NOTE TO CONSULTANTS: Edit with Track Changes turned on, any text in this section that appears in bold and italics then turn off the bold and italics for the final approved version. (Remove this Note).

PART 1 - GENERAL

1.01 Description:

A. Manage work site and materials to eliminate potential contamination of surrounding site with screws, nails, scrap metal, wood splinters, paints or solvents, or other detrimental materials used for this work.

B. Construct ***xxxxxx Structure*** of dimensional lumber and galvanized steel hardware.

C. Apply specified finishes to approved work.

1.02 Related Sections:

Section 03 30 00 - Cast-in-Place Concrete
Section 06 10 00 - Rough Carpentry - Natural Select Supplement
Section 06 10 53 - Dugout Roofs for Ballfields

1.03 Quality Assurance:

A. Conform to requirements of the following Reference Standards or as modified and supplemented within this specification.

1. International Building Code (IBC)
2. City of Seattle Building Codes and Regulations (SBC)

B. Conformance with Standards and Tests: Materials and handling shall conform to the following organizations' standards for materials testing and handling. Each standard is hereafter referred to by its organizational designation only. All materials and handling techniques shall conform to the appropriate standard.

1. ASTM A 123 - American Society for Testing and Materials Zinc (Hot Galvanized) Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strips.
2. ASTM A 153 - American Society for Testing and Materials Zinc Coating (Hot-Dip) on Iron and Steel Hardware
3. ASTM A 307 - American Society for Testing and Materials Carbon Steel Externally Threaded Standard Fasteners
4. ASTM A 563 - American Society for Testing and Materials Carbon and Alloy Steel Nuts
5. C2 - American Wood Preservers Association Lumber, Timbers, Bridge Ties, and Mine Ties Preservative Treatment by Pressure Process
6. M4 - American Wood Preservers Association Standard for the Care of Pressure Treated Wood Products

1.04 Submittals: Shop Drawings: Submit for approval shop drawings, details of fabrication with dimensions and connections shown. Indicate a complete list of wood members and hardware with complete dimensions and quantities. Provide Name and Address of suppliers for wood and metal products.

1.05 Delivery, Storage and Handling: Ship, store, and handle all items so as to protect all components from damage on site. Store in a safe location, out of pedestrian and vehicular traffic and protected from weather. Repair or replace any damaged components before installation. Do not store materials directly in contact with the ground.

1.06 Safety Requirements: Commencement of the work of this Section implies an absolute commitment to managing the materials used in the execution of the work to avoid loss into the surrounding site. Contamination of the surrounding landscape with loose nails, screws, wood and metal scraps, splinters, and spilled paints or solvents will be avoided by covering adjacent areas with protective tarps or other approved means. Loose materials will be collected on a daily basis to avoid unintentional loss.

PART 2 - PRODUCTS

2.01 Structural Wood Members: All wood used shall be Hem-Fir, Select Structural or better, unincised, Pressure Treated to AWPA Quality Standard C2, retaining a minimum of 0.25 lbs / cf ACQ or CBA preservative.

2.02 Hardware and Fasteners:

A. Bolts, Nuts, Washers shall be galvanized steel, SAE, sized per the Contract Drawings.

B. Steel Plate connectors shall be 3 gauge with 7 gauge strap anchors where applicable, galvanized after fabrication, factory primed finish gray, Strong-Tie Connectors as manufactured by Simpson Strong-Tie Company, Inc., (800) 999-5099, or approved equal.

2.03 Finishes:

A. Wood Finishes: Following acceptance of all wood construction, an approved water-based commercial sealer shall be applied to the manufacturer's written specifications.

B. Metal Finishes: All fabricated steel plate components shall receive the following finishes:

1. Zinc chromate primer, or, approved equal.
2. Field cold galvanization, "Galvacon", or, approved equal.
3. Alkyd enamel, black or dark green semi-gloss, Parker Paints, or, approved equal.

2.04 Glue: Ordinary wood glue for general carpentry, "Elmer's" wood glue, or, approved equal.

PART 3 - EXECUTION

3.01 Verification: Prior to commencing the work of this Section, verify the accuracy and completion of the installation of pre-engineered steel structures installed under Section 13 34 19 - Pre-engineered Metal Structures and cast-in-place concrete footings and foundations with embedded post bases installed under Section 03 30 00 - Cast in Place Concrete for Site Work. Report any discrepancies to the Engineer immediately.

3.02 Installation:

A. Assemble Arbor structures in conformance with the Contract Drawings.

B. All shop fabricated and field cuts and borings shall be treated with waterborne ACQ or CBA to APWA C2 quality standards.

C. All vertical supports shall be installed plumb unless otherwise noted. Allow additional height for adjustment of horizontal members in the event that post bases are not installed at exact, equal elevations.

D. Install all horizontal members to true level unless otherwise specifically noted by an indication of intended slope. Prior to making final connection, trim added height from vertical members to achieve the intent of the drawings.

E. Mechanical Connections

1. Securely clamp and brace wood members to be connected to establish precise location and true level in bolt holes and lag screw pilot holes. Protect surfaces of permanent wood members from compression damage with scrap 1"x material. Do not use temporary nailing.
2. Machine or Carriage Bolt connections shall be pre-drilled to 1/16" larger diameter than the specified connector.
3. Lag Screw connections shall be pre-drilled to ¼" minimum under size of specified connector.
4. Make countersink borings to accept washers ¼" over diameter of specified washer and depth to allow bolt or screw head to tighten to between flush and ¼" beneath lumber surface. Do not allow bolt heads or ends to protrude beyond wood surface, and do not reduce the thickness of the structural connection by over-boring.
5. Make all connections tight without overly distorting or compressing wood surfaces or countersink borings.
6. Wood-to-Steel connections shall be separated by standard, medium weight roofing felt. Trim excess as directed.

F. Screw Connections

1. Pre-drill all screwed connections to a 3/32” diameter pilot hole with an integral counter-sink bit.
2. Apply standard wood glue to pilot holes prior to making connection.
3. Counter-sink simple screwed connections so that screw-head is 1/8” to ¼” below surface.
4. Fill all counter-sunk screw holes with weatherproof filler.

3.03 Finishes:

A. Moisture Testing on Exterior Wood Surfaces: Prior to painting, moisture reading shall be taken with an approved professional grade moisture meter. This reading shall not exceed 19%. If environmental conditions are not favorable and wood tested regularly over a period of days does not show a drying trend, finishing operations may, at the discretion of the Engineer, be suspended until such time as conditions become appropriate.

B. Following acceptance of moisture testing, apply sealer to approved manufacturers specifications.

C. All fabricated steel components shall arrive at the work site pre-galvanized and pre-primed. Following installation the Engineer may direct additional field galvanization or priming as necessary to correct damage that may have occurred during installation. Following acceptance of the prepared surface, apply 2 coats of approved Alkyd Enamel, following manufacturer’s written specification for cure time between coats.

D. Immediately clean all surfaces that receive incidental and/or unspecified finishes.

3.04 Clean Up: Remove all construction debris including loose nails, screws, sawdust, wood and metal scraps, splinters, and spilled paints or solvents from all adjacent and surrounding surfaces and landscape areas. Use magnets or metal detectors to verify for the Engineer than no loose nails or screws remain in surrounding soils.

3.05 Acceptance: Upon completion of the fabrication, assembly and finish work, and cleanup, the Engineer may require spot-tightening of various connection hardware. During the scheduled final inspection insure that all of the tools and equipment necessary for this task are on hand. Following this final adjustment the Engineer will consider the work complete.

END OF SECTION