

PART 1 GENERAL

1.1 Section Includes

- .1 Concrete sidewalks, curbs and gutters.

1.2 Related Sections

- .1 Section 312313 - Site Grading: Preparation of site for paving and base.
- .2 Section 312311 - Backfilling: Compacted sub-base for paving.
- .3 Section 079200 - Sealants: Sealant for joints.

1.3 References

- .1 CAN3-A5M - Portland Cements.
- .2 CAN3-A23.1M - Concrete Materials and Methods of Concrete Construction.
- .3 CAN3A266.1M – Air Entraining Admixtures for Concrete.
- .4 CAN3-G30.12M - Billet Steel Bars for Concrete Reinforcement.
- .5 CSA G30.5M - Welded Steel Wire Fabric for Concrete Reinforcement.
- .6 ASTM C309 -Liquid Membrane Forming Compounds for Curing Concrete.
- .7 ASTM D1751 - Pre-formed Expansion Joint Fillers for Concrete Paving and Structural Construction.
- .8 ASTM D1752 - Pre-formed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.

1.4 Quality Assurance

- .1 Perform work in accordance with ACI 301 requirements of Sections 031000, 032000 and 033000 Province of Saskatchewan Highway Standards.
- .2 Obtain cementitious materials from same source throughout.

1.5 Regulatory Requirements

- .1 Conform to applicable standards for paving work on property.

PART 2 PRODUCTS

2.1 Form Materials

- .4 Form Materials: Conform to CAN/CSA-A23.1M as specified in Section 031000.
- .5 Joint Filler: ANSI/ASTM D1751 D1752 type.

2.2 Reinforcement

- .1 Reinforcing Steel and Wire Fabric: Type specified in Section 032000.
- .2 Dowels: 275 MPa yield grade, plain steel.

2.3 Concrete Materials

- .1 Concrete Materials: As specified in Section 033000.

2.4 Concrete Mix

- .1 Mix and deliver concrete in accordance with Section 033000.

2.5 Source Quality Control

- .1 Submit proposed mix design of each class of concrete to appointed firm for review prior to

- commencement of work.
- .2 Tests on cement and aggregates will be performed to ensure conformance with specified requirements.

PART 3 EXECUTION

3.1 Examination

- .6 Verify compacted sub-grade, granular base is ready to support paving and imposed loads.
- .7 Verify gradients and elevations of base are correct.

3.2 Sub-Base

- .1 Section 312311 - Backfilling

3.3 Preparation

- .1 Moisten base to minimize absorption of water from fresh concrete.
- .2 Notify Departmental Representative minimum 24 hours prior to commencement of concrete operations.

3.4 Forming

- .1 Place and secure forms to correct location, dimension, and profile.
- .2 Assemble form work to permit easy stripping and dismantling without damaging concrete.
- .3 Place joint filler vertical in position, in straight lines. Secure to form work during concrete placement.

3.5 Reinforcement

- .1 Interrupt reinforcement at expansion joints.
- .2 Place reinforcement to achieve pavement and curb alignment as detailed.

3.6 Joints

- .1 Place expansion joints at 6 m intervals. Align curb, gutter, and sidewalk joints.
- .2 Place joint filler between paving components and building or other appurtenances. Recess top of filler 6 mm for sealant placement by Section 079200.
- .3 Provide scored joints at 1 m intervals between sidewalks and curbs.

3.7 Placing Concrete

- .1 Place concrete in accordance with CAN/CSA-A23.1M as specified in Section 033000.

3.8 Finishing

- .1 Sidewalk Paving: Light broom, and trowel joint edges.
- .2 Curbs and Gutters: Light broom.
- .3 Place curing compound on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's instructions.

3.9 Field Quality Control

- .1 Field inspection and testing will be performed under provisions of Section 014000.
- .2 Testing firm will take cylinders and perform slump and air entrainment tests in accordance with CAN/CSA-A23.1M.
- .3 Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.10 Protection

- .1 Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.

3.11 Schedules

- .1 Concrete sidewalks and patios: 20 MPa 28-day concrete, 100 mm thick or as per drawings, buff colour Portland cement.
- .2 Parking Curbs: 25 MPa 28 day concrete, 125 mm thick or as per drawings, 6/6 - 150 x 150 mm mesh reinforcement.

END OF SECTION