



05 00 00 Metals

GENERAL

Description of the Work:

.1 Fabrication, galvanizing and installation of:

Ladders:

New ladders complete with all mounting hardware and

- .2 As noted on the consultants Engineering Drawings.
- .3 The consultants engineer will place reference standards in specification notes on the engineered drawings.

Submittals:

- .1 Division 1 Section for submittals notes that no shop drawings are to be submitted without engineering stamps where applicable.
- .2 Trades must ensure that the submittals with stamps are to be submitted to ensure that the Consultant is not being asked to approve something that the engineer has not approved.
- .3 Shop Drawings:



Under the O.B.C. there are loadings applicable to railings that depend on whether they are subject to, for example, light conditions of roof access by service people, or heavier access by the public such as larger groups.

This item below is best suited to cases where a railing with pickets at centers is required. In this case, the railing can sit to the inside of the post base and the post base itself does not create a require an even higher top rail to be provided.

If pickets are needed, it is probable that the bottom rail should be

ballast of an inverted roof, or conventional roof.

Thaler ARS-115-G Rail Support, or approved equal.

- Urethane insulated
- Galvanized finish
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Thaler by _____ prior _____ for public access loading. This will impact Thaler executed welding sizes at the triangular gusset also. Similar detailed review is needed for all other manufacturers pre-engineered products.

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- Thaler SJ-155A stack jack flashing of spun aluminum to fit the ARS-115, or approved equal.

The item below I needed for inverted roofs to prevent ballast punching holes in the stack jack flashing.

- Thaler T12 ballast collar to fit the SJ-155A stack jack and of _____ the ballast, or approved equal.

Below item is needed fog002 377.06tmo0.00000 n-2(ede)792 re>3004akwet(umi)42 0



.7 Ladders: $11\frac{3}{4}$ $\frac{3}{4}$ equal.

Rungs: $\frac{3}{4}$

Side rails are suited to the splay of the rails needed at the top and the connection to guard rails on the sides of the platform (if needed) crossing

safeguard service personnel accessing doors and/or equipment near roof edges and needing to be safeguarded from accidentally coming within 2m from the roof edge, therefore supplemental bracing could be merited/necessary.

Include:

Preparation:

- .1 Make detailed site review of the existing conditions

Coordinate with roofing Section _____ as to the finished height of the roofing assemblies so as to set the height and the spacing of rungs/treads of the ladders, stairs.

Make site measurement of elevations, dimensions and angles.

Coordinate with roofing Section _____ to confirm the party responsible for hoisting and setting.

- .2 Take all precautions needed for safety of all parties involved in and affected by the Work of this Section.

Conform with Ministry of Labour requirements except where more stringent requirements are set out for this project.

Safety on the roof shall be by approved roof edge fixed barriers, or by fall arrest equipment.

- Workers being tied off with safety lines and working right at roof edges require fall arrest measures to dissipate issues with having enough slack in safety lines/lanyards.
- Many fall arrest tie-off carts are not suitable for use on inverted roofs in some cases. Care is needed in setting out site safety requirements.
- Simple travel restraint of ropes and lanyards will not be permitted for work at roof edges.
- Fall arrest equipment must be certified for use on the specific subject roof types.

- .3 Any on-site welding must be undertaken only with all required safety and fire protections in place and only with prior written approval from the Owner.

In advance of commencing Work, secure a Hot Work Permit from 12 0 612 792 reW*ⁿBT/F3 1

- .7 Generally, custom-made hot dipped galvanized products will be preferred and should be engineered by the Consultant. Pre-deemed to be well suited to long-term durable safe use. assemblies are NOT
- .8 The use of such kits also increases the obligations of the Owner for annual inspection and maintenance not being required for welded hot dipped galvanized assemblies.
- .9 Aluminum stairs and railings are not preferred as they risk increased maintenance costs in the event of abuse such as in moving equipment on the roofs leading to dents and damage. Nonetheless, aluminum is not prohibited.
- .10 Stainless steel is acceptable except where the Owner could require a painted finish preparation for painting of stainless steel is unduly costly and generally of limited durability, and thus of higher maintenance cost.