

# QUEENSLAND CONSTRUCTION SPECIFICATION

C266

# ROADSIDE FURNITURE







**DEVELOPMENT CONSTRUCTION SPECIFICATION  
C266 – ROADSIDE FURNITURE**

**TABLE OF CONTENTS**

CLAUSE	PAGE
GENERAL.....	4
C266.01    SCOPE .....	4
C266.02    REFERENCE DOCUMENTS .....	4
MATERIALS.....	5
C266.03    PROVISION FOR TRAFFIC .....	5
C266.04    GENERAL.....	5
C266.05    TRAFFIC FACILITY EQUIPMENT.....	5
C266.06    FURNITURE AND STRUCTURES.....	5
C266.07    CONCRETE FOOTINGS .....	5
CONSTRUCTION.....	6
C266.08    GENERAL .....	6
C266.09    PROTECTIVE TREATMENTS .....	6
C266.10    SALVAGE .....	6
C266.11    ERECTION .....	6
C266.12    SUMMARY OF LIMITS AND TOLERANCES .....	6
MEASUREMENT AND PAYMENT .....	7
C266.13    PAY ITEMS.....	7



**DEVELOPMENT CONSTRUCTION SPECIFICATION**  
**C266 – ROADSIDE FURNITURE**  
**GENERAL**

**C266.01 SCOPE**

1. The work to be executed under this Specification includes the supply of materials and the installation in accordance with the Specification and Drawings related to traffic facilities and associated equipment including but not limited to:

- Handrails and deflector bars
- Bus shelter
- Flexible kerb sections and speed cushions
- Bollards
- Wheel stops
- Garbage lock posts
- Rubber softfall for footpaths

2. Requirements for Quality control and testing including maximum lot sizes and minimum test frequencies are cited in the Specification part for Quality Requirements.

**C266.02 REFERENCE DOCUMENTS**

1. Documents referenced in this Specification are listed in full below whilst being cited in the text in the abbreviated form or code indicated.

**(a) Council Specifications**

- C201 - Control of Traffic  
C271 - Minor Concrete Works

**(b) Australian Standards**

- AS 1163 - Structural steel hollow sections.  
AS 1214 - Hot-dip galvanised coatings on threaded fasteners.  
AS 1250 - The use of steel in structures (SAA Steel Structures Code)  
AS 1379 - The specification and manufacture of concrete  
AS/NZS 1554.1 - Welding of Steel Structures  
AS/NZS 1580.602.2 - Measurement of specular gloss of non-metallic paint films at 20°, 60° and 85°  
AS 1580.108.2 - Dry film thickness – paint inspection gauge  
AS 1734 - Aluminium and aluminium alloys – flat sheet, coiled sheet and plate  
AS 1866 - Aluminium and aluminium alloys – extruded rod, bar, solid and hollow shapes  
AS 2700 - Colour standards for general purposes  
AS 2890 - Parking facilities  
AS/NZS 4486 - Playgrounds and playground equipment – Development, installation, inspection, maintenance and operation  
AS/NZS 4680 - Hot-dip galvanised (zinc) coatings on fabricated ferrous articles

**(c) Queensland Department of Main Roads Publications**

- QMUTCD - Queensland Manual of Uniform Traffic Control Devices.

**(d) Queensland Transport**

- Translink - Public Transport Infrastructure Manual

**(e) Legislation**

- Disability Discrimination Act.

**MATERIALS****C266.03 PROVISION FOR TRAFFIC**

The Contractor shall provide for traffic in accordance with the requirements of the Specification for CONTROL OF TRAFFIC while undertaking the work and shall organise the work to avoid or minimise delays and inconvenience to traffic.

**C266.04 GENERAL**

1. The Contractor shall advise the names of the proposed suppliers of signs and sign support structures for the Superintendent's concurrence. Only suppliers who have previously established or can now establish their competence to carry out the work in accordance with this Specification shall be used.

2. The Contractor shall supply documentary evidence, satisfactory to the Superintendent, that all materials and parts proposed for use comply with the requirements of the appropriate Australian Standard(s).

3. Details of the structures to be provided under the Contract shall be shown on the Drawings,

4. The dimensions and provisions of each structure shall be in accordance with this Specification and the Drawings.

**C266.05 TRAFFIC FACILITY EQUIPMENT**

All equipment supplied shall:

- (i) have Standards Australia certification
- (ii) be constructed of such materials to reduce UV degradation and vandalism
- (iii) be durable, weather and vandal resistant
- (iv) give due consideration to public health and safety

**C266.06 FURNITURE AND STRUCTURES**

Furniture and Structures shall:

- (i) comply with relevant Standards Australia requirements
- (ii) meet any legislative requirements (e.g. DDA, DSAPT etc)
- (iii) be durable, vandal resistant and low maintenance
- (iv) have coatings and surfaces that are weather and graffiti resistant
- (v) comply with Statutory building and services requirements
- (vi) be located to maximize public benefit without vehicular or pedestrian traffic problems
- (vii) give due consideration to public health and safety

**C266.07 CONCRETE FOOTINGS**

Concrete footings for structures shall be 20 MPa compressive strength in accordance with the requirements of the specification for MINOR CONCRETE WORKS and as shown on the drawings,

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**CONSTRUCTION****C266.08 GENERAL**

1. All structures shall be accurately positioned and supported during erection.
2. The Contractor shall submit details of and set out, for the Superintendent's inspection and approval, the proposed location and alignment of each structure.
3. Work on any foundations shall not commence until the Superintendent has approved the location and alignment of the structure.

**C266.09 PROTECTIVE TREATMENTS**

1. Except for standard galvanised posts, all steel components including brackets shall be protected by hot-dip galvanising after all fabrication processes are completed.
2. The steel components shall be finished by the hot-dip galvanising process in accordance with AS/NZS 4680 to provide an average minimum coating thickness of 85 microns and a bright finished surface free from white rust and stains.
3. Bolts, nuts and washers and brackets shall be galvanised in accordance with AS 1214.
4. Splices in standard galvanised posts shall be painted by using an organic zinc-rich primer, or inorganic zinc silicate paint, in accordance with the repair requirements in Appendix E of AS/NZS 4680.
5. Scratched and slightly damaged surfaces of galvanised coating shall be renovated by using an organic zinc-rich primer, or inorganic zinc silicate paint, in accordance with the repair requirements in Appendix E of AS/NZS 4680. This method of renovation shall be restricted to areas not exceeding 2500 square millimetres on any one structure. Any structure with totally damaged coating areas exceeding 2500 square millimetres shall be regalvanised by the Contractor.

**C266.10 SALVAGE**

Existing road furniture to be salvaged shall be dismantled and transported to the nominated storage site with minimum damage to the items.

**C266.11 ERECTION**

1. In general all works shall be undertaken in accordance with the Drawings.
2. Erection shall be undertaken to meet the following requirements:
  - To the vertical and horizontal alignment specified.
  - Any damage to protective treatments shall be restored adequately to the satisfaction of the Superintendent.

**LIMITS AND TOLERANCES****C266.12 SUMMARY OF LIMITS AND TOLERANCES**

1. The limits and tolerances applicable to the various clauses in this Specification are summarized in Table C266.1 below:

Item	Activity	Limits/Tolerances	Spec Clause
1.	<b>Spatial Location</b>		
	(a) Horizontal	±25 mm	C266.08
	(b) Vertical	± 25 mm	C266.08
2.	<b>Protective Treatments</b>		
	(a) Protective Treatment thickness	>100 microns	C262.12b
	(b) Paint coating over splices in standard galvanised posts	>100 microns	C262.12b
	(c) Damaged Surface of galvanised surfaces:		
	(i) Coating with zinc rich paint	Area <2500 sq. mm	C262.12b
	(ii) Regalvanise	Area >2500 sq. mm	C262.12b
3.	<b>Concrete in Foundations</b>		
	(a) Strength		
	(i) Pipe supports	>20 MPa at 28 days	
	(ii) Purpose designed	>32 MPa at 28 days	

### MEASUREMENT AND PAYMENT

#### C266.13 PAY ITEMS

Payment shall be made for all activities associated with completing the work scheduled in this Specification on a schedule of rates basis in accordance with Pay Items C266(a) to C266(k) inclusive.

A lump sum price for any of these items shall not be accepted.

If any item, for which a quantity of work is listed in the Schedule of Rates, has not been priced by the Contractor, it shall be understood that due allowance has been made in the prices of other items for the cost of the activity which has not been priced.

Concrete and reinforcement for footings is measured and paid in accordance with this Specification and not in the Specification for MINOR CONCRETE WORKS.

#### Pay Item C266(a) SUPPLY AND ERECTION OF BUS SHELTERS

- The unit of measurement shall be each.
- The schedule rate shall be inclusive of the supply of all necessary materials including marking signage (Q connect etc) as detailed on the Drawings.

#### Pay Item Cc266(b) SUPPLY AND ERECTION OF TREATED PINE POSTS

- The unit of measurement shall be each.
- The schedule rate shall be inclusive of the supply of all materials necessary for the installation and establishment of the posts.

#### Pay Item C266(c) SUPPLY AND INSTALLATION OF FLEXIBLE KERB

- The unit of measurement shall be the lineal metre of kerb installed.
- The schedule rate shall be inclusive of the supply of all kerb including curves, bends etc

including necessary fittings as well as foundation materials and surface restorations.

**Pay Item C266(d) RELOCATION OF FURNITURE**

1. The unit of measurement shall be Lump Sum.
2. The schedule rate shall be inclusive of all salvage costs as well as re-erection costs and any necessary materials required.

**Pay Item C266(e) SUPPLY AND INSTALL PARKING WHEEL STOPS**

1. The unit of measurement shall be each.
2. The schedule rate shall be inclusive of the supply of all materials as well as necessary fixings, foundation materials and surface restorations.

**Pay Item C266(f) SUPPLY AND INSTALL RECYCLED RUBBER SPEED CUSHIONS**

1. The unit of measurement shall be Lump Sum.
2. The schedule rate shall be inclusive of the supply of all materials as well as necessary fixings as well as foundation materials and surface restorations.

**Pay Item C266(g) SUPPLY AND INSTALL GALVANISED LOCKING POST AND 240 L MGB**

1. The unit of measurement shall be each.
2. The schedule rate shall be inclusive of the supply of all materials as well as fixings and foundation materials.

**Pay Item C266(h) SUPPLY AND ERECT BOLLARDS**

1. The unit of measurement shall be each.
2. The schedule rate shall be inclusive of the supply of all materials as well as fixings and foundation materials.

**Pay Item C266(i) SUPPLY AND INSTALL SOFT FALL RUBBER FOOTPATH**

1. The unit of measurement shall be the square metre of footpath installed based on the length and width shown on the Drawings or as directed by the Superintendent.
2. The schedule rate shall be inclusive of the supply of all materials as well as fixings and foundation materials.

**Pay Item C266(j) SUPPLY AND INSTALL STANDARD HANDRAIL**

1. The unit of measurement shall be the lineal metre of handrail installed based on the length shown on the Drawings or as directed by the Superintendent.
2. The schedule rate shall be inclusive of the supply of all materials as well as fixings and foundation materials.

**Pay Item C266(k) SUPPLY AND INSTALL DEFLECTOR BARS**

1. The unit of measurement shall be the 'pair'.
2. dimension of the units shall be as shown on the Drawings or as directed by the Superintendent.
3. The schedule rate shall be inclusive of the supply of all materials as well as fixings and foundation materials.