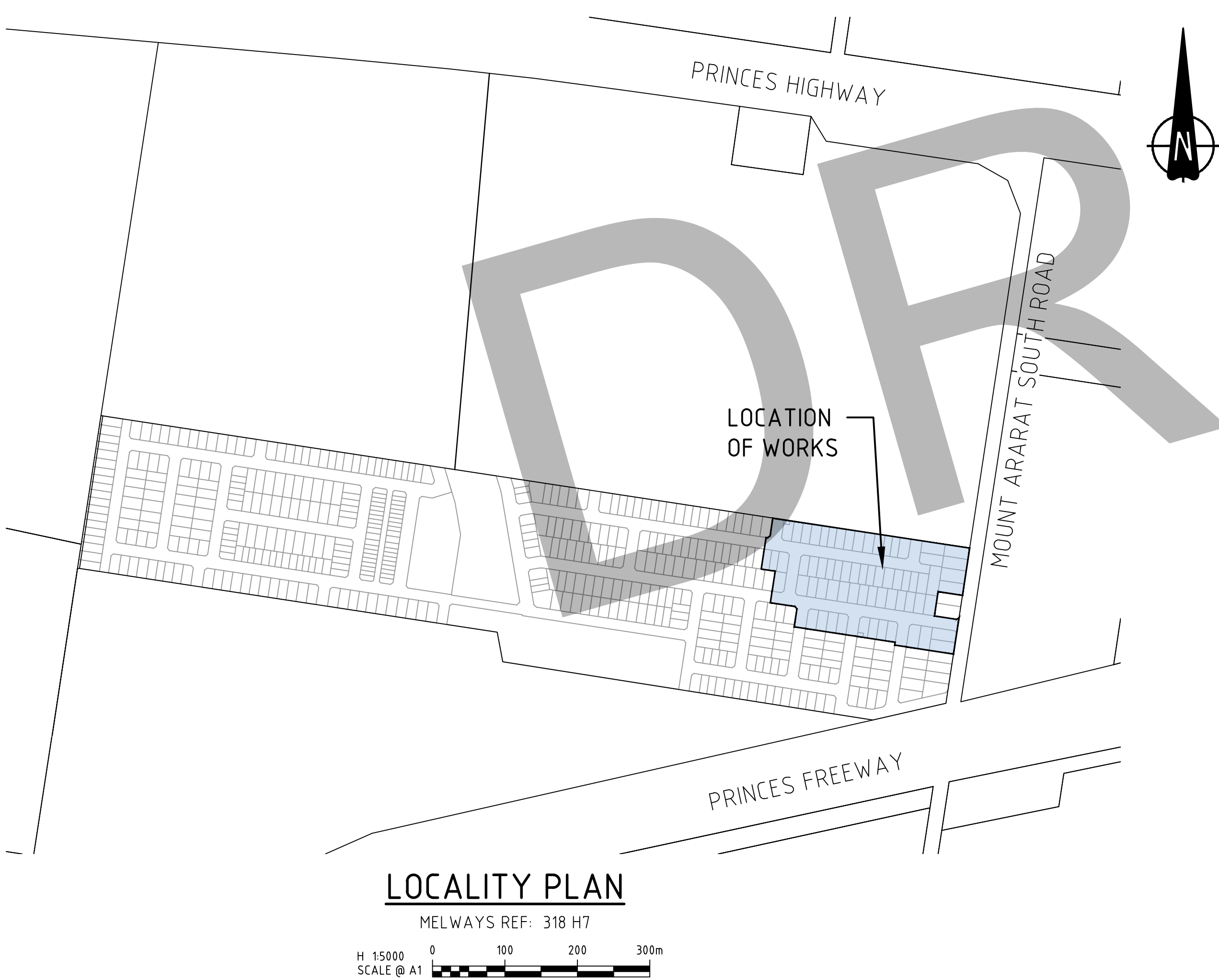


KALA ESTATE
STAGE 01
SUBDIVISIONAL WORKS
FOR SIG GROUP



SHEET LIST TABLE	
SHEET NUMBER	DESCRIPTION
3086-01-001	COVER SHEET
3086-01-010	GENERAL NOTES AND PAVEMENT DETAILS
3086-01-011	STANDARD DETAILS
3086-01-020	TYPICAL CROSS SECTIONS (SHEET 1 OF 2)
3086-01-021	TYPICAL CROSS SECTIONS (SHEET 2 OF 2)
3086-01-100	LAYOUT PLAN (SHEET 1 OF 2)
3086-01-101	LAYOUT PLAN (SHEET 2 OF 2)
3086-01-102	OUTLET SWALE SETOUT (SHEET 1 OF 4)
3086-01-103	OUTLET SWALE SETOUT (SHEET 2 OF 4)
3086-01-104	OUTLET SWALE SETOUT (SHEET 3 OF 4)
3086-01-105	OUTLET SWALE SETOUT (SHEET 4 OF 4)
3086-01-150	EARTHWORKS PLAN
3086-01-200	ROAD LONGITUDINAL SECTIONS (SHEET 1 OF 3)
3086-01-201	ROAD LONGITUDINAL SECTIONS (SHEET 2 OF 3)
3086-01-202	ROAD LONGITUDINAL SECTIONS (SHEET 3 OF 3)
3086-01-250	ROAD CROSS SECTIONS (SHEET 1 OF 6)

SHEET LIST TABLE	
SHEET NUMBER	DESCRIPTION
3086-01-251	ROAD CROSS SECTIONS (SHEET 2 OF 6)
3086-01-252	ROAD CROSS SECTIONS (SHEET 3 OF 6)
3086-01-253	ROAD CROSS SECTIONS (SHEET 4 OF 6)
3086-01-254	ROAD CROSS SECTIONS (SHEET 5 OF 6)
3086-01-255	ROAD CROSS SECTIONS (SHEET 6 OF 6)
3086-01-300	INTERSECTION DETAILS (SHEET 1 OF 4)
3086-01-301	INTERSECTION DETAILS (SHEET 2 OF 4)
3086-01-302	INTERSECTION DETAILS (SHEET 3 OF 4)
3086-01-303	INTERSECTION DETAILS (SHEET 4 OF 4)
3086-01-350	SIGNAGE AND LINEMARKING PLAN
3086-01-400	DRAINAGE LONGITUDINAL SECTIONS (SHEET 1 OF 4)
3086-01-401	DRAINAGE LONGITUDINAL SECTIONS (SHEET 2 OF 4)
3086-01-402	DRAINAGE LONGITUDINAL SECTIONS (SHEET 3 OF 4)
3086-01-403	DRAINAGE LONGITUDINAL SECTIONS (SHEET 4 OF 4)
3086-01-420	DRAINAGE PIT SCHEDULE

SERVICES OFFSET TABLE												
STREET NAME	GAS		NON-DRINKING WATER		DRINKING WATER		TELCO		ELECTRICITY		SEWER	
	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET
KALAMATA BOULEVARD	-	-	N	2.30	N	2.80	S	2.10	S	2.60	S	1
BRANCH ROAD	-	-	W	2.30	W	2.80	E	2.10	E	2.60	-	-
DELPHI ROAD	-	-	W	2.30	W	2.80	E	2.10	E	2.60	-	-
LESTRA WAY	-	-	W	2.30	W	2.80	E	2.10	E	2.60	E	1
MT ARARAT SOUTH ROAD	-	-	W	2.30	W	2.80	W	3.80	W	4.30	-	-
OLEA WAY	-	-	E	2.30	E	2.80	W	2.10	W	2.60	-	-
OLIVE GROVE	-	-	E	2.30	E	2.80	W	2.10	W	2.60	-	-
TART STREET	-	-	S	2.30	S	2.80	N	2.10	N	2.60	N	1
TART STREET (LOT 123 & 124)	-	-	E	2.30	E	2.80	W	2.10	W	2.60	-	-
TART STREET (LOT 126 & 127)	-	-	S	2.30	S	2.80	N	0.50	N	1.00	-	-
1. TELECOMMUNICATIONS AND ELECTRICITY CABLES TO BE CONSTRUCTED IN A COMMON TRENCH IN ACCORDANCE WITH ELECTRICAL AUTHORITY STANDARD DRAWINGS.												

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT

COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT
SIG GROUP

APPROVED PE 0005927

DESIGNED
W. SANSOM

SCALE
AS SHOWN

PROJECT
KALA ESTATE - STAGE 01

TITLE
COVER SHEET

MUNICIPALITY
CARDINIA SHIRE COUNCIL

PP No. T220227

DRAWING No. 3086-01-001

REVISION
B

ORIGINAL SIZE
A1

C:\Users\alex\Documents\3086-01-105\Design\Kala\3086-01-001 COVER.dwg 1/20/2025 3:45 PM ALEX TZOUMBETTA

GENERAL

- ## ROADWORKS

25. ALL TEMPORARY WARNING SIGNS DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH AS1742-3

29. WHEN PAVEMENT EXCAVATION IS IN ROCK ALL LOOSE MATERIAL (INCLUDING ROCKS AND CLAY) MUST BE REMOVED THE SUBGRADE MUST THEN BE REGULATED WITH COUNCIL APPROVED MATERIAL.

- ## DRAINAGE

- ## ENVIRONMENTAL CONTROL MEASURES

- ## SERVICES

- ## CONSTRUCTION MANAGEMENT

55. CONTRACTOR SHALL BE REQUIRED PRIOR TO COMMENCING WORKS TO SUBMIT THE FOLLOWING DOCUMENTS:
- PROJECT CONSTRUCTION PLAN
 - ENVIRONMENTAL MANAGEMENT PLAN
 - Q&S RISK ASSESSMENT
 - SITE MANAGEMENT PLAN
 - PROGRAM OF WORKS
 - COMPACTION TEST PLAN FOR ALL PAVEMENTS, FILLED AREAS AND DRAINAGE WORKS
 - AND ALL OTHER RELEVANT INSPECTION AND TEST PLANS



EXTENDED DRIVEWAY
TOTAL DEPTH = 480mm



NOT TO SCALE
REFER VPA STD DWG EDCM 201



OLEA WAY, TART STREET, LESTRA WAY,
DELPHI ROAD, OLIVE GROVE & BRANCH ROAD
TOTAL DEPTH = 600mm



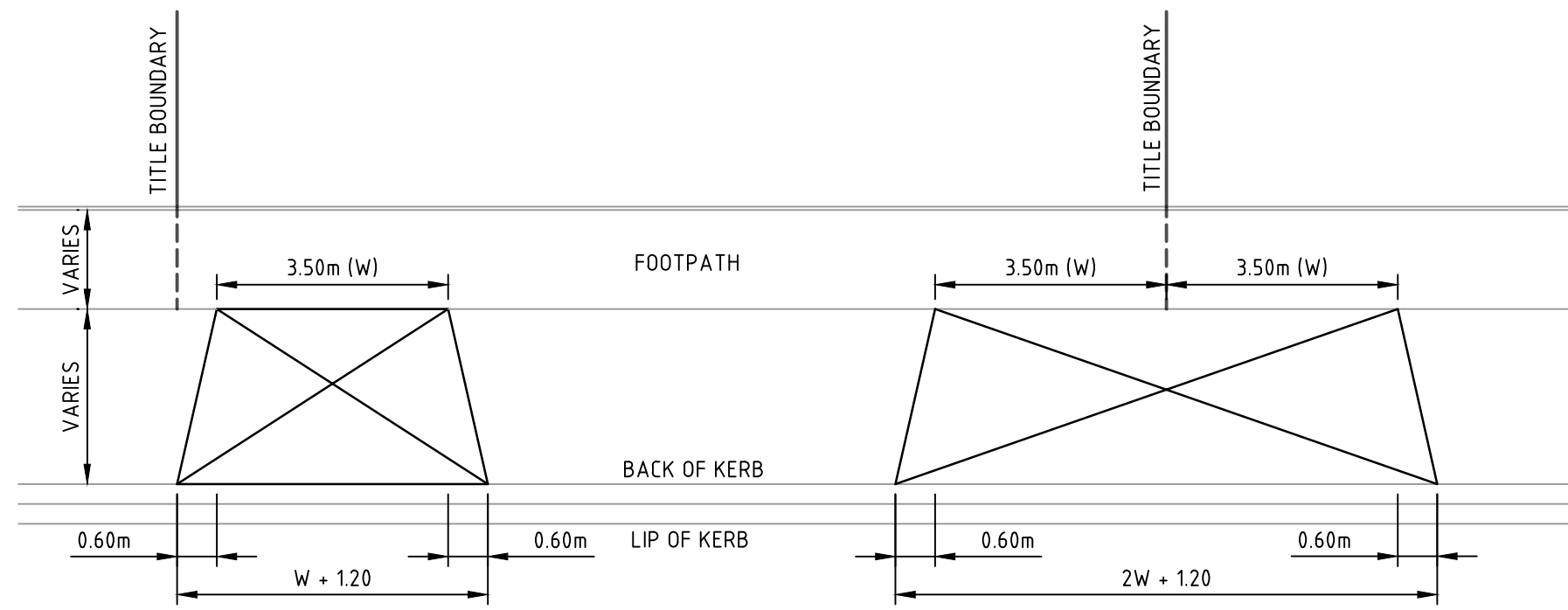
NOT TO SCALE
REFER VPA STD DWG EDCM 202a



KALAMATA BOULEVARD
TOTAL DEPTH = 640mm

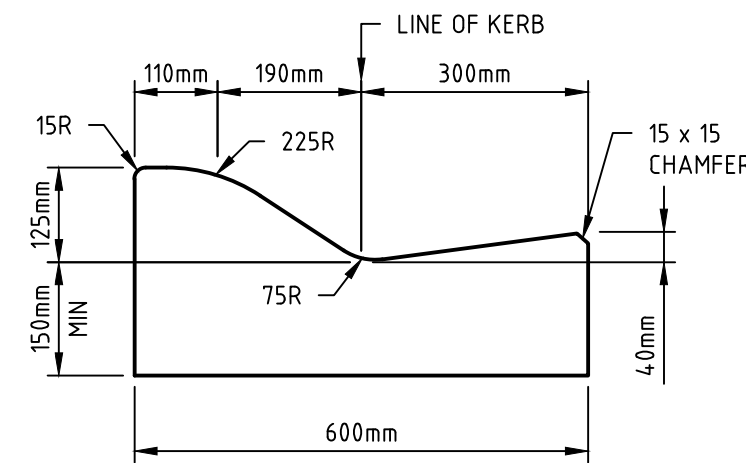
- THE PAVEMENT DESIGNS SHOWN HAVE BEEN DESIGNED & PROVIDED BY SITE GEOTECHNICAL WHO ARE RESPONSIBLE FOR THE GEOTECHNICAL WORK ON THIS PROJECT.
- COSSILL & WEBLEY IS NOT RESPONSIBLE FOR THE WORK OF SITE GEOTECHNICAL.
- ALL PAVEMENT DESIGNS ARE EXTRACTS FROM THE SITE GEOTECHNICAL REPORT "R97823-R1".
- THIS DOCUMENT SHOULD BE REVIEWED TO ENSURE THAT THE DESIGN HAS BEEN ACCURATELY REPRODUCED.
- COSSILL & WEBLEY DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE ACCURACY, ADEQUACY OR APPROPRIATENESS OF THE GEOTECHNICAL WORK & / OR PAVEMENT DESIGNS.
- ANY QUERIES SHOULD BE ADDRESSED TO SITE GEOTECHNICAL AND SENT TO COSSILL & WEBLEY.

B	23.01.25	AT	<i>Kom</i>	<i>Kom</i>	ISSUED FOR COUNCIL SUBMISSION										
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE										
REV	DATE	DRN	CKD	APP	AMENDMENT										

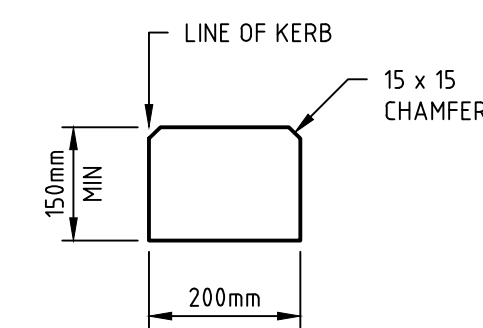


SINGLE DRIVEWAY

DOUBLE DRIVEWAY



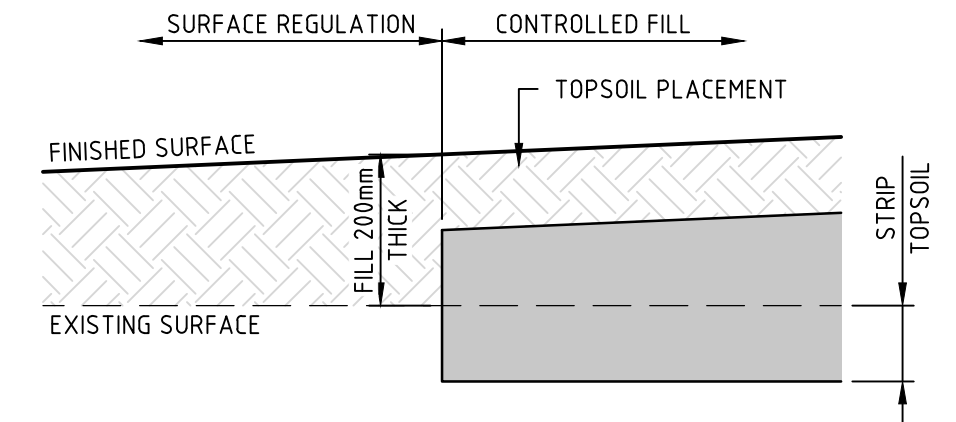
SM2



EDGE STRIP

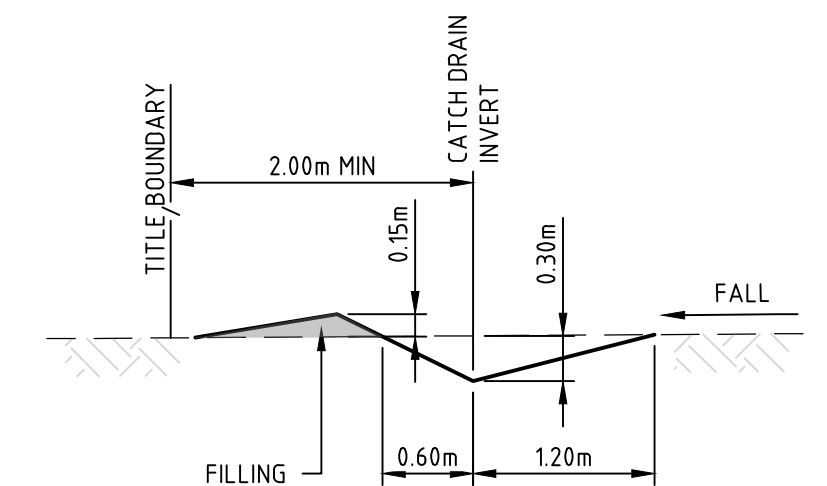
KERB PROFILES

SCALE: 1:10 @ A1



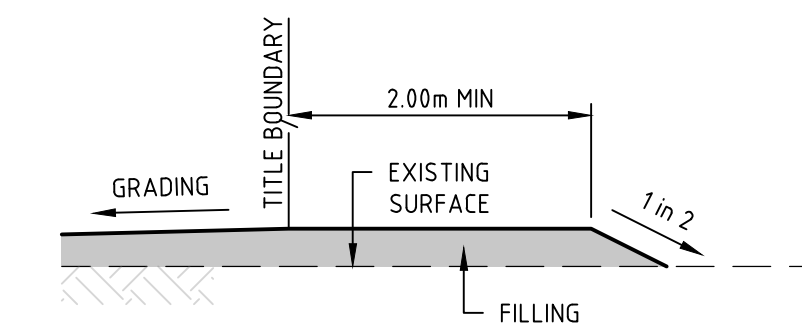
LOT REGRADING DETAIL

SCALE 1:50 @ A1



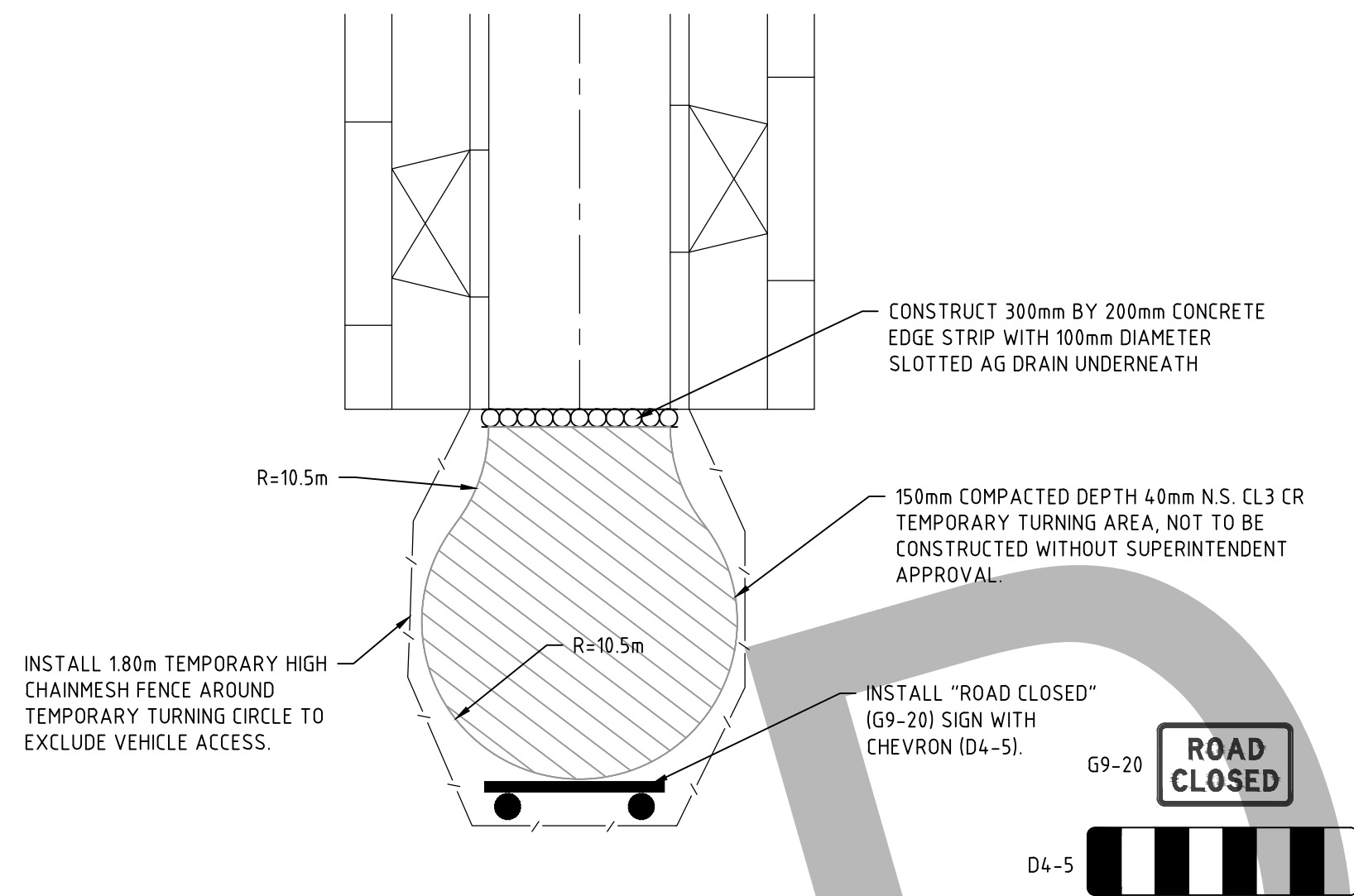
TYPICAL CATCH DRAIN SECTION

SCALE 1:50 @ A1



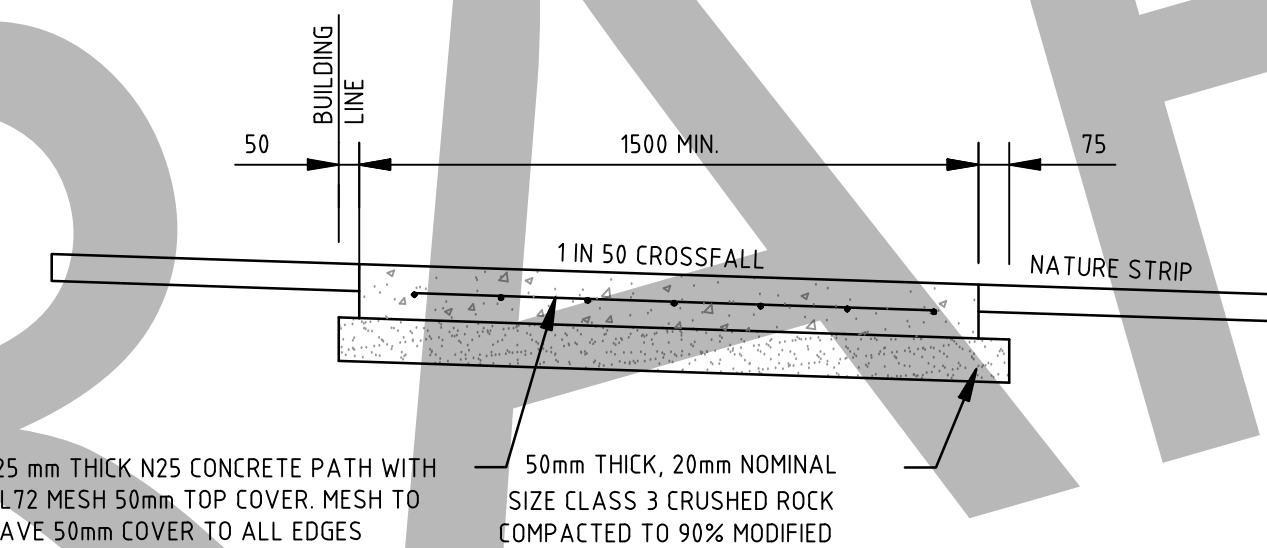
STAGE BOUNDARY LOT FILLING

SCALE 1:50 @ A1



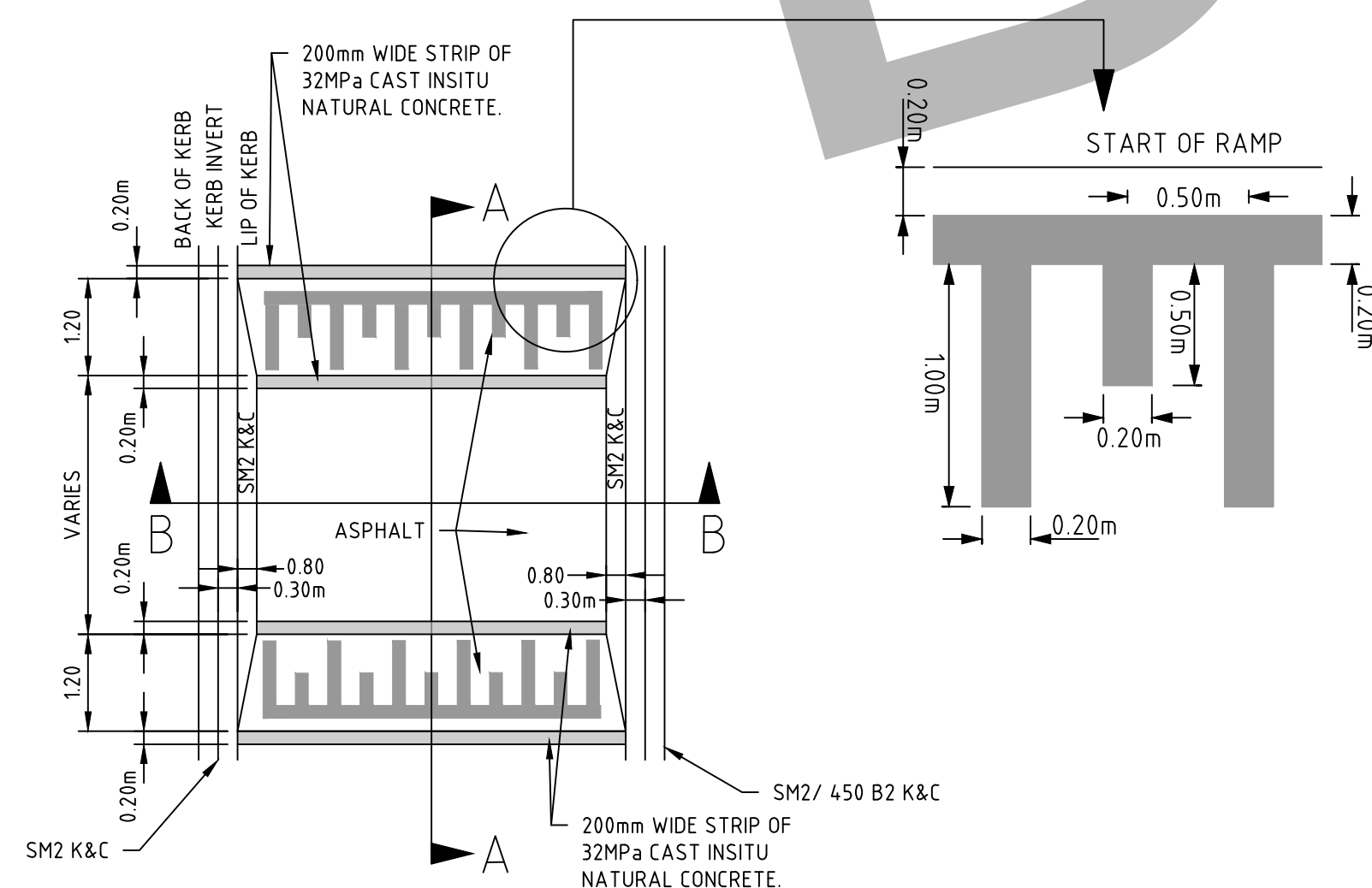
TEMPORARY TURN AREA DETAIL

NOT TO SCALE



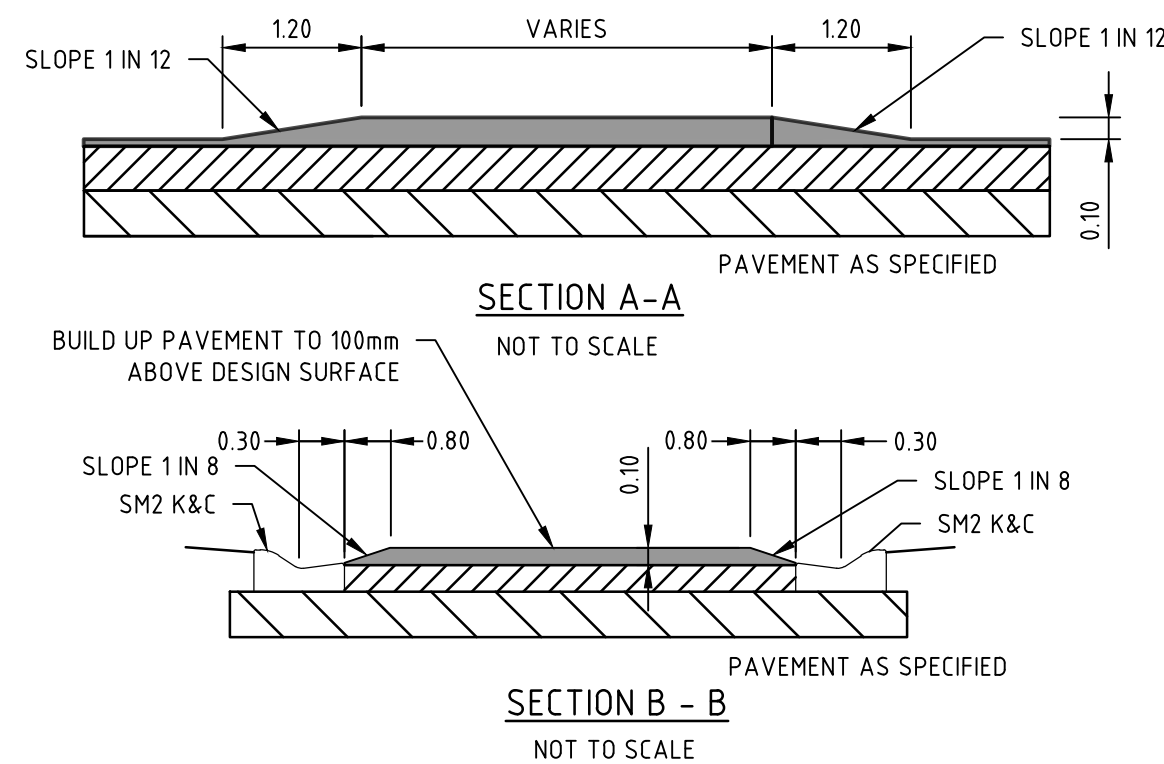
TYPICAL RESIDENTIAL FOOTPATH CROSS SECTION

NOT TO SCALE



PROPOSED SPEED BUMP DETAIL

NOT TO SCALE



SECTION A-A

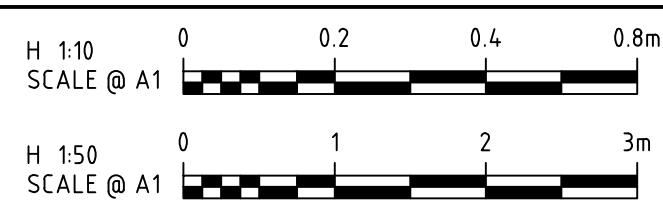
NOT TO SCALE

SECTION B-B

NOT TO SCALE

C:\Users\mohd\OneDrive\Documents\3086-01-010 NOTES.dwg 1/23/2025 12:32 PM MOHAMMAD ALI

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

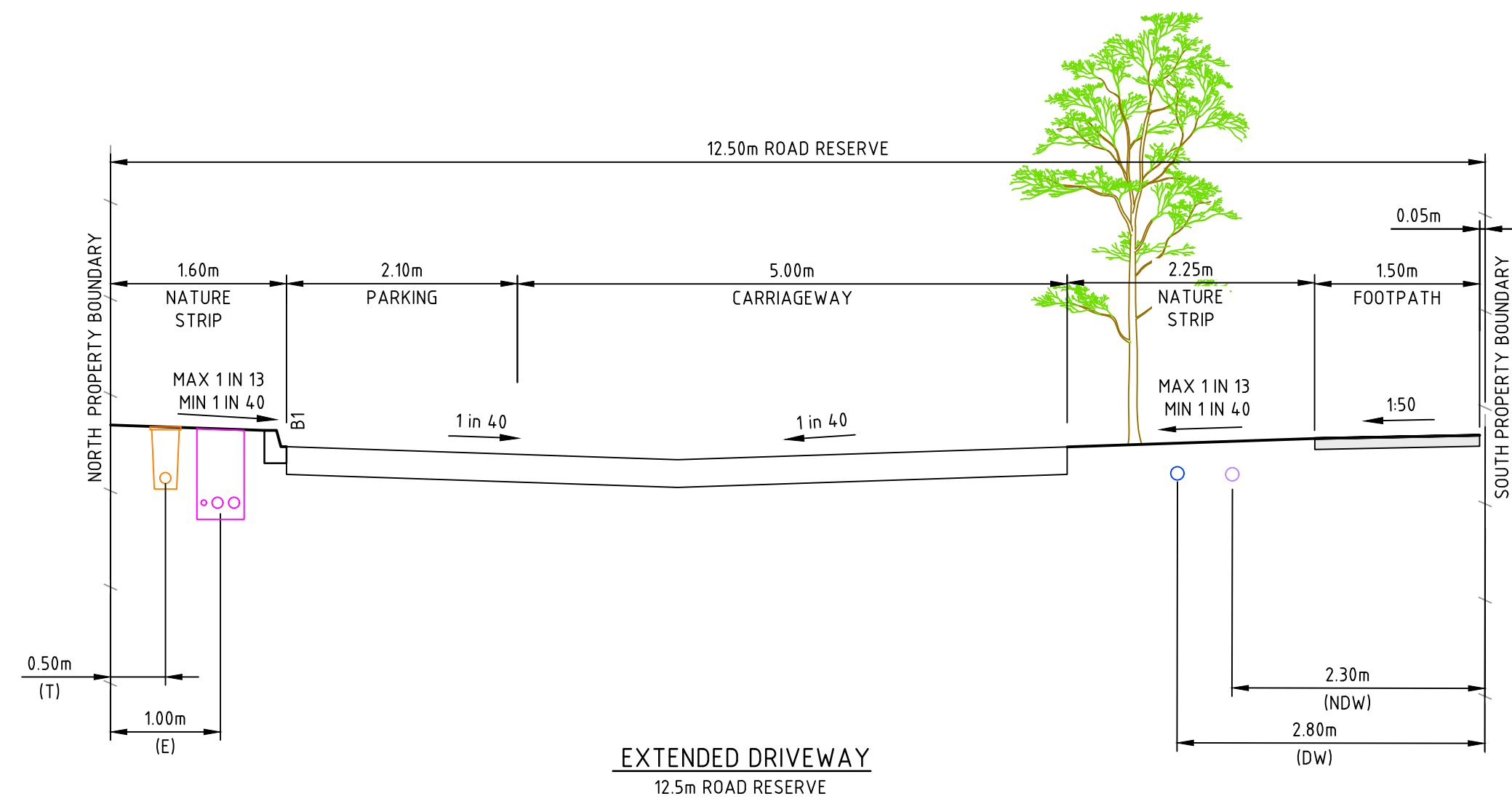
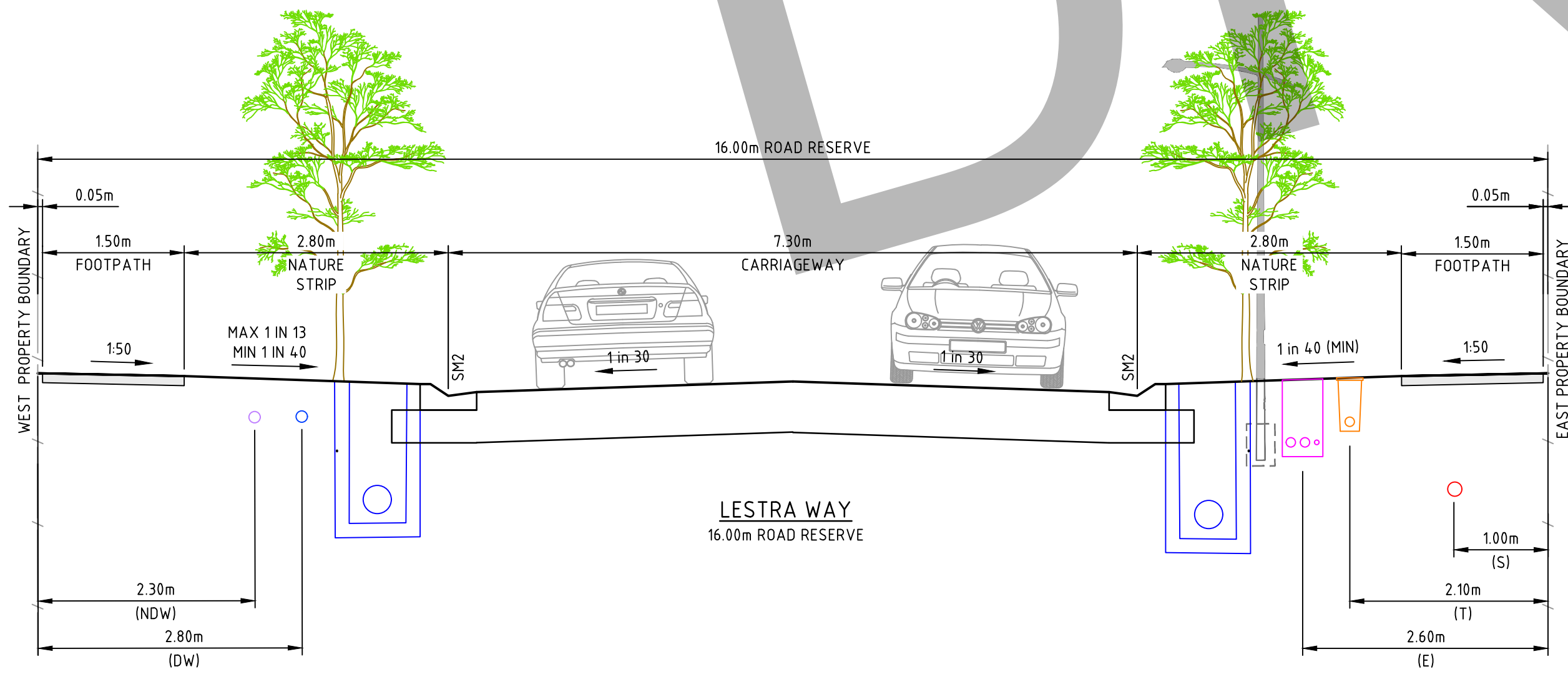
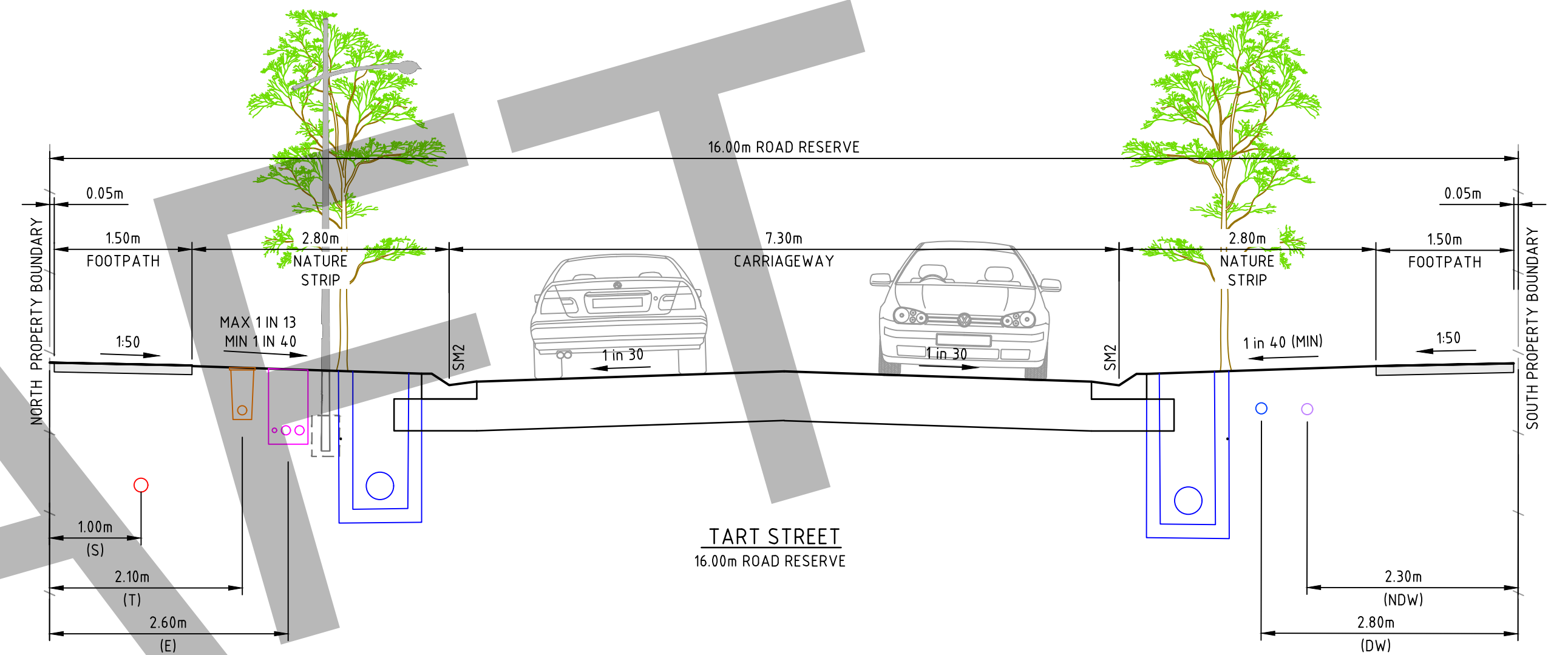
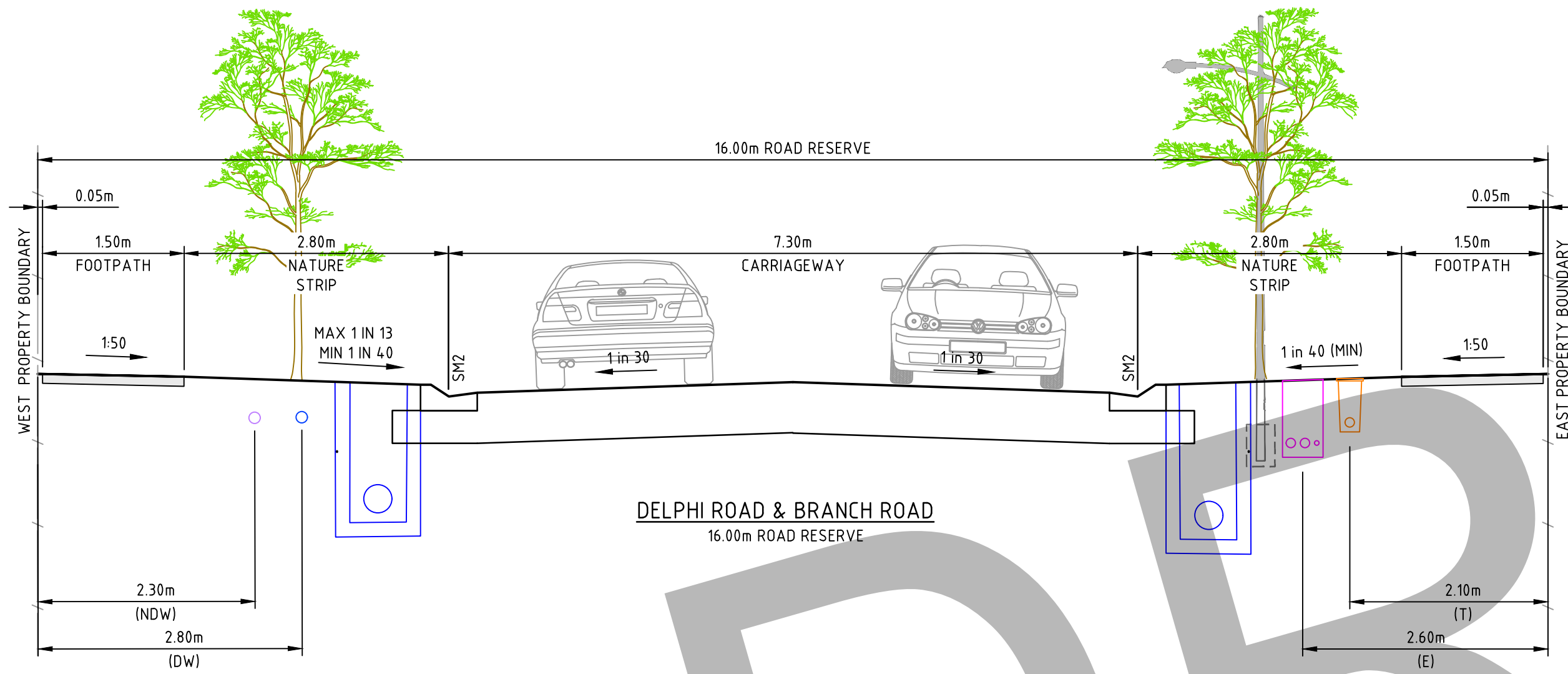
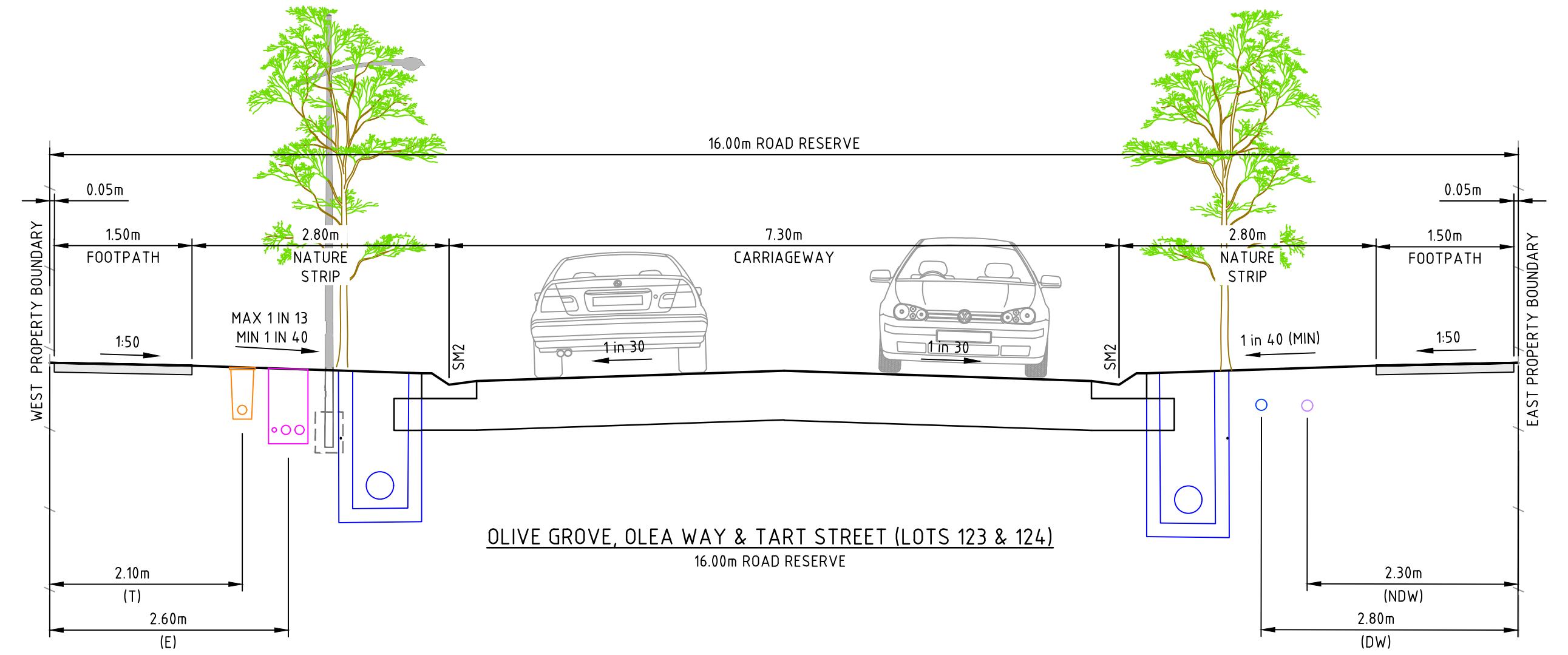
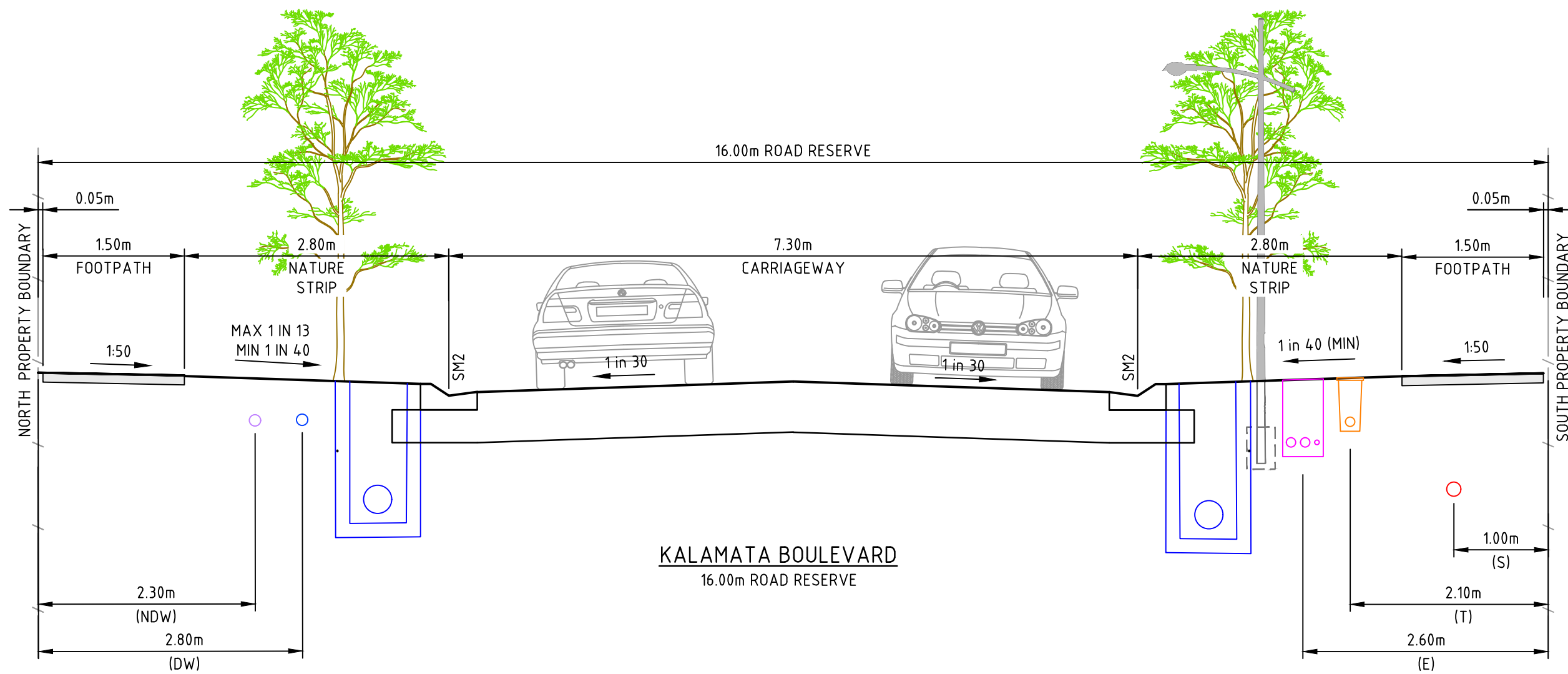
This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS
Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT	SIG GROUP
DESIGNED	W. SANSOM
SCALE	AS SHOWN
APPROVED	PE 0005927

PROJECT	KALA ESTATE - STAGE 01
TITLE	STANDARD DETAILS
MUNICIPALITY	CARDINIA SHIRE COUNCIL
PP No.	T220227
DRAWING No.	3086-01-011
REVISION	B

ORIGINAL SIZE
A1



C:\Users\alex\Documents\3086-01-020\3086-01-020_TSS.dwg 1/20/2025 3:03 PM ALEX TROMBETTA

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT
SIG GROUP

APPROVED PE 0005927

DESIGNED
W. SANSOM

SCALE
1:50 @ A1

PROJECT
KALA ESTATE - STAGE 01

TITLE
**TYPICAL CROSS SECTIONS
(SHEET 1 OF 2)**

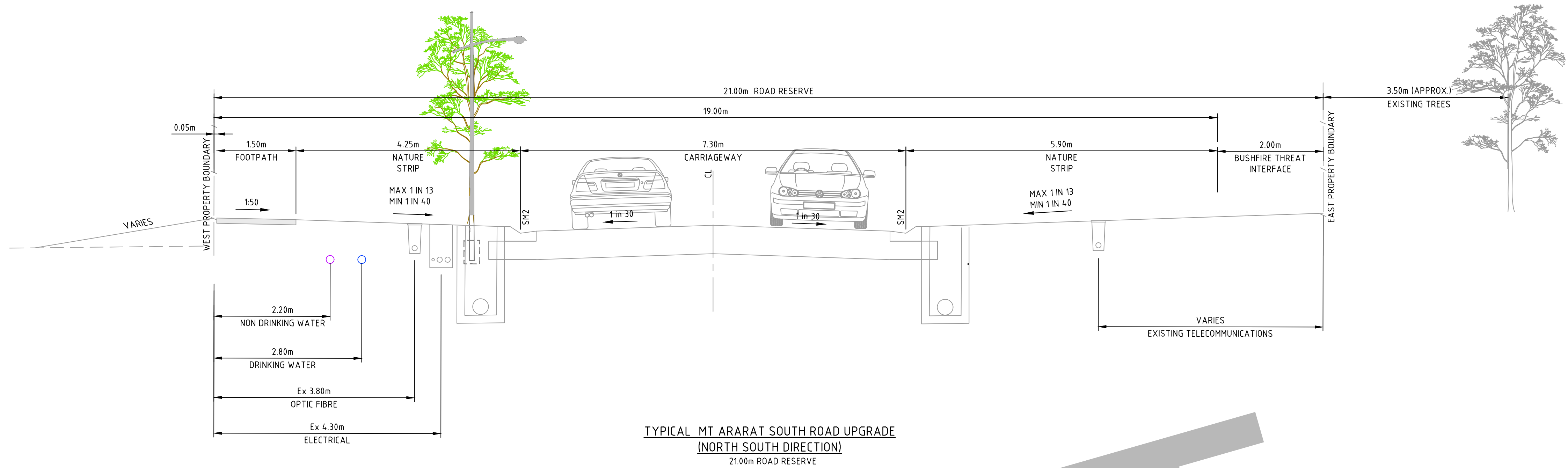
MUNICIPALITY
CARDINIA SHIRE COUNCIL

PP No.
T220227

DRAWING No.
3086-01-020

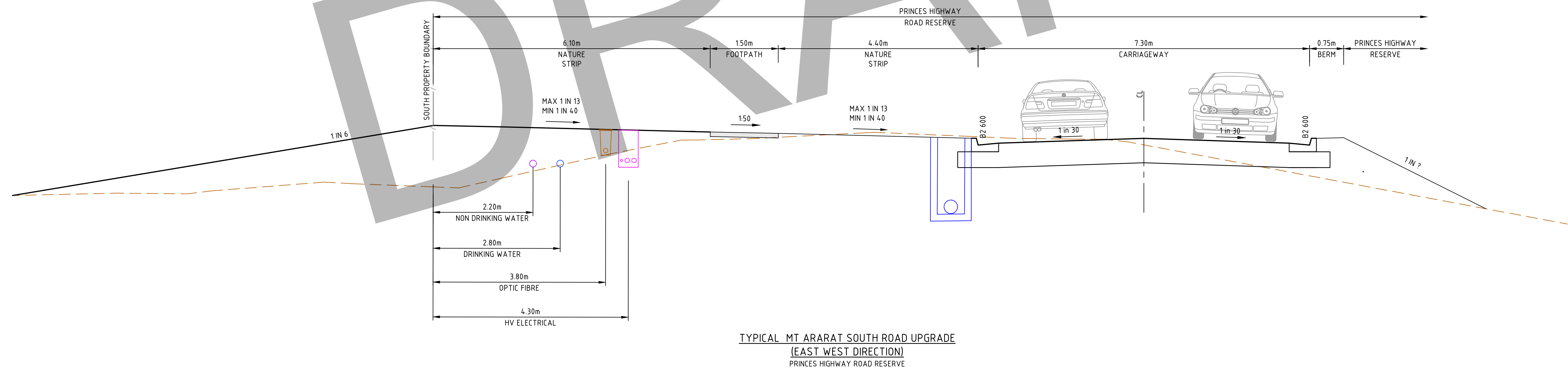
REVISION
B

ORIGINAL SIZE
A1



TYPICAL MT ARARAT SOUTH ROAD UPGRADE
(NORTH SOUTH DIRECTION)
21.00m ROAD RESERVE

UPGRADE OF MOUNT ARARAT SOUTH ROAD
TO BE HANDLED AS SEPARATE EXTERNAL
WORKS PACKAGE FROM STAGE 1



TYPICAL MT ARARAT SOUTH ROAD UPGRADE
(EAST WEST DIRECTION)
PRINCES HIGHWAY ROAD RESERVE

B	23.01.25	AT	<i>[Signature]</i>	<i>[Signature]</i>	ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

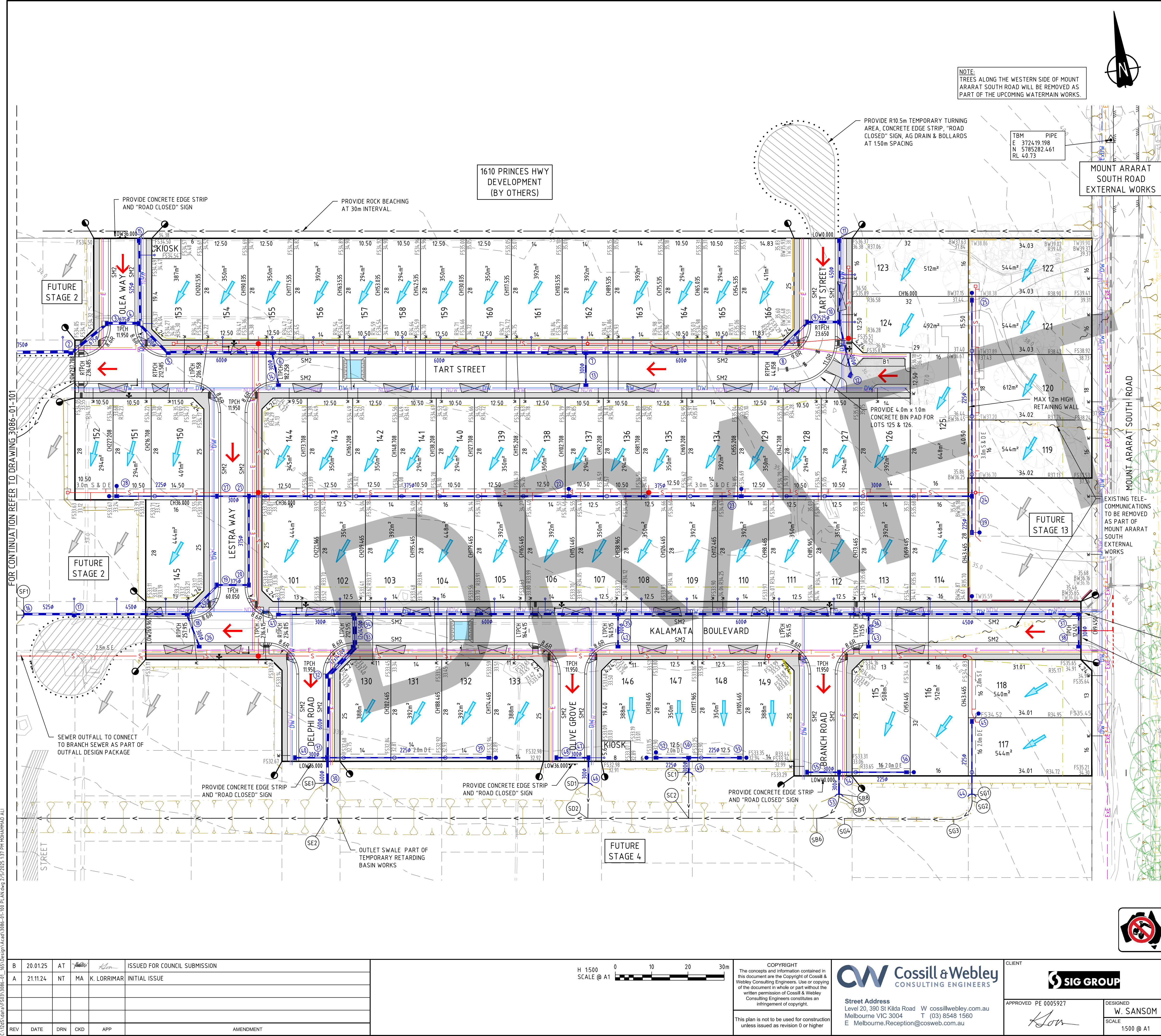
This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS
Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT	SIG GROUP
APPROVED PE 0005927	DESIGNED W. SANSOM
SCALE 1:50 @ A1	PP No. T220227

PROJECT	KALA ESTATE - STAGE 01
TITLE	TYPICAL CROSS SECTIONS (SHEET 2 OF 2)
MUNICIPALITY	CARDINIA SHIRE COUNCIL
DRAWING No.	3086-01-021
REVISION	B

ORIGINAL
SIZE
A1



LEGEND		
DESCRIPTION	EXISTING	PROPOSED
WATER MAIN - DRINKING WATER	ExDW	DW
WATER MAIN - NON-DRINKING WATER	ExNDW	NDW
WATER CONDUITS	W	W
OVERHEAD ELECTRICITY	ExOE	
UNDERGROUND ELECTRICITY	ExE	E
TELECOMMUNICATION & SERVICE PIT	ExT	T
SEWER & MANHOLE	ExS	S
CENTRAL INVERT		
COUNCIL STORMWATER DRAIN, PIT & HOUSE DRAIN/PROPERTY INLET		
RIDGE / CHANGE OF GRADE LINE		
SURFACE LEVEL	4.3.21	FS44.33
RIDGE LEVEL		R43.55
TOP OF WALL LEVEL		T43.55
BOTTOM OF WALL LEVEL		B42.55
CONCRETE VEHICLE CROSSING		
CONCRETE FOOTPATH		
SURFACE CONTOUR	-51.20	
PERMANENT SURVEY MARK		
TEMPORARY BENCH MARK		
BOLLARD		
ROAD CHAINAGES	CH36.20 (L/R)TP	CH36.20 (L/R)TP
LOT CHAINAGE	CH28.50	CH28.50
SIGN AND POST		
FALL OF DESIGN SURFACE		
100 YEAR OVERLAND FLOW PATH		
LIMIT OF WORKS		
RETAINING WALL - CONCRETE SLEEPER		
RETAINING WALL - ROCK/STONE		
BATTER		
SERVICE TO BE REMOVE/ABANDONED		
TREE TO BE RETAINED		
TREE REMOVED BY OTHERS		

NOTE: EXISTING TELECOMMUNICATIONS TO BE REMOVED AS PART OF MOUNT ARARAT SOUTH ROAD EXTERNAL WORKS

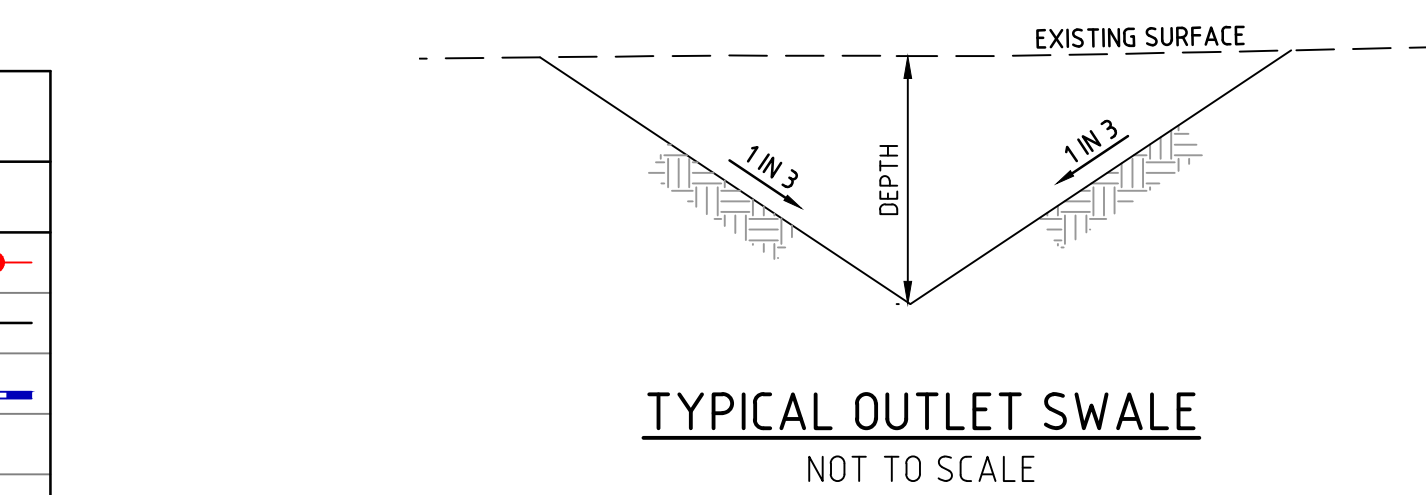
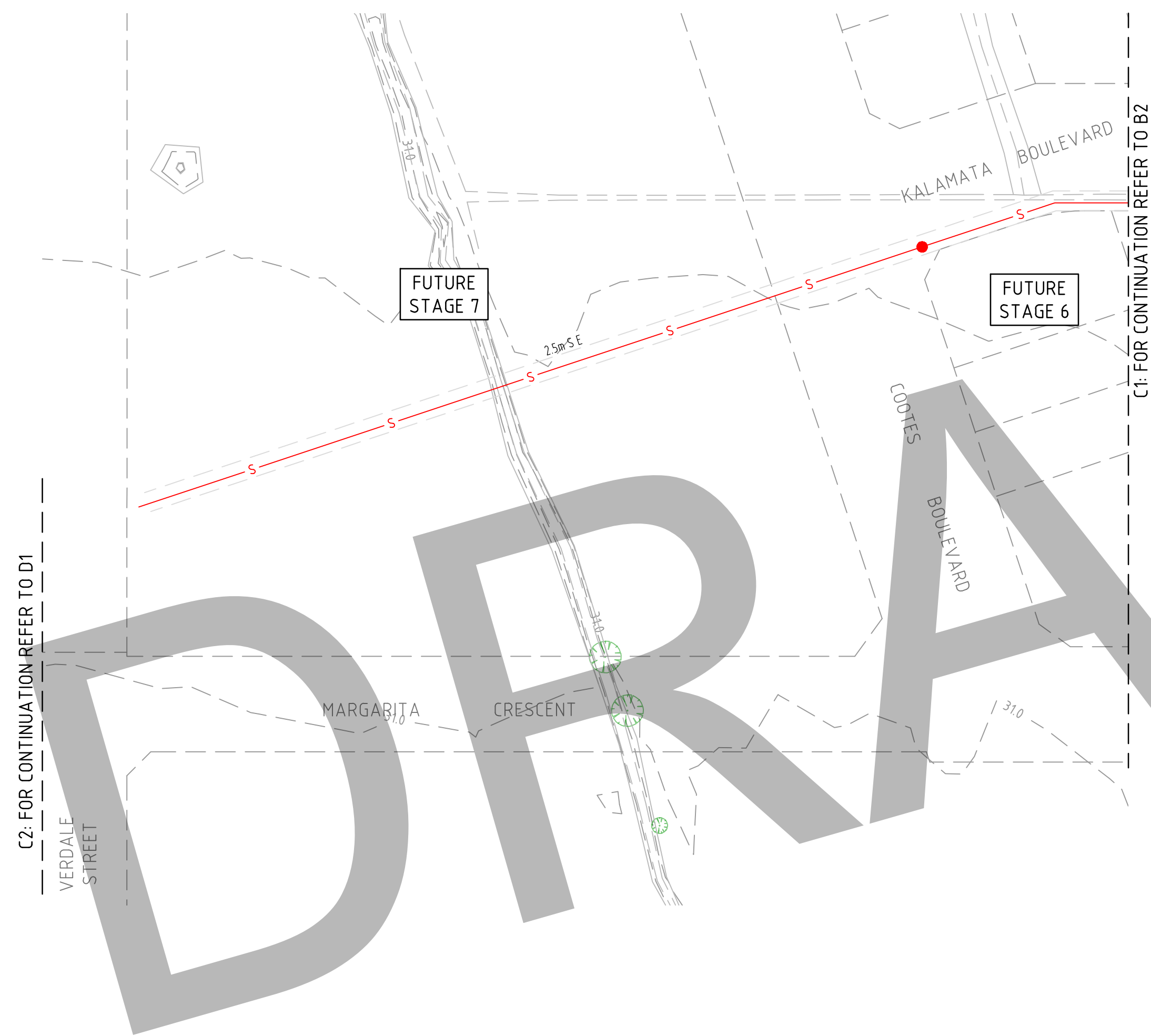
CONNECT TO EXISTING MOUNT ARARAT SOUTH ROAD DRAINAGE












REMOVE TEMPORARY CONCRETE EDGE STRIP AND "ROAD CLOSED" SIGN.

NOTE: EXTERNAL WORKS - UPGRADE OF MOUNT ARARAT SOUTH ROAD FRONTING STAGE 1 TO INCLUDE THE NECESSARY DRIVEWAYS, FOOTPATHS, AND SERVICE WORKS REQUIRED FOR THE DEVELOPMENT OF LOTS 117, 118 & 119 TO 122.

BEFORE YOU DIG
www.byda.com.au


WARNING
BEWARE OF UNDERGROUND/OVERHEAD SERVICES
THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.



LEGEND		
DESCRIPTION	EXISTING	PROPOSED
SEWER & MANHOLE		
CENTRAL INVERT		
COUNCIL STORMWATER DRAIN, PIT & HOUSE DRAIN/PROPERTY INLET		
SURFACE CONTOUR		
SIGN AND POST		
TREE TO BE RETAINED		

B	23.01.25	AT	<i>Sharma</i>	<i>K. Lorrimer</i>	ISSUED FOR COUNCIL SUBMISSION
A	21.11.24	NT	MA	K. LORRIMER	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT

H 1:500
SCALE @ A1

A horizontal graphic scale bar with a black and white checkered pattern. It is marked with '0', '10', '20', and '30m' at regular intervals.

COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction
unless issued as revision 0 or higher



Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT

APPROVED PE 0005927

Klov

DESIGNED

SCALE
1:500 @ A1

PROJECT	KALA ESTATE - STAGE 01
---------	------------------------

TITLE	LAYOUT PLAN
-------	-------------

(SHEET 2 OF 2)

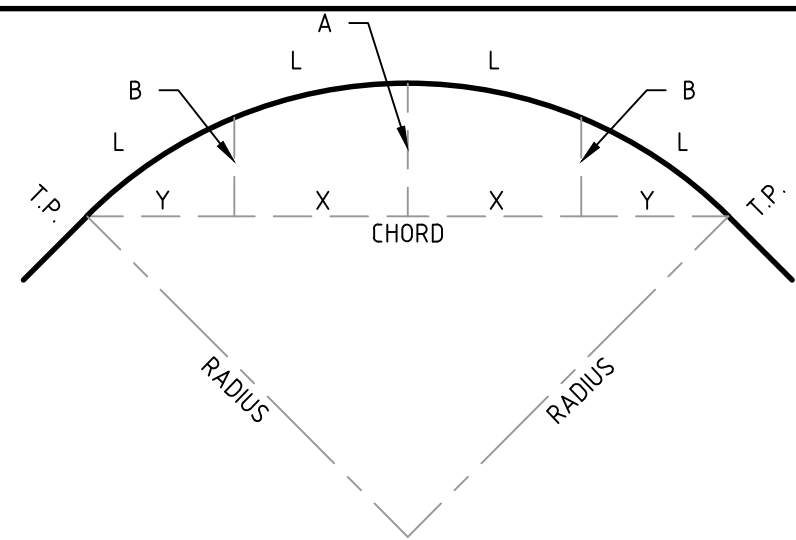
MUNICIPALITY CARDINIA SHIRE COUNCIL

PP No.	T220227
--------	---------

3086-01-101

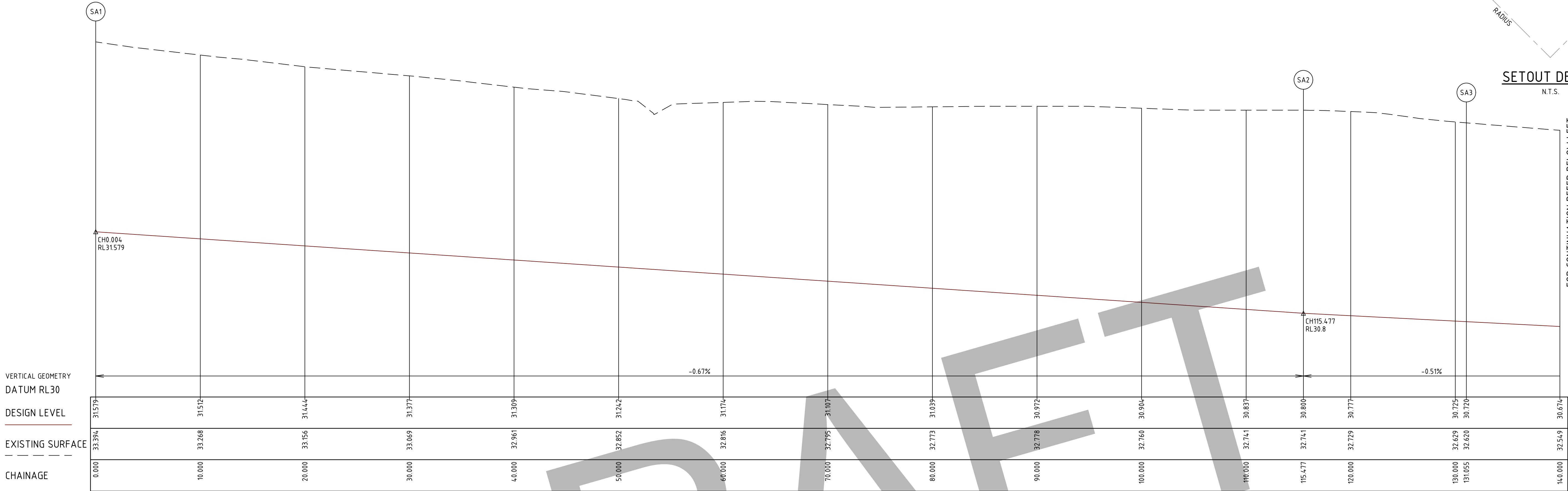
REVISION	
D	

ORIGINAL
SIZE
A1



SETOUT DETAIL

N.T.S.

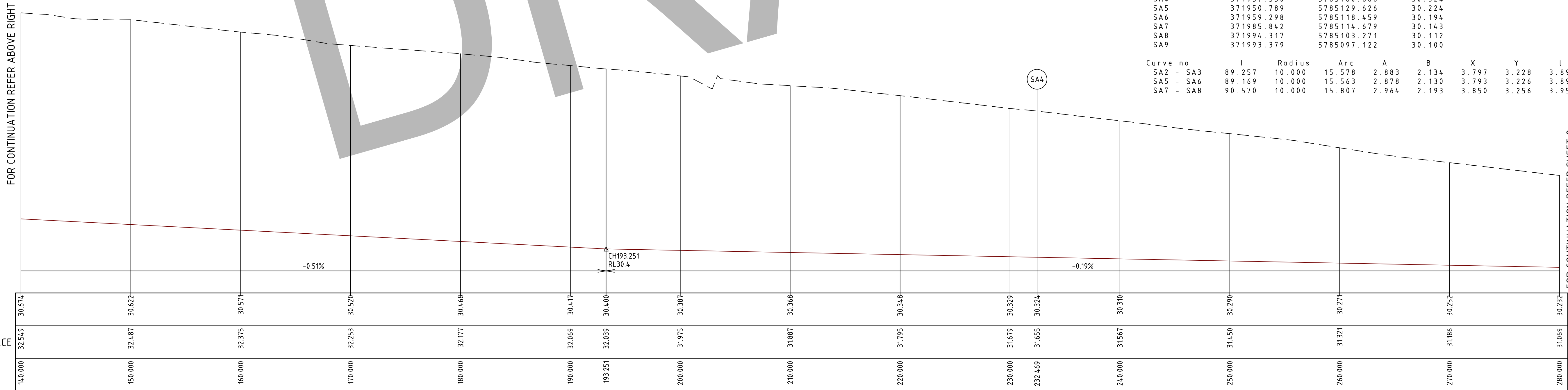


OUTLET SWALE SA

ALIGNMENT SA

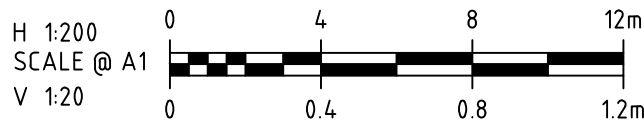
Point no	Easting	Northing	RL
SA1	372099.488	5785271.968	
SA2	371985.298	5785289.164	30.800
SA3	371973.925	5785280.915	30.720
SA4	371957.330	5785180.868	30.324
SA5	371950.789	5785129.626	30.224
SA6	371959.298	5785118.459	30.194
SA7	371985.842	5785114.679	30.143
SA8	371994.317	5785103.271	30.112
SA9	371993.379	5785097.122	30.100

Curve no	L	Radius	A	B	X	Y	I	Mid point RL
SA2 - SA3	89.257	10.000	15.578	2.883	2.134	3.797	3.895	30.760
SA5 - SA6	89.169	10.000	15.563	2.878	2.130	3.793	3.891	30.209
SA7 - SA8	90.570	10.000	15.807	2.964	2.193	3.850	3.952	30.127



OUTLET SWALE SA

B	23.01.25	AT	<i>[Signature]</i>	<i>[Signature]</i>	ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher



Street Address
Level 20, 350 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT



APPROVED PE 0005927

[Signature]

DESIGNED
W. SANSOM
SCALE
AS SHOWN

PROJECT

KALA ESTATE - STAGE 01

TITLE

OUTLET SWALE SETOUT

(SHEET 1 OF 4)

MUNICIPALITY

CARDINIA SHIRE COUNCIL

PP No.

T220227

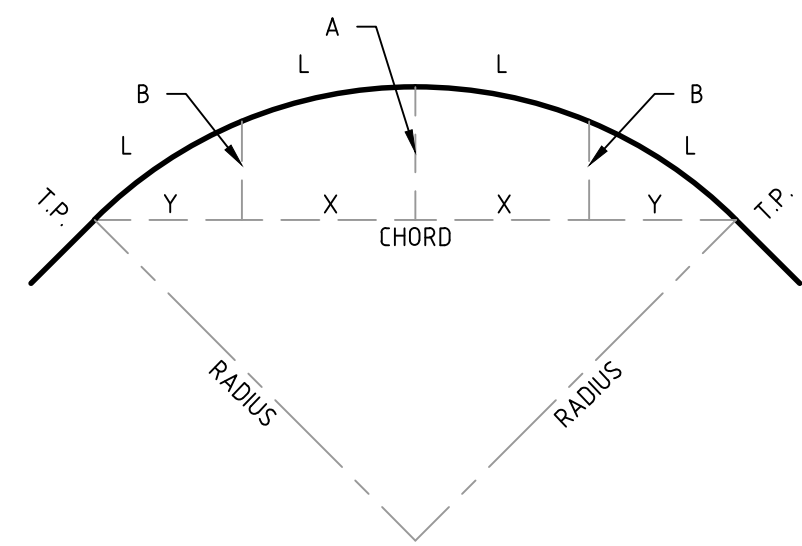
DRAWING No.

3086-01-102

REVISION

B

ORIGINAL SIZE
A1



SETOUT DETAIL

N.T.S.

ALIGNMENT SA

Point no	Easting	Northing	RL
SA1	372099.488	5785271.968	
SA2	371985.298	5785289.164	30.800
SA3	371973.925	5785280.915	30.720
SA4	371957.330	5785180.868	30.324
SA5	371950.789	5785129.626	30.224
SA6	371959.298	5785118.459	30.194
SA7	371985.842	5785114.679	30.143
SA8	371994.317	5785103.271	30.112
SA9	371993.379	5785097.122	30.100

Curve no	L	Radius	Arc	A	B	X	Y	I	Mid point RL
SA2 - SA3	89.257	10.000	15.578	2.883	2.134	3.797	3.228	3.895	30.760
SA5 - SA6	89.169	10.000	15.563	2.878	2.130	3.793	3.226	3.891	30.209
SA7 - SA8	90.570	10.000	15.807	2.964	2.193	3.850	3.256	3.952	30.127

ALIGNMENT SB

Point no	Easting	Northing	RL
SB1	371993.414	5785109.174	30.100
SB2	372020.233	5785114.353	30.141
SB3	372024.228	5785118.508	30.150
SB4	372028.736	5785148.060	30.194
SB5	372034.432	5785152.249	30.210
SB6	372310.960	5785110.070	31.425
SB7	372317.796	5785115.097	31.480
SB8	372317.898	5785115.764	31.484

Curve no	L	Radius	Arc	A	B	X	Y	I	Mid point RL
SB2 - SB3	70.398	5.000	6.143	0.914	0.680	1.512	1.370	1.536	30.145
SB4 - SB5	90.000	5.000	7.854	1.464	1.084	1.913	1.622	1.963	30.200
SB6 - SB7	89.997	6.000	9.424	1.757	1.301	2.296	1.947	2.356	31.453

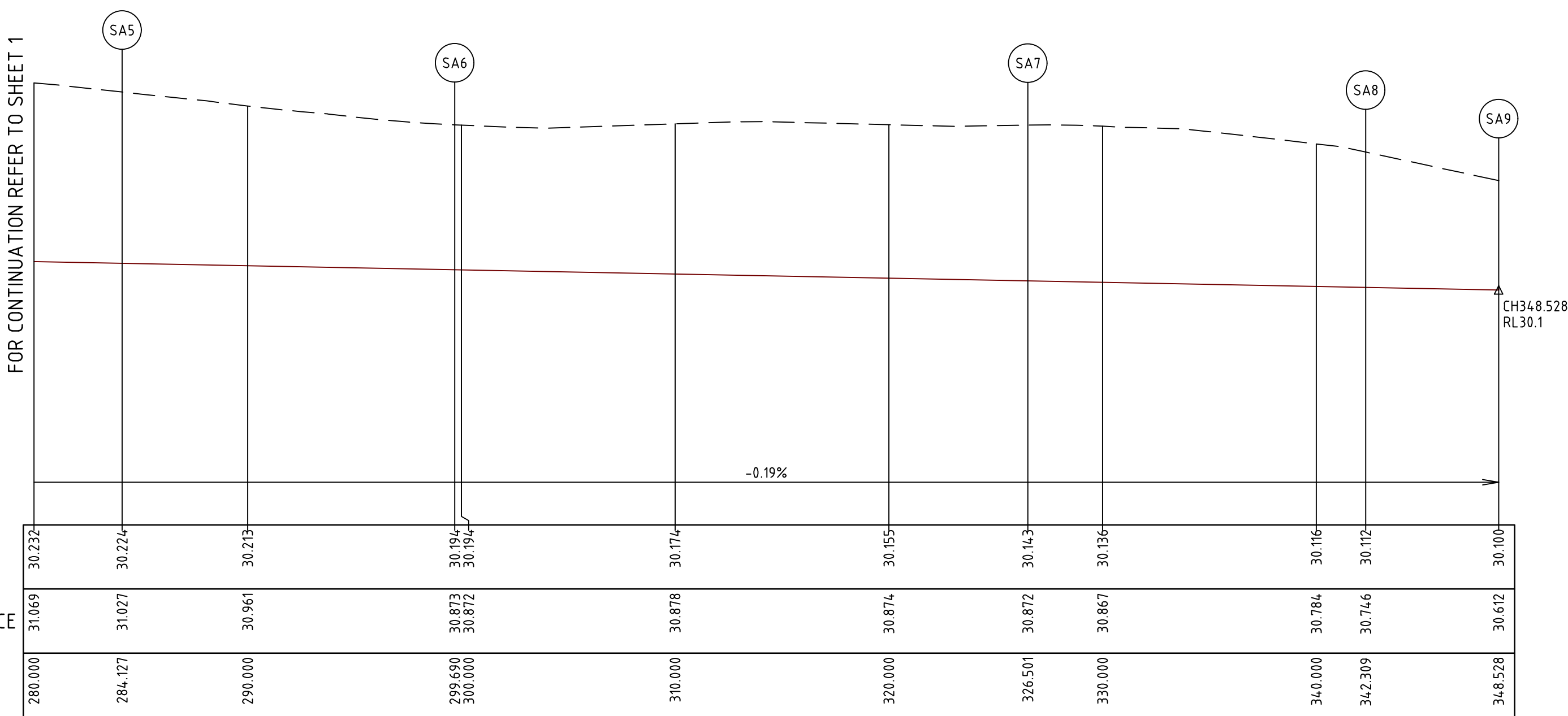
VERTICAL GEOMETRY

DATUM RL29

DESIGN LEVEL

EXISTING SURFACE

CHAINAGE



OUTLET SWALE SA

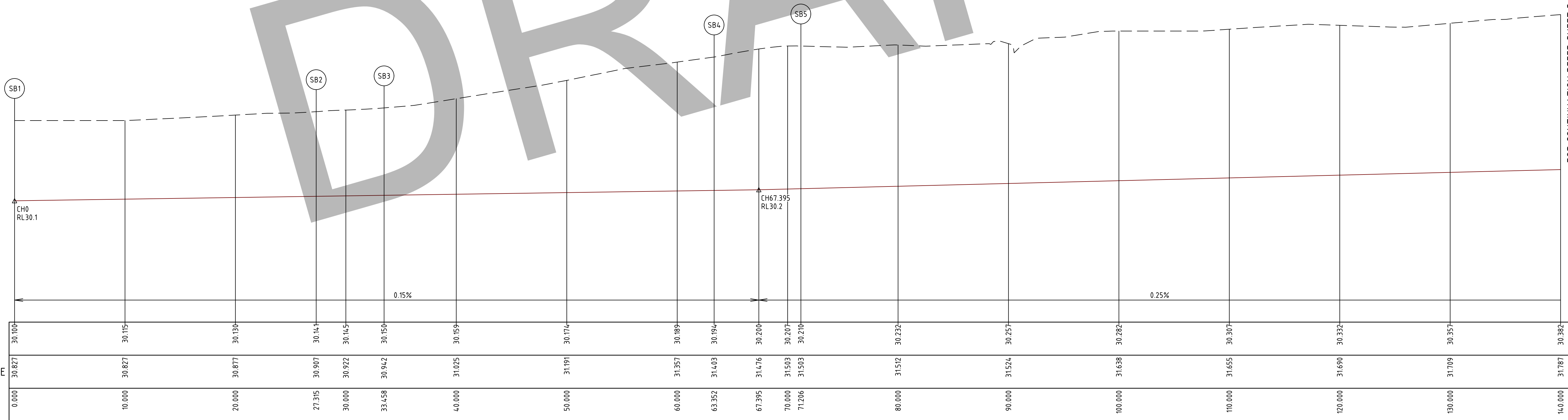
VERTICAL GEOMETRY

DATUM RL29

DESIGN LEVEL

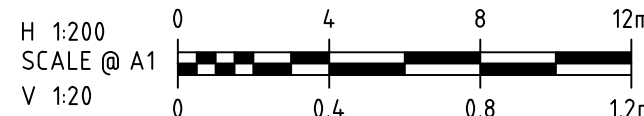
EXISTING SURFACE

CHAINAGE



OUTLET SWALE SB

B	23.01.25	AT	<i>[Signature]</i>	<i>[Signature]</i>	ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT

APPROVED PE 0005927

[Signature]



DESIGNED
W. SANSOM
SCALE
AS SHOWN

PROJECT
KALA ESTATE - STAGE 01

TITLE
OUTLET SWALE SETOUT
(SHEET 2 OF 4)

MUNICIPALITY
CARDINIA SHIRE COUNCIL

PP No.
T220227



DRAWING No.
3086-01-103

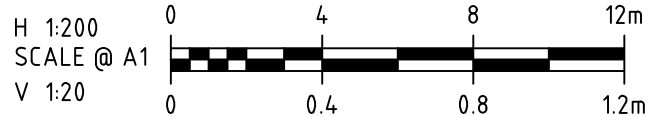
REVISION
B

ORIGINAL
SIZE
A1

C:\Users\alex\Documents\3086-01-103\Design\3086-01-103 P.LAN.dwg 1/20/2025 3:31 PM ALEX TROMBETTA

C:\Users\alex\Documents\3086-01-104\Design\3086-01-104 P.L\Draw 1/20/2025 3:21 PM ALEX.TROMBETTA



B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



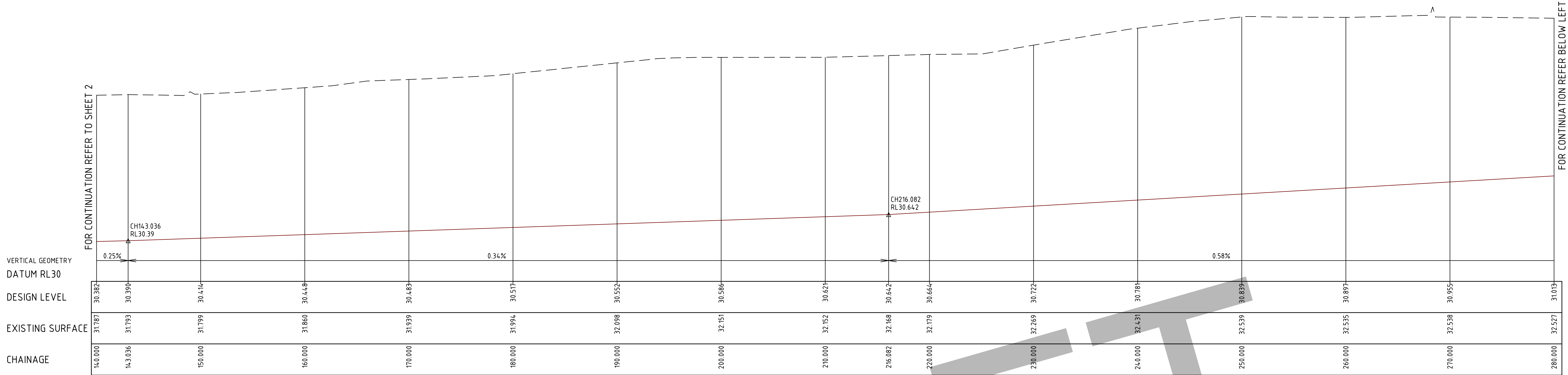
COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

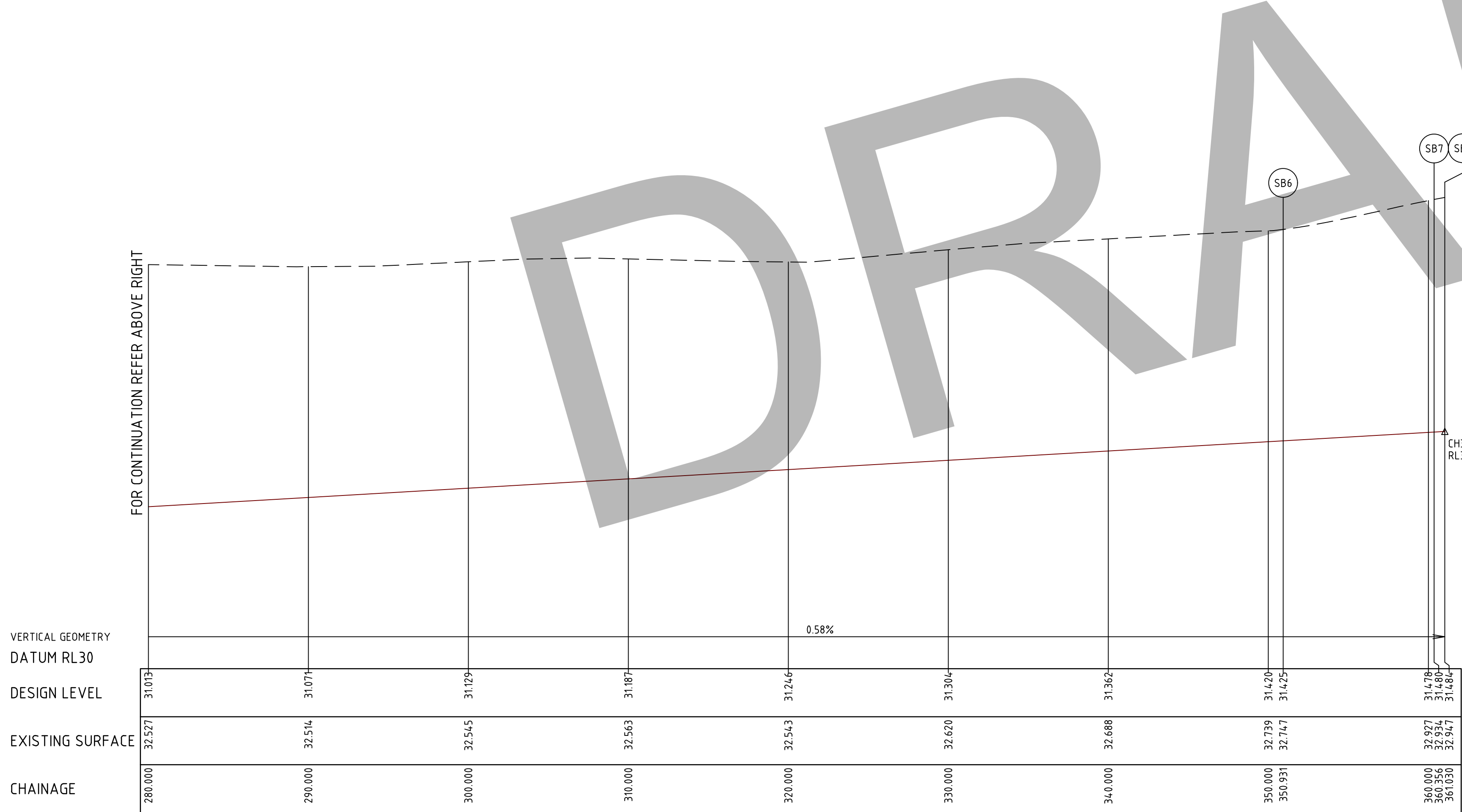

Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT			
APPROVED PE 0005927 		DESIGNED W. SANSON	MUNICIPALITY CARDINIA SHIRE COUNCIL
SCALE AS SHOWN		PP No. T220227	DRAWING No. 3086-01-104

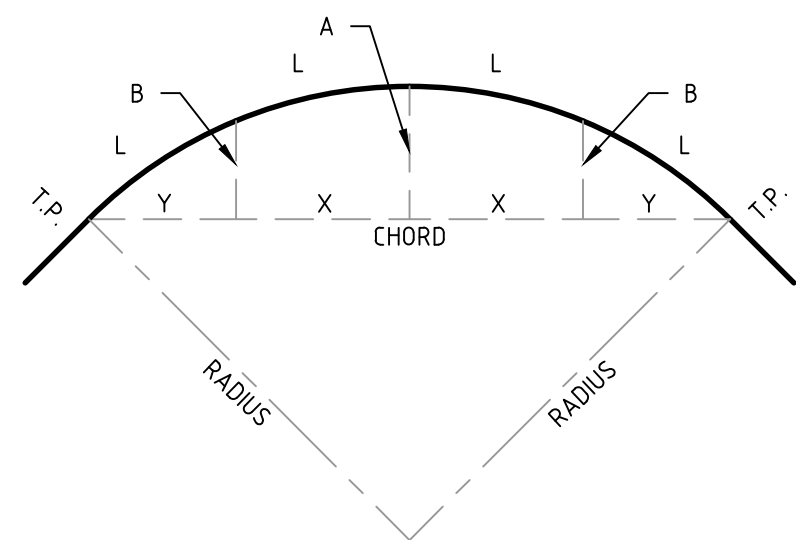
PROJECT KALA ESTATE - STAGE 01		ORIGINAL SIZE A1
TITLE OUTLET SWALE SETOUT (SHEET 3 OF 4)		
MUNICIPALITY CARDINIA SHIRE COUNCIL		
PP No. T220227	DRAWING No. 3086-01-104	REVISION B



OUTLET SWALE SB



OUTLET SWALE SB

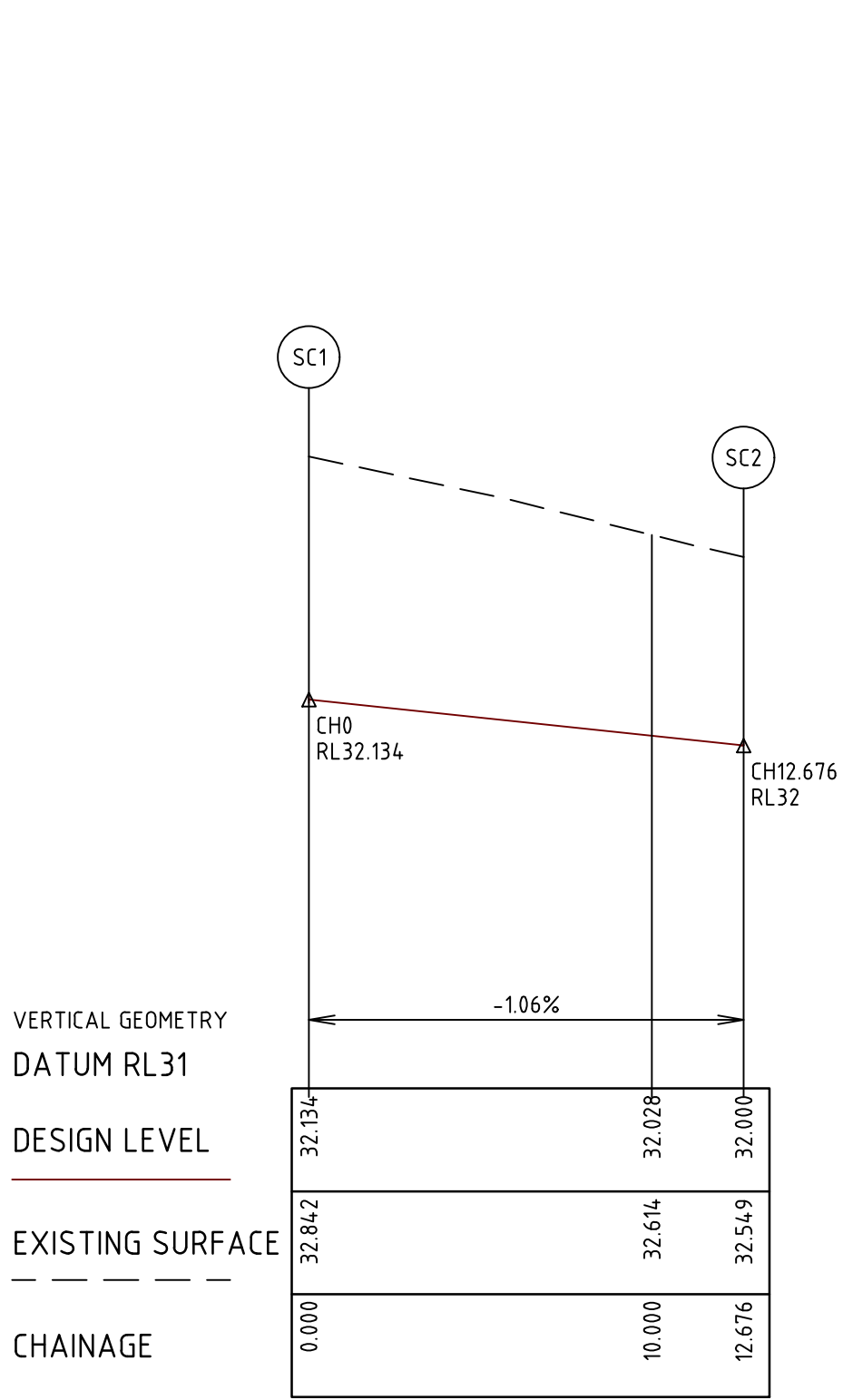


SETOUT DETAIL
N.T.S.

ALIGNMENT SB

Point no	Easting	Northing	RL
SB1	371993.414	5785109.174	30.100
SB2	372020.233	5785114.353	30.141
SB3	372024.228	5785118.508	30.150
SB4	372028.736	5785148.060	30.194
SB5	372034.432	5785152.249	30.210
SB6	372310.960	5785110.070	31.425
SB7	372317.796	5785115.097	31.480
SB8	372317.898	5785115.764	31.484

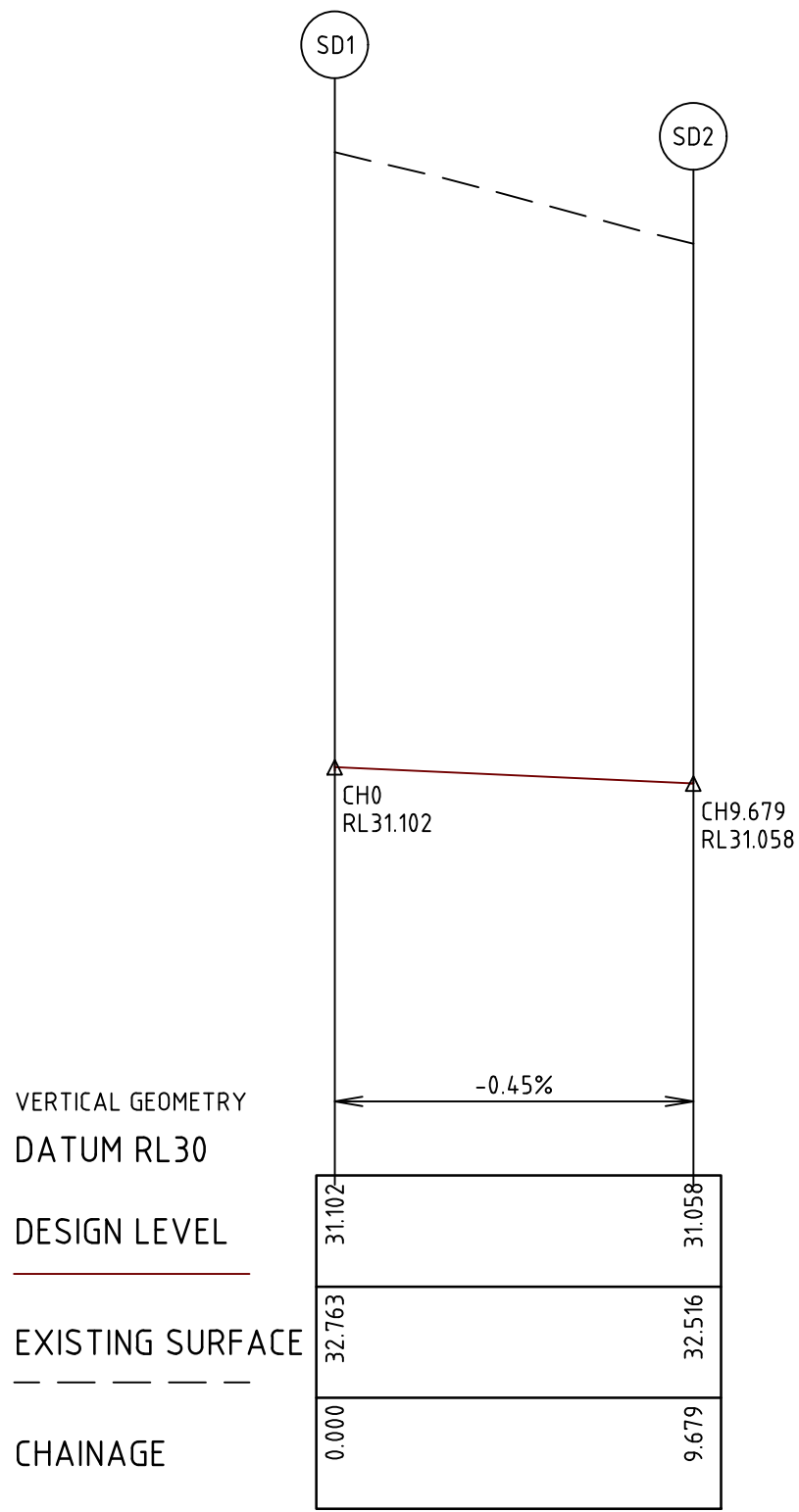
Curve no	l	Radius	Arc	A	B	X	Y	l	Mid point RL
SB2 - SB3	70.398	5.000	6.143	0.914	0.680	1.512	1.370	1.536	30.145
SB4 - SB5	90.000	5.000	7.854	1.464	1.084	1.913	1.622	1.963	30.200
SB6 - SB7	89.997	6.000	9.424	1.757	1.301	2.296	1.947	2.356	31.453



OUTLET SWALE SC

ALIGNMENT SC

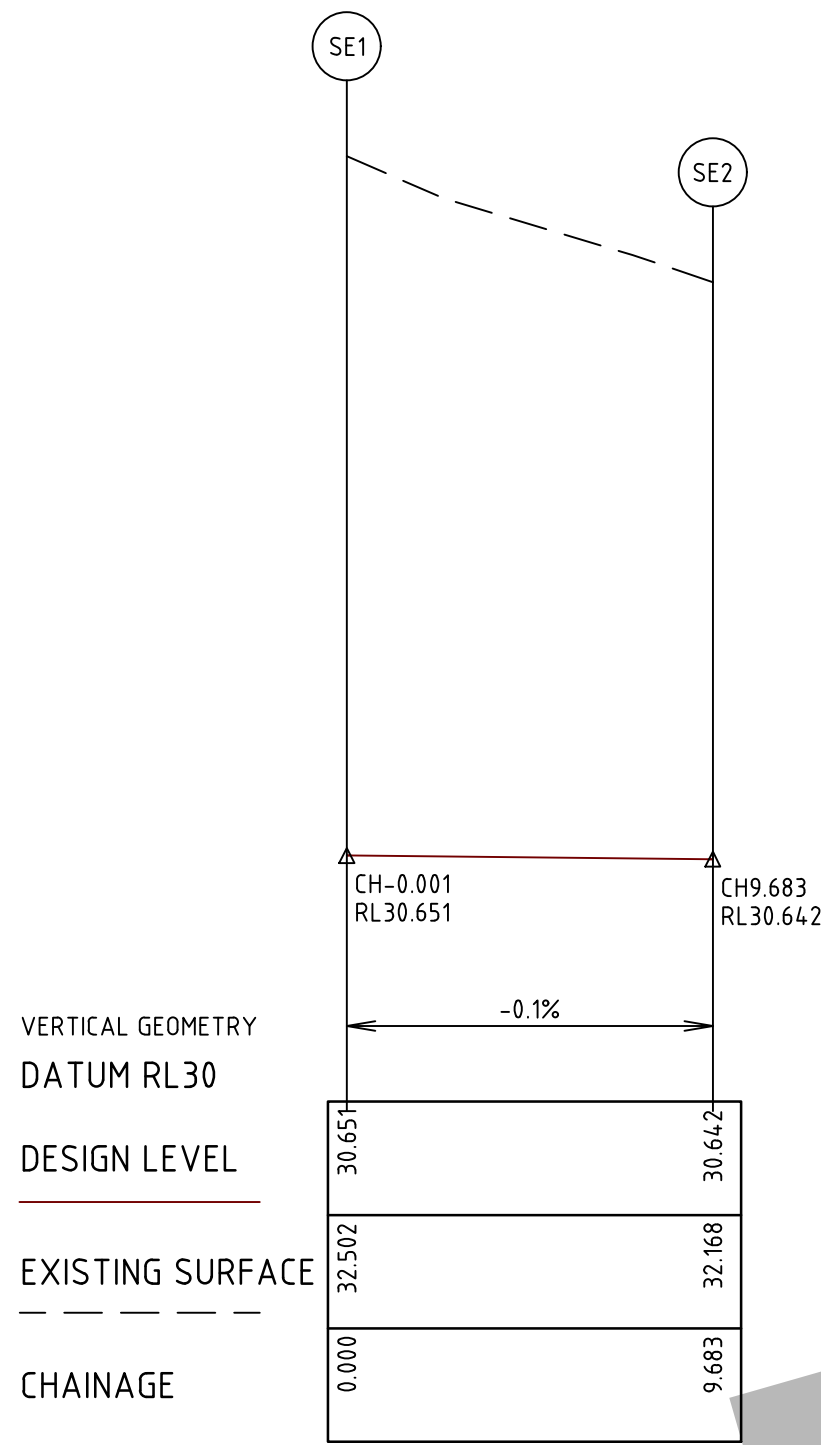
Point no	Easting	Northing	RL
SC1	372278.025	5785127.917	32.134
SC2	372276.113	5785115.386	32.000



OUTLET SWALE SD

ALIGNMENT SD

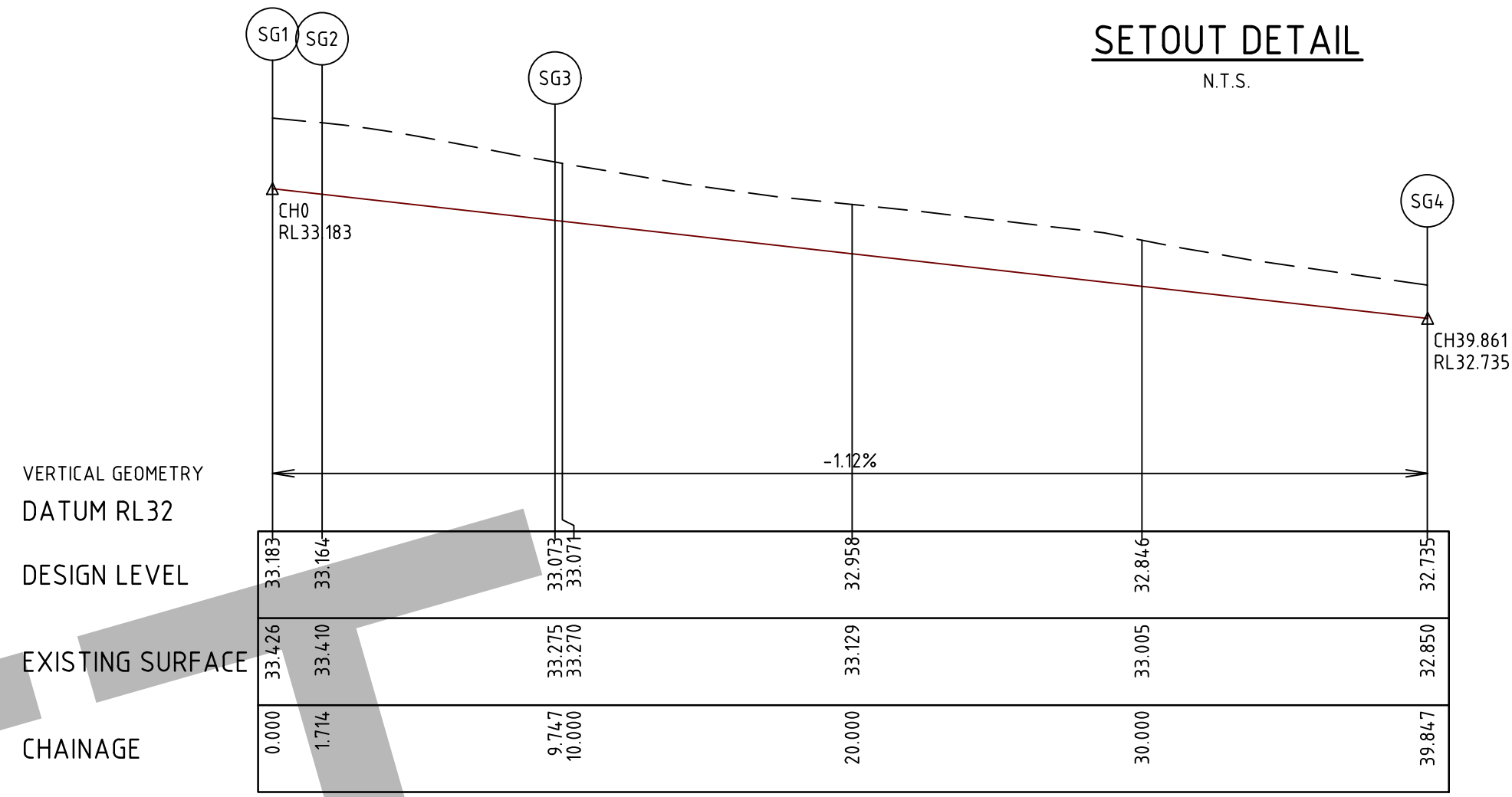
Point no	Easting	Northing	RL
SD1	372250.140	5785129.137	31.102
SD2	372248.532	5785119.592	31.058



OUTLET SWALE SE

ALIGNMENT SE

Point no	Easting	Northing	RL
SE1	372179.112	5785139.976	30.651
SE2	372177.692	5785130.404	30.642

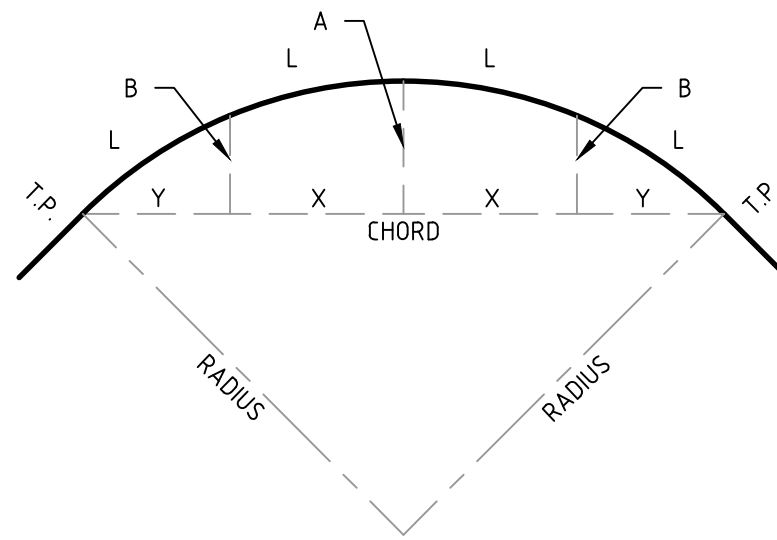


OUTLET SWALE SG

ALIGNMENT SG

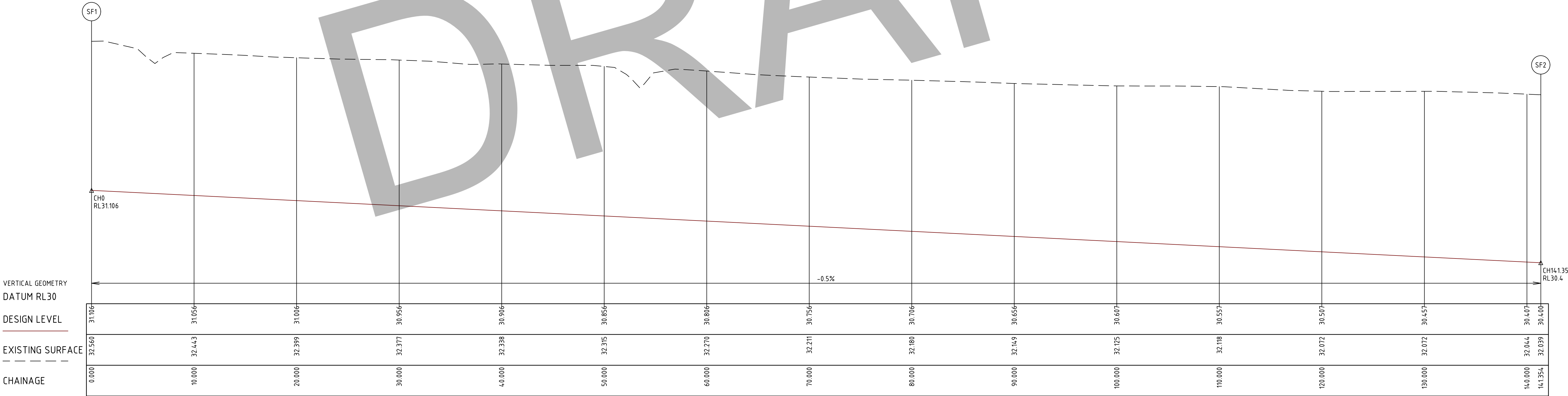
Point no	Easting	Northing	RL
SG1	372354.205	5785110.071	33.183
SG2	372353.992	5785108.370	33.164
SG3	372348.234	5785104.054	33.073
SG4	372318.498	5785108.723	32.735

Curve no	L	Radius	Arc	A	B	X	Y	L	Mid point RL
SG2 - SG3	92.048	5.000	8.033	1.528	1.130	1.955	1.644	2.008	33.119



SETOUT DETAIL

N.T.S.



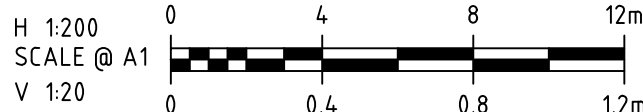
OUTLET SWALE SF

ALIGNMENT SF

Point no	Easting	Northing	RL
SF1	372103.494	5785198.296	31.106
SF2	371963.757	5785219.617	30.400

C:\Users\alex\Documents\3086-01-105\Design\Kala\3086-01-100 P.L\Aug 17/20/2025 3:21 PM ALEX.TROMBETTA

REV	DATE	DRN	CKD	APP	AMENDMENT
B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	AM	K. LORRIMAR	INITIAL ISSUE



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS



Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT	SIG GROUP
APPROVED	PE 0005927
DESIGNED	W. SANSOM
SCALE	AS SHOWN

PROJECT	KALA ESTATE - STAGE 01
TITLE	OUTLET SWALE SETOUT (SHEET 4 OF 4)
MUNICIPALITY	CARDINIA SHIRE COUNCIL
PP No.	T220227
DRAWING No.	3086-01-105
REVISION	B

ORIGINAL SIZE
A1

C:\Users\moham\Documents\3086-01-150\Design\Kala\3086-01-150\Earth\123\2025\051 AM MOHAMMAD.ALI

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	16.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	OKD	APP	AMENDMENT

H 1:500
SCALE @ A1
0 10 20 30m

COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS
Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT



APPROVED PE 0005927



DESIGNED
W. SANSOM
SCALE
1:500 @ A1

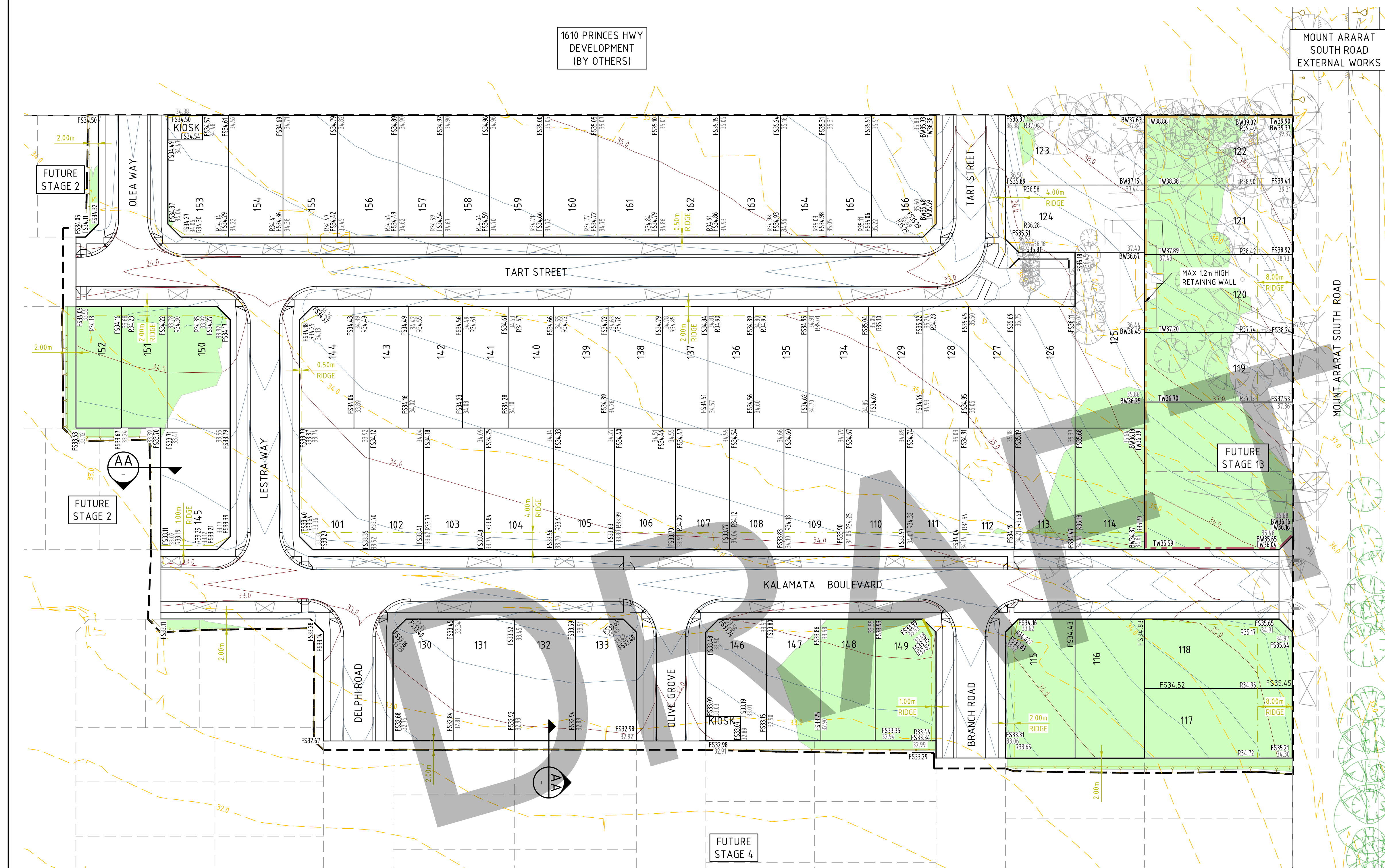
PROJECT
KALA ESTATE - STAGE 01
TITLE
EARTHWORKS PLAN


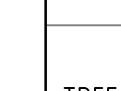
MUNICIPALITY
CARDINIA SHIRE COUNCIL
PP No.
T220227

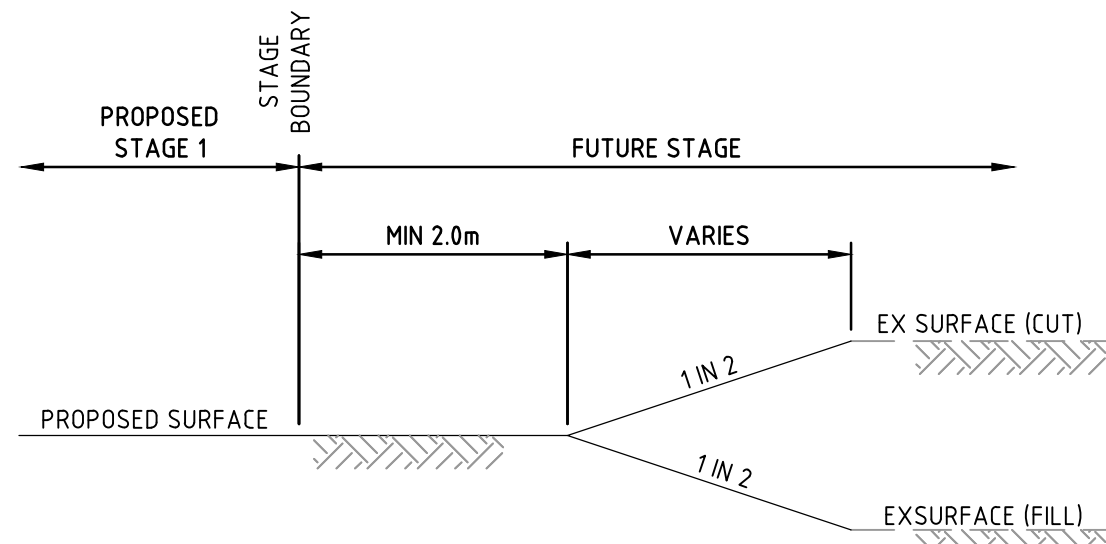
DRAWING No.
3086-01-150

REVISION
B

ORIGINAL
SIZE
A1

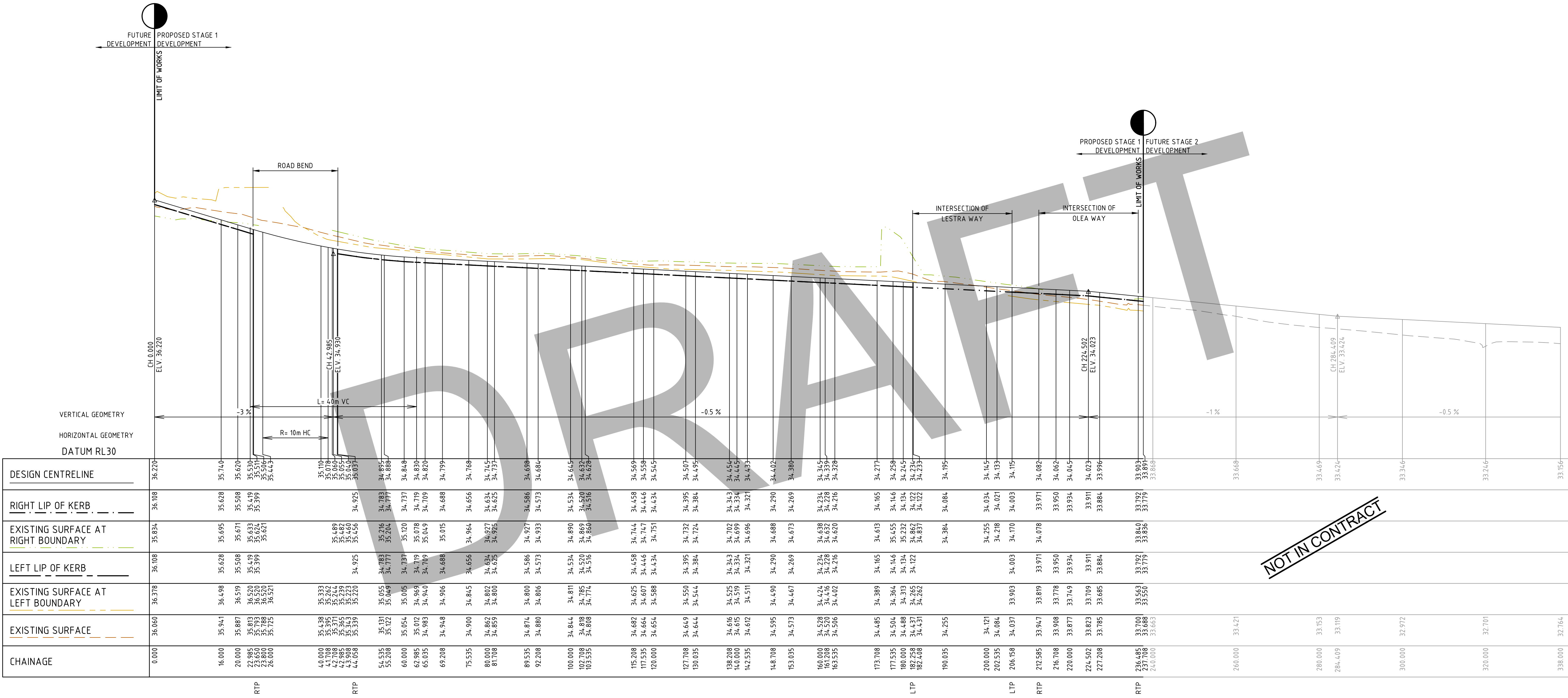


LEGEND		
DESCRIPTION	EXISTING	PROPOSED
BOUNDARY OF WORKS		---
SURFACE CONTOUR MAJOR	---52.00---	---52.00---
SURFACE CONTOUR MINOR		
FINISHED SURFACE LEVEL	4.3.21	FS44.33
RIDGE LEVEL		R43.55
TOP OF WALL LEVEL		T43.55
BOTTOM OF WALL LEVEL		B42.55
RIDGE / CHANGE OF GRADE LINE		---
FILLING GREATER THAN 300mm		
RETAINING WALL - CONCRETE SLEEPER		---
RETAINING WALL - ROCK/STONE		---
TREE TO BE RETAINED		
TREE REMOVED BY OTHERS		



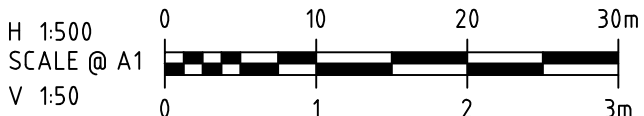
SECTION **AA**
N.T.S.

LEGEND	
DESCRIPTION	LINETYPE
EXISTING SURFACE	---
DESIGN LINE	—
FUTURE DESIGN LINE	- - - -
EXISTING SURFACE AT RIGHT BOUNDARY	---
RIGHT LIP OF KERB	- . - . - .
EXISTING SURFACE AT LEFT BOUNDARY	---
LEFT LIP OF KERB	---



TART STREET LONGITUDINAL SECTION

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	14.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 350 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT
SIG GROUP

APPROVED PE 0005927

DESIGNED
W. SANSOM

SCALE
H 1:500 V 1:50 @ A1

PROJECT
KALA ESTATE - STAGE 01

TITLE
**ROAD LONGITUDINAL SECTIONS
(SHEET 1 OF 3)**

MUNICIPALITY
CARDINIA SHIRE COUNCIL








PP No.
T220227

DRAWING No.
3086-01-200

REVISION
B

ORIGINAL SIZE
A1



LEGEND	
DESCRIPTION	LINE TYPE
EXISTING SURFACE	
DESIGN LINE	
FUTURE DESIGN LINE	
EXISTING SURFACE AT RIGHT BOUNDARY	
RIGHT LIP OF KERB	
EXISTING SURFACE AT LEFT BOUNDARY	
LEFT LIP OF KERB	

H 1:500
SCALE @ A1
V 1:50

0 10 20 30m

0 1 2 3m

The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction
unless issued as revision 0 or higher



CLIENT

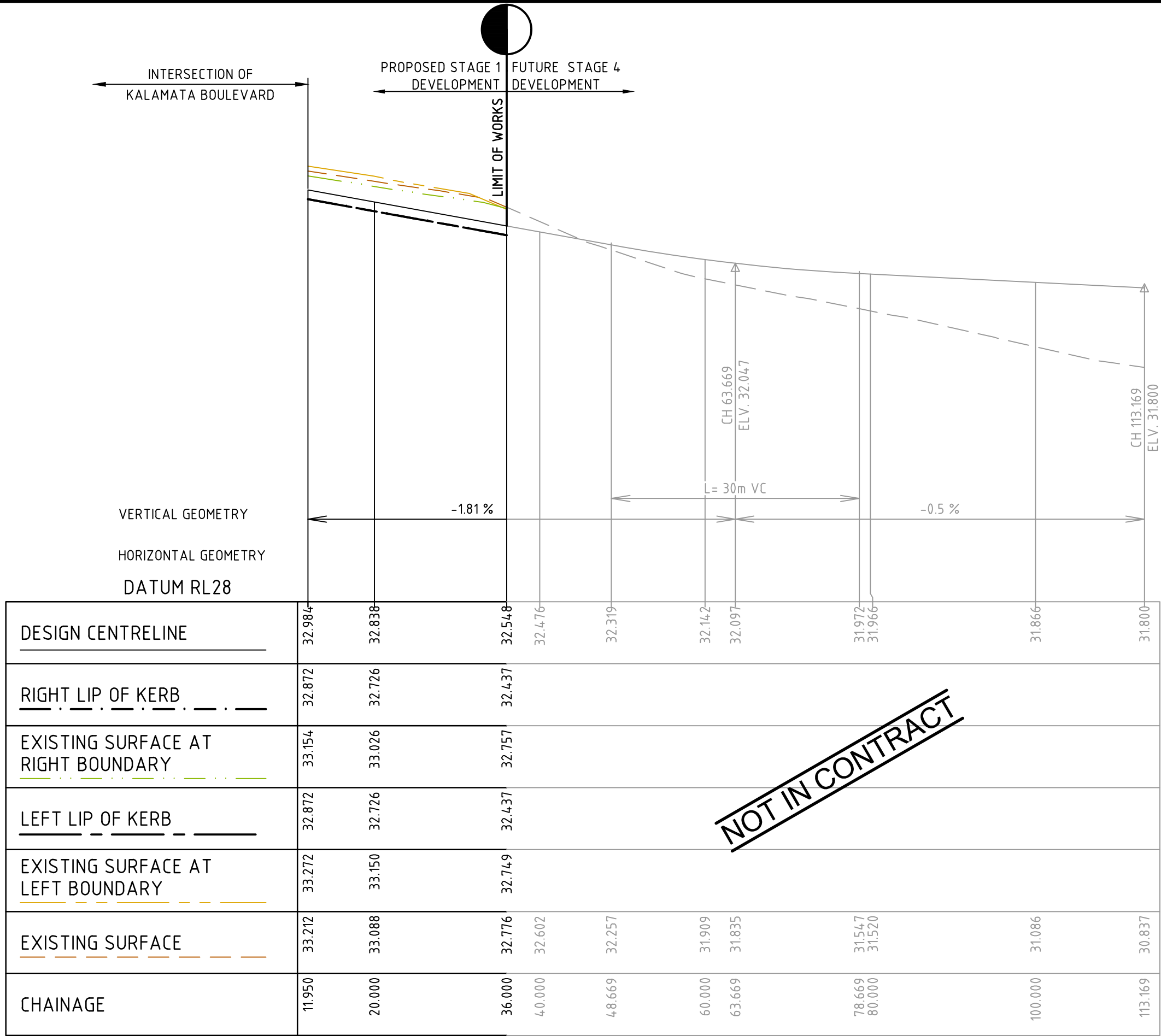
SIG GROUP

APPROVED PE 0005927	DESIGNED W. SANSOM
	SCALE H 1:500 V 1:50 @ A1

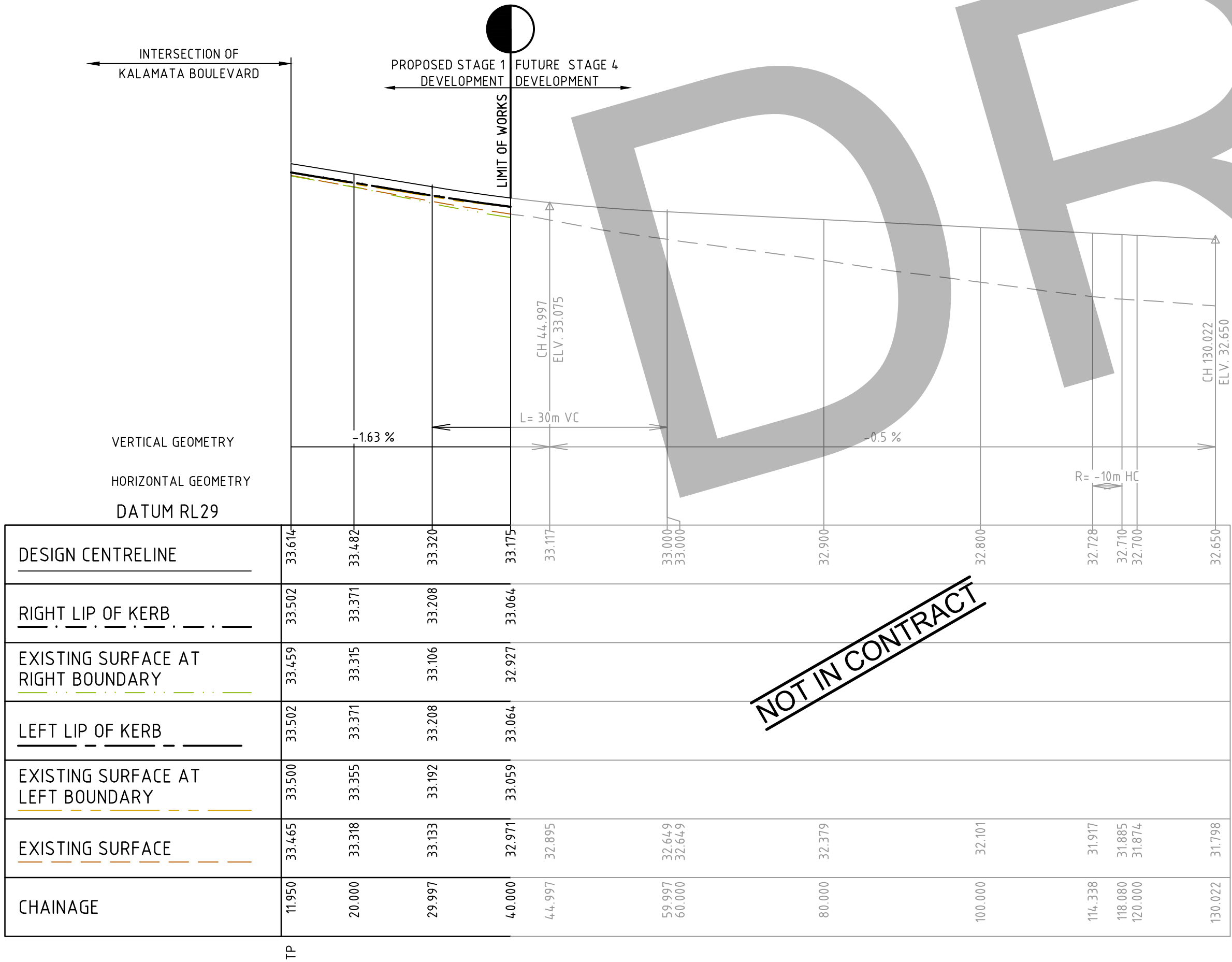
PROJECT	KALA ESTATE - STAGE 01		
TITLE	ROAD LONGITUDINAL SECTIONS		
MUNICIPALITY	(SHEET 2 OF 3) CARDINIA SHIRE COUNCIL		
APP No.	T220227	DRAWING No.	3086-01-201
			REVISION B

ORIGINAL
SIZE

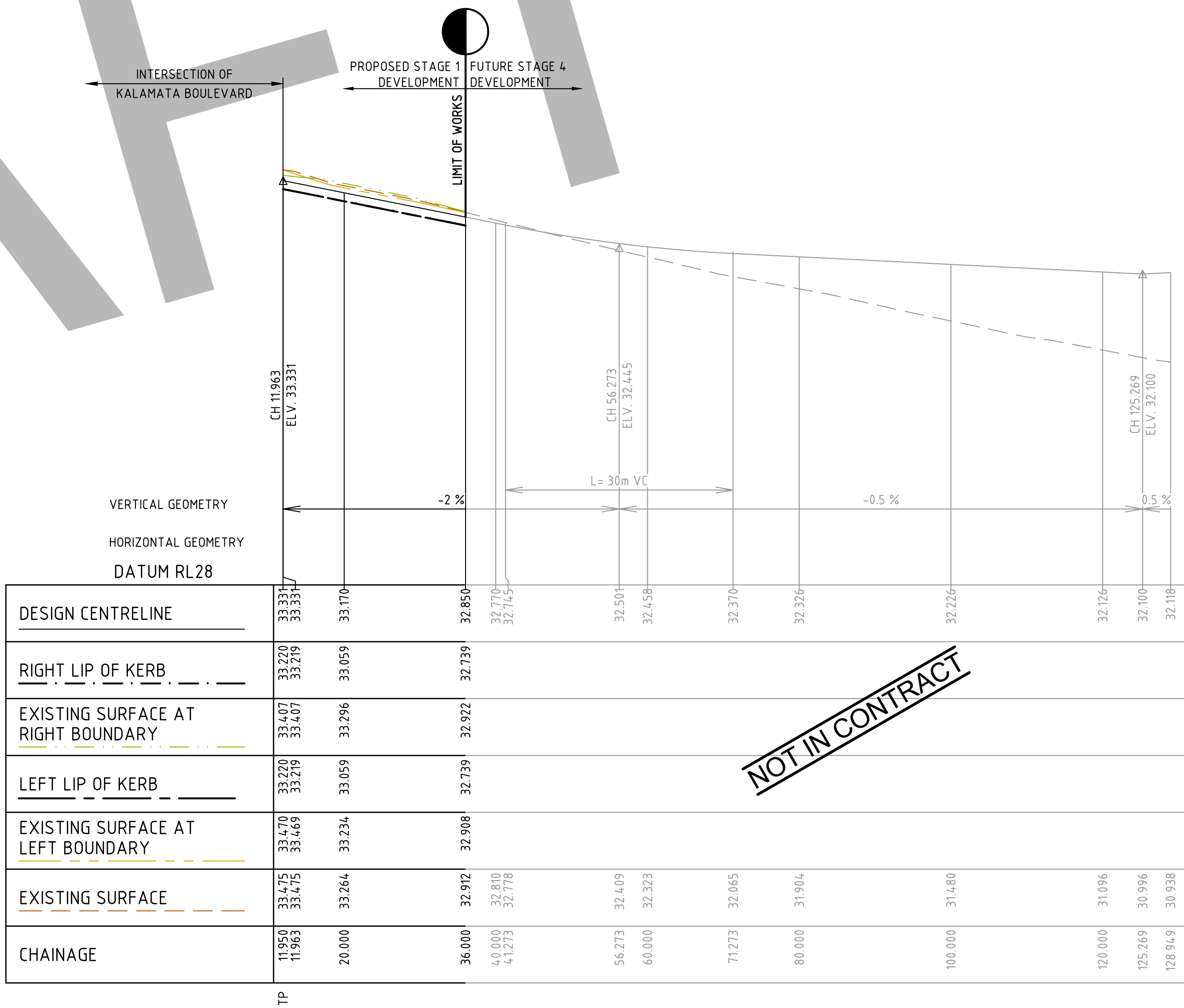
LEGEND	
DESCRIPTION	LINETYPE
EXISTING SURFACE	---
DESIGN LINE	—
FUTURE DESIGN LINE	- - -
EXISTING SURFACE AT RIGHT BOUNDARY	---
RIGHT LIP OF KERB	- . - . -
EXISTING SURFACE AT LEFT BOUNDARY	---
LEFT LIP OF KERB	---



DELPHI ROAD LONGITUDINAL SECTION

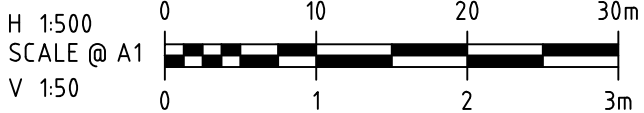


BRANCH ROAD LONGITUDINAL SECTION



OLIVE GROVE LONGITUDINAL SECTION

B	23.01.25	AT	<i>[Signature]</i>	<i>[Signature]</i>	ISSUED FOR COUNCIL SUBMISSION
A	14.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 350 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT	
SIG GROUP	
APPROVED PE 0005927 <i>[Signature]</i>	DESIGNED W. SANSOM
SCALE H 1:500 V 1:50 @ A1	

PROJECT	
KALA ESTATE - STAGE 01	
TITLE	
ROAD LONGITUDINAL SECTIONS (SHEET 3 OF 3)	
MUNICIPALITY	
CARDINIA SHIRE COUNCIL	
PP No.	T220227
DRAWING No.	3086-01-202
REVISION	B

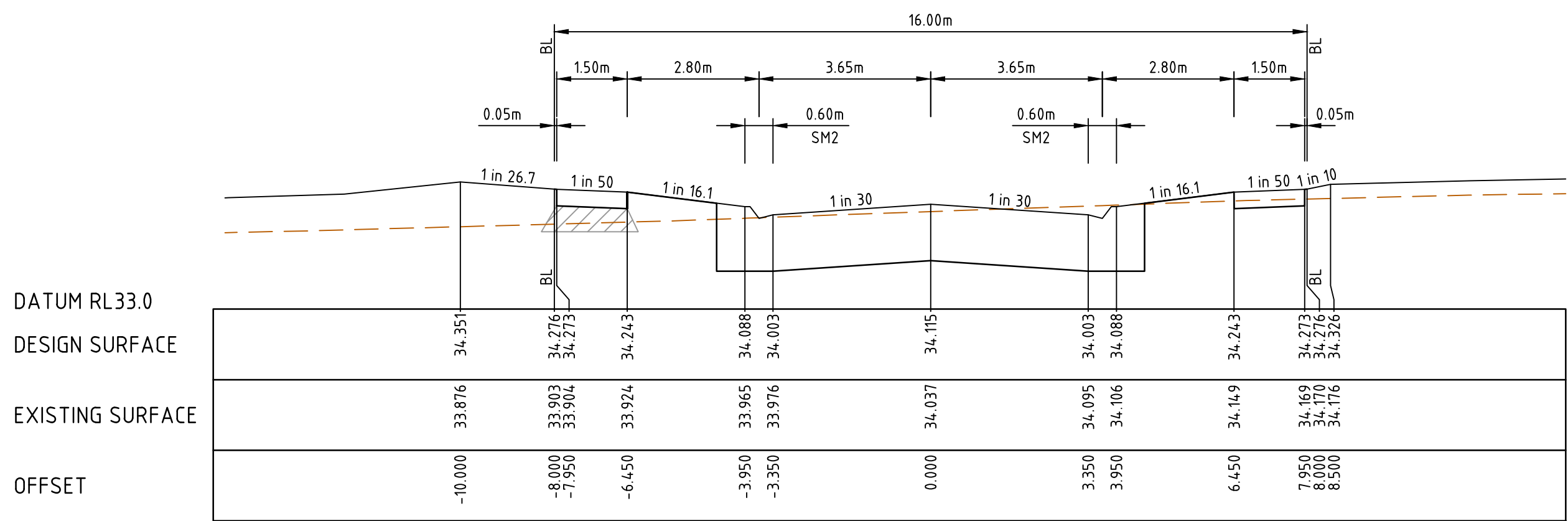
ORIGINAL SIZE
A1

LEGEND

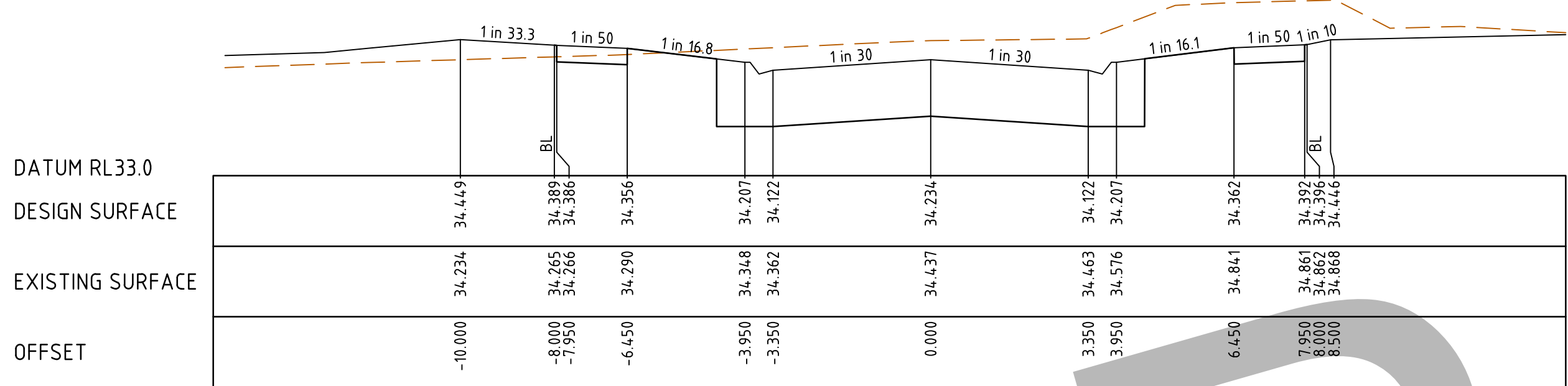
EXISTING SURFACE

DESIGN SURFACE

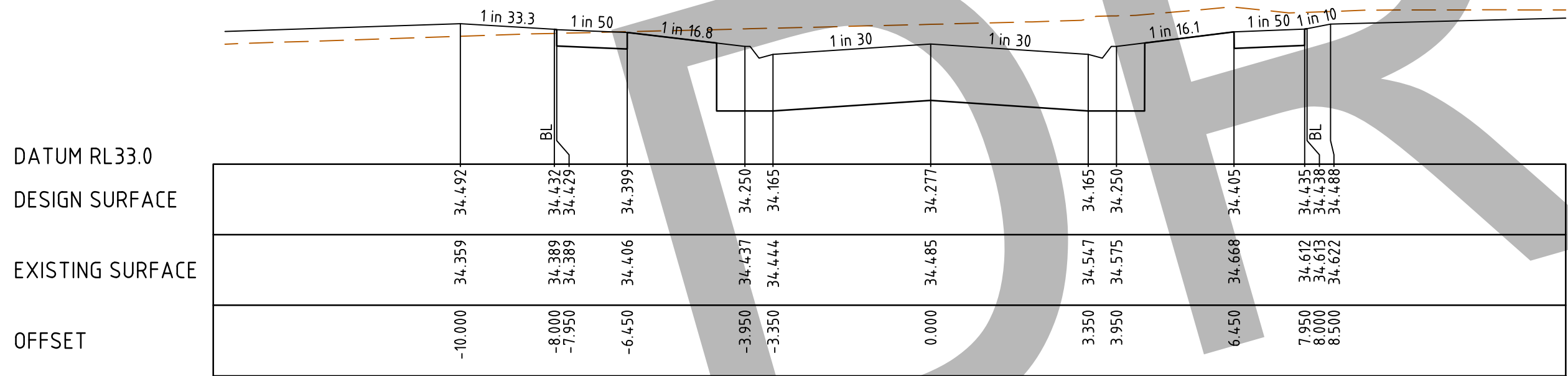
COMPACTED STRUCTURAL FILL
IN ACCORDANCE WITH THE
RELEVANT SPECIFICATION



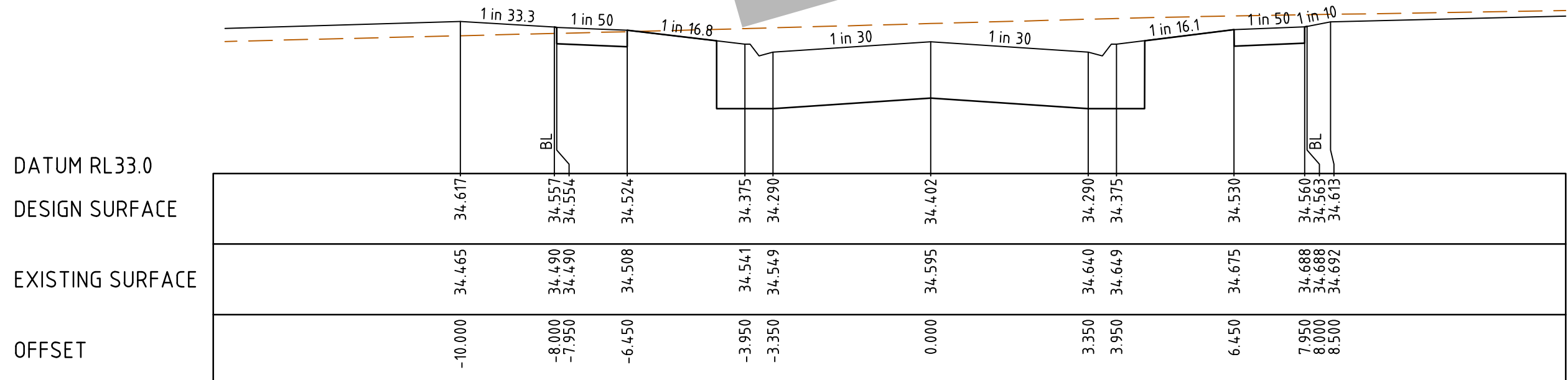
LTPCH 206.158



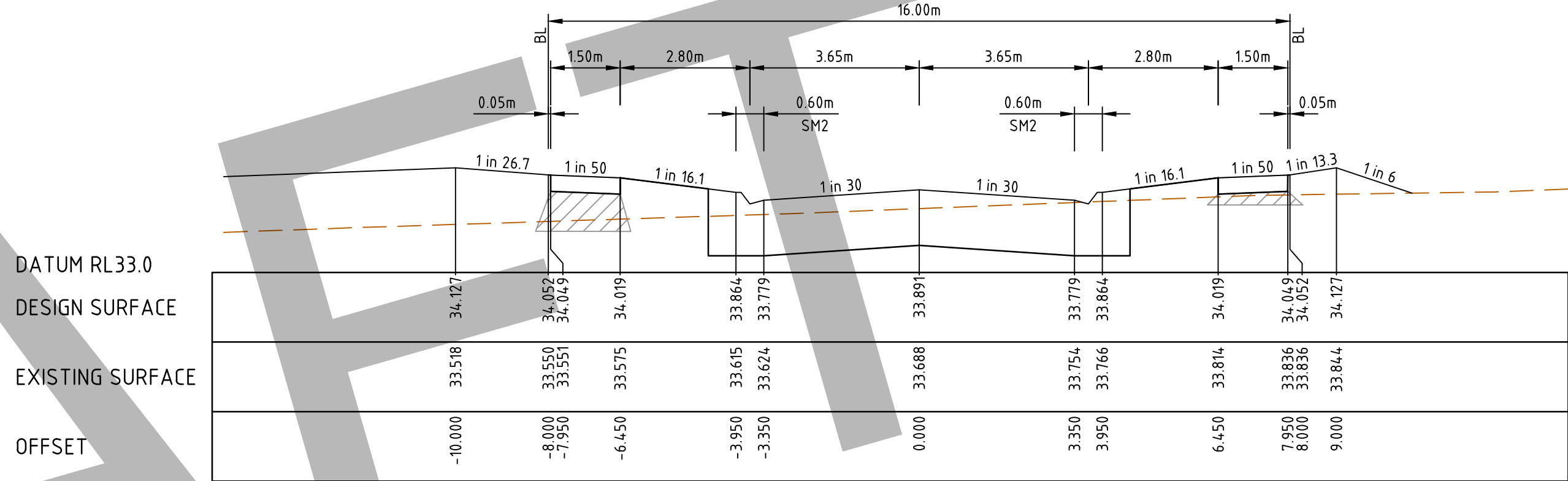
LTPCH 182.258



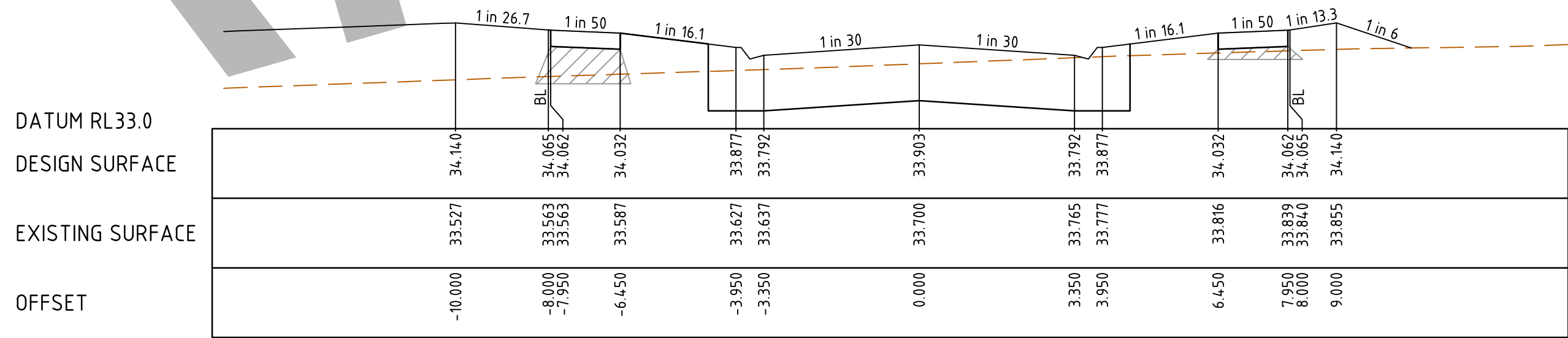
CH 173.708



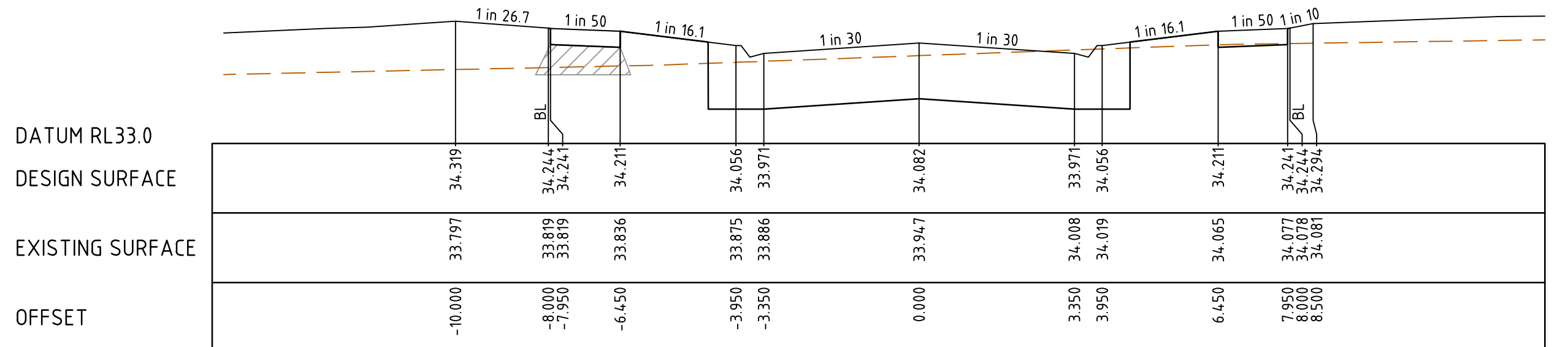
CH 148.708



LOW 237.708



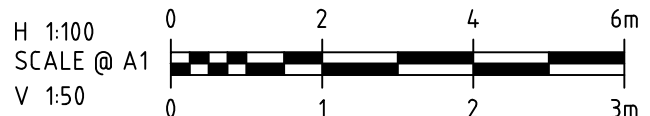
RTPCH 236.485



RTPCH 212.585

TART STREET - ROAD CROSS SECTIONS

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	14.11.24	NT	DW	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	OKD	APP	AMENDMENT



COPYRIGHT

The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

Street Address
Level 20, 350 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT

APPROVED PE 0005927

DESIGNED
W. SANSOM

SCALE
H 1:100 V 1:50 @ A1

PROJECT
KALA ESTATE - STAGE 01

TITLE
ROAD CROSS SECTIONS
(SHEET 2 OF 6)

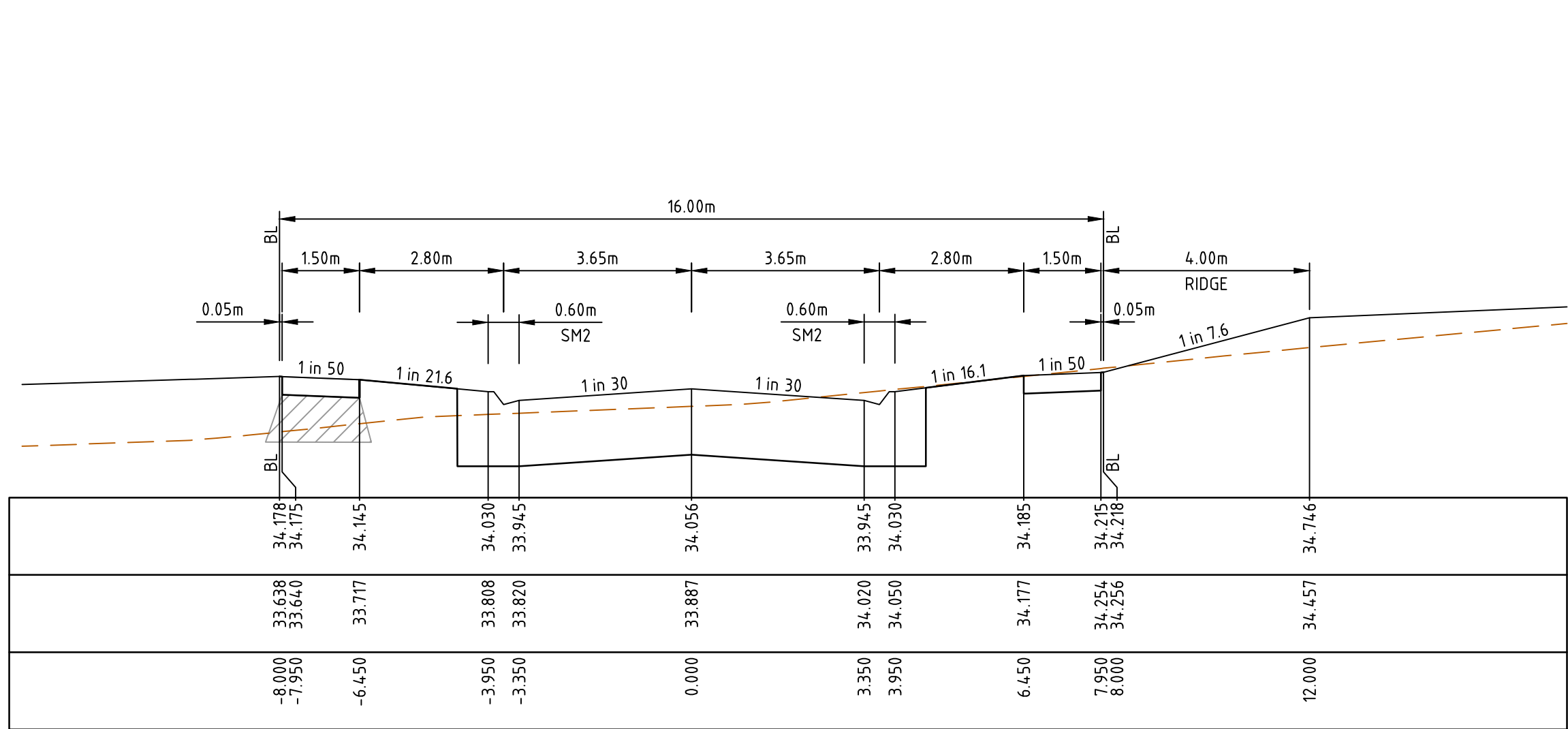
MUNICIPALITY
CARDINIA SHIRE COUNCIL

PP No.
T220227

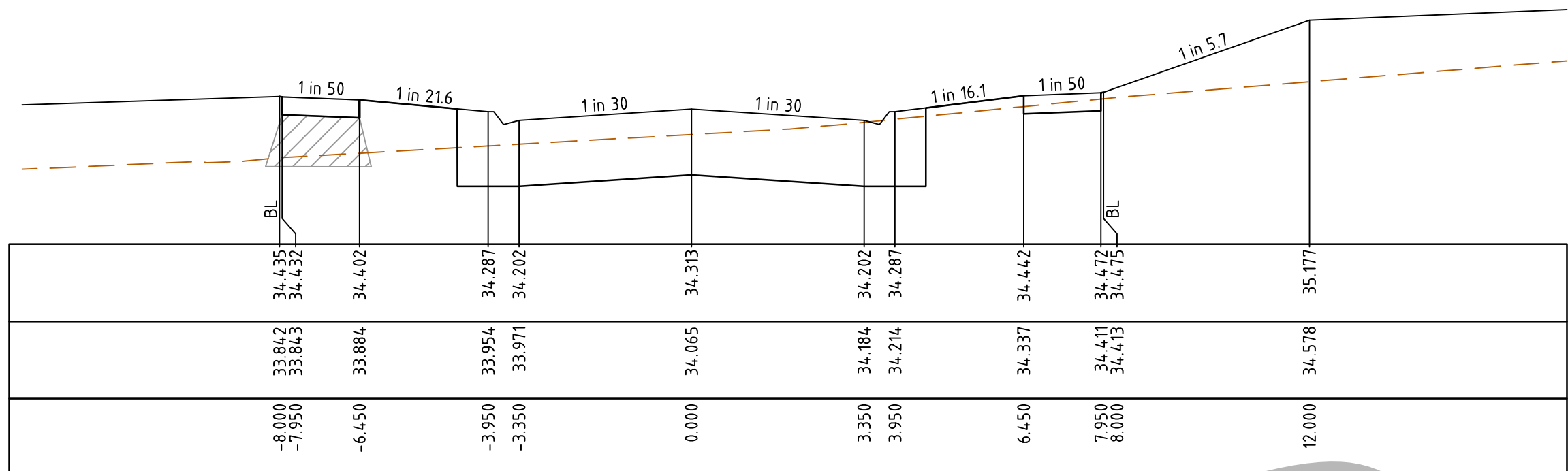
DRAWING No.
3086-01-251

REVISION
B

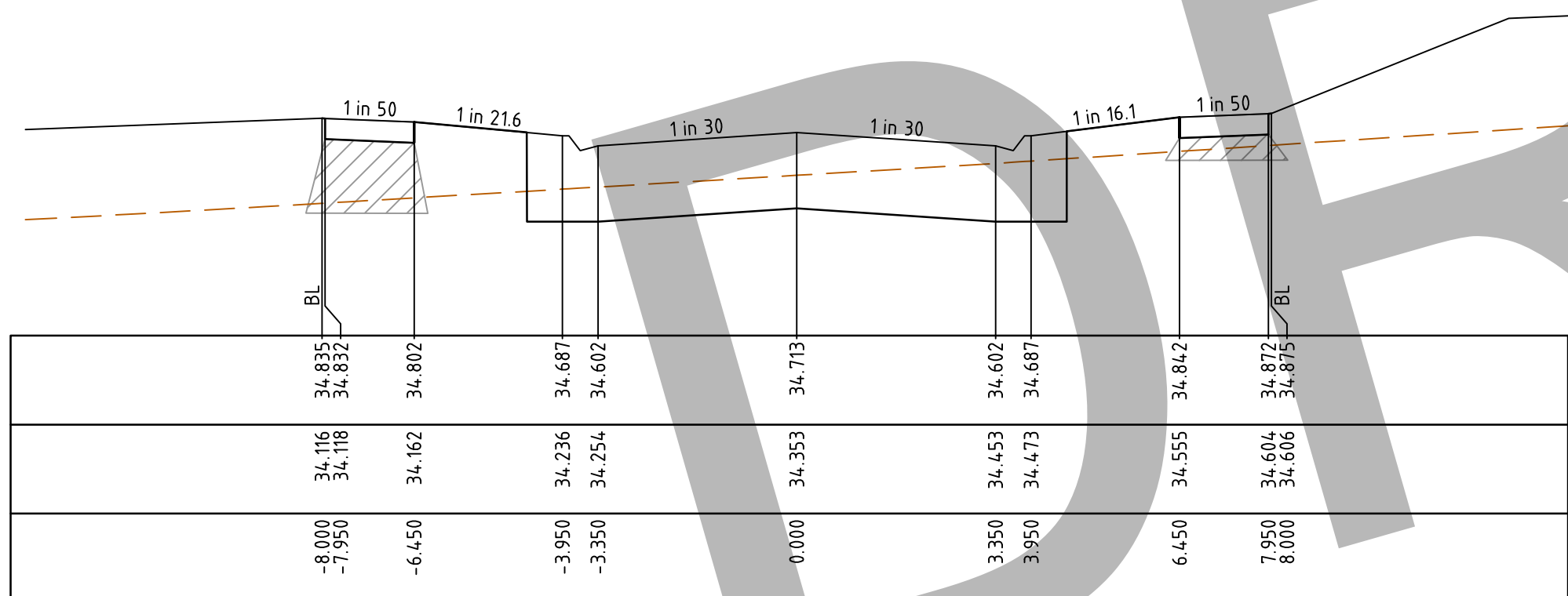
ORIGINAL SIZE
A1



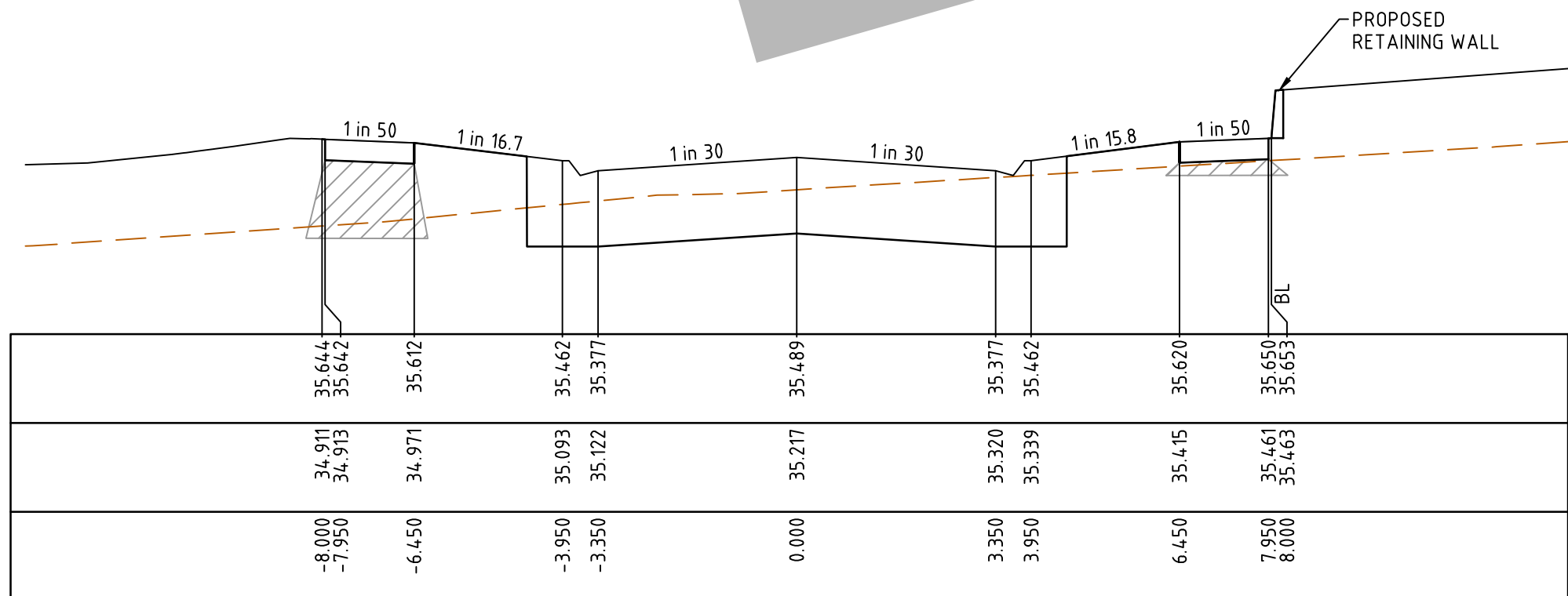
LTPCH 71.515



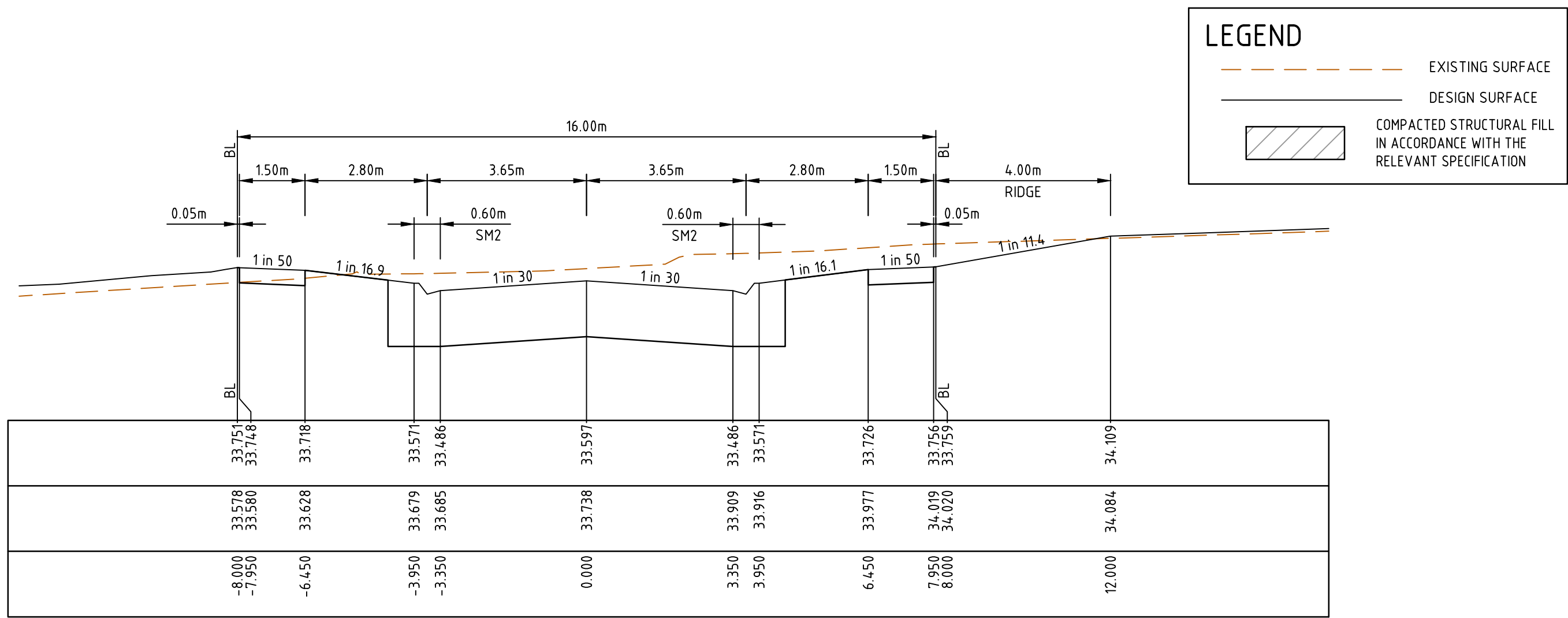
CH 59.465



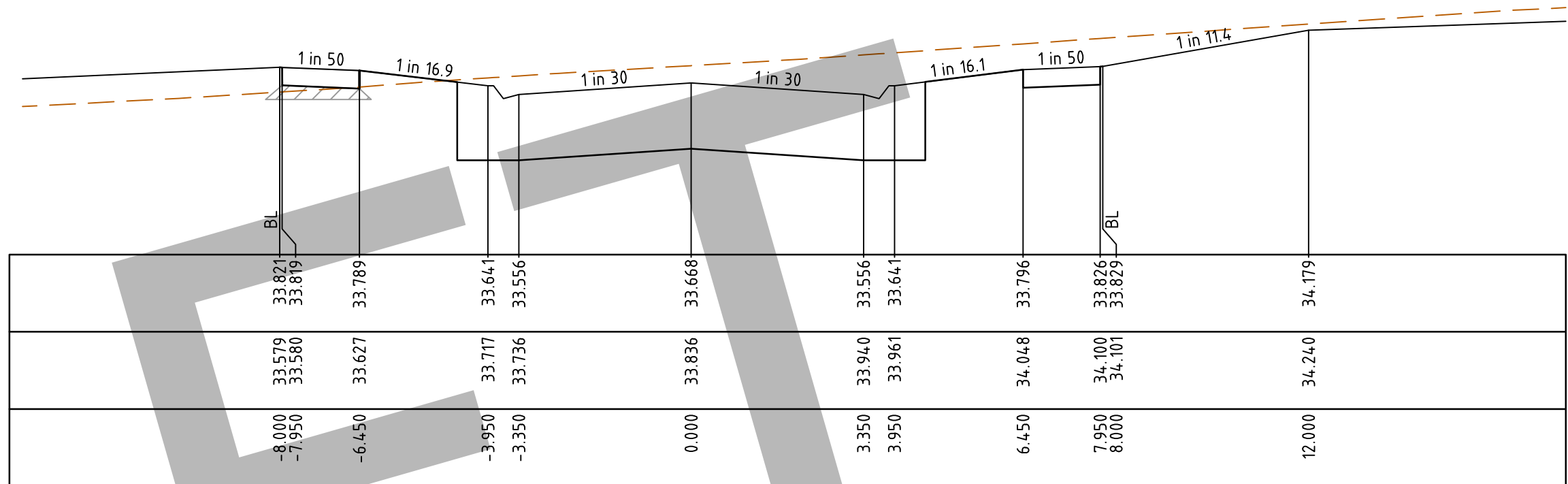
CH 43.465



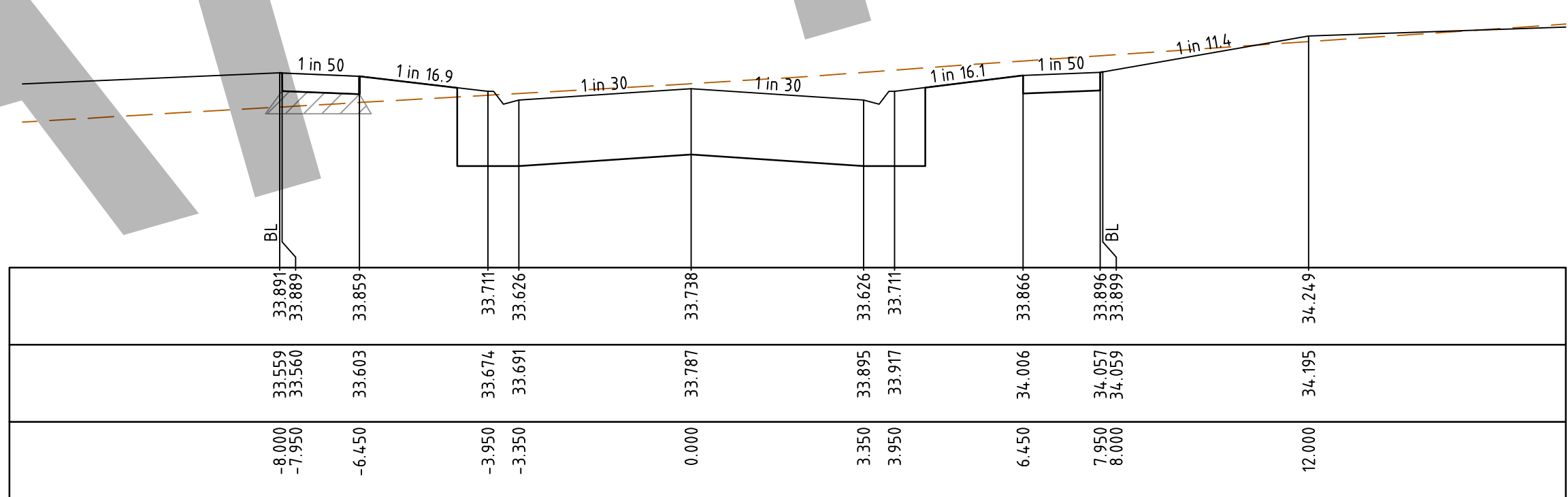
TPCH 12.451



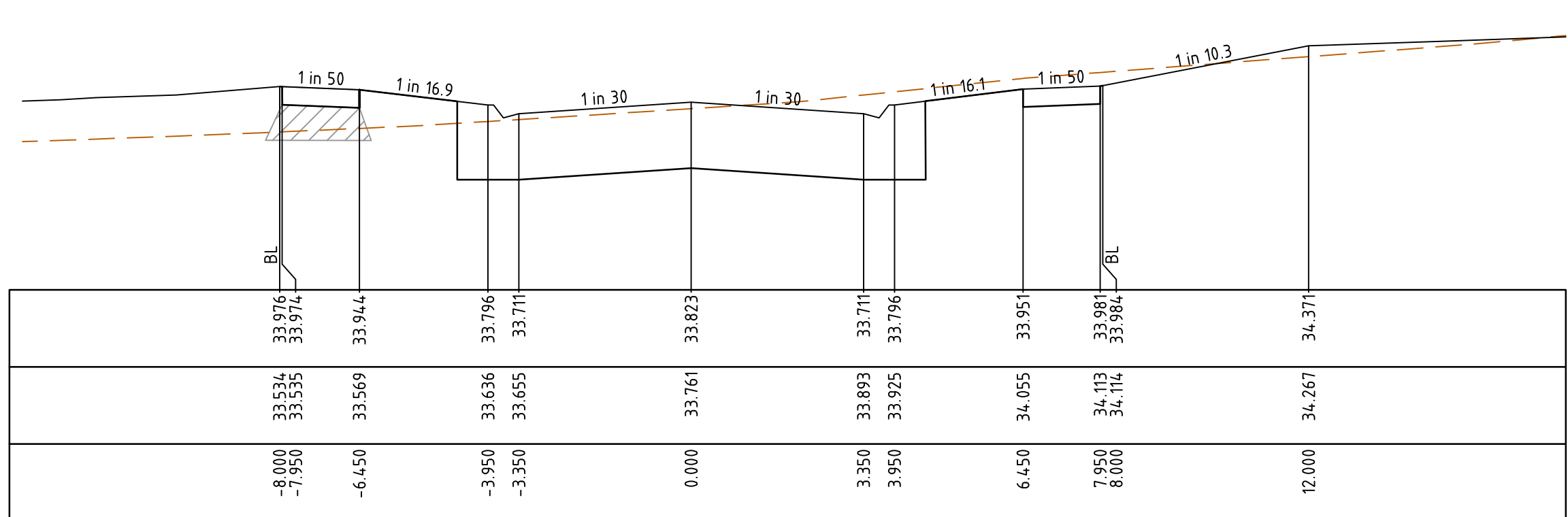
LTPCH 140.515



CH 126.465



CH 112.465

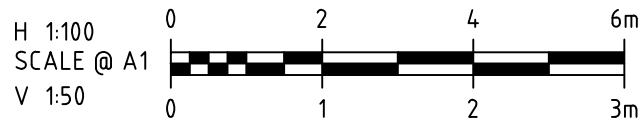


LTPCH 95.415

KALAMATA BOULEVARD - ROAD CROSS SECTIONS

C:\Users\alex\Documents\3086-01-250\3086-01-250.dwg 1/20/2025 3:55 PM ALEX TROMBETTA

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	14.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 350 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT
SIG GROUP

APPROVED PE 0005927

DESIGNED
W. SANSOM
SCALE
H 1:100 V 1:50 @ A1

PROJECT
KALA ESTATE - STAGE 01

TITLE
ROAD CROSS SECTIONS
(SHEET 3 OF 6)
CARDINIA SHIRE COUNCIL

MUNICIPALITY
T220227

DRAWING No.
3086-01-252

REVISION
B

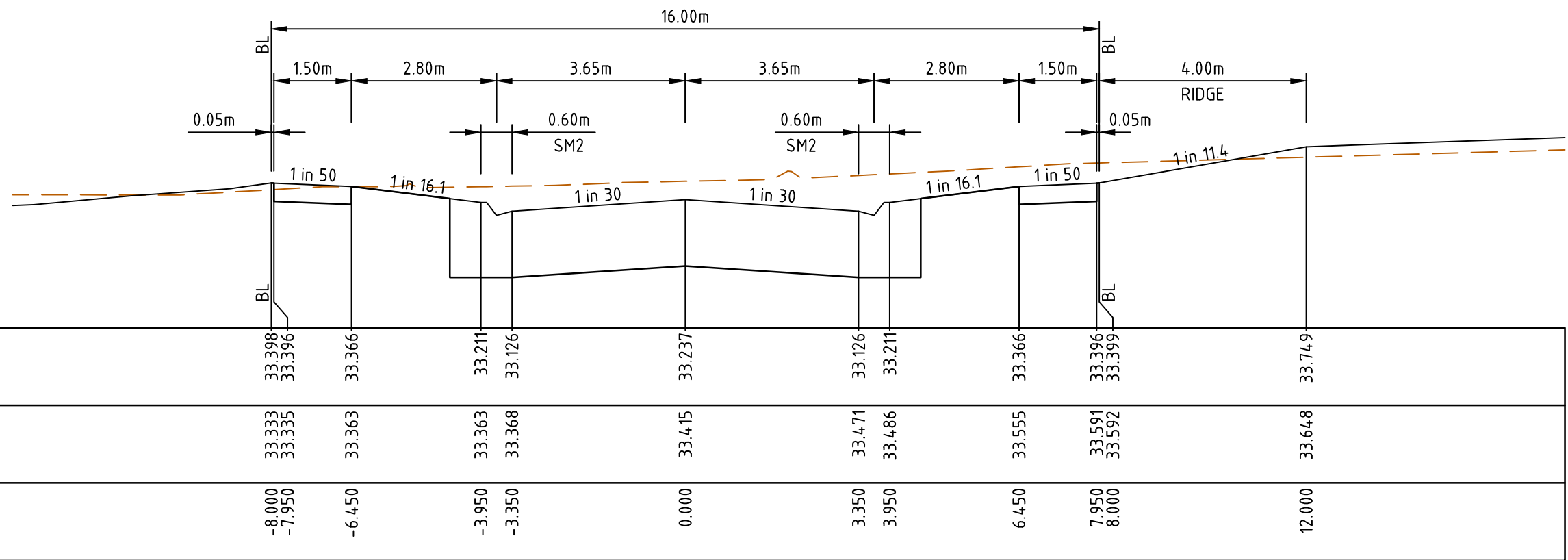
ORIGINAL SIZE
A1

LEGEND

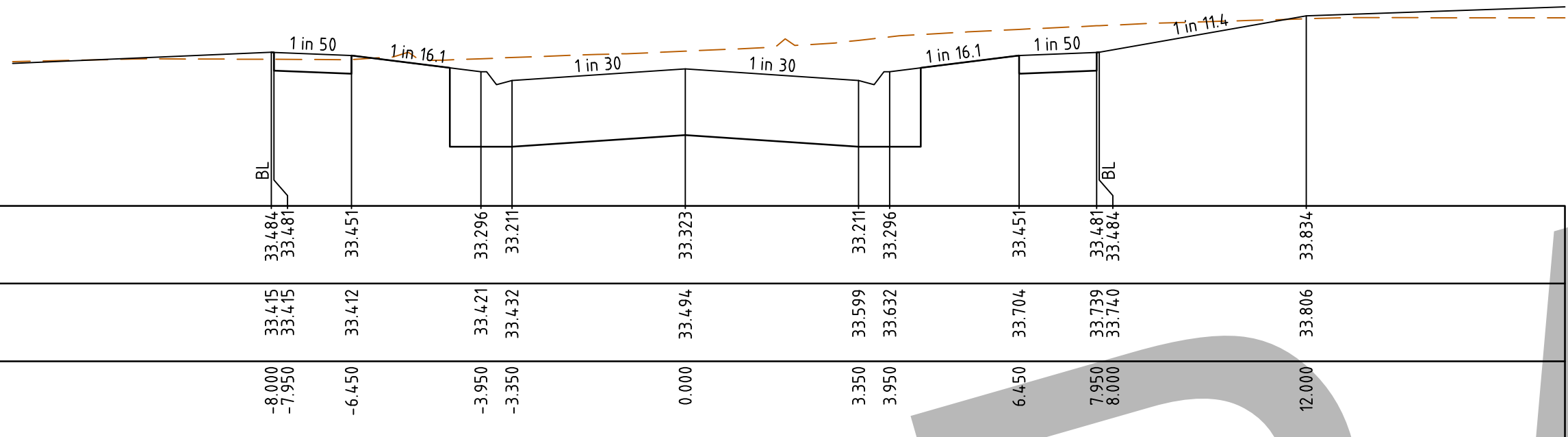
EXISTING SURFACE

DESIGN SURFACE

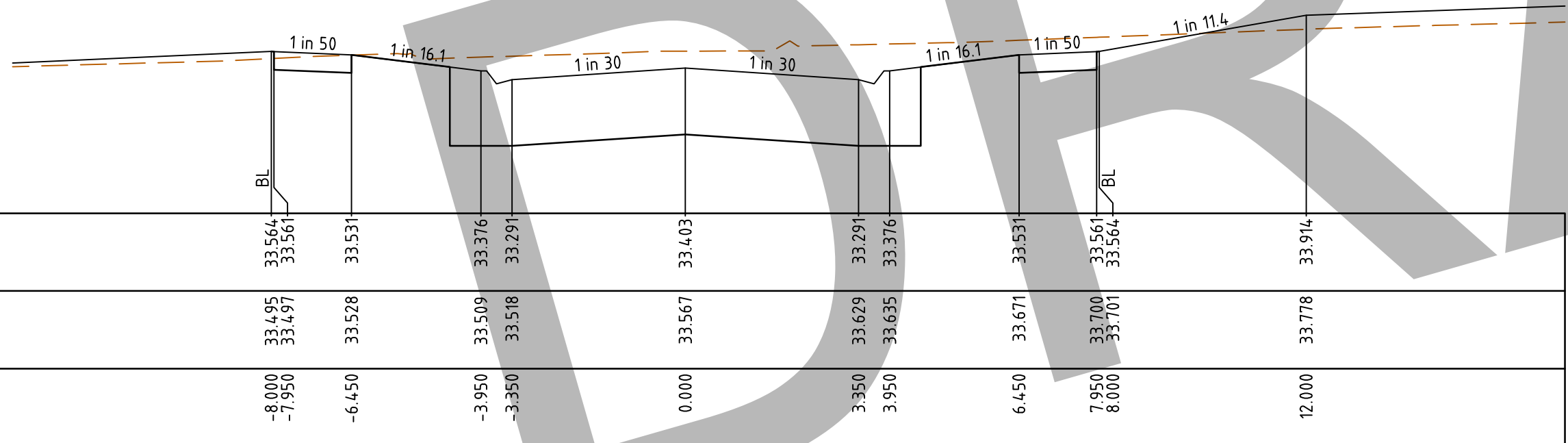
COMPACTED STRUCTURAL FILL
IN ACCORDANCE WITH THE
RELEVANT SPECIFICATION



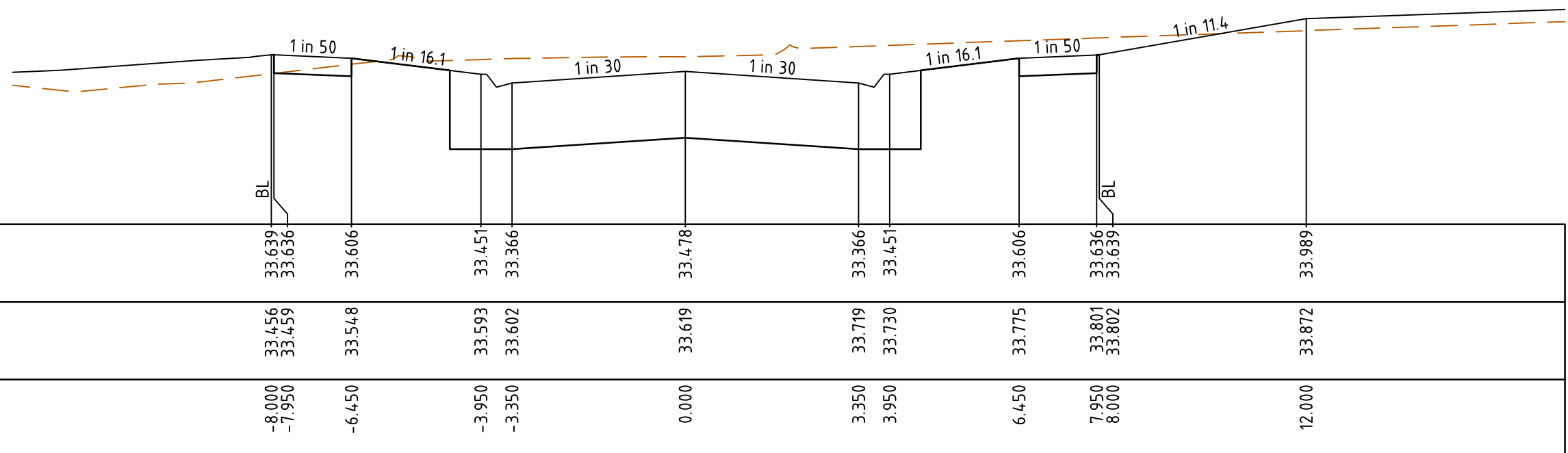
LTPCH 212.515



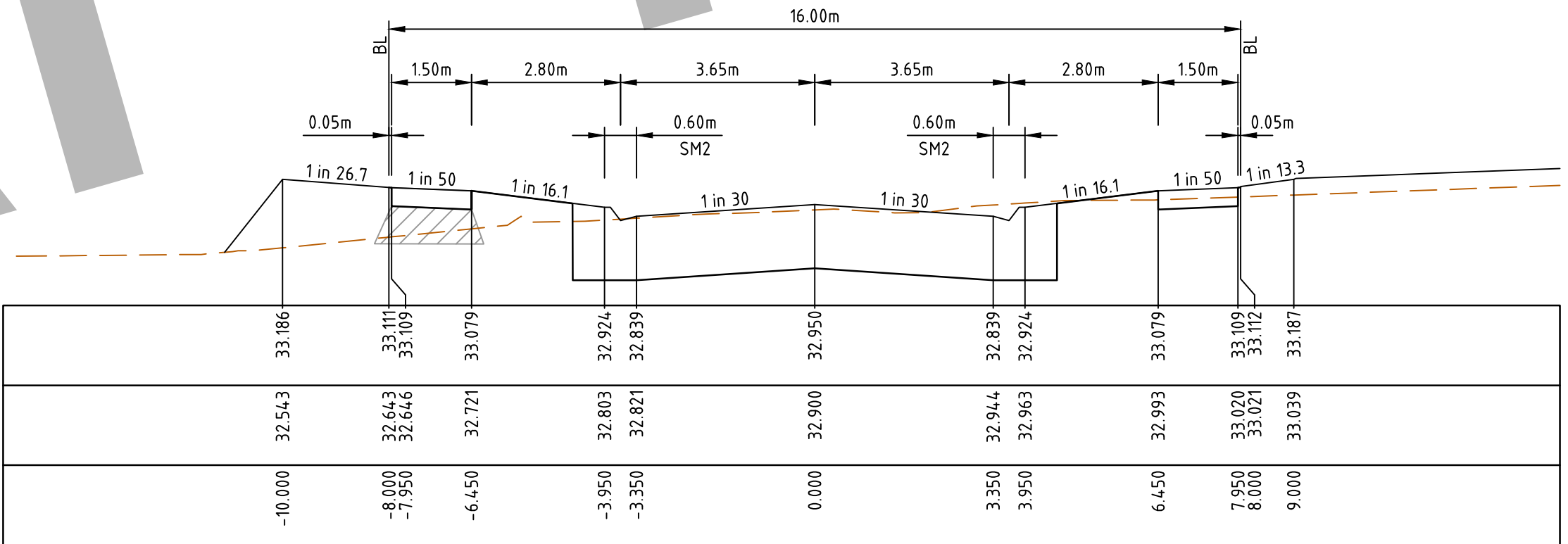
CH 195.465



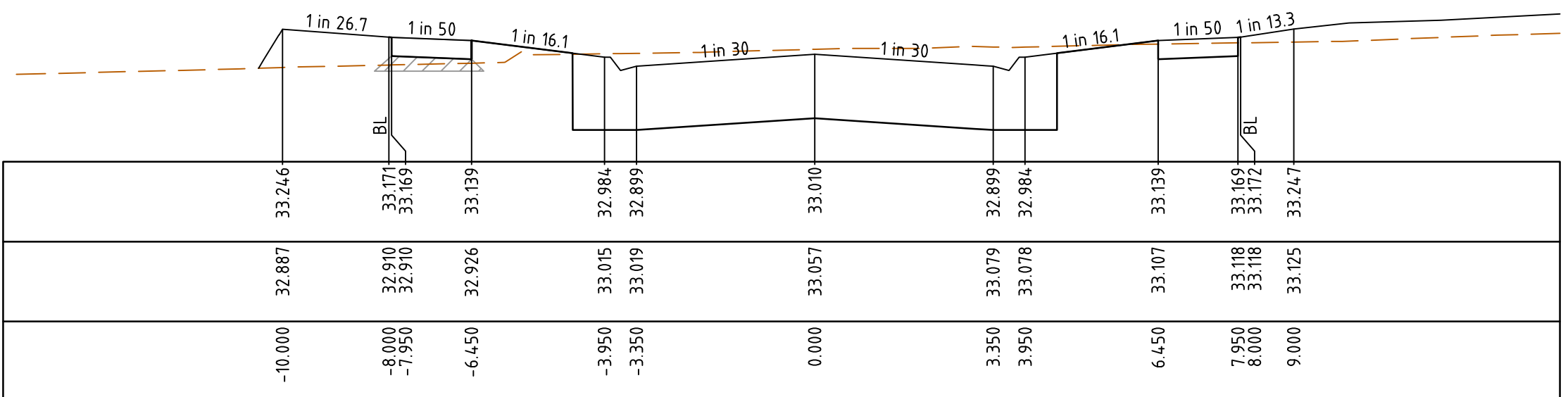
CH 179.465



LTPCH 164.415



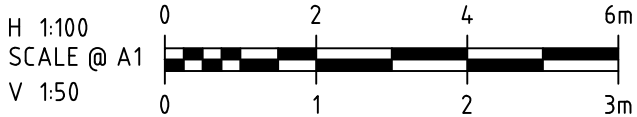
LOW 269.965



RTPCH 257.915

KALAMATA BOULEVARD – ROAD CROSS SECTIONS

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	14.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

Street Address
Level 20, 350 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT	
APPROVED PE 0005927	DESIGNED W. SANSOM
SCALE H 1:100 V 1:50 @ A1	PP No. T220227

PROJECT	KALA ESTATE - STAGE 01
TITLE	ROAD CROSS SECTIONS (SHEET 4 OF 6)
MUNICIPALITY	CARDINIA SHIRE COUNCIL
DRAWING No.	3086-01-253
REVISION	B

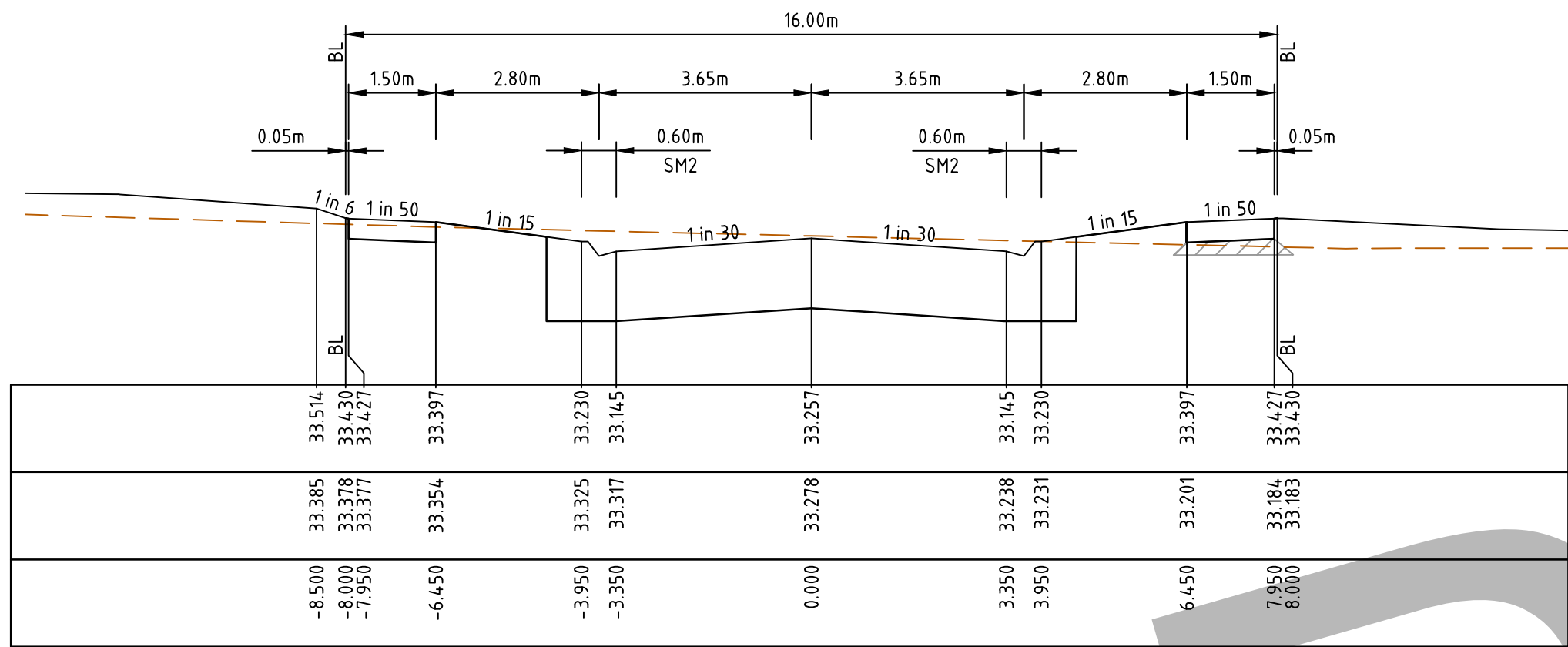
ORIGINAL SIZE A1

LEGEND

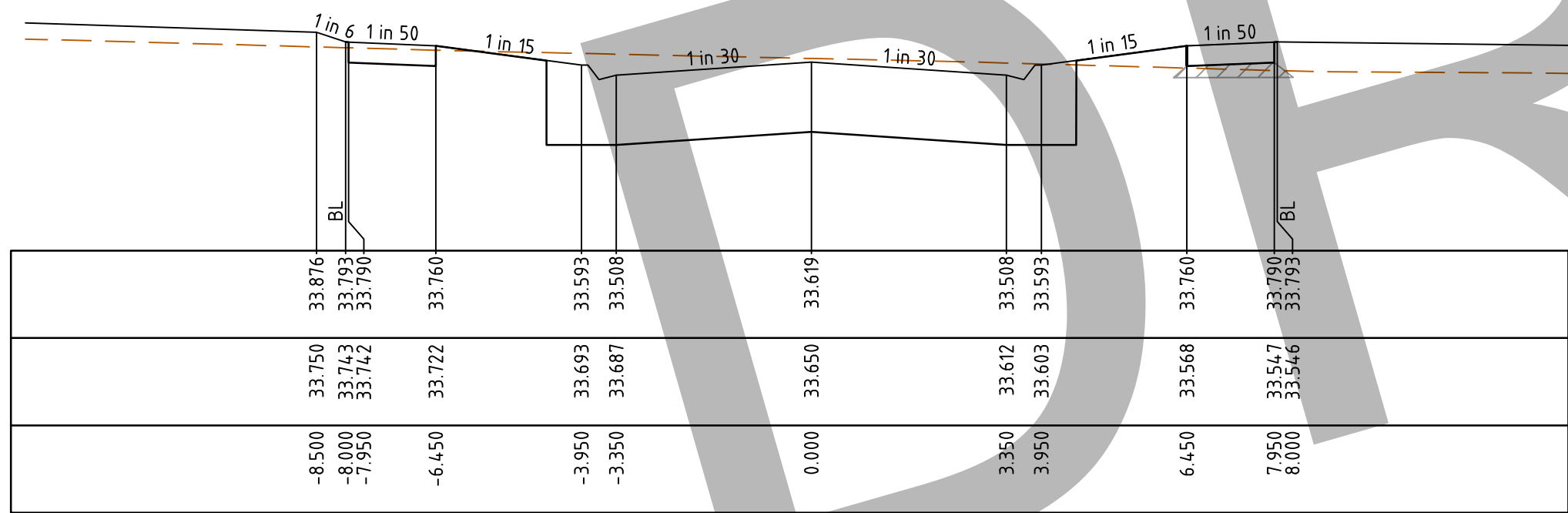
EXISTING SURFACE

DESIGN SURFACE

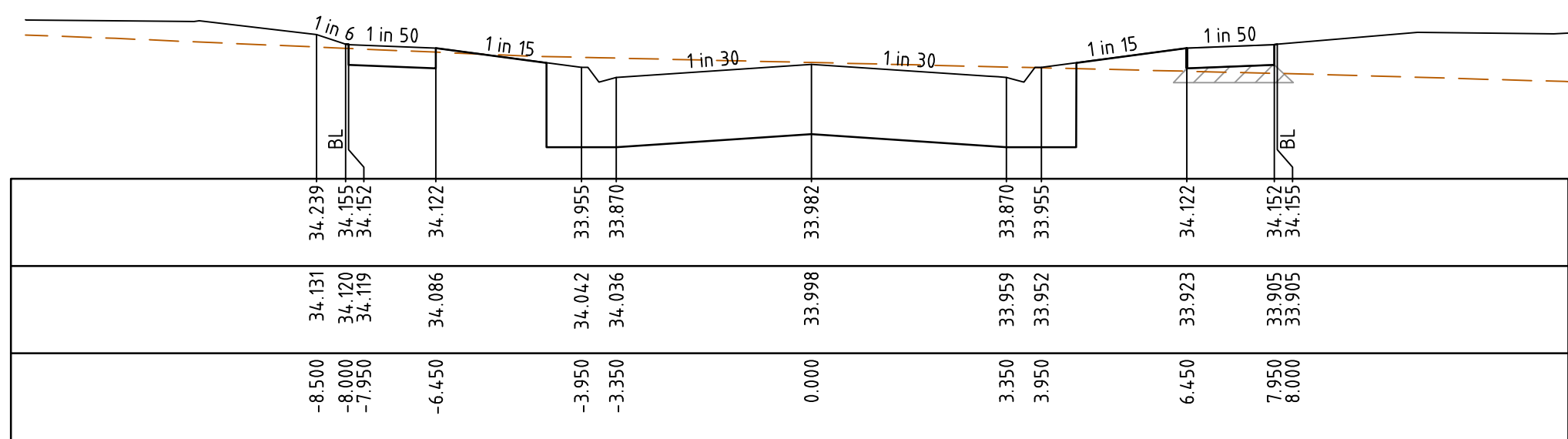
COMPACTED STRUCTURAL FILL
IN ACCORDANCE WITH THE
RELEVANT SPECIFICATION



TPCH 60.050

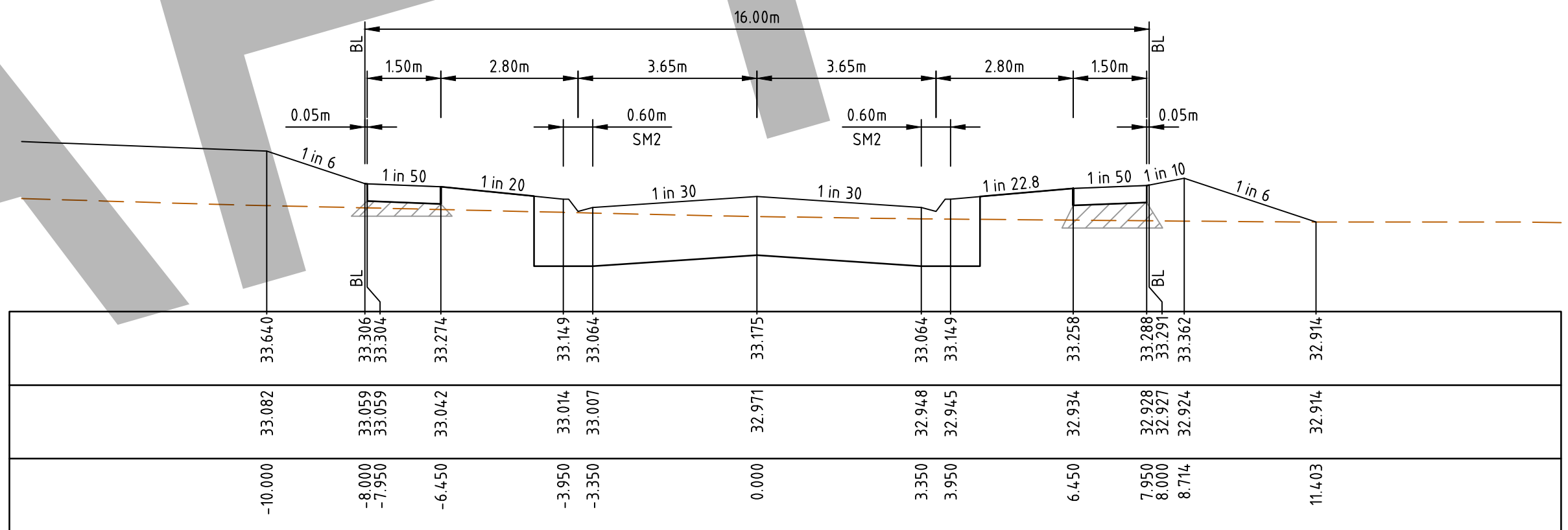


CH 36.000

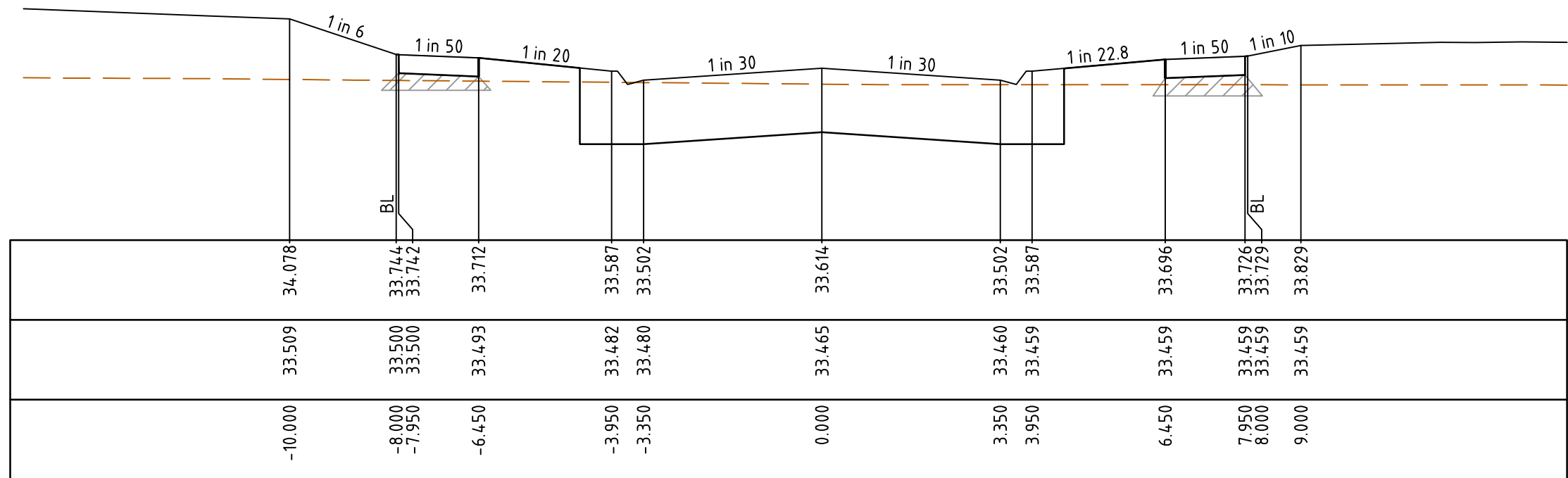


TPCH 11.950

LESTRA WAY - ROAD CROSS SECTIONS



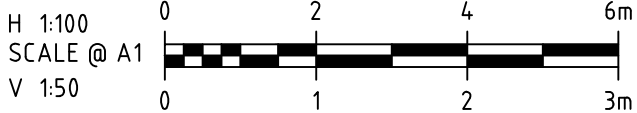
LOW 40.000



CH 11.950

BRANCH ROAD - ROAD CROSS SECTIONS

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	14.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

Street Address
Level 20, 350 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT

APPROVED PE 0005927

DESIGNED
W. SANSOM
SCALE
H 1:100 V 1:50 @ A1

PROJECT
KALA ESTATE - STAGE 01

TITLE
ROAD CROSS SECTIONS
(SHEET 5 OF 6)

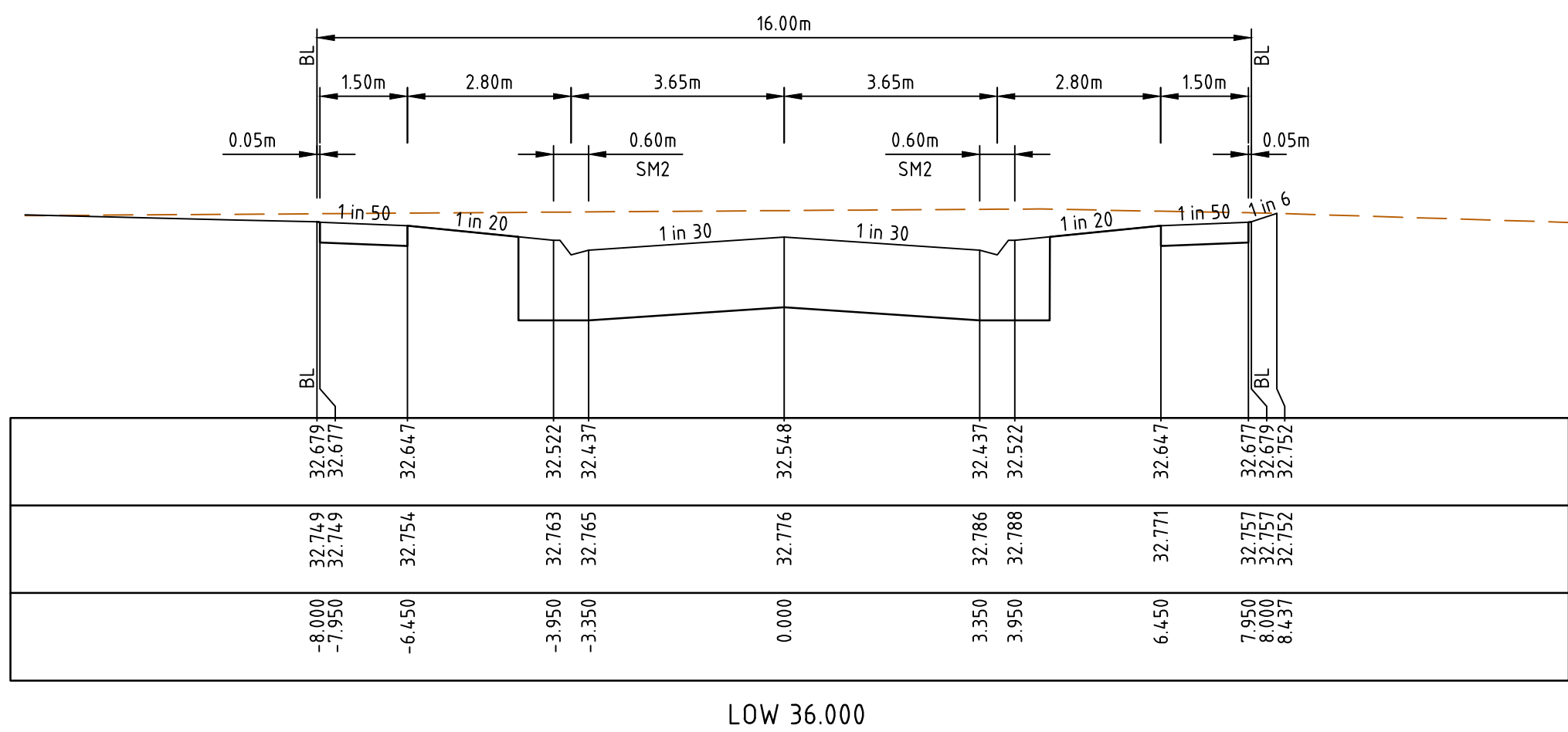
MUNICIPALITY
CARDINIA SHIRE COUNCIL

PP No.
T220227

DRAWING No.
3086-01-254

REVISION
B

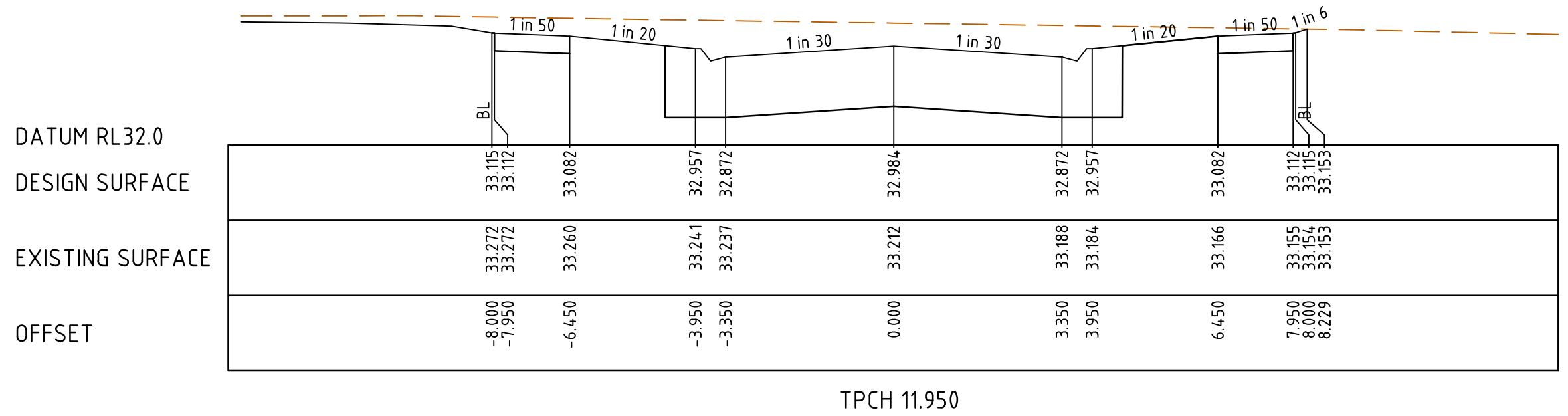
ORIGINAL SIZE
A1



LEGEND	
	EXISTING SURFACE
	DESIGN SURFACE
	COMPACTED STRUCTURAL FILL IN ACCORDANCE WITH THE RELEVANT SPECIFICATION

DATUM RL31.0	
DESIGN SURFACE	32.679 32.677 32.647 32.522 32.437 32.548 32.437 32.522 32.647 32.677 32.679
EXISTING SURFACE	32.719 32.719 32.754 32.763 32.765 32.776 32.786 32.788 32.771 32.757 32.752
OFFSET	-8.000 -7.950 -6.450 -3.950 -3.350 0.000 3.350 3.950 6.450 7.950 8.000

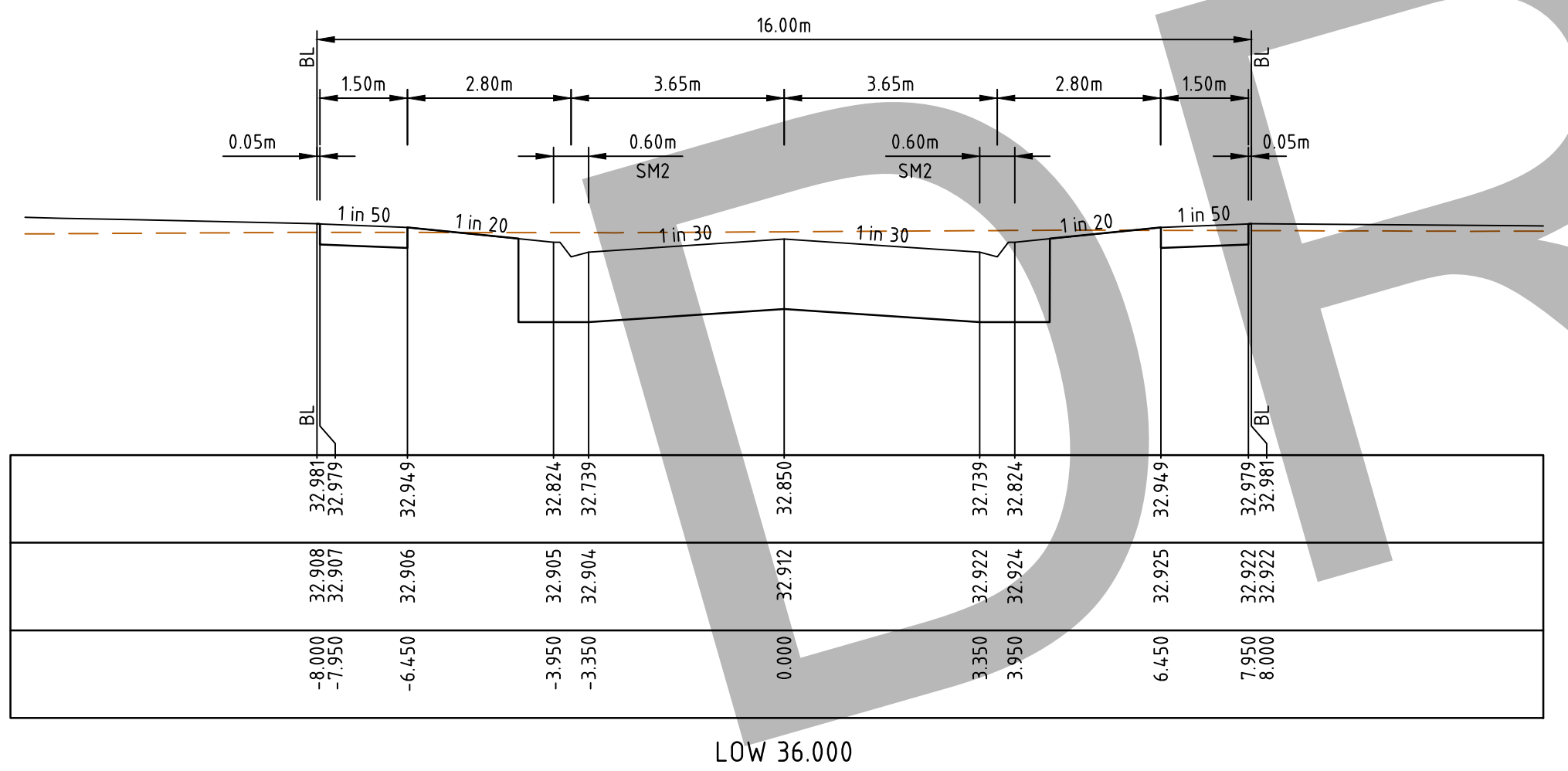
LOW 36.000



DATUM RL32.0	
DESIGN SURFACE	33.115 33.112 33.082 32.957 32.872 32.984 32.872 32.957 33.082 33.112 33.115
EXISTING SURFACE	33.272 33.272 33.260 33.241 33.237 33.212 33.188 33.184 33.166 33.155 33.153
OFFSET	-8.000 -7.950 -6.450 -3.950 -3.350 0.000 3.350 3.950 6.450 7.950 8.000

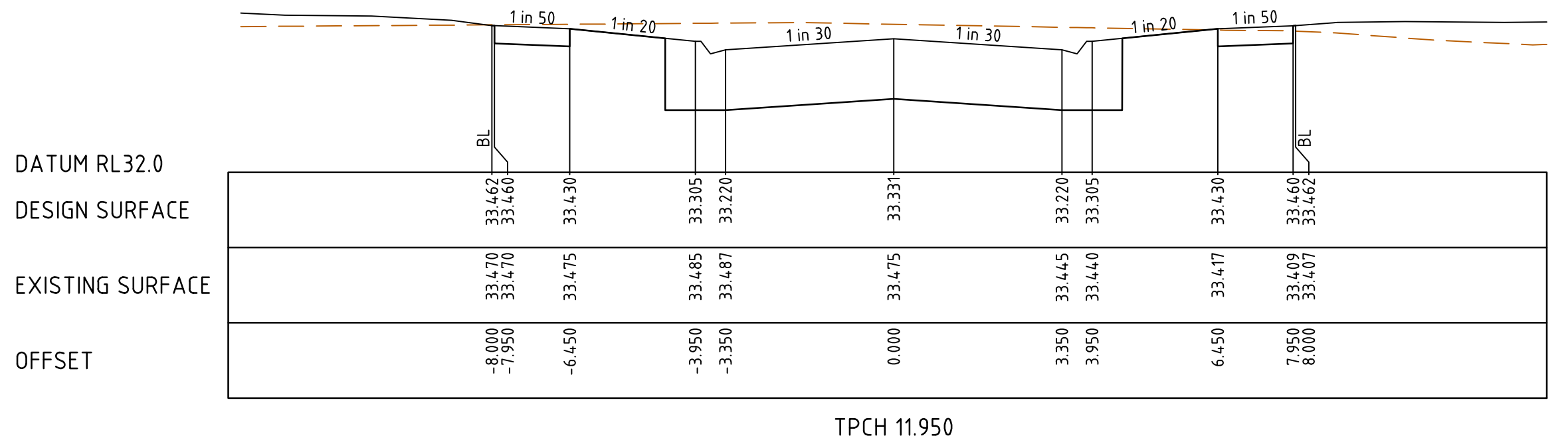
TPCH 11.950

DELPHI ROAD - ROAD CROSS SECTIONS



DATUM RL31.0	
DESIGN SURFACE	32.981 32.979 32.949 32.824 32.739 32.850 32.739 32.824 32.949 32.979 32.981
EXISTING SURFACE	32.908 32.907 32.906 32.905 32.904 32.912 32.922 32.924 32.915 32.922 32.922
OFFSET	-8.000 -7.950 -6.450 -3.950 -3.350 0.000 3.350 3.950 6.450 7.950 8.000

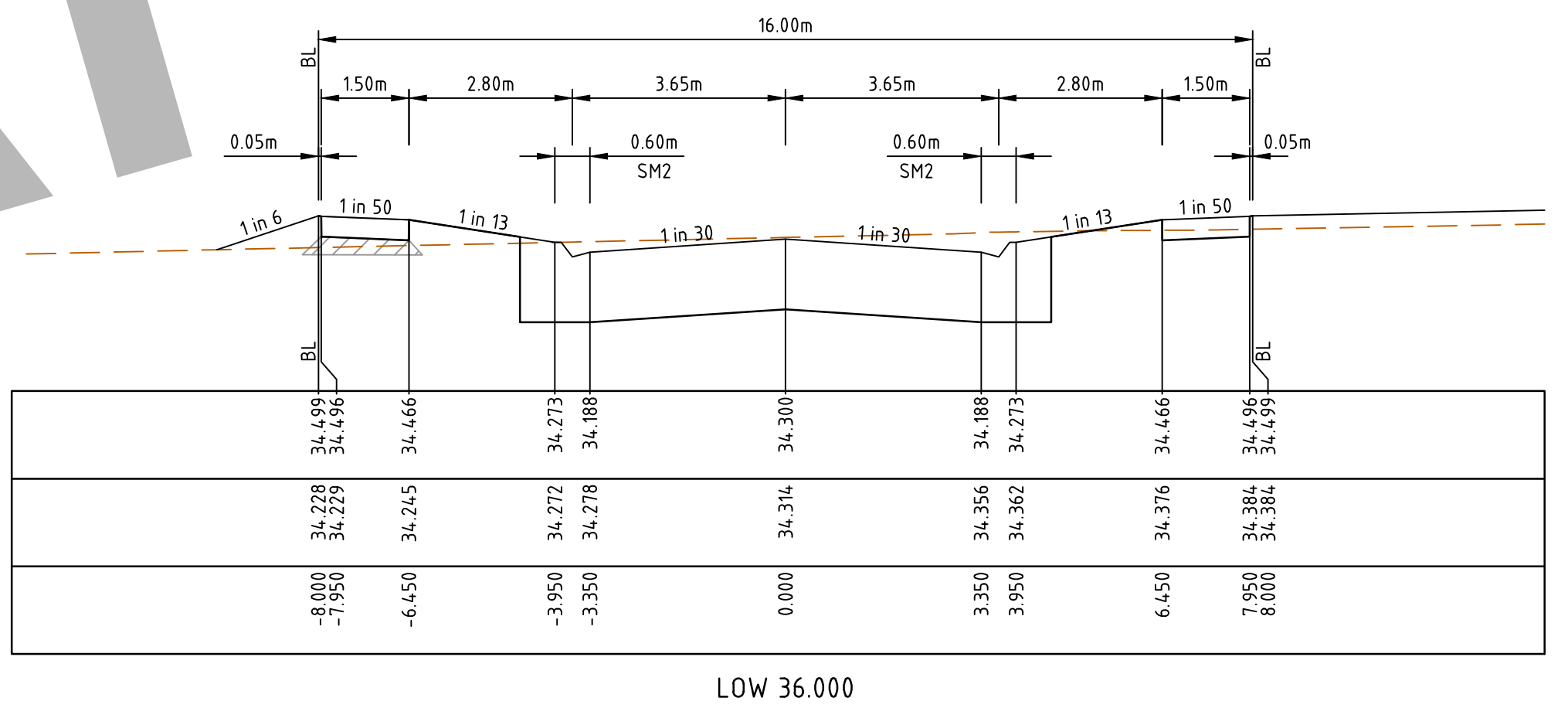
LOW 36.000



DATUM RL32.0	
DESIGN SURFACE	33.462 33.460 33.430 33.305 33.220 33.331 33.220 33.305 33.430 33.460 33.462
EXISTING SURFACE	33.470 33.470 33.475 33.485 33.487 33.475 33.445 33.440 33.417 33.409 33.407
OFFSET	-8.000 -7.950 -6.450 -3.950 -3.350 0.000 3.350 3.950 6.450 7.950 8.000

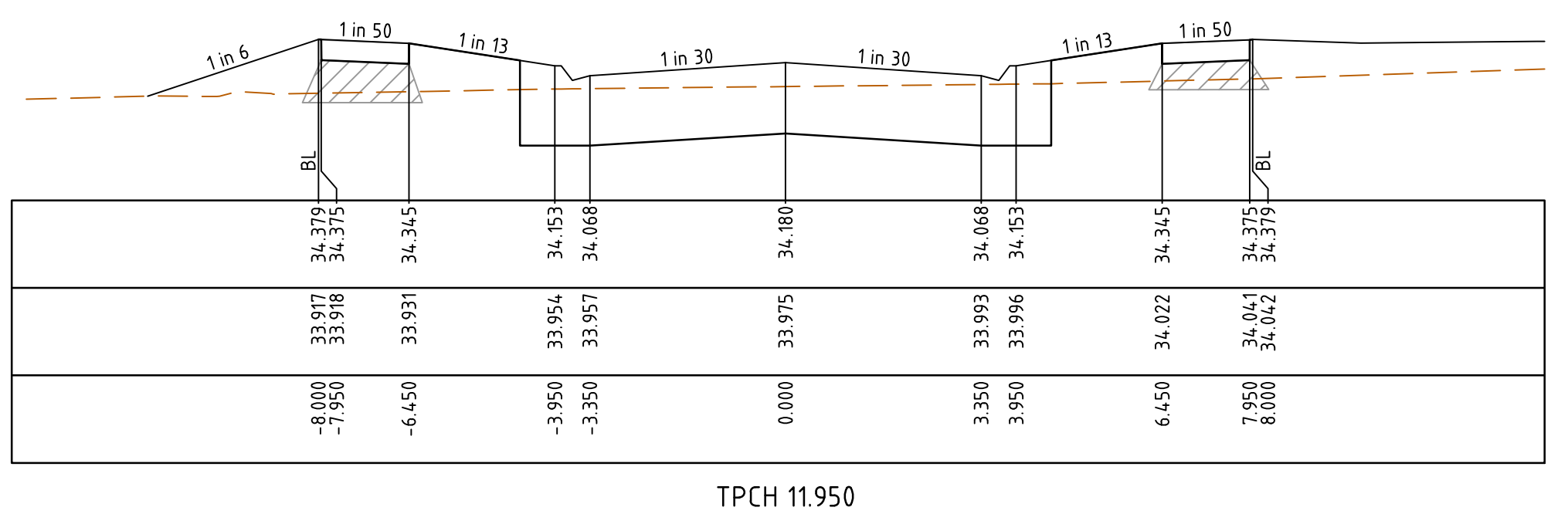
TPCH 11.950

OLIVE GROVE - ROAD CROSS SECTIONS



DATUM RL33.0	
DESIGN SURFACE	34.498 34.496 34.466 34.273 34.188 34.300 34.188 34.273 34.466 34.496 34.498
EXISTING SURFACE	34.228 34.229 34.245 34.273 34.278 34.314 34.356 34.362 34.376 34.384 34.384
OFFSET	-8.000 -7.950 -6.450 -3.950 -3.350 0.000 3.350 3.950 6.450 7.950 8.000

LOW 36.000

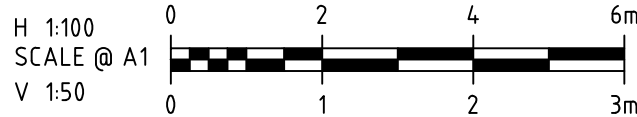


DATUM RL33.0	
DESIGN SURFACE	34.372 34.375 34.345 34.153 34.068 34.180 34.068 34.153 34.345 34.375 34.372
EXISTING SURFACE	33.917 33.918 33.931 33.954 33.957 33.975 33.993 33.996 34.022 34.041 34.042
OFFSET	-8.000 -7.950 -6.450 -3.950 -3.350 0.000 3.350 3.950 6.450 7.950 8.000

TPCH 11.950

OLEA WAY - ROAD CROSS SECTIONS

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	14.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

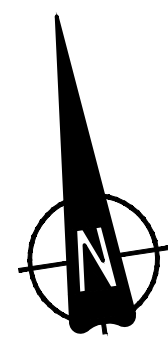
CW Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 350 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

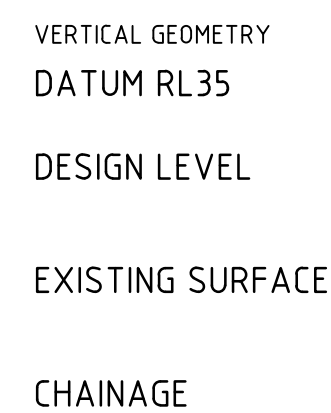
CLIENT	
APPROVED PE 0005927 	DESIGNED W. SANSOM SCALE H 1:100 V 1:50 @ A1

PROJECT	
KALA ESTATE - STAGE 01	
TITLE	
ROAD CROSS SECTIONS (SHEET 6 OF 6) CARDINIA SHIRE COUNCIL	
MUNICIPALITY	PP No.
T220227	DRAWING No.
	3086-01-255
REVISION	B

ORIGINAL SIZE
A1



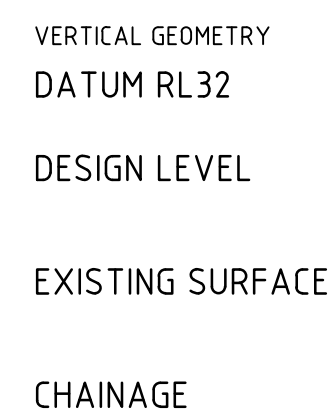
H 1:250
SCALE @ A1

A horizontal graphic scale bar with alternating black and white segments. It is marked with the numbers 0, 5, 10, and 15m.

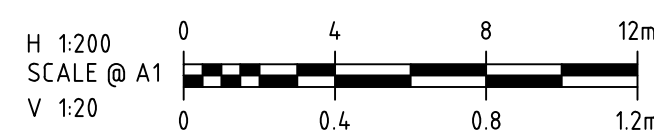
LIP LINE B



LIP LINE D



LIP LINE F



The diagram illustrates a circular arc with the following labeled components:

- A**: The arc length of the curve.
- B**: The chord length, represented by the horizontal line segment connecting the two ends of the arc.
- L**: The height or sagitta, the vertical distance from the chord to the highest point of the arc.
- T.P.**: The tangential point, located at the ends of the arc where the tangent is horizontal.
- CHORD**: The horizontal line segment connecting the two ends of the arc.
- RADIUS**: The distance from the center of the circle (indicated by a dashed line) to the arc.

SETOUT DETAIL
N.T.S.

ALIGNMENT A

Point no	Easting	Northing	RL
A1	372398.049	5785137.115	35.339
A2	372390.845	5785146.915	35.398
A3	372390.203	5785147.013	35.382

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
A1-A2	90.008	8.600	13.510	2.519	1.865	3.291	2.790	3.378	35.440

ALIGNMENT B

Point no	Easting	Northing	RL
B1	372391.168	5785153.340	35.382
B2	372391.813	5785153.241	35.399
B3	372401.612	5785160.445	35.931

Curve no	I	Radius	Arc	A	B	X	Y	l	Mid point RL
B2-B3	89.994	8.600	13.508	2.519	1.864	3.291	2.790	3.377	35.651

ALIGNMENT C

Point no	Easting	Northing	RL
C1	372331.792	5785155.774	33.945
C2	372321.993	5785148.569	33.502

Curve no	l	Radius	Arc	A	B	X	Y	l	Mid point RL
C1 - C2	90.000	8.600	13.509	2.519	1.864	3.291	2.790	3.377	33.722

ALIGNMENT D

Point no	Easting	Northing	RL
D1	372315.370	5785149.580	33.502
D2	372308.165	5785159.379	33.711

Curve no	l	Radius	Arc	A	B	X	Y	l	Mid point RL
D1 - D2	90.000	8.600	13.509	2.519	1.864	3.291	2.790	3.377	33.643

ALIGNMENT E

Point no	Easting	Northing	RL
E1	372263.581	5785166.181	33.486
E2	372253.783	5785158.977	33.220

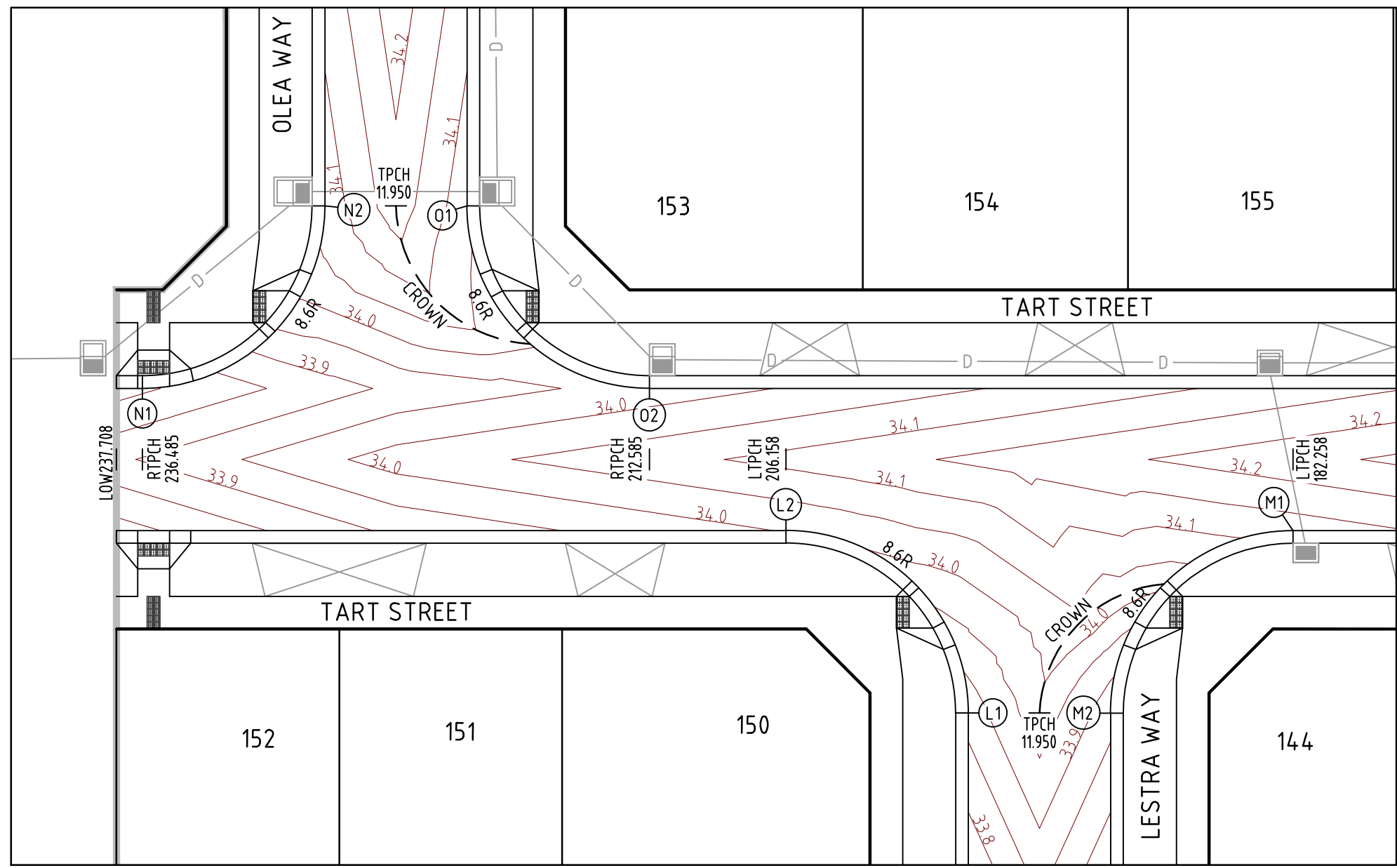
Curve no	l	Radius	Arc	A	B	X	Y	l	Mid point RL
E1 - E	90.000	8.600	13.509	2.519	1.864	3.291	2.790	3.377	33.373

ALIGNMENT F

Point no	Easting	Northing	RL
F1	372247.159	5785159.988	33.220
F2	372239.955	5785169.786	33.366

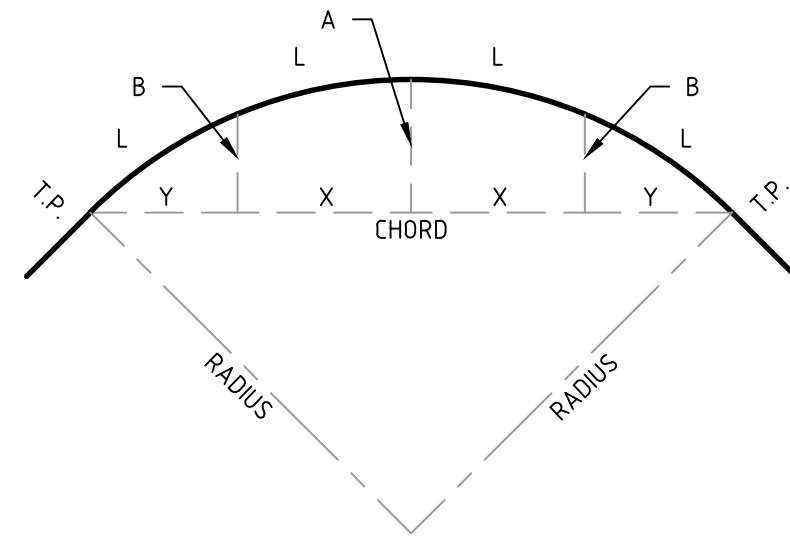
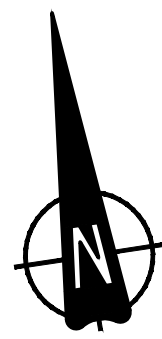
Curve no	l	Radius	Arc	A	B	X	Y	l	Mid point RL
F1 - F2	90.00	8.600	13.509	2.519	1.864	3.291	2.790	3.377	33.330

ORIGINAL
SIZE



INTERSECTION OF TART STREET &
LESTRA WAY / OLEA WAY

H: 1:250
SCALE @ A1

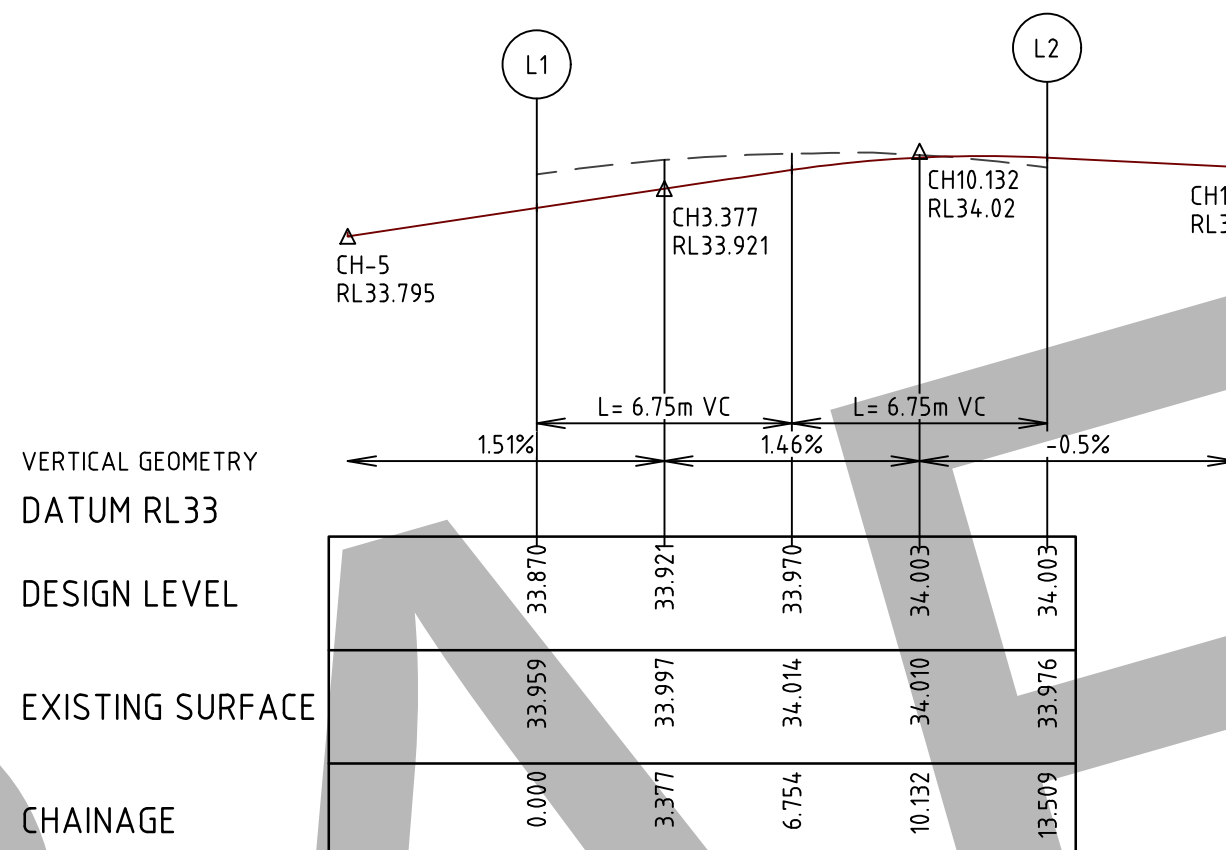


SETOUT DETAIL

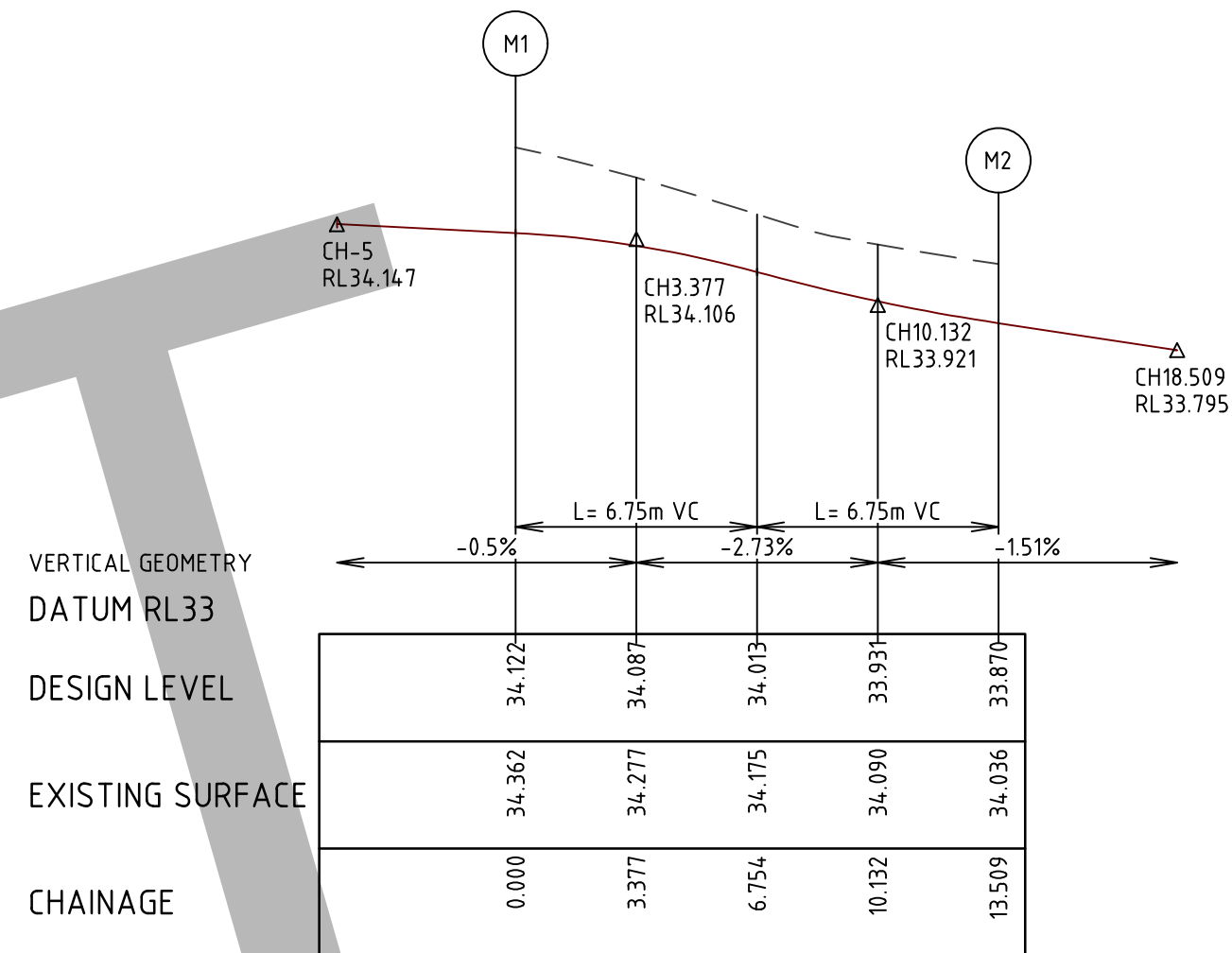
N.T.S.

LEGEND

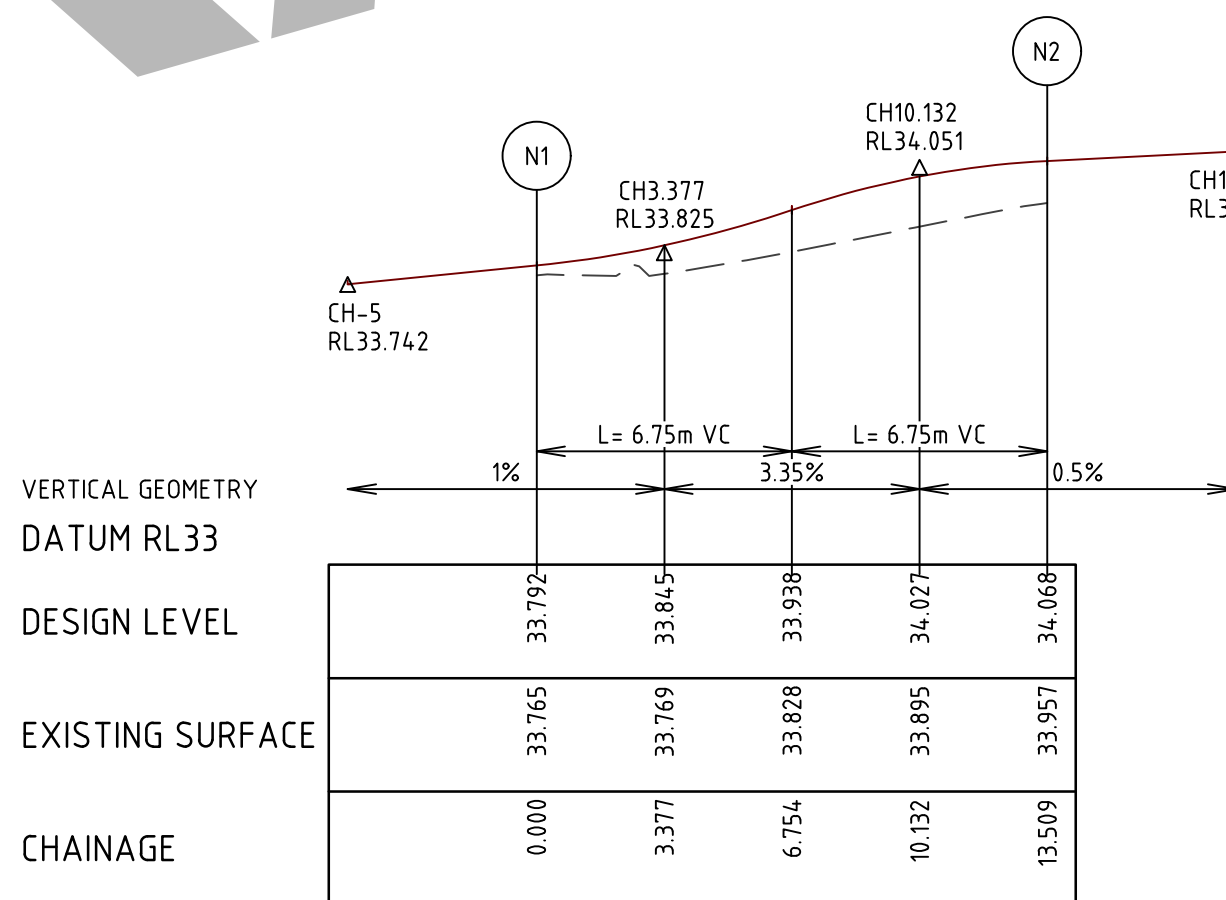
DESCRIPTION	EXISTING	PROPOSED
STORMWATER DRAIN & PIT	— E x D — — —	— D — — —
PAVEMENT CONTOUR	— 52.00 — — —	— 52.00 — — —



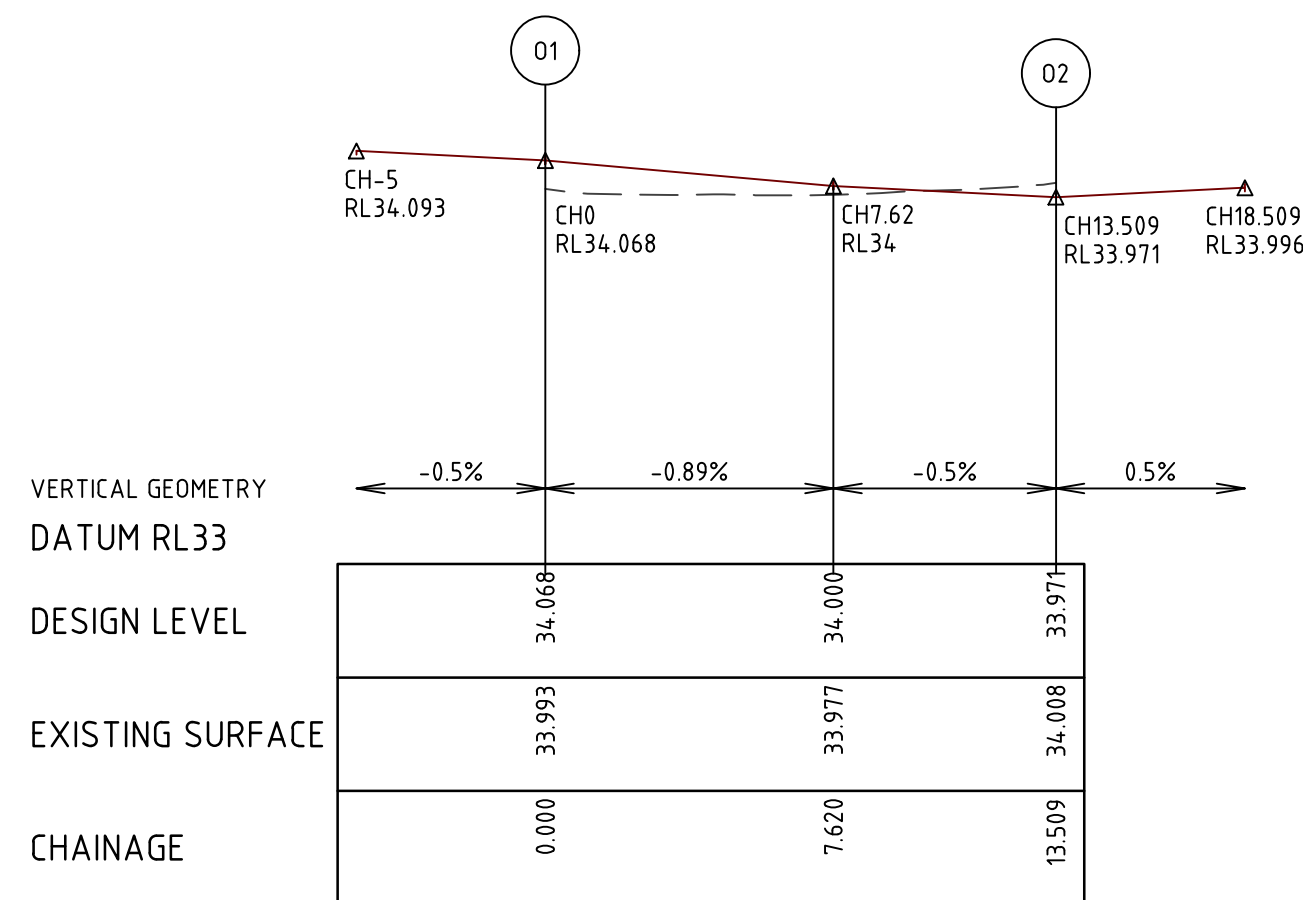
LIP LINE L



LIP LINE M



LIP LINE N



LIP LINE O

H: 1:200
SCALE @ A1
V: 1:20

ALIGNMENT L

Point no	Easting	Northing	RL
L1	372165.589	5785245.267	33.870
L2	372158.385	5785255.066	34.003

Curve no	L	Radius	Arc	A	B	X	Y	L	Mid point RL
L1 - L2	90.000	8.600	13.509	2.519	1.864	3.291	2.790	3.377	33.970

ALIGNMENT M

Point no	Easting	Northing	RL
M1	372182.011	5785251.461	34.122
M2	372172.213	5785244.256	33.870

Curve no	L	Radius	Arc	A	B	X	Y	L	Mid point RL
M1 - M2	90.000	8.600	13.509	2.519	1.864	3.291	2.790	3.377	34.013

ALIGNMENT N

Point no	Easting	Northing	RL
N1	372129.416	5785266.264	33.792
N2	372139.214	5785273.468	34.068

Curve no	L	Radius	Arc	A	B	X	Y	L	Mid point RL
N1 - N2	90.000	8.600	13.509	2.519	1.864	3.291	2.790	3.377	33.938

ALIGNMENT O

Point no	Easting	Northing	RL
O1	372145.838	5785272.457	34.068
O2	372153.042	5785262.659	33.971


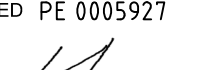
Curve no	L	Radius	Arc	A	B	X	Y	L	Mid point RL
O1 - O2	90.000	8.600	13.509	2.519	1.864	3.291	2.790	3.377	34.008

C:\Users\alexy\Documents\3086-01-300 NT.dwg 1/20/2025 4:03 PM ALEX TROBETTA

B	23.01.25	AT	<i>[Signature]</i>	<i>[Signature]</i>	ISSUED FOR COUNCIL SUBMISSION
A	14.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT

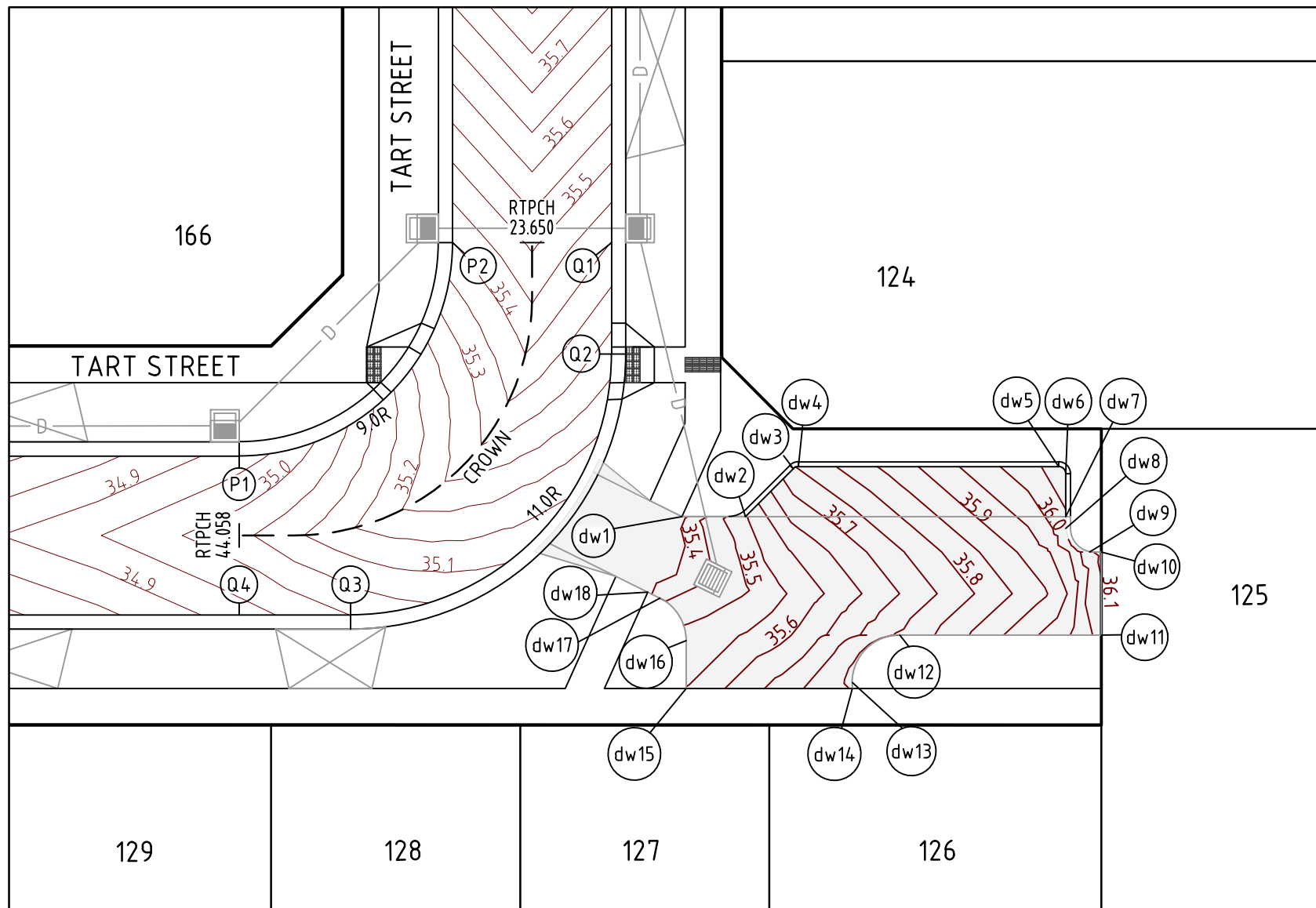
COPYRIGHT The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.
This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley CONSULTING ENGINEERS
Street Address Level 20, 390 St Kilda Road W cossillwebley.com.au Melbourne VIC 3004 T (03) 8548 1560 E Melbourne.Reception@cosweb.com.au

CLIENT	
	
APPROVED PE 0005927	DESIGNED W. SANSOM
	SCALE AS SHOWN

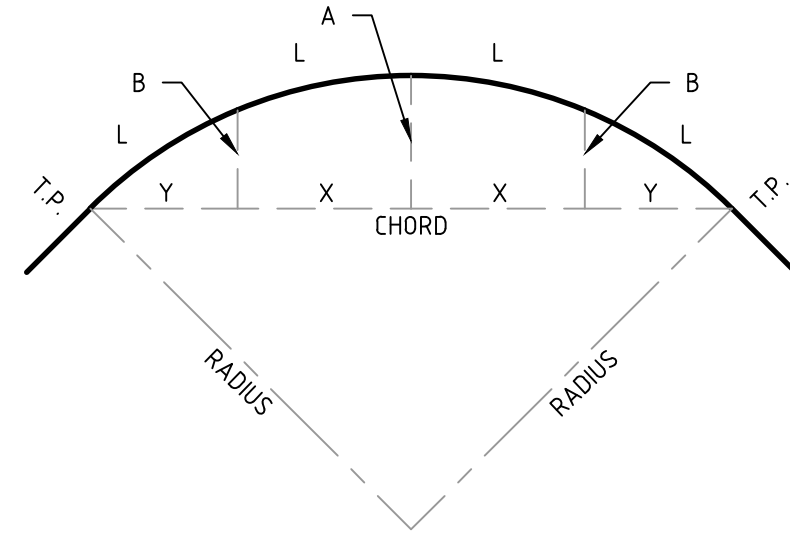
PROJECT	KALA ESTATE - STAGE 01		
TITLE	INTERSECTION DETAILS (SHEET 3 OF 4)		
MUNICIPALITY	CARDINIA SHIRE COUNCIL		
PP No.	T220227	DRAWING No.	3086-01-302
			REVISION B

ORIGINAL SIZE
A1



ROAD BEND FOR TART STREET

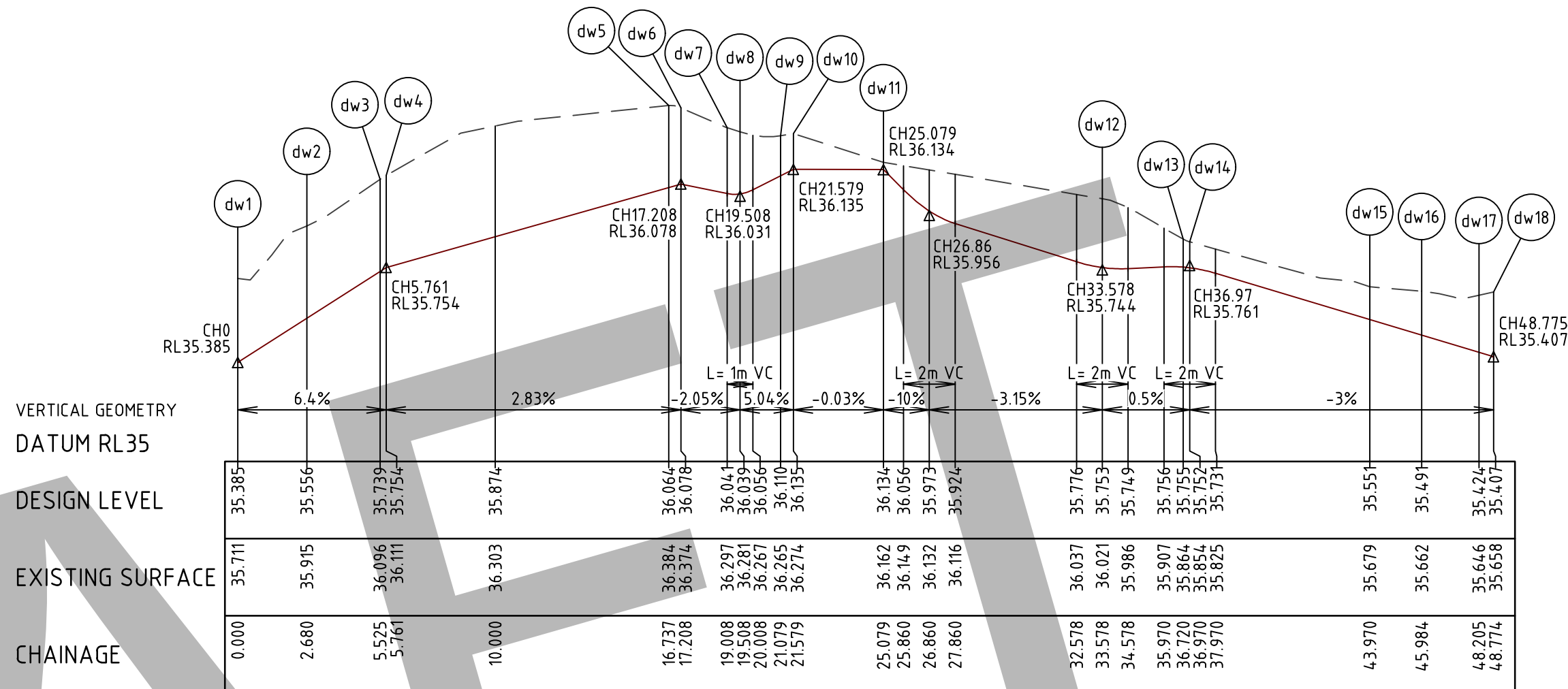
H 1:250
SCALE @ A1



SETOUT DETAIL

N.T.S.

LEGEND		
DESCRIPTION	EXISTING	PROPOSED
STORMWATER DRAIN & PIT	ExD	D
PAVEMENT CONTOUR	-52.00	-52.00



LIP LINE dw

ALIGNMENT P

Point no	Easting	Northing	RL
P1	372319.641	5785237.238	34.925
P2	372329.895	5785244.778	35.399

Curve no	L	Radius	Arc	A	B	X	Y	l	Mid point RL
P1 - P2	90.000	9.000	14.137	2.636	1.951	3.444	2.920	3.534	35.140

ALIGNMENT Q

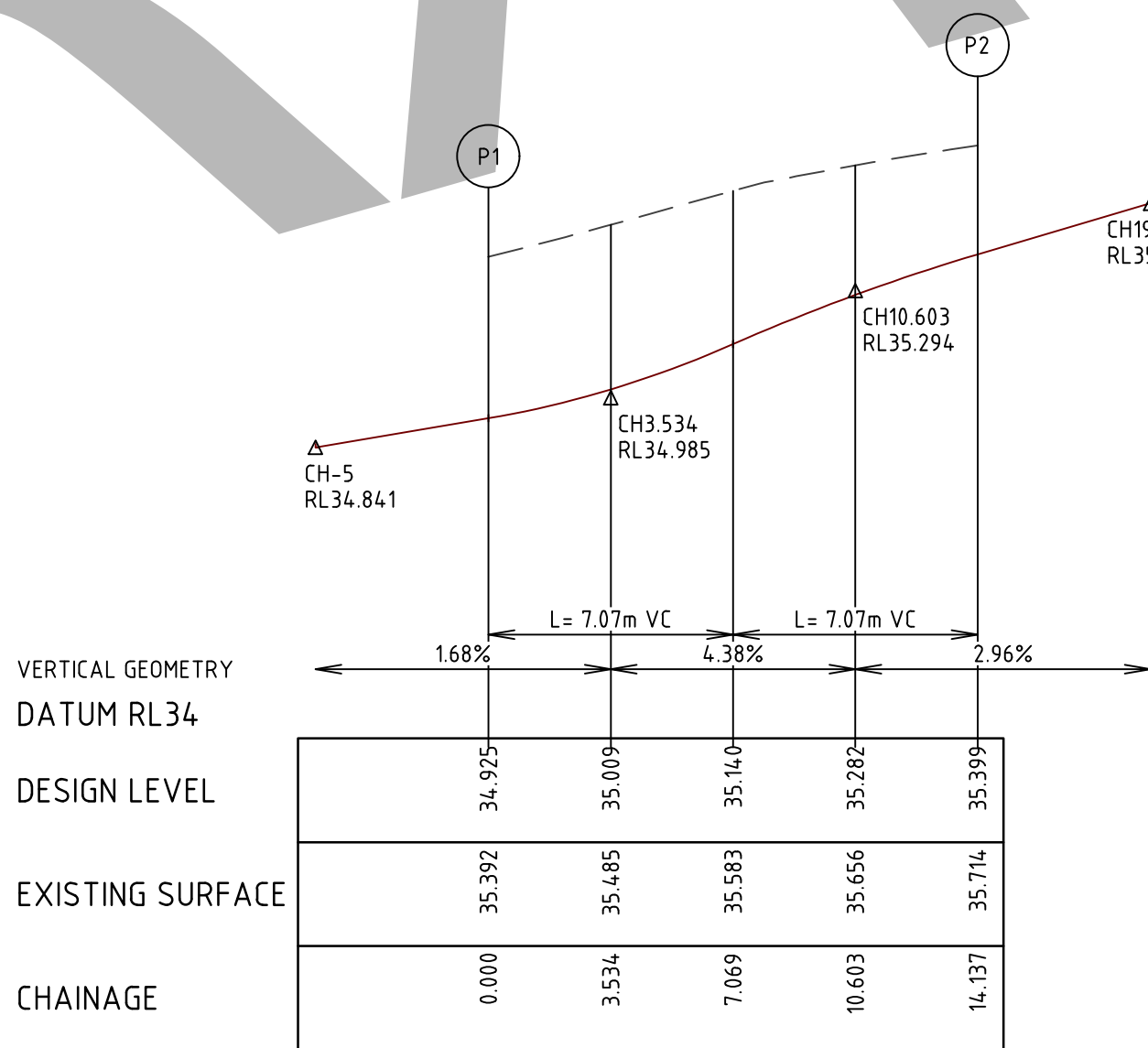
Point no	Easting	Northing	RL
Q1	372336.519	5785243.767	35.399
Q2	372335.810	5785239.121	35.274
Q3	372323.276	5785229.906	35.001
Q4	372318.630	5785230.615	34.925

Curve no	L	Radius	Arc	A	B	X	Y	l	Mid point RL
Q2 - Q3	90.000	11.000	17.279	3.222	2.385	4.210	3.569	4.320	35.120

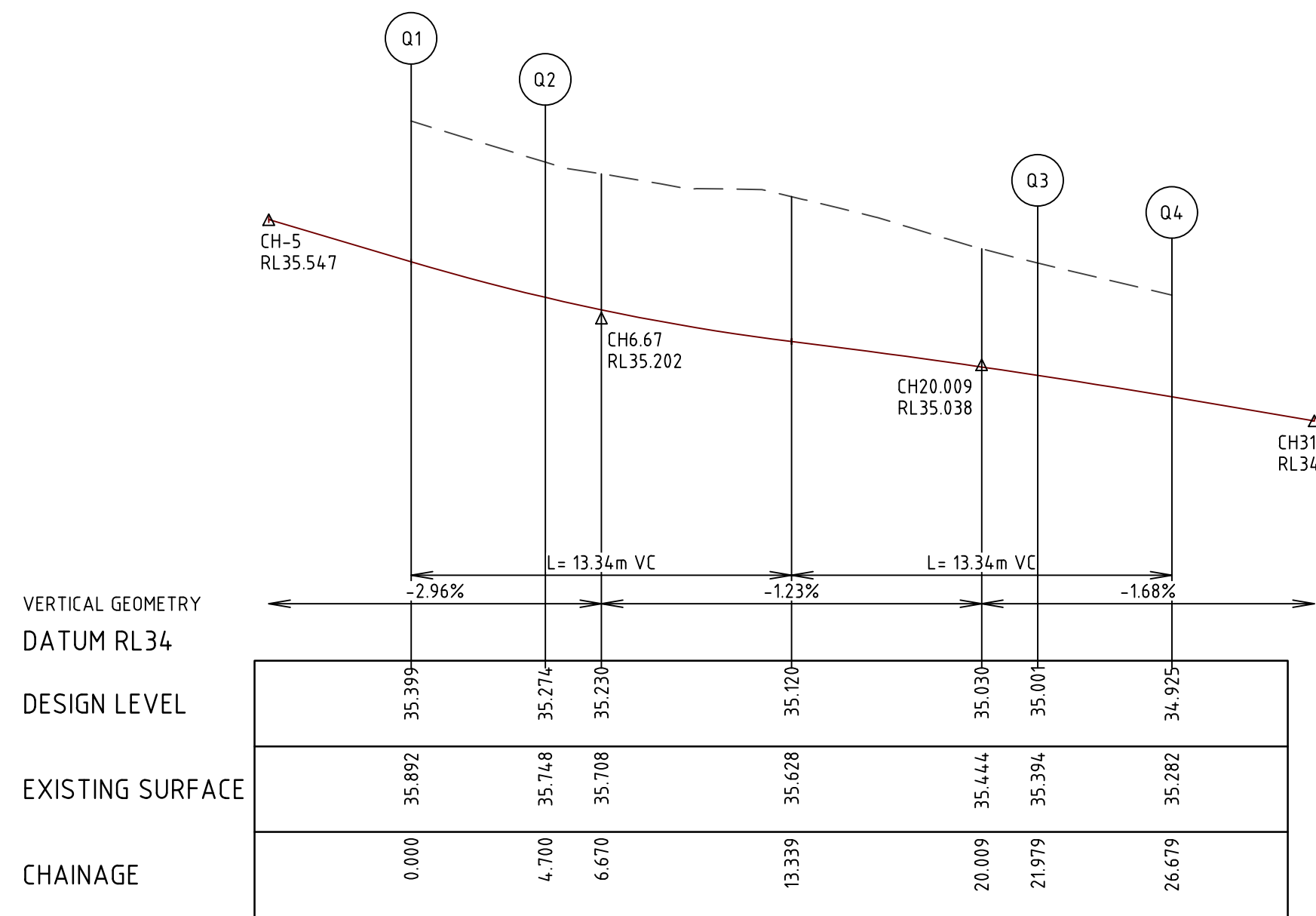
ALIGNMENT dw

Point no	Easting	Northing	RL
dw1	372337.713	5785231.901	35.385
dw2	372340.362	5785231.497	35.556
dw3	372342.655	5785233.183	35.739
dw4	372342.877	5785233.238	35.754
dw5	372353.728	5785231.582	36.064
dw6	372353.979	5785231.240	36.078
dw7	372353.707	5785229.461	36.041
dw8	372353.632	5785228.967	36.039
dw9	372354.470	5785227.827	36.110
dw10	372354.964	5785227.752	36.135
dw11	372354.436	5785224.292	36.134
dw12	372346.033	5785225.574	35.753
dw13	372343.755	5785223.899	35.755
dw14	372343.717	5785223.651	35.752
dw15	372336.797	5785224.707	35.551
dw16	372337.101	5785226.698	35.491
dw17	372336.272	5785228.637	35.424
dw18	372335.806	5785228.964	35.407

Curve no	L	Radius	Arc	A	B	X	Y	l	Mid point RL
dw3 - dw4	45.000	0.300	0.236	0.023	0.017	0.059	0.056	0.059	35.746
dw5 - dw6	90.000	0.300	0.471	0.088	0.065	0.115	0.097	0.118	36.071
dw8 - dw9	89.998	1.000	1.571	0.293	0.217	0.383	0.324	0.393	36.070
dw12 - dw13	90.001	2.000	3.142	0.586	0.434	0.765	0.649	0.785	35.752
dw16 - dw17	63.628	2.000	2.221	0.300	0.224	0.548	0.506	0.555	35.457



LIP LINE P



LIP LINE Q

H 1:200
SCALE @ A1
V 1:20

B	23.01.25	AT	<i>[Signature]</i>	<i>[Signature]</i>	ISSUED FOR COUNCIL SUBMISSION
A	14.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT

COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

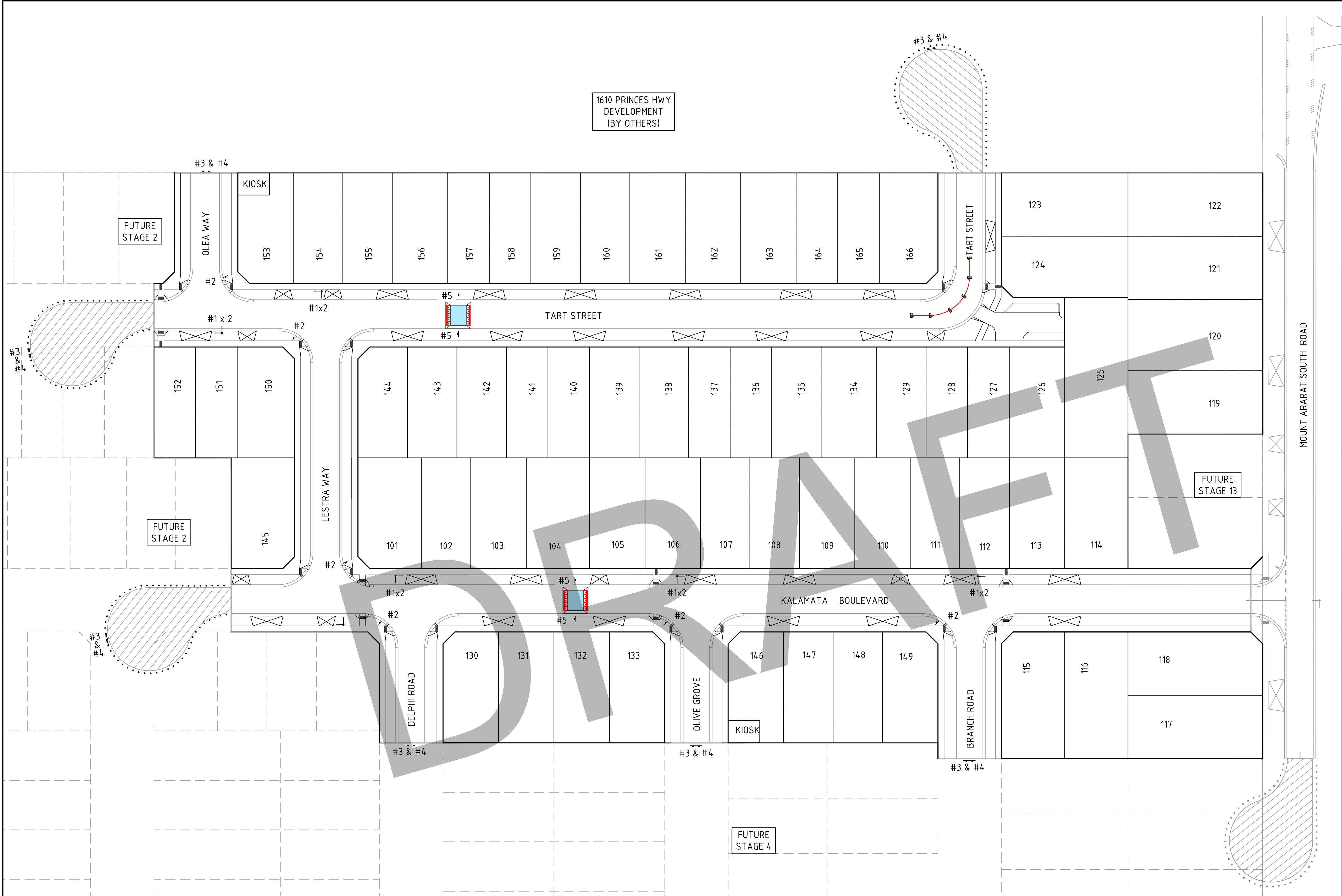
CW Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT		DESIGNED	
SIG GROUP		W. SANSOM	
APPROVED PE 0005927		SCALE	
<i>[Signature]</i>		AS SHOWN	

PROJECT		MUNICIPALITY	
KALA ESTATE - STAGE 01		CARDINIA SHIRE COUNCIL	
TITLE		DRAWING No.	
INTERSECTION DETAILS (SHEET 4 OF 4)		T220227	
PP No.		REVISION	
3086-01-303		B	

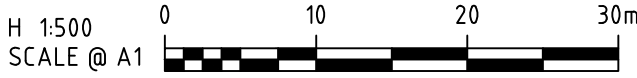
ORIGINAL SIZE
A1



SIGNAGE SCHEDULE		
NO.	SIGN CODE	SIGN
#1	STREET NAME	
#2	R1-2	
#3	D4-5	
#4	G9-20	
#5	W5 -10	
	W8 - 2	

- NOTES
- RRPM'S IN INSTALLED IN ACCORDANCE WITH AS1742.2 CLAUSE 5.6.
 - LINEMARKING TO BE EXTENDED AT LEAST 6m FROM THE TANGENT POINT
 - LINEMARKING IN ACCORDANCE WITH AS1742.
 - TGSI TO BE INSTALLED IN ACCORDANCE WITH VICROADS RDN 06-06 - JULY 2010
 - ALL STREET NAME SIGNS AT INTERSECTIONS TO INCLUDE RELEVANT STREET NUMBERING.
 - ALL LINE MARKING PAINT SHALL BE LONG LIFE TYPE. LATERAL WORKS AND ARROWS BEING COLD APPLIED PLASTIC TROWELLED INTO PLACE (MATERIAL DEGADUR PLASTELINE) AND LONGITUDINAL LINES BEING EXTRUDED THERMOPLASTIC MATERIAL.

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	OKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT			
APPROVED PE 0005927		DESIGNED W. SANSOM	
		SCALE 1:500	

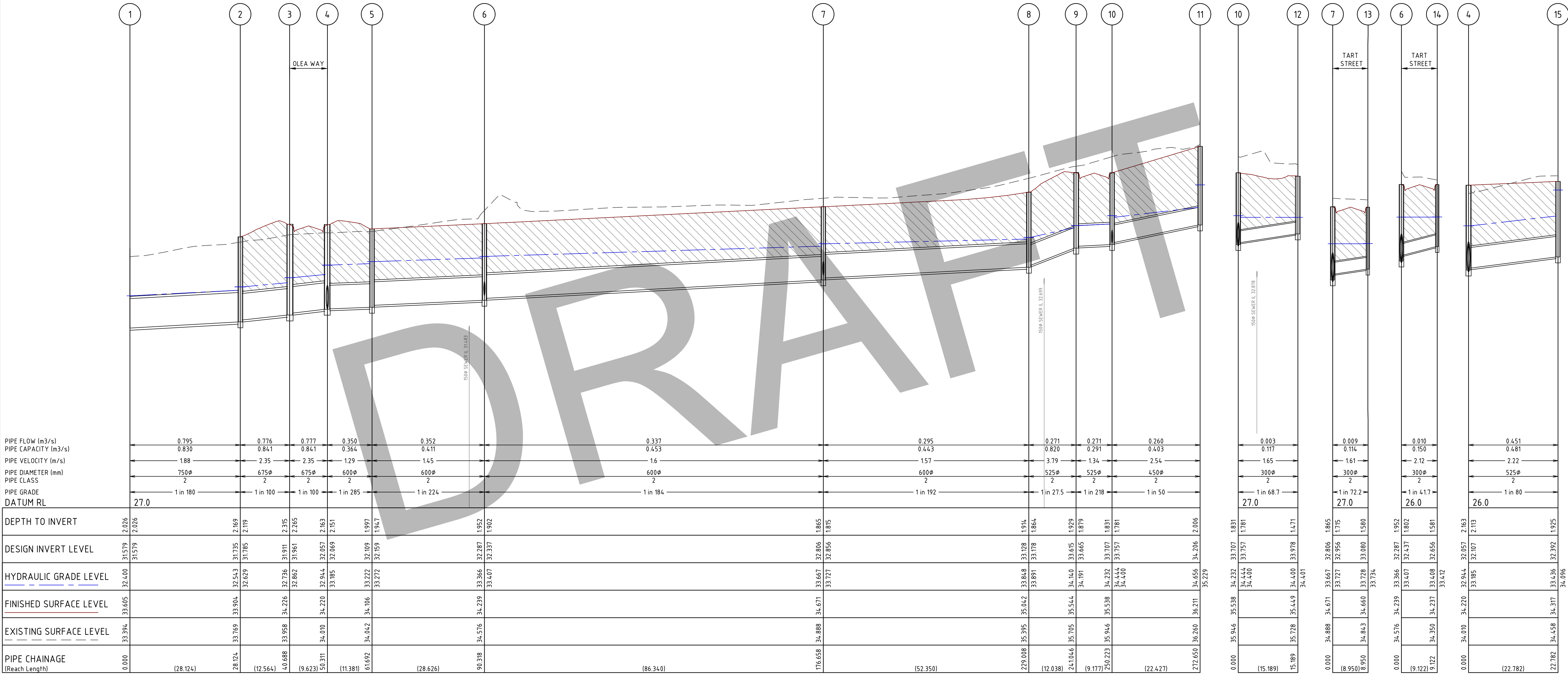
PROJECT		KALA ESTATE - STAGE 01	
TITLE		SIGNAGE AND LINEMARKING PLAN	
MUNICIPALITY		CARDINIA SHIRE COUNCIL	
PP No.	T220227	DRAWING No.	3086-01-350
		REVISION	B

ORIGINAL SIZE
A1

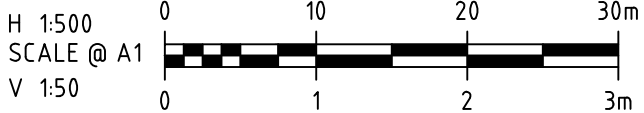
C:\Users\adam\Documents\3086-01-350\Design\Kala\3086-01-350.dwg 1/20/2025 4:18 PM ALEX TROMBETTA

DENOTES 20mm CLASS 3 FCR BACKFILL.

NOTES:
ALL STORMWATER DRAINS UP TO AND INCLUDING 750mm DIA. ARE TO BE CLASS 2 R.R.J. PIPES UNLESS NOTED OTHERWISE.



B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	OKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 350 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT	
APPROVED PE 0005927	DESIGNED W. SANSOM
SCALE H 1:500 V 1:50	PP No. T220227

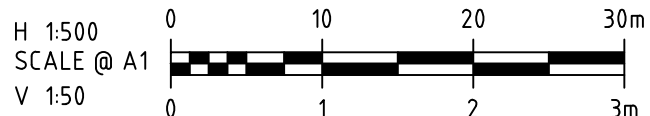
PROJECT	KALA ESTATE - STAGE 01
TITLE	DRAINAGE LONGITUDINAL SECTIONS (SHEET 1 OF 4)
MUNICIPALITY	CARDINIA SHIRE COUNCIL
DRAWING No.	3086-01-400
REVISION	B

A1 ORIGINAL SIZE

NOTES:
ALL STORMWATER DRAINS UP TO AND
INCLUDING 750mm DIA. ARE TO BE CLASS 2
R.R.J. PIPES UNLESS NOTED OTHERWISE.

	16	17	18	19	20	21	22	23	24	25	18	26
PIPE FLOW (m3/s)	0.191	0.165	0.151	0.149	0.148	0.133	0.095	0.099	0.039	0.002		
PIPE CAPACITY (m3/s)	0.272	0.180	0.159	0.226	0.194	0.202	0.120	0.159	0.091	0.071		
PIPE VELOCITY (m/s)	1.26	1.13	1	2.04	1.76	1.83	1.09	2.25	2.3	1.01		
PIPE DIAMETER (mm)	525ø	450ø	450ø	375ø	375ø	375ø	375ø	300ø	225ø	300ø		
PIPE CLASS	2	2	2	2	2	2	2	2	2	2		
PIPE GRADE	1 in 250	1 in 250	1 in 322	1 in 60.5	1 in 815	1 in 75.3	1 in 213	1 in 37	1 in 24.2	1 in 184		
DATUM RL	28.0											
DEPTH TO INVERT	31.100	31.155	31.322	31.408	31.606	31.956	33.178	33.451	35.215	37.723	31.322	31.322
DESIGN INVERT LEVEL	31.100	31.155	31.322	31.408	31.606	31.956	33.178	33.451	35.215	37.723	31.322	31.322
HYDRAULIC GRADE LEVEL	31.600	31.680	31.807	31.896	31.981	32.249	33.553	33.826	35.515	37.723	31.807	31.807
FINISHED SURFACE LEVEL	32.793	32.862	33.018	33.219	33.269	33.628	34.477	34.715	36.442	38.373	33.018	33.018
EXISTING SURFACE LEVEL	32.546	32.611	33.088	33.232	33.338	33.711	34.546	34.864	35.698	37.439	33.088	33.088
PIPE CHAINAGE (Reach Length)	0.000	(13.797)	(31.151)	(44.948)	(56.524)	(89.925)	(178.174)	(225.615)	(289.771)	(343.174)	(9.567)	(9.567)

B	23.01.25	AT	<i>Initial</i>	<i>Rev</i>	ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher



Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT



APPROVED PE 0005927

Kov

DESIGNED

SCALE
H 1E00 V 1E0

PROJECT	KALA ESTATE - STAGE 01
---------	------------------------

TITLE	DRAINAGE LONGITUDINAL SECTIONS
-------	--------------------------------


(SHEET 2 OF 4)

MUNICIPALITY CARDINIA SHIRE COUNCIL

PP No. T220227

DRAWING No. 3086-01-401

ORIGINAL SIZE	A1
------------------	----

 TRAFFICABLE TYPE 'R' OR 'F' CONTROLLED COMPACTED FILL INSTALLED TO MRWA SPECIFICATION, ADJACENT TO RETAINING WALL.

ORIGINAL
SIZE
A1

NOTES:
ALL STORMWATER DRAINS UP TO AND INCLUDING 750mm DIA. ARE TO BE CLASS 2 R.R.J. PIPES UNLESS NOTED OTHERWISE.

H 1:500
SCALE @ A1
V 1:50

The graphic scale bar consists of two horizontal lines. The top line is labeled with 0, 10, 20, and 30m. The bottom line is labeled with 0, 1, 2, and 3m. The bar is divided into segments of alternating black and white colors, representing the scale for both horizontal and vertical dimensions.

CW **Cossill & Webley**
CONSULTING ENGINEERS

Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cossweb.com.au

PROJECT	KALA ESTATE - STAGE 01		
TITLE	DRAINAGE LONGITUDINAL SECTIONS (SHEET 4 OF 4)		
MUNICIPALITY	CARDINIA SHIRE COUNCIL		
PP No.	T220227	DRAWING No.	3086-01-403
			REVISION B

ORIGINAL
SIZE
A1

PIT SCHEDULE

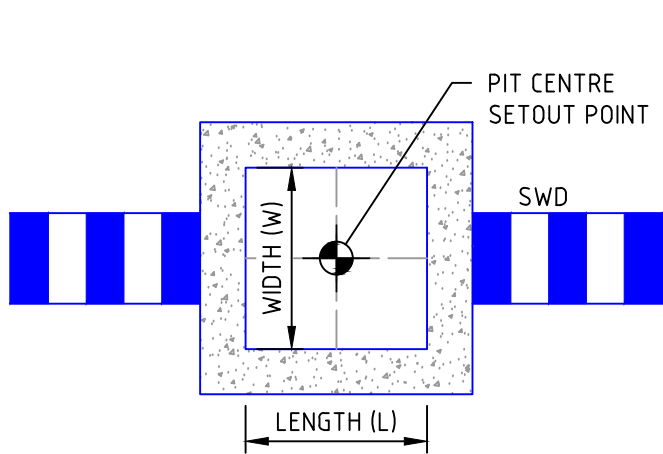
PIT NAME	TYPE	EASTING	NORTHING	INTERNAL WIDTH	INTERNAL LENGTH	INLET DIA	INLET IL	OUTLET DIA	OUTLET IL	PIT SETOUT RL	PIT DEPTH	REMARKS
1	ENDWALL	372099.488	5785271.968			750	31.579			33.605	2.026	
2	SIDE ENTRY PIT GRATED	372127.334	5785268.023	900	1350	675	31.785	750	31.735	33.904	2.169	
3	SIDE ENTRY PIT GRATED	372137.835	5785274.369	1500	1050	675	31.961	675	31.911	34.226	2.315	
4	SIDE ENTRY PIT GRATED	372147.345	5785272.898	1350	1050	600	32.069	675	32.057	34.22	2.163	
						525	32.107					
5	SIDE ENTRY PIT GRATED	372153.852	5785263.910	1200	900	600	32.159	600	32.109	34.106	1.997	
6	SIDE ENTRY PIT GRATED	372182.125	5785259.435	900	900	600	32.337	600	32.287	34.239	1.952	
						300	32.437					
7	SIDE ENTRY PIT GRATED	372267.478	5785246.412	900	900	600	32.856	600	32.806	34.671	1.865	
						300	32.956					
8	SIDE ENTRY PIT GRATED	372319.239	5785238.588	1050	900	525	33.178	600	33.128	35.042	1.914	
9	SIDE ENTRY PIT GRATED	372328.725	5785245.563	1050	900	525	33.665	525	33.615	35.544	1.929	
10	SIDE ENTRY PIT GRATED	372337.799	5785244.192	900	900	450	33.757	525	33.707	35.538	1.831	
						300	33.757					
11	JUNCTION PIT	372341.187	5785266.362	900	900			450	34.206	36.211	2.006	
12	GRATED PIT	372338.610	5785229.135	900	900			300	33.978	35.449	1.471	CONSTRUCT GRATED PIT BIKE SAFE, HEAVY DUTY & V-SHAPED GRATE.
13	SIDE ENTRY PIT GRATED	372266.123	5785237.565	600	900			300	33.080	34.660	1.580	
14	SIDE ENTRY PIT GRATED	372182.446	5785250.332	600	900			300	32.656	34.237	1.581	
15	JUNCTION PIT	372150.569	5785295.451	900	900			525	32.392	34.317	1.925	
16	ENDWALL	372103.690	5785198.569			525	31.100			32.793	1.693	
17	SIDE ENTRY PIT GRATED	372117.330	5785196.488	900	900	450	31.197	525	31.155	32.862	1.707	
18	SIDE ENTRY PIT GRATED	372148.124	5785191.790	900	900	450	31.372	450	31.322	33.018	1.696	
						300	31.390					
19	SIDE ENTRY PIT GRATED	372157.238	5785198.492	900	900	375	31.458	450	31.408	33.279	1.871	
20	SIDE ENTRY PIT GRATED	372166.086	5785197.142	600	900	375	31.656	375	31.606	33.269	1.663	
21	SIDE ENTRY PIT GRATED	372169.774	5785221.312	600	900	375	32.006	375	31.956	33.628	1.672	
						300	32.007					
22	JUNCTION PIT	372256.866	5785208.023	600	900	375	33.228	375	33.178	34.477	1.299	
23	JUNCTION PIT	372303.822	5785200.858	600	900	300	33.501	375	33.451	34.715	1.264	
24	JUNCTION PIT	372366.591	5785191.277	600	900	225	35.265	300	35.215	36.442	1.227	
						225	35.253					
25	JUNCTION PIT	372374.741	5785244.662	600	900			225	37.498	38.373	0.875	
26	SIDE ENTRY PIT GRATED	372149.987	5785182.456	600	900			300	31.442	33.025	1.583	
27	SIDE ENTRY PIT GRATED	372161.075	5785222.639	600	900	225	32.103	300	32.053	33.628	1.575	
28	JUNCTION PIT	372133.790	5785226.802	600	900			225	32.788	33.689	0.901	
29	JUNCTION PIT	372365.087	5785181.394	600	900			225	35.432	36.172	0.740	
30	ENDWALL	372179.261	5785139.954			600	30.656			32.468	1.812	
31	SIDE ENTRY PIT GRATED	372180.316	5785146.870	900	900	600	30.843	600	30.793	32.570	1.777	
						225	30.980					
						300	30.938					
32	JUNCTION PIT	372184.146	5785168.995	1800	900	(2x)450	31.450	600	31.375	32.999	1.624	
33	SIDE ENTRY PIT GRATED	372192.395	5785175.982	600	1800	(2x)450	31.516	(2x)450	31.516	33.239	1.723	
34	SIDE ENTRY PIT GRATED	372193.620	5785184.849	900	1500	600	31.570	(2x)450	31.570	33.248	1.678	
						300	31.645					

PIT SCHEDULE

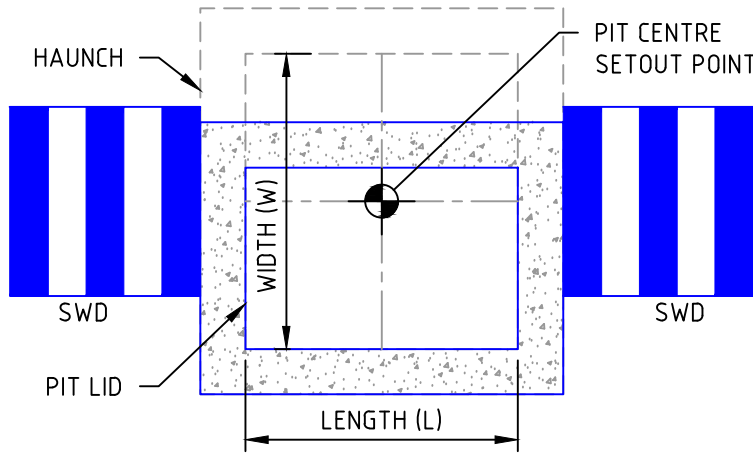
PIT NAME	TYPE	EASTING	NORTHING	INTERNAL WIDTH	INTERNAL LENGTH	INLET DIA	INLET IL	OUTLET DIA	OUTLET IL	PIT SETOUT RL	PIT DEPTH	REMARKS
35	SIDE ENTRY PIT GRATED	372265.367	5785173.900	900	900	600	31.976	600	31.922	33.611	1.689	
						300	32.072					
36	SIDE ENTRY PIT GRATED	372333.556	5785163.491	900	900	450	32.365	600	32.290	34.077	1.787	
						300	32.440					
37	SIDE ENTRY PIT GRATED	372390.779	5785154.764	900	900	300	33.806	450	33.756	35.485	1.729	
38	SIDE ENTRY PIT GRATED	372389.429	5785145.917	600	900			300	33.896	35.473	1.577	
39	JUNCTION PIT	372224.257	5785140.165	600	900			225	32.192	32.962	0.769	
40	SIDE ENTRY PIT GRATED	372171.468	5785148.220	600	900			300	30.986	32.562	1.576	
41	SIDE ENTRY PIT GRATED	372172.915	5785187.854	600	900			300	31.757	33.134	1.378	
42	SIDE ENTRY PIT GRATED	372264.016	5785165.053	600	900			300	32.120	33.600	1.480	
43	SIDE ENTRY PIT GRATED	372332.227	5785154.645	600	900			300	32.586	34.061	1.475	
44	ENDWALL	372354.227	5785110.218			225	33.184			33.628	0.444	
45	JUNCTION PIT	372357.169	5785129.495	600	900			225	33.711	34.515	0.804	
46	ENDWALL	372250.288	5785129.112			300	31.102			32.770	1.668	
47	SIDE ENTRY PIT GRATED	372251.344	5785136.032	600	900	300	31.242	300	31.149	32.866	1.717	
48	SIDE ENTRY PIT GRATED	372242.644	5785137.360	600	900			300	31.290	32.866	1.576	
49	ENDWALL	372278.025	5785127.915			300	32.134			33.140	1.006	
50	JUNCTION PIT	372278.628	5785131.869	600	900	225	32.227	300	32.177	33.252	1.075	
						225	32.239					
51	JUNCTION PIT	372292.468	5785129.757	600	900			225	32.534	33.358	0.824	
52	JUNCTION PIT	372269.731	5785133.227	600	900			225	32.309	33.181	0.872	
53	ENDWALL	372318.046	5785115.741			300	31.484			33.142	1.659	
54	SIDE ENTRY PIT GRATED	372318.951	5785121.670	600	900	300	31.560	300	31.516	33.184	1.668	
						225	31.566					
55	SIDE ENTRY PIT GRATED	372310.252	5785122.998	600	900			300	31.608	33.182	1.574	
56	JUNCTION PIT	372337.338	5785118.865	600	900			225	32.926	33.904	0.978	

NOTES:

1. ALL PITS ARE TO BE TO VPA STANDARDS UNLESS NOTED OTHERWISE.
2. PITS DEEPER THAN 1.00m SHALL BE FITTED WITH STEPIRONS, FIRST STEPIRON TO BE 300mm FROM THE BOTTOM OF THE PIT.
3. COVER LEVELS TO BE SET TO MATCH THE FINISHED SURFACE PROFILES AND ADJACENT CONSTRUCTION.
4. UNLESS OTHERWISE SPECIFIED, PIT TYPES REFER TO VICTORIAN PLANNING AUTHORITY STANDARD DRAWINGS
 - FIGURE EDCM 601 SIDE ENTRY PIT GRATED B2 KERB AND CHANNEL
 - FIGURE EDCM 602 DOUBLE SIDE ENTRY PIT GRATED B2 KERB AND CHANNEL
 - FIGURE EDCM 603 SIDE ENTRY PIT GRATED SM2 KERB AND CHANNEL
 - FIGURE EDCM 605 JUNCTION PIT
5. FOR HAUNCHED PITS REFER VPA STANDARD DRAWING FIGURE EDCM 607 & EDCM 608. PITS TO BE HAUNCHED TO COUNCIL STANDARD OPENINGS.
6. STUBS AND PIPE ENDS TO BE BLOCKED OFF TO COUNCIL'S SATISFACTION.
7. ALL GRATED PITS TO HAVE BICYCLE SAFE LOCKDOWN GRATES.
8. ALL GRATED SIDE-ENTRY PITS TO HAVE MIN 100mm THICK CONCRETE APRON BETWEEN GRATE AND ASPHALT. REFER VPA STANDARD DRAWINGS.
9. PIT LIDS TO BE IN ACCORDANCE WITH VPA STANDARD DRAWING EDCM 605.
10. PITS WITHIN ROAD PAVEMENT, VEHICLE CROSSINGS OR WITHIN 0.75m OF A VEHICLE CROSSING, TO HAVE CLASS D CAST IRON LOCK DOWN LIDS.
11. ALL PITS WITHIN ROAD TO BE CONSTRUCTED WITH 32 MPa CONCRETE WITH SL92 MESH IN WALLS AND BASE.
12. CONTRACTOR TO VERIFY EXISTING SERVICES CONNECTION LEVELS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES MUST BE IMMEDIATELY IDENTIFIED AND THE SUPERINTENDENT NOTIFIED PRIOR TO CONSTRUCTION COMMENCING.
13. REFER TO RELEVANT AUTHORITY STANDARDS FOR PIT INTERFACE WITH KERB & CHANNEL.



TYPICAL DRAINAGE PIT SETOUT DETAIL



TYPICAL HAUNCH PIT SETOUT DETAIL

B	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
A	13.11.24	NT	MA	K. LORRIMAR	INITIAL ISSUE
REV	DATE	DRN	OKD	APP	AMENDMENT

COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT

APPROVED PE 0005927

DESIGNED
W. SANSOM
SCALE
AS SHOWN

PROJECT
KALA ESTATE - STAGE 01

TITLE
DRAINAGE PIT SCHEDULE

MUNICIPALITY
CARDINIA SHIRE COUNCIL

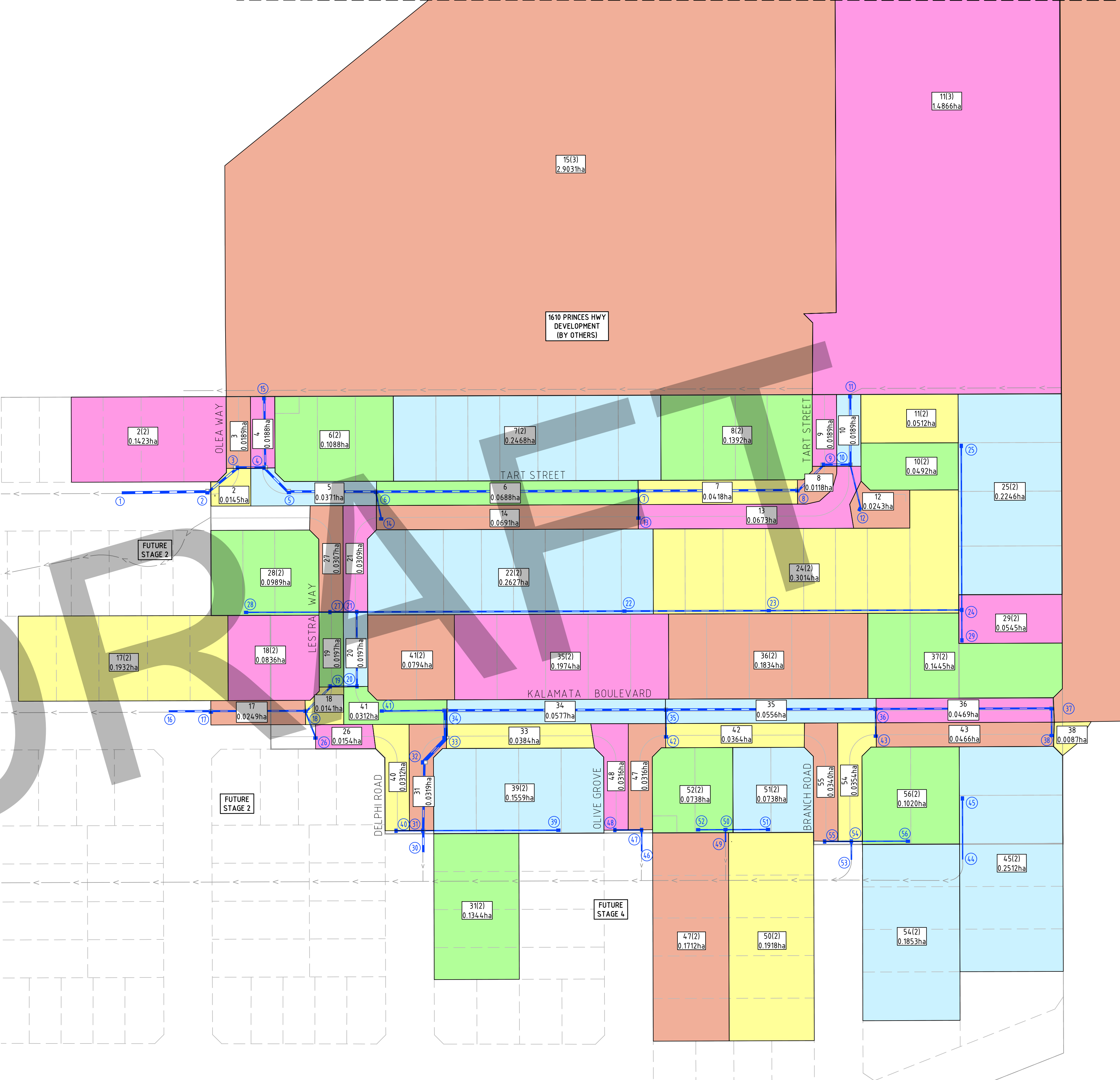
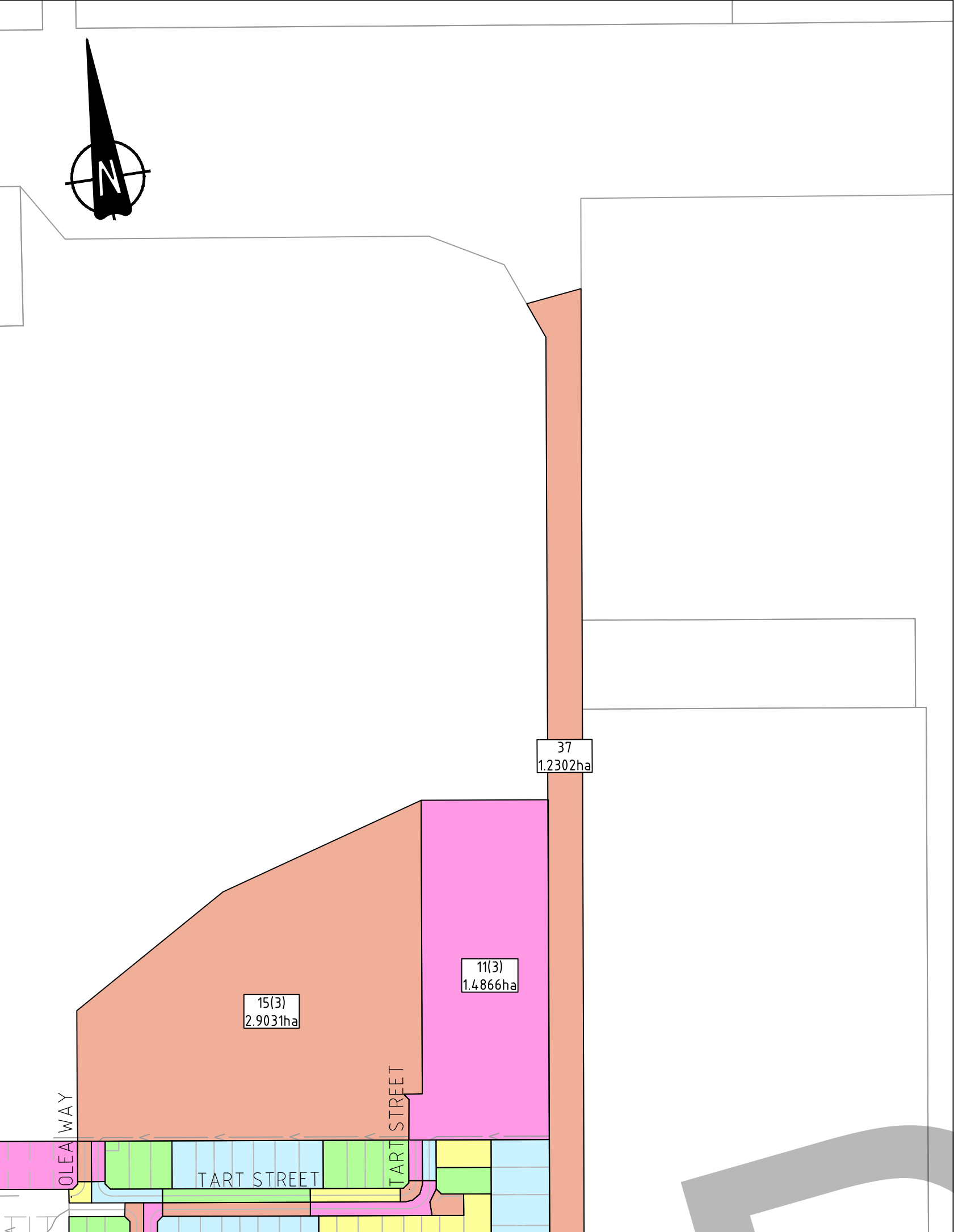
PP No.
T220227

DRAWING No.
3086-01-420

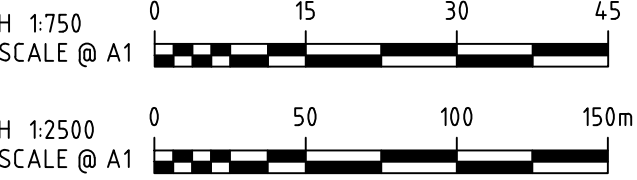
REVISION
B

ORIGINAL SIZE
A1

FOR CONTINUATION REFER TO EXTERNAL CATCHMENT PLAN



A	23.01.25	AT	<i>[Signature]</i>	<i>[Signature]</i>	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.
This plan is not to be used for construction unless issued as revision 0 or higher

Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT

APPROVED PE 0005927
[Signature]

DESIGNED
W. SANSOM
SCALE
AS SHOWN

PROJECT KALA ESTATE - STAGE 01	TITLE 5 YEAR ARI CATCHMENT
MUNICIPALITY CARDINIA SHIRE COUNCIL	PP No. T220227
DRAWING No. 3086-01-430	REVISION A

ORIGINAL SIZE
A1

C:\Users\alex\Documents\3086-01-105\Design\Kala\3086-01-430\5YR.dwg 1/20/2025 4:52 PM ALEX TROMBETTA

KALA ESTATE - STAGE 01

MINOR DRAINAGE COMPUTATIONS

AEP 20%

DESIGNED BY



M. ALI

DATE

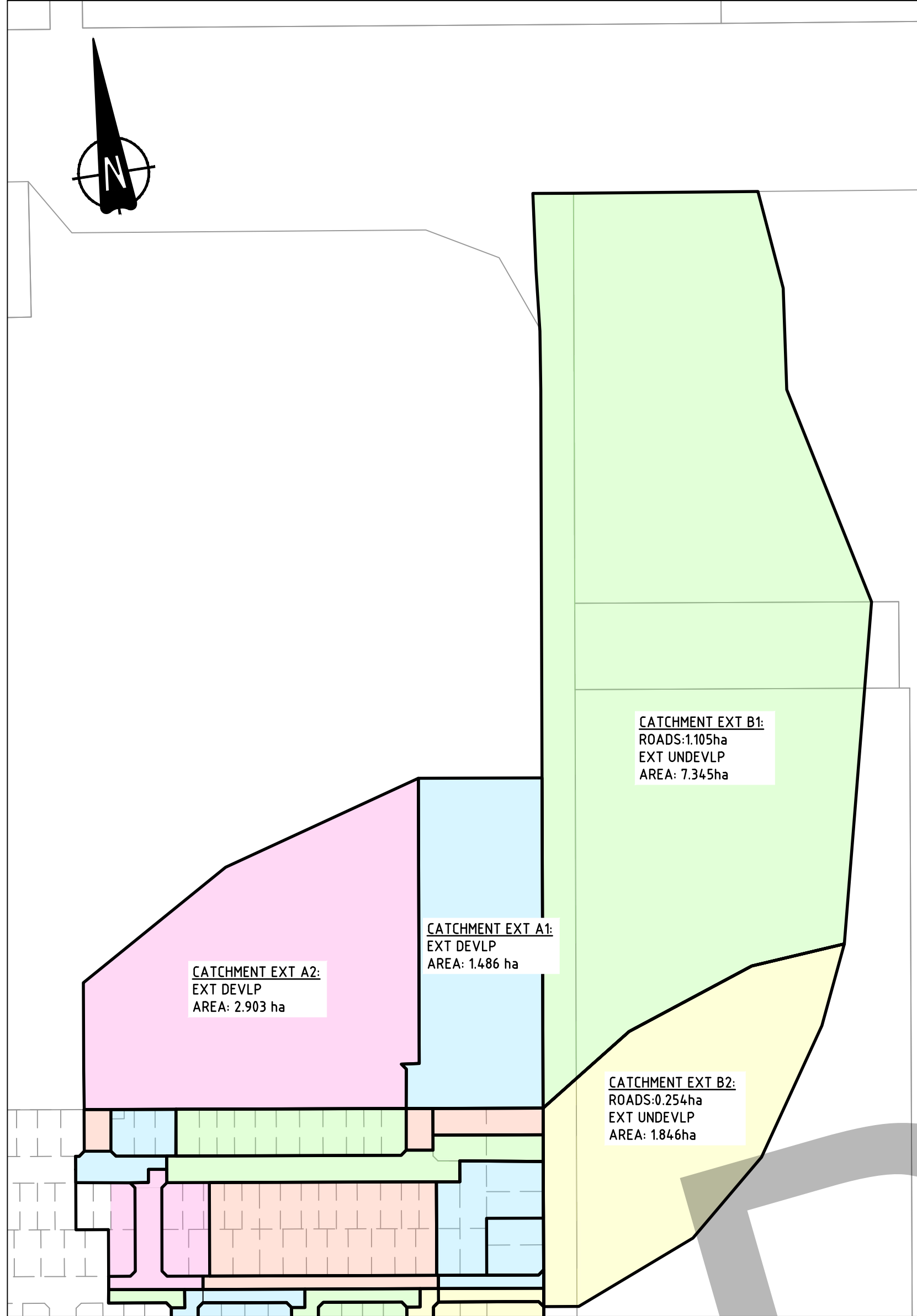
20/01/2025



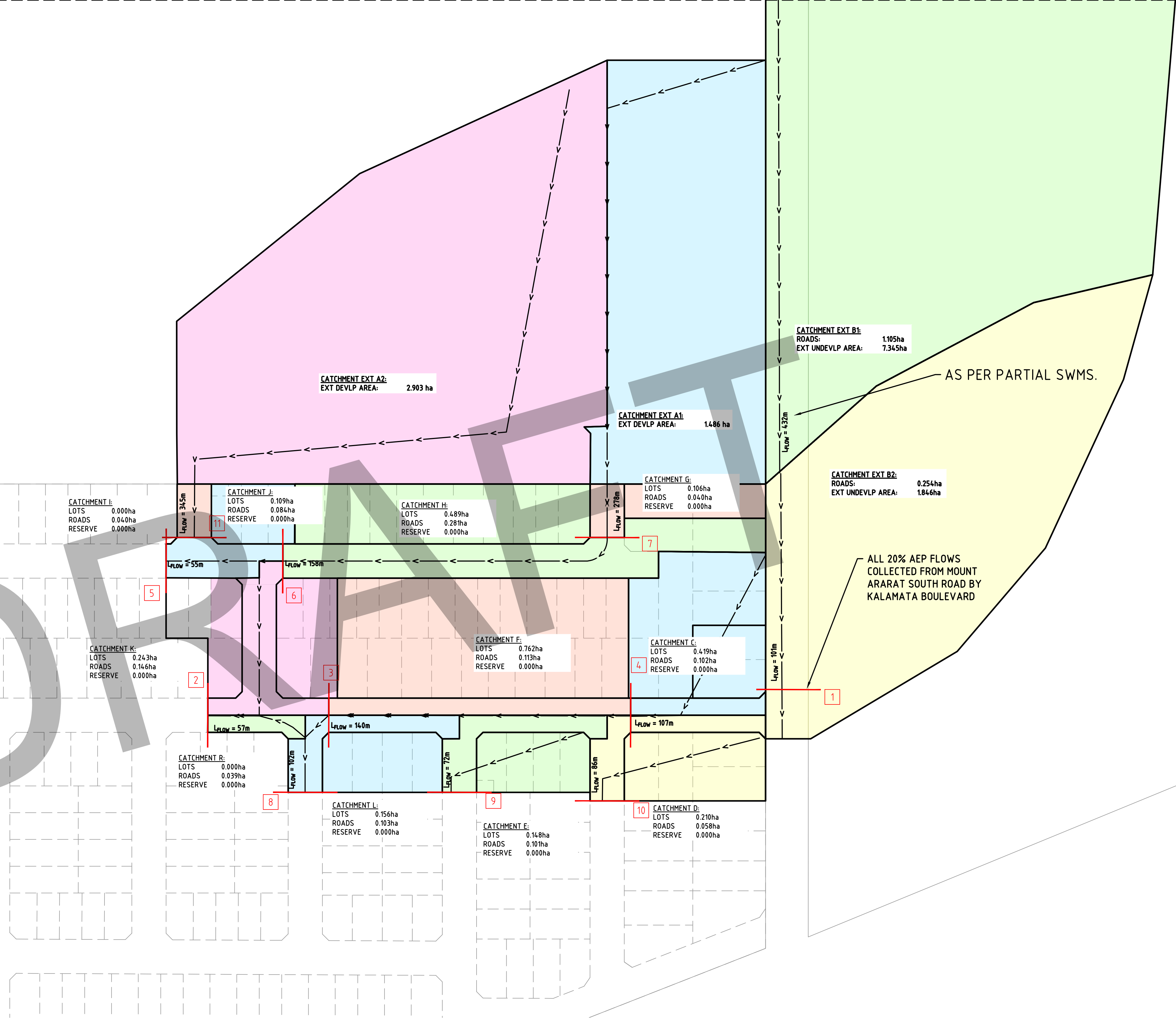
Pit Number	D/S Structure	CATCHMENT								Pipe	Pipe	Pipe	Tc	Intensity	Pipe	Pipe	Pipe	Q/Qf	Pit	Pipe	HGL	Pipe	Freeboard
		Area 1	CofR1	Area 2	CofR2	Area 3	CofR3	Ae	Sum Ae	Size	Length	Grade			Flow	Velocity	Capacity		K	Vel Head	Grade	Total Loss	
		(ha)		(ha)		(ha)		(ha)	(ha)	(mm)	(m)	(1 in)	(min)	(mm/hr)	(l/s)	(m/s)	(l/s)		(m)	(1 in)	(m)	(m)	
2	1	0.0140	0.56	0.142	0.71			0.1090	3.8480	750	28.124	180.2	7.87	74.06	795.20	1.88	829.70	0.96	0.52	0.1650	196.2	0.143	1.276
3	2	0.0190	0.56					0.0110	3.7400	675	12.564	100.0	7.78	74.45	775.90	2.35	840.90	0.92	0.53	0.2400	117.5	0.107	1.364
4	3	0.0190	0.56					0.0100	3.7290	675	9.623	100.0	7.72	74.75	776.80	2.35	840.90	0.92	1.00	0.2400	117.2	0.082	1.035
5	4	0.0370	0.56					0.0210	1.6690	600	11.381	284.5	7.57	75.40	349.60	1.29	364.20	0.96	0.64	0.0780	308.7	0.037	0.834
6	5	0.0690	0.56	0.109	0.71			0.1150	1.6490	600	28.626	223.6	7.24	76.84	351.90	1.45	410.80	0.86	0.52	0.0790	304.7	0.094	0.833
7	6	0.0420	0.56	0.247	0.71			0.1980	1.4950	600	86.340	184.1	6.34	81.19	337.20	1.60	452.70	0.74	0.84	0.0730	331.9	0.260	0.943
8	7	0.0120	0.56	0.139	0.71			0.1050	1.2600	600	52.350	192.5	5.78	84.20	294.70	1.57	442.80	0.67	0.78	0.0550	434.6	0.120	1.151
9	8	0.0190	0.56					0.0110	1.1550	525	12.038	27.5	5.73	84.51	271.20	3.79	819.70	0.33	0.63	0.0800	48.4	0.249	1.353
10	9	0.0190	0.56	0.049	0.71			0.0450	1.1440	525	9.177	218.5	5.62	85.20	270.80	1.34	291.10	0.93	2.10	0.0800	222.7	0.041	1.094
11	10			0.051	0.71	1.49	0.71	1.0860	1.0860	450	22.427	50.0	5.47	86.08	259.60	2.54	403.40	0.64	4.22	0.1360	87.8	0.255	0.982
12	10	0.0240	0.56					0.0140	0.0140	300	15.189	68.7	5.00	88.90	3.30	1.65	116.70	0.03	9.70	0.0010	83534.6	0.001	1.047
13	7	0.0670	0.56					0.0370	0.0370	300	8.950	72.2	5.00	88.90	9.30	1.61	113.90	0.08	6.25	0.0010	10926.8	0.001	0.927
14	6	0.0690	0.56					0.0380	0.0380	300	9.122	41.7	5.00	88.90	9.50	2.12	149.90	0.06	4.86	0.0010	10365.2	0.001	0.825
15	4					2.90	0.71	2.0500	2.0500	525	22.782	80.0	6.72	79.30	451.50	2.22	481.00	0.94	2.98	0.2220	90.8	0.251	0.221
17	16	0.0250	0.56	0.193	0.71			0.1500	0.9470	525	13.797	250.0	8.35	72.17	191.10	1.26	272.10	0.70	0.57	0.0400	172.1	0.079	1.159
18	17	0.0140	0.56	0.084	0.71			0.0670	0.7970	450	31.151	250.0	7.89	73.98	164.80	1.13	180.40	0.91	1.05	0.0550	299.7	0.104	1.154
19	18	0.0200	0.56					0.0110	0.7210	450	11.576	321.5	7.70	74.83	150.60	1.00	159.10	0.95	0.24	0.0460	358.8	0.032	1.372
20	19	0.0200	0.56					0.0110	0.7100	375	8.950	60.5	7.63	75.15	148.90	2.04	225.60	0.66	2.08	0.0930	121.7	0.074	1.047
21	20	0.0310	0.56					0.0170	0.6990	375	24.450	81.5	7.39	76.17	148.50	1.76	194.30	0.76	2.08	0.0920	139.5	0.175	1.040
22	21			0.263	0.71			0.1860	0.5950	375	88.250	75.3	6.59	79.95	132.50	1.83	202.10	0.66	1.53	0.0730	87.2	1.012	0.811
23	22							0.0000	0.4100	375	47.500	213.0	5.86	83.73	95.30	1.09	120.20	0.79	0.00	0.0380	296.3	0.160	0.889
24	23			0.301	0.71			0.2130	0.4100	300	63.496	37.0	5.39	86.55	98.50	2.25	158.90	0.62	2.25	0.0990	37.6	1.689	0.663
25	24			0.225	0.71			0.1590	0.1590	225	54.003	24.2	5.00	88.90	39.20	2.30	91.30	0.43	4.72	0.0490	27.2	1.985	0.417
26	18	0.0150	0.56					0.0090	0.0090	300	9.567	184.0	5.00	88.90	2.10	1.01	71.30	0.03	9.70	0.0010	207874.1	0.001	1.160
27	21	0.0310	0.56					0.0170	0.0870	300	8.500	184.8	5.26	87.34	21.10	1.01	71.20	0.30	0.01	0.0050	2103.6	0.004	1.083
28	27			0.099	0.71			0.0700	0.0700	225	27.750	40.5	5.00	88.90	17.30	1.78	70.60	0.24	7.00	0.0100	59.3	0.468	0.609
29	24			0.054	0.71			0.0380	0.0380	225	9.997	55.7	5.00	88.90	9.50	1.51	60.20	0.16	7.00	0.0030	2237.6	0.004	0.410
31	30	0.0320	0.56	0.134	0.71			0.1130	3.4250	600	6.996	51.1	18.98	47.63	453.10	3.04	859.40	0.53	0.50	0.1310	51.1	0.137	1.111
32	31							0.0000	3.1850	600	22.455	42.2	18.87	47.81	422.90	3.34	945.50	0.45	0.56	0.1140	43.5	0.516	0.960
33	32	0.0380	0.56					0.0210	3.1850	450	11.007	166.7	18.74	48.02	424.80	1.39	441.90	0.96	0.64	0.0910	180.3	0.061	1.081
34	33	0.0580	0.56					0.0320	3.1630	450	8.950	166.7	18.63	48.19	423.40	1.39	441.90	0.96	2.05	0.0900	181.5	0.049	0.815
35	34	0.0560	0.56	0.197	0.71			0.1700	3.0580	600	72.577	206.0	17.83	49.47	420.20	1.51	427.90	0.98	0.64	0.1130	213.7	0.340	0.807
36	35	0.0470	0.56	0.183	0.71			0.1560	2.8670	600	68.979	220.0	17.05	50.72	404.00	1.46	414.10	0.98	0.32	0.1040	231.2	0.298	0.941
37	36	1.2300	0.56	0.145	0.71			2.6810	2.6860	450	57.885	41.6	16.70	51.28	382.50	2.78	442.20	0.87	1.50	0.2950	54.1	1.070	0.836
38	37	0.0090	0.56					0.0050	0.0050	300	8.950	99.4	5.00	88.90	1.20	1.37	97.00	0.01	4.88	0.0010	646830.7	0.001	0.824
31	30	0.0320	0.56	0.134	0.71			0.1130										0.50					1.111
39	31			0.156	0.71			0.1100	0.1100	225	44.450	36.7	5.00	88.90	27.20	1.87	74.20	0.37	6.27	0.0240	46.4	0.959	0.395
31	30	0.0320	0.56	0.134	0.71			0.1130										0.50					1.111
40	31	0.0310	0.56					0.0170	0.0170	300	8.950	186.5	5.00	88.90	4.30	1.00	70.80	0.06	9.26	0.0010	50664.2	0.001	1.102
34	33	0.0580	0.56					0.0320										2.05					0.815
41	34	0.0310	0.56	0.079	0.71			0.0730	0.0730	300	20.923	187.2	5.00	88.90	18.10	1.00	70.70	0.26	4.39	0.0030	2850.6	0.007	0.720
35	34	0.0560	0.56	0.197	0.71			0.1700										0.64					0.807
42	35	0.0360	0.56					0.0200	0.0200	300	8.950	186.4	5.00	88.90	5.00	1.00	70.80	0.07	5.80	0.0010	37383.3	0.001	0.794
36	35	0.0470	0.56	0.183	0.71			0.1560										0.32					0.941
43	36	0.0470	0.56					0.0260	0.0260	300	8.945	61.1	5.00	88.90	6.40	1.75	123.80	0.05	7.83	0.0010	22737.7	0.001	0.921
45	44			0.251	0.71			0.1770	0.1770	225	19.500	37.0	5.00	88.90	43.80	1.86	73.90	0.59	4.37	0.0620	37.0	0.528	0.308
47	46	0.0320	0.56	0.171	0.71			0.1390	0.1560	300	7.000	150.0	5.15	88.03	38.40	1.12	79.00	0.49	4.90	0.0150	633.9	0.011	1.180
48	47	0.0320	0.56					0.0180	0.0180	300	8.800	183.3	5.00	88.90	4.30	1.01	71.40	0.06	9.70	0.0010	49616.3	0.001	1.179
50	49			0.192	0.71			0.1350	0.2400	300	4.000	92.8	5.15	88.00	58.60	1.42	100.40	0.58	3.26	0.0350	92.8	0.043	0.650
51	50			0.074	0.71			0.0520	0.0520	225	14.000	45.6	5.00	88.90	12.90	1.67	66.50	0.19	7.00	0.0050	83.3	0.168	0.562
52	50			0.074	0.71			0.0520	0.0520	225	9.000	127.5	5.00	88.90	12.90	1.00	39.80	0.32	7.00	0.0050	1220.6	0.007	0.545
54	53	0.0350	0.56	0.185	0.71			0.1510	0.2420	300	5.998	185.0	5.15	88.03	59.20	1.01	71.10	0.83	1.77	0.0360	267.1	0.022	0.590
55	54	0.0340	0.56					0.0190	0.0190	300	8.800	183.3	5.00	88.90	4.70	1.01	71.40	0.07	3.52	0.0010	350.1	0.001	0.595
56	54			0.102	0.71			0.0720	0.0720	225	18.600	13.7	5.00	88.90	17.80	3.05	121.50	0.15	7.00	0.0100	32.9	0.565	0.681

A	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP	AMENDMENT

FOR CONTINUATION REFER TO EXTERNAL CATCHMENT PLAN



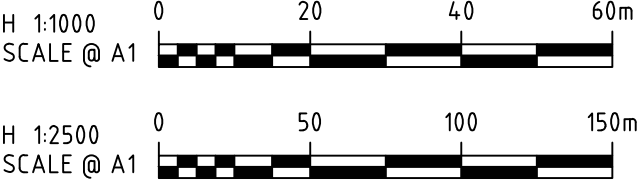
EXTERNAL CATCHMENT PLAN
SCALE 1:2500 @ A1



MAJOR DRAINAGE CATCHMENT PLAN
SCALE 1:1000 @ A1

C:\Users\paul\Documents\3086-01-150\10018.dwg 1/20/2025 5:05 PM ALEX TROBETTA

A	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP	AMENDMENT



COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher

CW Cossill & Webley
CONSULTING ENGINEERS

Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT
SIG GROUP

DESIGNED
W. SANSOM

SCALE
AS SHOWN

APPROVED PE 0005927
[Signature]

PROJECT	KALA ESTATE - STAGE 01
TITLE	100 YEAR ARI CATCHMENT
MUNICIPALITY	CARDINIA SHIRE COUNCIL
PP No.	T220227
DRAWING No.	3086-01-450
REVISION	A

ORIGINAL SIZE
A1

Project:	KALA ESTATE
Project No.	3086-01

Location	CATCHMENT AREAS						MINOR FLOW (20% AEP)					MAJOR FLOW (1% AEP)						Q _{GAP}
	NAME	Lots	Road	Reserve	Ext Devlp	Ext Undevlp	A _e	t _c	I	Q	0.8xQ Total	A _e	t _c	I	Q	Q diversion	Q Total	m ³ /s
		ha	ha	ha	ha	ha	ha	min	mm/hr	m ³ /s	m ³ /s	ha	min	mm/hr	m ³ /s	m ³ /s	m ³ /s	
(1) MT ARARAT STH ROAD	B1, B2	0.000	1.362	0.000	0.000	9.191	2.477	16.7	50.928	0.350	0.280	3.127	16.7	98.840	0.858	0.000	0.858	0.508
(2) KALAMATA BOULEVARD	A1,C,F,G,H,K,R	1.530	0.510	0.000	0.743	0.000	2.476	10.1	66.109	0.170	0.136	2.386	10.1	127.342	0.844	0.000	0.844	0.674
(3) KALAMATA BOULEVARD	C,F	1.181	0.164	0.000	0.000	0.000	0.925	9.1	69.273	0.178	0.142	1.169	9.1	132.801	0.431	0.000	0.431	0.253
(4) KALAMATA BOULEVARD	C*	0.419	0.102	0.000	0.000	0.000	0.353	6.8	78.910	0.077	0.062	0.445	6.8	148.225	0.183	0.000	0.183	0.106
(5) TART STREET	A1, A2, G,H,I,J	0.704	0.285	0.000	3.646	0.000	3.230	9.8	66.843	0.600	0.480	4.080	9.8	128.624	1.458	0.000	1.458	0.858
(6) TART STREET	A1, G,H	0.595	0.321	0.000	1.486	0.000	1.648	8.9	69.975	0.320	0.256	2.082	8.9	133.986	0.775	0.000	0.775	0.455
(7) TART STREET	A1, G	0.106	0.040	0.000	1.486	0.000	1.146	6.3	81.412	0.259	0.207	1.448	6.3	151.926	0.611	0.000	0.611	0.352
(8) DELPHI ROAD	L	0.156	0.103	0.000	0.000	0.000	0.168	6.7	79.316	0.037	0.030	0.212	6.7	148.835	0.087	0.000	0.087	0.051
(9) OLIVE GROVE	E	0.148	0.101	0.000	0.000	0.000	0.161	6.2	81.869	0.037	0.029	0.203	6.2	152.588	0.086	0.000	0.086	0.049
(10) BRANCH ROAD	D,C	0.210	0.109	0.000	0.000	0.000	0.209	6.4	80.653	0.047	0.037	0.264	6.4	150.817	0.111	0.000	0.111	0.064
(11) OLEA WAY	A2, J	0.000	0.040	0.000	2.903	0.000	2.072	7.1	77.241	0.445	0.356	2.618	7.1	145.688	1.059	0.000	1.059	0.615

Flow Length
m
See tc below
57.000
140.000
107.000
55.000
158.000
See tc below
102.000
72.000
86.000
See tc below

COEFFIECIENT OF RUNOFF

STORM EVENT		Lots	Road Reserve	Reserve	Ext Devlp	Ext Undevlp
	20% AEP	0.706	0.557	0.333	0.706	0.187
	1% AEP	0.892	0.703	0.420	0.892	0.236

CATCHMENT AREAS						
NAME	Lots	Road	Reserve	Ext Devlp	Ext Undevlp	TOTAL
	ha	ha	ha	ha	ha	ha
EXT A1				1.486		1.486
EXT A2				2.903		2.903
EXT B1		1.108			7.345	8.453
EXT B2		0.254			1.846	2.100
C	0.419	0.102				0.521
D	0.210	0.058				0.268
E	0.148	0.101				0.249
F	0.762	0.113				0.875
G	0.106	0.040				0.146
H	0.489	0.281				0.770
I		0.040				0.040
J	0.109	0.084				0.193
K	0.243	0.146				0.389
L	0.156	0.103				0.259
R	0.000	0.039				0.039


A	23.01.25	AT			ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP	AMENDMENT

COPYRIGHT
The concepts and information contained in this document are the Copyright of Cossill & Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill & Webley Consulting Engineers constitutes an infringement of copyright.

This plan is not to be used for construction unless issued as revision 0 or higher



Street Address
Level 20, 390 St Kilda Road W cossillwebley.com.au
Melbourne VIC 3004 T (03) 8548 1560
E Melbourne.Reception@cosweb.com.au

CLIENT			
APPROVED PE 0005927 		DESIGNED W. SANSOM	MUNICIPALITY CARDINIA SHIRE COUNCIL
SCALE AS SHOWN		PP No. T220227	REVISION A

PROJECT KALA ESTATE - STAGE 01		TITLE 100 YEAR ARI COMPUTATIONS	
DRAWING No. 3086-01-460		ORIGINAL SIZE A1	

C:\Users\alex\Documents\3086-01_105\Design\Kala\3086-01-460.dwg 22/01/2025 5:10 PM ALEX TIDORBITTA