

PART 1 - GENERAL

1.1 RELATED
REQUIREMENTS

- .1 Section 31 62 19 - Timber Piles.

1.2 MEASUREMENT
PROCEDURES

- .1 No measurement will be made under this section.
Include costs in items of Work that require templates.
.1 Price to include labour, materials and equipment to supply, fabricate, position, and remove templates ie. timber piles.

1.3 REFERENCE
STANDARDS

- .1 American Society for Testing and Materials International (ASTM)
.1 ASTM A 252-[98(2002)], Standard Specification for Welded and Seamless Steel Pipe Piles.
.2 ASTM A 307-[04], Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile.
.3 ASTM A 325M-[05], Standard Specification for Structural Steel Bolts, Steel, Heat Treated 830 Mpa Minimum Tensile Strength [Metric].
.4 ASTM A 490M-[04a], Standard Specification for High-Strength Steel Bolts, Classes 10.9 and 10.9.3 for Structural Steel Joints [Metric].
.2 CSA Group (CSA)
.1 CAN/CSA-G40.20/G40.21-[2004], General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steels.
.2 CAN/CSA-S16-[01], Consolidated (Consists of the CAN/CSA-S16-01, along with S16S1-05 and Updates # 1 and # 2 to CAN/CSA-S16-01).
.1 CAN/CSA-S16-[01], Limit States Design of Steel Structures.
.3 CSA W47.1-[03], Certification of Companies for Fusion Welding of Steel Structures.
.4 CSA W48-[01(R2006)], Filler Metals and Allied Materials for Metal Arc Welding.
.5 CSA W59-[03], Welded Steel Construction (Metal Arc Welding) (metric version).
.3 Canadian General Standards Board (CGSB)
.1 CAN/CGSB-1.171-[98], Inorganic Zinc Coating.
.2 CAN/CGSB-1.184-[98], Coal Tar-Epoxy Coating.

1.3 REFERENCE
STANDARDS
(Cont'd)

- .4 The Master Painters Institute (MPI)/Architectural Painting Specification Manual, (ASM-[February 2004]).
 - .1 MPI #19, Inorganic Zinc Rich Primer.
- .5 The Society for Protective Coatings (SSPC)
 - .1 SSPC-SP 5/NACE No.1-[2000], White Metal Blast Cleaning Joint Surface Preparation Standard.

1.4 SYSTEM
DESCRIPTION

- .1 Design Requirements: design templates to safely withstand following loads:
 - .1 Gravity loads to which template are subjected.
 - .2 Lateral loads to firmly hold pile in position when driving.

1.5 ACTION AND
INFORMATIONAL
SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data: submit manufacturer's printed product literature, specifications and datasheet.
 - .1 Include product characteristics, performance criteria, and limitations.
- .3 Submit shop drawings and indicate following items:
 - .1 Material.
 - .2 Anchorage, field control and alignment methods.
 - .3 Design parameters.
 - .4 Tolerance for driving pile.
 - .5 Removable members.

1.6 WASTE
MANAGEMENT AND
DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management and Disposal.
- .2 Dispose of unused paint or coating material at official hazardous material collections site as approved by Departmental Representative.
- .3 Do not dispose of unused paint or coating material into sewer system, into streams, lakes, onto ground or in other location where it will pose health or environmental hazard.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Steel sections and plates: to CAN/CSA-G40.20/G40.21, Type 300W.
- .2 Welding materials: to CSA W48, CSA W59.
- .3 Bolts, nuts and washers: to ASTM A 307, ASTM A 325M, ASTM A 490M.
- .4 Protective coating: to MPI #19, CAN/CGSB-1.171 and CAN/CGSB-1.184.

2.2 FABRICATION

- .1 Fabricate structural steel for templates: to CAN/CSA-S16 and approved reviewed shop drawings.
- .2 Welding: to CSA W59, CSA W59S1.
- .3 Use welding companies qualified under CSA W47.1.

PART 3 - EXECUTION

3.1 PREPARATION

- .1 Lining:
 - .1 Line inside surfaces of sleeves and pile guides with timber strips 25 mm thick or nylon roping 25 mm thick to provide protection to pile coating during driving operation.
 - .1 Show full details of linings and attachment on shop drawings.
- .2 Repairs:
 - .1 Repair damaged coatings with compatible material to approval of Departmental Representative.

3.2 POSITIONING

- .1 Position and hold template in location to receive piles.
 - .1 Ensure pile positions are within tolerances specified.
 - .2 Secure templates to vertical piles in accordance with shop drawings before batter piles are placed.
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3.3 REMOVAL OF
TEMPLATES

- .1 Avoid damage to piling when removing templates.
- .2 When instructed by Departmental Representative, remove templates from Project site.

3.4 TEMPLATES TO
REMAIN

- .1 Remove perishable materials when directed by Departmental Representative and fasten templates to piles to become part of permanent structure.
- .2 Full vertical pile sleeves permitted to remain as part of permanent structure.

3.5 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.

3.6 PROTECTION

- .1 Protect templates from damage.
- .2 Repair damage to templates, formwork or concrete arising from operations as reviewed by Departmental Representative at no extra cost.