

32 1313 SITE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

- A. The work in this section includes the installation of sidewalks, curb and gutter, handicap ramps, and other concrete work that would be found on the site.

1.2 RELATED SECTIONS

- A. 31 2200 Earthwork

1.3 QUALITY ASSURANCE

- A. All work shall be done in accordance with the jurisdiction having authority.
- B. The State Department of Transportation Specifications shall be considered "the specifications" for the project.
- C. Concrete construction and materials to be in conformance with applicable ASTM and ACI standards.

1.4 SUBMITTALS

- A. The contractor shall submit mix design of concrete to testing agency for compliance with proposed design. The contractor shall then forward the testing agency's reviewed submittal to the Architect. Submittals shall include compliance with applicable standards and dimensions and specifications.
- B. Contractor is not to order concrete until mix design is approved by testing agency.

1.5 JOB CONDITIONS

- A. Contractor shall provide adequate storage for all rebar, form boards, and other materials and equipment. Storage areas are subject to review by the Architect/Engineer and shall not interfere with the operation of any existing facilities unless otherwise approved by the Owner and Architect.
- B. Forms shall be keep clean and free of rust, soil, or dried concrete.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. The Contractor is to furnish all tools, barriers, signage and other equipment necessary to execute the work in an accurate and non-hazardous manner.
- B. Backfill material per the requirements of the specifications or other authority having jurisdiction.
- C. Concrete shall have a compressive strength of 3,000 psi at 28 days with the minimum required air content as per ACI 301 and maximum slump of 3 inches.
- D. Water shall be clean and free from salt, oil, or organic substances.
- E. Welded wire mesh shall be smooth reinforcement meeting the requirements of ASTM A185.
- F. Premolded joint filler: Preformed strips, non-extruding and resilient bituminous type, complying with ASTM D994.

PART 3 - EXECUTION

3.1 EARTHWORK

- A. Refer to section 31 2200 Earthwork related compaction, testing, and grading.

3.2 FORMING

- A. Set clean timber or metal forms true to line. Firmly stake forms in place, strong enough to resist the pressure of concrete without springing, and tight enough to prevent mortar leakage. Tops of forms shall be at exact finished grade and line.

3.3 CONCRETING

- A. Spade concrete thoroughly along expansion joints and forms. Vibrate, tamp and screed as necessary to create a dense mass.
- B. Install 1/2 inch wide pre-molded expansion joints as necessary. Cut joints 1/4 inch below finish elevation of concrete surface. Place additional expansion joints around utility structures and other places where concrete abuts other structures.
- C. After concrete is placed, screeded, float and trowel to a even smooth surface. Bring sufficient mortar to the surface for the finish. While concrete is workable, score contraction joints using scoring tool.
- D. Broom finish using new broom such that bristle marks shall be perpendicular to the length of the sidewalk.
- E. For concreting in colder temperatures, Contractor is to adhere to the requirements of ACI 306.1-90 Standard Specification for Cold Weather Concreting. Concrete temperature is not to drop below 50 degrees Fahrenheit.

3.4 CURING

- A. After concrete has been given final surface finish, it is to be protected and allowed to cure. Protective impervious plastic sheets are to be used as necessary.
- B. While curing concrete is to be protected from foot traffic and equipment.
- C. In cold weather, Contractor is to adhere to the requirements of ACI 306.1-90 Standard Specification for Cold Weather Concreting. Concrete temperature is not to drop below 50 degrees Fahrenheit.

3.5 SIDEWALK CONSTRUCTION

- A. Finish the outside edge of the slab and all joints with a 1/4" radius edging tool.
- B. Construct in accordance with detail shown on plans.

3.6 CURB AND GUTTER

- A. Construct in accordance with detail shown on plans.

3.7 BACKFILL COMPLETION

- A. Compact backfill as specified in Earthwork section.
- B. After the concrete has set sufficiently, the grading shall be completed to the lines shown on the plans
- C. Areas that were previously grassed are to be restored to their pre-developed state.

3.8 CLEANING

- A. All construction debris from concrete construction is to be properly disposed of.
- B. Additional soil from construction that cannot be used elsewhere on-site is to be disposed of at no cost to the owner.

END OF SECTION 32 1313