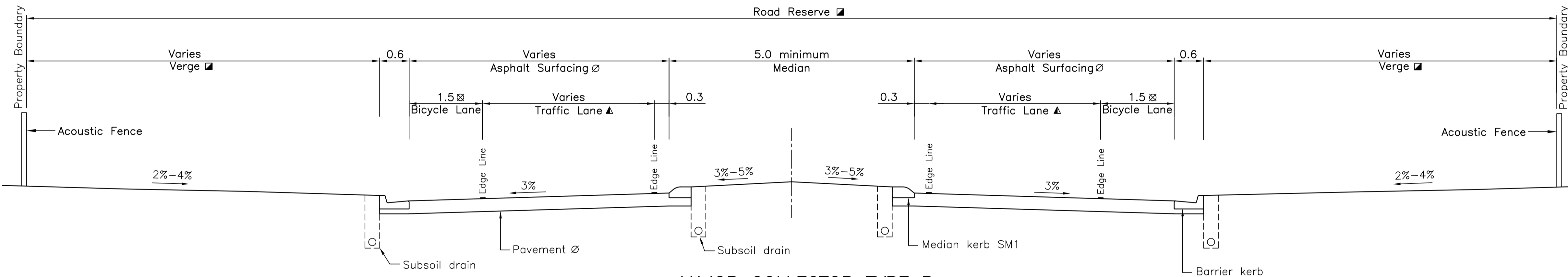


**MAJOR COLLECTOR TYPE A  
KERBS AND UNDERGROUND DRAINAGE**

- Posted Speed 60km/h
- Property access allowed
- On-street parking permitted
- Provision for bus route if required (indented bus stop)
- Number of traffic lanes 2-4 dependant on traffic study
- Centre line and edge lines to be shown on layout plan
- Footpath to be provided as per footpath network plan for development

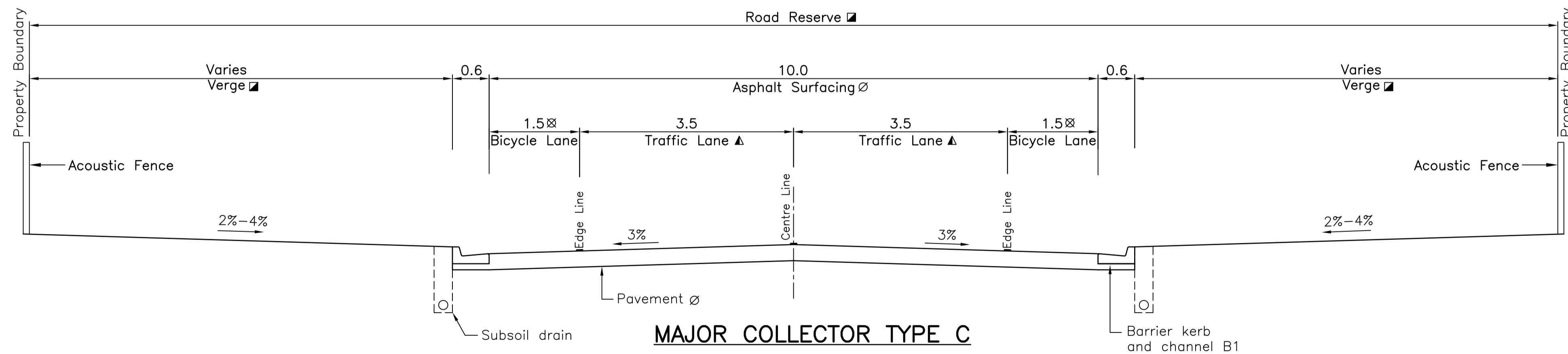
Refer to Development Manual SC6.4.4.1 Geometric Road Design and SC6.4.3.13 Townsville Road Hierarchy



**MAJOR COLLECTOR TYPE B  
KERBS AND UNDERGROUND DRAINAGE**

- Posted Speed 60km/h
- No on-street parking provision
- Provision for bus route if required (indented bus stop)
- Number of traffic lanes 2-4 dependant on traffic study
- Centre line and edge lines to be shown on layout plan
- Footpath to be provided as per footpath network plan for development

Refer to Development Manual SC6.4.4.1 Geometric Road Design and SC6.4.3.13 Townsville Road Hierarchy



**MAJOR COLLECTOR TYPE C  
KERBS AND UNDERGROUND DRAINAGE**

- Posted Speed 60km/h
- No on-street parking provision
- Provision for bus route if required (indented bus stop)
- Number of traffic lanes 2 only
- Centre line and edge lines to be shown on layout plan
- Footpath to be provided as per footpath network plan for development

Refer to Development Manual SC6.4.4.1 Geometric Road Design and SC6.4.3.13 Townsville Road Hierarchy

- NOTES**
- All dimensions are in metres unless noted otherwise.
  - This drawing to be read in conjunction with Development Manual, relevant Australian Standards and manufacturer's specifications.
  - Wearing surface, pavement design and subgrade treatment to be in accordance with Development Manual SC6.4.4.2 Pavement Design.
  - Wearing surface in highly stressed areas due to braking, turning and acceleration, such as roundabout and stopping lanes at traffic signals, shall be polymer modified asphalt as per Main Roads Technical Specification 18 - Polymer Modified Binder.
  - Subsoil drains to be in accordance with Development Manual SC6.4.4.2 Pavement Design and TCC Standard Drawing SD-080.
  - For principles underlying street/road selection and network planning refer to Development Manual SC6.4.4.1 - Geometric Road Design.
  - Design Engineer to consider 'clear zone' in locations, type of road furniture and vegetation (roadside hazards).
  - Pavement marking and RRPM's to be in accordance with Main Roads MUTCD - Part 2.
  - Location of all existing services shall be confirmed by the relevant authority prior to commencement of any construction works.

- Minimum Road Reserve Width and Verge Widths dependent on pathway requirements. Refer TCC Standard Drawing SD-015.
- ⊗ Bicycle lane widths shown are desirable minimums. Refer to Austroads Guide to Road Design Part 3: Geometric Design (Table 4.17)
- ▲ Number of traffic lanes is dependent on the outcome of traffic study (3.5m wide traffic lanes).

**WEARING SURFACE AND PAVEMENT DESIGN**

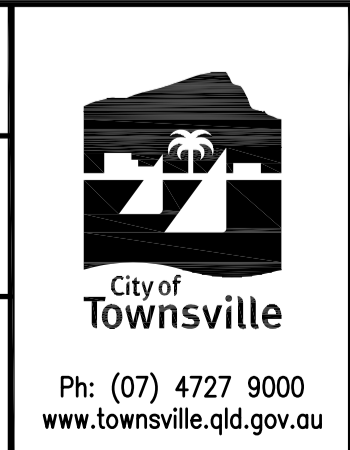
⊘ Wearing surface (minimum depth of 50mm asphalt) and pavement design to be determined by the Design Engineer. Refer notes 3 and 4.

No.	DATE	DESCRIPTION	AP'D
B	29/04/2014	AMENDMENTS FROM DEVELOPMENT MANUAL CONSULTATION	
A	08/2013	ORIGINAL ISSUE	
REVISIONS			

NOTES :

Full Size A1  
Not to Scale

DRAWN: DESIGN OFFICE  
CHECKED: WP  
Design Engineer Approved: Original signed by JORGE EL-KHOURI  
Date: 28/5/14  
Manager Approved: Original signed by JOHN CLARKE  
Date: 28/5/14



**TYPICAL CROSS SECTIONS  
COLLECTOR ROADS**

**STANDARD  
DRAWING  
ROADWORKS**

SD-002 B