

BALTIMORE COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF CONSTRUCTION CONTRACTS ADMINISTRATION
111 WEST CHESAPEAKE AVENUE
TOWSON, MARYLAND 21204



Contract No. 25114 GX0
Project No. 10000634
Northwest Regional Park Splash Pad and Supporting Facilities
4515 Deer Park Road, Owings Mills, MD 21117
Owings Mills – District 2c4

ADDENDUM NO. 4

DATE: 2/26/2026

Contact: Anthony Crews, 410-887-3531, tcrews@baltimorecountymd.gov

To All Bidders

This addendum is hereby made a part of the Proposal and the Special Provisions, and is hereby incorporated into the Contract. Should this addendum conflict with any portion of the Special Provisions, the Proposal, or any prior addenda, this addendum shall supersede and control.

Please note the attached changes, corrections, and/or information in connection with the contract and submit bids and be otherwise governed accordingly.

For your Information

Attached are questions and answers.

In the Specifications

Revised and attached to be inserted: New pages 1067-1083, Section 321316 – Decorative Concrete Paving. Delete old pages 1067-1083. New pages 1097-1107A, Section 323300 – Site Furnishings. Delete old pages 1097-1107.

In the Drawings

Revised and attached to be inserted: Drawing No. 2025-2200, Sheet 29 of 150 Landscape – Materials Plan – Splash Pad. Delete old drawing no. 2025-2200, Sheet 29 of 150.

Attachments – 34

Please sign below acknowledging receipt of this addendum and return with your bid.

Company Name

Signature

Addendum No. 4
February 26, 2026

Northwest Regional Park – Splash Pad and Supporting Facilities (25114 GX0)

4515 Deer Park Road, Owings Mills, MD 21117

This Addendum is hereby made part of the 100% Construction Documents (Project Manual and Drawings) for the above-mentioned project.

The provisions of this Addendum are intended to supplement and/or supersede the provisions of the Construction Documents only where contrary thereto.

This Addendum contains changes to the requirements of the Project Manual. Such changes shall be incorporated into the Construction Documents and shall apply to work with the same meaning and force as if they had been included in the original Documents. Whenever this Addendum modifies a portion of a paragraph of the Project Manual, the remainder of the paragraph affected shall remain in force.

The conditions and terms of the basic Specifications shall govern work described in this Addendum. Whenever the conditions of work, and the quality or quantity of materials, or workmanship are not fully described in this Addendum, the conditions of work, etc., included in the basic Specifications for similar items of work shall apply to the work described in this Addendum.

If no similar items of work are included in the basic Specifications, the best quality of material and workmanship shall apply and all work shall be subject to the written acceptance of the Landscape Architect.

A. Changes to the Project Manual (Attached as Complete Sections)

Total number of revised specifications: 2

Specification 32 13 16 – Decorative Concrete Paving
Specification 32 33 00 – Site Furnishings

B. Changes to the Construction Drawings (Attached)

Total number of revised drawings: 1

DWG. NUMBER	SHEET DESIG.	SHEET NAME	Revised with
2025-2200	L1.01	LANDSCAPE – MATERIALS PLAN – SPLASH PAD	Addendum No. 4
		<ol style="list-style-type: none">1. Updated note on plan to point to specifications for splash pad base bid.2. Updated materials legend to clarify base bid vs. add alternate material for splash pad (P4).	

END OF ADDENDUM NO. 4

DATE: 02.26.2026

TO: Matthew Leebel

CC: File

FROM: Mark Pelusi & Mia Quinto

SUBJECT: Pre-Bid RFIs and Responses

Pre-Bid RFIs and Responses

1. Please advise if electronic/digital signatures are an acceptable means of authentication and intent to be bound by/obligated to a submittal proposal.
 - a. Yes, electronic/digital signatures are acceptable.
2. Please provide a specification for the trellis (TR) referenced in specification section 323300 Site Furnishings.
 - a. The Trellis (TR) included in specification section 32 33 00.1.2.A.11 is a typo and should reference Shade Structure (SS) - Add Alternate #5 in specification section 32 33 00.2.13 (revised under Addendum #4).
3. Please verify the number of umbrellas to be provided by alternate number 4.
 - a. Seven (7) umbrellas are to be included in Add Alternate #4. Reference specification section 32 33 00.2.9.E for quantity (revised under Addendum #4).
4. Please confirm whether the specified waterplay water features are proprietary to the listed manufacturer, or if equivalent products from alternate manufacturers will be acceptable.
 - a. Substitution requests are not reviewed during the bid phase.
5. Per Drawings on the L1.01 p.29, does the P4 concrete paving require an integral color in the base bid? If so, please define the required color and specifications.
 - a. P4 does require an integral color in the base bid. The color should be the same as the specified P2 color: Sika SikaColor-100 P Gull Gray (U18). Reference Specification section 321316.2.6.A (revised under Addendum #4).
6. Will a short extension for the RFI due date be acceptable.
 - a. No, the RFI due date has to meet DPWT requirements to allow enough time for responses to contractors.
7. Please advise if a portion of the parking lot can be sectioned off at the contractors expense to provide contractor parking, additional staging area, temporary site amenities, etc. If so please advise what area can be provided for the duration of the project.
 - a. Baltimore County Recreation and Parks (BCRP) is accepting of the general contractor (GC) to block off five (5) parking spaces farthest away from the park amenities. Any fencing used in blocking off the parking would be at the cost of the GC, not added to the contract.
8. Please advise where the requested field office per specification section 015000 – Temporary Facilities and Controls, Section 2.2 part B will be located.
 - a. Field office can be placed anywhere within the LOD.

9. Waterplay is specified as the manufacturer for the splashpad equipment. Are approved equals allowed for the splashpad equipment?
 - a. Substitution requests are not reviewed during the bid phase.
10. Is pre-approval required?
 - a. It's unclear as to what the question is referring to, therefore a response cannot be provided.

SECTION 321316

DECORATIVE CONCRETE PAVING

PART 1 - GENERAL

1.1 SUMMARY

- A. Scored concrete paving with integral color ~~(P2)~~ **(P4)** – Splash Pad **Base Bid**
- B. Scored concrete paving with integral color (P2) – Add Alternate #1
- C. Related Requirements:
 - 1. Section 033000 "Cast-in-Place Concrete"
 - 2. Category 500 "Paving" (Baltimore County Standard Specifications and Details for Construction).
 - 3. Section 321313 "Concrete Paving" for cast-in-place concrete paving with other finishes, curbs and gutters, and stamped detectable warnings.
 - 4. Section 321373 "Concrete Paving Joint Sealants" for joint sealants in expansion and contraction joints within decorative concrete paving and in joints between decorative concrete paving and other paving or adjacent construction.

1.2 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash, slag cement, and other pozzolans.
- B. W/C Ratio: The ratio by weight of water to cementitious materials.

1.3 PREINSTALLATION MEETINGS

- A. Pre-installation Conference: Conduct conference at Project site.
 - 1. Review methods and procedures related to decorative concrete paving, including but not limited to, the following:
 - a. Concrete mixture design.
 - b. Quality control of concrete materials and decorative concrete paving construction practices.

2. Require representatives of each entity directly concerned with decorative concrete paving to attend, including the following:
 - a. Contractor's superintendent.
 - b. Independent testing agency responsible for concrete design mixtures.
 - c. Ready-mix concrete manufacturer.
 - d. Decorative concrete paving Installer.
 - e. Manufacturer's representative of decorative concrete paving system.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples for Initial Selection: For each type of product, ingredient, or admixture requiring color, pattern, or texture selection.
- C. Samples for Verification: For each type of exposed color, pattern, or texture indicated.
- D. Design Mixtures: For each decorative concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
- E. LEED Submittals: Submit documentation for MRc4, MRc5

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer and ready-mix concrete manufacturer.
- B. Material Certificates: For the following, from manufacturer:
 1. Cementitious materials.
 2. Steel reinforcement and reinforcement accessories.
 3. Fiber reinforcement.
 4. Admixtures.
 5. Curing compounds.
 6. Applied finish materials.
 7. Bonding agent or epoxy adhesive.
 8. Joint fillers.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer of decorative concrete paving systems.

Chevy Chase Contractors – 301-588-8090, <http://chevychasecontractors.com/>

Hyde Concrete – 410-349-0008, www.hydeconcrete.com

Hunt Valley Contractor – Jason Sparks (443-334-4948)
<https://www.huntvalleycontractors.com/>

- B. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities" (Quality Control Manual - Section 3, "Plant Certification Checklist").
- C. Testing Agency Qualifications: Qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.
1. Personnel conducting field tests shall be qualified as ACI Concrete Field-Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.
- D. Mockups and Samples: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
1. Samples: contractor to submit samples for approval showing texture, pattern, and color combinations prior to approval of specified colors.
 2. Build mockups of full-thickness sections of decorative concrete paving to demonstrate typical joints; surface color, pattern, and texture; curing; and standard of workmanship.
 3. Build mockups of decorative concrete paving in the location and of the size indicated or, if not indicated, build mockups where directed by Architect and not less than 96 inches by 96 inches.
 4. Mock-ups to include approved colors and stamp pattern for each area.
 5. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 6. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 PRECONSTRUCTION TESTING

- A. Preconstruction Testing Service: Engage a qualified independent testing agency to perform preconstruction testing on decorative concrete paving mixtures.

1.8 FIELD CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.
- B. Cold-Weather Concrete Placement: Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing, or low temperatures. Comply with ACI 306.1 and the following:
 - 1. When air temperature has fallen to or is expected to fall below 40 deg F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F and not more than 80 deg F at point of placement.
 - 2. Do not use frozen materials or materials containing ice or snow.
 - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in design mixtures.
- C. Hot-Weather Concrete Placement: Comply with ACI 301 and as follows when hot-weather conditions exist:
 - 1. Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated in total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
 - 2. Cover steel reinforcement with water-soaked burlap, so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
 - 3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

PART 2 - PRODUCTS

2.1 CONCRETE, GENERAL

- A. ACI Publications: Comply with ACI 301 unless otherwise indicated.

2.2 FORMS

- A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, and smooth exposed surfaces.
 - 1. Use flexible or uniformly curved forms for curves of a radius of 100 feet or less. Do not use notched and bent forms.

- B. Forms for Textured Finish Concrete: Units of face design, size, arrangement, and configuration indicated. Provide solid backing and form supports to ensure stability of textured form liners.
- C. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and that will not impair subsequent treatments of concrete surfaces.

2.3 STEEL REINFORCEMENT

- A. Plain-Steel Welded-Wire Reinforcement: ASTM A 1064/A 1064M, fabricated from as-drawn steel wire into flat sheets.
- B. Reinforcing Bars: ASTM A 615/A 615M, Grade 60; deformed.
- C. Steel Bar Mats: ASTM A 184/A 184M; with ASTM A 615/A 615M, Grade 60 deformed bars; assembled with clips.
- D. Plain-Steel Wire: ASTM A 1064/A 1064M, as drawn.
- E. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60 plain-steel bars. Cut bars true to length with ends square and free of burrs.
- F. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded-wire reinforcement, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete specified, and as follows:
 - 1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.

2.4 CONCRETE MATERIALS

- A. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from single source, and obtain admixtures from single source from single manufacturer.
- B. Cementitious Materials:
 - 1. Portland Cement: ASTM C 150/C 150M, gray Portland cement Type I/II
 - 2. Fly Ash: ASTM C 618, Class C or F.
 - 3. Slag Cement: ASTM C 989/C 989M, Grade 100 or 120.

- C. Normal-Weight Aggregates: ASTM C 33/C 33M, Class 4S, uniformly graded. Provide aggregates from a single source with documented service-record data of at least 10 years' satisfactory service in similar paving applications and service conditions using similar aggregates and cementitious materials.
 - 1. Maximum Coarse-Aggregate Size: 3/4-inch nominal.
 - 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- D. Air-Entraining Admixture: ASTM C 260/C 260M.
- E. Chemical Admixtures: Admixtures certified by manufacturer to be compatible with other admixtures and to contain no more than 0.1 percent water-soluble chloride ions by mass of cementitious material.
 - 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
 - 2. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
 - 3. Water-Reducing and Accelerating Admixture: ASTM C 494/C 494M, Type E.
- F. Color Pigment: ASTM C 979/C 979M, synthetic mineral-oxide pigments or colored water-reducing admixtures; color stable, free of carbon black, nonfading, and resistant to lime and other alkalis.
- G. Water: Potable and complying with ASTM C 94/C 94M.

2.5 SURFACE COLORING MATERIALS

- A. Liquid Release Agent: Manufacturer's standard, clear, evaporating formulation that facilitates release of stamp mats and texture rollers.

2.6 SCORED CONCRETE WITH INTEGRAL COLOR (P4 & P2)

- A. P4 (scored concrete) – Splash Pad Base Bid**

Color: Sika SikaColor-100 P Gull Gray (U18)

- B. P2 (scored concrete) – Add Alternate #1**

Color: Sika SikaColor-100 P Gull Gray (U18)

2.7 CURING AND SEALING MATERIALS

- A. Curing Paper: Non-staining, waterproof paper, consisting of two layers of kraft paper cemented together and reinforced with fiber, and complying with ASTM C 171.

- B. Evaporation Retarder: Waterborne, monomolecular, film forming, manufactured for application to fresh concrete.
- C. Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type I, Class B, manufactured for colored concrete.
 - 1. For integrally colored concrete, curing compound shall be pigmented type approved by coloring admixture manufacturer.
 - 2. For concrete indicated to be sealed, curing compound shall be compatible with sealer.
- D. Clear, Solvent-Borne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type I, Class A, manufactured for use with colored concrete.
- E. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type I, Class A, manufactured for use with colored concrete.
- F. Clear Acrylic Sealer: Manufacturer's standard, waterborne, non-yellowing and UV-resistant, membrane-forming, medium-gloss, acrylic copolymer emulsion solution, manufactured for colored concrete, containing not less than 15 percent solids by volume.
- G. Slip-Resistance-Enhancing Additive: Manufacturer's standard finely graded aggregate or polymer additive, designed to be added to clear acrylic sealer to enhance slip resistance of sealed paving surface.

2.8 RELATED MATERIALS

- A. Joint Fillers: ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork in preformed strips.
- B. Bonding Agent: ASTM C 1059/C 1059M, Type II, non-redispersible, acrylic emulsion or styrene butadiene.
- C. Epoxy-Bonding Adhesive: ASTM C 881/C 881M, two-component epoxy resin capable of humid curing and bonding to damp surfaces; of class suitable for application temperature, of grade complying with requirements, and of the following types:
 - 1. Types IV and V, load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.
- D. Polyethylene Film: ASTM D 4397, 1 mil thick, clear.

2.9 CONCRETE MIXTURES

- A. Obtain each color, size, type, and variety of concrete mixture from single manufacturer with resources to provide concrete of consistent quality in appearance and physical properties.
- B. Prepare design mixtures, proportioned according to ACI 301, for each type and strength of normal-weight concrete, and as determined by either laboratory trial mixtures or field experience.
 - 1. Use a qualified independent testing agency for preparing and reporting proposed concrete design mixtures for the trial batch method.
- C. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:
 - 1. Fly Ash or Pozzolan: 25 percent.
 - 2. Slag Cement: 50 percent.
 - 3. Combined Fly Ash or Pozzolan, and Slag Cement: 50 percent, with fly ash or pozzolan not exceeding 25 percent.
- D. Add air-entraining admixture at manufacturer's prescribed rate to result in normal-weight concrete at point of placement having an air content as follows:
 - 1. Air Content: 5-1/2 percent plus or minus 1.5 percent for 1-1/2-inch nominal maximum aggregate size.
 - 2. Air Content: 6 percent plus or minus 1.5 percent for 1-inch nominal maximum aggregate size.
 - 3. Air Content: 6 percent plus or minus 1.5 percent for 3/4-inch nominal maximum aggregate size.
- E. Limit water-soluble, chloride-ion content in hardened concrete to 0.05 percent by weight of cement.
- F. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.
 - 1. Use water-reducing admixture /water-reducing and retarding admixture /water-reducing and accelerating admixture in concrete as required for placement and workability.
 - 2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
- G. Color Pigment: Add color pigment to concrete mixture according to manufacturer's written instructions and to result in hardened concrete color consistent with approved mockup.

- H. Concrete Mixtures: Normal-weight concrete.
 - 1. Compressive Strength (28 Days): 5000 psi (or as specified by civil engineer for vehicular concrete)
 - 2. Maximum W/C Ratio at Point of Placement: 0.40
 - 3. Slump Limit: 4 inches, plus or minus 1 inch.

2.10 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M and ASTM C 1116/C 1116M. Furnish batch certificates for each batch discharged and used in the Work.
 - 1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.
- B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Mix concrete materials in appropriate drum-type batch machine mixer.
 - 1. For concrete batches of 1 cu. yd. or smaller, continue mixing at least 1-1/2 minutes, but not more than 5 minutes after ingredients are in mixer, before any part of batch is released.
 - 2. For concrete batches larger than 1 cu. yd., increase mixing time by 15 seconds for each additional 1 cu. yd..
 - 3. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mixture type, mixing time, quantity, and amount of water added.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine exposed subgrades and subbase surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.
- B. Proof-roll prepared subbase surface below decorative concrete paving to identify soft pockets and areas of excess yielding.
 - 1. Completely proof-roll subbase in one direction and repeat in perpendicular direction. Limit vehicle speed to 3 mph.
 - 2. Proof-roll with a pneumatic-tired and loaded, 10-wheel, tandem-axle dump truck weighing not less than 15 tons.

3. Correct subbase with soft spots and areas of pumping or rutting exceeding depth of 1/2 inch according to requirements in Section 312000 "Earth Moving."

- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove loose material from compacted subbase surface immediately before placing concrete.
- B. Protect adjacent construction from discoloration and spillage during application of color hardeners, release agents, stains, curing compounds, and sealers.

3.3 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.4 STEEL REINFORCEMENT INSTALLATION

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- D. Install welded-wire reinforcement in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.
- E. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities, or replace units as required before placement. Set mats for a minimum 2-inch overlap to adjacent mats.

3.5 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated.
1. When joining existing paving, place transverse joints to align with previously placed joints unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than one-half hour unless paving terminates at isolation joints.
1. Continue steel reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through sides of paving strips unless otherwise indicated.
 2. Butt Joints: Use epoxy-bonding adhesive at joint locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
 3. Keyed Joints: Provide preformed keyway-section forms or bulkhead forms with keys unless otherwise indicated. Embed keys at least 1-1/2 inches into concrete.
 4. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where indicated.
1. Locate expansion joints at intervals of 50 feet unless otherwise indicated.
 2. Extend joint fillers full width and depth of joint.
 3. Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.
 4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
 5. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
 6. During concrete placement, protect top edge of joint filler with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.
- D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows, to match jointing of existing adjacent decorative concrete paving:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 1/4-inch radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate grooving-tool marks on concrete surfaces.
 - a. Tolerance: Ensure that grooved joints are within 3 inches either way from centers of dowels.
 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks.
 - a. Tolerance: Ensure that sawed joints are within 3 inches in both directions from centers of dowels.
 3. Doweled Contraction Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.
- E. Edging: After initial floating, tool edges of paving, gutters, curbs, and joints in concrete with an edging tool to a 1/4-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate edging-tool marks on concrete surfaces.

3.6 CONCRETE PLACEMENT

- A. Before placing concrete, inspect and complete formwork installation, steel reinforcement, and items to be embedded or cast-in.
- B. Remove snow, ice, or frost from subbase surface and steel reinforcement before placing concrete. Do not place concrete on frozen surfaces.
- C. Moisten subbase to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.
- D. Comply with ACI 301 requirements for measuring, mixing, transporting, and placing concrete.
- E. Do not add water to concrete during delivery or at Project site. Do not add water to fresh concrete after testing.
- F. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.

- G. Consolidate concrete according to ACI 301 by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping.
 - 1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocating reinforcement and joint devices.
- H. Screed paving surface with a straightedge and strike off.
- I. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.

3.7 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleed water sheen has disappeared, and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.

3.8 INTEGRALLY COLORED CONCRETE FINISH

- A. Integrally Colored Concrete Finish: After final floating, apply the following finish:
 - 1. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating float-finished concrete surface 1/16 to 1/8 inch deep with a stiff-bristled broom, perpendicular to line of traffic.

3.9 STAMPING

- A. Mat Stamping: After floating and while concrete is plastic, apply mat-stamped finish.
 - 1. Pigmented Powder Release Agent: Uniformly distribute onto concrete at a rate of 3 to 4 lb/100 sq. ft..
 - 2. Liquid Release Agent: Apply liquid release agent to the concrete surface and the stamp mat. Uniformly mist surface of concrete at a rate of 5 gal/1000 sq. ft..
 - 3. After application of release agent, accurately align and place stamp mats in sequence.

4. Uniformly load mats and press into concrete to produce required imprint pattern and depth of imprint on concrete surface. Gently remove stamp mats. Hand stamp edges and surfaces unable to be imprinted by stamp mats.
5. Remove residual release agent according to manufacturer's written instructions, but no fewer than three days after stamping concrete. High-pressure-wash surface and joint patterns, taking care not to damage stamped concrete. Control, collect, and legally dispose of runoff.

3.10 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with ACI 306.1 for cold-weather protection.
- C. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete but before float finishing.
- D. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- E. Curing Compound: Apply immediately after final finishing. Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating, and repair damage during curing period.
 1. Cure integrally colored concrete with a pigmented curing compound.
 2. Cure concrete finished with pigmented mineral dry-shake hardener with a pigmented curing compound.
- F. Curing and Sealing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating, and repair damage during curing period.
- G. Curing Paper: Cure with unwrinkled curing paper in pieces large enough to cover the entire width and edges of slab. Do not lap sheets. Fold curing paper down over paving edges and secure with continuous banks of earth to prevent displacement or billowing due to wind. Immediately repair holes or tears in paper.

3.11 SEALER APPLICATION

- A. Clear Acrylic Sealer: Apply uniformly in two coats in continuous operations according to manufacturer's written instructions. Allow first coat to dry before applying second coat, at 90 degrees to the direction of the first coat, using same application methods and rates.
1. Begin sealing dry surface no sooner than 14 days after concrete placement.
 2. Allow stained concrete surfaces to dry before applying sealer.
 3. Thoroughly mix slip-resistance-enhancing additive into sealer before applying sealer according to manufacturer's written instructions. Stir sealer occasionally during application to maintain even distribution of additive.

3.12 PAVING TOLERANCES

- A. Comply with tolerances in ACI 117 and as follows:
1. Elevation: 3/4 inch.
 2. Thickness: Plus 3/8-inch, minus 1/4 inch.
 3. Surface: Gap below 10-foot-long, unlevelled straightedge not to exceed 1/2 inch.
 4. Lateral Alignment and Spacing of Dowels: 1 inch.
 5. Vertical Alignment of Dowels: 1/4 inch.
 6. Alignment of Dowel-Bar End Relative to Line Perpendicular to Paving Edge: 1/4 inch per 12 inches of dowel.
 7. Joint Spacing: 3 inches.
 8. Contraction Joint Depth: Plus 1/4 inch, no minus.
 9. Joint Width: Plus 1/8 inch, no minus.

3.13 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
- B. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172/C 172M shall be performed according to the following requirements:
1. Testing Frequency: Obtain at least one composite sample for each 100 cu. yd. or fraction thereof of each concrete mixture placed each day.
 - a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.

2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
 3. Air Content: ASTM C 231/C 231M, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F and below and when it is 80 deg F and above, and one test for each composite sample.
 5. Compression Test Specimens: ASTM C 31/C 31M; cast and laboratory cure one set of three standard cylinder specimens for each composite sample.
 6. Compressive-Strength Tests: ASTM C 39/C 39M; test one specimen at seven days and two specimens at 28 days.
 - a. A compressive-strength test shall be the average compressive strength from two specimens obtained from same composite sample and tested at 28 days.
- C. Strength of each concrete mixture will be satisfactory if average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength, and no compressive-strength test value falls below specified compressive strength by more than 500 psi.
- D. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- E. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
- F. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect.
- G. Decorative concrete paving will be considered defective if it does not pass tests and inspections.
- H. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
- I. Prepare test and inspection reports.

3.14 REPAIR AND PROTECTION

- A. Remove and replace decorative concrete paving that is broken or damaged or does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Architect.
- B. Protect decorative concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.
- C. Maintain decorative concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 321316

SECTION 323300
SITE FURNISHINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Area Drain Grate (AD)
2. Artificial Turf (AT)
3. Bike Rack (BR)
4. ~~Trash and Recycle Litter~~ Receptacles (LR) & RR)
5. **Recycle Receptacles (RR)**
6. Bench (B)
7. Picnic Table Type 1 (PT1)
8. Picnic Table Type 2 (PT2)
9. Umbrella (U)
10. Drinking Fountain (DFA)
11. **Drinking Fountain (DFB)**
12. Trench Drain Grate (TD)
13. ~~Trellis (TR)~~ **Shade Structure (SS)**
14. Shower/Foot Wash Station (SH)
15. Camera Pole (CP)
16. Life Floor (P4)

B. Related Requirements:

1. Section 033000 "Cast-in-Place Concrete" for installing pipe sleeves cast, formed voids in concrete footings.
2. Section 312000 "Earth Moving" for excavation for installing concrete footings.
3. Division 26 Electrical and Division 23 – Plumbing

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples: For each exposed product and for each color and texture specified.

- C. Samples for Initial Selection: For units with factory-applied finishes.
- D. Samples for Verification: For each type of exposed finish, not less than 6-inch-long linear components and 4-inch-square sheet components.
- E. Product Schedule: For site furnishings. Use same designations indicated on Drawings.
- F. Shop Drawings: Submit manufacturer's shop drawings, including plans and elevations, indicating overall dimensions and materials.

1.4 INFORMATIONAL SUBMITTALS

- A. Material Certificates: For site furnishings.
 - 1. Wood Preservative Treatment: Include certification by treating plant stating type of preservative solution and pressure process used, net amount of preservative retained, and compliance with applicable standards.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For site furnishings to be included in maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer has been regularly engaged in manufacture of site furnishings since last 25 years. Provide a minimum of five similar reference projects with direct contact information.
- B. Product Support: Products are supported with complete engineering drawings.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Bench Replacement Slats: No fewer than 10 full-size units for each size indicated.
 - 2. Trash Receptacle Inner Containers: Five full-size units for each size indicated, but no fewer than two units.
 - 3. Anchors: 15 of each size.

PART 2 - PRODUCTS

2.1 AREA DRAIN GRATE (AD)

- A. Basis of Design Manufacturer: NDS
- B. Model: 6" Round Grate w/ Locking Mechanism
- C. Material: UV Protected High Density Polyethylene (HDPE)
- D. ADA Compliant & Heel Proof
- E. Color: Gray (in concrete), Green (in artificial turf)
- F. Quantity: 2**

2.2 ARTIFICIAL TURF (AT)

- A. Basis of Design Manufacturer: ForeverLawn
- B. Model: Playground Grass – Apex
- C. Underlayment Padding: Brock PowerBase – 25mm thick
- D. To be compliant with local weather and building codes. Manufacturer to provide details and assembly based on various paving conditions.

2.3 BIKE RACK (BR)

- A. Basis of Design Manufacturer: Landscape Forms
- B. Model: Flo Bike Rack
- C. Color & Finish: Stainless Steel
- D. Installation Method: Embedded – refer to contract drawings.
- E. Quantity: 2**

2.4 LITTER AND RECYCLE RECEPTACLES (LR) & (RR)

~~LR~~

- A. Basis of Design Manufacturer: Victor Stanley

- B. Model: S-42 Litter Receptacle with Standard Tapered Lid
- C. Color & Finish: Black Powder coat
- D. Installation Method: Installed in concrete – refer to contract drawings.
- E. Contractor to submit order form as part of submittal for landscape architect to select accessories.
- F. **Quantity: 5**

2.5 RECYCLE RECEPTACLES (RR)

- A. Basis of Design Manufacturer: Victor Stanley
- B. Model: S-42 Litter Receptacle with Standard Tapered Lid
- C. Color & Finish: Black Powder coat w/ Recycle Decals
- D. Installation Method: Installed in concrete – refer to contract drawings.
- E. Contractor to submit order form as part of submittal for landscape architect to select accessories.
- F. **Quantity: 5**

2.6 BENCH (B)

- A. Basis of Design Manufacturer: Little Tikes Commercial
- B. Model: 6' Contemporary Bench with Back
- C. Color & Finish: Steel with Black Platisol Coated Seat
- D. Installation Method: Surface mounted – refer to contract drawings.
- E. **Quantity: 3**

2.7 PICNIC TABLE TYPE 1 (PT1) – ADD ALTERNATE #2

- A. Basis of Design Manufacturer: Forms + Surfaces
- B. Model: Tangent Table Ensemble with Backless Seats – Four Seats w/ Umbrella Hole
- C. Configuration: Backless

- D. Slat/Seat Material: Extruded Aluminum Slats
- E. Color & Finish: Powder Coat, Clay Texture
- F. Installation Method: Surface mounted – refer to contract drawings.
- G. Quantity: 7**

2.8 PICNIC TABLE TYPE 2 (PT2) – ADD ALTERNATE #3

- A. Basis of Design Manufacturer: Forms + Surfaces
- B. Model: Tangent Table Ensemble with Backless Seats – Six Seats
- C. Configuration: Backless
- D. Slat/Seat Material: Extruded Aluminum Slats
- E. Color & Finish: Powder Coat, Clay Texture
- F. Installation Method: Surface mounted – refer to contract drawings.
- G. Quantity: 10**

2.9 UMBRELLA (U) – ADD ALTERNATE #4

- A. Basis of Design Manufacturer: Forms + Surfaces
- B. Model: Soleris Sun Shade – Slat Perforation Pattern
- C. Color & Finish: Stainless Steel Pole (Satin Finish), Powder coated Aluminum Shade Panels, Clay Texture
- D. Installation Method: Surface mounted – refer to contract drawings.
- E. Quantity: 7**

2.10 DRINKING FOUNTAIN (**DFA**) & ~~DFB~~

~~DFA~~

- A. Basis of Design Manufacturer: Elkay
- B. Model: LK4420BF1UFRK, Outdoor ezH2O® Upper Bottle Filling Station Bi-Level Pedestal Non-Filtered Non-Refrigerated Freeze Resistant

- C. Color & Finish: Black
- D. Installation Method: See contract drawings
- E. Ensure accessibility per 2012 ADA Accessibility Guidelines
- F. **Quantity: 1**

2.11 DRINKING FOUNTAIN (DFB)

- A. Basis of Design Manufacturer: Elkay
- B. Model: LK4420BF1UDBFRK, Outdoor ezH2O® Upper Bottle Filling Station Bi-Level Pedestal with Pet Station Non-Filtered Non-Refrigerated Freeze Resistant
- C. Color & Finish: Black
- D. Installation Method: See contract drawings
- E. Ensure accessibility per 2012 ADA Accessibility Guidelines
- F. **Quantity: 1**

2.12 TRENCH DRAIN GRATE (TD)

- A. Basis of Design Manufacturer: ACO
- B. Model: 448Q Longitudinal Stainless Steel Grate
- C. Size: 4.85" x 19.69" (to be coordinated with civil selected drain body)
- D. ADA compliant & heel proof
- E. Finish: Stainless steel
- F. Refer to Civil drawings for drain body, size and compatibility.

2.13 SHADE STRUCTURE (SS) – ADD ALTERNATE #5

- A. Basis of Design Manufacturer: USA SHADE
- B. Model: Pegasus Shade Structure
- C. Size: 16' x 12'
- D. Color & Finish: Shadesure Navy Blue Fabric, Powder Coat Tele Grey Posts

E. Installation Method: See contract drawings

F. Quantity: 5

2.14 SHOWER/FOOT WASH STATION (SH)

A. Basis of Design Manufacturer: Stern-Williams

B. Model: 6835, 6-5/8" Dia. x 80" Ht.

C. Color & Finish: Powder Coat Blue

D. Installation Method: See contract drawings

E. Quantity: 1

2.15 CAMERA POLE (CP)

A. Basis of Design Manufacturer: Lithonia Lighting

B. Model: SSS Pole

C. Size: 4" x 4" x 20' Ht.

D. Color & Finish: Black Architectural Style

E. Installation Method: See Contract Drawings

F. Quantity: 1

2.16 LIFE FLOOR (P4) – ADD ALTERNATE #6

A. Basis of Design Manufacturer: Life Floor

B. Pattern: See Contract Drawings for Basis of Design Pattern.

C. Texture: Ripple.

D. Color: Bluebird, Aqua, Submariner, Aviator

2.17 MATERIALS

A. Aluminum: Alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated; free of surface blemishes and complying with the following:

1. Rolled or Cold-Finished Bars, Rods, and Wire: ASTM B 211.
 2. Extruded Bars, Rods, Wire, Profiles, and Tubes: ASTM B 221.
 3. Structural Pipe and Tube: ASTM B 429/B 429M.
 4. Sheet and Plate: ASTM B 209.
 5. Castings: ASTM B 26/B 26M.
- B. Steel and Iron: Free of surface blemishes and complying with the following:
1. Plates, Shapes, and Bars: ASTM A 36/A 36M.
 2. Steel Pipe: Standard-weight steel pipe complying with ASTM A 53/A 53M, or electric-resistance-welded pipe complying with ASTM A 135/A 135M.
 3. Tubing: Cold-formed steel tubing complying with ASTM A 500/A 500M.
 4. Mechanical Tubing: Cold-rolled, electric-resistance-welded carbon or alloy steel tubing complying with ASTM A 513, or steel tubing fabricated from steel complying with ASTM A 1011/A 1011M and complying with dimensional tolerances in ASTM A 500/A 500M; zinc coated internally and externally.
 5. Sheet: Commercial steel sheet complying with ASTM A 1011/A 1011M.
 6. Expanded Metal: Carbon-steel sheets, deburred after expansion, and complying with ASTM F 1267.
 7. Malleable-Iron Castings: ASTM A 47/A 47M, grade as recommended by fabricator for type of use intended.
 8. Gray-Iron Castings: ASTM A 48/A 48M, Class 200.
- C. Stainless Steel: Free of surface blemishes and complying with the following:
1. Sheet, Strip, Plate, and Flat Bars: ASTM A 666.
 2. Pipe: Schedule 40 steel pipe complying with ASTM A 312/A 312M.
 3. Tubing: ASTM A 554.
- D. Anchors, Fasteners, Fittings, and Hardware: Stainless steel Manufacturer's standard, corrosion-resistant-coated or non-corrodible materials; commercial quality, tamperproof, vandal and theft resistant, concealed, recessed, and capped or plugged.
1. Angle Anchors: For inconspicuously bolting legs of site furnishings to below-grade substrate; one per leg.
 2. Antitheft Hold-Down Brackets: For securing site furnishings to substrate; two per unit extent as indicated on Drawings.
- E. Non-shrink, Nonmetallic Grout: Premixed, factory-packaged, non-staining, noncorrosive, nongaseous grout complying with ASTM C 1107/C 1107M; recommended in writing by manufacturer, for exterior applications.
- F. Erosion-Resistant Anchoring Cement: Factory-packaged, non-shrink, non-staining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound; resistant to erosion from water exposure without needing protection by a sealer or waterproof coating; recommended in writing by manufacturer, for exterior applications.

- G. Galvanizing: Where indicated for steel and iron components, provide the following protective zinc coating applied to components after fabrication:
1. Zinc-Coated Tubing: External, zinc with organic overcoat, consisting of a minimum of 0.9 oz./sq. ft. of zinc after welding, a chromate conversion coating, and a clear, polymer film. Internal, same as external or consisting of 81 percent zinc pigmented coating, not less than 0.3 mil thick.
 2. Hot-Dip Galvanizing: According to ASTM A 123/A 123M, ASTM A 153/A 153M, or ASTM A 924/A 924M.

2.18 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Preservative Treatment: Pressure-treat wood according to AWPA U1 and the following:
1. Use preservative chemicals acceptable to authorities having jurisdiction and containing no arsenic or chromium. Use chemical formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants to distinguish treated materials from untreated materials.
 2. Kiln-dry lumber and plywood after treatment to a maximum moisture content, respectively, of 19 and 15 percent. Do not use materials that are warped or do not comply with requirements for untreated materials.

2.19 FABRICATION

- A. Metal Components: Form to required shapes and sizes with true, consistent curves, lines, and angles. Separate metals from dissimilar materials to prevent electrolytic action.
- B. Welded Connections: Weld connections continuously. Weld solid members with full-length, full-penetration welds and hollow members with full-circumference welds. At exposed connections, finish surfaces smooth and blended so no roughness or unevenness shows after finishing and welded surface matches contours of adjoining surfaces.
- C. Pipes and Tubes: Form simple and compound curves by bending members in jigs to produce uniform curvature for each repetitive configuration required; maintain cylindrical cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of handrail and railing components.
- D. Preservative-Treated Wood Components: Complete fabrication of treated items before treatment if possible. If cut after treatment, apply field treatment complying with AWPA M4 to cut surfaces.
- E. Exposed Surfaces: Polished, sanded, or otherwise finished; all surfaces smooth, free of burrs, barbs, splinters, and sharpness; all edges and ends rolled, rounded, or capped.

- F. Factory Assembly: Assemble components in the factory to greatest extent possible to minimize field assembly. Clearly mark units for assembly in the field.

2.20 GENERAL FINISH REQUIREMENTS

- A. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.21 ALUMINUM FINISHES

- A. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.

2.22 STEEL AND GALVANIZED-STEEL FINISHES

- A. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.
- B. PVC Finish: Manufacturer's standard, UV-light stabilized, mold-resistant, slip-resistant, matte-textured, dipped or sprayed-on, PVC-plastisol finish, with flame retardant added; complying with coating manufacturer's written instructions for pretreatment, application, and minimum dry film thickness.

2.23 IRON FINISHES

- A. Baked-Enamel, Powder-Coat Finish: Manufacturer's standard, baked, polyester, powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness.

2.24 STAINLESS-STEEL FINISHES

- A. Surface Preparation: Remove tool and die marks and stretch lines, or blend into finish.
- B. Polished Finishes: Grind and polish surfaces to produce uniform finish, free of cross scratches.
 - 1. Run directional finishes with long dimension of each piece.
 - 2. Dull Satin Finish: No. 6

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance of the Work.
- B. Notify architect of conditions that would adversely affect installation or subsequent use.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

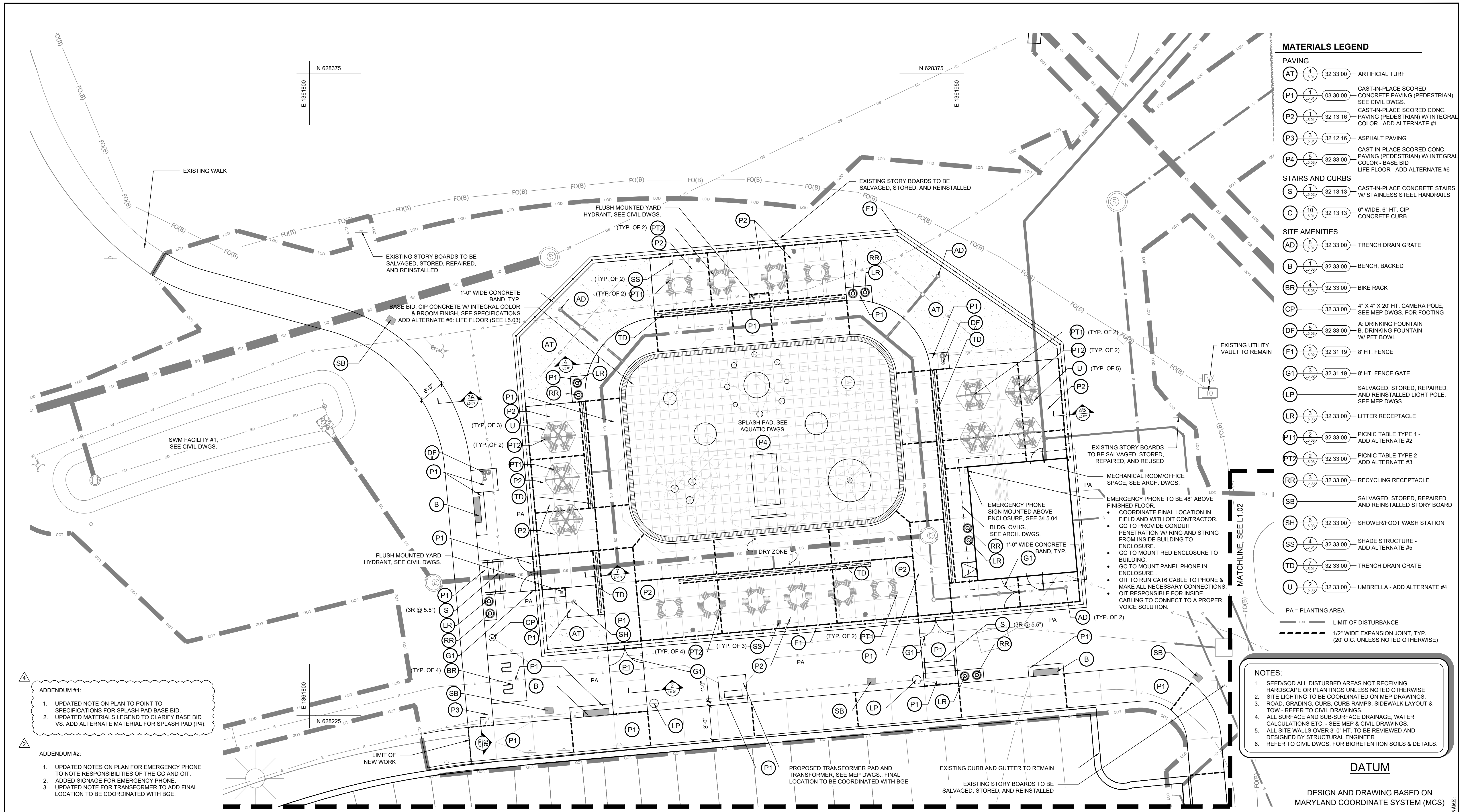
- A. Comply with manufacturer's written installation instructions unless more stringent requirements are indicated. Complete field assembly of site furnishings where required.
- B. Unless otherwise indicated, install site furnishings after landscaping and paving have been completed.
- C. Install site furnishings level, plumb, true, and securely anchored and positioned at locations indicated on Drawings.
- D. Finish and repair any damages caused to finish or product in accordance with manufacturer's instructions and as approved by Landscape Architect.
- E. Component Damage: Remove and replace damaged components that cannot be successfully repaired as determined by Landscape Architect.
- F. Clean products promptly after installation in accordance with manufacturer's instructions. Do not use harsh cleaning materials or methods that could damage finish.
- G. Post Setting: Set cast-in support posts in concrete footing with smooth top, shaped to shed water. Protect portion of posts above footing from concrete splatter. Verify that posts are set plumb or at correct angle and are aligned and at correct height and spacing. Hold posts in position during placement and finishing operations until concrete is sufficiently cured.
- H. Posts Set into Voids in Concrete: Form or core-drill holes for installing posts in concrete to depth recommended in writing by manufacturer of site furnishings and 3/4 inch larger than OD of post. Clean holes of loose material, insert posts, and fill annular space between post and concrete with non-shrink, nonmetallic grout, mixed and placed to comply with anchoring material manufacturer's written instructions, with top smoothed and shaped to shed water.
- I. Pipe Sleeves: Use steel pipe sleeves preset and anchored into concrete for installing posts. After posts have been inserted into sleeves, fill annular space between post and

NORTHWEST REGIONAL PARK
SPLASH PAD AND SUPPORTING FACILITIES
BALTIMORE COUNTY, MARYLAND
CONTRACT NUMBER - 25114 GX0
JOB ORDER NUMBER - PROJ-10000634

PROJECT MANUAL
REVISED ADDENDUM #4 2026-02-25

sleeve with non-shrink, nonmetallic grout, mixed and placed to comply with anchoring material manufacturer's written instructions, with top smoothed and shaped to shed water.

END OF SECTION 323300



MATERIALS LEGEND

PAVING

(AT) 4 (32 33 00) ARTIFICIAL TURF

(P1) 1 (03 30 00) CAST-IN-PLACE SCORED CONCRETE PAVING (PEDESTRIAN), SEE CIVIL DWGS.

(P2) 1 (32 13 16) CAST-IN-PLACE SCORED CONC. PAVING (PEDESTRIAN) W/ INTEGRAL COLOR - ADD ALTERNATE #1

(P3) 3 (32 12 16) ASPHALT PAVING

(P4) 5 (32 33 00) CAST-IN-PLACE SCORED CONC. PAVING (PEDESTRIAN) W/ INTEGRAL COLOR - BASE BID LIFE FLOOR - ADD ALTERNATE #6

STAIRS AND CURBS

(S) 1 (32 13 13) CAST-IN-PLACE CONCRETE STAIRS W/ STAINLESS STEEL HANDRAILS

(C) 10 (32 13 13) 6" WIDE, 6" HT. CIP CONCRETE CURB

SITE AMENITIES

(AD) 8 (32 33 00) TRENCH DRAIN GRATE

(B) 1 (32 33 00) BENCH, BACKED

(BR) 4 (32 33 00) BIKE RACK

(CP) 3 (32 33 00) 4" X 4" X 20' HT. CAMERA POLE, SEE MEP DWGS. FOR FOOTING

(DF) 5 (32 33 00) A: DRINKING FOUNTAIN W/ PET BOWL

(F1) 2 (32 31 19) 8' HT. FENCE

(G1) 3 (32 31 19) 8' HT. FENCE GATE

(LP) SALVAGED, STORED, REPAIRED, AND REINSTALLED LIGHT POLE, SEE MEP DWGS.

(LR) 3 (32 33 00) LITTER RECEPTACLE

(PT1) 2 (32 33 00) PICNIC TABLE TYPE 1 - ADD ALTERNATE #2

(PT2) 2 (32 33 00) PICNIC TABLE TYPE 2 - ADD ALTERNATE #3

(RR) 3 (32 33 00) RECYCLING RECEPTACLE

(SB) SALVAGED, STORED, REPAIRED, AND REINSTALLED STORY BOARD

(SH) 6 (32 33 00) SHOWER/FOOT WASH STATION

(SS) 4 (32 33 00) SHADE STRUCTURE - ADD ALTERNATE #5

(TD) 7 (32 33 00) TRENCH DRAIN GRATE

(U) 2 (32 33 00) UMBRELLA - ADD ALTERNATE #4

PA = PLANTING AREA

--- LIMIT OF DISTURBANCE

- - - 1/2" WIDE EXPANSION JOINT, TYP. (20' O.C. UNLESS NOTED OTHERWISE)

- NOTES:**
- SEED/SOD ALL DISTURBED AREAS NOT RECEIVING HARDSCAPE OR PLANTINGS UNLESS NOTED OTHERWISE
 - SITE LIGHTING TO BE COORDINATED ON MEP DRAWINGS.
 - ROAD, GRADING, CURB, CURB RAMPS, SIDEWALK LAYOUT & TOW - REFER TO CIVIL DRAWINGS.
 - ALL SURFACE AND SUB-SURFACE DRAINAGE, WATER CALCULATIONS ETC. - SEE MEP & CIVIL DRAWINGS.
 - ALL SITE WALLS OVER 3'-0" HT. TO BE REVIEWED AND DESIGNED BY STRUCTURAL ENGINEER.
 - REFER TO CIVIL DWGS. FOR BIORETENTION SOILS & DETAILS.

- ADDENDUM #4:**
- UPDATED NOTE ON PLAN TO POINT TO SPECIFICATIONS FOR SPLASH PAD BASE BID.
 - UPDATED MATERIALS LEGEND TO CLARIFY BASE BID VS. ADD ALTERNATE MATERIAL FOR SPLASH PAD (P4).

- ADDENDUM #2:**
- UPDATED NOTES ON PLAN FOR EMERGENCY PHONE TO NOTE RESPONSIBILITIES OF THE GC AND OIT.
 - ADDED SIGNAGE FOR EMERGENCY PHONE.
 - UPDATED NOTE FOR TRANSFORMER TO ADD FINAL LOCATION TO BE COORDINATED WITH BGE.

1 MATERIALS PLAN - SPLASH PAD

1" = 10'

	PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 1152 EXPIRATION DATE: 09/18/2026		AS-BUILT / REVISION ADDENDUM #2 ADDENDUM #4	BY MNO MNO	DATE 2/2/26 2/25/26	P.W.A. NO. PNW	KEY SHEET POSITION SH# 35N/40	DRAWING SCALE PLAN SCALE: AS SHOWN PROFILE SCALE:	PROPERTY MANAGEMENT APPROVED BY: _____ DATE: _____ PROPERTY MANAGER
	LANDSCAPE ARCHITECT: MARK E. PELIUSH, JR. MAHAN RYKIEL AS-BUILT PER RECORD PRINT		BUREAU OF ENGINEERING AND CONSTRUCTION TRAFFIC HIGHWAYS STRUCTURES STORM DRAINS SEWER	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____
	BY: MNO DATE: _____		TRAFFIC HIGHWAYS STRUCTURES STORM DRAINS SEWER	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____
	CHKD BY: MEP		DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____	DATE REVIEWED: _____

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT NORTHWEST REGIONAL PARK LANDSCAPE - MATERIALS PLAN - SPLASH PAD SPLASH PAD AND SUPPORTING FACILITIES		SHEET DESIGNATION L1.01	CONTRACT NUMBER 25114 GX0
SUBDIVISION: OWINGS MILLS 4515 DEER PARK ROAD, OWINGS MILLS, MD 21117 ELECTION DISTRICT: 2C4		JOB ORDER NUMBER PROJ-1000634	SHEET 29 OF 150 DRAWING NUMBER 2025-2200
DATE: OCTOBER 02, 2025		SHEET NO. 8	CONTRACT NO. 25114 GX0 ADDENDUM NO. 4 REVISED, FEBRUARY 26, 2026