

SECTION 32 13 13**CONCRETE CURBS, DRIVES, AND SIDEWALKS****PART 1: GENERAL****1.01 SCOPE**

The work under this section shall include the installation of all concrete curbs, sidewalks, and drives. Installation will include new installations as required on the drawings, and replacement of all curbs, drives and sidewalks damaged or removed incidental to construction. Adhere to most stringent requirements between local regulations and this specification concerning concrete installations for work performed on property owned by others (the municipality or private owners other than AW).

PART 2: PRODUCTS**2.01 CONCRETE**

- A. All concrete shall conform to the following: ASTM C150 Type I Portland cement, 3,000 psi design mix, with a 4-inch \pm air-entrained slump ready mixed in accordance with ASTM C94.
- B. Aggregate shall conform to ASTM C33, which is clean, hard, durable, screened, crushed stone or gravel. The aggregate shall contain no chert.

2.02 REINFORCEMENT

As needed to meet or exceed existing conditions or as specified in these contract Documents.

2.03 CURING COMPOUND

Curing compound shall conform to the specifications of AASHTO M148, Type II, clear, and shall consist of a practically colorless impervious liquid which will thoroughly seal the surface of the concrete and will not impart a slippery surface thereto. The quality and the quantity to be used shall be approved by AW. The use of any material which would impart a slippery surface to the concrete or alter its natural color will not be permitted. The colorless, impervious compound shall contain not less than twenty-five percent (25%) solids. Admixtures applied to concrete with reinforcing steel require review and approval by AW before use.

2.04 PROTECTION

Immediately upon finishing the concrete, the concrete shall be completely covered

with plastic or alternate material approved by AW. Canvas or wetted straw will not be allowed as alternate coverings for curing.

PART 3: EXECUTION

3.01 CONCRETE CURBS

- A. All base for the installation shall be thoroughly compacted to support curb installation. Expansion joints should be provided at a minimum of every 12 feet.
- B. All new curb installations shall be as shown on the Drawings, and as detailed on the detail sheets.
- C. All replacement curbs shall be of the same type and thickness as the curb and gutter which it abuts. The grade of the restored curb and gutter shall conform with the grade of the existing adjacent curb and gutter, and installed to insure there is no ponding of water.
- D. The finish shall be a broom finish.

3.02 CONCRETE DRIVEWAYS

- A. All base for the installation shall be thoroughly compacted and leveled to support the new and replacement installations without settlement. Expansion joints should be provided at a minimum of every 30 feet.
- B. All new driveways shall be installed as shown on the plans, and as detailed on the detail sheets.
- C. All permanent restoration of driveways shall conform to the construction as originally placed and to the original lines and grades, unless directed otherwise by AW.
 - 1. No patching of concrete driveway areas will be allowed between joints or dummy joints.
 - 2. All joints shall be saw cut.
 - 3. In no case shall the thickness of a concrete driveway be less than 4-inches, with 6x6x6 welded wire mesh.
- D. The finish shall be a broom finish.

3.03 CONCRETE SIDEWALKS

- A. All base for the installation of sidewalks shall be thoroughly compacted and leveled to support the new and replacement installations without settlement. Expansion joints should be provided at a minimum of every 30 feet.

- B. All new sidewalks shall be installed as shown on the Drawings and as detailed on the detail sheets.
 - 1. Sidewalks shall have a minimum thickness of 4-inches, with 6x6x10/10 wire mesh.
 - 2. All sidewalks shall slope $\frac{1}{4}$ inch per foot across the width of the walk toward the street.
 - 3. The finish shall be a broom finish at right angles to the walkway.
 - 4. Dummy expansion grooves shall be marked on the sidewalk at five foot intervals. The grooves shall be $\frac{1}{2}$ inch deep by $\frac{3}{8}$ inch in width.
 - 5. Sawed grooves will not be permitted.

- C. All permanent restoration of sidewalks shall conform to the manner of construction as originally constructed and placed (brick, block or stone). All concrete or mortar place shall mimic the aged appearance of the existing areas concrete.
 - 1. When concrete sidewalks are replaced, the replacements shall match the existing line and grades, and width.
 - 2. All replacement work shall meet the requirements of new sidewalk construction. No patching will be allowed between joints or dummy joints.
 - 3. If a curing compound is employed, it shall be applied per the manufacturer's direction and at a recommended rate of application. If unknown, it shall be applied at 1 gallon (3.79 liters) per 200 square feet (18.58 square meters) for each coat. Surfaces damaged by construction operations during curing shall be resprayed at the same rate.

3.04 PROTECTION

All concrete work shall be protected by barricades, lights, etc. to protect the concrete until set-up.

END OF SECTION 32 13 13