area of at least 1.5' x 1.5' to demonstrate the Contractors ability to match the color and texture to simulate damage during construction requiring repair. Produce, as Engineer directed, 1.5' x 1.5' test slabs in order to confirm a color before building the stamped 5' X 5' textured slab.

Build test slabs in locations directed by the Engineer. The construction of the stamped concrete begins after the Engineer approves the test slab. Maintain the test slabs during construction, undisturbed, as a standard for judging the completed work. All test slabs shall be removed and disposed of when directed by the Engineer.

The stamped concrete shall have a uniform and consistent color and pattern matching that of the approved test slab. Stamp patterns with respect to the joints to insure the stones in the pattern line up with the joint locations. Special procedures or stamping equipment is required to construct the pattern on the circular truck apron or irregular shaped islands. Follow all manufacturers' recommendations unless otherwise directed by the Engineer.

Schedule the concrete placement to avoid exposure to excessive wind and heat before applying curing materials. In the event of forecasted rain, snow, or frost within a 24 hour period of time, protect concrete from moisture, freezing, or thawing.

A Pre-Placement meeting shall be held one week prior to concrete placement to discuss the project and application methods. It is strongly suggested that the Engineer, General Contractor, Subcontractor, concrete representative, and a manufacturer's representative are all present at the meeting.

Article 4.01.04 - Method of Measurement: Delete Sections A & B in their entirety. Delete Section C Subarticle 1 and replace with the following:

This work will be measured for payment by the number of square feet of Stamped Concrete constructed as shown on the plans and accepted by the Engineer. Include test slabs, concrete cylinder test specimens, and joint material in the general cost of the work, which are not measured for payment.

Article 4.01.05 - Basis of Payment: Delete the first paragraph of Section 1 (Concrete: This material will be paid etc.....) and replace with the following:

This work shall be paid for at the contract unit price per square foot for “Stamped Concrete”, set in place. This price shall include the cost of all materials, equipment, and labor necessary to place, color and pattern the concrete and to construct and properly dispose of test slabs.

Reinforcing will be paid separately. No separate payment will be made for joint sealer or filler.

Warranty:

For a minimum of 3 years but no more than 5 years post construction, The Contractor shall furnish and repair any defects of the stamped concrete. Defects include a stamped concrete surface showing pockets of varying color concrete degradation as a result poor workmanship or poor material. Poor workmanship or material consists of any of the following characteristics; a concrete mix with water or air content outside manufacturer’s specifications, 28-day minimum compressive strength less than 4500 psi, aggregate larger than 1/2”, a concrete slump exceeding 5 inches, or excessive permeability. The Contractor shall furnish and repair all damaged sections resulting from poor workmanship or material, as directed by the Engineer, and at no cost to the State.

Pay Item
Stamped Concrete

Pay Unit
S.F.