Part 1 General

1.1 REFERENCES

.1 American National Standards Institute / National Association of Architectural Metal Manufacturers (ANSI / NAAMM).

.2 American Society for Testing and Materials (ASTM).

.1 ASTM A53/A53-12, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.

.2 ASTM A500/A500M-13, Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.

.3 ASTM C881/C881M-14, Standard Specification for Epoxy-Resin-Base Bonding System for Concrete.

.4 ASTM A325-14, Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.

.5 ASTM A325M-14, Standard Specification for Structural Bolts, Steel, Heated Treated, 830 MPa Minimum Tensile Strength (metric).

.3 Canadian Institute of Steel Construction (CISC)/Canadian Paint Manufacturer's Association (CPMA).

.1 CISC/CPMA 2-75, Quick-Drying Primer for use on Structural Steel.

.4 Canadian Standards Association (CSA).

.1 CSA G40.20-13/G40.21-13, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.

.2 CSA S16-14, Design of Steel Structures.

.3 CSA W47.1-09 (R2014), Certification of Companies for Fusion Welding of Steel.

.4 CSA W48-14, Filler Metals and Allied Materials for Metal Arc Welding.

.5 CSA W55.3-08, (R2013), Certification of Companies for Resistance Welding of Steel and Aluminum.

.6 CSA-W59-13, Welded Steel Construction (Metal Arc Welding).

1.2 SOURCE QUALITY CONTROL

.1 The Contractor is to provide written documentation from the Canadian Welding Bureau certifying that the steel subcontractor is qualified to requirements of CSA-W47.1, Division 1 or 2.1. This document is to be submitted in accordance with Section 01 33 00 - Submittal Procedures.

1.3 SHOP DRAWINGS

.1 Submit fabrication and erection documents and material lists in accordance with Section 01 33 00 - Submittal Procedures.

.2 It is the responsibility of the Contractor to field confirm the exact locations and construction of related work to which work under this section, modifies, connects to, or is supported on.

.3 On shop fabrication erection drawings, indicate materials and connections. For straightening of bent O.W.S.J. web diagonals, indicate method and procedures to be used.

.4 Submission shall bear signature and stamp of qualified Professional Engineer registered or licensed to practice in the Province of New Brunswick, for all repair procedures, details and connections not shown on the contract drawings.

.5 Review of shop details and erection diagrams will extend to general design concept only. This review does not relieve the Contractor of the responsibility for accuracy of the detail dimensions, general fit-up of parts to be assembled, adequacy of connection details, or for errors or defects contained in the details.

Part 2 Products

2.1 MATERIALS

.1 Structural Steel: New, to CSA-G40.21, Grade 300W.

.2 Welding materials: to CSA-W59 and certified by Canadian Welding Bureau.

.3 Shop paint primer: to CISC/CPMA 2-75.

2.2 FABRICATION

.1 Fabricate metal fabrications as indicated, in accordance with CAN/CSA-S16 and in accordance with reviewed shop drawings.

.2 Minimum fillet weld size shall be 4 mm.

2.3 SHOP PAINTING

.1 Apply one coat of CISC/CPMA 2-75 primer in shop to all steel surfaces, to achieve minimum dry film thickness of 37-50 micrometers, (1½ to 2 mils).

Part 3 Execution

3.1 GENERAL

.1 Do steel work in accordance with CAN/CSA-S16.

.2 Do welding in accordance with CSA-W59.

.3 Companies to be certified under Division 1 or 2.1 of CSA-W47.1 for fusion welding of steel structures and/or CSA-W55.3 for resistance welding of structural components.

3.2 ERECTION

.1 Prepare existing and erect all new miscellaneous structural steel shown on drawings, and as indicated herein, in accordance with CAN/CSA-S16 and reviewed erection drawings.

.2 Provide temporary bracing and shoring as required until permanent connections are completed.

3.3 O.W.S.J. REPAIRS

.1 Repairs to roof joists to be by method approved by Departmental Representative. Mechanical Straightening or Spot Heat Straightening methods are to be demonstrated to Departmental Representative on mock-up prior to proceeding with repairs on roof joists.