



LOCALITY PLAN MELWAYS REF: 468 D5



Designed for Living OWOOC

Principal

Leopold Property Developments Pty Ltd Level 1, 6 Riverside Quay Southbank, Victoria 3006

Estuary Stage 3 City Of Greater Geelong



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Level 1, 47 Pakington Street, Geelong West, VIC, 3218 Tel: +61 3 5228 3100 Fax: +61 3 5228 3199 A.B.N. 99 124 206 819

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tout Plan

Standard Construction Notes

1. GENERAL

- **Drawings** The drawings are to be read in conjunction with the contract 1.1 specification and the responsible Authorities standard drawings and current specifications for Roadworks and Drainage. Any observed discrepancy to be referred to the Superintendent prior to start of work.
- **Responsible Authority Documentation Availability** A set of the 1.2 respective responsible Authority standard construction documentation including drawings and specification/s are to be provided by the Contractor and made available on-site for the duration of the construction period.
- **Conformity with Drawings** All works are to be finished in conformity with the 1.3 lines, grades, thicknesses and cross sections shown in the drawings.
- **Materials and Workmanship** Materials and workmanship to comply with 1.4 responsible Authority specifications and relevant SAA Codes.
- **Tolerances** Works are to be constructed in compliance with tolerances 1.5 specified by the relevant responsible Authorities.
- **Minimum Standards** The standards of work and materials stated in the 1.6 drawings and specification are the minimum acceptable irrespective of relevant responsible Authority minimum standards.
- **Sewer/Water Supply** Construction notes specific to sewer and water supply 1.7 asset construction are incorporated in the drawings approved by the Water Company as attached hereto.

EXISTING CONDITIONS 2.

- **Discrepancy with Drawings** Any discrepancy observed/identified between 2.1 the drawings and existing conditions and site features are to be referred to the Superintendent prior to start of any related work.
- 2.2 Municipal Assets & Infrastructure - The condition of existing Council assets potentially affected by the works is to be assessed by a joint site inspection with Council Officers prior to the start of works. Asset conditions are to be recorded and witnessed by Council and the Contractor. The Contractor is to arrange and record site inspections and is liable for all

rectification/reinstatement costs for damage to existing assets.

2.3 **Utility Services** - The locations of existing utility services, as shown in the drawings, are not guaranteed. Exact service locations are to be proven prior to start of works. Service location works are to comply with the requirements of the relevant responsible Authority. The Contractor is liable for rectification/reinstatement costs for damage to existing utility services.

3. NOTIFICATIONS

(d)

- 3.1 **Council** Minimum notification periods are:
- two (2) days written notice of intention to start works
- two (2) days notice to inspect condition of existing Council assets (b)
- twenty four (24) hours notice for weekend work (C)
 - twenty four (24) hours notice for:
 - inspection of drainage works
 - inspection of sub-soil drains - proof roll of prepared sub-grade or constructed pavement
 - inspection of prepared base for concrete works
 - other works as stated in the drawings or specified

Or as otherwise agreed with Council Officers.

Property Owners/Tenants - Seven (7) days written notice to property 3.2 owners/tenants affected by the works.

OCCUPATION OF PUBLIC ROADS 4.

> All roadworks signage to comply with VicRoads Worksite Traffic Management Code incorporating AS 1742.3.

- **Roads under VicRoads jurisdiction** The Contractor is to arrange VicRoads 4.1 consent via "Application for Consent - Works within Road Reserves" (refer VicRoads web site).
- **Roads under Council control** The Contractor is to arrange and acquire 4.2 requisite Road Closure Permits via Council's Traffic Officer.

5. SET OUT

- Survey Stations and Reference Marks The locations of survey 5.1 reference marks are to be verified prior to start of works.
- 5.2 **Road Chainages** Road chainages as shown in the drawings are centreline, unless otherwise stated.
- 5.3 Kerb & Channel Kerb and channel radii and levels relate to edge unless otherwise stated.
- 5.4 **Drainage Pits** The locations and orientation of drainage pits are t accurately set out from co ordinates and/or offsets as stated.
- 5.5 **Pipe Drains** Drainage lines are to be accurately set out from coor and/or offsets as stated. Further to Standard Note 5.4 drainage line to be accurately set out to ensure that the outlet pipe is aligned dire the inlet pipe (where deflection angles are 450 or less) or as otherw the drawings or directed.
- TOPSOIL 6.
- 6.1 **Stripping Limits** Clearing and stripping of topsoil to be restricted be excavated/filled as stated in the drawings or limits as otherwise the Superintendent.
- 6.2 **Surplus Material** Surplus topsoil must be re-used on-site unless stated in the drawings or directed by the Superintendent.

EXISTING VEGETATION 7.

All existing trees and significant vegetation within and external to the are to be retained, preserved and protected unless otherwise state drawings or directed by the Superintendent.

8. EXCAVATION/TRENCHING

- 8.1 **Trenching** Trenching operations exceeding 1.5 metres depth are with the provisions of the Mines (Trenches) Regulations 1982.
- 8.2 Work close to Trees and Vegetation Excavation work within the trees is not to be performed unless otherwise stated in the drawings approved by the Superintendent.
- 8.3 Unstable Sub-Grade Unstable sub-grade/"soft spots" to be exca sound proof-rolled base and backfilled with material approved by C

9. SOIL EROSION

The Contractor must install necessary protection works to effective and limit soil erosion within the worksite. Works to include, but are

- 9.1 **Silt Fences** - downstream of all exposed areas.
- Silt Barriers upstream of all pits
- 10. DRAINAGE WORK
- 10.1 **Existing Drains** The location of existing drainage assets to be ve start of works.
- 10.2 **Pipe Class** Pipes to be, unless otherwise stated in the drawings:
- Roads & Reserves Class 2 Rubber Ring Jointed RCP (a) Easements - Rubber Ring Jointed RCP/FRP or Sewer Class Solver (b) UPVC
- 10.3 **Pit Covers** Pit covers are to be placed to match actual finished su profiles - level and cross fall - of adjacent structures/surfaces. Finis levels stated in the drawings are indicative, for depth range purpose not to be used as the basis for setting final pit cover levels
- 10.4 **Pit Construction** Precast standard pits are to be installed. Cast standard pits are only to be constructed where approved by the Superintendent. All sumps in precast concrete pits are to be infilled concrete flush to the inlet level of the outlet pipe unless otherwise a the superintendent.

10.5 Sub-Soil Drains

Entry to pits to be trimmed flush (a) through the full pit wall thicknes (b) Details of granular filter materia

			DRAWING NOTES
			 Do not scale drawings - use only dimensions stat Dimensions - Dimensions are in metres [m] unlead otherwise stated. Australian Height Datum - Reduced levels are to Australian Height (AHD) unless otherwise stated
			Principal
14.07.10	СВ∕СВ	JG	Leopold Property Developments Pty Ltd
18.05.10	CB/CB	JG	Level 1, 6 Riverside Quay Southbank, Victoria 3006
DATE	DES/DFT	APP'D	

A ISSUED TO COUNCIL FOR APPROVAL REVISION

B COUNCIL AMENDMENTS

		Superintendent prior to start of sub-soil drainage works.	15.0
atations and	11.	BACKFILL MATERIAL	15.3
stations and	11.1	Trenches under all pavement, edgings/kerb sections & Nature Strips - 20mm Class 3 Fine Crushed Rock or other material as approved by Council.	16.
to road	11.2	Allotments/Reserves/ - Selected best quality excavated in-situ material or other material as approved by Council.	16.1
e of channel,	12.	COMPACTION STANDARDS	16.2
o be		Compaction standards are to be checked and proven in accordance with the requirements of AS 1289. Where unspecified by the responsible Authority, the following minimum standards will apply:	17. 17.1
rdinates es at pits are	12.1	Structural Fill	
ectly opposite vise stated in	(a) (b) (c)	Fill base - top 150mm 95% standard compaction Fill zone - 95% standard compaction Under road pavement - zone less than 450mm under road pavement surface 98% standard compaction	17.2 17.3
l to areas to	12.2		
directed by	(a) (b)	Road sub-grade - top 150mm 98% standard compaction Pavement materials - 98% modified compaction	17.4
otherwise	12.3	Trench Backfill	17.5
	(a)	Granular under all pavement & edgings/kerb sections - 98% modified compaction	17.6
ne worksite d in the	(b) (c)	Granular behind kerbing - 95% modified compaction Earth around structures - 95% standard compaction	18.
	13.	CONCRETE WORK	
to comply	13.1	Minimum Strength - Concrete for drainage pits to have a minimum compressive strength of 32 MPa at 28 days.	18.1
e drip line of s or		 Concrete for all other applications to have a minimum compressive strength of 25 MPa at 28 days 	18.2
vated to a	13.2	Bar Chairs - All reinforcement in footpaths, vehicle crossings and roads to be supported by appropriately sized bar chairs.	18.3
ouncil.	13.3	Slump - Concrete to have 75mm maximum slump.	(a) (b)
	13.4	Kerb Cement Content - Concrete for kerb extrusion machines to have a minimum cement content of 280 kg/m3.	(c)
ly manage not limited to:	13.5	Services Distribution Mains & Conduits - Mains and conduits are to be installed prior to kerb section construction works.	18.4
	13.6	Footpaths - All footpaths are to be a minimum of 125mm thick with F62 reinforcement, bedded on min of 75mm compacted Class 3 FCR. Bedding to extend 100mm beyond the edges of the footpath. Contraction joints to be constructed at 12.5m intervals. Class 4 FCR is to be used where filling is required under footpath Class 3 FCR bedding material.	
erified prior to	13.7	Continuous Kerb - To allow for a continuous concrete kerb and channel pour the "Gatic" HD concrete surround is to be in place prior to the pour commencing. If the pit surrounds are not in place then the initial kerb and channel pour is to stop one metre either side of pit.	18.5
nt Cement	14.	ROAD PAVEMENT WORK	18.6
urface	14.1	Pavement Composition - The minimum standard of pavement composition is stated in the drawings for the respective road sections.	19.
hed surface es, and are	14.2	Road surfacing - Road surfacing must not be performed until all other works have been completed.	
in-situ	15.	IDENTIFICATION MARKING	19.1
with approved by		All identification marking figures are to be a minimum of 50mm high.	19.2
· · · · · · · · · · · · · · · · · · ·	15.1	Conduits - Letter "W", "G" "E" or "T" for water, gas, electricity or telecommunications conduit to be stamped into face of kerb sections at frontage of lot served.	19.3
tared in place	15.2	House Drain Connections - Letter "H" to be stamped into face of kerb sections opposite street drain connection point.	(a) (b) (c)
Designed C. Barker		© SM Urban Pty Ltd ABN 99 124 206 819	
1			

h with inner wall and effectively mo	rtared in place	15.1	Conduits - Letter "W", telecommunications co frontage of lot served.
al including source to be submitted to the			House Drain Connect opposite street drain co
se only dimensions stated. s are in metres [m] unless	Designed C. Barker Drawn C. Barker		

ed.	Designed C. Barker		© SM Urban Pty Ltd ABN 99 124 206 819	
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	Authorised	Scale @ A1	The contents of this drawing are	Level 1, 47 Pakington Street, Ge
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	Date April 2010		confidential and may only be used for the purpose for which they are intended.	Adelaide +61 8 8223 6455 Brisbane +61 7 3831 8988 Canberra +61 2 6126 1900

Lot Nos. - Lot Nos. to be stenciled in white paint on face of kerb sections at lot frontages

TESTING

Specified Testing - Testing will be conducted in compliance with specified requirements. The Contractor is liable for all costs.

Proof-Rolling - Pneumatic tyred plant minimum weight 20 tonne with minimum ground contact pressure 450 kPa per tyre.

EXPOSED SURFACES RESTORATION

Topsoiling - All exposed residual surface areas at completion of civil works to be topsoiled with 100mm depth of best available material.

Allotments/Reserves - Allotments and reserves are to be evenly graded at a minimum gradient of 1 in 100 to their nominated drainage connection points.

Nature Strips - Nature strip surfaces are to be trimmed to grade between adjacent surfaces. Top-soiling and compaction operations are to ensure there is no later settlement/subsidence.

Top-Dressing - Undisturbed grassed areas are to be top-dressed and evenly graded as directed by the Superintendent.

Hydroseeding - At completion of the above works all prepared exposed surfaces are to be well watered and hydroseeded.

Batter Slopes - Batter slopes shall be a maximum of 1 in 5 for fill and 1 in 3 for cut unless otherwise shown.

FINAL WORKS PRESENTATION

At Practical Completion the following minimum standards of presentation will apply:

Roads/Paved Areas - All roads and paved areas are to be swept/washed down to produce clean surfaces free of all deleterious materials.

Pipe Systems - All pipe systems are to be flushed and cleared of all accumulated debris and deleterious materials.

Site - The site is to be prepared to a state acceptable for presentation to the public for sale purposes and is to be in a condition satisfactory to the Superintendent with completion of, at least, the following activities: all incidental and minor works site clean up operations

site cleared of all facilities, temporary structures, plant, litter, surplus materials, etc. that are to be removed off-site.

Reserve Frontages - Round topped treated pipe bollards (0.6m high) are to be placed across reserve frontages at 1.5m centres. A demountable section for vehicle access consisting of an appropriate length of 50mm diameter (2.3mm wall thickness) galvanised water pipe, short section of chain (3 links) welded to each end. Two galvanised steel bollards - one each side of the entry, with one end to have a D20 padlock, which locks in to a link, which has been welded onto the bollard. Unless otherwise stated on plans.

Street Signs - Street signs are to be located as indicated on the plans and installed in accordance with Vicroads Traffic Engineering Manual Volume 2. Mounting height is to be to the underside of the sign and is to be a minimum of 2.1m and maximum of 3.0m

No Through Road - No through road signs are to be install below the street sign where applicable.

MAINTENANCE WORKS

The Contractor must responsively repair/remediate defective works as directed during the maintenance period.

Council Assets - for Maintenance Period of 3 months

Water Company Assets - for Defects Liability Period of 12 months and Maintenance Period of 2 years

Inspection & General Maintenance Activities - the Contractor must undertake regular site inspections of all completed works. Special attention must be given to the adequacy of the following soil protection works:

Silt fences
Silt barriers
Areas hydroseeded



ESTUARY

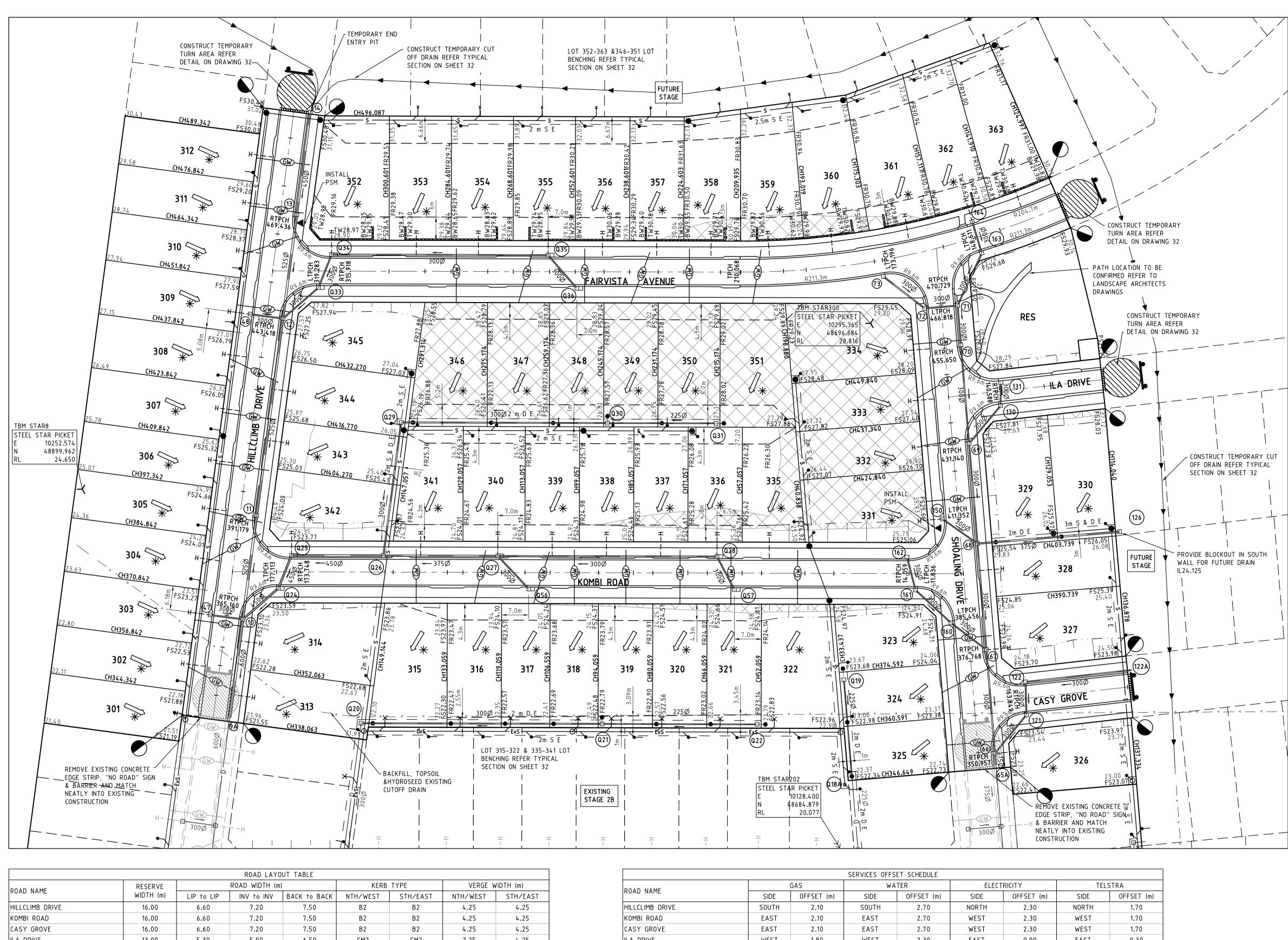
Stage 3 City Of Greater Geelong Roadworks and Drainage General Notes

eelong West, VIC, 3218 228 3199 | www.smu.com.au

Gold Coast +61 7 5578 0222 Melbourne +61 3 9869 0800 Traralgon +61 3 5173 0100

Drawing No. 0250EHL-03-02 Sheet No. 2 of 34

Rev B



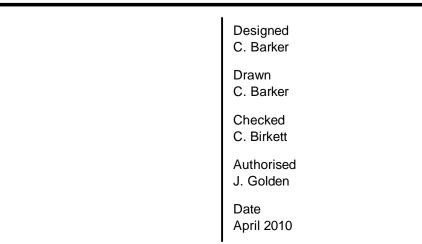
			ROAD LAYO	OUT TABLE				
	RESERVE		ROAD WIDTH (m	}	KERB	TYPE	VERGE WIDTH (m)	
ROAD NAME	WIDTH (m)	LIP to LIP	INV to INV	BACK to BACK	NTH/WEST	STH/EAST	NTH/WEST	STH/EAST
HILLCLIMB DRIVE	16.00	6.60	7.20	7.50	B2	B2	4.25	4.25
KOMBI ROAD	16.00	6.60	7.20	7.50	B2	B2	4.25	4.25
CASY GROVE	16.00	6.60	7.20	7.50	B2	B2	4.25	4.25
ILA DRIVE	13.00	5.30	5.90	6.50	SM2	SM2	2.25	4.25
FAIRVISTA AVENUE LOTS 352-361	16.00	6.60	7.20	7.50	B2	B2	4.25	4.25
FAIRVISTA AVENUE LOTS 362-363	14.00	6.60	7.20	7.50	B2	B2	4.25	VARIES
SHOALING DRIVE	16.00	6.60	7.20	7.50	B2	B2	4.25	4.25

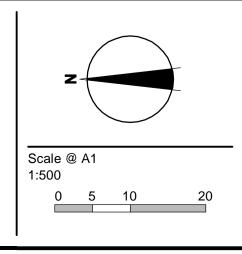
zo/ofia						
50						
1000-	G	FOOTPATH IN RESERVE UPDATED TO MATCH LANDSCAPE PLAN	16.03.11	СВ∕СВ	JG	
	F	LOT 349 DRIVEWAY CROSSOVER RELOCATED	11.11.10	СВ∕СВ	JG	0
	E	LOT 315 & 340 DRIVEWAY CROSSOVERS RELOCATED	29.10.10	СВ∕СВ	JG	C
	D	DRAINAGE LINE REMOVED	22.09.10	CB/CB	JG	
	C	RETAINING WALLS ADDED	19.08.10	CB/CB	JG	Principal
2000	В	COUNCIL AMENDMENTS	14.07.10	СВ∕СВ	JG	Leopold Proper
n Airo	А	ISSUED TO COUNCIL FOR APPROVAL	18.05.10	СВ∕СВ	JG	Level 1, 6 River Southbank, Vic
	RE	VISION	DATE	DES/DFT	APP'D	



erty Developments Pty Ltd verside Quay ictoria 3006

			SERVICES OFF:	SET SCHEDULE				
		GAS	W	ATER	ELEC	TRICITY	TELSTRA	
ROAD NAME -	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
HILLCLIMB DRIVE	SOUTH	2.10	SOUTH	2.70	NORTH	2.30	NORTH	1.70
KOMBI ROAD	EAST	2.10	EAST	2.70	WEST	2.30	WEST	1.70
CASY GROVE	EAST	2.10	EAST	2.70	WEST	2.30	WEST	1.70
ILA DRIVE	WEST	1.80	WEST	2.30	EAST	0.90	EAST	0.30
FAIRVISTA AVENUE NTH OF SHOALING	EAST	2.10	EAST	2.70	WEST	2.30	WEST	1.70
FAIRVISTA AVENUE STH OF SHOALING	EAST	2.10	EASTR	2.70	WEST	0.75	WEST	0.30
SHOALING DRIVE	SOUTH	2.10	SOUTH	2.70	NORTH	1.80	NORTH	2.30
ILA DRIVE TRUNK MAIN	_	_	WEST	2.90	_	-	_	_
SHOALING DRIVE TRUNK MAIN	-	_	NORTH	2.90	_	-	_	-





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LEGEND – LAYOUT PLAN
STORMWATER DRAIN, PIT & PROPERTY INLET
SWALE DRAIN
•——s——• SEWER & MAINTENANCE STRUCTURES
+ HOUSE DRAIN
TACTILE PAVERS
EXISTING ELECTRICITY (UNDERGROUND)
O/H E EXISTING ELECTRICITY (OVERHEAD)
Ex G EXISTING GAS
EXISTING TELSTRA
– [●] E× D – ● EXISTING STORMWATER DRAIN
⊖—ex s— EXISTING SEWER
EXISTING HOUSE DRAIN
> EXISTING SWALE DRAIN
141.34 EXISTING SURFACE LEVEL
FS140.35 FINISHED BUILDING LINE LEVEL
FR157.40 FINISHED RIDGE LINE LEVEL
TW159.30 TOP OF RETAINING WALL
BW159.30 BOTTOM OF RETAINING WALL
RETAINING WALL
— — ZERO LOT LINES
PAVEMENT TREATMENT
STRUCTURAL FILL > 200mm DEEP
EX. STRUCTURAL FILL > 200mm DEEP
DIRECTION OF FALL
OVERLAND FLOW
lpha allotment to be graded evenly in
DIRECTION OF FALL TO LEVELS INDICATED
CONCRETE EDGE STRIP WITH SUBSOIL DRAIN,
"NO ROAD" SIGN & BARRIER
↔ ↔ ↓ LIMIT OF WORKS
EXISTING TREE TO BE REMOVED
PERMANENT SURVEY MARK
TEMPORARY BENCH MARK
PROPOSED DRIVEWAY

WARNING

BEWARE OF UNDERGROUND SERVICES The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works DIAL 1100 BEFORE YOU DIG

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Drawing No. 0250EHL-03-03 Sheet No. 3 of 34

ESTUARY

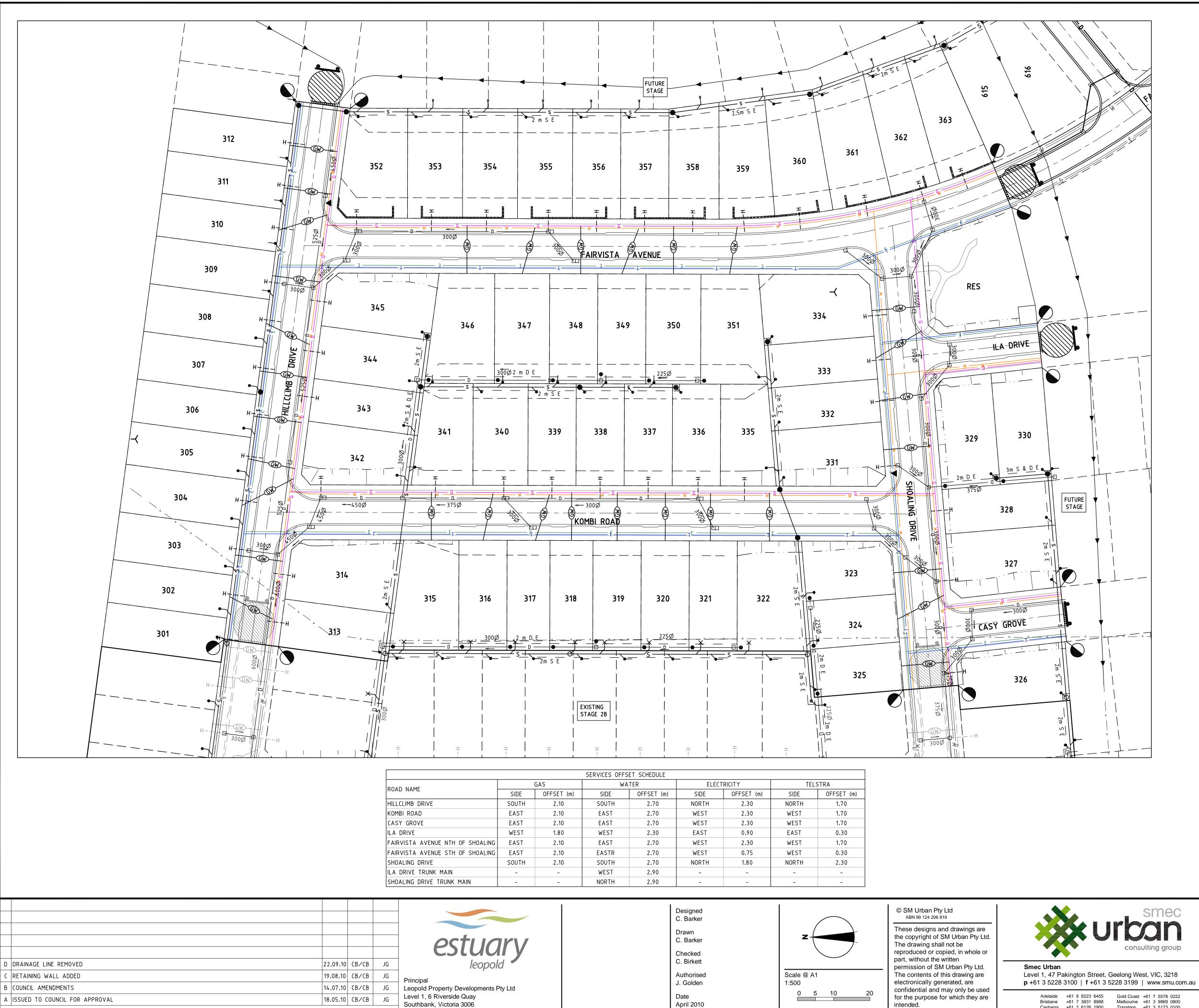
City Of Greater Geelong

Roadworks and Drainage

Stage 3

Layout Plan

Rev G



DATE DES/DFT APP'D

REVISION

	SERVICES OFFS	ET SCHEDULE				
AS	WA	TER	ELEC	TRICITY	TEL	STRA
OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
2.10	SOUTH	2.70	NORTH	2.30	NORTH	1.70
2.10	EAST	2.70	WEST	2.30	WEST	1.70
2.10	EAST	2.70	WEST	2.30	WEST	1.70
1.80	WEST	2.30	EAST	0.90	EAST	0.30
2.10	EAST	2.70	WEST	2.30	WEST	1.70
2.10	EASTR	2.70	WEST	0.75	WEST	0.30
2.10	SOUTH	2.70	NORTH	1.80	NORTH	2.30
-	WEST	2.90	-	-	-	-
-	NORTH	2.90	-	-	-	-

Designed C. Barker Drawn C. Barker Checked C. Birkett Authorised J. Golden Date	E S cale @ A1 1:500 0 5 10 20	© SM Urban Pty Ltd ABN 99 124 206 819 These designs and drawings are the copyright of SM Urban Pty Ltd. The drawing shall not be reproduced or copied, in whole or part, without the written permission of SM Urban Pty Ltd. The contents of this drawing are electronically generated, are confidential and may only be used for the purpose for which they are	Smec Urban Level 1, 47 Pakington Street, p +61 3 5228 3100 f +61 3 Adelaide +61 8 8223 6455
Date April 2010		for the purpose for which they are intended.	Adelaide +61 8 8223 6455 Brisbane +61 7 3831 8988 Canberra +61 2 6126 1900

LEGEND – L	AYOUT PLAN
	STORMWATER DRAIN, PIT & PROPERTY INLET
	SWALE DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
	SERVICE CONDUITS
<u> </u>	TACTILE PAVERS
	EXISTING ELECTRICITY (UNDERGROUND)
	EXISTING ELECTRICITY (OVERHEAD)
	EXISTING GAS
	EXISTING TELSTRA
	EXISTING WATER
	EXISTING STORMWATER DRAIN
-	EXISTING HOUSE DRAIN
	EXISTING SWALE DRAIN
	EXISTING SURFACE LEVEL
	FINISHED BUILDING LINE LEVEL
	FINISHED RIDGE LINE LEVEL
	TOP OF RETAINING WALL
	BOTTOM OF RETAINING WALL
	RETAINING WALL
	ZERO LOT LINES
	PAVEMENT TREATMENT
	STRUCTURAL FILL > 200mm DEEP
	EX. STRUCTURAL FILL > 200mm DEEP
	DIRECTION OF FALL
	OVERLAND FLOW
*	ALLOTMENT TO BE GRADED EVENLY IN
个	DIRECTION OF FALL TO LEVELS INDICATED
	CONCRETE EDGE STRIP WITH SUBSOIL DRAIN,
0 0	"NO ROAD" SIGN & BARRIER
	IND ROAD SIGN & BARRIER
	EXISTING TREE TO BE REMOVED
\sim	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	PROPOSED DRIVEWAY
	TRUFUSED DRIVEWAT

WARNING

BEWARE OF UNDERGROUND SERVICES The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works DIAL 1100 BEFORE YOU DIG

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ESTUARY

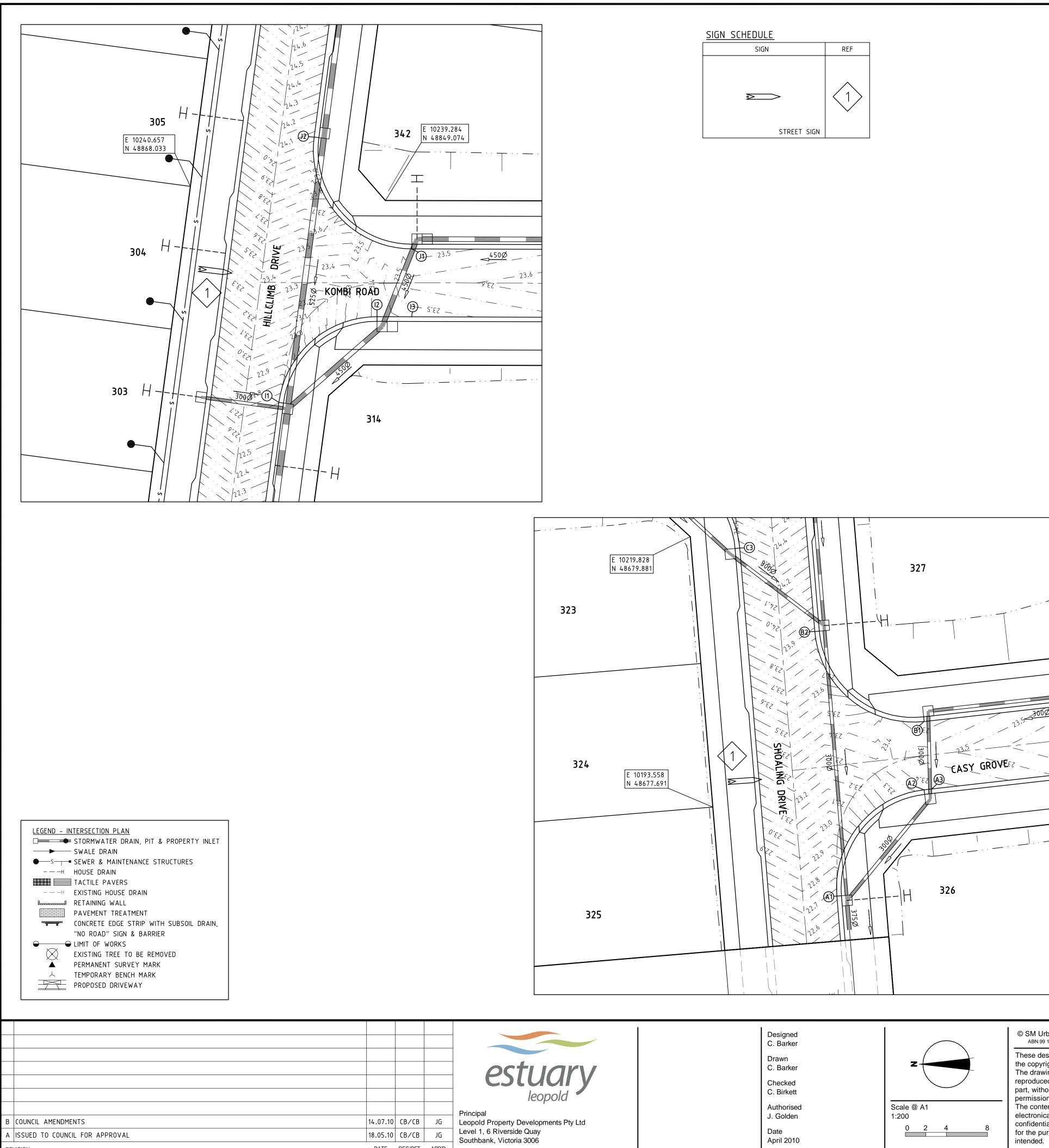
Sheet No. 4 of 34

Stage 3 City Of Greater Geelong Roadworks and Drainage Services Layout Plan

Drawing No. 0250EHL-03-04

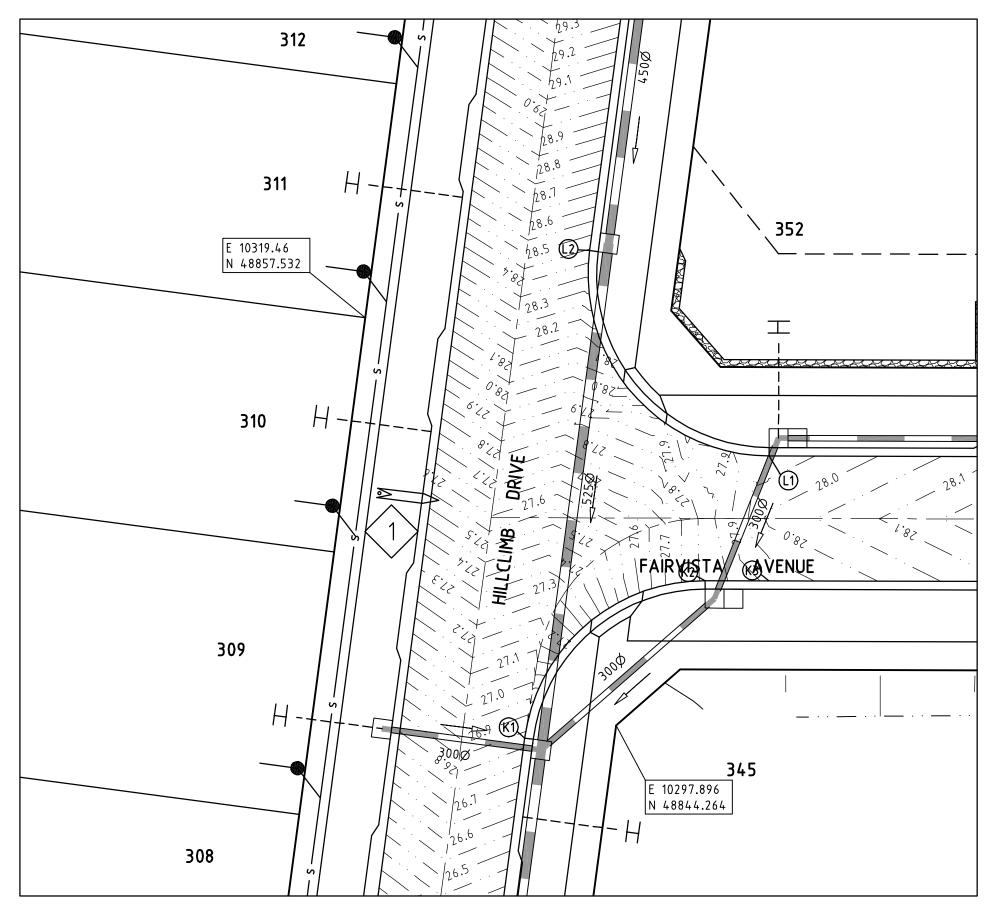
Rev D

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DATE DES/DFT APP'D

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Date April 2010		confidential and may only be used for the purpose for which they are intended.	Adelaide +61 8 8223 6455 Gold Coast +61 7 5578 0222 Brisbane +61 7 3831 8988 Melbourne +61 3 9869 0800 Canberra +61 2 6126 1900 Traralgon +61 3 5173 0100

WARNING BEWARE OF UNDERGROUND SERVICES The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works DIAL 1100 BEFORE YOU DIG www.**1100.**com.au

<u>NOTES</u> 1. REFER TO SHEET No's 7 - 8 FOR LIP PROFILES. REFER TO SHEET No 9 FOR SETOUT INFORMATION. 3. 90° BENDS TO HAVE CENTRELINE MARKING WITH RRPM'S AT MAX 6m SPACING.

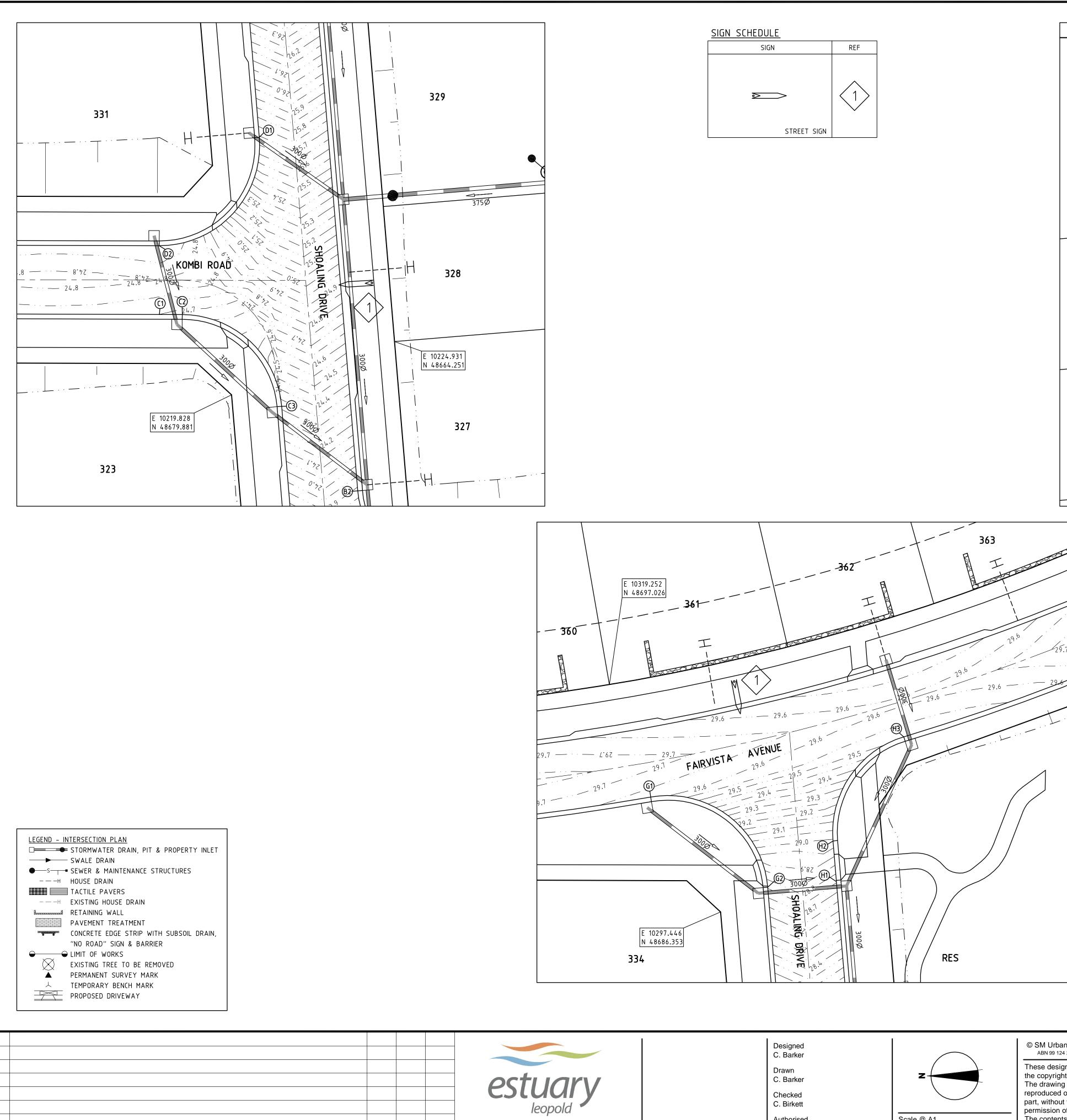


ESTUARY

Stage 3 City Of Greater Geelong Roadworks and Drainage Intersection Detail Plan - 1

Drawing No. 0250EHL-03-05 Sheet No. 5 of 34

Rev B



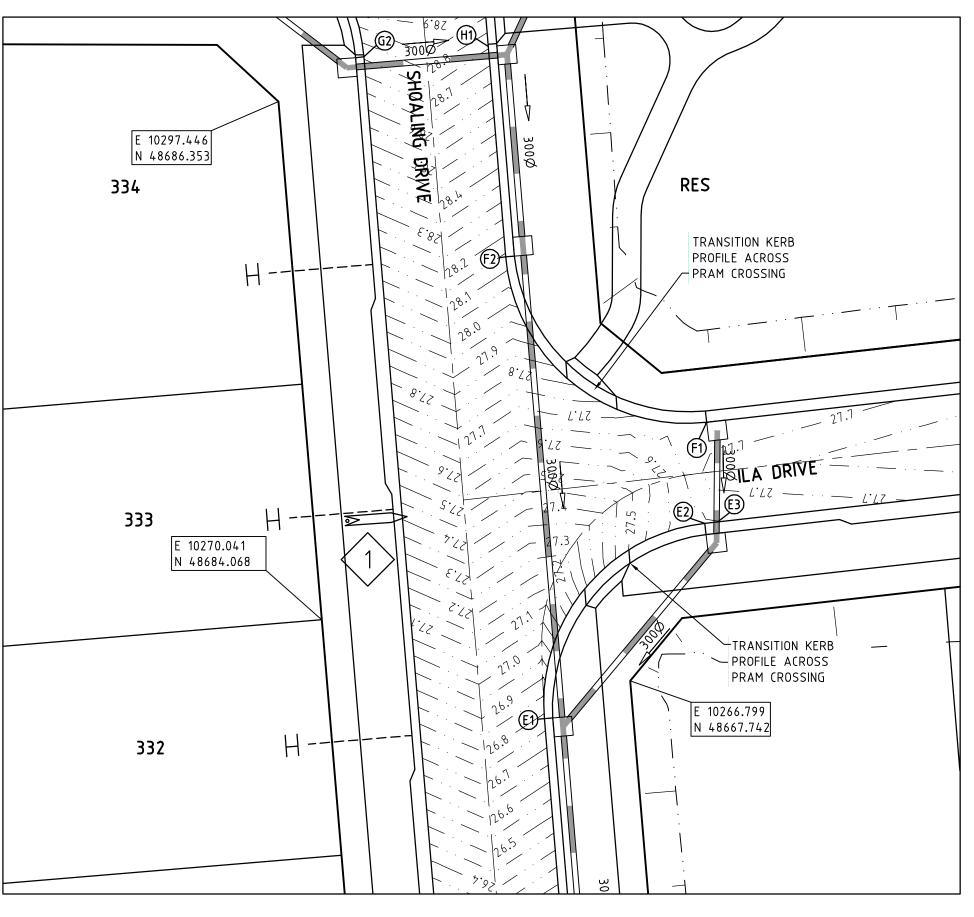
14.07.10	CB/CB	JG
18.05.10	CB/CB	JG
DATE	DES/DFT	APP'D

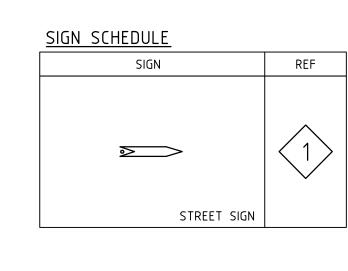
Principal Leopold Property Developments Pty Ltd Level 1, 6 Riverside Quay Southbank, Victoria 3006

B COUNCIL AMENDMENTS

REVISION

A ISSUED TO COUNCIL FOR APPROVAL





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<u>NOTES</u> 1. REFER TO SHEET No's 7 - 8 FOR LIP PROFILES. REFER TO SHEET No 9 FOR SETOUT INFORMATION. 3. 90° BENDS TO HAVE CENTRELINE MARKING WITH RRPM'S AT MAX 6m SPACING.



ESTUARY

Stage 3 City Of Greater Geelong Roadworks and Drainage Intersection Detail Plan - 2

Drawing No. 0250EHL-03-06 Sheet No. 6 of 34

Rev B



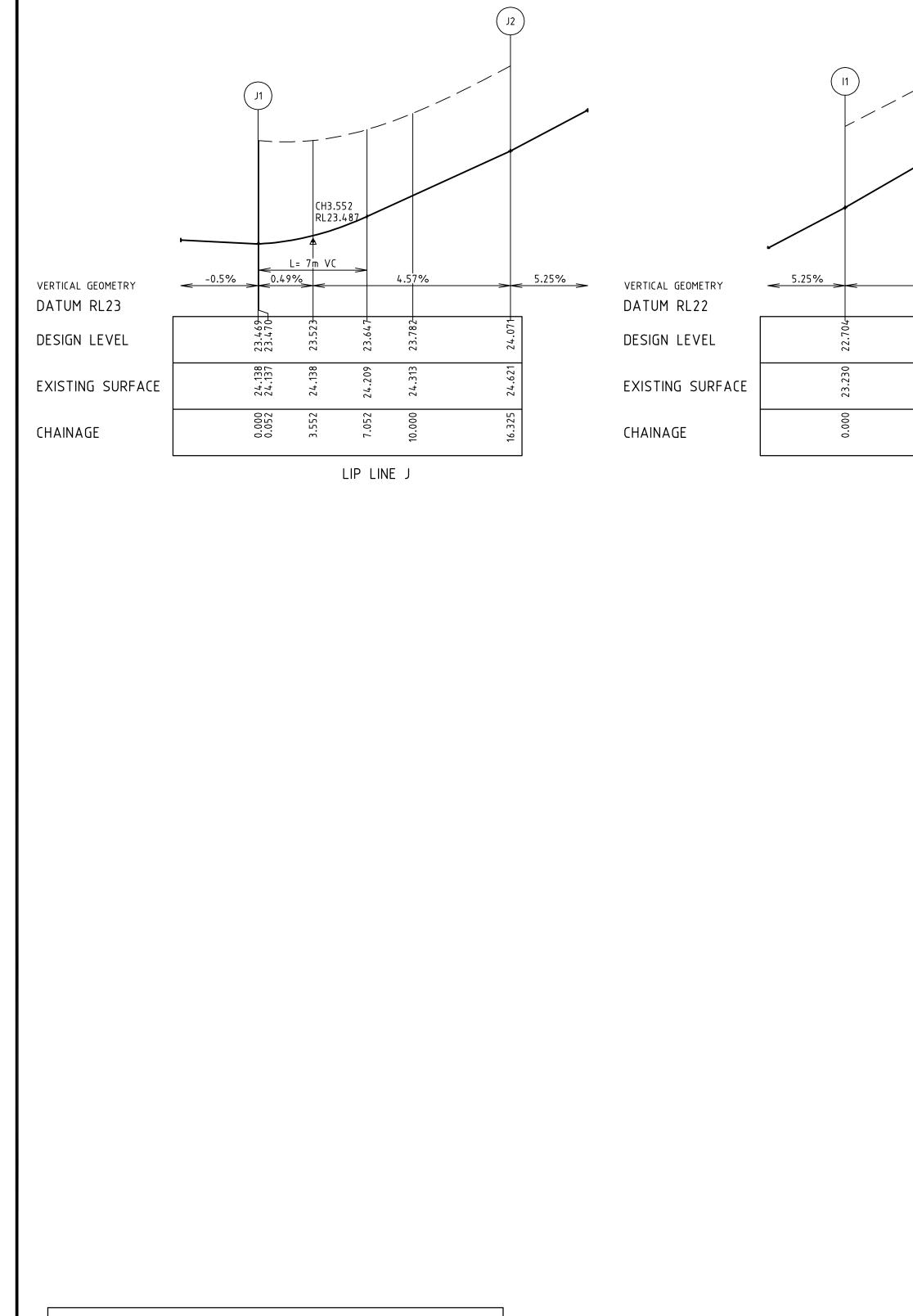
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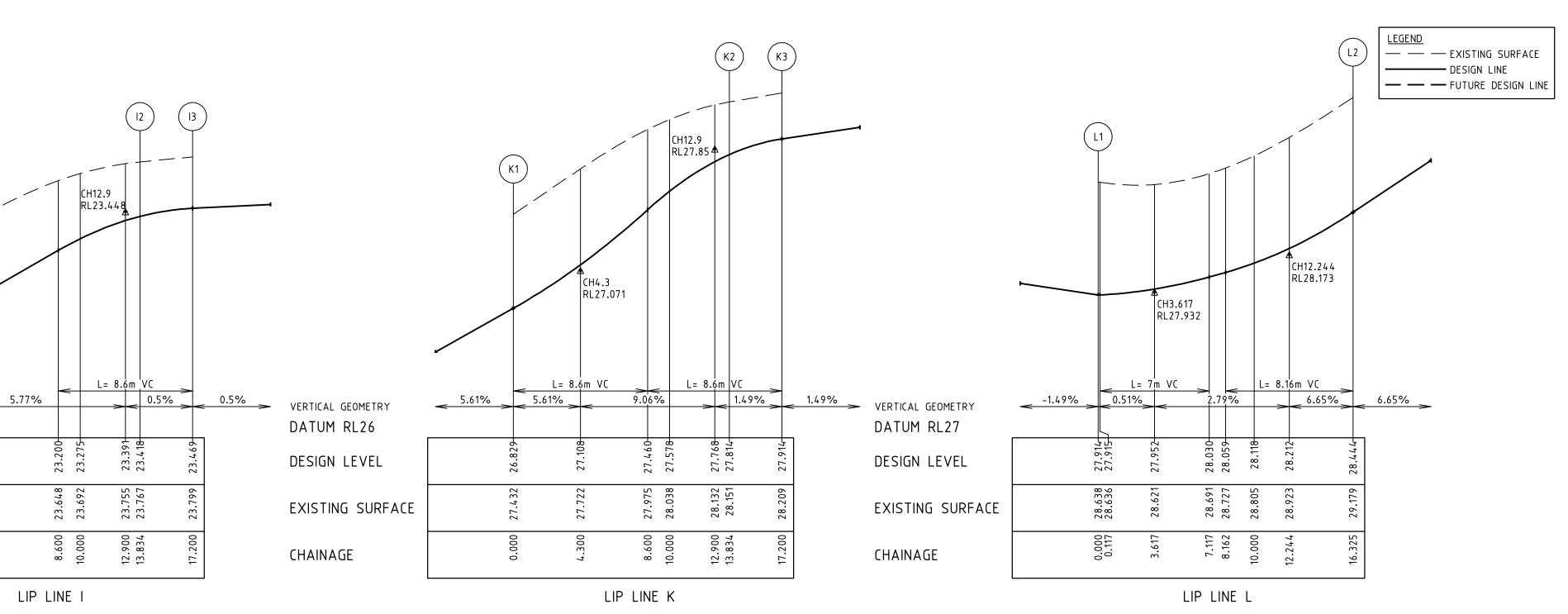
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<u>NOTES</u> 1. CHAINAGES REFER TO LIP OF KERB/EDGE OF CONCRETE. 2. REFER TO SHEET No 9 FOR SETOUT INFORMATION.

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ESTUARY

Stage 3 City Of Greater Geelong Roadworks and Drainage Lip Profiles - 2

Drawing No. 0250EHL-03-08 Sheet No. 8 of 34

Rev B

ALIGNMENTA POINTNO A1 A2 A3	E A S T I N G 10184.896 10195.234 10195.316	48657.132	RL 22.668 23.366 23.375					<u>SHOALING DRIVE DESIGN LINE</u> CHAINAGE EASTING NORTHING BEARING 346.592 10180.272 48668.555 85°13'60″ IP 400.000 10233.495 48672.993 85°13'60″ 481.440 10314.653 48679.761 85°13'60″ IP
CURVE NO A1 - A2	I R	ADIUS ARC 9.600 14.806	A 2.716	B 2 . 0 1 1	X 3.610	Y 3.080	L MID POINT RL 3.701 23.069	IP 1 COORDINATE = 10180.2721 48668.5550 CHAINAGE = 346.5922
ALIGNMENT B POINT NO B1 B2 CURVE NO B1 - B2			RL 23.375 23.891 A 2.909	B 2.152	X 3.737	Y 3.147	L MID POINT RL 3.838 23.585	IP 2 COORDINATE = 10314.6531 48679.7605 CHAINAGE = 481.4396 <u>HILLCLIMB DRIVE DESIGN LINE</u> CHAINAGE EASTING NORTHING BEARING
<u>ALIGNMENT C</u> POINT NO	EASTING	NORTHING	R L	2	5.757	5	5.050 25.505	338.478 10193.642 48866.227 97°35'25" IP 400.000 10254.625 48858.101 97°35'25" 496.087 10349.870 48845.409 97°35'25" IP IP 1 10349.870 48845.409 97°35'25" IP
C 1 C 2 C 3 CURVE NO C 2 - C 3		48684.613	2 4 . 6 9 9 2 4 . 6 8 4 2 4 . 3 1 6 A 2 . 5 2 6	B 1.873	X 3.482	Y 3.008	L MID POINT RL 3.564 24.579	IP COORDINATE = 10193.6419 48866.2274 CHAINAGE = 338.4779 48866.2274 IP 2 2 2 COORDINATE = 10349.8698 48845.4092 CHAINAGE = 496.0868 48845.4092
ALIGNMENT D POINT NO D1 D2 CURVE NO D1 - D2			RL 25.692 24.699 A 3.110	B 2 . 2 9 8	Х З.863	Y 3.210	L MID POINT RL 3.976 25.134	KOMBI ROAD DESIGN LINE CHAINAGE EASTING NORTHING BEARING 0.000 10230.797 48672.768 0°09'30" IP 100.000 10231.073 48772.768 0°09'30" IP 188.440 10231.318 48861.207 0°09'30" IP IP 1 10231.318 48861.207 0°09'30" IP
ALIGNMENT E POINT NO E 1 E 2 E 3 CURVE NO		48663.795 48663.101 RADIUS ARC	RL 26.786 27.643 27.649 A	В	X	Y	L MID POINT RL	IP 2 COORDINATE = 10231.3178 48861.2069 CHAINAGE = 188.4395
E1 – E2 <u>ALIGNMENT F</u> POINT NO F1 F2	88.367 EASTING 10280.484 10289.227		2.716 RL 27.649 28.140	2.011	3.610	3.080	3.701 27.286	<u>CASY GROVE DESIGN LINE</u> CHAINAGE EASTING NORTHING BEARING 136.878 10201.602 48629.966 353°36′00″ IP 177.122 10197.116 48669.960 353°36′00″ IP IP 1 COORDINATE = 10201.6022 48629.9660
CURVE NO F1 - F2 ALIGNMENT G		RADIUS ARC 9.600 15.353	A 2.909	B 2.152	X 3.737	Y 3.147	L MID POINT RL 3.838 27.808	CHAINAGE = 136.8779 IP 2 COORDINATE = 10197.1162 48669.9596
POINT NO G1 G2 CURVE NO G1 - G2			RL 29.625 28.757 A 3.129	B 2 . 3 1 2	X 3.875	Y 3.216	L MID POINT RL 3.989 29.291	CHAINAGE = 177.1223 <u>ILA STREET DESIGN LINE</u>
ALIGNMENT H POINT NO H 1 H 2 H 3	E A S T I N G 1 0 3 0 0 . 3 5 7 1 0 3 0 4 . 2 5 3 1 0 3 1 4 . 2 4 3	48675.582	RL 28.757 28.990 29.515					IP 1 COORDINATE = 10280.8107 48637.0142 CHAINAGE = 114.0398 IP 2 COORDINATE = 10276.3701 48676.6026
CURVE NO H2 - H3 <u>ALIGNMENT I</u>	77.996	RADIUS ARC 9.600 13.068	A 2.139	B 1.589	Х З.204	Y 2.837	L MID POINT RL 3.267 29.367	ECOORDINATE IO276.3701 48676.6026 CHAINAGE = 153.8764 FAIRVISTA AVENUE DESIGN LINE CHAINAGE EASTING DORTHING BEARING 124.680 10325.485 48647.560 336°43′26″ TC
POINT NO 1 2 3 CURVE NO 1 - 2		48849.890	RL 22.704 23.418 23.469 A 2.386	В 1.770	X 3.384	Y 2.950	L MID POINT RL 3.459 23.103	124:000 10323:403 40047:300 350:43:20 10 150:000 10316.918 48671.370 343°41'54" 200:000 10308.758 48720.578 357°28'17" 209:754 10308.556 48730.329 0°09'30" CT 300:000 10308.806 48820.575 0°09'30" IP IP 1 1 1 1 1 1
ALIGNMENT J POINT NO J1 J2 CURVE NO J1 - J2			RL 23.469 24.071 A 3.266	B 2 . 4 1 1	X 3.959	Y 3.255	L MID POINT RL 4.081 23.698	COORDINATE = 10325.4845 48647.5604 CHAINAGE = 124.6804 IP 2 COORDINATE = 10308.4372 COORDINATE = 10516.5556 48729.7544 RADIUS = 208.0000
ALIGNMENT K POINT NO K1 K2 K3 CURVE NO K1 – K2		48839.553	RL 26.829 27.814 27.914 A 2.386	B 1.770	X 3 . 3 8 4	Y 2.950	L MID POINT RL 3.459 27.314	LENGTH = 85.0739 INTERSECT ANGLE = 23°26'04" START TANGENT COORDINATE = 10325.4845 48647.5604 LENGTH = 43.1400 CHAINAGE = 124.6804 BEARING = 336°43'26"
ALIGNMENT L POINT NO L1 L2 CURVE NO L1 - L2		NORTHING 48836.169 48845.658 RADIUS ARC 9.600 16.325	RL 27.914 28.444 A 3.266	B 2.411	X 3.959	Y 3.255	L MID POINT RL 4.081 28.059	END TANGENT COORDINATE = 10308.5564 48730.3292 LENGTH = 43.1400 CHAINAGE = 209.7542 BEARING = 0°09'30" IP 3 COORDINATE = 10308.8895 48850.8700 CHAINAGE = 330.2956
Image: state sta	R APPROVAL			14.07.10 18.05.10		rincipal		Designed C. Barker Drawn C. Barker Drawn C. Barker Checked C. Birkett Authorised J. Golden Date April 2010

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Drawing No. 0250EHL-03-09

Approved for Construction

Rev B

Stage 3 City Of Greater Geelong Roadworks and Drainage Setout Information Plan

ESTUARY

Sheet No. 9 of 34

NOTES 1. SETOUT CO-ORDINATES REFER TO LIP OF KERB/EDGE OF CONCRETE. 2. REFER TO SHEET No's 7 - 8 FOR LIP PROFILES.

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RIGHT LIP OF KERB EXISTING SURFACE AT RIGHT BOUNDARY LEFT LIP OF KERB EXISTING SURFACE AT LEFT BOUNDARY EXISTING SURFACE

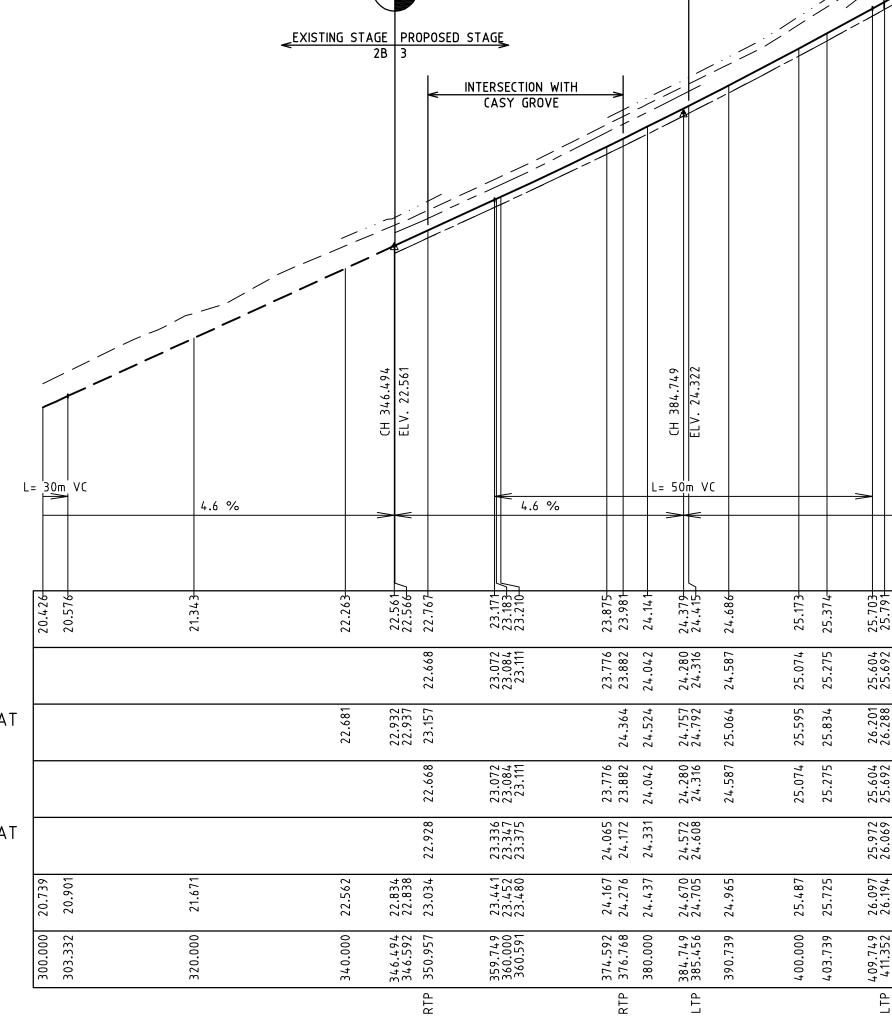
CHAINAGE

VERTICAL GEOMETRY

DATUM RL18

HORIZONTAL GEOMETRY

DESIGN CENTRELINE



RTP LTP SHOALING DRIVE LONGITUDINAL SECTION

INTERSECTION WITH KOMBI ROAD

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		INTER FAIRV
	ILA DRIVE	
5.52 %		
25.791	27.227 27.374 27.374 27.918	28.479
25.692 26.170 26.437 26.437	27.128 27.275 27.275 27.819 27.819	28.380
26.288 26.756 27.022 27.022	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	28.855
25.692 26.170 26.437 26.437	27.128 27.275 27.819 27.819	28.380 28.757
26.069 25.692 26.288 25.692 25.797 26.590 26.170 26.756 26.170 26.269 26.897 26.437 27.022 26.437 26.536		
	27.628 27.762 28.274 28.274	28.822 29.213
LTP 411.352 26.194 420.000 26.699 424.840 26.973 RTP 431.140 27.316	437.340 440.000 449.840	460.000

HORIZONTAL GEOMETRY			
DATUM RL25			
DESIGN CENTRELINE	27.35 8	27.396	
RIGHT LIP OF KERB	27.278	27.316	; ;
EXISTING SURFACE AT RIGHT BOUNDARY			
LEFT LIP OF KERB	27.278	27.316	
EXISTING SURFACE AT LEFT BOUNDARY			
EXISTING SURFACE	27.835	27.850	
CHAINAGE	12.535	20.000	

VERTICAL GEOMETRY

					-	STAGE PR 3 112.535 27.870	<u>OPOSED S</u>	TAGE	INTERSECTION WIT SHOALING DRIVE
			0.5 %			CH 112.535 ELV. 27.870	-0.5	5 %	
78 27.358	16 27.396	19 27.498	21 27.601	24 27.703	26 27.806	90 27.870 33 27.862	53 27.832	07 27.787	27.732 27.729
27.278	27.316	27.419	27.521	27.624	27.726	28.454 27.790 27.783	28.412 27.753	28.400 27.707	28.313 27.652 28.307 27.649
27.278	27.316	27.419	27.521	27.624	27.726	27.723 27.790 27.783	27.681 27.753	27.679 27.707	27.649 27.652 27.645 27.649
27.835	27.850	27.878	27.773	27.879	28.098	28.167 28.158	28.100	28.112	28.043 28.040
12.535	20.000	40.000	60.000	80.000	100.000	112.535 114.040	120.000	129.053	RTP 14.0.000

INTERSECTION WITH >

LEGEND
— — — EXISTING SURFACE
DESIGN LINE
FUTURE DESIGN LINE
— · · · — · · - RIGHT BUILDING LINE
LEFT BUILDING LINE
LEFT LIP OF KERB

ILA STREET LONGITUDINAL SECTION



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ESTUARY

Stage 3 City Of Greater Geelong Roadworks and Drainage Longitudinal Sections - 1

Drawing No. 0250EHL-03-10 Sheet No. 10 of 34

Rev B

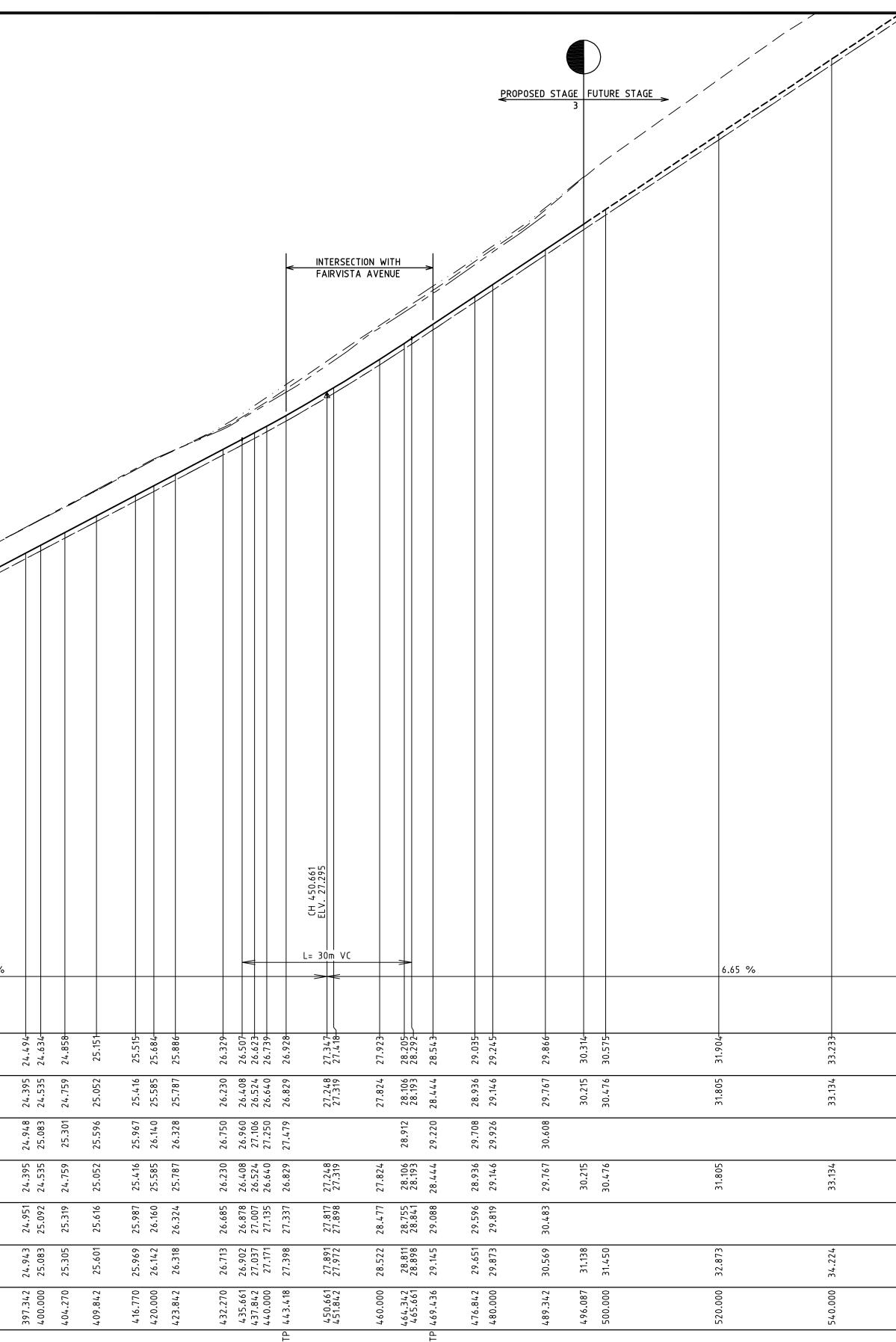
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B COUNCIL AMENDMENTS A ISSUED TO COUNCIL FOR APPROVAL REVISION	CB/CB CB/CB DES/DFT	JG JG APP'D	 Principal Leopold Property Developments Pty Ltd Level 1, 6 Riverside Quay Southbank, Victoria 3006



INTERSECTION WITH KOMBI ROAD

					CH 338.817	V. 21.419											
VERTICAL GEOMETRY			5.36 %		5	EL									5.25	%	
HORIZONTAL GEOMETRY																	
DATUM RL16																	_
DESIGN CENTRELINE	18.267-	19.339-		20.411		21.379	21.709-	22.115-	22.366-	22.532-	22.803-	23.102-	23.583-	-7 גא ג <i>ו</i>		74.170	24.494
RIGHT LIP OF KERB						21.280 21.320 21.382	21.610	22.016	22.267	22.433	22.704	23.003	23.484			110.42	24.395
EXISTING SURFACE AT RIGHT BOUNDARY						21.964 21.999 22.055	22.260	22.624	22.850	23.009	23.270					C70.42	24.948
LEFT LIP OF KERB						21:280 21:320 21.382	21.610	22.016	22.267	22.433	22.704	23.003	23.484	857 56		1/0.42	24.395
EXISTING SURFACE AT LEFT BOUNDARY						21.859 21.959 21.959	22.178	22.505	22.725	22.901	23.190	23.512	24.008	CTC 10	21-2-F-2 71-2-F-2 71-2-F-2	0 0 0	24.951
EXISTING SURFACE	18.588	19.705		20.914		21.911 21.949 22.009	22.229	22.563	22.779	22.939	23.208	23.530	24.024	586 7C		74.010	24.943
CHAINAGE	280.000	300.000		320.000		338.063 338.817 34.0.000	344.342	352.063	356.842	360.000	365.160	370.842	380.000	C.18.185		611.160	397.342
	L										RTP						

EXISTING STAGE PROPOSED STAGE 2B 3



HILLCLIMB DRIVE LONGITUDINAL SECTION

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Date April 2010	0 5 10 2 0 0.5 1 2	for the purpose for which they are	Adelaide+61882236455Brisbane+61738318988Canberra+61261261900

				EXISTING SURFACE DESIGN LINE FUTURE DESIGN LINE RIGHT BUILDING LINE LEFT BUILDING LINE LEFT LIP OF KERB
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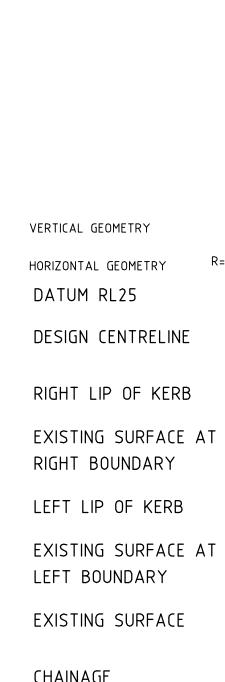
Stage 3 City Of Greater Geelong Roadworks and Drainage Longitudinal Sections - 2

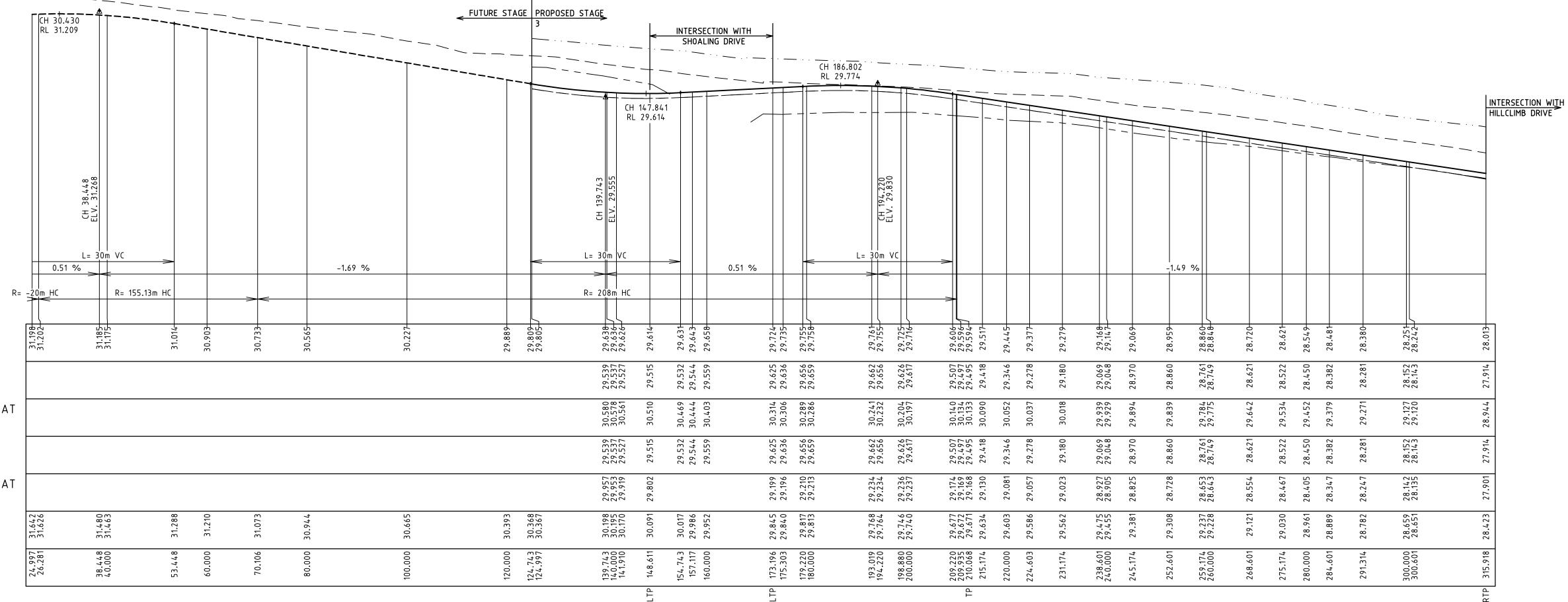
Drawing No. 0250EHL-03-11 Sheet No. 11 of 34

Rev B

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		CHAINAGE	24.9	38.41	53.41	60.00	70.1(80.08	100.00
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CASY GROVE LONGITUDINAL SECTION

					ELITUDE		STAGE	
	F					STAGE PROPOSED 3		
VERTICAL GEOMETRY		-0.49 %	CH 80.901 ELV. 24.667 T= 30w AC		-1.53 %		CH 149.972 B	-0.97 %
VERTICAL GEOMETRI			><				-><	
HORIZONTAL GEOMETRY								
DATUM RL21			IL IL			Ļ		
DESIGN CENTRELINE	24.882 24.867	24.769 - 24.740-	24.637- 24.62 8-	24.437- 24.374-	24.068	23.80 9- 23.802- 23.761-	23.608	23.51 1 23.474-
RIGHT LIP OF KERB	24.783 24.768	24.670 24.641	24.538 24.528	24.338 24.275	23.969	23.710 23.700 23.662	23.523	23.412 23.375
EXISTING SURFACE AT RIGHT BOUNDARY						24.503 24.500 24.482	24.392	24.190 24.185
LEFT LIP OF KERB	24.783 24.768	24.670 24.641	24.538 24.528	24.338 24.275	23.969	23.710 23.703 23.662	23.523	23.412 23.375
EXISTING SURFACE AT LEFT BOUNDARY						23.763	23.655	23.524 23.478
EXISTING SURFACE	25.210 25.183	25.005 24.951	24.832 24.823	24.588 24.588	24.321	24.158 24.153 24.153	24.010	23.858 23.847
CHAINAGE	36.878	60.000	80.000 80.901	95.901	120.000	136.878 137.334 14.0.000	149.972	160.000 163.849
								<u>_</u>

INTERSECTION WIT SHOALING DRIV	H 'F																									
SHOALING BAR		· ·	· ·	· ·	- · · _ ·	· — .																				
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		CH 2	4.213 4.825																				· · · · _	_ · · · .	H	IILLCLIMB DRIV
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			29.518	4.876																						
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VERTICAL GEOMETRY		0.5 %		<								+-	1.05 %							-><	=		-0.5 %			
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DATUM RL21																										
	80	-12	8	60		9		86		88	4 4 4 4 3 7	-16	-96		64		>	227	27	85	8	02			68]
DESIGN CENTRELINE	24.798 24.801	24.82	24.818-	24.803	24.760- 24.753-	24.71 8	24.639	24.58 6 24.555	24.4	24.43 8	24.344 - 24.343-	24.291	24.196	24.14 3	24.064	23.996		23.932	23.827	23.785- 23.761-	23.73 8	23.702- 23.692-		23.63	23.568	
	99	22	18	04	61	19	0		92			92	97	4 t	<u>55</u>	76		233	35	01	80	04 93		80	59	-
RIGHT LIP OF KERB	24.699 24.702	24.722	24.718	24.704	24.661 24.654	24.6	24.540	24.487 24.456	24.392	24.339	24.245 24.244	24.192	24.097	24.044 24.034	23.965	23.897		23.833 23.823	23.735	23.701 23.683	23.648	23.604 23.593	i	23.538	23.469	
				6																				m		-
EXISTING SURFACE AT	25.694 25.691	25.65	25.614	25.57	25.507 25.497	5.44	25.335	25.259 25.221	25.180	25.146	25.073 25.073	5.034	24.966	24.924 74.916	24.860	24.809) -	.4.762 .4.755	24.704	.4.695 .4.689	24.678	24.615 24.584		24.44	24.379	
RIGHT BOUNDARY													7 2	· 5 t t	10			~~~ ~~~		3 7				8	9 2	
LEFT LIP OF KERB	24.699 24.702	4.72	24.71	24.704	24.661 24.654	4.619	24.54(24.487 24.456	24.392	24.339	24.245 24.244	4.197	24.09	24.041 24.031	23.96	23.89		23.833 23.823	3.73!	23.701 23.683	23.64	23.604 23.593		23.53	23.469	
		2,																								
EXISTING SURFACE AT	24.760 24.757	24.721	24.618	24.583	24.523 24.515	24.478	24.376	24.361 24.352	24.325	24.297	24.247 24.247	24.219	24.153	24.110 24.102	24.045	23.992		23.940 23.932	23.854	23.842 23.837	23.825	23.791 23.775	:	23.678	23.543	
LEFT BOUNDARY	24 24	51	21	24	24 24	24	24	24 24	24	24	24 24	24	24	21	24	23	Ì	23	23	23 23	23	23		23	23	
	25.210 25.207	25.169	25.097	25.064	25.008 25.000	.951	24.841	24.779 24.768	733	24.704	24.653 24.652	.618	24.551	24.508 24.500	24.450	.401		24.353 24.345	24.278	24.269 24.263	24.251	24.211 24.194		.076	968	
EXISTING SURFACE	25	25	25.	25.	25.	24	24	24. 24.	24.73	24.	24. 24.	24	24	24. 24.	24.	24.	I	24.	24.	24. 24.	24	24. 24.		24.	23.9	
	14.059 14.518	20.000	29.518	33.437	40.000 40.838	518	52.059	57.057 60.000	66.059	71.057	80.000 80.059	057	94.059	99.057 100.000	106.559	113.057		119.059 120.000	129.057	133.059 135.262	14 0.000	147.057 149.144		160.000	748	1
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KOMBI ROAD LONGITUDINAL SECTION

FAIRVISTA AVENUE LONGITUDINAL SECTION

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LEGEND
— — — EXISTING SURFACE
DESIGN LINE
- · · · - · · · - RIGHT BUILDING LINE
LEFT BUILDING LINE
LEFT LIP OF KERB



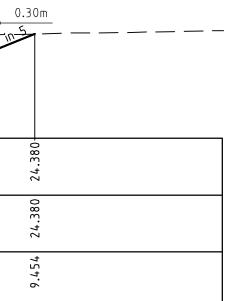
ESTUARY

Stage 3 City Of Greater Geelong Roadworks and Drainage Longitudinal Sections - 3

Drawing No. 0250EHL-03-12 Sheet No. 12 of 34

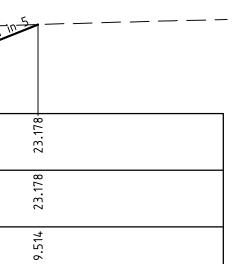
Rev B

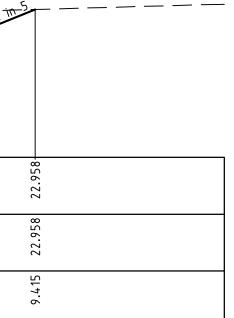
DESIGN SURFACE	221335 221355 221355 221355 221355 221355 221355 221467 22147	OFFSET 0FFSET 0F
EXISTING SURFACE	850.8 850.8 850.8 850.9 RTPCH 350.957	OFFSET
DESIGN SURFACE	23. 22. 22. 22. 22. 22. 23. 23. 23. 23.	EXISTING SURFACE
	93354 93354 178 9335 898 93354 178 9335 898 93355 178 9335 17 9 9335 1 1 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	31 24.587 32 24.687 33 24.587 34 24.587 35 24.697 36 24.587 37 24.587
OFFSET	CH 360.591	1 in 33.3 1 in 33.3 1 in 22.9 1 in 40 1 in 5
DESIGN SURFACE	23.370 23.375 23.375 23.395 23.430 23.480 23.480 23.480 23.480 23.480	REFER INTERSECTION
DATUM22.0	1 in <u>40</u> <u>1 in 27.9</u> <u>1 in 33.3</u> <u>1 in 33.3</u> 1 in <u>33.3</u> <u>1 in 33.3</u> <u>1 in 33.3</u> <u>1 in 33.3</u> 1 in <u>1 in 33.3</u> <u>1 in 35.3</u> <u>1 in 1 in 33.3</u> <u>1 in 1 in 33.3</u> <u>1 in 33.3</u> <u>1 in 33.3</u> <u>1 in 33.3</u> <u>1 in 1 in 33.3 <u>1 in 35.3</u> <u>1 in 35.3</u> <u>1 in 35.3</u> <u>1 in 35.</u></u>	EXISTING SURFACE 06752 0752 0752 075 0
OFFSET	^L /LCE [®] - ⁰⁰⁰⁰⁰ ⁰⁰⁰⁰⁰ ⁰⁰⁰⁰⁰ ⁰⁰⁰⁰⁰⁰ ^{REFER INTERSECTION} ^{DETAILS}	DATUM24.0 52:25:25:25:25:25:25:25:25:25:25:25:25:2
DATUM23.0 DESIGN SURFACE EXISTING SURFACE	7 24.058 24.058 24.058 0 24.065 24.065 24.064 0 24.065 24.064 24.064 0 24.167 23.886 181 0 24.167 23.875 24.006 0 24.123 23.875 181 0 24.123 23.875 181 0 24.1204 23.875 181	REFER INTERSECTION DETAILS 1 in 33.3 1 in 33.3
		EXISTING SURFACE
DESIGN SURFACE EXISTING SURFACE OFFSET	-8.380 24.166 24.166 -8.000 24.167 24.166 -8.000 24.172 24.150 -6.500 24.172 24.150 -6.500 24.196 24.112 -6.500 24.24.0 23.981 -3.300 24.24.240 23.981 -3.300 24.24.313 23.982 -3.300 24.313 23.982 -3.300 24.313 23.982 -3.300 24.313 23.982 -3.300 24.313 23.982 -3.300 24.318 23.982 -3.300 24.338 24.112 -6.500 24.364 24.112 -6.500 24.368 24.150 9.454 24.380 24.150 9.454 24.380 24.380	DATUM25.0 DESIGN SURFACE

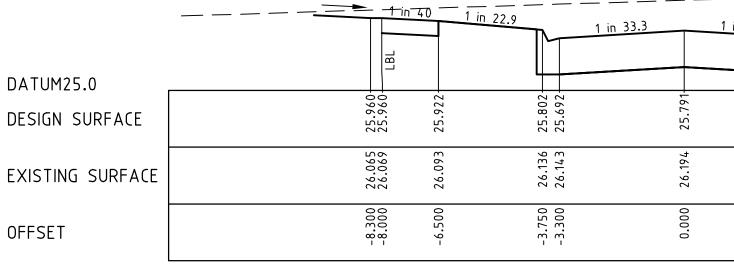


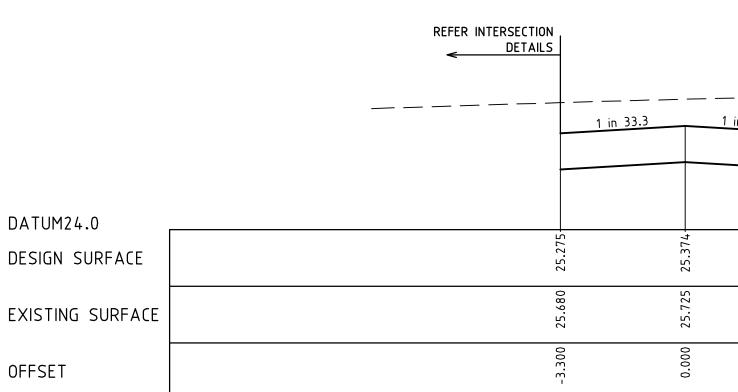


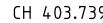


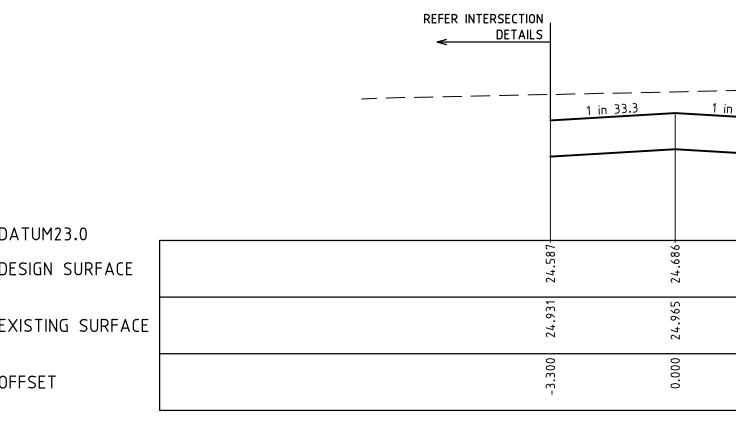


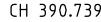


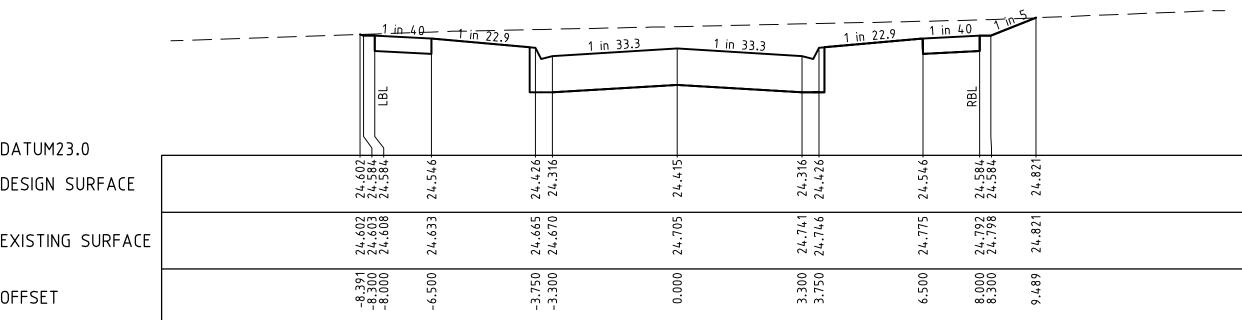












- EXISTING SURFACE - DESIGN LINE - FUTURE DESIGN LINE

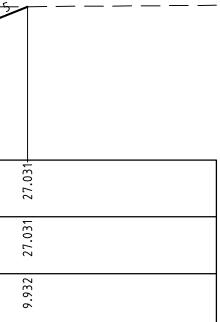


Rev B

struction

	0.30m 1.50m 2.75m				
		2.9 <u>1 in 33.3</u>	<u>1 in 33.3</u> 1 in 22.		
				KBL	
DATUM27.0 DESIGN SURFACE	28.407	28.250	28.140	28.370 28.407 28.407 28.612	
	28.525 28.527 28.537 28.537 28	28.552 28 28.554 28 28.570 28	28.587 28	28.603 28 28.609 28 28.612 28 28.612 28	
EXISTING SURFACE					
OFFSET	-8.300 -8.000 -8.000	-3.750 -3.300 0.000	3.750	6.500 8.300 9.325	
		RTPCH 45	5.650 REFER INTERSI	ECTION	
		2.9 <u>1 in 33.3</u>			
DATUM27.0 DESIGN SURFACE	28.086	27.929	7.819		
EXISTING SURFACE	28.202 28.204 28.2204 28.220 28.220 2	28.253 2 28.259 2 28.274 2	28.286 2		
			3.300 28		
OFFSET	-8.300 -8.000 -6.500				
		CH 449.	.840 REFER INTERSI DETAILS	ECTION	
	1 in 40 1 in 22	2.9 1 in 33.3			
DATUM26.0					
DESIGN SURFACE	27.396- 27.396- 27.358-	27.238- 27.128- 27.227-	27.128-		
EXISTING SURFACE	27.536 27.539 27.555 27.555	27.586 27.591 27.628	27.665		
OFFSET	-8.300 -8.000 -6.500	-3.750 -3.300 0.000	3.300		
		CH 437.	340		
				5	
		2.9 <u>1 in 33.3</u>	<u>1 in 33.3</u> <u>1 in 22.</u>	9 1 in 40	
DATUM26.0				KBL KBL	
DESIGN SURFACE	27.053- 27.053- 27.016-	26.896 ⁻ 26.786 ⁻ 26.885 ⁻	26.786-	27.016- 27.053- 27.053- 27.371-	
EXISTING SURFACE	27.236 27.236 27.250 27.250	27.278 27.283 27.316	27.335	27.354 27.362 27.363 27.371	
OFFSET		-3.750 -3.300 0.000	3.300	6.500 8.300 9.891	
		RTPCH 43		-	
				<i></i>	
		2.9 1 in 33.3		9 1 in 40 1 in 5	
				BB	
DATUM25.0 DESIGN SURFACE	26.705	26.547 26.437 26.536	26.547	26.667 26.705 26.705 26.7031	
EXISTING SURFACE	26.894 2 26.897 2 26.911 2	26.948 2 26.953 2 26.973 2	26.993 2	27.031 2 27.022 2 27.031 2	
	-8.300 -8.300 -6.500 -6.500 -6.500	-3.750 26 -3.300 26 0.000 26	3.300 26 3.750 26	6.500 27 8.300 27 8.300 27 9.932 27	
OFFSET					
		CH 424.			
			esti	iary opold	
				opold	
B COUNCIL AMENDMENTS A ISSUED TO COUNCIL FOR APPROVAL		14.07.10 CB/CB 18.05.10 CB/CB	Principal JG Leopold Property Develor JG Level 1, 6 Riverside Quar	y	
REVISION			APP'D Southbank, Victoria 3006		

0m	



			1 in 22.9	\mathbb{P}	1 in 33.3	1 in 33
UM28.0						
GN SURFACE	0 0	29.024	28.987	28.867- 20.757	20.02 238 8C	י י י י י י
TING SURFACE	00 15.2	29.154	29.165	29.185	201.72 E1C PC	<u>-</u> - - - - - - - - - - - - - - - - - -
SET	α	000.00	- 6.500	-3.750		2 2 2 2
					CH 46	6.818
	© SM Urban ABN 99 124 2					

______ 1 in 40 ____ 1 in 22.9

OFFSE

Designed C. Barker

Drawn

C. Barker

Checked

C. Birkett

J. Golden

Date April 2010

Authorised

EXIST

Scale @ A1

H1:100, V1:50

0 1 2 4 0 0.5 1 2

2

DESIG

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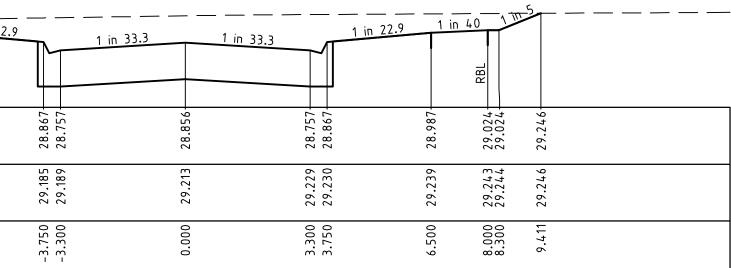
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<u>LEGEND</u> — — — EXISTING SURFACE ----- DESIGN LINE - - FUTURE DESIGN LINE



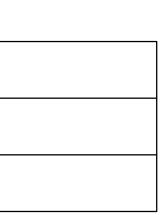
ESTUARY



Stage 3 City Of Greater Geelong Roadworks and Drainage Cross Sections Shoaling Drive - 2 CH423.840 - CH466.818 Drawing No. 0250EHL-03-14 Rev B Sheet No. 14 of 34

		.75m <u>0,45m</u>	6.6m	<u>0,45m</u> 2.7	<u>25m 1.5m 1.5m 0.3m</u>	
		<u>n 22.9</u> 1 in	33.3 1 in	1 33.3 1 in	22.9 1 in 40	
DATUM22.0	4 5 5 7				2 4 4	
DESIGN SURFACE	22.972 [.] 22.972 [.] 22.934-	22.814- 22.704-	22.803	22.704- 22.814-	22.934-22.934-22.972	
EXISTING SURFACE	23.190 23.190 23.194	23.200 23.201	23.208	23.230 23.234	23.258 23.270 23.269	
OFFSET	-8.300 -8.000 -6.500	-3.750 -3.300	0.000	3.300	6.500 8.000 8.300	
			RTPCH 365.160)		
	1 in 40 <u>1 i</u>	<u>n 22.9</u> <u>1 in</u>	33.3 <u> 1 in</u>		22.9 1 in 40	
DATUM21.0					KBI	
DESIGN SURFACE	22.535+ 22.535+ 22.497+	22.377- 22.267-	22.366	22.267-	22.497 ⁻ 22.535 ⁻ 22.535 ⁻	
EXISTING SURFACE	22.726 22.725 22.725	22.746 22.750	22.779	22.807 22.811	22.837 22.850 22.849	
OFFSET	-8.300 -8.000 -6.500	-3.750 -3.300	0.000	3.300 3.750	6.500 8.000 8.300	
			CH 356.842			
	<u> </u>	<u>n 22.9</u> <u>1 in</u>	33.3 <u>1 in</u>	<u> </u>	22.9 1 in 40	
					BB	
	22.284	22.126	22.115	22.016		
DESIGN SURFACE						
EXISTING SURFACE	0 22.506 22.506 22.506 22.514	0 22.532	10 22.563	0 22.593	0 22.622 0 22.622 0 22.624 0 22.624	
OFFSET	-8.300 -8.000 -6.500	-3.750 -3.300	0.000	3.750	6.500 8.300 8.300	
			CH 352.063			
		<u>n 22.9</u> 1 in	33.3 1 in	<u>1 33.3 1 in</u>	22.9 1 in 40	
	21.878 21.878 21.840 21.840	21.720	21.709	21.610	21.840	
DESIGN SURFACE						
EXISTING SURFACE	0 22.176 0 22.178 0 22.188	0 22.206 0 22.208	0 22.229	0 22.249 0 22.252	0 22.263 0 22.260 0 22.259	
OFFSET	-8.300 -8.000 -8.000	-3.750 -3.300	0.000	3.300	6.500 8.300 8.300	
			CH 344.342			
	1 in 40 1 i	<u>n 22.9</u> <u>1 in</u>	33.3 1 in	<u> </u>	22.9 1 in 40	
DATUM20.0						
DESIGN SURFACE	21.547- 21.547- 21.547-	21.390- 21.280-	21.379-	21.280- 21.390-	21.510 ⁻ 21.547 ⁻ 21.547	
EXISTING SURFACE	21.857 21.859 21.871	21.887 21.890	21.911	21.933 21.936	21.955 21.964 21.963	
OFFSET	- 8.300 - 8.300 - 6.500	-3.750 -3.300	0.000	3.300 3.750	6.500 8.000 8.300	
			CH 338.063			
				pcti	UARY eopold	
					eopold	
						1

<u>3 m</u>	



_____ _____ 1 in 40 ____ 1 in 22.9 1 in 33.3 1 in 33.3 DATUM24.0 25.026⁻ 25.026-.869. .759. DESIGN SURFACE 24. 24. 24 25.308 25.307 25.319 25.319 25.31 EXISTING SURFACE -8.300 -8.000 -3.750 -3.300 OFFSET 9 CH 404.270

		40 1 in 22.9	1 in 33.3	3 <u>1 in 3</u> 2	3.3 <u>1 in 22</u>	<u>9 1 in 40</u>	
DATUM23.0 DESIGN SURFACE	24.662 LBL	24.625	24.505	24.494	24.395		24.662 KBL
EXISTING SURFACE	24.952 24.951	24.948	24.941 24.940	24.943	24.946 24.946	24.948	24.948
OFFSET	-8.300	-6.500	-3.750 -3.300	0.000	3.300 3.750	6.500 8 000	8.300

______ <u>1 in 22.9</u> 1 in 33.3 <u>1 in 33.3</u> DATUM23.0 24.339[.] 24.339[.] .181 .071 DESIGN SURFACE 24. 24. 24 24.616 24.616 24.613 24.614 EXISTING SURFACE 24 -8.300 -8.000 -3.750 -3.300 OFFSET

CH 397.342

	RTPCH 391.179	
	REFER INTERSECTION DETAILS	
	<u>1 in 40 1 in 22.9</u> 1 in 33.3 1 in 33.3	
DATUM23.0		
DESIGN SURFACE	24.006- 24.006- 23.738- 23.738- 23.738- 23.738- 23.738-	
EXISTING SURFACE	24.272 24.272 24.275 24.275 24.275 24.287 24.287	
OFFSET	-8.300 -8.300 -3.750 -3.300 3.300	

CH 370.842

	CH 384.842	
	REFER INTERSECTION	
	<u>1 in 40 1 in 22.9</u> 1 in 33.3 1 in 33.3	
DATUM22.0		
DESIGN SURFACE	23.270- 23.113- 23.102- 23.003- 23.003-	
EXISTING SURFACE	23.512 23.516 23.530 23.537 23.537 23.537 23.537	
OFFSET	-8.300 -8.300 -3.300 3.300 3.300	

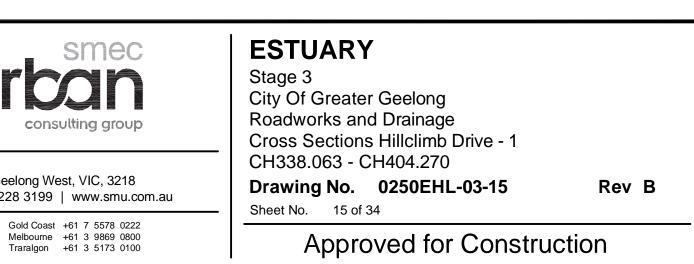
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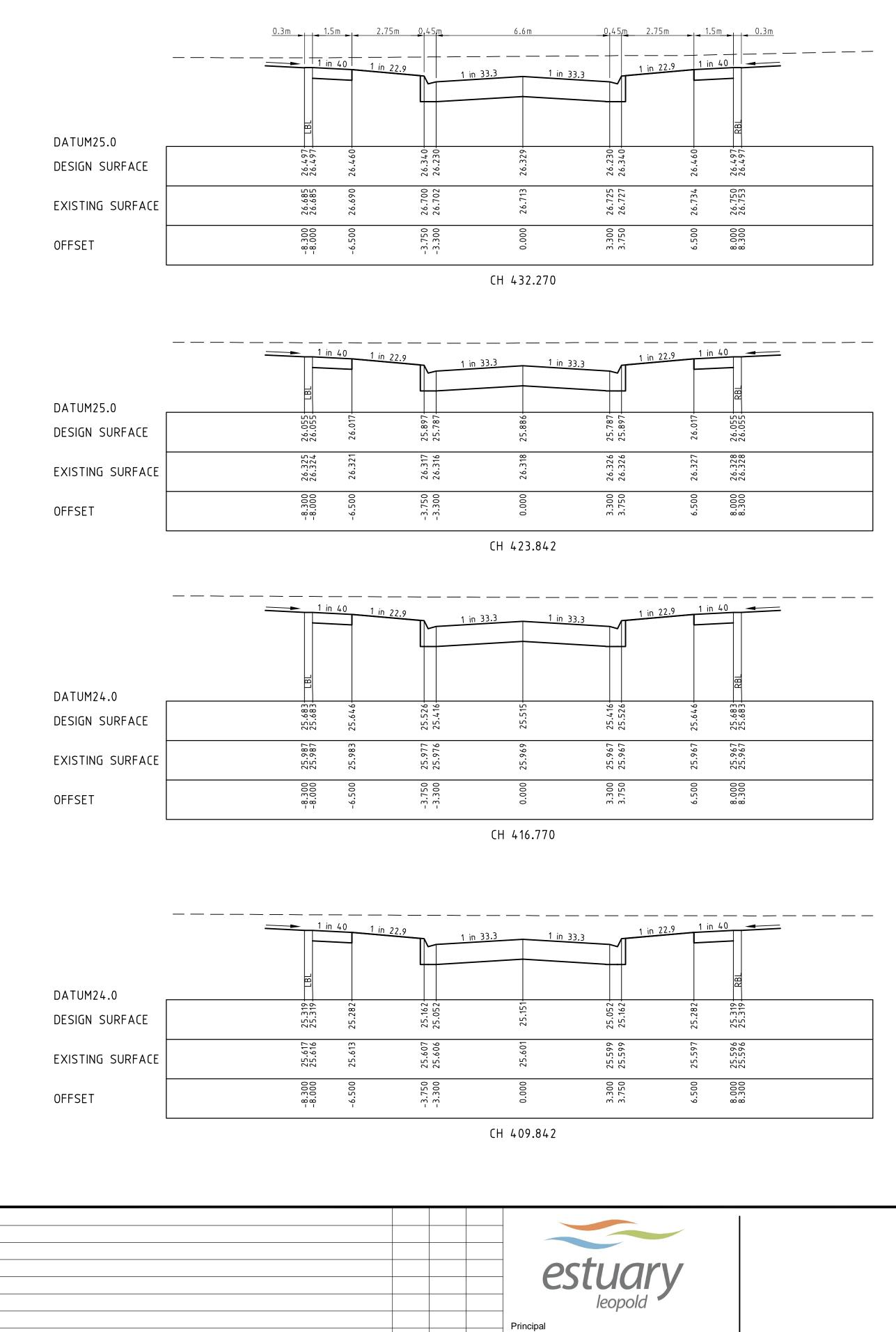
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 Date for the purpose for which they are April 2010 intended. 2

	1 in 22.9	1 in 4	RBL	 	
24.759- 24.869-		24.989	25.026		
25.303 25.303		25.302	25.301 25.301		
3.300 3.750		6.500	8.000 8.300		
	1 in 22.9	1 in 4	.0	 	
	<u>1 IN 22.7</u>		RBI		

	22.9 1 in 4	RBL	
24.071 - 24.181-	24.301-	24.339- 24.339-	
24.621 24.621	24.623	24.625 24.625	
3.300 3.750	6.500	8.000 8.300	



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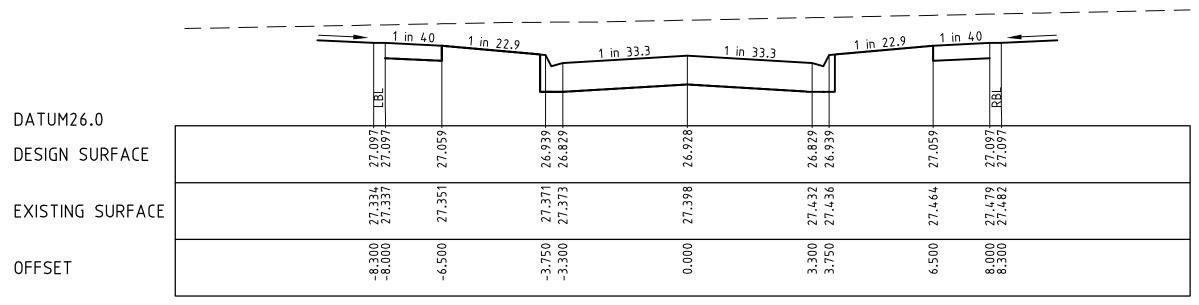
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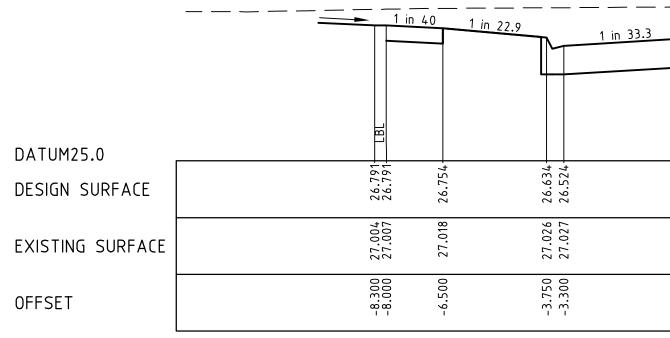
B COUNCIL AMENDMENTS

14.07.10CB/CBJGLeopold Property Developments Pty Ltd18.05.10CB/CBJGLevel 1, 6 Riverside Quay 18.05.10 CB/CB JG Southbank, Victoria 3006 DATE DES/DFT APP'D

					LEGEND — — EXISTING SURFACE — DESIGN LINE — — FUTURE DESIGN LINE
				REFER INTERSECTION DETAILS	
	1 in 40	<u>1 in 22.9</u> <u>1 in</u>	33.3 1 in	33.3	
DATUM27.0					
DESIGN SURFACE	28.373+ 28.373+ 28.336+	28.216- 28.106-	28.205	28.106	
EXISTING SURFACE	28.754 28.755 28.759	28.773 28.778	28.811	28.840	
DFFSET	-8.300 -8.300 -8.000 -8.200	-3.750 -3.300	0.000	3.300	
			CH 464.342	REFER INTERSECTION DETAILS	
	1 in 40	<u>1 in 22.9</u> <u>1 in</u>	33.3 1 in	33.3	
	27.586	27.429	27.418	27.319	
DESIGN SURFACE					
EXISTING SURFACE	27.895 27.898 27.911	27.935 27.939	27.972	28.005	
DFFSET	-8.300 -8.000 -6.500	-3.750 -3.300	0.000	3.300	
			CH 451.842		

						LEGEND — — EXISTING SURFACE — — DESIGN LINE — — — FUTURE DESIGN LINE
					REFER INTERSECTION DETAILS	
	1 in	40 <u>1 in 22.9</u>	1 in 33.3	1 in 33.3		
DATUM27.0						
DESIGN SURFACE	28.373+ 28.373+	28.336-	28.205-		28.106	
EXISTING SURFACE	28.754 28.755	28.759 28.773 28.773	28.1/18		28.840	
OFFSET	- 8.300 - 8.000	-6.500	0.0000		00e.e	
			CH 464	342	REFER INTERSECTION DETAILS	
	1 in	40 1 in 22.9	1 in 33.3	1 in 33.3		
DATUM26.0						
DESIGN SURFACE	27.586 ⁻ 27.586-	27.549-	27.418		27.319	
EXISTING SURFACE	27.895 27.898	27.935	27.972		28.005	
OFFSET	-8.000 -8.000	-6.500	0.000		000°. E	
			CH 451	.842		





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RTPCH 443.418

1 in 33	3.3 1 in 22	2.9 1 in 40	
26.623-	26.524- 26.634-	26.754- 26.791- 26.791-	
27.037	27.058 27.063	27.091 27.106 27.109	
0.000	3.300 3.750	6.500 8.000 8.300	

CH 437.842



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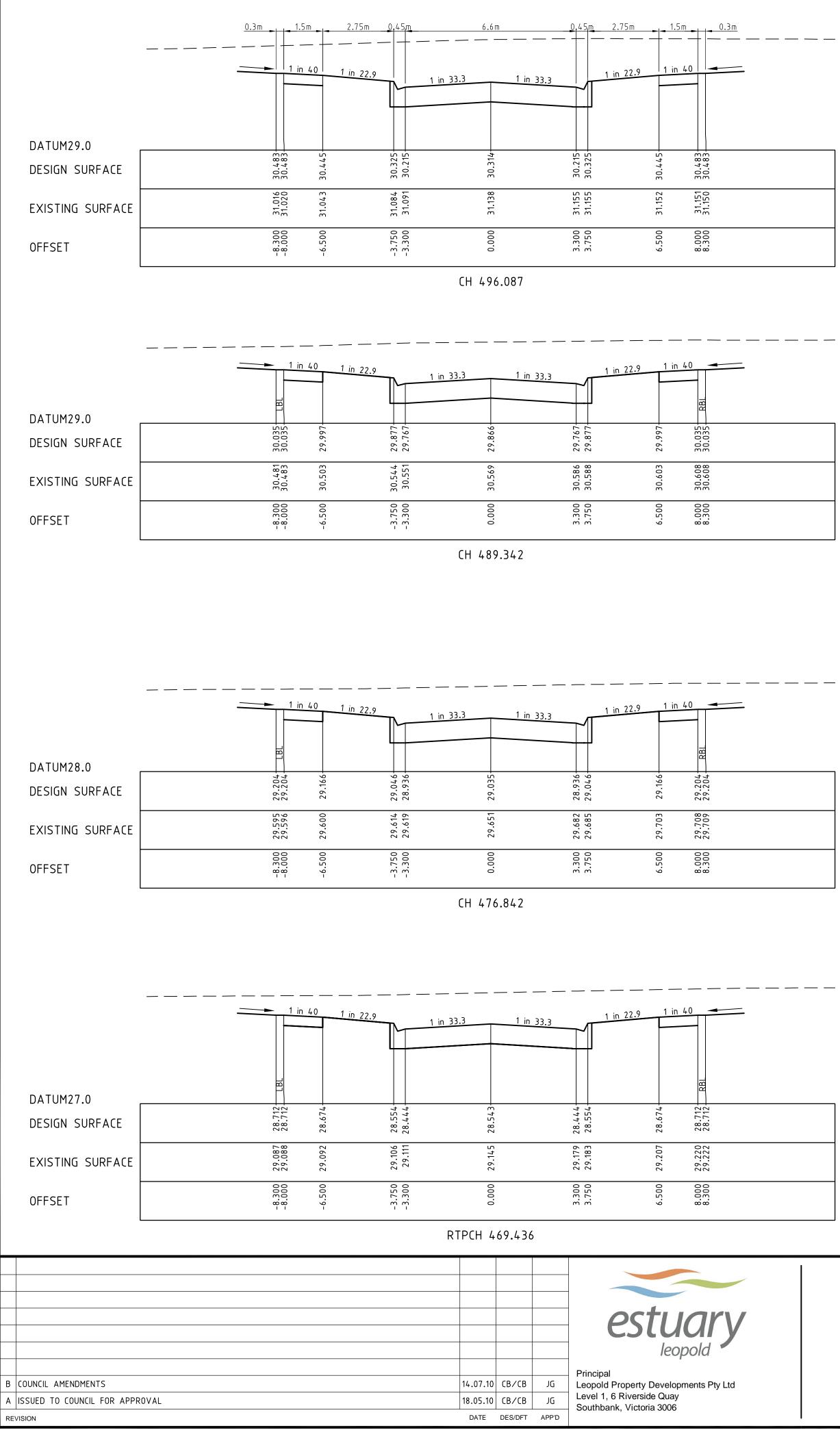
 Gold Coast
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 7
 5578
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 Melbourne
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 3
 9869
 0800

 Traralgon
 +61
 3
 5173
 0100

ESTUARY Stage 3 City Of Greater Geelong Roadworks and Drainage Cross Sections Hillclimb Drive - 2 CH409.842 - CH464.342 Drawing No. 0250EHL-03-16 Sheet No. 16 of 34

Rev B



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LEGEND — — EXISTING SURFACE — — DESIGN LINE — — FUTURE DESIGN LINE



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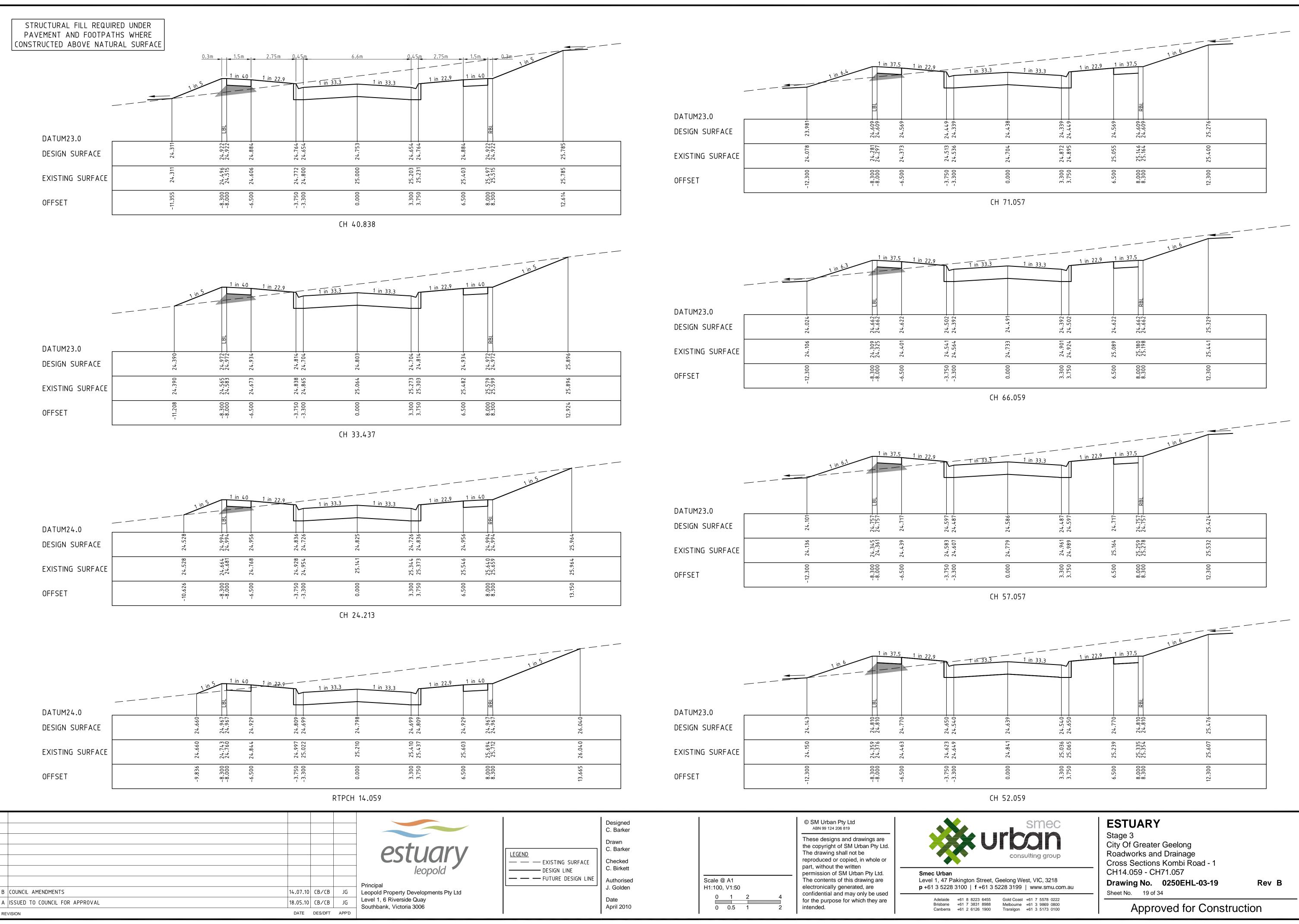
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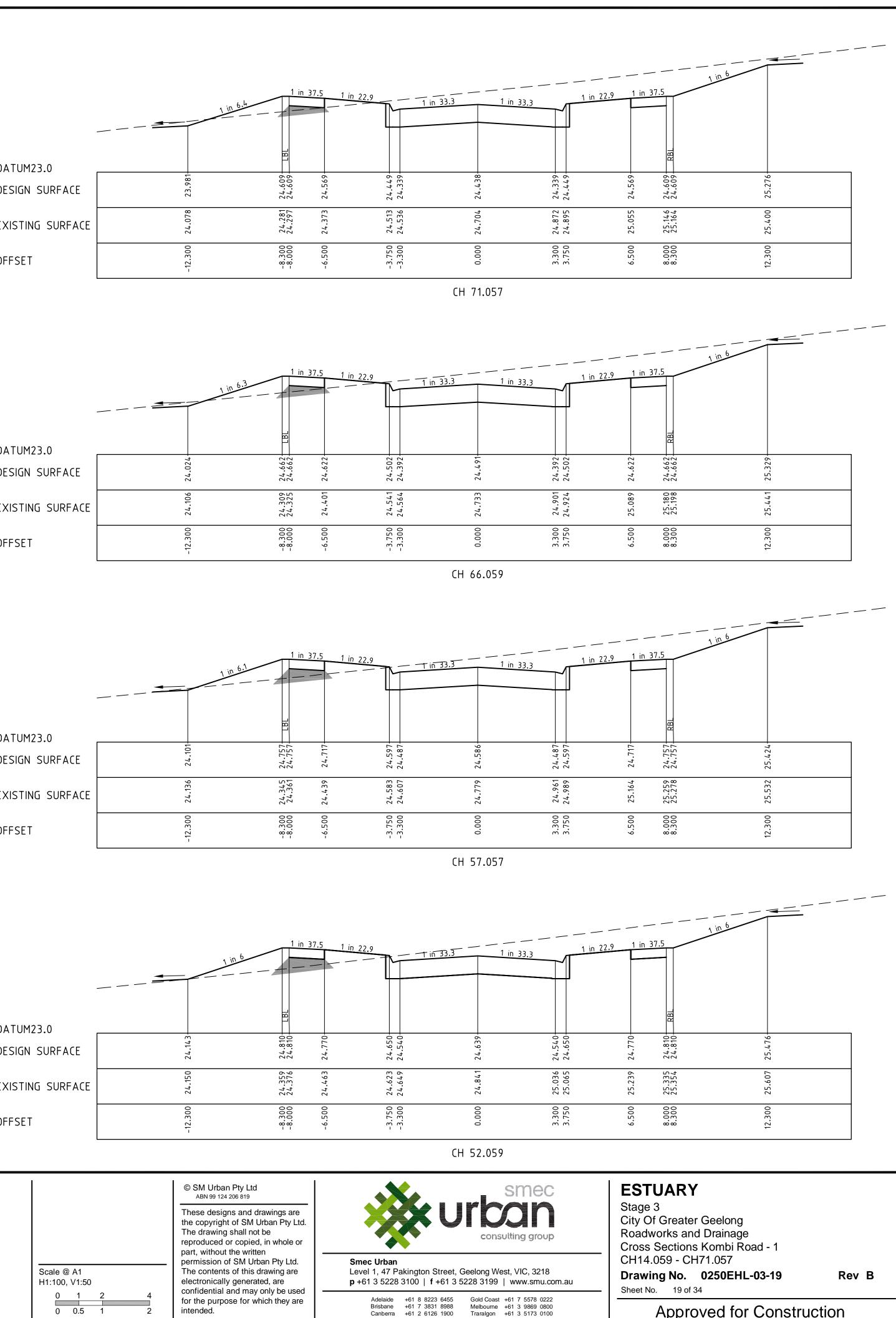
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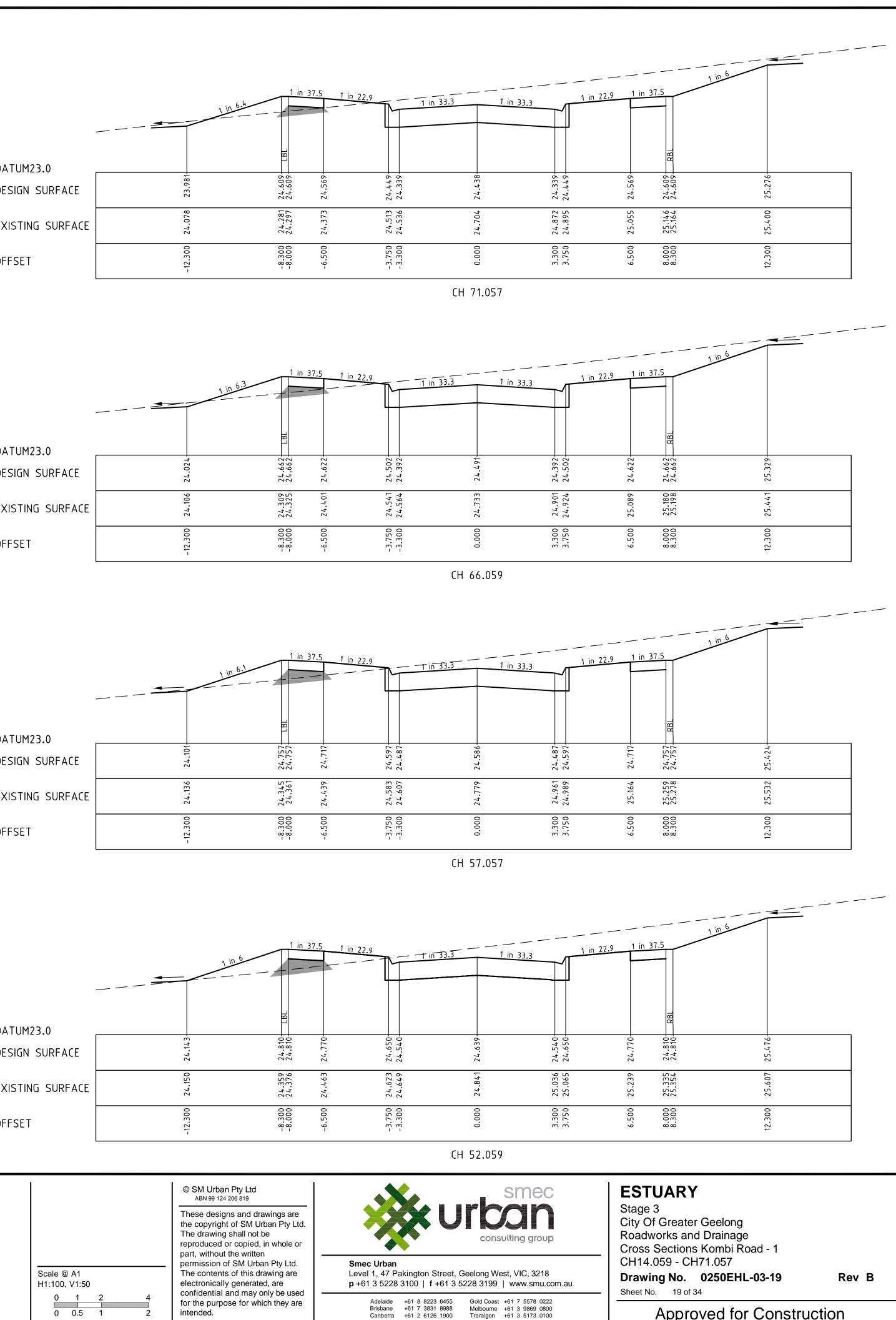
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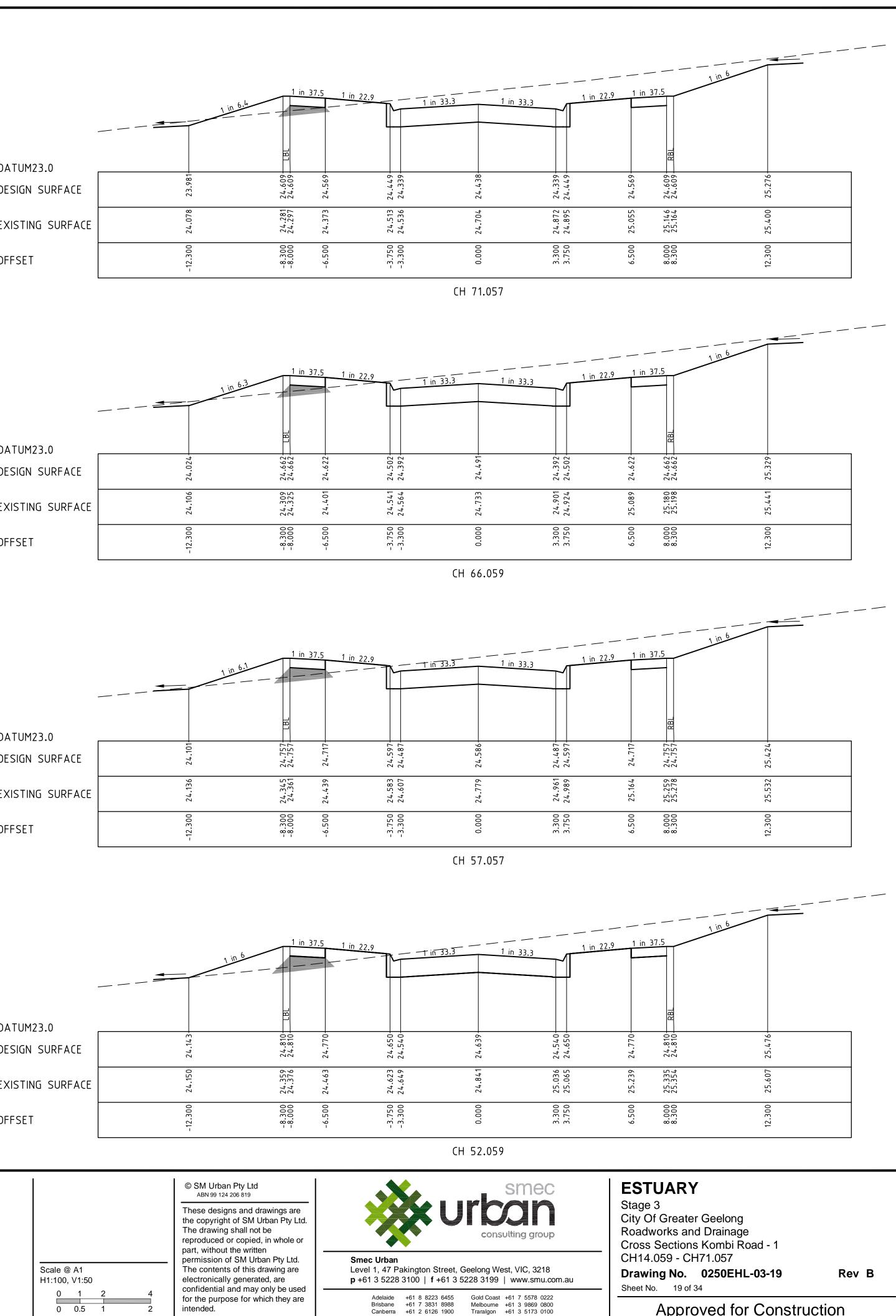
ESTUARY Stage 3 City Of Greater Geelong Roadworks and Drainage Cross Sections Hillclimb Drive - 3 CH469.436 - CH496.087 Drawing No. 0250EHL-03-17 Sheet No. 17 of 34

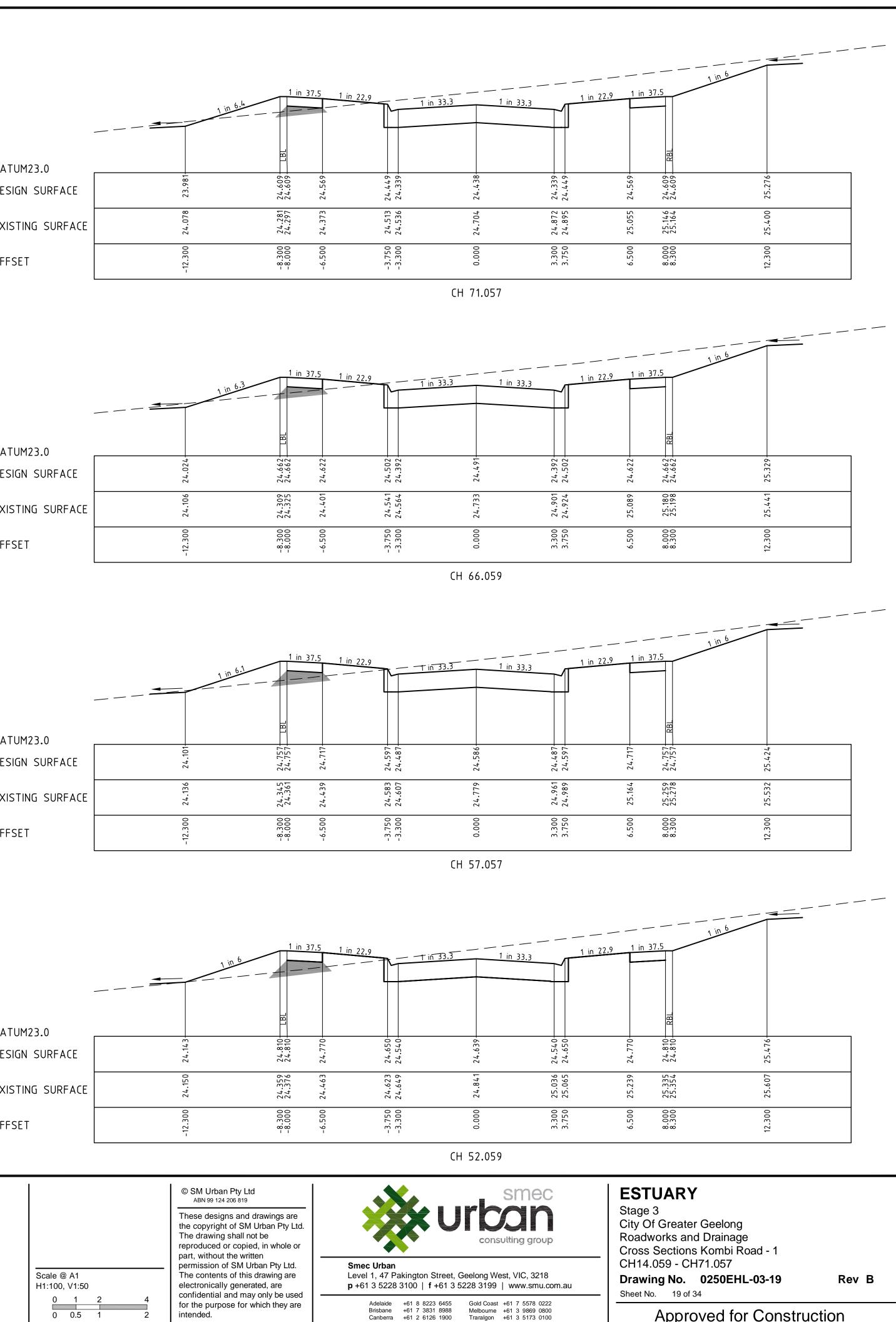
Rev B

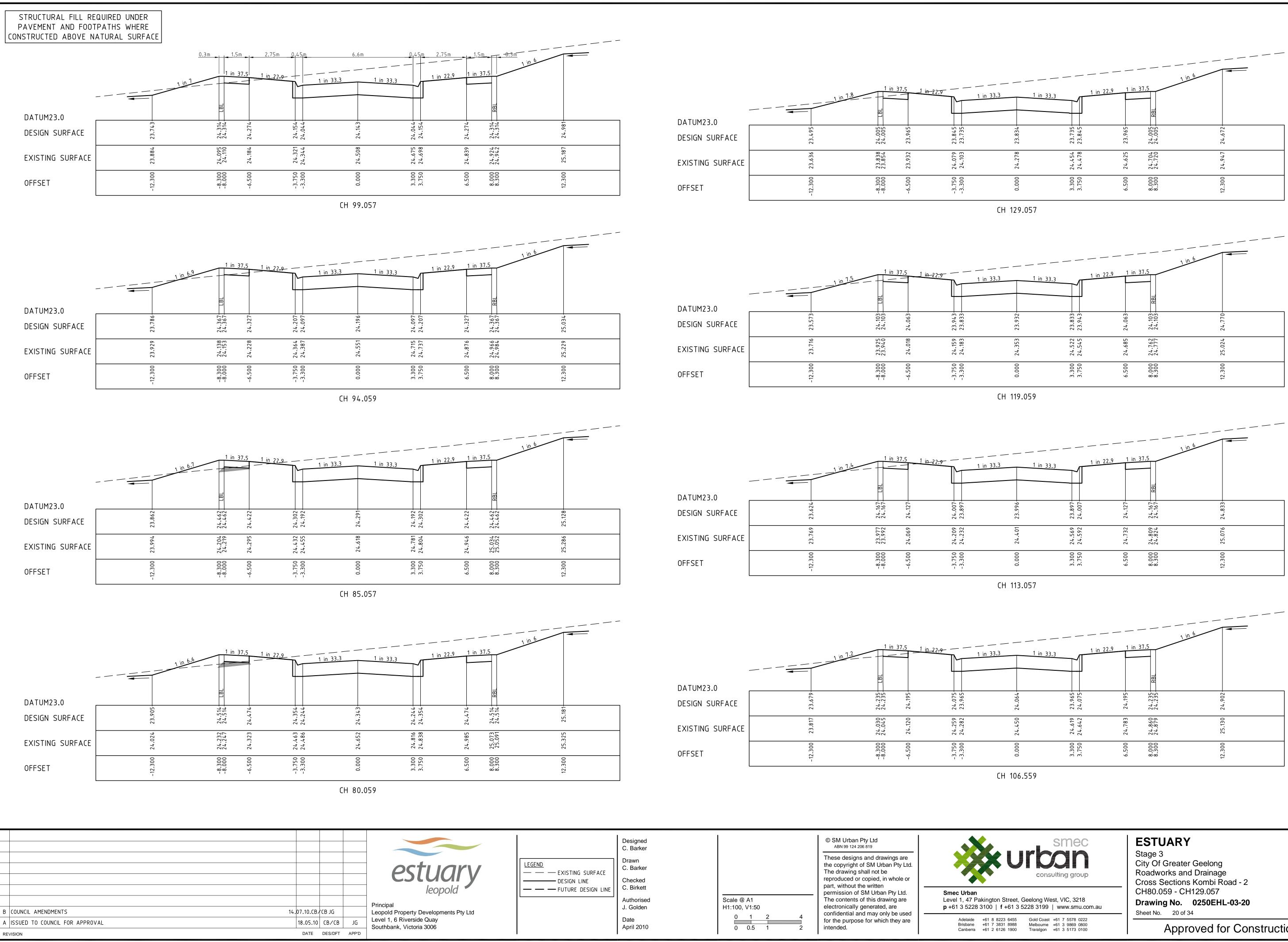






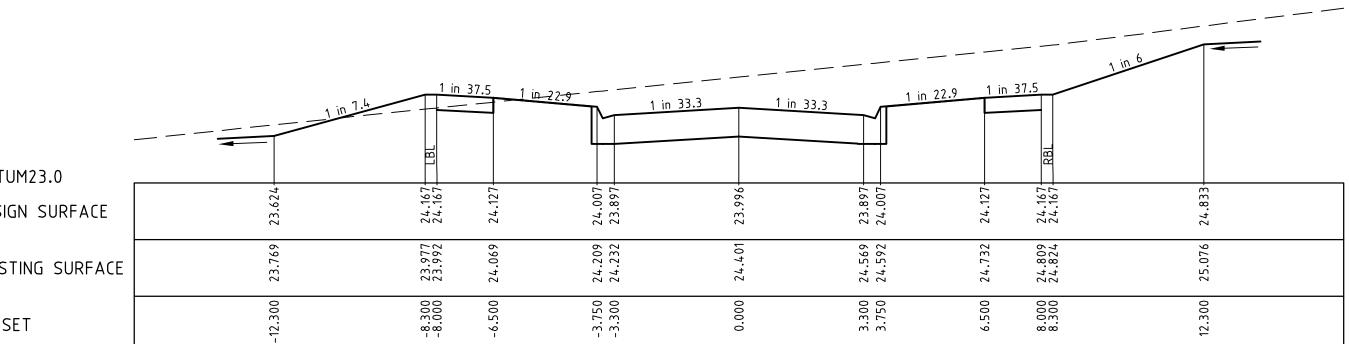


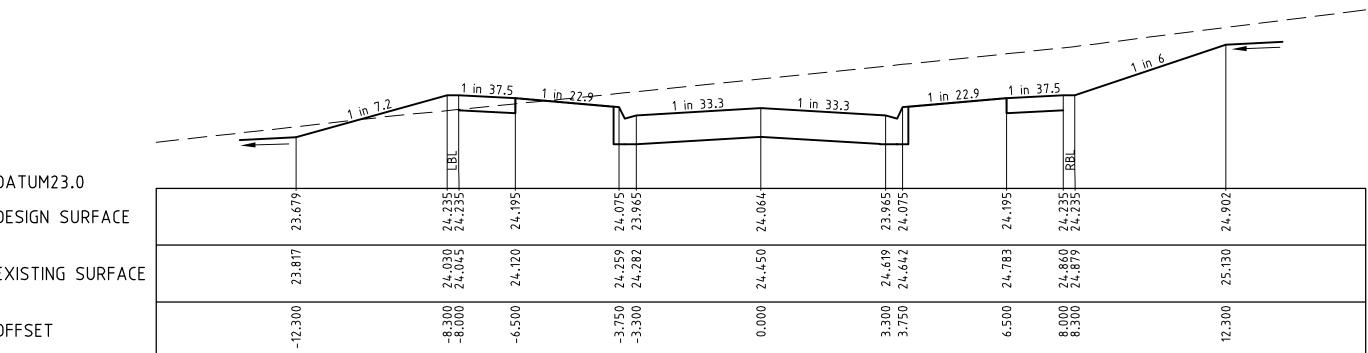




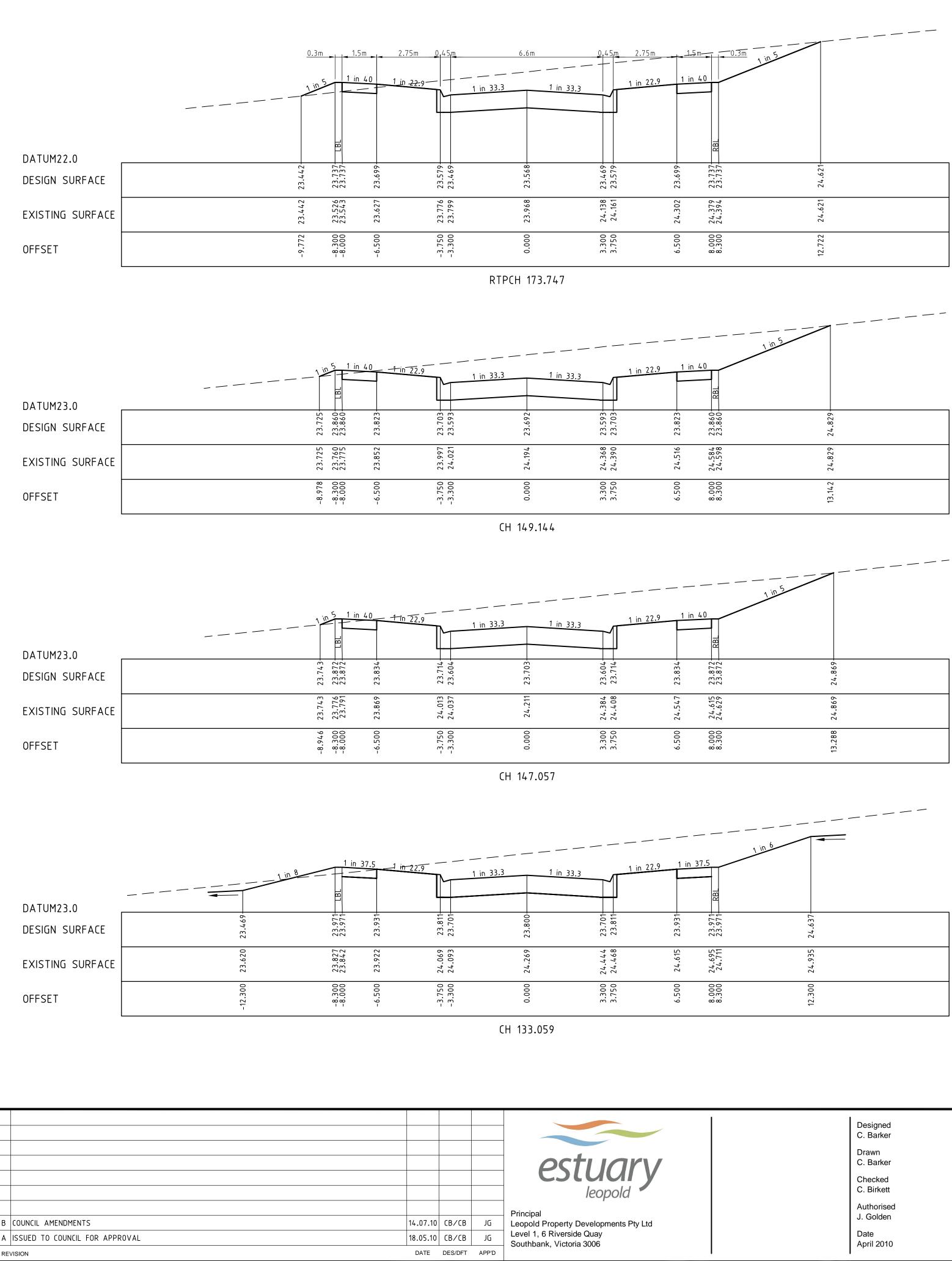
DATUM23.0		1.8 1 in 37.5 1	in 22.9 1 in	33.3
DESIGN SURFACE	23.495-	24.005+ 24.005+ 23.965+	23.845+	23.834-
EXISTING SURFACE	23.636	23.838 23.854 23.932	24.079 24.103	24.278
OFFSET	-12.300	-8.300 -8.000 -6.500	-3.750 -3.300	0.000

	<u></u> in_	5 1 in 37.5 1 in	22.9 1 in	<u>33.3</u> 1
DATUM23.0				32
DESIGN SURFACE	23.573	24.103- 24.103- 24.063-	23.943	23.932
EXISTING SURFACE	23.716	23.925 23.940 24.018	24.159 24.183	24.353
DFFSET	12.300	-8.300 -8.000 -6.500	-3.750 -3.300	0.000





Rev B



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LEGEND — — EXISTING SURFACE — — DESIGN LINE — — FUTURE DESIGN LINE



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ESTUARY Stage 3 City Of Greater Geelong Roadworks and Drainage Cross Sections Kombi Road - 3 CH133.059 - CH173.747 Drawing No. 0250EHL-03-21 Sheet No. 21 of 34

Rev B

STRUCTURAL FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE

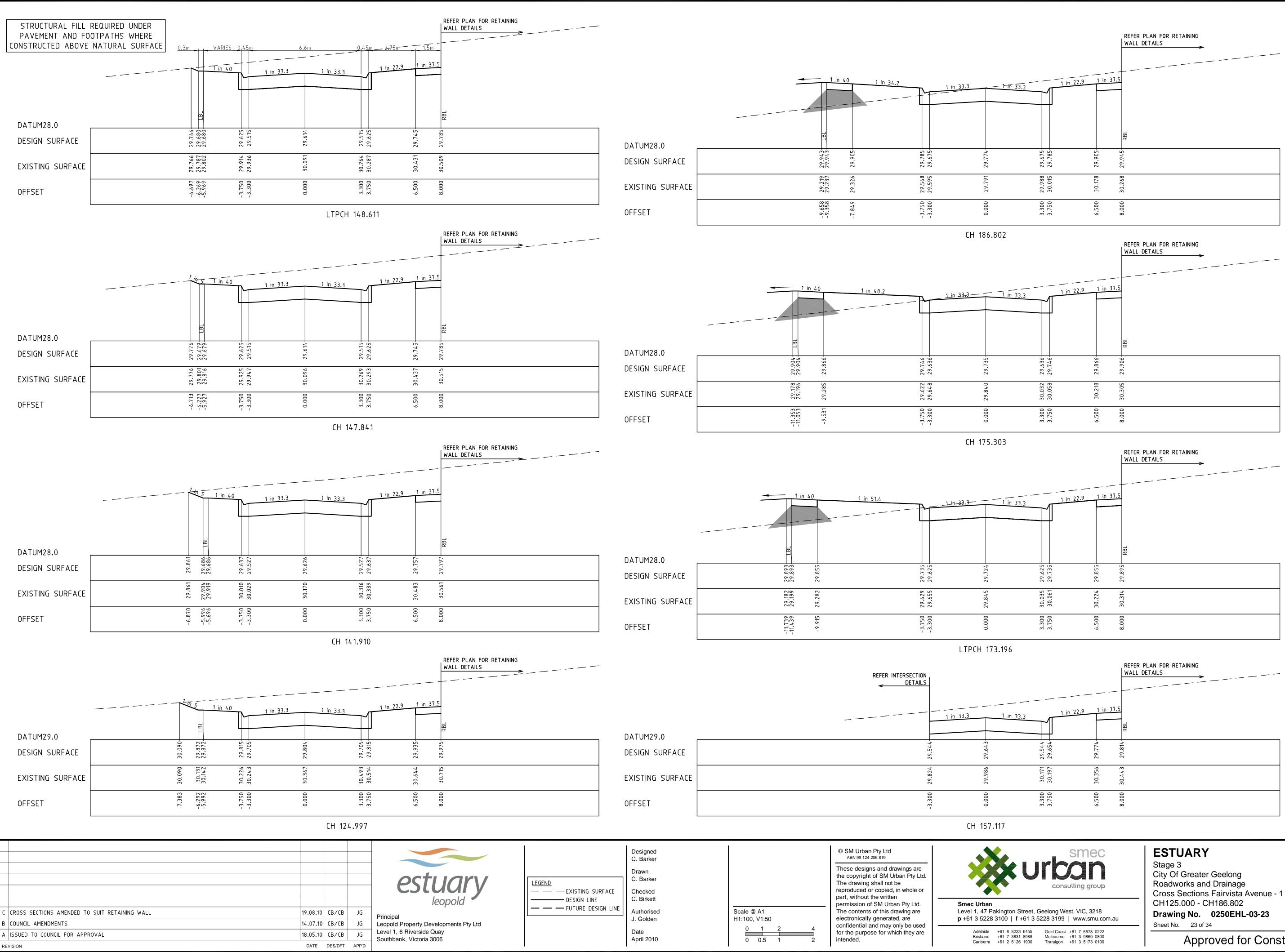


REVISION

ATUM27.0				<u>1 in 22.9</u>	1 in 33.3
SIGN SURFACE	27 505.	27.892	27.854-	27.734-	27.649-
KISTING SURFACE	27 E.05	27.629	27.725	27.869	27.901
FSET		-7.800	000.9-	-3.250	-2.650

LEGEND	
— — EXISTING SURFACE	
DESIGN LINE	
BESIGN ENTE	

Rev B

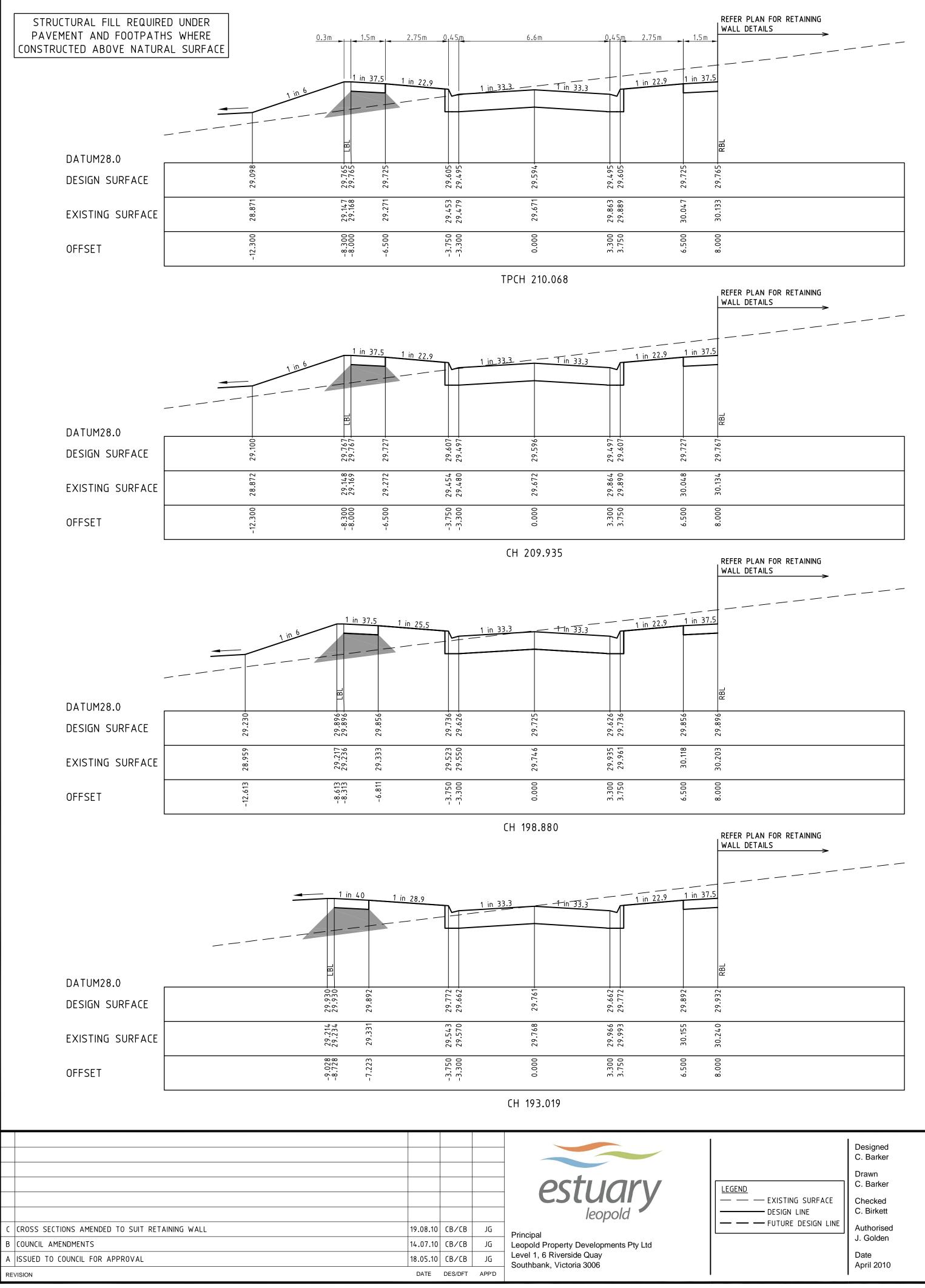


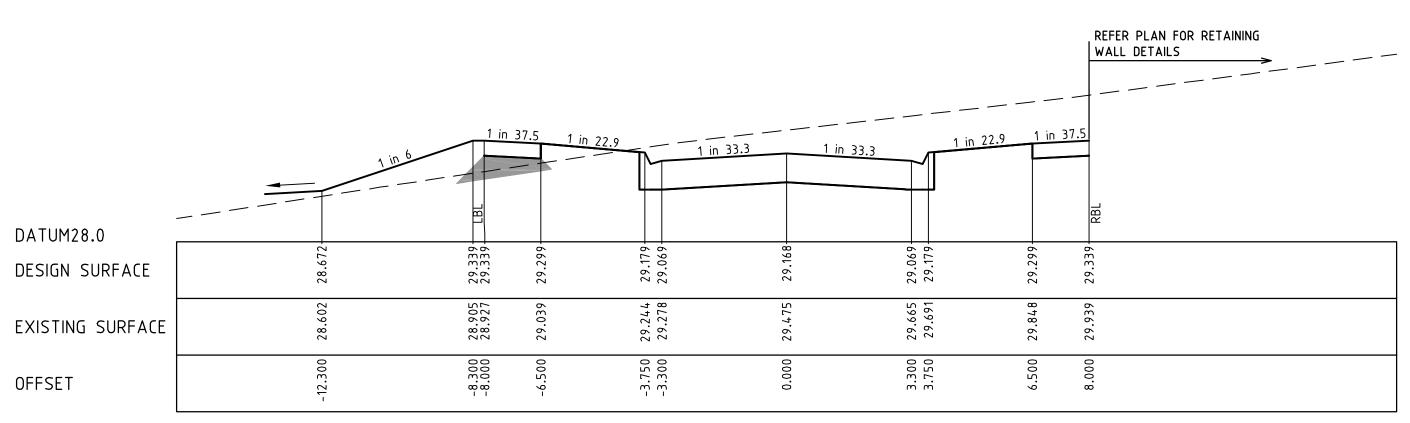
			1 in 48.2		<u> 1 in 33.</u> 3 — -	1 in 33.3	-
DATUM28.0							
DESIGN SURFACE	29.904	29.904		29.146			29.636-
EXISTING SURFACE	29.178	29.196 29.285		29.622	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0	30.032
OFFSET	-11.353	-11.053 -9 531		047.8-			3.300

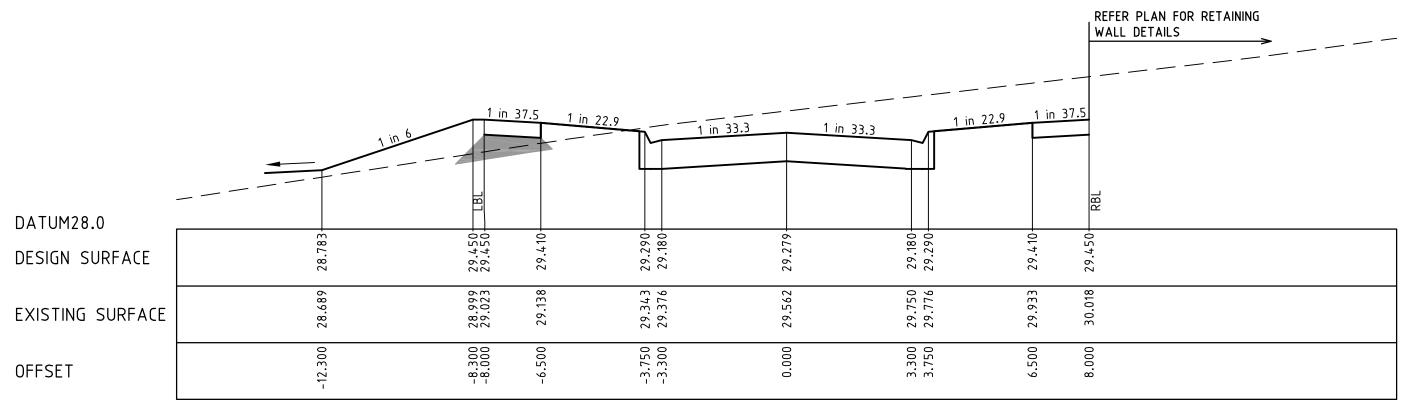
	REFER PLAN FOR RETAINING WALL DETAILS	
29.735	29.895	
30.061	30.314	
3.750	8.000	

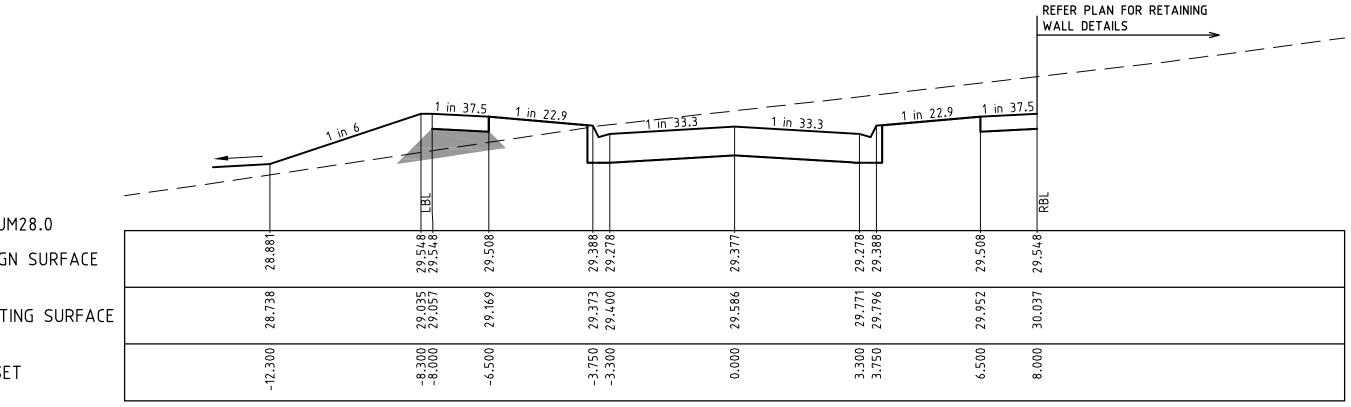
1 in 22.9	1 in 37.	REFER PLAN FOR RETAINING WALL DETAILS	
29.654- 29.654	29.774-	29.814-	
30.197 30.197	30.356	30.443	
3.300 3.750	6.500	8.000	

Rev C

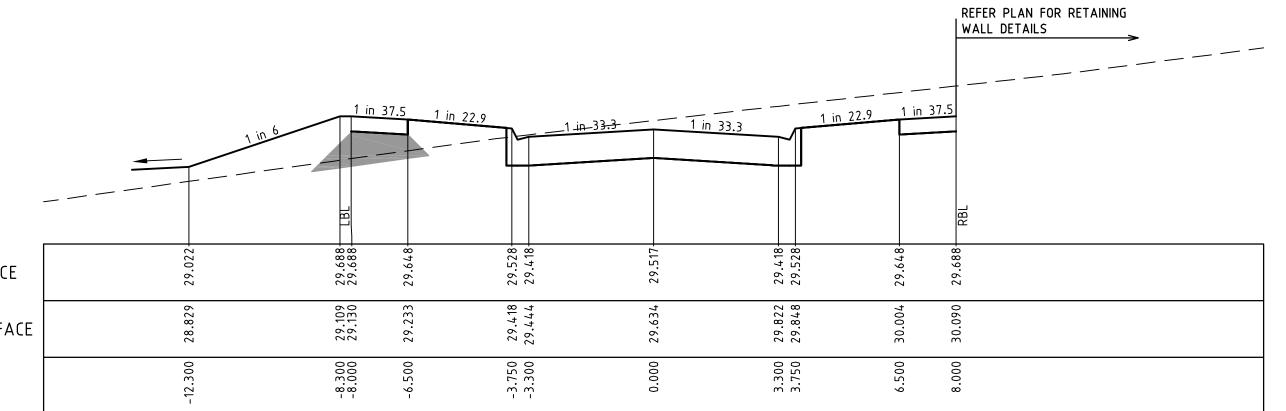




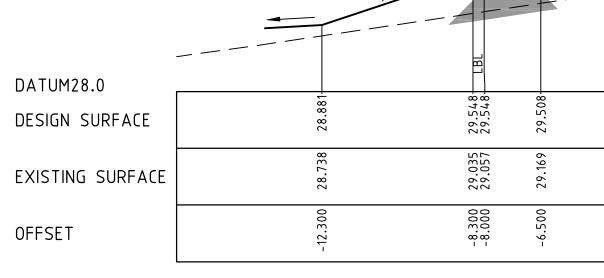






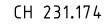


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LEGEND — — — EXISTING SURFACE	Drawn C. Barker Checked		These designs and drawings are the copyright of SM Urban Pty Ltd. The drawing shall not be reproduced or copied, in whole or part without the written	XXX UI
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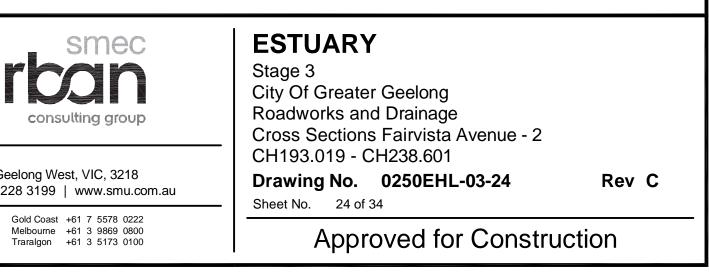
DATUM28.0 DESIGN SURFACE EXISTING SURFACE OFFSET

CH 238.601

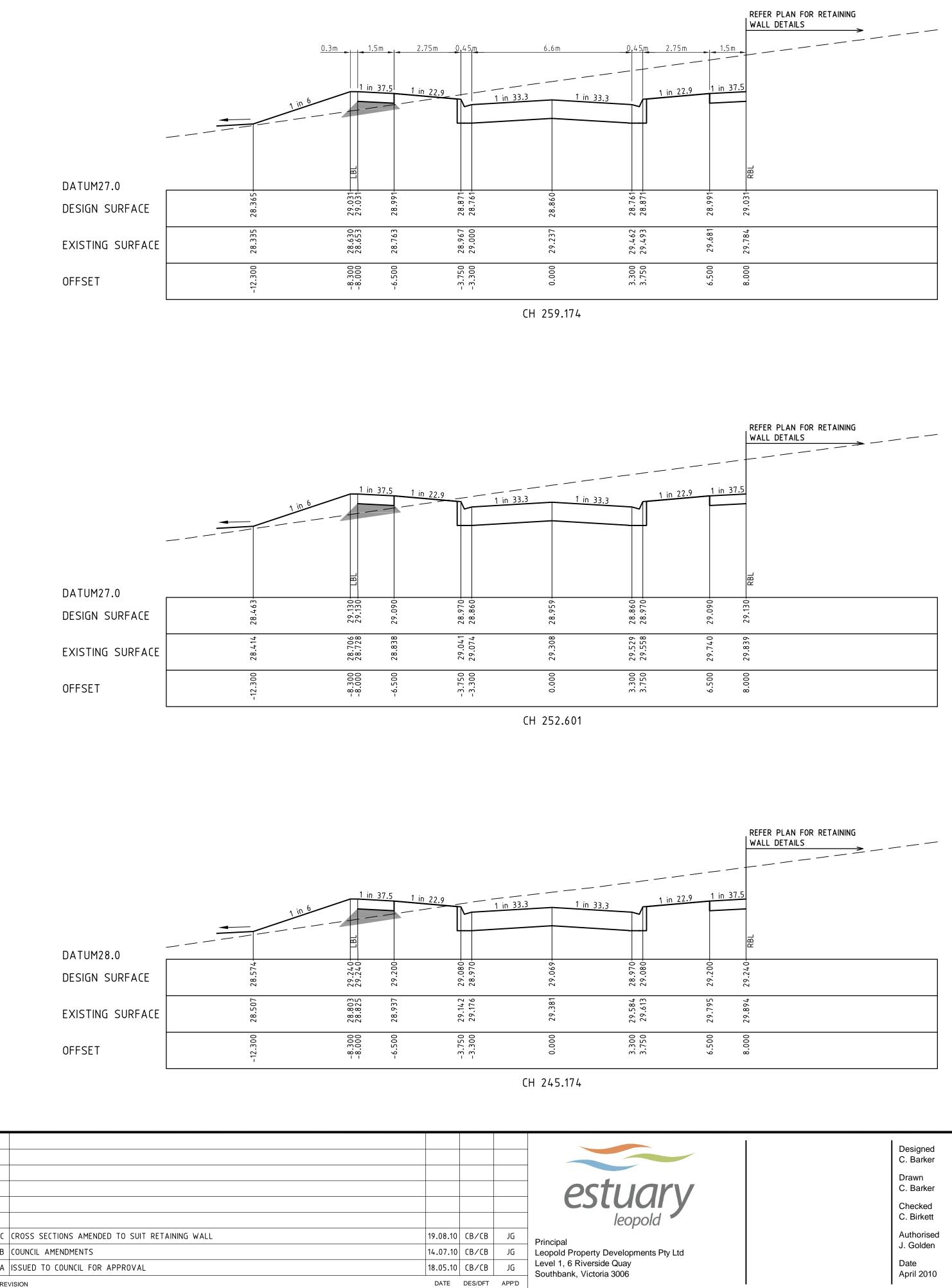


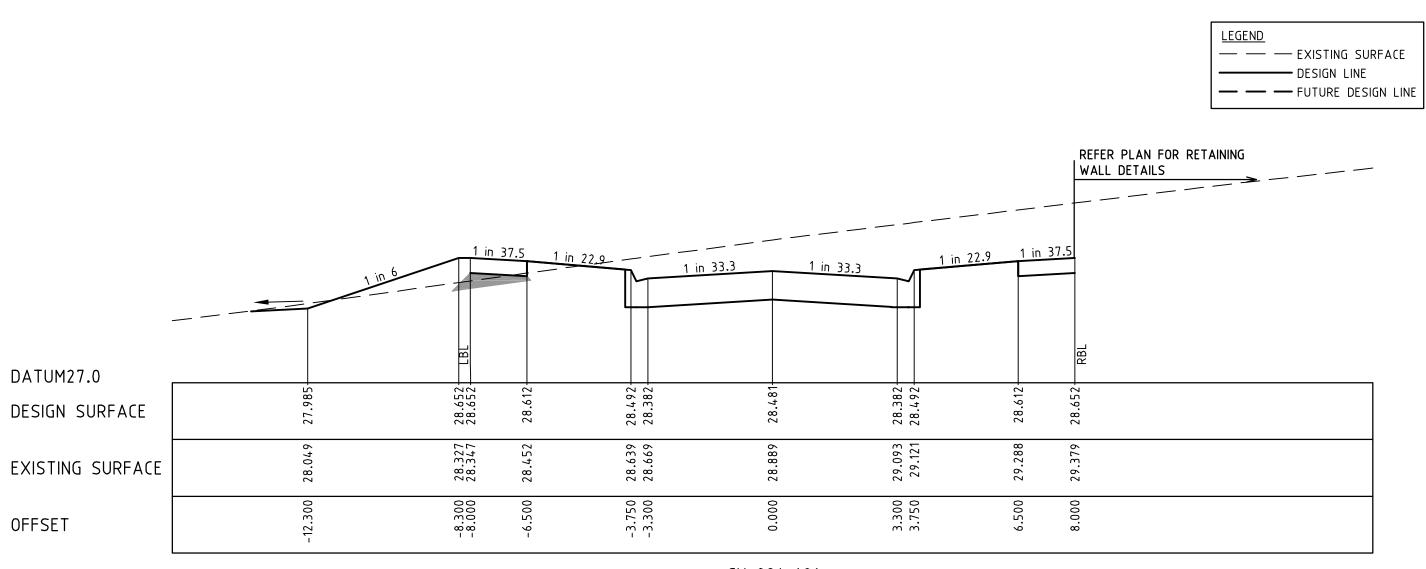
CH 224.603

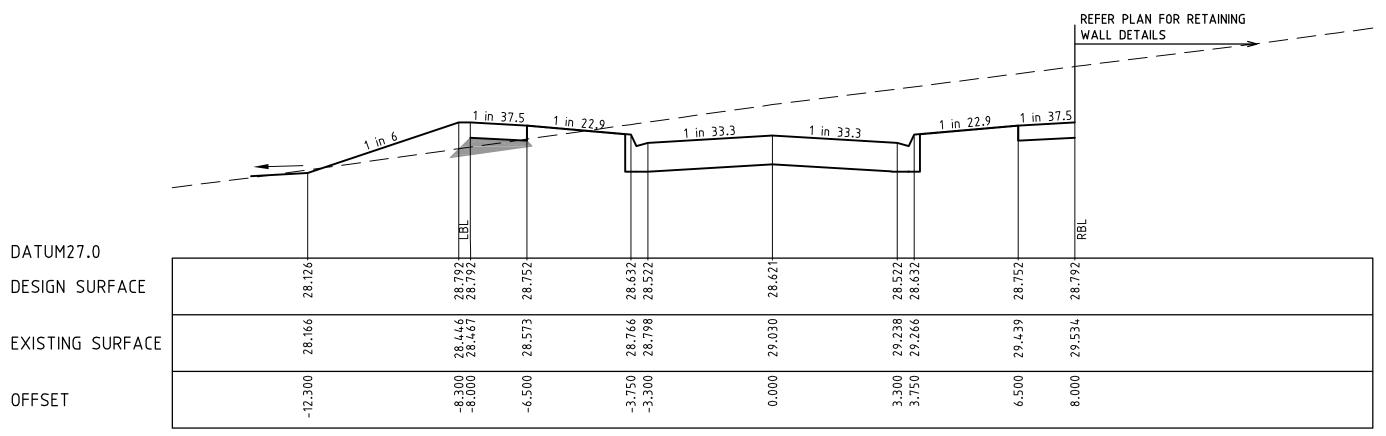
CH 215.174

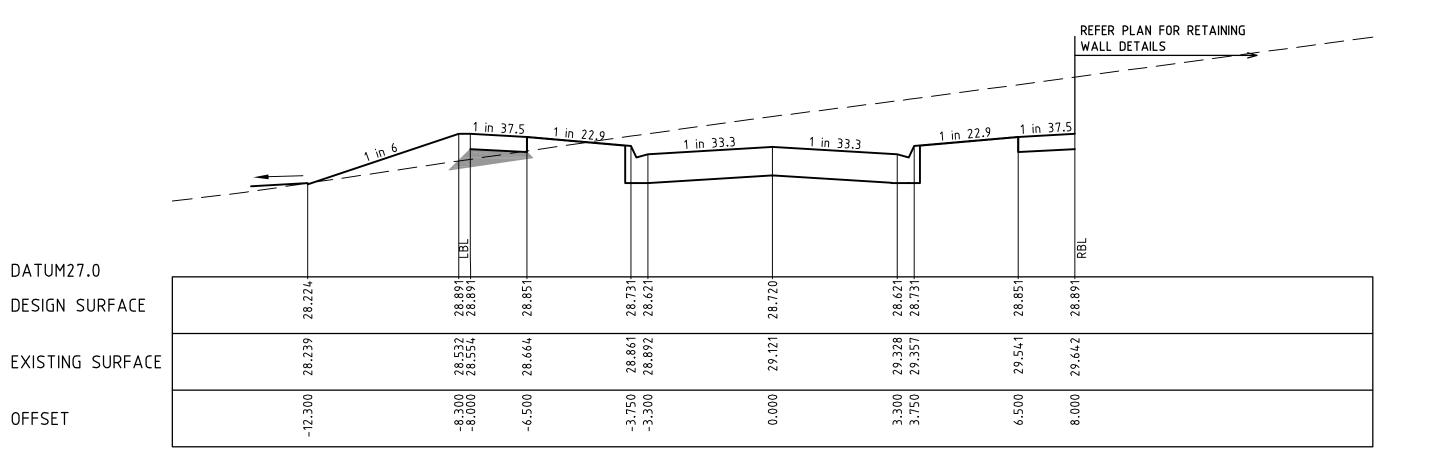


STRUCTURAL FILL REQUIRED UNDER
PAVEMENT AND FOOTPATHS WHERE
CONSTRUCTED ABOVE NATURAL SURFACE







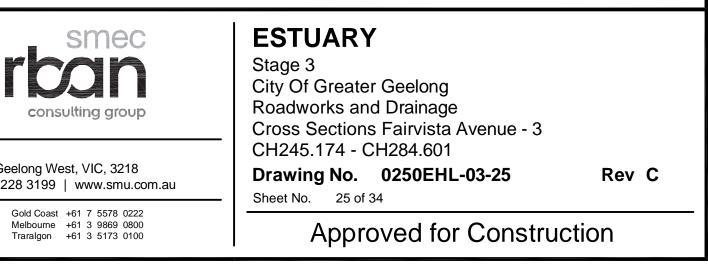


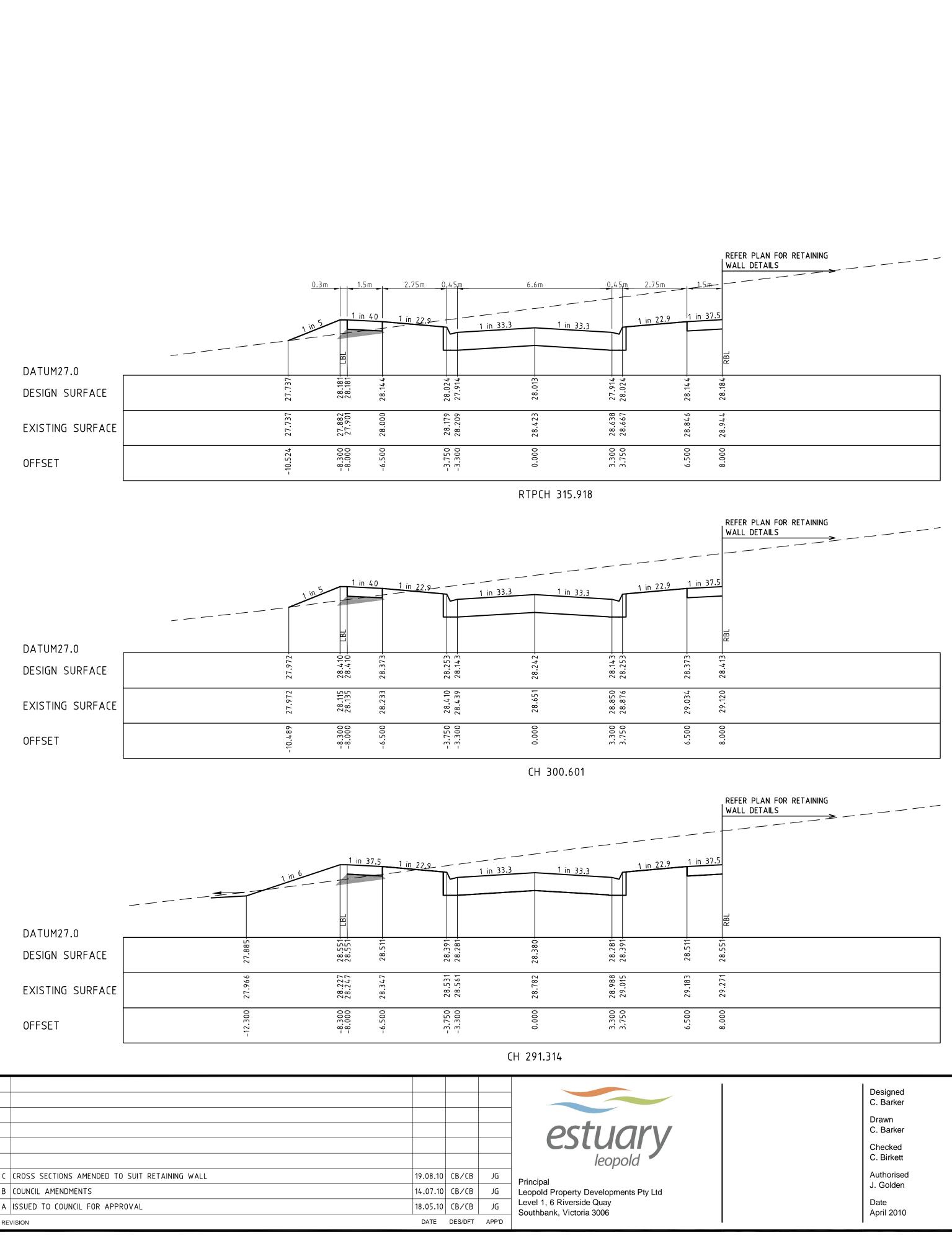
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CH 284.601

CH 275.174

CH 268.601





STRUCTURAL FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE

	REFER PLAN FOR RETAINING WALL DETAILS
<u>15</u>	
in 37.5	
	RBL
	t 0 0 7
110 80	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	2 2 2 2

 in 37.5	REFER PLAN FOR RETAINING WALL DETAILS →
L 51 7 8 C	
061.00	

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<u>LEGEND</u> — — — EXISTING SURFACE DESIGN LINE



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ESTUARY Stage 3 City Of Greater Geelong Roadworks and Drainage Cross Sections Fairvista Avenue - 4 CH291.314 - CH315.918 Drawing No. 0250EHL-03-26 Sheet No. 26 of 34

Rev C

	(RB	CRB	CRB	CRB
DESIGN FLOW (m3∕s) CAPACITY (m3∕s) AT GRADE VELOCITY (m∕s)	1.1901.4205.02	<u> </u>	0.888 0.967 	0.885 0.943
PIPE SIZE (mm)	600Ø>	600Ø	525Ø	525Ø -
grade DATUM		- < ─── 1 in 18.7 ────∍	→ < 1 in 19.8	1 in 20.8 -
DEPTH TO INVERT	1.670 1.670 1.673	1 AG	1.577	1.581
HYDRAULIC GRADE LINE	20.474	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	22.055	23.406
INVERT LEVEL	18.291 18.291 19.792	21 15 8	21.233	22.648
FINISHED SURFACE LEVELS				
EXISTING SURFACE LEVEL	20.360	בול בל		0 + 0
CHAINAGE (Reach Length)	0.000 (28.065) (58.062)	(25.597)	(27.019)	(51.239)
				octuary
				estuary leopold

(9A)

9

(10)

KOMBI ROAD

11

B COUNCIL AMENDMENTS

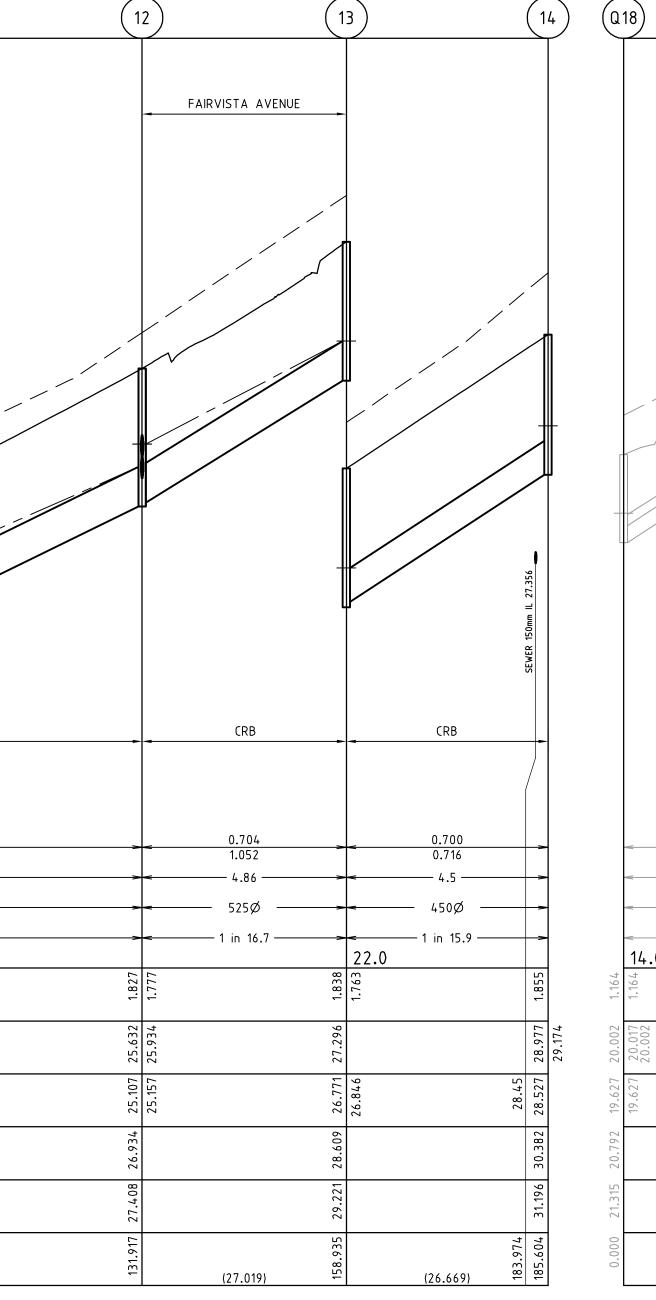
REVISION

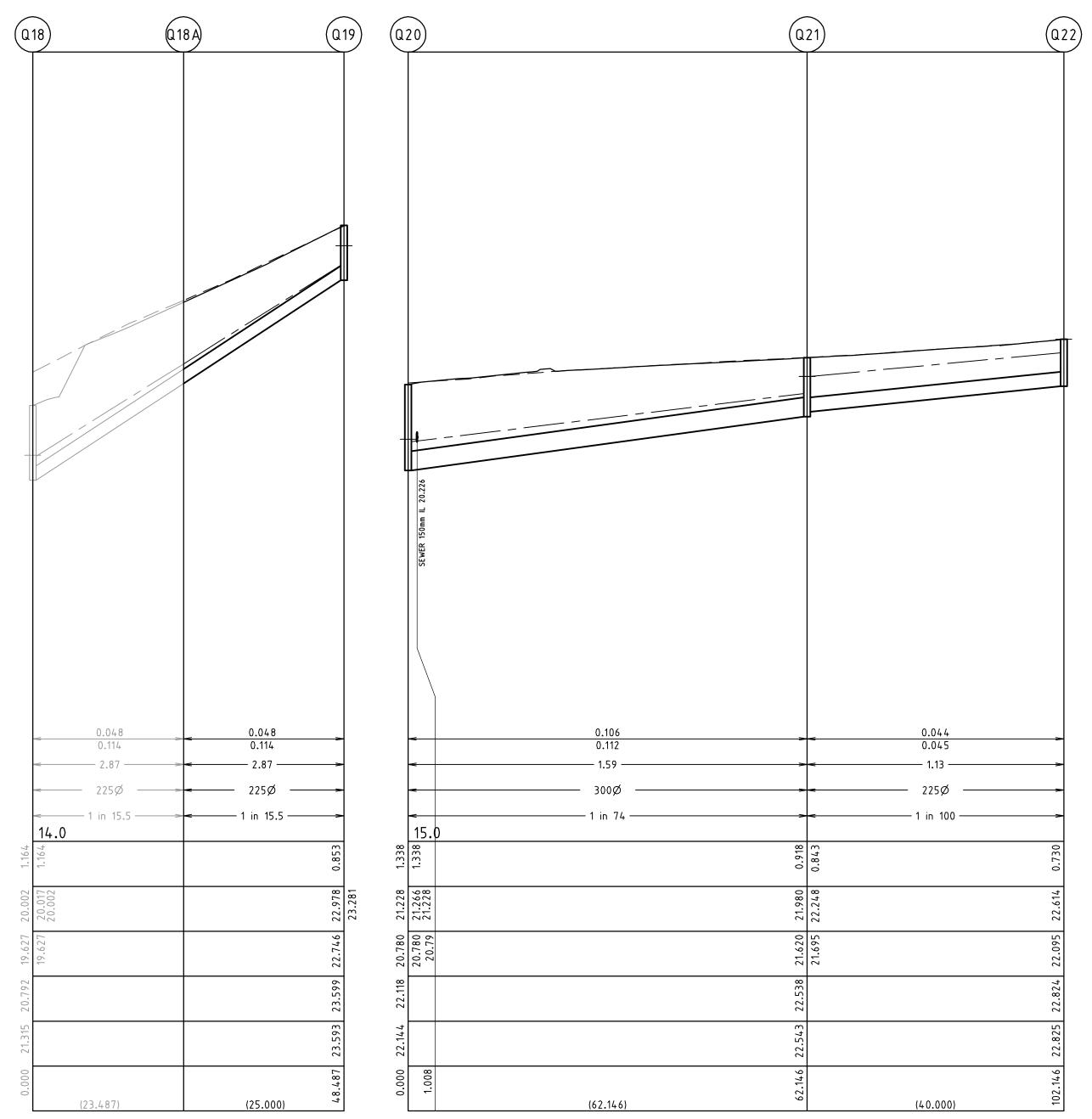
A ISSUED TO COUNCIL FOR APPROVAL

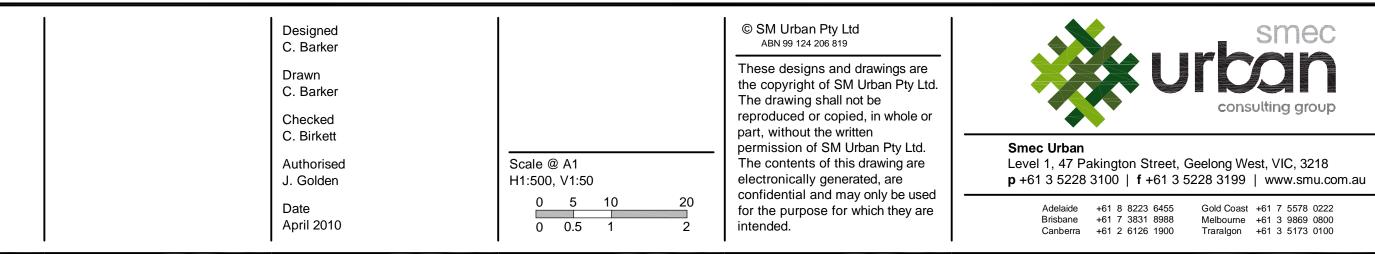
Principal 14.07.10CB/CBJGLeopold Property Developments Pty Ltd18.05.10CB/CBJGLevel 1, 6 Riverside Quay Southbank, Victoria 3006

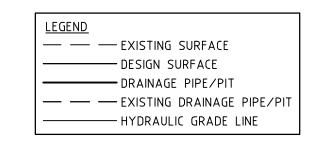
18.05.10 CB/CB JG

DATE DES/DFT APP'D









ESTUARY

Stage 3 City Of Greater Geelong Roadworks and Drainage Drainage Longitudinal Sections - 1

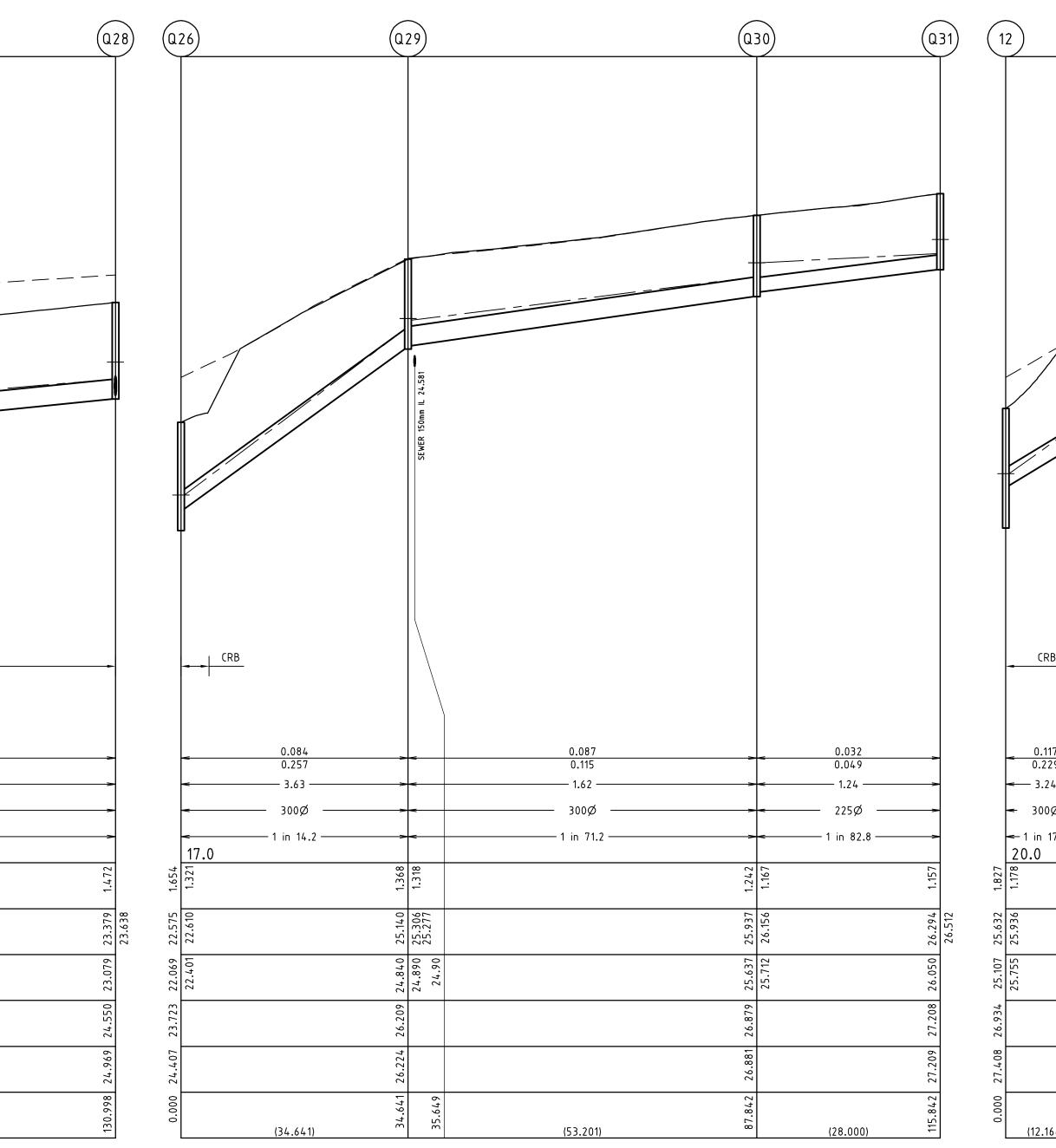
Drawing No. 0250EHL-03-27 Sheet No. 27 of 34

Rev B

RE	VISION	DATE	DES/DFT	APP'D	
А	ISSUED TO COUNCIL FOR APPROVAL	18.05.10	CB/CB	JG	Leve Sout
В	COUNCIL AMENDMENTS	14.07.10	CB/CB	JG	Leop
					Princ



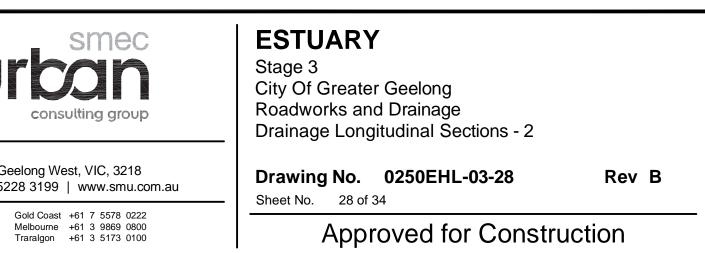
(10) () (Q2	5)		Q2	6)		Q	27)	
			-	KOMBI ROAD								
								Jmm IL 21.874				
	-	CRB		CRB	-	CRB		SEWER 150mm IL	CRB			CRB
DESIGN FLOW (m3/s) CAPACITY (m3/s) AT GRADE VELOCITY (m/s) PIPE SIZE (mm) GRADE		0.241 0.332 - 2.09 - 450Ø - 1 in 73.8 -		0.228 0.255 - 1.6	= =	0.200 0.285 1.79 - 450Ø - 1 in 100			0.119 0.175 1.59 375Ø 1 in 100			0.072 0.097
DATUM	1	16.0					24	6/		16	41	
	3 1.652		8 1.901 9 1.851					1.579			3 1.441	
	21.758 22.056		22.143 22.219				22.575				22.908	
INVERT LEVEL	21.158	t 	21.659 21.709	21.782	21.832		22.069	22.144 22.15		22.439	22.514	
FINISHED SURFACE LEVELS	22.810		23.559	23.604			23.723			23.955		
EXISTING SURFACE LEVEL	23.213		23.723	24.191			24.407			24.563		
CHAINAGE (Reach Length)	0.000	(12.166)	12.166	(9.142) (9.142)		(23.684)	44.992	46.001	(29.506)	74.498		(56.500)



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LEGEND
EXISTING SURFACE
DESIGN SURFACE
DRAINAGE PIPE/PIT
HYDRAULIC GRADE LINE

	33 Q	34)		35) (Q36
		FAIRVISTA AVENUE		FAIRVIST. AVENUE	
CRB	CRB	CRB		CRB	
	= 300Ø =	≺ 300Ø —		<u> </u>	>
C	1 in 50 ► 1.385 ►			- 1 in 112	1.377
.35 26.735				520 28.081 28.080	621 28.082 28.098
27.965 26.4	26.485 26.668 28.053 26.668		28.887 27.4	27.520	28.998 27.621
28.098	28.709		29.523		29.009
12.166) 12.166	(9.142) (9.142)	(55.818)	77.125	(11.287)	88.412



		(12) (48)	Q27 Q56	(65) (65A) (66 (6	7) (68)	69	(70)	(71) (72) (73)	Q28 Q57	66 (121) (122)
<u>HILLCLIN</u> DRIVE	MB	HILLCLIMB	KOMBI ROAD		CASY GROVE		-	ILA DRIVE	SHOALING DRIVE	KOMBI ROAD	GROVE
	CRB	CRB	CRB	CRB	CRB	CRB	CRB	CRB	CRB CRB CRB	CRB	CRB CRB
DESIGN FLOW (m3/s) CAPACITY (m3/s) AT GRADE VELOCITY (m/s) PIPE SIZE (mm) GRADE	 0.048 0.097 1.37 300Ø 1 in 100> 	 0.050 0.0097 	$ \begin{array}{r} 0.013 \\ \hline 0.110 \\ \hline - 1.55 \\ \hline - 3000 \\ \hline - 1 in 77.9 \\ \hline - 3000 \\ \hline - 1 in 77.9 \\ \hline - 3000 \\ \hline - 1 in 77.9 \\ \hline - 3000 \\ \hline - 1 in 77.9 \\ \hline - 3000 $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	300Ø	0.165 0.202 2.85 300Ø 1 in 23	0.068 = = 0.250 = = 3.53 - = = = 300Ø - = = = =	0.223 0 3.15	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	 0.005 0.097 1.37 300Ø 1 in 100 	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
DATUM DEPTH TO INVERT	1.652 1.455 1.370 1.370	1.827 1.455 1.370 1.370	1.516 1.4.41 1.4.41 1.375	1.4 04 1.4 04 1.397 1.329 1.329		1.355 1.583 1.533	1.234 1.184	.12 1.100 1.100		1.472 1.472 1.472 1.373	1.404 1.329 1.593 1.515 1.515
HYDRAULIC GRADE LINE	21.758 22.055 22.076 22.076 22.192	25.632 25.934 25.957 26.144	22.908 22.908 22.963 22.980	20.898 21.635 21.748 21.748				27.359	27.722 27.771 27.764 27.789 27.789 27.802 28.853 28.968		21.748 21.877 22.161 22.233 22.494 22.462
INVERT LEVEL	0 21.158 21.355 0 21.440	t 25.107 25.479 t 25.564	5 22.439 22.514 9 22.663	7 20.427 20.427 20.428 5 21.248 7 21.373 21.448	9 22.633	22.683	0 25.655	9 27.059 27.109	1 27.422 27.472 27.439 1 27.539 27.539 7 28.553	0 23.079 23.129 8 23.225	7 21.373 21.448 21.448 21.911 21.996 1 21.996 22.046
FINISHED SURFACE LEVELS	5 5	<u>18 26.931</u> 9 26.934	3 23.95 [!]	6 21.90 [°] 4 22.645 8 22.777	8 24.039	4 25.46	4 26.89C	1 28.299	4 28.861 3 28.861 9 29.74.7	9 24.55(1 24.598	8 22.777
EXISTING SURFACE LEVEL	00 23.213 00 23.170	00 27.408	<u>71 24.19</u>	00 22.26 21 22.93 02 23.07	12 24.34	4 25.84	15 27.31	94 28.62	53 29.20 53 29.15 53 29.15 16 29.59	00 24.969 17 24.55	00 23.07 14 23.66 16 24.02
CHAINAGE (Reach Length)	0.00 (8.500)	00. 0 (8.500)	0000 (11.671)	00°0 (16.037) (2.865)	(26.810)	(27.471) (27.471)	(25.901)	6 <u>2</u> (25.510) 11	0.169)1 (13.453) 0.169)1 (13.453)	8. 6. (9.617)	0.0 (12.774)



				estuary
				icopola
				Principal
В	COUNCIL AMENDMENTS 14.07.10	CB/CB	JG	Leopold Property Developments Pty Ltd
А	ISSUED TO COUNCIL FOR APPROVAL 18.05.10	CB/CB	JG	Level 1, 6 Riverside Quay Southbank, Victoria 3006
RE	/ISION DATE	DES/DFT	APP'D	

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 Date for the purpose for which they are April 2010 intended. 2

LEGEND
DESIGN SURFACE
DRAINAGE PIPE/PIT
HYDRAULIC GRADE LINE

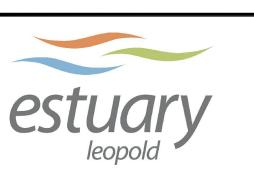




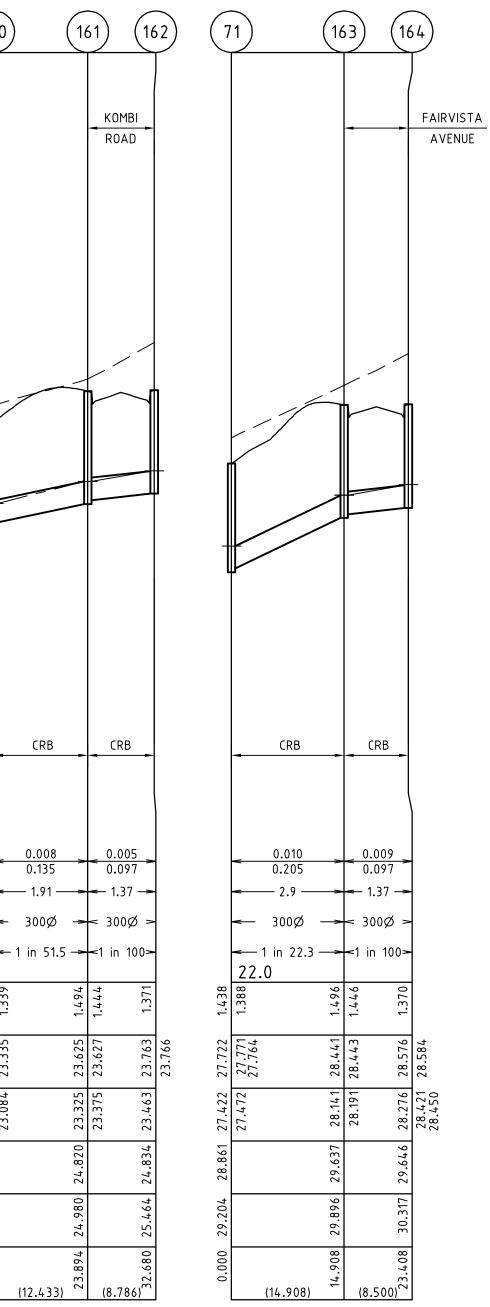
(68		(126	6	9)	(130)	(131)	68	(150)	67		(160)
							ILA DRIVE		-	ALING IVE	-	SHOALING	G
DESIGN FLOW (m3/s)		0.071	SEWER 150mm IL 22.509			CRB 0.019	<u>CRB</u> 0.016			RB	-	CRB 0.010	
CAPACITY (m3/s) AT GRADE VELOCITY (m/s) PIPE SIZE (mm) GRADE DATUM	18.0 18.0	0.111 0.111 - 375Ø - 1 in 250		2.030 \ \ \ \		0.243 	0.097 	> > >	- 0. - 2. - 30	173 45		- 0.169 - 2.39 - = 300Ø - 1 in 32.7 17.0	1.389 <u>v v v v</u> 1.339 <u>v v v v</u>
HYDRAULIC GRADE LINE	24.1/8 24.398 24.396			24.456 2. 24.484	25.955	25.974	26.805 1. 26.809 1.	26.914 1. 26.939	24.178 1. 24.398 1. 24.396 1	24.762 1. 24.873		-1	23.334 1. 23.335 1.
	23.928		24.07	24.075	25.655	25.705	26.555	26.614	23.878 24.106	24.462		22.683	23.034 23.084
FINISHED SURFACE LEVELS				8 26.106	4 26.890		2 27.763	4 27.667	4 25.461	8 25.852	8 24.039		6 24.423
	0 25-844			0 26.138	0 27.314		0 27.842	2 28.154	0 25.844	3 26.158	0 24.348		51 24.636
CHAINAGE (Reach Length)	000.0	(36.750)	34.750	36.750	0.000	(12.670)	(5.94	^{€ 18.612}	000.0	11.083	0.000	(11.461)	11.4.61



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					CJU
D	DRAINAGE LINE REMOVED	22.09.10	CB/CB	JG	leop
C	DRAINAGE ADDED FOR RETAINING WALL	19.08.10	CB/CB	JG	Principal
В	COUNCIL AMENDMENTS	14.07.10	CB/CB	JG	Leopold Property Developr
А	ISSUED TO COUNCIL FOR APPROVAL	18.05.10	CB/CB	JG	Level 1, 6 Riverside Quay Southbank, Victoria 3006
RE	VISION	DATE	DES/DFT	APP'D	



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LEGEND

— — — EXISTING SURFACE
DESIGN SURFACE
HYDRAULIC GRADE LINE



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ESTUARY

Stage 3 City Of Greater Geelong Roadworks and Drainage Drainage Longitudinal Sections - 4

Drawing No. 0250EHL-03-30 Sheet No. 30 of 34

Rev D

								SCHEDULE			
PIT NUMBER	TYPE		ERNAL	AL INLET		OUTLET		 COVER LEVEL (m)	DEPTH (m)	STANDARD DRAWING	REMARKS
TI NUMBER		WIDTH (mm)	LENGTH (mm)	DIA. (mm)	INVERT RL (m)	DIA. (mm)	INVERT RL (m)			STANDARD DRAWING	KEMARKS
9A	Ex ENDPIPE	900	900	600	19.792			21.465	1.673		CONNECT TO EXISTING ENDPIPE
10	SIDE ENTRY PIT	900	900	525	21.233	600	21.158	22.810	1.652	CGG305 CGG309	
				450	21.494						
				300	21.355						
11	SIDE ENTRY PIT	900	900	525	22.648	525	22.598	24.229	1.631	CGG305 CGG309	
12	SIDE ENTRY PIT	900	900	525	25.157	525	25.107	26.934	1.827	CGG305 CGG309	
				300	25.755						
				300	25.479						
13	SIDE ENTRY PIT	900	900	450	26.846	525	26.771	28.609	1.838	CGG305 CGG309	
14	END ENTRY PIT	900	900			450	28.527	30.382	1.855	CGG305	TEMPORARY END ENTRY PIT
47	SIDE ENTRY PIT	900	900			300	21.440	22.810	1.370		
48	SIDE ENTRY PIT	900	900	275	21.27.0	300	25.564	26.934	1.370	CGG305 CGG309	
65A	Ex ENDPIPE SIDE ENTRY PIT	900	900	375 300	21.248	375	21.373	22.645	1.397	CGG305 CGG309	CONNECT TO EXISTING ENDPIPE
66		900	900	300	21.448	C/C	21.575	22.111	1.404		
67	SIDE ENTRY PIT	900	900	300	22.683	300	22.633	24.039	1.405	CGG305 CGG309	
07		,00		300	22.683		22.000	24.037	1.405		
68	JUNCTION PIT	900	900	300	23.928	300	23.878	25.461	1.583	CGG305 CGG306	
		,		375	23.928						
				300	24.106						
69	SIDE ENTRY PIT	900	900	300	25.705	300	25.655	26.890	1.234	CGG305 CGG309	
				300	25.705						
70	SIDE ENTRY PIT	900	900	300	27.109	300	27.059	28.299	1.240	CGG305 CGG309	
71	SIDE ENTRY PIT	900	900	300	27.472	300	27.422	28.861	1.438	CGG305 CGG309	
				300	27.472						
72	SIDE ENTRY PIT	900	900	300	27.539	300	27.489	28.861	1.371	CGG305 CGG309	
73	SIDE ENTRY PIT	600	900			300	28.553	29.747	1.195	CGG305 CGG309	
121	SIDE ENTRY PIT	900	900	300	21.911	300	21.861	23.504	1.643	CGG305 CGG309	
122	SIDE ENTRY PIT	900	900	300	22.046	300	21.996	23.511	1.515	CGG305 CGG309	
122A	ENDPIPE					300	22.526	23.842	1.316		
126	JUNCTION PIT	900	900			375	24.075	26.106	2.030	CGG305 CGG308	
130	SIDE ENTRY PIT	900	900	300	26.489	300	26.439	27.763	1.324	CGG305 CGG310	
131	GRATED SIDE ENTRY PIT	600	900			300	26.614	27.667	1.053	CGG318	
150	SIDE ENTRY PIT	900	900	200		300	24.462	25.852	1.390		
160	SIDE ENTRY PIT	900	900	300	23.084	300	23.034	24.423	1.389		
161 162	SIDE ENTRY PIT SIDE ENTRY PIT	900 900	900	300	23.375	300 300	23.325	24.820	1.494	CGG305 CGG309 CGG305 CGG309	
162	SIDE ENTRY PIT	900	900	300	28.191	300	23.463	29.637	1.496		
164	SIDE ENTRY PIT	900	900	225	28.421	300	28.276	29.646	1.370		
Q18A	Ex ENDPIPE	700		225	20.421	00	20.270	29.848	1.266		CONNECT TO EXISTING ENDPIPE
Q19	JUNCTION PIT	600	900			225	22.746	23.599	0.853	CGG307	
Q20	Ex PIT		,	300	20.780			22.118	1.338		CONVERT TO JUNCTION PIT FROM END ENTRY
Q21	JUNCTION PIT	600	900	225	21.695	300	21.620	22.538	0.918	CGG307	
Q22	JUNCTION PIT	600	900			225	22.095	22.824	0.730	CGG307	
Q24	DOUBLE SIDE ENTRY PIT	900	1900	450	21.709	450	21.659	23.559	1.901	CGG305 CGG312	
Q25	DOUBLE SIDE ENTRY PIT	900	1900	450	21.832	450	21.782	23.604	1.822	CGG305 CGG312	
Q26	JUNCTION PIT	900	900	375	22.144	450	22.069	23.723	1.654	CGG305 CGG306	
				300	22.401						
Q27	DOUBLE SIDE ENTRY PIT	900	1900	300	22.514	375	22.439	23.955	1.516	CGG305 CGG312	
				300	22.514						
Q28	DOUBLE SIDE ENTRY PIT	900	1900			300	23.079	24.550	1.472	CGG305 CGG312	
				300	23.129						
Q29	JUNCTION PIT	900	900	300	24.890	300	24.840	26.209	1.368	CGG305 CGG308	
Q30	JUNCTION PIT	900	900	225	25.712	300	25.637	26.879	1.242	CGG305 CGG308	
Q31	JUNCTION PIT	600	900			225	26.050	27.208	1.157	CGG305 CGG308	
Q33	DOUBLE SIDE ENTRY PIT	900	1900	300	26.485	300	26.435	27.965	1.530	CGG305 CGG312	
Q34	DOUBLE SIDE ENTRY PIT	900	1900	300	26.718	300	26.668	28.053	1.385		
Q35	DOUBLE SIDE ENTRY PIT	900	1900	300	27.520	300	27.470	28.887	1.417		
Q36	DOUBLE SIDE ENTRY PIT	900	1900			300	27.621	28.998	1.377		
Q56	DOUBLE SIDE ENTRY PIT	900	1900			300	22.663	24.039	1.375		
Q57	DOUBLE SIDE ENTRY PIT	900	1900	1		300	23.225	24.598	1.373	CGG305 CGG312	

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D	DRAINAGE LINE REMOVED	22.09.10	CB/CB	JG	leop
C	PITS FOR EXTRA DRAINAGE ADDED	19.08.10	CB/CB	JG	Principal
В	COUNCIL AMENDMENTS	14.07.10	CB/CB	JG	Leopold Property Developr
А	ISSUED TO COUNCIL FOR APPROVAL	18.05.10	CB/CB	JG	Level 1, 6 Riverside Quay Southbank, Victoria 3006
RE	/ISION	DATE	DES/DFT	APP'D	



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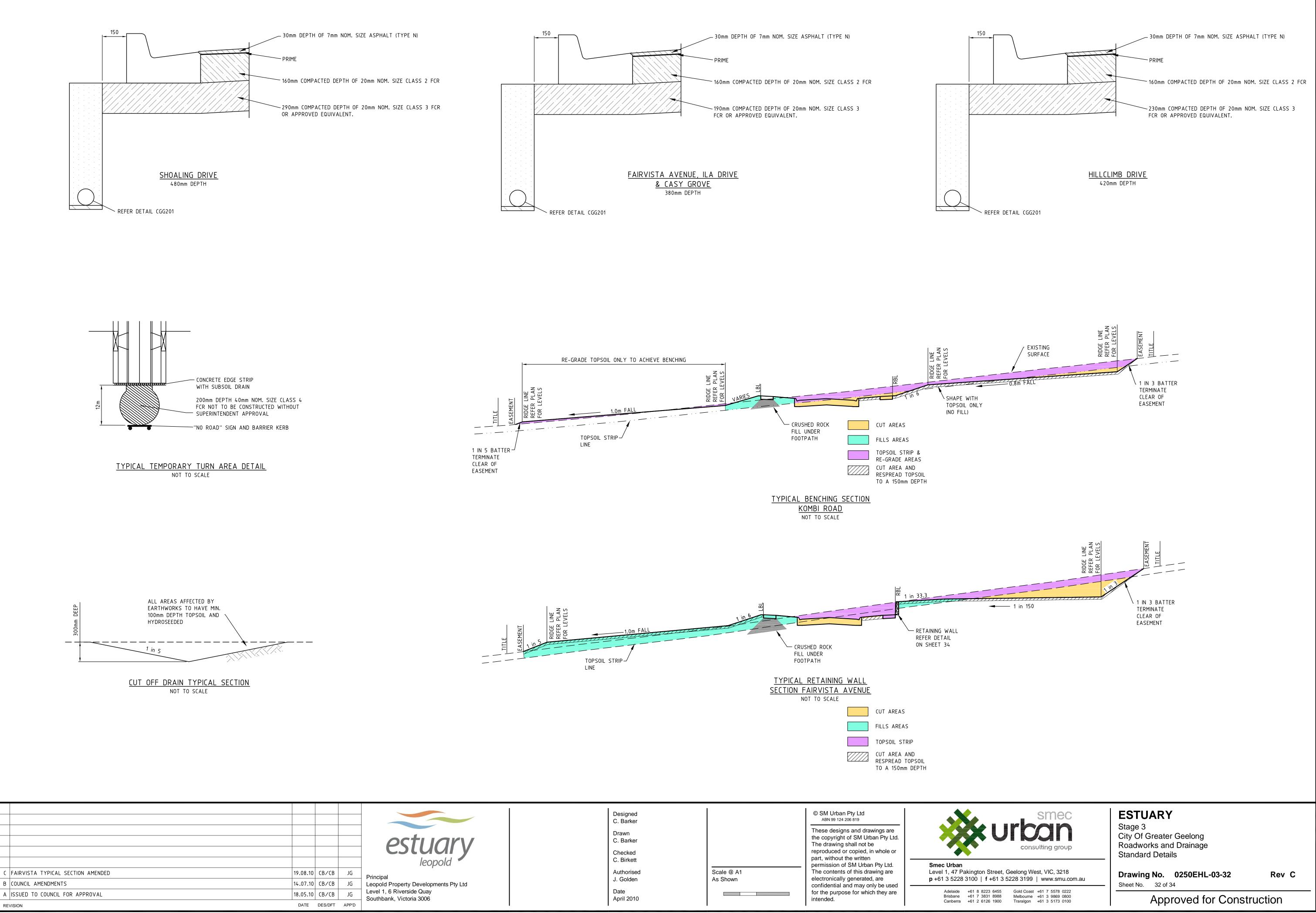
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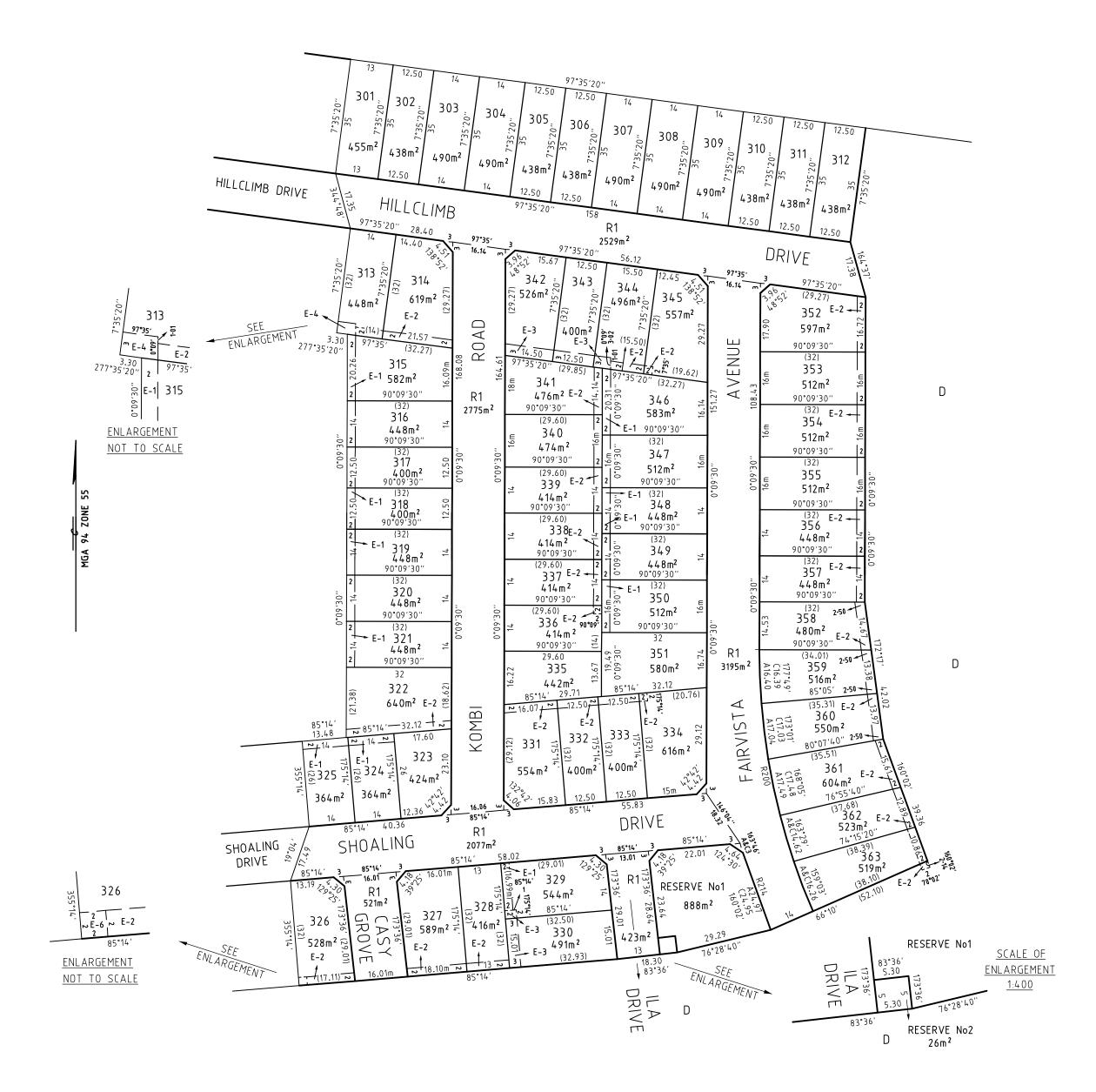
ESTUARY

Stage 3 City Of Greater Geelong Roadworks and Drainage Drainage Longitudinal Sections - 5 & Pit Schedule Drawing No. 0250EHL-03-31 Sheet No. 31 of 34

Rev D



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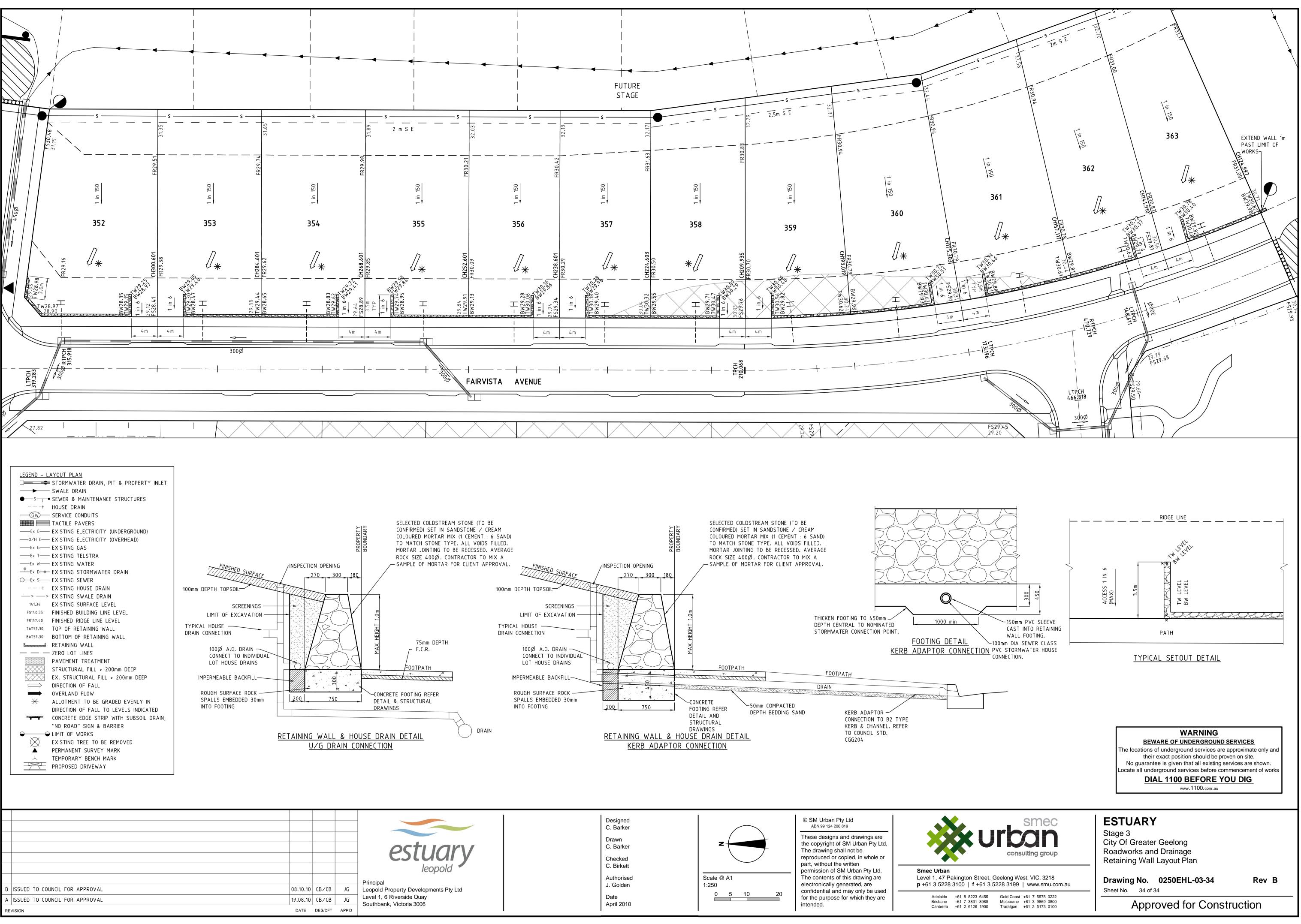


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Stage 3 City Of Greater Geelong Roadworks and Drainage Subdivision Setout Plan

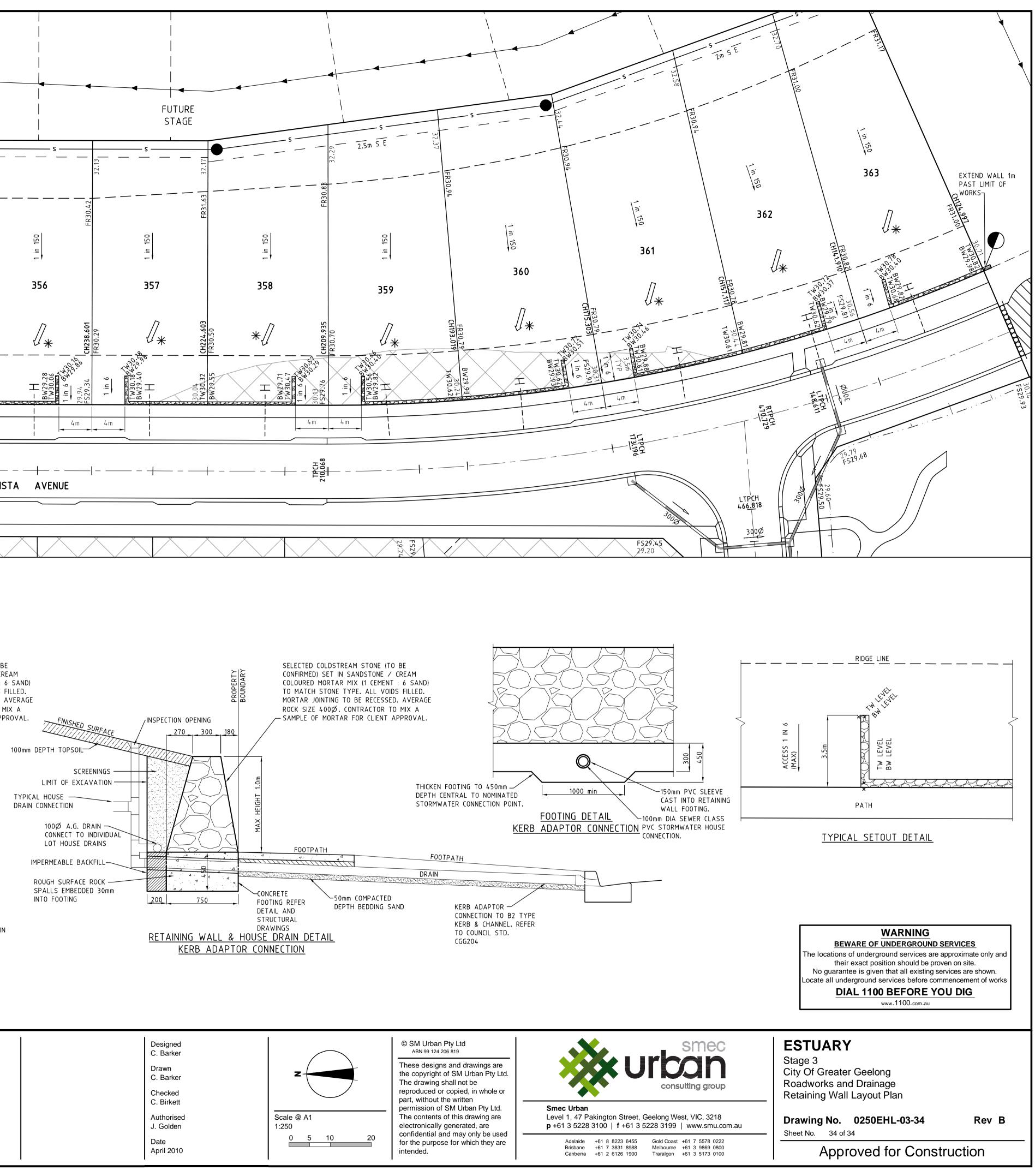
Drawing No. 0250EHL-03-33 Sheet No. 33 of 34

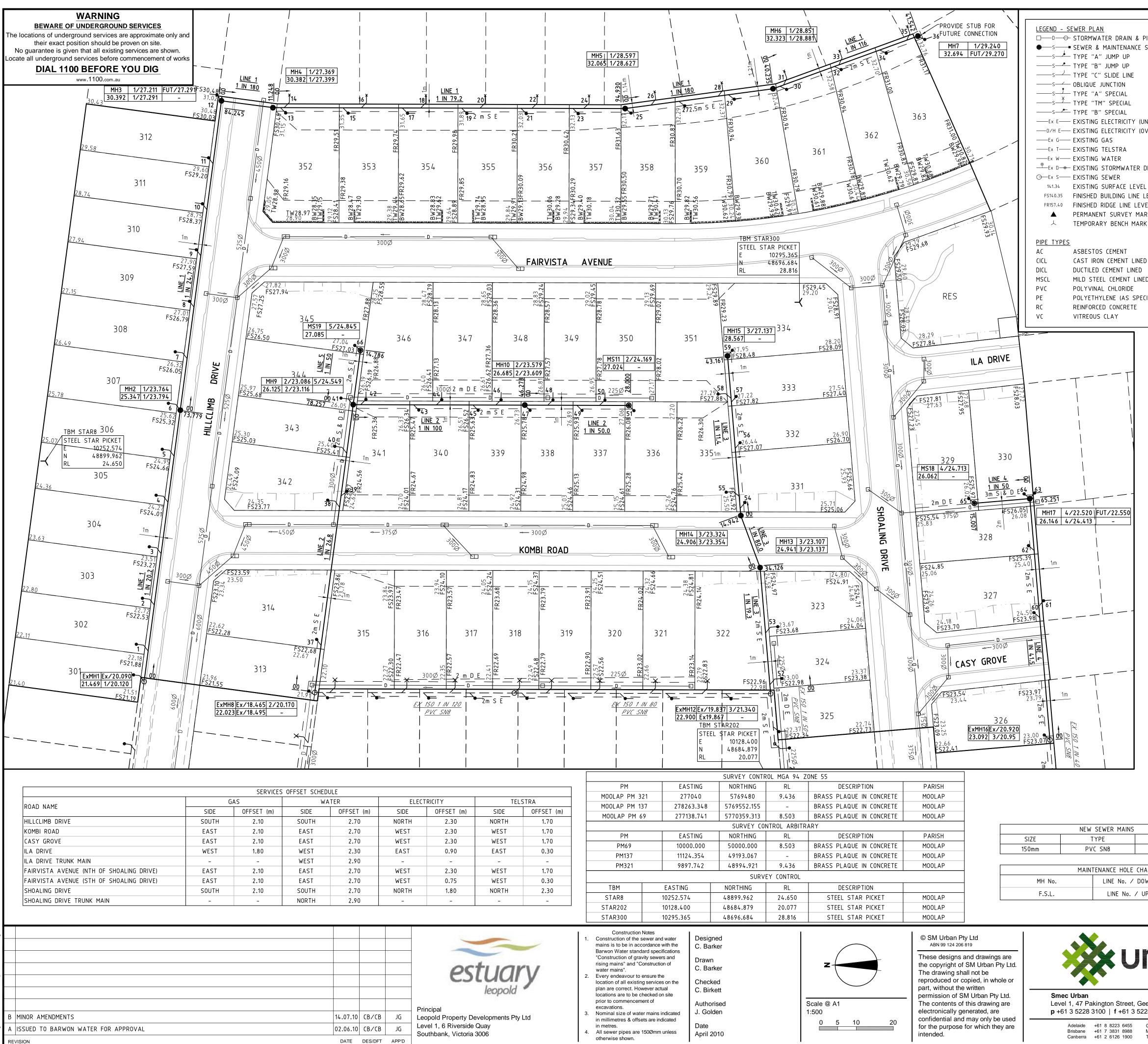
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08.10.10	CB/CB	JG	Principal Leopold Property Developments F
19.08.10 DATE	CB/CB DES/DFT	JG APP'D	Level 1, 6 Riverside Quay Southbank, Victoria 3006
	19.08.10		19.08.10 CB/CB JG





		SERVICES	OFFSET SCHED	ULE				
	G	AS	W	ATER	ELEC	TRICITY .	TEL	STRA
ROAD NAME	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m
HILLCLIMB DRIVE	SOUTH	2.10	SOUTH	2.70	NORTH	2.30	NORTH	1.70
KOMBI ROAD	EAST	2.10	EAST	2.70	WEST	2.30	WEST	1.70
CASY GROVE	EAST	2.10	EAST	2.70	WEST	2.30	WEST	1.70
ILA DRIVE	WEST	1.80	WEST	2.30	EAST	0.90	EAST	0.30
ILA DRIVE TRUNK MAIN	-	-	WEST	2.90	_	-	_	-
FAIRVISTA AVENUE (NTH OF SHOALING DRIVE)	EAST	2.10	EAST	2.70	WEST	2.30	WEST	1.70
FAIRVISTA AVENUE (STH OF SHOALING DRIVE)	EAST	2.10	EAST	2.70	WEST	0.75	WEST	0.30
SHOALING DRIVE	SOUTH	2.10	SOUTH	2.70	NORTH	1.80	NORTH	2.30
SHOALING DRIVE TRUNK MAIN	-	-	NORTH	2.90	_	-	_	-

					estuary
B	MINOR AMENDMENTS	14.07.10		JG	Principal Leopold Property Developments Pty Ltd
	ISSUED TO BARWON WATER FOR APPROVAL	02.06.10		JG	Leopoid Property Developments Pty Ltd Level 1, 6 Riverside Quay Southbank, Victoria 3006
RE	/ISION	DATE	DES/DFT	APP'D	

 OVERHEAD) 4. THE CONTRACTOR SHALL MAKE ALL WORKS AVAILABLE FOR THE INSPECTOR/SURVEY CARRY OUT THE NECESSARY INSPECTIONS AND SURVEYING BEFORE BACKFILLING IS COMMENCED. 5. SERVICES ARE APPROXIMATE ONLY. ALL RELEVANT SERVICE AUTHORITY'S ARE TO BE CONTACTED PRIOR TO THE COMMENCEMENT OF EXCAVATION TO ESTABLISH THEIR EXA LOCATION. 6. CONTACT PRIOR TO COMMENCEMENT OF WORKS: CITY OF GREATER GEELONG POWERCOR LEVEL TRU 	ITH 'S S AND G TIONS OR TO E
3. THE CONTRACTOR SHALL3.A. COMPLY WITH SAFETY REQUIREMENTS OF THE MINES ACT, GENERAL REGULATIONS STATUTORY RULES, AND THE MINES (TRENCHES) REGULATIONS 1982.3.B. NOTIFY THE DEPARTMENT OF LABOUR OF HIS INTENTION TO COMMENCE TRENCHING OPERATIONS WHERE TRENCHES ARE 1.5 METRES OR DEEPER.3.C. INSURE THAT THE MINE MANAGER OR HIS DEPUTY AS REQUIRED BY THE REGULA IS IN ATTENDANCE WHEN TRENCHING OPERATIONS ARE IN PROGRESS.OVERHEAD)OVERHEAD)CARRY OUT THE NECESSARY INSPECTIONS AND SURVEYING BEFORE BACKFILLING IS COMMENCED.COMMENCED.S. SERVICES ARE APPROXIMATE ONLY. ALL RELEVANT SERVICE AUTHORITY'S ARE TO BE CONTACTED PRIOR TO THE COMMENCEMENT OF EXCAVATION TO ESTABLISH THEIR EXA LOCATION.DRAINCRAINCL	G TIONS OR TO
5. SERVICES ARE APPROXIMATE ONLY. ALL RELEVANT SERVICE AUTHORITY'S ARE TO BE CONTACTED PRIOR TO THE COMMENCEMENT OF EXCAVATION TO ESTABLISH THEIR EXALOCATION. 6. CONTACT PRIOR TO COMMENCEMENT OF WORKS: EL LEVEL VEL	
LEVEL POWERCOR LEVEL TELSTRA VEL TRU	
ARK VICTORIAN WORKCOVER AUTHORITY	
 RK 7. ALL SERVICES ARE TO BE LOCATED ON SITE PRIOR TO ANY EXCAVATION. 8. INVERT LEVELS OF EXISTING SEWERS AND WATERMAINS TO BE CHECKED PRIOR TO THE COMMENCEMENT OF WORKS. 9. CLASS 2 BACKFILL TO BE USED UNDER DRIVEWAYS FOR WATER AND SEWER RETICUL 	ATION.
 PROPERTY OWNERS ARE TO BE NOTIFIED IN WRITING BY THE CONSULTANT 14 CLEAR PRIOR TO COMMENCEMENT OF WORKS COPY OF CADASTRAL MAP GRID (MGA) CONNECTION & COPY OF AUSTRALIAN HEIGHT I (AHD) CONNECTION IS TO BE PROVIDED BY CONTRACTOR WORKS SHALL BE EFFECTED BETWEEN THE HOURS OF 8:00am AND 5:00pm MONDAY - FRIDAY. IN THE EVENT THAT WORKS ARE TO BE EFFECTED OUTSIDE THESE WORKING A LETTER REQUESTING APPROVAL FOR SUCH OUT OF HOURS WORK SHALL BE LODGED 	DATUM HOURS,
THE SENIOR QUALITY AUDITOR. 13. THE CONTRACTOR SHALL COMPLY WITH SAFETY REQUIREMENTS RELATING TO WORKIN POWER LINES AS SET BY THE CHIEF ELECTRICAL INSPECTOR WHERE NECESSARY AN ACCREDITED TRAINED SPOTTER IS TO BE PROVIDED. 14. WATER RESTRICTIONS ARE TO APPLY FROM MIDNIGHT JUNE 30th 2006, IN ACCORDANCE	
WITH BY-LAW NO. 187. ONLY TRIGGER HOSES (MAXIMUM SIZE 25mm) MAY BE USED F CONSTRUCTION WORK NOT INCLUDING TRENCHING, UNLESS OTHERWISE EXEMPTED BY T AUTHORITY IN WRITING. MECHANICAL COMPACTION IS TO BE USED IN ACCORDANCE WIT MRWA SPECIFICATION 04-03 FOR TRENCH WORKS UNTIL FURTHER NOTICE. ANY WATEF TO FLUSH WATER MAINS IS TO BE RECLAIMED AND USED FOR CONSTRUCTION PURPOS	HE H VSED
 SEWER THE CONTRACTOR SHALL CORE CUT ALL HOLES INTO EXISTING PRECAST SEWER MAINTENANCE HOLES. ALL FSL'S SHOWN IN MAINTENANCE HOLES INFORMATION BOX ARE TOP OF MANHOLE I ALL END OF LINES NOMINATED AS TMS ARE TO HAVE A TERMINAL MAINTENANCE SHA PER BARWON WATER STANDARD DRAWING 70095. 	
 4. WHERE FUTURE SEWER MAINS ARE INDICATED A 150mm ACCESS COUPLING AND CAP A BE PLACED OUT OF THE MANHOLE. 5. WARNING; ENTRY INTO ANY MAINTENANCE HOLE IS CONTROLLED BY CONFINED SPACE REGULATIONS BEING "OCCUPATIONAL HEALTH & SAFETY (CONFINED SPACES) REGULATI 1996, STATUTORY RULE No 148/1996 AND A.S. 2865 - 1995 SAFE WORKING IN CONFINE SPACES". PERSON(S) REQUIRING ACCESS TO ANY BARWON WATER MANHOLE AS PART THE DEVELOPER WORKS PROCESS MUST CONTACT THE SENIOR QUALITY AUDITOR PH 	ONS IED OF
5226 9204 FOR ANY REQUIREMENTS DURING THE CONSTRUCTION OF WORKS TO GAIN ACCESS TO A BARWON WATER MANH THE PROCEDURE AS OUTLINED IN THE ATTACHED FLOWCHART IS TO BE FOLLOWED, AI "THE CONFINED SPACE ENTRY PERMIT APPLICATION FORM" (ALSO ATTACHED) IS TO B COMPLETED AND LODGED WITH THE SENIOR QUALITY AUDITOR 3 (THREE) CLEAR WORK DAYS PRIOR TO ENTRY.	OLE ND E
 ALL SEWERS ARE TO BE PVC-SN8 DETECTOR TAPE TO BE PLACED OVER SEWERS AT ALL ROAD CROSSINGS AND ALL CU SEWER MAINS. BORED SECTIONS OF SEWER TO BE CCTV INSPECTED IN ACCORDANCE WITH BARWON W LAND DEVELOPMENT MANUAL AND SUBMITTED TO BARWON WATER FOR ACCEPTANCE. ALL MANHOLE JOINTS, INCLUDING DROPS TO BE SEALED WITH FERROPRE OR APPROVE EQUIVALENT. ALL EXCAVATIONS AROUND A NEWLY CONSTRUCTED MANHOLE TO BE BACKFILLED WIT CEMENT STABILISED SAND. 	ATER'S D
<u>SPECIAL</u> 1. TRENCH COMPACTION RESULTS TO BE SUBMITTED BY CONSULTANT WITH 'AS CONSTRUNCTES.	JCTED'
BARWON WATER APPROVED CONTRACTOR TO CONNECT TO EXISTING ACCESS CHAMBER AT CONTRACTORS COST. 7 CLEAR DAYS NOTICE PRIOR TO THE COMMENCEMENT OF WORKS MUST BE GIVEN TO THE SUPERINTENDENT AND BARWON WATER SENIOR QUALITY AUDITOR.	
BARWON WATER APPROVED CONTRACTOR TO CONSTRUCT NEW HOUSE CONNECTIONS OVER EXISTING MAIN AT CONTRACTORS COST. 7 CLEAR DAYS NOTICE PRIOR TO THE COMMENCEMENT OF WORKS MUST BE GIVEN TO THE SUPERINTENDENT AND BARWON WATER SENIOR QUALITY AUDITOR	
LENGTH 687 WORKS SHALL NOT COMMENCE UNTIL	
HAMBER INFORMATION LEGEND OWNSTREAM INVERT UPSTREAM INVERT LINE No. / UPSTREAM INVERT ACCEPTED BY BARWON WATER DEVELOPMENT SERVICES	
CO-ORDINATOR DEVELOPMENT & CONSERVATION	
Smec FCOID consulting groupBarwon Region Water AuthorityBarwon Water No. L006017Estuary Stage 3 Sewer Detail Plan	
Geelong West, VIC, 3218Drawing No.0250EHL-03-51Rev B228 3199 www.smu.com.auSheet No.1 of 4	
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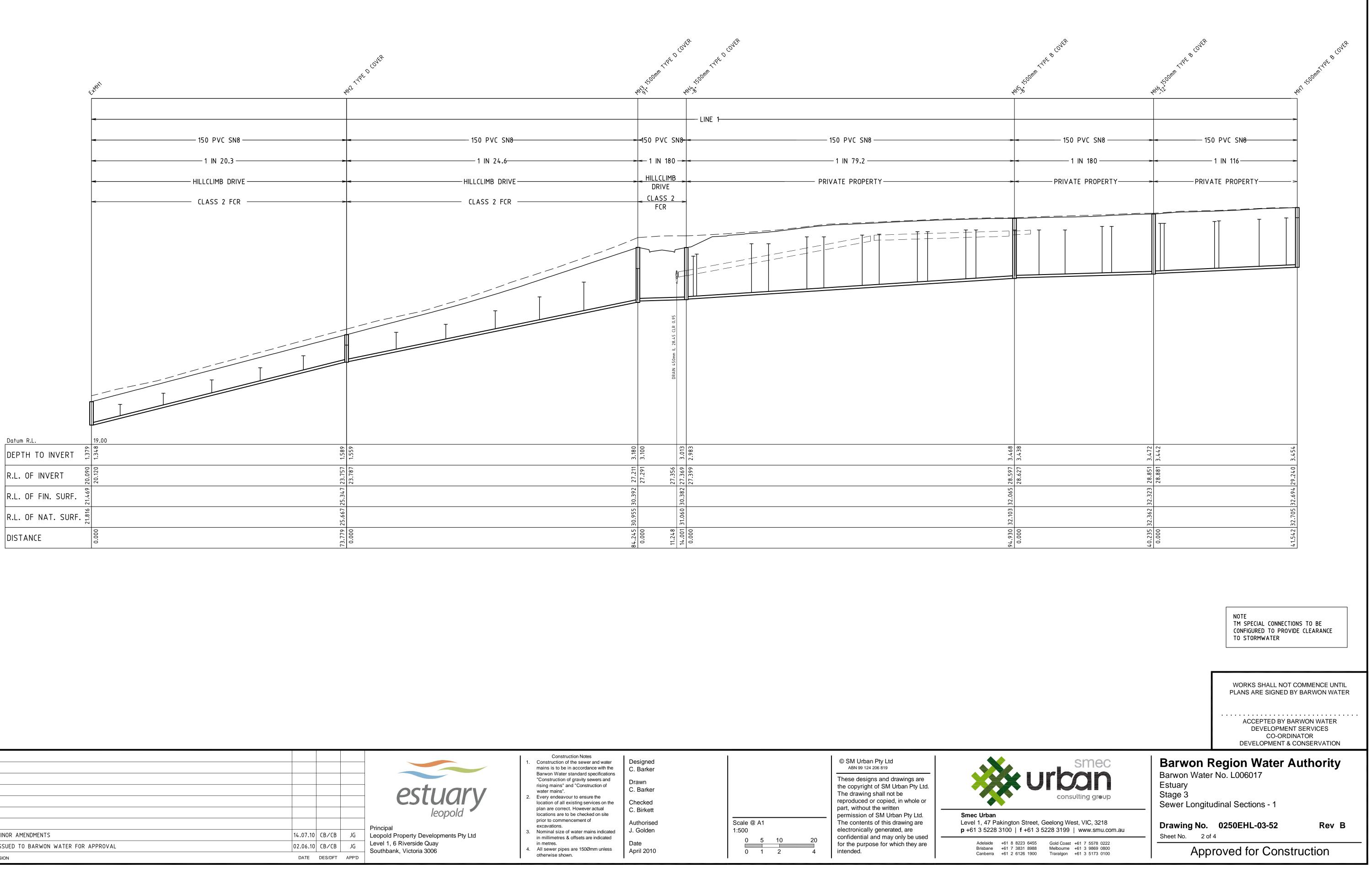
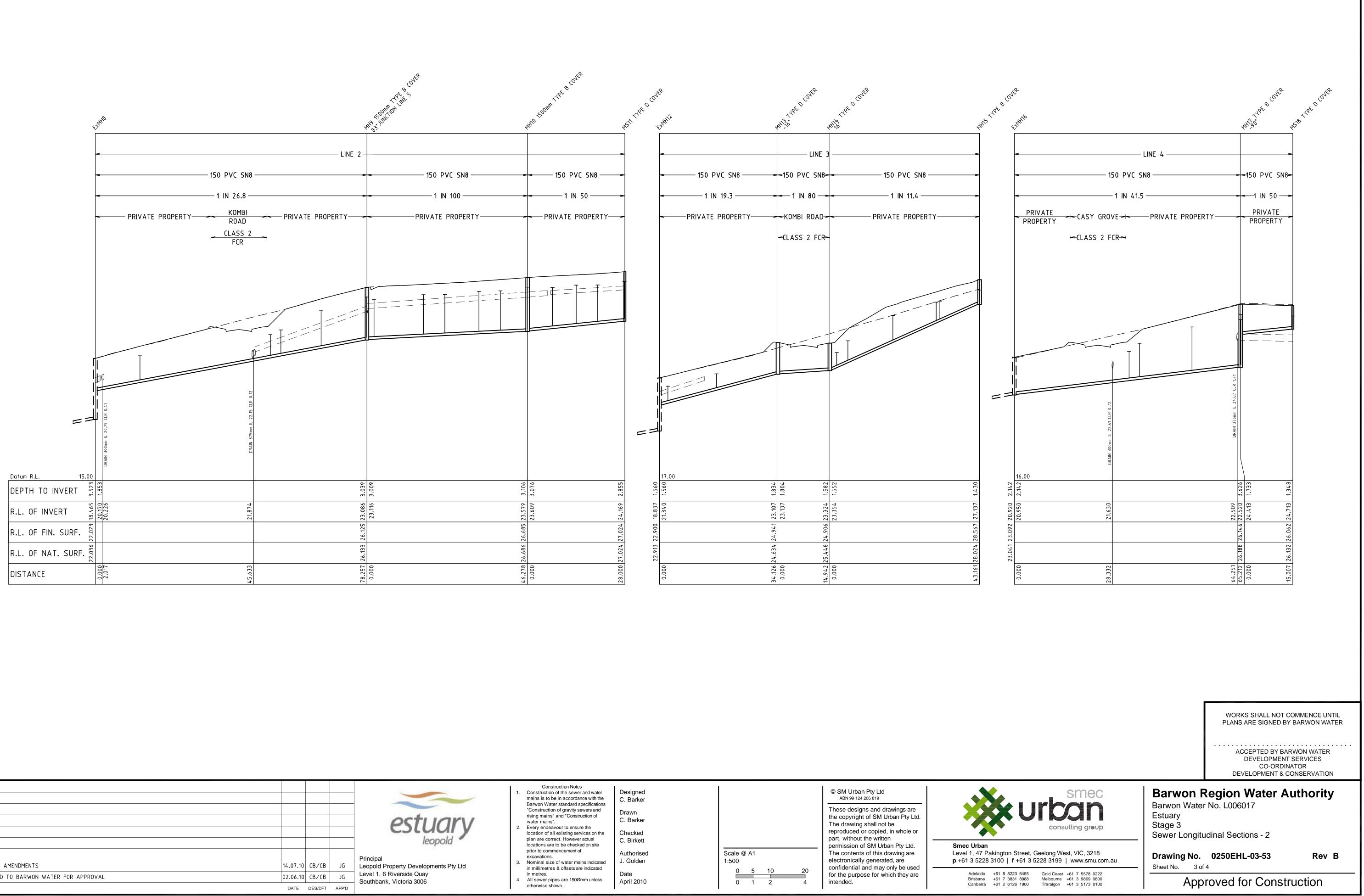


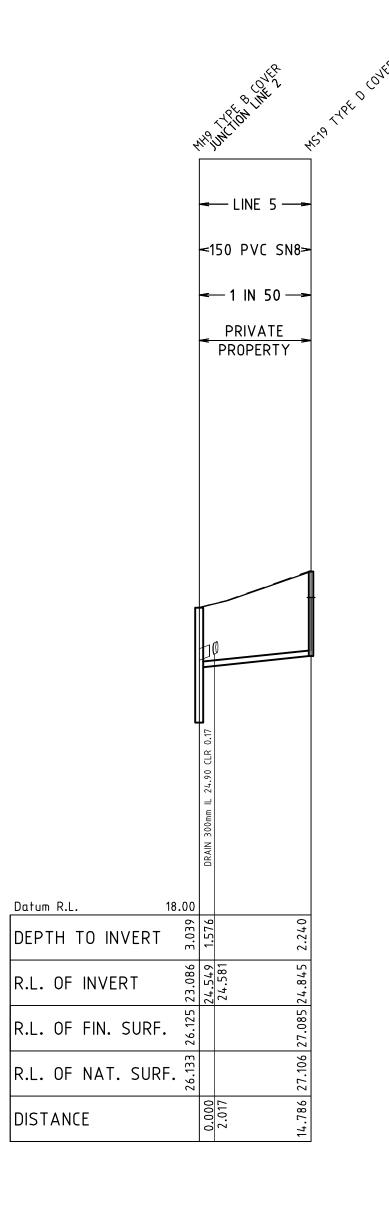
Image:	
REVISION DATE DES/DFT APP'D	

1.	Construction Notes Construction of the sewer and water mains is to be in accordance with the	Designed C. Barker		© SM Urban Pty Ltd ABN 99 124 206 819	
2.	Barwon Water standard specifications "Construction of gravity sewers and rising mains" and "Construction of water mains". Every endeavour to ensure the location of all existing services on the	Drawn C. Barker Checked		These designs and drawings are the copyright of SM Urban Pty Ltd. The drawing shall not be reproduced or copied, in whole or	
3.	plan are correct. However actual locations are to be checked on site prior to commencement of excavations. Nominal size of water mains indicated	C. Birkett Authorised J. Golden	Scale @ A1 1:500	part, without the written permission of SM Urban Pty Ltd. The contents of this drawing are electronically generated, are	Smec Urban Level 1, 47 Pakington Street, Geel p +61 3 5228 3100 f +61 3 5228
4.	411 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Date April 2010	0 5 10 20 0 1 2 4	confidential and may only be used for the purpose for which they are intended.	Adelaide +61 8 8223 6455 G Brisbane +61 7 3831 8988 M Canberra +61 2 6126 1900 Tr



					estuary leopold
B	MINOR AMENDMENTS	14 07 10	СВ∕СВ	JG	Principal Leopold Property Developments Pty Ltd
	ISSUED TO BARWON WATER FOR APPROVAL	02.06.10		JG	Level 1, 6 Riverside Quay
		DATE	DES/DFT	APP'D	Southbank, Victoria 3006

1	Construction Notes Construction of the sewer and water mains is to be in accordance with the Barwon Water standard specifications "Construction of gravity sewers and rising mains" and "Construction of water mains". Every endeavour to ensure the location of all existing services on the plan are correct. However actual	Designed C. Barker Drawn C. Barker Checked		© SM Urban Pty Ltd ABN 99 124 206 819 These designs and drawings are the copyright of SM Urban Pty Ltd. The drawing shall not be reproduced or copied, in whole or part, without the written	v ur
3	Incations are to be checked on site prior to commencement of excavations. Nominal size of water mains indicated in millimetres & offsets are indicated in metres.	C. Birkett Authorised J. Golden Date	Scale @ A1 1:500 0 5 10 20	permission of SM Urban Pty Ltd. The contents of this drawing are electronically generated, are confidential and may only be used for the purpose for which they are	Smec Urban Level 1, 47 Pakington Street, Geele p +61 3 5228 3100 f +61 3 5228 Adelaide +61 8 8223 6455 Go
4	. All sewer pipes are 1500mm unless otherwise shown.	April 2010	0 1 2 4	intended.	Brisbane +61 7 3831 8988 Me Canberra +61 2 6126 1900 Tra



						estuary
В	MINOR AMENDMENTS	14.07.1	0 CB/	′СВ	JG	Principal Leopold Property Developments Pty Ltd
А	ISSUED TO BARWON WATER FOR APPROVAL	02.06.	0 CB/	′СВ	JG	Level 1, 6 Riverside Quay Southbank, Victoria 3006
RE	/ISION	DATE	DES/	DFT	APP'D	

LINE NO.	MANHOLE NO.	HC NO.	LOT NAME	CONNECTION TYPE	CHAINAGE	IL SEWER	IL BRANCH	BRANCH HEIGHT
1	1	1	LOT 302	A SPECIAL	8.28	20.51	21.31	0.80
1	1	2	LOT 303	A SPECIAL	20.78	21.13	21.96	0.83
1	1	3	LOT 304	A SPECIAL	34.78	21.84	22.73	0.89
1	1	4	LOT 305	A SPECIAL	48.78	22.54	23.43	0.90
1	1	5	LOT 306 LOT 307	A SPECIAL	61.28	23.16	24.13	0.97
1	2	6 7	LOT 307	A SPECIAL A SPECIAL	0.00 14.00	23.76 24.35	24.75 25.48	0.98 1.13
1	2	, 8	LOT 309	A	28.00	24.92	25.95	1.03
1	2	9	LOT 310	Α	42.00	25.49	26.73	1.24
1	2	10	LOT 311	А	54.50	26.00	27.53	1.53
1	2	1 1	LOT 312	Α	67.00	26.52	28.38	1.87
1	3	12	FUT LOT	A	0.00	27.21	29.18	1.96
1	4	1 3 1 4	LOT 352 FUT LOT	B SPECIAL TM SPECIAL	2 . 0 2 3 . 0 2	27.42 27.43	29.89 30.00	2.47 2.57
1	4	15	LOT 353	B SPECIAL	18.86	27.43	30.00	2.97
1	4	16	FUT LOT	TM SPECIAL	23.79	27.70	30.60	2.90
1	4	17	LOT 354	B SPECIAL	34.86	27.84	31.00	3.16
1	4	18	FUT LOT	TM SPECIAL	39.79	27.90	31.00	3.10
1	4	19	LOT 355	B SPECIAL	50.86	28.04	31.10	3.06
1	4	20	FUT LOT LOT 356	TM SPECIAL	55.79 66.86	28.10 28.25	31.15 31.30	3.05 3.05
1	4	2 1 2 2	FUT LOT	B SPECIAL TM SPECIAL	69.79	28.25	31.30	3.02
1	4	23	LOT 357	B SPECIAL	80.86	28.42	31.40	2.98
1	4	2 4	FUT LOT	TM SPECIAL	83.79	28.46	31.40	2.94
1	5	2 5	LOT 358	B SPECIAL	0.00	28.60	31.40	2.80
1	5	26	FUT LOT	TM SPECIAL	7.09	28.66	31.40	2.74
1	5	2 7 2 8	LOT 359 FUT LOT	B SPECIAL TM SPECIA	14.61	28.71	31.40	2.69
1	כ ק	20	LOT 360	B SPECIAL	25.32 28.08	28.77 28.78	31.60 31.60	2.83 2.82
1	6	30	LOT 361	B SPECIAL	1.94	28.89	31.78	2.89
1	6	3 1	FUT LOT	TM SPECIAL	3.03	28.90	31.78	2.88
1	6	3 2	LOT 362	B SPECIAL	17.60	29.03	31.89	2.86
1	6	33	FUT LOT	TM SPECIAL	18.90	29.04	31.93	2.88
1	6	34	LOT 363	B SPECIAL	30.54	29.15	32.02	2.87
1	о 7	35 36	FUT LOT LOT FUT	TM SPECIAL B SPECIAL	38.35 0.00	29.22 29.24	32.10 32.11	2.88 2.87
2	8	37	LOT 314	B	12.84	20.64	22.18	1.54
2	8	38	Lot 342	- A Special	50.42	22.05	23.40	1.35
2	8	39	LOT 341	A	53.45	22.17	23.67	1.50
2	8	40	LOT 343	A SPECIAL	65.04	22.61	24.80	2.19
2	9	41	LOT 344	A SPECIAL	0.00	23.09	25.57	2.48
2	9	4 2 4 3	LOT 346 LOT 340	B	2.02 16.28	23.13 23.28	25.41 25.70	2.28 2.42
2	9	44	LOT 347	Ă	22.45	23.34	25.71	2.37
2	9	4 5	LOT 339	В	32.28	23.44	25.89	2.45
2	9	4 6	LOT 348	А	38.45	23.50	25.92	2.42
2	10	47	LOT 338	B	0.00	23.58	26.09	2.51
2	1 0 1 0	48 49	LOT 349 LOT 337	A	7.18 14.00	23.75 23.89	26.11 26.25	2.37 2.36
2	10	4 <i>y</i> 5 0	LOT 350	A	20.18	24.01	26.25	2.25
2	11	5 1	LOT 336	В	0.00	24.17	26.46	2.29
3	12	5 2	LOT 324	A SPECIAL	2.43	21.44	22.42	0.98
3	1 2	53	LOT 323	A SPECIAL	16.44	22.19	23.13	0.94
3	14	54	LOT 331	B	2.01	23.49	24.36	0.87
3	1 4 1 4	5 5 5 6	LOT 335 LOT 332	A SPECIAL B	5.19 18.16	23.77 24.94	25.04 26.50	1.2 6 1.5 6
5	14	57	LOT 333	B	30.66	26.06	27.27	1.21
3	14	58	LOT 351	A SPECIAL	31.72	26.16	27.33	1.17
3	15	59	LOT 334	В	0.00	27.14	27.97	0.83
4	16	60	LOT 327	В	33.08	21.75	23.42	1.67
4	16	61	FUT LOT	A	36.08	21.82	23.89	2.07
4 1.	16 17	62 63	LOT 328 FUT LOT	A	51.21 0.00	2 2 . 1 9 2 2 . 5 2	24.84 25.26	2.65 2.74
4	17	64	LOT 330	B	0.00	22.52	25.26	3.04
4	18	65	LOT 329	B	0.00	24.71	25.47	0.75
5	19	6 6	Lot 345	В	0.00	24.84	26.40	1.55

1	Construction Notes Construction of the sewer and water mains is to be in accordance with the Barwon Water standard specifications	Designed C. Barker		© SM Urban Pty Ltd ABN 99 124 206 819	
2	"Construction of gravity severs and rising mains" and "Construction of water mains". Every endeavour to ensure the location of all existing services on the plan are correct. However actual	Drawn C. Barker Checked		These designs and drawings are the copyright of SM Urban Pty Ltd. The drawing shall not be reproduced or copied, in whole or part, without the written	XX UI
3	prior to commencement of excavations. prior to commencement of excavations. Nominal size of water mains indicated	C. Birkett Authorised J. Golden	Scale @ A1 1:500	permission of SM Urban Pty Ltd. The contents of this drawing are electronically generated, are	Smec Urban Level 1, 47 Pakington Street, Gee p +61 3 5228 3100 f +61 3 522
4	in millimetres & offsets are indicated in metres. All sewer pipes are 150Ømm unless otherwise shown.	Date April 2010	0 5 10 20 0 1 2 4	confidential and may only be used for the purpose for which they are intended.	Adelaide +61 8 8223 6455 (Brisbane +61 7 3831 8988 M Canberra +61 2 6126 1900

WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED BY BARWON WATER

ACCEPTED BY BARWON WATER DEVELOPMENT SERVICES CO-ORDINATOR DEVELOPMENT & CONSERVATION



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Estuary Stage 3 Sewer Longitudinal Sections - 3 Drawing No. 0250EHL-03-54

Sheet No. 4 of 4

Barwon Water No. L006017

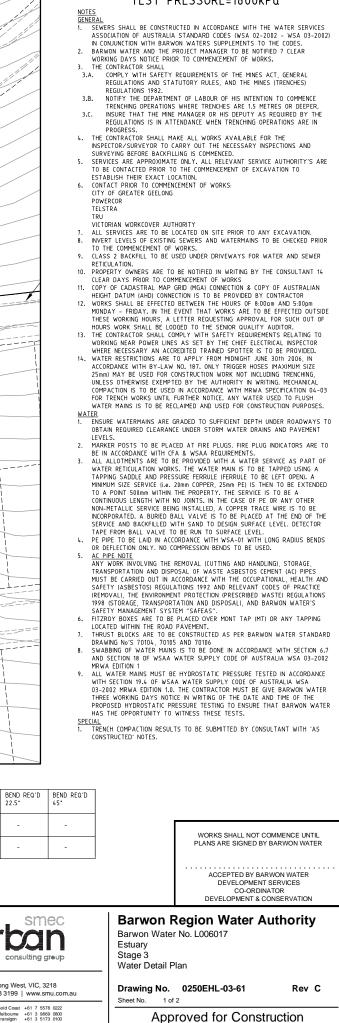
Rev B

Approved for Construction

Barwon Region Water Authority

	5-26		33.5		32.5	
	5-16		33-0 FUTURE SIAGE 32-5		32.0	
			32 0		363	
312			S-1E	362	E 10 Z	
317 B 150 x 150 TEE	5-60 00000000000000000000000000000000000	354 355 356	3512 358 359	360 () 225Ø-150Ø TAPER (CL-16 (CL-26)	C 701-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	
	150Ø PVC 150Ø LUC 150Ø LUC	225Ø PVC (CL-16)		225 x 225 TEE BAD		
310	0 0 0 0 0 0 0 0 0 0 0 0 0 0			Y A		
309	0 -1500		0.62	3000	RES 29-0	
308	345		5:82	2.9m 722 2000 75 50 0 734 75 75 0	RES 29-0 H 3000 1500 - 1000 TAPER 5-82	
		346 347 348	349 0.9350 351	334 TAPER, STOP VALVE AND-FIRE PLUG ALL TO BE FLANGED		
GW GW		300Ø B	5-12 225Ø	3000-2250 TAPER 333 C SV S	SVEP SVEP	SV
5·52 306	2.7m 34.3		5.92	300 x 300 TEE ELANGED 32	F 200 90: 2000 BEND 12:00	
0.52	341	340 339 0.9%	337 336 335	2.9m	2.7m 329 330	
305 (A) / FEE (C) /	34.2 m 100Ø PVC 5 X(CL-16)	5·52	μ <u>Γ</u> .		A	₽
304 0.72	SVEP 500 - 3750			FP uSV FP uSV	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	FUTURE
DRIVE	11.25° BEND	KOMBI RO		DRIVE	16) VC	
	314			323	1000 PVC	
302 5-72 Yes	315	316 317 318	5·ε2 319 320 321 322		-3000	ASV FP
301	313	3000	225Ø	324 <u>2.9m</u>	SVFP	
				325	376	
		EXISTING		2255		
		STAĞE 285		2250 Master		
	LEGEND - WATER PLAN		AC ASBESTOS CEMENT	CURVE RADIUS (m)	PIPE NUMBER OF NUMB LENGTH (m) PIPES DEFLE	ER OF 1 ⁺ No. SOC-SOC BEND REQ'D BEND REQ CONNECTIONS 11.25 ⁺ 22.5 ⁺
WARNING BEWARE OF UNDERGROUND SERVICES The locations of underground services are approximate only and their exact position should be proven on site.	CHANGE OF PIPE SIZE MAINS NOT CONNECTED MAINS IN CONDUIT MAINS IN CONDUIT	— Ex T — EXISTING TELSTRA — Ex W — EXISTING WATER P Ex D → EXISTING SURRWAT 14134 EXISTING SURRACE LI	CICL CAST IRON CEMENT LINED DICL DUCTILED CEMENT LINED ER DRAIN MSCL MILD STEEL CEMENT LINED	X - Y 202.7	5.70 8 7 5.35 7 6	
No guarantee is given that all existing services are shown. Locate all underground services before commencement of works DIAL 1100 BEFORE YOU DIG www.1100.com.au	FIRE PLUG FIRE PLUG FIRE PLUG DEAD END CAP EXISTING ELECTRICITY (UNI	FS140.35 FINISHED BUILDING LII FR157.40 FINISHED RIDGE LINE 人 TEMPORARY BENCH N	NE LEVEL PE POLYETHYLENE (AS SPECIFIED LEVEL RC REINFORCED CONCRETE)) Y - Z 202.7	5.35 7 6	2
			Construction Notes 1. Construction of the sever and water mains is to be in accordance with the Barwon Water standard specifications M. Wilks		© SM Urban Pty Ltd ABN 99 124 200819	
		-	*Construction of gravity severs and rising mains* and *Construction of water mains*. 2. Every endeavour to ensure the location of all existing services on the Checked	2	These designs and drawings are the copyright of SM Urban Pty Ltd. The drawing shall not be reproduced or copied, in whole or part, without the written	
VED PIPE SCHEDULE ADDED DR AMENDMENTS	28.10.10 CB/CB JG 14.07.10 CB JG		locations are to be checked on site prior to commencement of excavations. 3. Nominal size of water mains indicated in millimetres & of listes are indicated	Scale @ A1 1:500 0 5 10 20	permission of SM Urban Pty Ltd. The contents of this drawing are electronically generated, are confidential and may only be used	Smec Urban Level 1, 47 Pakington Street, Geelong West, V p +61 3 5228 3100 f +61 3 5228 3199 wu
UED TO BARWON WATER FOR APPROVAL	03.06.10 MW/MW JG DATE DESIDFT APPD	Level 1, 6 Riverside Quay Southbank, Victoria 3006	in metres. Date 4. All sewer pipes are 1500mm unless otherwise shown. Date		for the purpose for which they are intended.	Adelaide +61 8 8223 6455 Gold Coast +61 Brisbane +61 7 3831 8988 Melbourne +61 Canberra +61 2 6126 1900 Traralgon +61

DESIGN HEAD=114.60m AHD TEST PRESSURE=1600kPa



Approved for Construction

	NEW WATER MAINS	
SIZE	TYPE	LENGTH
100Ø	PVC (CLASS - 16)	252.00
150Ø	PVC (CLASS - 16)	293.70
225Ø	PVC (CLASS - 16)	201.65
300Ø	DICL (PN35)	140.60

	THRUST RES	STRAINT SCHEDULE		
	LOCATION	TYPE	AREA (m²)	NUMBER
Α	150Ø x 100Ø TEE	CONCRETE	0.8	3
В	150Øx 150ØTEE	CONCRETE	0.8	1
C	225Øx 225Ø TEE	CONCRETE	1.70	1
D	300Ø x 300ØTEE	CONCRETE	2.99	1
Е	100Ø 11.25° BEND	CONCRETE	-	1
F	150Ø 90° BEND	CONCRETE	1.12	1
G	225Ø 11.25° BEND	CONCRETE	0.34	1
Н	150Ø – 100Ø TAPER	CONCRETE	0.42	1
J	225Ø – 150Ø TAPER	CONCRETE	0.90	2
К	300Ø – 225Ø TAPER	CONCRETE	1.30	1

		SURVEY CONTR	ROL MGA 94 Z	ONE 55	
PM	EASTING	NORTHING	RL	DESCRIPTION	PARISH
MOOLAP PM 321	277040	5769480	9.436	BRASS PLAQUE IN CONCRETE	MOOLAP
MOOLAP PM 137	278263.348	5769552.155	-	BRASS PLAQUE IN CONCRETE	MOOLAP
MOOLAP PM 69	277138.741	5770359.313	8.503	BRASS PLAQUE IN CONCRETE	MOOLAP
		SURVEY CO	NTROL ARBITR	ARY	
PM	EASTING	NORTHING	RL	DESCRIPTION	PARISH
PM69	10000.000	50000.000	8.503	BRASS PLAQUE IN CONCRETE	MOOLAP
PM137	11124.354	49193.067	_	BRASS PLAQUE IN CONCRETE	MOOLAP
PM321 9897.742		48994.921	9.436	BRASS PLAQUE IN CONCRETE	MOOLAP
		SURV	EY CONTROL		
ТВМ	EASTING	NORTHING	RL	DESCRIPTION	
STAR8	10252.574	48899.962	24.650	STEEL STAR PICKET	MOOLAP
STAR202	10128.400	48684.879	20.077	STEEL STAR PICKET	MOOLAP
STAR300	10295.365	48696.684	28.816	STEEL STAR PICKET	MOOLAP

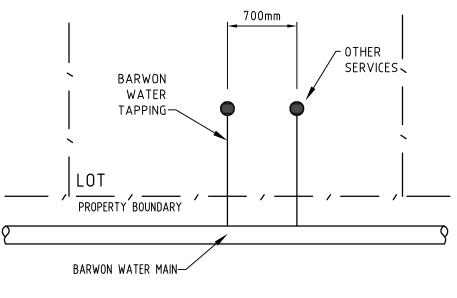
		SERVICES	OFFSET SCHED	OULE				
	(JAS	5 WATER		ELECTRICITY		TELSTRA	
ROAD NAME	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET
HILLCLIMB DRIVE	SOUTH	2.10	SOUTH	2.70	NORTH	2.30	NORTH	1.70
KOMBI ROAD	EAST	2.10	EAST	2.70	WEST	2.30	WEST	1.70
CASY GROVE	EAST	2.10	EAST	2.70	WEST	2.30	WEST	1.70
ILA DRIVE	WEST	1.80	WEST	2.30	EAST	0.90	EAST	0.30
ILA DRIVE TRUNK MAIN	-	-	WEST	2.90	-	-	-	-
FAIRVISTA AVENUE (NTH OF SHOALING DRIVE)	EAST	2.10	EAST	2.70	WEST	2.30	WEST	1.70
FAIRVISTA AVENUE (STH OF SHOALING DRIVE)	EAST	2.10	EAST	2.70	WEST	0.75	WEST	0.30
SHOALING DRIVE	SOUTH	2.10	SOUTH	2.70	NORTH	1.80	NORTH	2.30
SHOALING DRIVE TRUNK MAIN	-	-	NORTH	2.90	_	-	-	-

WARNING

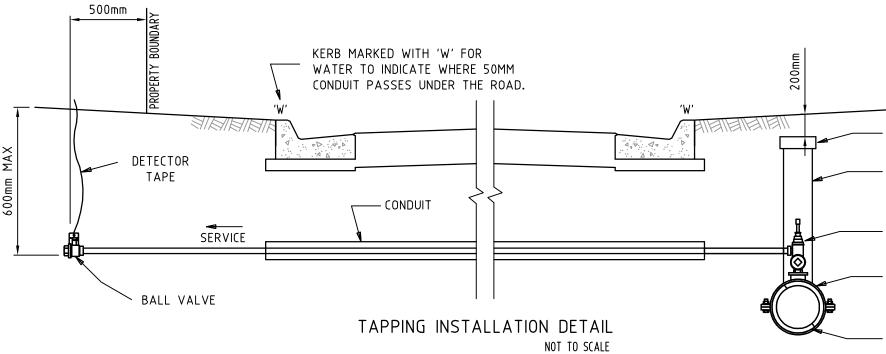
BEWARE OF UNDERGROUND SERVICES The locations of underground services are approximate only and their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works DIAL 1100 BEFORE YOU DIG

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			Construction Notes Construction of the sewer and water mains is to be in accordance with the Barwon Water standard specifications "Construction of gravity sewers and rising mains" and "Construction of water mains". Every endeavour to ensure the location of all existing services on the plan ere accord to have a served. 	Designed M. Wilks Drawn M. Wilks Checked		© SM Urban Pty Ltd ABN 99 124 206 819 These designs and drawings are the copyright of SM Urban Pty Ltd. The drawing shall not be reproduced or copied, in whole or part, without the written	V UI
B MINOR AMENDMENTS	14.07.10 CB	Principal JG Leopold Property Developments Pty Ltd	plan are correct. However actual locations are to be checked on site prior to commencement of excavations.3. Nominal size of water mains indicated	C. Birkett Authorised J. Golden	Scale @ A1	permission of SM Urban Pty Ltd. The contents of this drawing are electronically generated, are	Smec Urban Level 1, 47 Pakington Street, Ge p +61 3 5228 3100 f +61 3 522
A ISSUED TO BARWON WATER FOR APPROVAL	03.06.10 MW/MW		in millimetres & offsets are indicated in metres.	Date		confidential and may only be used for the purpose for which they are	Adelaide +61 8 8223 6455
REVISION	DATE DES/DFT /	Southbank, Victoria 3006	 All sewer pipes are 150Ømm unless otherwise shown. 	April 2010		intended.	Brisbane +61 7 3831 8988 Canberra +61 2 6126 1900



TAPPING OFFSET DETAIL NOT TO SCALE



SET	(m)
1.70	
1.70	
1.70	
0.30	
-	
1.70	
0.30	
2.30	
-	

— COVER

 PVC ACCESS PIPE
 MAIN FERRULE TO BE LEFT OPEN
 TAPPING SADDLE

- WATER MAIN

- ALL LOTS ARE TO BE TAPPED USING A TAPPING SADDLE AND PRESSURE FERRULE.
 A MINIMUM SIZE SERVICE (IE 20MM COPPER, 25MM PE) IS THEN TO BE EXTENDED TO A POINT 500MM WITHIN THE PROPERTY.
- SERVICE PIPE BETWEEN MAIN FERRULE AND BALL VALVE TO BE A CONTINUOUS LENGTH (IE NO JOINS)
 SERVICE TO BE TYPE 'B' COPPER OR CLASS 12 TYPE 50 PE.
- IN THE CASE OF PE OR ANY OTHER NON-METALLIC SERVICE BEING INSTALLED, A COPPER TRACE WIRE IS TO BE INCORPORATED.
 A BURIED BALL VALVE IS TO BE PLACED AT THE END OF THE SERVICE.
- DETECTOR TAPE IS TO BE RUN TO SURFACE LEVEL.
 BALL VALVE TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARDS (IE STAMPED 'W') BRASS FITTING WITH STAINLESS STEEL BALL.

WORKS SHALL NOT COMMENCE UNTIL PLANS ARE SIGNED BY BARWON WATER

ACCEPTED BY BARWON WATER DEVELOPMENT SERVICES CO-ORDINATOR DEVELOPMENT & CONSERVATION



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Barwon Region Water Authority Barwon Water No. L006017 Estuary Stage 3 Water Detail Plan

Drawing No. 0250EHL-03-62

Sheet No. 2 of 2

Rev B