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. Seating.
2. Tables.
3. Bicycle racks.
4. Trash receptacles.
5. Planters.
6. Bollards.

B. Related Requirements:

1. Section 033000 "Cast-in-Place Concrete" for [**installing pipe sleeves cast**] [**installing anchor bolts cast**] [**formed voids**] in concrete footings.
2. Section 312000 "Earth Moving" for excavation for installing concrete footings.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Sustainable Design Submittals:

1. Product Data: For recycled content, indicating postconsumer and preconsumer recycled content and cost.
2. Chain-of-Custody Certificates: For certified wood products. Include statement of costs.

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

D. Samples for Initial Selection: For units with factory-applied finishes.

E. Samples for Verification: For each type of exposed finish, not less than 6-inch- long linear components and 4-inch- square sheet components.

1. Include full-size Samples of [**bench**] [**table**] [**bicycle rack**] [**trash receptacle**] [**ash receptacle**] <**Insert product**>. Approved samples may be incorporated into the Work.

F. Product Schedule: For site furnishings.[**Use same designations indicated on Drawings**].

1.4 INFORMATIONAL SUBMITTALS

A. Material Certificates: For site furnishings manufactured with preservative-treated wood.

1. Indicate type of preservative used and net amount of preservative retained.[**For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.**]

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For site furnishings to include in maintenance manuals.

1.6 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**] [**Planks**]: No fewer than [**two**] <**Insert number**> full-size units for each size indicated.
2. Trash Receptacle Inner Containers: [**Five**] <**Insert number**> full-size units for each size indicated, but no fewer than [**two**] <**Insert number**> units.
3. Anchors: <**Insert type and number**>.

PART 2 - PRODUCTS

2.1 MUCH CAFÉ CHAIR

A. Manufacturer: Vestre

B. Frame and Seat: Hot-dip galvanized steel.

C. Steel Finish: Hot-dip galvanized steel.
1. Powder Coat Color: TBD

2.2 FARI LOUNGE CHAIR

A. Manufacturer: Vestre

B. Frame: Hot-dip galvanized steel.

C. Seat: Nordic Pine

D. Steel Finish: Powder coated.
1. Color: TBD

E. Wood Finish: Linseed Oil.

2.3 MUNCH TABLES

A. Manufacturer: Vestre

B. Frame and Table-Top: Hot-dip galvanized steel.

C. Steel Finish: Powder coated.

1. Color: TBD.

2.4 DECORATIVE BIKE RACK

A. Manufacturer: Vestre

B. Frame: Aluminum
1. Frame: Aluminum.

C. Aluminum Finish: Powder-Coated.
1. Color: TBD

2.5 VROOM LITTER BIN

A. Manufacturer: Vestre

B. Frames: Hot-dip galvanized steel.

C. Trash Receptacles:
1. Receptacle Shape and Form: Rectangular column with opening for depositing trash and door for accessing the bin.
2. Receptacle Height: As indicated
3. Inner Container: Provide receptacle designed to accommodate disposable liners.
4. Capacity: Not less than 140 liters.
5. Service Access: Front door; inner container and disposable liner lift or slide-out for emptying; self-latching hinge.

D. Steel Finish: Powder Coated.
1. Color: TBD.

2.6 WILSHIRE ALUMINUM PLANTERS

A. Manufacturers: Tournesol Siteworks

B. Frame: Aluminum ASTM B209 – B5052-H32 Marine Grade 1/8” Aluminum sheet, formed and laser welded. Wall reinforcement elements of same material welded as required. Entire product is aluminum construction.

C. Planter Shape and Form: **Rectangular column.**

D. Overall Height: 36 inches.

E. Overall Width: 72 inches.

F. Overall Depth: 24 inches.

G. Weight: 155 pounds.

H. Capacity 39 cubic feet.

I. Aluminum Finish: Powder coated.
1. Color: TBD

2.7 Custom Outdoor Kitchen

A. Basis-of-Design Product: Brown Jordan custom outdoor kitchen and cabinets. Design shall meet all applicable ADA standards or comparable product by one of the following:
1. Danver
2. Outerspace by Green Theory

B. Contains:
1. (2) grill cabinets and natural gas grills.
2. (1) under cabinet refrigerator cabinet.
3. (1) ADA accessible sink base cabinet.

C. Material: TBD

D. Color: TBD

2.8 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 B211.
2. Extruded Bars, Rods, Wire, Profiles, and Tubes: ASTM B221.
3. Structural Pipe and Tube: ASTM B429/B429M.
4. Sheet and Plate: ASTM B209.
5. Castings: ASTM B26/B26M.

B. Steel and Iron: Free of surface blemishes and complying with the following:

1. Plates, Shapes, and Bars: ASTM A36/A36M.
2. Steel Pipe: Standard-weight steel pipe complying with ASTM A53/A53M, or electric-resistance-welded pipe complying with ASTM A135/A135M.
3. Tubing: Cold-formed steel tubing complying with ASTM A500/A500M.
4. Mechanical Tubing: Cold-rolled, electric-resistance-welded carbon or alloy steel tubing complying with ASTM A513/A513M, or steel tubing fabricated from steel complying with ASTM A1011/A1011M and complying with dimensional tolerances in ASTM A500/A500M; zinc coated internally and externally.
5. Sheet: Commercial steel sheet complying with ASTM A1011/A1011M.
6. Perforated Metal: From steel sheet not less than [**0.075-inch**] [**0.090-inch**] [**0.120-inch**] <**Insert dimension**> nominal thickness; manufacturer's standard perforation pattern.

7. Expanded Metal: Carbon-steel sheets, deburred after expansion, and complying with ASTM F1267.
8. Malleable-Iron Castings: ASTM A47/A47M, grade as recommended by fabricator for type of use intended.
9. Gray-Iron Castings: ASTM A48/A48M, Class 200.

C. Stainless Steel: Free of surface blemishes and complying with the following:

1. Sheet, Strip, Plate, and Flat Bars: ASTM A240/A240M or ASTM A666.
2. Pipe: Schedule 40 steel pipe complying with ASTM A312/A312M.
3. Tubing: ASTM A554.

D. Wood: Surfaced smooth on four sides with eased edges; kiln dried, free of knots, solid stock of species indicated.

1. Wood Species:[**Manufacturer's standard.**]

a. Douglas Fir: Clear Grade, vertical grain.
b. Pine: Southern pine; No. 2 or better[**; preservative treated, kiln dried after treatment**].
c. [**Eastern White**] [**Red**] [**Yellow**] Cedar: Select Grade or better.
d. Redwood: [**Clear all heart**] [**Construction heart or better**], free-of-heart center.
e. Teak (Tectona Grandis): Clear Grade.
f. <**Insert wood species**>: <**Insert grade, if applicable, and other requirements**>.

E. Certified Wood: Wood products shall be certified as "FSC Pure"[**or "FSC Mixed Credit"**] in accordance with FSC STD-01-00 and FSC STD-40-004.

F. Certified Wood: Wood products shall be certified as "FSC Pure"[**or "FSC Mixed Credit"**] in accordance with FSC STD-01-001 and FSC STD-40-004.

G. Certified Wood: Wood products shall be labeled in accordance with the AFPA's Sustainable Forestry Initiative, be certified as "FSC Pure" in accordance with FSC STD-01-001 and FSC STD-40-004, or be certified and labeled in accordance with the standards of the Programme for Endorsement of Forest Certification.

H. Certified Wood: Wood products shall [**contain not less than 60 percent**] [**be made from**] certified wood tracked through a chain-of-custody process. Certified wood documentation shall be provided by sources certified through a forest certification system with principles, criteria, and standards developed using ISO/IEC Guide 59 or the World Trade Organization's "Technical Barriers to Trade."

I. Certified Wood: Wood products shall be certified in accordance with the American Tree Farm System's "AFF Standard," the AFPA's Sustainable Forestry Initiative, FSC STD-01-001 and FSC STD-40-004, or the standards of the Programme for Endorsement of Forest Certification.

1. Finish: Manufacturer's standard [**stain**] [**and**] [**transparent sealer**] [**transparent wood-preservative treatment and sealer**] <**Insert treatment or finish**>.

J. Fiberglass: Multiple laminations of glass-fiber-reinforced polyester resin with UV-light stable, colorfast, nonfading, weather- and stain-resistant, colored polyester gel coat, and with manufacturer's standard finish.

K. Plastic: Color impregnated, color and UV-light stabilized, and mold resistant.

1. Polyethylene: Fabricated from virgin plastic HDPE resin.
2. Polyethylene with Recycled Content: Fabricated from HDPE and other resins with postconsumer recycled content plus one-half of preconsumer recycled content not less than <**Insert number**> percent.

L. Anchors, Fasteners, Fittings, and Hardware: [**Stainless steel**] [**Brass**] [**Galvanized steel**] [**Zinc-plated steel**] [**Manufacturer's standard, corrosion-resistant-coated or noncorrodible 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 [**on**] [**below**]-grade substrate; [**one per leg**] [**extent as indicated**] <**Insert extent**>.
2. Antitheft Hold-Down Brackets: For securing site furnishings to substrate; [**two per unit**] [**extent as indicated on Drawings**] <**Insert extent**>.

M. Nonshrink, Nonmetallic Grout: Premixed, factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C1107/C1107M; recommended in writing by manufacturer, for exterior applications.

N. Erosion-Resistant Anchoring Cement: Factory-packaged, nonshrink, nonstaining, 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.

O. 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: In accordance with ASTM A123/A123M, ASTM A153/A153M, or ASTM A924/A924M.

2.9 WOOD-PRESERVATIVE-TREATED MATERIALS

A. Preservative Treatment: Pressure-treat wood in accordance with AWPA U1, Use Category UC3b, 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.

2.10 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: Factory assemble components to greatest extent possible to minimize field assembly. Clearly mark units for assembly in the field.

2.11 GENERAL FINISH REQUIREMENTS

A. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. 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.

2.12 ALUMINUM FINISHES

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

2.13 STEEL AND GALVANIZED-STEEL FINISHES

A. Powder-Coat Finish: Manufacturer's standard 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.

2.14 IRON FINISHES

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

2.15 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. Directional Satin Finish: ASTM A480/A480M, No 4.
3. Dull Satin Finish: ASTM A480/A480M, 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. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

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**] [**positioned**] at locations indicated on Drawings.

D. 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.

E. 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 [**nonshrink, nonmetallic grout**] [**or**] [**anchoring cement**], mixed and placed to comply with anchoring material manufacturer's written instructions, with top smoothed and shaped to shed water.

F. 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 sleeve with [**nonshrink, nonmetallic grout**] [**or**] [**anchoring cement**], mixed and placed to comply with anchoring material manufacturer's written instructions, with top smoothed and shaped to shed water.

G. Do not fill removable bollards with concrete.

END OF SECTION 323300