

Add the following Section:

SECTION 650

PARK FACILITIES

Special Provision

650-1.01 DESCRIPTION. This work shall consist of furnishing, constructing and placing park facilities in conformance with the Plans and Special Provisions.

650-1.02 APPLICABLE ACCESSIBILITY STANDARD. Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities.

650-1.03 SUBMITTALS AND SUBSTITUTIONS. Conform to Subsection 106-1.01.

MATERIALS

650-2.01 GENERAL. All materials shall be new and conform to the details shown on the Plans or as specified.

650-2.02 BACKFILL. Selected Material, Type A conforming to Subsection 703-2.07.

650-2.03 CONCRETE. Class A Concrete conforming to Section 501.

650-2.04 STRUCTURAL STEEL. Structural steel shall conform to the requirements of ASTM Specification A 36 (Standard Specification for Carbon Structural Steel).

650-2.05 GALVANIZING. Conform to AASHTO M111/ASTM A123 (Standard Specification for Zinc [Hot-Dip Galvanized] Coatings on Iron and Steel Products), or AASHTO M232/ASTM A153 (Standard Specification for Zinc Coating[Hot-Dip] on Iron and Steel Hardware). Repair damaged galvanizing by using low melting point zinc repair rods in conformance with ASTM A780-00 (Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings).

650-2.06 LUMBER. Conform to Section 713. Wood species shall be Douglas Fir, Western Hemlock or Hem-fir unless otherwise specified.

1. Dimensional. Dimensional lumber and timbers are shown on the plans in nominal dimensions, i.e.; 50x100, indicating surfaced four sides (S4S) or planed material. Use classification for light framing shall be Construction Grade. Use classification for structural joists and planks shall be No. 2 Grade or Better. Manufacturing classification shall be Dressed (Surfaced) Lumber. Size classification shall be Nominal Size Designations of Boards, Dimension, and Timbers.

2. Rough Cut. Unless otherwise indicated, rough cut lumber and timbers are shown on the Plans enclosed in brackets, i.e.; [50x100], indicating rough cut material. Use classification shall be Structural Lumber, No. 2 Grade or Better. Manufacturing classification shall be Rough Lumber. Size classification shall be Rough Dry Sizes.

650-2.07 TREATED LUMBER. Wood species conforms to Subsection 650-2.06.

Treatment shall be as follows:

1. Above Ground Applications. Preservative pressure treatment shall conform to Section 714. Pressure treat with preservative Ammonical Copper Quat - Type A,B,C, or D(ACQ-A,B,C, or D) or Copper Azole – Type A (CBA-A). Minimum retention shall be 0.40 pounds per cubic foot or to refusal. Treated materials shall be uniformly brown in color and non-incised. This type of treated lumber is commonly used for residential decks for above ground applications. Incising may be used on 4x and thicker material to obtain minimum retention.
2. Ground Contact Applications. Preservative pressure treatment shall conform to Section 714. Pressure treat with preservative Ammonical Copper Quat - Type A,B,C, or D(ACQ-A,B,C, or D) or Copper Azole – Type A (CBA-A). Minimum retention shall be 0.60 pounds per cubic foot. Exposed treated materials shall be pigmented uniformly brown in color by manufacturer.

650-2.08 FLASHING AND SHEET METAL. Exposed fastener metal roof system with panel base metal steel conforming to ASTM A-446, Grade 80, (552 MPa minimum tensile strength) with a protective coating of zinc-aluminum alloy conforming to ASTM A-924/ASTM A-792, 45 percent zinc and 55 percent aluminum by weight applied to a thickness of 1.9 mils. Alternate coatings proposed for substitution will not be accepted. Exterior paint finish to be a 0.8 mil Acrylic Emulsion finish coat over a 0.2 mil baked-on acrylic primer. Exterior color to match Denali Green by IMSA Building Products, Inc. Interior paint finish to be a 0.25 mil off-white backer over a 0.15 mil baked-on acrylic primer.

1. Roof Panels. Minimum 29 gauge, 914mm net width panel with 229mm on center roll-formed profile pattern consisting of three evenly spaced ribs, one tall rib followed by two shorter ribs.
2. Gable Trim and Universal Ridge. Shall be approximately 152mm wide.
3. Closure Strips. Polyethylene foam type to fit panel profile or 25mm by 25mm universal closures.
4. Sidelap Mastics. Closed cell neoprene butyl.

5. Fasteners. Metal to wood fasteners as recommended by the manufacturer. Fastener length should assure penetration of at least one inch into the wood. Fastener heads shall be pre-painted the same color as roof panels.

650-2.09 FASTENERS. Commercial quality and type of nails and screws as required to securely hold all members in place in accordance with National Design Specifications. Nails shall be hot dipped galvanized. All other fasteners shall be corrosion resistant. Fasteners in pressure treated wood shall be hot dipped galvanized. Nails and wood screws below grade in pressure treated wood shall be stainless steel.

650-2.10 PAINT. Unless otherwise specified, use the following paint types and colors, or approved equals:

1. Solid Oil Stain. Exterior oil/alkyd flat finish stain, color "Russet". DF7XX as manufactured by Fuller O'Brien/ Devoe Products, Russet as manufactured by Pittsburgh Paint Company, Behr Plus 10 Solid Stain #354 Russet, or Olympic Russet as manufactured by PPG Architectural Finishes, Inc. Submit color samples of proposed substitutions for approval.
2. Semi-Transparent Oil Stain. Exterior alkyd based stain, color to match solid oil stain "Russet". Stains for pressure treated wood shall be recommended by manufacturer for use on pressure treated wood.
3. Clear Oil Stain. Non-pigmented penetrating exterior alkyd base stain formulated for water repellency.
4. Metal Primer Paint. As recommended by enamel paint manufacturer.
5. Enamel Paint. Exterior alkyd base gloss enamel. Color to match solid oil stain color.
6. Concrete Sealer. Clear acrylic copolymer conforming to AASHTO M148/ASTM C 309 (Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete, for Type 1 Compounds).
7. Above Ground Wood Preservative. Brown preservative with active ingredient of minimum 9.08 percent copper naphthenate (equivalent to minimum 1 percent metallic copper). Color to be approved by Engineer.
8. Below Ground Wood Preservative. Preservative with active ingredient of minimum 16 percent copper naphthenate (equivalent to minimum 2 percent metallic copper).
9. End Cut Preservative for Treated Wood. Brown preservative with active ingredient of minimum 10 percent copper naphthenate (equivalent to minimum 1 percent metallic copper). Color to match preservative pressure treatment color.

Paint that has been frozen or is out of date shall be replaced at no additional cost to the Department.

650-2.11 INTERPRETIVE KIOSK, TYPE C. Conform to Standard Drawing S-10C, Interpretive Kiosk, Type C. Interpretive panel frame and bulletin board frame shall be surfaced four sides clear cedar. Column bases shall be painted or corrosion resistant and embedded in wet concrete for subsequent connection of wood post to concrete footing. Size column base to dimension of post. Rough cut posts shall have commercially fabricated column bases inset a maximum of 13mm. If commercial bases can't meet the 13mm requirement, custom fabricate full dimension column bases. Stirrup shall be provided with holes for two galvanized bolts with washers. Similar to Simpson CB88R.

| Post Size | Base Plate Gage & Dimension | Stirrup Material | Post Bolts | Allowable Uplift Load |
|-------------|-----------------------------|-------------------|-------------|-----------------------|
| [200 x 200] | 7 ga & [200 x 200] | 3 ga x 76mm strap | 2 each 19mm | 29.6 kN |

Hand select rocks to obtain flat rocks suitable for masonry base construction. Mortar shall be Type N with liquid polymeric water repellent admixture.

650-2.12 INTERPRETIVE SIGN, TYPE D. Conform to Standard Drawing S-11C, Interpretive Sign, Type C. Aluminum for back plate to conform to ANSI 6061 T-6. Provide one pin-in-head torx machine bolt driver per sign. Column bases shall be painted or corrosion resistant and embedded in wet concrete for subsequent connection of wood post to concrete footing. Size column base to dimension of post. Rough cut posts shall have commercially fabricated column bases inset a maximum of 13mm. If commercial bases can't meet the 13mm requirement, custom fabricate full dimension column bases. Stirrup shall be provided with holes for two galvanized bolts with washers. Similar to Simpson CB66R.

| Post Size | Base Plate Gage & Dimension | Stirrup Material | Post Bolts | Allowable Uplift Load |
|-------------|-----------------------------|-------------------|-------------|-----------------------|
| [150 x 150] | 7 ga & [150 x 150] | 7 ga x 76mm strap | 2 each 16mm | 18.7 kN |

650-2.13 MILEPOST. Shall be white spruce with minimum diameter of 305mm and height as shown in the Plans. Log shall be peeled and milled with all bark removed. Log surface shall be planed smooth.

CONSTRUCTION REQUIREMENTS

650-3.01 GENERAL. The location shown on the drawings for park facilities placement are approximate. The Engineer will field locate park facilities at the time of construction.

650-3.02 EXCAVATION AND BACKFILL. Conform to the requirements of Section 204 and the details on the plans.

650-3.03 CONCRETE. Conform to the requirements of Section 501 and the details on the Plans.

650-3.04 STRUCTURAL STEEL. Welding to conform to American Welding Society D1.1.

650-3.05 WOOD. Competent carpenters shall be employed and all framing shall be true and exact. Unless otherwise specified, nails and spikes shall be hand driven with just sufficient force to set the heads flush with the surface of wood. Power nail guns are prohibited. All non-removable shipping, storage, weathering and erection marks on fabricated lumber shall be hidden from view in the completed work. Use of damaged lumber shall not be allowed. Store on-site lumber above the ground and protected from damage and weathering.

Holes for round drift-bolts and dowels shall be bored with a bit 1.5mm smaller in diameter than that of the bolt or dowel used. Holes for machine and carriage bolts shall be bored with a bit of the same diameter as that of the bolt. Holes for lag screws shall be bored with a bit not larger than the body of the screw at the root of the thread.

Unless otherwise specified, USS flat washers shall be used in contact with all bolt heads and nuts that would otherwise be in contact with wood.

650-3.06 PAINT. Deliver in sealed containers with labels legible and intact. Remove dirt, grease, oil and other construction debris prior to painting. Insure that surfaces to be painted are even, smooth, sound, clean, dry, and free from defects affecting proper application. Metal surfaces to receive paint shall be corrosion free. Apply per manufacturer's recommendations. Apply paint material evenly without runs, sags, or other defects. Work each coat into the material being coated at an average rate of coverage recommended by the manufacturer. Cover surfaces completely to provide uniform color and appearance. Remove all paint, stain, or other finish material where it has spilled or spattered.

1. General. Unless otherwise specified, schedule finishes as follows:

- a. Non-Treated Wood, Surfaced. Finish surfaces not scheduled to receive stain or clear oil stain with wood preservative.
- b. Non-Treated Wood, Rough Cut. Saturate below and above ground surfaces not scheduled to receive stain with wood preservative.
- c. Treated Wood, Hidden. Dado cuts, cut ends, drilled holes and field cuts in wood materials shall be brush coated to saturation with end cut preservative.

- d. Treated Wood, Exposed. Saturate cut surfaces with scheduled finish. Finish surfaces not scheduled to receive stain with wood preservative.
 - e. Concrete and Masonry. Seal exposed surfaces.
 - f. Metal. Prime and paint exposed metal surfaces that are not fabricated of corrosion resistant material or galvanized.
2. Interpretive Kiosk.
- a. Interp/Bulletin Board Frame and Exposed T&G Wood. Clear Oil Stain
 - b. Other Wood. Semi-Transparent Oil Stain
 - c. Metal. Primer and Enamel Paint
 - d. Bulletin Board Sound Board. Off White Flat Latex Paint
3. Interpretive Sign, Type D.
- a. Plywood. Solid Oil Stain
 - b. Other Wood. Semi-Transparent Oil Stain
 - c. Back Plate. Aluminum, No Finish Required
 - d. Other Metal. Primer and Enamel Paint
4. Milepost.
- a. Wood. Clear Oil Stain

650-3.07 INTERPRETIVE KIOSK. Construct in accordance with the Plans and Specifications. Panels A and B shall be interpretive panels. Panel C, D, E, and F shall be a bulletin boards.

650-3.08 INTERPRETIVE SIGN, TYPE D. Construct in accordance with the Plans.

650-3.09 MILEPOST. Construct in accordance with the Plans. Construct true and plumb.

650-4.01 METHOD OF MEASUREMENT. Items with the unit measure each will be measured by the actual number of facilities completed and accepted.

Excavation and embankment outside the limits shown on the Plans will be measured for payment only if said activity is directed by the Engineer. Excavation and backfill required for items paid for under this Section will not be measured for payment.

Seat rocks at Interpretive Kiosk will be subsidiary to that item and will not be measured separately for payment.

650-5.01 BASIS OF PAYMENT. The accepted quantity will be paid for at the contract unit price per unit of measurement for the type specified completed in place, and listed below including all clearing, grubbing, excavation, embankment, and crushed aggregate base course.

Payment will be made under:

| Pay Item | Pay Unit |
|-----------------------------|----------|
| 650(50A) Interpretive Kiosk | Each |
| 650(52) Milepost | Each |

(04/09/04)PARKS