

Debra Weeks

From: Michael Pattinson
Sent: Monday, 23 May 2022 2:42 PM
To: Tracey Noonan
Cc: Muhammad Akbar; John Frew
Subject: FW: report on barriers in cycleways
Attachments: Notes in regards to Path terminal treatment.docx; BSD - 5002 Sheet 1.pdf; BSD -5002 Sheet 2.pdf; BSD - 5002 Sheet 3.pdf; Moreton Bay Council Path Termination Sheet 1.pdf; Moreton Bay Council Path Termination Sheet 2.pdf

Hi Tracey,

Could you please set up a meeting with John, Narayan, Muhammad, Service Manager of Risk and Liability and myself to discuss Muhammad's information, with the idea of scoping up a project to make changes to end treatments and bollards on cycle ways.

Regards

Michael Pattinson

Service Manager Civil & Traffic Infrastructure
City Assets
Redland City Council

P: 3843 8053

M:



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: Muhammad Akbar
Sent: Friday, 20 May 2022 3:48 PM
To: Michael Pattinson <Michael.Pattinson@redland.qld.gov.au>
Cc: John Frew <John.Frew@redland.qld.gov.au>
Subject: FW: report on barriers in cycleways

Hi Michael,

Attached please find my notes in regards to path terminal treatments for footpaths in the situation where path users have to give way to vehicular traffic on the road. Further, standard drawings from Brisbane City Council and Moreton Bay Regional Council for such situations are attached for information.

If any questions, please let me know.
Thanks.

Kind regards,

Muhammad

From: John Frew
Sent: Wednesday, 18 May 2022 3:15 PM
To: Muhammad Akbar <Muhammad.Akbar@redland.qld.gov.au>
Subject: report on barriers in cycleways

Muhammad

Michael has requested a report on the use of bollards , banana bars and other obstacles put in our cycleways to prevent un wanted access or provide resting points for cyclists. I know you have already done some research on this. Can you prepare a report on these devices including the current approach of DTMR, Brisbane City CC and Logan CC. I understand that both Councils may be actively removing these obstacles from their network and Michael would like to consider doing the same here in Redlands

Regards

John Frew

Senior Asset Engineer

Civil & Traffic Infrastructure Asset Management
Redland City Council

P +617 3829 8999



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

Right to Information Release

Notes in regards to Path Terminal End treatments for intersection where path users have to give way to the vehicular traffic on the road.

Three stage assessment approach for Path Terminal Treatments

Appendix C in TMR's publication Queensland Guide to Traffic Management – Part 6 (QGTM Part 6) states that physical barriers placed at the termination of paths can pose a danger to people riding bikes presenting an obstacle at locations where people riding bikes typically need to be concentrating on ramps, footpaths, road, motor traffic, other path users, and other hazards beyond or before the path.

QGTM Part 6 and DTMR Publication, Road Planning and design manual Volume 3, Supplement to Austroads Guide to Road Design Part 6A: Paths for walking and Cycling (RPDM Volume 3, Part 6A) prefer the 3-stage assessment approach on path terminal treatments i.e.

Stage 1 – Signage. For example, install regulatory signs identifying the infrastructure as a path which prohibits motor vehicle entry.

Stage 2 – Redesign terminal appearance/Redesign path entry appearance to discourage vehicle access. Treatments such as pavement markings, different coloured concrete, kerbs, ramps, soft landscaping, and other visual cues. The intent of this treatment is to make it as intuitive as possible to anyone who sees it, that this is not a continuation of the road, but rather a “transition point” from one environment to another.

Stage 3 – Physical barriers

Physical barriers are the last option/resort to be used and only after all other options (stages 1 and 2) have been exhausted. Physical barriers pose the most danger to people riding bikes if not planned, designed and installed correctly when implementing stage 3.

Section 7.5 of Austroads Guide to Road Design Part 6A – Paths for Walking and Cycling provide guidance about special treatment of paths with roads. (Publication no: AGRD06A-17).

A path terminal treatment may be required where a shared path or bicycle path intersects with a road, e.g. when a path crosses a road from a road related area or parkland.

Path terminal treatments are provided to restrict illegal access by drivers of motor vehicles to road reserves and parkland to prevent damage to path structures (such as lightweight bridges) that have been designed only for bicycle and pedestrian use.

Path terminal treatments can be hazardous to cyclists and as such they generally should not be installed unless:

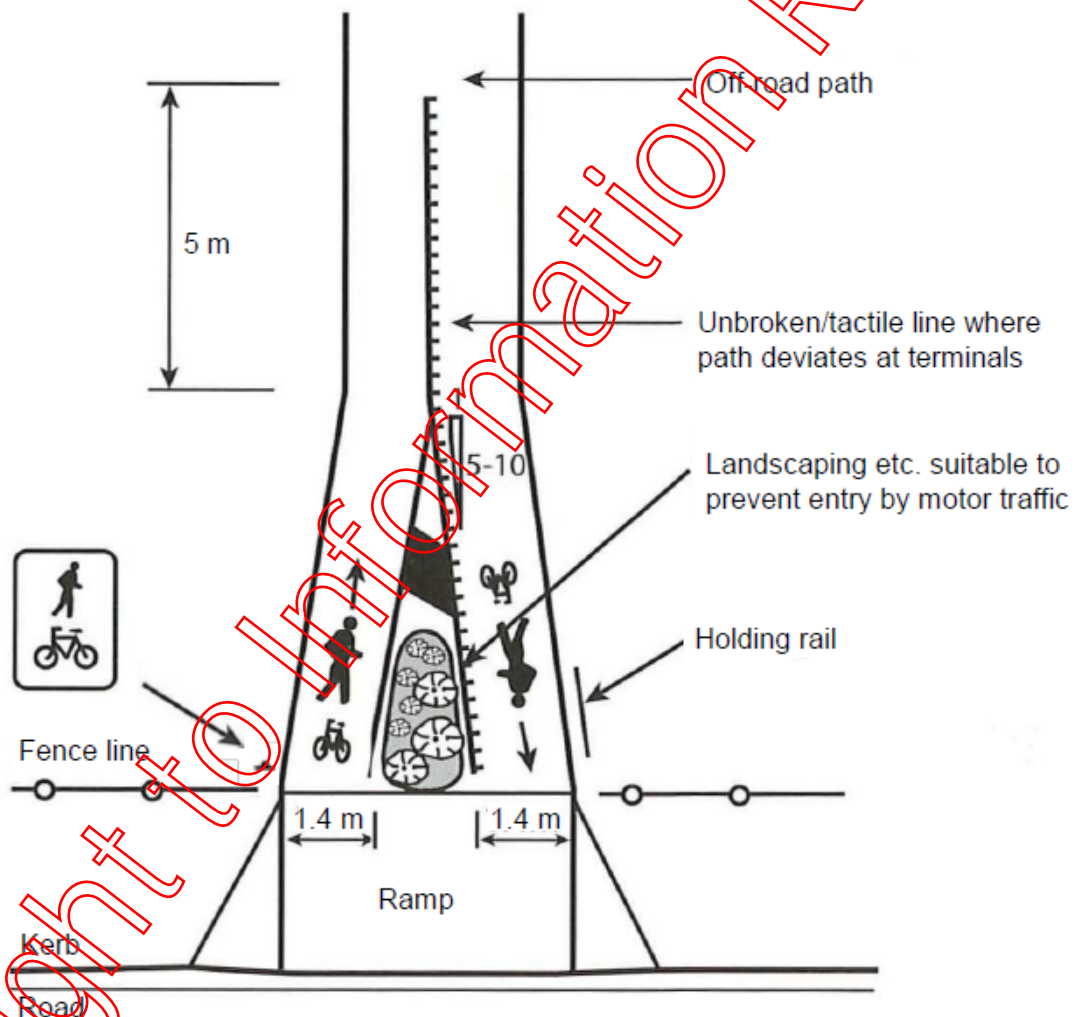
1. Unauthorized motor vehicle access may result in damage to path structures such as footbridge.
2. There is clear evidence of unauthorized and undesirable motor vehicle access.
3. The device is effective at excluding such vehicles and not readily circumvented.

It should be noted that not every jurisdiction permits the use of physical barriers to slow or advise cyclists of an approaching road. Physical barriers may be a hazard to other road users and any treatment should have a risk assessment undertaken.

The preferred Terminal Treatments for Excluding vehicles

The preferred terminal treatment to restrict access and warn cyclists to slow down is to introduce garden bed which act as a median island as mentioned in Section 7.5.3 of Austroads publication AGRD06A-17. Such treatment provides sufficient guidance to cyclists that they are approaching a road and does not place an obstacle (such as bollard) in the path of cyclists. Such type of treatment is shown in Fig 7.5, reproduced below:

Figure 7.5: Separate entry and exit terminal



Additionally, Queensland Guide to Traffic Management, Part 6: Intersections, Interchanges and Crossings Management (QGTM Part 6), July 2021 shows minimal path terminal termination treatment in Figure C.1, reproduced below.

Figure C.1 – Path with minimal termination treatment



Note with above Figure states that, it is clearly signed as a shared path which should be sufficient to deter illegal use of unauthorized motor vehicles. As the roadway is not physically defined by kerb and guttering, a GIVEWAY sign and linemarking has been added to improve legibility for the path users at the termination. The holding rail may or may not be used by riders, but it does provide extra definition of the path location for vehicles using the roadway.

Use of bollard in the centre of the path as terminal treatment

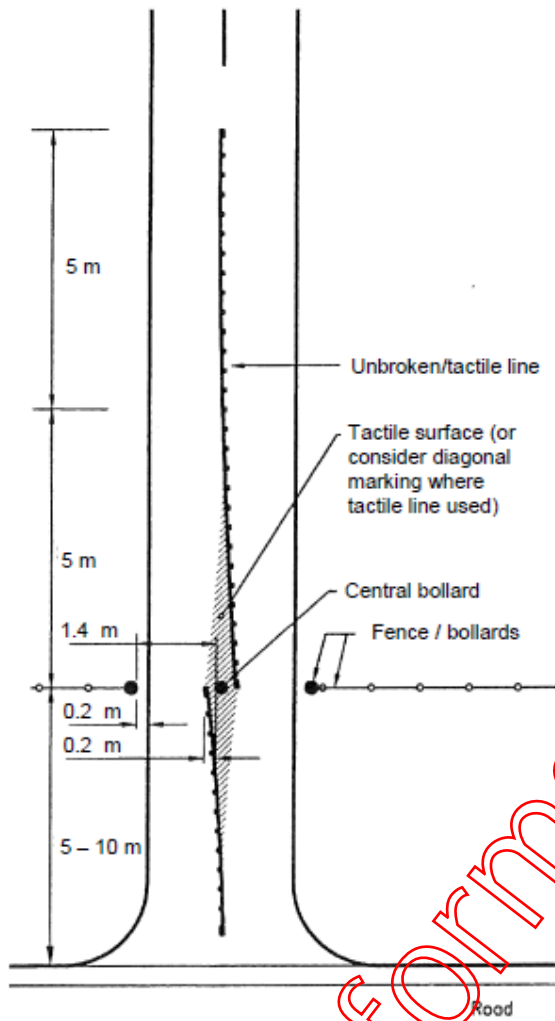
Section 7.5.3 of AGRD06A-17 further states that installation of bollard in the centre of the path as terminal treatment can create an unacceptable risk to cyclists and should only be used where provision of the preferred treatments is not practicable.

While opinions vary, there is considerable concern (and growing evidence in the form of injury compensations claims by cyclists) that the construction of these devices in the centre of path is hazardous to cyclists.

QGTM Part 6 states that, while it is easier for people riding bikes to negotiate a pole (or bollard) than a terminal restrictor bar, without crashing into it, the consequences of crashing into it as more serious than those of hitting the curved terminal restrictor bar ('banana bar'). As a result, bollard should be avoided, if possible.

If bollards are to be used on paths, linemarking should be also use to direct cyclists away from the bollard as shown in the preferred layout Figure 7.6 of AGRD06A-17, reproduced below.

Figure 7.6: Preferred layout for the use of a central bollard



Right to Information Release

Below two images (Figure C.12 and C.13) for bollards treatment are from QGTM Part 6

Figure C.12 – Maintenance vehicle access barrier on a shared path



This path is used on an ongoing basis by water supply authority vehicles on whose land the path is located. The two outside bollards are fixed while the centre bollard is removable. When the centre bollard is removed, a round flush fitting cover protects the hole and locking device. Although their height is lower than required, the bollards are finished in standard RMS NSW colour and reflectorized tape. Line marking has been used to 'direct' people riding bikes around the hazard caused by the low height of the bollard. Guildford NSW, photo: RMS.

Figure C.13 – Examples of the use of bollards to protect an asset, with instructive text



These bollards protect an expensive bridge structure. The inset photo shows an enlargement of the plate on the centre fold-down bollard which places a load limit on maintenance vehicles accessing the path. Roma Street Parklands, Brisbane, QLD.

Terminal Design Principles

Design principles are mentioned in detail in Section 7.5.2 of AGRD06A-17. Some of the main principles are below:

- Terminal treatment should not be located at or near curves, within a distance of less than 5 m of kerb ramps or within a maneuvering zone of cyclists.

- Provide an opening width between 1.4 m and 1.6 m where restriction of motor vehicle access is warranted.
- Where necessary include signs or pavement markings, generally on the path approach to the device, warning of the presence of devices, tactile line marking, or a tactile path surface and a painted unbroken line, where cyclists need to deviate from their line of approach.
- Accommodate emergency or maintenance vehicle access where this is not available elsewhere in the vicinity of the terminal (in the event that the path will be relied upon by such vehicles). Note that wherever terminal device elements are removable the connection (or sockets) should be flush at the connecting surface and not present a hazard to path users.
- Isolated vertical poles (e.g. bollards) located within paths if are considered, they should not be less than 1.8 m high where narrow poles (minimum 100 mm diameter) are used, to increase the likelihood of observation of poles above the form of a leading cyclists in cyclists on group rides. Low bollards (minimum 1 height) should have 300 mm diameter.
- Low bollards of 1 meter minimum height need to have a large impact surface to limit point (impaling) injury. (Section 7.5.2 of DTMR Publication, Road Planning and design manual Volume 3, Supplement to Austroads Guide to Road Design Part 6A: Paths for walking and Cycling (RPDM Volume 3, Part 6A)
- Bollards should be avoided at locations where the bottom of a gradient $\geq 5\%$ (section 7.5.3 of RPDM Volume 3, Part 6A).

Brisbane City Council have 3 standard drawings BSD-5002 (available at BCC website) showing different type of bollards arrangement for shared path entrance i.e.

BSD-5002 (Sheet 1 of 3), showing 1.2 m high bollards

BSD – 5002 (Sheet 2 of 3), showing 1.8m high bollards

BSD – 5002 (sheet 3 of 3), showing 1.8 m high bollards with central median arrangement

Above drawings are available at Brisbane City Council website.

Use of Banana Bars as terminal restriction devices

Appendix C with QGTM Part 6 states that historically, physical barriers in the form of banana bars, bollards or U-rails have been included as standard terminal treatments for bicycle paths (and footpaths) when they connect with a road or another footpath. They have also been used as devices to slow people riding bikes on the approach to roads or in high conflict areas. This has often been done with no consideration of the requirement to manage vehicle access in terms of both the likelihood and consequences of vehicle access.

Terminal restriction Bars (banana bars) require every through movement to be done when another path user is not trying to pass at the same time (staggered)-setting up a very uncertain “right of way” situation that results in an increased crash risk to people riding bikes and a very poor level of service to other users (people walking, mobility aids, wheeled recreational devices). The obligation to come to complete halt if someone is coming the other way should not be necessary. Banana bars height is typically a snag hazard for handlebars.

This has resulted in inappropriate application and overuse of these devices. These devices are an unnecessary expense to what is relatively inexpensive piece of infrastructure. In some circumstances, they can also pose a crash hazard for people riding bikes.

RPDM Volume 3 Part 6A, states that banana bars may be duplicated in order to form two single direction paths i.e. separate exit and entry paths. It further refer to QGTM Part 6 for some examples.

QGTM Part 6 illustrate 'best practice' examples where terminal restrictor bars be used with separate exit and entry paths. Three different types of terminal restrictor designs shown in Figure C.17, Figure C.18 and Figure C.19 of QGTM Part 6 are reproduced below.

Figure C.17 – Bicycle / shared path termination treatment with separated entry and exit: general layout

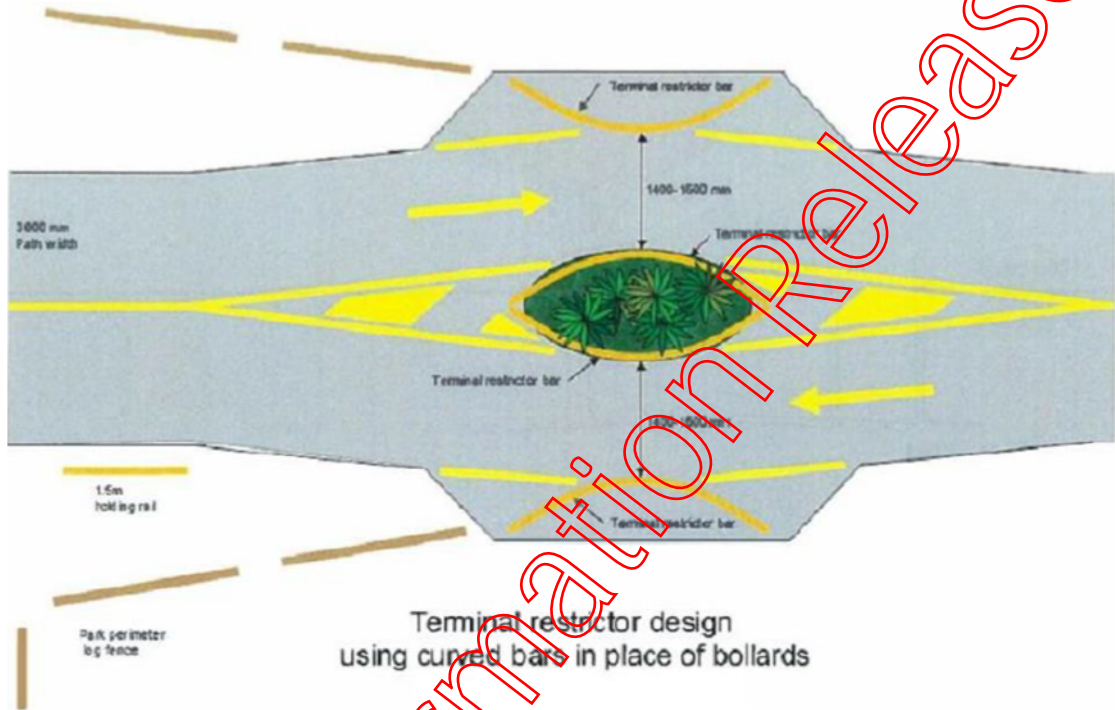
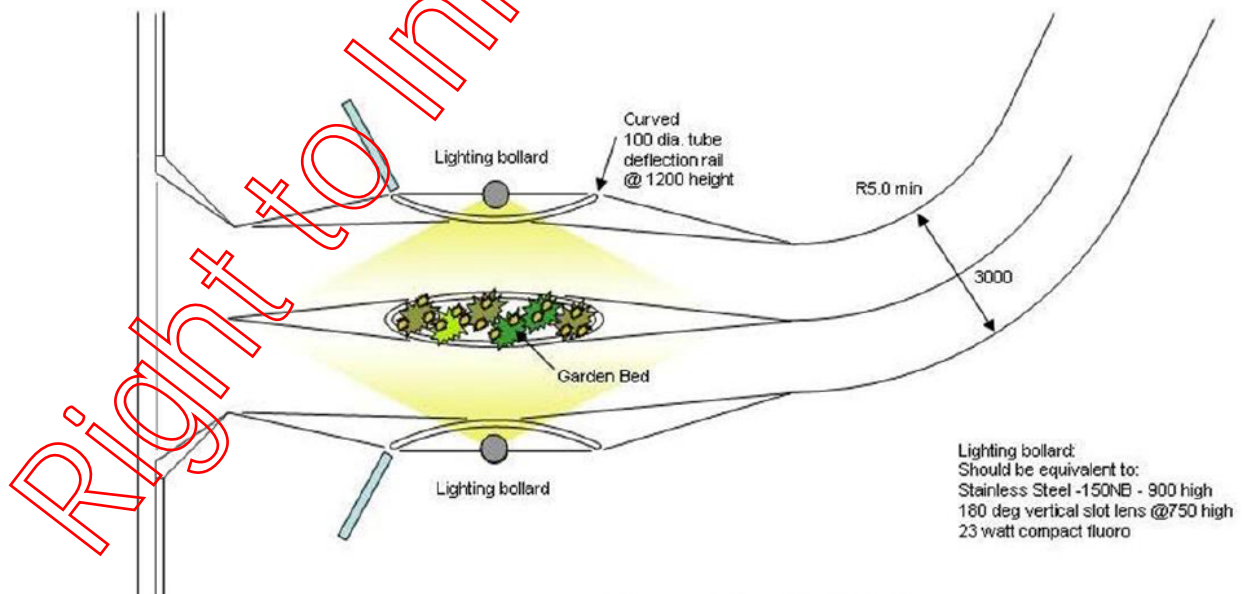
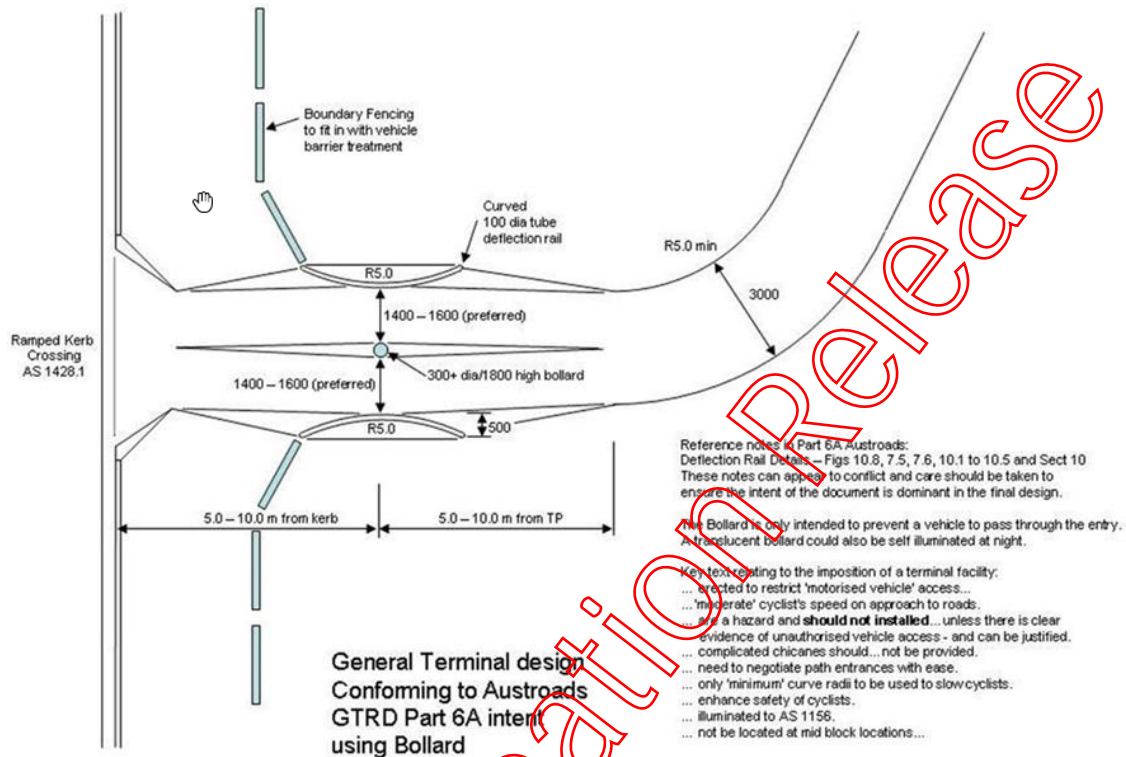


Figure C.18 – Bicycle / shared path termination treatment with separated entry and exit: lighting requirements



Lighting is provided at the path terminal from behind the curved deflection rail.

Figure C.19 – Bicycle / shared path termination treatment with separated entry and exit: with bollard central separator



Treatment for slowing down cyclists

If unauthorized vehicle access is not an issue, Guide to Traffic Management Part 6- Intersections, Interchanges and Crossings Management (AGTM06-20), Section 9.2.2, states that where a path crosses a road, in most instances it is unnecessary to use restrictive devices to slow cyclists down before they cross a road.

RDPM – Volume 3, Part 6A in section 7.5.1 states that in Queensland, path terminal treatments, in the form of physical barriers, shall not be used to either advise cyclists that there is a road ahead or slow cyclists down. The preferred method of advising people of the road ahead is through the provision of clear sightlines, warning signs and pavement markings. In most instances the use of a “GIVE WAY” or “ROAD AHEAD” sign at the terminal will communicate all the required information to the cyclists.

References:

1. Road Planning and Design Manual Edition2: Volume 3, November 2021, DTMR, Government of Queensland
Supplement to Austroads Guide to Road Design Part 6A: Paths for Walking and Cycling
2. Austroads Guide to Traffic Management Part 6 – Intersections, Interchanges and Crossings Management.
3. Queensland Guide to Traffic Management, July 2021, Part 6: Intersections, Interchanges and Crossings Management.

GENERAL LAYOUT TO SUIT 4.25m VERGE
DIMENSIONS IN (BRACKETS) RELATE TO 3.75m VERGE

LEGEND - PAVEMENT MARKING

-  YELLOW (Y13 VIVID YELLOW)(REFER NOTE 2)
-  COLOURED CONCRETE RAMP (REFER NOTE 4)
-  PLAIN, UN-PAINTED CONCRETE SURFACE
- SLY SEPARATION LINE - UNBROKEN (100mm, YELLOW)
- ELY EDGE LINE (100mm, YELLOW)

GENERAL NOTES

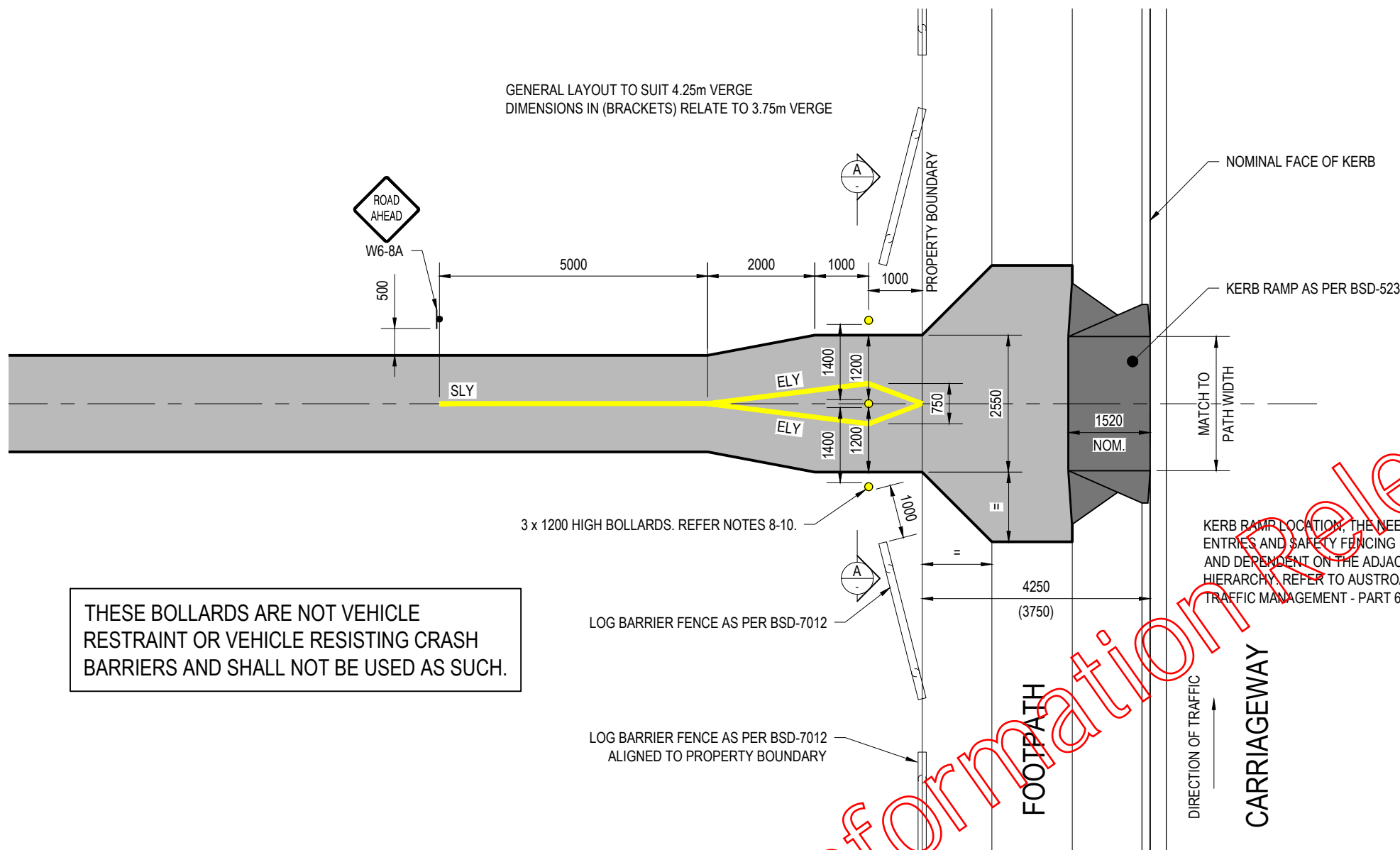
1. ALL DIMENSIONS ARE TO NOMINAL FACE OF KERB.
2. NON-SLIP SURFACE TREATMENT TO BICYCLE AREAS TO BE IN ACCORDANCE WITH COUNCIL REFERENCE SPECIFICATION S155, TABLE 4.2, TYPE 2. PAVEMENT TREATMENT TO BE APPLIED BEFORE FINAL PAVEMENT MARKING.
3. NON-SLIP SURFACE TREATMENT AREAS ARE TO BE CERTIFIED BY A NATA CERTIFIED TESTING FACILITY TO ENSURE COMPLIANCE WITH NOTE 2.
4. RAMP CONCRETE TO BE FULL DEPTH COLOURED CONCRETE. COLOUR TO BE CONCRETE COLOUR SYSTEMS "VOODOO" OR APPROVED EQUIVALENT.
5. SIGNS TO BE INSTALLED AS SHOWN AND AS PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
6. SIGN FOOTINGS ARE TO BE AS PER BSD-5003.
7. ALL DIMENSIONS TO BOLLARDS ARE TO THE FACE OF THE BOLLARD.
8. BOLLARDS ARE TO BE MINIMUM 1200mm HIGH x 150mm DIAMETER OR APPROVED EQUIVALENT.
9. BOLLARDS USED TO PROTECT COUNCIL INFRASTRUCTURE (eg BRIDGES, RETAINING WALLS) ARE TO BE RIGID. ACCESS RESTRICTION BOLLARDS MAY BE ENERGY ABSORBING AS APPROVED BY COUNCIL.
10. RIGID BOLLARDS ARE TO BE MANUFACTURED AND INSTALLED AS PER BSD-5002, SHEET 2 OF 3. CENTRAL BOLLARDS ARE TO BE REMOVABLE WHERE REQUIRED FOR MAINTENANCE ACCESS. REMOVABLE BOLLARDS ARE TO BE ALUMINIUM FOR EASE OF LIFTING. NON-REMOVABLE BOLLARDS ARE TO BE STEEL.
11. CLEARANCE TO UNDERSIDE OF SIGNS TO BE 2.0 METRES WHERE OFFSET FROM PATH AS SHOWN, EXCEPT FOR HAZARD MARKERS UNLESS NOTED OTHERWISE.
11. ALL CONCRETE IS TO BE AS PER BSD-5208.

SPECIFIC NOTES

1. BASIC ENTRANCE TREATMENT SUITABLE ONLY FOR PEDESTRIAN PATHS AND LOCAL CYCLE ROUTES, WITH LOW CYCLIST VOLUMES.
2. FOR FURTHER GUIDANCE REFER TO COUNCIL'S ASSET OWNER FOR ACTIVE TRANSPORT.
3. DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.

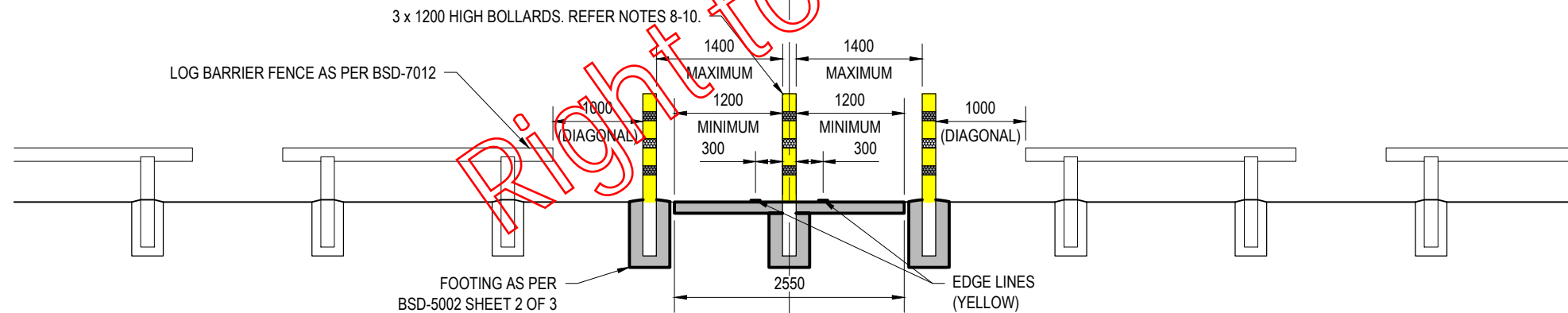
DESIGN CERTIFICATION

DESIGNED	CHECKED	AUTHORISED FOR ISSUE
Chris Salmon 07.03.2018		



THESE BOLLARDS ARE NOT VEHICLE RESTRAINT OR VEHICLE RESISTING CRASH BARRIERS AND SHALL NOT BE USED AS SUCH.

3 x 1200 HIGH BOLLARDS. REFER NOTES 8-10.

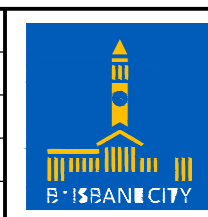


SECTION A
SCALE NTS

ISSUE	AMENDMENT	DRAWN DATE	CHK'D DATE	APPR'D DATE
D	Bollard Options Added	Feb '18	Feb '18	Feb '18
C	Deflection Rails Removed From Service - Option 1 Removed	Jan '17	Jan '17	Jan '17
B	Drawing Title Amended, Notes Amended	Feb '16	Feb '16	Feb '16
A	Drawing Converted from UMS Series April 2014	Apr '14	Apr '14	Apr '14

DRAWING AUTHORISED FOR PUBLICATION
I. Condric
July 2019
PRINCIPAL ENGINEER
STRATEGIC ASSET MANAGEMENT PLANNING
DESIGN APPROVED
Marie Gales
15/04/2019
MANAGER
TRANSPORT, PLANNING & STRATEGY

DESIGN	C.I.S.	DATE
DESIGN	C.I.S.	Sept '17
DRAWN	C.I.S.	DATE Sept '17
CHECKED	A.J.W.	DATE Sept '17
DRAWING FILENAME	BSD-5002 SHEET 1 OF 3.dwg	
ASSOCIATED PLANS	SUPERSEDES BSD-5002	



BRISBANE CITY COUNCIL STANDARD DRAWING

SHARED PATH BASIC ENTRANCE SHEET 1 OF 3

SCALE: NOT TO SCALE
DWG No: BSD-5002
ORIGINAL SIZE: A3
REVISION: D

LEGEND - PAVEMENT MARKING

- YELLOW (Y13 VIVID YELLOW)(REFER GENERAL NOTE 2)
- RED (R13 SIGNAL RED)(REFER GENERAL NOTE 2)
- COLOURED CONCRETE RAMP (REFER GENERAL NOTE 4)
- PLAIN, UN-PAINTED CONCRETE SURFACE (REFER GENERAL NOTE 13)
- SLY SEPARATION LINE - UNBROKEN (100mm, YELLOW)
- ELY EDGE LINE (100mm, YELLOW)

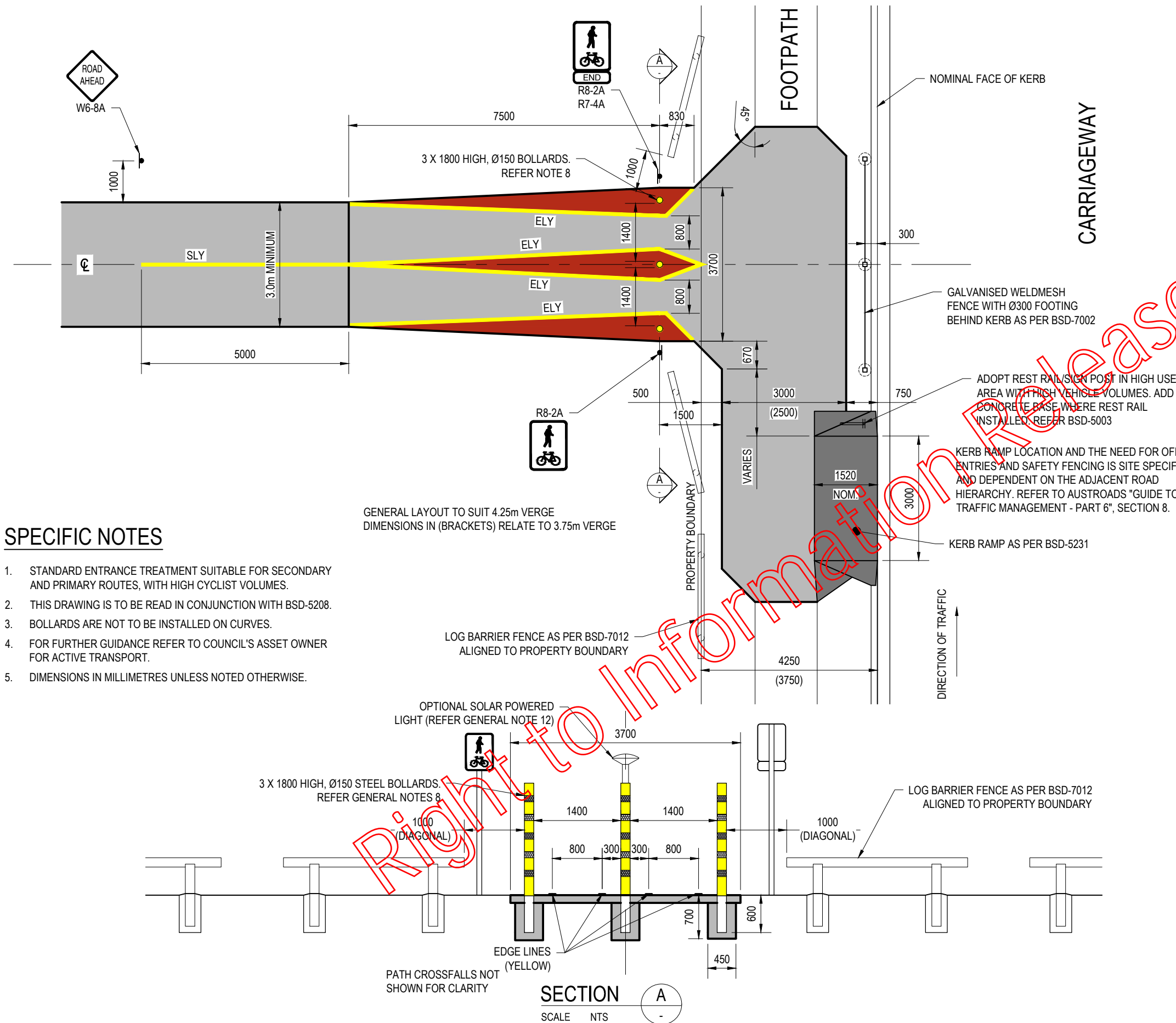
GENERAL NOTES

1. ALL DIMENSIONS ARE TO NOMINAL FACE OF KERB.
2. NON-SLIP SURFACE TREATMENT TO BICYCLE AREAS TO BE IN ACCORDANCE WITH COUNCIL REFERENCE SPECIFICATION S155, TABLE 4.2, TYPE 2. PAVEMENT TREATMENT TO BE APPLIED BEFORE FINAL PAVEMENT MARKING.
3. NON-SLIP SURFACE TREATMENT AREAS ARE TO BE CERTIFIED BY A NATA CERTIFIED TESTING FACILITY TO ENSURE COMPLIANCE WITH NOTE 2.
4. RAMP CONCRETE TO BE FULL DEPTH COLOURED CONCRETE. COLOUR TO BE CONCRETE COLOUR SYSTEMS "WOODOO" OR APPROVED EQUIVALENT.
5. SIGNS TO BE INSTALLED AS SHOWN AND AS PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
6. SIGN FOOTINGS ARE TO BE AS PER BSD-5003.
7. ALL DIMENSIONS TO BOLLARDS ARE TO THE FACE OF THE BOLLARD.
8. BOLLARDS ARE TO BE INSTALLED AS SHOWN ON SECTION 'A'. CENTRAL BOLLARDS ARE TO BE REMOVABLE WHERE REQUIRED FOR MAINTENANCE ACCESS. REMOVABLE BOLLARDS ARE TO BE ALUMINIUM FOR EASE OF LIFTING. NON-REMOVABLE BOLLARDS ARE TO BE STEEL.
9. STEEL BOLLARDS ARE TO BE DN 150mm MEDIUM DUTY WITH A 10mm THICK PLATE CAP, HOT DIPPED GALVANISED, POWDER COATED IN BCC CORPORATE COLOUR PALETTE "YELLOW 5" (AS 2700-1996 "Y11 CANARY YELLOW" EQUIV.).
10. REFLECTIVE TAPE TO BOLLARDS IS TO BE ALTERNATE BANDS OF 100mm WIDE RED AND WHITE CLASS 1A RETROREFLECTIVE TAPE. THREE BANDS OF RED AND TWO BANDS OF WHITE WITH 200mm GAPS BETWEEN BANDS STARTING 300mm ABOVE GROUND.
11. CLEARANCE TO UNDERSIDE OF SIGNS TO BE 2.0 METRES EXCEPT FOR HAZARD MARKERS UNLESS NOTED OTHERWISE.
12. SOLAR POWERED LIGHT WITH OR WITHOUT DOWN REFLECTOR TO SPILL LIGHT OVER BOLLARD. AVAILABLE FROM ORCA SOLAR LIGHTING, CONTACT NUMBER 1300 760 778. LIGHTS TO ONLY BE PROVIDED TO 1800mm HIGH BOLLARDS.
13. ALL CONCRETE IS TO BE AS PER BSD-5208.

THESE BOLLARDS ARE NOT VEHICLE RESTRAINT OR VEHICLE RESISTING CRASH BARRIERS AND SHALL NOT BE USED AS SUCH.

DESIGN CERTIFICATION

DESIGNED	CHECKED	AUTHORISED FOR ISSUE
Chris Salmon 07.03.2018		



SPECIFIC NOTES

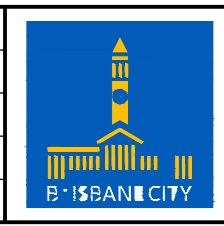
1. STANDARD ENTRANCE TREATMENT SUITABLE FOR SECONDARY AND PRIMARY ROUTES, WITH HIGH CYCLIST VOLUMES.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH BSD-5208.
3. BOLLARDS ARE NOT TO BE INSTALLED ON CURVES.
4. FOR FURTHER GUIDANCE REFER TO COUNCIL'S ASSET OWNER FOR ACTIVE TRANSPORT.
5. DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.

GENERAL LAYOUT TO SUIT 4.25m VERGE
DIMENSIONS IN (BRACKETS) RELATE TO 3.75m VERGE

SECTION A
SCALE NTS

ISSUE	AMENDMENT	DRAWN DATE	CHK'D DATE	APPR'D DATE
D	Bollard Options Added	Feb '18	Feb '18	Feb '18
C	Deflection Rails Removed From Service - Option 1 Removed	Jan '17	Jan '17	Jan '17
B	Drawing Title Amended, Notes Amended	Feb '16	Feb '16	Feb '16
A	Drawing Converted from UMS Series April 2014	Apr '14	Apr '14	Apr '14

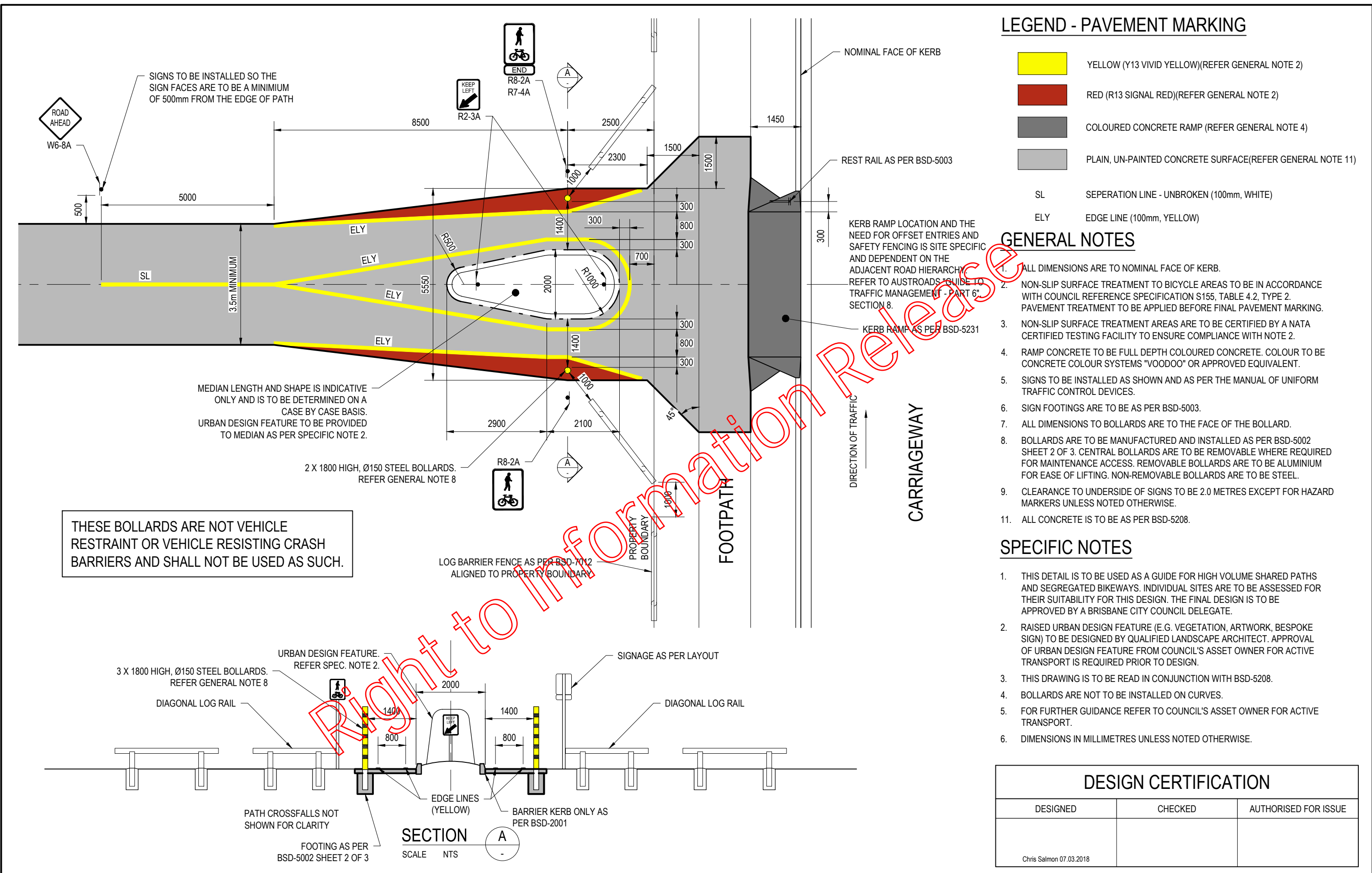
DRAWING AUTHORISED FOR PUBLICATION I. Condric July 2019 PRINCIPAL ENGINEER STRATEGIC ASSET MANAGEMENT PLANNING DESIGN APPROVED Marie Gales 15/04/2019 MANAGER TRANSPORT, PLANNING & STRATEGY				DESIGN	C.I.S.	DATE	Feb '18
				DRAWN	C.I.S.	DATE	Feb '18
				CHECKED	L.S.	DATE	Feb '18
				DRAWING FILENAME	BSD-5002 SHEET 2 OF 3.dwg		
				ASSOCIATED PLANS	SUPERSEDES BSD-5002		



BRISBANE CITY COUNCIL STANDARD DRAWING

SHARED PATH STANDARD ENTRANCE SHEET 2 OF 3

SCALE NOT TO SCALE
DWG No. **BSD-5002**
ORIGINAL SIZE A3 REVISION D



LEGEND - PAVEMENT MARKING

	YELLOW (Y13 VIVID YELLOW)(REFER GENERAL NOTE 2)
	RED (R13 SIGNAL RED)(REFER GENERAL NOTE 2)
	COLOURED CONCRETE RAMP (REFER GENERAL NOTE 4)
	PLAIN, UN-PAINTED CONCRETE SURFACE(REFER GENERAL NOTE 11)
SL	SEPERATION LINE - UNBROKEN (100mm, WHITE)
ELY	EDGE LINE (100mm, YELLOW)

- ### GENERAL NOTES
- ALL DIMENSIONS ARE TO NOMINAL FACE OF KERB.
 - NON-SLIP SURFACE TREATMENT TO BICYCLE AREAS TO BE IN ACCORDANCE WITH COUNCIL REFERENCE SPECIFICATION S155, TABLE 4.2, TYPE 2. PAVEMENT TREATMENT TO BE APPLIED BEFORE FINAL PAVEMENT MARKING.
 - NON-SLIP SURFACE TREATMENT AREAS ARE TO BE CERTIFIED BY A NATA CERTIFIED TESTING FACILITY TO ENSURE COMPLIANCE WITH NOTE 2.
 - RAMP CONCRETE TO BE FULL DEPTH COLOURED CONCRETE. COLOUR TO BE CONCRETE COLOUR SYSTEMS "VOODOO" OR APPROVED EQUIVALENT.
 - SIGNS TO BE INSTALLED AS SHOWN AND AS PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
 - SIGN FOOTINGS ARE TO BE AS PER BSD-5003.
 - ALL DIMENSIONS TO BOLLARDS ARE TO THE FACE OF THE BOLLARD.
 - BOLLARDS ARE TO BE MANUFACTURED AND INSTALLED AS PER BSD-5002 SHEET 2 OF 3. CENTRAL BOLLARDS ARE TO BE REMOVABLE WHERE REQUIRED FOR MAINTENANCE ACCESS. REMOVABLE BOLLARDS ARE TO BE ALUMINIUM FOR EASE OF LIFTING. NON-REMOVABLE BOLLARDS ARE TO BE STEEL.
 - CLEARANCE TO UNDERSIDE OF SIGNS TO BE 2.0 METRES EXCEPT FOR HAZARD MARKERS UNLESS NOTED OTHERWISE.
 - ALL CONCRETE IS TO BE AS PER BSD-5208.

- ### SPECIFIC NOTES
- THIS DETAIL IS TO BE USED AS A GUIDE FOR HIGH VOLUME SHARED PATHS AND SEGREGATED BIKEWAYS. INDIVIDUAL SITES ARE TO BE ASSESSED FOR THEIR SUITABILITY FOR THIS DESIGN. THE FINAL DESIGN IS TO BE APPROVED BY A BRISBANE CITY COUNCIL DELEGATE.
 - RAISED URBAN DESIGN FEATURE (E.G. VEGETATION, ARTWORK, BESPOKE SIGN) TO BE DESIGNED BY QUALIFIED LANDSCAPE ARCHITECT. APPROVAL OF URBAN DESIGN FEATURE FROM COUNCIL'S ASSET OWNER FOR ACTIVE TRANSPORT IS REQUIRED PRIOR TO DESIGN.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH BSD-5208.
 - BOLLARDS ARE NOT TO BE INSTALLED ON CURVES.
 - FOR FURTHER GUIDANCE REFER TO COUNCIL'S ASSET OWNER FOR ACTIVE TRANSPORT.
 - DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.

DESIGN CERTIFICATION		
DESIGNED	CHECKED	AUTHORISED FOR ISSUE
Chris Salmon 07.03.2018		

ISSUE	AMENDMENT	DRAWN DATE	CHK'D DATE	APPR'D DATE
D	Bollard Options Added	Feb '18	Feb '18	Feb '18
C	Deflection Rails Removed From Service - Option 1 Removed	Jan '17	Jan '17	Jan '17
B	Drawing Title Amended, Notes Amended	Feb '16	Feb '16	Feb '16
A	Drawing Converted from UMS Series April 2014	Apr '14	Apr '14	Apr '14

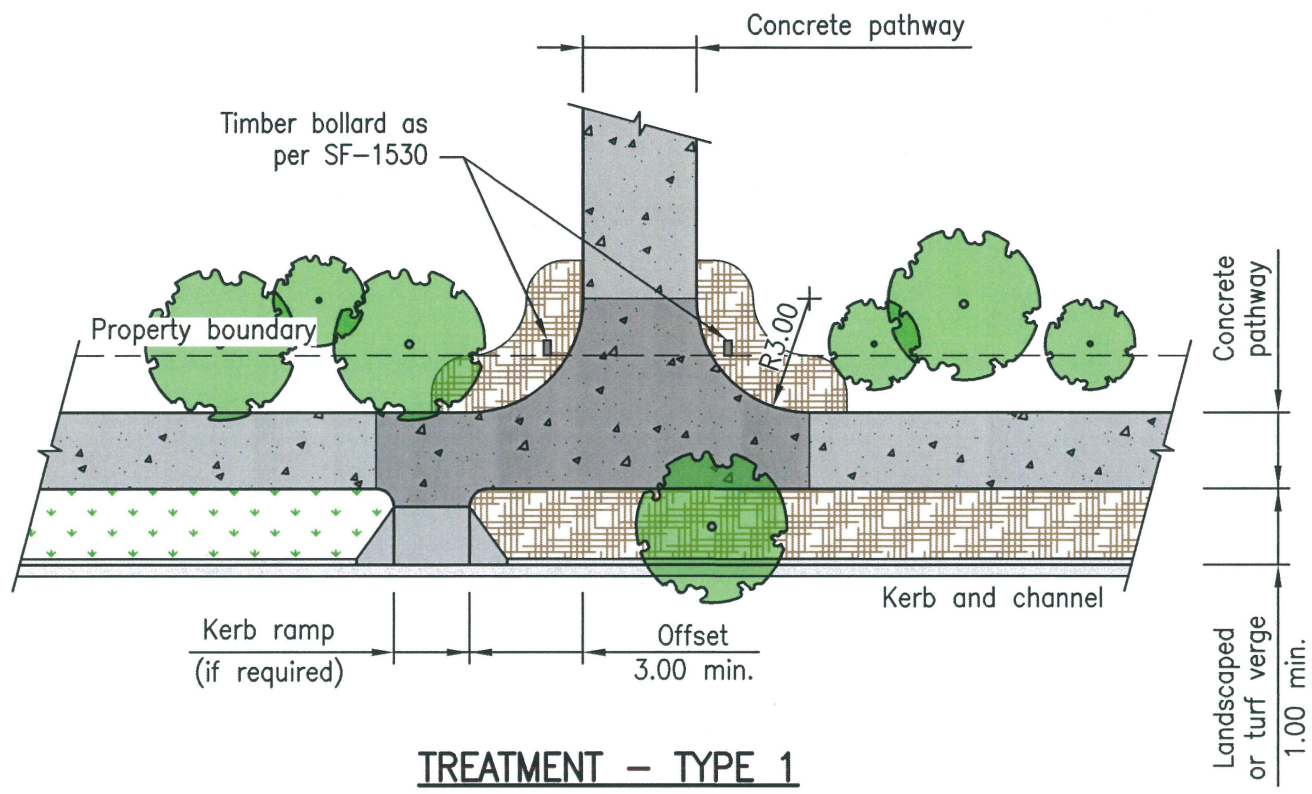
DRAWING AUTHORISED FOR PUBLICATION			
I. Condric July 2019			
PRINCIPAL ENGINEER			
STRATEGIC ASSET MANAGEMENT PLANNING			
DESIGN APPROVED			
Marie Gales 15/04/2019			
MANAGER			
TRANSPORT, PLANNING & STRATEGY			
DESIGN	C.I.S.	DATE	Feb '18
DRAWN	C.I.S.	DATE	Feb '18
CHECKED	L.S.	DATE	Feb '18
DRAWING FILENAME	BSD-5002 SHEET 3 OF 3.dwg		
ASSOCIATED PLANS	SUPERSEDES BSD-5002		

BRISBANE CITY COUNCIL STANDARD DRAWING

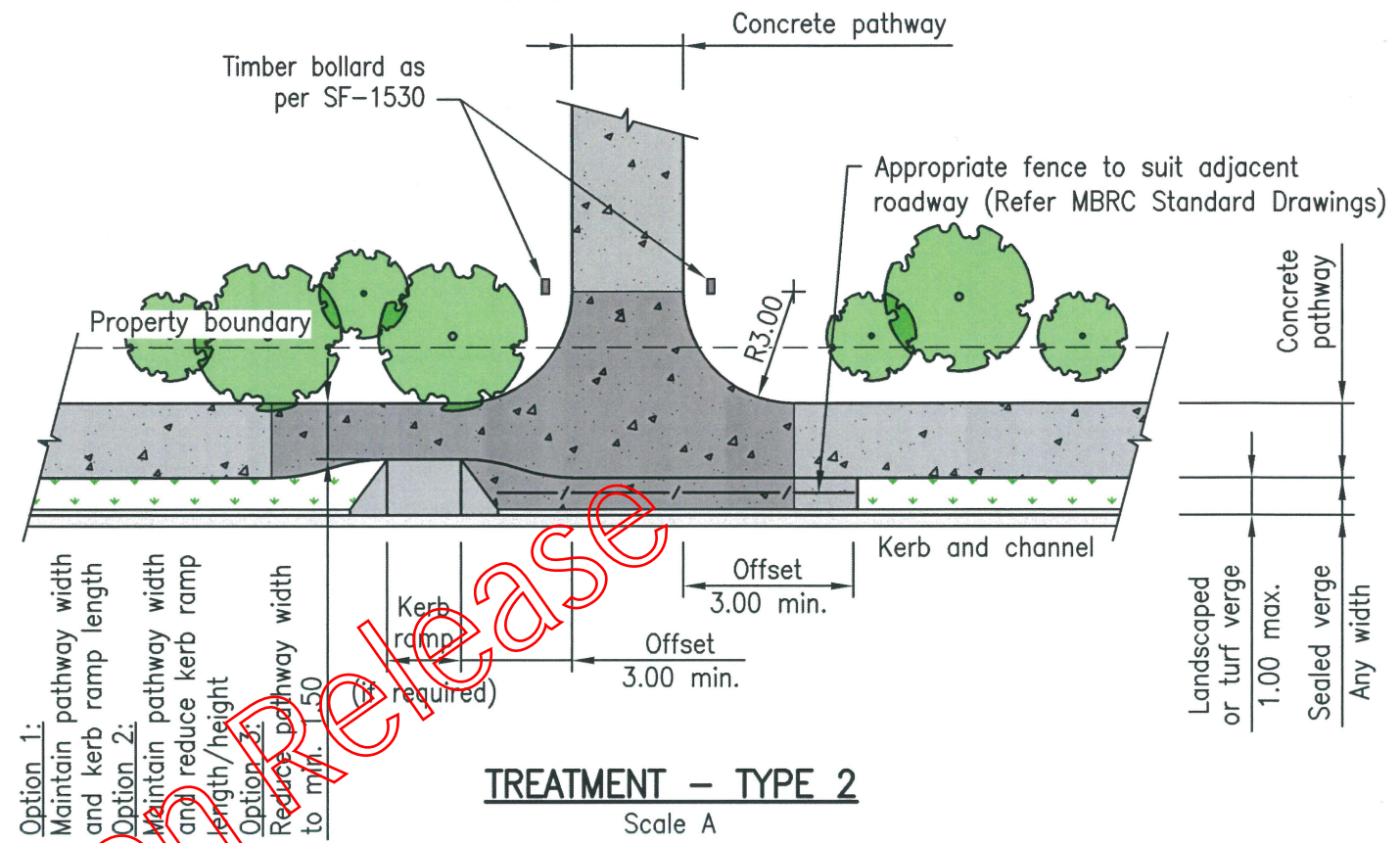
SHARED/SEGREGATED PATH FEATURED ENTRANCE

SHEET 3 OF 3

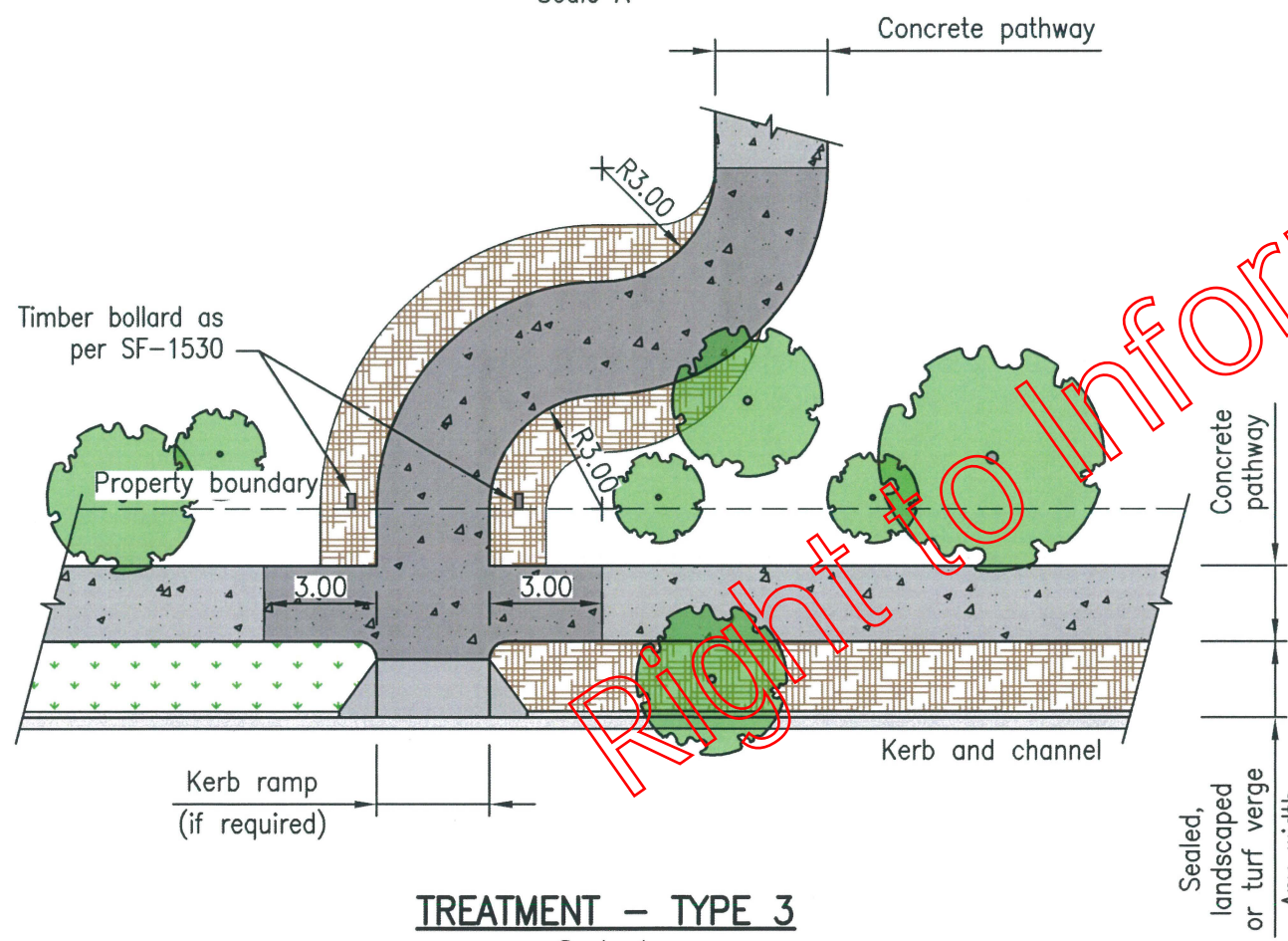
SCALE NOT TO SCALE	
DWG No. BSD-5002	
ORIGINAL SIZE A3	REVISION D



TREATMENT – TYPE 1
Scale A



TREATMENT – TYPE 2
Scale A



TREATMENT – TYPE 3
Scale A

LEGEND

- Potential landscaped garden bed refer project drawings for application
- Potential turf refer project drawings for application
- General concrete pathway
- Coloured concrete pathway threshold treatment

Refer project drawings for colour and surface treatment of general concrete pathways and threshold treatments

NOTES:

1. Kerb ramp and concrete pathway widths are indicative only and must be designed to cater for appropriate pedestrian and cyclist traffic.
2. Designer to consider application of tactile ground surface indicators (TGSi) and refer to appropriate MBRC adopted standard drawings for details.
3. Landscaped garden beds are Councils preferred method for pedestrian and motor vehicle access control. Fencing to be used only where no other alternative exists.
4. Designer to consider vertical geometry when selecting the appropriate pathway termination treatment.
5. Designer to consider location of trees and landscaping in relation to appropriate sight line requirements.
6. Refer Austroads requirements for appropriate horizontal and vertical clearances from pathways.

REVISIONS		INT	DATE	SCALES		Drawn	BW	Date	07/16
E				A 1:200		Coordinator	PP	Date	07/16
D						AUTHORISED 07/07/16 Manager Integrated Transport Planning & Design RPEQ 6872			
C									
B									
A									
ORIGINAL ISSUE		BW	07/16						

PATHWAY TERMINATION TREATMENTS
SHEET 1 OF 2

DRG No. **PC-2060**

ORIGINAL SIZE **A3** REVISION

From: [Leo Newlands](#)
To: [Madeline McCormack](#)
Subject: FW: Physical barriers (such as bollards and U-rails) in centre of the footpath
Date: Thursday, 30 June 2022 8:32:55 AM
Attachments: [image001.png](#)
[image002.png](#)

Leo Newlands
Policy and Strategy Officer
City Operations
Redland City Council

P +617 3829 8760



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: Leo Newlands

Sent: Wednesday, 29 June 2022 2:57 PM

To: Paul Storan <Paul.Storan@redland.qld.gov.au>; Carolyn Jackson <Carolyn.Jackson@redland.qld.gov.au>; David Katavic <David.Katavic@redland.qld.gov.au>; Frances Hudson <Frances.Hudson@redland.qld.gov.au>; Catherine Fien <Catherine.Fien@redland.qld.gov.au>; John Frew <John.Frew@redland.qld.gov.au>; Narayan Subedi <Narayan.Subedi@redland.qld.gov.au>; Max Corte <Max.Corte@redland.qld.gov.au>; Laurence Blacka <Laurence.Blacka@redland.qld.gov.au>; Rory House <Rory.House@redland.qld.gov.au>

Subject: RE: Physical barriers (such as bollards and U-rails) in centre of the footpath

Hi All

Most of the bollards in the city have been installed over many years to deal with known issues of unlawful/ dangerous access. It has rarely been 'blanket' installation without good reason and has sought to keep the public safe and our natural and built assets from being damaged at high cost to council and the community. On this basis I would suggest a blanket removal of these assets is problematic and is likely to increase risk to path users create incurrence of vehicles in Councils environmental reserves and park areas and incur significant costs to Council the rectify. I would also suggest that all path users are capable of running into things other than bollards including each other- Its important not to 'overcorrect'.

My thoughts on the proposed stages

Stage 1 – Signage. For example, where required, installation of signs identifying the infrastructure as a path. **Not likely to achieve anything the path users including children know a path is a path and so do others that wish to misuse them. Signs themselves could also be included as a risk.**

Stage 2 – Redesign of path entry appearance to discourage vehicle access. **I would suggest changing appearance will have the same effect a signs for vehicles.**

Stage 3 – Physical barriers such as bollards are last option as they create an unacceptable risk to the cyclists if not planned, designed and installed correctly. Can only be used as a last option if all other alternate options (i.e. stage 1 & 2) have been exhausted and/or not practicable. An instance where centre bollard might be used is to prevent damage to the costly asset such as

lightweight pedestrian bridges. I do accept that the short bollards galvanized and high vis are a risk to users and would gladly advocate for changing them to well-planned designed and installed versions. However, I would strongly reject that all bollards are an unacceptable risk as it depends on who's risk and the cost/benefit of the risk mitigation for one user.

I would suggest the following:

- Existing bollards should be audited to determine where and what they are. Short non hi-vis bollards have priority and then short with hi-vis next
- Bollards should be installed /replaced to a minimum of 1.2m high, high vis and be of a suitable width/diameter eg min 150mm (fixed and removable types)
- Path width design at bollards should be wider to allow for uses to negotiate safely. The deviation of a cyclist from straight line at higher speeds is smaller than that for a person going 8kms per hour or less. There are studies that provide data that may be included in design width at bollard zones.
- Yellow hi vis centrelines should be included to warn path users of approaching bollard and lead users around bollards even in low light
- 'Slow zone' path features could be included in design to slow cyclists in the approaches to bollard zones. This is a similar concept to what is used in mountain biking trail design to slow riders when approaching risk areas.
- Ensuring sightlines to Bollard zones are unobstructed.

Cheers

Leo Newlands

Policy and Strategy Officer

City Operations

Redland City Council

P +617 3829 8760



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: David Katavic

Sent: Wednesday, 29 June 2022 1:56 PM

To: Leo Newlands <Leo.Newlands@redland.qld.gov.au>

Subject: FW: Physical barriers (such as bollards and U-rails) in centre of the footpath

Regards

David Katavic

Parks & Conservation Service Manager

City Operations

Redland City Council

P +617 3829 8331



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: David Katavic

Sent: Wednesday, 29 June 2022 10:39 AM

To: Max Corte <Max.Corte@redland.qld.gov.au>; Laurence Blacka <Laurence.Blacka@redland.qld.gov.au>; Rory House <Rory.House@redland.qld.gov.au>

Subject: FW: Physical barriers (such as bollards and U-rails) in centre of the footpath Thoughts

Regards

David Katavic

Parks & Conservation Service Manager

City Operations

Redland City Council

P +617 3829 8331



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: Muhammad Akbar

Sent: Tuesday, 28 June 2022 1:24 PM

To: Paul Storan <Paul.Storan@redland.qld.gov.au>; Carolyn Jackson <Carolyn.Jackson@redland.qld.gov.au>; David Katavic <David.Katavic@redland.qld.gov.au>; Frances Hudson <Frances.Hudson@redland.qld.gov.au>; Catherine Fien <Catherine.Fien@redland.qld.gov.au>

Cc: John Frew <John.Frew@redland.qld.gov.au>; Narayan Subedi <Narayan.Subedi@redland.qld.gov.au>

Subject: Physical barriers (such as bollards and U-rails) in centre of the footpath

Dear Team

CAG is working on adopting a council wide strategy in regards to installation of bollards or U-rails in the centre of footpath. Historically bollards were used extensively as a physical barriers to prevent vehicle access to the parks and open spaces. However they pose serious hazard for cyclists when installed in the middle of footpath. A further reference in this respect is to an incident in Aquatics Paradise Park East, where cyclist involved in hitting the centre bollard on footpath is now paraplegic.

Guidelines and publications of DTMR and Austroads suggest to adopt below 3-stage assessment approach in regards to path terminal treatment to prevent unauthorized motor vehicle entry.

Stage 1 – Signage. For example, where required, installation of signs identifying the infrastructure as a path.

Stage 2 – Redesign of path entry appearance to discourage vehicle access.

Stage 3 – Physical barriers such as bollards are last option as they create an unacceptable risk to the cyclists if not planned, designed and installed correctly. Can only be used as a last option if all other alternate options (i.e. stage 1 & 2) have been exhausted and/or not practicable. An instance where centre bollard might be used is to prevent damage to the costly asset such as lightweight pedestrian bridges.

In order to reduce the crash hazard for cyclists, CAG is working on adopting a strategy of removing centre bollards and U-rails from the paths by adopting stage 1 and stage 2 approaches

mentioned above. As such, we would highly appreciate your thoughts and any feedback in regards to our preferred strategy.

Thank you.

Kind Regards,

Muhammad Akbar

Asset Engineer

City Assets Group

Redland City Council

P +617 3843 8099



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

Right to Information Release

From: [Salma Razno](#)
To: [Civic and Open Space Asset Management](#); [PDG Service Managers](#); [Design and Technical Services](#); [Development Control and Development Standards Teams](#); [Project Delivery Group](#)
Subject: Physical barriers (such as bollards and U-rails) in centre of footpaths
Date: Friday, 22 July 2022 8:47:39 AM
Attachments: [image001.png](#)
[image002.png](#)
[02237 Anita Street Footbridge signs 450x600mm low res.pdf](#)

Good morning,

Recently COSAM received an email from City Asset Group regarding the bollards and U rails in the middle of the pathway/cycleway/trails which generally aim to work as a barrier to stop vehicles entering the site.

These bollards have identified a hazard to pathway/trail users, who can crash into them, possibly resulting in serious injury.

Appendix C in TMR's publication Queensland Guide to Traffic Management – Part 6 (QGTM Part 6) states that physical barriers placed at the termination of paths can pose a danger to people riding bikes presenting an obstacle at locations where people riding bikes typically need to be concentrating on ramps, footpaths, road, motor traffic, other path users, and other hazards beyond or before the path.

QGTM Part 6 and DTMR Publication, Road Planning and design manual Volume 3, Supplement to Austroads Guide to Road Design Part 6A: Paths for Walking and Cycling (RPDM Volume 3, Part 6A) prefer the 3-stage assessment approach on path terminal treatments i.e. It means if the first two options were not sufficient, Stage 3 will be applied to the site, conditioned to do some design treatments to reduce risk of accidents.

Stage 1 – Signage. For example, where required install signs per AS 1742.9 and DTMR publication Queensland Manual of Uniform Traffic Control Devices and signs such as which prohibit motor vehicle entry (please refer to the attachment).

Stage 2 – Redesign terminal or path entry appearance to discourage vehicle access. This treatment intends to make it as intuitive as possible to anyone who sees it, that this is not a continuation of the road, but rather a “transition point” from one environment to another.

I have added generally two design principles that can affect users' conception and perception of the open spaces that they are in.

- Ensure accessibility of users to connected street patterns with a clear hierarchy. This is an important feature of good urban design and where they reduce the segregation and isolation of sites they contribute to community safety and also encourage safe walking and cycling.
- Ensure adequate connection and bubbles (transition) are provided between different activities including walking and driving. A transition space is a space that processes a change from one condition to another. The edge between cycleway/pathway and driveway must be clearly defined with variation in material, texture, character, appearance, landscaping, colour ad etc. Visual richness, architectural elements such as gates (e.g. entrance arcs in historical cities), corridors (e.g. Southbank) and public art also can help in changing the character. Behaviour patterns of pedestrians and drivers are severely affected by legibility perception of the environment.

Stage 3 – Physical barriers

Physical barriers are the last option/resort to be used and only after all other options (stages 1 and 2) have been exhausted. Physical barriers pose the most danger to people riding bikes if not planned, designed and installed correctly when implementing stage 3. Section 7.5.3 of DTMR Publication Road Planning and Design Manual Volume 3 (Supplement to Austroads Guide to Road Design Part 6A), and, further Section 7.5 of 'Austroads Guide to Road Design Part 6A – Paths for Walking and Cycling' provide guidance in detail about the terminal treatments and required design consideration addressed in main five sections including clearance, access, geometry, safety and delineation. (Publication no: AGRD06A-17).

What we need to do:

- Avoid considering a bollard as a barrier in the middle of pathways/cycleways in your future design, as much as possible.
- If you already know an area that can trigger a risk to pedestrians/cyclists, please contact Muhammad Akbar, Asset Engineer, City Assets Group and ask for advice.

Please note that the rule does not apply to the bollards which are used as visual/physical perimeters around the activity areas such as parks.

Regards,

Salma Razno

Adviser Landscape Planning and Design

Civic & Open Space Asset Management

Redland City Council

P +617 38438073



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

Right to Information Release

STRICTLY NO VEHICULAR ACCESS



**STRICTLY NO
VEHICULAR
ACCESS
GOLF BUGGIES
EXCEPTED**

From: [Muhammad Akbar](#)
To: [Callam Craig](#)
Cc: [Michael Pattinson](#); [John Frew](#); [Gareth Stephens](#); [Madeline McCormack](#); [Angela Montgomery](#); [Debbie McKenzie](#); [Lorri Watego](#); [Narayan Subedi](#); [Greg Finlay](#)
Subject: RE: Beth Boyd Park Upgrade Project 43957
Date: Friday, 5 August 2022 1:56:53 PM
Attachments: [image001.png](#)
[image002.png](#)

Hi Callam

Thank you for your email. In regard to PDG concern about the new 3 m wide pathway, I can advise that CAG does not support installation of centre bollards for this path. If there is any concerns about unauthorised vehicle access through this path, DTS is suggested to follow the 3-stage design principle outlined in Austroads and DTMR publications. As a handy reference, some relevant sections in this respect are section 7.5. of Austroads publication AGRD06A-17, section 7.5.2 of DTMR Publication, Road Planning and design manual Volume 3 - Supplement to Austroads Guide to Road Design Part 6A, and, Appendix C of the TMR's publication Queensland Guide to Traffic Management – Part 6 (QGTM Part 6).

I would further suggest installation of "R8-2A" shared path signs at all the entry points where the path joins the road along with No entry vehicle signs (the type we had recently installed for the Fellmonger Street footbridge).

Thank you.

Kind Regards,
Muhammad

From: Callam Craig

Sent: Friday, 5 August 2022 7:05 AM

To: Madeline McCormack <Madeline.McCormack@redland.qld.gov.au>; Debbie McKenzie <Debbie.McKenzie@redland.qld.gov.au>; Angela Montgomery <Angela.Montgomery@redland.qld.gov.au>; Lorri Watego <Lorri.Watego@redland.qld.gov.au>; Muhammad Akbar <Muhammad.Akbar@redland.qld.gov.au>; Narayan Subedi <Narayan.Subedi@redland.qld.gov.au>; Greg Finlay <Greg.Finlay@redland.qld.gov.au>

Subject: FW: Beth Boyd Park Upgrade Project 43957

Hi Team,

FYI we have already had an instance where some mowers have entered the park thru a gap in the bollards and sandstone blocks in the newly opened section of stage 1 off Jon street at Beth Boyd Park.

This has been passed onto the mowers supervisors to manage and address with their team, however highlights that this may be an issue in the near future especially if we are not installing any bollards across the 3m wide footpath when it is installed.

Please advise how you would like to manage this moving forward to prevent any further illegal entry to the park and potential safety issues to pedestrians and the general public.

Please see attached site photos and below treatments for reference.

CAG directions about bollards is to follow the three stage assessment approach i.e.

Stage 1 – Signage. For example, install regulatory signs identifying the infrastructure as a path which prohibits motor vehicle entry.

Stage 2 – Redesign terminal appearance/Redesign path entry appearance to discourage vehicle access. Treatments such as pavement markings, different coloured concrete, kerbs, ramps, soft landscaping, and other visual cues. The intent of this treatment is to make it as intuitive as possible to anyone who sees it, that this is not a continuation of the road, but rather a "transition point" from one environment to another.

Stage 3 – Physical barriers

Physical barriers such as bollards are the last option/resort to be used and only after all other options (stages 1 and 2) have been exhausted. Physical barriers pose the most danger to people riding bikes if not planned, designed and installed correctly when implementing stage 3. Design principles for bollards are mentioned in detail in section 7.5.2 of Austroads publication AGRD06A-17. Bollards generally should not be used unless there is clear evidence of unauthorized and undesirable motor vehicle access and any such access may result in damage to the path structure for example footbridge.

As such, unless there is reported clear evidence of unauthorized vehicle access to this pathway, we would prefer installation of Regulatory signs of Shared Path “R8-2A” for the both entrances of this new pathway instead of bollards by following the above mentioned 3-stage assessment approach.

Regards,

Callam Craig

Technical Officer

Project Delivery Group | Infrastructure Projects Unit
Redland City Council

P 07 3843 8071

M



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future

Right to Information Release

Debra Weeks

From: Madeline McCormack
Sent: Friday, 5 August 2022 10:36 AM
To: Callam Craig; Debbie McKenzie; Angela Montgomery; Lorri Watego; Muhammad Akbar; Narayan Subedi; Greg Finlay
Subject: RE: Beth Boyd Park Upgrade Project 43957
Attachments: FW: Beth Boyd Park Upgrade Project 43957

Hi All,

Kindly refer attached email response I received from Muhammad (I sent Muhammad a separate email regarding this concern before I realised Callam sent an email too).

Hi Muhammad,

I believe rearranging the bollards wouldn't make a difference as the 500mm offset from your proposed bollards to the path is no different to the existing 500mm offset from the sandstone blocks to the path. This would only be pushing the issue further along the path.

As per Callam's email below regarding CAG directions for three stage assessment approach, should the Stage 1 signage option be considered in the first instance?

Kind Regards,

Madeline McCormack

Design Lead - Landscape Architecture

Project Delivery | Design & Technical Services

Redland City Council

P +617 3843 8098



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: Callam Craig <Callam.Craig@redland.qld.gov.au>

Sent: Friday, 5 August 2022 7:05 AM

To: Madeline McCormack <Madeline.McCormack@redland.qld.gov.au>; Debbie McKenzie <Debbie.McKenzie@redland.qld.gov.au>; Angela Montgomery <Angela.Montgomery@redland.qld.gov.au>; Lorri Watego <Lorri.Watego@redland.qld.gov.au>; Muhammad Akbar <Muhammad.Akbar@redland.qld.gov.au>; Narayan Subedi <Narayan.Subedi@redland.qld.gov.au>; Greg Finlay <Greg.Finlay@redland.qld.gov.au>

Subject: FW: Beth Boyd Park Upgrade Project 43957

Hi Team,

FYI we have already had an instance where some mowers have entered the park thru a gap in the bollards and sandstone blocks in the newly opened section of stage 1 off Jon street at Beth Boyd Park.

This has been passed onto the mowers supervisors to manage and address with their team, however highlights that this may be an issue in the near future especially if we are not installing any bollards across the 3m wide footpath when it is installed.

Please advise how you would like to manage this moving forward to prevent any further illegal entry to the park and potential safety issues to pedestrians and the general public.

Please see attached site photos and below treatments for reference.

CAG directions about bollards is to follow the three stage assessment approach i.e.

Stage 1 – Signage. For example, install regulatory signs identifying the infrastructure as a path which prohibits motor vehicle entry.

Stage 2 – Redesign terminal appearance/Redesign path entry appearance to discourage vehicle access. Treatments such as pavement markings, different coloured concrete, kerbs, ramps, soft landscaping, and other visual cues. The intent of this treatment is to make it as intuitive as possible to anyone who sees it, that this is not a continuation of the road, but rather a “transition point” from one environment to another.

Stage 3 – Physical barriers

Physical barriers such as bollards are the last option/resort to be used and only after all other options (stages 1 and 2) have been exhausted. Physical barriers pose the most danger to people riding bikes if not planned, designed and installed correctly when implementing stage 3. Design principles for bollards are mentioned in detail in section 7.5.2 of Austroads publication AGRD06A-17. Bollards generally should not be used unless there is clear evidence of unauthorized and undesirable motor vehicle access and any such access may result in damage to the path structure for example footbridge. As such, unless there is reported clear evidence of unauthorized vehicle access to this pathway, we would prefer installation of Regulatory signs of Shared Path “R8-2A” for the both entrances of this new pathway instead of bollards by following the above mentioned 3-stage assessment approach.

Regards,

Callam Craig

Technical Officer

Project Delivery Group | Infrastructure Projects Unit
Redland City Council

P 07 3843 8071

M [REDACTED]



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future

Right to Information Request

Debra Weeks

From: Muhammad Akbar
Sent: Friday, 5 August 2022 10:14 AM
To: Madeline McCormack
Subject: FW: Beth Boyd Park Upgrade Project 43957

Hi Madeline

Further, in continuation to my below email, red and yellow retroreflective tape Class 1A around these proposed recycled plastic bollards at this location is also preferred.

Thank you.

Kind Regards,

Muhammad

From: Muhammad Akbar
Sent: Friday, 5 August 2022 9:57 AM
To: Madeline McCormack <Madeline.McCormack@redland.qld.gov.au>
Subject: RE: Beth Boyd Park Upgrade Project 43957

Hi Madeline

Good morning,

Thank you for your email. At this location, due to the curve in the footpath, any centre bollard treatment is not recommended. However, the recycled plastic bollards can be an option to installed along the west-side of footpath at this location as shown green in the below image. The 3 number bollards next to the tree in the below image can then be removed.

Thank you.

Right to Information Release



Kind Regards,

Muhammad

From: Madeline McCormack
Sent: Friday, 5 August 2022 7:06 AM
To: Muhammad Akbar <Muhammad.Akbar@redland.qld.gov.au>
Subject: FW: Beth Boyd Park Upgrade Project 43957

Hi Muhammad,

Kindly refer attached photos and below email correspondence.

I'm concerned the gap in the bollards where the newly installed path crosses will become an ongoing issue with unlawful access.

Is there something we can do to mitigate this issue?

There will be a potential second access point when the Stage 2 footpath works are completed later this year so it would be good to resolve the issue now before construction work is complete.

Thank you.

Kind Regards,

Madeline McCormack
Design Lead - Landscape Architecture
Project Delivery | Design & Technical Services

Redland City Council

P +617 3843 8098



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: Callam Craig <Callam.Craig@redland.qld.gov.au>
Sent: Friday, 5 August 2022 6:51 AM
To: Graham Russell <Graham.Russell@redland.qld.gov.au>
Cc: Debbie McKenzie <Debbie.McKenzie@redland.qld.gov.au>; Angela Montgomery <Angela.Montgomery@redland.qld.gov.au>; Lorri Watego <Lorri.Watego@redland.qld.gov.au>; Madeline McCormack <Madeline.McCormack@redland.qld.gov.au>
Subject: Beth Boyd Park Upgrade Project 43957

Hi Graham,

As discussed yesterday morning, I noticed that some mowers were entering the Beth Boyd Park foreshore area off John Street by crossing the newly installed footpath and turf. Can you please ensure that they use the existing slide rails to prevent damage to the new works and to prevent potential safety issues with pedestrians and the general public.

Please see attached site photos for reference.

Regards,

Callam Craig
Technical Officer
Project Delivery Group | Infrastructure Projects Unit
Redland City Council

P 07 3843 8071

M [REDACTED]



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

Right to Information Release

No GPS information available

Captured by: Callam Craig
Captured on: 04 August 2022, 8:25:23 am
Tags:
Description:
Comments:



No GPS information available

Captured by: Callam Craig
Captured on: 04 August 2022, 8:25:18 am
Tags:
Description:
Comments:



No GPS information available

Captured by: Callam Craig
Captured on: 04 August 2022, 8:21:34 am
Tags:
Description:
Comments:



No GPS information available

Captured by: Callam Craig

Captured on: 04 August 2022, 8:21:08 am

Tags:

Description:

Comments:



No GPS information available

Captured by: Callam Craig
Captured on: 04 August 2022, 8:20:58 am
Tags:
Description:
Comments:



From: [Max Corte](#)
To: [Samantha Bosworth](#)
Subject: FW: Physical barriers (such as bollards and U-rails) in centre of the footpath
Date: Wednesday, 28 September 2022 10:35:59 AM
Attachments: [image001.png](#)
[image002.png](#)

From: Max Corte

Sent: Thursday, 30 June 2022 10:04 AM

To: David Katavic <David.Katavic@redland.qld.gov.au>; Laurence Blacka <Laurence.Blacka@redland.qld.gov.au>; Rory House <Rory.House@redland.qld.gov.au>

Subject: RE: Physical barriers (such as bollards and U-rails) in centre of the footpath

Whilst incidence of cyclists colliding with the yellow reflective bollard's are rare, I can understand CAG's desire to remove the risk.

I do not believe option 1, involving signage would be very effective and instead believe risk profiling of parks and open spaces to determine the requirement for bollards at all could be more suitable. Additionally, redesign of identified problem areas could be completed to minimise the risk.

Thanks,

Max Corte

Senior Parks & Conservation Supervisor

City Operations
Redland City Council

P +617 3820 1162

M



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: David Katavic

Sent: Wednesday, 29 June 2022 10:39 AM

To: Max Corte <Max.Corte@redland.qld.gov.au>; Laurence Blacka <Laurence.Blacka@redland.qld.gov.au>; Rory House <Rory.House@redland.qld.gov.au>

Subject: FW: Physical barriers (such as bollards and U-rails) in centre of the footpath

Thoughts

Regards

David Katavic

Parks & Conservation Service Manager

City Operations
Redland City Council

P +617 3829 8331



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: Muhammad Akbar

Sent: Tuesday, 28 June 2022 1:24 PM

To: Paul Storan <Paul.Storan@redland.qld.gov.au>; Carolyn Jackson <Carolyn.Jackson@redland.qld.gov.au>; David Katavic <David.Katavic@redland.qld.gov.au>; Frances Hudson <Frances.Hudson@redland.qld.gov.au>; Catherine Fien <Catherine.Fien@redland.qld.gov.au>

Cc: John Frew <John.Frew@redland.qld.gov.au>; Narayan Subedi <Narayan.Subedi@redland.qld.gov.au>

Subject: Physical barriers (such as bollards and U-rails) in centre of the footpath

Dear Team

CAG is working on adopting a council wide strategy in regards to installation of bollards or U-rails in the centre of footpath. Historically bollards were used extensively as a physical barriers to prevent vehicle access to the parks and open spaces. However they pose serious hazard for cyclists when installed in the middle of footpath. A further reference in this respect is to an incident in Aquatic Paradise Park East, where cyclist involved in hitting the centre bollard on footpath is now paraplegic.

Guidelines and publications of DTMR and Austroads suggest to adopt below 3-stage assessment approach in regards to path terminal treatment to prevent unauthorized motor vehicle entry.

Stage 1 – Signage. For example, where required, installation of signs identifying the infrastructure as a path.

Stage 2 – Redesign of path entry appearance to discourage vehicle access.

Stage 3 – Physical barriers such as bollards are last option as they create an unacceptable risk to the cyclists if not planned, designed and installed correctly. Can only be used as a last option if all other alternate options (i.e. stage 1 & 2) have been exhausted and/or not practicable. An instance where centre bollard might be used is to prevent damage to the costly asset such as lightweight pedestrian bridges.

In order to reduce the crash hazard for cyclists, CAG is working on adopting a strategy of removing centre bollards and U-rails from the paths by adopting stage 1 and stage 2 approaches mentioned above. As such, we would highly appreciate your thoughts and any feedback in regards to our preferred strategy.

Thank you.

Kind Regards,

Muhammad Akbar

Asset Engineer

City Assets Group

Redland City Council

P +617 3843 8099



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

Request Enquiry (Enquiry)		
Application ID	Received On	Full Details
CRCI042502	9/03/2021 8:57:21 AM	[REDACTED]
CRCI043747	24/08/2021 3:17:49 PM	[REDACTED]
CRCI045467	27/05/2022 11:10:35 AM	<p>ONLINE REQUEST : review of yellow bollard "Just witnessed 3rd cyclist hitting yellow metal pole in middle of footpath opposite my house [REDACTED] This time a school [REDACTED] hurt [REDACTED] 1st time this happened was a couple of years ago and I since heard [REDACTED] hit it is now a paraplegic. A few months ago a [REDACTED] person hit it and hurt [REDACTED] I realise you have it there to block the way so that cars cannot drive onto the park and damage the grass. I would suggest looking at the possibility of putting 2 poles there. One at each side of the pavement so this doesn't happen again and cars still can't get through. "</p>
CRCI045838	3/08/2022 1:03:55 PM	<p>COUNCILLOR REQUEST - Request for bollard replacement Mary Street, Birkdale (opposite primary school) - refer Obj Doc ID#A6861524 Bollards located in Mary Street at Birkdale. There are 2 of these adjacent to a driveway about 100 m along Mary Street from Birkdale Road on the opposite side to the school. [REDACTED] only to trip over it and fall</p> <p>PLEASE ENSURE AN OUTCOME IS FORWARDED TO THE RESIDENT AND THE ELECTED MEMBER</p>
CRCI045840	3/08/2022 2:48:57 PM	<p>COUNCILLOR REQUEST - Request for bollards footpath 1-13 Beckwith Street, Ormiston - refer Obj Doc ID#A6862445 "This is a photo I took today of the new cycle way at the above new estate. Can I please ask for a follow up on a previous request for a bollard to be installed to prevent vehicles using the pathway?" (Photograph in Objective, refer A6862445) CSC Note - CRM raised as unable to locate existing CRM in P&R</p> <p>PLEASE ENSURE AN OUTCOME IS FORWARDED TO THE ELECTED MEMBER</p>
CRCI045844	4/08/2022 11:48:40 AM	<p>COUNCILLOR REQUEST - Request for New Bollard to Restrict Access - refer Obj Doc ID#A6864846 PLEASE ENSURE AN OUTCOME IS FORWARDED TO THE RESIDENT AND THE ELECTED MEMBER "bollard required to prevent motorbikes using pedestrian link from Hardy road near Mary Mackillop school to Plantation Place"</p> <p>Refer obj.</p>

From: [Redland City Council](#)
To: [ICCC eServices](#)
Subject: CRCI045467 Park Bollard [REDACTED]
Date: Thursday, 26 May 2022 1:54:56 PM



Online Request

ICCC9069

I would like to...	
Please select from the options below	Report an issue (E.g pothole, trees, roads and paths, animals)
Type of problem	Roads and paths
Where is the tree located?	
What is the issue/s with the tree?	
Your tree request cannot be processed	
Trees	
The tree is located on the	
Location of tree	
Enter the	

Right to Information Release

species of the tree if known	
Height of the tree in metres	
Provide any additional information about the issue	
Please attached any photos of the issue	
Report an issue	
Location of problem	Bath St, Birkdale QLD 4159, Australia Map (-27.483605, 153.224627)
Description	<p>Just witnessed 3rd cyclist hitting yellow metal pole in middle of footpath opposite my house [redacted]</p> <p>[redacted] This time a school [redacted]</p> <p>[redacted] hurt [redacted]</p> <p>[redacted] 1st time this happened was a couple of years ago and I since heard [redacted] hit it is now a paraplegic. A few months ago a [redacted] person hit it and hurt [redacted]</p> <p>[redacted] I realise you have it there to block the way so that cars cannot drive onto the park and damage the grass. I would suggest looking at the possibility of putting 2 poles there. One at each side of the pavement so this doesn't happen again and cars still can't get through.</p>
Please attach photos or documents which support the details provided	

Right to Information Release

Ask a question	
Ask your question below	
Please attach any relevant documents or photos	
Feedback	
Please enter your feedback	
Please attach any relevant documents or photos	
Complaints	
I want to make a complaint about a:	
Is this an existing complaint?	
Please enter your reference number	
Complaint details (please provide as much detail as possible for us to investigate your complaint):	
What would you like to see happen as a	

Right to Information Release

result of your complaint?	
Do you have any attachments you'd like to upload?	
Please upload any supporting information, documentation or photos	
Your request cannot be processed	
Compliments	
I would like to compliment a	
Does this compliment relate to a previous request?	
Please enter your reference number	
Compliment details (please provide as much detail as possible so your compliment can be sent to the correct area):	
Do you have any relevant	

Right to Information Release

attachments to upload?	
Please upload your relevant attachments here:	
Contact details	
Preferred contact method	Email
Title	
Full name	
Company (if applicable)	
Email address	
Contact number	
Address	
Suburb	
State	
Postcode	

Right to Information Release

Debra Weeks

From: Christina Crosthwaite on behalf of Customer Contact Centre
Sent: Friday, 27 May 2022 11:13 AM
To: [REDACTED]
Subject: Online enquiry - yellow bollards

Hello [REDACTED]

Thank you for using our online portal to report your concerns with the placement of the yellow bollards on the pathway at Aquatic Paradise Park East. We have logged a request to our City and Open Space Asset Management department and asked that they investigate the matter you have outlined.

Your reference number is: **CRCI045467**.

Should you need to contact Council again in relation to this matter, please telephone our Customer Service Contact Centre on 07 3829 8999 or email ccc@redland.qld.gov.au and a Council Officer will be pleased to assist you.

Kind regards,

Chrissy

ICCC Communications Officer

Integrated Customer Contact Centre
Redland City Council

P +617 3829 8999



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

Right to Information Release

Debra Weeks

From: [Redacted]
Sent: Wednesday, 13 July 2022 12:49 PM
To: CIGBusinessSupport
Subject: Re: Customer Request CRCI045467
Attachments: image002.png

Thanks Muhammad.
Best regards [Redacted]

On Wed, 13 Jul 2022, 12:38 pm CIGBusinessSupport, <cigbusinesssupport@redland.qld.gov.au> wrote:

To [Redacted]

Re: Customer Request CRCI045467

Dear [Redacted]

Thank you for your request for the removal of centre bollard from the footpath opposite to [Redacted] (CRCI045467).

First, I would like to apologise for the time taken in responding to your request. Council has assessed your request and can advise that we have requested our maintenance team to remove this bollard. As such, it will be removed as soon as possible.

We trust this information is of assistance. We wish to take this opportunity to thank you for your request and taking an interest in the public safety and amenity of our city and its infrastructure.

Kind Regards,

Muhammad Akbar

Asset Engineer

City Assets

Redland City Council

P +617 3829 8999




DISCLAIMER:

This email is intended for the named recipients only. Information in this email and any attachments may be confidential, privileged or subject to copyright. Any reproduction, disclosure, distribution, or other dissemination is strictly prohibited, unless authorised by the author. Use of this email, or any reliance on the information contained in it or its attachments, other than by the addressee, is strictly prohibited. If you have received this email in error, please notify the sender immediately and delete all copies of the message and attachments. Neither Redland City Council nor the sender warrant that this email does not contain any viruses or other unsolicited items.

Please consider the environment before you print this e-mail or any attachments.

Works Request Site Plan

Request ID:		
Location	Aquatic Paradise Park East – 2A Bath Street, Birkdale 4159	
Works Type:	Removal of 5 number centre bollards from the footpath in this park.	
Works Sub Type:		

Work Request Site Plan

Remove 5 number centre bollards from the footpath at the locations identified in the image below.



Site map of the location (Aquatic Paradise Park East)

Reason for Removal: Several incidents have been reported of cyclists hitting these bollards. These bollards are not installed in accordance with the current guidelines of DTMR and Austroads publications. As such, removal of these bollards is requested as a priority ASAR please.

Technical Officer

Street: Bath Street
 Street:
 Suburb: Birkdale

Division: 10

Requested by: [Redacted]
 Muhammad Akbar 10368 13/07/2022
 Name Position No Date

Ordering Officer

Objective Ref:

WR:

External Order & Date Placed:

Cost code:

Notes:

WORK ORDER

ORDER DETAILS

WORK ORDER ID	PRIORITY	SCHEDULED START	SCHEDULED FINISH
WO124299	Non Critical Maintenance on Operational Assets (90 days)	29/07/2022 12:00 AM	26/08/2022 12:00 AM
WORK TYPE	EXTERNAL ID	REFERENCE NUMBER	Responsible Officer
MD - Non Maintenance		CRCI045467	
Brief Description			
Please remove 5 centre bollards from the footpath in Aquatic Paradise Park East, Birkdale.			

ASSET DETAILS

ASSET ID	ASSET NAME	ASSET CATEGORY
175139	Path - Asphalt	Pathways
ASSET TYPE	ASSET CLASS	CRITICALITY
Pedestrian (Pathway)	Path & Cycleways (Path & Cycleways)	2 - High
SUBURB	DEFECT LOCATION	
Birkdale	2 Bath St, Birkdale QLD 4159, Australia	

FCR

FAILURE	CAUSE	REMEDY
		Remove

TASK

TASK	DESCRIPTION

SUPPORTING INFORMATION

WR51269 : Linked Work Order has been completed.

Last updated by Rex Roebeck 2/08/2022 7:15:58 AM

Remove bollards x5 bollards x2 concreted concrete hole bollards x3 dynabolted patchwork x3

Last updated by Howard Gschwendner 1/08/2022 11:48:50 AM

Hi Howard please organized with Mauricio to give you guys a hand to remove these Bollards, thanks mate

Last updated by Rex Roebeck 30/07/2022 3:08:32 PM

WR51269 : Have been to site to investigate and we are thinking this will need to happen city wide and will become a large project will schedule a meeting with CAG

Last updated by James Fletcher 18/07/2022 11:41:10 AM

WR51269 : Please remove 5 centre bollards from the footpath in Aquatic Paradise Park East, Birkdale.

Last updated by Tracey Noonan 14/07/2022 8:06:55 AM

Comments

LABOUR

TASK	CRAFT	QTY PLANNED	Hours Required
	RDM Crew Internal	1	1.00

RESOURCE

TASK	NAME	CRAFT	ACTUAL HOUR	COMPLETE DATE	SIGNATURE
	Howard Gschwendner	RDM Crew Internal	12.00	8/1/2022 11:50:10 AM	

MATERIAL

Task	ITEM	QTY PLANNED	QTY ACTUAL

--	--	--	--

SERVICE			
TASK	DESCRIPTION	QTY PLANNED	QTY ACTUAL

Right to Information Release

Debra Weeks

From: Stacey Swanson on behalf of Corporate eMailbox
Sent: Wednesday, 3 August 2022 1:10 PM
To: [REDACTED]
Subject: Division 10 - CR Acknowledgement

This email is sent on behalf of Councillor Paul Bishop, representing Division 10, Birkdale and Thorneside

Your Ref: CRCI045838
Our ref: A6861524

[REDACTED]
Hello [REDACTED]

Further to my earlier email, I have referred your correspondence to Redland City Council officers and asked that they investigate the matters you have outlined regarding the bollards in Mary Street, Birkdale.

I have raised Customer Request **CRCI045838** on your behalf for this matter. Once the investigation by officers is finalised you will be advised of the outcome.

Should you need to need to contact Council again in relation to this matter please telephone **(07) 3829 8999** or email rcc@redland.qld.gov.au, quote **CRCI045838** and a Council officer will be pleased to assist you.

I appreciate you taking the time to bring this matter to my attention.

Best wishes,

Paul Bishop
Councillor for Division 10 (Birkdale/Thorneside) Redland City Council
paul.bishop@redland.qld.gov.au
Supporting Local Community Action

Right to Information Release

Debra Weeks

From: Natalie Robertson on behalf of Division 10 Support
Sent: Wednesday, 3 August 2022 8:43 AM
To: ICCC eServices
Subject: FW: Dangerous Bollard.

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning ICCC,

Please raise a CR and advise CR reference number for Division 10.

Thank you for your assistance in advance.

Kind regards

Natalie Robertson

Executive Support Officer

Corporate Governance | Councillors Executive Support
Redland City Council

P +617 3829 8589



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: Cr Paul Bishop <Paul.Bishop@redland.qld.gov.au>
Sent: Tuesday, 2 August 2022 9:04 PM
To: [REDACTED]
Cc: Division 10 Support <Division10Support@redland.qld.gov.au>
Subject: Re: Dangerous Bollard.

Hello [REDACTED]

I am very sorry to hear of this circumstance and most grateful to you for sharing this experience with me so I can let officers know how important this matter is for some of our local residents [REDACTED]

It is really important feedback and I will ask officers to consider the placement, design and proposal for a more suitable way of ensuring safety, while preventing vehicle entry, which seems to be the reason for their unusual (yet specific) placement.

I will also ask an officer to make enquires and touch base with you, especially if they need further information. The inclusion of a photograph is greatly appreciated, thank you.

Kind regards and best wishes,

Paul Bishop
Councillor Division 10 (Birkdale/Thorneside)
Redland City Council
Mobile: **0478 836 286**
paul.bishop@redland.qld.gov.au
Supporting Local Community Action

On 2 Aug 2022, at 4:11 pm,

Hello Paul,

[Redacted]
[Redacted] Bollards located in Mary Street at Birkdale.
There are 2 of these adjacent to a driveway about 100 m along Mary Street from Birkdale Road on the opposite side to the school.

[Redacted]
[Redacted] only to trip over it and fall
[Redacted]

[Redacted]
[Redacted] Thank
you Paul in advance for your help with this issue!

Regards,

[Redacted]

Right to Information Release



Sent from my iPhone dangerous

Right to Information Release

Debra Weeks

From: Natalie Robertson on behalf of Division 1 Support
Sent: Wednesday, 3 August 2022 9:45 AM
To: ICCC eServices
Subject: FW: 1-13 Beckwith St Ormiston

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning ICCC,
Please raise a 2 x CR and advise 2 x CR reference number for Division 1.
Thank you for your assistance in advance.
Kind regards

Natalie Robertson

Executive Support Officer

Corporate Governance | Councillors Executive Support
Redland City Council

P +617 3829 8589



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: Cr Wendy Boglary <Wendy.Boglary@redland.qld.gov.au>
Sent: Tuesday, 2 August 2022 10:45 PM
To: Division 1 Support <Division1Support@redland.qld.gov.au>
Subject: 1-13 Beckwith St Ormiston

Hello Natalie

This is a photo I took today of the new cycle way at the above new estate.

Can I please ask for a follow up on a previous request for a bollard to be installed to prevent vehicles using the pathway?

Also at present there is a hose across it causing a trip hazard for cyclists and pedestrians - can compliance please investigate?

Thank you

Right to Information Release



Sent from my iPhone

Right to Information Release

Debra Weeks

From: Natalie Robertson on behalf of Division 1 Support
Sent: Wednesday, 3 August 2022 4:23 PM
To: ICCC eServices
Subject: 20220803 Cr Boglary Request for New Bollard 20 Plantation Place Wellington Point

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon ICCC,
Please raise a CR and advise CR reference number for Division 1.
Thank you for your assistance in advance.
Kind regards

Natalie Robertson

Executive Support Officer

Corporate Governance | Councillors Executive Support
Redland City Council

P +617 3829 8589



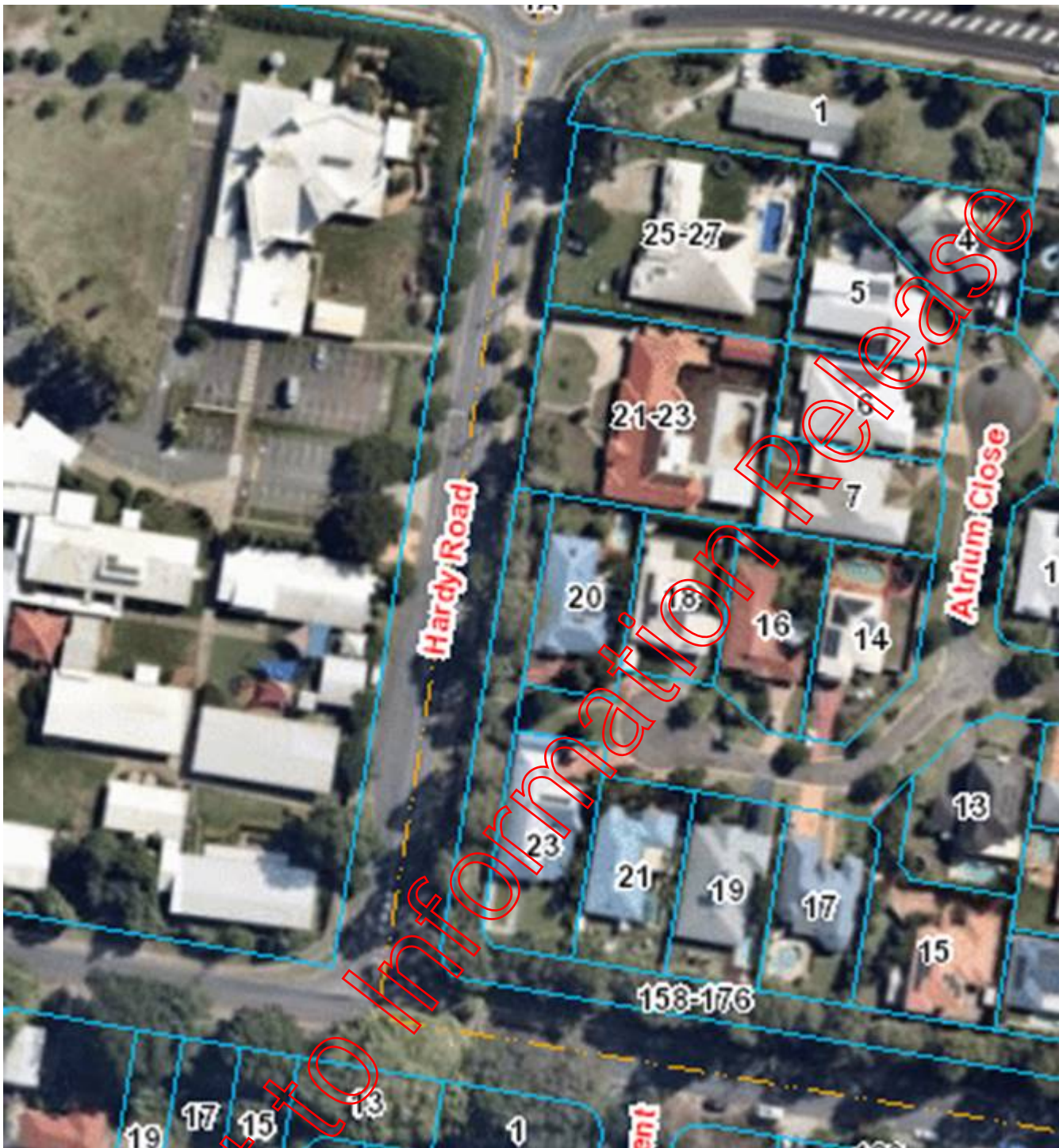
I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

From: Cr Wendy Boglary <Wendy.Boglary@redland.qld.gov.au>
Sent: Wednesday, 3 August 2022 3:13 PM
To: Division 1 Support <Division1Support@redland.qld.gov.au>
Subject: bollard required to prevent motorbikes using pedestrian link from Hardy road near Mary Mackillop school to Plantation Place

Hello Nat

At last month's P&C this concern was raised and we placed a cr – can we please follow up as it was mentioned again today as motor bikes are using the laneway with children walking and playing in the area.

Thanks
Wendy



Warm regards,
Councillor Wendy Boglary
Councillor Division 1
Wellington Point/Ormiston
Redland City Council
3829 8619
0408 543 583

Follow me on facebook for daily updates



I acknowledge the traditional custodians of the lands and seas where I work. I pay my respects to Elders, past, present and future.

Right to Information Release