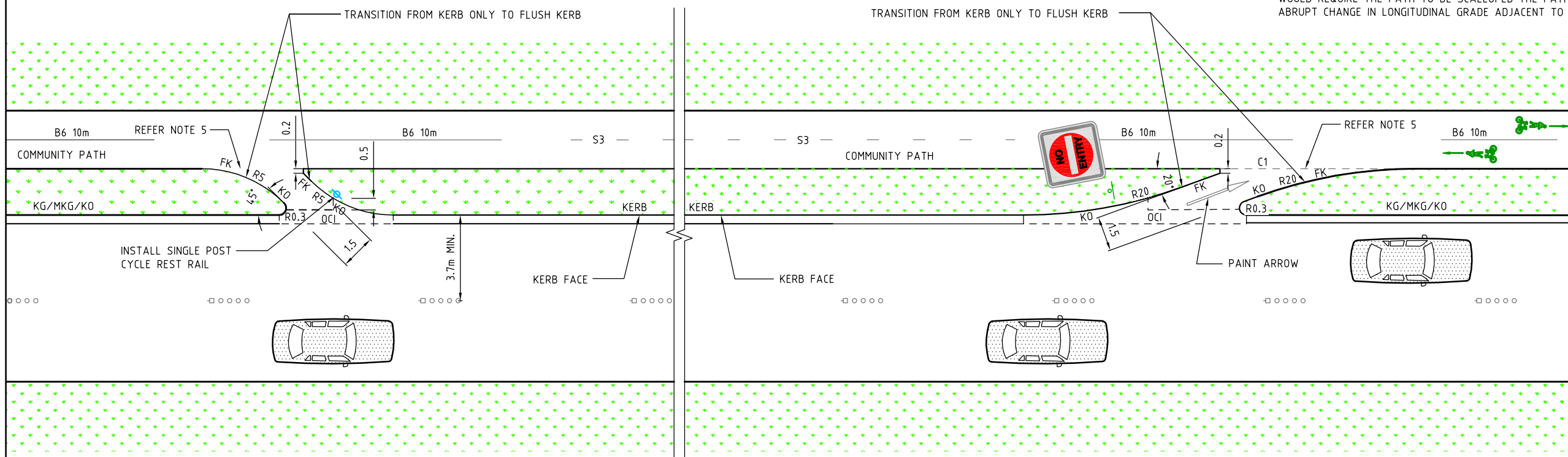


### ARTERIAL ROAD OFF TO ON ROAD CONNECTION DETAILS

#### NOTES

- 1/ TREATMENTS SHOWN ARE GENERALLY FOR MAIN ROUTES ONLY.
- 2/ THE LONGITUDINAL GRADIENT OF OFF TO ON ROAD CYCLE RAMP ON ARTERIAL ROADS SHOULD BE CONSTRUCTED TO AVOID AN ABRUPT CHANGE OF GRADE IN EXCESS OF 5% AND IN GENERAL THE LONGITUDINAL GRADIENT SHOULD NOT EXCEED 6.6% WITH A 2% NOM. CROSSFALL.
- 3/ THE GRADIENT OF OFF TO ON ROAD CYCLE RAMP ON LOW VOLUME / SPEED ROADS SHOULD IN GENERAL NOT EXCEED 10% WITH A 2% NOM. CROSSFALL.
- 4/ WHERE PRACTICABLE AND WHERE VISIBILITY PERMITS SIGNS SHALL BE ERECTED ON LIGHT COLUMNS OR EXISTING POSTS.
- 5/ WHERE THE ADJACENT PATH IS IN CLOSE PROXIMITY TO THE ROAD EDGE AND DIFFERENCE IN LEVELS WOULD REQUIRE THE PATH TO BE SCALLOPED THE PATH IS TO BE REALIGNED TO AVOID ANY ABRUPT CHANGE IN LONGITUDINAL GRADE ADJACENT TO THE RAMP CONNECTION.



### LOW VOLUME / SPEED ROAD <70KM/H OFF TO ON ROAD CONNECTION DETAILS

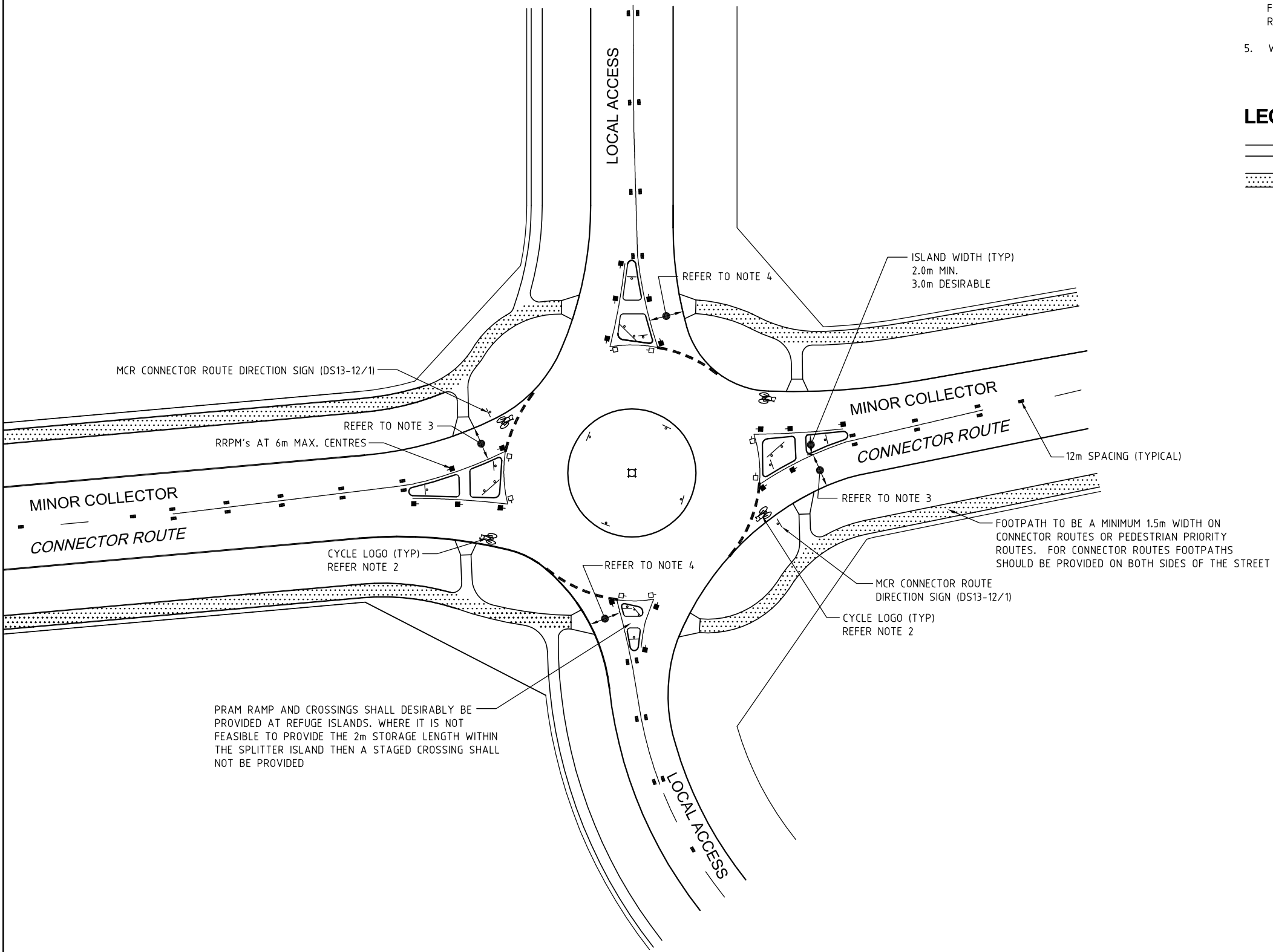
 	
<b>DESIGN STANDARD URBAN INFRASTRUCTURE</b>	
Authorised Signature	
Drawn Geoff Farrar	Date 16/03/2011
Project Engineer Tony Gill	Date 16/03/2011
<b>ON TO OFF ROAD PATH CONNECTION DETAILS</b>	
Scale 1:40, 1:200 @ A3	Date 30 MARCH 2011
AutoCAD File DS13-05.DWG	
Latest Revision Details Open ended bicycle lane added for on to off-road connection Pedestrian and cycle pavement markers added to community path at on to off-road connections	
Drawing No. DS13-05	Revision A

**NOTES**

1. FOR DETAILS OF LINEMARKING AND SIGNAGE REFER TO DS9-24.
2. FOR IDENTIFIED MAIN COMMUNITY ROUTES CYCLE LOGOS ARE TO BE INSTALLED ON THE ENTRY AND EXIT OF THE ROUNDABOUT AND AT 200m MAX. CENTRES.
3. THE SWEEP PATH OF THE DESIGN VEHICLE SHOULD BE CHECKED AND IF REQUIRED THE MINIMUM WIDTH SPECIFIED SHOULD BE INCREASED.
4. THE ENTRY WIDTH IS SUBJECT TO DESIGN VEHICLE SWEEP PATH REQUIREMENTS. ENTRY WIDTHS FROM LOCAL ACCESS STREETS SHOULD BE 3.0m OR LESS OR IF REQUIRED BY SWEEP PATH REQUIREMENTS GREATER THAN 3.7m.
5. WHERE PRACTICABLE AND WHERE VISIBILITY PERMITS SIGNS SHALL BE ERECTED ON LIGHT COLUMNS OR EXISTING POSTS.

**LEGEND**

- 1.2m WIDE PATH
- 1.5m WIDE PATH



**DESIGN STANDARD  
URBAN INFRASTRUCTURE**

Authorised Signature	
Drawn	Date
Geoff Farrar	03/08/2010
Project Engineer	Date
Tony Gill	03/08/2010

**SINGLE LANE  
ROUNDABOUT  
TREATMENT  
(50KM/H OR LESS)**

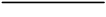

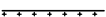

Scale	Date
NTS	30 MARCH 2011

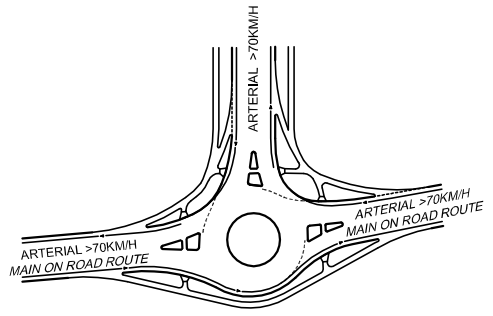
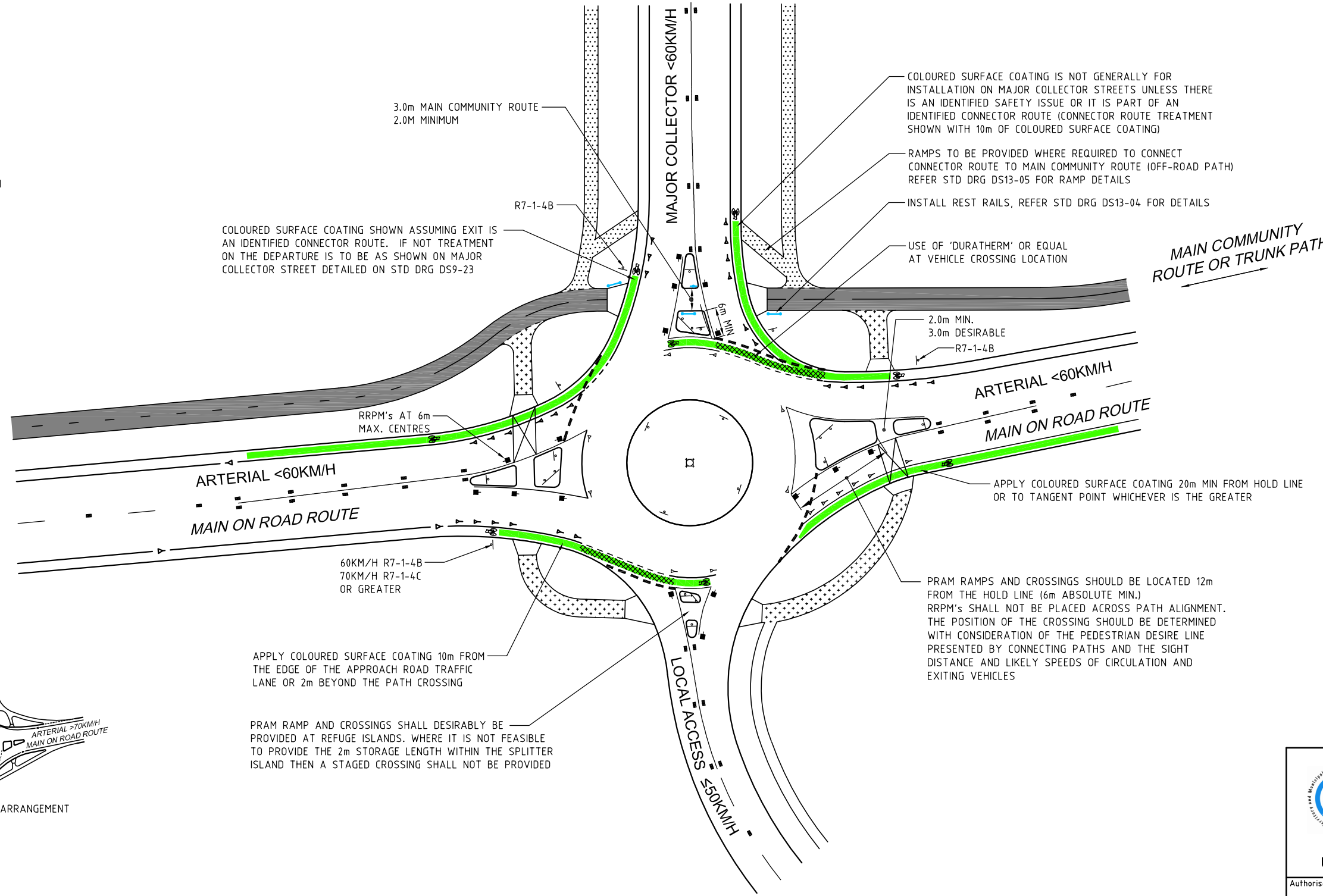
AutoCAD File  
DS13-07.DWG

Latest Revision Details  
FIRST EDITION

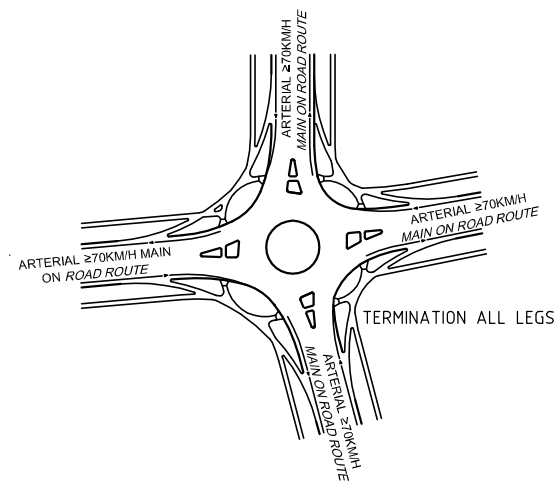
Drawing No.	Revision
DS13-07	

**LEGEND**

-  1.2m WIDE PATH
-  1.5m WIDE PATH
-  2.0m WIDE PATH
-  ≥ 2.5m WIDE PATH



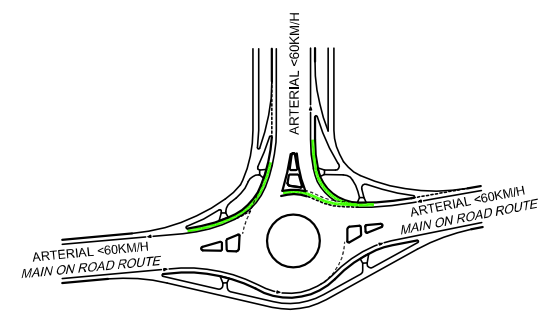
TYPICAL BYPASS PATH ARRANGEMENT



INTERSECTION OF ARTERIAL ROADS

**NOTES**

1. FOR DETAILS OF LINEMARKING AND SIGNAGE REFER TO DS9-23 AND DS9-24 AS APPROPRIATE
2. REFER AUSTRROADS GUIDE TO ROAD DESIGN 4B: ROUNDABOUTS FOR ENTRY DEFLECTION AND OTHER DESIGN REQUIREMENTS.
3. UNI DIRECTIONAL RED RRPM'S ARE TO BE INSTALLED AT 2m CENTRES ON BICYCLE LANE APPROACHES AND DEPARTURES.
4. WHERE PRACTICABLE AND WHERE VISIBILITY PERMITS SIGNS SHALL BE ERECTED ON LIGHT COLUMNS OR EXISTING POSTS.

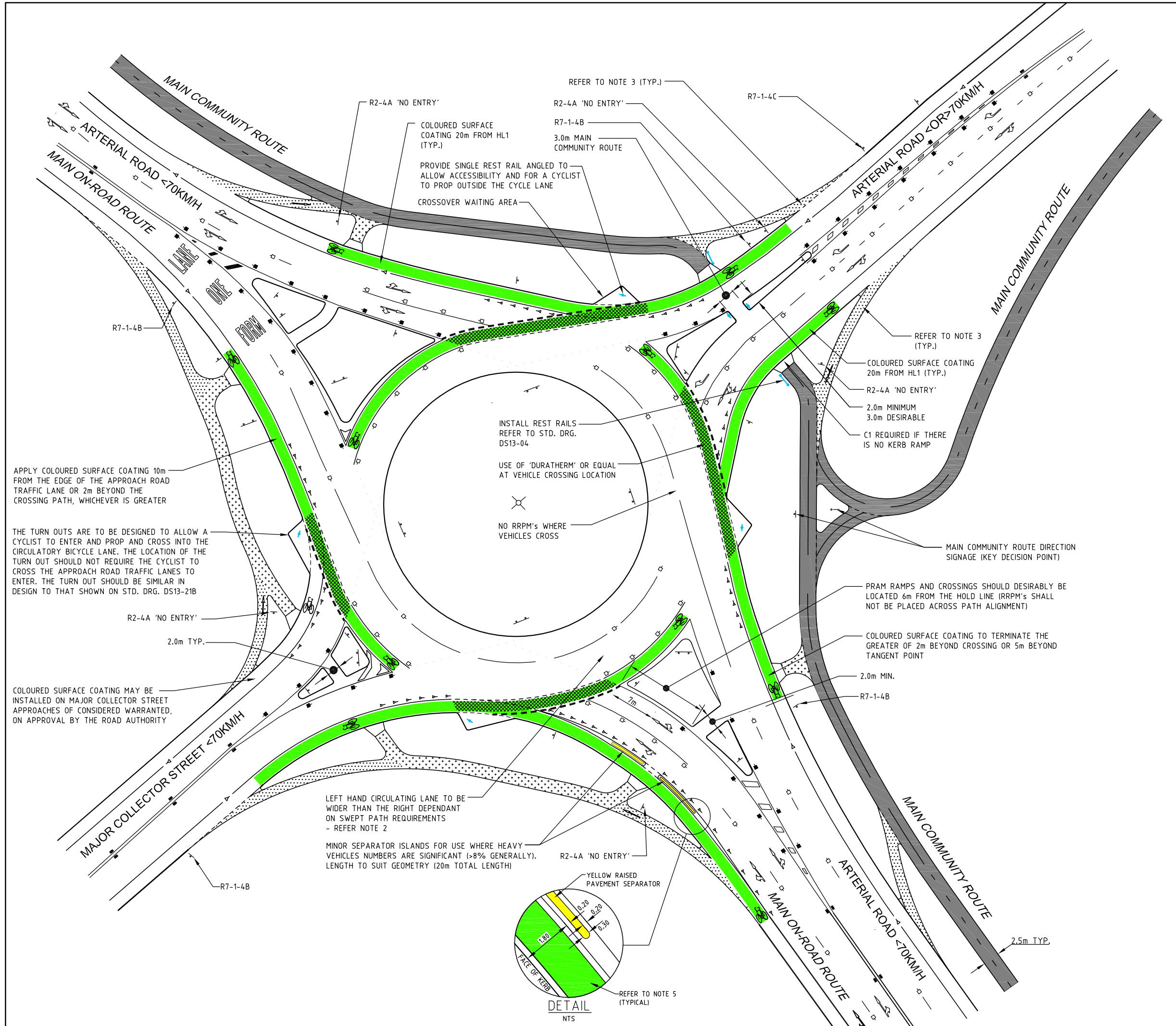


TYPICAL BYPASS PATH ARRANGEMENT

**50KM/H - 60KM/H TREATMENTS**

**≥ 70KM/H TREATMENTS REFER NOTES**

 <p><b>ACT GOVERNMENT</b></p> <p><b>DESIGN STANDARD URBAN INFRASTRUCTURE</b></p>	
Authorised Signature	
Drawn Geoff Farrar	Date 16/03/2011
Project Engineer Tony Gill	Date 16/03/2011
<p><b>SINGLE LANE ROUNDABOUT TREATMENT (&gt;50KM/H)</b></p>	
Scale NTS	Date 30 MARCH 2011
AutoCAD File DS13-08.DWG	
Latest Revision Details FIRST ISSUE	
Drawing No. DS13-08	Revision



**NOTES**

1. REFER TO DS9-02 & 03 FOR LINEMARKING DETAILS.
2. REFER AUSTRROADS GUIDE TO ROAD DESIGN 4B: ROUNDABOUTS FOR ENTRY DEFLECTION AND OTHER DESIGN REQUIREMENTS.
3. CYCLE RAMPS ARE TO BE IN ACCORDANCE WITH STD. DRG. DS13-05.
4. UNI DIRECTIONAL RED RRPM'S ARE TO BE INSTALLED AT 2m CENTRES MINIMUM ON BICYCLE LANE APPROACHES AND DEPARTURES FOR A LENGTH OF 10m.
5. FOR DETAILS OF TYPICAL COLOURED CYCLE LANE TREATMENT REFER TO STD. DRG. DS13-21.

**LEGEND**

- 1.2m WIDE PATH
- 1.5m WIDE PATH
- 2.0m WIDE PATH
- ≥ 2.5m WIDE PATH

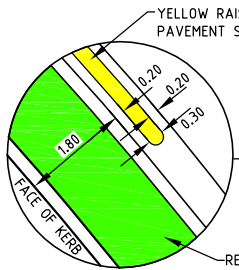
APPLY COLOURED SURFACE COATING 10m FROM THE EDGE OF THE APPROACH ROAD TRAFFIC LANE OR 2m BEYOND THE CROSSING PATH, WHICHEVER IS GREATER

THE TURN OUTS ARE TO BE DESIGNED TO ALLOW A CYCLIST TO ENTER AND PROP AND CROSS INTO THE CIRCULATORY BICYCLE LANE. THE LOCATION OF THE TURN OUT SHOULD NOT REQUIRE THE CYCLIST TO CROSS THE APPROACH ROAD TRAFFIC LANES TO ENTER. THE TURN OUT SHOULD BE SIMILAR IN DESIGN TO THAT SHOWN ON STD. DRG. DS13-21B

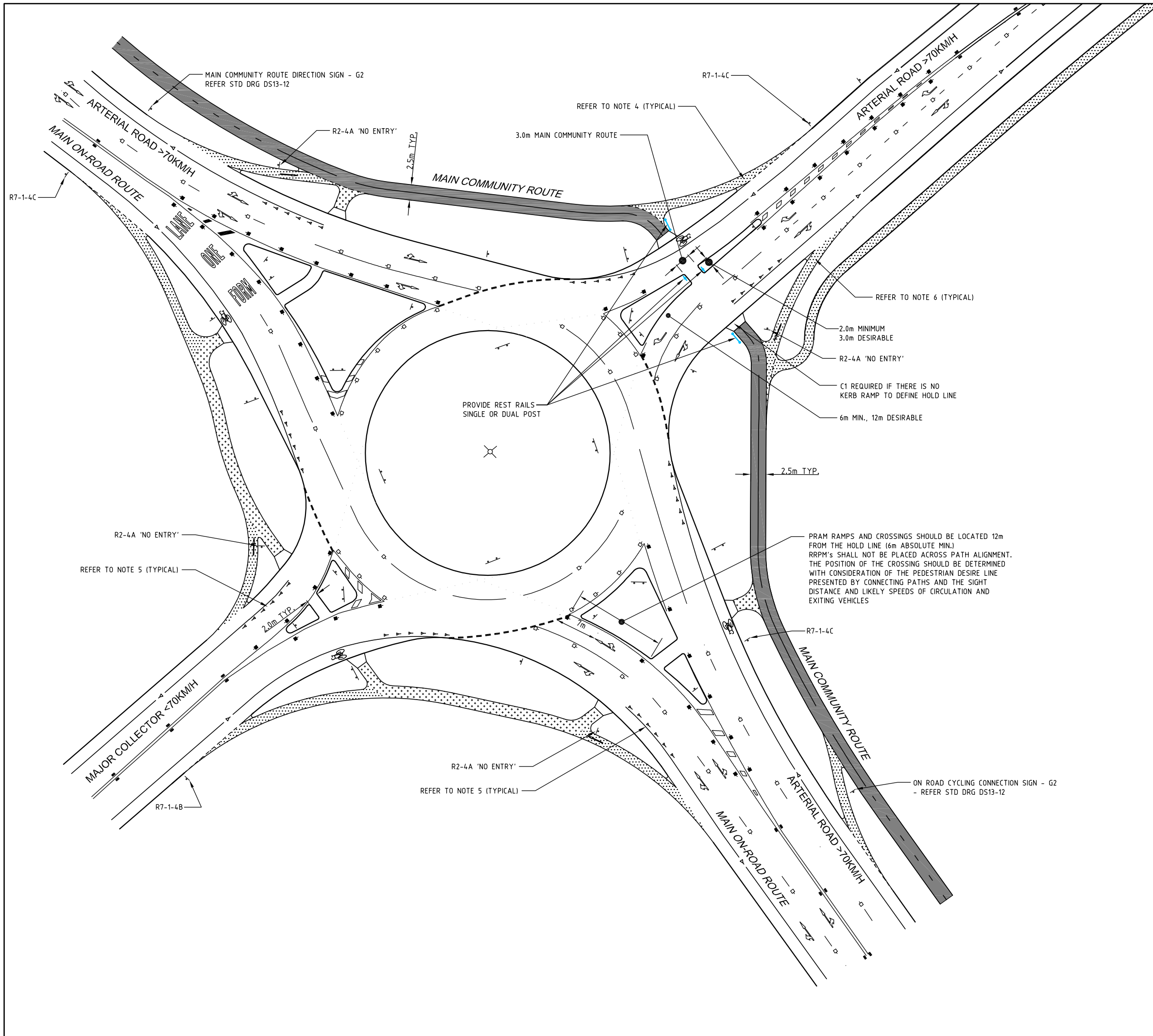
COLOURED SURFACE COATING MAY BE INSTALLED ON MAJOR COLLECTOR STREET APPROACHES OF CONSIDERED WARRANTED, ON APPROVAL BY THE ROAD AUTHORITY

LEFT HAND CIRCULATING LANE TO BE WIDER THAN THE RIGHT DEPENDANT ON SWEEP PATH REQUIREMENTS - REFER NOTE 2

MINOR SEPARATOR ISLANDS FOR USE WHERE HEAVY VEHICLES NUMBERS ARE SIGNIFICANT (>8% GENERALLY). LENGTH TO SUIT GEOMETRY (20m TOTAL LENGTH)



<b>DESIGN STANDARD URBAN INFRASTRUCTURE</b>	
Authorised Signature _____	
Drawn Geoff Farrar	Date 16/03/2011
Project Engineer Tony Gill	Date 16/03/2011
<b>TWO LANE ROUNDABOUT TREATMENT (60KM/H)</b>	
Scale NTS	Date 30 MARCH 2011
AutoCAD File DS13-09.DWG	
Latest Revision Details FIRST EDITION	
Drawing No. DS13-09	Revision





**NOTES**

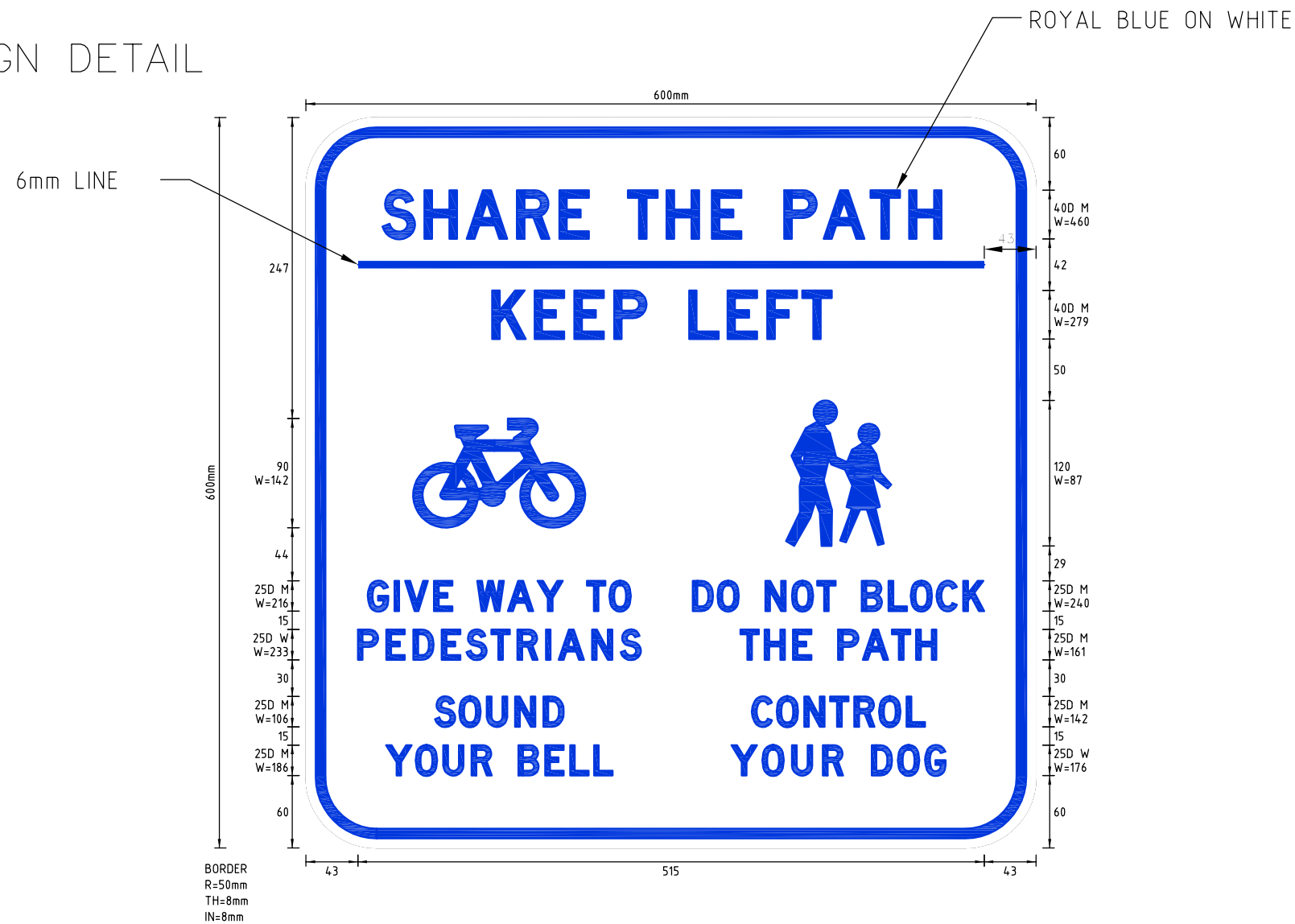
1. REFER TO DS9-01 FOR LINEMARKING DETAILS.
2. REFER AUSTRROADS GUIDE TO ROAD DESIGN 4B: ROUNDABOUTS FOR ENTRY DEFLECTION AND OTHER DESIGN REQUIREMENTS.
3. ON APPROACHES TO A ROUNDABOUT WHERE THE BICYCLE LANE IS TO BE TERMINATED THE BICYCLE LANE IS TO BE EXTENDED PAST THE ON TO OFF-ROAD CONNECTION TO TERMINATE AS AN OPEN ENDED LANE WITH MINIMUM 1.5m WIDTH AT OR NEAR TO THE PATH CROSSING POINT.
4. CYCLE RAMPS ARE TO BE IN ACCORDANCE WITH STD. DRG. DS13-05.
5. UNI DIRECTIONAL RED RRPM'S ARE TO BE INSTALLED AT 2m CENTRES FOR A MINIMUM 10m ON BICYCLE LANE APPROACHES AND DEPARTURES.

**LEGEND**

	1.2m WIDE PATH
	1.5m WIDE PATH
	2.0m WIDE PATH
	≥ 2.5m WIDE PATH



 <b>ACT GOVERNMENT</b> 	
<b>DESIGN STANDARD URBAN INFRASTRUCTURE</b>	
Authorised Signature _____	
Drawn Geoff Farrar	Date 16/03/2011
Project Engineer Tony Gill	Date 16/03/2011
<b>TWO LANE ROUNDABOUT TREATMENTS (≥ 70KM/H)</b>	
Scale NTS	Date 30 MARCH 2011
AutoCAD File DS13-10.DWG	
FIRST EDITION	
Drawing No. DS13-10	Revision

SIGN DETAIL  
1:5



NOTES:

1. DS13/15-1 SIGNS ARE TO BE INSTALLED IN PAIRS AT GENERALLY 500m TO 1km SPACING ON MAIN COMMUNITY ROUTES ONLY. THE SIGN MAY BE INSTALLED ON OTHER PATHS TO ADDRESS REPORTED BEHAVIOURAL ISSUES ON APPROVAL FROM THE ROAD AUTHORITY.
2. AT MAIN INFLOW POINTS OF PEOPLE ONTO AN MCR THE SIGN SHOULD BE INSTALLED TO ADDRESS PEOPLE TRAVELLING IN EITHER DIRECTION ON THE MCR. THIS MAY REQUIRE A SPLIT INSTALLATION OF SIGNAGE.
3. THE SIGN IS TO BE INSTALLED UTILISING EXISTING POLES SUCH AS LIGHT POLES WHEREVER POSSIBLE. THE SIGN MAY ALSO BE INSTALLED TO SHARE A POLE WITH PAIRED SINGLE SIGN INSTALLATIONS SUCH AS "ROAD AHEAD" SIGNS.

 <b>ACT GOVERNMENT</b>	
 <b>DESIGN STANDARD URBAN INFRASTRUCTURE</b>	
Authorised Signature	
Drawn Rod Mertin	Date 16/03/2011
Project Engineer Tony Gill	Date 16/03/2011
<b>SHARE THE PATH SIGNAGE</b>	
Scale 1:5	Date 30 MARCH 2011
AutoCAD File DS13-15.DWG	
FIRST EDITION	
Drawing No. DS13-15	Revision