GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 1 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

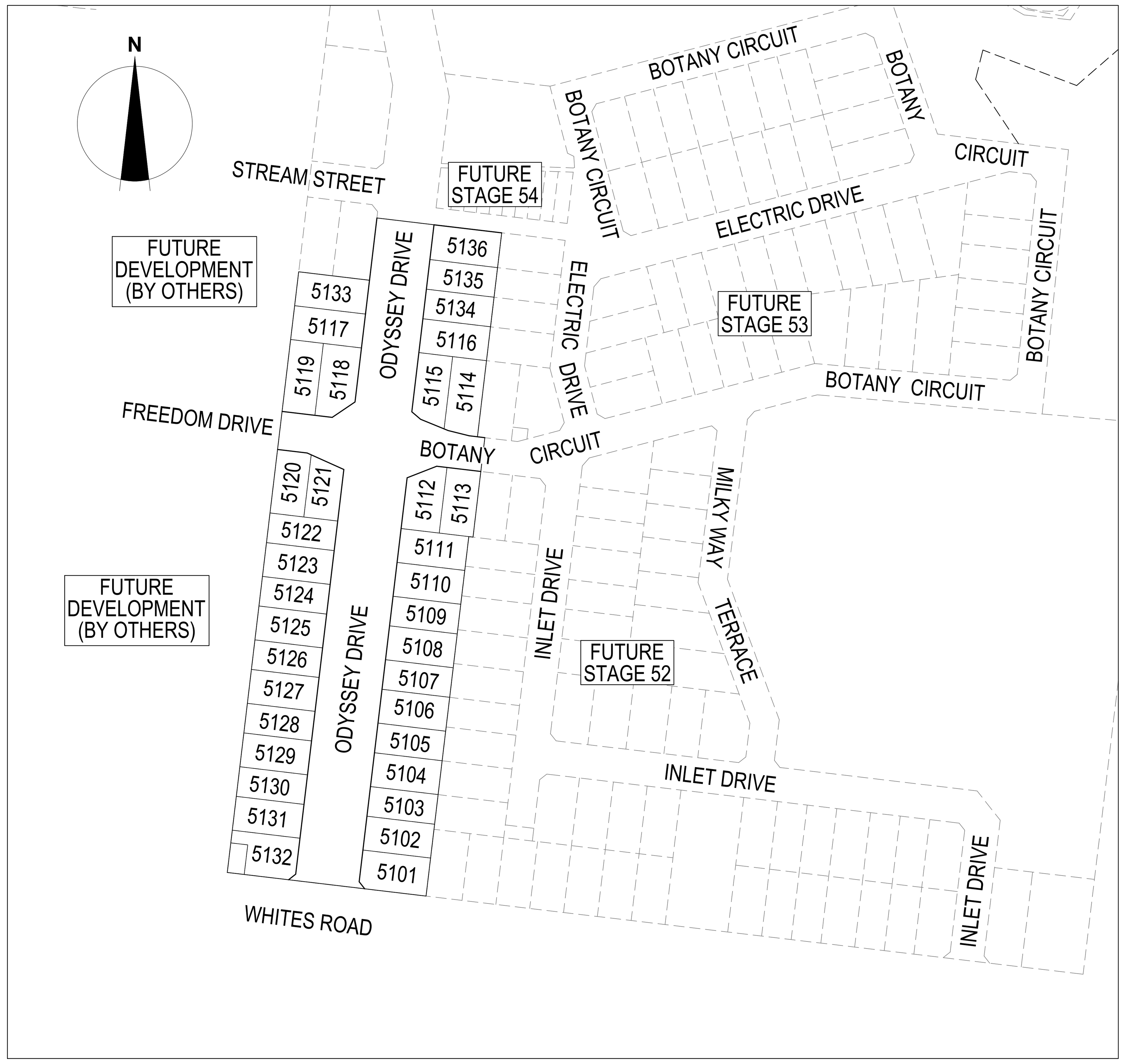
ARMSTRONG

STAGE 51

CITY OF GREATER GEELONG

GENERAL NOTES:

1. THE WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT INFRASTRUCTURE DESIGN MANUAL STANDARD DRAWINGS AND GREATER GEELONG CITY COUNCIL STANDARD DRAWINGS AND SPECIFICATIONS. WORKS TO BE CARRIED OUT TO THE SATISFACTION OF COUNCIL'S SUPERVISING OFFICER.
2. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY OF WORK ON SITE IN ACCORDANCE WITH APPROPRIATE LEGISLATION. THEY SHALL ERECT AND MAINTAIN ALL SHORING, PLANKING AND STRUTTING, DEWATERING DEVICES, BARRICADES, SIGNS, LIGHTS, ETC. NECESSARY TO KEEP WORKS IN A SAFE AND STABLE CONDITION, AND TO PROTECT THE PUBLIC FROM HAZARDS ASSOCIATED WITH THE WORKS.
3. THE CONTRACTOR SHALL:
   - 3.1. COMPLY WITH THE "SAFETY PRECAUTIONS IN TRENCHING OPERATIONS" (CODE OF PRACTICE No.8, 1998)
   - 3.2. NOTIFY WORK SAFE OF HIS INTENTION TO COMMENCE TRENCHING OPERATIONS WHERE TRENCHES ARE 1.5 METRES OR DEEPER.
   - 3.3. ENSURE THAT THE MINE MANAGER OR HIS DEPUTY AS REQUIRED BY THE REGULATIONS IS IN ATTENDANCE WHEN TRENCHING OPERATIONS ARE IN PROGRESS.
4. THE CONTRACTOR IS TO NOTIFY COUNCIL AND ALL SERVICE AUTHORITIES SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. THE LOCATION OF EXISTING SERVICES SHOULD BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCING ANY EXCAVATION BY CONTACTING ALL RELEVANT SERVICE AUTHORITIES. ANY EXISTING SERVICES SHOWN ON THE DRAWINGS ARE OFFERED AS A GUIDE ONLY AND ARE NOT GUARANTEED AS CORRECT.
6. REDGUM TREES MARKED ON THE APPROVED PLANS FOR REMOVAL MUST BE REMOVED IN ACCORDANCE WITH COUNCIL'S PLANNING PERMIT. NO EXCAVATION SHALL BE CARRIED OUT WITHIN THE TREE PROTECTION ZONE OF ANY EXISTING TREE WITHOUT WRITTEN APPROVAL FROM COUNCIL'S SUPERVISING OFFICER.
7. ALL ROAD CHAINAGES ARE MEASURED ALONG THE ROAD CENTRELINE EXCEPT KERB RETURNS AND COURTHEADS, WHERE LIP OF KERB CHAINAGES ARE SPECIFIED. ALL DIMENSIONS AND RADII ARE GIVEN TO THE LIP OF KERB. DO NOT SCALE OFF THESE DRAWINGS, WRITTEN DIMENSIONS ONLY SHALL BE USED.
8. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM.
9. ALL EXCAVATED OR FILLED AREAS OUTSIDE THE ROAD RESERVES TO BE STRIPPED OF TOPSOIL AND STOCKPILED PRIOR TO EARTHWORKS COMMENCING. THESE AREAS SHALL BE RESURFACED WITH A 150mm LAYER OF TOPSOIL AS SPECIFIED.
10. NO TOPSOIL TO BE REMOVED FROM SITE.
11. NO FILL OR STOCKPILING OF MATERIAL IS TO BE PLACED ON ANY RESERVE UNLESS DIRECTED BY THE SUPERINTENDENT.
12. FILLING ON ALLOTMENTS AND UNDER ROAD PAVEMENTS TO HAVE LEVEL 1 SUPERVISION IN ACCORDANCE WITH AS3798-1996. INDIVIDUAL LOT CERTIFICATES ARE TO BE PROVIDED TO THE SUPERINTENDENT.
13. FILLING UNDER DRIVEWAYS AND FOOTPATH IS TO BE APPROVED BY THE SUPERINTENDENT AND CONSTRUCTED IN LAYERS 150mm DEPTH. COMPACTION ACHIEVING A MINIMUM DENSITY RATIO OF 98% (STANDARD) IN ACCORDANCE WITH AS1289 CLAUSE 5.1.1.
14. CUT AND FILL BATTER SLOPES ARE NOT TO EXCEED 1 in 6 UNLESS SHOWN OTHERWISE.
15. ALL DRAINAGE PIPES ARE TO BE SPIGOT-SOCKET RUBBER RING JOINTED UNLESS STATED OTHERWISE.
16. ALL DRAINAGE TRENCHES UNDER PARKING BAYS, DRIVEWAYS, FOOTPATHS AND BEHIND KERB & CHANNEL, SHALL BE BACKFILLED WITH CRUSHED ROCK AS SPECIFIED.
17. ALL PIPES UNDER ROADS SHALL BE BACKFILLED WITH 2% STABILIZED SAND TO SPRINGLINE. ABOVE THIS POINT, PROVIDE 20mm NOM. SIZE CLASS 3 FINE CRUSHED ROCK (WETMIX) COMPACTED TO 98% MODIFIED COMPACTION IN 150mm MAXIMUM LAYER.
18. PROPERTY INLETS AS PER INFRASTRUCTURE DESIGN MANUAL (IDM) STANDARD DRAWING SD 520 ARE TO BE LOCATED 1.0m FROM LOW SIDE BOUNDARY UNLESS SHOWN OTHERWISE.
19. ALL HOUSE DRAIN CONNECTIONS ARE TO BE LOCATED NO CLOSER THAN 6.0m FROM THE SIDE BOUNDARY OR FROM EASEMENT ALONG THE SIDE BOUNDARY UNLESS NOTED OTHERWISE AND CONNECTED DIRECTLY TO UNDERGROUND DRAIN OR PIT. HOUSE DRAIN LOCATION TO BE MARKED (50mm STAMPED IMPRESSION) ON THE TOP OF THE KERB.
20. SUBSOIL DRAINS SHALL BE INSTALLED BEHIND OR BELOW ALL KERB AND CHANNEL.
21. CONDUIT LOCATIONS ARE SUBJECT TO AMENDMENT AND CONDUITS SHALL NOT BE LAID UNTIL WRITTEN APPROVAL IS GIVEN BY THE SUPERINTENDENT. CONDUITS TO BE EXTENDED TO PROPERTY LINE AND ARE REQUIRED WHEN CONNECTIONS EXTEND UNDER ROAD PAVEMENT, FOOTPATH OR OTHER INFRASTRUCTURE. BOTH KERBS ARE TO BE MARKED (50mm STAMPED IMPRESSION) WITH THE LETTERS E (ELECTRICAL), G (GAS), T (TELEPHONE), W (WATER) AND C (COUNCIL COMMUNICATION) ABOVE CONDUIT LOCATION.
22. ALL SERVICING TRENCHES UNDER ROADS, DRIVEWAYS, FOOTPATHS ETC. ARE TO BE BACKFILLED & COMPACTED WITH F.C.R. IN THE CASE OF TRENCHES UNDER ROADS WHERE BACKFILLING HAS NOT ACHIEVED THE SPECIFIED COMPACTION OR SHOWS EXCESSIVE MOVEMENT UNDER PROOF ROLLING, THE BACKFILLING SHALL BE REMOVED AND REPLACED WITH 2% STABILISED COMPACTED F.C.R.
23. NO COMMUNICATION PITS ARE TO BE LOCATED IN THE FOOTPATH.
24. VEHICULAR CROSSINGS TO BE LOCATED CLEAR OF DRAINAGE PITS, SEWER MAINTENANCE HOLES AND EXISTING TREES. VEHICLE CROSSINGS TO BE 1m FROM PROPERTY BOUNDARY OR EASEMENT UNLESS OTHERWISE SHOWN. VEHICULAR CROSSINGS TO BE CONSTRUCTED AS PER CITY OF GREATER GEELONG "DESIGN NOTES No.4" DATED AUGUST 2012 & IDM STANDARD DRAWINGS SD205 to SD265.
25. ALL PEDESTRIAN CROSSINGS TO BE IN ACCORDANCE WITH INFRASTRUCTURE DESIGN MANUAL SD200.
26. ALL STREET SIGNS TO BE IN ACCORDANCE INFRASTRUCTURE DESIGN MANUAL STANDARD DRAWINGS. STREET SIGNS TO BE ATTACHED TO LIGHT POLES USING 'SINGLE DIRECTION COLLAR' OR '90° RIGHT ANGLE COLLAR' UNLESS SHOWN OTHERWISE.
27. ALL PAVEMENT MARKINGS AND TRAFFIC SIGNS SHOULD BE TO AS1742.2 AND AS1742.1 STANDARD RESPECTIVELY. TEMPORARY LINEMARKING TO BE PLACED DURING MAINTENANCE PERIOD PRIOR TO PLACEMENT OF WEARING COURSE. FINAL LINEMARKING TO BE LONG LIFE ROAD MARKING WITH LONGITUDINAL LINES IN THERMOPLASTIC AND TRANSVERSE MARKINGS IN COLD APPLIED.
28. UPON COMPLETION OF CONSTRUCTION THE WHOLE SITE SHALL BE CLEANED, GRADED, ALL RUBBISH REMOVED AND LEFT IN A CLEAN AND TIDY CONDITION TO THE SATISFACTION OF THE SUPERINTENDENT.
29. ALL AREAS OF SUBDIVISION EXPOSED OF VEGETATION, INCLUDING NATURE STRIPS, LOTS AND RESERVES ARE TO BE FULLY GRASSED BY HYDRO MULCHING, WATERED AND MAINTAINED, UNTIL THE END OF MAINTENANCE PERIOD.
30. ALL SUMPS IN PRECAST CONCRETE PITS ARE TO BE INFILLED WITH CONCRETE FLUSH TO THE INVERT LEVEL OF THE OUTLET PIPE, UNLESS APPROVED OTHERWISE BY THE COUNCIL WORKS INSPECTOR.
31. CITY OF GREATER GEELONG REQUIRES CCTV OF ALL DRAINAGE PIPES AND PITS, PRIOR TO THE ISSUE OF THE STATEMENT OF COMPLIANCE



LOCALITY PLAN

1:2000 20 0 20 40 60 80 100 A1
1:4000 A3

DRAWING INDEX

Drawing No.	Drawing Title	Revision
R100	COVER SHEET	5
R200	LAYOUT PLAN - 1	5
R201	LAYOUT PLAN - 2	1
R202	TYPICAL SECTIONS	0
R300	INTERSECTION DETAIL PLAN - 1	0
R301	INTERSECTION DETAIL PLAN - 2	0
R302	INTERSECTION DETAIL PLAN - 3	0
R303	INTERSECTION DETAIL PLAN - 4	0
R304	INTERSECTION DETAIL PLAN - 5	0
R400	ROAD LONGITUDINAL SECTIONS & CENTRELINE SETOUT - 1	1
R401	ROAD LONGITUDINAL SECTIONS & CENTRELINE SETOUT - 1	0
R500	ROAD CROSS SECTIONS - 1	0
R501	ROAD CROSS SECTIONS - 2	0
R502	ROAD CROSS SECTIONS - 3	0
R503	ROAD CROSS SECTIONS - 4	0
R504	ROAD CROSS SECTIONS - 5	0
R505	ROAD CROSS SECTIONS - 6	0
R506	ROAD CROSS SECTIONS - 7	0
R507	ROAD CROSS SECTIONS - 08	0
R600	DRAINAGE LONG SECTIONS - 1	1
R601	DRAINAGE LONG SECTIONS - 2	0
R602	DRAINAGE LONG SECTIONS - 3	2
R603	DRAINAGE LONG SECTIONS - 4	0
R604	PIT SCHEDULE	3
R700	TYPICAL DETAILS	0
R701	PIT DETAILS	0
R702	RETAINING WALL DETAILS	0
R800	SIGNAGE & LINEMARKING PLAN	0
R900	DRAINAGE LAYOUT PLAN	2

NOTE:
THE SITE OF WORKS IS SUBJECT TO THE PROVISIONS OF CULTURAL HERITAGE MANAGEMENT PLAN 11385.
ALL WORKS AND PERSONNEL MUST OBSERVE THE REQUIREMENTS OF THE MANAGEMENT PLAN AT ALL TIMES.

WARNING

BEWARE OF UNDERGROUND & OVERHEAD SERVICES

THE LOCATIONS OF UNDERGROUND & OVERHEAD SERVICES ARE APPROXIMATE ONLY & 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

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P:\2018\180016 - VILLAWOOD ARMSTRONG\180016.51\CIVIL\2. DRAFTING\ACAD\180016.51 - R100 - COVER SHEET.DWG

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
5	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
4	20/08/19	PRV CROSSOVER RELOCATED - REFER SHEET R200	M.T.	M.T.	T.P.
3	05/08/19	DRAINAGE AMENDMENTS R200, R201, R600, R604 & R900	M.T.	M.T.	T.P.
2	24/07/19	SHEET R200, R602 & R604 AMENDED	M.T.	M.T.	T.P.
1	26/06/19	POS AMENDED	M.T.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT

villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT

ARMSTRONG MT DUNEED

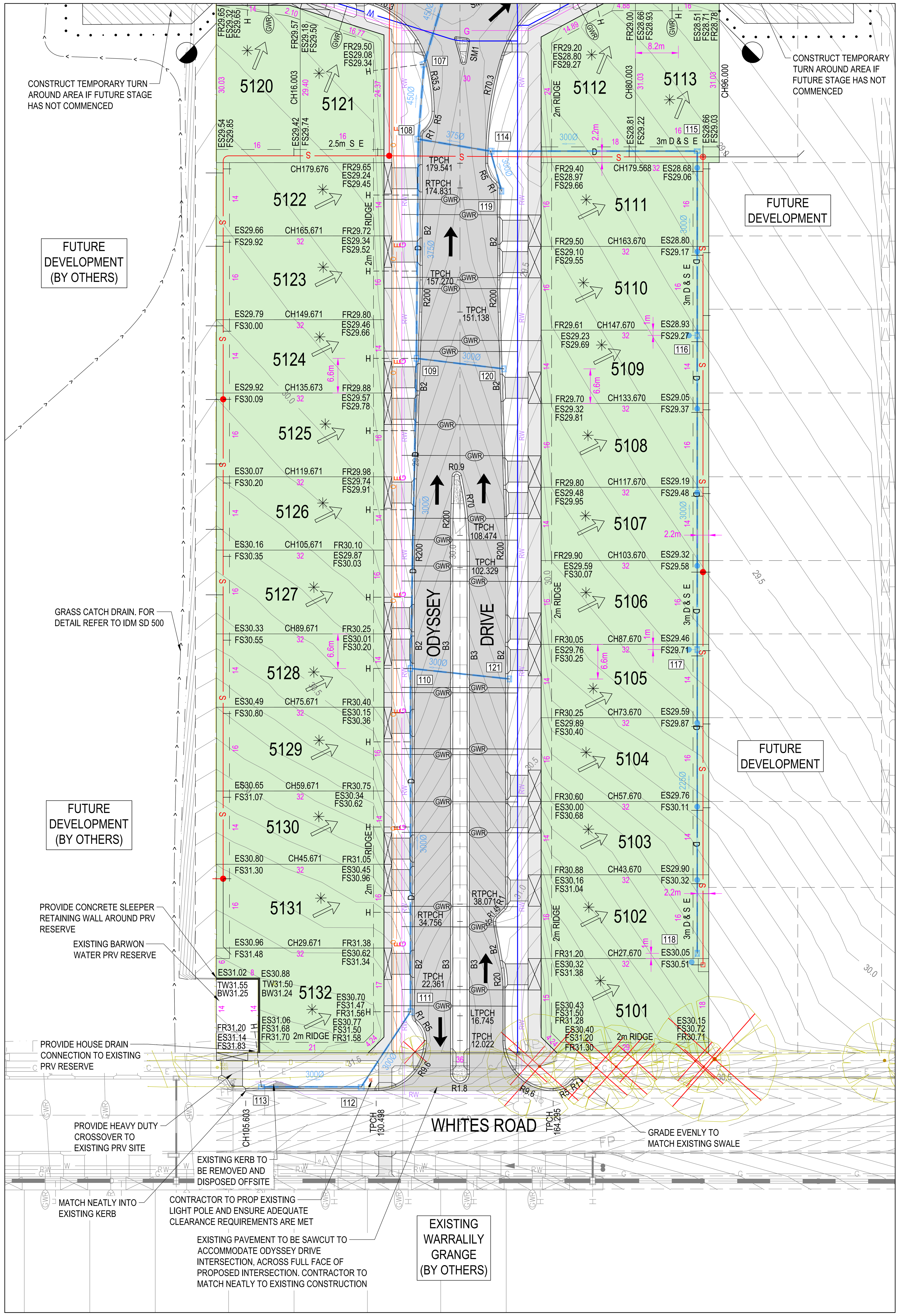
DRAWING TITLE

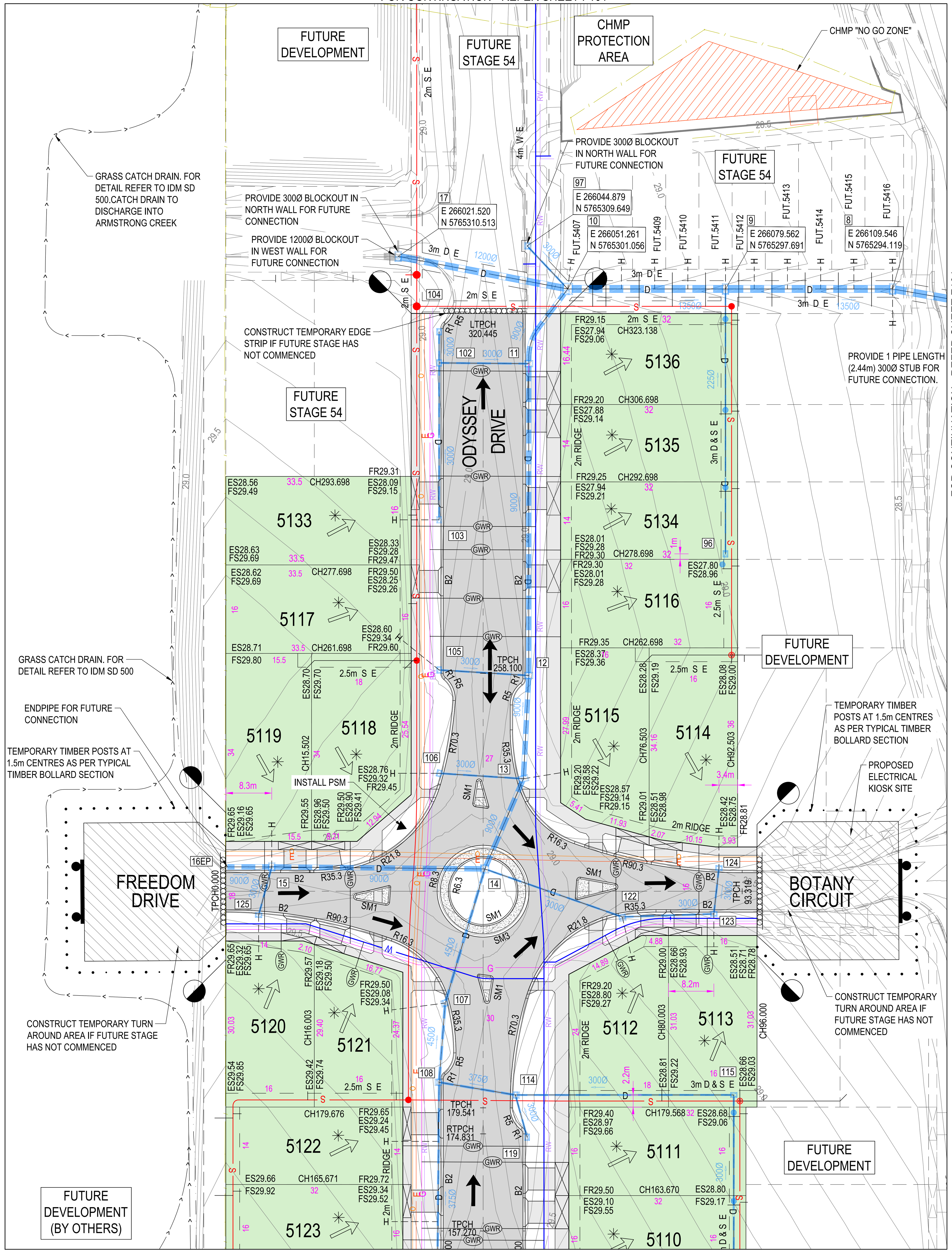
ARMSTRONG - STAGE 51
COVER SHEET

STATUS

ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
1:2000 @ A1	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	**PROJECT MANAGER**	**DATE FIRST ISSUE**
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	**DRAWING No.**	**REVISION**
180016.51	R100	5





LEGEND - LAYOUT PLAN

- STORMWATER DRAIN, PIT & PROPERTY INLET
- SWALE DRAIN
- SEWER & MAINTENANCE STRUCTURES
- HOUSE DRAIN
- SERVICE CONDUITS
- TACTILE PAVERS
- EXISTING ELECTRICITY (UNDERGROUND)
- EXISTING ELECTRICITY (OVERHEAD)
- EXISTING GAS
- EXISTING OPTIC FIBRE
- EXISTING TELSTRA
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING STORMWATER DRAIN
- EXISTING SEWER
- EXISTING HOUSE DRAIN
- EXISTING SWALE DRAIN
- ES141.34 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
- BUILDING ENVELOPE
- CONCRETE INFILL - REFER SHEET R700
- STRUCTURAL FILL > 200mm DEEP
- EX. STRUCTURAL FILL > 200mm DEEP
- DIRECTION OF FALL
- OVERLAND FLOW
- 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 & OVERHEAD SERVICES

The locations of underground & overhead services are approximate only & 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

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N

1:500 10 5 0 10 20 A1
1:1000 A3

NOTE:
CONTRACTOR TO ENSURE HOUSE DRAINS PROVIDED FOR FUTURE LOTS 5407-5416 ACHIEVE MINIMUM DEPTHS AS PROVIDED IN THE TABLE BELOW

LOT CONTROL DEPTHS

FUT.LOT 5407	27.004
FUT.LOT 5408	26.970
FUT.LOT 5409	26.955
FUT.LOT 5410	26.930
FUT.LOT 5411	26.905
FUT.LOT 5412	26.895
FUT.LOT 5413	26.870
FUT.LOT 5414	26.850
FUT.LOT 5415	26.830
FUT.LOT 5416	26.805

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 2 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

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SERVICES OFFSET SCHEDULE

ROAD NAME	GAS		RECYCLED WATER		POTABLE WATER		OPTIC FIBRE		ELECTRICITY		RW TRUNK MAIN	
	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET
ODYSSEY DRIVE	W	3.60	W	4.10	E	4.50	W	1.80	W	2.40	E	3.7
BOTANY CIRCUIT	S	2.10	S	2.60	S	3.10	N	1.80	N	2.60	-	-
FREEDOM DRIVE	S	2.10	S	2.60	S	3.10	N	1.80	N	2.60	-	-

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
6	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
5	03/12/19	ISSUED TO CLIENT	K.N.	M.T.	T.P.
4	20/08/19	PRV CROSSOVER RELOCATED TO WEST	M.T.	M.T.	T.P.
3	05/08/19	STUBS REPLACED WITH BLOCKOUTS & LOT CONTROL TABLE ADDED	M.T.	M.T.	T.P.
2	22/07/19	MINOR DRAINAGE AMENDMENT & CROSSOVER RELOCATION LOT 5114	M.T.	M.T.	T.P.
1	26/06/19	POS AMENDED	M.T.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
D	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
C	15/03/19	ISSUED FOR TENDER	M.T.	M.T.	T.P.

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
LAYOUT PLAN - 1

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
1:500 @ A1	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R200	6

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
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Sheet 3 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

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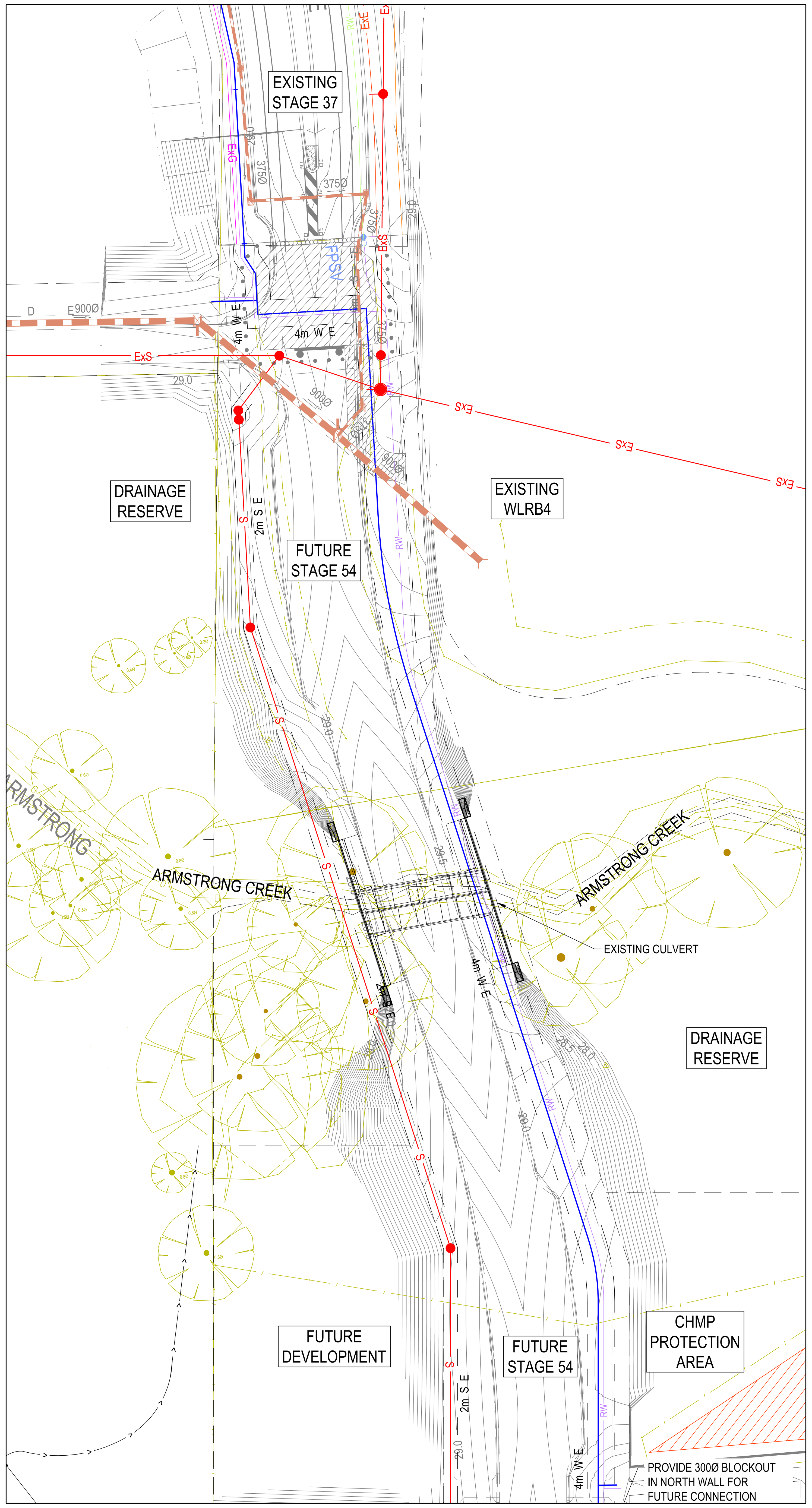

FOR CONTINUATION - REFER SHEET F100

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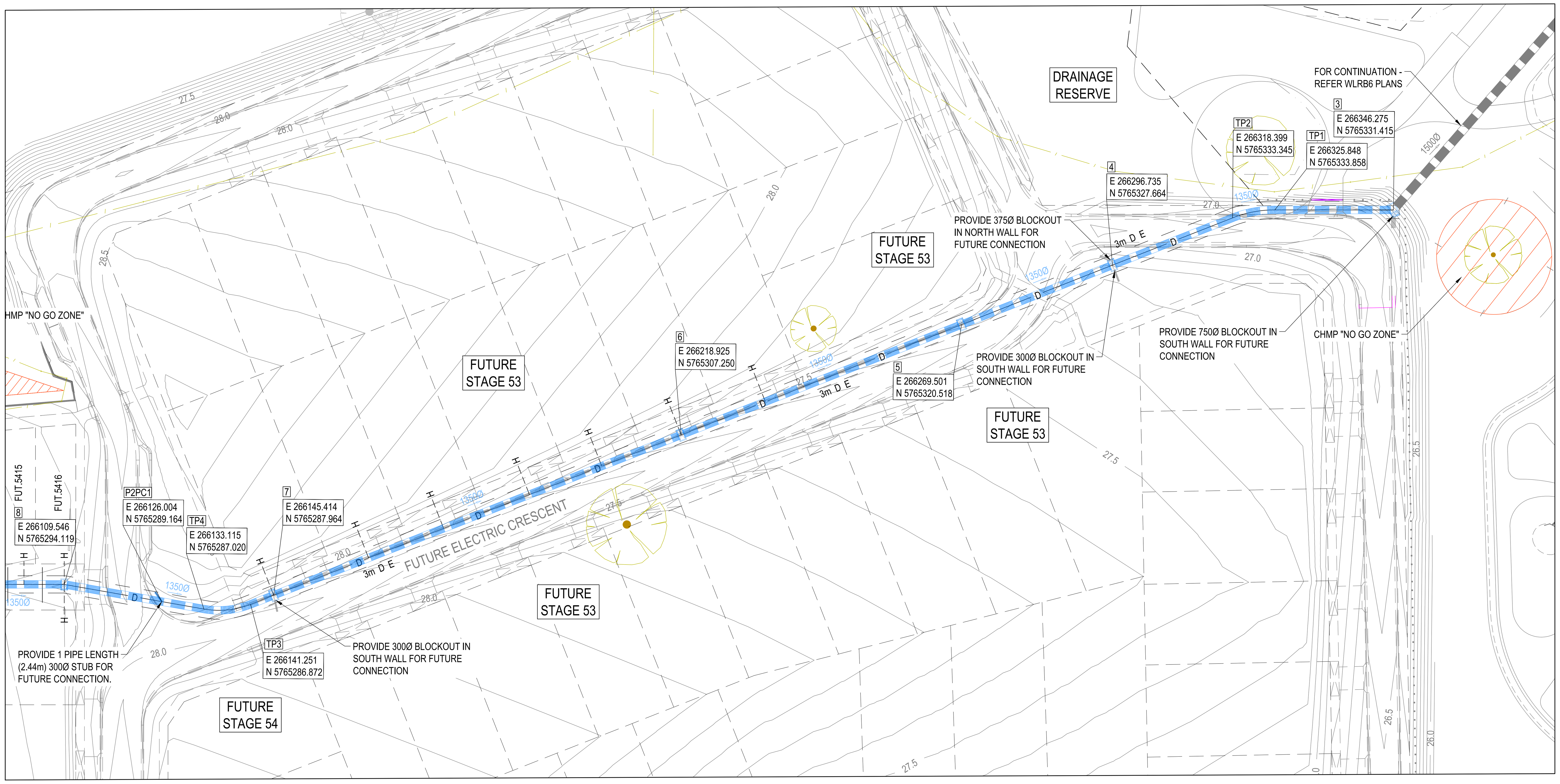

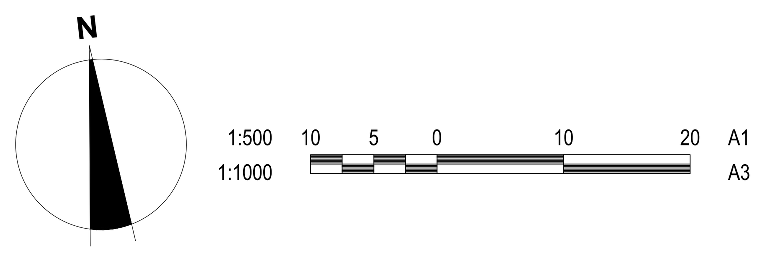

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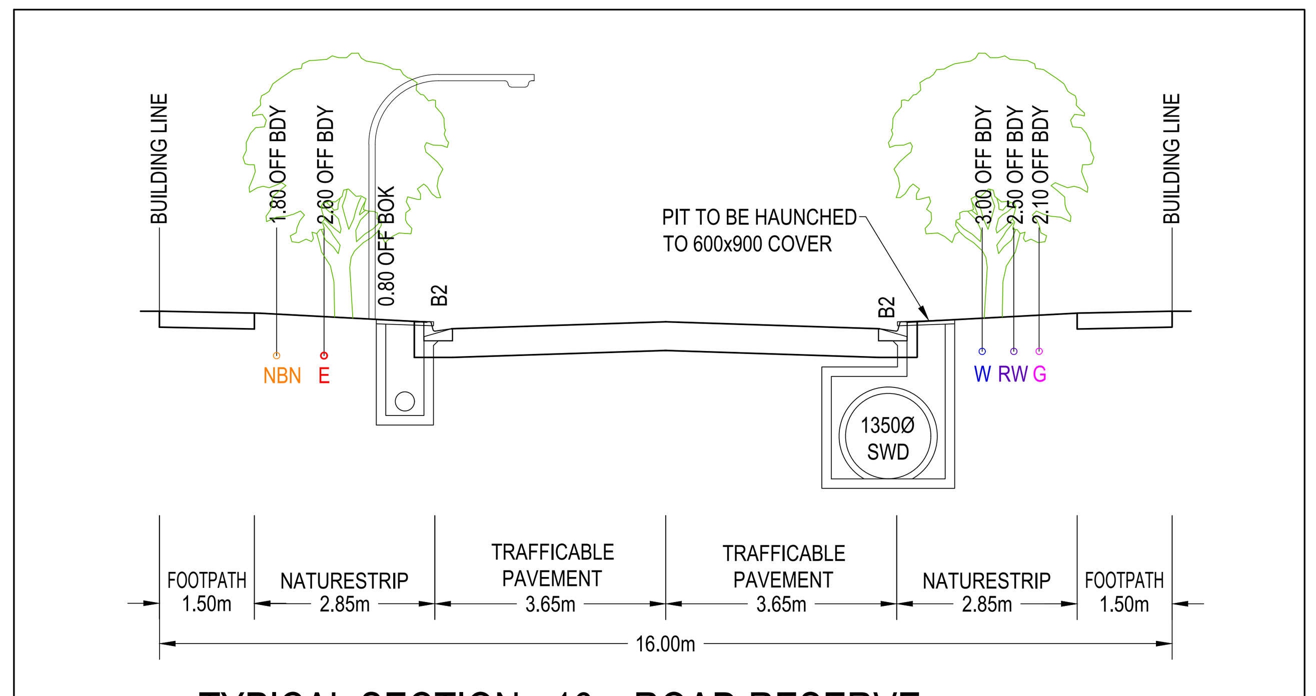


TYPICAL SECTION - 16m ROAD RESERVE

TWO WAY CROSSFALL

FUTURE ELECTRIC CRESCENT

CROSS FALLS
PAVEMENT: 3.33%
FOOTPATH: 2.0% - 2.5%
NATURE STRIP: 2.5% - 8%

LEGEND - LAYOUT PLAN

STORMWATER DRAIN, PIT & PROPERTY INLET	EXISTING STORMWATER DRAIN	DIRECTION OF FALL
SWALE DRAIN	Ex S — EXISTING SEWER	OVERLAND FLOW
S — SEWER & MAINTENANCE STRUCTURES	H — EXISTING HOUSE DRAIN	ALLOTMENT TO BE GRADED EVENLY IN DIRECTION OF FALL TO LEVELS INDICATED
H — HOUSE DRAIN	EXISTING SWALE DRAIN	CONCRETE EDGE STRIP WITH SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
GW — SERVICE CONDUITS	E141.34 EXISTING SURFACE LEVEL	LIMIT OF WORKS
TACTILE PAVERS	FS140.35 FINISHED BUILDING LINE LEVEL	EXISTING TREE TO BE REMOVED
Ex E — EXISTING ELECTRICITY (UNDERGROUND)	FR157.40 FINISHED RIDGE LINE LEVEL	PERMANENT SURVEY MARK
O/H E — EXISTING ELECTRICITY (OVERHEAD)	TW159.30 TOP OF RETAINING WALL	TEMPORARY BENCH MARK
Ex G — EXISTING GAS	BW159.30 BOTTOM OF RETAINING WALL	PROPOSED DRIVEWAY
Ex O — EXISTING OPTIC FIBRE	RETAINING WALL	BUILDING ENVELOPES
Ex T — EXISTING TELSTRA	PAVEMENT TREATMENT	
Ex W — EXISTING WATER	STRUCTURAL FILL > 200mm DEEP	
Ex RW — EXISTING RECYCLED WATER	EX. STRUCTURAL FILL > 200mm DEEP	

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
2	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
1	05/08/19	STUBS REPLACED WITH BLOCKOUTS & P2PC1 ADDED	M.T.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
D	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
C	15/03/19	ISSUED FOR TENDER	M.T.	M.T.	T.P.
B	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P
A	28/02/19	PRELIMINARY ISSUE TO CLIENT	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

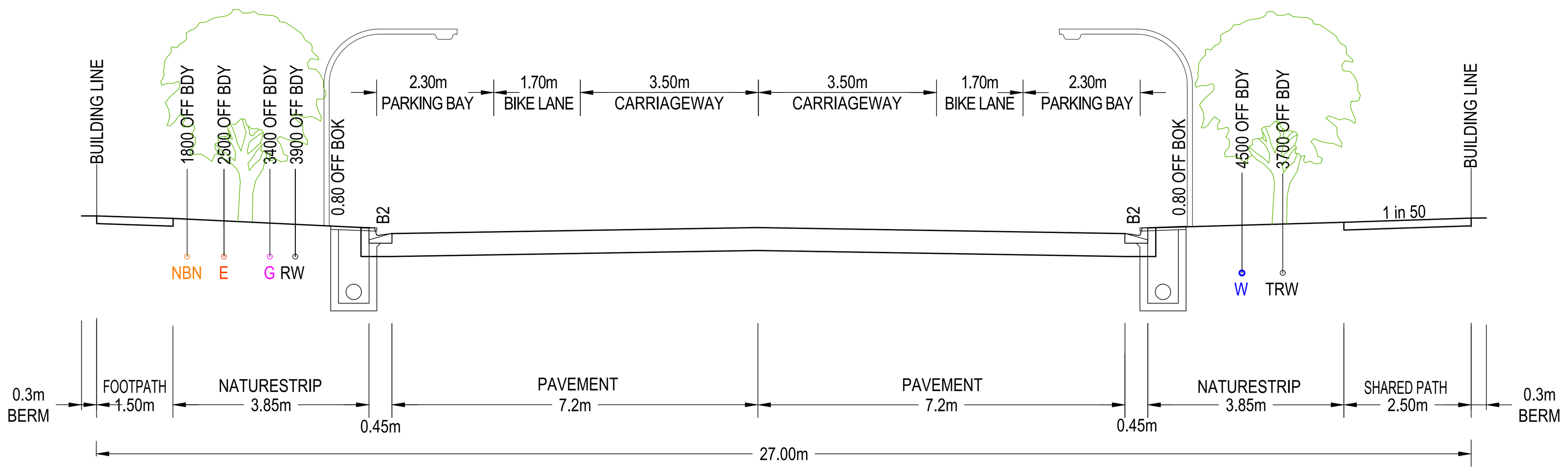
creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
LAYOUT PLAN - 2

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
1:500 @ A1	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R201	2

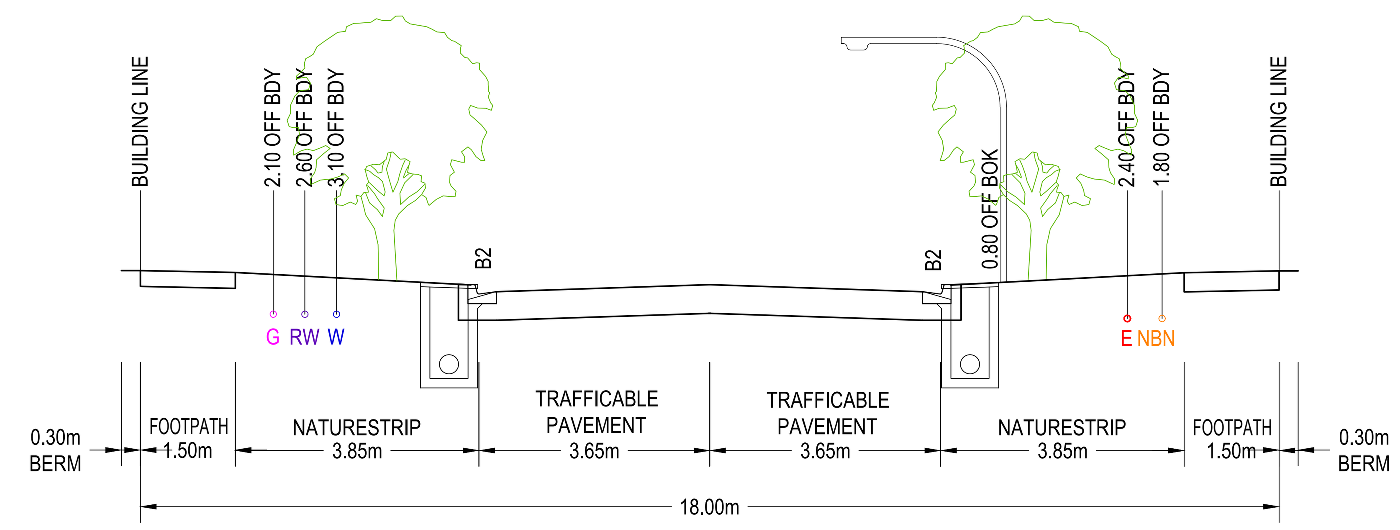


TYPICAL SECTION - 27m ROAD RESERVE

TWO WAY CROSSFALL

ODYSSEY DRIVE (NORTH OF ROUNDABOUT)

CROSS FALLS
PAVEMENT: 3.33%
FOOTPATH: 2.0% - 2.5%
NATURE STRIP: 2.5% - 8%

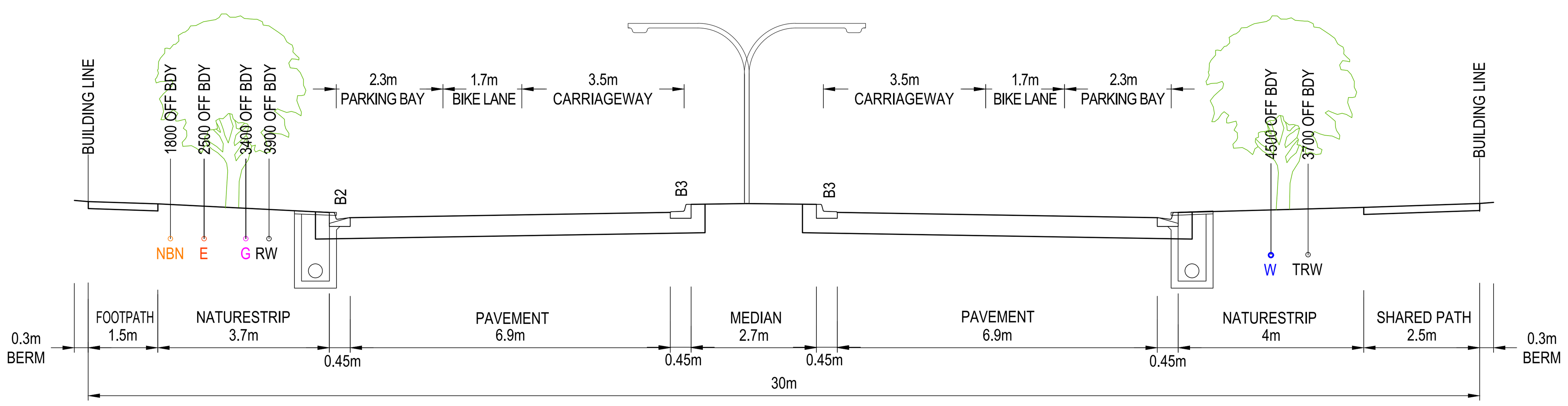


TYPICAL SECTION - 18m ROAD RESERVE

TWO WAY CROSSFALL

FREEDOM DRIVE

CROSS FALLS
PAVEMENT: 3.33%
FOOTPATH: 2.0% - 2.5%
NATURE STRIP: 2.5% - 8%

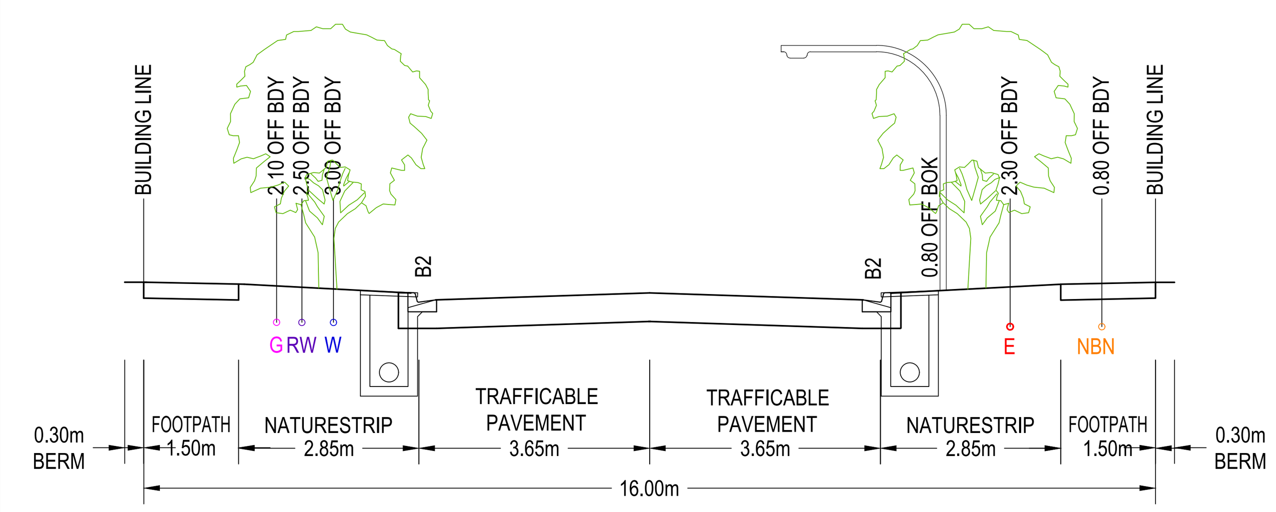


TYPICAL SECTION - 30m ROAD RESERVE

TWO WAY CROSSFALL

ODYSSEY DRIVE (SOUTH OF ROUNDABOUT)

CROSS FALLS
PAVEMENT: 3.33%
FOOTPATH: 2.0% - 2.5%
NATURE STRIP: 2.5% - 8%



TYPICAL SECTION - 16m ROAD RESERVE

TWO WAY CROSSFALL

BOTANY CIRCUIT

CROSS FALLS
PAVEMENT: 3.33%
FOOTPATH: 2.0% - 2.5%
NATURE STRIP: 2.5% - 8%

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C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
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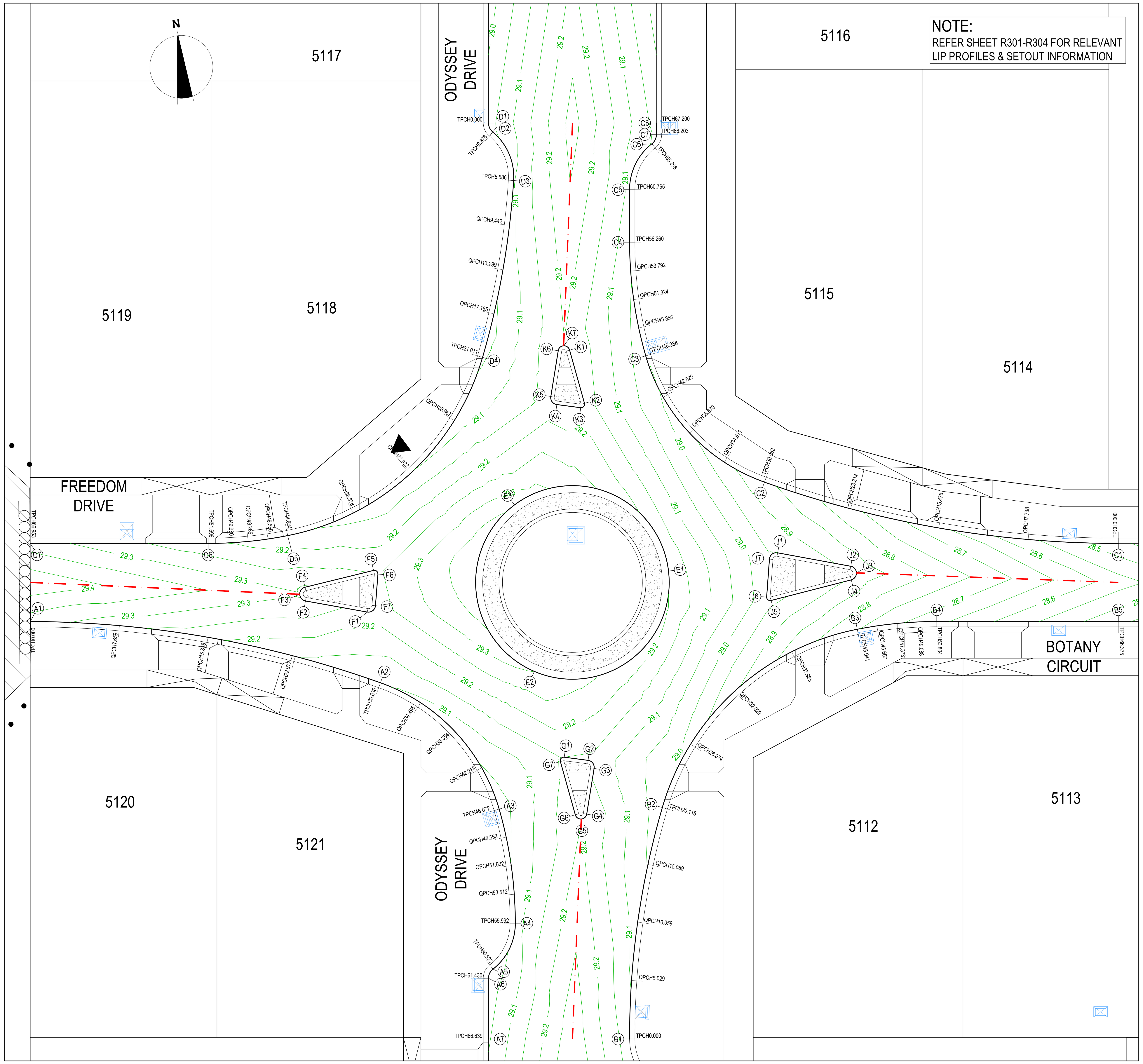
DRAWING TITLE
ARMSTRONG - STAGE 51
TYPICAL SECTIONS

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
NOT TO SCALE	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R202	1

FOR CONTINUATION - REFER BELOW LEFT...

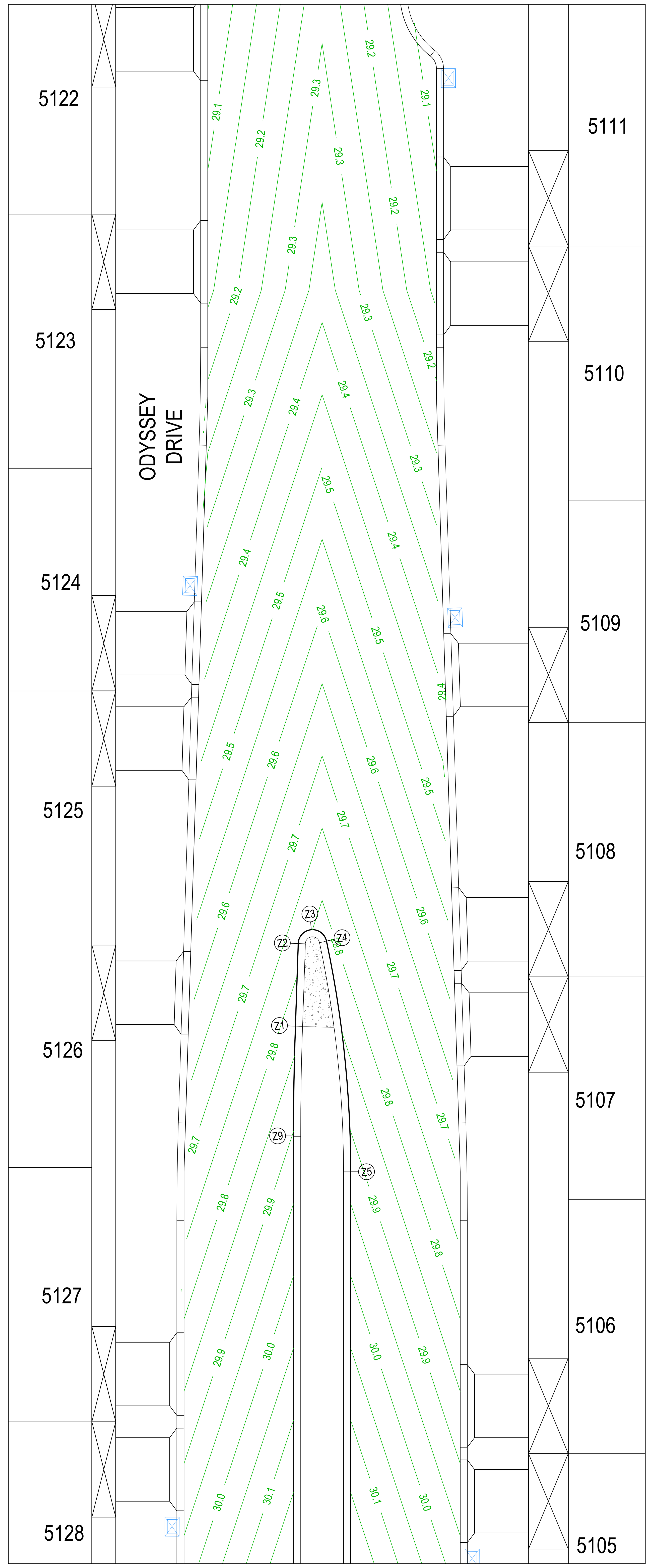


NOTE:
REFER SHEET R301-R304 FOR RELEVANT LIP PROFILES & SETOUT INFORMATION

FOR CONTINUATION - REFER ABOVE RIGHT...

1:200 2 0 2 4 6 8 10 A1
1:400 A3

NOTE:
REFER SHEET R800 FOR SIGNAGE & LINEMARKING PLAN



FOR CONTINUATION - REFER SHEET R301...

LEGEND - INTERSECTION DETAIL PLAN
- STORMWATER DRAIN, PIT & PROPERTY INLET
- SWALE DRAIN
- SEWER & MAINTENANCE STRUCTURES
- HOUSE DRAIN
- TACTILE PAVERS
- EXISTING HOUSE DRAIN
- RETAINING WALL
- PAVEMENT TREATMENT
- 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
- CROWN LINE

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 5 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

WARNING
BEWARE OF UNDERGROUND & OVERHEAD SERVICES
The locations of underground & overhead services are approximate only & 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

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

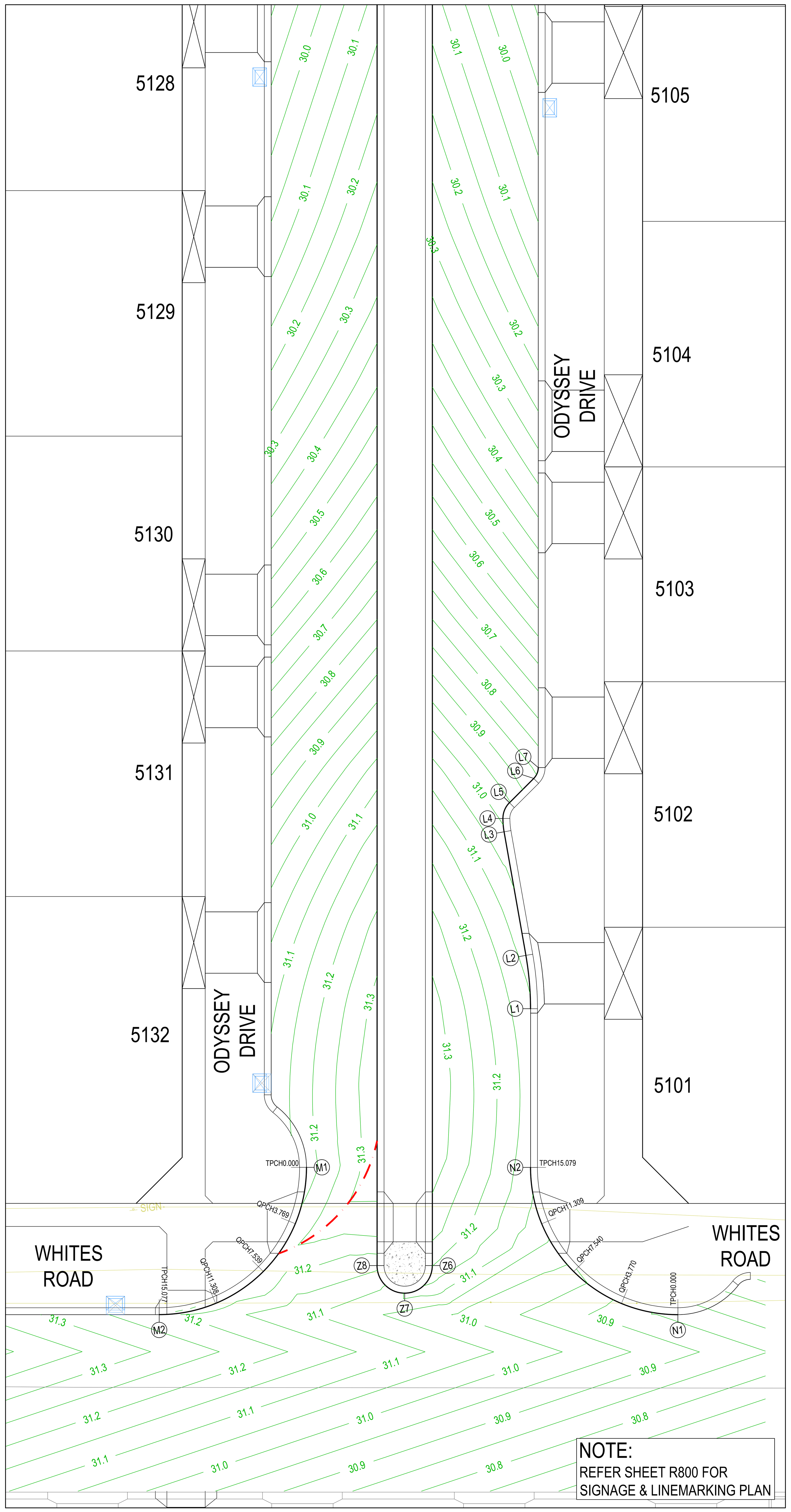
creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
INTERSECTION DETAIL PLAN - 1

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R300	1



1:200 2 0 2 4 6 8 10 A1
1:400 A3

LEGEND - INTERSECTION DETAIL PLAN

- STORMWATER DRAIN, PIT & PROPERTY INLET
- SWALE DRAIN
- SEWER & MAINTENANCE STRUCTURES
- HOUSE DRAIN
- TACTILE PAVERS
- EXISTING HOUSE DRAIN
- RETAINING WALL
- PAVEMENT TREATMENT
- 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
- CROWN LINE

NOTE:
REFER SHEET R302-R304 FOR RELEVANT LIP PROFILES & SETOUT INFORMATION

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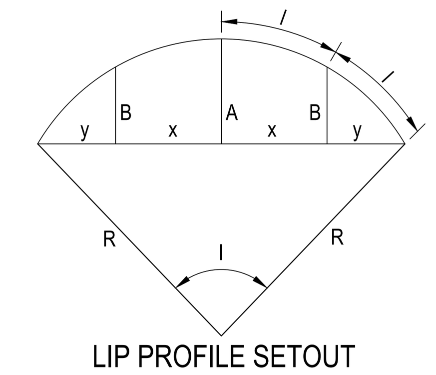
1:200 2 0 2 4 6 8 10 A1
1:400 A3
HORIZONTAL

1:20 0.2 0 0.2 0.4 0.6 0.8 1 A1
1:40 A3
VERTICAL

LEGEND - LIP PROFILES

- EXISTING SURFACE
- DESIGN LINE



LIP PROFILE SETOUT

SETOUT INFORMATION - LIP LINE A

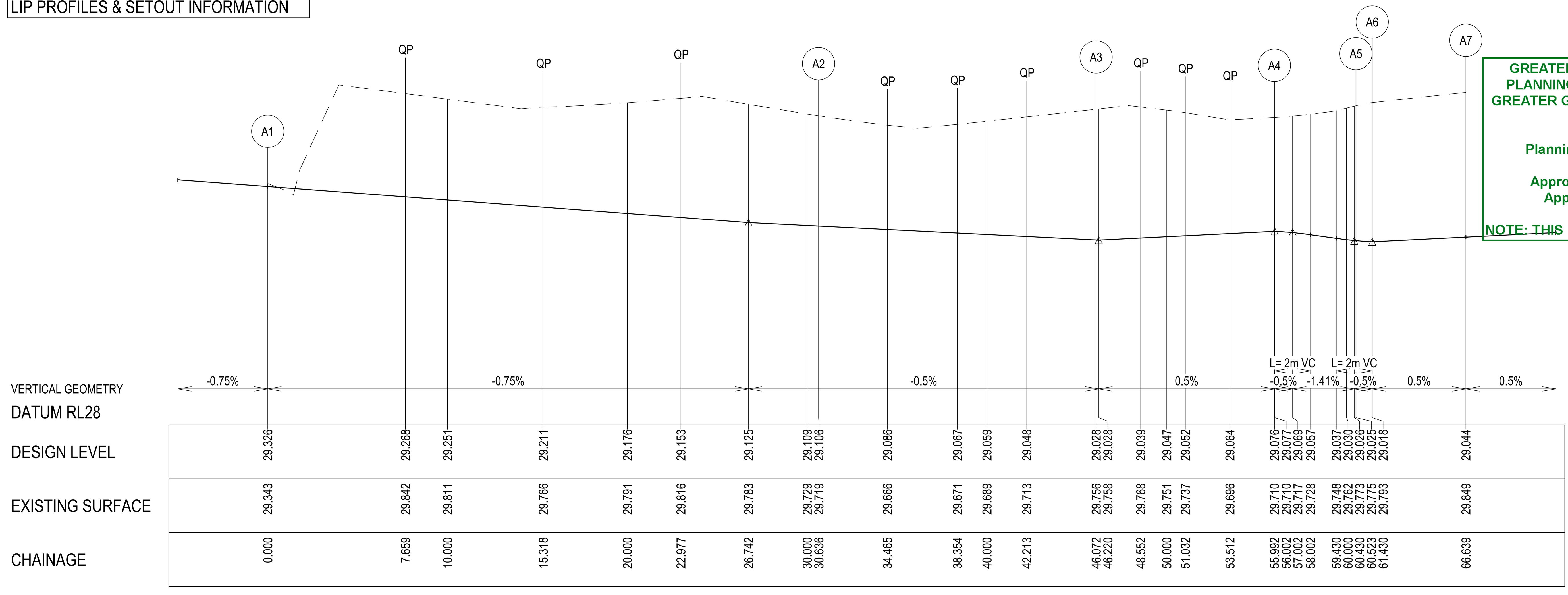
PT NO	EASTING	NORTHING	RL
A1	265976.641	5765196.896	29.326
A2	266005.844	5765188.135	29.106
A3	266014.677	5765176.177	29.028
A4	266014.896	5765166.292	29.076
A5	266012.528	5765162.61	29.025
A6	266012.054	5765161.873	29.018
A7	266011.439	5765156.7	29.044

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
A1 - A2	19.438	90.3	30.636	1.296	0.971	7.65	7.595	7.659	29.211
A2 - A3	54.259	16.3	15.436	1.793	1.339	3.823	3.61	3.859	29.067
A3 - A4	16.101	35.3	9.92	0.348	0.261	2.478	2.466	2.48	29.052
A4 - A5	51.927	5	4.531	0.505	0.377	1.123	1.066	1.133	29.054
A5 - A6	51.927	1	0.906	0.101	0.075	0.225	0.213	0.227	29.021

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 6 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

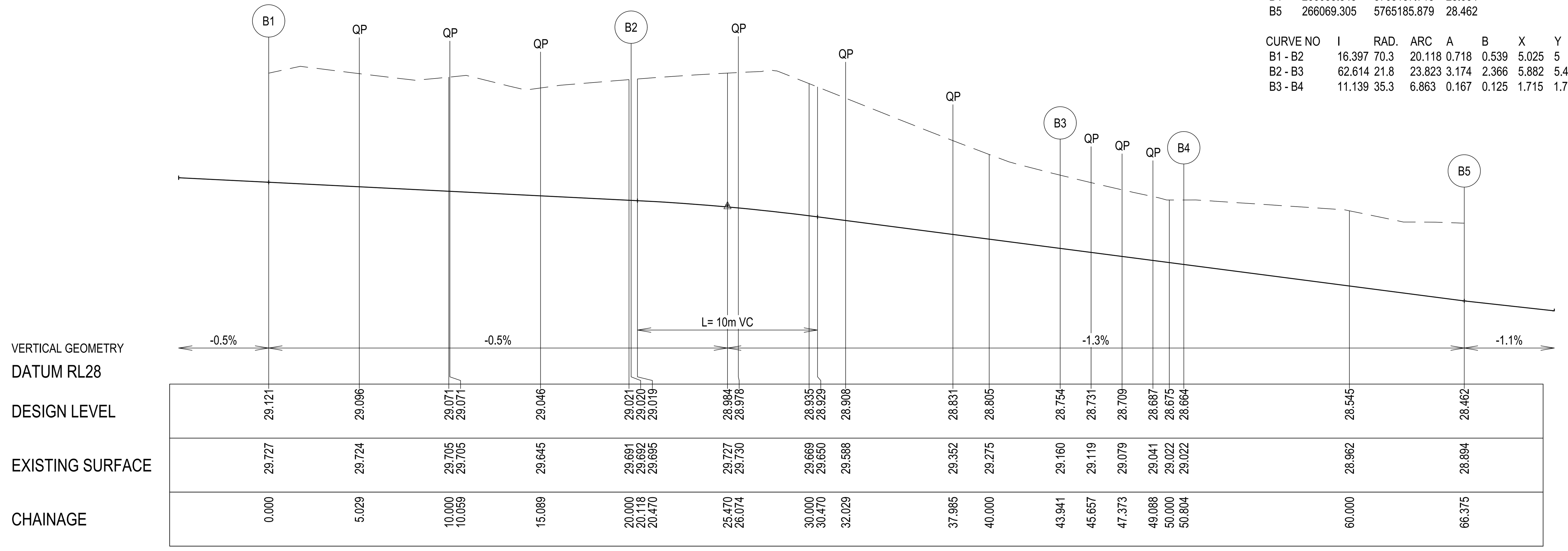


LIP LINE A

SETOUT INFORMATION - LIP LINE B

PT NO	EASTING	NORTHING	RL
B1	266023.455	5765155.272	29.121
B2	266028.587	5765174.653	29.02
B3	266046.993	5765187.862	28.754
B4	266053.843	5765187.718	28.664
B5	266069.305	5765185.879	28.462

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
B1 - B2	16.397	70.3	20.118	0.718	0.539	5.025	5	5.03	29.071
B2 - B3	62.614	21.8	23.823	3.174	2.366	5.882	5.446	5.956	28.908
B3 - B4	11.139	35.3	6.863	0.167	0.125	1.715	1.711	1.716	28.709



LIP LINE B

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
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A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
INTERSECTION DETAIL PLAN - 2

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R301	1

LEGEND - LIP PROFILES

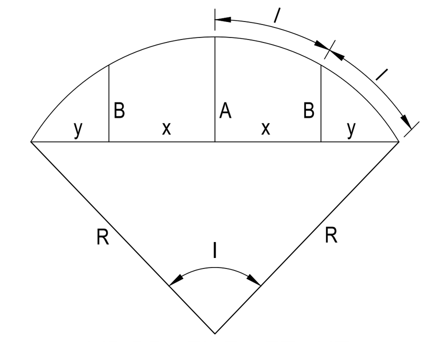
EXISTING SURFACE

DESIGN LINE

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 7 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

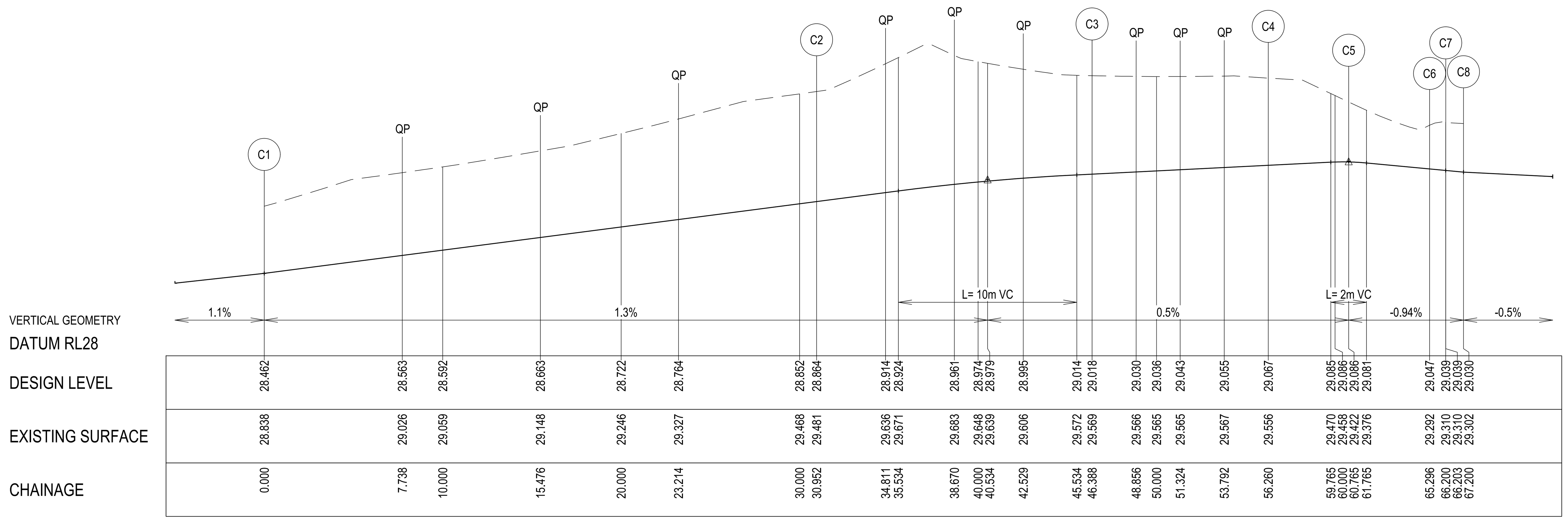
NOTE: THIS IS NOT A BUILDING APPROVAL



LIP PROFILE SETOUT

1:200 2 0 2 4 6 8 10 A1
1:400 HORIZONTAL A3

1:20 0.2 0 0.2 0.4 0.6 0.8 1 A1
1:40 VERTICAL A3



LIP LINE C

SETOUT INFORMATION - LIP LINE C

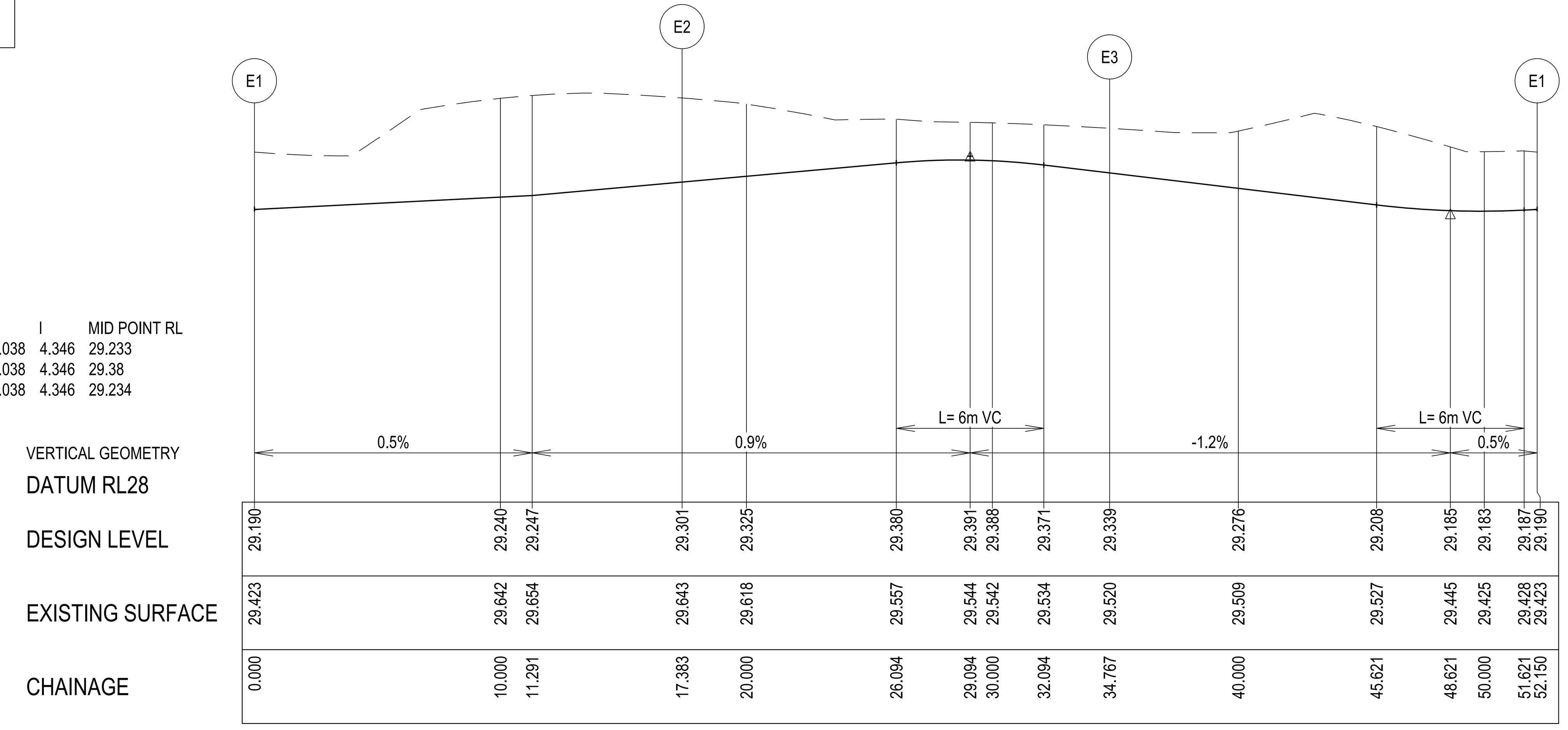
PT NO	EASTING	NORTHING	RL
C1	266070.096	5765192.532	28.462
C2	266040.579	5765201.332	28.864
C3	266031.747	5765213.289	29.018
C4	266031.522	5765223.127	29.067
C5	266032.054	5765227.6	29.086
C6	266034.422	5765231.282	29.047
C7	266034.896	5765232.019	29.039
C8	266035.014	5765233.009	29.03

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
C1 - C2	19.639	90.3	30.952	1.323	0.992	7.728	7.672	7.738	28.663
C2 - C3	54.259	16.3	15.436	1.793	1.339	3.823	3.61	3.859	28.961
C3 - C4	16.023	35.3	9.872	0.345	0.258	2.466	2.454	2.468	29.043
C5 - C6	51.927	5	4.531	0.505	0.377	1.123	1.066	1.133	29.069
C6 - C7	51.927	1	0.906	0.101	0.075	0.225	0.213	0.227	29.043

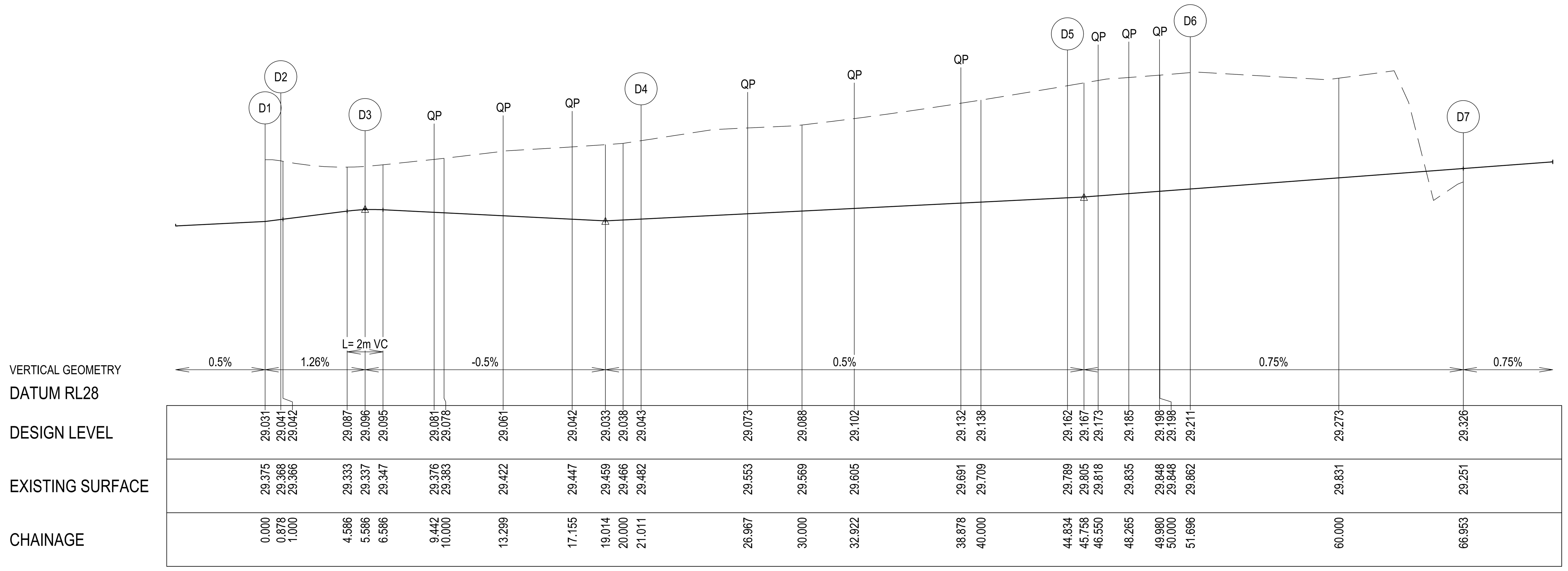
SETOUT INFORMATION - LIP LINE E

PT NO	EASTING	NORTHING	RL
E1	266031.512	5765194.733	29.19
E2	266019.062	5765187.545	29.301
E3	266019.062	5765201.921	29.339

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
E1 - E2	120	8.3	17.383	4.15	3.038	4.15	3.038	4.346	29.233
E2 - E3	120	8.3	17.383	4.15	3.038	4.15	3.038	4.346	29.38
E3 - E1	120	8.3	17.383	4.15	3.038	4.15	3.038	4.346	29.234



LIP LINE E



LIP LINE D

SETOUT INFORMATION - LIP LINE D

PT NO	EASTING	NORTHING	RL
D1	266020.714	5765234.709	29.031
D2	266020.982	5765233.903	29.041
D3	266022.272	5765229.554	29.096
D4	266017.837	5765214.813	29.043
D5	265999.431	5765201.604	29.162
D6	265992.58	5765201.749	29.211
D7	265977.43	5765203.55	29.326

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
D1 - D2	50.277	1	0.878	0.095	0.071	0.218	0.207	0.219	29.036
D2 - D3	53.954	5	4.708	0.544	0.406	1.166	1.102	1.177	29.07
D3 - D4	12.571	70.3	15.425	0.423	0.317	3.854	3.843	3.856	29.061
D4 - D5	62.613	21.8	23.823	3.174	2.366	5.882	5.446	5.956	29.102
D5 - D6	11.139	35.3	6.863	0.167	0.125	1.715	1.711	1.716	29.185

WARNING

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CLIENT
villawood properties
Communities Designed for Living

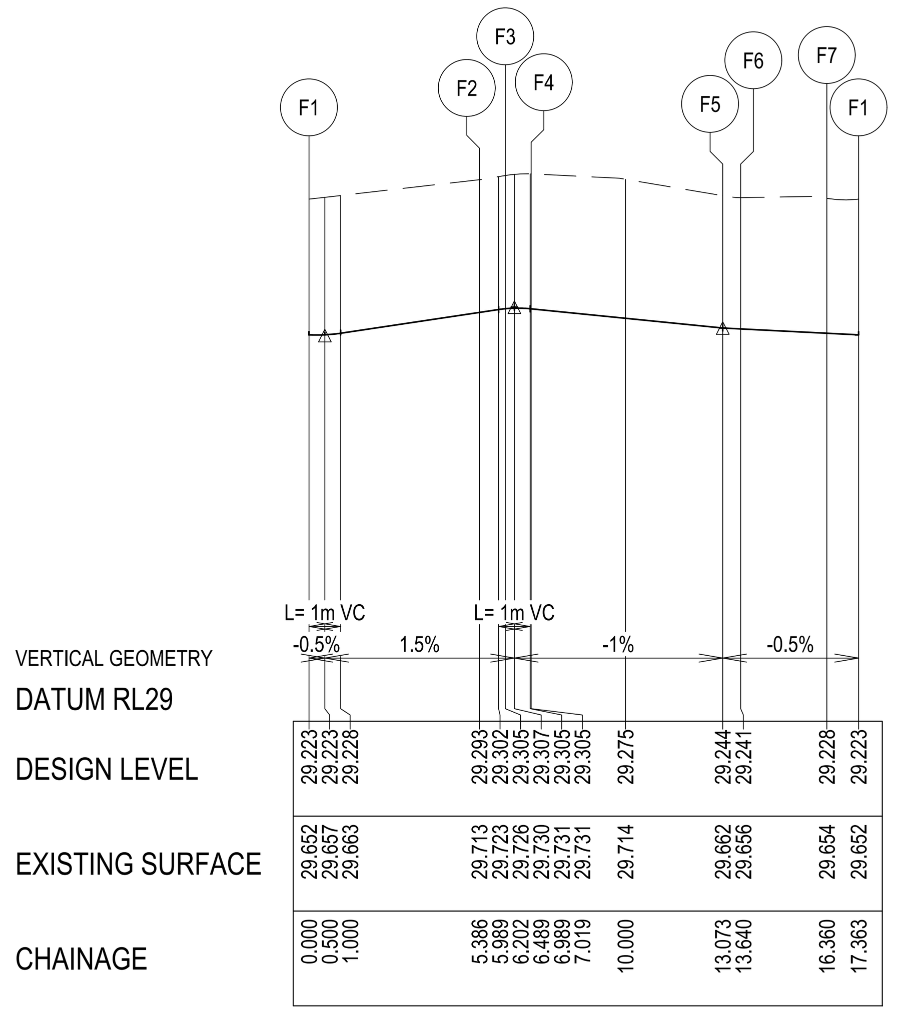
creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

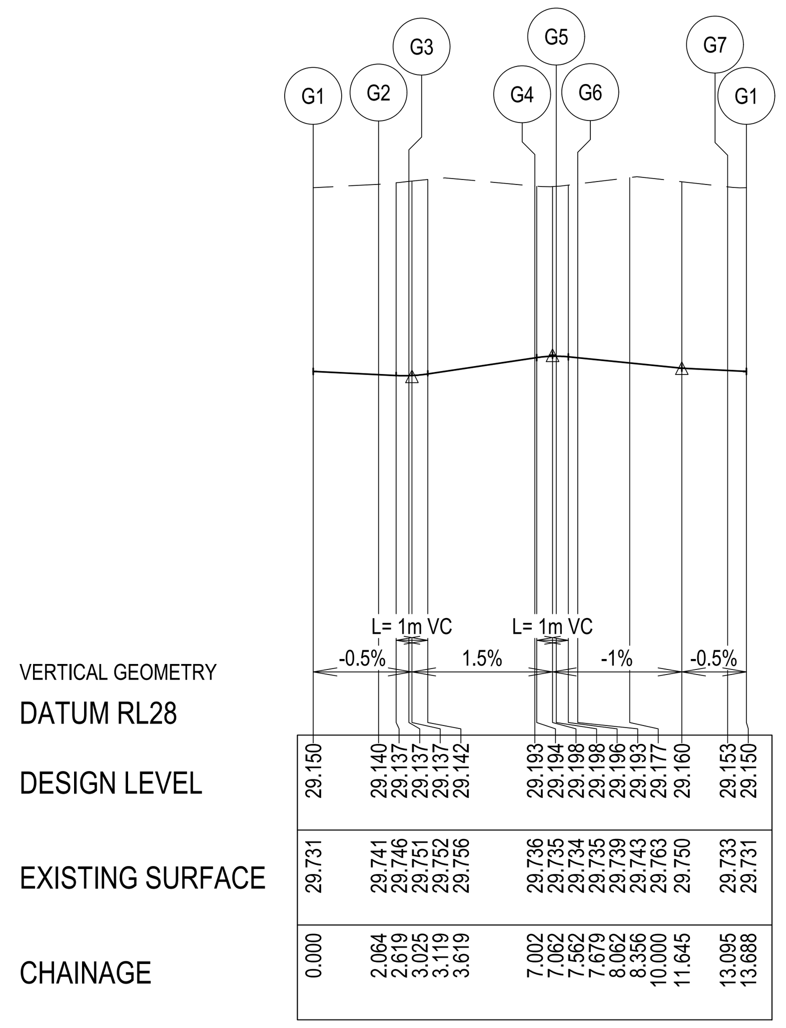
DRAWING TITLE
ARMSTRONG - STAGE 51
INTERSECTION DETAIL PLAN - 3

STATUS
ISSUED FOR CONSTRUCTION

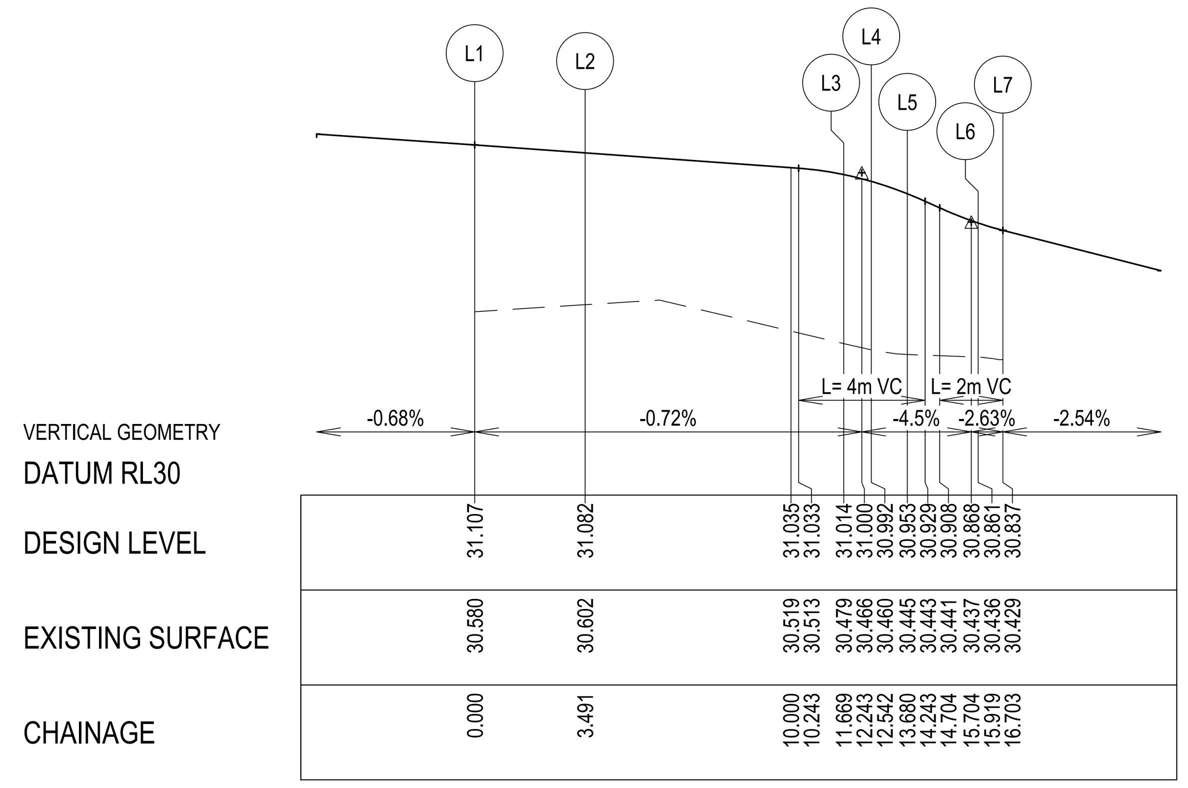
SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R302	1



LIP LINE F



LIP LINE G



LIP LINE L

SETOUT INFORMATION - LIP LINE F

PT NO	EASTING	NORTHING	RL
F1	266005.437	5765194.289	29.223
F2	266000.286	5765195.862	29.293
F3	265999.864	5765196.488	29.305
F4	266000.388	5765197.031	29.305
F5	266006.397	5765197.77	29.244
F6	266006.728	5765197.414	29.241
F7	266006.201	5765194.746	29.228

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL	
F2 - F3	78.002	0.6	0.817	0.134	0.099	0.2	0.177	0.204	29.299	
F3 - F4	78.002	0.6	0.817	0.134	0.099	0.2	0.177	0.204	29.307	
F5 - F6	108.192		0.3	0.566	0.124	0.091	0.136	0.107	0.142	29.243
F7 - F1	95.803	0.6	1.003	0.198	0.146	0.244	0.202	0.251	29.225	

SETOUT INFORMATION - LIP LINE G

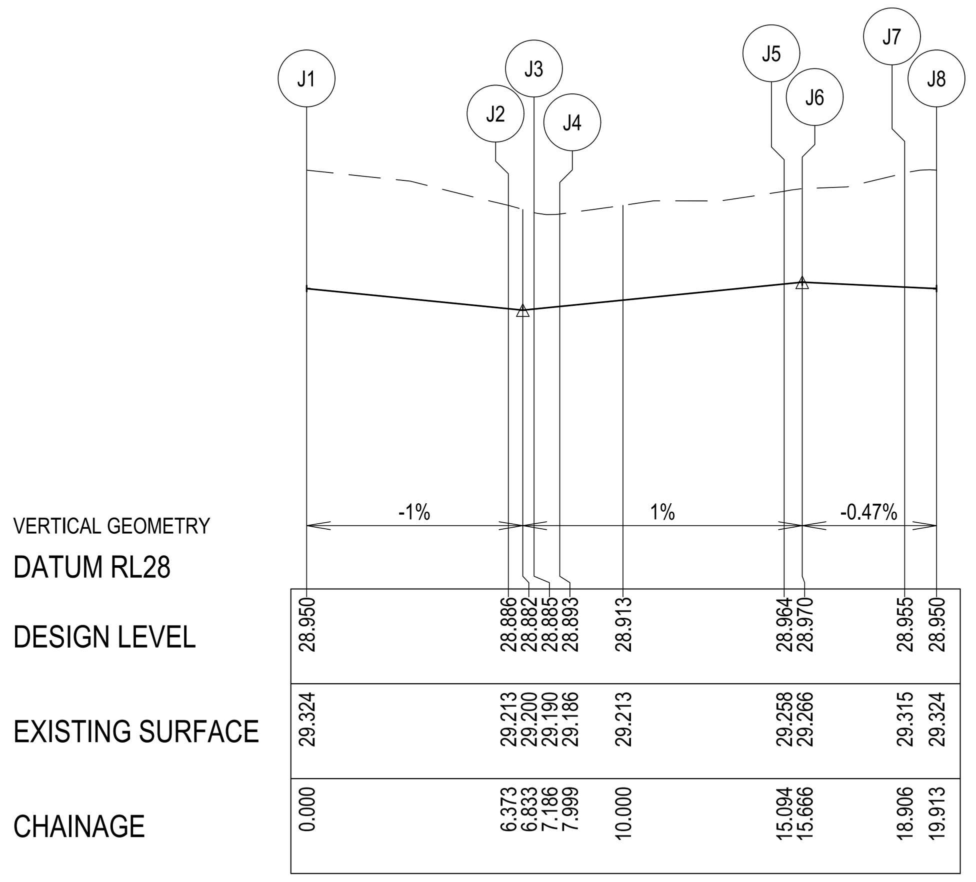
PT NO	EASTING	NORTHING	RL
G1	266020.742	5765179.936	29.15
G2	266022.743	5765179.427	29.14
G3	266023.172	5765178.68	29.137
G4	266022.079	5765174.856	29.193
G5	266021.567	5765174.494	29.198
G6	266021.104	5765174.916	29.193
G7	266020.372	5765179.599	29.153

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL	
G2 - G3	91.681	0.6	0.96	0.182	0.135	0.234	0.197	0.24	29.137	
G4 - G5	77.58	0.5	0.677	0.11	0.082	0.166	0.147	0.169	29.197	
G5 - G6	77.58	0.5	0.677	0.11	0.082	0.166	0.147	0.169	29.196	
G7 - G1	113.159		0.3	0.593	0.135	0.099	0.142	0.108	0.148	29.151

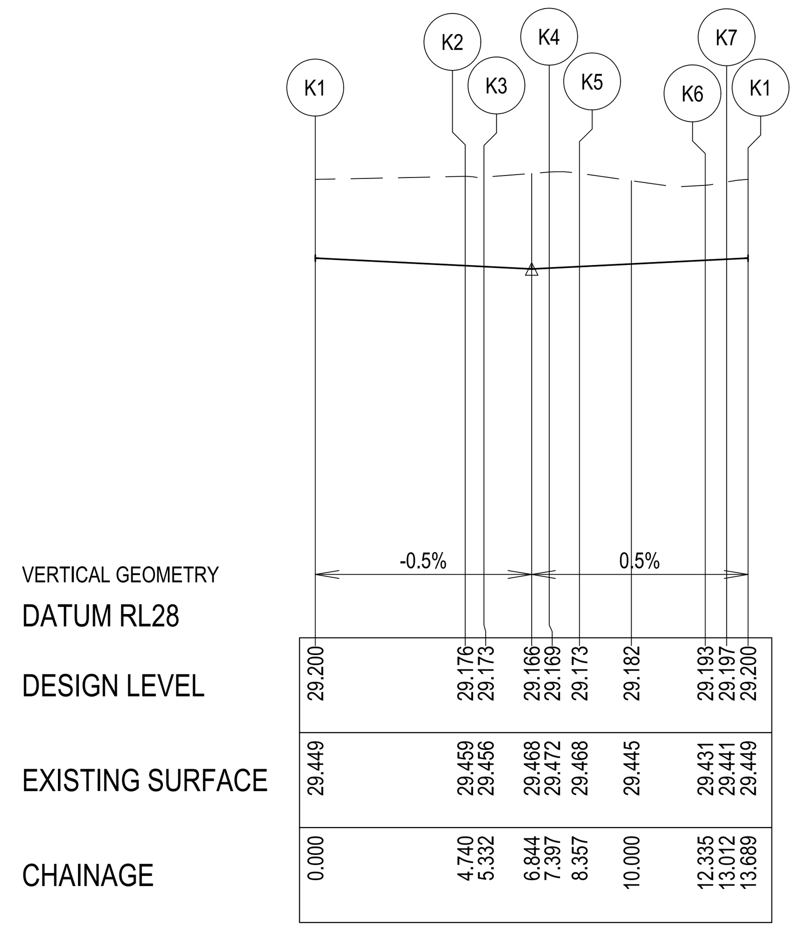
SETOUT INFORMATION - LIP LINE L

PT NO	EASTING	NORTHING	RL
L1	266008.174	5764998.801	31.107
L2	266008.282	5765002.286	31.082
L3	266007.823	5765010.452	31.014
L4	266007.85	5765011.323	30.992
L5	266008.392	5765012.29	30.953
L6	266010.151	5765013.675	30.861
L7	266010.525	5765014.342	30.837

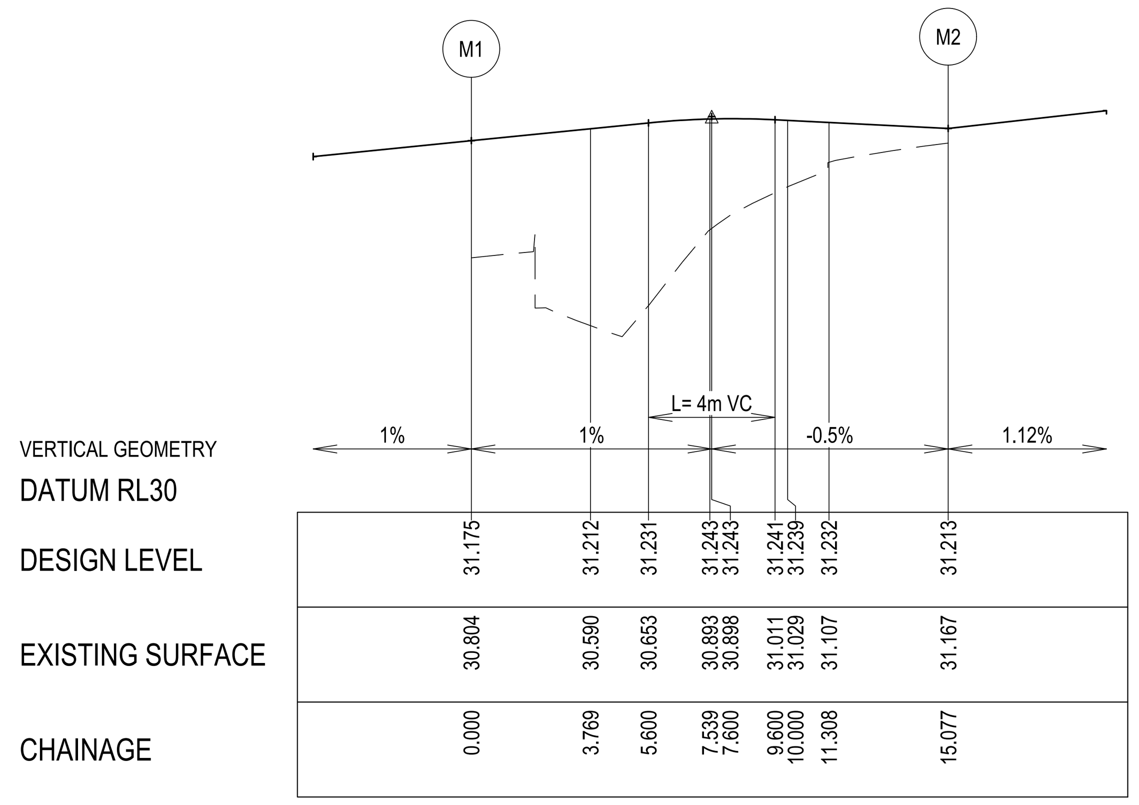
CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
L1 - L2	10	20	3.491	0.076	0.057	0.872	0.871	0.873	31.095
L3 - L4	10	5	0.873	0.019	0.014	0.218	0.218	0.218	31.004
L4 - L5	45	1.5	1.137	0.11	0.082	0.282	0.272	0.284	30.974
L6 - L7	45	1	0.784	0.076	0.057	0.195	0.187	0.196	30.848



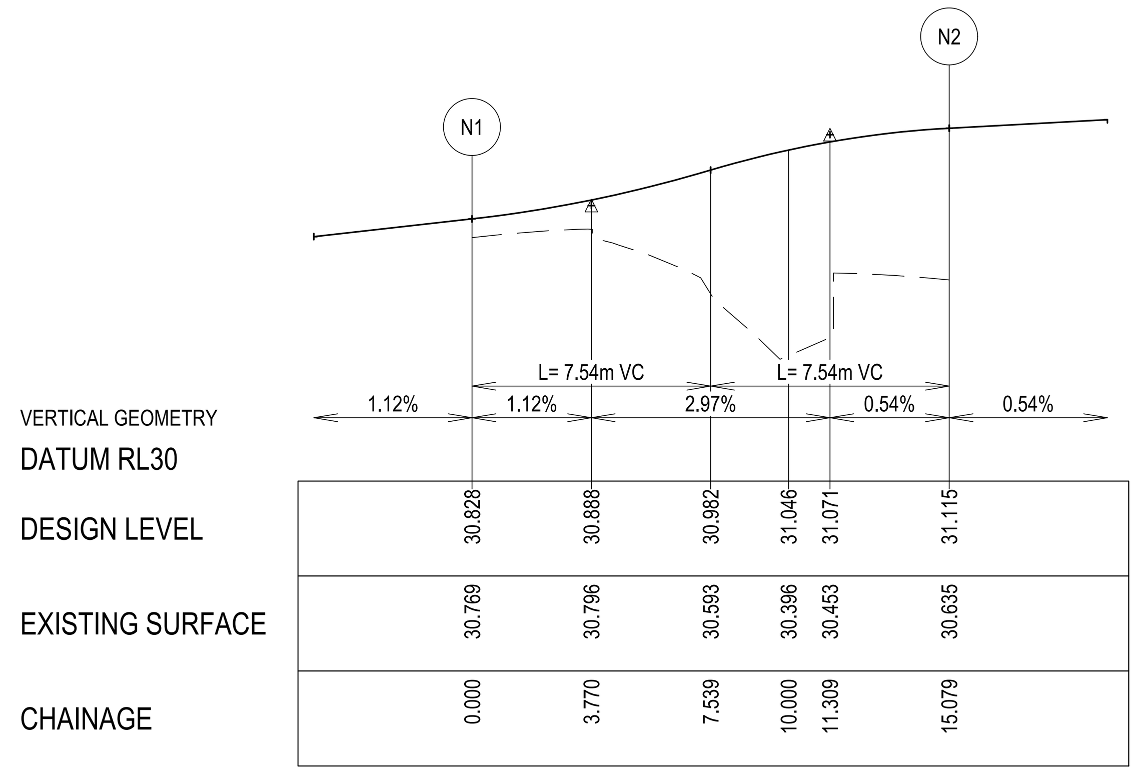
LIP LINE J



LIP LINE K



LIP LINE M



LIP LINE N

SETOUT INFORMATION - LIP LINE J

PT NO	EASTING	NORTHING	RL
J1	266040.988	5765195.177	28.95
J2	266047.078	5765193.296	28.886
J3	266047.499	5765192.672	28.885
J4	266046.98	5765192.128	28.893
J5	266039.948	5765191.185	28.964
J6	266039.603	5765191.538	28.97
J7	266040.222	5765194.718	28.955

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL	
J2 - J3	77.598	0.6	0.813	0.132	0.098	0.199	0.177	0.203	28.882	
J3 - J4	77.598	0.6	0.813	0.132	0.098	0.199	0.177	0.203	28.889	
J5 - J6	106.628		0.308	0.573	0.124	0.091	0.138	0.109	0.143	28.967
J7 - J1	96.153	0.6	1.007	0.199	0.147	0.244	0.202	0.252	28.952	

SETOUT INFORMATION - LIP LINE K

PT NO	EASTING	NORTHING	RL
K1	266025.32	5765214.55	29.2
K2	266026.052	5765209.867	29.176
K3	266025.681	5765209.53	29.173
K4	266023.68	5765210.04	29.169
K5	266023.252	5765210.786	29.173
K6	266024.345	5765214.61	29.193
K7	266024.857	5765214.972	29.197

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL	
K2 - K3	113.035		0.301	0.593	0.135	0.099	0.142	0.108	0.148	29.175
K4 - K5	91.653	0.6	0.96	0.182	0.135	0.234	0.197	0.24	29.171	
K6 - K7	77.58	0.5	0.677	0.11	0.082	0.166	0.147	0.169	29.195	
K7 - K1	77.58	0.5	0.677	0.11	0.082	0.166	0.147	0.169	29.198	

SETOUT INFORMATION - LIP LINE M

PT NO	EASTING	NORTHING	RL
M1	265992.455	5764990.258	31.175
M2	265981.791	5764981.858	31.213

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
M1 - M2	89.984	9.6	15.077	2.811	2.08	3.673	3.114	3.769	31.243

SETOUT INFORMATION - LIP LINE N

PT NO	EASTING	NORTHING	RL
N1	266015.351	5764977.867	30.828
N2	266006.953	5764988.533	31.115

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
N1 - N2	89.994	9.6	15.079	2.811	2.081	3.674	3.114	3.77	30.982

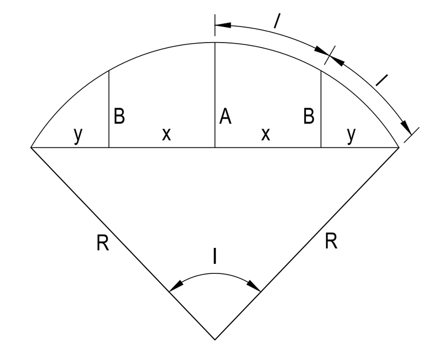
GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 8 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

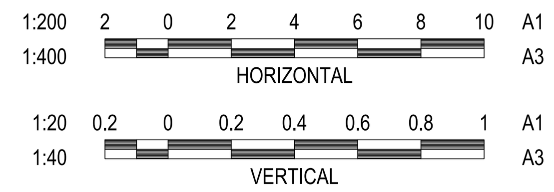
NOTE: THIS IS NOT A BUILDING APPROVAL

LEGEND - LIP PROFILES

EXISTING SURFACE
DESIGN LINE



LIP PROFILE SETOUT



WARNING

BEWARE OF UNDERGROUND & OVERHEAD SERVICES

The locations of underground & overhead services are approximate only & 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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REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT

villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT

ARMSTRONG MT DUNEED

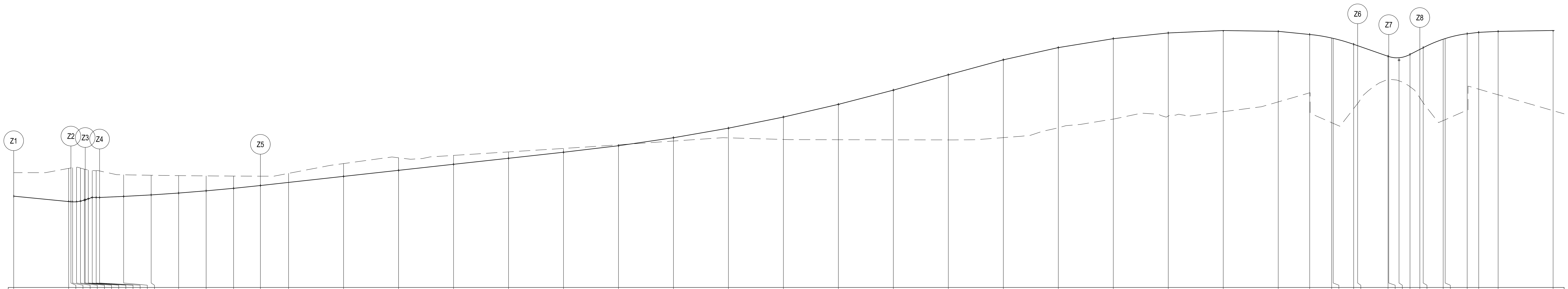
DRAWING TITLE

ARMSTRONG - STAGE 51
INTERSECTION DETAIL PLAN - 4

STATUS

ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R303	1



DATUM RL29

CHAINAGE	DESIGN LEVEL	EXISTING SURFACE
0.000	29.831	30.045
5.000	29.782	30.084
5.204	29.780	30.088
5.357	29.779	30.091
5.714	29.780	30.094
6.071	29.786	30.087
6.429	29.795	30.077
6.508	29.798	30.075
6.786	29.807	30.069
7.143	29.819	30.064
7.500	29.820	30.063
7.812	29.819	30.061
10.000	29.829	30.025
12.500	29.842	30.021
15.000	29.859	30.018
17.500	29.879	30.016
20.000	29.903	30.014
22.437	29.928	30.013
25.000	29.956	30.039
30.000	30.011	30.128
35.000	30.066	30.180
40.000	30.121	30.202
45.000	30.176	30.234
50.000	30.231	30.266
55.000	30.290	30.299
60.000	30.363	30.333
65.000	30.450	30.362
70.000	30.552	30.347
75.000	30.667	30.345
80.000	30.797	30.344
85.000	30.936	30.343
90.000	31.073	30.364
95.000	31.184	30.454
100.000	31.265	30.533
105.000	31.317	30.560
110.000	31.339	30.600
115.000	31.332	30.689
117.861	31.303	30.772
119.861	31.271	30.500
120.000	31.268	30.494
121.861	31.214	30.628
122.223	31.201	30.675
124.986	31.105	30.891
125.050	31.103	30.892
125.986	31.092	30.883
126.986	31.121	30.829
127.877	31.167	30.727
128.182	31.183	30.681
130.000	31.260	30.519
130.182	31.266	30.527
132.182	31.310	30.613
133.234	31.323	30.805
135.000	31.332	30.754
140.000	31.340	30.609

LIP LINE Z

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 9 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

SETOUT INFORMATION - LIP LINE Z

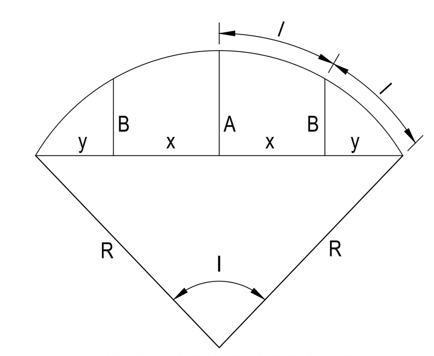
PT NO	EASTING	NORTHING	RL
Z1	266009.248	5765091.531	29.831
Z2	266010.04	5765096.675	29.78
Z3	266010.958	5765097.437	29.798
Z4	266011.826	5765096.619	29.819
Z5	266011.623	5765082.022	29.928
Z6	265999.841	5764982.934	31.201
Z7	265997.842	5764981.36	31.103
Z8	265996.267	5764983.359	31.167
Z9	266008.314	5765084.685	29.903

CURVE NO	I	RAD.	ARC	A	B	X	Y	l	MID POINT RL
Z2 - Z3	83.027	0.9	1.304	0.226	0.168	0.319	0.278	0.326	29.782
Z3 - Z4	83.027	0.9	1.304	0.226	0.168	0.319	0.278	0.326	29.819
Z4 - Z5	11.971	70	14.625	0.382	0.286	3.655	3.645	3.656	29.86
Z6 - Z7	90	1.8	2.827	0.527	0.39	0.689	0.584	0.707	31.152
Z7 - Z8	90	1.8	2.827	0.527	0.39	0.689	0.584	0.707	31.1
Z9 - Z1	1.977	200.3	6.91	0.03	0.022	1.727	1.727	1.727	29.867

LEGEND - LIP PROFILES

EXISTING SURFACE

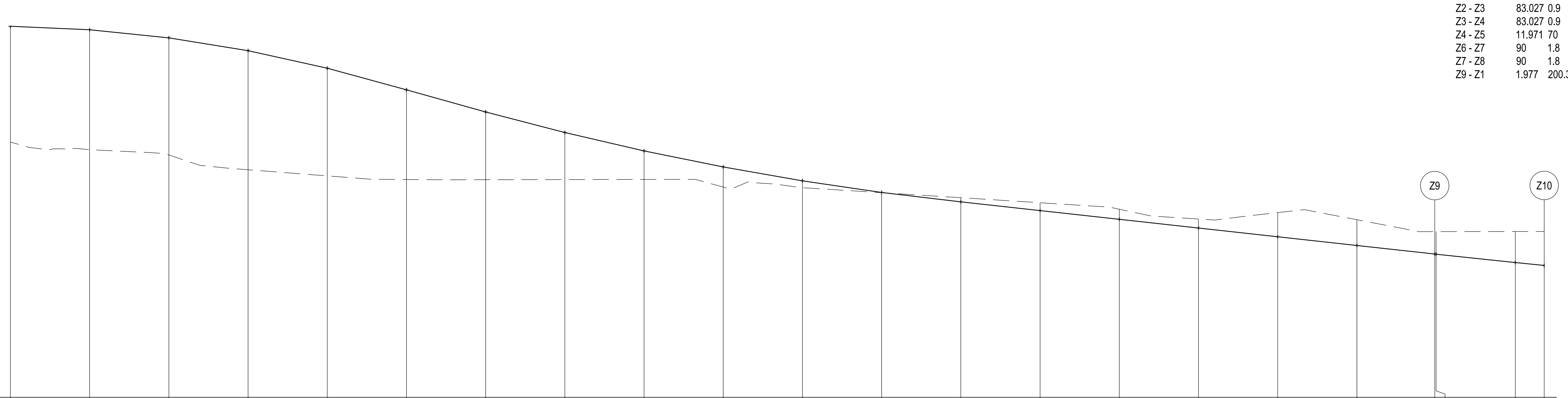
DESIGN LINE



LIP PROFILE SETOUT

1:200 2 0 2 4 6 8 10 A1
1:400 A3
HORIZONTAL

1:20 0.2 0 0.2 0.4 0.6 0.8 1 A1
1:40 A3
VERTICAL



DATUM RL29

CHAINAGE	DESIGN LEVEL	EXISTING SURFACE
140.000	31.340	30.609
145.000	31.318	30.562
150.000	31.267	30.528
155.000	31.186	30.435
160.000	31.075	30.396
165.000	30.939	30.373
170.000	30.799	30.372
175.000	30.669	30.373
180.000	30.554	30.374
185.000	30.452	30.326
190.000	30.365	30.322
195.000	30.292	30.290
200.000	30.232	30.258
205.000	30.177	30.227
210.000	30.122	30.186
215.000	30.067	30.124
220.000	30.012	30.164
225.000	29.957	30.120
229.917	29.903	30.045
230.000	29.902	30.045
235.000	29.849	30.045
236.826	29.831	30.045

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DIAL 1100 BEFORE YOU DIG
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CLIENT

villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT

ARMSTRONG MT DUNEED

DRAWING TITLE

ARMSTRONG - STAGE 51
INTERSECTION DETAIL PLAN - 5

STATUS

ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R304	1

LEGEND

- EXISTING SURFACE
- DESIGN LINE
- FUTURE DESIGN LINE
- LEFT BACK OF KERB
- RIGHT BACK OF KERB
- PREVIOUSLY PLACED CONTROLLED FILL

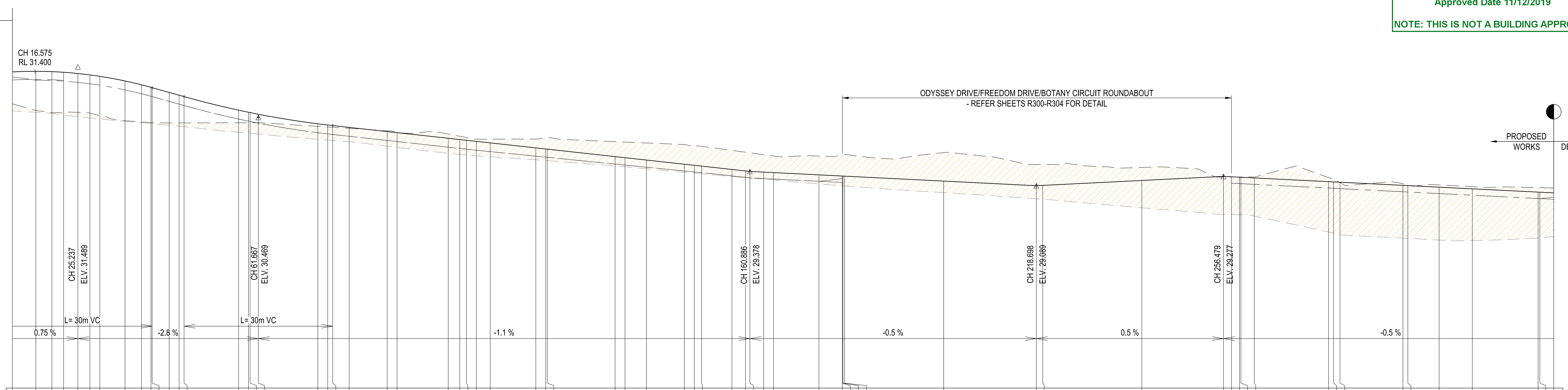
1:500 / 1:1000 — 10 5 0 10 20 — HORIZONTAL — A1 / A3

1:50 / 1:100 — 1 0.5 0 1 2 — VERTICAL — A1 / A3

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 10 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL



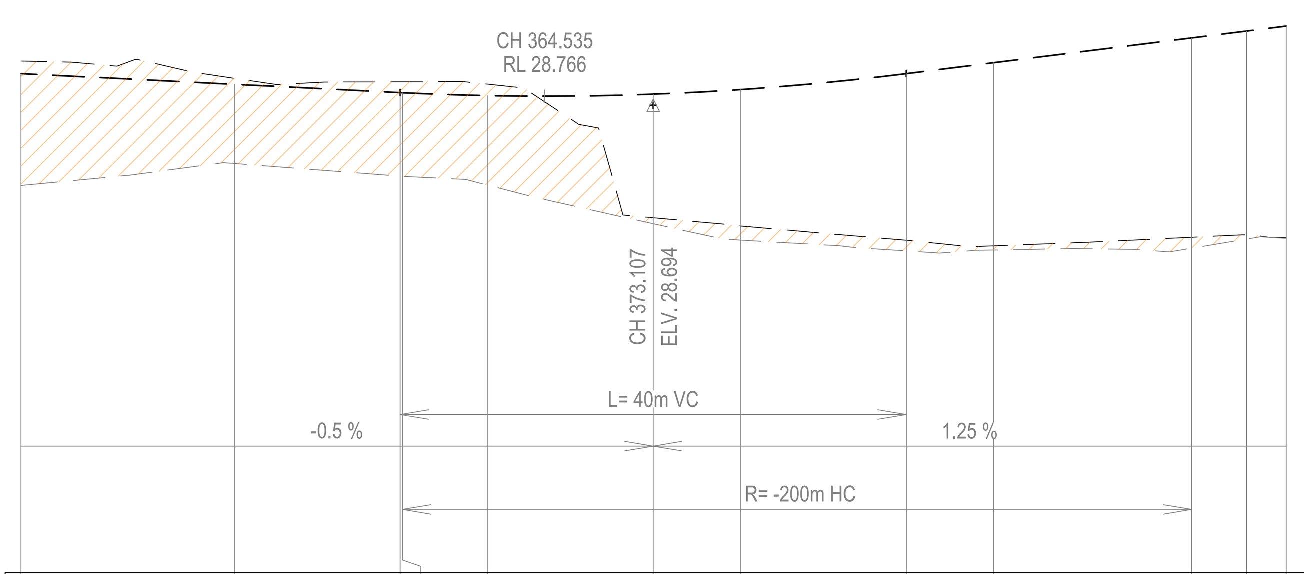
VERTICAL GEOMETRY

HORIZONTAL GEOMETRY

DATUM RL25

CHAINAGE	DESIGN CENTRELINE	LEFT BACK OF KERB	RIGHT BACK OF KERB	EXISTING SURFACE	CENTRELINE DEPTH	
12.022	31.388	31.285	31.225	30.744	-0.644	TP
16.745	31.400	31.22	31.237	30.609	-0.791	LTP
20.000	31.393	31.213	31.23	30.567	-0.827	
22.361	31.381	31.201		30.573	-0.808	RTP
25.237	31.356	31.176		30.571	-0.785	
27.670	31.328	31.148		30.556	-0.771	
29.671	31.299	31.119		30.506	-0.793	
34.756	31.205	31.025		30.403	-0.801	RTP
38.071	31.127	30.947		30.378	-0.749	RTP
40.000	31.076	30.896	30.896	30.363	-0.713	
40.237	31.069	30.889	30.889	30.361	-0.708	
43.670	30.973	30.793	30.793	30.357	-0.616	
45.671	30.917	30.737	30.737	30.358	-0.559	
46.667	30.889	30.709	30.709	30.358	-0.531	
57.670	30.615	30.435	30.435	30.360	-0.256	
59.671	30.573	30.393	30.393	30.360	-0.213	
60.000	30.566	30.386	30.386	30.360	-0.206	
61.667	30.533	30.353	30.353	30.360	-0.172	
73.670	30.340	30.16	30.16	30.288	-0.051	
75.671	30.315	30.135	30.135	30.275	-0.04	
76.667	30.304	30.124	30.124	30.269	-0.035	
80.000	30.267	30.087	30.087	30.248	-0.019	
87.670	30.183	30.003	30.003	30.199	0.016	
89.671	30.161	29.981	29.981	30.170	0.009	
100.000	30.047	29.867	29.867	30.133	0.085	
102.329	30.022	29.842	29.842	30.088	0.066	TP
103.670	30.007	29.827	29.827	30.062	0.055	
105.671	29.985	29.805	29.805	30.029	0.044	
108.474	29.954	29.777	29.777	30.029	0.075	TP
117.670	29.853	29.686	29.686	30.031	0.178	
119.671	29.831	29.666	29.666	30.061	0.23	
120.000	29.827	29.662	29.662	30.067	0.24	
133.670	29.677	29.526	29.526	29.979	0.302	
135.673	29.655	29.506	29.506	29.971	0.316	
140.000	29.607	29.463	29.463	29.952	0.345	
147.670	29.523	29.386	29.386	29.920	0.397	
149.671	29.501	29.366	29.366	29.905	0.404	
151.138	29.485	29.352	29.352	29.885	0.4	TP
157.270	29.417	29.287	29.287	29.803	0.385	TP
160.000	29.387	29.257	29.257	29.766	0.378	
160.886	29.378	29.248	29.248	29.754	0.376	
163.670	29.364	29.234	29.234	29.716	0.353	
165.671	29.354	29.224	29.224	29.690	0.336	
174.831	29.308	29.178	29.178	29.688	0.38	RTP
179.541	29.284			29.711	0.427	TP
179.568	29.284			29.712	0.428	
179.676	29.284			29.714	0.431	
180.000	29.282			29.721	0.439	
200.000	29.182			29.757	0.575	
218.698	29.089			29.518	0.429	
220.000	29.095			29.518	0.423	
240.000	29.195			29.458	0.263	
256.479	29.277			29.264	-0.013	
258.100	29.269	29.139	29.139	29.265	-0.005	TP
259.698	29.261	29.131	29.131	29.265	0.004	
260.000	29.260	29.13	29.13	29.265	0.005	
262.698	29.246	29.116	29.116	29.266	0.02	
277.698	29.171	29.041	29.041	29.254	0.083	
278.698	29.166	29.036	29.036	29.219	0.052	
280.000	29.160	29.03	29.03	29.152	-0.008	
292.698	29.096	28.966	28.966	29.128	0.032	
293.698	29.091	28.961	28.961	29.104	0.012	
300.000	29.060	28.93	28.93	29.105	0.045	
306.698	29.026	28.896	28.896	29.070	0.044	
320.000	28.960	28.83	28.83	29.050	0.091	
320.445	28.958	28.828	28.828	29.049	0.092	
323.138	28.944	28.858	28.814	29.044	0.099	LOW

ODYSSEY DRIVE LONGITUDINAL SECTION



VERTICAL GEOMETRY

HORIZONTAL GEOMETRY

DATUM RL25

CHAINAGE	DESIGN CENTRELINE	LEFT BACK OF KERB	RIGHT BACK OF KERB	EXISTING SURFACE	CENTRELINE DEPTH
323.138	28.944			29.044	0.099
340.000	28.860			28.907	0.047
353.107	28.794			28.879	0.085
353.287	28.793			28.879	0.086
360.000	28.770			28.861	0.091
373.107	28.782			27.805	-0.976
380.000	28.818			27.740	-1.078
393.107	28.944			27.627	-1.317
400.000	29.031			27.583	-1.447
415.663	29.226			27.651	-1.576
420.000	29.281			27.669	-1.611
423.138	29.320			27.650	-1.67

ODYSSEY DRIVE LONGITUDINAL SECTION

ODYSSEY DRIVE CENTRELINE SETOUT

CHAINAGE	EASTING	NORTHING	BEARING	
12.022	265998.810	5764989.503	6°46'50"	IP
100.000	266009.198	5765076.866	6°46'50"	
160.886	266016.386	5765137.326	6°46'50"	
200.000	266021.004	5765176.166	6°46'50"	
218.698	266023.212	5765194.733	6°46'50"	
256.479	266027.673	5765232.250	6°46'50"	
300.000	266032.811	5765275.467	6°46'50"	
323.138	266035.543	5765298.443	6°46'50"	IP

--- IP DETAILS ---

IP 1
COORDINATE = 265998.8102 5764989.5029
CHAINAGE = 12.0220

IP 2
COORDINATE = 266035.5428 5765298.4429
CHAINAGE = 323.1380

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
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CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
ROAD LONGITUDINAL SECTIONS &
CENTRELINE SETOUT - 1

STATUS
ISSUED FOR CONSTRUCTION

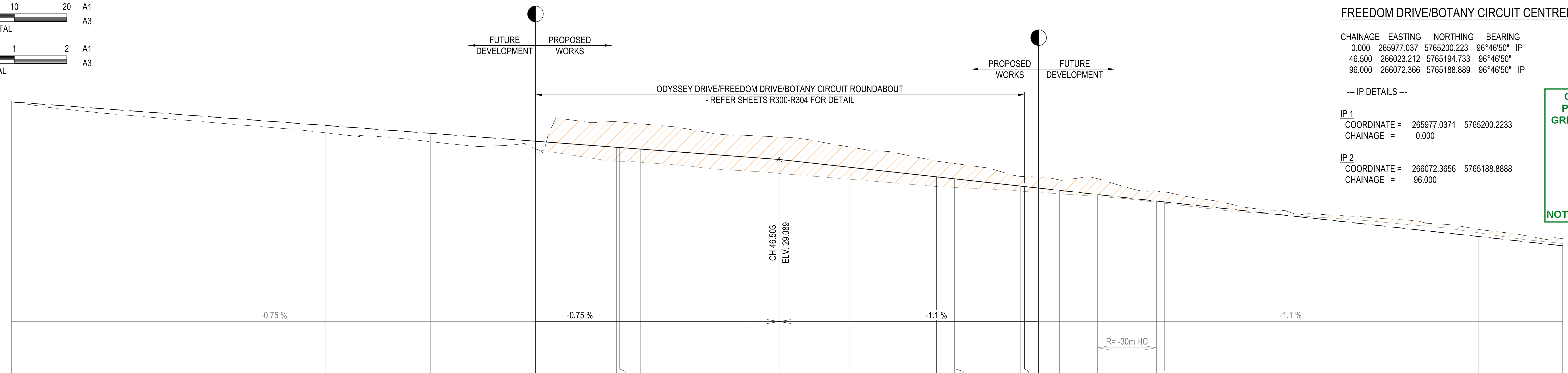
SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R400	1

LEGEND

- EXISTING SURFACE
- DESIGN LINE
- FUTURE DESIGN LINE
- LEFT BACK OF KERB
- RIGHT BACK OF KERB
- PREVIOUSLY PLACED CONTROLLED FILL

1:500 10 5 0 10 20 A1
1:1000 HORIZONTAL A3

1:50 1 0.5 0 1 2 A1
1:100 VERTICAL A3



CHAINAGE	DESIGN CENTRELINE	LEFT BACK OF KERB	RIGHT BACK OF KERB	EXISTING SURFACE	CENTRELINE DEPTH
-100.000	30.187			30.187	0
-80.000	30.037			29.951	-0.086
-60.000	29.887			29.779	-0.108
-40.000	29.737			29.596	-0.141
-20.000	29.587			29.428	-0.159
0.000 (LOW TP)	29.437	29.436	29.436	29.297	-0.14
15.502	29.321			29.809	0.488
16.003	29.317			29.804	0.487
20.000	29.287			29.769	0.482
40.000	29.137			29.550	0.412
46.503	29.089			29.518	0.429
60.000	28.940			29.326	0.386
76.503	28.759			29.059	0.3
80.000	28.720			29.012	0.291
80.003	28.720			29.011	0.291
92.503 (TP)	28.583			28.766	0.183
93.319	28.574	28.572	28.572	28.764	0.19
96.000 (LOW)	28.544	28.542	28.542	28.755	0.211
100.000	28.500			28.700	0.2
107.257	28.420			28.723	0.302
118.504	28.297			28.486	0.19
120.000	28.280			28.468	0.188
140.000	28.060			28.125	0.065
160.000	27.840			27.974	0.134
180.000	27.620			27.757	0.137
196.000	27.444			27.580	0.136

FREEDOM DRIVE/BOTANY CIRCUIT LONGITUDINAL SECTION

FREEDOM DRIVE/BOTANY CIRCUIT CENTRELINE SETOUT

CHAINAGE	EASTING	NORTHING	BEARING	
0.000	265977.037	5765200.223	96°46'50"	IP
46.500	266023.212	5765194.733	96°46'50"	
96.000	266072.366	5765188.889	96°46'50"	IP

--- IP DETAILS ---

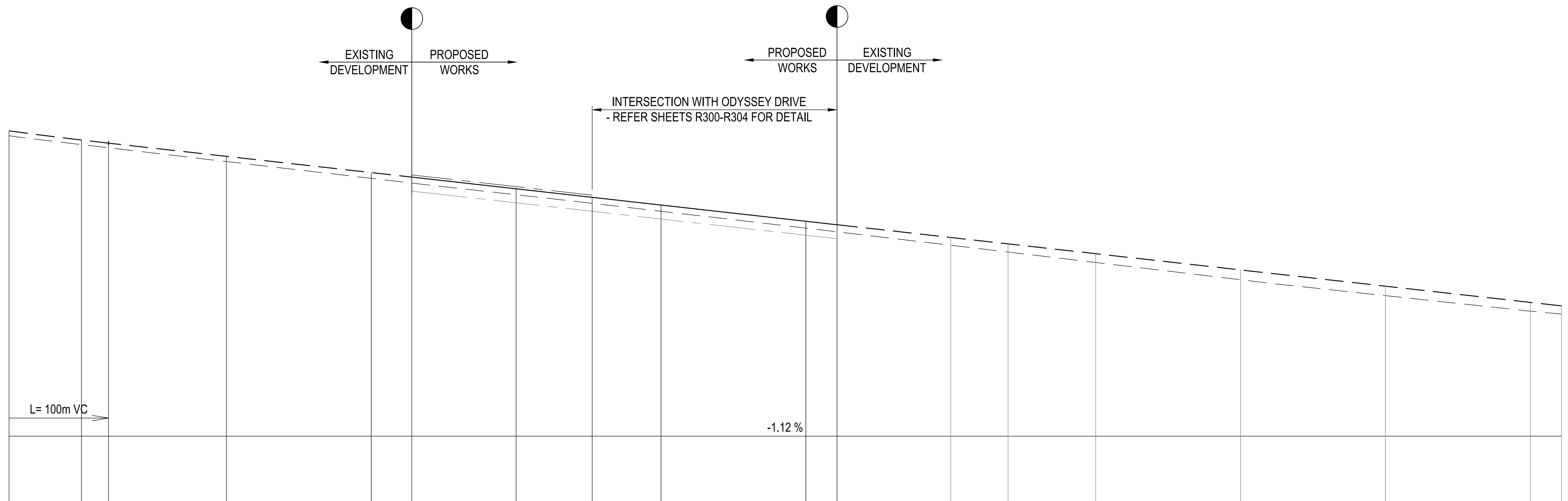
IP 1
COORDINATE = 265977.0371 5765200.2233
CHAINAGE = 0.000

IP 2
COORDINATE = 266072.3656 5765188.8888
CHAINAGE = 96.000

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 11 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL



CHAINAGE	DESIGN CENTRELINE	LEFT BACK OF KERB	RIGHT BACK OF KERB	EXISTING SURFACE	CENTRELINE DEPTH
50.000	32.209			32.209	
60.000	32.084			32.084	
63.735	32.041			32.041	
80.000	31.859			31.859	
100.000	31.635	31.665	31.442	31.635	
105.603 (LTP)	31.572	31.602	31.379	31.572	
120.000	31.411	31.441	31.218	31.411	
130.498 (LTP)	31.294	31.324	31.101	31.294	
140.000	31.188		30.995	31.188	
160.000	30.964		30.771	30.964	
164.295 (LTP)	30.916	30.945	30.723	30.916	
180.000	30.740			30.740	
187.903	30.652			30.652	
200.000	30.516			30.516	
220.000	30.293			30.293	
240.000	30.069			30.069	
260.000	29.845			29.845	
264.295	29.797			29.797	

WHITES ROAD LONGITUDINAL SECTION

WHITES ROAD CENTRELINE SETOUT

CHAINAGE	EASTING	NORTHING	BEARING	
105.603	265956.786	5764982.414	96°48'35"	IP
164.295	266015.064	5764975.455	96°48'35"	IP

--- IP DETAILS ---

IP 1
COORDINATE = 265956.7857 5764982.4139
CHAINAGE = 105.603

IP 2
COORDINATE = 266015.0642 5764975.4546
CHAINAGE = 164.295

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

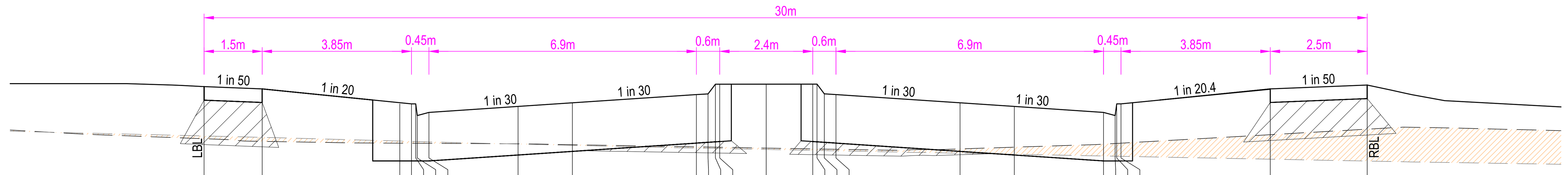
creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
ROAD LONGITUDINAL SECTIONS &
CENTRELINE SETOUT - 1

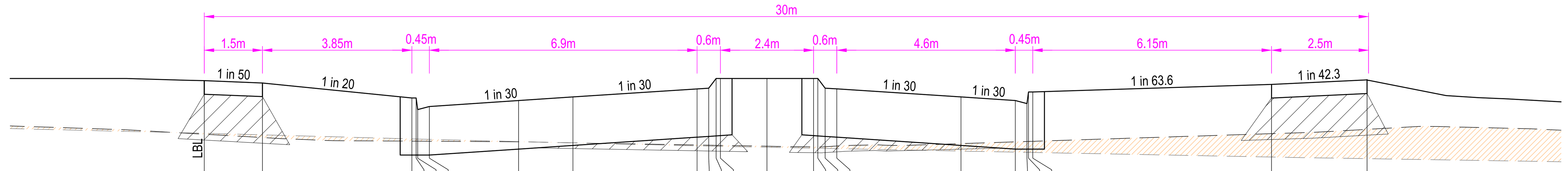
STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R401	1



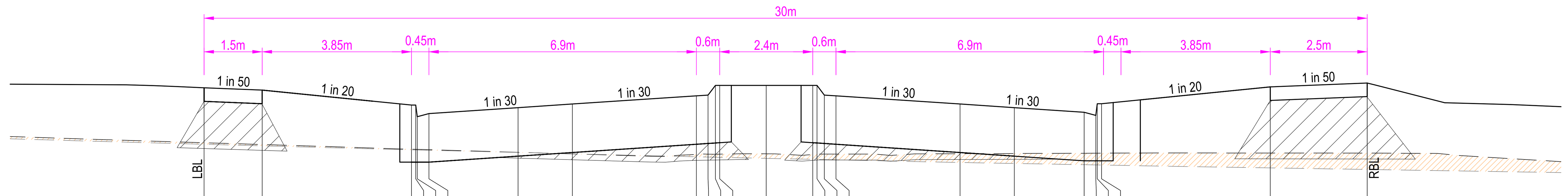
DATUM30.0	DESIGN SURFACE	EXISTING SURFACE	OFFSET
	31.169	30.498	-14.500
	31.139	30.464	-13.000
	30.947	30.440	-9.150
	30.947	30.440	-9.040
	30.797	30.440	-9.000
	30.837	30.439	-8.700
	30.914	30.432	-6.400
	30.960	30.421	-5.000
	31.066	30.394	-1.800
	31.075	30.391	-1.500
	31.200	30.389	-1.310
	31.200	30.388	-1.200
	31.200	30.378	0.000
	31.200	30.368	1.200
	31.200	30.367	1.310
	31.075	30.365	1.500
	31.066	30.362	1.800
	30.960	30.367	5.000
	30.914	30.389	6.400
	30.837	30.429	8.700
	30.797	30.437	9.000
	30.947	30.438	9.040
	30.947	30.441	9.150
	31.135	30.550	13.000
	31.189	30.621	15.500

RTPCH 38.071



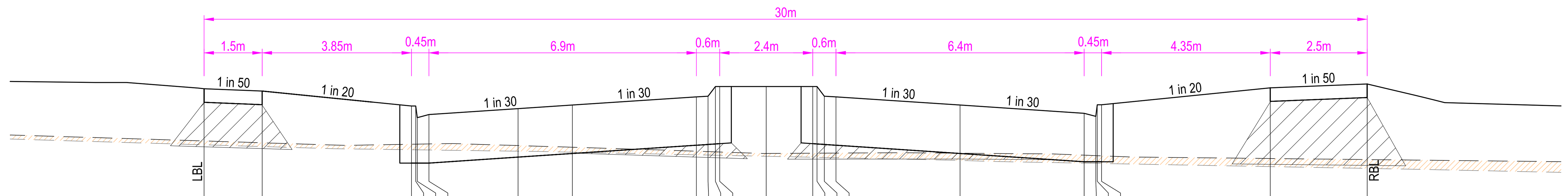
DATUM30.0	DESIGN SURFACE	EXISTING SURFACE	OFFSET
	31.247	30.558	-14.500
	31.217	30.515	-13.000
	31.025	30.469	-9.150
	31.025	30.468	-9.040
	30.875	30.468	-9.000
	30.915	30.467	-8.700
	30.991	30.461	-6.400
	31.038	30.447	-5.000
	31.141	30.419	-1.800
	31.150	30.416	-1.500
	31.275	30.415	-1.310
	31.275	30.414	-1.200
	31.275	30.403	0.000
	31.275	30.395	1.200
	31.275	30.394	1.310
	31.150	30.397	1.500
	31.141	30.406	1.800
	31.038	30.437	5.000
	30.991	30.460	6.400
	30.952	30.464	6.700
	31.102	30.465	6.740
	31.102	30.467	6.850
	31.199	30.565	13.000
	31.257	30.620	15.462

RTPCH 34.756



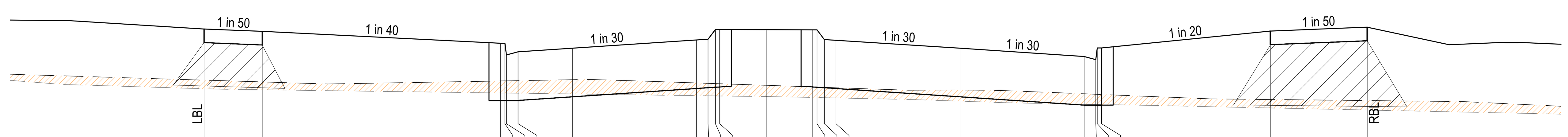
DATUM30.0	DESIGN SURFACE	EXISTING SURFACE	OFFSET
	31.423	30.715	-14.500
	31.393	30.692	-13.000
	31.201	30.632	-9.150
	31.201	30.630	-9.040
	31.051	30.630	-9.000
	31.091	30.626	-8.700
	31.167	30.592	-6.400
	31.214	30.571	-5.000
	31.319	30.565	-1.800
	31.328	30.568	-1.500
	31.453	30.567	-1.310
	31.453	30.568	-1.200
	31.453	30.573	0.000
	31.453	30.563	1.200
	31.453	30.567	1.310
	31.328	30.569	1.500
	31.319	30.569	1.800
	31.214	30.574	5.000
	31.167	30.576	6.400
	31.107	30.580	8.200
	31.067	30.580	8.500
	31.217	30.581	8.540
	31.217	30.581	8.650
	31.435	30.583	13.000
	31.485	30.581	15.500

TPCH 22.361



DATUM30.0	DESIGN SURFACE	EXISTING SURFACE	OFFSET
	31.443	30.770	-14.500
	31.413	30.747	-13.000
	31.220	30.728	-9.150
	31.220	30.729	-9.040
	31.070	30.729	-9.000
	31.110	30.732	-8.700
	31.187	30.711	-6.400
	31.234	30.689	-5.000
	31.338	30.638	-1.800
	31.347	30.633	-1.500
	31.472	30.630	-1.310
	31.472	30.628	-1.200
	31.472	30.609	0.000
	31.472	30.613	1.200
	31.472	30.613	1.310
	31.347	30.614	1.500
	31.338	30.614	1.800
	31.234	30.613	5.000
	31.127	30.587	8.200
	31.087	30.581	8.500
	31.237	30.581	8.540
	31.237	30.578	8.650
	31.455	30.544	13.000
	31.505	30.531	15.500

RTPCH 16.745



DATUM30.0	DESIGN SURFACE	EXISTING SURFACE	OFFSET
	31.469	30.811	-14.500
	31.439	30.788	-13.000
	31.285	30.800	-6.850
	31.285	30.801	-6.740
	31.135	30.802	-6.700
	31.175	30.804	-6.400
	31.221	30.816	-5.000
	31.328	30.775	-1.800
	31.337	30.770	-1.500
	31.462	30.767	-1.310
	31.462	30.765	-1.200
	31.460	30.744	0.000
	31.458	30.724	1.200
	31.458	30.722	1.310
	31.333	30.718	1.500
	31.324	30.713	1.800
	31.221	30.683	5.000
	31.115	30.635	8.200
	31.075	30.629	8.500
	31.225	30.629	8.540
	31.225	30.626	8.650
	31.442	30.562	13.000
	31.492	30.548	15.500

TPCH 12.022

1:100 2 1 0 2 4 A1
1:200 HORIZONTAL A3

1:50 1 0.5 0 1 2 A1
1:100 VERTICAL A3

LEGEND

- EXISTING SURFACE
- DESIGN LINE
- SELECT FILL
- PREVIOUSLY PLACED CONTROLLED FILL

NOTE
SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 12 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
ROAD CROSS SECTIONS - 1
ODYSSEY DRIVE - SHEET 1

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R500	1

1:100	2	1	0	2	4	A1
1:200			HORIZONTAL			A3
1:50	1	0.5	0	1	2	A1
1:100			VERTICAL			A3

LEGEND

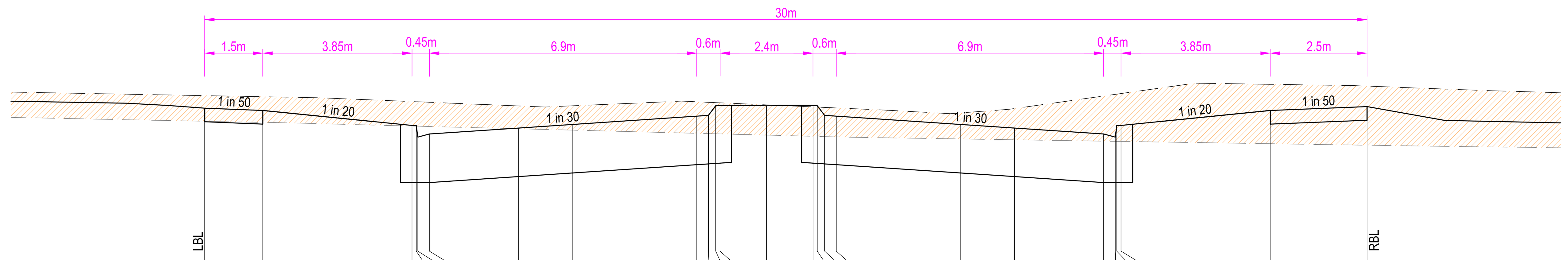
- EXISTING SURFACE
- DESIGN LINE
- SELECT FILL
- PREVIOUSLY PLACED CONTROLLED FILL

NOTE
SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 13 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

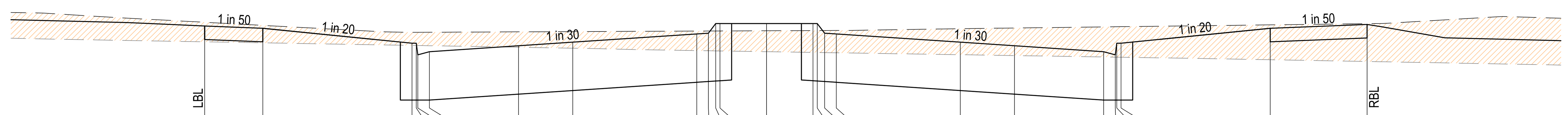
NOTE: THIS IS NOT A BUILDING APPROVAL



DATUM28.0

DESIGN SURFACE	30.090	30.060	29.867	29.867	29.717	29.757	29.834	29.881	29.987	29.996	30.121	30.121	30.121	30.121	30.121	29.996	29.987	29.881	29.834	29.757	29.717	29.867	29.867	30.060	30.110
EXISTING SURFACE	30.251	30.238	30.175	30.173	30.172	30.166	30.119	30.120	30.172	30.166	30.161	30.159	30.133	30.106	30.104	30.100	30.093	30.029	30.085	30.247	30.268	30.270	30.278	30.397	30.374
OFFSET	-14.500	-13.000	-9.150	-9.040	-9.000	-8.700	-6.400	-5.000	-1.801	-1.501	-1.311	-1.201	0.000	1.200	1.310	1.500	1.800	5.000	6.400	8.700	9.000	9.040	9.150	13.000	15.500

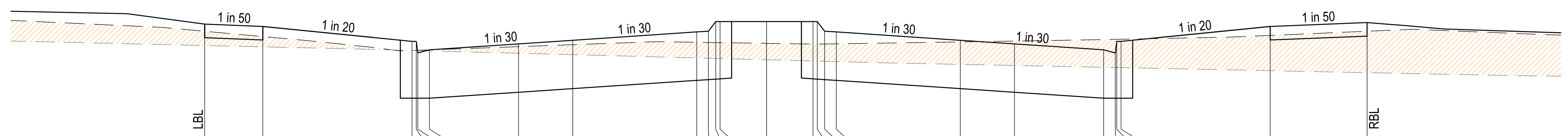
CH 100.000



DATUM29.0

DESIGN SURFACE	30.310	30.280	30.087	30.087	29.937	29.977	30.054	30.101	30.207	30.216	30.341	30.341	30.341	30.341	30.341	30.216	30.207	30.101	30.054	29.977	29.937	30.087	30.087	30.280	30.330
EXISTING SURFACE	30.358	30.318	30.228	30.228	30.228	30.229	30.234	30.237	30.244	30.245	30.245	30.245	30.248	30.251	30.251	30.251	30.252	30.275	30.284	30.298	30.300	30.300	30.301	30.324	30.340
OFFSET	-14.500	-13.000	-9.150	-9.040	-9.000	-8.700	-6.400	-5.000	-1.800	-1.500	-1.310	-1.200	0.000	1.200	1.310	1.500	1.800	5.000	6.400	8.700	9.000	9.040	9.150	13.000	15.500

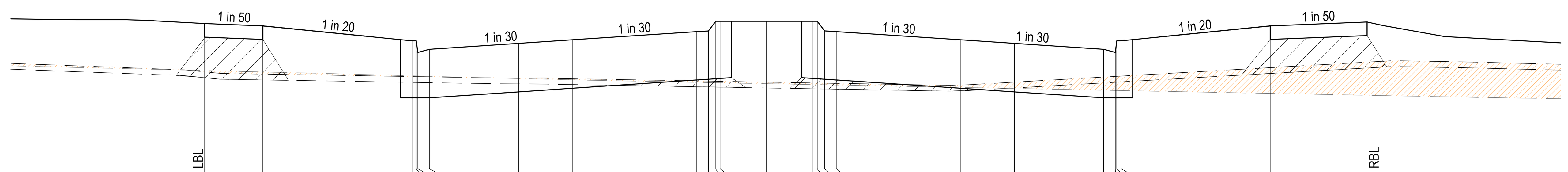
CH 80.000



DATUM29.0

DESIGN SURFACE	30.609	30.579	30.386	30.386	30.236	30.276	30.353	30.399	30.508	30.517	30.642	30.642	30.642	30.642	30.642	30.517	30.508	30.399	30.353	30.276	30.236	30.386	30.386	30.579	30.629
EXISTING SURFACE	30.516	30.448	30.268	30.270	30.270	30.276	30.317	30.343	30.374	30.372	30.370	30.369	30.360	30.351	30.350	30.351	30.354	30.379	30.389	30.409	30.412	30.412	30.414	30.463	30.516
OFFSET	-14.500	-13.000	-9.150	-9.040	-9.000	-8.700	-6.400	-5.000	-1.800	-1.500	-1.310	-1.200	0.000	1.200	1.310	1.500	1.800	5.000	6.400	8.700	9.000	9.040	9.150	13.000	15.500

CH 60.000



DATUM29.0

DESIGN SURFACE	31.118	31.088	30.896	30.896	30.746	30.786	30.862	30.909	31.014	31.023	31.148	31.148	31.148	31.148	31.148	31.023	31.014	30.909	30.862	30.786	30.746	30.896	30.896	31.088	31.138
EXISTING SURFACE	30.496	30.467	30.435	30.434	30.434	30.431	30.415	30.407	30.379	30.376	30.374	30.374	30.363	30.353	30.352	30.350	30.347	30.326	30.363	30.428	30.437	30.438	30.441	30.550	30.621
OFFSET	-14.500	-13.000	-9.150	-9.040	-9.000	-8.700	-6.400	-5.000	-1.800	-1.500	-1.310	-1.200	0.000	1.200	1.310	1.500	1.800	5.000	6.400	8.700	9.000	9.040	9.150	13.000	15.500

CH 40.000

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
ROAD CROSS SECTIONS - 2
ODYSSEY DRIVE - SHEET 2

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R501	1

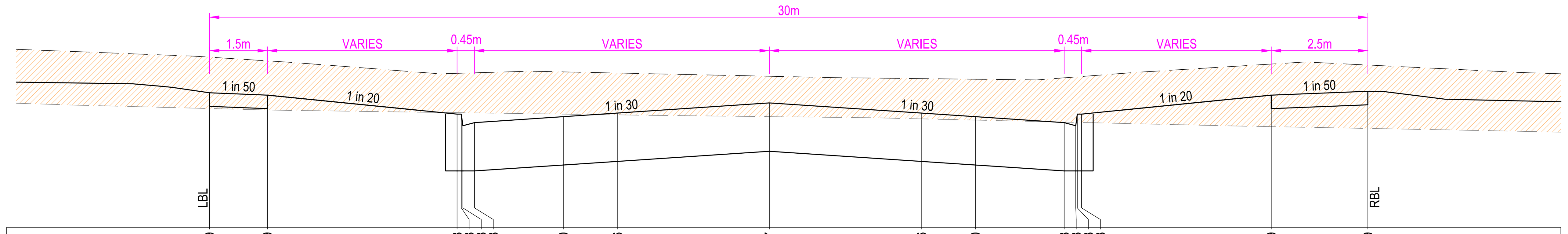
1:100 2 1 0 2 4 A1
1:200 A3
HORIZONTAL

1:50 1 0.5 0 1 2 A1
1:100 A3
VERTICAL

LEGEND

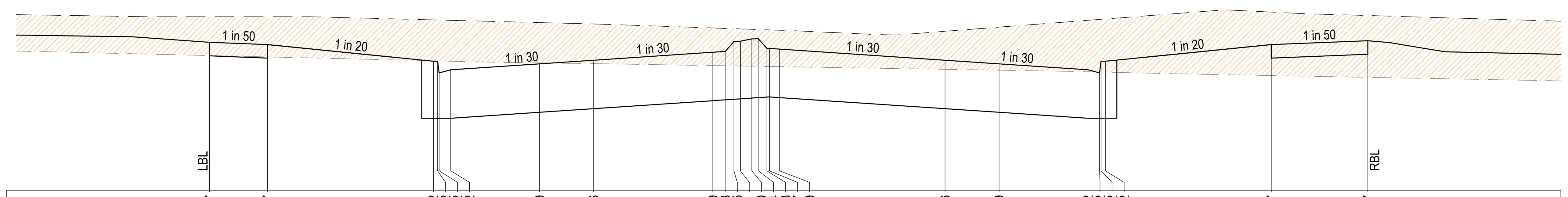
- EXISTING SURFACE
- DESIGN LINE
- SELECT FILL
- PREVIOUSLY PLACED CONTROLLED FILL

NOTE
SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE



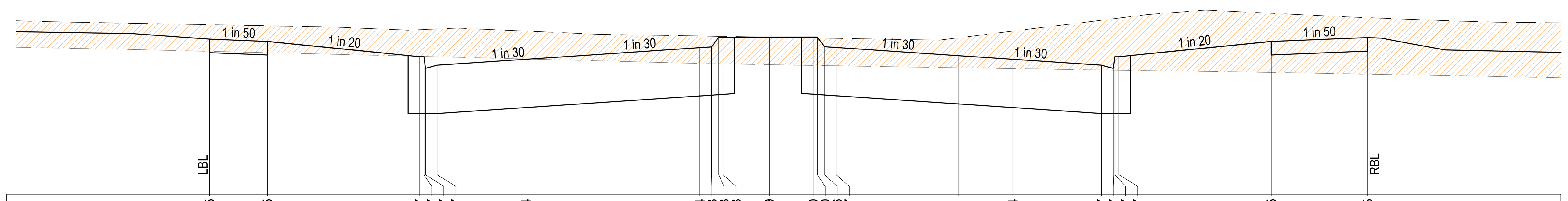
DATUM28.0																	
DESIGN SURFACE	29.739	29.709	29.463	29.463	29.313	29.353	29.430	29.476	29.607	29.476	29.430	29.353	29.313	29.463	29.463	29.709	29.759
EXISTING SURFACE	30.200	30.152	29.991	29.992	29.993	29.997	30.009	29.994	29.952	29.922	29.914	29.932	29.944	29.945	29.949	30.110	30.098
OFFSET	-14.500	-13.000	-8.086	-7.976	-7.936	-7.636	-5.336	-3.936	0.000	3.936	5.336	7.636	7.936	7.976	8.086	13.000	15.500

CH 140.000



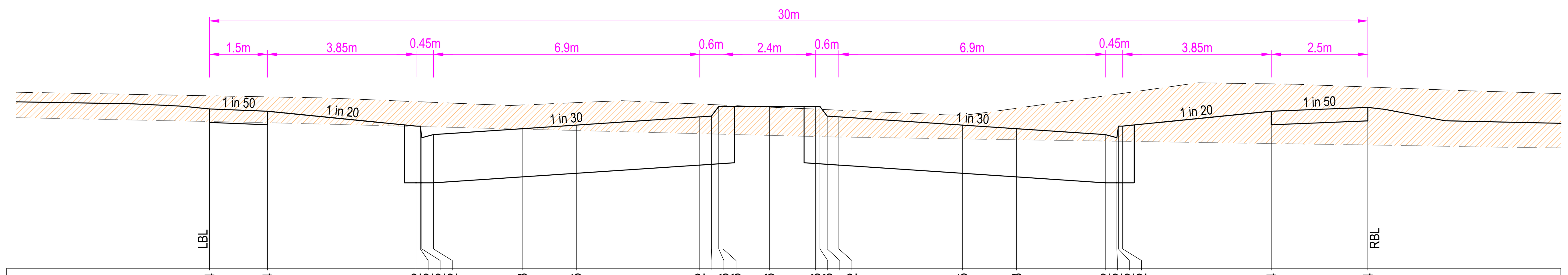
DATUM28.0																									
DESIGN SURFACE	29.907	29.877	29.662	29.662	29.512	29.552	29.629	29.676	29.779	29.788	29.915	29.921	29.950	29.954	29.928	29.827	29.819	29.676	29.629	29.552	29.512	29.662	29.662	29.877	29.927
EXISTING SURFACE	30.236	30.236	30.196	30.194	30.194	30.190	30.161	30.143	30.092	30.086	30.082	30.080	30.075	30.072	30.068	30.067	30.063	30.049	30.103	30.191	30.202	30.204	30.208	30.297	30.252
OFFSET	-14.500	-13.000	-8.701	-8.591	-8.551	-8.251	-5.951	-4.551	-1.464	-1.143	-0.919	-0.750	-0.435	-0.287	-0.062	0.000	0.259	4.551	5.951	8.251	8.551	8.591	8.701	13.000	15.500

CH 120.000



DATUM28.0																									
DESIGN SURFACE	30.005	29.975	29.777	29.777	29.627	29.667	29.744	29.791	29.894	29.903	30.028	30.028	30.029	30.030	30.030	29.906	29.897	29.791	29.744	29.667	29.627	29.777	29.777	29.975	30.025
EXISTING SURFACE	30.191	30.177	30.126	30.129	30.130	30.136	30.109	30.078	30.045	30.042	30.041	30.040	30.029	30.019	30.018	30.017	30.014	30.022	30.108	30.249	30.267	30.270	30.277	30.339	30.282
OFFSET	-14.500	-13.000	-9.056	-8.946	-8.906	-8.606	-6.306	-4.906	-1.799	-1.499	-1.309	-1.199	0.000	1.132	1.242	1.432	1.733	4.906	6.306	8.606	8.906	8.946	9.056	13.000	15.500

TPCH 108.474



DATUM28.0																									
DESIGN SURFACE	30.064	30.034	29.842	29.842	29.692	29.732	29.808	29.855	29.962	29.971	30.096	30.096	30.096	30.096	30.096	29.971	29.962	29.855	29.808	29.732	29.692	29.842	29.842	30.034	30.084
EXISTING SURFACE	30.235	30.221	30.159	30.157	30.156	30.150	30.116	30.146	30.128	30.121	30.117	30.114	30.088	30.062	30.059	30.055	30.049	29.984	30.073	30.234	30.255	30.258	30.266	30.389	30.349
OFFSET	-14.500	-13.000	-9.150	-9.040	-9.000	-8.700	-6.400	-5.000	-1.800	-1.500	-1.310	-1.200	0.000	1.200	1.310	1.500	1.800	5.000	6.400	8.700	9.000	9.040	9.150	13.000	15.500

TPCH 102.329

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
ROAD CROSS SECTIONS - 3
ODYSSEY DRIVE - SHEET 3

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R502	1

1:100	2 1 0 2 4	A1	1:50	1 0.5 0 1 2	A1
1:200	HORIZONTAL	A3	1:100	VERTICAL	A3

LEGEND

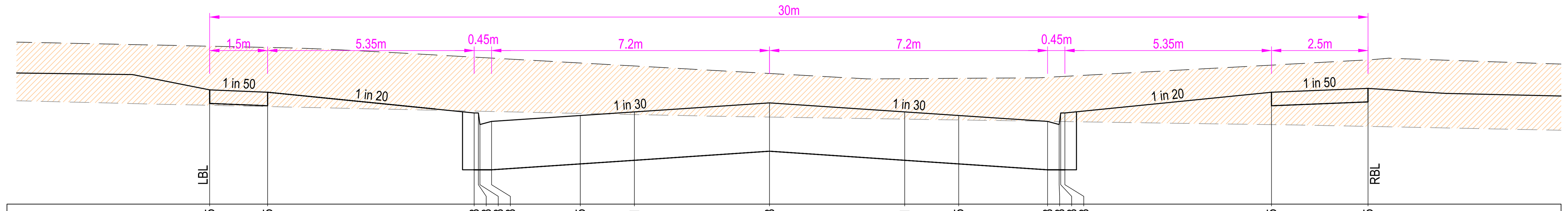
- EXISTING SURFACE
- DESIGN LINE
- SELECT FILL
- PREVIOUSLY PLACED CONTROLLED FILL

NOTE
SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 15 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

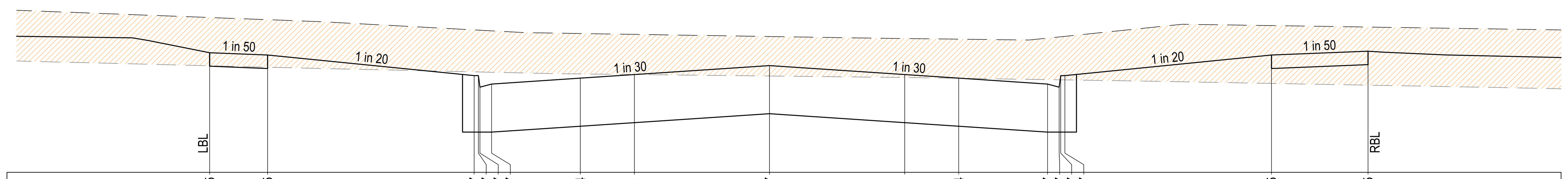
NOTE: THIS IS NOT A BUILDING APPROVAL



DATUM28.0

DESIGN SURFACE	29.475	29.445	29.178	29.178	29.028	29.068	29.145	29.191	29.308	29.191	29.145	29.068	29.028	29.178	29.178	29.445	29.495
EXISTING SURFACE	30.040	30.025	29.899	29.896	29.895	29.887	29.823	29.784	29.688	29.621	29.625	29.638	29.646	29.648	29.651	29.796	29.864
OFFSET	-14.500	-13.000	-7.650	-7.540	-7.500	-7.200	-4.900	-3.500	0.000	3.500	4.900	7.200	7.500	7.540	7.650	13.000	15.500

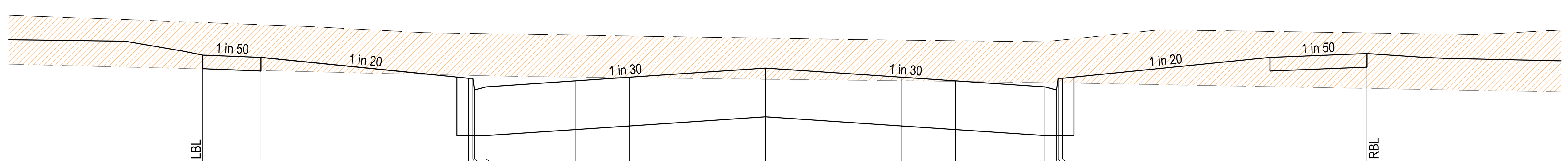
RTPCH 174.831



DATUM28.0

DESIGN SURFACE	29.555	29.525	29.257	29.257	29.107	29.147	29.224	29.271	29.387	29.271	29.224	29.147	29.107	29.257	29.257	29.525	29.575
EXISTING SURFACE	30.013	29.984	29.852	29.849	29.848	29.840	29.805	29.794	29.766	29.739	29.731	29.744	29.760	29.762	29.768	29.908	29.889
OFFSET	-14.500	-13.000	-7.650	-7.540	-7.500	-7.200	-4.900	-3.500	0.000	3.500	4.900	7.200	7.500	7.540	7.650	13.000	15.500

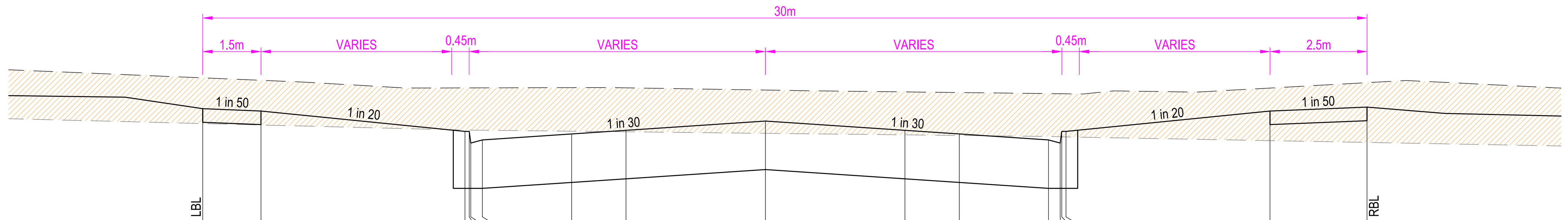
CH 160.000



DATUM28.0

DESIGN SURFACE	29.585	29.555	29.287	29.287	29.137	29.177	29.254	29.301	29.417	29.301	29.254	29.177	29.137	29.287	29.287	29.555	29.605
EXISTING SURFACE	30.003	29.975	29.863	29.862	29.862	29.860	29.841	29.830	29.803	29.777	29.769	29.756	29.772	29.774	29.780	29.888	29.869
OFFSET	-14.500	-13.000	-7.650	-7.540	-7.500	-7.200	-4.900	-3.500	0.000	3.500	4.900	7.200	7.500	7.540	7.650	13.000	15.500

TPCH 157.270



DATUM28.0

DESIGN SURFACE	29.645	29.615	29.352	29.352	29.202	29.242	29.318	29.365	29.485	29.365	29.318	29.242	29.202	29.352	29.352	29.615	29.665
EXISTING SURFACE	30.042	30.011	29.913	29.913	29.913	29.913	29.916	29.914	29.885	29.861	29.853	29.839	29.838	29.837	29.837	29.911	29.980
OFFSET	-14.500	-13.000	-7.744	-7.634	-7.594	-7.294	-4.994	-3.594	0.000	3.594	4.994	7.294	7.594	7.634	7.744	13.000	15.500

TPCH 151.138

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
ROAD CROSS SECTIONS - 4
ODYSSEY DRIVE - SHEET 4

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R503	1

1:100 2 1 0 2 4 A1
1:200 HORIZONTAL A3

1:50 1 0.5 0 1 2 A1
1:100 VERTICAL A3

LEGEND

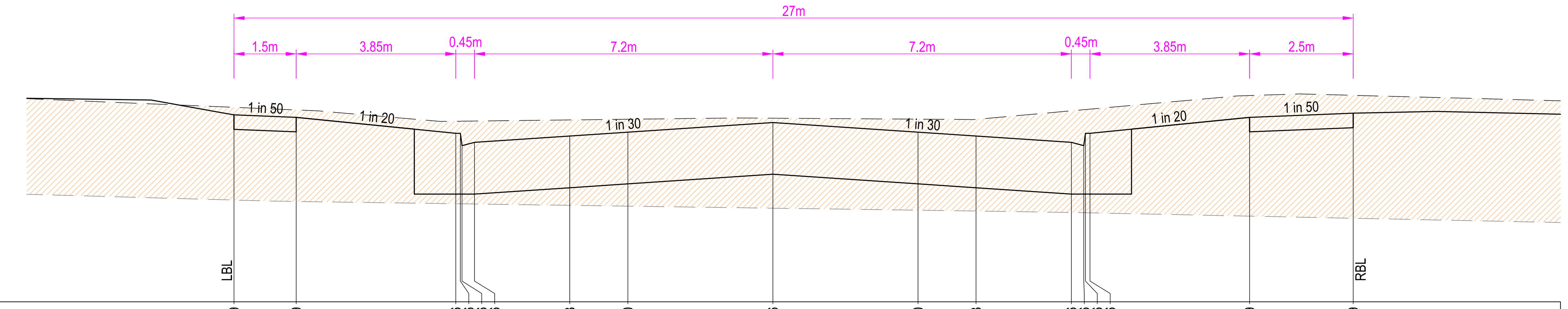
- EXISTING SURFACE
- DESIGN LINE
- SELECT FILL
- PREVIOUSLY PLACED CONTROLLED FILL

NOTE
SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 16 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

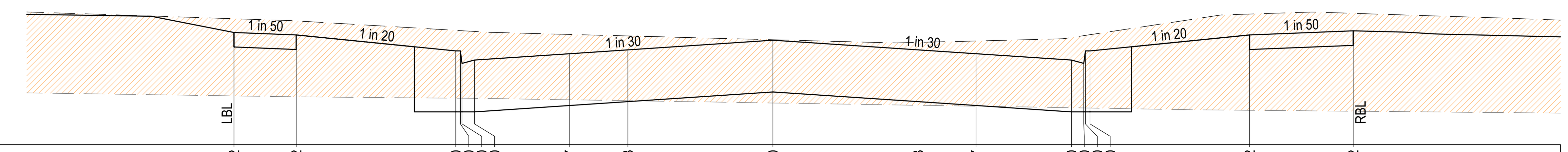
NOTE: THIS IS NOT A BUILDING APPROVAL



DATUM27.0

DESIGN SURFACE	29.259	29.229	29.036	29.036	28.886	28.926	29.003	29.050	29.166	29.050	29.003	28.926	28.886	29.036	29.036	29.229	29.279
EXISTING SURFACE	29.350	29.318	29.182	29.182	29.183	29.184	29.198	29.206	29.219	29.207	29.204	29.308	29.321	29.323	29.328	29.492	29.495
OFFSET	-13.000	-11.500	-7.650	-7.540	-7.500	-7.200	-4.900	-3.500	0.000	3.500	4.900	7.200	7.500	7.540	7.650	11.500	14.000

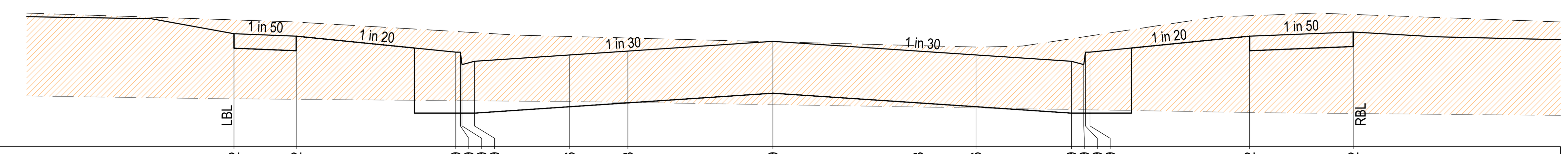
CH 278.698



DATUM28.0

DESIGN SURFACE	29.352	29.322	29.130	29.130	28.980	29.020	29.097	29.143	29.260	29.143	29.097	29.020	28.980	29.130	29.130	29.322	29.372
EXISTING SURFACE	29.518	29.492	29.378	29.375	29.374	29.365	29.329	29.311	29.265	29.233	29.250	29.292	29.314	29.317	29.326	29.575	29.584
OFFSET	-13.000	-11.500	-7.650	-7.540	-7.500	-7.200	-4.900	-3.500	0.000	3.500	4.900	7.200	7.500	7.540	7.650	11.500	14.000

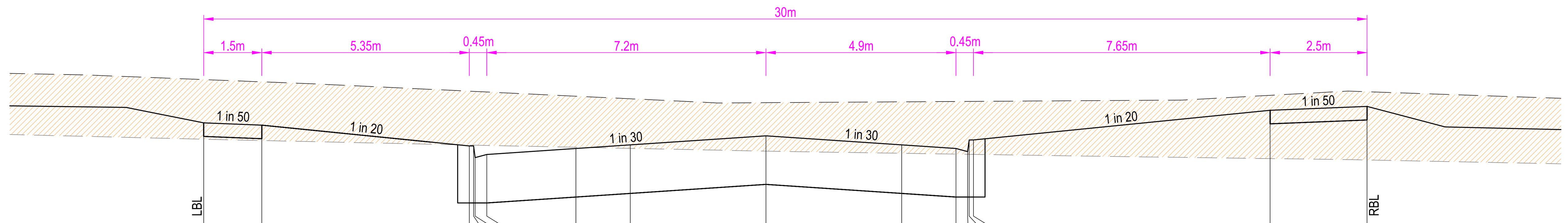
CH 260.000



DATUM28.0

DESIGN SURFACE	29.362	29.332	29.139	29.139	28.989	29.029	29.106	29.153	29.269	29.153	29.106	29.029	28.989	29.139	29.139	29.332	29.382
EXISTING SURFACE	29.529	29.502	29.388	29.385	29.384	29.375	29.328	29.310	29.265	29.219	29.201	29.302	29.324	29.327	29.335	29.579	29.594
OFFSET	-13.000	-11.500	-7.650	-7.540	-7.500	-7.200	-4.900	-3.500	0.000	3.500	4.900	7.200	7.500	7.540	7.650	11.500	14.000

TPCH 258.100



DATUM28.0

DESIGN SURFACE	29.452	29.422	29.154	29.154	29.004	29.044	29.121	29.168	29.284	29.168	29.121	29.081	29.231	29.231	29.614	29.664
EXISTING SURFACE	30.009	29.980	29.860	29.857	29.856	29.849	29.795	29.762	29.711	29.722	29.727	29.728	29.728	29.728	29.807	29.853
OFFSET	-14.500	-13.000	-7.650	-7.540	-7.500	-7.200	-4.900	-3.500	0.000	3.500	4.900	5.200	5.240	5.350	13.000	15.500

TPCH 179.541

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
ROAD CROSS SECTIONS - 5
ODYSSEY DRIVE - SHEET 5

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R504	1

1:100 2 1 0 2 4 A1
1:200 HORIZONTAL A3

1:50 1 0.5 0 1 2 A1
1:100 VERTICAL A3

LEGEND

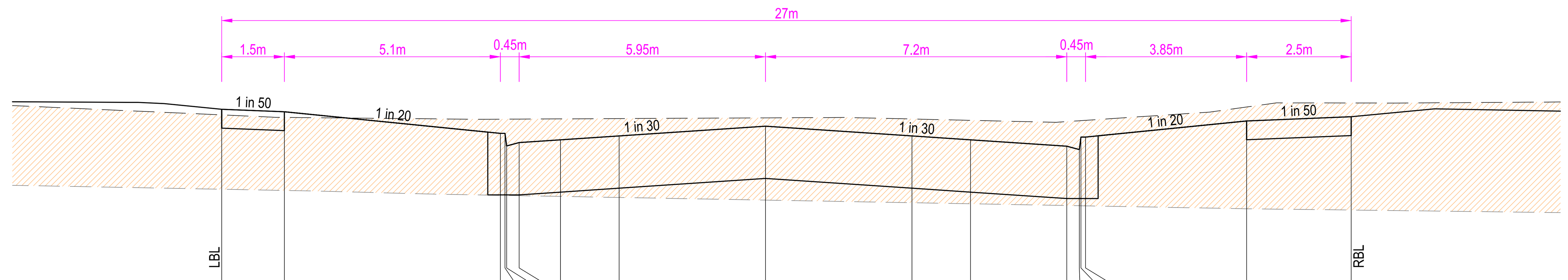
- EXISTING SURFACE
- DESIGN LINE
- SELECT FILL
- PREVIOUSLY PLACED CONTROLLED FILL

NOTE
SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

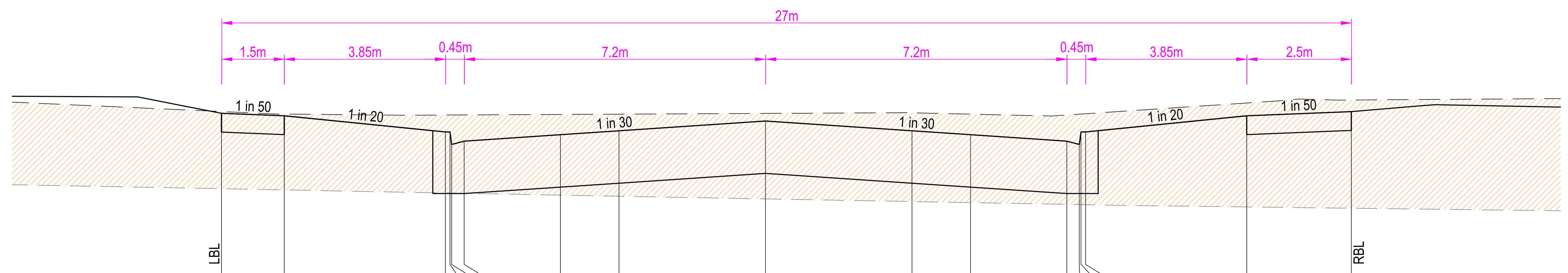
Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 17 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL



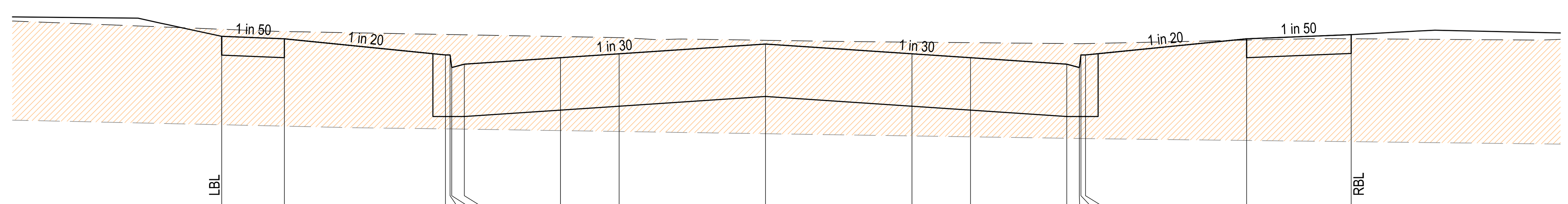
DATUM27.0																		
DESIGN SURFACE	29.146	29.116	28.858	28.858	28.708	28.748	28.781	28.828	28.944	28.828	28.781	28.704	28.664	28.814	28.814	29.007	29.057
EXISTING SURFACE	29.079	29.049	29.028	29.028	29.028	29.029	29.031	29.035	29.044	29.030	29.014	28.999	29.009	29.010	29.014	29.173	29.221
OFFSET	-13.000	-11.500	-6.339	-6.229	-6.189	-5.889	-4.900	-3.500	0.000	3.500	4.900	7.200	7.500	7.540	7.650	11.500	14.000

CH 323.138 (LIMIT OF WORKS)



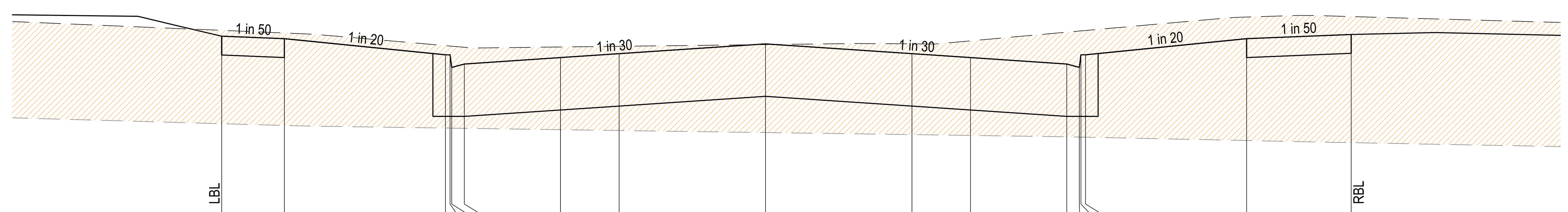
DATUM27.0																	
DESIGN SURFACE	29.052	29.022	28.830	28.830	28.680	28.720	28.797	28.843	28.960	28.843	28.797	28.720	28.680	28.830	28.830	29.022	29.072
EXISTING SURFACE	29.073	29.043	29.031	29.032	29.032	29.032	29.038	29.042	29.050	29.058	29.042	29.032	29.042	29.043	29.047	29.175	29.210
OFFSET	-13.000	-11.500	-7.650	-7.540	-7.500	-7.200	-4.900	-3.500	0.000	3.500	4.900	7.200	7.500	7.540	7.650	11.500	14.000

CH 320.000



DATUM27.0																	
DESIGN SURFACE	29.152	29.122	28.930	28.930	28.780	28.820	28.897	28.943	29.060	28.943	28.897	28.820	28.780	28.930	28.930	29.122	29.172
EXISTING SURFACE	29.237	29.209	29.174	29.173	29.173	29.170	29.149	29.137	29.105	29.083	29.076	29.066	29.064	29.064	29.065	29.107	29.123
OFFSET	-13.000	-11.500	-7.650	-7.540	-7.500	-7.200	-4.900	-3.500	0.000	3.500	4.900	7.200	7.500	7.540	7.650	11.500	14.000

CH 300.000



DATUM27.0																	
DESIGN SURFACE	29.252	29.222	29.030	29.030	28.880	28.920	28.997	29.043	29.160	29.043	28.997	28.920	28.880	29.030	29.030	29.222	29.272
EXISTING SURFACE	29.321	29.290	29.139	29.135	29.133	29.120	29.123	29.131	29.152	29.160	29.196	29.300	29.313	29.315	29.320	29.480	29.486
OFFSET	-13.000	-11.500	-7.650	-7.540	-7.500	-7.200	-4.900	-3.500	0.000	3.500	4.900	7.200	7.500	7.540	7.650	11.500	14.000

CH 280.000

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
ROAD CROSS SECTIONS - 6
ODYSSEY DRIVE - SHEET 6

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R505	1

1:100 2 1 0 2 4 A1
1:200 HORIZONTAL A3

1:50 1 0.5 0 1 2 A1
1:100 VERTICAL A3

LEGEND

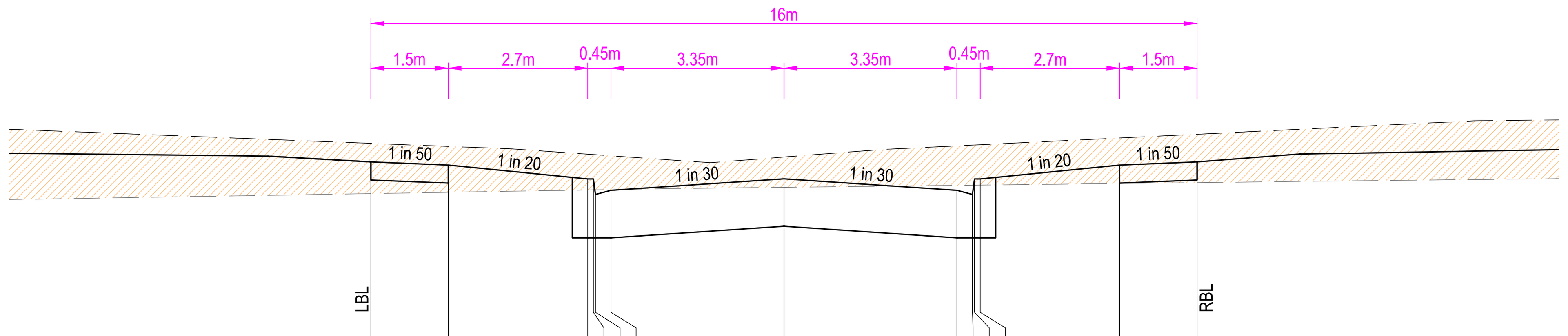
EXISTING SURFACE
DESIGN LINE
SELECT FILL
PREVIOUSLY PLACED CONTROLLED FILL

NOTE
SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

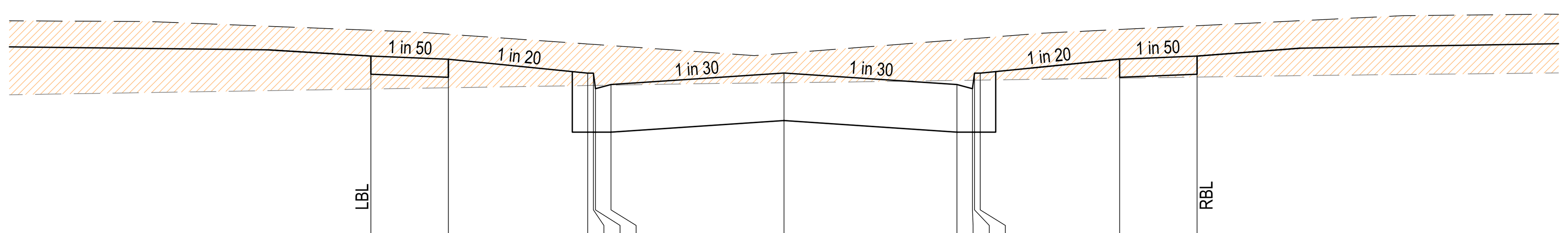
Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 18 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL



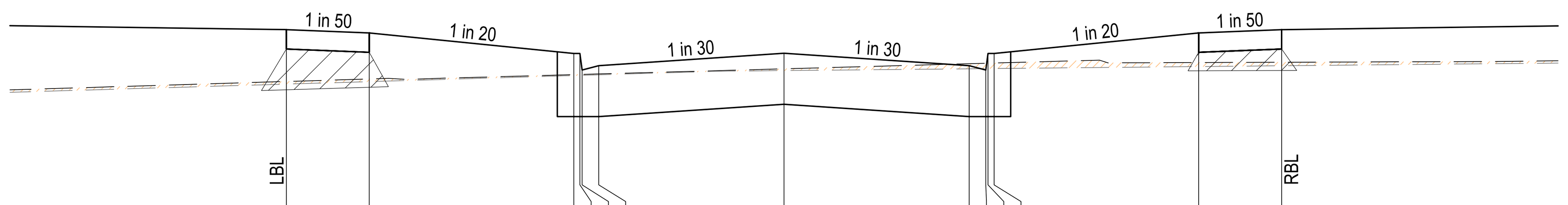
DATUM27.0													
DESIGN SURFACE	28.707	28.677	28.542	28.542	28.392	28.432	28.544	28.432	28.392	28.542	28.542	28.677	28.707
EXISTING SURFACE	28.887	28.858	28.783	28.779	28.777	28.767	28.755	28.863	28.870	28.871	28.874	28.939	28.976
OFFSET	-8.000	-6.500	-3.800	-3.690	-3.650	-3.350	0.000	3.350	3.650	3.690	3.800	6.500	8.000

CH 96.000 (LIMIT OF WORKS)



DATUM27.0													
DESIGN SURFACE	28.737	28.707	28.572	28.572	28.422	28.462	28.574	28.462	28.422	28.572	28.572	28.707	28.737
EXISTING SURFACE	28.987	28.948	28.854	28.850	28.849	28.838	28.764	28.894	28.905	28.907	28.911	28.994	29.031
OFFSET	-8.000	-6.500	-3.800	-3.690	-3.650	-3.350	0.000	3.350	3.650	3.690	3.800	6.500	8.000

TPCH 93.319



DATUM28.0													
DESIGN SURFACE	29.651	29.621	29.436	29.436	29.286	29.326	29.437	29.326	29.286	29.436	29.436	29.621	29.651
EXISTING SURFACE	29.183	29.206	29.245	29.246	29.247	29.251	29.297	29.343	29.347	29.348	29.349	29.354	29.356
OFFSET	-9.000	-7.500	-3.800	-3.690	-3.650	-3.350	0.000	3.350	3.650	3.690	3.800	7.500	9.000

TPCH 0.000 (LIMIT OF WORKS)

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
ROAD CROSS SECTIONS - 7
FREEDOM DRIVE & BOTANY CIRCUIT

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R506	1

1:100 2 1 0 2 4 A1
1:200 HORIZONTAL A3

1:50 1 0.5 0 1 2 A1
1:100 VERTICAL A3

LEGEND

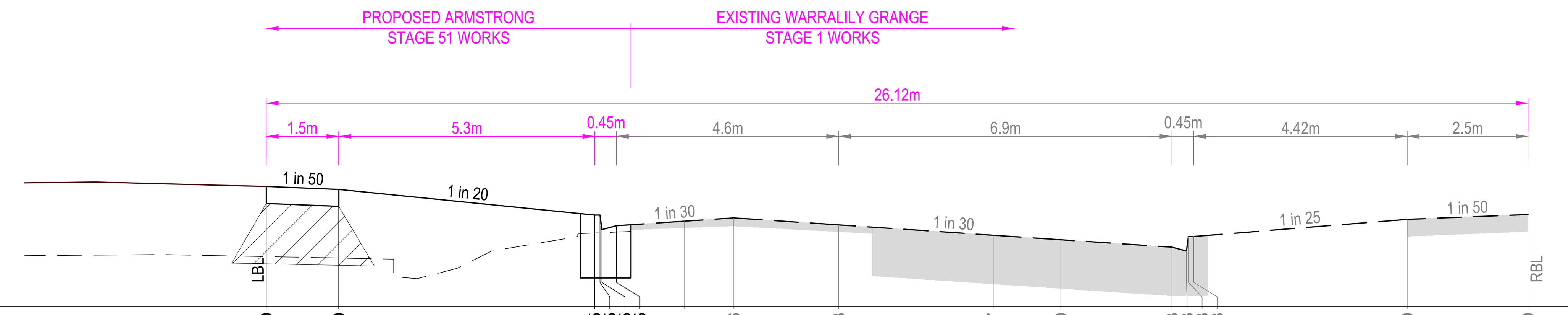
EXISTING SURFACE
DESIGN LINE
SELECT FILL
PREVIOUSLY PLACED CONTROLLED FILL

NOTE
SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 19 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

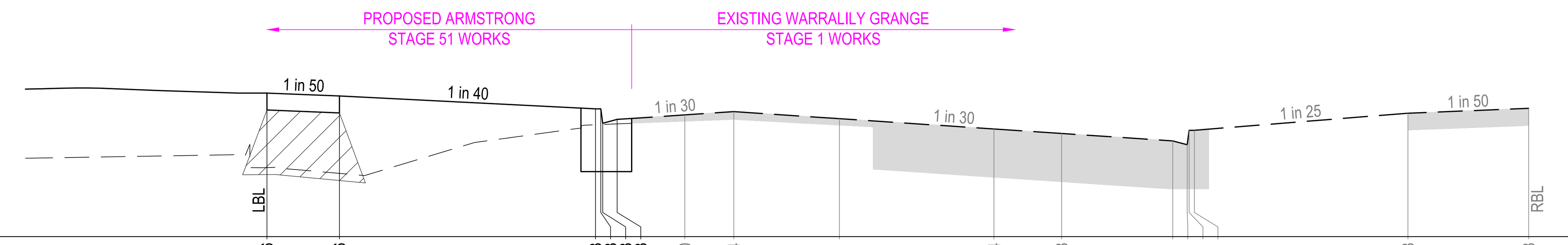
NOTE: THIS IS NOT A BUILDING APPROVAL



DATUM30.0

DESIGN SURFACE	31.240	31.210	30.945	30.945	30.795	30.835	30.881	30.916	30.843	30.737	30.690	30.613	30.573	30.723	30.723	30.900	30.950
EXISTING SURFACE	30.516	30.501	30.760	30.762	30.763	30.769	30.881	30.916	30.843	30.737	30.690	30.613	30.573	30.723	30.723	30.900	30.950
OFFSET	-9.679	-8.179	-2.879	-2.769	-2.729	-2.429	-1.029	0.000	2.171	5.371	6.771	9.071	9.371	9.411	9.521	13.941	16.441

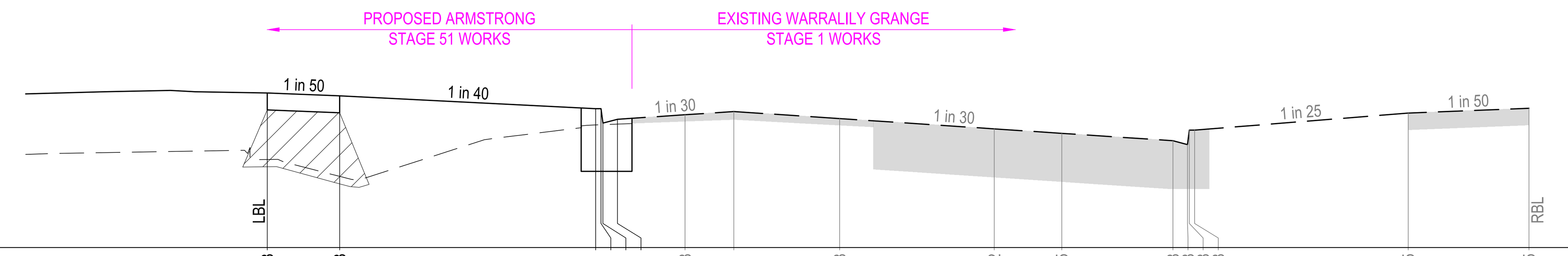
LTPCH 164.295



DATUM30.0

DESIGN SURFACE	31.486	31.456	31.323	31.323	31.173	31.213	31.260	31.294	31.221	31.114	31.068	30.991	30.951	31.101	31.101	31.278	31.328
EXISTING SURFACE	30.715	30.655	31.158	31.160	31.161	31.167	31.260	31.294	31.221	31.114	31.068	30.991	30.951	31.101	31.101	31.278	31.328
OFFSET	-9.663	-8.163	-2.863	-2.753	-2.713	-2.413	-1.013	0.000	2.187	5.387	6.787	9.087	9.387	9.427	9.537	13.957	16.457

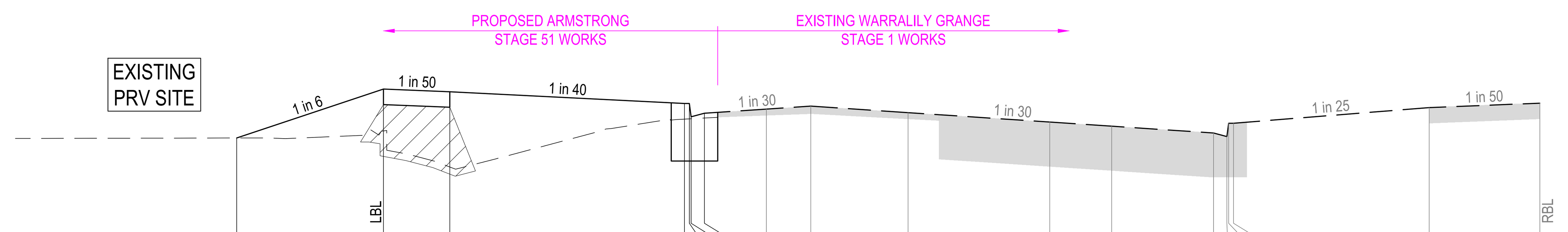
LTPCH 130.498



DATUM30.0

DESIGN SURFACE	31.603	31.573	31.441	31.441	31.291	31.331	31.378	31.411	31.338	31.232	31.185	31.108	31.068	31.218	31.218	31.395	31.445
EXISTING SURFACE	30.913	30.738	31.272	31.274	31.275	31.280	31.378	31.411	31.338	31.232	31.185	31.108	31.068	31.218	31.218	31.395	31.445
OFFSET	-9.659	-8.159	-2.859	-2.749	-2.709	-2.409	-1.009	0.000	2.191	5.391	6.791	9.091	9.391	9.431	9.541	13.961	16.461

CH 120.000



DATUM30.0

DESIGN SURFACE	31.212	31.765	31.735	31.602	31.602	31.452	31.492	31.539	31.572	31.499	31.392	31.346	31.269	31.229	31.379	31.379	31.556	31.606
EXISTING SURFACE	31.212	31.292	30.885	31.426	31.429	31.430	31.438	31.539	31.572	31.499	31.392	31.346	31.269	31.229	31.379	31.379	31.556	31.606
OFFSET	-12.965	-9.652	-8.152	-2.852	-2.742	-2.702	-2.402	-1.002	0.000	2.198	5.398	6.798	9.098	9.398	9.438	9.548	13.968	16.468

LTPCH 105.603

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/19	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
ROAD CROSS SECTIONS - 08
WHITES ROAD

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R507	1

REINFORCED CONCRETE PIPES

ALL STORMWATER DRAINAGE PIPES SHALL NOT BE SUBJECTED TO CONSTRUCTION TRAFFIC LOADING DURING CONSTRUCTION UNLESS THE PIPE STRENGTH CHARACTERISTICS HAVE BEEN COMPUTED AND APPROVED BY THE CONTRACTORS ENGINEER. COMPUTATIONS ARE TO ACCORD WITH AS.3725-1989, LOADS ON BURIED PIPES. CONCRETE PIPES DAMAGED DUE TO CONSTRUCTION LOADS SHALL BE REPAIRED AT THE CONTRACTORS COST.

NOTE:

STORMWATER PITS 4-11, 17 & 97 TO BE CONSTRUCTED TO EXISTING SURFACE AND PROVIDED WITH TEMPORARY COVER AND FLAG.

1:500 10 5 0 10 20 A1
1:1000 HORIZONTAL A3

1:50 1 0.5 0 1 2 A1
1:100 VERTICAL A3

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 20 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

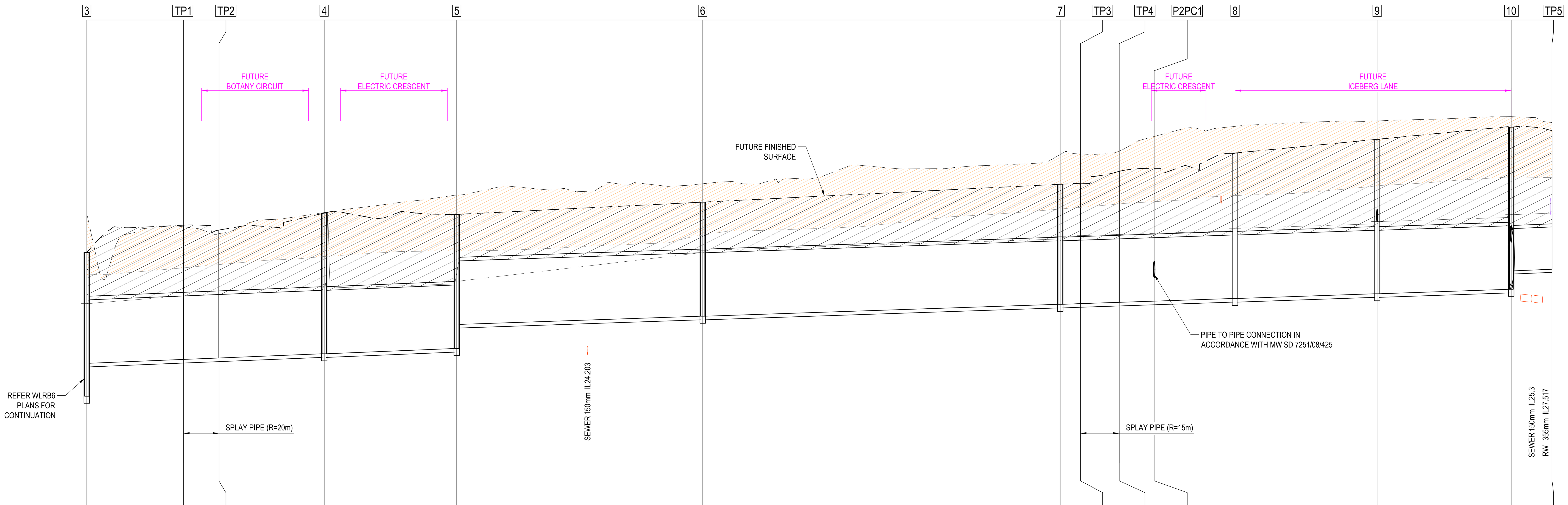
NOTES

1. PIPE TRENCHES WITHIN THE ROAD RESERVE MUST BE BACKFILLED WITH 20mm NOM. SIZE CLASS 3 CRUSHED ROCK TO BE COMPACTED TO A DRY DENSITY NOT LESS THAN 98% MODIFIED RELATIVE COMPACTION IN 150mm THICK LAYER FOR THE FOLLOWING:
   - BENEATH DRIVEWAY CROSSOVERS TO THE UNDERSIDE OF THE PAVEMENT OR CROSSOVER.
   - ADJACENT TO KERBING OR CONCRETE WORKS TO A LEVEL THAT IS NOT AFFECTED BY A 45 DEGREE ANGLE OF REPOSE FROM NEAR THE LOWER EDGE.
2. ALL PIPES UNDER ROADS SHALL BE BACKFILLED WITH 2% STABILISED SAND TO SPRINGLINE. ABOVE THIS POINT, PROVIDE 20mm NOMINAL SIZE CLASS 3 FINE CRUSHED ROCK (WETMIX) COMPACTED TO 98% MODIFIED COMPACTION IN 150mm MAXIMUM LAYER.
3. ALL DRAINAGE PIPES TO BE SPIGOT-SOCKET RUBBER RING JOINTED (RRJ).
4. ALL DRAINAGE PIPES SHALL BE CLASS 2 RCP, UNLESS OTHERWISE NOTED.
5. WHERE PITS DROP LESS THAN 50mm, THE PIT FLOOR MUST BE SHAPED TO MATCH THE LOWER HALF OF THE PIPE.
6. ALL SPLAYED SECTIONS OF PIPE ARE TO BE BACKFILLED WITH 2% STABILIZED SAND, 300mm ABOVE TOP OF PIPE

LEGEND

EXISTING SURFACE
DESIGN SURFACE
DRAINAGE PIPE/PIT
EXISTING DRAINAGE PIPE/PIT
HYDRUALIC GRADE LINE
CRUSHED ROCK BACKFILL
PREVIOUSLY PLACED CONTROLLED FILL

NOTE: ALL DRAINAGE PIPES ARE CLASS 2 TYPE UNLESS OTHERWISE SHOWN



DATUM 19.0

Reach	DESIGN FLOW (m3/s)	CAPACITY (m3/s)	AT GRADE VELOCITY (m/s)	PIPE SIZE (mm)	GRADE	(Reach Length)
3 – TP1	3.009	3.377	2.36	1350Ø	1 in 250	(20.572)
TP1 – TP2	3.013	3.377	2.36	1350Ø	1 in 250	(7.510)
TP2 – 4	3.024	3.377	2.36	1350Ø	1 in 250	(22.397)
4 – 5	2.946	3.377	2.36	1350Ø	1 in 250	(28.157)
5 – 6	2.965	3.083	2.15	1350Ø	1 in 300	(52.286)
6 – 7	2.993	3.083	2.15	1350Ø	1 in 300	(75.999)
7 – TP3	2.949	3.083	2.15	1350Ø	1 in 300	(4.304)
TP3 – TP4	2.953	3.083	2.15	1350Ø	1 in 300	(8.242)
TP4 – P2PC1	2.953	3.083	2.15	1350Ø	1 in 300	(7.427)
P2PC1 – 8	2.953	3.083	2.15	1350Ø	1 in 300	(17.184)
8 – 9	2.975	3.083	2.15	1350Ø	1 in 300	(30.200)
9 – 10	2.972	3.083	2.15	1350Ø	1 in 300	(28.500)
10 – TP5	1.105	1.145	1.8	900Ø	1 in 250	(8.695)

Pit	DEPTH TO INVERT	HYDRAULIC GRADE LINE	INVERT LEVEL	FINISHED SURFACE LEVELS	EXISTING SURFACE LEVEL	CHAINAGE
3	2.857 / 2.357 / 2.357	25.274	23.500 / 24.000 / 24.000	26.357	27.183	0.000
TP1	2.856 / 2.856	25.432	24.082 / 24.082	26.938	26.902	20.572
TP2	2.721 / 2.721	25.462	24.112 / 24.112	26.833	26.758	28.082
4	2.992 / 2.992	25.552 / 25.600	24.202 / 24.202	27.194	27.206	50.479
5	2.852 / 2.340	25.686 / 25.734 / 25.748	24.315 / 24.827	27.167	27.576	78.636
6	2.427 / 2.427	26.351 / 26.403	25.001 / 25.001	27.428	27.819	130.923
7	2.553 / 2.553	26.641 / 26.702	25.255 / 25.255	27.808	28.441	206.921
TP3	2.561 / 2.561	26.715	25.269 / 25.269	27.829	28.450	211.225
TP4	2.793 / 2.793	26.740	25.296 / 25.296	28.089	28.514	219.467
P2PC1	2.831 / 2.831	26.762	25.321 / 25.321	28.152	28.824	226.894
8	3.093 / 3.093	26.816 / 26.871	25.378 / 25.378	28.472	29.039	244.078
9	3.285 / 3.285	26.965 / 27.014	25.479 / 25.479	28.764	29.156	274.278
10	3.448 / 3.057	27.102 / 27.162	25.574 / 25.965	29.022	29.246	302.778
TP5	2.947	27.194	26.000	28.947	29.120	311.473

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
2	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
1	05/08/19	P2PC1 ADDED	M.T.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
DRAINAGE LONG SECTIONS - 1

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R600	2

REINFORCED CONCRETE PIPES

ALL STORMWATER DRAINAGE PIPES SHALL NOT BE SUBJECTED TO CONSTRUCTION TRAFFIC LOADING DURING CONSTRUCTION UNLESS THE PIPE STRENGTH CHARACTERISTICS HAVE BEEN COMPUTED AND APPROVED BY THE CONTRACTORS ENGINEER. COMPUTATIONS ARE TO ACCORD WITH AS.3725-1989, LOADS ON BURIED PIPES. CONCRETE PIPES DAMAGED DUE TO CONSTRUCTION LOADS SHALL BE REPAIRED AT THE CONTRACTORS COST.

NOTE:

STORMWATER PITS 4-11, 17 & 97 TO BE CONSTRUCTED TO EXISTING SURFACE AND PROVIDED WITH TEMPORARY COVER AND FLAG.

1:500 10 5 0 10 20 A1
1:1000 HORIZONTAL A3

1:50 1 0.5 0 1 2 A1
1:100 VERTICAL A3

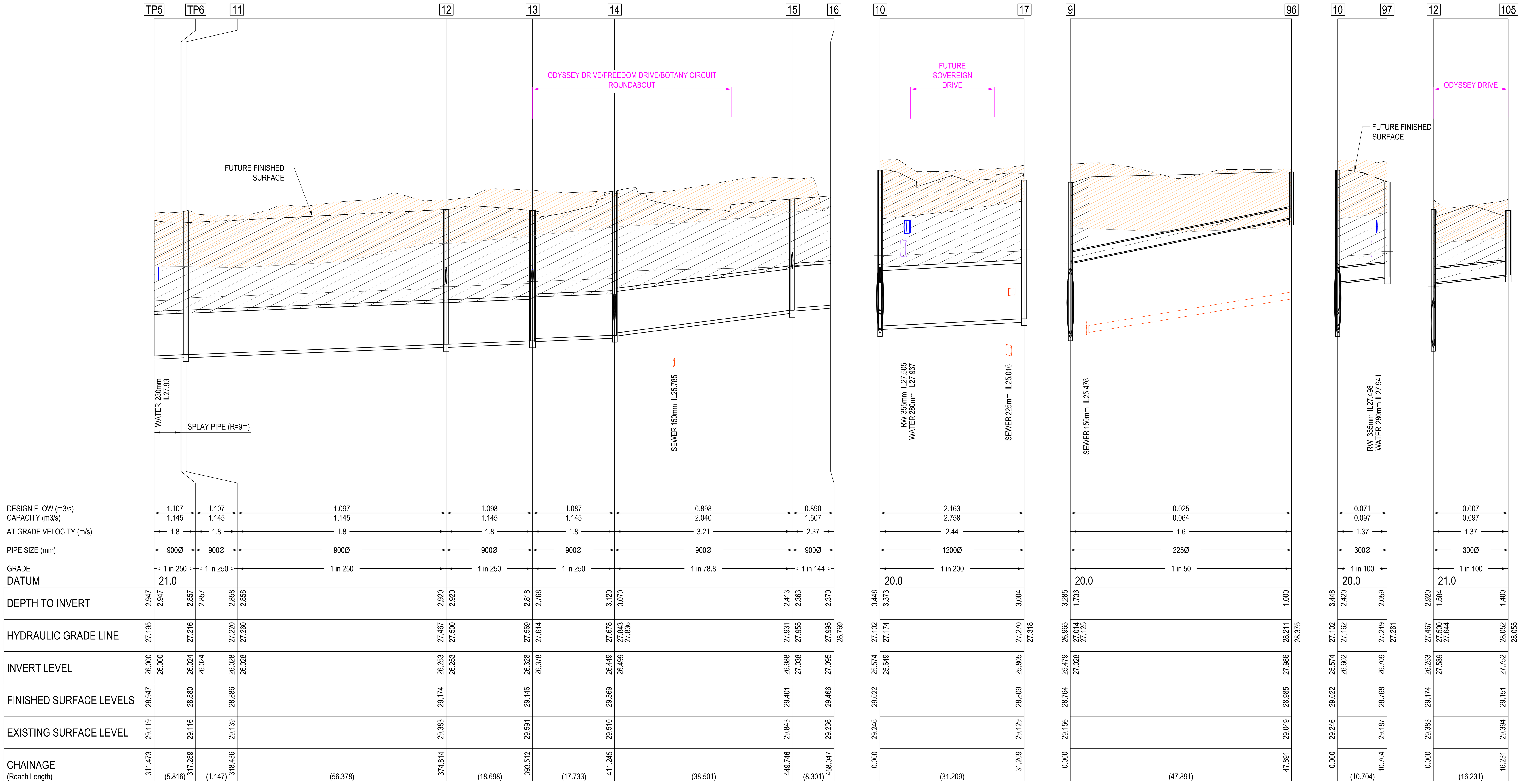
NOTES

1. PIPE TRENCHES WITHIN THE ROAD RESERVE MUST BE BACKFILLED WITH 20mm NOM. SIZE CLASS 3 CRUSHED ROCK TO BE COMPACTED TO A DRY DENSITY NOT LESS THAN 98% MODIFIED RELATIVE COMPACTION IN 150mm THICK LAYER FOR THE FOLLOWING:
   - BENEATH DRIVEWAY CROSSOVERS TO THE UNDERSIDE OF THE PAVEMENT OR CROSSOVER.
   - ADJACENT TO KERBING OR CONCRETE WORKS TO A LEVEL THAT IS NOT AFFECTED BY A 45 DEGREE ANGLE OF REPOSE FROM NEAR THE LOWER EDGE.
2. ALL PIPES UNDER ROADS SHALL BE BACKFILLED WITH 2% STABILISED SAND TO SPRINGLINE. ABOVE THIS POINT, PROVIDE 20mm NOMINAL SIZE CLASS 3 FINE CRUSHED ROCK (WETMIX) COMPACTED TO 98% MODIFIED COMPACTION IN 150mm MAXIMUM LAYER.
3. ALL DRAINAGE PIPES TO BE SPIGOT-SOCKET RUBBER RING JOINTED (RRJ).
4. ALL DRAINAGE PIPES SHALL BE CLASS 2 RCP, UNLESS OTHERWISE NOTED.
5. WHERE PITS DROP LESS THAN 50mm, THE PIT FLOOR MUST BE SHAPED TO MATCH THE LOWER HALF OF THE PIPE.
6. ALL SPLAYED SECTIONS OF PIPE ARE TO BE BACKFILLED WITH 2% STABILIZED SAND, 300mm ABOVE TOP OF PIPE

LEGEND

- EXISTING SURFACE
- DESIGN SURFACE
- DRAINAGE PIPE/PIT
- EXISTING DRAINAGE PIPE/PIT
- HYDRAULIC GRADE LINE
- CRUSHED ROCK BACKFILL
- PREVIOUSLY PLACED CONTROLLED FILL

NOTE: ALL DRAINAGE PIPES ARE CLASS 2 TYPE UNLESS OTHERWISE SHOWN



GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME
Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 21 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019
NOTE: THIS IS NOT A BUILDING APPROVAL

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT

villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT

ARMSTRONG MT DUNEED

DRAWING TITLE

ARMSTRONG - STAGE 51
DRAINAGE LONG SECTIONS - 2

STATUS

ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R601	1

REINFORCED CONCRETE PIPES

ALL STORMWATER DRAINAGE PIPES SHALL NOT BE SUBJECTED TO CONSTRUCTION TRAFFIC LOADING DURING CONSTRUCTION UNLESS THE PIPE STRENGTH CHARACTERISTICS HAVE BEEN COMPUTED AND APPROVED BY THE CONTRACTORS ENGINEER. COMPUTATIONS ARE TO ACCORD WITH AS.3725-1989, LOADS ON BURIED PIPES. CONCRETE PIPES DAMAGED DUE TO CONSTRUCTION LOADS SHALL BE REPAIRED AT THE CONTRACTORS COST.

1:500 10 5 0 10 20 A1
1:1000 HORIZONTAL A3

1:50 1 0.5 0 1 2 A1
1:100 VERTICAL A3

NOTE:

CONTRACTOR TO MAKE DUE ALLOWANCE FOR CONSTRUCTING DRAINAGE INFRASTRUCTURE AROUND EXISTING WATER ASSETS

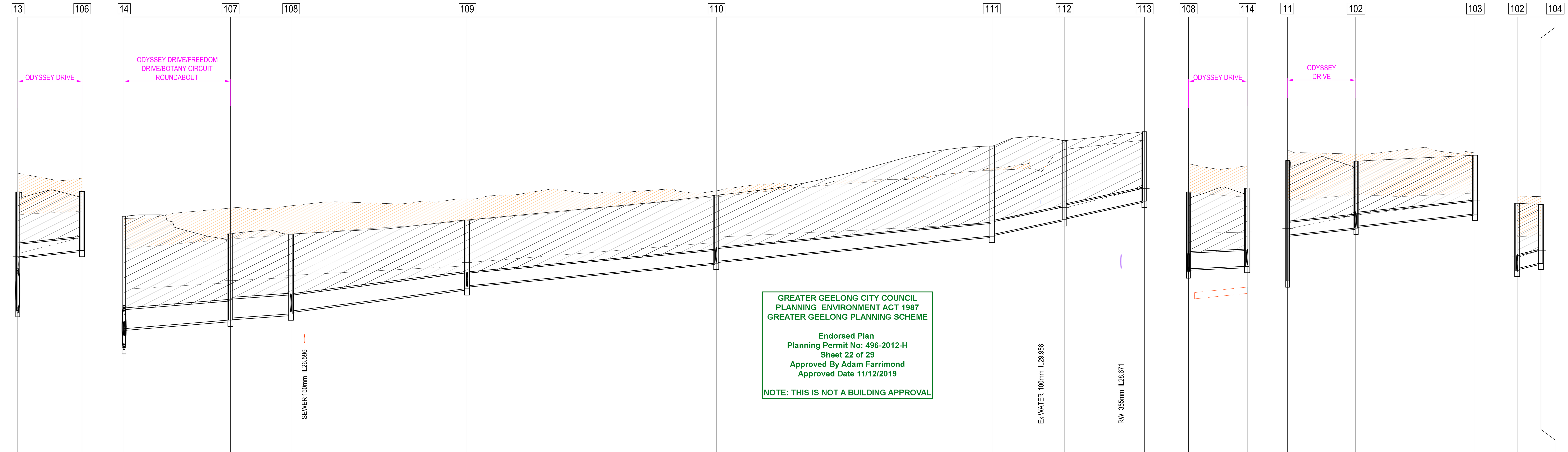
NOTES

1. PIPE TRENCHES WITHIN THE ROAD RESERVE MUST BE BACKFILLED WITH 20mm NOM. SIZE CLASS 3 CRUSHED ROCK TO BE COMPACTED TO A DRY DENSITY NOT LESS THAN 98% MODIFIED RELATIVE COMPACTION IN 150mm THICK LAYER FOR THE FOLLOWING:
   - BENEATH DRIVEWAY CROSSOVERS TO THE UNDERSIDE OF THE PAVEMENT OR CROSSOVER.
   - ADJACENT TO KERBING OR CONCRETE WORKS TO A LEVEL THAT IS NOT AFFECTED BY A 45 DEGREE ANGLE OF REPOSE FROM NEAR THE LOWER EDGE.
2. ALL PIPES UNDER ROADS SHALL BE BACKFILLED WITH 2% STABILISED SAND TO SPRINGLINE. ABOVE THIS POINT, PROVIDE 20mm NOMINAL SIZE CLASS 3 FINE CRUSHED ROCK (WETMIX) COMPACTED TO 98% MODIFIED COMPACTION IN 150mm MAXIMUM LAYER.
3. ALL DRAINAGE PIPES TO BE SPIGOT-SOCKET RUBBER RING JOINTED (RRJ).
4. ALL DRAINAGE PIPES SHALL BE CLASS 2 RCP, UNLESS OTHERWISE NOTED.
5. WHERE PITS DROP LESS THAN 50mm, THE PIT FLOOR MUST BE SHAPED TO MATCH THE LOWER HALF OF THE PIPE.
6. ALL SPLAYED SECTIONS OF PIPE ARE TO BE BACKFILLED WITH 2% STABILIZED SAND, 300mm ABOVE TOP OF PIPE

LEGEND

EXISTING SURFACE
DESIGN SURFACE
DRAINAGE PIPE/PIT
EXISTING DRAINAGE PIPE/PIT
HYDRAULIC GRADE LINE
CRUSHED ROCK BACKFILL
PREVIOUSLY PLACED CONTROLLED FILL

NOTE: ALL DRAINAGE PIPES ARE CLASS 2 TYPE UNLESS OTHERWISE SHOWN



GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 22 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

Reach	DESIGN FLOW (m3/s)	CAPACITY (m3/s)	AT GRADE VELOCITY (m/s)	PIPE SIZE (mm)	GRADE	DATUM	(Reach Length)
13 – 106	0.018	0.097	1.37	300Ø	1 in 100	21.0	(15.262)
14 – 107	0.220	0.254	1.6	450Ø	1 in 126	22.0	(25.278)
107 – 108	0.206	0.233	1.46	450Ø	1 in 150		(14.375)
108 – 109	0.128	0.196	1.78	375Ø	1 in 80		(41.867)
109 – 110	0.086	0.092	1.3	300Ø	1 in 111		(59.224)
110 – 111	0.034	0.092	1.3	300Ø	1 in 111		(65.559)
111 – 112	0.007	0.137	1.94	300Ø	1 in 50		(16.618)
112 – 113	0.004	0.137	1.94	300Ø	1 in 48.8		(20.049)
108 – 114	0.072	0.111	1	375Ø	1 in 250	21.0	(13.973)
11 – 102	0.028	0.097	1.37	300Ø	1 in 100	20.0	(16.201)
102 – 103	0.016	0.097	1.37	300Ø	1 in 100		(28.367)
102 – 104	0.005	0.138	1.95	300Ø	1 in 49.3	21.0	(5.630)

Pit	DEPTH TO INVERT	HYDRAULIC GRADE LINE	INVERT LEVEL	FINISHED SURFACE LEVELS	EXISTING SURFACE LEVEL	CHAINAGE
13	2.818 1.543	27.569 27.614 27.692	26.328 27.604	29.146	29.591	0.000
106	1.400	28.056 28.080	27.756	29.156	29.475	15.262
14	3.120 2.670	27.678 27.843 27.836	26.449 26.899	29.569	29.510	0.000
107	2.049 1.999	27.986 28.038	27.100 27.150	29.149	29.762	25.278
108	1.901 1.826	28.112 28.165	27.246 27.321	29.146	29.817	39.654
109	1.636 1.561	28.387 28.471	27.844 27.919	29.480	29.976	81.521
110	1.617 1.567	28.942 29.074	28.452 28.502	30.069	30.172	140.745
111	2.142 2.092	29.393 29.473	29.093 29.143	31.235	30.717	206.303
112	1.877 1.827	29.775 29.776	29.486 29.536	31.363	31.156	223.448
113	1.650	30.226 30.227	29.926	31.576	31.376	242.500
108	1.901 1.826	28.112 28.165	27.246 27.321	29.146	29.817	0.000
114	1.863	28.188 28.194	27.377	29.239	29.768	13.973
11	2.858 1.770	27.273	26.028 27.120	28.889	29.142	0.000
102	1.592 1.542	27.582 27.603 27.599	27.282 27.332	28.874	29.043	16.201
103	1.400	27.915 27.934	27.615	29.016	29.069	44.568
102	1.592 1.542	27.582 27.603 27.599	27.282 27.332	28.874	29.043	0.000
104	1.400	27.746 27.748	27.446	28.846	29.031	5.630

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
2	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
1	24/07/19	LINE 111-113 AMENDED	M.T.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
DRAINAGE LONG SECTIONS - 3

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R602	2

REINFORCED CONCRETE PIPES

ALL STORMWATER DRAINAGE PIPES SHALL NOT BE SUBJECTED TO CONSTRUCTION TRAFFIC LOADING DURING CONSTRUCTION UNLESS THE PIPE STRENGTH CHARACTERISTICS HAVE BEEN COMPUTED AND APPROVED BY THE CONTRACTORS ENGINEER. COMPUTATIONS ARE TO ACCORD WITH AS.3725-1989, LOADS ON BURIED PIPES. CONCRETE PIPES DAMAGED DUE TO CONSTRUCTION LOADS SHALL BE REPAIRED AT THE CONTRACTORS COST.

1:500 10 5 0 10 20 A1
1:1000 HORIZONTAL A3

1:50 1 0.5 0 1 2 A1
1:100 VERTICAL A3

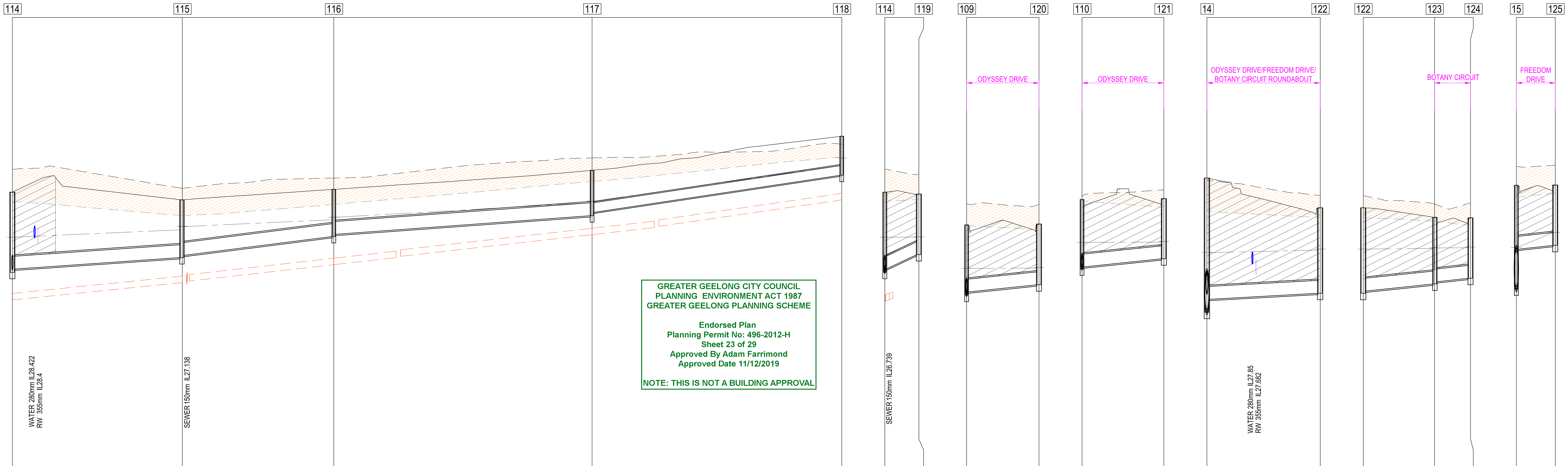
NOTES

1. PIPE TRENCHES WITHIN THE ROAD RESERVE MUST BE BACKFILLED WITH 20mm NOM. SIZE CLASS 3 CRUSHED ROCK TO BE COMPACTED TO A DRY DENSITY NOT LESS THAN 98% MODIFIED RELATIVE COMPACTION IN 150mm THICK LAYER FOR THE FOLLOWING:
   - BENEATH DRIVEWAY CROSSOVERS TO THE UNDERSIDE OF THE PAVEMENT OR CROSSOVER.
   - ADJACENT TO KERBING OR CONCRETE WORKS TO A LEVEL THAT IS NOT AFFECTED BY A 45 DEGREE ANGLE OF REPOSE FROM NEAR THE LOWER EDGE.
2. ALL PIPES UNDER ROADS SHALL BE BACKFILLED WITH 2% STABILISED SAND TO SPRINGLINE. ABOVE THIS POINT, PROVIDE 20mm NOMINAL SIZE CLASS 3 FINE CRUSHED ROCK (WETMIX) COMPACTED TO 98% MODIFIED COMPACTION IN 150mm MAXIMUM LAYER.
3. ALL DRAINAGE PIPES TO BE SPIGOT-SOCKET RUBBER RING JOINTED (RRJ).
4. ALL DRAINAGE PIPES SHALL BE CLASS 2 RCP, UNLESS OTHERWISE NOTED.
5. WHERE PITS DROP LESS THAN 50mm, THE PIT FLOOR MUST BE SHAPED TO MATCH THE LOWER HALF OF THE PIPE.
6. ALL SPLAYED SECTIONS OF PIPE ARE TO BE BACKFILLED WITH 2% STABILIZED SAND, 300mm ABOVE TOP OF PIPE

LEGEND

- EXISTING SURFACE
- DESIGN SURFACE
- DRAINAGE PIPE/PIT
- EXISTING DRAINAGE PIPE/PIT
- HYDRAULIC GRADE LINE
- CRUSHED ROCK BACKFILL
- PREVIOUSLY PLACED CONTROLLED FILL

NOTE: ALL DRAINAGE PIPES ARE CLASS 2 TYPE UNLESS OTHERWISE SHOWN



GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 23 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

Reach	DESIGN FLOW (m3/s)	CAPACITY (m3/s)	AT GRADE VELOCITY (m/s)	PIPE SIZE (mm)	GRADE	DATUM	(Reach Length)
114–115	0.064	0.080	1.13	300Ø	1 in 147	21.0	(39.467)
115–116	0.065	0.108	1.53	300Ø	1 in 80		(35.200)
116–117	0.049	0.082	1.16	300Ø	1 in 138		(60.000)
117–118	0.026	0.055	1.38	225Ø	1 in 67.1		(58.000)
114–119	0.010	0.200	2.83	300Ø	1 in 23.4	21.0	(7.912)
109–120	0.015	0.097	1.37	300Ø	1 in 100	22.0	(16.814)
110–121	0.016	0.097	1.37	300Ø	1 in 100	22.0	(19.005)
14–122	0.045	0.071	1	300Ø	1 in 187	21.0	(26.325)
122–123	0.028	0.097	1.37	300Ø	1 in 100	21.0	(16.555)
123–124	0.020	0.097	1.37	300Ø	1 in 100		(8.351)
15–125	0.007	0.097	1.37	300Ø	1 in 100	21.0	(9.035)

Pit	DEPTH TO INVERT	HYDRAULIC GRADE LINE	INVERT LEVEL	FINISHED SURFACE LEVELS	EXISTING SURFACE LEVEL	CHAINAGE
114	1.863 1.788	28.188 28.194	27.377 27.452	29.239	29.768	13.973
115	1.342 1.292	28.364 28.447 28.441	27.719 27.769	29.061	29.329	53.440
116	1.095 1.045	28.598 28.657	28.209 28.259	29.305	29.569	88.640
117	1.055 0.980	28.993 29.032	28.693 28.768	29.748	30.036	148.640
118	0.907	29.858 30.034	29.633	30.540	30.357	206.640
114	1.863 1.788	28.188 28.194	27.377 27.452	29.239	29.768	0.000
119	1.406	28.195 28.202	27.789	29.196	29.657	7.912
109	1.636 1.561	28.387 28.471	27.844 27.919	29.480	29.976	0.000
120	1.413	28.474 28.490	28.087	29.500	29.957	16.814
110	1.617 1.567	28.942 29.074	28.452 28.502	30.069	30.172	0.000
121	1.398	29.079 29.096	28.692	30.091	30.295	19.005
14	3.120 2.820	27.678 27.843 27.836	26.449 26.749	29.569	29.510	0.000
122	1.987	27.892 27.918	26.890	28.877	29.161	26.325
122	1.987 1.937	27.892 27.918	26.890 26.940	28.877	29.161	26.325
123	1.549 1.499	27.932 27.946 27.944	27.105 27.155	28.655	28.964	42.880
124	1.404	27.948 27.963	27.239	28.643	28.991	51.232
15	2.413 1.488	27.931 27.955 27.967	26.988 27.913	29.401	29.843	0.000
125	1.403	28.303 28.306	28.003	29.406	29.867	9.035

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT: villawood properties — Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT: ARMSTRONG MT DUNEED

DRAWING TITLE: ARMSTRONG - STAGE 51
DRAINAGE LONG SECTIONS - 4

STATUS: ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R603	1

PIT SCHEDULE

PIT		INTERNAL		INLET		OUTLET		PIT		STD DWG	REMARKS
NAME	TYPE	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH		
3	JUNCTION PIT	1200	2100	1350	24.000	1500	23.500	26.357	2.857	SD420 & VICROADS SD1023	PROVIDE 750Ø BLOCKOUT IN SOUTH WALL FOR FUTURE CONNECTION @ IL24.180. BLOCKOUT TO BE CAPPED PRIOR TO BACKFILLING. PIT TO BE HAUNCHED TO 600x900 COVER IN ACCORDANCE WITH VICROADS SD1023. FOR CONTINUATION - REFER WLRB6 PLANS.
				Fut.750	Fut.24.180						
TP1	TANGENT POINT	-	-	1350	24.082	1350	24.082	26.938	2.856	MW 7251/08/420	SPLAY PIPE TANGENT POINT. RADIUS 20m, DEFLECTION 22°. REFER MW 7251/08/420 FOR DETAIL
TP2	TANGENT POINT	-	-	1350	24.112	1350	24.112	26.833	2.721	MW 7251/08/420	SPLAY PIPE TANGENT POINT. RADIUS 20m, DEFLECTION 22°. REFER MW 7251/08/420 FOR DETAIL
4	SIDE ENTRY PIT	1800	900	1350	24.202	1350	24.202	27.194	2.992	SD430 & SD410	PROVIDE 300Ø BLOCKOUT IN SOUTH WALL FOR FUTURE CONNECTION @ IL25.347. PROVIDE 375Ø BLOCKOUT IN NORTH WALL FOR FUTURE CONNECTION @ IL25.397. BLOCKOUTS TO BE CAPPED PRIOR TO BACKFILLING. PIT TO BE HAUNCHED TO 600x900 COVER. PIT TO BE CONSTRUCTED TO EXISTING SURFACE LEVEL AND PROVIDED WITH TEMPORARY COVER AND FLAG UNTIL FUTURE DEVELOPMENT COMMENCES
				Fut.300	Fut.25.347						
				Fut.375	Fut.25.397						
5	SIDE ENTRY PIT	1800	900	1350	24.827	1350	24.315	27.167	2.852	SD430 & SD410	PIT TO BE HAUNCHED TO 600x900 COVER. PIT TO BE CONSTRUCTED TO EXISTING SURFACE LEVEL AND PROVIDED WITH TEMPORARY COVER AND FLAG UNTIL FUTURE DEVELOPMENT COMMENCES
6	SIDE ENTRY PIT	1800	900	1350	25.001	1350	25.001	27.428	2.427	SD430 & SD410	PIT TO BE HAUNCHED TO 600x900 COVER. PIT TO BE CONSTRUCTED TO EXISTING SURFACE LEVEL AND PROVIDED WITH TEMPORARY COVER AND FLAG UNTIL FUTURE DEVELOPMENT COMMENCES
7	SIDE ENTRY PIT	1800	900	1350	25.255	1350	25.255	27.808	2.553	SD430 & SD410	PROVIDE 300Ø BLOCKOUT IN SOUTH WALL FOR FUTURE CONNECTION @ IL26.077. BLOCKOUT TO BE CAPPED PRIOR TO BACKFILLING. PIT TO BE HAUNCHED TO 600x900 COVER. PIT TO BE CONSTRUCTED TO EXISTING SURFACE LEVEL AND PROVIDED WITH TEMPORARY COVER AND FLAG UNTIL FUTURE DEVELOPMENT COMMENCES
				Fut.300	Fut.26.077						
TP3	TANGENT POINT	-	-	1350	25.269	1350	25.269	27.829	2.561	MW 7251/08/420	SPLAY PIPE TANGENT POINT. RADIUS 15m, DEFLECTION 31°. REFER MW 7251/08/420 FOR DETAIL
TP4	TANGENT POINT	-	-	1350	25.296	1350	25.296	28.089	2.793	MW 7251/08/420	SPLAY PIPE TANGENT POINT. RADIUS 15m, DEFLECTION 31°. REFER MW 7251/08/420 FOR DETAIL
P2PC1	PIPE TO PIPE CONNECTION	-	-	1350	25.321	1350	25.321	28.152	2.831	MW 7251/08/425	PIPE TO PIPE CONNECTION. PROVIDE 1 PIPE LENGTH (2.44m) 300Ø STUB FOR FUTURE CONNECTION. IL25.846 @ 1 in 11.7. STUB TO BE CAPPED PRIOR TO BACKFILLING.
				Fut.300	Fut.25.846						
8	GRATED PIT	1800	900	1350	25.378	1350	25.378	28.472	3.093	SD455 & SD410	PROVIDE CLASS D, HEAVY DUTY GRATED COVER. PIT TO BE HAUNCHED TO 600x900 COVER. PIT TO BE CONSTRUCTED TO EXISTING SURFACE LEVEL AND PROVIDED WITH TEMPORARY COVER AND FLAG UNTIL FUTURE DEVELOPMENT COMMENCES.
9	GRATED PIT	1800	900	1350	25.479	1350	25.479	28.764	3.285	SD455 & SD410	PROVIDE CLASS D, HEAVY DUTY GRATED COVER. PIT TO BE HAUNCHED TO 600x900 COVER. PIT TO BE CONSTRUCTED TO EXISTING SURFACE LEVEL AND PROVIDED WITH TEMPORARY COVER AND FLAG UNTIL FUTURE DEVELOPMENT COMMENCES.
				225	27.028						
10	GRATED PIT	1800	900	900	25.965	1350	25.574	29.022	3.448	SD455 & SD410	PROVIDE CLASS D, HEAVY DUTY GRATED COVER. PIT TO BE HAUNCHED TO 600x900 COVER. PIT TO BE CONSTRUCTED TO EXISTING SURFACE LEVEL AND PROVIDED WITH TEMPORARY COVER AND FLAG UNTIL FUTURE DEVELOPMENT COMMENCES.
				1200	25.649						
				300	26.602						
TP5	TANGENT POINT	-	-	900	26.000	900	26.000	28.947	2.947	MW 7251/08/420	SPLAY PIPE TANGENT POINT. RADIUS 9m, DEFLECTION 37°. REFER MW 7251/08/420 FOR DETAIL
TP6	TANGENT POINT	-	-	900	26.023	900	26.023	28.884	2.860	MW 7251/08/420	SPLAY PIPE TANGENT POINT. RADIUS 9m, DEFLECTION 37°. REFER MW 7251/08/420 FOR DETAIL
11	SIDE ENTRY PIT	1200	900	900	26.028	900	26.028	28.889	2.862	SD430 & SD410	PROVIDE 300Ø BLOCKOUT IN WEST WALL FOR FUTURE CONNECTION @ IL27.093. BLOCKOUT TO BE CAPPED PRIOR TO BACKFILLING. PIT TO BE HAUNCHED TO 600x900 COVER. PIT TO BE CONSTRUCTED TO EXISTING SURFACE LEVEL AND PROVIDED WITH TEMPORARY COVER AND FLAG UNTIL FUTURE DEVELOPMENT COMMENCES.
				300	27.093						
12	SIDE ENTRY PIT	1200	900	900	26.253	900	26.253	29.174	2.920	SD430 & SD410	PIT TO BE HAUNCHED TO 600x900 COVER.
				300	27.589						
13	SIDE ENTRY PIT	1500	900	900	26.378	900	26.328	29.146	2.818	SD430 & SD410	PIT TO BE HAUNCHED TO 600x900 COVER.
				300	27.604						
14	JUNCTION PIT	1200	1200	900	26.499	900	26.449	29.569	3.120	SD420 & VICROADS SD1023	PIT TO BE HAUNCHED TO 600x900 COVER IN ACCORDANCE WITH VICROADS SD1023.
				450	26.899						
				300	26.749						
15	SIDE ENTRY PIT	1200	900	900	27.038	900	26.988	29.401	2.413	SD430 & SD410	PIT TO BE HAUNCHED TO 600x900 COVER.
				300	27.913						
16	SIDE ENTRY PIT	1200	900	Fut.900	Fut.27.095	900	27.095	29.466	2.370	SD430 & SD410	PROVIDE 900Ø BLOCKOUT IN WEST WALL FOR FUTURE CONNECTION @ IL27.095. BLOCKOUT TO BE CAPPED PRIOR TO BACKFILLING. PIT TO BE HAUNCHED TO 600X900 COVER.
TP7	TANGENT POINT	-	-	1200	25.676	1200	25.676	28.903	3.227	MW 7251/08/420	SPLAY PIPE TANGENT POINT. RADIUS 12m, DEFLECTION 45°. REFER MW 7251/08/420 FOR DETAIL
TP8	TANGENT POINT	-	-	1200	25.723	1200	25.723	28.858	3.135	MW 7251/08/420	SPLAY PIPE TANGENT POINT. RADIUS 12m, DEFLECTION 45°. REFER MW 7251/08/420 FOR DETAIL
TP9	TANGENT POINT	-	-	1200	25.767	1200	25.767	28.715	2.948	MW 7251/08/420	SPLAY PIPE TANGENT POINT. RADIUS 12m, DEFLECTION 45°. REFER MW 7251/08/420 FOR DETAIL
TP10	TANGENT POINT	-	-	1200	25.814	1200	25.814	28.798	2.984	MW 7251/08/420	SPLAY PIPE TANGENT POINT. RADIUS 12m, DEFLECTION 45°. REFER MW 7251/08/420 FOR DETAIL
17	SIDE ENTRY PIT	1500	900	Fut.1200	Fut.25.824	1200	25.824	28.808	2.983	SD430 & SD410	PROVIDE 1200Ø BLOCKOUT IN WEST WALL FOR FUTURE CONNECTION @ IL 25.824. PROVIDE 300Ø BLOCKOUT IN NORTH WALL FOR FUTURE CONNECTION @ IL27.338. BLOCKOUTS TO BE CAPPED PRIOR TO BACKFILLING. PIT TO BE HAUNCHED TO 600x900 COVER. PIT TO BE CONSTRUCTED TO EXISTING SURFACE LEVEL AND PROVIDED WITH TEMPORARY COVER AND FLAG UNTIL FUTURE DEVELOPMENT COMMENCES.
				Fut.300	Fut.27.338						
96	JUNCTION PIT	600	900			225	27.986	28.985	1.000	SD425	
97	SIDE ENTRY PIT	900	900			300	26.709	28.768	2.059	SD430 & SD410	PROVIDE 300Ø BLOCKOUT IN NORTH WALL FOR FUTURE CONNECTION @ IL26.759. BLOCKOUT TO BE CAPPED PRIOR TO BACKFILLING. PIT TO BE HAUNCHED TO 600x900 COVER. PIT TO BE HAUNCHED TO 600x900 COVER. PIT TO BE CONSTRUCTED TO EXISTING SURFACE LEVEL AND PROVIDED WITH TEMPORARY COVER AND FLAG UNTIL FUTURE DEVELOPMENT COMMENCES.
102	SIDE ENTRY PIT	600	900	300	27.332	300	27.282	28.874	1.592	SD430	
				300	27.332						
103	SIDE ENTRY PIT	600	900			300	27.615	29.016	1.400	SD430	
104	SIDE ENTRY PIT	600	900			300	27.446	28.846	1.400	SD430	
105	SIDE ENTRY PIT	600	900			300	27.752	29.151	1.400		
106	SIDE ENTRY PIT	600	900			300	27.756	29.156	1.400	SD430	
107	SIDE ENTRY PIT	900	900	450	27.150	450	27.100	29.149	2.049	SD430 & SD410	PIT TO BE HAUNCHED TO 600x900 COVER
108	SIDE ENTRY PIT	900	900	375	27.321	450	27.246	29.146	1.901	SD430 & SD410	PIT TO BE HAUNCHED TO 600x900 COVER
				375	27.321						
109	SIDE ENTRY PIT	600	900	300	27.919	375	27.844	29.480	1.636	SD430	
				300	27.919						
110	SIDE ENTRY PIT	600	900	300	28.502	300	28.452	30.069	1.617	SD430	
				300	28.502						
111	SIDE ENTRY PIT	900	900	300	29.143	300	29.093	31.235	2.142	SD430 & SD410	PIT TO BE HAUNCHED TO 600x900 COVER
112	SIDE ENTRY PIT	900	900	300	29.536	300	29.486	31.363	1.877	SD430 & SD410	PIT TO BE HAUNCHED TO 600x900 COVER
113	SIDE ENTRY PIT	600	900			300	29.926	31.576	1.650	SD430	
114	SIDE ENTRY PIT	900	900	300	27.452	375	27.377	29.239	1.863	SD430 & SD410	PIT TO BE HAUNCHED TO 600x900 COVER
				300	27.452						
115	JUNCTION PIT	600	900	300	27.769	300	27.719	29.061	1.342	SD425	
116	JUNCTION PIT	600	900	300	28.259	300	28.209	29.305	1.095	SD425	
117	JUNCTION PIT	600	900	225	28.768	300	28.693	29.748	1.055	SD425	
118	JUNCTION PIT	600	900			225	29.633	30.540	0.907	SD425	
119	SIDE ENTRY PIT	600	900			300	27.789	29.196	1.406	SD430	
120	SIDE ENTRY PIT	600	900			300	28.087	29.500	1.413	SD430	
121	SIDE ENTRY PIT	600	900			300	28.692	30.091	1.398	SD430	
122	SIDE ENTRY PIT	900	900	300	26.940	300	26.890	28.877	1.987	SD430 & SD410	PIT TO BE HAUNCHED TO 600x900 COVER
123	SIDE ENTRY PIT	600	900	300	27.155	300	27.105	28.655	1.549	SD430	
124	SIDE ENTRY PIT	600	900			300	27.239	28.643	1.404	SD430	
125	SIDE ENTRY PIT	600	900			300	28.003	29.406	1.403	SD430	

NOTE:
PIT COVERS ARE TO BE PROVIDED IN ACCORDANCE WITH CITY OF GREATER GEELONG DESIGN NOTE 13. ALL PITS WITHIN ROAD RESERVE ARE TO BE CLASS C FIBREGLASS REINFORCED PLASTIC (FRP) UNLESS AGREED OTHERWISE.

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 24 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
3	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
2	05/08/19	STUBS REPLACED WITH BLOCKOUTS & P2PC1 ADDED	M.T.	M.T.	T.P.
1	24/07/19	PIT 112 DETAILS AMENDED	M.T.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

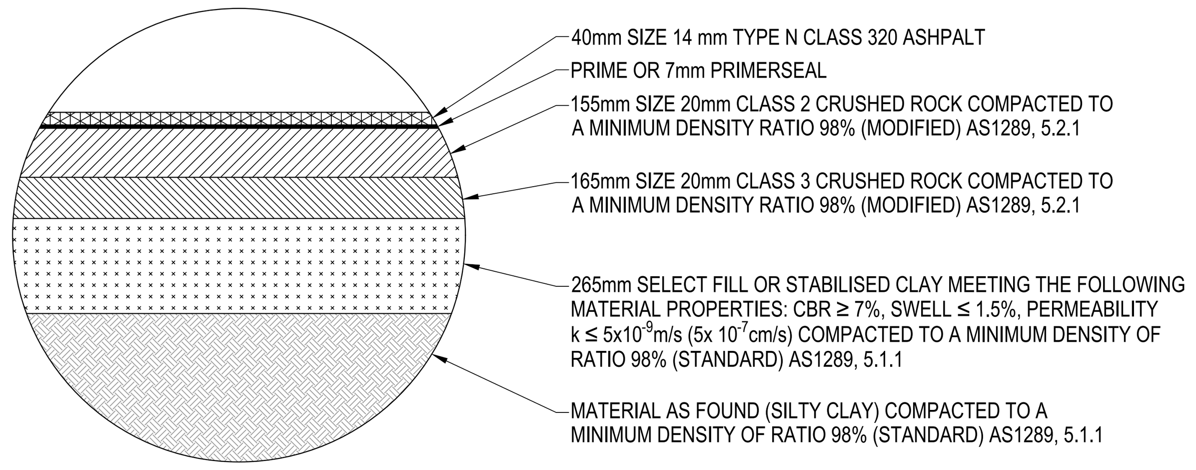
creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
PIT SCHEDULE

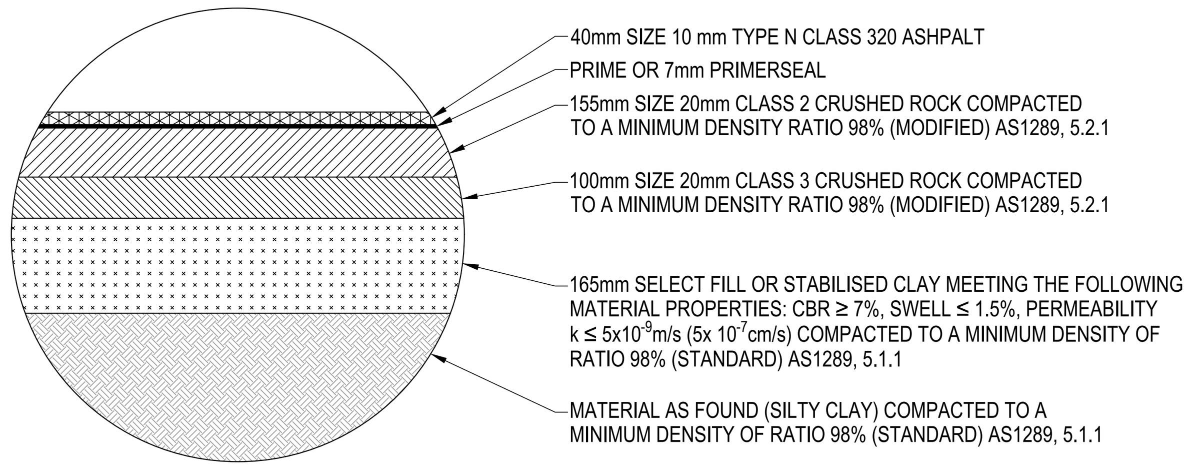
STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R604	3



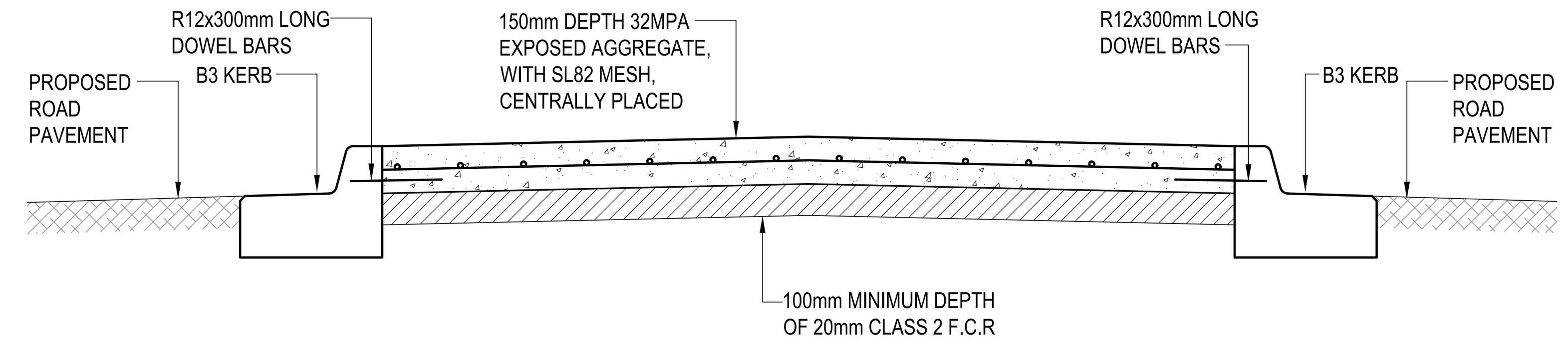
PAVEMENT COMPOSITION
ODYSSEY DRIVE (COLLECTOR ROAD)
625mm DEPTH
NTS

NOTE:
DETAIL PROVIDED IN ACCORDANCE WITH GEOTECHNICAL REPORT PREPARED BY TONKIN & TAYLOR DATED AUGUST 2015.

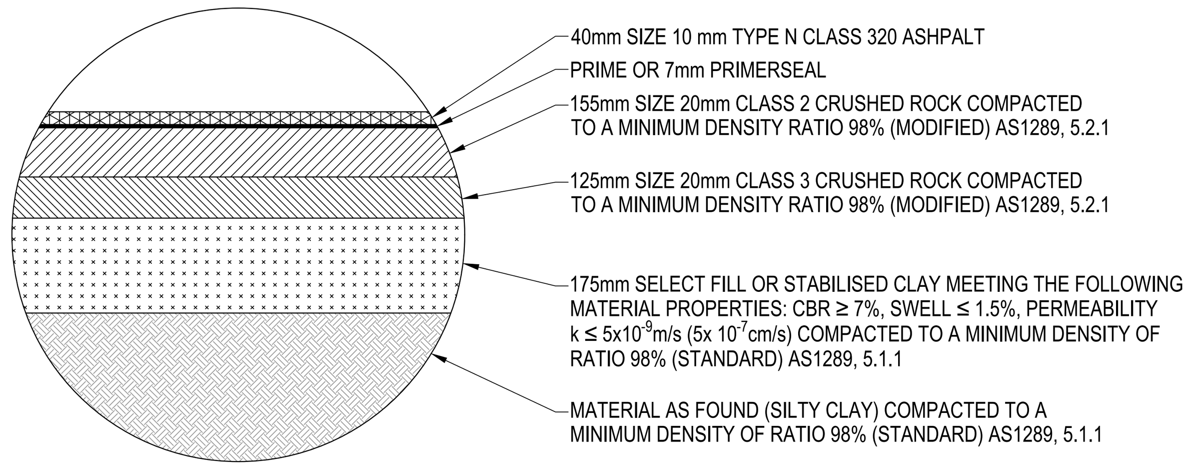


PAVEMENT COMPOSITION
BOTANY CIRCUIT (ACCESS STREET)
460mm DEPTH
NTS

NOTE:
DETAIL PROVIDED IN ACCORDANCE WITH GEOTECHNICAL REPORT PREPARED BY TONKIN & TAYLOR DATED AUGUST 2015.

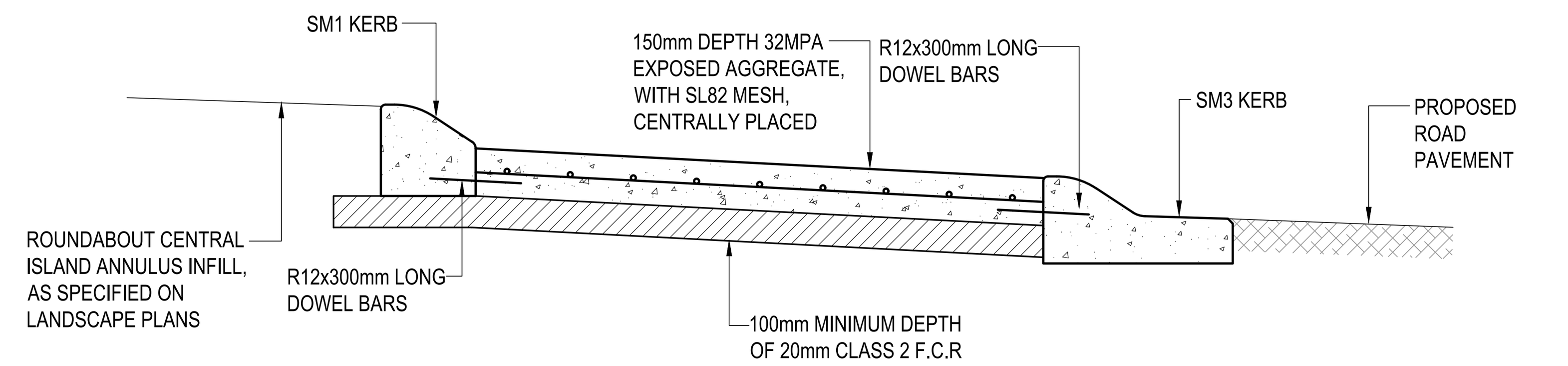


SPLITTER ISLAND/CONCRETE INFILL DETAIL
NTS



PAVEMENT COMPOSITION
FREEDOM DRIVE (KEY LOCAL ROAD)
495mm DEPTH
NTS

NOTE:
DETAIL PROVIDED IN ACCORDANCE WITH GEOTECHNICAL REPORT PREPARED BY TONKIN & TAYLOR DATED AUGUST 2015.

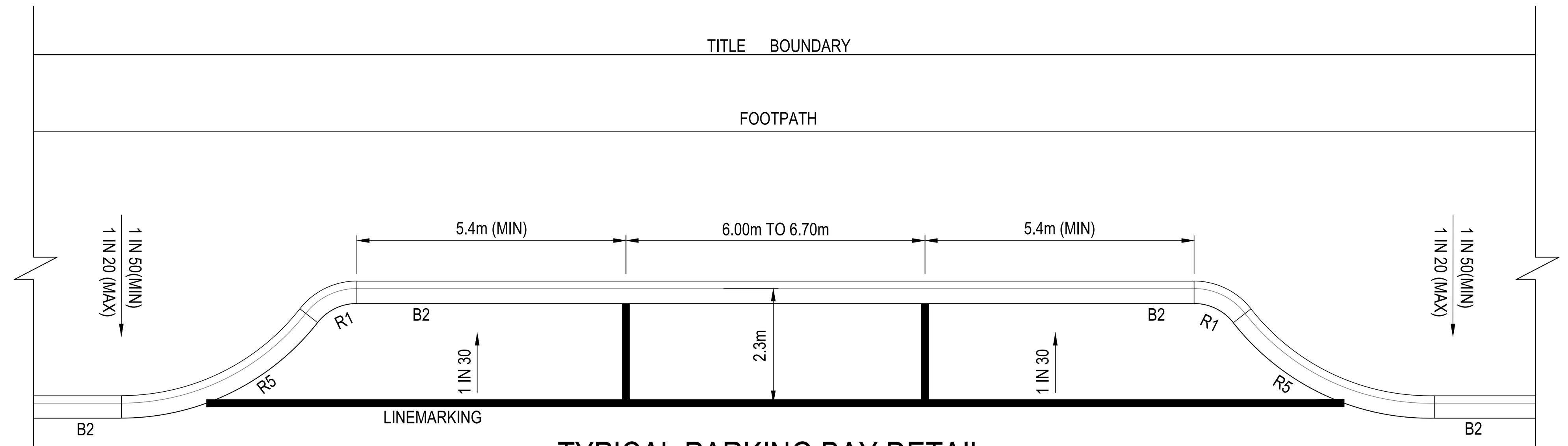


ROUNDABOUT CENTRAL ISLAND DETAIL
NTS

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

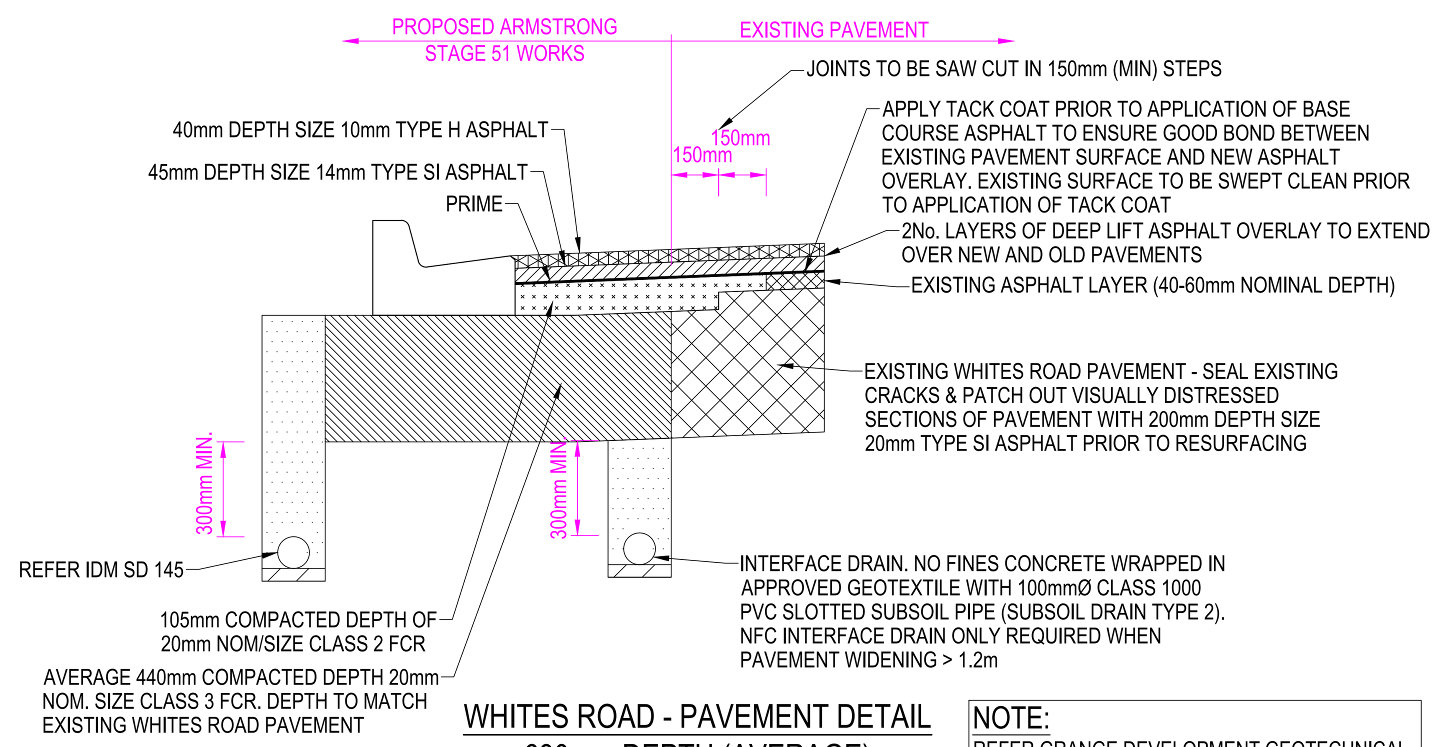
Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 25 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL



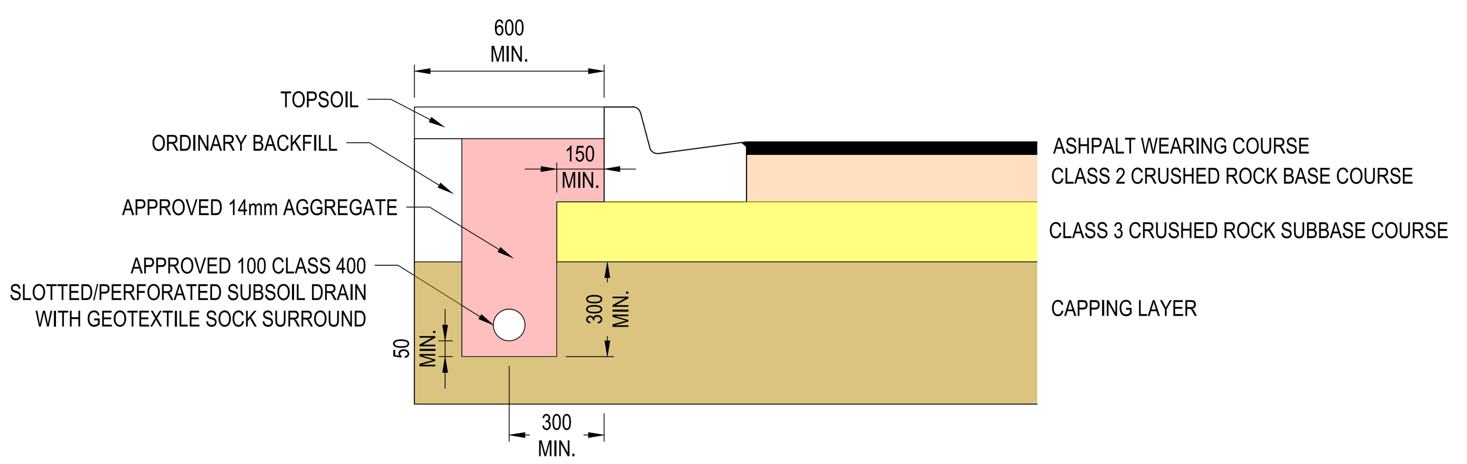
TYPICAL PARKING BAY DETAIL
NTS

NOTE:
1. INDENTED PARKING BAY PAVEMENT COMPOSITION, TO MATCH ROAD PAVEMENT COMPOSITION.
2. RADII SHOWN ARE CORRECT UNLESS OTHERWISE SHOWN ON LAYOUT PLAN.
3. INDENTED PARKING BAY WIDTHS/LENGTHS TO CONFORM TO AS 2890.5, SECTION 2.3.1



WHITES ROAD - PAVEMENT DETAIL
630mm DEPTH (AVERAGE)
NTS

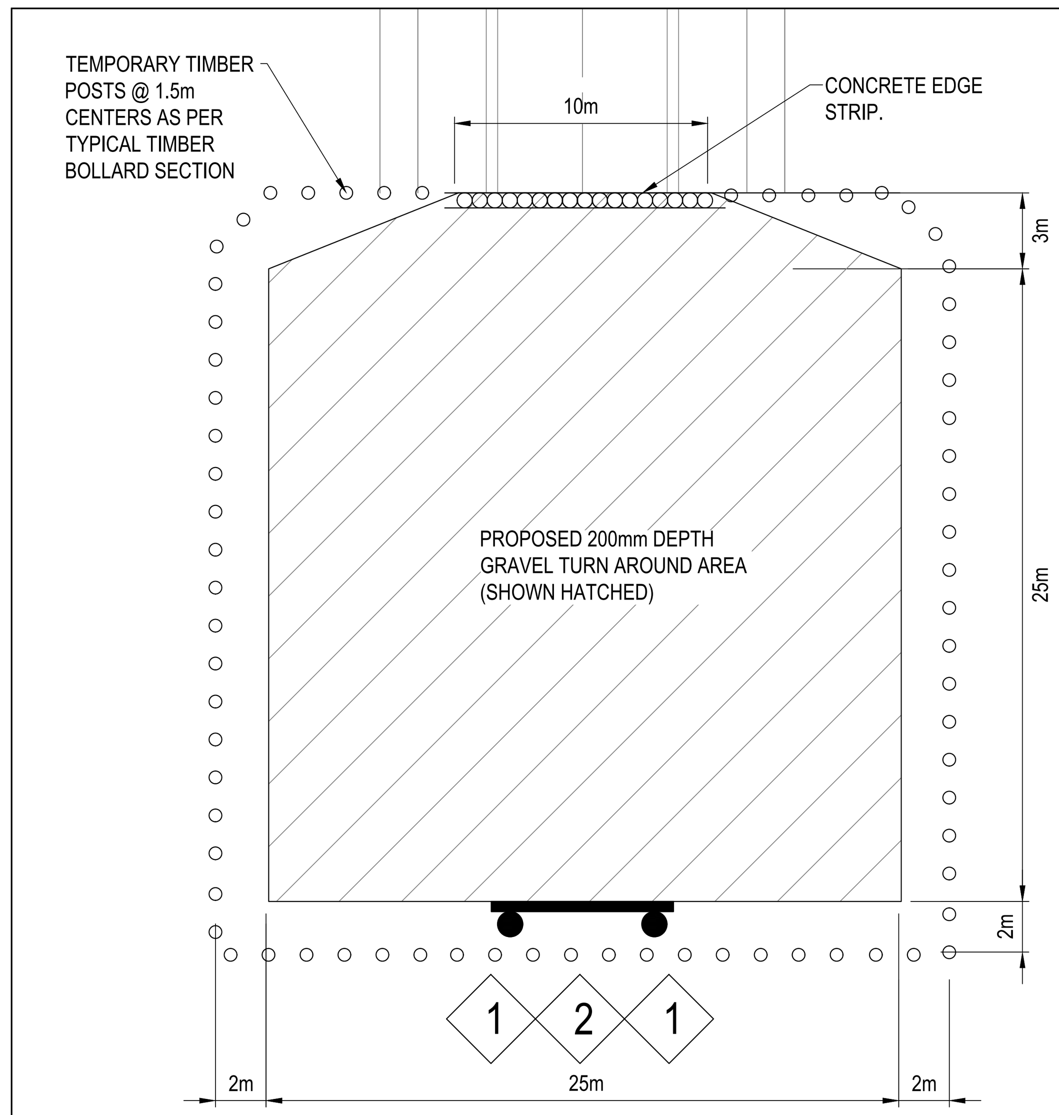
NOTE:
REFER GRANGE DEVELOPMENT GEOTECHNICAL INVESTIGATION & PAVEMENT DESIGN REPORT PREPARED BY SMEC - DATED 14 DECEMBER 2017



NOTE: THIS DETAIL ONLY APPLIES TO ROADS WHOLLY LOCATED IN STRUCTURAL FILL. ALL OTHER SUBSOIL DRAINAGE TO BE PROVIDED IN ACCORDANCE WITH IDM SD145

NOTE:
DETAIL PROVIDED IN ACCORDANCE WITH GEOTECHNICAL REPORT PREPARED BY TONKIN & TAYLOR DATED AUGUST 2015.

SUBSOIL DRAINAGE WITHIN SELECT FILL
NTS

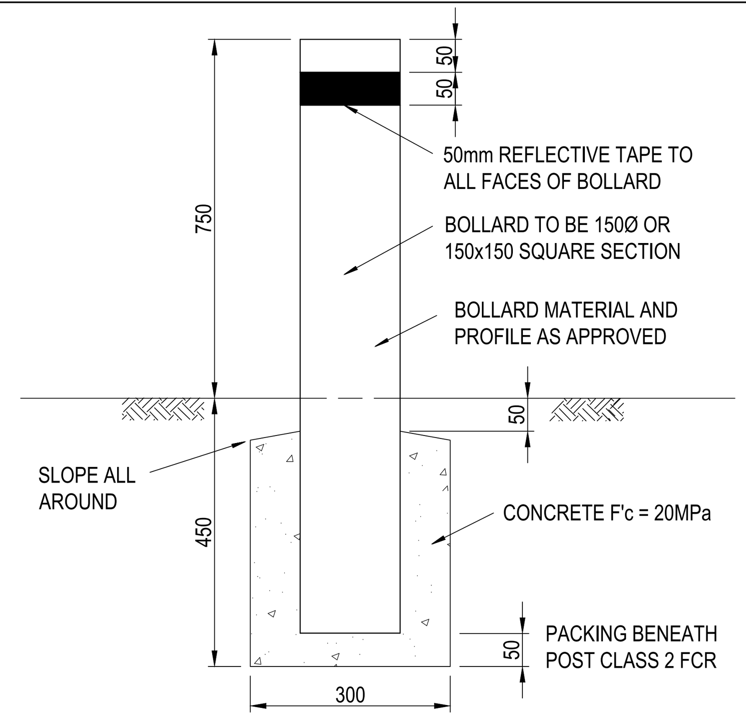


SIGN SCHEDULE

SIGN	REF
D4-5A	1
ROAD CLOSED T2-4A	2

NOTE:
PRIOR TO FIXING TEMPORARY TURNING AND TIMBER BOLLARDS THE SIZE AND DIMENSION TO BE CONFIRMED ON SITE TO THE SATISFACTION OF COUNCIL.

TYPICAL TEMPORARY TURN AREA DETAIL
NTS



TIMBER BOLLARD TYPICAL SECTION
NTS

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
D	07/05/19	REVISED SUBSOIL DRAINAGE DETAIL	S.D.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

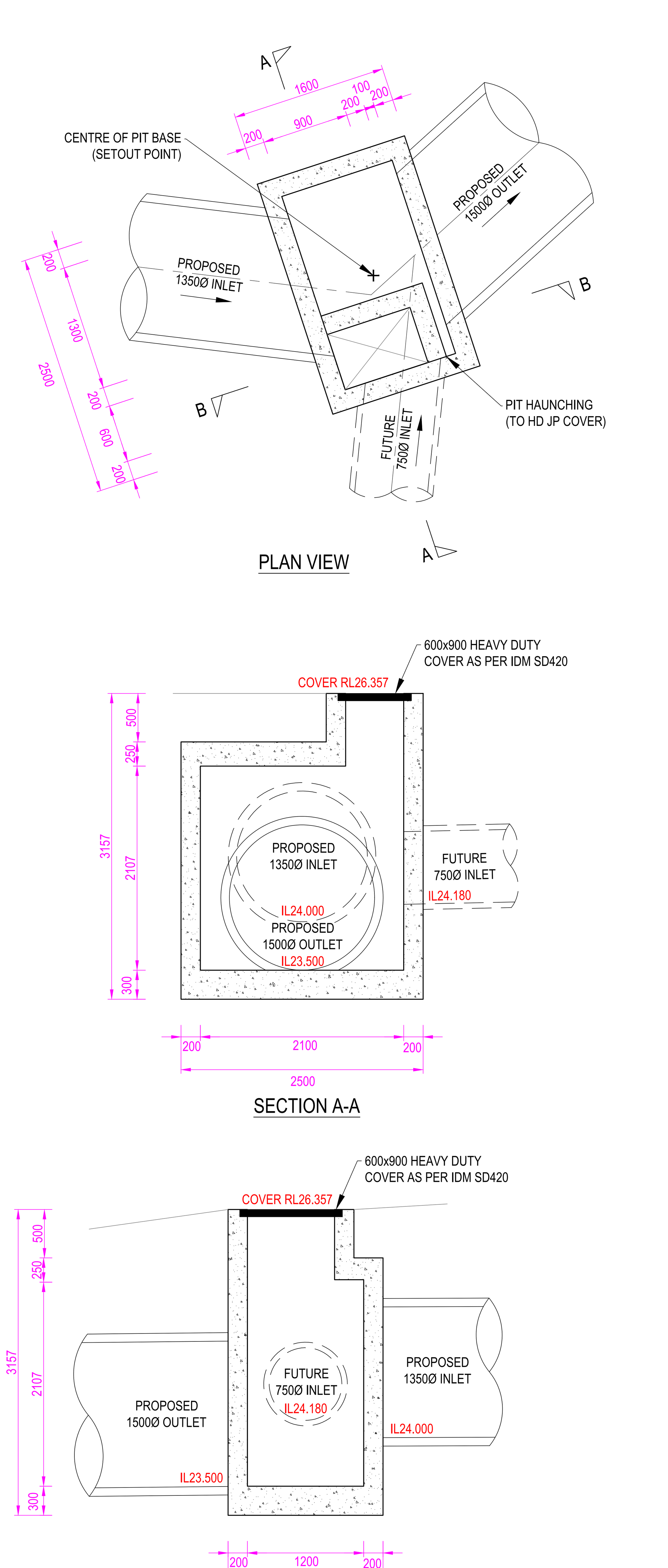
creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
TYPICAL DETAILS

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R700	1

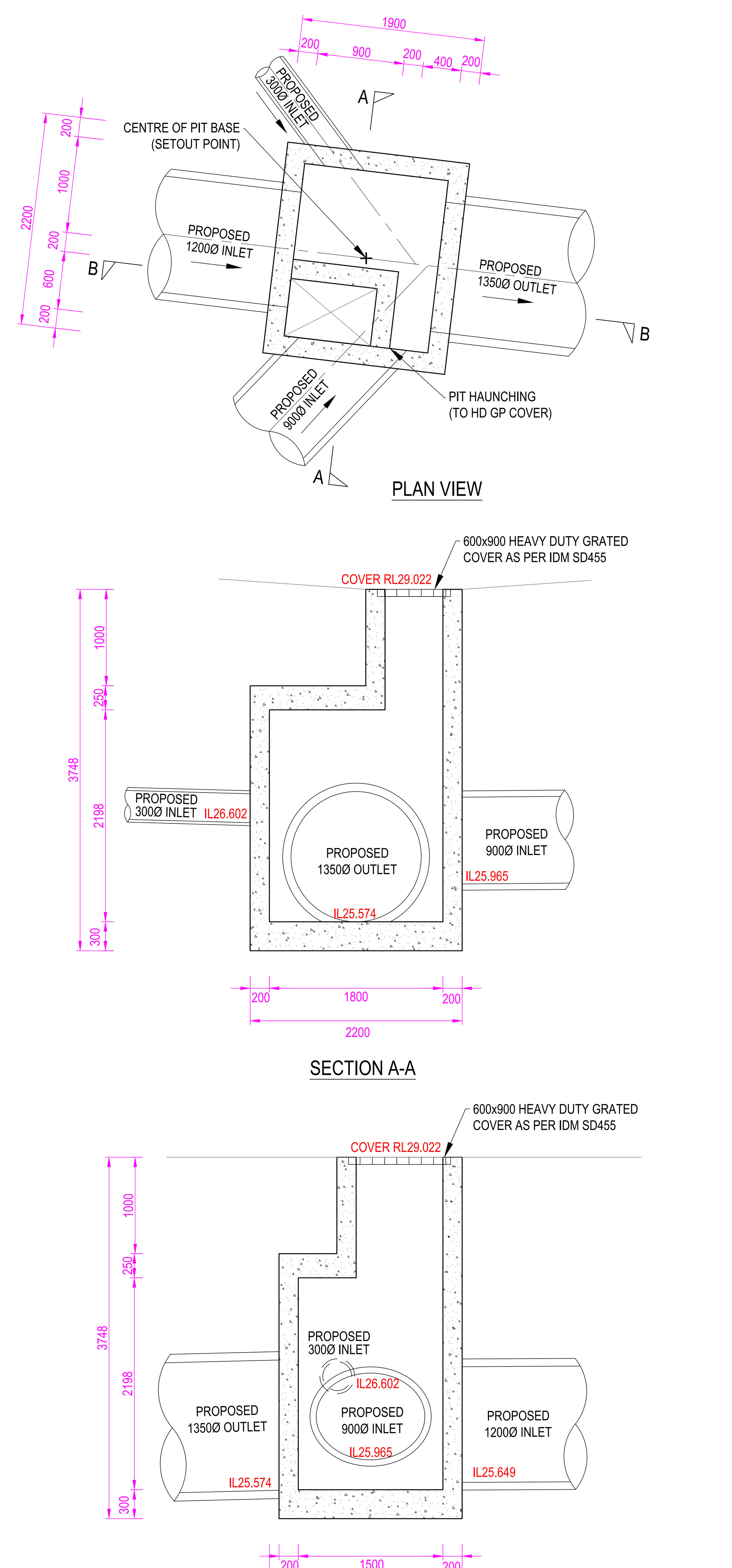


NOTE:
ALL SUMPS IN PRECAST CONCRETE PITS ARE TO BE INFILLED WITH CONCRETE FLUSH TO THE INVERT LEVEL OF THE OUTLET PIPE, UNLESS APPROVED OTHERWISE BY THE COUNCIL WORKS INSPECTOR.

NOTE:
PIT REINFORCEMENT TO BE PROVIDED IN ACCORDANCE WITH VICROADS STANDARD DRAWING SD 1023A

PIT DETAIL - PIT 3

SCALE 1:40 @ A1

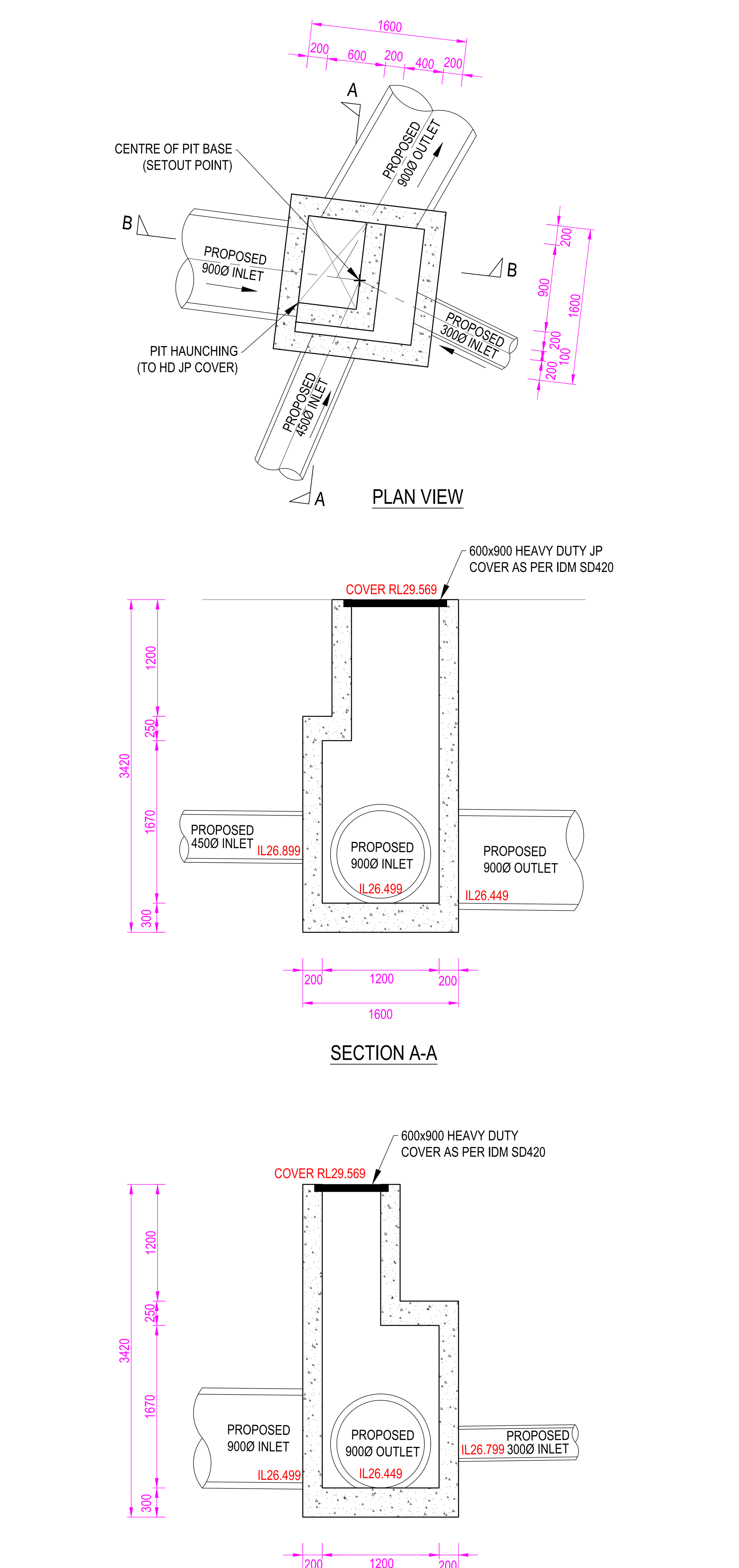


NOTE:
ALL SUMPS IN PRECAST CONCRETE PITS ARE TO BE INFILLED WITH CONCRETE FLUSH TO THE INVERT LEVEL OF THE OUTLET PIPE, UNLESS APPROVED OTHERWISE BY THE COUNCIL WORKS INSPECTOR.

NOTE:
PIT REINFORCEMENT TO BE PROVIDED IN ACCORDANCE WITH VICROADS STANDARD DRAWING SD 1023A

PIT DETAIL - PIT 10

SCALE 1:40 @ A1



NOTE:
ALL SUMPS IN PRECAST CONCRETE PITS ARE TO BE INFILLED WITH CONCRETE FLUSH TO THE INVERT LEVEL OF THE OUTLET PIPE, UNLESS APPROVED OTHERWISE BY THE COUNCIL WORKS INSPECTOR.

NOTE:
PIT REINFORCEMENT TO BE PROVIDED IN ACCORDANCE WITH VICROADS STANDARD DRAWING SD 1023A

PIT DETAIL - PIT 14

SCALE 1:40 @ A1

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 26 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT: villawood properties — Communities Designed for Living

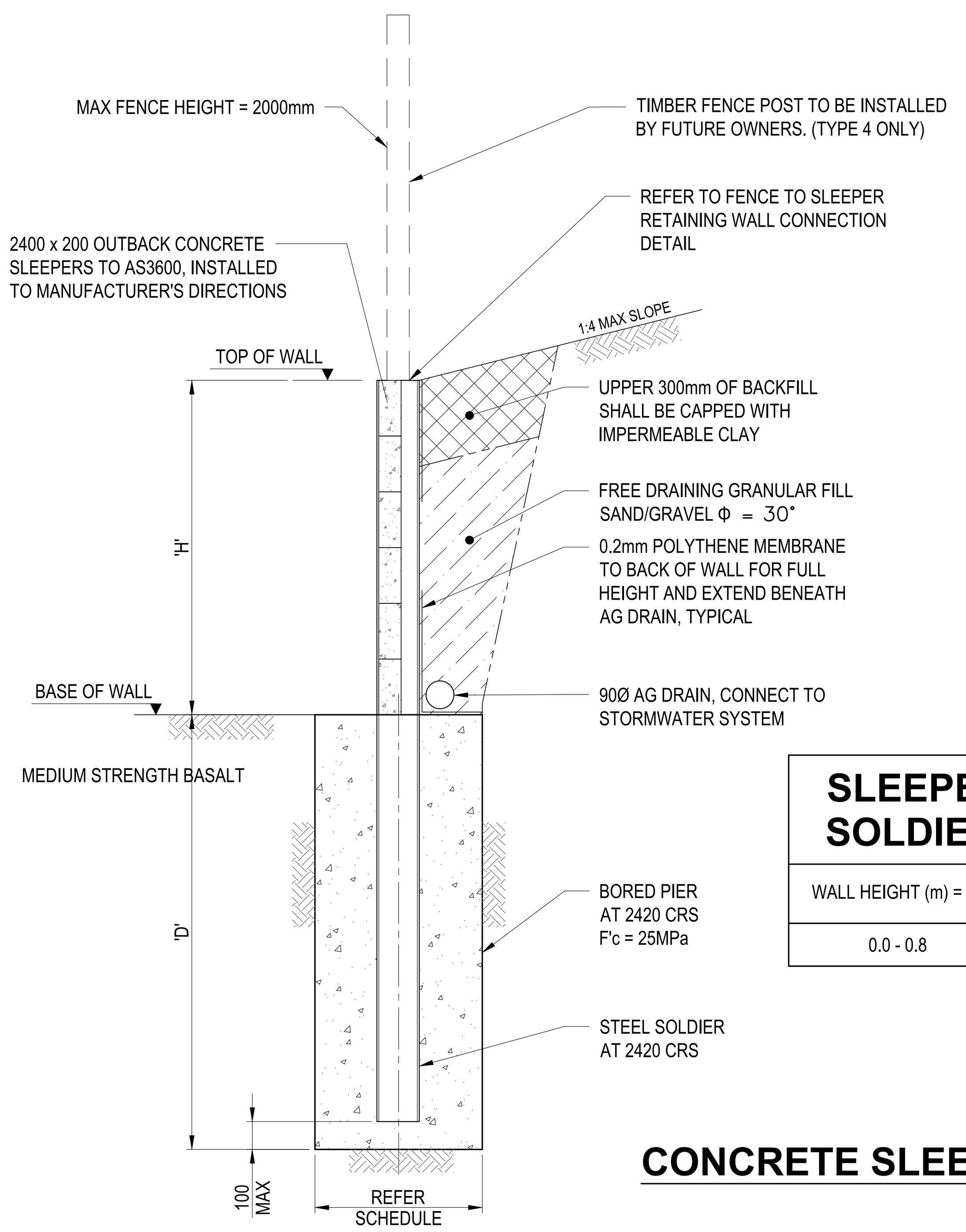
creo consultants
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT: ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
PIT DETAILS

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R701	1

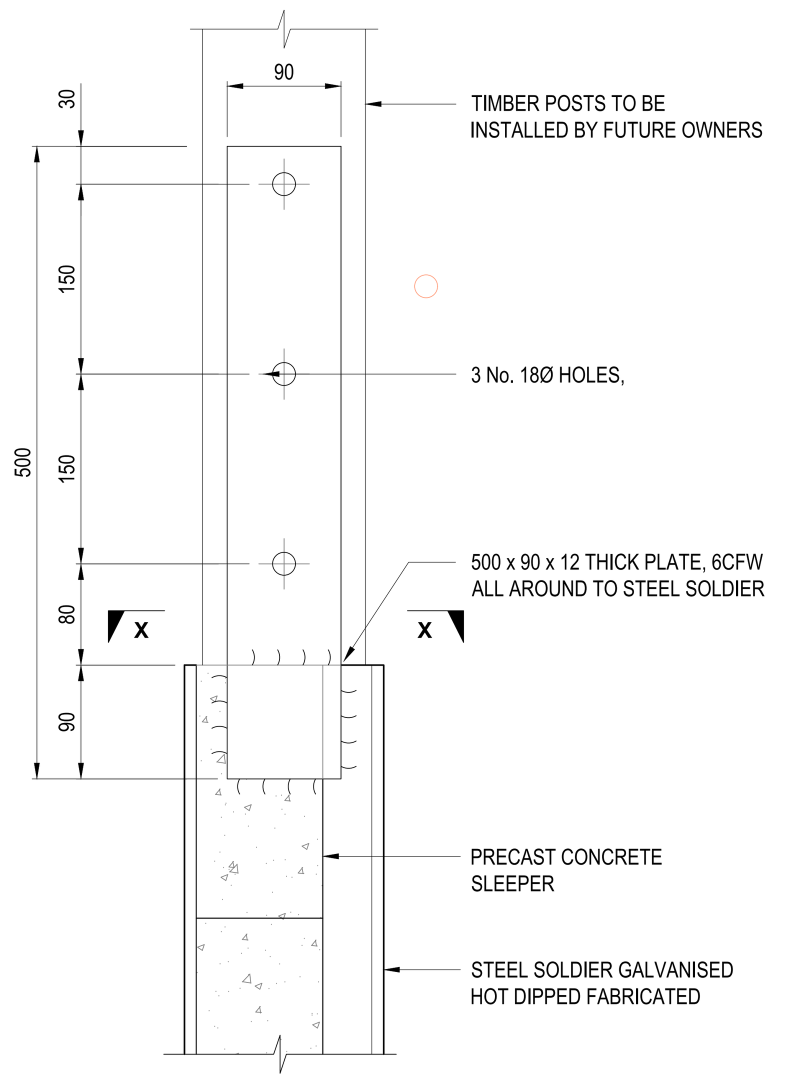


SLEEPER RETAINING WALL TYPE 4 SOLDIER AND FOOTING SCHEDULE

WALL HEIGHT (m) = 'H'	BORED PIER DEPTH (m) = 'D'	BORED PIER DIAMETER	TYPICAL SOLDIER SIZE
0.0 - 0.8	0.75	450Ø	150 UC 23

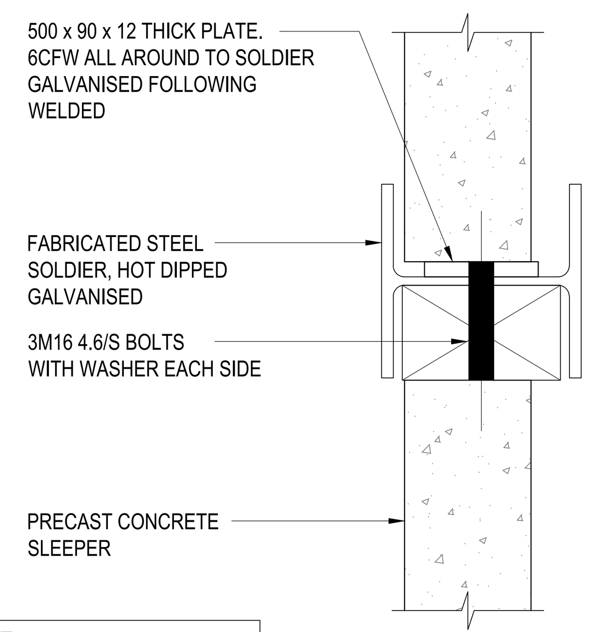
CONCRETE SLEEPER RETAINING WALL

SCALE 1:20



PALING FENCE CONNECTION DETAIL

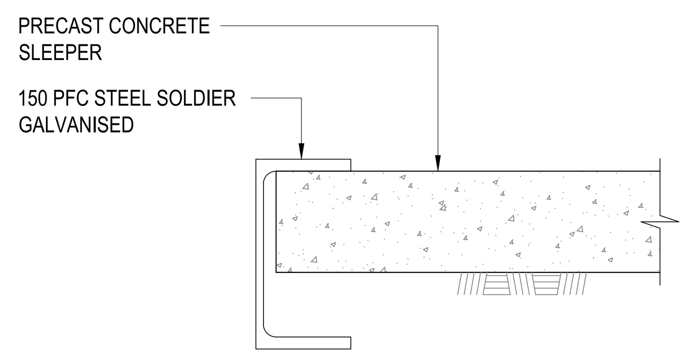
SCALE 1:5



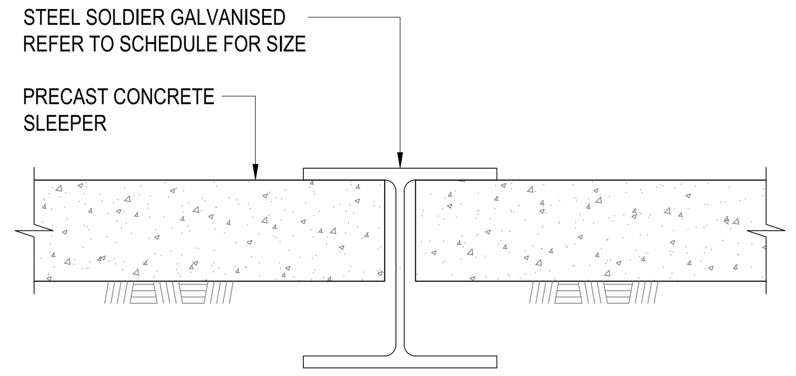
NOTE:
FENCE MANUFACTURER TO CONFIRM ACCEPTABILITY OF PROPOSED CONNECTION DETAIL

SECTION X-X

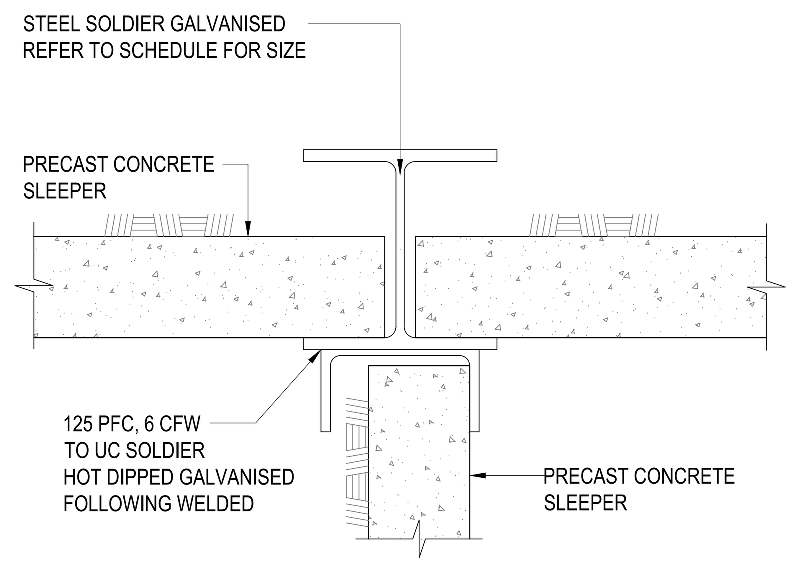
SCALE 1:5



AT ENDS



AT TYPICAL LOCATION



AT CONNECTING SLEEPER WALLS

STEEL SOLDIERS DETAILS

SCALE 1:5

GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 27 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
D	06/05/19	REVISED BORED PIER DEPTH AND FENCE NOTE	S.D.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	07/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.

CLIENT
villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

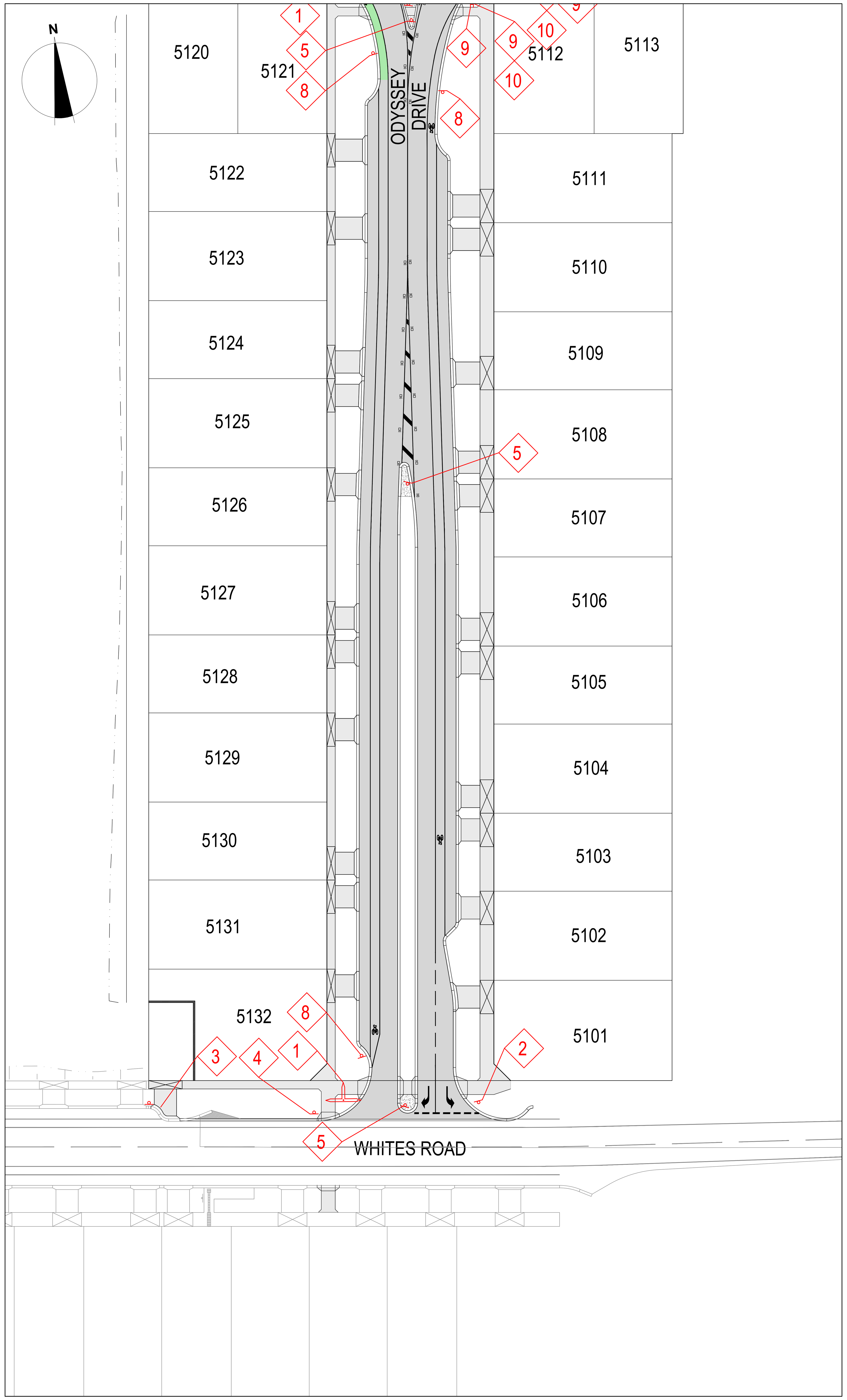
PROJECT
ARMSTRONG MT DUNEED

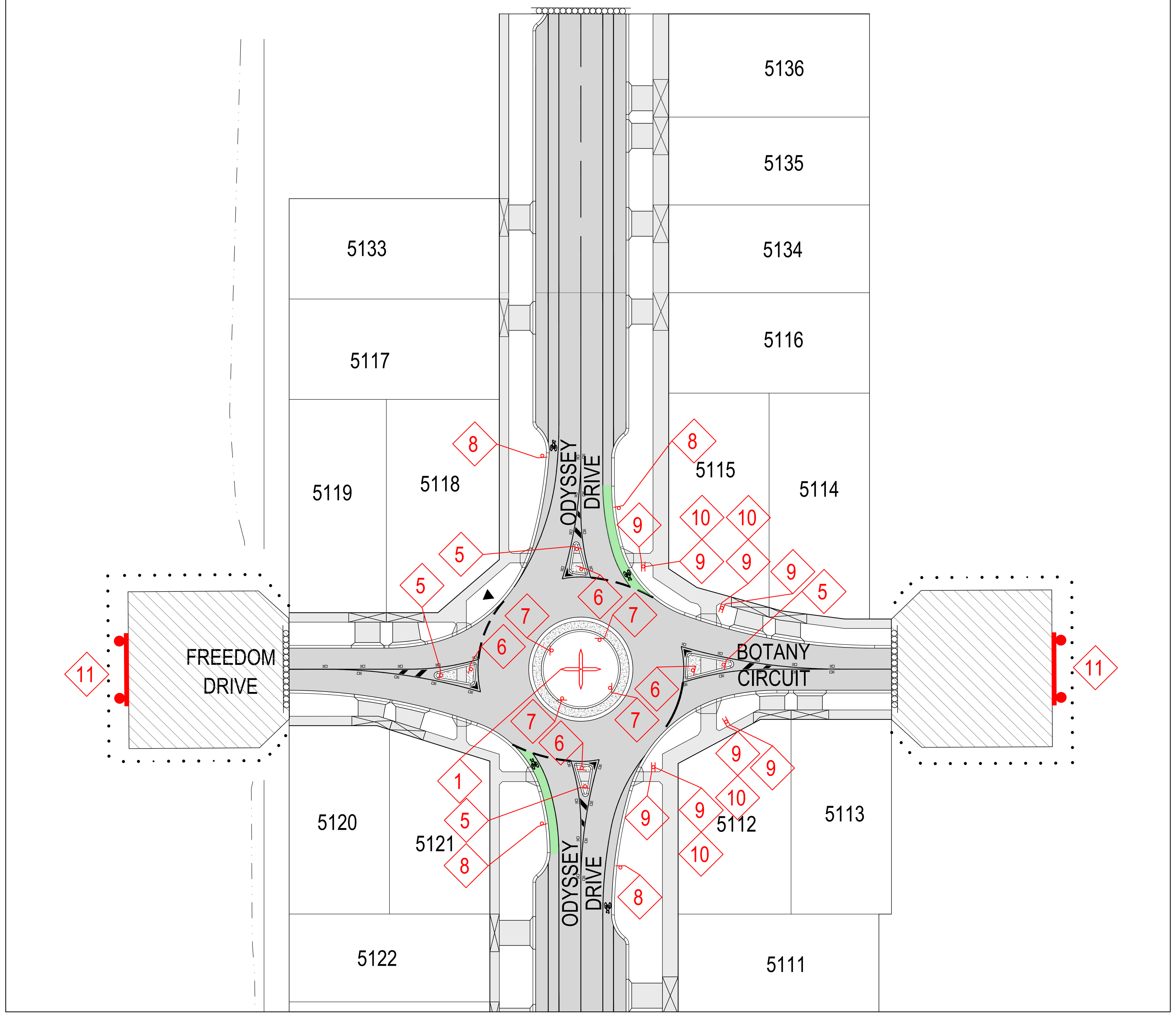
DRAWING TITLE
ARMSTRONG - STAGE 51
RETAINING WALL DETAILS

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R702	1

FOR CONTINUATION - REFER BOTTOM RIGHT



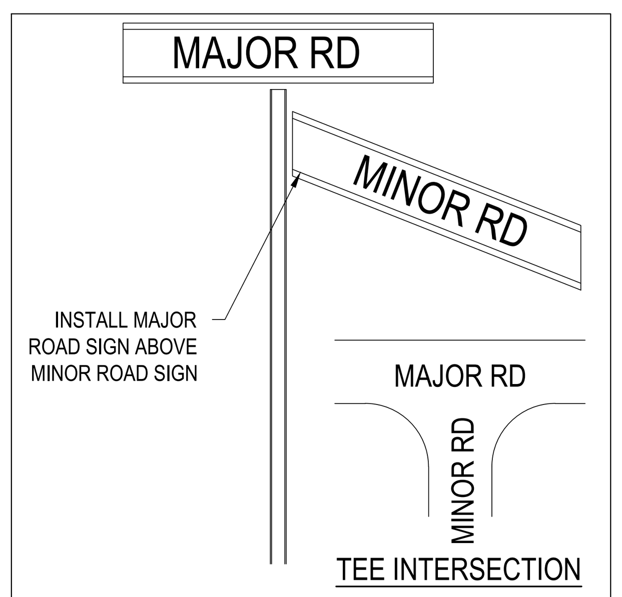


GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 28 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

FOR CONTINUATION - REFER TOP LEFT



STREET SIGN LAYOUT
NTS

STREET SIGN SCHEDULE

ODYSSEY DR	2No.
FREEDOM AVE	1No.
BOTANY WAY	1No.
WHITES RD	1No.

LINEMARKING & SIGNAGE NOTES:

1. ALL LINE MARKING AND SIGNAGE TO BE INSTALLED IN ACCORDANCE WITH AS 1742.1 AND AS 1742.2, UNLESS SPECIFICALLY SHOWN OTHERWISE.

2. LINEMARKING IS TO BE INSTALLED USING EXTRUDED LONG LIFE THERMOPLASTIC PAINT. TEMPORARY LINEMARKING USING ORDINARY PAINT IS TO BE APPLIED WHEN WEARING COURSE ASPHALT IS NOT APPLIED FOR A PERIOD OF TIME E.G. AT PRACTICAL COMPLETION.

3. ALL TEMPORARY WARNING SIGNS USED DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH AS 1742-3.

4. LINEMARKING SET OUT SHALL BE INSPECTED AND APPROVED BY COUNCIL BEFORE FINAL LINEMARKING IS CARRIED OUT.

SIGN SCHEDULE

SIGN	REF	QUANTITY
STREET SIGN	1	REFER BELOW
GIVE WAY R1-2	2	1No.
R5-35R	3	1No.
R5-35L	4	1No.
KEEP LEFT R2-3L	5	6No.
R1-3	6	4No.
D4-1-3	7	4No.
LANE R7-1-4	8	5No.
R8-2 NOTE: SIGN TO BE INSTALLED ON TOTEM POST	9	8No.
END R7-4	10	4No.
ROAD CLOSED T2-4A D4-5	11	2No.

1:500 10 5 0 10 20 A1
1:1000 A3

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
1	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT
villawood properties
Communities Designed for Living

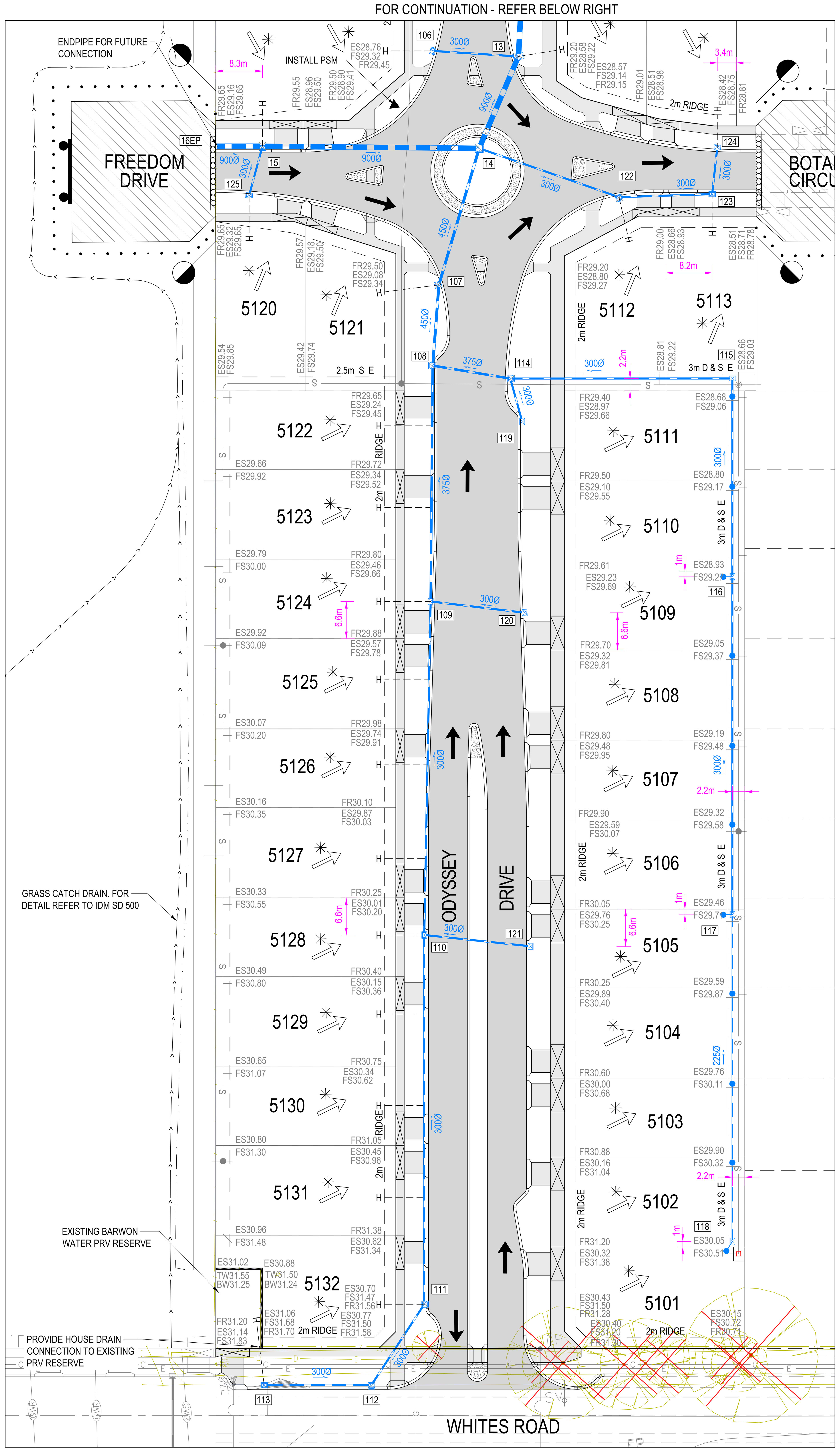
creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

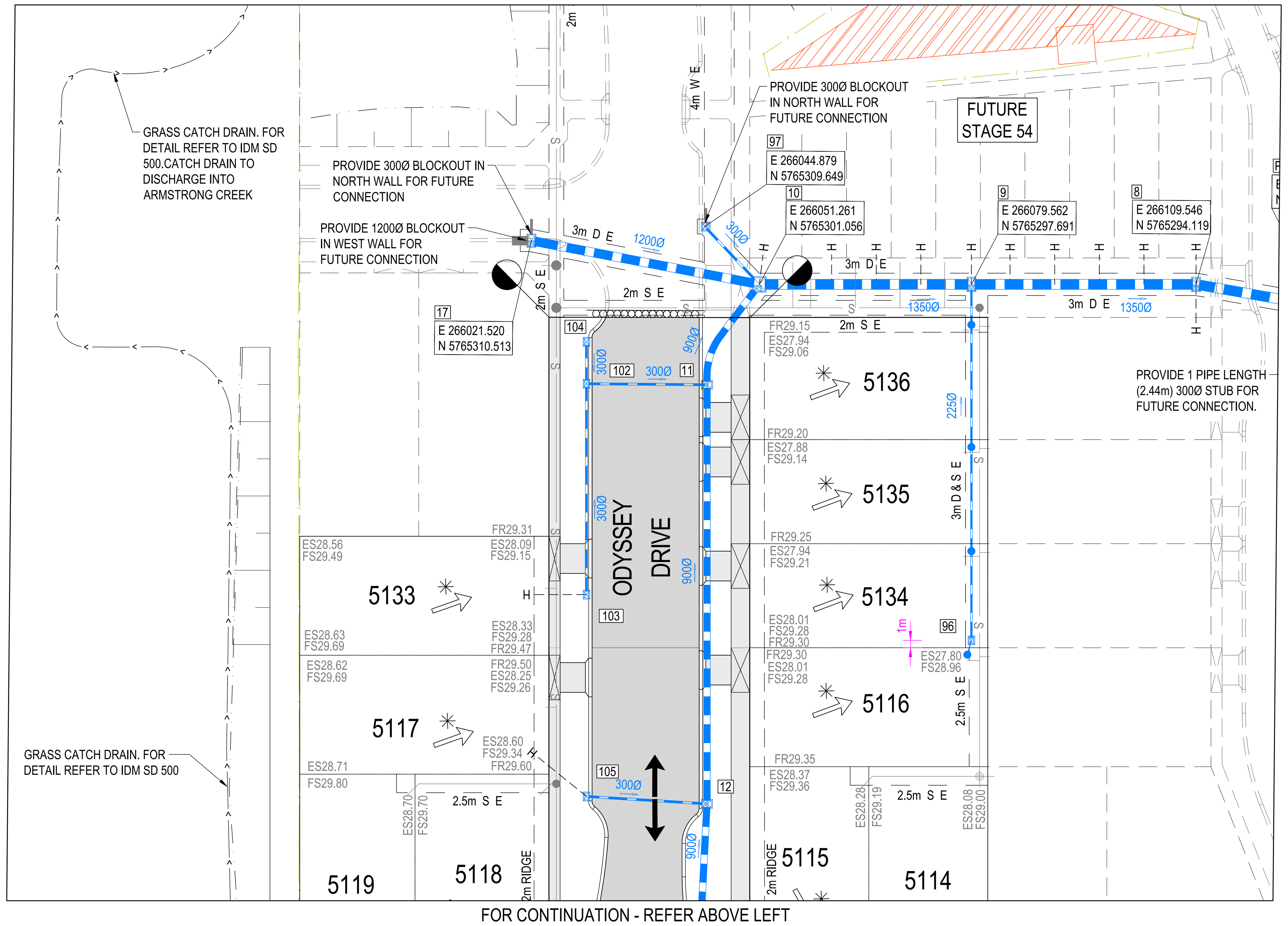
PROJECT
ARMSTRONG MT DUNEED

DRAWING TITLE
ARMSTRONG - STAGE 51
SIGNAGE & LINEMARKING PLAN

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No.	DRAWING No.	REVISION
180016.51	R800	1





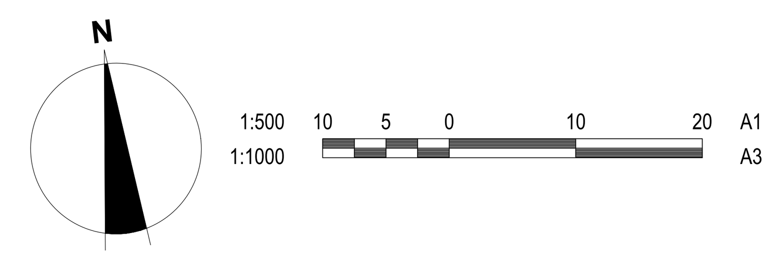
GREATER GEELONG CITY COUNCIL
PLANNING ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

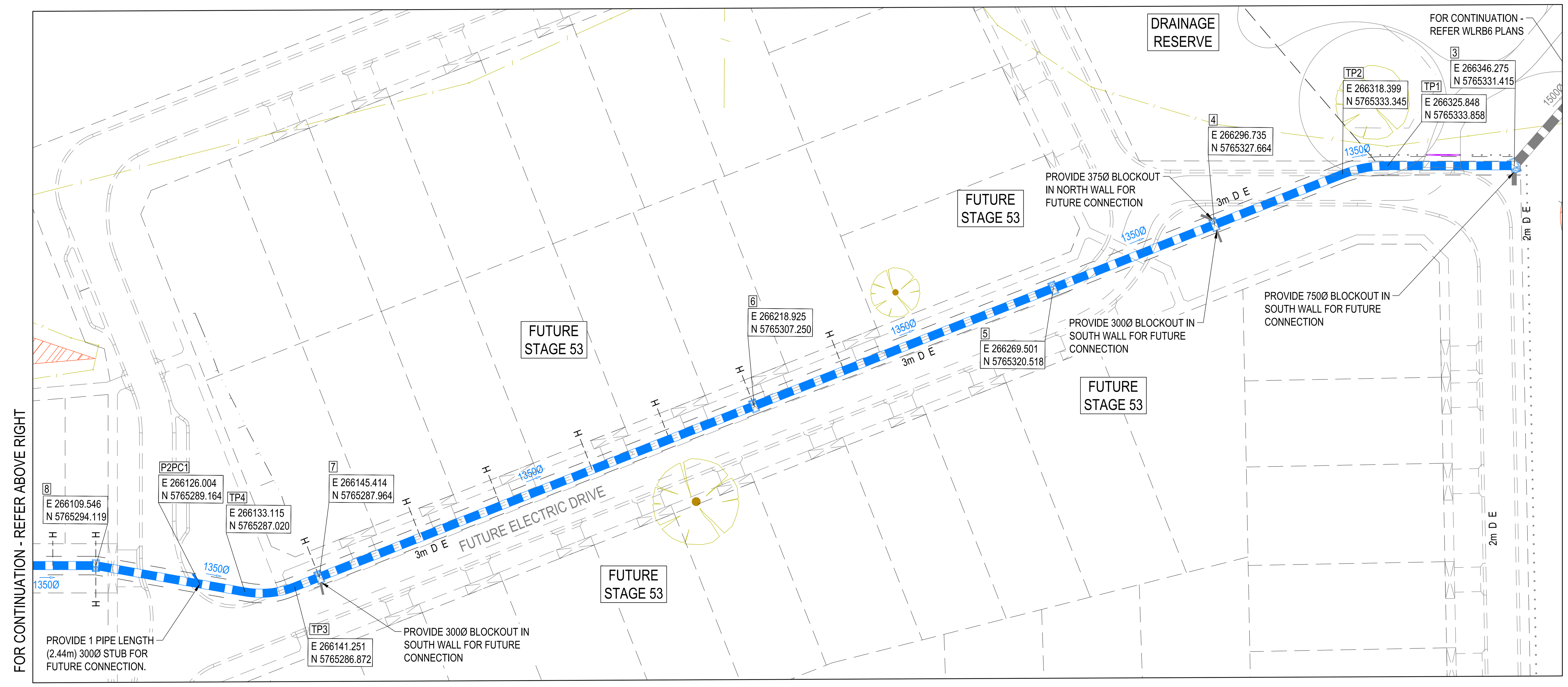
Endorsed Plan
Planning Permit No: 496-2012-H
Sheet 29 of 29
Approved By Adam Farrimond
Approved Date 11/12/2019

NOTE: THIS IS NOT A BUILDING APPROVAL

NOTE:
CONTRACTOR TO ENSURE HOUSE DRAINS PROVIDED FOR FUTURE LOTS 5407-5416 ACHIEVE MINIMUM DEPTHS AS PROVIDED IN THE TABLE BELOW

LOT CONTROL DEPTHS	
FUT.LOT 5407	27.004
FUT.LOT 5408	26.970
FUT.LOT 5409	26.955
FUT.LOT 5410	26.930
FUT.LOT 5411	26.905
FUT.LOT 5412	26.895
FUT.LOT 5413	26.870
FUT.LOT 5414	26.850
FUT.LOT 5415	26.830
FUT.LOT 5416	26.805





REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
2	05/12/19	STAGE BOUNDARY AMENDED	K.N.	M.T.	T.P.
1	05/08/19	STUBS REPLACED WITH BLOCKOUTS, P2PC1 & LOT CONTROL TABLE ADDED	M.T.	M.T.	T.P.
0	09/05/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
C	30/04/19	COUNCIL COMMENTS DATED 18/04/19	M.T.	M.T.	T.P.
B	15/03/18	ISSUED FOR TENDER	M.T.	M.T.	T.P.
A	7/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T	M.T	T.P

CLIENT

villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT

ARMSTRONG MT DUNEED

DRAWING TITLE

ARMSTRONG - STAGE 51
DRAINAGE LAYOUT PLAN

STATUS

ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
1:500 @ A1	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	FEB 2019
PROJECT No. 180016.51	DRAWING No. R900	REVISION 2