PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

.1 Section 01 33 00 – Submittal Procedures.

.2 Section 01 74 19 – Construction/Demolition Waste Management and Disposal (short form).

1.2 REFERENCES

.1 American Society for Testing and Materials international, (ASTM)
.1 ASTM A 36/A36M-01, Specification for Structural Steel.
.2 ASTM A 193/A193M-01b, Specification for Alloy-Steel and Stainless Steel Bolting Materials for High-Temperature Service.
.3 ASTM A 307-00, Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
.4 ASTM A 325-02, Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
.5 ASTM A 325M-00, Specification for High Strength Bolts, for Structural Steel Joints Metric.
.6 ASTM A 490M-00, Specification for High-Strength Steel Bolts, Classes 10.9 and 10.9.3, for Structural Steel Joints (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 CISC/CPMA 1-73b, Quick-Drying, One-Coat Paint for Use on Structural Steel.
.2 CISC/CPMA 2-75, Quick-Drying, Primer for use on Structural Steel.

.4 Canadian Standards Association (CSA International)
.1 CAN/CSA G40.20/G40.21-98, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
.2 CAN/CSA-G164-M92(R1998), Hot Dip Galvanizing of Irregularly Shaped Articles.
.3 CAN/CSA-S16-01, Limit States Design of Steel Structures.
.4 CAN/CSA-S136-94 (R2001), Cold Formed Steel Structural Members.
.5 CSA S136.1-95 (R2001), Commentary on CSA Standard S136.
.6 CSA W47.1-92 (R2001), Certification of Companies for Fusion Welding of Steel Structures.
.7 CSA W48-01, Filler Metals and Allied Materials for Metal Arc Welding.
.8 CSA W55.3-1965 (R1998), Resistance Welding Qualification Code for Fabricators of Structural Members Used in Buildings.
.9 CSA W59-M1989(R2001), Welded Steel Construction (Metal Arc Welding) (Metric).

.5 The Society for Protective Coatings (SSPC)
.1 SSPC SP-6/NACE No. 3-00, Commercial Blast Cleaning.

1.3 SHOP DRAWINGS

.1 Submit shop drawings including fabrication and erection documents and materials list in accordance with Section 01 33 00 - Submittal Procedures.

.2 Erection drawings: indicate details and information necessary for assembly and erection purposes including:
.1 Description of methods.
.2 Sequence of erection.
.3 Type of equipment used in erection.
.4 Temporary bracings.

.3 Ensure Fabricator drawings showing designed assemblies, components and

connections are stamped and signed by qualified professional engineer licensed in the Province of Prince Edward Island, Canada.

1.4 SAMPLES

.1 Submit samples in accordance with Section 01 33 00 – Submittal Procedures.

1.5 QUALITY ASSURANCE

.1 Submit 2 copies of mill test reports 4 weeks prior to fabrication of structural steel.
.1 Mill test reports to show chemical and physical properties and other details of steel to be incorporated in project.
.2 Provide mill test reports certified by metallurgists qualified to practice in Province of Prince Edward Island, Canada.

.2 Provide structural steel Fabricator’s Affidavit stating that materials and products used in fabrication conform to applicable material and products standards specified and indicated.

1.6 MEASUREMENT FOR PAYMENT

.1 Structural Steel will be measured in accordance with Section 01 10 10.

.2 The unit price for this item shall include all labour, equipment and materials to fabricate and install structural steel items (other than sheet piles, ladder assemblies and tie rods) as described by the project drawings including but not limited to channel walers, cap plate, oversized washer plates for tie-rods, and holdfasts.

.3 Steel tie rods will be measured in accordance with Section 01 10 10.

.4 The unit price for steel tie rods item shall include all equipment, labour, and materials to supply and install the steel tie rods, heavy hex nuts and pipe sleeves.

.5 The unit price for the ladders item shall include all equipment, labour, and materials to supply and install the steel ladders.

PART 2- PRODUCTS

2.1 Materials

.1 Refer to drawing M1 for material specifications.

PART 3 - EXECUTION

3.1 GENERAL

.1 Structural steel work: in accordance with CAN/CSA-S16, CAN/CSA-S136.

.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 MARKING

.1 Mark materials in accordance with CSA G40.20/G40.21. Do not use die stamping. When steel is to be left in unpainted condition, place marking at locations not visible from exterior after erection.

.2 Match marking: shop mark bearing assemblies and splices for fit and match.

3.3 ERECTION

.1 Erect structural steel, as indicated and

in accordance with CAN/CSA-S16 and in accordance with approved erection drawings.

.2 Field cutting or altering structural members: to approval of the Departmental Representative.

.3 Clean with mechanical brush and touch up shop primer to bolts, rivets, welds and burned or scratched surfaces at completion of erection.

3.4 FIELD QUALITY CONTROL

.1 Inspection and testing of materials and workmanship will be carried out by testing laboratory designated by the Departmental Representative.

.2 Provide safe access and working areas for testing on site, as required by testing agency and as authorized by the Departmental Representative.

.3 Submit test reports to the Departmental Representative within 2 weeks of completion of inspection.

.4 The Departmental Representative will pay costs of tests as specified in Section 01 45 00.

END OF SECTION