

## 1. Standards

Comply with the most up-to-date version of the following Australian Standards:

### Vinyl

AS 1145.3-2001

### Aluminium

AS 1231-2000; AS/NZS 1664.2:1997 (and supplements)

Aluminium flat sheet, coiled and plate AS\NZS 1734:1997

AS/NZS 1866 Aluminium and aluminium alloys – Extruded rod, bar, solid and hollow shapes.

### Painting

AS3750.0:1994; AS1627.9-2002 – Paints for steel structures – Organic zinc rich primer.

### Welding

Aluminium to AS/NZS 1665:2004

### Fixings

All bolting shall be commercial bolts of grade 4.6 to AS 1111.1-2000 snug tightened.

### Finishing

All aluminium work that will be exposed to view shall have weld splatter, flux, dags and burrs removed, and all sealing and butt welds ground flush.

Unless otherwise specified all fabrication tolerances shall be within  $\pm 1.0\text{mm}$  and all angular tolerances  $\pm 1.0\text{mm}$ .

### Stainless steel

All welding to AS/NZS 1554.6

All stainless steel to be Marine Grade 316. Stainless steel fabrication must be undertaken in an environment that limits the contamination of carbon steel which can cause tea staining and other corrosion problems. Stainless surfaces are to be clean and smooth.

Product should be bubble wrapped or similarly protected during transportation to avoid surface damage.

### Concrete

All concrete works are to comply with Australian Standard AS 1379 -2007.

The concrete specification refer to structural engineering drawings for footing details and concrete quality.

### Safety

Comply with the current Western Australian Occupational Safety and Health Legislation and Regulations, Occupational Safety and Health Act 1984 and Safety Regulations 1996 in respect to the conduct of the Works. The onus is on the Contractor to demonstrate compliance with all applicable Australian Standards.

## 2. Fabrication

### 2.1 Materials

#### Aluminium panel

- Comply with approved shop drawings.
- Thickness required: 1.6mm /3mm/ 4mm/ 6mm.

#### Stainless steel flat bar

- Comply with approved shop drawings.
- Thickness required: 6mm.

#### Galvanised steel plate and square hollow section

- Comply with approved shop drawings.
- Thickness required: 3mm.

#### Paint

- Paint to be UV stabilised and rated for guaranteed for a minimum of 10 years in exterior environment.
- Paint colours to comply with specifications on drawings from City of Perth.

#### Vinyl lettering and graphics

- All vinyl to be 3M or similar approved and have 7-year warranty in exterior environment.
- Colours to be white – colour specifications to be provided on award of the contract.
- Printed vinyl with anti-graffiti laminate.

#### Fixings

- Comply with approved shop drawings.
- Sign plate shall be fully fixed to street poles as specified in the drawings.
- Prefer concealed fixing, subject to further design.

#### Brackets and clips

- Comply with approved shop drawings.
- Where light poles are painted, band clamps to be painted to match colour of existing pole.
- Band clamps are only permitted on Western Power poles or those specified – Not to be used on other street poles.

#### Anti-graffiti coating

2K MS Matting Clear or similar two-component m

### 2.2 Lighting for Gateway Plinth

#### Lighting

- Illuminated panel with Place Name - Internal illuminated light box with signage fascia.
- Signage fascia - High impact acrylic panel to slide from top into aluminum channel. Face applied transparent vinyl graphics to specification sheet as applied by the City.
- Light box - Internal light box to have high intensity and efficient LEDs.
- Plinth to be installed with astronomical timer to switch LEDs ON/OFF during day/night time.

### 2.3 Workmanship

#### General

Fabricate and pre-assemble items in the workshop wherever practicable.

#### Edges and surfaces

Keep clean, neat and free from burrs and indentations. Remove sharp edges without excessive grinding and rounding.

#### Thermal movement

Accommodate thermal movement in joints and fastenings.

#### Tolerances

$\pm 1\text{ mm}$  /  $\pm 1^\circ$  from design dimensions.

#### Bolt tolerances

To comply with AS4100.

#### Visible joints

Finish visible joints made by welding, brazing or soldering using methods appropriate to the class of work (including grinding or buffing) before further treatment such as painting, galvanizing or electroplating.

#### Joints

Fit accurately to a fine hairline.

#### Defects

Remove all surface defects, including cracks, laminations, deep pitting, weld spatter slag, burrs, fins, sharp edges and other defects before preparing the surface for coating.

#### Cutting

Avoid procedures that result in greater than localised burning of the sheets, distorted edges and uneven edges.

#### Painting

Preparation of surfaces where paint is to be applied to be as per the paint manufacturer's specifications.

Paint shall be applied to all visible faces of the signs when installed in place and in the specified colours and locations as shown in the drawings.

Paint finish is to have no smudges, stains, discolouration dust marks, and paint run marks. Finished work shall not bubble or flake off from the aluminium face of the signs.

#### Welding

Site welding is not permitted.

Porous, skip or stitch welds are not acceptable. All welding procedures shall minimise distortion. Provide finished welds which are free from surface and internal cracks, slag inclusion, and porosity.

All exposed to view surfaces shall have weld splatter, flux, dags and burrs neatly removed and leaving no visible markings. A sealing and butt welds are to be ground flush.

Avoid procedures that result in greater than localised burning of the sheets or framing members.

Clean welds to remove roughness, using power tools to AS 1627.2. Remove filings by vacuuming or compressed air.

Grind flush any temporary welds.