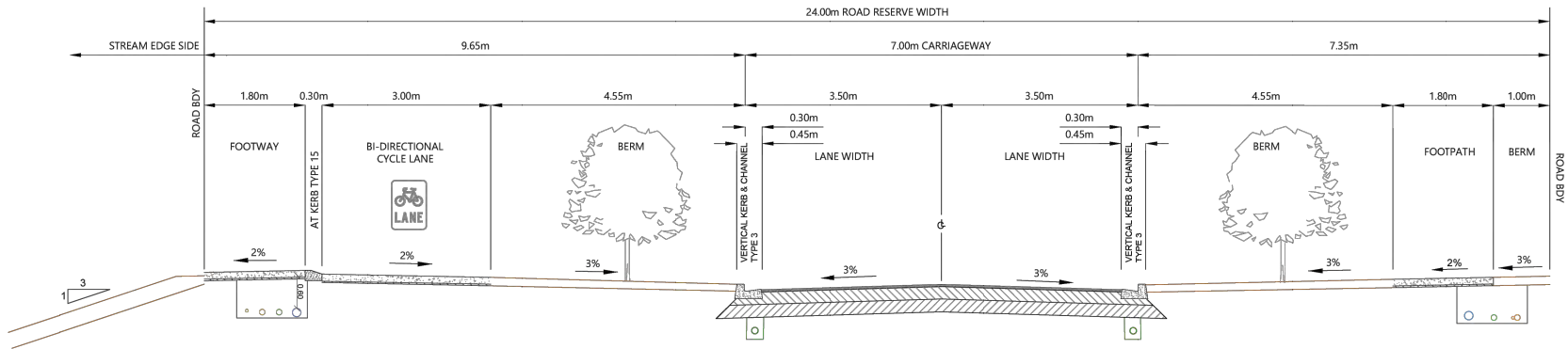
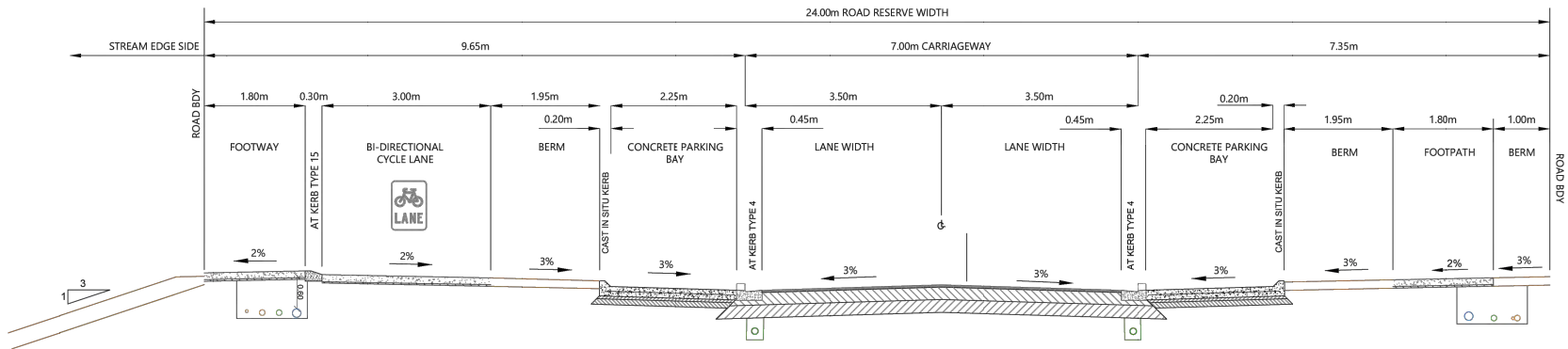


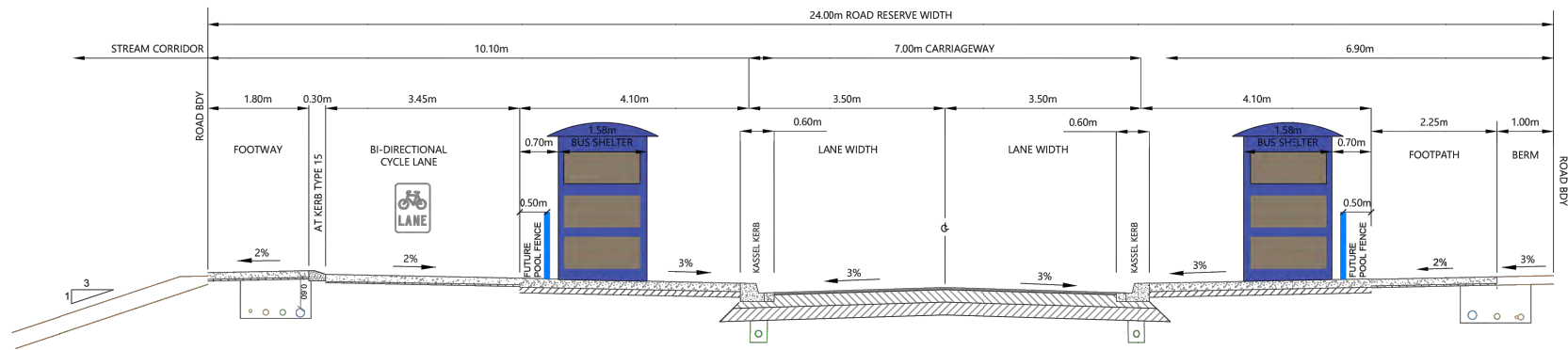
Friday, 7 August 2026 4:23:52 pm



STREAM-EDGE COLLECTOR ROAD WITH BERM (24.0m)



STREAM-EDGE COLLECTOR ROAD WITH PARKING BAY (24.0m)



STREAM-EDGE COLLECTOR ROAD WITH INDICATIVE BUS SHELTER (24.0m)



NOTES

1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL AND AUCKLAND TRANSPORT STANDARDS.
2. TYPICAL CROSS-SECTION WIDTHS MAY VARY LOCALLY TO ACCOMMODATE PARKING SPACES
3. PAVEMENT DETAILS SHOWN ARE INDICATIVE ONLY. FINAL DESIGN DETAILS ARE TO BE DETERMINED AT THE ENGINEERING APPROVAL STAGE.

REVISION DETAILS	BY	DATE
1 ISSUED FOR CONSENT	SK	AUG 2026

SURVEYED	WOODS	WAINUI ROAD
DESIGNED	WOODS	MILLDALE
DRAWN	FA	AUCKLAND
CHECKED	SK	
APPROVED	JW	WOODS.CO.NZ



MILLDALE
STAGES 14-17
FAST-TRACK

PHASE 1: TYPICAL CROSS SECTION
STREAM-EDGE COLLECTOR ROAD

STATUS	ISSUED FOR CONSENT	REV
COUNCIL	AUCKLAND COUNCIL	1
DWG NO	P25-609-01-2020-RD	

File: C:\120206516\technical\drawing\310206516A2B.dwg

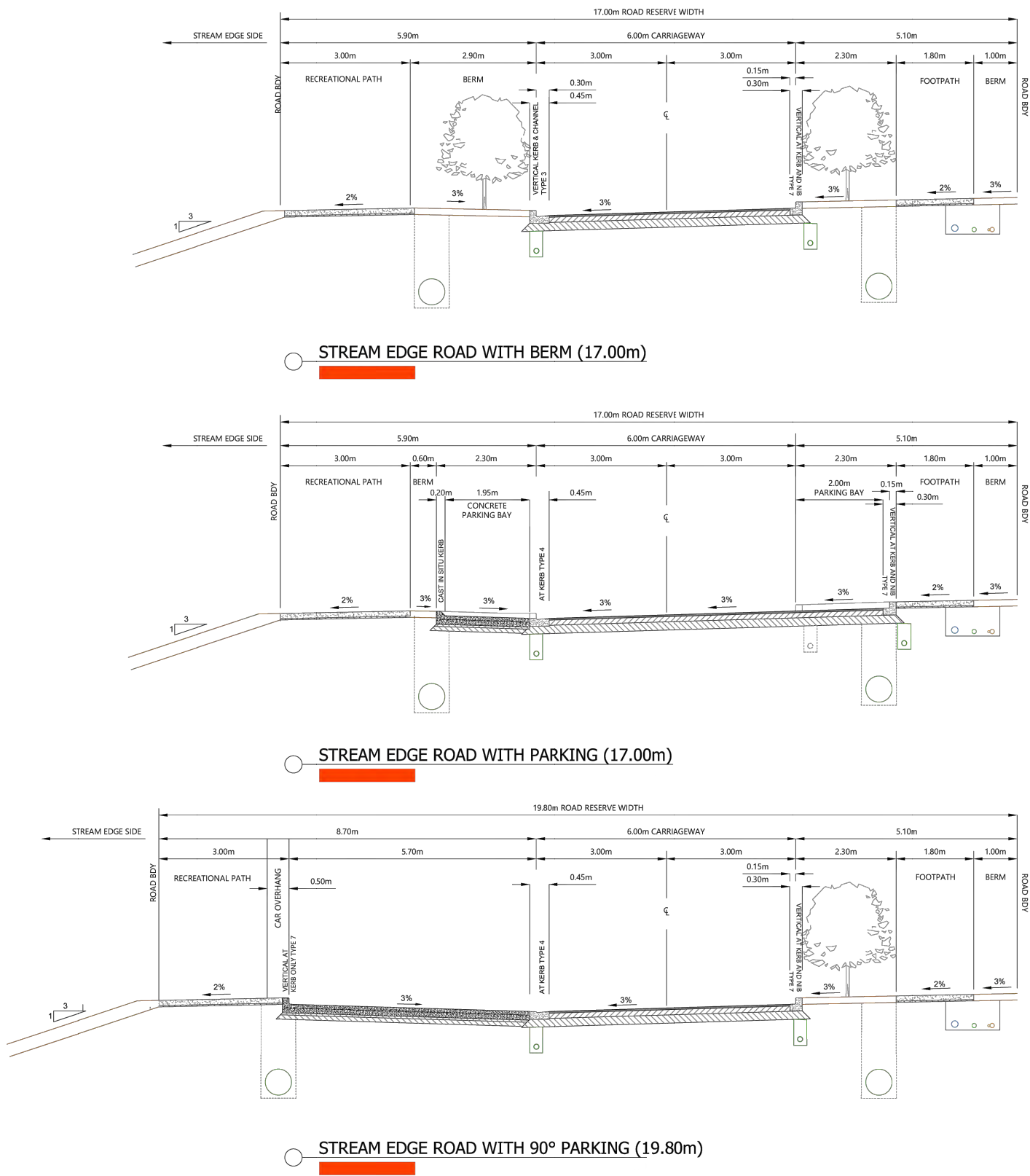
REV	DATE	DRN	CHK	DESCRIPTION
A	07.08.26	TLJ	----	Source: Woods Ltd issued August 2026

MILLDALE NORTH FAST-TRACK (ROAD TYPOLOGIES)
STREAM EDGE COLLECTOR ROAD

DRAWN: TLJ	---	---
DATE: 07.08.26	STATUS: RC	
SCALE: N.T.S		
DWG NO: 310206516A2B		



Friday, 7 August 2026 4:23:52 pm



- NOTES
1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL AND AUCKLAND TRANSPORT STANDARDS.
 2. TYPICAL CROSS-SECTION WIDTHS MAY VARY LOCALLY TO ACCOMMODATE PARKING SPACES
 3. PAVEMENT DETAILS SHOWN ARE INDICATIVE ONLY. FINAL DESIGN DETAILS ARE TO BE DETERMINED AT THE ENGINEERING APPROVAL STAGE.

REVISION DETAILS		BY	DATE
1	ISSUED FOR CONSENT	SK	AUG 2026

SURVEYED	WOODS	WAINUI ROAD MILLDALE AUCKLAND
DESIGNED	WOODS	
DRAWN	DH	
CHECKED	SK	
APPROVED	JW	WOODS.CO.NZ



MILLDALE STAGES 14-17 FAST-TRACK

PHASE 1: TYPICAL CROSS SECTION
STREAM EDGE ROAD

STATUS	ISSUED FOR CONSENT	REV
		1
COUNCIL	AUCKLAND COUNCIL	
DWG NO	4P25-609-01-2025-RD	

File: C:\125\DATA\WP-AUG-APP-02\25-609-01-2025-RD-ROAD TYPOLGY PLAN.DWG

REV	DATE	DRN	CHK	DESCRIPTION
A	07.08.26	TLJ	----	Source: Woods Ltd issued August 2026

MILLDALE NORTH FAST-TRACK (ROAD TYPOLOGIES) STREAM EDGE ROAD (GENERAL)

DRAWN: TLJ
DATE: 07.08.26
SCALE: N.T.S
DWG NO:310206516A2B

STATUS: RC



Two typologies are proposed for the roads around the future school area, one which provides access to the future school site and the other which deals with the section of road which abuts the future school frontage. The school access typology features a bi-directional cycleway on one side and either a berm or indented parking bays on the opposite side. Footpaths are proposed on both sides of the road carriageway, and the road allows for two-way travel with single lanes in each direction. The overall road reserve width for the school access road is 17m. The road which fronts the school has a 16.2m road reserve which allows for a footpath and indented parking bays on one side and a 5.1m width on the opposite side for the school to construct another footpath and on-street parking as required. The proposed cross-sections are shown in **Figure 23** and **Figure 24**. These cross-sections are considered appropriate and acceptable.

The cross-section for the active mode corridor is shown in **Figure 25**. This corridor is a natural extension of the mode corridor which starts near the centre of Milldale and runs north-south through the Milldale Local Centre. The active mode corridor is proposed to have a generous 24m road reserve width comprising of a 4m shared path on one side and a 1.8m footpath on the other side, flanking a limited access two-way road carriageway with either berms or indented on-street parking separating the traffic lanes from the active mode paths. The active mode corridor typology is considered appropriate and acceptable.

Jointly-Owned-Access-Lots (“JOALs”) are proposed at various locations to serve properties which do not have direct access to the surrounding road network. Proposed cross-sections for the JOALs are shown in **Figure 26**. JOAL widths vary between 3m (for uni-directional traffic movement) to 10m (for bi-directional traffic movement) depending on the number of dwellings served. JOAL widths comply with the Unitary Plan requirements and are considered appropriate and acceptable.

Overall, the roading cross-sections are considered appropriate for the level of anticipated development within the development area.

6.1.1.3 Connecting Road Network – Cross-Sections

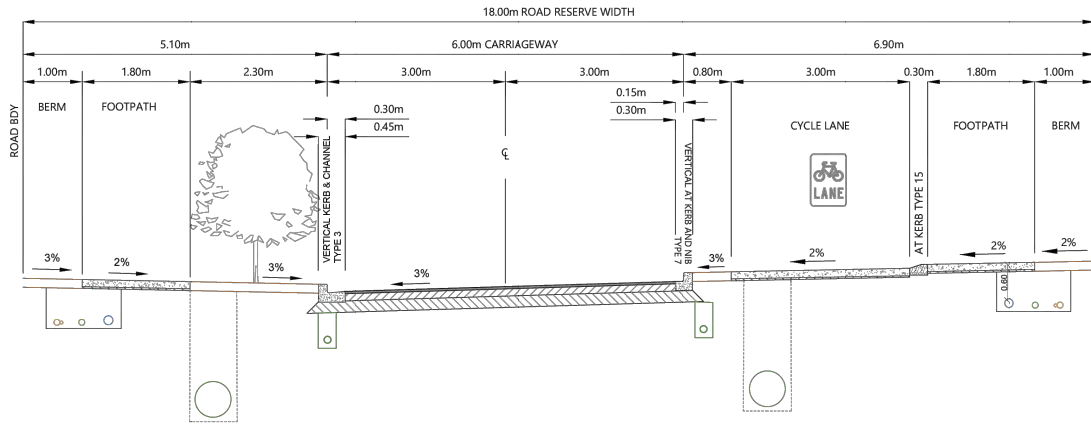
Several other typologies are proposed for Wainui Road and Cemetery Road which connect the Milldale Stage 14-17 area with other roads at the periphery.

Wainui Road West, which connects the Milldale Stage 14-17 area to the western areas runs through the western extent of the development, between Argent Lane and Cemetery Road. The road is not identified as an arterial road in the Unitary Plan and has a rural road cross-section with a 100km/hr speed limit. The proposed upgrade of this road brings its cross-section to be more in line with an urban environment, and it is anticipated that, when upgraded, the new intersection (as a roundabout) of Cemetery Road and Wainui Road will become the gateway to the Milldale Stage 14-17 and Stage 1-13 areas from the west. The proposed road reserve width for the section of Wainui Road between Argent Lane and Cemetery Road is 24m, consistent with the section of Wainui Road between Lysnar Road and Argent Lane which is designated to become an arterial road in the near future. The cross-section allows for a two-way carriageway with one traffic lane per direction, a bi-directional cycleway along the southern edge of the road, footpaths on both sides of the road, with either berm or on-street indented parking bays separating the active modes from the road carriageway. This cross-section is considered appropriate as it ties in well with the future arterial road cross-section to the east and allows for future widening in the future if that is ever required. The proposed Wainui West cross-section is shown in **Figure 27**.

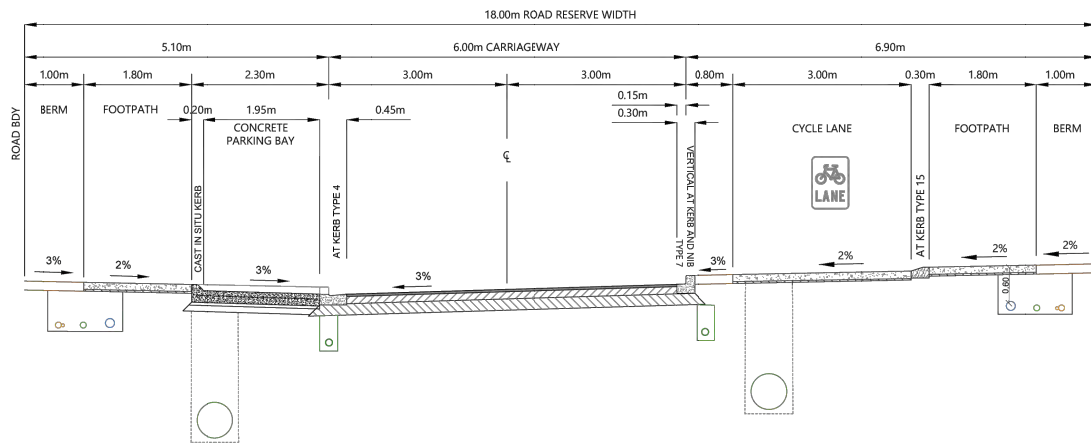
The eastern section of Wainui Road between Lysnar Road and a point some 300m to the east is proposed to be upgraded to a 24m road reserve width with a bi-directional cycleway plus footpath and berm (or indented parking) on the southern side of the road. Two traffic lanes (one in each direction of travel) plus a raised central median makes up the carriageway. On the opposite side of the road, the land is currently undeveloped but sufficient width has been allocated to allow for a berm and footpath to be installed in the future. The cross-sections for the eastern extension of Wainui Road is shown in **Figure 28**.

A section of Cemetery Road, which forms the western boundary of the Milldale Stage 14-17 area is also proposed to be upgraded as part of this development proposal. The road reserve width is proposed to be around 20m with a footpath and berm (or indented parking bays) on the side of the road which abuts the Milldale Stage 14-17 zone. A 9m swale area is proposed on the rural side of the road which provides the opportunity for upgrading when that land is developed. The proposed cross section for Cemetery Road is shown in **Figure 29**.

Friday, 7 August 2026 4:23:52 pm



SCHOOL ACCESS LOCAL ROAD WITH BERM (18.0m)



SCHOOL ACCESS LOCAL ROAD WITH PARKING (18.0m)



NOTES

1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL AND AUCKLAND TRANSPORT STANDARDS.
2. TYPICAL CROSS-SECTION WIDTHS MAY VARY LOCALLY TO ACCOMMODATE PARKING SPACES
3. PAVEMENT DETAILS SHOWN ARE INDICATIVE ONLY. FINAL DESIGN DETAILS ARE TO BE DETERMINED AT THE ENGINEERING APPROVAL STAGE.

REVISION DETAILS		BY	DATE
1	ISSUED FOR CONSENT	SK	AUG 2026

SURVEYED	WOODS	WAINUI ROAD MILLDALE AUCKLAND
DESIGNED	WOODS	
DRAWN	FA	
CHECKED	SK	
APPROVED	JW	WOODS.CO.NZ



MILLDALE
STAGES 14-17
FAST-TRACK
PHASE 1: TYPICAL CROSS
SECTION SCHOOL ACCESS
LOCAL ROAD

STATUS	ISSUED FOR CONSENT	REV
COUNCIL	AUCKLAND COUNCIL	1
DWG NO	P25-609-01-2026-RD	

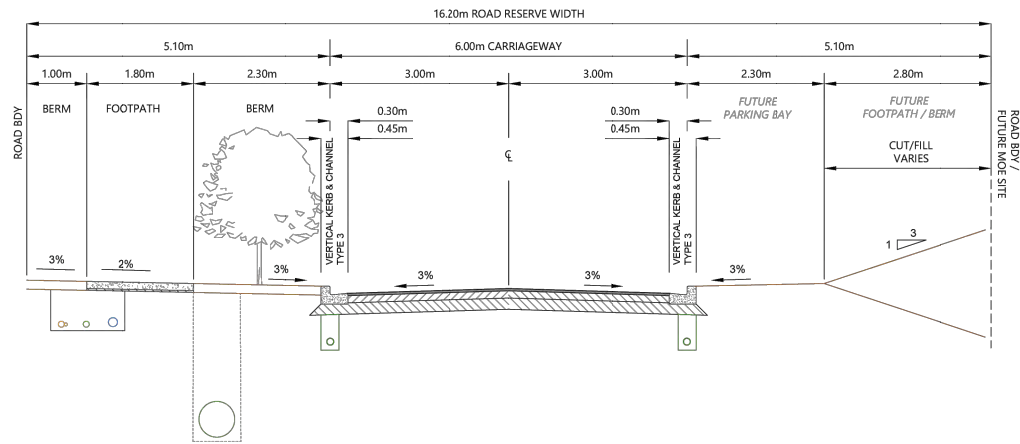
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REV	DATE	DRN	CHK	DESCRIPTION
A	07.08.26	TLJ	----	Source: Woods Ltd issued August 2026

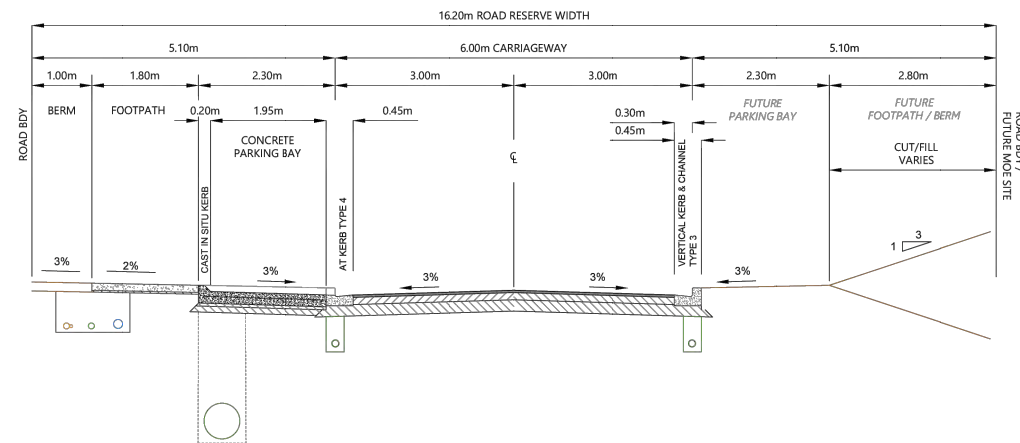
MILLDALE NORTH FAST-TRACK (ROAD TYPOLOGIES)
SCHOOL ACCESS ROAD

DRAWN: TLJ	---	---
DATE: 07.08.26	STATUS: RC	
SCALE: N.T.S		
DWG NO:310206516A2B		





SCHOOL FRONTING LOCAL ROAD WITH BERM (16.20m)



SCHOOL FRONTING LOCAL ROAD WITH PARKING BAY (16.20m)

NOTES

1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL AND AUCKLAND TRANSPORT STANDARDS.
2. TYPICAL CROSS-SECTION WIDTHS MAY VARY LOCALLY TO ACCOMMODATE PARKING SPACES
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REVISION DETAILS		BY	DATE
1	ISSUED FOR CONSENT	SK	AUG 2026

SURVEYED	WOODS	WAINUI ROAD MILLDALE AUCKLAND
DESIGNED	WOODS	
DRAWN	FA	
CHECKED	SK	
APPROVED	JW	



MILLDALE
STAGES 14-17
FAST-TRACK
PHASE 1: TYPICAL CROSS
SECTION SCHOOL FRONTING
LOCAL ROAD

STATUS	ISSUED FOR CONSENT	REV
COUNCIL	AUCKLAND COUNCIL	1
DWG NO	P25-609-01-2027-RD	

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Friday, 7 August 2026 4:23:52 pm

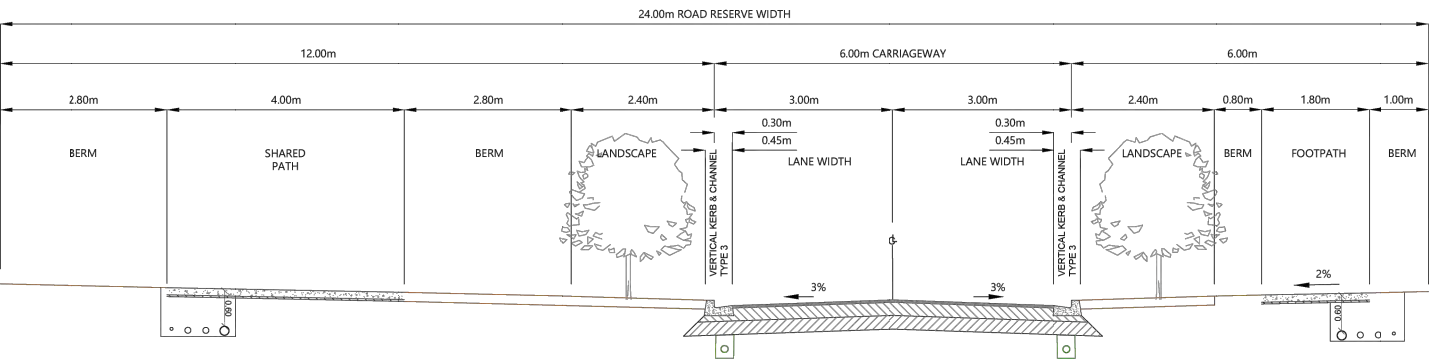
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A	07.08.26	TLJ	----	Source: Woods Ltd issued August 2026

MILLDALE NORTH FAST-TRACK (ROAD TYPOLOGIES)
SCHOOL FRONTAGE ROAD

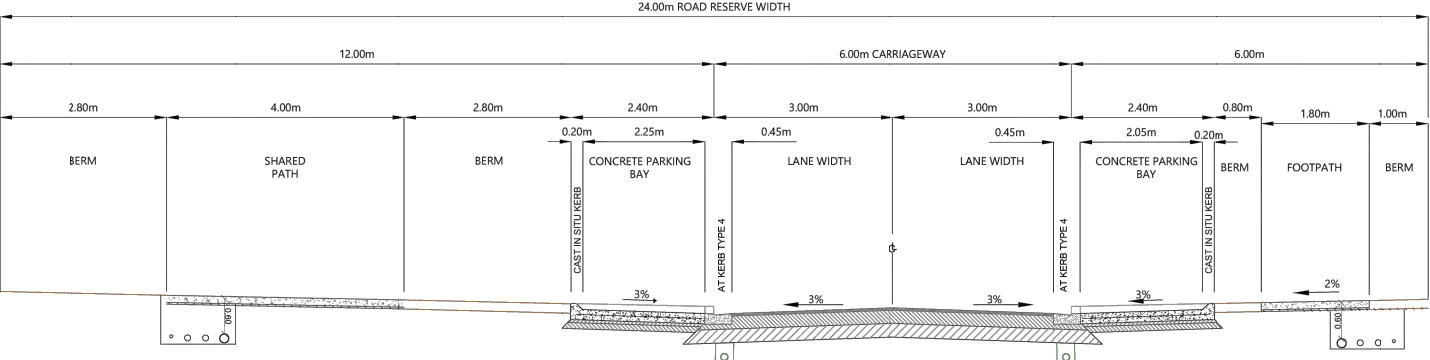
DRAWN: TLJ
DATE: 07.08.26
SCALE: N.T.S
DWG NO: 310206516A2B

STATUS: RC





○ ACTIVE MODE CORRIDOR WITH BERM (24.00m)



○ ACTIVE MODE CORRIDOR WITH PARKING BAY (24.00m)

- NOTES
- 1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL AND AUCKLAND TRANSPORT STANDARDS.
 - 2. TYPICAL CROSS-SECTION WIDTHS MAY VARY LOCALLY TO ACCOMMODATE PARKING SPACES
 - 3. PAVEMENT DETAILS SHOWN ARE INDICATIVE ONLY. FINAL DESIGN DETAILS ARE TO BE DETERMINED AT THE ENGINEERING APPROVAL STAGE.

REVISION DETAILS		BY	DATE
1	ISSUED FOR CONSENT	SK	AUG 2026

SURVEYED	WOODS	WAINUI ROAD MILLDALE AUCKLAND
DESIGNED	WOODS	
DRAWN	FA	
CHECKED	SK	
APPROVED	JW	WOODS.CO.NZ



MILLDALE
STAGES 14-17
FAST-TRACK

PHASE 1: TYPICAL CROSS SECTION
ACTIVE MODE CORRIDOR

STATUS	ISSUED FOR CONSENT	REV
COUNCIL	AUCKLAND COUNCIL	1
DWG NO	P25-609-01-2028-RD	

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Friday, 7 August 2026 4:23:52 pm

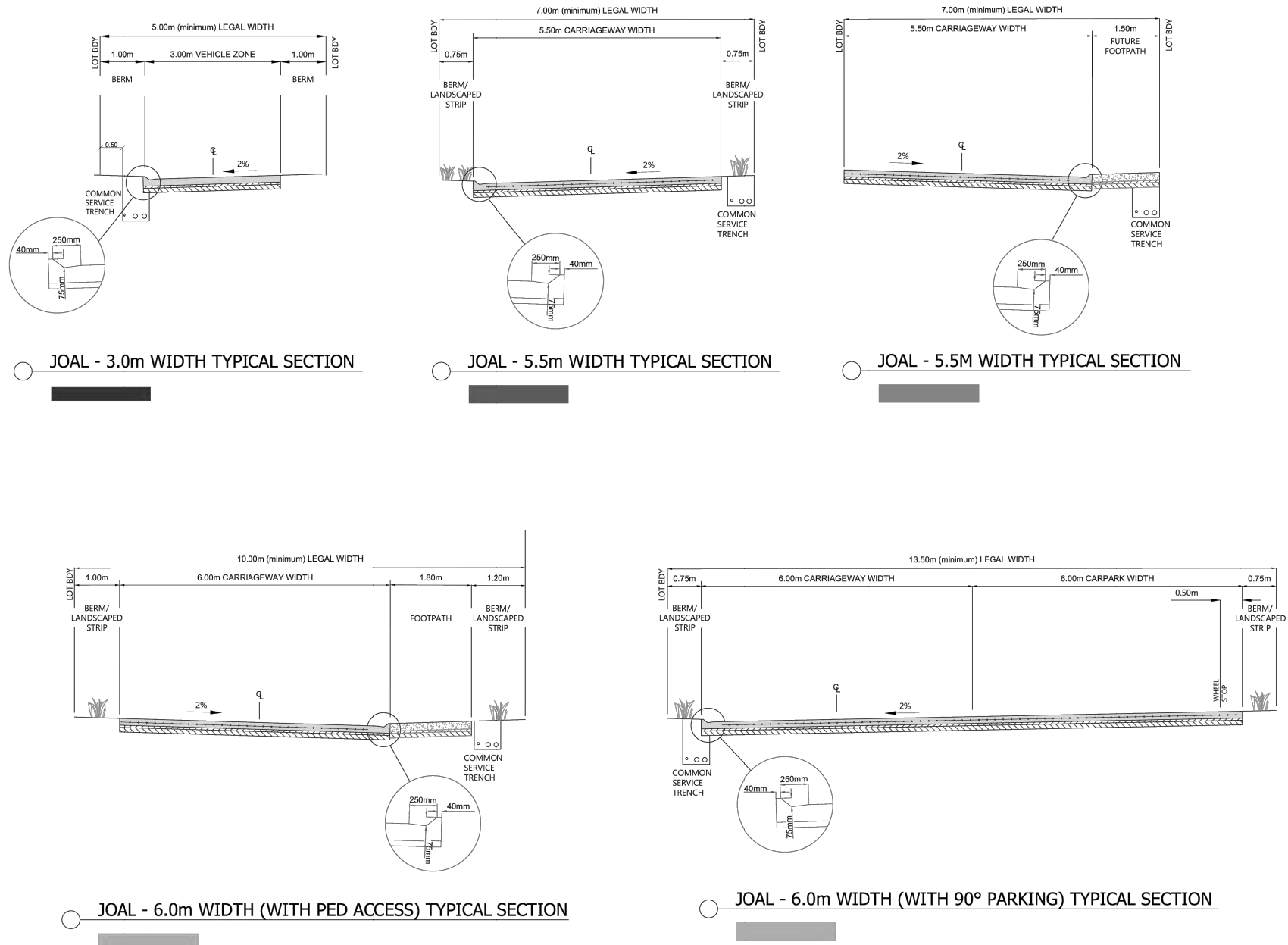
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A	07.08.26	TLJ	----	Source: Woods Ltd issued August 2026

MILLDALE NORTH FAST-TRACK (ROAD TYPOLOGIES)
ACTIVE MODE CORRIDOR

DRAWN: TLJ	---	---
DATE: 07.08.26	STATUS: RC	
SCALE: N.T.S		
DWG NO: 310206516A2B		



Friday, 7 August 2026 4:23:52 pm



- NOTES
1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL AND AUCKLAND TRANSPORT STANDARDS.
 2. TYPICAL CROSS-SECTION WIDTHS MAY VARY LOCALLY TO ACCOMMODATE PARKING SPACES
 3. PAVEMENT DETAILS SHOWN ARE INDICATIVE ONLY. FINAL DESIGN DETAILS ARE TO BE DETERMINED AT THE ENGINEERING APPROVAL STAGE.

REVISION DETAILS		BY	DATE
1	ISSUED FOR CONSENT	SK	AUG 2026

SURVEYED	WOODS	WAINUI ROAD MILLDALE AUCKLAND
DESIGNED	WOODS	
DRAWN	DH	
CHECKED	SK	
APPROVED	JW	WOODS.CO.NZ



MILLDALE
STAGES 14-17
FAST-TRACK

PHASE 1: TYPICAL CROSS
SECTIONS
JOINTLY-OWNED ACCESS LOTS

STATUS	ISSUED FOR CONSENT	REV
COUNCIL	AUCKLAND COUNCIL	1
DWG NO	P25-609-01-2032-RD	

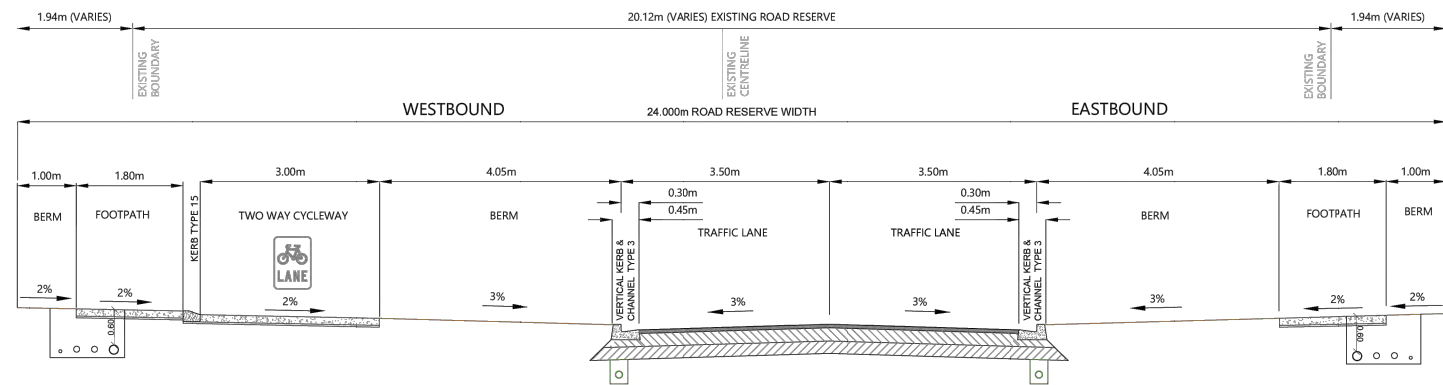
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REV	DATE	DRN	CHK	DESCRIPTION
A	07.08.26	TLJ	----	Source: Woods Ltd issued August 2026

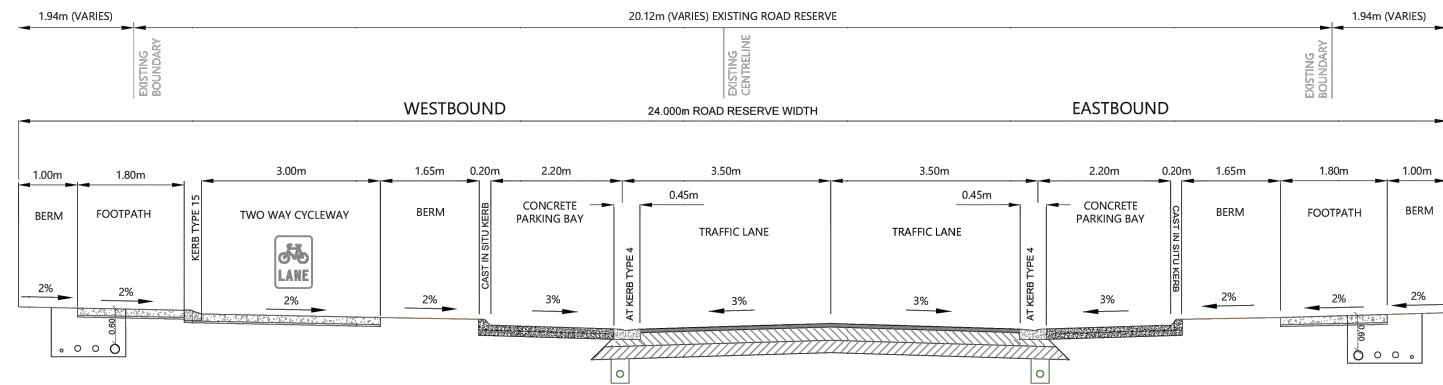
MILLDALE NORTH FAST-TRACK (ROAD TYPOLOGIES)
JOALS

DRAWN: TLJ
DATE: 07.08.26
SCALE: N.T.S
DWG NO:310206516A2B





WAINUI ROAD WEST - PROPOSED UPGRADE WITH BERM (24.00m)



WAINUI ROAD WEST - PROPOSED UPGRADE WITH PARKING BAY (24.00m)

NOTES

- ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL AND AUCKLAND TRANSPORT STANDARDS.
- TYPICAL CROSS-SECTION WIDTHS MAY VARY LOCALLY TO ACCOMMODATE PARKING SPACES
- PAVEMENT DETAILS SHOWN ARE INDICATIVE ONLY. FINAL DESIGN DETAILS ARE TO BE DETERMINED AT THE ENGINEERING APPROVAL STAGE.

REVISION DETAILS		BY	DATE
1	ISSUED FOR CONSENT	SK	AUG 2026

SURVEYED	WOODS	WAINUI ROAD MILLDALE AUCKLAND
DESIGNED	WOODS	
DRAWN	FA	
CHECKED	SK	
APPROVED	JW	WOODS.CO.NZ



MILLDALE
STAGES 14-17
FAST-TRACK
PHASE 1: TYPICAL CROSS
SECTION
WAINUI ROAD WEST UPGRADE

STATUS	ISSUED FOR CONSENT	REV
		1
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P25-609-01-2030-RD	

File: C:\1205DATA\WP-AU-APP-02\P25-609 - MILLDALE NORTH FAST-TRACK APPLICATION 2026\02 DRAWINGS\01 ENG\01 PHASE 1 - DEVELOPMENT AREA\P25-609-01-2030-RD ROAD TYPOLOGY PLANDWG

Friday, 7 August 2026 4:23:52 pm

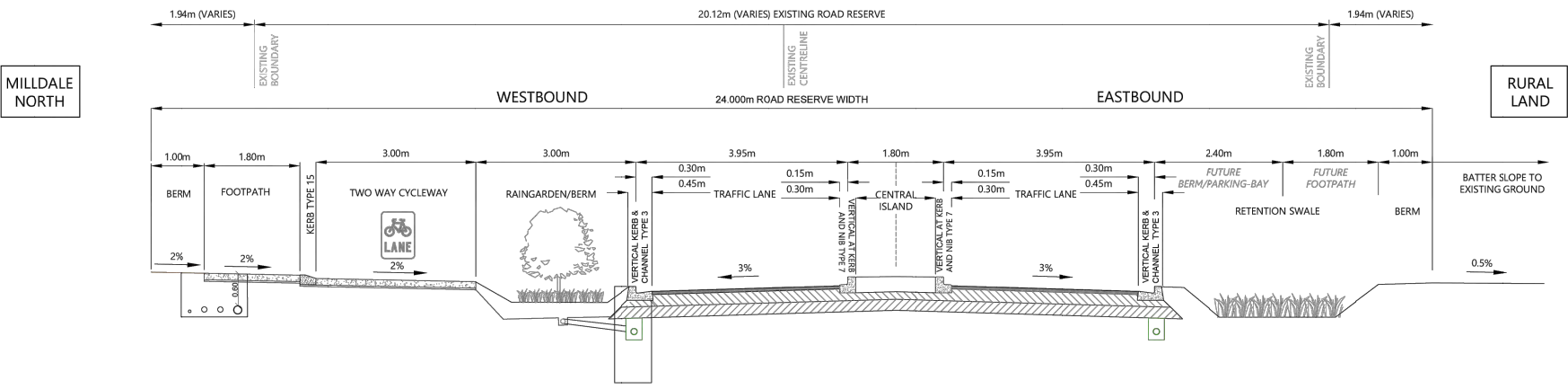
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MILLDALE NORTH FAST-TRACK (ROAD TYPOLOGIES)
WAINUI ROAD (WEST)

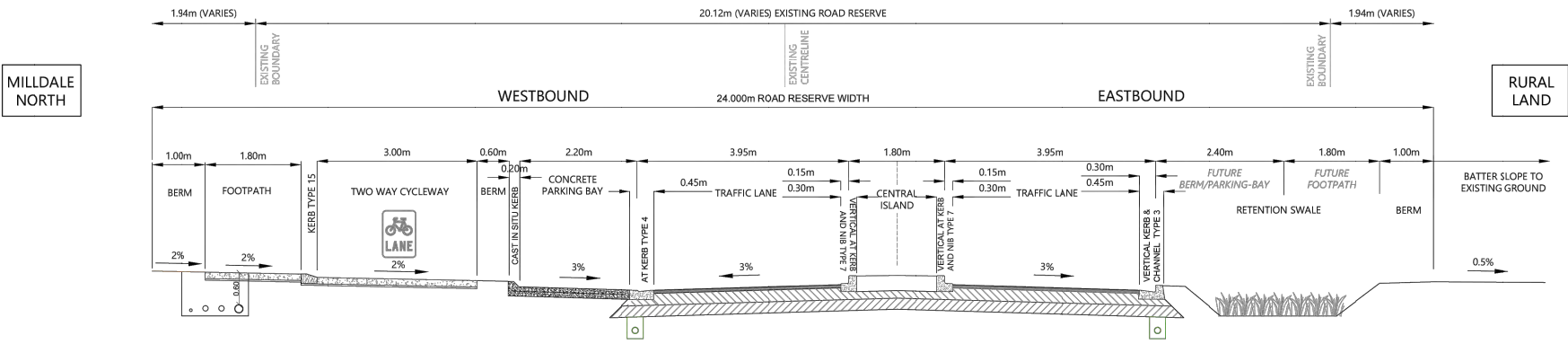
DRAWN: TLJ
DATE: 07.08.26
SCALE: N.T.S
DWG NO:310206516A2B

STATUS: RC





WAINUI ROAD EASTERN EXTENSION (INTERIM, 24.00m)



WAINUI ROAD EASTERN EXTENSION WITH PARKING BAYS (24.00m)

- NOTES
1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL AND AUCKLAND TRANSPORT STANDARDS.
 2. TYPICAL CROSS-SECTION WIDTHS MAY VARY LOCALLY TO ACCOMMODATE PARKING SPACES
 3. PAVEMENT DETAILS SHOWN ARE INDICATIVE ONLY. FINAL DESIGN DETAILS ARE TO BE DETERMINED AT THE ENGINEERING APPROVAL STAGE.

REVISION DETAILS		BY	DATE
1	ISSUED FOR CONSENT	SK	AUG 2026

SURVEYED	WOODS	WAINUI ROAD MILLDALE AUCKLAND
DESIGNED	WOODS	
DRAWN	FA	
CHECKED	SK	
APPROVED	JW	WOODS.CO.NZ



MILLDALE
STAGES 14-17
FAST-TRACK
PHASE 1: TYPICAL CROSS
SECTION
WAINUI ROAD EAST
UPGRADE EXTENSION

STATUS	ISSUED FOR CONSENT	REV
COUNCIL	AUCKLAND COUNCIL	1
DWG NO	P25-609-01-2031-RD	

File: C:\1205\DATA\WP-AKL-APP-02\P25-609 - MILLDALE NORTH FAST-TRACK APPLICATION_22695102 DRAWINGS\01 ENG\01 PHASE 1 - DEVELOPMENT AREA\P25-609-01-2010-RD-ROAD TYPOLOGY PLANDWG

Friday, 7 August 2026 4:23:52 pm

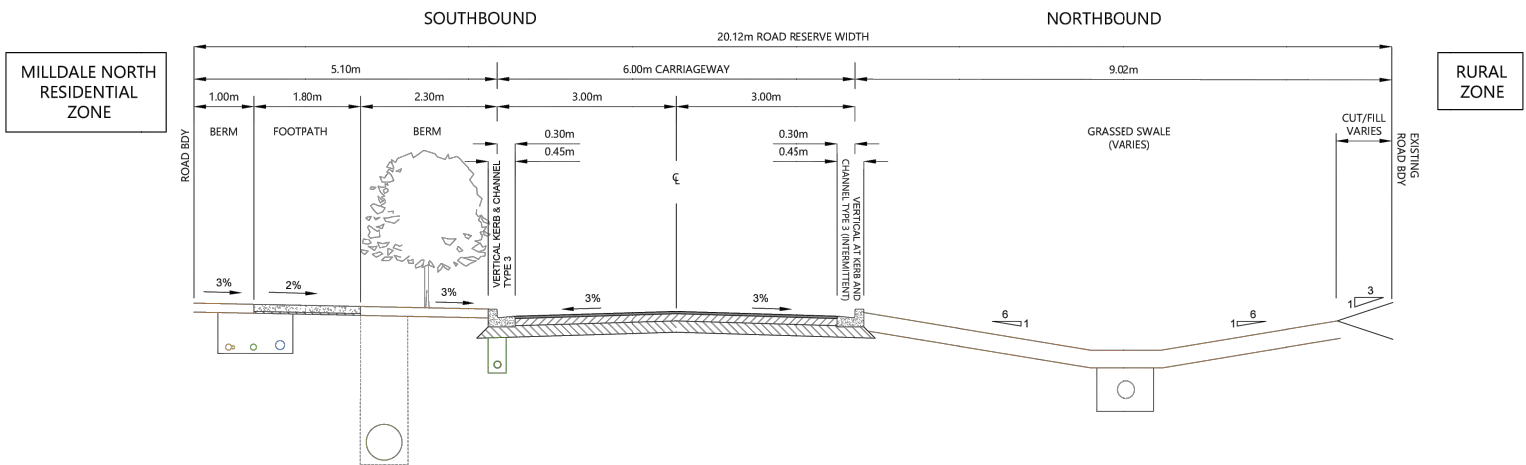
REV	DATE	DRN	CHK	DESCRIPTION
A	07.08.26	TLJ	----	Source: Woods Ltd issued August 2026

MILLDALE NORTH FAST-TRACK (ROAD TYPOLOGIES)
WAINUI ROAD (EAST)

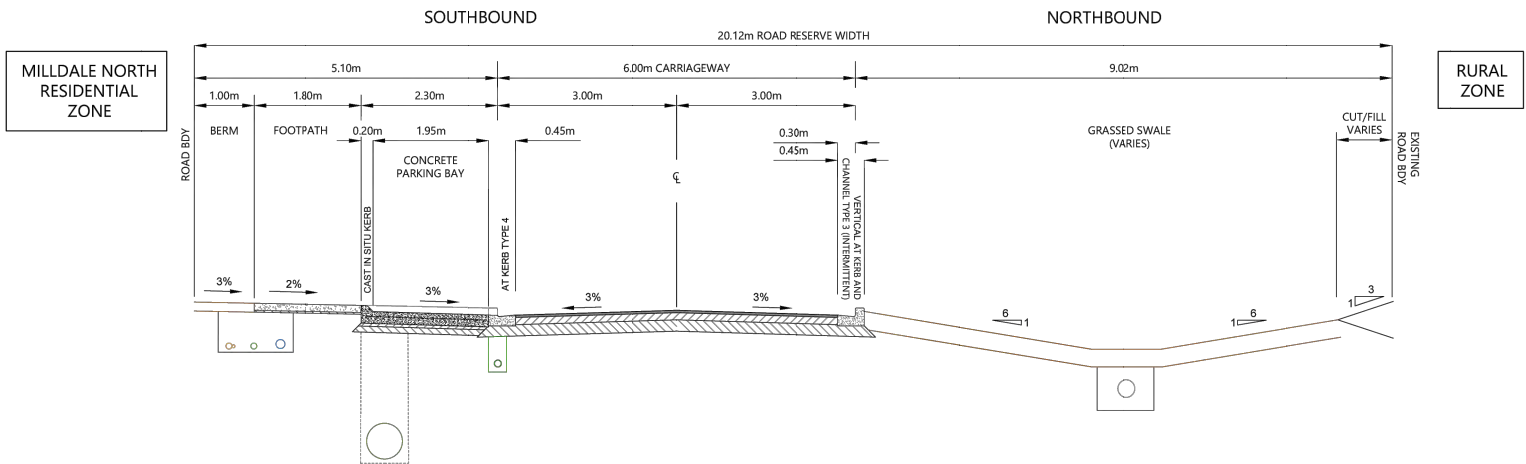
DRAWN: TLJ
DATE: 07.08.26
SCALE: N.T.S
DWG NO: 310206516A2B



Friday, 7 August 2026 4:23:52 pm



CEMETERY ROAD UPGRADE (LOCAL ROAD) WITH BERM (20.12m)



CEMETERY ROAD UPGRADE (LOCAL ROAD) WITH PARKING BAY (20.12m)

- NOTES**
1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL AND AUCKLAND TRANSPORT STANDARDS.
 2. TYPICAL CROSS-SECTION WIDTHS MAY VARY LOCALLY TO ACCOMMODATE PARKING SPACES
 3. PAVEMENT DETAILS SHOWN ARE INDICATIVE ONLY. FINAL DESIGN DETAILS ARE TO BE DETERMINED AT THE ENGINEERING APPROVAL STAGE.

REVISION DETAILS		BY	DATE
1	ISSUED FOR CONSENT	SK	AUG 2026

SURVEYED	WOODS	WAINUI ROAD MILLDALE AUCKLAND
DESIGNED	WOODS	
DRAWN	FA	
CHECKED	SK	
APPROVED	JW	WOODS.CO.NZ



MILLDALE
STAGES 14-17
FAST-TRACK
PHASE 1: TYPICAL CROSS
SECTION
CEMETERY ROAD - PROPOSED
UPGRADES

STATUS	ISSUED FOR CONSENT	REV
COUNCIL	AUCKLAND COUNCIL	1
DWG NO	P25-609-01-2029-RD	

File: C:\1205\DATA\WP_AKL_APP\02\P25-609 - MILLDALE NORTH FAST-TRACK APPLICATION_230502 DRAWINGS\01 ENG\01 PHASE 1 - DEVELOPMENT AREA\P25-609-01-2010-RD-ROAD TYPOLOGY PLANDWG

REV	DATE	DRN	CHK	DESCRIPTION
A	07.08.26	TLJ	----	Source: Woods Ltd issued August 2026

MILLDALE NORTH FAST-TRACK (ROAD TYPOLOGIES) CEMETERY ROAD

DRAWN: TLJ
DATE: 07.08.26
SCALE: N.T.S
DWG NO: 310206516A2B

STATUS: RC



6.1.1.4 External Road Network and Access to the Milldale Stage 14-17 area

The principal road connections to the surrounding network will include:

- Wainui Road, providing access to Waitoki Road, Kahikatea Flat Road and SH16 to the west and SH1 to the east via the Millwater interchange;
- Sidwell Road, running parallel to SH1 and providing access to Milldale to the south and the Millwater interchange; and
- Argent Lane, Waiwai Drive, Cemetery Road and Endsley Rise which all provide access to the surrounding Milldale and the wider local road network via the Silverdale and Millwater interchanges.

As noted earlier, several additional upgrades are necessary to support the connectivity of the Milldale Stage 14-17 area with the surrounding transportation network. These comprise of the following:

- Three single-lane roundabouts along Wainui Road to provide access to the internal roads within the development;
- Three priority Left-In, Left-Out intersections to the east and west of the Wainui Road / Argent Lane roundabout;
- Three priority tee intersections to Wainui Road; and
- Connections to Endsley Rise to provide access to the south-eastern areas of the Milldale Stage 14-17 area.

These upgrades will be progressively implemented as the Milldale Stage 14-17 area becomes built out.

NORs have been notified to future-proof routes such as Pine Valley Road, Dairy Flat Highway, East Coast Road, Wainui Road and SH1. These routes provide wider area connectivity to the Milldale Stage 14-17 area. Wainui Road will also provide as a key traffic carrying route for the Milldale Stage 14-17 area. The roading infrastructure does not preclude the NOR route protection requirements.

6.1.2 Intersection Typologies

Figure 30 provides an illustration of the various intersection controls proposed for Milldale Stages 14-17. In general, roundabouts (being AT's preference) are proposed at crossroads, particularly if one of the intersecting roads is an arterial or collector road.

Proposed treatments for intersections (generic and bespoke) are provided in **Figure 31** to **Figure 33**. Vehicle tracking diagrams will be provided by Woods to demonstrate the workability of these layouts.

The majority of intersection forms and layouts are typical designs which have been adopted throughout the wider Milldale area and modelling has been undertaken which indicates that they will be able to satisfactorily cater for the levels of traffic anticipated within the development area. Overall, the proposed intersection forms are considered appropriate and acceptable.