NOTES
1. Kerb ramps shall be provided at approved sites at intersection corners and established mid block sites.
2. The number and exact positions shall be determined with regard to the location of existing or proposed traffic signal posts, drainage structures and pedestrian desire lines. Ramp is to be located 1.0m minimum clear of obstructions.
3. The location of kerb ramps should be carefully planned to ensure that users are not put at risk from traffic of any kind, bearing in mind that a person with a disability may have a reaction time greater than that of a person having full mobility.
4. Kerb ramps should be installed in the kerb in a manner which will direct the user (particularly people with a vision disability) across the adjacent roadway by the most direct route.
5. The sides of the kerb ramp shall be graded plane surfaces.
6. The maximum gradient of a ramp exceeding 1520mm in length shall be 1:14.
7. Wherever possible discharge point from kerb ramps should be located so as to integrate use by both people with a disability and able bodied persons.
8. The ramp and sloping sides should be slip resistant.
9. Concrete to be N32.
10. Refer STD dwg 01-75 for approved kerb ramp location and configurations.
11. KERB RAMP WINGS - The required kerb ramp wing angle is 45°. Subject to the approval of the superintendent, wings may be angled at less than 45° if pedestrians do not walk over the side of the ramp and the wing is required to be clear of traffic signals hardware, other kerb ramp wings or utility pits/manholes. Kerb Ramp wing angle may also be reduced at obtuse angled intersections. Wings shall have a width between 600mm and 1200mm. A max slope of 1 in 4 (25%) is to be maintained on the wings at the kerb face (ie 600mm wide wing for a 150mm kerb).

* TACTILE INDICATORS SHALL BE INSTALLED AS PER AS 1428.4 -2002 AS ADVISED *

SCALE: N.T.S

CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PERSONS WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTATEMENT OF FACILITIES.
ALLOW 100m LONG SHOULDER WIDENING TO 6.0m FROM CENTRELINE TO PERMIT THE PASSING OF A RIGHT TURNING VEHICLE.

<table>
<thead>
<tr>
<th>θ</th>
<th>Rad</th>
</tr>
</thead>
<tbody>
<tr>
<td>70° - 80°</td>
<td>9</td>
</tr>
<tr>
<td>80° - 100°</td>
<td>12</td>
</tr>
<tr>
<td>100° - 110°</td>
<td>15</td>
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</tbody>
</table>

TURNOUT RADIUS

DETAIL

NOTES
1. SIZE AND POSITION OF WARNING SIGNS TO BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. ALLOW DRAINAGE THROUGH MEDIAN KERB AT LOW POINTS IF REQUIRED

SCALE N.T.S.

CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PEOPLE WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTATEMENT OF FACILITIES.
50mm Asphalt Surfacing, BCC TYPE 2
(Premix is permitted as a substitute
where hot asphalt is not available)
over the application of Emulsion Seal
or Bitumen Tack Coat.

All broken edges are to be
saw cut square and straight
before resurfacing.

Lean mix concrete
backfill

Provide straight vertical
cuts to trench walls.

Approved suitable
bedding material

NOTE:
Restoration is to be from tabledrain to
tabledrain for rural roads.

Sawcut trench prior to excavation.

SCALE N.T.S.
### RRPM LEGEND
- **UNIDIRECTIONAL** - WHITE
- **UNIDIRECTIONAL** - RED
- **BI-DIRECTIONAL** - WHITE
- **BI-DIRECTIONAL** - BLUE

*BLUE RETRO-REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED 100mm HYDRANT SIDE OF THE ROAD CENTRELINE MARKING, FOR ALL HYDRANT LOCATIONS.*

**NOTES:**
1. **ALL DIMENSIONS ARE IN METRES**
2. REFER TO MAIN ROADS 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES' FOR APPLICATION OF LINETYPES.
3. **LINE THICKNESS FOR SEPARATION LINES TO BE 0.15m FOR MULTILANE ROADS.**

**SCALE:** N.T.S.

### DIMENSIONS

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DESCRIPTION</th>
<th>DIMENSIONS</th>
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<tbody>
<tr>
<td>A</td>
<td>HOLDING LINE</td>
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</tr>
<tr>
<td>B1</td>
<td>GIVE WAY LINE</td>
<td>0.6 TYPICAL</td>
</tr>
<tr>
<td>B2</td>
<td>CONTINUITY LINE</td>
<td>1.0 3.0 1.0 3.0 1.0 3.0</td>
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<tr>
<td>C</td>
<td>SEPARATION LINE</td>
<td>1.0 1.0</td>
</tr>
<tr>
<td>D</td>
<td>SEPARATION LINE UNBROKEN (REFER NOTE 3)</td>
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</tr>
<tr>
<td>D1</td>
<td>BARRIER LINE ONE DIRECTION</td>
<td>3.0 9.0 3.0 9.0 3.0 9.0 1.0</td>
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<tr>
<td>D2</td>
<td>BARRIER LINE BOTH DIRECTIONS</td>
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<td>E1</td>
<td>LANE LINE</td>
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<tr>
<td>E2</td>
<td>LANE LINE UNBROKEN</td>
<td>3.0 1.0</td>
</tr>
<tr>
<td>F</td>
<td>EDGE LINE LEFT AND RIGHT SIDE</td>
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<tr>
<td>G</td>
<td>TURN LINE</td>
<td>0.6 TYPICAL</td>
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<tr>
<td>P1</td>
<td>NO STANDING LINE</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** LINE COLOUR TO BE YELLOW

### LINEMARKING AND R.R.P.M.

### DETAILS

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DESCRIPTION</th>
<th>DIMENSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH1</td>
<td>CHEVRON, SINGLE APPROACH</td>
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</tr>
<tr>
<td>CH2</td>
<td>CHEVRON, SPLAINED APPROACH</td>
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</tr>
</tbody>
</table>

**CAROOLTURE SHIRE INFO:**
- SUPPORTS FACILITIES AND ACCESS FOR PEOPLE WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTATEMENT OF FACILITIES.

**STANDARD DRAWING No.:**
- **01-41B**

**DATE:**
- **9/03**

**A B C:**
- **Field Book**
- **Level Book**
- **Job File**
- **Survey File**
- **Road No.**
**PLAN 1:100**

- **LEVELS**
  - **POINT REMARKS**
    - B 60mm below 'A'
    - C 100mm max. above 'A'
    - D 95mm min. above 'A'

**NOTES**: Levels are relative to edge of bitumen seal point 'A'

**PAVEMENT**
- 150mm (min) depth compacted
- Class 2.5 min. gravel
- (From point B to property boundary)
- Area from point A to point B to match existing road pavement depth.

**NOTES**
1. Pavement to be sealed with a prime/primerserial plus a 2 coat bitumen spray seal if required.
2. Sloping headwalls to be provided on Collector and above roads.
3. Check visibility for all proposed locations.
4. This crossing is only suitable for minor drainage flows.

**SECTION A-A 1:50**
- Prohibited locations shown by heavy line as per AS 2980.1

**SCALE N.T.S.**

**PROHIBITED LOCATION OF DRIVEWAYS**

**PIPED CROSSING**

**STANDARD DRAWING NO.**

01-42 F
Grade invert to match levels of channel at both ends.
Kerb and channel to be saw cut at each end and broken out over this area to allow crossing to be constructed. Where driveover kerb exists match crossing to kerb level.
Provide 1 in 10 batter from driveway to natural surface level.
Wheel tracks will be accepted between point A and the RP boundary for residential crossings.

**METHOD OF CONSTRUCTION**

1. Driveway is to be constructed in two sections with an expansion joint along Line C. Joint to be 10mm wide and filled with mastic.
2. Measure back 400mm from existing channel invert to establish Line C. Excavate and place form boards so that board at LINE C is 110mm above the invert of the kerb and channel.
3. Measure back 1.5m from existing channel invert to establish Line B. Excavate and place form boards so that board at LINE B is 40mm above the existing top of kerb.
4. Measure back 3.5m from existing channel invert to establish Line A. Excavate and place form boards so that board at LINE A is 90mm above the existing top of kerb.
5. Place required mesh with 40mm top cover.
6. Concrete to be 125 thick and have SL72 mesh as a minimum.
7. Remove existing kerb and channel for width of driveway plus 300mm each side. Provide a 10mm expansion joint at each join.
8. Council Officer is to inspect boxing and reinforcement before concrete is placed, however, Engineers Certification may be required in lieu of this inspection. Telephone 07 54200100 to arrange this inspection. 48hrs notice is required.
9. Concrete strength to be N32 minimum
   Width of invert - 3.6 min.
   - 6.0 max.
10. Crossfall of existing road pavement adjacent to driveway is to be checked. If crossfall exceeds 3%, driveway may have to be redesigned to ensure satisfactory clearance for vehicles.

**RESIDENTIAL AND MULTI-RESIDENTIAL CROSSINGS**
FOR FOOTPATHS LESS THAN 5.0m IN WIDTH

**NOTE:**
Driveways also to be kept clear of stormwater catchpits and LATM devices. These devices will not be moved for driveways.
**METHOD OF CONSTRUCTION**

1. Driveway is to be constructed in two sections with an expansion joint along Line C. Joint to be 10mm wide and filled with mastic.

2. Measure back 400mm from existing channel invert to establish Line C. Excavate and place form boards so that board at LINE C is 110mm above the invert of the kerb and channel.

3. Measure back 1.5m from existing channel invert to establish Line B. Excavate and place form boards so that board at LINE B is 40mm above the existing top of kerb.

4. Measure back 3.5m from existing channel invert to establish Line A. Excavate and place form boards so that board at LINE A is 90mm above the existing top of kerb.

5. Remove existing kerb and channel for width of driveway plus 300mm each side. Provide a 10mm expansion joint at each join.

6. Council Officer is to inspect boxing and reinforcement before concrete is placed however Engineers Certification may be required in lieu of this inspection. Telephone 07 54200100 to arrange this inspection. 48hrs notice is required.

7. The concrete is to conform with the following requirements:
   - Thickness - 150mm
   - Strength - N32 minimum
   - Reinforcing - SLB2 mesh placed with 40mm topcover

8. Crossfall of existing road pavement adjacent to driveway is to be checked. If crossfall exceeds 3%, driveway may have to be redesigned to ensure satisfactory clearance for vehicles.
NOTES:

1. Provide 75mm topsoil and turf to all footpaths and batters up to 1 in 4 slope.
   In areas greater than 1 in 4 slope, grouted stone pitching is required unless otherwise approved by the Manager of Engineering Planning.

2. Extend Sub base class 2.3 min. 150mm behind kerb. 125mm min. depth under kerb and channel.

3. Refer to Caboolture Shire Council, Design and Development Manual for details on appropriate lane widths.

4. Pavement depths to be determined by approved pavement design based on subgrade soil tests. (min. 200mm).

* Kerb invert for set out

2.5m Concrete pathway (Both sides) See Std.Dwg.01-74 for all footpath construction

SCALE N.T.S.

RESIDENTIAL ACCESS

MINOR COLLECTOR

RESIDENTIAL COLLECTOR (with access)

RESIDENTIAL COLLECTOR (without access)
RURAL RESIDENTIAL ACCESS

See Std.Dwg.01-74 for all footpath construction

Primer Seal plus
AC Surfacing 25mm thickness
Sub-soil drainage under all kerb
IPWEAQ Mountable kerb type M3

RURAL RESIDENTIAL MINOR COLLECTOR

See Std.Dwg.01-74 for all footpath construction

Primer Seal plus
AC Surfacing 40mm thickness
Sub-soil drainage under all kerb
IPWEAQ Mountable kerb type M3

RURAL RESIDENTIAL COLLECTOR

NOTES:
Provide 75mm topsoil and turf to all footpaths

Extend Sub base class 2.3 min. 150mm behind kerb.
125mm min. depth under kerb and channel.

Pavement depths to be determined by approved pavement design based on subgrade soil tests. (min. 200mm)

* Kerb invert for set out

SCALE N.T.S.
INDUSTRIAL ACCESS

1.5m Concrete pathway (both sides)
See Std.Dwg.01-74 for all footpath construction

Primer Seal plus
AC Surfacing 40mm thickness

Sub-soil drainage
under all kerb

IPWEAQ
Barrier kerb
type B1

INDUSTRIAL COLLECTOR

NOTES:

Provide 75mm topsoil and turf to all footpaths

Extend Sub base class 2.3 min. 150mm behind kerb.
125mm min. depth under kerb and channel.

Pavement depths to be determined by approved pavement design based on subgrade soil tests. (200mm min. for Industrial Access & 250mm min. for Industrial Collector).

* Kerb invert for set out

SCALE N.T.S.

CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PEOPLE WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTATEMENT OF FACILITIES.

Manager(s)

Engineer

CABOOLTURE SHIRE COUNCIL

CROSS SECTIONS

INDUSTRIAL ACCESS

INDUSTRIAL COLLECTOR

STANDARD DRAWING NO.
01-48 C
Where \((H_2) < 1.0\text{m} \text{ slope} 1:4 \text{ max}\)

\((H_2) > 1.0\text{m} \text{ slope} 1:2 \text{ max**}\)

Table drain invert to be 300mm below subgrade level, except when subsoil drainage is used as per Std.Dwg.01–65.

Water depth not to exceed 300mm from invert to bottom of pavement for a 1 in 5 year A.R.I. storm event.

* A shoulder is to be constructed to full width using base and sub base materials and thickness identical to pavement design. Alternatively subsoil drainage is to be provided as per Std.Dwg.01–65.

** Provide 75mm topsoil and turf or hydromulch to all footpaths and batters up to 1 in 4 slope.

In areas greater than 1 in 4 slope, grouted stone pitching is required unless otherwise approved by the Manager of Engineering Planning.

*** Unless otherwise advised.

NOTES: A safety barrier is to be provided as dictated by A.S. 3845 in particular clause 1.6. also refer Main Roads, Road Design Manual Part B.

Pavement depths to be determined by approved pavement design based on subgrade soil tests. (min. 200mm).

Road is to be located centrally within the Road Reserve.

Formation width may be reduced to 7m for roads serving up to 15 lots.

TYPICAL RURAL ROAD CROSS SECTION

Where \((H_2) < 1.0\text{m} \text{ slope} 1:4 \text{ max}\)

\((H_2) > 1.0\text{m} \text{ slope} 1:2 \text{ max**}\)

Construct concrete pathway similar to Std.Dwg.01–64.

Subsoil drain typical Std.Dwg.01–65.

SCALE N.T.S.

ALTERNATE CUTTING TREATMENT

CABOURTUNE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PEOPLE WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTATEMENT OF FACILITIES.

RURAL ROAD & RURAL RESIDENTIAL (without kerb, No Lot Access.)

CROSS SECTION

STANDARD DRAWING NO. 01-63 D
**TYPICAL CROSS SECTION - STANDARD PATHWAY**

**PATHWAY CONSTRUCTION DETAILS**

<table>
<thead>
<tr>
<th>STANDARD PATHWAY</th>
<th>125mm THICK N32 CONCRETE WITH SL72 REINFORCING</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATHWAYS ADJACENT RESIDENTIAL LOTS CONTAINING EXISTING DWELLINGS AND LANDSCAPING. (DRIVEWAYS MUST USE THE HIGHER STANDARD)</td>
<td>100mm THICK N32 CONCRETE WITH SL62 REINFORCING</td>
</tr>
<tr>
<td>WHERE FOOTPATH CROSSES COMMERCIAL OR INDUSTRIAL DRIVEWAY. (REFER CSC STANDARD DRAWING 01-44)</td>
<td>150mm THICK N32 CONCRETE WITH SL82 REINFORCING</td>
</tr>
<tr>
<td>AC AND GRAVEL PATH LOCATIONS AND DEPTHS TO BE APPROVED BY MANAGER ENGINEERING PLANNING IN LOCATIONS WITHOUT KERB AND CHANNEL</td>
<td>25mm AC ON APPROVED DEPTH CL 2.3 GRAVEL</td>
</tr>
</tbody>
</table>

**NOTES:**

1. Provide tooled joint every 2.5m. Provide Connelly Key Joint or equivalent at all construction joints. Provide 10mm expansion joint at 10m maximum spaces.
2. Expansion joints to be filled with approved filler and provided with 12mm dia. plain galv. dowels at 300 centres with 20mm O.D. greased P.V.C. sleeve and end cap at one end.
3. Expansion joints are to be provided in concrete pathway adjacent to all concrete property crossings and where any variations occur.
4. Ensure Service boxes etc. are modified to finish flush with top of path surface.
5. Pathway grades are to comply with the requirements of AS1428.1 where practical.
6. Pathway widths less than 2.00m are to be approved by the Manager of Engineering Planning.
7. 50mm sand / gravel bedding may be removed, as approved by superintendent.

* TACTILE INDICATORS SHALL BE INSTALLED AS PER AS 1428.4-2002 *

**FOOTPATH CONSTRUCTION INCLUDING ALLOCATION FOR PUBLIC UTILITIES FOR FOOTPATHS LESS THAN 5.0m IN WIDTH**

**REVISIONS**

<table>
<thead>
<tr>
<th>REVISION</th>
<th>DRAWN</th>
<th>DATE</th>
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<tbody>
<tr>
<td>F</td>
<td>J.N.</td>
<td>08/07</td>
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<td>E</td>
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<td>11/05</td>
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<td>D</td>
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**SCALE:** N.T.S

**CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PERSONS WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR RESTATEMENT OF FACILITIES.

**DRAWING NO.:** 01-64  **REV.:** F  **ORIG. SHEET SIZE:** A4

**Design Office Co-Ordinator:** 24/3/07  **Manager:** 24/3/07
Note: Subsoil Drainage Class
Class 1000 subsoil drainage pipes to be used under all sealed surfaces.
Class 400 subsoil drainage pipes can be used under kerb and all other areas.
No geofabric to be placed around pipe.

150mm Min. CL 2.5 gravel shoulder

Trench backfill material shall consist of a nominal 5mm aggregate.
Refer "Table 6—Partial Size Distribution"
Department of Main Road Standard Specification MRS11.22, 12/99

RURAL - Without kerb and channel

Kerb and channel

Trench backfill material shall consist of a nominal 5mm aggregate.
Refer "Table 6—Partial Size Distribution"
Department of Main Road Standard Specification MRS11.22, 12/99

URBAN - With kerb and channel
NOTES:
1. RAISED RETRO-REFLECTIVE PAVEMENT MARKERS ARE TO BE INSTALLED AT 5.0m SPACING.
2. SIGNS AND LINE MARKING ARE TO BE PLACED IN ACCORDANCE WITH THE M.U.T.C.D. & STD.DWG.01-41.

PRECAST SPLITTER ISLAND LAID ON A MORTAR BED, LOCATED WITH GALVANISED DRIVE PINS

10 MORTAR 600
DRIVE PIN

PRE-CAST ISLAND TYPICAL SECTION

CONCRETE SPLITTER ISLAND. SEE TYPICAL SECTION

GIVE WAY LINE TYPE B1

EXISTING KERB FACE

ISLAND LENGTH TO BE MULTIPLES OF 2.0m

HOLDING LINE TYPE A

(ROAD NAME) A

(ROAD NAME) A

* DETAILS TO BE COMPLETED FOR EACH PROJECT

600mm WIDE RAISED CONCRETE SPLITTER ISLAND

SCALE N.T.S.

CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PEOPLE WITH A DISABILITY. PLEASE ENSURE Provision AND/OR REINSTATEMENT OF FACILITIES.

PRECAST SPLITTER ISLAND 600 WIDE.
600 WIDE. FOR EXISTING ROADS ONLY

STANDARD DRAWING NO. 01-68 A
NOTES:
1. RAISED RETRO-REFLECTIVE PAVEMENT MARKERS ARE TO BE INSTALLED AT 5.0m SPACING.
2. SIGNS AND LINE MARKING ARE TO BE PLACED IN ACCORDANCE WITH THE M.U.T.C.D. & STD.DWG.01-41.
3. COLOURING AGENTS TO BE PREVENTED FROM ENTERING STORMWATER.

* DETAILS TO BE COMPLETED FOR EACH PROJECT

1.2m CAST-IN SITU CONCRETE SPLITTER ISLAND

100mm/N25 FULL DEPTH COLOURED STAMPED CONCRETE

HIGH PROFILE MEDIAN KERB IPWEAQ TYPE B5 WITH EXPANSION JOINTS AT 20m MAX. CENTERS MIN. 1 JOINT EACH SIDE OF ISLAND.

EXIST. BITUMEN SURFACE

STAMPED COLOURED INFILL

PRECAST OR CAST INSITU SOLID CONCRETE MEDIAN NOSE GROUTED TO ROAD SURFACE.

SECTIONAL ELEVATION

75mm BEDDING SAND

Ø12/300 GALV. DOWELS CAST INTO MEDIAN NOSE. ONE END OF DOWEL TO BE SLEEVED TO ALLOW EXPANSION.

EXPANSION JOINT BETWEEN NOSE AND INFILL/KERBS.

SCALE N.T.S.

TYPICAL SECTION THOUGH TRAFFIC ISLAND

CAST-IN SITU SPLITTER ISLAND
1.2m WIDE

CASTED IN SITU GRADES AND SURFACES FACILITIES AND ACCESS FOR PEOPLE WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTATEMENT OF FACILITIES.

CASTED IN SITU GRADES AND SURFACES FACILITIES AND ACCESS FOR PEOPLE WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTATEMENT OF FACILITIES.
NOTES:—
1. RAISED RETRO-REFLECTIVE PAVEMENT MARKERS ARE TO BE INSTALLED AT 5.0m SPACING.
2. LINE MARKING TO BE IN ACCORDANCE WITH THE M.U.T.C.D. & C.S.C. STD.DWG.01-41

EXISTING KERB FACE

*(ROAD NAME)*

HOLDING LINE TYPE A

R0.45

GIVE WAY LINE TYPE B1

EXISTING KERB FACE

600mm LONG RUBBER SAFETY BARS

*(ROAD NAME)*

* DETAILS TO BE COMPLETED FOR EACH PROJECT

RUBBER SAFETY BAR SPLITTER ISLAND

SCALE N.T.S.

CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PEOPLE WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTATEMENT OF FACILITIES.

RUBBER SAFETY BAR SPLITTER ISLAND FOR EXISTING ROADS ONLY

08/03 01-70 A
**RESIDENTIAL AND MULTI-RESIDENTIAL CROSSINGS**

**FOR FOOTPATHS 5.0m OR GREATER IN WIDTH**

**METHOD OF CONSTRUCTION**

1. Driveway is to be constructed in two sections with an expansion joint along Line C. Joint to be 10mm wide and filled with mastic.
2. Measure back 400mm from existing channel invert to establish Line C. Excavate and place form boards so that board at LINE C is 110mm above the invert of the kerb and channel.
3. Measure back 1.5m from existing channel invert to establish Line B. Excavate and place form boards so that board at LINE B is 40mm above the existing top of kerb.
4. Measure back 4.0m from existing channel invert to establish Line A. Excavate and place form boards so that board at LINE A is 100mm above the existing top of kerb.
5. Place required mesh with 40mm top cover.
6. Concrete to be 125 thick and have SL72 mesh as a minimum.
7. Grade invert to match levels of channel at both ends.
8. Kerb and channel to be saw cut at each end and broken out over this area to allow crossing to be constructed.
9. Provide 1 in 10 batter from driveway to natural surface level.
10. Kerb and channel to be saw cut at each end and broken out for all kerb types.
11. Remove existing kerb and channel for width of driveway plus 300mm each side. Provide a 10mm expansion joint at each join.
12. Council Officer is to inspect boxing and reinforcement before concrete is placed, however, Engineers Certification may be required in lieu of this inspection. Telephone 07 54200100 to arrange this inspection. 48hrs notice is required.
13. Concrete strength to be N32 minimum Width of invert ~ 3.8 min.
14. Crossfall exceeds 3%, driveway may have to be redesigned to ensure satisfactory clearance for vehicles.

**CROSS SECTION**

Provide minimum 50mm depth of gravel or sand fill beneath concrete. Place 100mm (min.) of compacted C.L. 2.5 gravel.

**DIAGRAM**

NOTE:

Driveways also to be kept clear of stormwater catchpits and LATM devices. These devices will not be moved for driveways.
**METHOD OF CONSTRUCTION**

1. Driveway to be constructed in two sections with an expansion joint along Line C. Joint to be 10mm wide and filled with mastic.
2. Measure back 400mm from existing channel invert to establish Line C. Excavate and place form boards so that board at LINE C is 110mm above the invert of the kerb and channel.
3. Measure back 1.5m from existing channel invert to establish Line B. Excavate and place form boards so that board at LINE B is 40mm above the existing top of kerb.
4. Measure back 4.0m from existing channel invert to establish Line A. Excavate and place form boards so that board at LINE A is 90mm above the existing top of kerb.
5. Remove existing kerb and channel for width of driveway plus 300mm each side. Provide a 10mm expansion joint at each joint.
6. Council Officer is to inspect boxing and reinforcement before concrete is placed however Engineers Certification may be required in lieu of this inspection. Telephone 07 54200100 to arrange this inspection. 48hrs. notice is required.
7. The concrete is to conform with the following requirements:
   - **Thickness**: 150mm
   - **Strength**: N32 minimum
   - **Reinforcing**: SL82 mesh placed with 40mm topcover
8. Crossfall of existing road pavement adjacent to driveway is to be checked. If crossfall exceeds 3%, driveway may have to be redesigned to ensure satisfactory clearance for vehicles.

**NOTE:**
Driway also to be kept clear of stormwater catchpits and LATM devices. These devices will not be moved for driveways.

---

**INDUSTRIAL CROSSING / INVERT**

**FOR FOOTPATHS 5.0m OR GREATER IN WIDTH**

---

**SCALE: N.T.S**

---

**FOR EXISTING CHANNEL INVERT:**

- Drive for directly over invert
- Kerb and channel to be saw cut at each end and broken over this area to allow crossing to be constructed.
- Provide 1 in 10 batter from driveway to natural surface level.

---

**CROSS SECTION**

- Provide minimum 50mm depth of gravel or sand fill beneath concrete.
- 150mm reinforced concrete SL82 mesh
- Place 100mm (min.) of compacted C.L. 2.5 gravel.
- Kerb and channel to be saw cut at each end and broken out for all kerb types.

---

**DIAGRAM**

- T.P. = Tangent point of kerb return.
- Prohibited locations shown by heavy line as per AS 2890.1

---
### TYPICAL CROSS SECTION - STANDARD PATHWAY

**PATHWAY CONSTRUCTION DETAILS**

<table>
<thead>
<tr>
<th>Pathway Type</th>
<th>Thickness</th>
<th>Concrete Type</th>
<th>Reinforcing</th>
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<td>Standard Pathway</td>
<td>125mm N32 CONCRETE</td>
<td>SL72</td>
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<td>Pathways adjacent to residential lots containing existing dwellings and landscaping. (Driveways must use the higher standard)</td>
<td>100mm N32 CONCRETE</td>
<td>SL52</td>
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<td>Where footpath crosses commercial or industrial driveway. (Refer CSC Standard Drawing 01-44)</td>
<td>150mm N32 CONCRETE</td>
<td>SL52</td>
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<td>AC and gravel path locations and depths to be approved by Manager Engineering Planning in locations without kerb and channel</td>
<td>25mm AC</td>
<td>APPROVED DEPTH CL 2.3</td>
<td>Gravel</td>
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</table>

**NOTES:**

1. Provide tooled joint every 2.5m. Provide Connolly Key Joint or equivalent at all construction joints. Provide 10mm expansion joint at 10m maximum spacing.
2. Expansion joints to be filled with approved filler and provided with 12mm dia. plain galv. dowels at 300 centres with 20mm O.D. greased P.V.C. sleeve and end cap at one end.
3. Expansion joints are to be provided in concrete pathway adjacent to all concrete property crossings and where any variations occur.
4. Ensure Service boxes etc. are modified to finish flush with top of path surface.
5. Pathway grades are to comply with the requirements of AS1428.1 where practical.
6. Pathway widths less than 2.0m are to be approved by the Manager of Engineering Planning.
7. 50mm sand / gravel bedding may be removed, as approved by superintendent.

**TACTILE INDICATORS SHALL BE INSTALLED AS PER AS 1428.4 - 2002**

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**FOOTPATH CONSTRUCTION INCLUDING ALLOCATION FOR PUBLIC UTILITIES FOR FOOTPATHS 5.0m OR GREATER IN WIDTH**

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**SCALE: N.T.S**

CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PERSONS WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTALLMENT OF FACILITIES.
NOTE: KERB RAMPS MUST ALWAYS FACE THE OPPOSITE KERB RAMP.

THIS STANDARD HAS BEEN PREPARED IN ACCORDANCE WITH THE INTENT OF THE CABOOLTURE SHIRE COUNCIL GUIDELINES FOR ACCESSIBILITY (FEBRUARY 2002)

SCALE: 1:500

CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PERSONS WITH A DISABILITY, PLEASE ENSURE PROVISION AND/ OR REINSTATEMENT OF FACILITIES.

APPROVED KERB RAMP LOCATIONS & CONFIGURATION

SHORT LEG
Length determined by 45° angle as shown.

LONG LEG
Length TO EQUAL Y FROM SHORT LEG

RECOMMENDED LENGTH OF TRANSITION.
REFLECTIVE PAINT TO BE APPLIED TO KERB.

BITUMEN SURFACE

VARIES (Min. 500mm)

125mm / N25
FULL DEPTH COLOURED STAMPED CONCRETE INFILL WITH F82 MESH

12mm COMPRESSIBLE FILLER BETWEEN KERB & CONCRETE BOTH SIDES. FORM 12mm EXPANSION JOINTS AT 3m INTERVALS IN INFILL CONCRETE

M6 KERB AS PER IPWEAQ STD. DWG. RO080. EXPANSION JOINTS AT 20m MAX. CENTERS MIN. 1 JOINT EACH SIDE OF ISLAND.

SECTIONAL ELEVATION
SCALE 1:10

Ø12/300 GALV. DOWELS @ 500mm CENTRES. ONE END OF DOWEL TO BE SLEEVED TO ALLOW EXPANSION.

FULL DEPTH COLOURED STAMPED CONCRETE INFILL

12mm COMPRESSIBLE FILLER BETWEEN NOSE AND INFILL/KERBS

Ø12/300 GALV. DOWELS @ 500mm CENTRES. ONE END OF DOWEL TO BE SLEEVED TO ALLOW EXPANSION.

PRECAST OR CAST IN SITU SOLID CONCRETE MEDIAN NOSE GROUTED TO ROAD SURFACE.

PLAN
SCALE 1:10

MOUNTABLE TRAFFIC ISLAND

CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PERSONS WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTATEMENT OF FACILITIES.

CABOOLTURE SHIRE COUNCIL

REVISIONS DRAWN DATE

01-76

ORIGINAL ISSUE

DRAWING No.

DATE:

FIELD BOOK
LEVEL BOOK
JOB FILE
SURVEY FILE

Manager Engineer Co-ordinator Designed

Road No.
TYPICAL TIMBER BOLLARD LAYOUT

6MM CHAMFER

Φ150 HARDWOOD TIMBER BOLLARD

EXISTING SURFACE LEVEL

CONCRETE SURROUND TO SLOPE DOWN FROM POST 25mm

CONCRETE N25

GRAVEL 10 – 20Ø

150Ø TREATED TIMBER BOLLARDS

REMOVABLE ACCESS BOLLARD (REFER STD DWG 01–79 FOR DETAILS)

MANTENANCE BAY ENTRY

CENTRES

SCALE: N.T.S.

CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PERSONS WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTATEMENT OF FACILITIES.
BOLLARD HAS 6mm CHAMFER AROUND EXTERNAL EDGE

BOLLARD Ø125
M/GALV STEEL PIPE

SEE DETAIL FOR LOCK BRACKET DIMENSIONS

STOP RING TO BE WELDED TO BOLLARD. 12mm WIDE AND 6mm THICK

REFER NOTE 2 FOR INFORMATION ON SPACERS (3 OFF)

M/GALV STEEL PIPE 150Ø SLEEVE

CONCRETE N25

GRAVEL 10–20Ø

SECTIONAL VIEW

SIDE VIEW

NOTES:
1. ACCESS BOLLARD 125Ø STEEL, 900mm LONG.
2. SPACERS (3 OFF) 6PL 250mm LONG, WELDED TO BOLLARD FOR UPRIGHT SUPPORT.
3. BOLLARDS APPROX 18KG’s EACH.
4. HINGE FOR THE LOCK BRACKET TO BE SPECIFIED BY DESIGNER TO SUIT CONDITIONS OF INSTALLATION.
5. ALL HOT DIPPED GALVANISED AFTER FABRICATION
6. FOR PLACEMENT DETAILS AND STANDARD BOLLARD SEE STANDARD DRAWING 01–78
7. TIMBER BOLLARD MAY BE USED INSTEAD OF GALV BOLLARD IF APPROVED

DETAILED

HINGE (REFER NOTE 4)
AC SURFACING FOR ACCESS ROADS (25mm MIN) AND COLLECTORS BCC MIX TYPE 2 (40mm MIN) COMPACTION 92%

DOS PRIOR TO SURFACING <65%

AC SURFACING OTHER ROADS DMR DG10 (MIN 40mm) COMPACTION CV >92%

TYPE 2.1 MIN 102% STANDARD BASE

TYPE 2.3 MIN 100% STANDARD UPPER SUB BASE#

TYPE 2.5 MIN 100% STANDARD LOWER SUBBASE

MIN 100% STANDARD SUBGRADE

STABILISED PAVEMENT 100% STANDARD

# WHERE A SINGLE SUBBASE LAYER IS NOMINATED, TYPE 2.3 MATERIAL SHALL BE UTILISED

ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MAIN ROADS SPECIFICATIONS FOR ROADWORKS WITH THE EXCEPTION OF ASPHALT SURFACING FOR ACCESS AND COLLECTOR ROADS WHICH SHALL BE IN ACCORDANCE WITH BRISBANE CITY COUNCIL SPECIFICATIONS 5310 (SUPPLY OF DENSE GRADED ASPHALT) AND 5320 (LAYING OF ASPHALT)


CV = CHARACTERISTICS VALUE
DOS = DEGREE OF SATURATION FOR BASE (FINAL) LAYER

AS ABOVE
BACK FILL COMPACTION 100% STANDARD
GRAVEL (MIN. CBR15) BACKFILL
SAND BACK FILL
PIPE OR BOX CULVERT
COMPACTED SAND BEDDING
UNCOMPACTED SAND BEDDING D/3

ROAD CONSTRUCTION CRITERIA
TYPICAL CROSS SECTION

SCALE: 1:1000
CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PERSONS WITH A DISABILITY, PLEASE ENSURE PROVISION AND/OR REINSTATEMENT OF FACILITIES.

REVISIONS DRAWN DATE

CABOOLTURE SHIRE COUNCIL
A CONSTRUCTION CRITERIA CHANGES J.N. 16-08-07

ORIGINAL ISSUE J.N. 11-05-05

DRAWING No. REV.

01-83 A

ORIGINAL SHEET SIZE
A4

15/08/2007 10:59:00 AM
PLAN

SECTION C
ON GRADE CONFIGURATION

SECTION A

SCALE N.T.S.

CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PEOPLE WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REINSTATEDMENT OF FACILITIES.

BACK ENTRY CATCH PIT WITH PRECAST EXTENDED KERB INLET (on grade conditions)

NOTES:
1. Dimensions of pit to suit precast components and may vary to suit manufacturers.
2. For barrier kerb the precast lintel is to be aligned with face of kerb.
3. Concrete N32 in accordance with AS 1379 and AS 3600.

02-11 C
Access Chamber Cast Iron Cover (Class D) and Frame as per IPWEAQ Dwg. D-0014

Precast surround

Precast Lintel as per IPWEAQ Dwg. D-0051 (Length to be shown on Project.)

PLAN

For areas west of the Bruce Highway the following text is to be imprinted in the lintel with associated approved artwork.

PROTECT OUR WATERWAYS—FLOWS TO CREEK

For areas east of the Bruce Highway the following text is to be imprinted in the lintel with associated approved artwork.

PROTECT OUR WATERWAYS—FLOWS TO BAY

Text to be 40mm high letters imprinted 5mm into concrete. Artwork to be a minimum of 200mm in length and imprinted 5mm into concrete.

SECTION C

Sag point configuration

Ø100 uPVC stub for side drain connections to front and both sides, with geofabric filter plugs

SECTION B

NOTES:
1. Dimensions of pit to suit precast components and may vary to suit manufacturers.
2. For barrier kerb the precast lintel is to be aligned with face of kerb.
3. Concrete N32 in accordance with AS 1379 and AS 3600.

SECTION A

Level below kerb to be determined from pre-cast components used

Benching as Necessary

Invert level as specified

Scale N.T.S.

Caboolture Shire Supports Facilities and Access for People with a Disability. Please ensure provision and/or reinstatement of facilities.

BACK ENTRY CATCH PIT WITH PRECAST EXTENDED KERB INLET (sag condition)

Date

08/04 12/03 05/03 05/09

Revision

Various Changes Various Changes Various Changes

Standard Drawing No.

02-18 C
Provide log barrier fence
Refer IPWEAQ Dwg.G-0042
or equivalent

N/12mm dia. bars evenly spaced

PLAN
MULTIPLE PIPES

ELEVATION
MULTIPLE PIPES

SECTION A-A

NOTES:
1. Concrete to be Class N20.
2. Reinforcing to be plain steel reinforcing bars in accordance with AS 1302 for structural grade steel. Clear cover to be 50mm minimum.
3. Weepholes at 1200 crs maximum. No fines concrete block 300x300x150 at each weephole.
4. SP dimension for multiple R.C. Pipes for any method of laying is:
   - 300 for D = 600 or less
   - 600 for D greater than 600
5. Taper from downstream end of concrete apron to match concrete lined open drain, where applicable.

Use 375mm dia. dimensions for 300mm dia.

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Use 375mm dia. dimensions for 300mm dia.

CABOOLTURE SHIRE SUPPORTS FACILITIES AND ACCESS FOR PEOPLE WITH A DISABILITY. PLEASE ENSURE PROVISION AND/OR REESTABLISHMENT OF FACILITIES.
NOTES:
1. For Wingwall and Headwall details and reinforcement, refer MRD Std Drg 1303.
2. For Apron details and reinforcement, refer MRD Std Drg 1318 (Type 3 Apron).
3. Concrete to be Class N32/20.
4. All cover to reinforcement to be 50mm min.
5. Cover in aggressive environments refer MRD Std Drg 1303.
6. All sections to be grade 300 and all bar to be grade 400.
7. All welds to conform to AS1554 and be 5mm continuous fillet welds unless otherwise noted.
8. All steelwork to be hot dip galvanised after fabrication to AS1560.
9. All nuts, bolts and washers to be stainless steel grade 316, with isolation washers.
10. Refer to MRD Standards for safe distances to carriageways.

SECTION A-A
Reinforcement omitted for clarity

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These drawings have been developed in consultation between the participating councils.
BEFORE USE, the user shall confirm that the drawing has been adopted by the appropriate council.