Upper Harbour Drive Community Workshop

29 Sept 2022

Let's go there

Ground rules

- Respect the ideas and beliefs of all participants and provide an atmosphere where all feel comfortable to participate
- Listen to try and understand others' perspectives, values and aspirations
- Make sure everyone is able to contribute
- Everyone has equal and valuable contributions and we want to hear from everyone
- Use 'I' statements (i.e. speak only for yourself) unless specifically mandated by others to speak on their behalf
- Question/challenge assumptions and ask for clarification when unsure
- Recognise the real constraints of time, money, resources and space available to create cycling improvements

Todays workshop

Overview

The purpose of this workshop is to work with key stakeholders to help identify the most desirable, feasible, viable and fit for purpose commuter facility along Upper Harbour Drive.

Programme

- Overview of facility opportunities and constraints
- Participant review of AT research
- Whole group discussion
- Participants identify most desirable facilities for Upper Harbour Drive
- Whole group reflection on summary of findings and insights
- Next Steps
- Close

Auckland Transport
Cycling & Micromobility Programme

Adrian Lord
Head of Cycling
Auckland Transport

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Context

- Challenges – now and for future generations
- Auckland Council Regional Land Transport Plan

- Strategic Cycle Route Network and Programme

- Good Practice in Cycle Route Design

Outcomes

- Safe for all users – whatever mode
- Convenient and attractive place to walk or cycle that will appeal to new users
- A layout that functions for public transport, refuse collection, deliveries
- As far as we can – to accommodate/reconcile differing priorities of residents and other road users

Pros & Cons

Mitra Prasad
Technical Lead - Active Modes
Network Management
Auckland Transport

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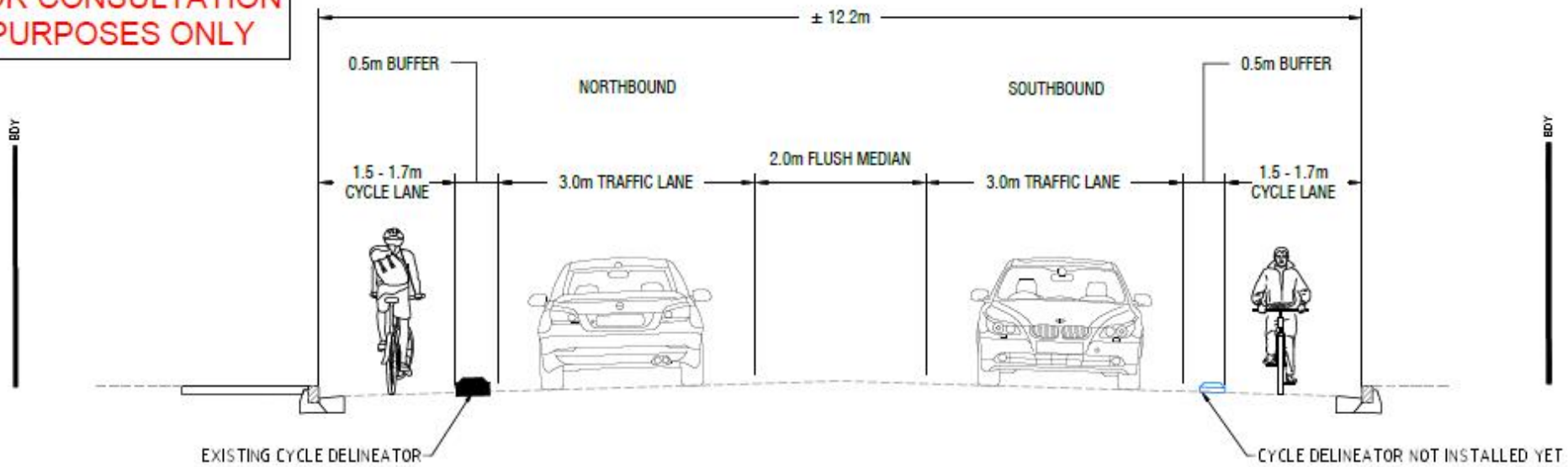
TYPICAL MIDBLOCK EXISTING CROSS SECTION (SOUTHERN END)



A — TYPCIAL MIDBLOCK EXISTING CROSS SECTION (SOUTHERN END)– WITH FLUSH MEDIAN
NTS

DRAWING 501: UPPER HARBOUR DRIVE – EXISTING TYPICAL CROSS SECTION (SOUTHERN END)

TYPICAL CROSS SECTIONS

No	Revision	Drawn	Checked	Approved	Date
A	FIRST ISSUE	SP	JD	BR	09/22

FOR: Auckland Transport

BY: TRAFFIC ENGINEERING SOLUTIONS LIMITED
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Date: 23/09/2022
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Client: AUCKLAND TRANSPORT
Project: ROAD MARKING IMPROVEMENTS
UPPER HARBOUR DRIVE
TYPICAL CROSS SECTION

A3 Project No: T22129 Drawing No: 501 Rev: A

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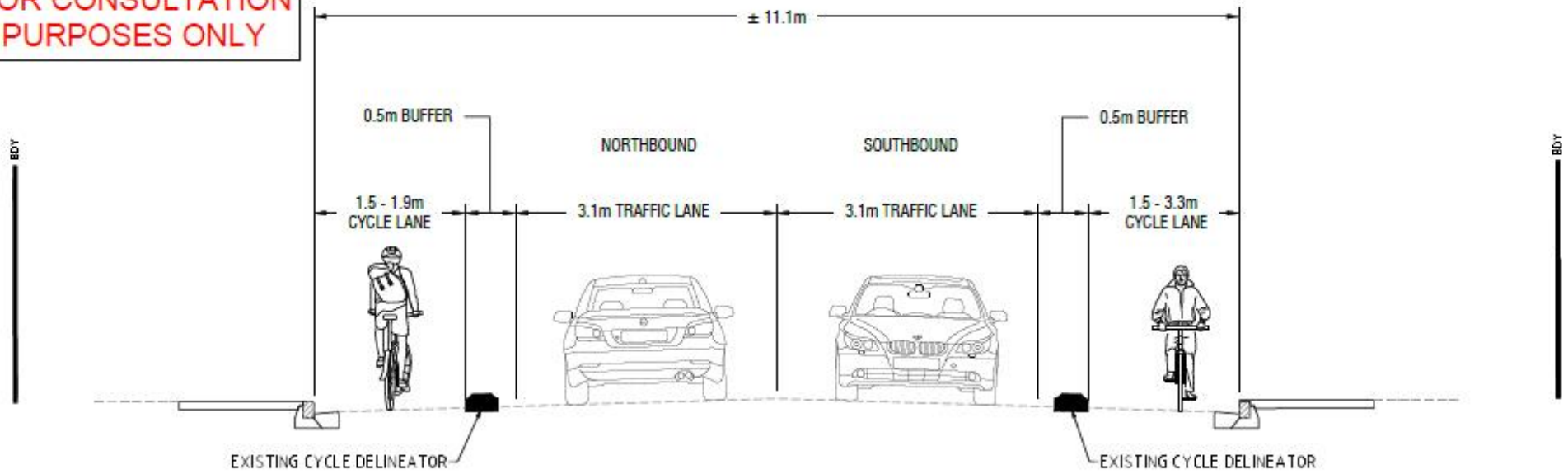
TYPICAL MIDBLOCK EXISTING CROSS SECTION (NORTHERN END)



B — TYPICAL EXISTING CROSS SECTION (NORTHERN END) – WITHOUT FLUSH MEDIAN
NTS

DRAWING 502: UPPER HARBOUR DRIVE – EXISTING TYPICAL CROSS SECTION (NORTHERN END)

TYPICAL CROSS SECTIONS

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UPPER HARBOUR DRIVE
TYPICAL CROSS SECTION

Original Size: A3 Project No: T22129 Drawing No: 502 Rev: A

File Date: 23 September 2022 - 12:17 pm Cad File No: G:\Traffic Projects\T22 Projects\T22129 Upper Harbour Drive\Auto CAD\Auto CAD Files\Typical Cross Sections.dwg

Schemes considered

Scheme 1	Original road layout
Scheme 2	Existing road layout with Audio Tactile Panels (ATP)
Scheme 2	Remove separators, add ATP and speed calming
Scheme 2	Replace separators
Scheme 3	Shared path
Scheme 4	Narrow flush median, add buffers
Scheme 5	Bidirectional cycleway

Core considerations for improvements

SAFETY	SAFETY	SAFETY	DELIVERY FEASIBILITY	$
Cyclist safety from vehicles and perceived safety and amenity for less confident cyclists	**Vehicles safety** from colliding with separators and head on collision risk	**Pedestrian safety** and amenity (most schemes do not impact pedestrians)	High level assessment on the **scope of works** required, timeframes and outcomes	High level assessment on the likely **cost**

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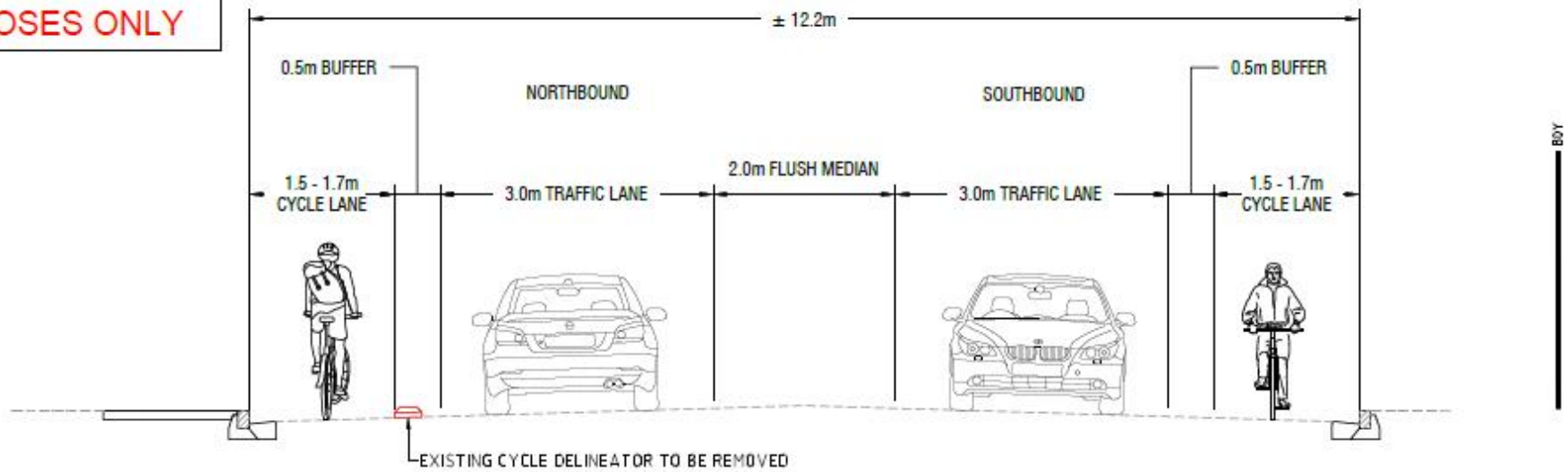
SCHEME 1 - CYCLE SEPARATORS REMOVED



C — TYPICAL PROPOSED CROSS SECTION (SOUTHERN END)– CYCLE SEPARATORS REMOVED
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DRAWING 503: UPPER HARBOUR DRIVE –TYPICAL PROPOSED CROSS SECTION – SOUTHERN END – CYCLE SEPARATORS REMOVED

TYPICAL CROSS SECTIONS

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Project: ROAD MARKING IMPROVEMENTS
UPPER HARBOUR DRIVE
TYPICAL CROSS SECTION

A3 Project No: T22129 Drawing No: 503 Rev: A

Scheme 1

	SAFETY	SAFETY	SAFETY	DELIVERY FEASIBILITY	$
Original road layout (remove recently installed cycle separators)	Very low: Cyclists will have no physical protection, and vehicle speeds will be high. Less confident cyclists unlikely to use the cycle route.	Moderate: Vehicle speeds are too high with risk of head on collisions still present, but with removal of cycle separators motorists will not collide into the devices.	No change from existing	Delivered easily	Low

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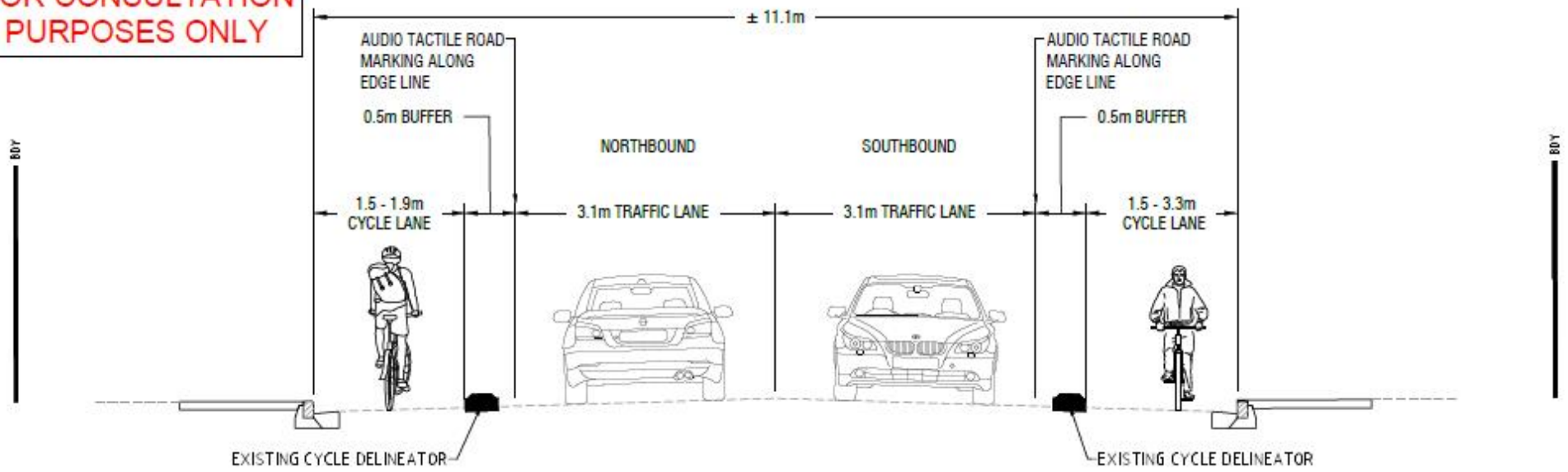
SCHEME 2 - AUDIO TACTILE ROAD MARKING ALONG CYCLE BUFFER EDGE LINES



D — TYPICAL PROPOSED CROSS SECTION – WITH AUDIO TACTILE ROAD MARKING ALONG CYCLE BUFFER EDGE LINES
NTS

DRAWING 504: UPPER HARBOUR DRIVE – TYPICAL PROPOSED CROSS SECTION – NORTHERN END – AUDIO TACTILE ROAD MARKING ALONG CYCLE BUFFER EDGE LINES

TYPICAL CROSS SECTIONS

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Client: AUCKLAND TRANSPORT
Project: ROAD MARKING IMPROVEMENTS
UPPER HARBOUR DRIVE
TYPICAL CROSS SECTION

Signature A3 | Project No: T22129 | Drawing No: 504 | Rev: A

File Date: 23 September 2022 - 12:17 pm | Cad File No: G:\Traffic Projects\T22 Projects\T22129 Upper Harbour Drive\Auto CAD\Auto CAD Files\Typical Cross Sections.dwg

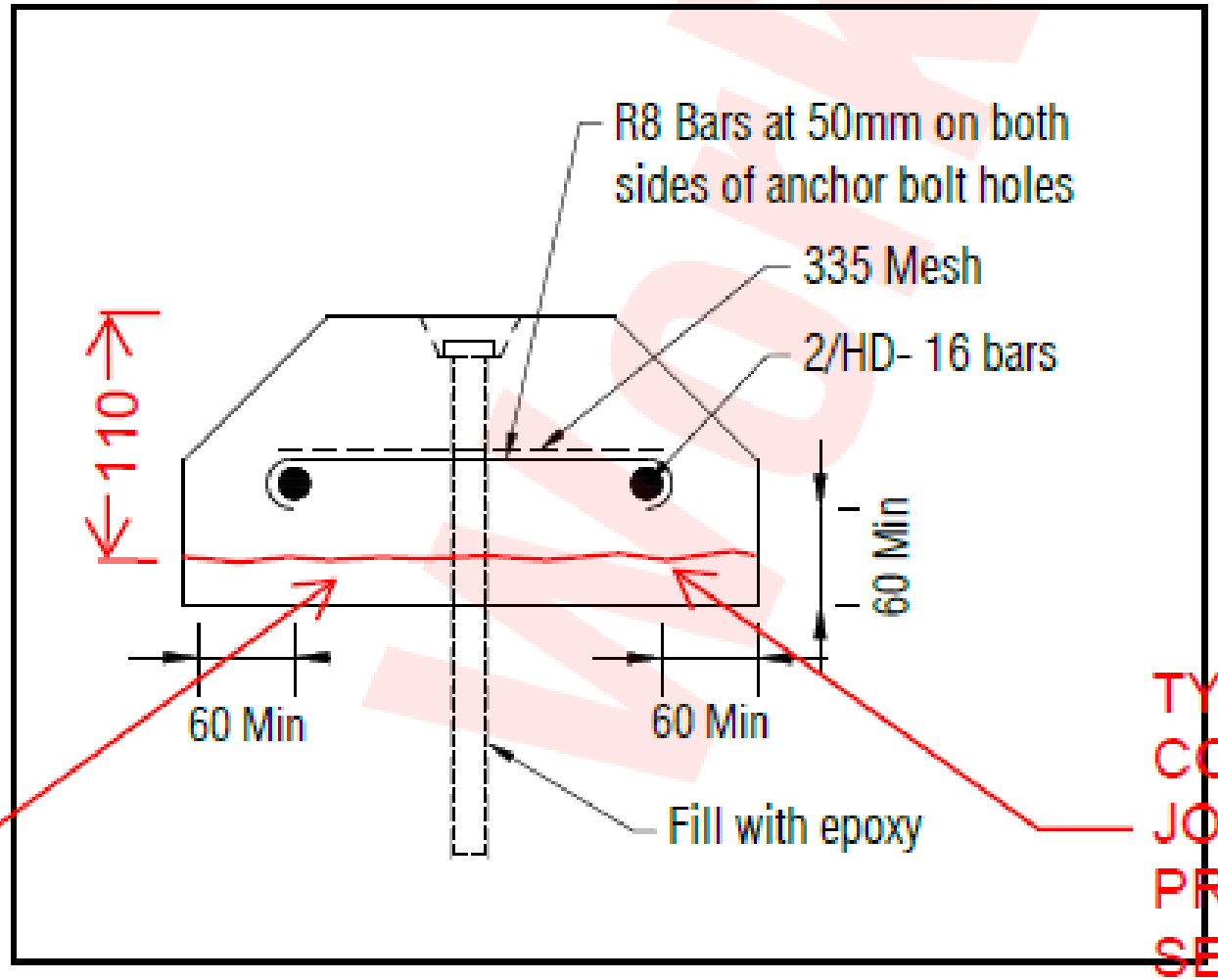
Scheme 2

	SAFETY	SAFETY	SAFETY	DELIVERY FEASIBILITY	$
Existing road layout with Audio Tactile Paving along cycle buffer edgelines	High: Cyclists protected	Low: Vehicle speeds are too high, and vehicle collisions into separators likely to continue, though generally non-injury crashes.	No change from existing	Poor outcome: Audio Tactile Paving will be likely to create a noise issue for local residents.	Low
Remove separators and add ATP & speed calming (raised or deflection?)	Moderate: Removal of separators will reduce safety for cyclists, unless vehicle speeds reduced to around 30km/h. Less confident cyclists unlikely to be encouraged to use the route..	Moderate: If vehicle speeds were reduced to around 50km/h, then vehicle safety would be improved, and DSI unlikely. However, significant changes to the road layout would be necessary to achieve such speed reduction, such as road humps at regular intervals, and/or carrigeway width reduction.	No change from existing	Low Feasibility:: Speed reduction to around 50km/h would require significant changes to the carriageway cross-section, or vertical deflection at regular intervals. As the route is an Overdimension route, speed calming design would need to meet OD standards. ATP creates noise issue.	High
Change separator type (in isolation, or in combination with other options)	Moderate: If new cycle separators were installed along both cycle buffers that could discourage motorists from using the cycle lane while not being a hazard to motorists, then cyclist safety could be improved. However, if cycle separators are mountable, then cycle safety/amenity would be compromised, as motorists would traverse the cycle lanes, and less confident cyclists wouldn't use the route.	Moderate: Vehicle speeds are too high, but lower profile cycle separators would provide less damage to motorists if hit, and lower risk of DSI.	No change from existing	Moderate feasibility: All existing cycle separators would need to be removed, and a suitable alternative identified.	Moderate

Rubber separator

Centre Module: 1000(L) x 250(W) x 80(H)mm each

Lower concrete separator

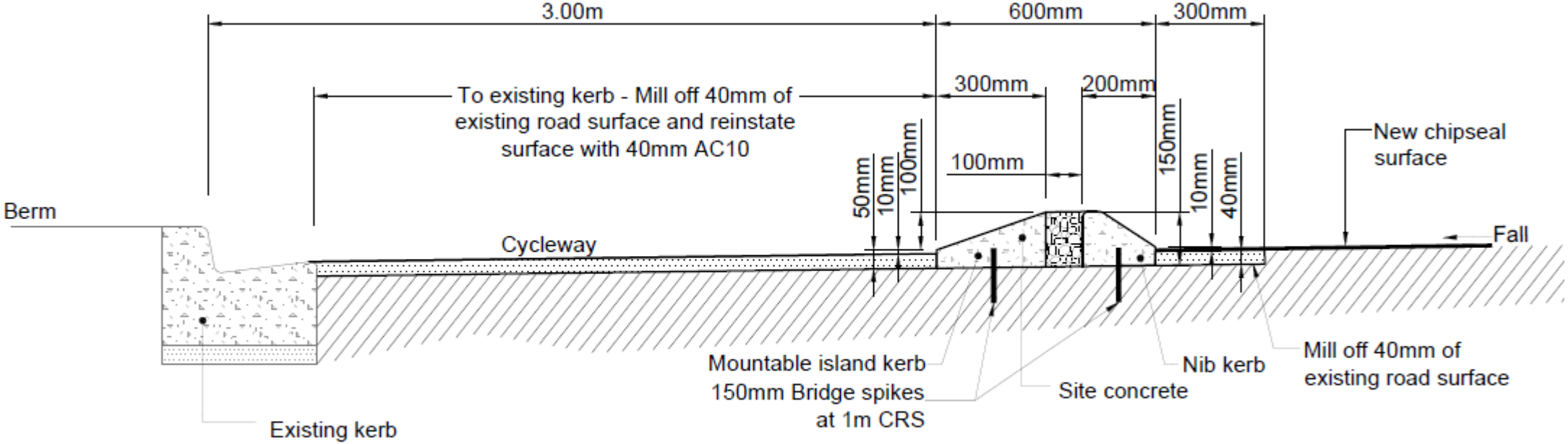


TYPE B CONSTRUCTION JOINT AT BASE OF PRECAST SEPARATOR

20mm LEVELLING GROUT MAXIMUM

TYPICAL ENLARGED CROSS SECTION

Insitu concrete separator



TYPICAL SECTION (A-A)

Scale 1:12.5 (A1), 1:25 (A3)

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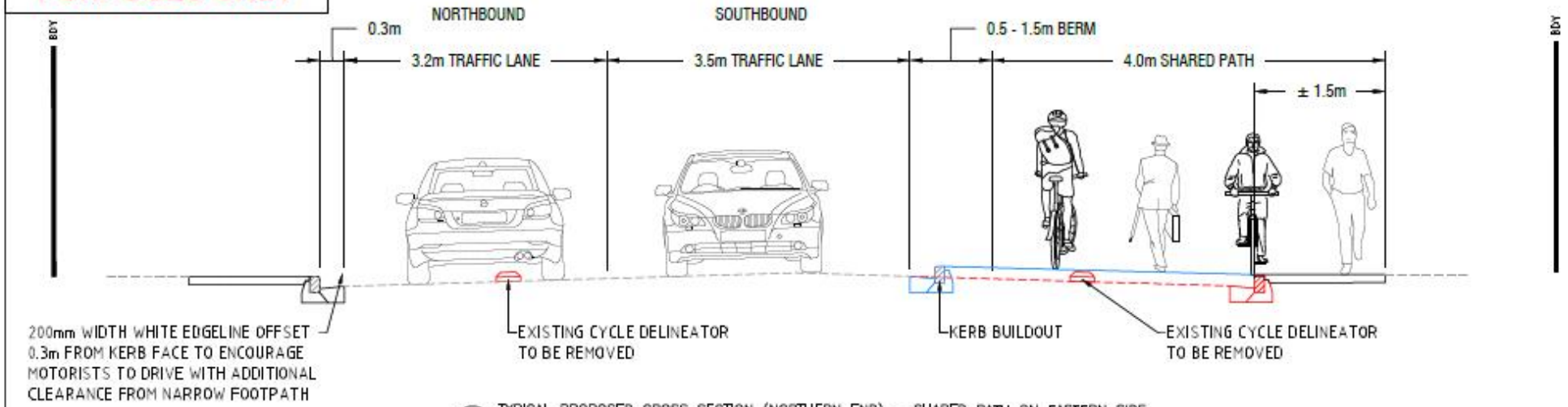
SCHEME 3 - SHARED PATH ON THE EASTERN SIDE



E — TYPICAL PROPOSED CROSS SECTION (NORTHERN END) – SHARED PATH ON EASTERN SIDE
NTS

DRAWING 505: UPPER HARBOUR DRIVE – TYPICAL PROPOSED CROSS SECTION
– NORTHERN END – NORTHBOUND – SHARED PATH ON EASTERN SIDE

TYPICAL CROSS SECTIONS

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Client AUCKLAND TRANSPORT
Project ROAD MARKING IMPROVEMENTS
UPPER HARBOUR DRIVE
TYPICAL CROSS SECTION

A3 Project No: T22129 Drawing No: 505 Rev: A

Scheme 3

	SAFETY	SAFETY	SAFETY	DELIVERY FEASIBILITY	$
Shared path on eastern side	Moderate: A separate and raised shared path would provide a high level of safety and amenity for cyclists, and would align with the long-term strategic plan for cycle infrastructure. Less confident cyclists would be encouraged to use the route. However, high speed cyclists travelling downhill in groups may pose a risk to other shared path users. Also, high-speed cyclists may avoid the shared path, defeating its purpose.	Moderate: /Narrowing the carriageway would be likely to have a traffic calming effect, especially in combination with vertical deflection at key junctions/crossing locations, and judder bars at all private driveways.	Moderate: A shared path would result in a new conflict between pedestrians and cyclists	Low feasibility: Long term planning, and extensive period for consultation/construction. Extending the kerb would require careful reassessment of storm water drainage, and be likely to require new storm water catchpits/connections along the route.	Very High

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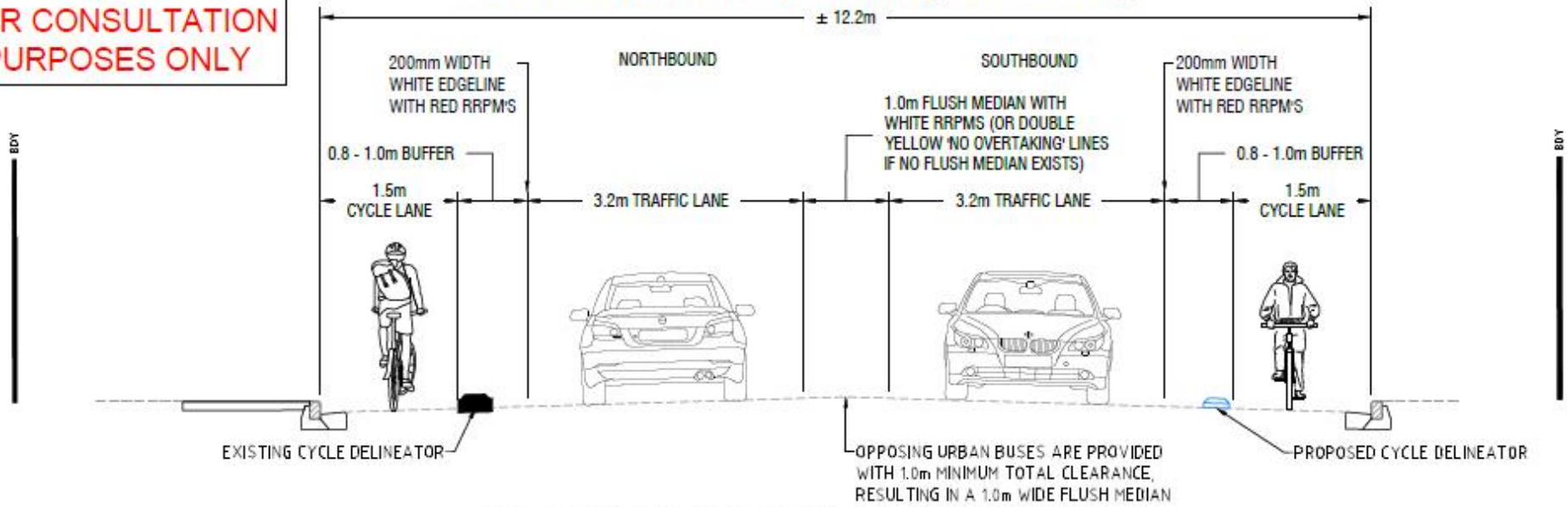
SCHEME 4 - NARROWED FLUSH MEDIAN (SOUTHERN END)



F TYPICAL PROPOSED CROSS SECTION (SOUTHERN END)– NARROWED FLUSH MEDIAN
NTS

NOTE: NORTHERN END CROSS SECTION NOT PROPOSED TO BE CHANGED DUE TO INSUFFICIENT CARRIAGEWAY WIDTH, HOWEVER, CENTRELINE TO BE REPLACED WITH DOUBLE YELLOW 'NO OVERTAKING' LINES WITH YELLOW RRPM'S

DRAWING 506: UPPER HARBOUR DRIVE – TYPICAL PROPOSED CROSS SECTION – NARROWED FLUSH MEDIAN, WIDE BUFFER, 200mm WIDTH EDGE LINES, AND CYCLE LANES ON BOTH SIDES

TYPICAL CROSS SECTIONS

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Client: AUCKLAND TRANSPORT
Project: ROAD MARKING IMPROVEMENTS
UPPER HARBOUR DRIVE
TYPICAL CROSS SECTION

A3 Project No: T22129 Drawing No: 506 Rev: A

Scheme 4

	SAFETY	SAFETY	SAFETY	DELIVERY FEASIBILITY	$
Increase width of cycle lane buffers, by narrowing flush median where feasible, retain existing cycle separators, and install additional cycle separators.	Moderate: Cyclists would be provided with enhanced safety and amenity, due to wider buffers and additional cycle separators. However, sections of the route couldn't be upgraded, such as at right-turn pockets for side roads, and at narrow locations where no flush median exists. Also, high-speed cyclists in groups may not favour 'single file' cycle lanes with little opportunities for overtaking.	High: Increased widths of cycle buffers will keep motorists clear from the cycle separators. Also, additional separators would reduce the likelihood of motorists hitting a cycle separator 'head-on'. Also, wider buffers with additional signage should have a traffic calming impact.	No change from existing	Moderate feasibility: At locations where the proposals can be accommodated, additional cycle separators would need to be installed, all cycle buffer edgelines and flush median edgelines removed, and new road markings installed.	Low / Medium

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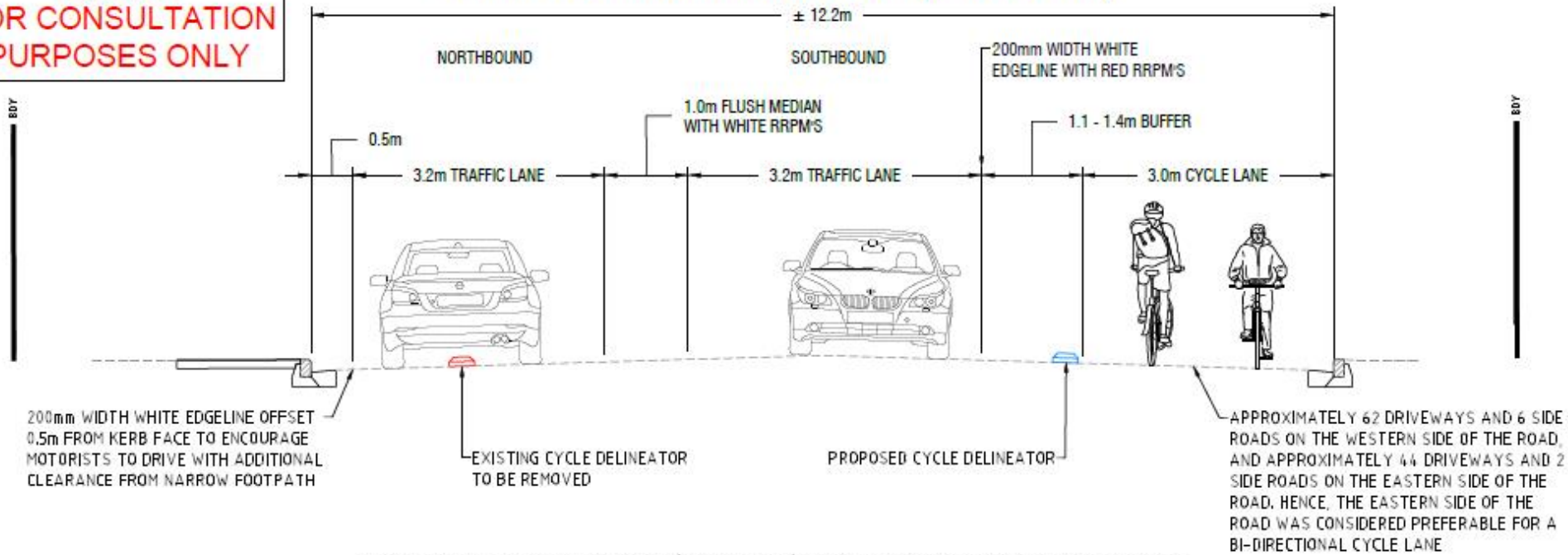
SCHEME 5 - BI-DIRECTIONAL CYCLE LANE (SOUTHERN END)



G — TYPICAL PROPOSED CROSS SECTION (SOUTHERN END) – BI–DIRECTIONAL CYCLE LANE WITH FLUSH MEDIAN
NTS

DRAWING 507: UPPER HARBOUR DRIVE – TYPICAL PROPOSED CROSS SECTION – SOUTHERN END – NORTHBOUND – BI-DIRECTIONAL CYCLE LANE ON EASTERN SIDE

TYPICAL CROSS SECTIONS

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Project: ROAD MARKING IMPROVEMENTS
UPPER HARBOUR DRIVE
TYPICAL CROSS SECTION

A3 Project No: T22129 Drawing No: 507 Rev: A

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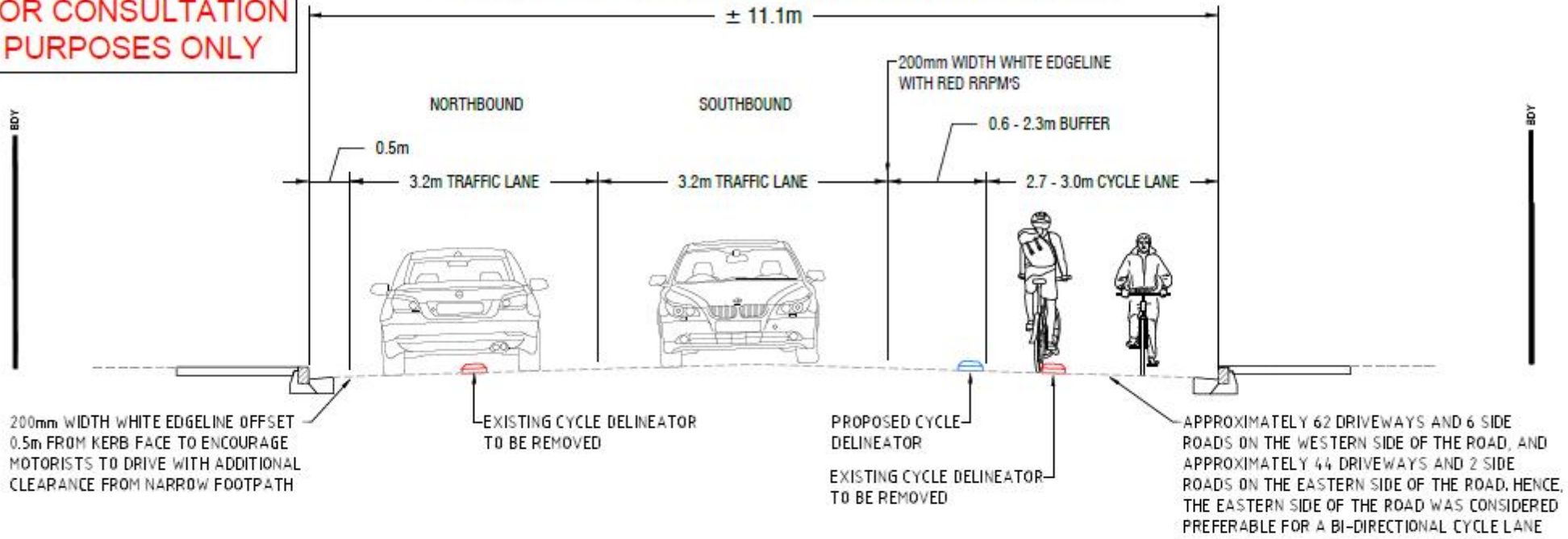
SCHEME 5 - BI-DIRECTIONAL CYCLE LANE (NORTHERN END)



H TYPICAL PROPOSED CROSS SECTION (NORTHERN END) – BI-DIRECTIONAL CYCLE LANE WITHOUT FLUSH MEDIAN
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DRAWING 508: UPPER HARBOUR DRIVE – TYPICAL PROPOSED CROSS SECTION – NORTHERN END – NORTHBOUND – BI-DIRECTIONAL CYCLE LANE ON EASTERN SIDE

TYPICAL CROSS SECTIONS

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Client: AUCKLAND TRANSPORT
Project: ROAD MARKING IMPROVEMENTS
UPPER HARBOUR DRIVE
TYPICAL CROSS SECTION

A3 Project No: T22129 Drawing No: 508 Rev: A

Scheme 5

	SAFETY	SAFETY	SAFETY	DELIVERY FEASIBILITY	$
Bi-directional cycleway	High safety/amenity: Cyclists would be separated from traffic and protected by cycle separators, with judder bars at driveways. Less confident cyclists would be encouraged to use the facility.	High: Increased width of cycle buffer would keep motorists clear from the cycle separators. Additional separators and 'hazard marker' signs would enhance conspicuousness of the separators and reduce the likelihood of motorists hitting a cycle separator 'head-on'. Also, wider buffers with additional signage should have a traffic calming impact. Furthermore, raised cycle crossings at key locations would calm vehicle speeds.	Moderate: The general traffic lane would be closer to the footpath on the eastern side reducing amenity for pedestrians.	Moderate feasibility: Existing cycle separators would need to be removed, all road markings removed, and new cycle separators installed along the bi-directional cycleway. Also, cycle crossings (probably raised) would be needed at both ends, and at Greenhithe Road.	Medium

	SAFETY	SAFETY	SAFETY	DELIVERY FEASIBILITY	$
Scheme 1 Original road layout	🔴	🟡	No change	🟢	🟢
Scheme 2 Existing road layout with ATP	🟢	🔴	No change	🔴	🟢
Scheme 2 Remove separators, add ATP and speed calming	🟡	🟡	No change	🔴	🔴
Scheme 2 Replace separators	🟡	🟡	No change	🟡	🟡
Scheme 3 Shared path	🟡	🟡	🟡	🔴	🔴
Scheme 4 Narrow flush median, add buffers	🟡	🟢	No change	🟡	🟢
Scheme 5 Bidirectional cycleway	🟢	🟢	🟡	🟡	🟡

Next Steps

- Review information from workshops and key stakeholders
- A new design incorporating this will be developed
- Consult/inform process will take place for the new design
- Design delivery

Let's go there