

CONSTRUCTION

STREET AND DRAINAGE DESIGN

LOCATION:

43 ALLARA CT & ADA STREET, CLIFTON SPRINGS, VIC

Project No.: 25086

Drawing Number	Sheet Number	Plan Title
25086_SD01	1	COVER PLAN & DRAWING INDEX
25086_SD02	2	OVERALL DEVELOPMENT - LAYOUT PLAN
25086_SD03	3	DRAINAGE LAYOUT PLAN
25086_SD04	4	DRAIN LONGITUDINAL SECTIONS & PIT SCHEDULE
25086_SD05	5	LIP OF KERB LONGITUDINAL & CROSS SECTIONS
25086_SD06	6	TYPICAL CONSTRUCTION DETAILS 1
25086_SD07	7	TYPICAL CONSTRUCTION DETAILS 2

HOLD POINTS / WITNESS

THE CONTRACTOR SHALL PREPARE AND SUBMIT A SITE MANAGEMENT PLAN INCLUDING TRAFFIC MANAGEMENT	HOLD COMMENCEMENT OF WORKS UNTIL APPROVAL FROM THE PROJECT MANAGER IS GIVEN.
THE CONTRACTOR SHALL SETOUT THE DESIGN LEVELS, GRADES AND FINISH SURFACE LEVELS.	HOLD COMMENCEMENT OF WORKS UNTIL APPROVAL BY COUNCILS SUBJECT MATTER EXPERT IS GIVEN.
EXCAVATION DEPTHS AND PRIOR TO POUR MINIMUM 2 WORKING DAYS NOTICE TO THE PROJECT MANAGER SHALL BE GIVEN	HOLD COMMENCEMENT OF WORKS UNTIL APPROVAL BY COUNCILS SUBJECT MATTER EXPERT IS GIVEN.
AFTER POUR MINIMUM 2 WORKING DAYS NOTICE TO THE PROJECT MANAGER SHALL BE GIVEN	HOLD COMMENCEMENT OF WORKS UNTIL APPROVAL BY COUNCILS SUBJECT MATTER EXPERT IS GIVEN.
FINAL INSPECTION	HOLD ISSUANCE OF THE CERTIFICATE OF COMPLETION

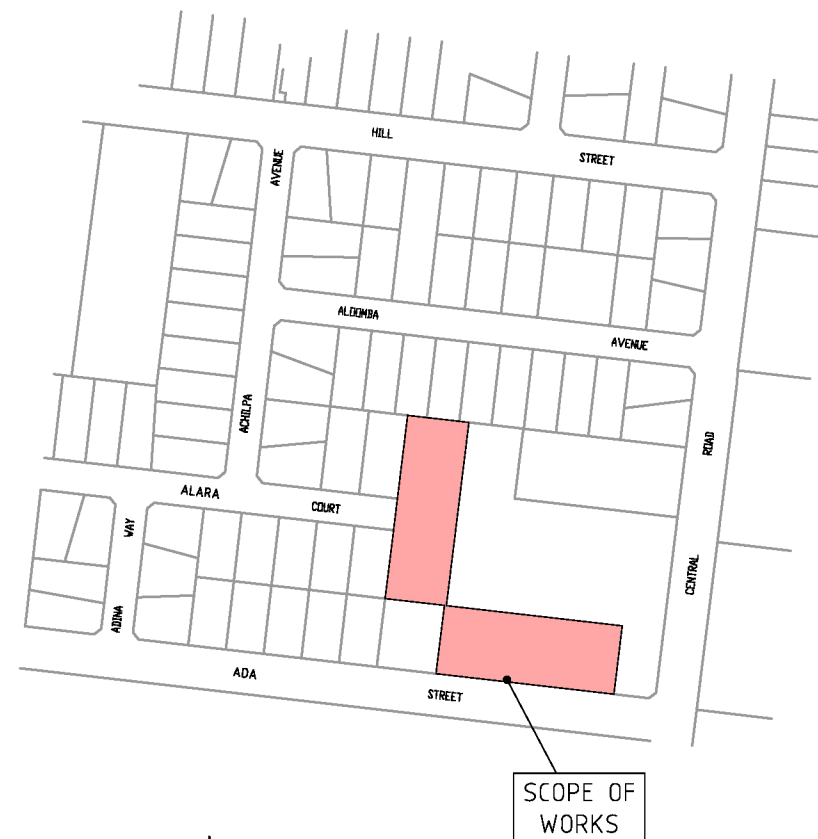
GENERAL NOTES:

1. ALL DIMENSIONS ARE IN METERS. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD) UNLESS OTHERWISE NOTED.
2. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THIS SPECIFICATIONS AND TO THE SATISFACTION OF CITY OF GREATER GEELONG. IN THE EVENT THESE SPECIFICATIONS DO NOT COVER THE WORKS, THE WORKS SHALL BE DONE IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS OR VICROADS SPECIFICATIONS FOR SIMILAR WORKS.
3. ALL EXCAVATED AREAS ARE TO BE REINSTATED TO MATCH PRE-WORKS STATE AND LEVELS.
4. ALL WASTE MATERIAL, RUBBISH AND SPOIL SHALL BE REMOVED FROM SITE.
5. REASONABLE CARE SHALL BE TAKEN BY THE CONTRACTOR TO PRESERVE ANY SURVEY MARKERS. THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPLACE IF DEEMED NECESSARY.
6. THE CONTRACTOR SHALL PREPARE A SUITABLE TRAFFIC MANAGEMENT PLAN AND APPROVALS SHALL BE OBTAINED FROM CITY OF GREATER GEELONG & RELEVANT AUTHORITIES BEFORE CONSTRUCTION COMMENCES.
7. SERVICE PROTECTION / REINSTATEMENT WORKS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARDS, WHERE APPLICABLE.
8. THE CONTRACTOR SHALL UNDERTAKE WORKS IN A MANNER THAT MINIMISES DAMAGES TO EXISTING ASSETS. THIS INCLUDES ENSURING CONSTRUCTION TECHNIQUES INCLUDING COMPACTION OF PAVEMENT LAYERS DOES NOT CAUSE ANY DAMAGE TO NEARBY RESIDENTIAL BUILDINGS OR STRUCTURES.
9. THE CONTRACTOR MUST COMPLY WITH DUTY OF CARE/SAFETY GUIDELINES WHEN WORKING NEAR OVERHEAD/UNDERGROUND POWER/COR ASSETS. NO WORK NEAR OVERHEAD/UNDERGROUND ELECTRICITY IS TO COMMENCE UNTIL 'PERMISSION' HAS BEEN OBTAINED BY POWERCOR. CONTRACTOR MUST ENSURE THE CITIPOWER/POWERCOR 'NO GO ZONE' SAFETY PROCEDURE IS FOLLOWED.
10. ANY DISCREPANCIES IN DIMENSIONS OR DETAILS SHOULD BE BROUGHT TO THE ATTENTION OF THE SUPERINTENDENT FOR CLARIFICATION PRIOR TO ANY WORKS BEING UNDERTAKEN. THE SUPERINTENDENT IS TO BE NOTIFIED PRIOR TO THE COMMENCEMENT OF WORKS, IF THE CONDITIONS ARE DIFFERENT TO THOSE SHOWN ON THE DRAWINGS.
11. THE CONTRACTOR SHALL ENSURE ALL WORKERS / EMPLOYEES ARE EQUIPPED WITH THE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT IN ACCORDANCE WITH THE VICTORIAN OCCUPATIONAL HEALTH & SAFETY ACT.
12. ALL DRAINAGE PIPES TO BE RCP SPIGOT SOCKET R/RJ UNLESS NOTED OTHERWISE.
13. BACKFILL FOR STORMWATER PIPES UNDER ROAD PAVEMENT, CROSSOVER AND FOOTPATH TO BE CLASS 3 F.C.R. COMPACTED IN 150mm LAYERS. ALL STORMWATER DRAINAGE TRENCHES TO BE COMPACTED TO ACHIEVE AT LEAST 95% STANDARD COMPACTION UNLESS OTHERWISE NOTED.
14. CITY OF GREATER GEELONG REQUIRES CCTV OF ALL DRAINAGE PIPES AND PITS PRIOR TO THE STATEMENT OF COMPLIANCE. CONTRACTOR IS TO ARRANGE ALL CCTV WORKS AS REQUIRED.
15. WHERE PAVEMENT IS TO BE CONSTRUCTED ON FILLING, THE FILL MATERIAL IS TO BE APPROVED BY THE SUPERINTENDENT AND CONSTRUCTION SHALL BE PERFORMED IN 150mm LAYERS COMPACTED TO 98% MAXIMUM DRY DENSITY FOR STANDARD COMPACTION.
16. WHERE ROCK OR SOFT AREAS ARE FOUND SUBGRADE IMPROVEMENT SHALL BE MADE AS DIRECTED BY THE GEOTECHNICAL ENGINEER OR SUPERINTENDENT.
17. EXISTING FENCES ARE TO BE PROTECTED AT ALL TIMES UNLESS STATED OTHERWISE.
18. WHEN SETTING OUT FOR BEHIND KERB DRAINAGE CONSTRUCTION THE CONTRACTOR MUST MAKE THE APPROPRIATE ALLOWANCE FOR THE PROPOSED TRENCH WIDTH, IN ORDER TO ENSURE THAT THE EDGE OF THE TRENCH HAS A MINIMUM CLEARANCE OF 120mm FROM THE BACK OF KERB.
19. FOR TRENCHES IN EXCESS OF 1.5m IN DEPTH, NOTIFICATION SHALL BE GIVEN TO THE PRINCIPAL MINING INSPECTOR OF THE VICTORIAN WORKCOVER AUTHORITY IN ACCORDANCE WITH THE MINES (TRENCHES) REGULATION 1992. A QUALIFIED TRENCH MANAGER SHALL BE IN ATTENDANCE AT ALL TIMES DURING SUCH WORKS.
20. THE LOCATION AND DEPTHS OF ALL EXISTING SERVICES IS TO BE PROVIDED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. ANY DAMAGE TO EXISTING SERVICES IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY DISCREPANCIES BETWEEN KNOWN DEPTHS AND LOCATIONS OF SERVICES AND THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE SUPERINTENDENT. EXISTING SERVICES SHOWN IN THESE DRAWINGS ARE PROVIDED FOR GUIDANCE ONLY AND ARE NOT GUARANTEED TO BE CORRECT. IT IS NOT GUARANTEED THAT ALL SERVICES HAVE BEEN SHOWN.
21. ALL SERVICE CONDUITS SHALL BE CLASS 12 P.V.C.
22. FEATURE SURVEY DATA HAS BEEN UNDERTAKEN BY ALL GENERAL SURVEYING PTY. LTD. ANY DISCREPANCIES WITH BENCH MARKS OR SITE LEVELS AND FEATURES IS TO BE CONFIRMED BY THE SURVEYOR.
23. THE CONTRACTOR IS TO CHECK ALL BENCHMARKS ARE CONSISTENT AND ACCURATE PRIOR TO CONSTRUCTION SETOUT.



RELEASE DETAILS

FEE/USE SERVICE				
C1	ISSUED FOR CONSTRUCTION	30.07.26	FINAL	JH
P1	PRELIMINARY FOR REVIEW	02.09.25	PRELIMINARY	JH
REV	DESCRIPTION	DATE	DOCUMENT STATUS	APP

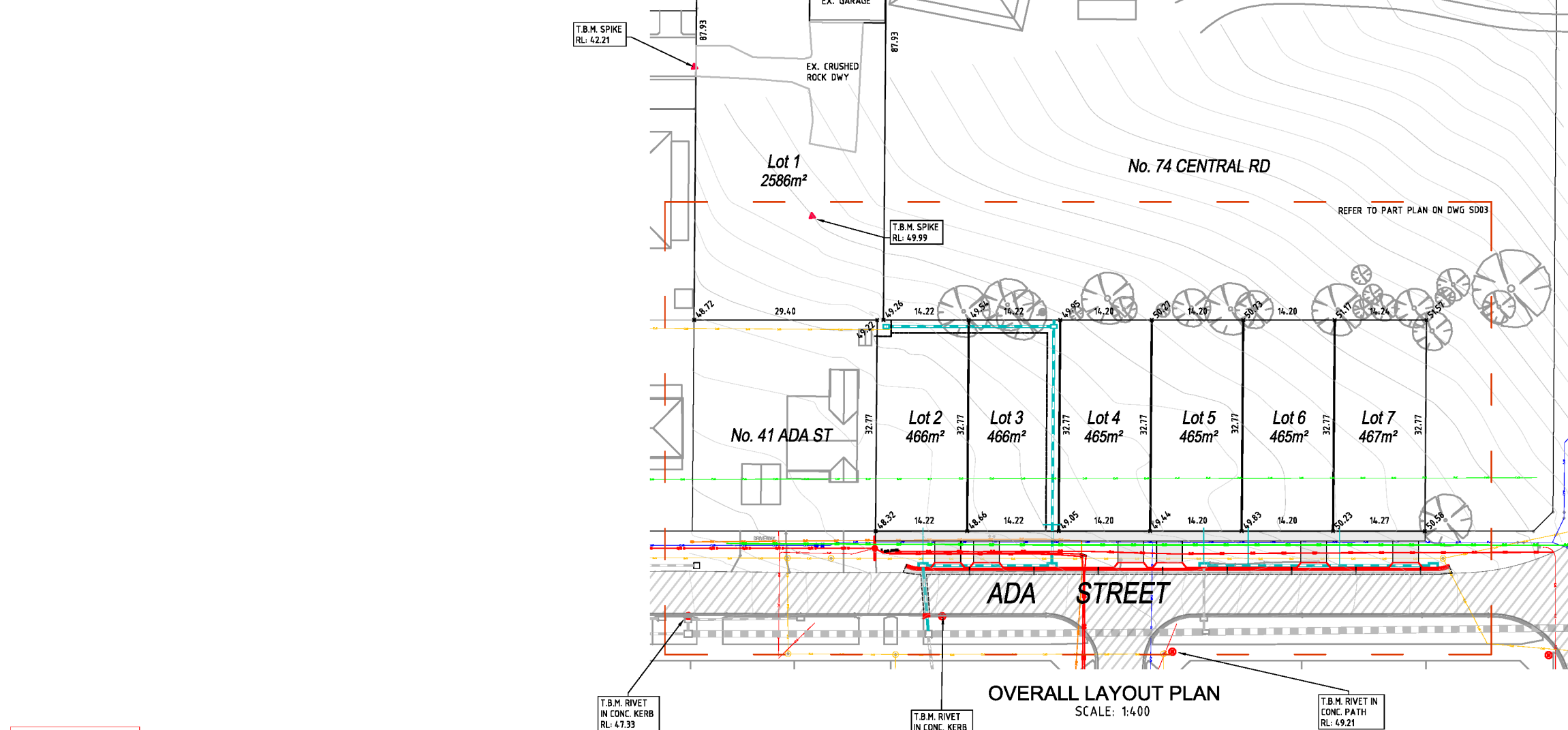


SITE LOCALITY
SCALE: N.T.S.,

LEGEND**EXISTING**

STORMWATER PIT / PIPE	
TREE	
TBM	
EXISTING EASEMENT	
ELECTRICITY PIT / BOX & CABLE	
ELECTRICITY POLE & OVERHEADS	
TELECOMMUNICATIONS PIT / CABLE	
GAS	
WATER METER / PIPE	
SEWER MS / PIPE	
CONTOUR	
PROPOSED	
BOUNDARY	
EASEMENT	
DRAINAGE PIT / PIPE	
KERB & CHANNEL	
SAWCUT	
CONCRETE PATH / CROSSOVER	
SURFACE FLOW DIRECTION	
HOUSE DRAIN WITH INSPECTION OPENING	

This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach copyright legislation



NOTE:
ALL SERVICE LOCATIONS ARE TO BE CONFIRMED WITHIN WILLIS STREET PRIOR TO ANY CONSTRUCTION WORKS.

WARNING SAFETY IN DESIGN NOTES
1. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN OPERATING MACHINERY NEAR EXISTING OVERHEAD POWERLINES.
2. APPROPRIATE TRAFFIC MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AT ALL TIMES DURING CONSTRUCTION.
3. APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN AT ALL TIMES WHEN ON SITE.
4. DUST GENERATING ACTIVITIES SUCH AS CUTTING, GRINDING AND EARTH MOVING SHALL BE PERFORMED WHEN PREVAILING WINDS ARE FAVOURABLE TO REDUCE THE IMPACT OF DUST ON SURROUNDING PROPERTIES.

CONSTRUCTION

NOTE 1
BEWARE OF EXISTING OVERHEAD POWER CABLES.

WARNING:
EXISTING SERVICES ARE LOCATED WITHIN THE VICINITY OF PROPOSED WORKS. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM ALL SERVICE LOCATIONS PRIOR TO CONSTRUCTION. CONTRACTOR IS TO ENSURE THE PROTECTION OF ALL SERVICES AT ALL TIMES DURING CONSTRUCTION.

**RELEASE DETAILS**

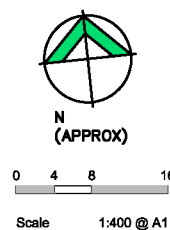
NO.	DESCRIPTION	DATE	DOCUMENT STATUS	APP.
C1	FINAL FOR CONSTRUCTION	30.07.26	FINAL	JH
P1	PRELIMINARY FOR APPROVAL	02.09.25	PRELIMINARY	JH

hec HEIL ENGINEERING CONSULTANTS PTY LTD

• Urban Development • Project Management •
• Infrastructure Design • Construction Administration •

SWAN HILL, VIC 3685 P: 03 50332189
OCEAN GROVE, VIC 3228 P: 03 52562220 www.heiconsult.com.au

DESIGNED HW AUG 25
DRAWN HW AUG 25



STREET AND DRAINAGE DESIGN
43 ALLARA CT & ADA STREET
CLIFTON SPRINGS, VIC
OVERALL DEVELOPMENT LAYOUT PLAN

DRAWING NO. 25086_SD02
SHEET NO. 02 of 07

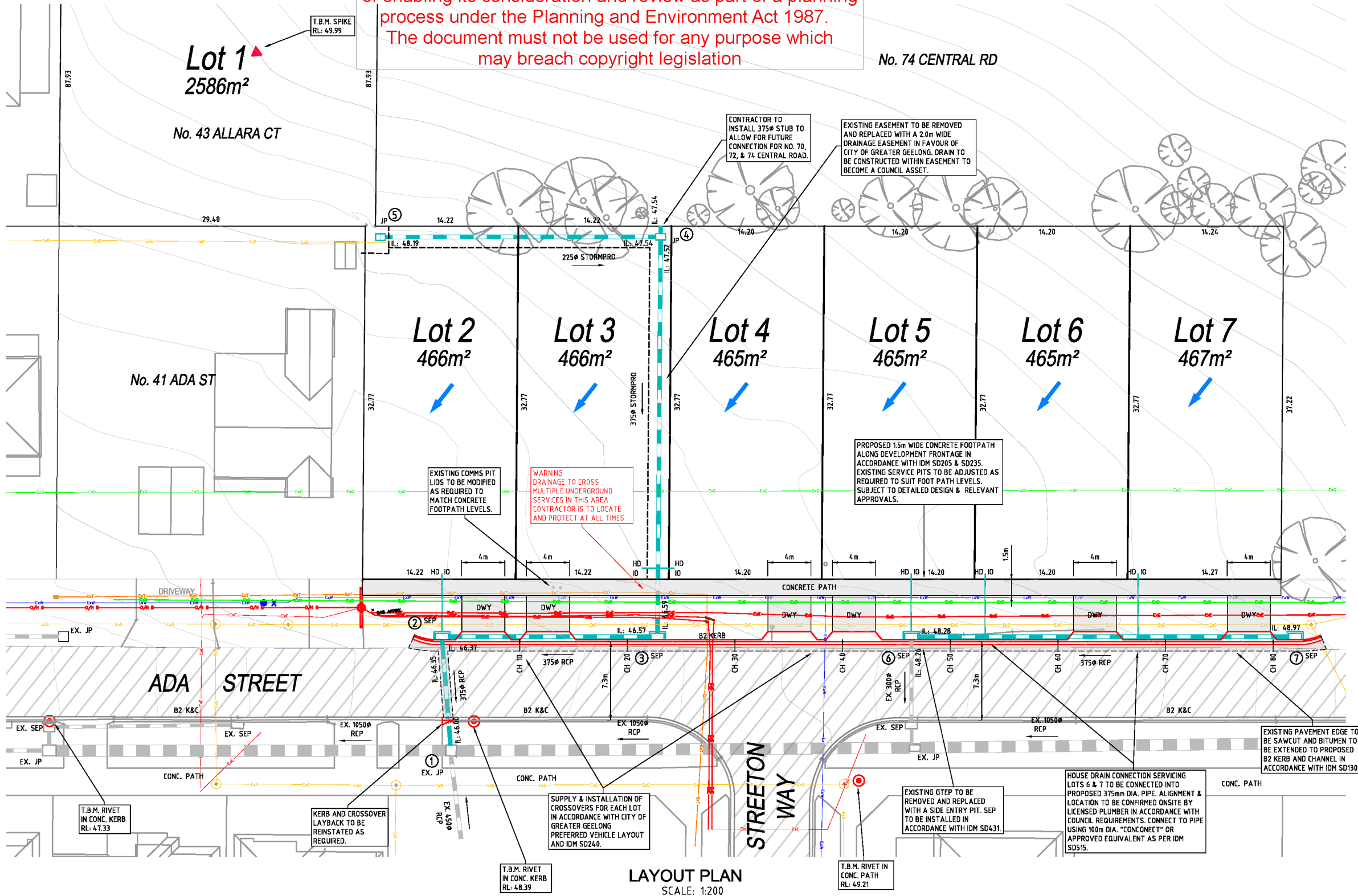
REVISION NO. C1
A1
CAD: 25086_SD.dwg

This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach copyright legislation

LEGEND

- EXISTING
- STORMWATER PIT / PIPE
 - TREE
 - TBM
 - EXISTING EASEMENT
 - ELECTRICITY PIT / BOX & CABLE
 - ELECTRICITY POLE & OVERHEADS
 - TELECOMMUNICATIONS PIT / CABLE
 - GAS
 - WATER METER / PIPE
 - SEWER MS / PIPE
 - CONTOUR (0.25m INCREMENTS)
- PROPOSED
- BOUNDARY
 - EASEMENT
 - DRAINAGE PIT / PIPE
 - KERB & CHANNEL
 - SAWCUT
 - CONCRETE PATH / CROSSOVER
 - SURFACE FLOW DIRECTION
 - HOUSE DRAIN WITH INSPECTION OPENING

NOTE:
ANY REINSTATEMENT OF KERB, CHANNEL, FOOTPATH AND NATURE STRIP WITHIN THE ROAD RESERVE IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CITY OF GREATER GEELONG STANDARDS.



LAYOUT PLAN
SCALE: 1:200

NOTE:
ALL SERVICE LOCATIONS ARE TO BE CONFIRMED WITHIN WILLIS STREET PRIOR TO ANY CONSTRUCTION WORKS.

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITIONS SHOULD BE PINPOINTED ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

WARNING SAFETY IN DESIGN NOTES

- THE CONTRACTOR SHALL EXERCISE CAUTION WHEN OPERATING MACHINERY NEAR EXISTING OVERHEAD POWERLINES.
- APPROPRIATE TRAFFIC MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AT ALL TIMES DURING CONSTRUCTION.
- APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN AT ALL TIMES WHEN ON SITE.
- DUST GENERATING ACTIVITIES SUCH AS CUTTING, GRINDING AND EARTH MOVING SHALL BE PERFORMED WHEN PREVAILING WINDS ARE FAVOURABLE TO REDUCE THE IMPACT OF DUST ON SURROUNDING PROPERTIES.

CONSTRUCTION

NOTE 1
BEWARE OF EXISTING OVERHEAD POWER CABLES.

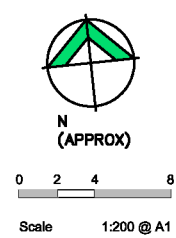
WARNING:
EXISTING SERVICES ARE LOCATED WITHIN THE VICINITY OF PROPOSED WORKS. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM ALL SERVICE LOCATIONS PRIOR TO CONSTRUCTION. CONTRACTOR IS TO ENSURE THE PROTECTION OF ALL SERVICES AT ALL TIMES DURING CONSTRUCTION.



SERVICE OFFSET TABLE													
STREET NAME	O/H ELECTRICITY		U/G ELECTRICITY		STORMWATER		COMMS		SEWER		POTABLE WATER		ROAD RESERVE WIDTH
	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	
ADA STREET	NORTH	2.5-2.75m	NORTH	2.6m	SOUTH	4.25-4.75m	NORTH	0.8m	NORTH	4.25m	NORTH	1.75m	20m

RELEASE DETAILS				
NO.	DESCRIPTION	DATE	DOCUMENT STATUS	APP.
C1	FINAL FOR CONSTRUCTION	30.07.26	FINAL	JH
P1	PRELIMINARY FOR APPROVAL	02.09.25	PRELIMINARY	JH

Heil Engineering Consultants PTY LTD
• Urban Development • Project Management •
• Infrastructure Design • Construction Administration •
SWAN HILL, VIC 3685 P: 03 50332189
OCEAN GROVE, VIC 3228 P: 03 52562220 www.heiconsult.com.au
DESIGNED HW AUG 25
DRAWN HW AUG 25



STREET AND DRAINAGE DESIGN
43 ALLARA CT & ADA STREET
CLIFTON SPRINGS, VIC
DRAINAGE LAYOUT PLAN

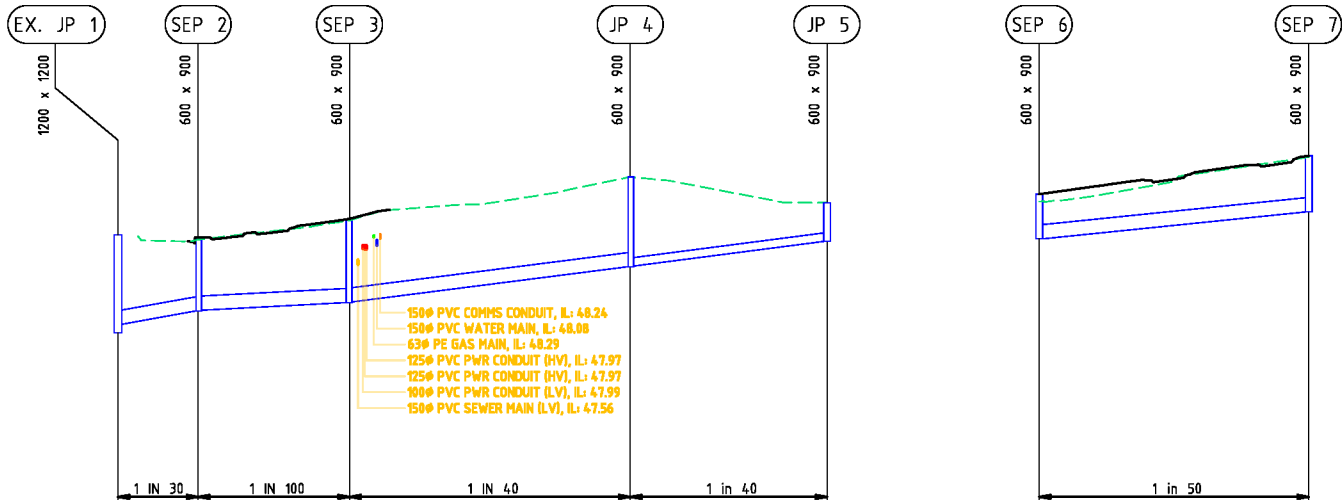
DRAWING NO. 25086_SD03
SHEET NO. 03 of 07
REVISION NO. C1
CAD: 25086_SD.dwg

LEGEND

EXISTING SURFACE	---
DESIGN SURFACE	---
PROPOSED DRAINAGE	---
EXISTING SEWER	---
EXISTING ELECTRICITY	---
EXISTING GAS	---
EXISTING WATER	---
EXISTING WATER	---

NOTE:
ALL DIMENSIONS ARE IN METERS. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD) UNLESS OTHERWISE NOTED.

NOTE:
ANY REINSTATEMENT OF KERB, CHANNEL, FOOTPATH AND NATURE STRIP WITHIN THE ROAD RESERVE IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CITY OF GREATER GEELONG STANDARDS.



DATUM (m)	37.00				
DRAINAGE LINE			DRAIN LINE 1		
PIPE SIZE (mm)	375	375	375	225	
PIPE CLASS	RCP CL 2	RCP CL 2	PVC (STORMPRO)	PVC (STORMPRO)	
PIPE ROUGHNESS	0.013	0.013	0.011	0.011	
PIPE GRADE (%)	3.3	1.0	2.5	2.5	
PIPE COVER MINIMUM	1.42	1.48	1.75	1.02	
FULL PIPE VELOCITY (m/s)	2.89	1.58	2.96	2.11	
CAPACITY FLOW (L/s)	320	175	328	84	
PIT TYPE	EX. JP	SEP	SEP	JP	JP
NATURAL SURFACE LEVEL	48.36	48.24	48.74	49.90	49.21
DESIGN SURFACE LEVEL	48.36	48.30	48.79	49.90	49.21
INVERT LEVEL	45.77 46.00	46.35 46.37	46.57 46.59	47.52 47.54	48.19
DEPTH TO INVERT	2.59 2.36	1.95 1.93	2.21 2.19	2.38 2.35	1.02
PIPE LENGTH & PIPE CHAINAGE	0.00	10.61 10.61	20.03 30.64	37.12 67.76	26.03 93.79

DRAIN LONGITUDINAL SECTIONS



NOTE:
ALL SERVICE LOCATIONS ARE TO BE CONFIRMED WITHIN WILLIS STREET PRIOR TO ANY CONSTRUCTION WORKS.

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITIONS SHOULD BE FOUND ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

WARNING SAFETY IN DESIGN NOTES

- THE CONTRACTOR SHALL EXERCISE CAUTION WHEN OPERATING MACHINERY NEAR EXISTING OVERHEAD POWERLINES.
- APPROPRIATE TRAFFIC MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AT ALL TIMES DURING CONSTRUCTION.
- APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN AT ALL TIMES WHEN ON SITE.
- DUST GENERATING ACTIVITIES SUCH AS CUTTING, GRINDING AND EARTH MOVING SHALL BE PERFORMED WHEN PREVAILING WINDS ARE FAVOURABLE TO REDUCE THE IMPACT OF DUST ON SURROUNDING PROPERTIES.

CONSTRUCTION

NOTE 1
BEWARE OF EXISTING OVERHEAD POWER CABLES.

NOTE:
INTERNAL DRAINAGE ALIGNMENT INCLUDING STORMWATER TANK AND PIPE SIZES ARE INDICATIVE ONLY SUBJECT TO CONFORMATION OF BUILDING DESIGN AND LAYOUT. LAYOUT OF STORMWATER INFRASTRUCTURE TO BE DETERMINED ONSITE BY LICENSED PLUMBER.



DRAINAGE PIT SCHEDULE										
PIT NO.	TYPE	INTERNAL		INLET		OUTLET		PIT		COVER
		WIDTH	LENGTH	DIA.	INVERT	DIA.	INVERT	SURFACE	DEPTH	
1	EX. JP	1200	1200	1050	45.53	1050	45.52	48.36	2.84	MAINTAIN EXISTING
				450	45.53					
				375	46.00					
2	SEP	600	900	375	46.37	375	46.35	48.24	1.95	APPROVED CLASS D (AS 3996)
3	SEP	600	900	375	46.59	375	46.57	48.79	2.21	APPROVED CLASS D (AS 3996)
4	JP	600	900	225	47.54	375	47.52	49.90	2.38	APPROVED CLASS B OR EQUIVALENT
				375	47.54					
5	JP	600	900	—	—	225	48.19	49.21	1.02	APPROVED CLASS B OR EQUIVALENT
6	SEP	600	900	375	48.28	300	48.26	140.62	1.18	APPROVED CLASS D (AS 3996)
7	SEP	600	900	—	—	375	48.97	50.46	1.48	APPROVED CLASS D (AS 3996)

- PIT COVERS ARE TO BE PROVIDED IN ACCORDANCE WITH THE CITY OF GREATER GEELONG DESIGN NOTE 13.
- PIT LID LEVEL REFERS TO CENTRE OF PIT.
- PIT LID TO BE INSTALLED TO MATCH DESIGN SURFACE GRADE.
- PIT LID SURROUND TO BE APPROVED BY SUPERINTENDENT PRIOR TO PLACEMENT.

RELEASE DETAILS

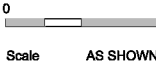
C1	FINAL FOR CONSTRUCTION	30.07.26	FINAL	JH
P1	PRELIMINARY FOR APPROVAL	02.09.25	PRELIMINARY	JH
NO.	DESCRIPTION	DATE	DOCUMENT STATUS	APP.

Heil Engineering Consultants
PTY LTD

• Urban Development • Project Management •
• Infrastructure Design • Construction Administration •

SWAN HILL, VIC 3685 P: 03 50332189
OCEAN GROVE, VIC 3228 P: 03 52562220 www.heiconsult.com.au

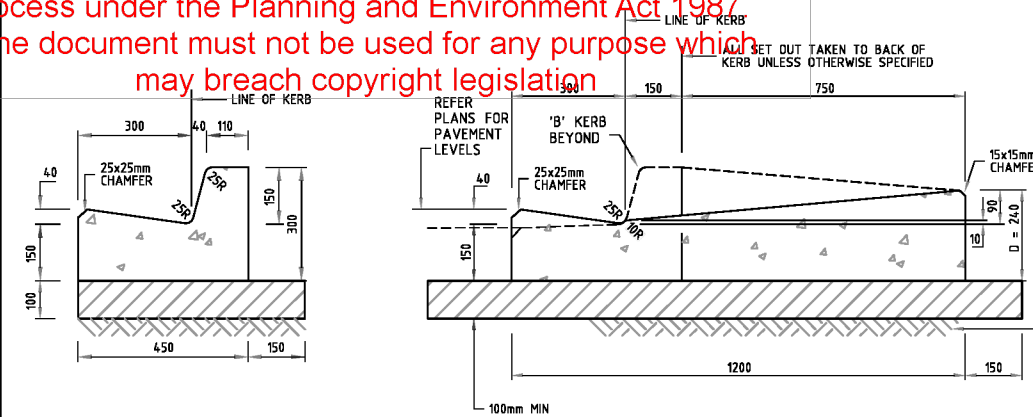
DESIGNED HW AUG 25
DRAWN HW AUG 25



STREET AND DRAINAGE DESIGN
43 ALLARA CT & ADA STREET
CLIFTON SPRINGS, VIC
DRAIN LONGITUDINAL SECTIONS & PIT SCHEDULE

DRAWING NO. 25086_SD04
SHEET NO. 04 of 07
REVISION NO. C1
A1
CAD: 25086_SD.dwg

© Hell Engineering Consultants P/L
THIS DOCUMENT IS COPYRIGHT AND MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS
COMMISSIONED. UNAUTHORISED USE PROHIBITED. ALL DIMENSIONS AND LEVELS TO BE
CHECKED ON THE PROJECT BEFORE COMMENCING ANY WORKS OR SHOP DRAWINGS. DRAWINGS
NOT TO BE SCALED.

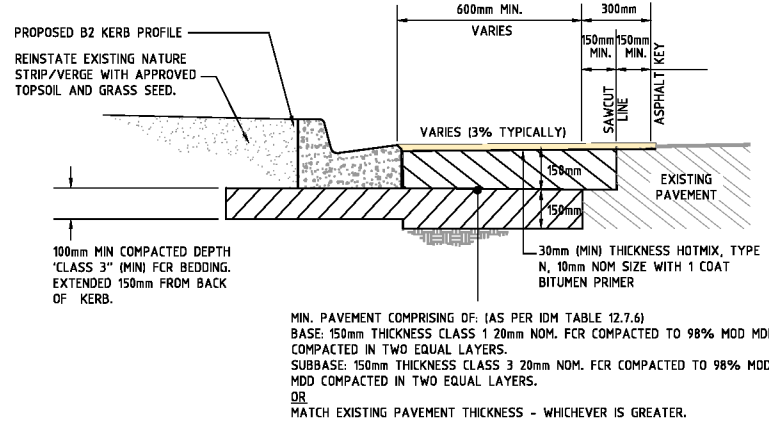


B2 KERB - IDM SD100

B2 & B3 KERB LAYBACK - IDM SD120

NOTES:

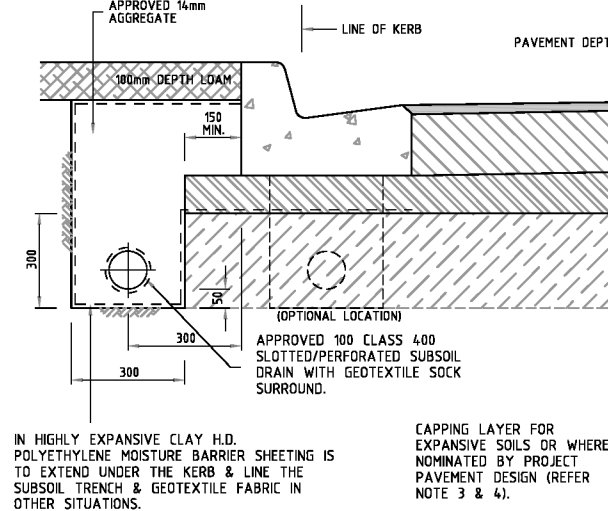
1. REFER TO AS. 2876-2000 CONCRETE KERBS AND CHANNELS FOR SPECIFIC REQUIREMENTS.
2. REFER TO AUSTRROADS GUIDE TO ROAD DESIGN 2016 PART 3: GEOMETRIC DESIGN FOR RECOMMENDED USE OF KERBS AND CHANNELS.
3. CONCRETE SHALL BE NORMAL CLASS N25 STANDARD STRENGTH GRADE COMPLYING WITH THE REQUIREMENTS OF AS. 1379. REFER TO VICROADS STANDARD SPECIFICATION 703 FOR REQUIREMENTS OF CONCRETE TO BE USED IN EXTRUSION MACHINES.
4. BEDDING TO BE COMPACTED CLASS 3 F.C.R. 20mm BEDDING TO 97% MMD OR EXTENSION OF ROAD PAVEMENT LAYERS, WHICH EVER IS GREATER. UNLESS OTHERWISE DIRECTED.
5. WEARING COURSE ASPHALT TO BE MIN. 30mm COMPACTED DEPTH OF TYPE N, 10mm NOMINAL SIZE (U.N.O.).
6. INCREASE OVERALL KERB PROFILE (DEPTH OF CONCRETE):
 - a) 80mm FOR COMMERCIAL PROPERTIES
 - b) 80mm WITH LBTM TRENCH MESH FOR INDUSTRIAL PROPERTIES (MESH TO HAVE 40mm COVER).
7. CONCRETE TO BE SMOOTH TROWELLED FINISHED ON TRAY AND KERB.
8. CONCRETE SPONGE FINISHED ON LAYBACK.
9. CONSTRUCTION JOINTS LOCATED:
 - 2500mm MAX. SPACING
 - 75mm MIN. DEPTH
10. ELIMINATE 25mm BULLNOSE ON ALL POSITIVE FALL PEDESTRIAN CROSSINGS.
11. WIDTHS SPECIFIED IN CROSS SECTIONS ARE FACE (LINE) OF KERB MIN.
12. LINE OF KERB IS USED TO DETERMINE CARRIAGEWAY WIDTHS.
13. FOR TYPICAL INDUSTRIAL KERB LAYBACK SEE DRAWING SD115.
14. ALL DIMENSIONS ARE IN MILLIMETRES.



TYPICAL PAVEMENT DETAIL - IDM TABLE 12.7.6 & IDM SD 130

PAVEMENT NOTES:

1. ANY SOFT SPOTS FOUND IN THE SUB-GRADE ARE TO BE REMOVED AND REPLACED WITH CLASS 3 FCR. SUPERINTENDENT TO WITNESS PROOF ROLLING OF SUBGRADE PRIOR TO INSTALLATION OF BASE MATERIAL.
2. THE BASE MATERIAL IS TO COMPLY WITH VICROADS STANDARD SPECIFICATION FOR ROAD WORKS 812 - CRUSHED ROCK FOR BASE AND SUBBASE PAVEMENT.
3. ALL BASE MATERIAL IS TO BE SPREAD AND COMPACTED IN ACCORDANCE WITH VICROADS STANDARD SPECIFICATION FOR ROAD WORKS SECTION 304 - UNBOUND FLEXIBLE PAVEMENT CONSTRUCTION.
4. THE PAVEMENT IS TO BE PREPARED FOR BITUMINOUS SEALING IN ACCORDANCE WITH VICROADS STANDARD SPECIFICATION FOR ROAD WORKS 310 - PREPARATION OF GRANULAR PAVEMENTS FOR BITUMINOUS SURFACING.
5. ALL BITUMINOUS SEALING IS TO COMPLY WITH VICROADS STANDARD SPECIFICATION FOR ROAD WORKS SECTION 408 - SPRAYED BITUMINOUS SURFACING AND SECTION 831 - AGGREGATE FOR SPRAYED BITUMINOUS SURFACING.

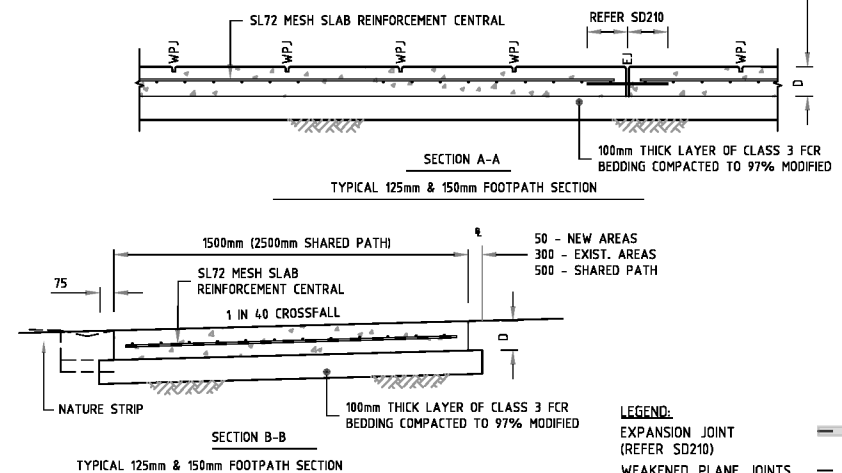
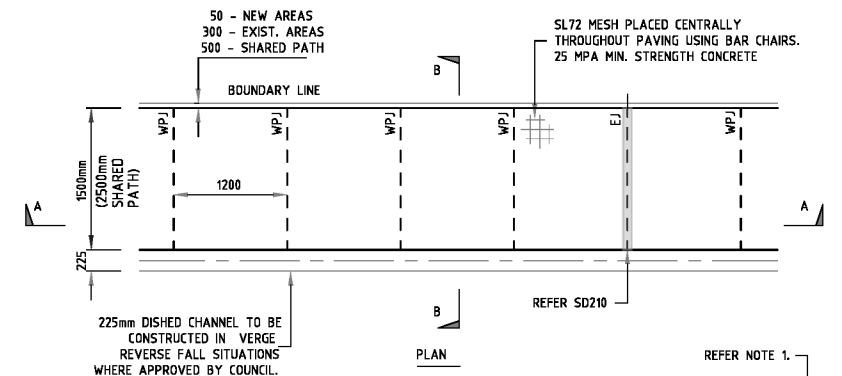


NOTES:

1. THE DRAINS SHALL BE LAID ON A GRADE PARALLEL TO THE FINISHED SURFACE.
2. FOR FLUSHOUT RISER DETAILS REFER TO STANDARD DRAWINGS SD525 & SD530.
3. WHERE THE SUBGRADE IS CLASSIFIED AS BEING EXPANSIVE, SUBSURFACE PAVEMENT DRAINS SHALL BE DESIGNED TO BE CONTAINED WHOLLY WITHIN THE CAPPING LAYER. IN ADDITION, NO PART OF THE SUBSURFACE TRENCH SHALL BE LOCATED WITHIN 150mm OF THE UNDERLYING SUBGRADE. IF NECESSARY, THE CAPPING LAYER MAY HAVE TO BE THICKENED TO SATISFY THIS REQUIREMENT.
4. WHERE REQUIRED BY PAVEMENT DESIGN, CAPPING LAYER OF LOW PERMEABILITY PLACED IMMEDIATELY BELOW THE PAVEMENT SUB-BASE TO MINIMISE CHANGES IN THE MOISTURE CONTENT IN THE MATERIAL BELOW THE CAPPING LAYER (REFER S204 VICROADS SPECIFICATION).

KERB SUBSOIL DRAINAGE - IDM SD145

SCALE: N.T.S.

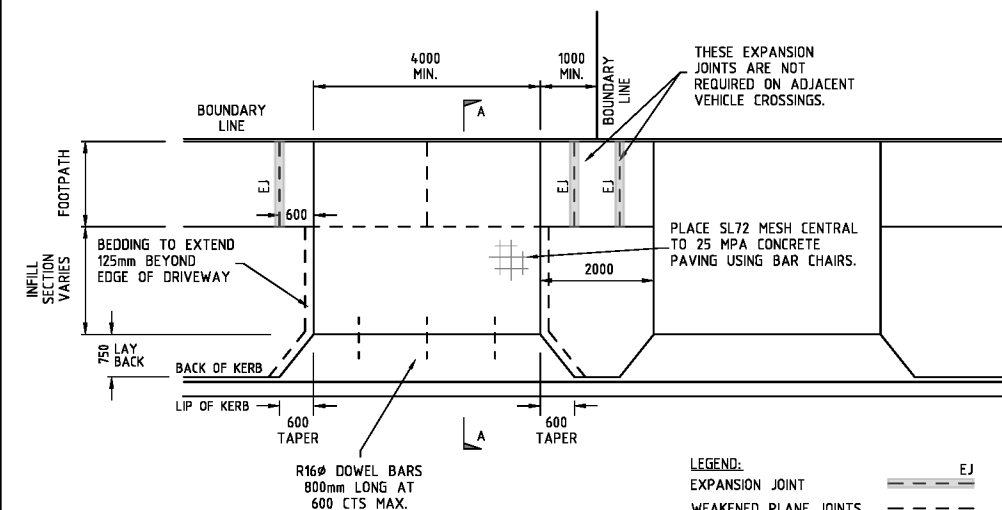


NOTES:

1. 'D' = DEPTH OF CONCRETE FOOTPATH. TYPICAL RESIDENTIAL 'D' = 125mm THICK (25MPa). TYPICAL INDUSTRIAL / COMMERCIAL 'D' = 150mm (32MPa).
2. WEAKENED PLANE JOINTS (W.P.J.) TO BE MADE WITH T-IRON (OR CONCRETE SAW WITHIN 24hrs OF POUR).
3. REFER TO IDEM CLAUSE 13.3 FOR ADDITIONAL REQUIREMENTS.

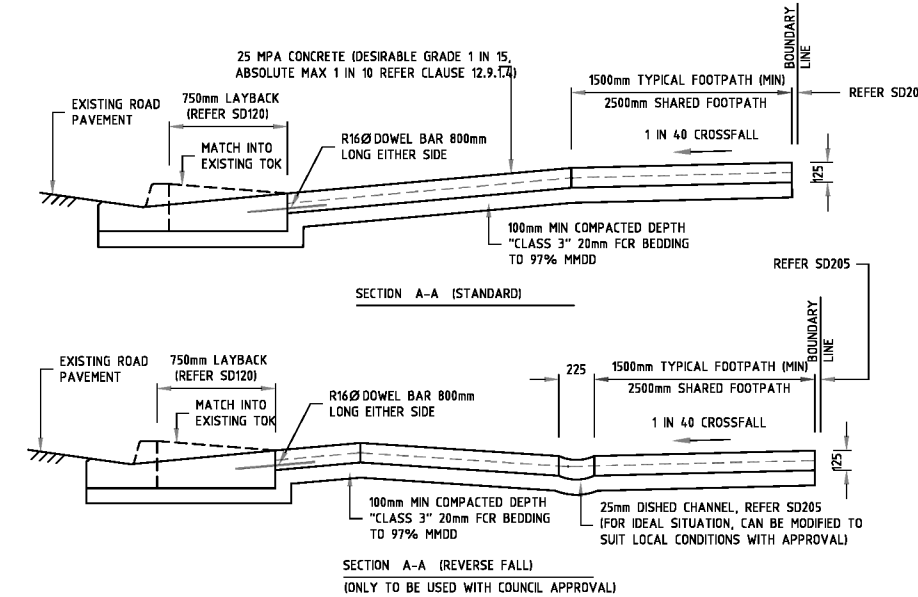
KERB & CHANNEL TYPICAL CONSTRUCTION DETAILS

SCALE: N.T.S.



NOTES:

1. UNLESS OTHERWISE APPROVED, ALL VEHICLE CROSSINGS ARE TO BE BUILT AS SINGLE CROSSINGS. (4.0m WIDE WITH STRAIGHT SIDES, OFFSET BY 1.0m FROM THE PROPERTY BOUNDARY).
2. WHERE ADJACENT DRIVEWAYS ARE LOCATED ON EACH SIDE OF A PROPERTY BOUNDARY, THE LAYOUT IS AS ABOVE. (2 NO. SINGLE CROSSINGS WITH A 800mm LENGTH OF B2 KERB BETWEEN THE TAPERS).
3. FOR GRADES STEEPER THAN 1 IN 10 REFER CLAUSE 12.9.14.
4. LAYBACK & CROSSOVER TO BE CONSTRUCTED IN PLAIN CONCRETE ONLY (NO COLOURED CONCRETE BEYOND PROPERTY BOUNDARY).
5. T.O.L. DENOTES TOP OF KERB.
6. FOR STEEP TERRAIN CONTACT COUNCIL FOR GUIDANCE.
7. REFER TO IDM SD 235 FOR DETAILS TO RETROFIT VEHICLE CROSSING INTO EXISTING.
8. ALL MEASUREMENTS IN MILLIMETRES.



CITY OF GREATER GEELONG - NEW RESIDENTIAL SINGLE VEHICLE CROSSING - MODIFIED SD240

SCALE: N.T.S.

TYPICAL FOOTPATH DETAIL

SCALE: N.T.S.

RELEASE DETAILS

NO.	DESCRIPTION	DATE	DOCUMENT STATUS	APP.
C1	FINAL FOR CONSTRUCTION	30.07.26	FINAL	JH
P1	PRELIMINARY FOR REVIEW	02.09.25	PRELIMINARY	JH

PIPE LOAD SUMMARY SHEET

Page 1 of 2

Date: 30-Jul-2026

Design of 375 dia. Class 2 RRJ drainage pipe

PROJECT DETAILS

Job number:

Client:

Project: Ada Street Drainage Design

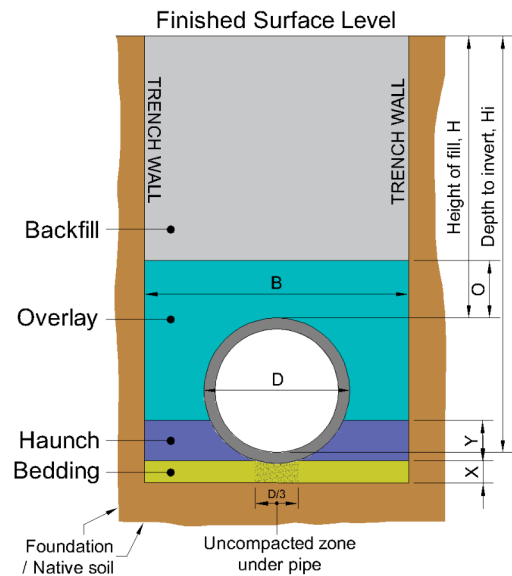
Description:

Designer:

Company:

DESIGN PARAMETERS

Installation Condition:	Trench
Pipe Nominal Diameter (mm):	375
Pipe External Diameter, D (mm):	445
Pipeline Orientation:	Perpendicular
Soil Type:	clayey sand
Soil Density (kN/m ³):	18
Soil Parameter K _μ :	0.15
Trench Width, B (m):	0.745
Height Of Fill, H (m):	1.47
Support Type:	H2
Bedding Factor:	2
Excavation volume (solid) (m ³ /m)	1.500



In Service Load Cases/Combinations Considered (controlling load case/combination highlighted)

Load Description*	Fill Height (m)	Wg/2.0	Wq/1.5	Ww/2.0	Tc	Pipe Class
W80(AS/NZS3725)	1.47	7.4	3.9	0.6	11.9	2
earth + weight of internal water	1.47	7.4		0.6	8	2
A160(AS/NZS3725)	1.47	7.4	4.7	0.6	12.7	2
M1600(AS/NZS3725)	1.47	7.4	5.4	0.6	13.4	2
S1600(AS/NZS3725)	1.47	7.4	4.1	0.6	12.1	2
HLP400(AS/NZS3725)	1.47	7.4	6.3	0.6	14.3	2

All loads in kN/m. *Includes earth load at fill height shown.

Controlling Loads: earth + HLP400(AS/NZS3725) + weight of internal water**Minimum Test Load:** $T_c = 7.4 + 6.3 + 0.6$

Construction Load Cases/Combinations Considered

Load Description^	Allowable Fill Ranges (m)
QDTMR Dog and Trailer Construction Load Vehicle	0.560-1.470
T54 AS5100 impact	0.560-1.470

All loads in kN/m. ^Includes earth load at fill ranges shown.

PIPE LOAD SUMMARY SHEET



Page 2 of 2

Date: 30-Jul-2026

Adopt 375 dia. Class 2 RRJ pipe (375/2 RRJ) in accordance with AS/NZS 4058:2007.

Design Notes:

1. A nominal wall thickness of 35 mm has been assumed.

