Part 1 General

1.1 SECTION INCLUDES

1. Reinforcing steel bars, wire fabric and accessories for cast-in-place concrete.

1.2 RELATED REQUIREMENTS

1. Section 03 11 00 - Concrete Forming.
2. Section 03 30 00 - Cast-in-place Concrete.
3. Section 04 05 19 - Masonry Anchorage and Reinforcing: Reinforcement for masonry.

1.3 REFERENCE STANDARDS

1. CSA A23.1:19/A23.2:19 Concrete materials and methods of concrete construction/test methods and standard practices for concrete
2. CSA A23.3:19 Design of concrete structure
3. STD G40.20/G40.21-13 General requirements for rolled or welded structural quality steel/structural quality steel
4. CSA W186:21 Welding of reinforcing bars in reinforced concrete construction
5. Manual of standard practice

1.4 ACTION SUBMITTALS

1. Section 01 33 00: Procedures for submittals.
2. Shop Drawings: Indicate bar sizes, spacings, locations, and quantities of reinforcing steel and wire fabric, bending and cutting schedules, supporting and spacing devices.

1.5 QUALITY ASSURANCE

1. Perform Work in accordance with CSA-A23.1/A23.2.
2. Welders' Certificates: Submit to Section 01 43 00, Manufacturer's Certificates, certifying welders employed on the Work, verifying CSA-qualification within the previous 12 months.

Part 2 Products

2.1 REINFORCEMENT

1. Reinforcing Steel, Deformed: CSA-G30.18, billet steel, Grade 400W, weldable bars, unfinished.

2.2 ACCESSORIES

1. Tie Wire:
    1. Epoxy coated.
    2. Minimum 1.65 mm annealed type
2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions including load bearing pad on bottom to prevent vapour barrier puncture.

1. Chairs, bolsters, bar supports and spacers are to be precast concrete, plastic or steel. Wood, clay brick and concrete block is not acceptable.

3. Special Chairs, Bolsters, Bar Supports, Spacers Adjacent to Weather Exposed Concrete Surfaces: Plastic coated steel type; size and shape as required.

2.3 FABRICATION

1. Fabricate concrete reinforcing in accordance with:
    1. CSA-A23.1/A23.2.
    2. RSIC Manual of Standard Practice.
2. Weld reinforcement to CSA-W186.

Part 3 Execution

3.1 PLACEMENT

1. Place, support and secure reinforcement against displacement to CSA-A23.1/A23.2 and as indicated on reviewed placing Drawings.
2. Do not displace or damage vapour barrier, membranes, or other in-slab assemblies.
3. Accommodate placement of formed openings.
4. Maintain concrete cover around reinforcing as follows:
    1. 40mm (1.5") for concrete placed in formwork for 15M or small bars
    2. 50mm (2") for concrete placed in formwork for 20M or larger bars
    3. 65mm (2.5") for slab on grade, top of slab to top layer of steel.
    4. 75mm (3") for concrete placed against earth (bottom of footings)
5. Chairs shall be used to maintain the specified concrete cover.
6. Conform to applicable code for concrete cover over reinforcement.
7. Bond and ground all reinforcement as required by Electrical.

3.2 FIELD QUALITY CONTROL

1. Prior to pouring concrete, obtain Structural Engineer's approval of placement of reinforcing steel.

End of Section