

SECTION 02800

SITE IMPROVEMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Provide Labor, Materials, and Equipment for Site Improvements Shown on the Drawings or Specified Herein, Including:
 - 1. Pressure-treated timber/guardrail.
 - 2. Precast concrete unit retaining wall.
 - 3. Precast concrete fixtures.

1.02 RELATED SECTIONS IN OTHER DIVISIONS

- A. Cast-In-Place Concrete: Section 03300.

1.03 SUBMITTALS

- A. Submit manufacturer's product literature and Shop Drawings for approval on materials in accordance with Division 1 Submittals section.
- B. For precast concrete unit retaining walls, also submit profile and section drawings. For walls taller than 5 ft., submit design drawings (including plans, profiles, sections, and details), and computations stamped by a Registered Professional Engineer.

1.04 DELIVERY, STORAGE AND PROTECTION

- A. Deliver materials to the site in an undamaged condition. Carefully store materials off the ground to provide proper protection against oxidation, and other damage caused by ground contact.

PART 2 - PRODUCTS

2.01 PRESSURE TREATED TIMBER/GUARDRAIL

- A. CCA pressure treated #2 and better, Southern Pine kiln-dried or air-seasoned to an average moisture content of 16% or less and planed on all sides. The amount of CCA preservation injected into timber shall be .40 pounds per cubic foot of wood.
- B. Exposed edges shall be chamfered 3/4".
- C. Fasteners shall be hot-dipped galvanized, unless otherwise noted.

2.02 PRECAST CONCRETE UNIT RETAINING WALL

- A. Modular block interlocking units of 3000 psi 28-day compressive strength concrete with maximum moisture absorption rate of 6 percent, conforming to ASTM C90, C140 and C145. Textured exposed straight face units shall provide a weight of 80 lbs. per sq. ft. of wall face and shall interlock with non-corrosive pins or integral cast keys. The finished wall shall be battered at approximately 3/4-inch per course.
- B. Wall units shall be "Compac" by Keystone of Minneapolis, MN; natural color.
- C. Retaining wall shall be reinforced with horizontal layers of high density polyethylene geogrid conforming to ASTM D1248 of the grade recommended by the wall manufacturer. Manufactured by Tensar Corporation, or approved equal.

2.03 PRECAST CONCRETE

- A. Concrete for precast items shall be 4000 psi, air-entrained, 0.40 w/c ratio, with smooth form finish. Portland cement shall conform to the requirements of ASTM C-150, type I, II, or III. Aggregates shall conform to the requirements of ASTM C-33, and shall be free of injurious amounts of deleterious substances.
- B. Light Pole Base: Conform to the details shown on the Drawings. Coordinate bolt circle with the light pole base.
- C. Electric or Communication Manholes/Handholes: Coordinate the details shown on the Drawings with the Utility Companies for their approval.
- D. Precast Concrete Temporary Barrier(Jersey Barrier): Movable reinforced concrete barrier conforming to the details on the Drawings. Two-sided delineators are not necessary.

PART 3 - EXECUTION

3.01 PRECAST CONCRETE RETAINING WALL

- A. Install wall in proper alignment as shown on the Drawings, set on a gravel leveling course compacted to 95% maximum dry density as shown, and in accordance with the manufacturer's recommendations. Follow manufacturer's safety precautions for cutting and installation.
- B. Backfill placement shall closely follow erection of each course of wall units. Backfill shall be placed in such a manner as to avoid any damage to the wall materials or misalignment of units. Any wall components which become damaged or disturbed during backfill placement shall be removed and replaced at the contractor's expense. Any backfill material placed within the soil mass which does not meet the requirements of Section 02200 shall be corrected or removed and replaced at the Contractor's expense.
- C. Adhere both the cap stone and the top two full-size stones solidly to the underlying stone using "Versalok Concrete Adhesive," or approved equal.
- D. Grout exposed slots, grooves, or holes on end units to a solid appearance using color matched mortar.

END OF SECTION