

Part 1 General**1.1 RELATED SECTIONS**

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 74 21 - Construction/Demolition Waste Management And Disposal.

1.2 MEASUREMENT PROCEDURES

- .1 Measurement for payment shall be in accordance with Section 01 29 00.

1.3 REFERENCES

- .1 American Society for Testing and Materials International (ASTM)
 - .1 ASTM A27/A27M-13, Standard Specification for Steel Castings, Carbon, for General Application.
 - .2 ASTM A48/A148M-03(2012), Standard Specification for Steel Castings, High-Strength, for Structural Purposes.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-1.61-04, Exterior and Interior Marine Alkyd Enamel.
 - .2 CAN/CGSB-1.212-04, Chromate and Lead Free Marine Primer for Steel and Light Alloy Surfaces.
- .3 Canadian Standards Association (CSA International)
 - .1 CSA G40.20/G40.21-13, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
 - .2 CAN/CSA-G164-M92(R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.
 - .3 CAN/CSA-S16.1-09, Limit States Design of Steel Structures.
 - .4 CSA W48-14, Filler Metals and Allied Materials for Metal Arc Welding (Developed in co-operation with the Canadian Welding Bureau).
 - .5 CSA W59-13, Welded Steel Construction (Metal Arc Welding) (Imperial Version).

1.4 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Provide manufacturer's shop drawings to Departmental Representative before installation. Submit shop drawings, and include the following item:
 - .1 Locations, and installation tolerances of anchor bolts.

1.5 QUALITY CONTROL

- .1 Manufacturer's Instructions: submit manufacturer's installation instructions.

1.6 CLOSEOUT SUBMITTALS

- .1 Provide maintenance data for mooring devices as specified in Section 01 78 00 - Closeout Submittals.

1.7 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

Part 2 Products**2.1 MATERIALS**

- .1 Mooring cleat assemblies:
 - .1 Type "B1".
 - .2 Mooring cleat: cast steel to ASTM A148/A148M, grade 80-50.
 - .3 Base plate: cast steel to ASTM A27/A27M, grade N-2.
 - .4 Other metal parts: structural steel to CSA G40.21.
 - .5 Paint:
 - .1 Shop prime coat: to CAN/CGSB-1.212 MPI #79
 - .2 Two finish coats: to CAN/CGSB-1.61 MPI, colour as directed by Departmental Representative.
 - .6 Grout: shrinkage compensating non-metallic.
- .2 Ladder assemblies:
 - .1 Galvanized rungs and uprights: rolled steel to CSA G40.20/G40.21, minimum Grade A307.
 - .2 Galvanizing: to CAN/CSA-G164.
 - .3 Bolts, nuts: to ASTM A307
 - .4 Ogee washers: to ASTM A48.

Part 3 Execution**3.1 APPLICATION**

- .1 Install cleats in accordance with manufacturer's instructions and the project plans.
- .2 Install ladders per the project drawings.

3.2 SETTING AND GROUTING OF CLEATS

- .1 Set mooring devices at locations and elevations as indicated.
 - .1 After tightening of anchor bolts, grout under base.
 - .2 Ensure that temperatures of foundation, air, base and grout are within range specified by grout manufacturer.
- .2 Do not grout until location of anchor bolts and cleats have been approved by Departmental Representative.

3.3 CLEANING

- .1 Proceed in accordance with Section 01 74 11 - Cleaning.
- .2 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

END OF SECTION

