

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Section 09 91 00: Painting.

1.2 REFERENCES

- .1 ASTM International Inc.
 - .1 ASTM A 36/A 36M-08, Standard Specification for Carbon Structural Steel.
 - .2 ASTM A 307-07b, Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
 - .3 ASTM A 325-07a, Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
 - .4 ASTM A 325M-08, Standard Specification for Structural Bolts, Steel, Heat Treated 830 MPa Minimum Tensile Strength Metric.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-85.10-99, Protective Coatings for Metals.
- .3 Canadian Institute of Steel Construction (CISC)/Canadian Paint Manufacturers Association (CPMA).
 - .1 Handbook of the Canadian Institute of Steel Construction.
 - .2 CISC/CPMA Standard 2-75, Quick-Drying Primer for use on Structural Steel.
- .4 Canadian Standards Association (CSA International)
 - .1 CSA G40.20/G40.21-04, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
 - .2 CAN/CSA-S16-01(R2007), Limit States Design of Steel Structures.
 - .3 CAN/CSA-S136-07, North American Specifications for the Design of Cold Formed Steel Structural Members.
 - .4 CSA W47.1-03, Certification of Companies for Fusion Welding of Steel.
 - .5 CSA W48-06, Filler Metals and Allied Materials for Metal Arc Welding.
 - .6 CSA W55.3-1965(R2003), Resistance Welding Qualification Code for Fabricators of Structural Members Used in Buildings.
 - .7 CSA W59-03, Welded Steel Construction (Metal Arc Welding).
- .5 The Society for Protective Coatings (SSPC) and National Association of Corrosion Engineers (NACE) International
 - .1 NACE No. 3/SSPC SP-6-06, Commercial Blast Cleaning.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop Drawings:
 - .1 Provide drawings stamped and signed by professional engineer registered or licensed in Province of Nova Scotia, Canada.

- .3 Source Quality Control Submittals:
 - .1 Submit 4 copies of mill test reports 4 weeks prior to fabrication of structural steel.
 - .2 Mill test reports to show chemical and physical properties and other details of steel to be incorporated in project.
 - .3 Provide mill test reports certified by metallurgists qualified to practice in Province of Nova Scotia, Canada.
- .4 Fabricator Reports:
 - .1 Provide structural steel fabricator's affidavit stating that materials and products used in fabrication conform to applicable material and products standards specified and indicated.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Deliver materials in manufacturer's original, undamaged containers with identification labels intact.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Structural steel: to CSA-G40.20/G40.21 Grade 300W.
- .2 Welding materials: to CSA W48 Series CSA W59 and certified by Canadian Welding Bureau.

2.2 FABRICATION

- .1 Fabricate structural steel in accordance with CAN/CSA-S16 CAN/CSA-S136 and in accordance with approved shop drawings.

PART 3 - EXECUTION

3.1 GENERAL

- .1 Structural steel work: in accordance with CAN/CSA-S16.
- .2 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 CONNECTION TO EXISTING WORK

- .1 Verify dimensions and condition of existing work, report discrepancies and potential problem areas to Departmental Representative for direction before commencing fabrication.

- .2 Dimensions provided of existing structural components are not to be used for pre-cutting of reinforcing members, all existing structural components are to be field measured and all reinforcing members including plates, angles, round bars, etc. are to be field cut to suite actual field dimensions. All field fittings shall be accurate with no undue gaps or misalignment.
- .3 All existing coating systems (paint and primer) to be mechanically removed from existing steel to be welded prior to attachment of proposed reinforcing requirements.

3.3 ERECTION

- .1 Field cutting or altering structural members: to approval of Departmental Representative.

3.4 FIELD QUALITY CONTROL

- .1 Inspection and testing of materials and workmanship will be carried out by testing laboratory approved by Departmental Representative. Contractor responsible to have 10% of all welds inspected. Inspection to follow on-destructive testing protocols which include a visual inspection and ultrasonic testing.
- .2 Provide safe access and working areas for testing on site, as required by testing agency and Departmental Representative and as authorized by Departmental Representative.
- .3 Submit test reports to Departmental Representative within 1 week of completion of inspection.
- .4 Contractor will pay costs of tests as specified in Section 01 45 00.

3.5 CLEANING

- .1 Clean in accordance with Section 01 74 11 - Cleaning.
- .2 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 22 - Construction/Demolition Waste Management and Disposal.
- .3 Under this section all new steel and affected existing building structural systems are to be cleaned of all welded slag, loose mill scale, rust, oil, dirt and foreign matter in preparation for field priming and painting by other divisions. This division to refer to is Section 09 91 00 - Painting for other specific surface preparation required for proposed paint system.

END OF SECTION