



Final Concept Design and Report

East of Aberline PSP - Transport Design and Costs

Prepared for: Victorian Planning Authority (VPA)
22 August 2025
Client Reference No. PSP 8046



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Document Control

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1.0 Introduction

The Victorian Planning Authority (VPA), in partnership with Warrnambool City Council and government agencies, is re-commencing the preparation of the East of Aberline Precinct Structure Plan (PSP) and Development Contributions Plan (DCP).

As background, the VPA commenced the East of Aberline project in 2019, prior to which Council had undertaken some work. However, in 2020 as part of the Government's response to COVID-19, the Treasurer and Minister for Planning required the VPA to accelerate 19 projects on our existing work program. East of Aberline amongst other projects were paused to refocus priority.

The East of Aberline precinct is expected to provide approximately 5,000 homes to accommodate a population of more than 15,000 people. It will also provide community facilities, local parks and potentially new schools.

2.0 Project Scope

SMEC was commissioned by the VPA to develop concept level designs for transport projects to be funded under a Development Contributions Plan (DCP). SMEC's scope involved the development of the following infrastructure items for the interim and ultimate cases, and preparation of cost estimates for the interim works for the following infrastructure projects:

- 3 x Intersections
 - IN-01
 - IN-02
 - IN-03
- 1 x Road Bridge
 - BR-01

Additional design work is included for IN-04, IN-05, RD-01-01, RD-01-02, and RD-01-03, however these projects are for reference only and are not included as part of the DCP and are intended to show the connectivity only.

See below Figure 1 for an overall layout of the PSP designed as part of these scope of works.

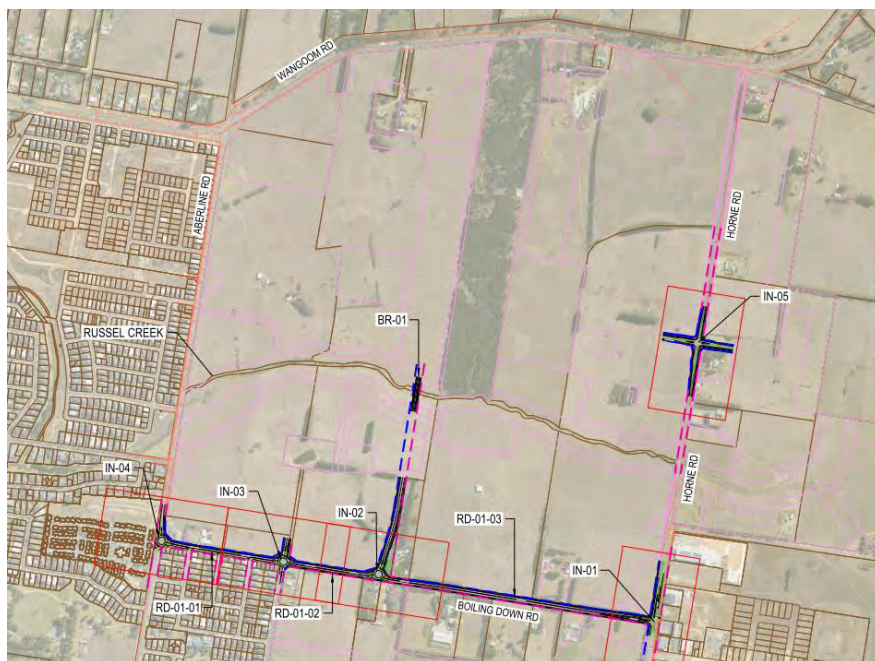


Figure 1: Overall layout Plan

2.1 Road Projects

There are 3 proposed road projects included in the design and are for reference only to show the connectivity for the intersections and are not part of the DCP. The designs are developed using the cross-sections provided by the VPA.

The design of the road takes into consideration the following characteristics:

- Existing non-PSP property boundaries
- Land geometry
- Proposed adjacent land use.
- Existing utilities
- Existing Boiling Down Road features

2.2 Intersection Projects

There are 3 proposed intersection projects (IN-01, IN-02, and IN-03) included within the scope of works for the DCP. Only ultimate designs are proposed, i.e. there are no future plans to upgrade the design of the intersections. The intersection layout will facilitate the location of the proposed ROW boundaries to ensure that enough land is reserved. The designs proposed will be used as the basis for the ICP costing exercise. SMEC did not undertake any traffic analysis for this commission, and has used the information supplied from O'Brien traffic via the VPA for the layout of each intersection, with consideration of the form of the VPA template intersection layouts and documents provided by the VPA and adjusted as required to fit the existing intersection arrangements.

The design of the intersections takes into consideration the following characteristics:

- The location of the existing road network
- Existing non-PSP property boundaries
- Land geometry
- Proposed adjacent land use
- Existing road features

2.3 Bridge Projects

There is one proposed bridge project included within the PSP scope of works. Only an ultimate design is provided for the road bridge.

The design of the road takes into consideration the following characteristics:

- Land geometry and geotechnical constraints
- Russell Creek Waterway and 1% AEP Flood Extents
- Proposed adjacent land use

3.0 Design Criteria and Methodology

3.1 Design Documents/Standards

The following design documents were adhered to throughout the development of the project concept designs.

- VPA Benchmark Infrastructure Costings Report for Infrastructure in Growth Areas December 2019
- VPA Benchmark Infrastructure Cost Guide October 2019
- VicRoads Guidance for Planning Road Networks in Growth Areas November 2015
- VicRoads Road Design Note RDN 04-01, Heavy Vehicle Network Access Considerations July 2019
- VicRoads supplement to the Austroads Guide to Road Design
- VicRoads Traffic Engineering Manual
- Austroads Guide to Road Design
- Australian Standards
- Rawlinsons Australian Construction Handbook January 2023

The following information provided by VPA was relied upon throughout the development of the project concept designs:

- O'BRIEN TRAFFIC: Integrated Transport Assessment – East of Aberline Precinct Structure Plan (1 July 2025)

3.2 Typical Cross Sections

Typical cross sections used in the road and intersection projects are shown in the below figures.

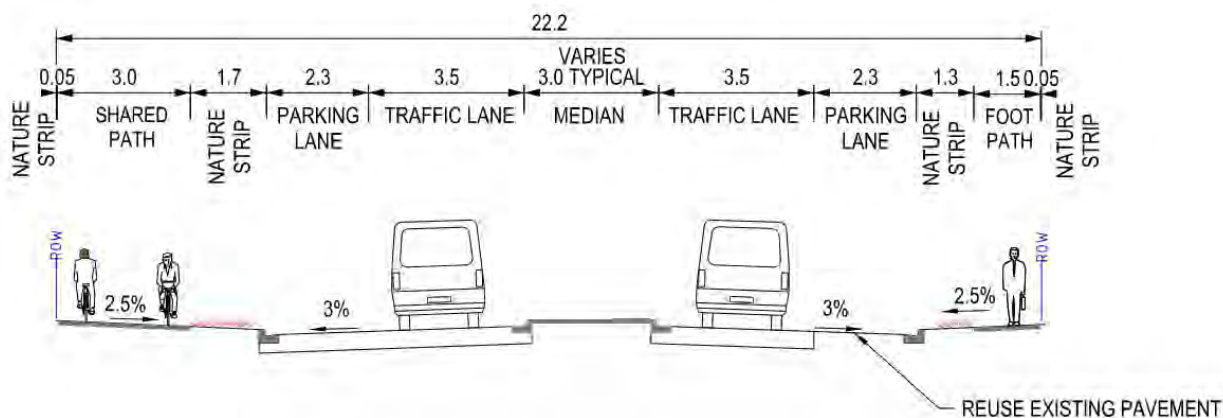


Figure 2: Cross-section Boiling Down Road

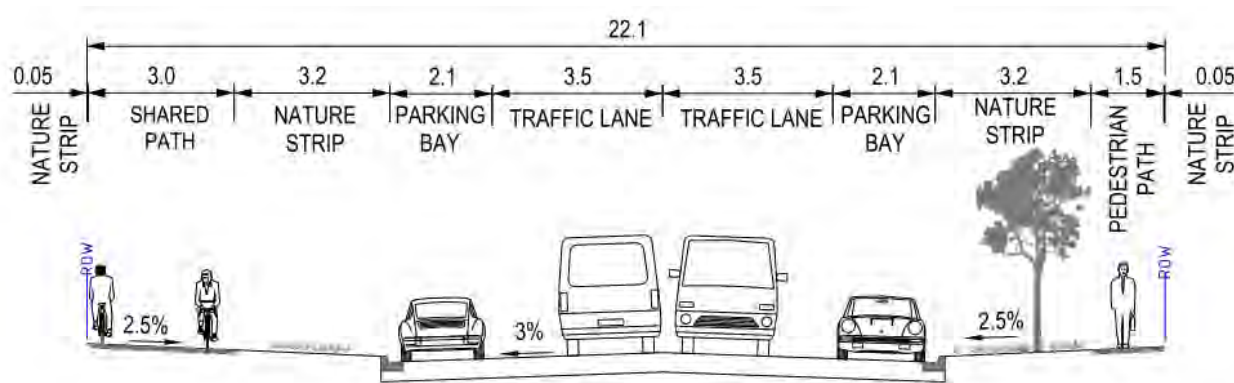


Figure 3: Cross-section Connector Street

3.3 Road Projects

Details of Boiling Down Road (RD-01) road projects are shown in Table 1. These road projects are not part of the DCP and are shown for reference and completeness only.

Table 1 - Road Projects

Project No.	Road Name	Project Description	Road reserve width	Design speed	Road Length (PSP section)	Benchmark Infrastructure Report Item No.
RD-01-01	Boiling Down Road (IN-04 to IN-03)	Matches existing roadway with SUP added on north side of carriageway	Typically 22.2m	60 km/h	~300m	N/A
RD-01-02	Boiling Down Road (IN-03 to IN-02)	Parking added to existing cross-section and SUP added on north side of carriageway	Typically 22.2m	60 km/h	~213m	N/A
RD-01-03	Boiling Down Road (IN-02 to IN-01)	Modified Connector Street Boulevard *	Typically 22.2m	60 km/h	~758m	Item 3 (modified)

*Section immediately east of IN-02 provides narrow cross-section with no parking lane on the north side of carriageway and reduced median to fit within existing ROW boundaries.

3.4 Intersection Projects

The DCP includes 3 intersections, IN-01, IN-02, and IN-03 only. Additional considerations to intersections IN-04 and IN-05 has been included within the design for reference and completeness only. This shows that IN-04 maintains the existing roundabout, and an upgrade to IN-05 not funded by the DCP.

Table 2 - Intersection Projects

Project No.	Description	Location	Project	Cost Estimate	Design & Check Vehicle
IN-01	Signalised T Intersection	Horne Road & Boiling Down Road	Upgrade existing T-intersection to traffic signals	Ultimate	Design - 12.5m Single Unit Truck Check - 19m prime mover and semi-trailer
IN-02	3-Leg Roundabout	Boiling Down Road & Connector Street	3-Leg Roundabout	Ultimate	Design - 12.5m Single Unit Truck Check - 19m prime mover and semi-

					trailer
IN-03	4-Leg Roundabout	Boiling Down Road & Gateway Road	Retrofit Connector leg into existing 3-leg roundabout to create a 4-leg roundabout based on the existing roundabout geometry.	Ultimate	As per existing conditions

The design vehicles for the intersections are listed in Table 2 for each intersection. These are collector road to collector road intersections which according to RDN 04-01, nominates a 12.5m Single Unit Truck to be the design vehicle, with a 19m Semi Trailer the check vehicle.

Design vehicle swept paths are provided with a minimum clearance offset from the extremities of the vehicle path to a kerb, pavement edge or centreline as detailed in Austroads GRD Part 4 and Part 4A. It is expected that swept paths will be verified at the detailed design stage.

The turn lane lengths in the VPA benchmarks typically allow for deceleration to the stop line as a minimum. Therefore, the turn lane lengths provided in the design drawings adopt the longest of the following:

- Deceleration from the start of taper to the stop line
- 95% Back of Queue to a full lane width plus taper (Traffic data provided by O'Brien Traffic)

Based on design guidelines and project experience, as a minimum DTP would typically adopt a design vehicle plus deceleration as the turn lane length. Therefore, there is a risk that cost estimates (pavement allowance mostly) for the projects are less than the ultimate cost. Turn lane lengths at detailed design will need to be reconfirmed based on traffic modelling undertaken at such time in the future. Longer turn lane lengths should not affect the estimated land take boundaries.

3.5 Bridge

Details for the bridge project is listed in Table 3.

Table 3 - Bridge Projects

Project No.	Description	Location	Project	Cost Estimate	Benchmark Infrastructure Report Item No.
BR-01	Road Bridge (Approx. 70m Long)	Russell Creek	Super T Bridge - design to be prepared at future design stages	60 Km/h Ultimate – 2 lanes single carriageway	N/A/ - Bridge design will develop a bespoke design

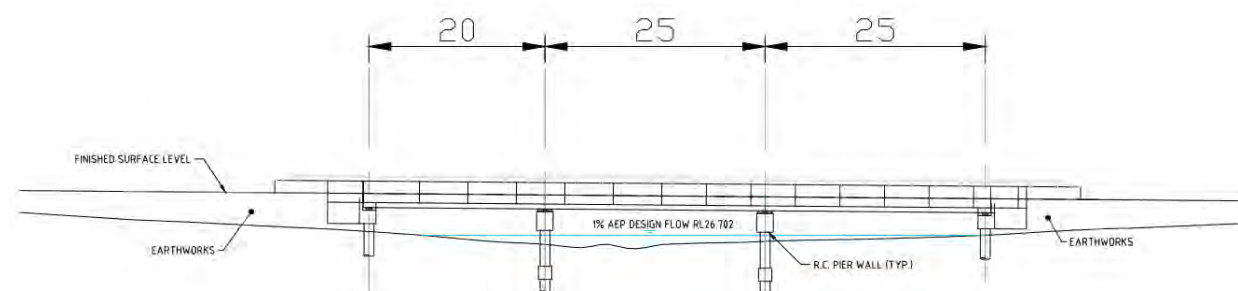
The bridge spans Russel Creek and is proposed to have a 70m span based on direction from VPA. This length has been checked and confirmed to be adequate for the waterway crossing requirements and structural design requirements.

Advice provided by SMECs water resources team (separate commission to VPA) via VPA indicate that the flood water elevation at 1% AEP is 26.7 m. Additional works is being undertaken as part of this separate commission and this level may require update based on any further findings.

A gradeline over Russel Creek has been prepared to inform the structure design. A minimum 600mm freeboard has been provided to the soffit level for the 1% AEP water level. Precast concrete super-t structure has been proposed. The span and cross section has been determined in conjunction with advice received from VPA, observations from Aerial Photos and in accordance with the individual road cross sections. 25m max span is

proposed with 1200mm deep Super T beams. This design will require further development during the detailed design phase.

Figure 4: BR-01 proposed gradeline



3.6 Design Considerations

The development of each road, intersection, bridge and shared path projects has considered the adjacent constraints to best minimise impact to existing infrastructure or existing boundaries. The key design considerations are listed below:

- IN-01 provides the layout in accordance with the O'Brian Traffic design. Additional widening of Horne Road on the western side and Boiling Down Road on the northern side is required.
- IN-02 has been offset from the properties to the North-East (75 Boiling Down Road) and south (70,76,78 Boiling Down Road) due to the properties being unavailable for development. The eastern leg cross-section has been reduced to accommodate all roadworks within the existing ROW boundaries.
- IN-03 upgrades the existing roundabout to add an additional northern leg to the existing roundabout. The existing roundabout geometry is proposed to otherwise be maintained.
- IN-04 maintains the existing roundabout.
- IN-05 turn lanes will widen out the cross-section beyond the existing ROW boundaries. Turn lane lengths match the lengths provided in the O'Brian Traffic design report.

3.7 Soil and Contaminated Land

The Preliminary Site Investigation (PSI) report prepared by Agon Environmental has been used for the basis to inform any additional requirements for the road and bridge projects related to soil and contaminated land allowances.

3.7.1 Contaminated lane

The following extract from the PSI report from Table 6 indicates generally across the PSP;

- Storage and use of pesticides and termiticides poses a low risk to future users of the site and to the environment
- Storage and use of fertiliser poses low risk of soil contamination.
- The likelihood of groundwater contamination from the industrial properties is considered low risk

Typical clearing and grubbing allowances for each infrastructure project are expected to cover any costs associated with these low-risk items.

Figure 5: Extract from Agon Environmental Preliminary Site Investigation Report - Table 6

Onsite Sources			
Storage and use of pesticides and termiticides	General	Organochlorine Pesticides (OCP), Organophosphorus Pesticides (OPP), Metals, termiticides, PFAS*	If present, pesticide concentrations within shallow site soils are expected to be at residual (minor levels), the likelihood of pesticide impacted soils to be present is considered low. Contamination derived from former pesticide use (if present) poses a potential low risk to future users of the site and to the environment.
Storage and use of fertiliser	General	Calcium phosphate, calcium sulfate, nitrates, ammonium sulfate, carbonates, potassium, copper, magnesium, molybdenum, boron, cadmium, PFAS*	These chemicals are readily soluble and have short retention times in soil and therefore are not considered to pose a risk in terms of soil contamination.
Offsite Sources			
Industrial properties in Home Road estate (Synclair Service Centre, Truline Machinery, Mona's Concrete Pumping)	South-east corner of 135 Boiling Down Road	Petroleum hydrocarbons	The likelihood of groundwater contamination from these industrial properties is low given: - The industrial estate was only constructed in 2019. - The industrial properties are likely down-hydraulic gradient of the site.

3.7.2 Acid Sulfate soils

The ICP projects within the PSP are noted to be in extremely low probability of occurrence of acid sulfate soils as noted in the PSI report Section 3.3. No additional allowance for adverse soil conditions has been allowed for based on this low risk.

3.7.3 Human Health

The PSI report section 9.2.1 indicates that samples collected near the shed on 75 Boiling Down Road contain lead above the NEPM HIL A limit within the topsoil. Provision within IN-02 for removal on contaminated land has been allowed for in the vicinity of the shed removal.

3.8 Cost Estimates

Cost estimates have been prepared based on rates from the benchmark rates from the VPA Benchmark Infrastructure Costings Report (2019) using P90 rates. The interim design is used as the basis for the costing. Costs were indexed in accordance with the VPA Benchmark Infrastructure Cost Guide. Refer to Attachment C.

The exception to this is the Bridge BR-01 costing which VPA have provided input to use cost rates typical to previous DCP projects due to inconsistencies within the benchmark rates for the benchmark bridge projects document.

Cost estimates are provided to the Victorian Planning Authority for budgeting purposes only for the Infrastructure Contributions Plan. SMEC Australia assumed no liability for losses incurred through changes to the quantities required to construct the projects or increases in construction costs. These values are not intended for use in construction and do not constitute a bill of quantities.

Appendix A Concept Drawings



EAST OF ABERLINE PSP

DESIGN DRAWINGS

Controlled
Copy Issue
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Drawing No. 30043640-SMEC-CV-DRG-2000

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2	30043640-SMEC-CV-DRG-2100	DRAWING INDEX
3	30043640-SMEC-CV-DRG-2200	PSP KEY PLAN
4	30043640-SMEC-CV-DRG-2201	NOTES AND LEGEND
5	30043640-SMEC-CV-DRG-2301	TYPICAL SECTIONS - SHEET 1
6	30043640-SMEC-CV-DRG-2302	TYPICAL SECTIONS - SHEET 2
ALIGNMENT PLANS - INTERSECTION		
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8	30043640-SMEC-CV-DRG-3002	GENERAL ALIGNMENT PLAN IN-02
9	30043640-SMEC-CV-DRG-3003	GENERAL ALIGNMENT PLAN IN-03

ALIGNMENT PLANS - BRIDGE		
10	30043640-SMEC-CV-DRG-7001	GENERAL ALIGNMENT PLAN BR-01

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					DESIGNER	G.CHRZANOWSKI
					DESIGN CHECK	A.DONATO
					PROJECT MANAGER	G.CHRZANOWSKI
					PROJECT DIRECTOR	—

SCALES AT A3 SIZE DRAWING

DESIGNER



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PROJECT TITLE

EAST OF ABERLINE PSP
TRANSPORT DESIGN AND COSTS
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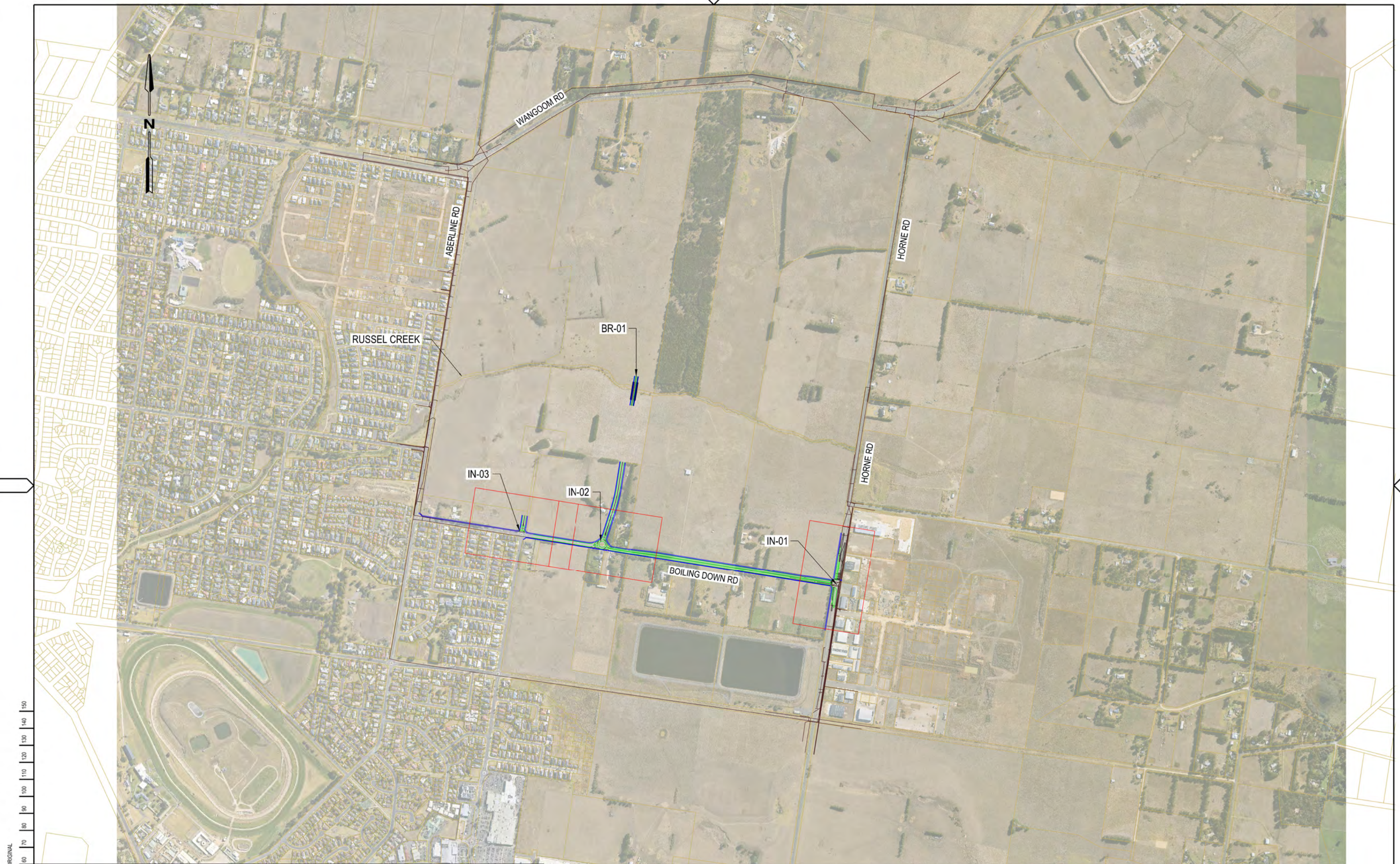
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PROJECT TITLE EAST OF ABERLINE PSP TRANSPORT DESIGN AND COSTS PSP KEY PLAN		
PHASE	PROJECT / DRAWING No 30043640-SMEC-CV-DRG-2200	REVISION D

GENERAL NOTES:

1.
- PROPOSED ROW BOUNDARY BASED ON TYPICAL CROSS SECTION AND TYPICAL INTERSECTION WIDTHS.
2.
- ROAD CROSS SECTIONS HAVE BEEN ADOPTED FROM DIRECTION OF VPA.
3.
- THE CO-ORDINATE SYSTEM USED IN ALL DRAWINGS IS MGA2020 (ZONE 54).
4.
- NO ASSESSMENT OF EXISTING OR PLANNED UTILITY SERVICES HAS BEEN UNDERTAKEN IN THE DEVELOPMENT OF THE INTERSECTIONS.
5.
- LINEMARKING IS INDICATIVE AND REPRESENTATIVE OF THE FUNCTIONALITY OF THE INTERSECTION ONLY.
6.
- TYPICAL TRAFFIC LANE WIDTHS ARE 3.5m
7.
- SQUARE METRE AREAS SHOWN ON PLANS IS EQUAL TO THE TOTAL PROJECT AREA UP TO THE PROPOSED RIGHT OF WAY (ROW).
THESE AREAS ARE SUBJECT TO CHANGE PROVIDED THE ACCETPANCE OF THE PROPOSED ROW BOUNDARIES.

LEGEND:

- FUTURE WORKS
- PROPOSED ROW BOUNDARY
- EXISTING ROW BOUNDARY
- CADASTRAL BOUNDARY
- PSP SHAPE FILES
- INTERSECTION LIMIT OF WORKS
- ROADS LIMIT OF WORKS
- BRIDGE LIMIT OF WORKS

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EAST OF ABERLINE PSP
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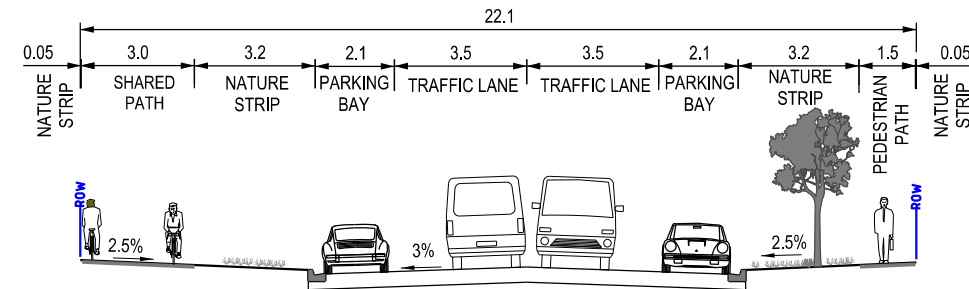
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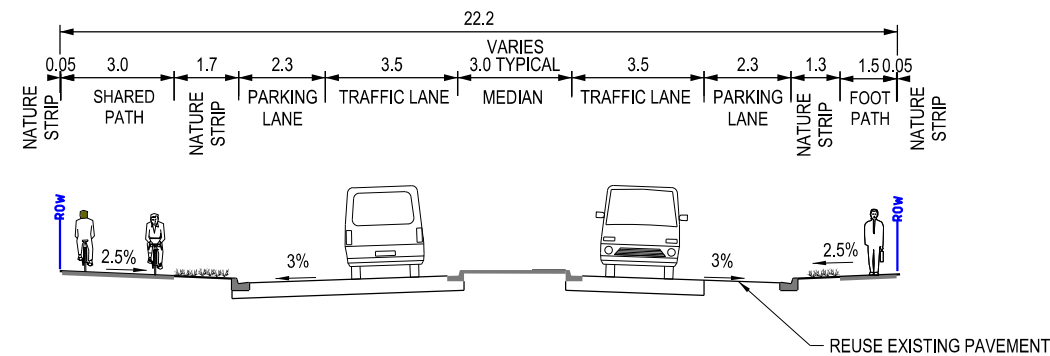
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DRAFTER	L.Villamayor
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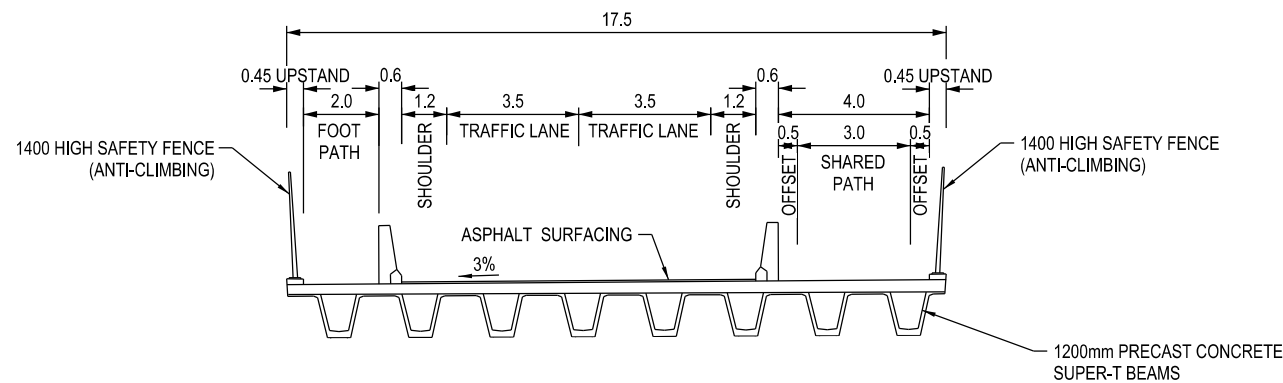
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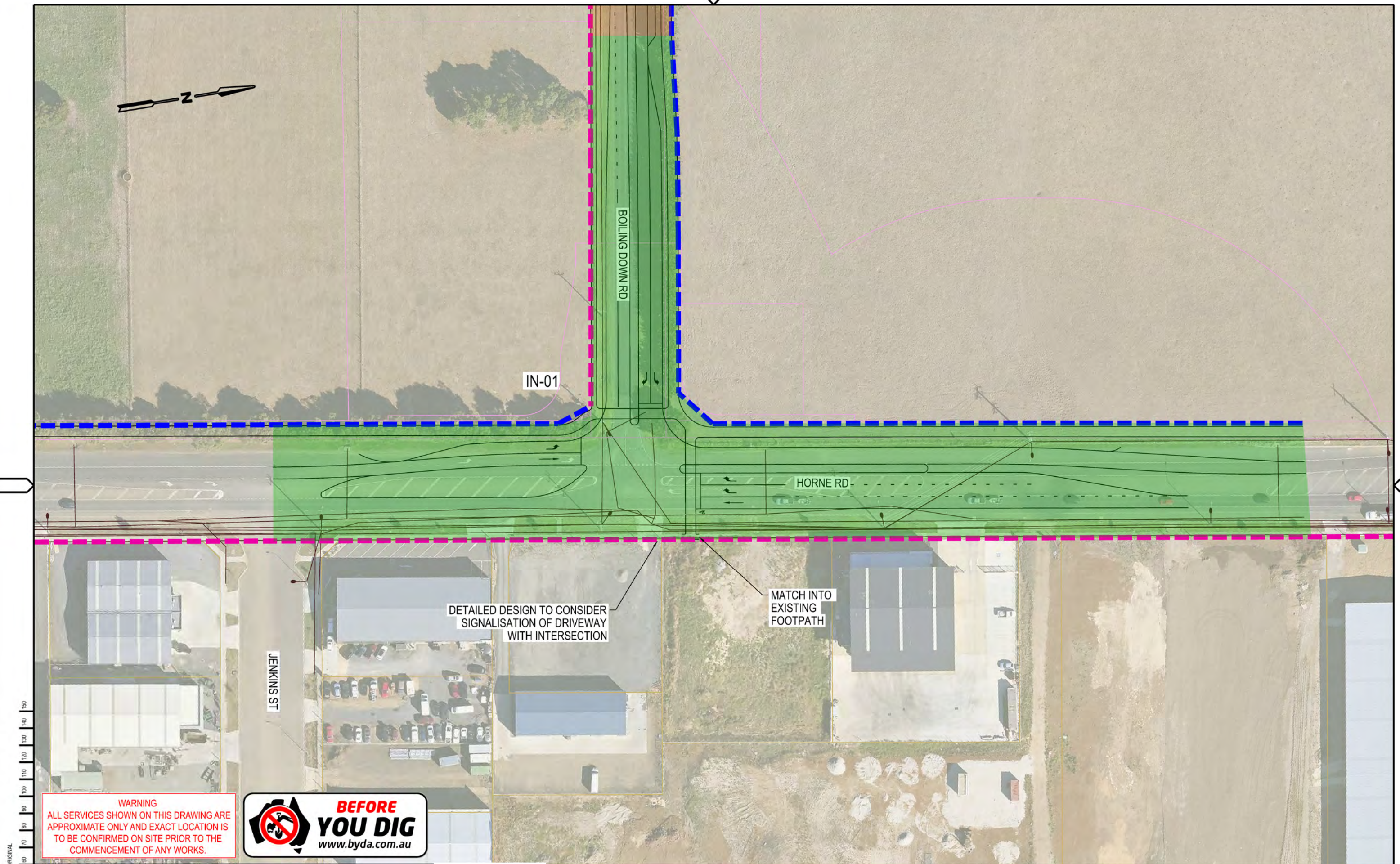
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EAST OF ABERLINE PSP
TRANSPORT DESIGN AND COSTS
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C	05/08/25	FINAL CONCEPT DESIGN		RN	DESIGNER	G.CHRZANOWSKI
D	22/08/25	FINAL CONCEPT DESIGN		RN	DESIGN CHECK	R.NATION
					PROJECT MANAGER	G.CHRZANOWSKI
					PROJECT DIRECTOR	---

SCALES AT A3 SIZE DRAWING

SCALE 1:1000

DESIGNER

an s company
© SMEC AUSTRALIA PTY LTD (ABN 47 065 475 149)
SMEC PROJECT No 30043640

CLIENT

Victorian Planning Authority

PROJECT TITLE

EAST OF ABERLINE PSP
TRANSPORT DESIGN AND COSTS
GENERAL ALIGNMENT
PLAN IN-01

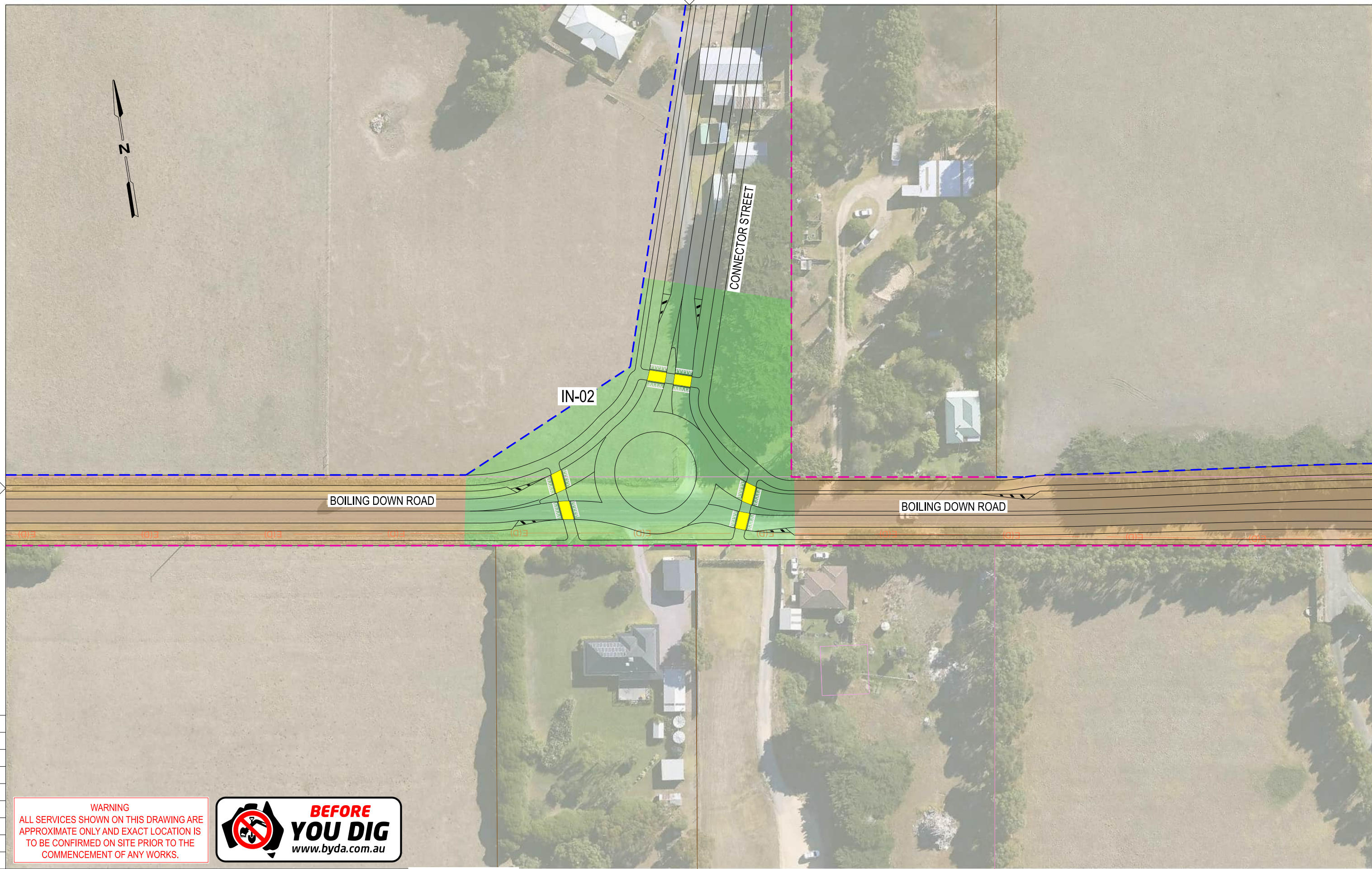
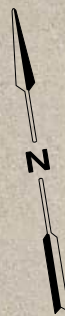
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PROJECT / DRAWING No
30043640-SMEC-CV-DRG-3001

REVISION

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150 mm ON ORIGINAL
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WARNING
ALL SERVICES SHOWN ON THIS DRAWING ARE
APPROXIMATE ONLY AND EXACT LOCATION IS
TO BE CONFIRMED ON SITE PRIOR TO THE
COMMENCEMENT OF ANY WORKS.



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REV	DATE	AMENDMENT / REVISION DESCRIPTION				
A	17/04/25	DRAFT CONCEPT DRAWINGS		GC	DRAFTER	L.Villamayor
B	11/07/25	DRAFT CONCEPT DESIGN RESUBMISSION		AD	DRAFTING CHECK	G.CHRZANOWSKI
C	05/08/25	FINAL CONCEPT DESIGN		RN	DESIGNER	G.CHRZANOWSKI
					DESIGN CHECK	R.NATION
					PROJECT MANAGER	G.CHRZANOWSKI
					PROJECT DIRECTOR	—

SCALES AT A3 SIZE DRAWING



DESIGNER



an smc company
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SMEC PROJECT No. 30043640

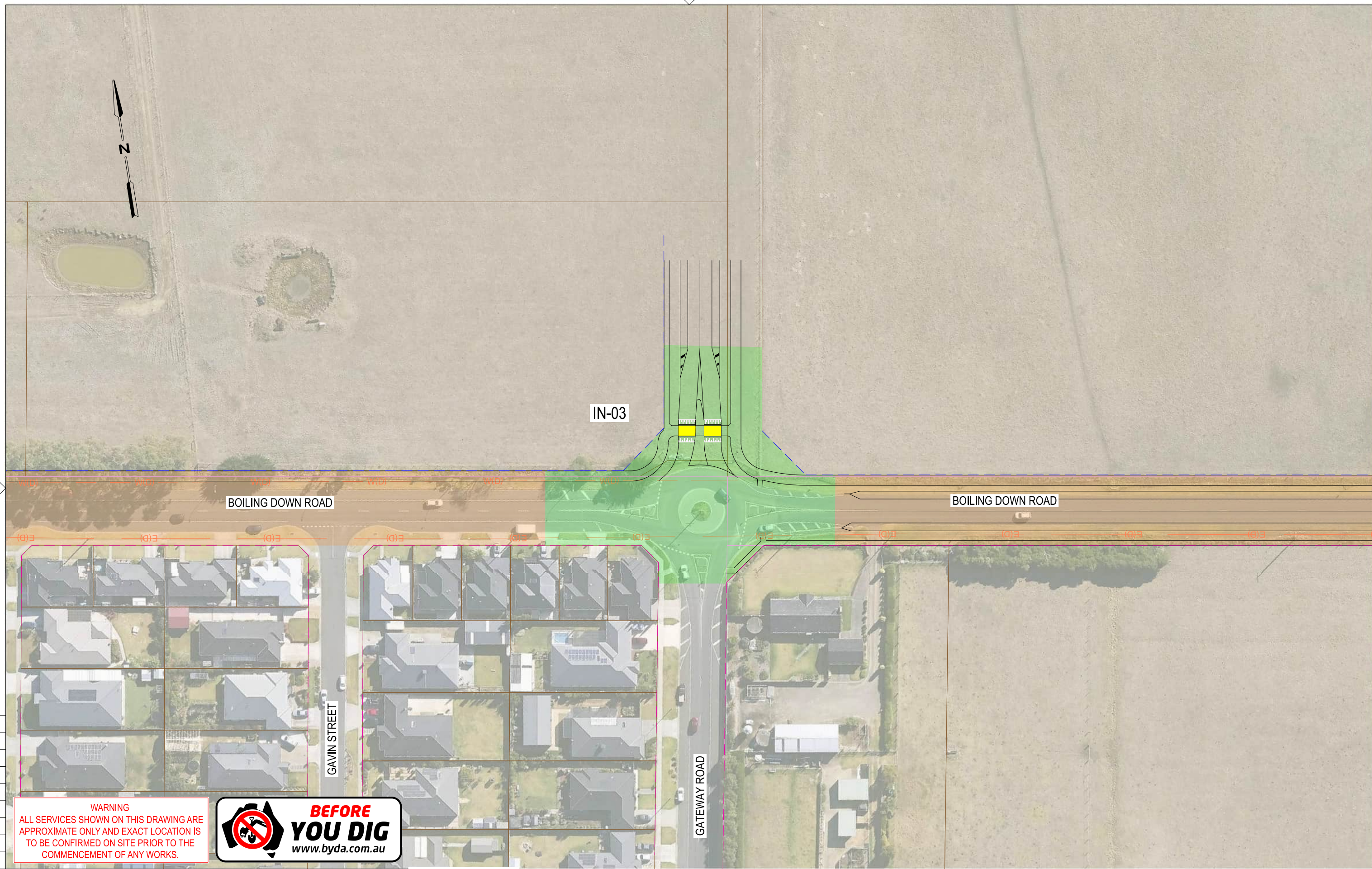
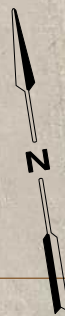
CLIENT



Victorian Planning Authority

PROJECT TITLE EAST OF ABERLINE PSP TRANSPORT DESIGN AND COSTS GENERAL ALIGNMENT PLAN IN-02		
PHASE	PROJECT / DRAWING No. 30043640-SMEC-CV-DRG-3002	REVISION C

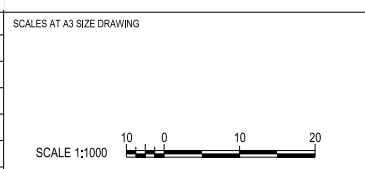
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WARNING
ALL SERVICES SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY AND EXACT LOCATION IS TO BE CONFIRMED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORKS.



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A	17/04/25	DRAFT CONCEPT DRAWINGS			GC	DRAFTER	L.Villamayor
B	11/07/25	DRAFT CONCEPT DESIGN RESUBMISSION			AD	DRAFTING CHECK	G.CHRZANOWSKI
C	05/08/25	FINAL CONCEPT DESIGN			RN	DESIGNER	G.CHRZANOWSKI
						DESIGN CHECK	R.NATION
						PROJECT MANAGER	G.CHRZANOWSKI
						PROJECT DIRECTOR	—



DESIGNER

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SMEC PROJECT No. 30043640

CLIENT

Victorian Planning Authority

PROJECT TITLE		
EAST OF ABERLINE PSP TRANSPORT DESIGN AND COSTS GENERAL ALIGNMENT PLAN IN-03		
PHASE	PROJECT / DRAWING No. 30043640-SMEC-CV-DRG-3003	REVISION C

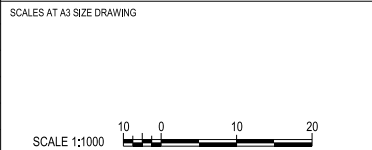
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100
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120
130
140
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WARNING
ALL SERVICES SHOWN ON THIS DRAWING ARE
APPROXIMATE ONLY AND EXACT LOCATION IS
TO BE CONFIRMED ON SITE PRIOR TO THE
COMMENCEMENT OF ANY WORKS.



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REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	TITLE	NAME
A	17/04/25	DRAFT CONCEPT DRAWINGS		GC AD RN	DRAFTER	L.Villamayor
B	11/07/25	DRAFT CONCEPT DESIGN RESUBMISSION			DRAFTING CHECK	G.CHRZANOWSKI
C	05/08/25	FINAL CONCEPT DESIGN			DESIGNER	G.CHRZANOWSKI
					DESIGN CHECK	R.NATION
					PROJECT MANAGER	G.CHRZANOWSKI
					PROJECT DIRECTOR	—



DESIGNER

an company

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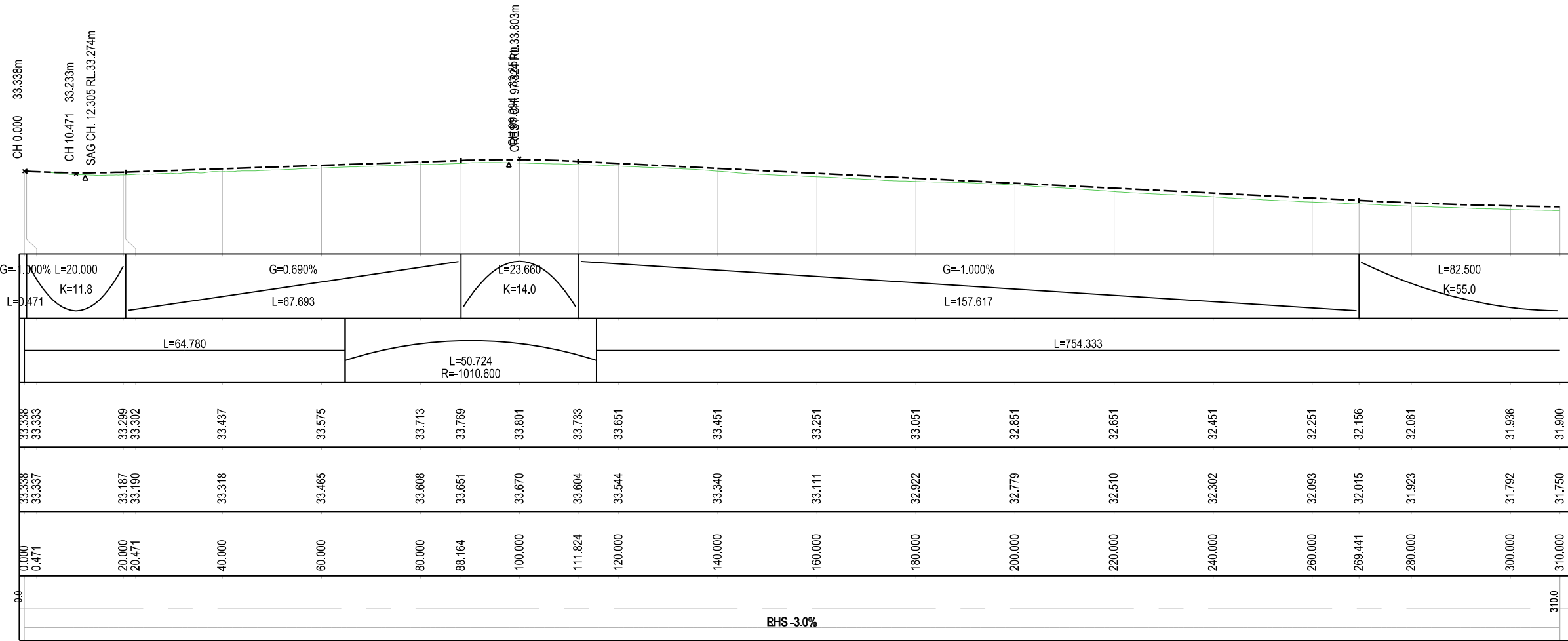
SMEC PROJECT No 30043640

CLIENT

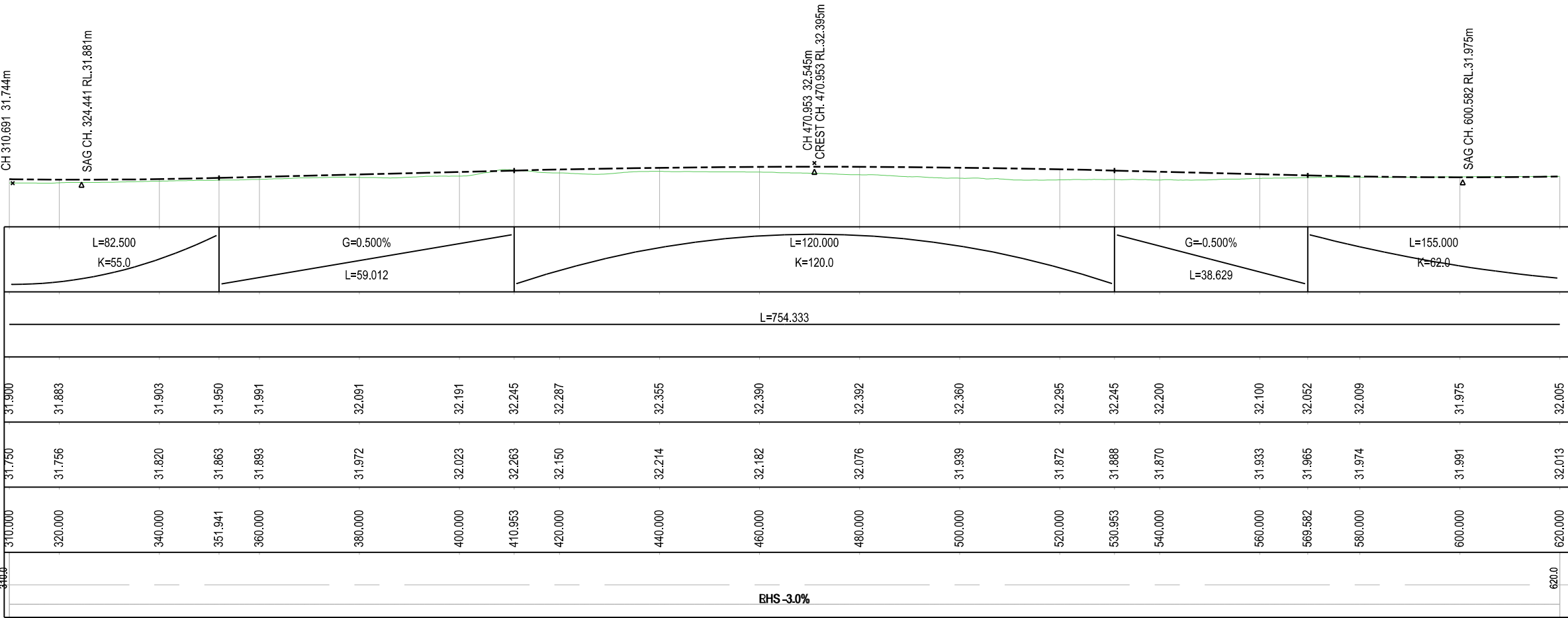
Victorian Planning Authority

PROJECT TITLE		
EAST OF ABERLINE PSP TRANSPORT DESIGN AND COSTS GENERAL ALIGNMENT PLAN BR-01		
PHASE	PROJECT / DRAWING No. 30043640-SMEC-CV-DRG-7001	REVISION C

Appendix B Detailed Long and Cross-Sections



LONGITUDINAL SECTION - MC10
H 1:1000 V 1:200



LONGITUDINAL SECTION - MC10
H 1:1000 V 1:200

RL 30.000

VERTICAL
GEOMETRY

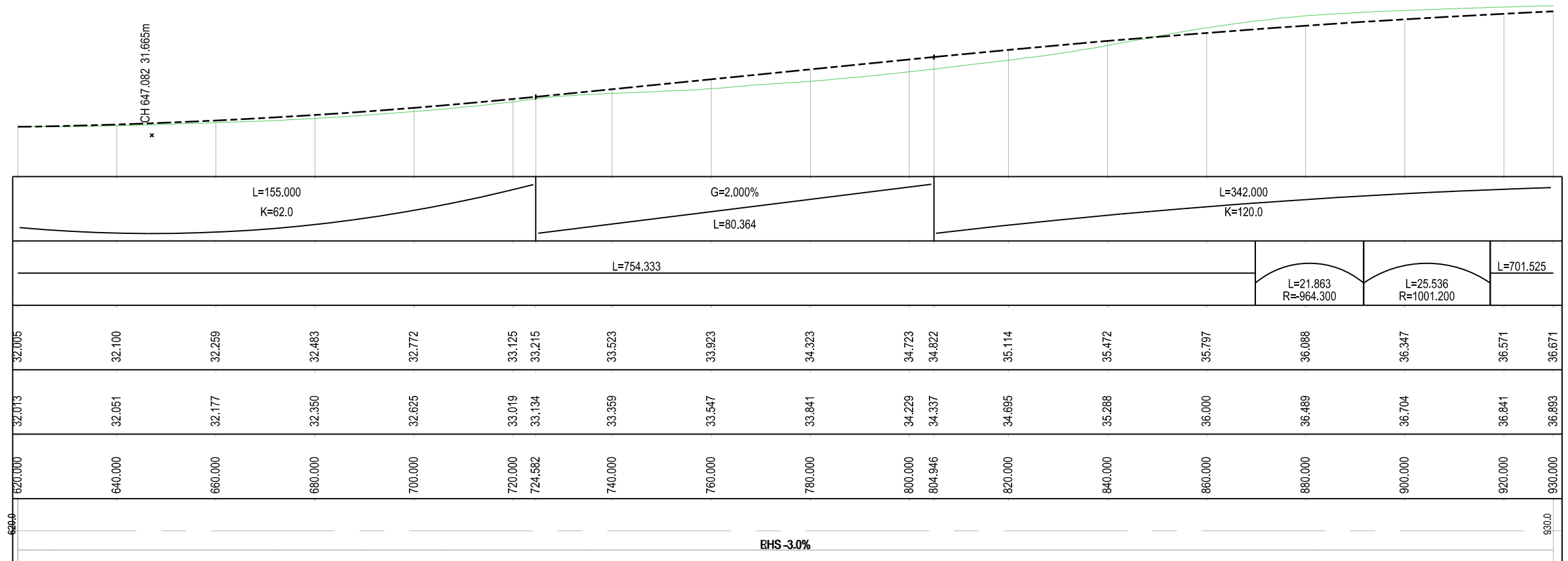
HORIZONTAL
GEOMETRY

DESIGN SURFACE
LEVELS

EXISTING SURFACE
LEVELS

CHAINAGE

SUPERELEVATION



LONGITUDINAL SECTION - MC10

H 1:1000 V 1:200

RL 34.000

VERTICAL
GEOMETRY

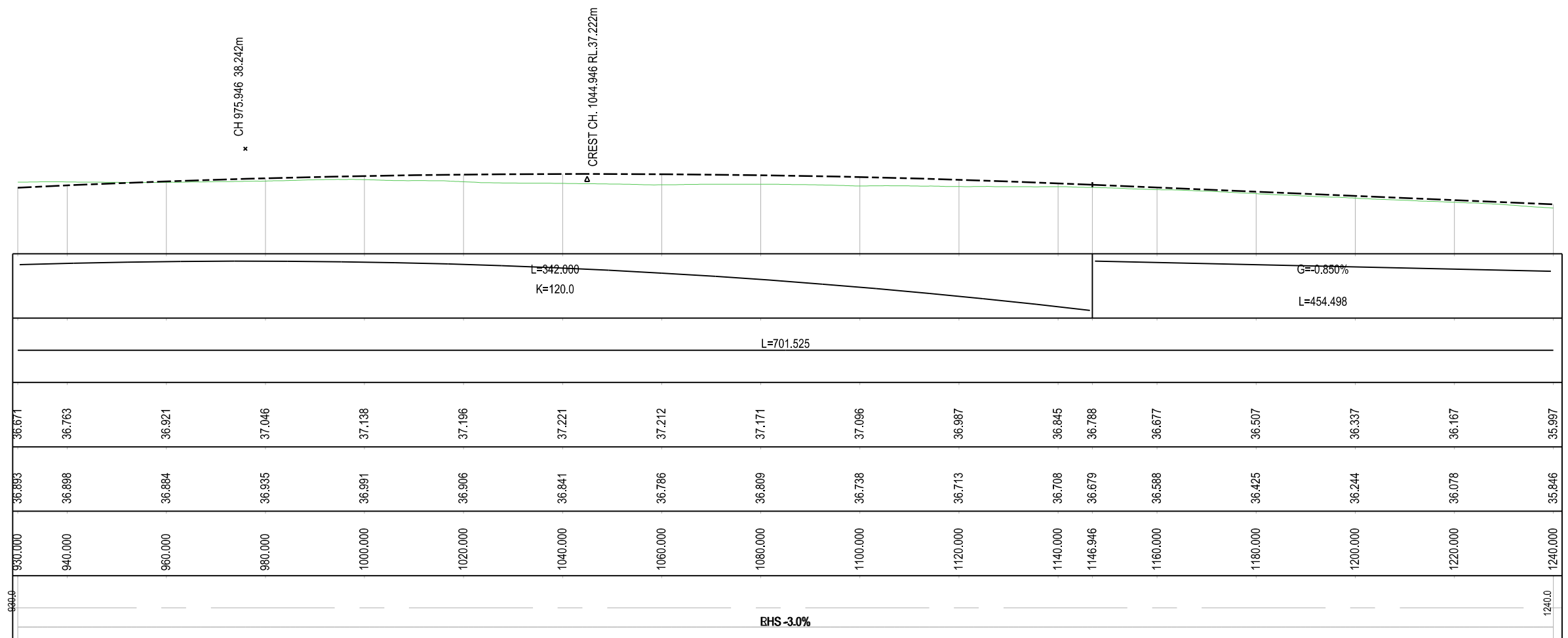
HORIZONTAL
GEOMETRY

DESIGN SURFACE
LEVELS

EXISTING SURFACE
LEVELS

CHAINAGE

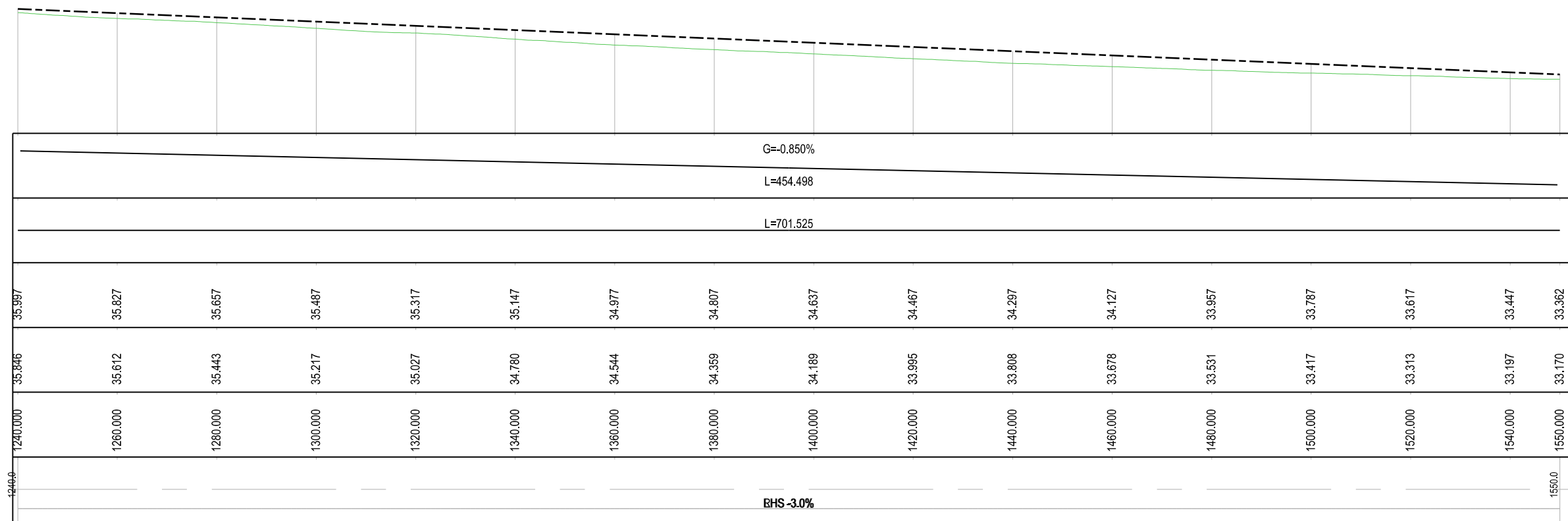
SUPERELEVATION



LONGITUDINAL SECTION - MC10

H 1:1000 V 1:200

RL 31.000
VERTICAL
GEOMETRY
HORIZONTAL
GEOMETRY
DESIGN SURFACE
LEVELS
EXISTING SURFACE
LEVELS
CHAINAGE
SUPERELEVATION



LONGITUDINAL SECTION - MC10
H 1:1000 V 1:200

RL 31.000

VERTICAL
GEOMETRY

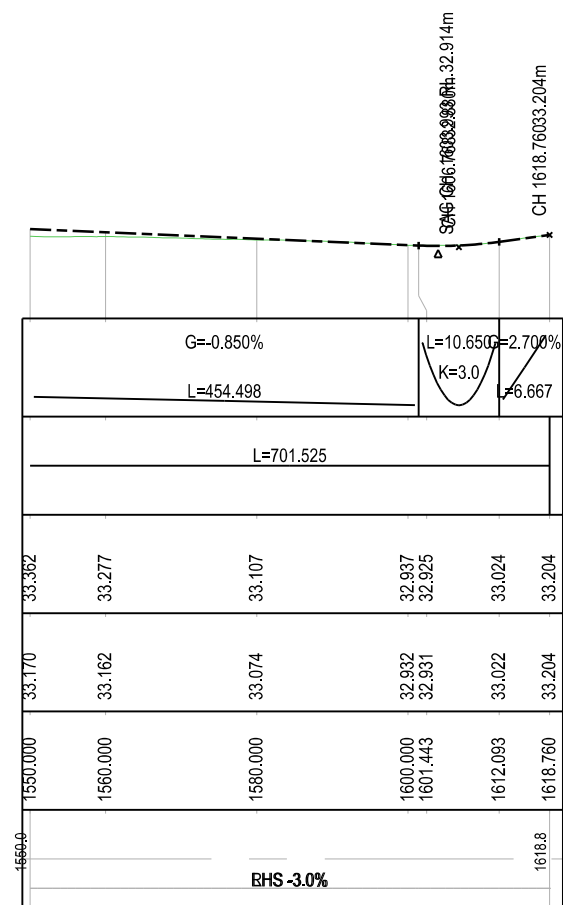
HORIZONTAL
GEOMETRY

DESIGN SURFACE
LEVELS

EXISTING SURFACE
LEVELS

CHAINAGE

SUPERELEVATION



LONGITUDINAL SECTION - MC10

H 1:1000 V 1:200



FOR CONTINUATION REFER SHEET 2

Sheet 01 of 05 Scale 1:1000

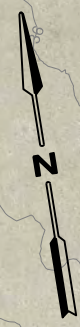
FOR CONTINUATION REFER SHEET 1

FOR CONTINUATION REFER SHEET 3

GAVIN STREET

GATEWAY ROAD

BOILING DOWN ROAD



FOR CONTINUATION REFER SHEET 4

BOILING DOWN ROAD

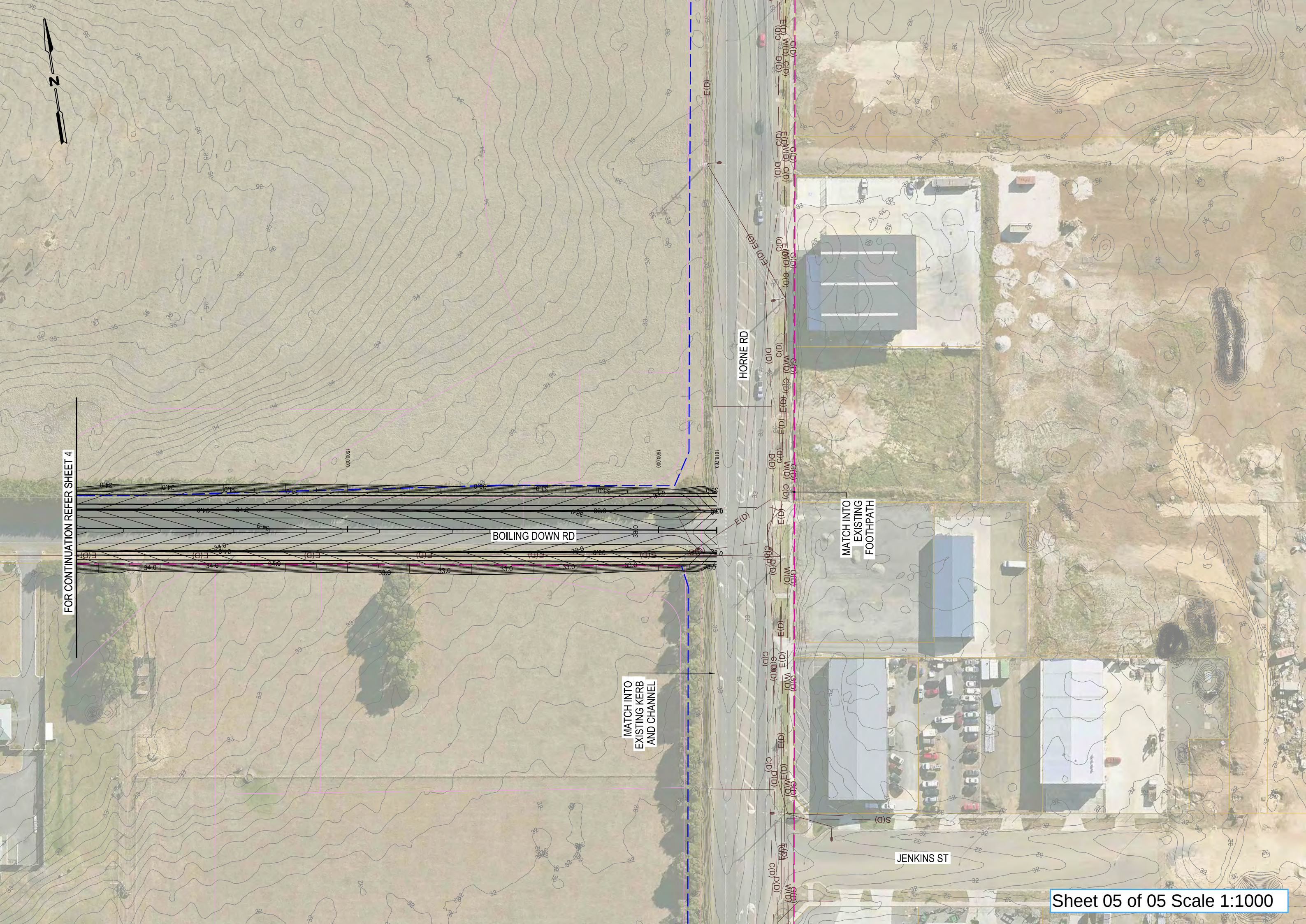
Sheet 01 of 05 Scale 1:1000



FOR CONTINUATION REFER SHEET 3

BOILING DOWN ROAD

FOR CONTINUATION REFER SHEET 5



FOR CONTINUATION REFER SHEET 4

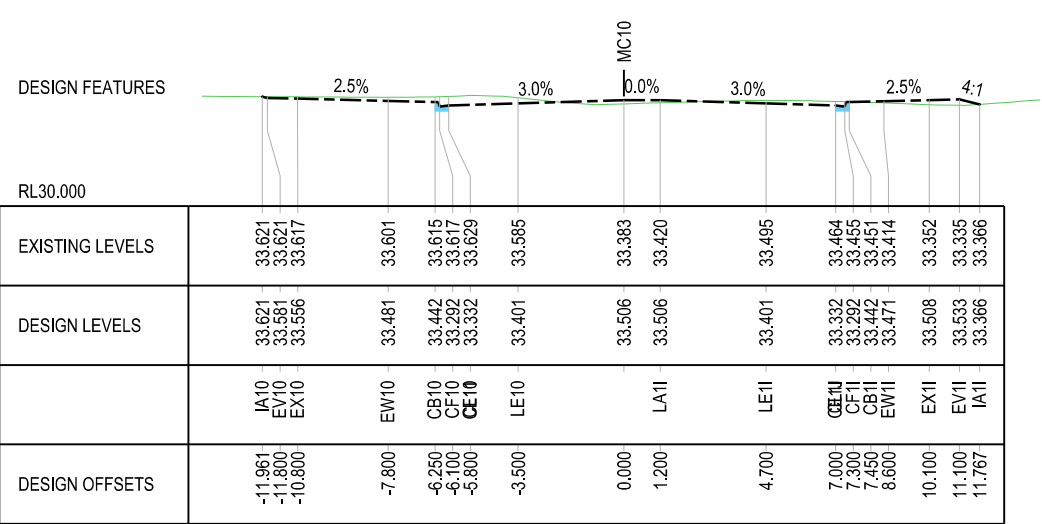
BOILING DOWN RD

MATCH INTO
EXISTING KERB
AND CHANNEL

HORNE RD

MATCH INTO
EXISTING
FOOTPATH

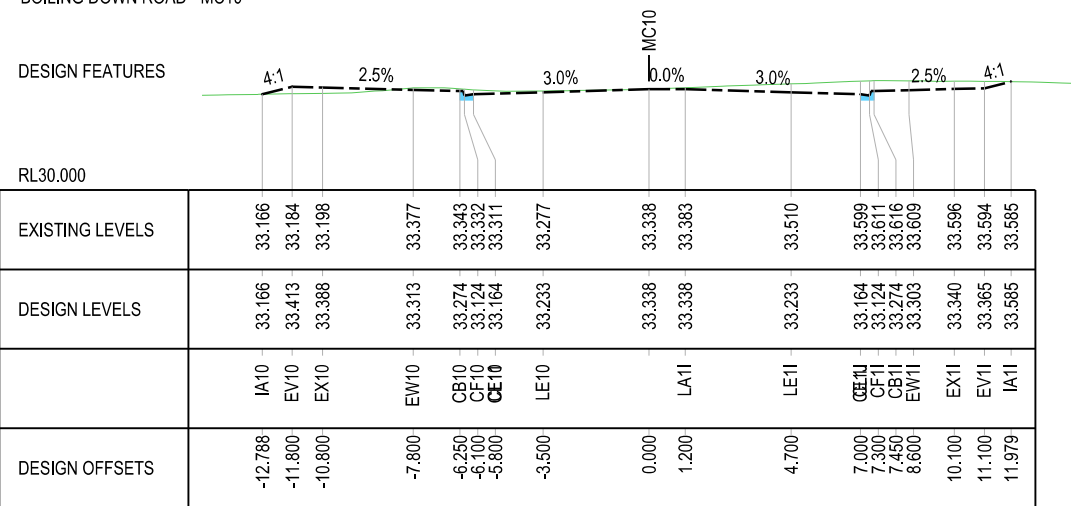
JENKINS ST



CHAINAGE 50.000

HZ 1: 250 V 1:250

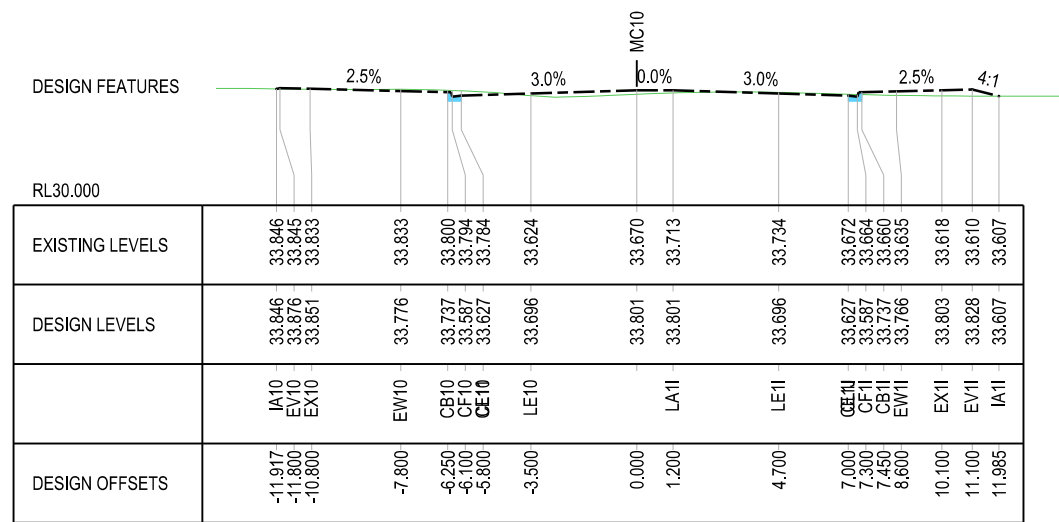
BOILING DOWN ROAD - MC10



CHAINAGE 0.000

HZ 1: 250 V 1:250

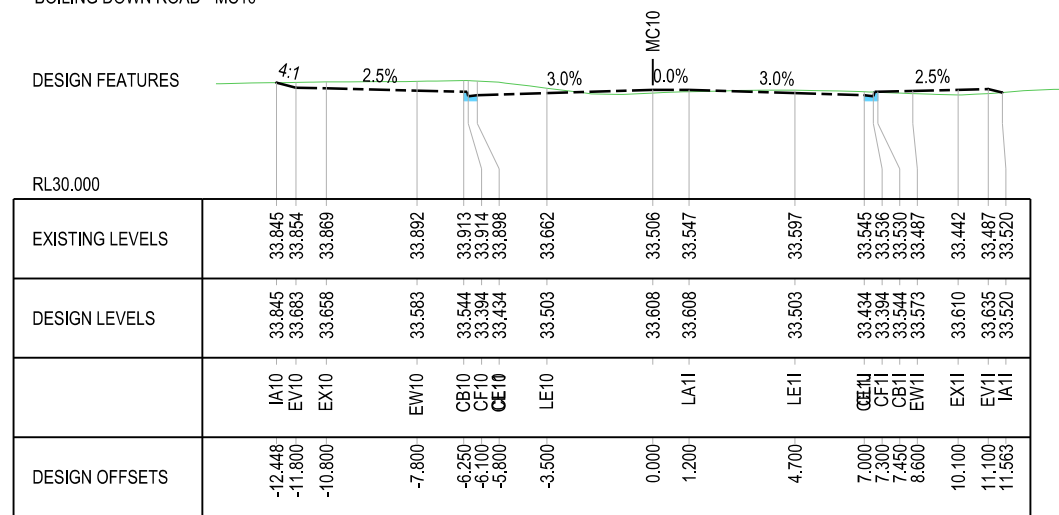
BOILING DOWN ROAD - MC10



CHAINAGE 100.000

HZ 1: 250 V 1:250

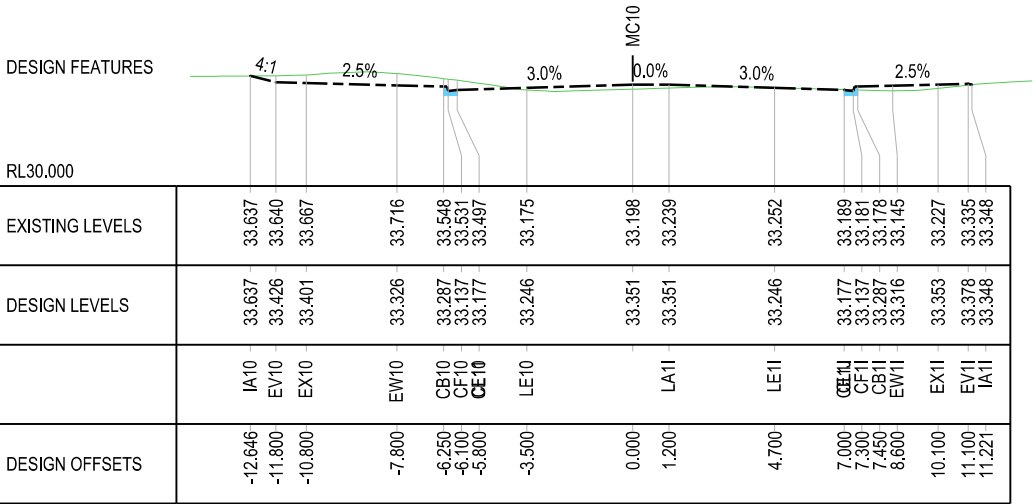
BOILING DOWN ROAD - MC10



CHAINAGE 64.780

HZ 1: 250 V 1:250

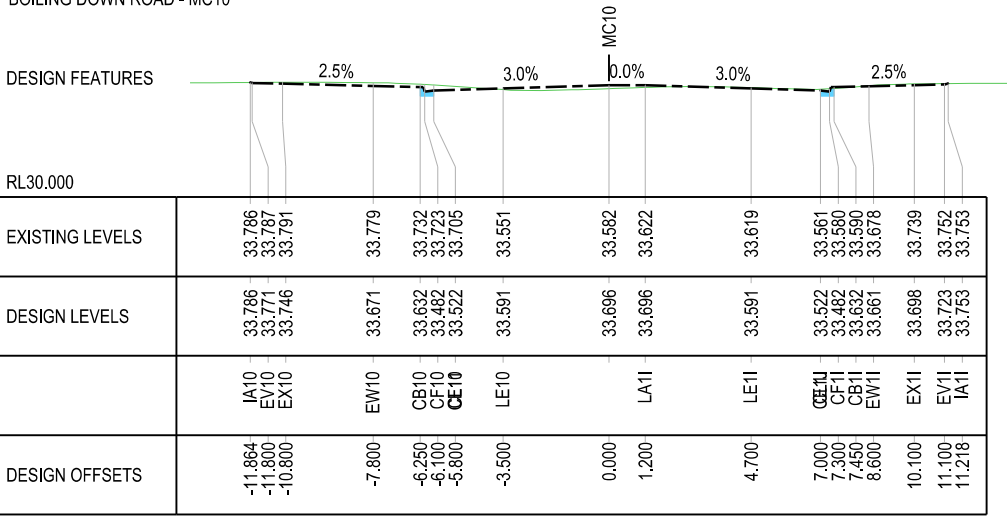
BOILING DOWN ROAD - MC10



CHAINAGE 150.000

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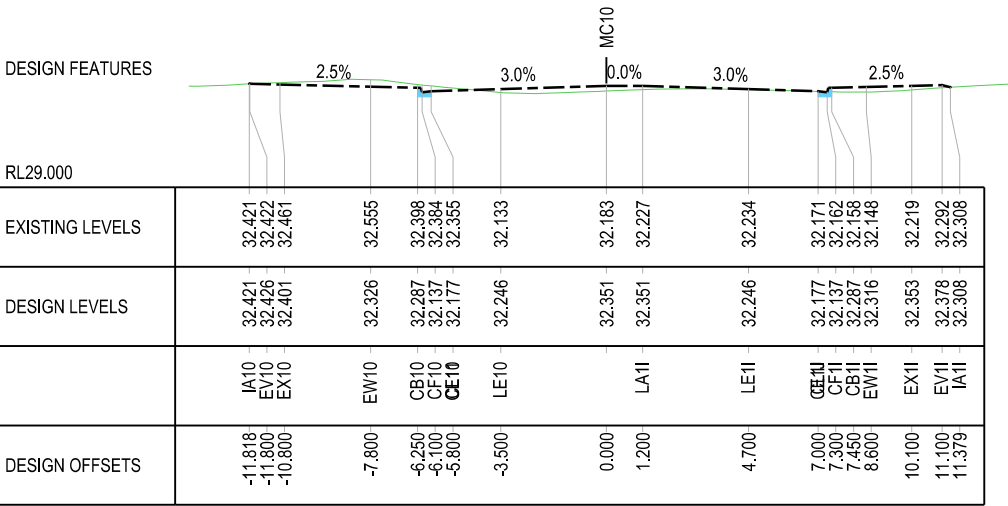
BOILING DOWN ROAD - MC10



CHAINAGE 115.504

HZ 1: 250 V 1:250

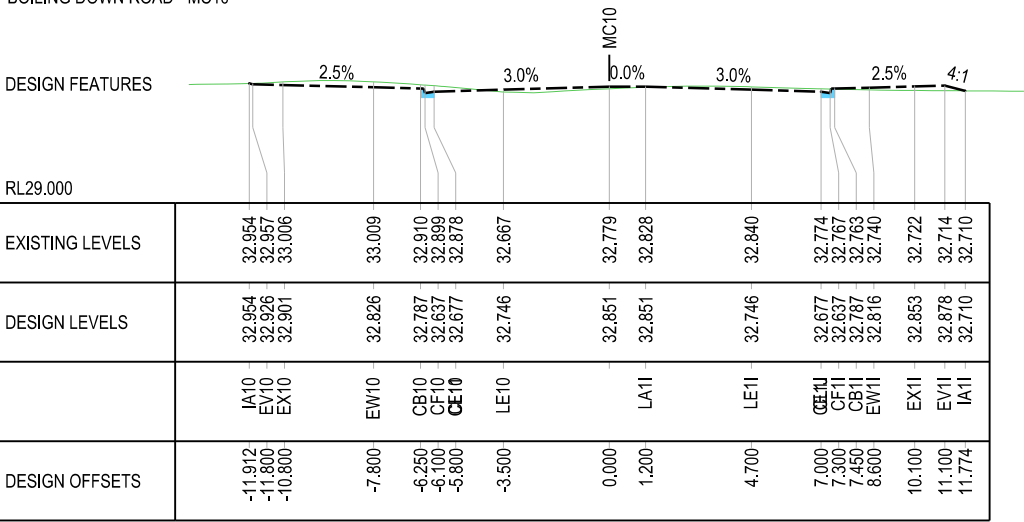
BOILING DOWN ROAD - MC10



CHAINAGE 250.000

HZ 1: 250 V 1:250

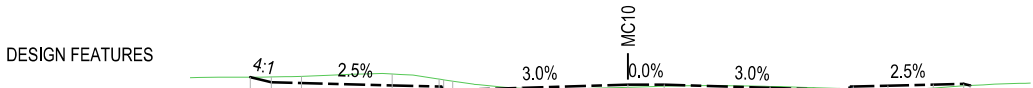
BOILING DOWN ROAD - MC10



CHAINAGE 200.000

HZ 1: 250 V 1:250

BOILING DOWN ROAD - MC10



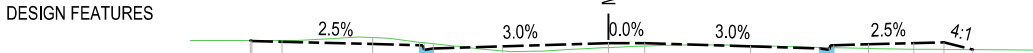
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EXISTING LEVELS	32.189	32.194	32.217		32.288	32.121	32.099	32.055	31.820	31.853	31.889	31.882	31.813	31.803	31.797	31.771	31.827	31.902	31.913
DESIGN LEVELS	32.189	32.016	31.991		31.916	31.877	31.727	31.767	31.836	31.941	31.941	31.836	31.767	31.727	31.877	31.906	31.943	31.968	31.913
	IA10	EV10	EX10		EW10	CB10	CF10	CE10	LE10		LA11	LE11	CE11	CF11	CB11	EW11	EX11	EV11	IA11
DESIGN OFFSETS	-12.493	-11.800	-10.800		-7.800	-6.250	-6.100	-5.800	-3.500	0.000	1.200	4.700	7.000	7.300	7.450	8.600	10.100	11.100	11.318

CHAINAGE 350.000

HZ 1: 250 V 1:250

BOILING DOWN ROAD - MC10



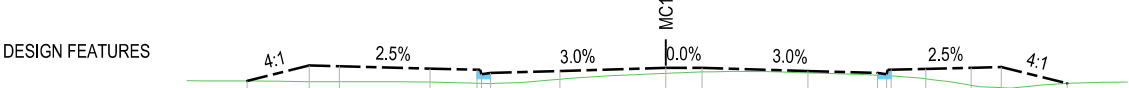
RL29.000

EXISTING LEVELS	32.022	32.022	32.023		32.122	31.968	31.954	31.922	31.681	31.792	31.842	31.862	31.798	31.792	31.788	31.784	31.738	31.731	31.725
DESIGN LEVELS	32.022	32.011	31.986		31.911	31.872	31.722	31.762	31.831	31.936	31.936	31.831	31.762	31.722	31.872	31.901	31.938	31.963	31.725
	IA10	EV10	EX10		EW10	CB10	CF10	CE10	LE10		LA11	LE11	CE11	CF11	CB11	EW11	EX11	EV11	IA11
DESIGN OFFSETS	-11.846	-11.800	-10.800		-7.800	-6.250	-6.100	-5.800	-3.500	0.000	1.200	4.700	7.000	7.300	7.450	8.600	10.100	11.100	12.052

CHAINAGE 300.000

HZ 1: 250 V 1:250

BOILING DOWN ROAD - MC10



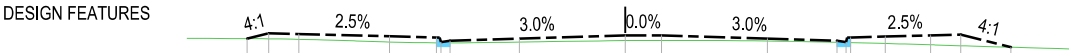
RL29.000

EXISTING LEVELS	31.940	31.917	31.917		31.906	31.866	31.863	31.855	31.999	32.194	32.238	32.209	32.131	32.117	32.108	32.012	31.796	31.720	31.860
DESIGN LEVELS	31.940	32.452	32.427		32.352	32.313	32.163	32.203	32.272	32.377	32.377	32.272	32.203	32.163	32.313	32.342	32.379	32.404	31.860
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DESIGN OFFSETS	-13.849	-11.800	-10.800		-7.800	-6.250	-6.100	-5.800	-3.500	0.000	1.200	4.700	7.000	7.300	7.450	8.600	10.100	11.100	13.276

CHAINAGE 450.000

HZ 1: 250 V 1:250

BOILING DOWN ROAD - MC10



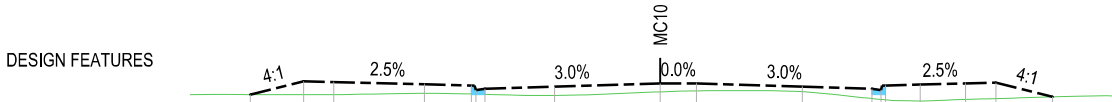
RL29.000

EXISTING LEVELS	32.088	32.082	32.065		31.976	31.951	31.950	31.949	31.974	32.023	32.030	32.008	31.966	31.959	31.955	31.927	31.884	31.854	31.803
DESIGN LEVELS	32.088	32.265	32.240		32.165	32.127	31.977	32.017	32.086	32.191	32.191	32.086	32.017	31.977	32.127	32.155	32.193	32.218	31.803
	IA10	EV10	EX10		EW10	CB10	CF10	CE10	LE10		LA11	LE11	CE11	CF11	CB11	EW11	EX11	EV11	IA11
DESIGN OFFSETS	-12.508	-11.800	-10.800		-7.800	-6.250	-6.100	-5.800	-3.500	0.000	1.200	4.700	7.000	7.300	7.450	8.600	10.100	11.100	12.759

CHAINAGE 400.000

HZ 1: 250 V 1:250

BOILING DOWN ROAD - MC10



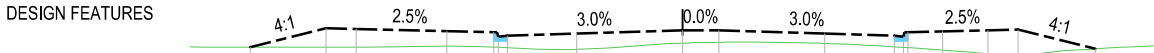
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EXISTING LEVELS	31.785	31.778	31.783	31.825	31.805	31.801	31.792	31.757	31.874	31.906	31.882	31.654	31.626	31.612	31.573	31.623	31.650	31.709
DESIGN LEVELS	31.785	32.225	32.200	32.125	32.086	31.936	31.976	32.045	32.150	32.150	32.045	31.976	31.896	32.086	32.115	32.152	32.177	31.709
	IA10	EV10	EX10	EW10	CB10	CF10	CE10	LE10	LA11		LE11	CE11	CF11	CB11	EW11	EX11	EV11	IA11
DESIGN OFFSETS	-13.561	-11.800	-10.800	-7.800	-6.250	-6.100	-5.800	-3.500	0.000	1.200	4.700	7.000	7.300	7.450	8.600	10.100	11.100	12.973

CHAINAGE 550.000

HZ 1: 250 V 1:250

BOILING DOWN ROAD - MC10



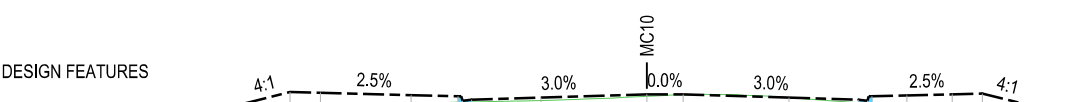
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EXISTING LEVELS	31.810	31.805	31.805	31.837	31.808	31.802	31.788	31.733	31.939	31.966	31.929	31.818	31.798	31.789	31.707	31.587	31.555	31.750
DESIGN LEVELS	31.810	32.435	32.410	32.335	32.296	32.146	32.186	32.255	32.360	32.360	32.255	32.186	32.146	32.296	32.325	32.362	32.387	31.750
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DESIGN OFFSETS	-14.300	-11.800	-10.800	-7.800	-6.250	-6.100	-5.800	-3.500	0.000	1.200	4.700	7.000	7.300	7.450	8.600	10.100	11.100	13.651

CHAINAGE 500.000

HZ 1: 250 V 1:250

BOILING DOWN ROAD - MC10



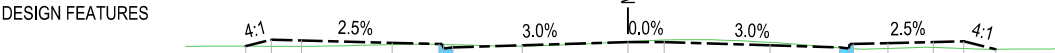
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EXISTING LEVELS	31.879	31.870	31.867	31.882	31.912	31.915	31.921	31.971	32.107	32.155	32.063	31.897	31.888	31.883	31.865	31.863	31.845	31.833
DESIGN LEVELS	31.879	32.246	32.221	32.146	32.108	31.958	31.998	32.067	32.172	32.172	32.067	31.998	31.958	32.108	32.136	32.174	32.199	31.833
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DESIGN OFFSETS	-13.270	-11.800	-10.800	-7.800	-6.250	-6.100	-5.800	-3.500	0.000	1.200	4.700	7.000	7.300	7.450	8.600	10.100	11.100	12.563

CHAINAGE 650.000

HZ 1: 250 V 1:250

BOILING DOWN ROAD - MC10



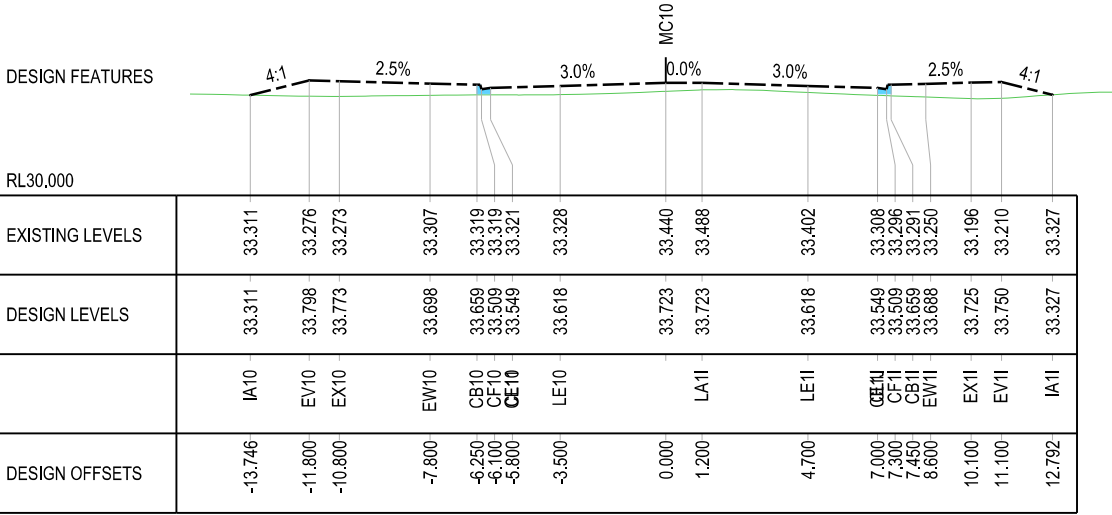
RL29.000

EXISTING LEVELS	31.837	31.834	31.834	31.894	31.903	31.898	31.889	31.840	31.991	32.041	31.965	31.782	31.764	31.755	31.759	31.798	31.764	31.737
DESIGN LEVELS	31.837	32.049	32.024	31.949	31.911	31.761	31.801	31.870	31.975	31.975	31.870	31.801	31.761	31.911	31.939	31.977	32.002	31.737
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DESIGN OFFSETS	-12.648	-11.800	-10.800	-7.800	-6.250	-6.100	-5.800	-3.500	0.000	1.200	4.700	7.000	7.300	7.450	8.600	10.100	11.100	12.158

CHAINAGE 600.000

HZ 1: 250 V 1:250

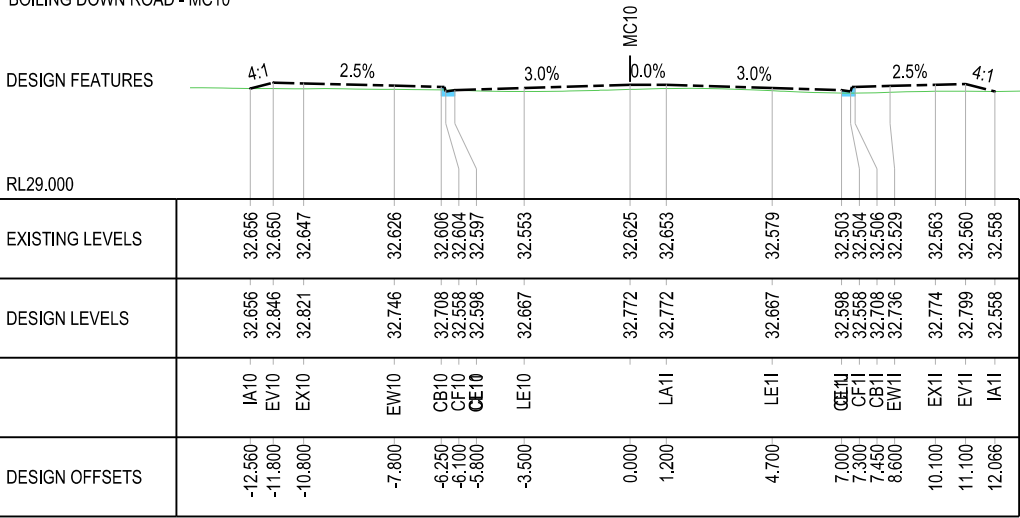
BOILING DOWN ROAD - MC10



CHAINAGE 750.000

HZ 1: 250 V 1:250

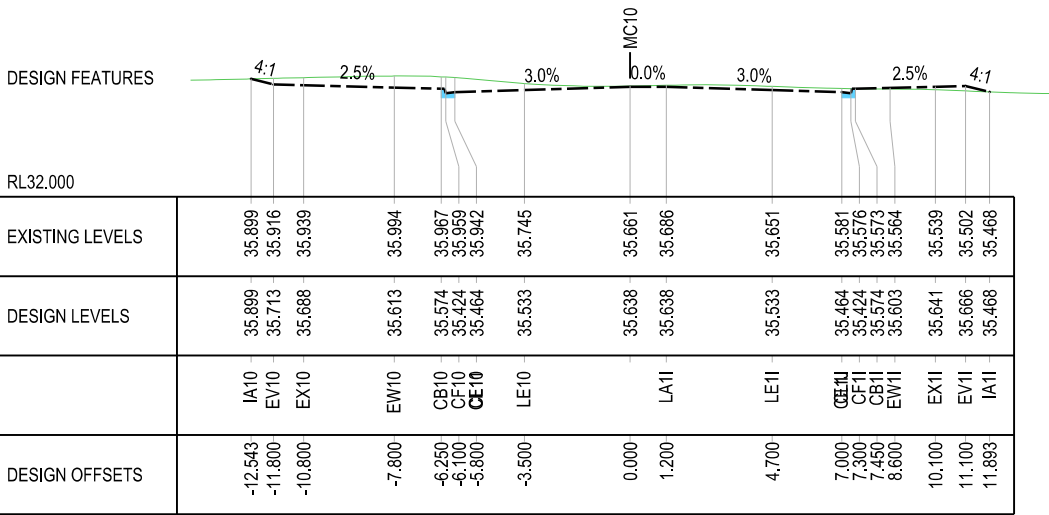
BOILING DOWN ROAD - MC10



CHAINAGE 700.000

HZ 1: 250 V 1:250

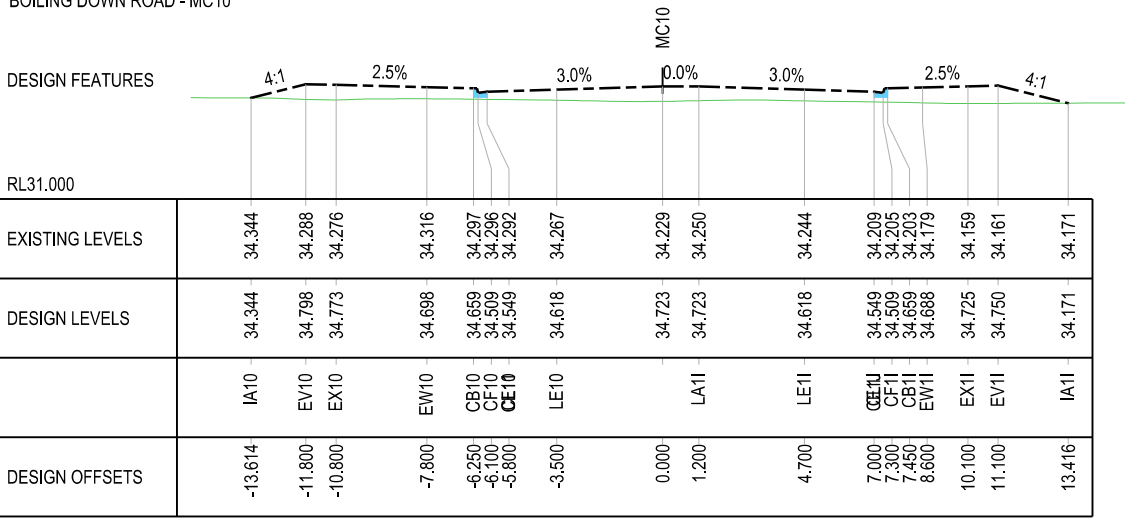
BOILING DOWN ROAD - MC10



CHAINAGE 850.000

HZ 1: 250 V 1:250

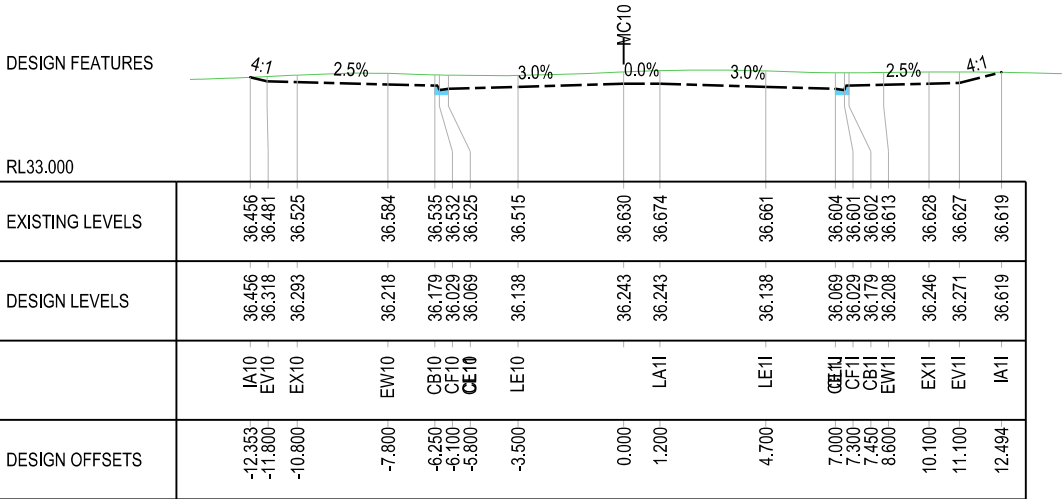
BOILING DOWN ROAD - MC10



CHAINAGE 800.000

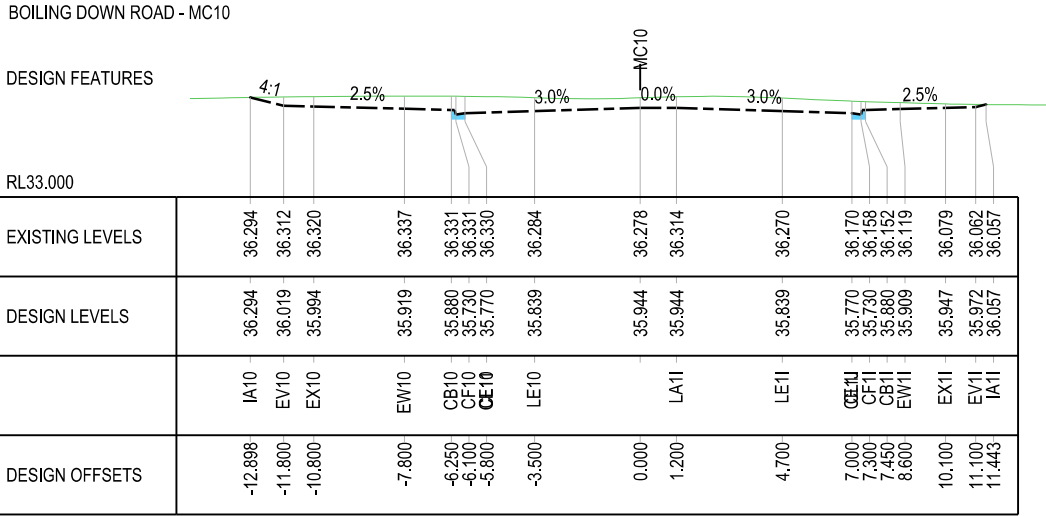
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BOILING DOWN ROAD - MC10



CHAINAGE 891.700

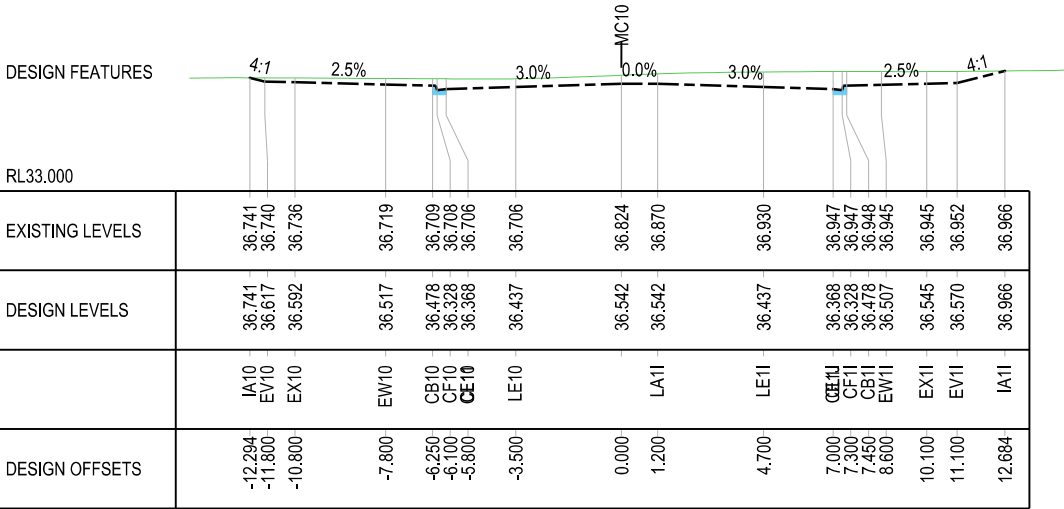
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CHAINAGE 869.837

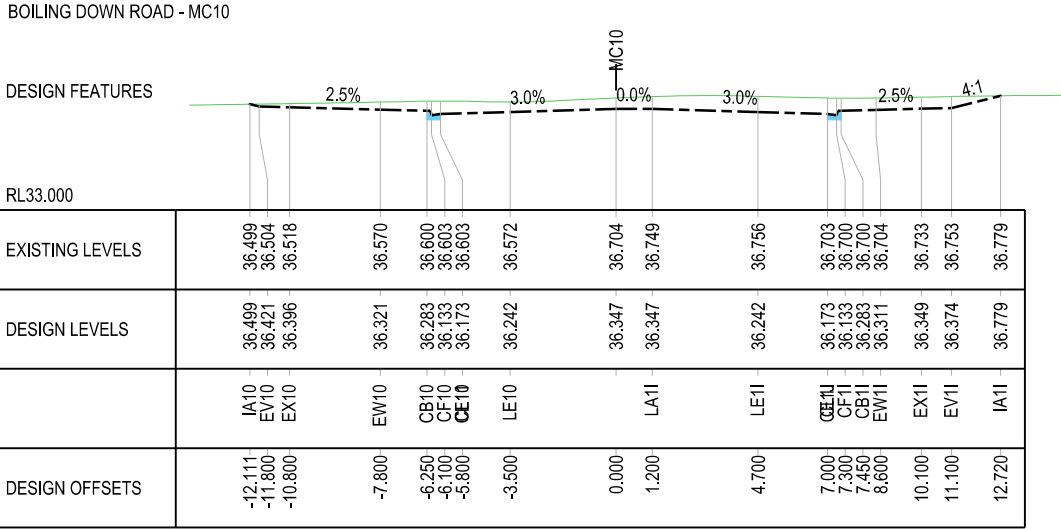
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BOILING DOWN ROAD - MC10



CHAINAGE 917.236

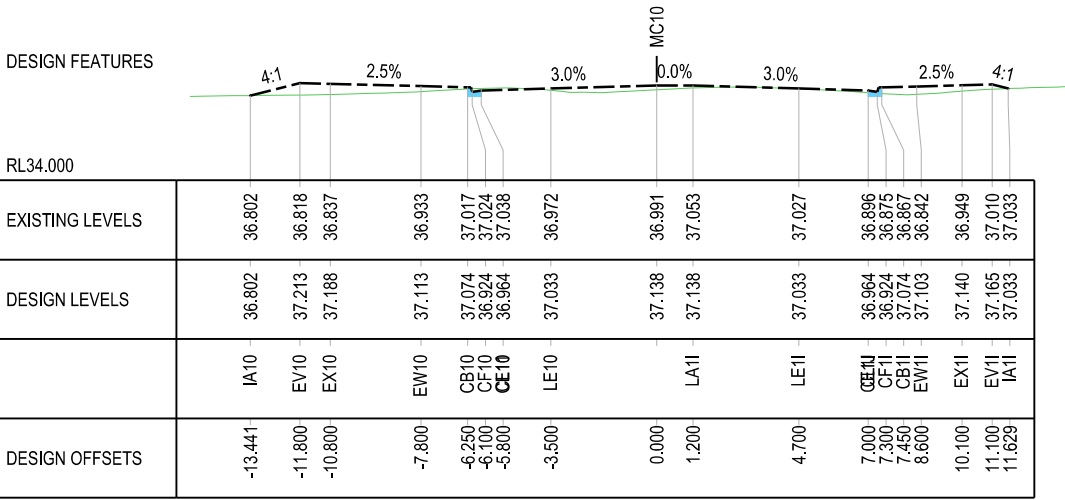
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CHAINAGE 900.000

HZ 1: 250 V 1:250

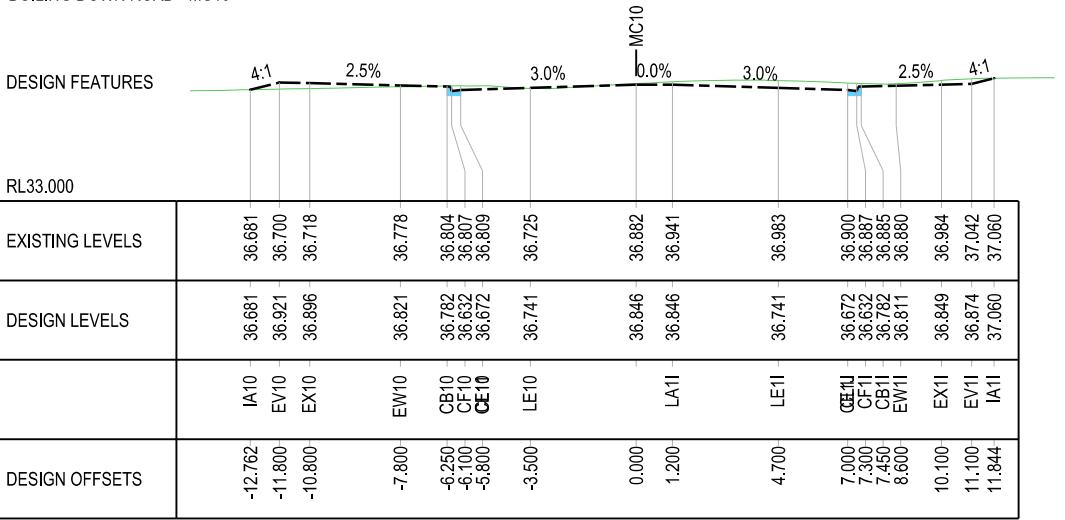
BOILING DOWN ROAD - MC10



CHAINAGE 1000.000

HZ 1: 250 V 1:250

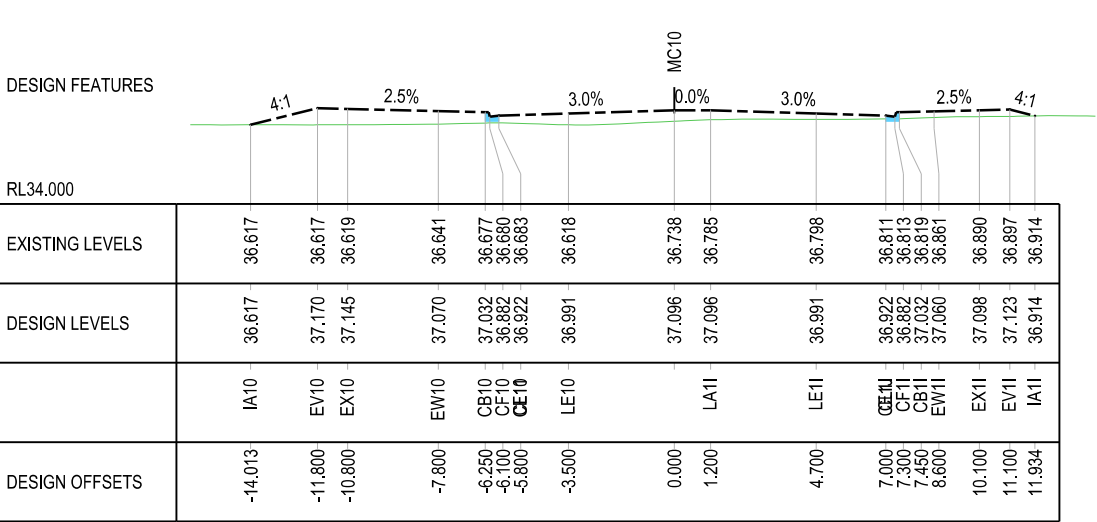
BOILING DOWN ROAD - MC10



CHAINAGE 950.000

HZ 1: 250 V 1:250

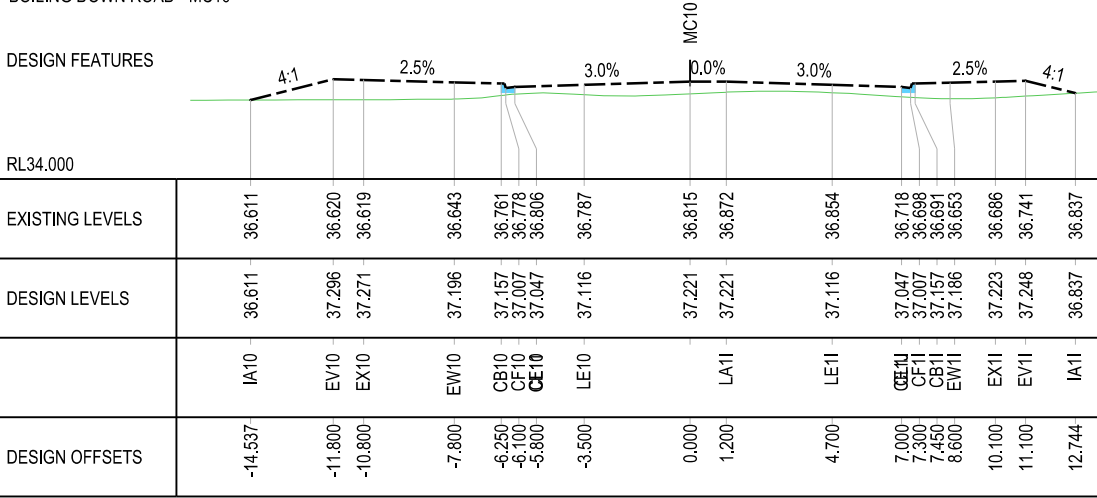
BOILING DOWN ROAD - MC10



CHAINAGE 1100.000

HZ 1: 250 V 1:250

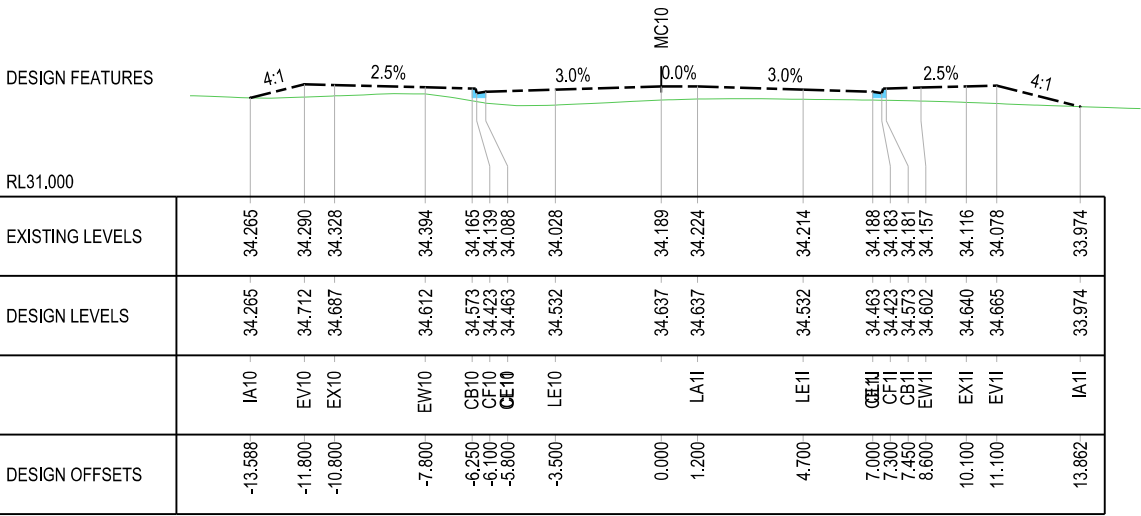
BOILING DOWN ROAD - MC10



CHAINAGE 1050.000

HZ 1: 250 V 1:250

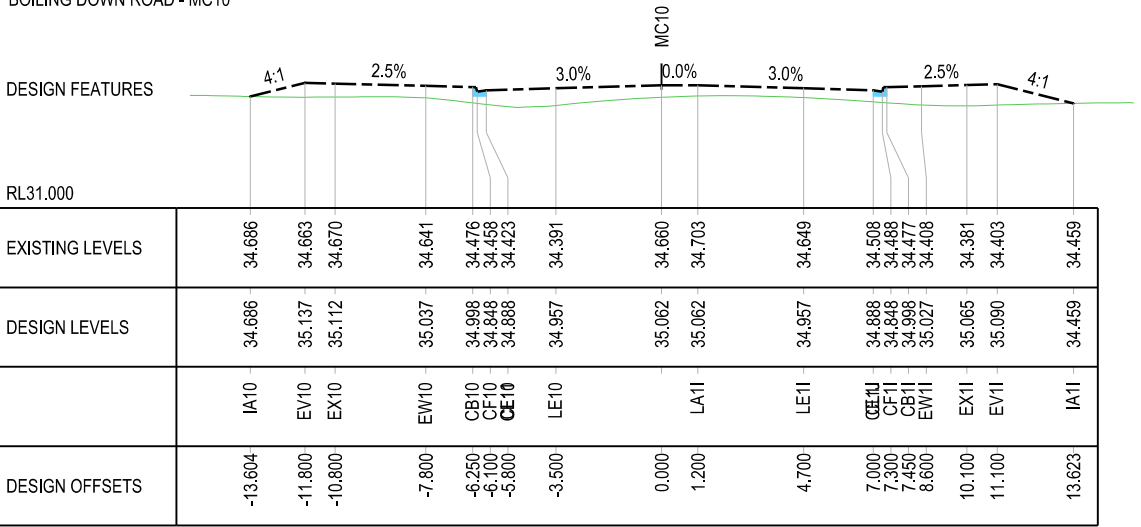
BOILING DOWN ROAD - MC10



CHAINAGE 1400.000

HZ 1: 250 V 1:250

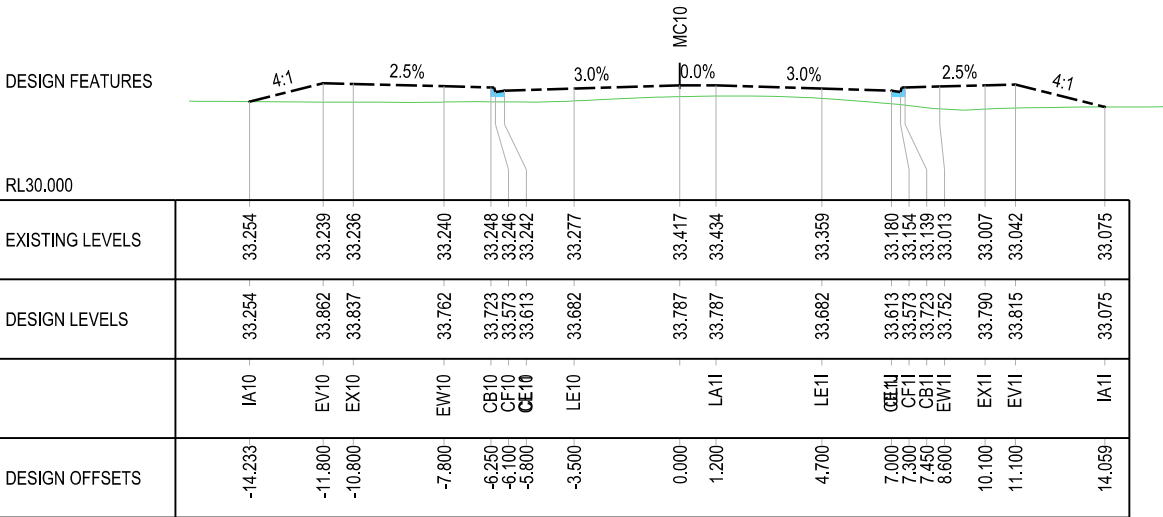
BOILING DOWN ROAD - MC10



CHAINAGE 1350.000

HZ 1: 250 V 1:250

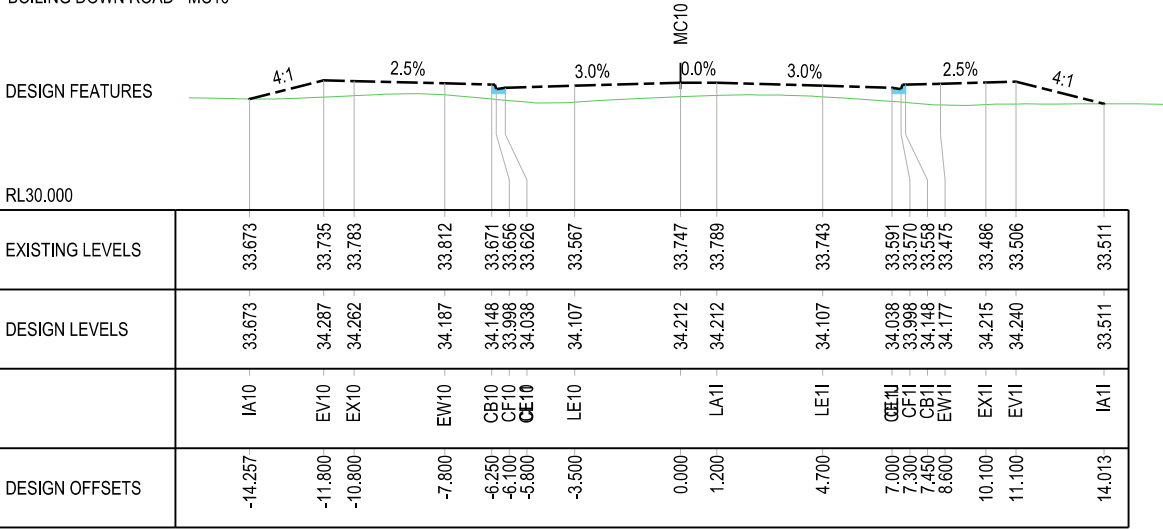
BOILING DOWN ROAD - MC10



CHAINAGE 1500.000

HZ 1: 250 V 1:250

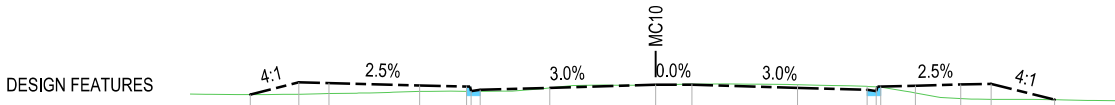
BOILING DOWN ROAD - MC10



CHAINAGE 1450.000

HZ 1: 250 V 1:250

BOILING DOWN ROAD - MC10



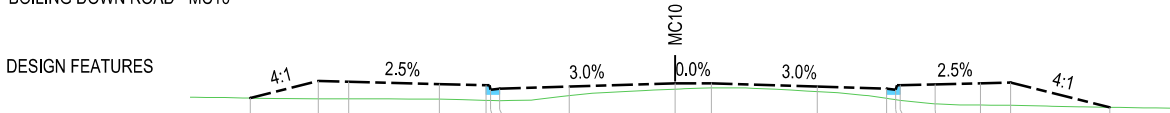
RL29.000

EXISTING LEVELS	32.611	32.621	32.642	32.713	32.715	32.714	32.713	32.829	32.932	32.953	32.932	32.878	32.867	32.856	32.664	32.476	32.453	32.439
DESIGN LEVELS	32.611	33.012	32.987	32.912	32.873	32.723	32.763	32.832	32.937	32.937	32.832	32.763	32.723	32.873	32.902	32.940	32.965	32.439
	IA10	EV10	EX10	EW10	CB10	CF10	CE10	LE10	LA11		LE11	CF11	CB11	EW11	EX11	EV11	IA11	
DESIGN OFFSETS	-13.404	-11.800	-10.800	-7.800	-6.250	-6.100	-5.800	-3.500	0.000	1.200	4.700	7.000	7.300	7.450	8.600	10.100	11.100	13.203

CHAINAGE 1600.000

HZ 1: 250 V 1:250

BOILING DOWN ROAD - MC10



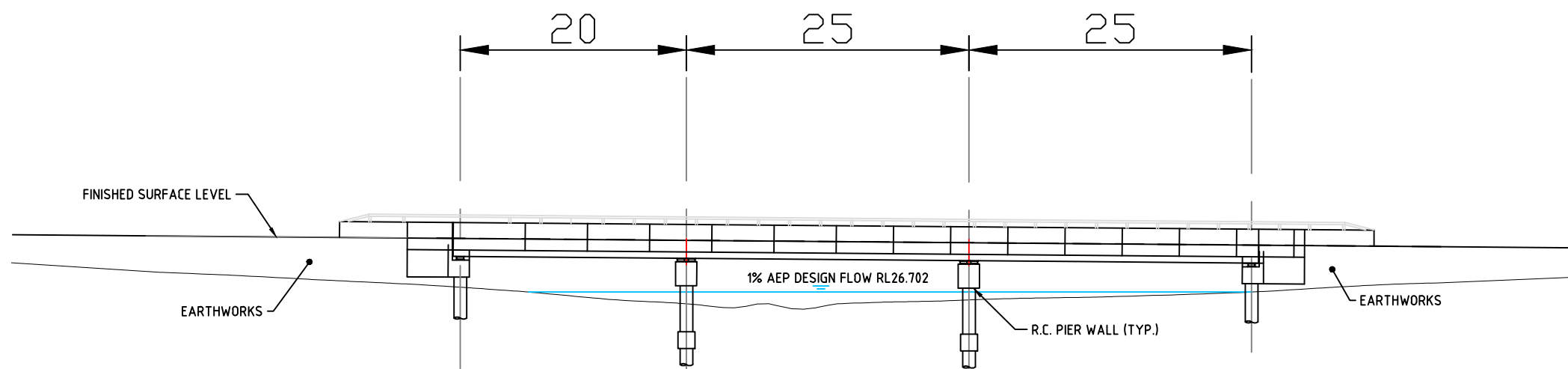
RL30.000

EXISTING LEVELS	32.875	32.850	32.847	32.838	32.801	32.796	32.786	32.953	33.170	33.212	33.090	32.864	32.822	32.801	32.684	32.643	32.637	32.570
DESIGN LEVELS	32.875	33.437	33.412	33.337	33.298	33.148	33.188	33.257	33.362	33.362	33.257	33.188	33.148	33.298	33.327	33.365	33.390	32.570
	IA10	EV10	EX10	EW10	CB10	CF10	CE10	LE10	LA11		LE11	CF11	CB11	EW11	EX11	EV11	IA11	
DESIGN OFFSETS	-14.050	-11.800	-10.800	-7.800	-6.250	-6.100	-5.800	-3.500	0.000	1.200	4.700	7.000	7.300	7.450	8.600	10.100	11.100	14.378

CHAINAGE 1550.000

HZ 1: 250 V 1:250

BOILING DOWN ROAD - MC10



BRIDGE - BR-01

LONGITUDINAL SECTION - MC20

Appendix C Cost Estimates

East of Aberline PSP - Interim works costs

Rev D - 20 Aug 2025

Project	Description	Estimated Cost With benchmark cost index
IN-01	Boiling Down Road and Horne Road	\$ 3,505,621.45
IN-02	Boiling Down Road and Connector Street	\$ 1,558,183.91
IN-03	Boiling Down Road and Gateway Road	\$ 594,013.67
	<i>TOTAL INTERSECTION COST</i>	\$ 5,657,819.03
BR-01	Russel Creek	\$ 15,650,596.40
	<i>TOTAL BRIDGE COST</i>	\$ 15,650,596.40
TOTAL PROJECT COST		\$ 21,308,415.43

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IN-01 - Boiling Down Road and Horne Road
Intersection - Secondary - Connector Signalised Intersection (Benchmark Item 9)

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Group	Item	Description	Quantity	Unit	Rate (\$)	Benchmark cost index	Amount (\$) (With Benchmark cost index)
Siteworks and Earthworks	1.1	Site Preparation	10351	m2	4.96	1.32	\$ 67,770.07
	1.2	Earthworks	1756	m3	40.52	1.32	\$ 93,910.08
Road Pavement	2.1	Secondary Arterial Pavement	580	m2	133.78	1.32	\$ 102,421.97
	2.2	Collector Arterial Pavement	1405	m2	112.44	1.32	\$ 208,531.22
	2.3	Subgrade Preparation	397	m2	16.16	1.32	\$ 8,468.49
	2.4	Pavement Rehab / Resheeting	5350	m2	59.32	1.32	\$ 418,917.84
Concrete Works	3.1	Kerb and Channel	1153	m	60.9	1.32	\$ 92,687.36
	3.2	Traffic Island / Crossover	480	m2	84.07	1.32	\$ 53,266.75
	3.3	SUP/footpath/ Cycle Path	1314	m2	91.94	1.32	\$ 159,468.09
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	0	m	197.96	1.32	\$ -
	4.2	Drainage Pipe 375mm CR Bfilled	220	m	282.96	1.32	\$ 82,171.58
	4.3	Drainage Pipe 450mm CR Bfilled	110	m	334.33	1.32	\$ 48,544.72
	4.4	Drainage Pipe 600mm CR Bfilled	110	m	550	1.32	\$ 79,860.00
	4.5	Drainage - Pits	12	No.	2806.1	1.32	\$ 44,448.62
	4.6	Drainage - Subsoil Drainage	1182	m	43.4	1.32	\$ 67,714.42
Traffic	5.1	Traffic Signals	3	Item/ per leg	128786.34	1.32	\$ 509,993.91
Landscape	6.1	Trees	20	No. m2 m2	363.01	1.32	\$ 9,583.46
	6.2	Landscaping	1222	m2	25.16	1.32	\$ 40,584.09
	6.3	Topsoil Seeding	1222	m2	8.44	1.32	\$ 13,614.06
Street Lighting	7.1	Street Lighting (intersections)	3	Item/ per leg	55617.74	1.32	\$ 220,246.25
Miscellaneous	8.1	Linemarking	4613	m2 of pavement	4.09	1.32	\$ 24,904.66
	8.2	Regulatory Signage	12	Item	380.39	1.32	\$ 6,025.38
	8.3	Landscape Maintenance (intersections)	1.00	Item	88131.43	1.32	\$ 116,333.49
	8.4	Tactile Pavers (Hazard only)	10	Item	319.78	1.32	\$ 4,221.10
	8.5	Utility relocations - Power	1	Item	50000	1	\$ 50,000.00
	8.6	Guard Rail	100	m	224.54	1.32	\$ 29,639.28
	8.7	GREAT Terminal	2	Item	13875.66	1.32	\$ 36,631.74
Other	9.1	Demolition of existing concrete kerbs, footpath, islands	25	m3	206	1.32	\$ 6,798.00
	9.2	Redundant pavement demolition	0	m3	206	1.32	\$ -
Delivery	10.1	Council Fees	1	%	0	1	\$ -
	10.2	Other Authority Fees - utility services	1	%	0.5	1	\$ 12,983.78
	10.3	Traffic Management	1	%	2.5	1	\$ 64,918.92
	10.4	Environmental Management	1	%	0.5	1	\$ 12,983.78
	10.5	Survey/Design	1	%	5	1	\$ 129,837.83
	10.6	Supervision and Project Management	1	%	9	1	\$ 233,708.10
	10.7	Site Establishment	1	%	2.5	1	\$ 64,918.92
	10.8	Contingency	1	%	15	1	\$ 389,513.49
Total		Excluding Delivery				1	\$ 2,596,756.63
		Including Delivery					\$ 3,505,621.45

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IN-02 - Boiling Down Road

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Intersection - Connector - Connector Intersection (Benchmark Item 10)

Group	Item	Description	Quantity	Unit	Rate (\$)	Benchmark cost index	Amount (\$) (With Benchmark cost index)
Siteworks and Earthworks	1.1	Site Preparation	3827	m2	4.96	1.32	\$ 25,057.82
	1.2	Earthworks	1144	m3	40.52	1.32	\$ 61,173.87
Road Pavement	2.1	Secondary Arterial Pavement	0	m2	133.78	1.32	\$ -
	2.2	Collector Arterial Pavement	1647	m2	112.44	1.32	\$ 244,418.48
	2.3	Subgrade Preparation	329	m2	16.16	1.32	\$ 7,025.62
	2.4	Pavement Rehab / Resheeting	0	m2	59.32	1.32	\$ -
Concrete Works	3.1	Kerb and Channel	498	m	60.9	1.32	\$ 40,050.51
	3.2	Traffic Island / Crossover	672	m2	84.07	1.32	\$ 74,602.86
	3.3	SUP/footpath/ Cycle Path	641	m2	91.94	1.32	\$ 77,816.42
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	0	m	197.96	1.32	\$ -
	4.2	Drainage Pipe 375mm CR Bfilled	90	m	282.96	1.32	\$ 33,615.65
	4.3	Drainage Pipe 450mm CR Bfilled	7	m	334.33	1.32	\$ 3,089.21
	4.4	Drainage Pipe 600mm CR Bfilled	70	m	550	1.32	\$ 50,820.00
	4.5	Drainage - Pits	8	No.	2806.1	1.32	\$ 29,632.42
	4.6	Drainage - Subsoil Drainage	527	m	43.4	1.32	\$ 30,203.09
Traffic	5.1	Traffic Signals	0	Item/ per leg	128786.34	1.32	\$ -
Landscape	6.1	Trees	38	No. m2 m2	363.01	1.32	\$ 18,208.58
	6.2	Landscaping	867	m2	25.16	1.32	\$ 28,794.11
	6.3	Topsoil Seeding	867	m2	8.44	1.32	\$ 9,659.07
Street Lighting	7.1	Street Lighting (intersections)	3	Item/ per leg	55617.74	1.32	\$ 220,246.25
Miscellaneous	8.1	Linemarking	2929	m2 of pavement	4.09	1.32	\$ 15,814.12
	8.2	Regulatory Signage	24	Item	380.39	1.32	\$ 12,050.76
	8.3	Landscape Maintenance (intersections)	1.00	Item	88131.43	1.32	\$ 116,333.49
	8.4	Tactile Pavers (Hazard only)	18	Item	319.78	1.32	\$ 7,597.97
	8.5	Contaminated land removal (300mm depth)	1200	m2	40	1	\$ 48,000.00
Other	9.1	Demolition of existing concrete kerbs, footpath, islands	0	m3	206	1.32	\$ -
	9.2	Redundant pavement demolition	0	m3	206	1.32	\$ -
Delivery	10.1	Council Fees	1	%	0	1	\$ -
	10.2	Other Authority Fees - utility services	1	%	0.5	1	\$ 5,771.05
	10.3	Traffic Management	1	%	2.5	1	\$ 28,855.26
	10.4	Environmental Management	1	%	0.5	1	\$ 5,771.05
	10.5	Survey/Design	1	%	5	1	\$ 57,710.52
	10.6	Supervision and Project Management	1	%	9	1	\$ 103,878.93
	10.7	Site Establishment	1	%	2.5	1	\$ 28,855.26
	10.8	Contingency	1	%	15	1	\$ 173,131.55
Total		Excluding Delivery				1	\$ 1,154,210.31
		Including Delivery					\$ 1,558,183.91

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IN-03 - Boiling Down Road and Gateway Road
Intersection - Connector - Connector Intersection (Benchmark Item 10)

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Group	Item	Description	Quantity	Unit	Rate (\$)	Benchmark cost index	Amount (\$) (With Benchmark cost index)
Siteworks and Earthworks	1.1	Site Preparation	1449	m2	4.96	1.32	\$ 9,485.69
	1.2	Earthworks	296	m3	40.52	1.32	\$ 15,821.78
Road Pavement	2.1	Secondary Arterial Pavement	0	m2	133.78	1.32	\$ -
	2.2	Collector Arterial Pavement	373	m2	112.44	1.32	\$ 55,344.93
	2.3	Subgrade Preparation	75	m2	16.16	1.32	\$ 1,590.85
	2.4	Pavement Rehab / Resheeting	0	m2	59.32	1.32	\$ -
Concrete Works	3.1	Kerb and Channel	127	m	60.9	1.32	\$ 10,234.12
	3.2	Traffic Island / Crossover	47	m2	84.07	1.32	\$ 5,175.75
	3.3	SUP/footpath/ Cycle Path	435	m2	91.94	1.32	\$ 52,782.36
Drainage	4.1	Drainage Pipe 300mm CR Bfilled	0	m	197.96	1.32	\$ -
	4.2	Drainage Pipe 375mm CR Bfilled	40	m	282.96	1.32	\$ 14,940.29
	4.3	Drainage Pipe 450mm CR Bfilled	20	m	334.33	1.32	\$ 8,826.31
	4.4	Drainage Pipe 600mm CR Bfilled	20	m	550	1.32	\$ 14,520.00
	4.5	Drainage - Pits	2	No.	2806.1	1.32	\$ 7,408.10
	4.6	Drainage - Subsoil Drainage	156	m	43.4	1.32	\$ 8,954.63
Traffic	5.1	Traffic Signals	0	Item/ per leg	128786.34	1.32	\$ -
Landscape	6.1	Trees	10	No. m2 m2	363.01	1.32	\$ 4,552.15
	6.2	Landscaping	594	m2	25.16	1.32	\$ 19,739.51
	6.3	Topsoil Seeding	594	m2	8.44	1.32	\$ 6,621.68
Street Lighting	7.1	Street Lighting (intersections)	1	Item/ per leg	55617.74	1.32	\$ 73,415.42
Miscellaneous	8.1	Linemarking	1243	m2 of pavement	4.09	1.32	\$ 6,709.27
	8.2	Regulatory Signage	10	Item	380.39	1.32	\$ 5,021.15
	8.3	Landscape Maintenance (intersections)	1.00	Item	88131.43	1.32	\$ 116,333.49
	8.4	Tactile Pavers (Hazard only)	6	Item	319.78	1.32	\$ 2,532.66
Other	9.1	Demolition of existing concrete kerbs, footpath, islands	0	m3	206	1.32	\$ -
	9.2	Redundant pavement demolition	0	m3	206	1.32	\$ -
Delivery	10.1	Council Fees	1	%	0	1	\$ -
	10.2	Other Authority Fees - utility services	1	%	0.5	1	\$ 2,200.05
	10.3	Traffic Management	1	%	2.5	1	\$ 11,000.25
	10.4	Environmental Management	1	%	0.5	1	\$ 2,200.05
	10.5	Survey/Design	1	%	5	1	\$ 22,000.51
	10.6	Supervision and Project Management	1	%	9	1	\$ 39,600.91
	10.7	Site Establishment	1	%	2.5	1	\$ 11,000.25
	10.8	Contingency	1	%	15	1	\$ 66,001.52
Total		Excluding Delivery				1	\$ 440,010.12
		Including Delivery					\$ 594,013.67

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BR-01 - Russel Creek

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Bridge - 100m - Connector (Modified Benchmark Item 22)

Bridge Length - 70m

Bridge Width - 17.5

Group	Item	Description	Quantity	Unit	Rate (\$)	Amount (\$)
Siteworks and Earthworks	1.1	Site Preparation	1	Item	50000	\$ 50,000.00
	1.2	Earthworks	2000	m3	70	\$ 140,000.00
	1.3	Set-Out	1	Item	15000	\$ 15,000.00
Structure	2.1	Slab & foundations/piers/beams	1225	m2	6500	\$ 7,962,500.00
	2.2	Abutments	2	Item	650000	\$ 1,300,000.00
	2.3	Bridge Containment Barrier	140	LM	2400	\$ 336,000.00
On-Bridge Works	3.1	Asphalt wearing course over slab	658	m2	160	\$ 105,280.00
	3.4	Lighting on-bridge	1	Item	25500	\$ 25,500.00
Off-Bridge Works	4.1	Approach slabs	263	m2	600	\$ 157,500.00
	4.2	Safety guard rail/ barrier	200	LM	1800	\$ 360,000.00
	4.3	Drainage	2	Item	120000	\$ 240,000.00
	4.4	Scour Protection	2	Item	30000	\$ 60,000.00
Miscellaneous	5.1	Line-marking	70	LM	52	\$ 3,640.00
	5.2	Regulatory Signage	1	Item	25000	\$ 25,000.00
	5.3	Maintenance of works - 1 year	1	Item	150000	\$ 150,000.00
Services	6.1	Services conduit on-bridge	70	LM	1000	\$ 70,000.00
Delivery	7.1	Council Fees	1	%	0	\$ -
	7.2	Other Authority Fees - utility services	1	%	0.5	\$ 55,002.10
	7.3	Traffic Management	1	%	2.5	\$ 275,010.50
	7.4	Environmental Management	1	%	0.5	\$ 55,002.10
	7.5	CHMP Allowance	1	Item	30000	\$ 30,000.00
	7.6	Survey/Design (incl. Proof engineering/Structural eng cert)	1	%	7	\$ 770,029.40
	7.7	Supervision and Project Management	1	%	9	\$ 990,037.80
	7.8	Site Establishment	1	%	2.5	\$ 275,010.50
	7.9	Contingency	1	%	20	\$ 2,200,084.00
		Excluding Delivery				\$ 11,000,420.00
		Including Delivery				\$ 15,650,596.40

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