To

Auckland Council

From

Woods
Tim Rickards – Principal Civil Engineer

W-REF: P24-128
5 August 2025

Memorandum

Milldale Fast-track – 4C – Response to council feedback

Section 53(2) of the Fast-track Approvals Act 2024 enables the Expert Consenting Panel to invite written comments on the application from specified persons and groups.

This memorandum has been prepared in response to the technical specialist memorandums issued by Auckland Council as part of their assessment of the Milldale Fast-track Application. It specifically addresses the matters raised by Council relating to the Stage 4C portion of the project and provides clarification, additional assessment, and updates where required.

This memo provides response to matters which have been raised within the following documents:

- Memorandum of Planning Matters for Auckland Council (29 July 2025)
- Annexure A2: Healthy Waters
- Annexure A20: Waste management
- Annexure A21: Transport Memo (Auckland Council)
- Annexure A22: Auckland Transport Memo

1. Stormwater – Rain gardens (Auckland Transport)

Auckland Transport have noted that the current proposed rain garden design is not in accordance with their Bioretention Design Guide (Version 2, February 2025), noting that the current design does not meet this guidance and may not be feasible within the existing road reserve boundaries (Annexure A22).

The proposed design is in alignment with the desired outcomes of the Auckland Transport Bioretention Design Guide section 4.2 – Internal design elements and 4.3 external design elements. The proposed raingarden design is a design that has been used and accepted by Auckland Transport throughout the Milldale development, it is scrutinised through the Engineering Plan (EP) approval stage of design and has been approved in Milldale as recently as July 2025.

Rain garden dimensions

The key concern raised in the Auckland Transport (AT) response was the need for a 3m wide berm to accommodate the raingarden. This is to allow room for a minimum raingarden width of 2.5m and a 0.5m buffer between pedestrians and the raingarden. These dimensions are noted, and while the dimensions have not been able to be achieved the desired outcomes behind these dimensions are addressed by the proposed design.

The minimum 2.5m rain garden width has been set with a desire to establish a sustainable planted area within the raingarden that can support continued plant growth over an extend period. The raingardens in

the surrounding Stage 4 subdivision are all 2.4m wide and are effectively achieving this outcome. Plants are well established requiring limited maintenance.

The 0.5m buffer is targeted at minimising a fall risk from the footpath into the raingarden. Instead of providing this buffer, the Milldale rain garden batters the raingarden media from the footpath edge down into the raingarden at a gentle slope. This removes any change of height at the footpath edge and is an effective method for managing the hazard. Similarly, the clay subgrade supporting the footpath is battered into the raingarden to ensure the footpath is adequately supported.

Raingardens as BPO for stage 4C

The Bioretention design guide discusses the appropriateness of the use of raingardens to provide detention only, highlighting that raingardens are unlikely to be the best practicable option (BPO) to treat road runoff if quality treatment is not also required.

Woods and the applicant are highly supportive of this position that has been taken by Auckland Transport. Since Stage 5 of Milldale (consented in 2023), Dry Basins have been the preferred device for providing detention to collector and local roads at Milldale. Other than Stage 4C, all other parts of the Milldale Fast-track application (Stages 10 – 13) have utilised dry basins to provide the required detention mitigation.

The roads proposed to be treated by raingardens in stage 4C are all local roads and do not trigger the need for quality treatment. The BPO to provide this detention was assessed at design stage with rain gardens found to be the preferred option.

A summary of the BPO assessment is as follows:

- Communal Storage Device - As discussed above, the preferred option to provide detention at Milldale is via a communal storage device such as a dry basin or raingarden.
    - Unfortunately, the nature of 4C is that it is filling in the centre of the already completed Stage 4 development. The surrounding road and drainage networks have already been fully constructed with rain gardens used as the method to provide detention.
    - There is no opportunity to provide a dry basin on the waterloo stream edge as this has already been fully developed, planted and vested with council. There is no space available between the stream and the constructed road to allow for a basin.
    - Providing a dry basin within the 4C stage boundary does not align with the desired urban design outcomes of the zone and would be an inefficient use of space. This significantly raises the whole of life cost assessment for the basin options making it unviable.
- Tanks - A feasible option to provide detention could be via underground tanks or oversized stormwater pipes, as is used within the private lots.
    - These options have been discussed with Auckland Council and Auckland Transport on previous stages of Milldale and have not been deemed to be an accepted device. As such this option was not considered as part of the BPO assessment.
- Treepits - Treepits have been proposed by Healthy Waters and Auckland Transport as an alternative to Raingardens.
    - These devices are significantly more expensive to construct than rain gardens.
    - Woods are aware of a variation of the Tree Pit design being used on only one development in Auckland, in this development the trees have quickly failed in the tree pits, leaving a poorly maintained device.
    - Treepits are untested in the Auckland environment and as such there is no evidence that these devices will be effective in the detention of stormwater, or that the maintenance on these devices will be any less that that of rain gardens.
- Rain Gardens - Rain Gardens have been selected as the BPO to provide detention mitigation for the 4C road runoff.

- The surrounding road network in Milldale Stage 4 utilises rain gardens for this purpose. There are approximately 110 rain gardens already established in Stage 4. The proposed 4C development adds a further nine and adjusts two of the existing ones.
- While SW treatment is not required for the road runoff, the provision of rain gardens does provide treatment to the catchment runoff. Recent testing of the Waterloo Stream has shown that a very high quality of water is being achieved in the stream as a result of the existing treatment devices.
- The proposed rain gardens have been combined as much as practicable. Ensuring raingardens are of a size that are self-sufficient and will be able to support strong plant growth.
- The proposed rain gardens are an important landscape feature in the proposed urban environment.

In summary, while the AT Bioretention Design Guidance regarding the limitations of raingardens for detention-only applications is acknowledged and supported, in this instance they have been assessed as the Best Practicable Option for the 4C development. This is due to the constraints of the existing vested networks, lack of space for alternative communal devices, and the integration of the raingardens into the urban design outcomes for Stage 4C. The proposed design has been developed in line with sections 4.2 and 4.3 of the AT Bioretention Design Guide and reflects designs already accepted and constructed within the wider Milldale development.

2. Long sections & Visibility and Swept path assessments (Auckland Transport & Planning Memo Item 32)

Auckland Transport have raised concerns that long sections have not been provided and that a swept path or visibility assessment has not been undertaken for the proposed design. Similar concerns have been raised in Auckland Council's Transport assessment.

While this information has not been provided for council review, the swept path and visibility assessments have been considered as part of the proposed design. Milldale 4C has a fairly typical set of tee-intersections with relatively flat geometry. Woods are very familiar with these intersection designs in the Milldale context and have undertaken sufficient design checks to ensure that the proposed intersection design and associated boundaries are sufficient to achieve the required design standards.

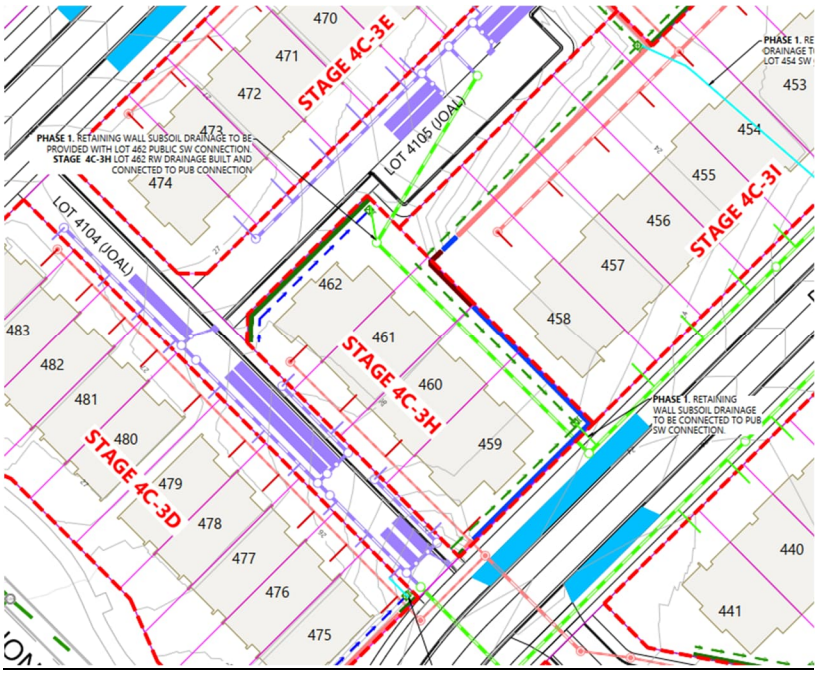
Full details of the proposed long sections, visibility checks and swept paths will be provided at detailed design stage. This is in line with previous consents granted for the Milldale development. It is acknowledged that if challenges are identified later in the detailed design phase that changes to the consented boundaries may be required.

3. Stormwater – Public networks in rear of property (Healthy Waters)

Healthy waters have raised concerns with the proposal to locate public infrastructure in the rear of properties and asked for the stormwater drainage to be realigned, noting this creates a maintenance and renewal issue for Council (Annexure A2). They have identified this as an EP matter.

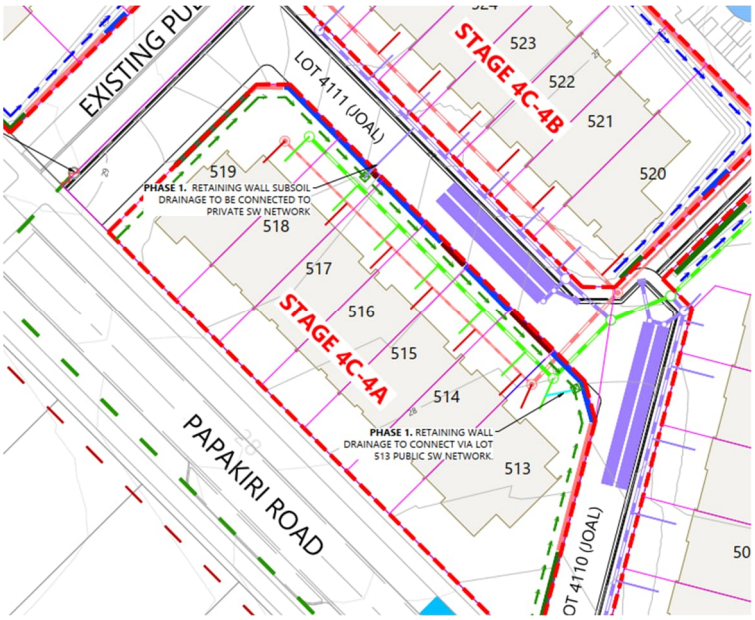
The presence of public stormwater networks in the rear of proposed lots occurs in two locations in Stage 4C; through the rear of Stage 4C-3H, and along the top of the wall in the rear of Stage 4C-4A.

4C-3H



The public line is required to collect the stormwater from JOAL 4105. This JOAL presents design challenges from a stormwater perspective as it falls towards the northeast. It is possible to change the alignment of the public line to run back up through JOAL 4105, and then down through JOAL 4104. This will result in a reasonably deep line as it needs to run against the grade of the JOAL, but is feasible.

4C-4A



The public line runs along the top of the proposed retaining wall through the rear of state 4C-4A. This design reduces the number of wall crossing required for the stormwater lot connections. The public line could be moved to below the wall and run along JOAL 4111 with lot connections passing through the wall.

Both of these changes can be picked up at detailed design and EP stage and as per HW comments are not considered critical to the consenting process.

4. Loading bays (Auckland Council Traffic)

Auckland Councils traffic engineer (Annexure A21) has raised concerns regarding the lack of loading bays proposed for the development.

Legislative assessment

Add New Table E27.6.2.7A Minimum small loading space requirements

Activity	GFA/Number of dwellings	Minimum rate
(T111B)	Developments where all dwellings have individual pedestrian access directly from a public road	No loading space required
	Up to 9 dwellings without individual pedestrian access directly from a public road	No loading space required
	Greater than 9 dwellings up to 5,000m^2 without individual pedestrian access directly from a public road	1*
	Greater than 5,000m^2	NA

* Refer to T137A of Table E27.6.3.2.1 Minimum loading space dimensions

Plan change 79 table E27.6.2.7A requires one small loading space to be provided when more than 9 dwellings are proposed that do not have pedestrian access directly from the public road. The Auckland Unitary Plan (Operative in Part) (AUP(OP)) also requires one small loading space be provided for lots greater than 5000m^2 and less than 20,000m^2.

For the assessment of loading space requirements each superlot should be considered a separate development. The proposal is to undertake a two-stage subdivision, and the individual lots are not created until the second stage at which point the Plan Change 79 to the AUP(OP) requirements can be applied.

On this basis no superlot in stage 4C exceeds the 5000m^2 threshold.

The below stages do not have individual pedestrian access to them and instead are accessed via the JOAL footpaths:

- Stage 4C-2D – 6 lots
- Stage 4C-3F – 4 lots
- Stage 4C-3H – 4 lots
- Stage 4C-4C – 7 lots
- Stage 4C-5C – 15 lots (4 without direct access to the public road)
- Stage 4C-5D – 7 lots

As per the requirements in the AUOP(OP) and Plan Change 79, loading spaces are not required to be provided as part of the Stage 4C development as no sub-stages exceed the 9-dwelling limit of no road frontage.

Practical Assessment

Further to this, a high-level assessment has been undertaken as to the value of including loading spaces within Stage 4C.

Most of the proposed Stage 4C dwellings have pedestrian road frontage. Sufficient on-street parking is provided to enable delivery vehicles to park on the public road. The dwellings are proposed to have onsite carparking, reducing the demand on on-street parking. Loading spaces are not deemed to be required.

It is anticipated that for stages without road frontage, the JOAL network may be used for deliveries. Stage 4C is serviced by a two-way JOAL network. It is possible for a delivery vehicle to temporarily park within the JOAL while allowing other vehicles to continue to pass. Further to this, in most situations there are multiple road exits from the JOAL, so if one route is blocked residents can utilise the alternative one.

An observation of the operation of the higher density areas of Milldale already constructed identified no issues were present with the constructed design. The designs do lot include loading spaces and designed similar or tighter from and access perspective that the proposed 4C development.

As both the legislative and practical assessments do not identify a need to provide loading spaces as part of the development, no changes are proposed to the 4C design.

5. Speed management through JOALs (Auckland Council Traffic)

Auckland Council's Traffic Engineer (Annexure A21) has raised concerns regarding the lack of proposed speed management proposed within the JOALs for the development.

This is acknowledged, and the intention is to provide speed management through the JOAL's in line with Plan Change 79 guidance. This will be addressed at detailed design stage, and council will have an opportunity to review and approved the design through the Engineering Approval or Common Accessway approval process.

6. Waste management – Rubbish collection (Auckland Council Traffic & Planning Memo Item 33 & 34)

Auckland Council's Traffic Engineer (Annexure A21) has raised concerns regarding the proposal to undertake waste management within private JOALs. They have also raised concerns regarding the proposed reverse manoeuvring. These concerns have been repeated in the Waste Management memo (Annexure A20), it is not clear if these concerns are shared by the Auckland Council Waste Management team or are a duplication of the Traffic Engineers feedback. They are also repeated in the planning memo (Item 33)

The Planning Memo also raises concerns regarding rubbish trucks backing out of JOAL vehicle crossings (Item 34). It is noted that these concerns are not present in any of the supporting Annexure memo's.

Waste vehicle routes have been planned for in conjunction with designated bin collection areas for each proposed dwelling. The planned routes included the use of private JOALs for rubbish collection as a practical solution to the issues that are associated with kerb side rubbish pick up in dense housing areas. This approach was undertaken in consultation, and with the support of the Auckland Council Waste Management Team. Evidence of this consultation has been provided in the consultation report provided to council as part of the application, and addressed in both the 4C AEE and Infrastructure report.

The JOALs have been designed to accommodate the required movements of the waste trucks, but planned routes are concept only and will continue to be developed with Auckland Council's Waste Management team. The proposed reverse manoeuvring is in strait lines and considered to be an efficient solution to rubbish pick up routes. Rubbish trucks often reverse on local streets, and this is a similar situation. If during detailed design (EA stage) the proposed reverse manoeuvring is not desired by the Waste Management team alterations can be made to the bin drop-off locations to allow a truck route with no reversing.

It is noted that no reverse manoeuvring is proposed across footpaths (either public or private), and waste vehicles will not be required to reverse out of vehicle crossings.

7. Vehicle Crossing Details (Planning Memo Item 31)

In the Auckland Council Planning Memo it is noted that the application lacks vehicle crossing details (Item 31).

It is confirmed that the intention is to provide vehicle crossings which are in accordance with Auckland Transports guidance from a structural perspective. In some locations it is proposed to utilise the Auckland Transport approved departure from standards for Milldale vehicle crossings in line with previous stages. This will be detailed as part of the EA process.

Drawings showing the approved Milldale vehicle crossings and driveway drawings are included as an appendix to this report and are intended to be included in the final plan set for the consent.

8. Lighting plans for shared driveways (Planning Memo Item 35)

In the Auckland Council Planning Memo, it is noted that the application has not provided lighting designs for shared driveways (Item 35).

This statement in the planning memo is incorrect, a full lighting design was provided as part of the 4C application. The lighting design will be further reviewed through detailed design and an updated version will be provided as part of the EA process.

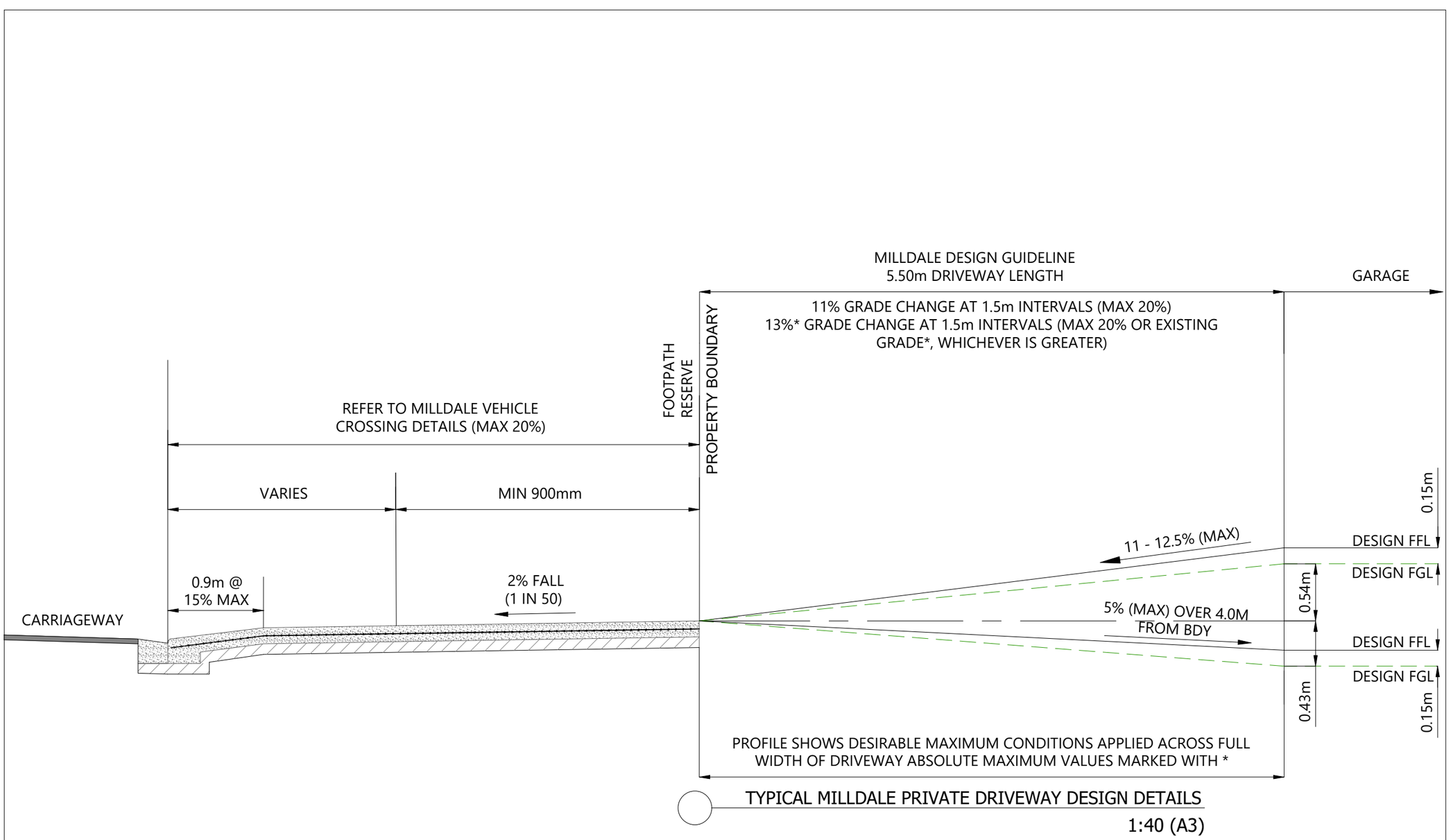
Regards

Tim Rickards

Principal Civil Engineer

Appendix A – Milldale Vehicle Crossing Plans and Driveway details

The following plans have been accepted by Auckland Transport as part of departure from standards. They are available to be used within the Milldale 4C development when required by the adjoining lots.



TYPICAL MILLDALE PRIVATE DRIVEWAY DESIGN DETAILS

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DESIGNED	WOODS	
DRAWN	JC	
CHECKED	JM	
APPROVED	TR	WOODS.CO.NZ

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MILLDALE STAGE 4C

PRIVATE DRIVEWAY DESIGN

STATUS	ISSUED FOR INFORMATION	REV
SCALE	AS SHOWN	1
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DWG NO	P23-481-4C-0-2075-RD	

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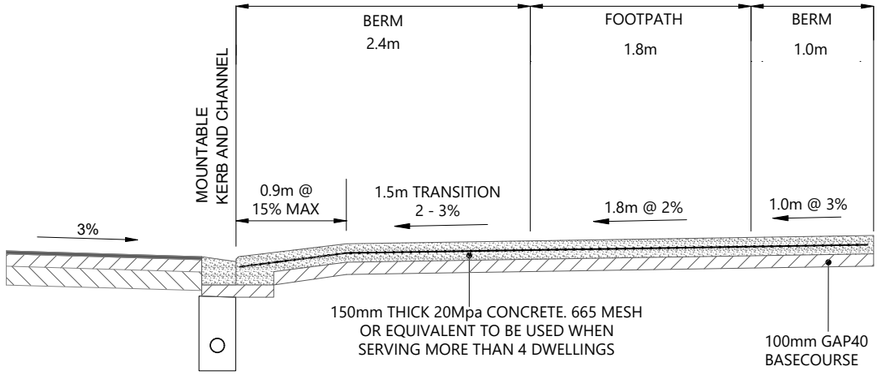

TYPICAL VEHICLE CROSSING TYPE A - LOCAL ROAD -SECTION

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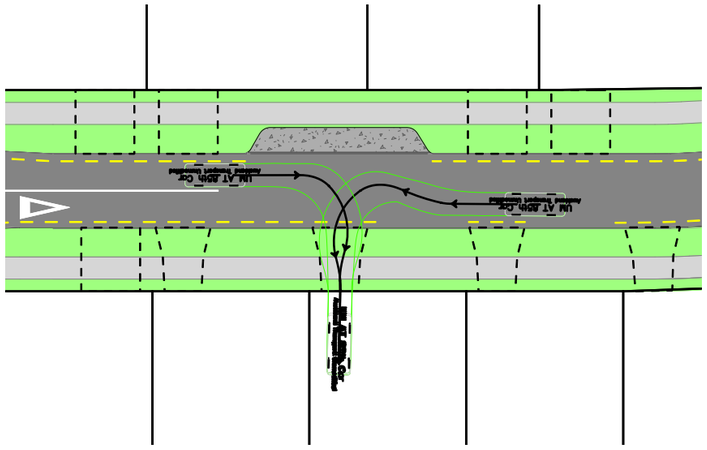

TYPICAL VEHICLE CROSSING - LOCAL ROAD TYPE A: CAR MOVEMENT

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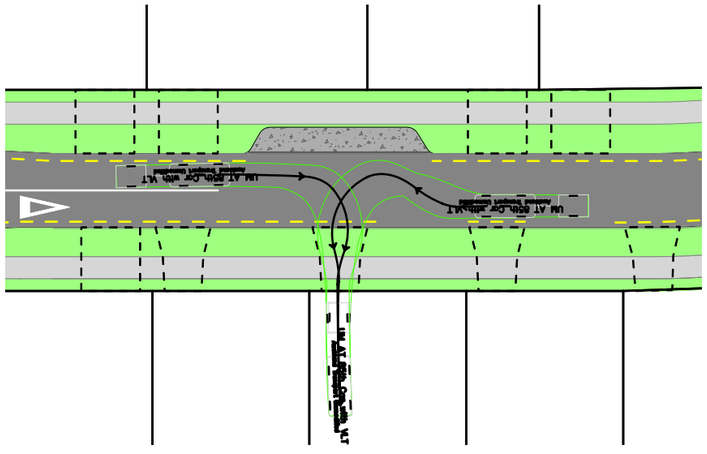
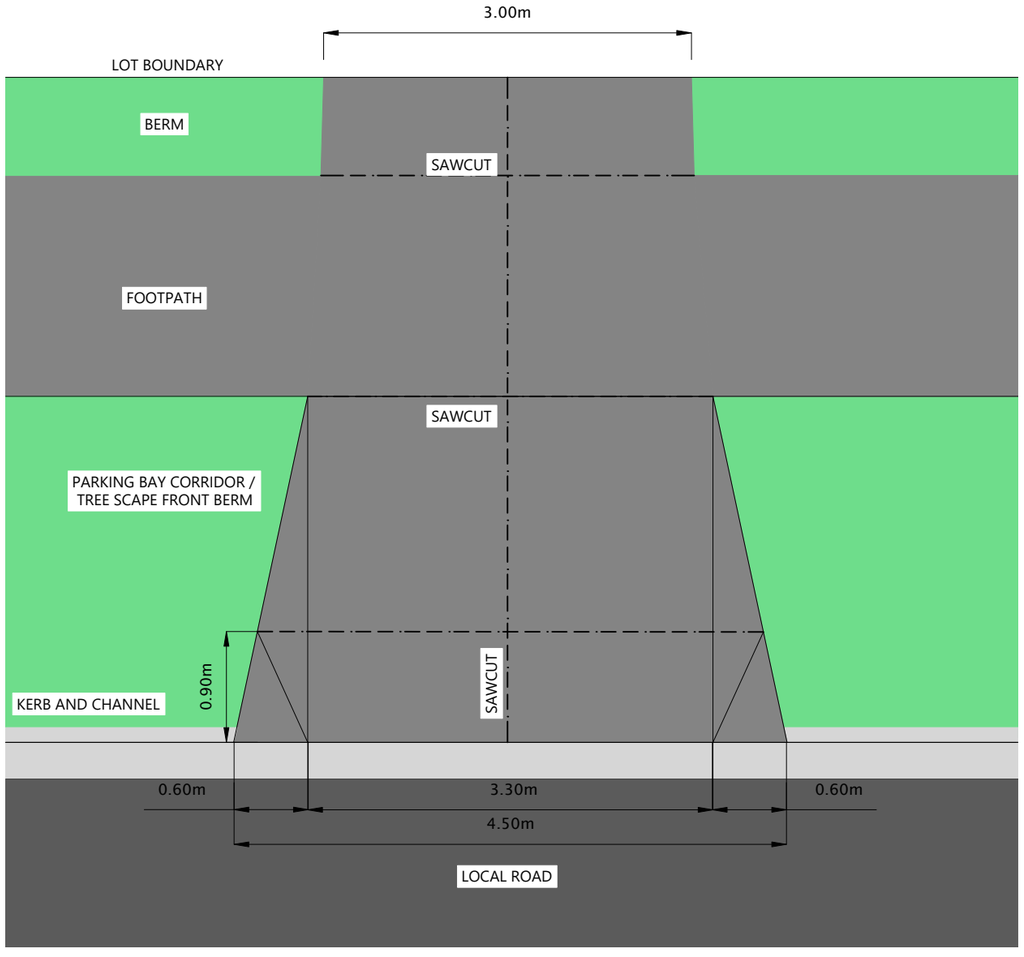


TYPICAL VEHICLE CROSSING - LOCAL ROAD TYPE A: CAR AND TRAILER MOVEMENT

Scale: 1:500

NOTES:

1. PAVEMENT THICKNESS AS SPECIFIED ON PLAN WITH MINIMUM CBR OF 3.
2. CONSTRUCT IN SAME MATERIAL AND FINISH AS SURROUNDING FOOTPATH
3. ALL LOTS FRONTING ONTO LOCAL ROADS WITH A FRONT BOUNDARY WIDTH OF LESS THAN 14m SHALL CONSTRUCT A TYPE A VEHICLE CROSSING.
4. ALL LOTS FRONTING ONTO LOCAL ROADS WITH A FRONT BOUNDARY WIDTH OF 14m OR GREATER SHALL CONSTRUCT EITHER A TYPE A VEHICLE CROSSING OR A TYPE B VEHICLE CROSSING.
5. ALL LOTS FRONTING ONTO ARTERIAL OR COLLECTOR ROADS SHALL CONSTRUCT WITH A TYPE C VEHICLE CROSSING.
6. ALL CORNER LOTS SHALL CONSTRUCT A TYPE B VEHICLE CROSSING OR A TYPE C VEHICLE CROSSING.
7. ALL JOAL VEHICLE CROSSINGS ARE TO BE CONSTRUCTED TO AUCKLAND TRANSPORT STANDARDS.



VEHICLE CROSSING TYPE A TYPICAL DETAIL

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DESIGNED	WOODS	
DRAWN	JC	
CHECKED	JM	
APPROVED	TR	WOODS.CO.NZ

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MILLDALE STAGE 4C

VEHICLE CROSSING DETAILS TYPE A

STATUS	ISSUED FOR INFORMATION	REV
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DWG NO	P23-481-4C-0-2850-RD	

WOODS Est.1970

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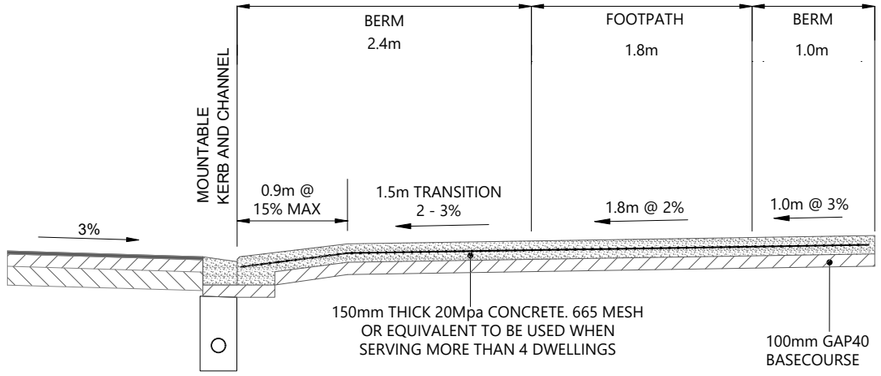

TYPICAL VEHICLE CROSSING TYPE B - LOCAL ROAD -SECTION

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NOTES:

1. PAVEMENT THICKNESS AS SPECIFIED ON PLAN WITH MINIMUM CBR OF 3.
2. CONSTRUCT IN SAME MATERIAL AND FINISH AS SURROUNDING FOOTPATH
3. ALL LOTS FRONTING ONTO LOCAL ROADS WITH A FRONT BOUNDARY WIDTH OF LESS THAN 14m SHALL CONSTRUCT A TYPE A VEHICLE CROSSING.
4. ALL LOTS FRONTING ONTO LOCAL ROADS WITH A FRONT BOUNDARY WIDTH OF 14m OR GREATER SHALL CONSTRUCT EITHER A TYPE A VEHICLE CROSSING OR A TYPE B VEHICLE CROSSING.
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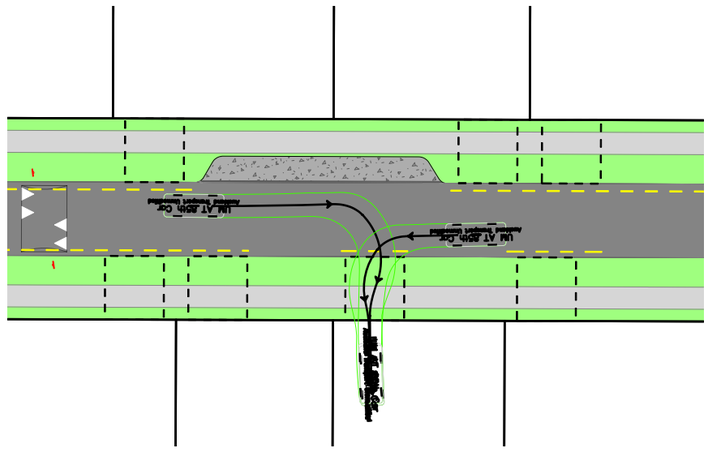
7. ALL JOAL VEHICLE CROSSINGS ARE TO BE CONSTRUCTED TO AUCKLAND TRANSPORT STANDARDS.



TYPICAL VEHICLE CROSSING - LOCAL ROAD TYPE B: CAR MOVEMENT

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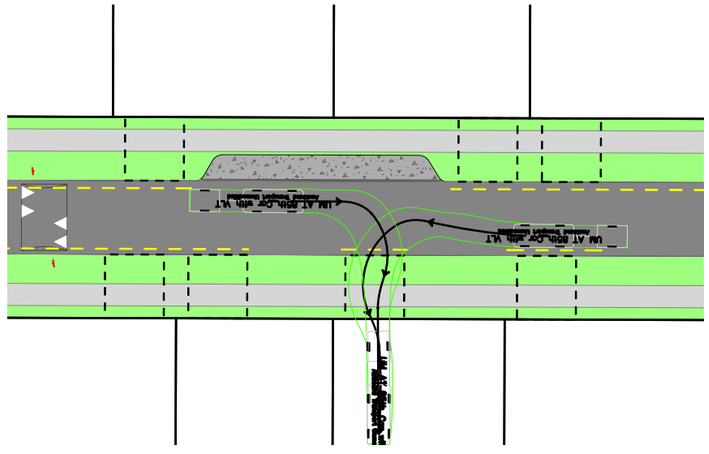

TYPICAL VEHICLE CROSSING - LOCAL ROAD TYPE B: CAR AND TRAILER MOVEMENT

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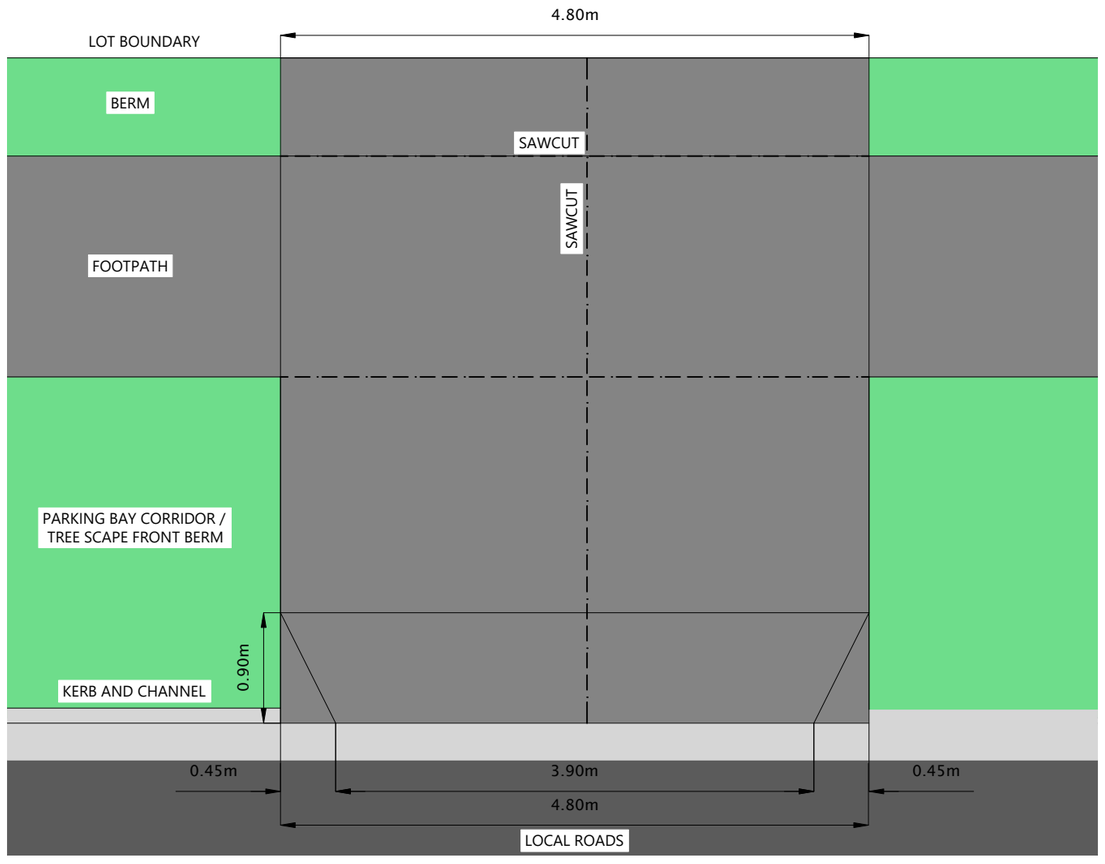

VEHICLE CROSSING TYPE B TYPICAL DETAIL

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DESIGNED	WOODS	
DRAWN	JC	
CHECKED	JM	
APPROVED	TR	WOODS.CO.NZ

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MILLDALE STAGE 4C

VEHICLE CROSSING DETAILS TYPE B

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DWG NO	P23-481-4C-0-2851-RD	

WOODS Est.1970

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