

CITY OF ARMADALE

# DEVELOPMENT CONTRIBUTION PLAN 4 REPORT APPENDICES

---

Anstey Keane Precinct (Forrestdale) Urban  
Development Area as identified on Scheme  
Special Control Area Map 3

September 2022

This report has been prepared in accordance with Town Planning Scheme No.4 and State Planning Policy 3.6. The report provides the rationale and justification for the development contribution plan, the calculation of costs, and the Infrastructure Cost Schedule specifying the costs for each owner. Development Contribution Plan 4 is included in Schedule 9B of Town Planning Scheme No.4.

## A. Location Plans and DCA 4 Plan



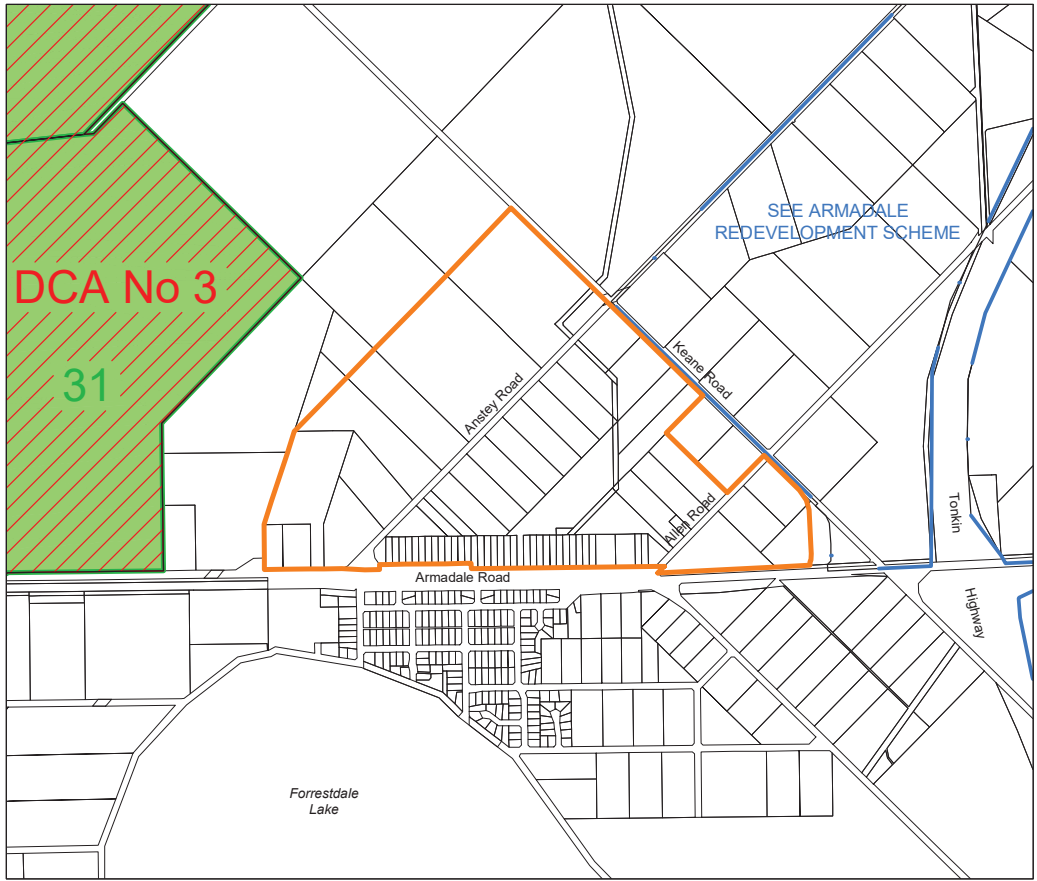












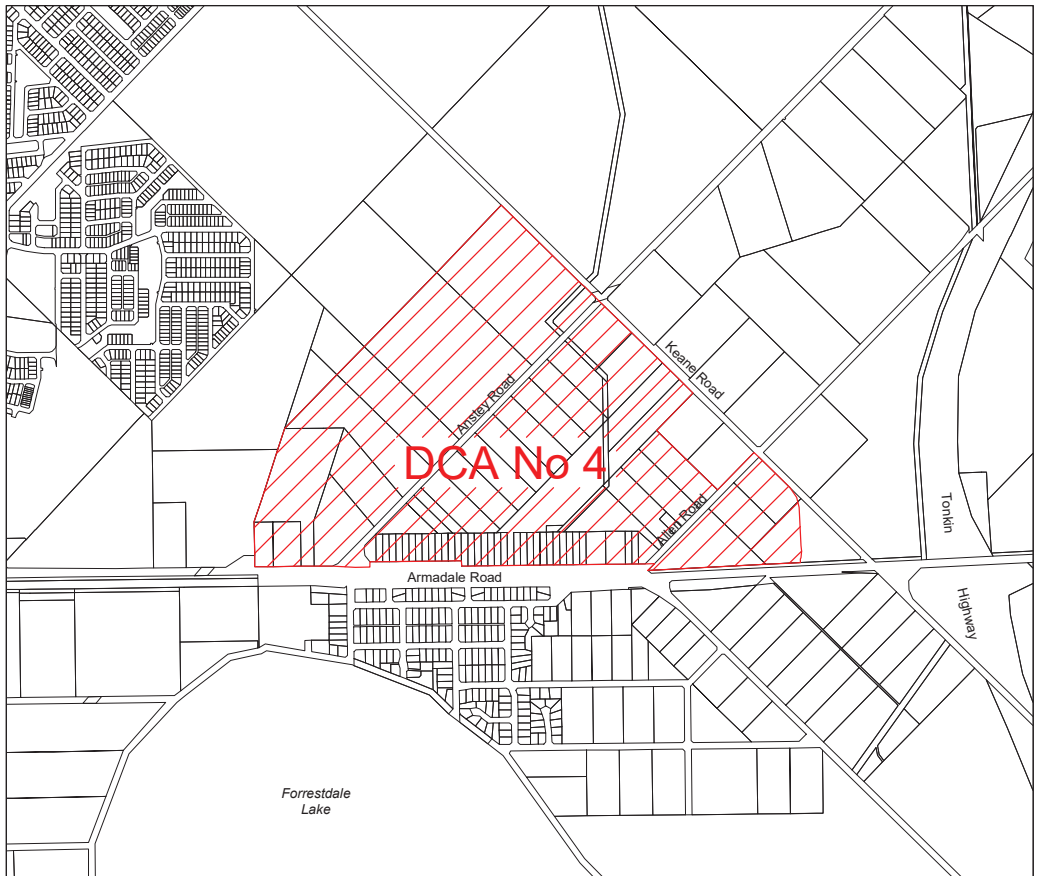
EXISTING ZONING - SPECIAL CONTROL AREA MAP 3



LEGEND

-  Development Area (Structure Plan) (Schedule 8)
-  Development Contribution Area (Schedule 9A & 9B)
-  Environmental Conditions (Schedule 6)
-  Armadale Redevelopment Area Boundary

PROPOSED ZONING - SPECIAL CONTROL AREA MAP 3



NOTE: The reservations are shown diagrammatically and do not purport to represent the road reservations shown in the Metropolitan Region Scheme and information in respect to road widening requirements for these roads should be obtained from the Department of Planning

**AMENDMENT No. 102**  
City of Armadale Town Planning Scheme No. 4  
Special Control Area Map 3

DATE 31 January 2019 - REVISION 1901  
p:\autocad\town\_planning\_schemes\town\_planning\_scheme\_no4\scheme\_amendments\sca\_map\_3\_amendment\ps4\_amendment\_no\_102.dwg



SCALE 1 : 15000

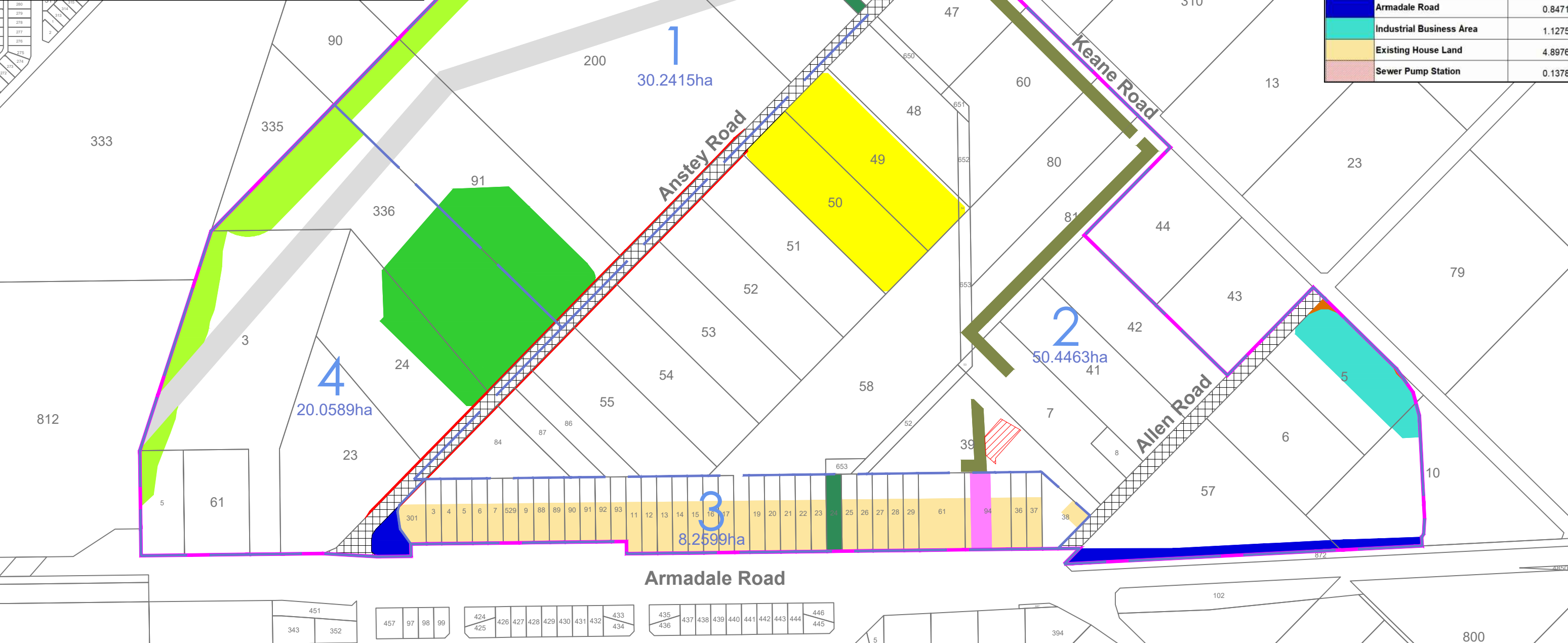
Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2012). Aerial photograph supplied by Landgate. Prepared by Huestler.



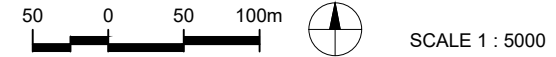
## B. Precincts and Deductions Plan

Deduction areas by precinct (Ha)				
	Precinct 1	Precinct 2	Precinct 3	Precinct 4
CCW Core	0.8215			
CCW & TEC	5.3933			1.9476
Primary School		3.9900		
DBN GP Easement	2.2982			1.3985
Powerline Easement			0.2614	
Baileys Branch Drain	0.3164		0.2023	
Realigned BBD		1.3224		
Existing Road Reserve	0.7327	1.9395		0.6075
Anstey Road Widening	0.0806	0.1357	0.0097	0.0796
Lot 5 Allen Road Widening		0.0328		
Senior Sized Playing Field	1.6506			3.2409
Armadale Road		0.6365		0.2107
Industrial Business Area		1.1275		
Existing House Land		0.0000	4.8976	
Sewer Pump Station		0.1378		
<b>Total</b>	<b>11.2932</b>	<b>9.3222</b>	<b>5.3710</b>	<b>7.4846</b>

LEGEND		
	Development Contribution Area 4	
	LSP Precinct	
Deductions		Total (Ha)
	CCW Core	0.8215
	CCW & TEC	7.3409
	Primary School	3.9900
	DBN GP Easement	3.6966
	Powerline Easement	0.2614
	Baileys Branch Drain	0.5187
	Realigned BBD	1.3224
	Existing Road Reserve	3.2797
	Anstey Road Widening	0.3056
	Lot 5 Allen Road Widening	0.0328
	Senior Sized Playing Field	4.8914
	Armadale Road	0.8471
	Industrial Business Area	1.1275
	Existing House Land	4.8976
	Sewer Pump Station	0.1378



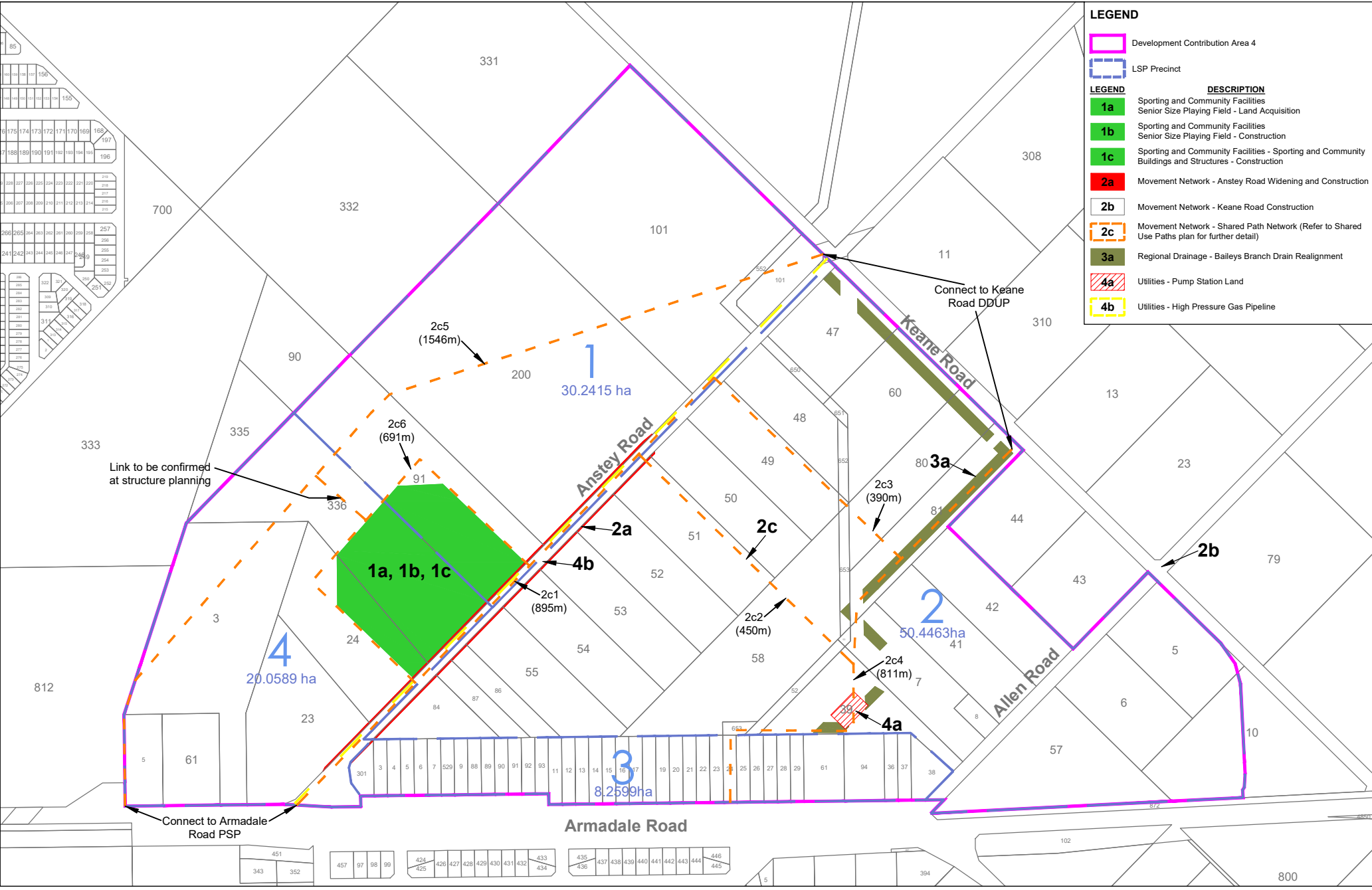
**Development Contribution Plan 4**  
Anstey Keane Precincts and Deductions Plan 21/04/2022



Based on information provided by and with the permission of the Western Australian Land Information Authority trading as Landgate (2012). Aerial photograph supplied by Landgate, Photomaps by NearMap.



## C. Infrastructure Items Plan



LEGEND	
	Development Contribution Area 4
	LSP Precinct
LEGEND DESCRIPTION	
	1a Sporting and Community Facilities Senior Size Playing Field - Land Acquisition
	1b Sporting and Community Facilities Senior Size Playing Field - Construction
	1c Sporting and Community Facilities - Sporting and Community Buildings and Structures - Construction
	2a Movement Network - Anstey Road Widening and Construction
	2b Movement Network - Keane Road Construction
	2c Movement Network - Shared Path Network (Refer to Shared Use Paths plan for further detail)
	3a Regional Drainage - Baileys Branch Drain Realignment
	4a Utilities - Pump Station Land
	4b Utilities - High Pressure Gas Pipeline

**Development Contribution Plan 4**  
Anstey Keane Infrastructure Items

DATE 30 October 2019 - REVISION 1003  
\\ab-file-01\dsdraft\autocad\job\_requests\planning\individuals\carol\anstey\_keane\_deductions\anstey\_keane\_infrastructure.dwg



SCALE 1 : 5000  
Based on information provided by and with the permission of the  
Western Australian Land Information Authority (referred to as LIA) (2012).  
Aerial photograph supplied by Landgate. Photosmaps by NeatMap.



## D. Infrastructure Cost Schedule



## INFRASTRUCTURE COST SCHEDULE 2022

### Contribution Cost Summary

Infrastructure Items per hectare base rate calculation for entire Development Contribution Area (A + B - C / D = E)	
Total Costs for Items Covered by Entire DCA (A) & (B)	\$32,841,222.00
Base Rate Contributions Collected (C)	\$7,235,694.38
Total Developable Area Remaining (HA) (D)	56.1472
<b>Total Cost Per HA (Base Rate) (E)</b>	<b>\$456,042.82</b>

Infrastructure Items per hectare calculation for additional rate for by Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey within Precinct 2 (F - G / H = I)	
Total Costs for Additional Item Covered by Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey in Precinct 2 (F)	\$521,478.00
Additional Rate Contributions Collected (G)	\$22,743.66
Total Developable Area Remaining (HA) of Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey in Precinct 2 (H)	5.8599
<b>Total Cost Per HA for Additional Item (Additional Rate) (I)</b>	<b>\$85,109.70</b>

Developable Areas					
Precinct	Gross Developable Area (HA)	Deductions (HA)	Net Developable Area (HA)	Land Developed (HA)	Developable Area Remaining (HA)
1	30.2415	11.2869	18.9546	10.9930	7.9616
2 (All Lots other than Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey)	44.2089	9.2638	34.9451	5.2413	29.7038
2 (Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey)	6.2374	0.0640	6.1734	0.3135	5.8599
3	8.2599	5.3733	2.8866	0.0000	2.8866
4	20.0589	7.5238	12.5351	2.7998	9.7353
<b>Total</b>	<b>109.0066</b>	<b>33.5118</b>	<b>75.4948</b>	<b>19.3476</b>	<b>56.1472</b>

Cost Contribution Due				Notes
Precinct	Developable Area Remaining (HA)	Contribution Rate	Total Due for Developable Area Remaining	Total Due
1	7.9616	\$456,042.82	\$3,630,830.52	\$8,644,109.24
2 (All Lots other than Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey)	29.7038	\$456,042.82	\$13,546,204.72	\$15,936,461.95
2 (Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey)	5.8599	\$541,152.52	\$3,171,099.65	\$3,340,750.97
3	2.8866	\$456,042.82	\$1,316,413.20	\$1,316,413.20
4	9.7353	\$456,042.82	\$4,439,713.67	\$5,716,542.35
<b>Total</b>			<b>\$26,104,262</b>	



## Land Area Deductions and Land Area Summary by Precinct

Land Area Deductions	Precinct 1 Remaining	Precinct 1 Actual	Precinct 2 Remaining	Precinct 2 Actual	Precinct 3 Remaining	Precinct 3 Actual	Precinct 4 Remaining	Precinct 4 Actual
Conservation Category Wetland (CCW) core	0.8215	0.0000						
CCW and TEC buffer	5.3932	0.0000					1.9475	0.0000
Primary and Secondary School Sites			3.9899	0.0000				
Dampier to Bunbury Natural Gas Pipeline (DBNGP) Easement Area	0.8409	1.4574					1.3985	0.0000
Powerline Easement Area					0.2614	0.0000		
Bailey's Branch Drain @ Lots 101 & 24	0.3166	0.0000			0.2024	0.0000		
Realigned Bailey's Branch Drain			1.3222	0.0000				
Existing Anstey and Allen Road Reserves	0.7301		1.9429				0.6670	
Anstey Road Widening Land	0.0000	0.0767	0.0640	0.0729	0.0119	0.0000	0.0278	0.0506
Lot 5 Allen Road Widening			0.0328	0.0000				
Senior Sized Playing Field	1.6505	0.0000					2.4583	0.7635
Armadale Road			0.6365	0.0000			0.2106	
Industrial Business Area			1.1289	0.0000				
Existing House Land					4.8976	0.0000		
Sewer Pump Station			0.1377	0.0000				
<b>Totals</b>	<b>9.7528</b>	<b>1.5341</b>	<b>9.2549</b>	<b>0.0729</b>	<b>5.3733</b>	<b>0.0000</b>	<b>6.7097</b>	<b>0.8141</b>

Land Areas						
	Gross Developable Area	Deductions Remaining	Deductions Actual	Net Developable Area Total	Net Developable Area Developed	Net Developable Area Remaining
Developable Area P1	30.2415	9.7528	1.5341	18.9546	10.9930	7.9616
Developable Area P2 excluding Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey	44.2089	9.1909	0.0729	34.9451	5.2413	29.7038
Developable Area P2 Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey	6.2374	0.064	0.0000	6.1734	0.3135	5.8599
Developable Area P3	8.2599	5.3733	0.0000	2.8866	0.0000	2.8866
Developable Area P4	20.0589	6.7097	0.8141	12.5351	2.7998	9.7353
	<b>109.0066</b>	<b>31.0907</b>	<b>2.4211</b>	<b>75.4948</b>	<b>19.3476</b>	<b>56.1472</b>

Contributions Collected / Value of Agreed Credits	
	Total to Date
Base Rate Contributions Collected P1	<b>\$4,170,147.51</b>
Base Rate Contributions Collected P2 excluding Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey	<b>\$1,988,264.72</b>
Base Rate Contributions Collected P2 Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey	<b>\$118,905.92</b>
Additional Rate Contributions Collected P2 Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 52 Anstey	<b>\$22,743.66</b>
Base Rate Contributions Collected P3	<b>\$0.00</b>
Base Rate Contributions Collected P4	<b>\$958,376.23</b>
<b>Total Base Rate Contributions Collected</b>	<b>\$7,235,694.38</b>
<b>Total Additional Rate Contributions Collected</b>	<b>\$22,743.66</b>





**Precinct 2 - Base Rate**  
**Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, Lot 52 Anstey**

Deposited Plan and/or other Reference	Gross Developable Area Developed Lodged DP	Total Deductions Lodged DP	Net Developable Area Developed Lodged DP	Rate Applied	Invoiced Amount	Net Developable Area Developed Actual	Rate Applied	Amount Due	Amount Paid	Transaction Ref. / Comment	Balance Due / Value of Agreed Credits
422804 - Mahala Lot 52	2.0627	0.0177	2.045	\$379,345.72	\$118,905.92	0.31345	\$379,345.72	\$118,905.92	\$118,905.92	4151338	\$0.00
<b>Total</b>	<b>2.0627</b>	<b>0.0177</b>	<b>2.045</b>	<b>N/A</b>	<b>\$118,905.92</b>	<b>0.31345</b>	<b>N/A</b>	<b>\$118,905.92</b>	<b>\$118,905.92</b>	<b>N/A</b>	<b>\$0.00</b>

**Precinct 2 - Additional Rate**  
**Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, Lot 52 Anstey**

Deposited Plan and/or other Reference	Gross Developable Area Developed Lodged DP	Total Deductions Lodged DP	Net Developable Area Developed Lodged DP	Rate Applied	Invoiced Amount	Net Developable Area Developed Actual	Rate Applied	Amount Due	Amount Paid	Transaction Ref. / Comment	Balance Due / Value of Agreed Credits
422804 - Mahala Lot 52	2.0627	0.0177	2.045	\$72,559.13	\$22,743.66	0.31345	\$72,559.13	\$22,743.66	\$22,743.66	4151338	\$0.00
<b>Total</b>	<b>2.0627</b>	<b>0.0177</b>	<b>2.045</b>	<b>N/A</b>	<b>\$22,743.66</b>	<b>0.31345</b>	<b>N/A</b>	<b>\$22,743.66</b>	<b>\$22,743.66</b>	<b>N/A</b>	<b>\$0.00</b>

## Contributions Collected

Precinct 3 - Base Rate											
Deposited Plan and/or other Reference	Gross Developable Area Developed Lodged DP	Total Deductions Lodged DP	Net Developable Area Developed Lodged DP	Rate Applied	Invoiced Amount	Net Developable Area Developed Actual	Rate Applied	Amount Due	Amount Paid	Transaction Ref. / Comment	Balance Due / Value of Agreed Credits
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>N/A</b>	<b>\$0.00</b>	<b>0</b>	<b>N/A</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>N/A</b>	<b>\$0.00</b>

Precinct 4 - Base Rate											
Deposited Plan and/or other Reference	Gross Developable Area Developed Lodged DP	Total Deductions Lodged DP	Net Developable Area Developed Lodged DP	Rate Applied	Invoiced Amount	Net Developable Area Developed Actual	Rate Applied	Amount Due	Amount Paid	Transaction Ref. / Comment	Balance Due / Value of Agreed Credits
418866 - York Stage 1	3.6156	0.8141	2.8015	\$342,093.96	\$958,376.23	2.7998	\$379,345.72	\$1,062,092.15	\$958,376.23	43241	\$103,715.92
<b>Total</b>	<b>3.6156</b>	<b>0.8141</b>	<b>2.8015</b>	<b>N/A</b>	<b>\$958,376.23</b>	<b>2.7998</b>	<b>N/A</b>	<b>\$1,062,092.15</b>	<b>\$958,376.23</b>	<b>N/A</b>	<b>\$103,715.92</b>



## Infrastructure Cost Summary

Item	Description	Cost
<b>Community Infrastructure</b>		
1a	Full costs to acquire land for a minimum of 4.9ha of Public Open Space at a location approved by the City within Development Contribution Area 4.	\$5,895,483.00
1b	Full costs to construct a minimum of 4.9ha of public open space, including a senior sized multi use playing field area, to the specifications and dimensions approved by the City and at a location approved by the City within Development Contribution Area 4 minus contributions from other sources if and when they become available.	\$6,171,388.44
1c	Full costs to construct sporting and community buildings and structures at the public open space included under Infrastructure Items 1a and 1b minus contributions from other sources if and when they become available.	\$3,308,901.16
1b and 1c	1b and 1c Allowances	\$1,927,124.91
<b>Movement Network</b>		
2a	Full cost to upgrade Anstey Road, including road widening land, from Armadale Road to the Primary School as detailed in the Development Contribution Plan Report and Infrastructure Cost Schedule.	\$6,871,690.00
2b	Contribution towards upgrading Keane Road as detailed in the Development Contribution Plan Report and Infrastructure Cost Schedule, with the contribution calculated being equivalent to the standard of a Residential Access Street C in accordance with Liveable Neighbourhoods (as amended), excluding costs associated with realigning the road or upgrading of the Armadale Road intersection.	\$2,943,032.91
2c	Fixed maximum contribution towards a shared path network within the Anstey Keane Urban Precinct as detailed in the Development Contribution Plan Report.	\$821,983.00
<b>Public Open Space and Drainage</b>		
3a	Partial contribution only towards improvements to the Baileys Branch Drain immediate surrounds that deliver a multiple use corridor as detailed in the Development Contribution Plan Report and Infrastructure Cost Schedule. The contribution is a partial offset only of the full cost that will need to be met by applicable subdividers and is based on the cost and development of land that would be provided on lots with a shortfall of Public Open Space within Precinct 2 of DCA 4 and in lieu of them needing to cede free of cost and develop POS land in accordance with WAPC policy. It is to be paid on a per liner metre basis upon construction that is to be undertaken by applicable subdividers to the satisfaction of the City.	\$521,478.00
<b>Utilities</b>		
4a	Contribution towards the acquisition of land for a sewer pump station as detailed on the approved structure plan.	\$166,617.00
4b	Contribution towards the upgrade of the ATCO High Pressure Gas Pipeline in Anstey Road as it pertains to the Anstey Keane Precinct (Forrestdale).	\$1,981,378.00
<b>Administration Costs</b>		
Full costs associated with preparing and administering Development Contribution Plan 4.		\$3,034,163.38

<b>Total Costs for Items Covered by Entire DCA minus Interest Earnings Forecast</b>	<b>\$32,841,222</b>
<b>Total Extra Costs for Extra Items Covered by Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, Lot 52 Anstey in Precinct 2</b>	<b>\$521,478</b>
<b>Total Net Costs / Infrastructure Works Costs</b>	<b>\$33,362,700</b>

## Public Open Space and Sporting and Community Facilities

Item	Total Cost
1a	\$5,895,483.00
1b	\$6,171,388.44
1c	\$3,308,901.16
1b & 1c	\$1,927,124.91
<b>Total</b>	<b>\$17,302,897.51</b>

### 1a Infrastructure Item - Sporting and Community Facilities - Senior Size Playing Field - Public Open Space Land Acquisition

Full costs to acquire land for a minimum of 4.9ha of Public Open Space at a location approved by the City within Development Contribution Area 4.

Item	Area (m2)	Value Per m2	Total	Plus 10% as Per Clause 4.4.7 (a) of DCP 4	Notes
Land Acquisition - Lot 336 Anstey Road	24583	\$110.00	\$2,704,130.00	\$2,974,543.00	
Land Acquisition - Lot 24 Anstey Road	7635	\$110.00	\$839,850.00	\$923,835.00	As per DP 418866
Land Acquisition - Lot 91 Anstey Road	16505	\$110.00	\$1,815,550.00	\$1,997,105.00	

<b>Total</b>	<b>\$5,895,483.00</b>
--------------	-----------------------

### 1b Infrastructure Item - Sporting and Community Facilities - Senior Size Playing Field – Construction

Full costs to construct a minimum of 4.9ha of public open space, including a senior sized multi use playing field area, to the specifications and dimensions approved by the City and at a location approved by the City within Development Contribution Area 4 minus contributions from other sources if and when they become available.

Item	Cost	Notes
Landscape and Irrigation Construction (including consolidation)	\$3,136,751.00	Emerge Landcape and Irrigation Construction OPC - May 2022
Demolition	\$120,000.00	JDSI Cost Estimate - May 2022
Earthworks	\$2,005,000.00	
Roadworks	\$239,000.00	
Supervision and Maintenance	\$15,000.00	
10% contingency	\$551,575.10	
Perimeter Road Pavement Widening / Carbays	\$104,062.34	45 car bays and 1.0m of additional pavement. Increased by cost escalator rate below.

<b>Total</b>	<b>\$6,171,388.44</b>
--------------	-----------------------

### 1c Infrastructure Item - Sporting and Community Facilities - Sporting and Community Buildings and other Structures – Construction

Full costs to construct sporting and community buildings and structures at the public open space included under Infrastructure Items 1a and 1b minus contributions from other sources if and when they become available.

Item	Cost	Notes
Construction Costs	\$3,308,901.16	Increased by cost escalator rate below.

<b>Total</b>	<b>\$3,308,901.16</b>
--------------	-----------------------

### General 1b and 1c Allowances

Item	Cost	Notes
7.5% Design Contingency	\$711,021.72	Increased by cost escalator rate below.
5% Construction Contingency	\$507,119.90	
Loose Furniture and AV	\$46,874.93	
Headworks Fee and Charges	\$292,968.30	
External Site Infrastructure Services	\$369,140.06	

<b>Total</b>	<b>\$1,927,124.91</b>
--------------	-----------------------

Escalators	Source:
2022	3.10% LGCI - March 2022

## Movement Network

Item	Total Cost
2a	\$6,871,690.00
2b	\$2,943,032.91
2c	\$821,983.00
<b>Total</b>	<b>\$10,636,705.91</b>

### 2a Infrastructure Item – Movement Network – Anstey Road Widening and Construction

Full cost to upgrade Anstey Road, including road widening land, from Armadale Road to the Primary School as detailed in the Development Contribution Plan Report and Infrastructure Cost Schedule.

Item	Area (m2)	Value Per m2	Total	Plus 10% as Per Clause 4.4.7 (a) of DCP 4	Notes
Land Acquisition - Lot 23 Anstey Road	224	\$90.00	\$20,160.00	\$22,176.00	Ceding complete - payment owing
Land Acquisition - Lot 24 Anstey Road	282	\$90.00	\$25,380.00	\$27,918.00	Ceding complete - payment owing
Land Acquisition - Lot 336 Anstey Road	278	\$110.00	\$30,580.00	\$33,638.00	
<i>Land Acquisition - Lot 91 Anstey Road</i>	<i>271</i>	<i>\$90.00</i>	<i>\$24,390.00</i>	<i>\$26,829.00</i>	<i>Claimed FY 2022</i>
<i>Land Acquisition - Lot 200 Anstey Road</i>	<i>498</i>	<i>\$90.00</i>	<i>\$44,820.00</i>	<i>\$49,302.00</i>	<i>Claimed FY 2022</i>
Land Acquisition - Lot 50 Anstey Road	20	\$90.00	\$1,800.00	\$1,980.00	Land acquisition initiated 2021 - pending issue of new titles and settlement.
<i>Land Acquisition - Lot 51 Anstey Road</i>	<i>178</i>	<i>\$90.00</i>	<i>\$16,020.00</i>	<i>\$17,622.00</i>	<i>Claimed FY 2022</i>
Land Acquisition - Lot 52 Anstey Road	181	\$90.00	\$16,290.00	\$17,919.00	DP 422804 pending IOFD. Settlement to follow issue of new titles.
<i>Land Acquisition - Lot 53 Anstey Road</i>	<i>178</i>	<i>\$90.00</i>	<i>\$16,020.00</i>	<i>\$17,622.00</i>	<i>Claimed FY 2022</i>
<i>Land Acquisition - Lot 54 Anstey Road</i>	<i>178</i>	<i>\$90.00</i>	<i>\$16,020.00</i>	<i>\$17,622.00</i>	<i>Claimed FY 2022</i>
Land Acquisition - Lot 55 Anstey Road	182	\$90.00	\$16,380.00	\$18,018.00	Ceding complete - payment owing
Land Acquisition - Lot 86 Anstey Road	72	\$125.00	\$9,000.00	\$9,900.00	Land acquisition initiated 2021 - pending issue of new titles and settlement.
Land Acquisition - Lot 87 Anstey Road	72	\$125.00	\$9,000.00	\$9,900.00	<i>Claimed FY 2022</i>
Land Acquisition - Lot 84 Anstey Road	301	\$120.00	\$36,120.00	\$39,732.00	<i>Claimed FY 2022</i>
Land Acquisition - Lot 3 Armadale Road	3	\$395.00	\$1,185.00	\$1,303.50	Land acquisition initiated 2021 - pending issue of new titles and settlement.
Land Acquisition - Lot 301 Armadale Road	116	\$395.00	\$45,820.00	\$50,402.00	Land acquisition initiated 2021 - pending issue of new titles and settlement.
<b>Total</b>	<b>3034</b>		<b>\$328,985.00</b>	<b>\$361,883.50</b>	

Item	Cost	Notes
<b>Infrastructure Upgrades</b>		
Mobilisation and Equipment	\$335,000	JDSI Cost Estimate - June 2022
Management	\$198,000	
Demolition	\$140,000	
Earthworks and Retaining	\$587,000	
Roadworks	\$1,230,000	
Stormwater Drainage	\$371,000	
Subsoil Drainage	\$291,000	
Electrical and Street Lighting	\$157,000	
Provisional Sums	\$200,000	
<b>Service Relocations and External Construction Items</b>		
Telstra	\$175,000	JDSI Cost Estimate - June 2022
ATCO Medium Pressure Main	\$150,000	
Water Reticulation	\$122,000	
Underground Power and Optic Fibre	\$153,000	
Stormwater Drainage	\$327,000	
Stormwater Detention and Outfall	\$560,000	
Consultancy	\$899,000	
Closure of Redundant Portion	\$115,206	Fixed contribution. Indexing has been applied at this review of the ICS as per escalator rate below.
10% Contingency	\$499,600	Excludes consultancy and road closure

<b>Total</b>	<b>\$6,871,690</b>
--------------	--------------------

**2b Infrastructure Item – Movement Network – Keane Road Construction**

Contribution towards upgrading Keane Road as detailed in the Development Contribution Plan Report and Infrastructure Cost Schedule, with the contribution calculated being equivalent to the standard of a Residential Access Street C in accordance with Liveable Neighbourhoods (as amended), excluding costs associated with realigning the road or upgrading of the Armadale Road intersection.

Item	Area (m2)	Value Per m2	Total	Plus 10% as Per Clause 4.4.7 (a) of DCP 4	Notes
Land Acquisition - Lot 5 Allen	328	\$125.00	\$41,000.00	\$45,100.00	
Land Acquisition - Lot 43 Keane Road	257	\$30.00	\$7,710.00	\$8,481.00	

Item	Cost	Notes
Contribution to Keane Road	\$2,889,451.91	Fixed contribution. Indexing has been applied at this review of the ICS in line with the rate of cost escalation (17.69%) for Anstey Road.

**Total**      **\$2,943,032.91**

**2c Infrastructure Item – Movement Network – Shared Path Network**

Fixed maximum contribution towards a shared path network within the Anstey Keane Urban Precinct as detailed in the Development Contribution Plan Report and Infrastructure Cost Schedule.

Item	Length (m)	Allocation/m	Total	Notes
2c1 - Anstey Road	895	\$156	\$139,620.00	Concrete - Fixed contribution. Indexing has been applied at this review of the ICS as per escalator rate below.
2c2 - Primary School South	450	\$156	\$70,200.00	
2c3 - Primary School North	390	\$156	\$60,840.00	
2c4 - Baileys Branch Drain	811	\$164	\$133,004.00	Red Asphalt - Fixed contribution. Indexing has been applied at this review of the ICS as per escalator rate below.
2c5 - Gas Pipeline and Link to POS	1546	\$187	\$289,102.00	
2c6 - Community and Sporting Facility Perimeter	691	\$187	\$129,217.00	
<b>Total</b>	4783		\$821,983.00	

Escalators	Source:
2022	2.90% LGCI - March 2022



## Utilities

Item	Total Cost
4a	\$166,617.00
4b	\$1,981,378.00
<b>Total</b>	<b>\$2,147,995.00</b>

### 4a Infrastructure Item – Utilities – Pump Station Land

Contribution towards the acquisition of land for a sewer pump station as detailed on the approved structure plan.

Item	Area (m2)	Value Per m2	Total	Plus 10% as Per Clause 4.4.7 (a) of DCP 4	Notes
Pump Station Land	1377	\$110.00	\$151,470.00	\$166,617.00	

<b>Total</b>	<b>\$166,617.00</b>
--------------	---------------------

### 4b Infrastructure Item – Utilities – High Pressure Gas Pipeline

Contribution towards the upgrade of the ATCO High Pressure Gas Pipeline in Anstey Road as it pertains to the Anstey Keane Precinct (Forrestdale).

Item	Cost	Notes
Equipment and Materials	\$462,900.00	GPA Engineering Cost Estimate - August 2022
Construction and Commissioning	\$711,250.00	
Engineering and Management	\$410,952.00	
Contingency and Escalation	\$396,276.00	

<b>Total</b>	<b>\$1,981,378.00</b>
--------------	-----------------------

## Betterment of Baileys Branch Drain Immediate Surrounds

Item	Total Cost
3a	\$521,478.00

### 3a Infrastructure Item – Baileys Branch Drain Surrounds – Betterment of the Baileys Branch Drain Immediate Surrounds

Partial contribution only towards improvements to the Baileys Branch Drain immediate surrounds that deliver a multiple use corridor as detailed in the Development Contribution Plan Report and Infrastructure Cost Schedule. The contribution is a partial offset only of the full cost that will need to be met by applicable subdividers and is based on the cost and development of land that would be provided on lots with a shortfall of Public Open Space within Precinct 2 of DCA 4 and in lieu of them needing to cede free of cost and develop POS land in accordance with WAPC policy. It is to be paid on a per liner metre basis upon construction that is to be undertaken by applicable subdividers to the satisfaction of the City.

Item	POS Deficit (m2)	POS Development Cost Allocation	Total Costs	Notes
Lot 6 Allen	836	\$82	\$68,552.00	Fixed contribution. Indexing has been applied at this review of the ICS as per escalator rate below. Was \$68 in 2021.
Lot 8 Allen	84	\$82	\$6,888.00	
Lot 52 Anstey Remaining	488	\$82	\$40,016.00	
Lot 52 Anstey Pt1	183	\$82	\$15,006.00	
Lot 52 Anstey Pt2	187	\$82	\$15,334.00	
Lot 84 Anstey	382	\$82	\$31,324.00	
Lot 86 Anstey	248	\$82	\$20,336.00	
Lot 87 Anstey	206	\$82	\$16,892.00	
<b>Total</b>	<b>2614</b>		<b>\$214,348.00</b>	

Item	Area (m2)	Value Per m2	Total	Notes
Lot 6 Allen	836	\$110.00	\$91,960.00	
Lot 8 Allen	84	\$187.50	\$15,750.00	
Lot 52 Anstey Remaining	488	\$110.00	\$53,680.00	
Lot 52 Anstey Pt1	183	\$110.00	\$20,130.00	
Lot 52 Anstey Pt2	187	\$110.00	\$20,570.00	
Lot 84 Anstey	382	\$117.50	\$44,885.00	
Lot 86 Anstey	248	\$132.50	\$32,860.00	
Lot 87 Anstey	206	\$132.50	\$27,295.00	
<b>Total</b>	<b>2614</b>		<b>\$307,130.00</b>	

<b>Total</b>	<b>\$521,478</b>
--------------	------------------

<b>Per Lineal Metre Rate - Based on 885m total length</b>	<b>\$589.24</b>
---	-----------------

Escalators		City of Armadale Parks Services - March 2022
2022	20.50%	

## Administrative Costs

Item	Total Costs
Administrative Costs	\$3,314,703.38
Forecast Interest Earnings	-\$280,540.00

### Full costs associated with preparing and administering Development Contribution Plan 4

Item	Costs	Comment
All costs incurred by the Local Government associated with the preparation, processing and gazettal of the Development Contribution Plan No. 4 and subsequent amendments and Infrastructure Cost Schedule.		
Preparation Cost Prefunded by Landowners	\$207,033	Claimed FY 2022
Preparation Cost Prefunded by Landowners	\$286,417	Claimed FY 2022
Valuation Advice	\$28,200	Actual to date
Local Government Administration Costs up to 7/4/2022	\$330,860	Actual to date
<b>Sub Total</b>	<b>\$852,510.00</b>	
Administration Costs incurred by the Local Government associated with administering Development Contribution Plan 4 including but not limited to: legal expenses, valuation fees, design costs, estimation and certification of costs, audit fees, consultant and contract services, project management, financing costs including interest charges, proportion of City staff salaries, technical support and office expenses for the purposes of administering the plan and expenses incurred by the City in relation to litigation in any Court of Tribunal or arbitration or any compensation paid or payable for or in respect of the provision of any of the infrastructure, land or facilities included in the Plan, whether incurred before or after the incorporation of the DCP in Schedule 9B.		
Administration Charges including contribution towards salaries and on cost for staff supporting the administration of Development Contribution Plan 4.	\$700,000.00	Will be reconciled annually and ultimately based on actuals.
<i>Less actuals to date</i>	<i>-\$306,558.87</i>	
Compensation Allocation	\$1,800,000.00	
<i>Less actuals to date</i>	<i>-\$4,214.55</i>	
Consultant & Legal Fees	\$200,000.00	
<i>Less actuals to date</i>	<i>-\$14,858.20</i>	
Audit Fees	\$55,000.00	
<i>Less actuals to date</i>	<i>-\$5,175.00</i>	
Valuation Charges	\$32,000.00	
<i>Less actuals to date</i>	<i>\$0.00</i>	
Bank Fees and Interest Charges	\$6,000.00	
<i>Less actuals to date</i>	<i>\$0.00</i>	
<b>Sub Total</b>	<b>\$2,462,193.38</b>	
<b>Total</b>	<b>\$3,314,703.38</b>	

Forecast Interest Earnings (Will be included at the next review from post 30 June 2020 )	
2020	\$0.00
<i>2021 (Actual)</i>	<i>-\$4,420.00</i>
2022	-\$33,190.00
2023	-\$42,870.00
2024	-\$62,230.00
2025	-\$52,870.00
2026	-\$23,150.00
2027	-\$12,570.00
2028	-\$6,790.00
2029	-\$7,290.00
2030	-\$23,360.00
2031	-\$8,290.00
2032	-\$3,510.00
<b>Total</b>	<b>-\$280,540.00</b>

## E. Infrastructure Cost Estimates

# Anstey - Keane Urban Precinct DCP

Client: City of Armadale  
 Date: 13/06/2022  
 Revision: B DRAFT  
 Subject: Anstey Road Upgrade - Construction of NCA between Armadale Road and Future School Site (~Ch745)  
 Job Number: JDS13642.0  
 Lots: 1350



1 Infrastructure Upgrades		DCP
<b>Description</b>		
1.01	Mobilisation & Establishment	\$ 335,000
1.02	Management	\$ 198,000
1.03	Demolition	\$ 140,000
1.04	Earthworks	\$ 587,000
1.05	Roadworks	\$ 1,230,000
1.06	Stormwater Drainage	\$ 371,000
1.07	Subsoil Drainage	\$ 291,000
1.08	Street Lighting	\$ 157,000
1.09	Provisional Sums	\$ 200,000
<b>Sub-Total Infrastructure Upgrades</b>		<b>\$ 3,509,000</b>
2 Service Relocations and External Construction Items		
<b>Description</b>		
2.01	Anstey Road Telstra Relocation	\$ 175,000
2.02	Anstey Road ATCO Gas MP Gas Main Relocation	\$ 150,000
2.03	Anstey Road ATCO Gas DN300 STEEL HP Gas Main Relocation	\$ 2,495,000
2.04	Anstey Road Water Reticulation Relocation	\$ 122,000
2.05	Anstey Road Underground Power Reticulation and Optic Fibre Services (NBNC and Opticomm) Relocation	\$ 153,000
2.06	Anstey Road Stormwater Drainage from Ch ~745 to End	\$ 327,000
2.07	Stormwater Detention and Outfall to Baileys Branch Drain	\$ 560,000
<b>Sub-Total Service Relocations</b>		<b>\$ 3,982,000</b>
3 Consultancy Fees		
<b>Description</b>		
3.01	Consultancy Fees (Applicable to Items 1 & 2 only)	\$ 899,000
<b>Sub-Total Consultancy Fees</b>		<b>\$ 899,000</b>
<b>7 Total DCP Estimate</b>		<b>\$ 8,390,000</b>
<b>8 Total Cost per Lot (1350 Lots)</b>		<b>\$ 6,215</b>
9 Notes and Assumptions		
<b>9.01</b>	<b>General</b>	
a)	Costs are based on the latest engineering design for Anstey Road. Refer February 2022 design drawings for further details.	
b)	Rates are based on current 2022 market rates, but will need to be proved at the time of tender.	
c)	The effect of GST has not been included in these costings.	
d)	Estimate is based on detailed design endorsed by the City of Armadale and is subject to the third party authority approvals process.	
e)	Estimate includes nominal allowance for Contractor preliminaries (mobilisation and management) for upgrade and service relocation works.	
f)	No allowance for landscaping and irrigation.	
g)	Anstey Road Upgrade includes nominal allowances for demolition, clearing, earthworks, drainage, roadworks and street lighting associated with the proposed works from Armadale Road to Future School Site chainage ~745m unless otherwise advised.	
h)	Construction water assumed to be obtained from scheme water.	
i)	Estimate assumes works to be completed as a single stage.	
<b>9.02</b>	<b>Earthworks &amp; Demolition</b>	
a)	Estimate includes indicative allowance for the demolition and disposal of existing pavement, stormwater drainage components and existing fencing.	
b)	Estimate has no allowance for removal, disposal and/or replacement of in situ material and that topsoil stripped from the area will be screened and reused on site.	
c)	Estimate includes import fill at a rate of \$30.52/m <sup>3</sup> .	
d)	Estimate includes allowance for removal and retention of existing trees as specified.	
<b>9.03)</b>	<b>Retaining Walls</b>	
a)	No allowance for any retaining or feature walls has been made in this estimate.	
b)	Estimate includes allowance for battering and replacement of existing fencing for abutting properties along Armadale Road.	
<b>9.04)</b>	<b>Sewer Reticulation</b>	
a)	No allowance for sewer reticulation works has been made in this estimate as these works are undertaken by each Developer directly.	
<b>9.05)</b>	<b>Stormwater Drainage</b>	
a)	Estimate includes allowance for pit and pipe system and box culverts within reserves for the full extent of Anstey Road	
b)	Estimate includes allowance for Anstey Road Stormwater Drainage as an external construction item (refer item 2.06). This is required to drain the upgrade of the Anstey Road associated with the Anstey Keane Precinct and may be subject to DCP consideration	
c)	Estimate includes allowance for Anstey Road Stormwater Detention and outfall to the Baileys Branch Drain (BBD) as an external construction item (refer item 2.07). This includes Earthworks, underground storage, subsoil drainage, PRI soils and outfall to the BBD to Water Corporation Standards required to drain the upgrade of the Anstey Road associated with the Anstey Keane Precinct and may be subject to DCP consideration	
<b>9.06)</b>	<b>Roadworks</b>	
a)	Estimate includes allowance for roadworks from Armadale Road up to chainage 745 east to Drafthorse Approach.	
b)	Estimate includes allowance for feature pavement treatments as shown on the drawings.	
<b>9.07)</b>	<b>Water Reticulation</b>	
a)	No allowance for water reticulation system to service the site as these works are undertaken by each Developer directly.	
b)	No allowance for any headworks upgrades.	
<b>9.03</b>	<b>Service Relocations</b>	
a)	Nominal allowances has been made for relocation of existing services for the proposed road widening within Anstey Road. Installation undertaken as part of adjacent developments may require adjustment. These shall be confirmed via liaison with the affected service providers.	
b)	Allowance for the relocation of the ATCO Gas DN300 Steel HP gas main is based on costs received from ATCO Gas dated 9/11/2020 less the JDSI's nominal allowance to relocate the ATCO Gas MP gas main	
<b>9.08)</b>	<b>Gas</b>	
a)	No allowance for gas infrastructure as this is typically installed by ATCO if installed within a common trench	
<b>9.04</b>	<b>Electrical</b>	
a)	Estimate includes allowance for street lighting only.	
b)	Nominal costs allowed for WP relocation and other works. Actual costs to be determined by WP via access offer or other works application.	
<b>9.05</b>	<b>Fees</b>	
a)	Estimate includes 12% of construction cost including preliminaries to cover all consultancy fees.	

**ANSTEY KEANE PLAYING FIELDS**

LANDSCAPE & IRRIGATION CONSTRUCTION OPC  
 REFERENCE 70% DOCUMENTATION PACKAGE  
 REVISION REV B  
 DATE 4.05.2022



REF	ITEM DESCRIPTION	Qty	Unit	Rate	SUB TOTAL \$
<b>PLAYING FIELDS CONSTRUCTION</b>					
<b>1</b>	<b>PRELIMINARIES</b>				<b>\$200,000</b>
	1.1. GENERAL PRELIMINARIES	1	Item	\$200,000	\$200,000
<b>2</b>	<b>OHS COMPLIANCE</b>				<b>\$25,000</b>
	2.1. OHS COMPLIANCE	1	Item	\$25,000	\$25,000
<b>3</b>	<b>SITE WORKS</b>				<b>\$73,200</b>
	3.1. GENERAL	1	Item	\$15,000	\$15,000
	3.2. SITEWORKS & SET OUT	1	Item	\$3,000	\$3,000
	3.3. DUST MANAGEMENT	24	Wks	\$1,500	\$36,000
	3.4. TRAFFIC MANAGEMENT	24	Wks	\$800	\$19,200
<b>4</b>	<b>EARTHWORKS AND GRADING</b>				<b>\$36,774</b>
	4.1. BULK EARTHWORKS	Refer Civil	0	\$0	\$0
	4.2. FINAL MINOR TRIM (+/- 100mm)	49032	m2	\$1	\$36,774
<b>5</b>	<b>STRUCTURES AND WALLS</b>				<b>\$165,000</b>
	5.1. SHELTER	3	each	\$20,000	\$60,000
	5.2. SHADE SAILS TO PLAY AREA	1	each	\$40,000	\$40,000
	5.3. RECONSTITUTED LIMESTONE RETAINING WALLS	106	lin m	\$500	\$53,000
	5.4. RECONSTITUTED LIMESTONE FREESTANDING WALLS	30	lin m	\$400	\$12,000
<b>6</b>	<b>PLAY AREA</b>				<b>\$300,000</b>
	6.1. ALLOWANCE FOR PLAY AREA	1	item	\$300,000	\$300,000
<b>7</b>	<b>SPORTS EQUIPMENT</b>				<b>\$215,000</b>
	7.1. MULTI-USE HALF COURT	1	item	\$25,000	\$25,000
	7.2. CRICKET PITCH	1	each	\$10,000	\$10,000
	7.3. CRICKET TRAINING NETS	1	item	\$85,000	\$85,000
	7.4. AFL GOAL POSTS	1	set	\$8,000	\$8,000
	7.5. SOCCER GOAL POSTS	2	set	\$6,000	\$12,000
	7.6. FITNESS NODES	2	each	\$25,000	\$50,000
	7.7. HIT-UP WALL AND COURT	1	each	\$25,000	\$25,000
<b>8</b>	<b>HARDSTAND</b>				<b>\$245,775</b>
	8.1. CONCRETE FOOTPATH (natural grey in-situ)	2810	sq m	\$60	\$168,600
	8.2. TRAFFICABLE CONCRETE FOOTPATH (natural grey in-situ)	210	sq m	\$80	\$16,800
	8.3. COLOURED CONCRETE	405	sq m	\$105	\$42,525
	8.4. INSITU CONCRETE STAIRS	8	lin m	\$600	\$4,800
	8.5. MOWING KERB	290	lin m	\$45	\$13,050
<b>9</b>	<b>SITE FURNITURE (COMPLETE SUPPLY &amp; INSTALL)</b>				<b>\$135,675</b>
	9.1. BENCH SEATS	5	each	\$1,800	\$9,000
	9.2. PICNIC TABLES	6	each	\$5,000	\$30,000
	9.3. BOLLARD (REMOVABLE)	2	each	\$1,300	\$2,600
	9.4. MAINTENANCE ACCESS GATE	1	each	\$3,000	\$3,000
	9.5. DRINKING FOUNTAIN – (inc all connections )	2	each	\$6,500	\$13,000
	9.6. RUBBISH BIN SURROUND (inc 240lt wheelie bins)	6	each	\$5,750	\$34,500
	9.7. BIKE STANDS	6	each	\$950	\$5,700
	9.8. PINE POST RAIL FENCING WITH CHAINMESH	505	lin m	\$75	\$37,875
<b>10</b>	<b>SOFT LANDSCAPE WORKS</b>				<b>\$655,631</b>
	TREE PLANTING (Complete inc supply, install and staked/guyed as specified)				
	10.1. - 200 litre	40	each	\$470	\$18,800
	10.2. - 100 litre	61	each	\$300	\$18,300
	10.3. - 45 litre	31	each	\$150	\$4,650
	SHRUB PLANTING (Complete inc supply, install as specified)				
	10.4. - Shrub Planting (3/Sqm)	18000	each	\$6.70	\$120,600
	10.5. - Tubestock Planting (6/Sqm)	6020	each	\$3.00	\$18,060
	10.6. SOIL CONDITIONER (Turf 50mm)	31725	sq m	\$3	\$95,175
	10.7. SOIL CONDITIONER (Gardens 75mm)	6000	sq m	\$3	\$18,000
	10.8. SOIL CONDITIONER (Trees)	101	each	\$150	\$15,150
	10.9. MULCHING (Imported - Supply and Install)	4941	sq m	\$6	\$29,646
	10.10. TURF INSTANT ROLL ON (Kikuyu)	31725	sq m	\$10	\$317,250
<b>11</b>	<b>MISCELLANEOUS</b>				<b>\$4,040</b>
	11.1. ROOT CONTROL BARRIER (3 lin m per tree)	101	per tree	\$40	\$4,040
<b>12</b>	<b>LIGHTING AND ELECTRICAL</b>				<b>\$350,000</b>
	12.1. PLAYING FIELDS LIGHTING	1	item	\$300,000	\$300,000
	12.2. CARPARK LIGHTING	1	item	\$50,000	\$50,000
<b>13</b>	<b>INSPECTION/CERTIFICATION</b>				<b>\$6,000</b>
	13.1. STRUCTURAL ENGINEER	1	item	\$2,000	\$2,000
	13.2. PLAY AUDIT	1	item	\$2,000	\$2,000
	13.3. ELECTRICAL CERTIFICATION	1	item	\$2,000	\$2,000



<b>14</b>	<b>IRRIGATION</b>				<b>\$646,656</b>
	14.1. BORE, PUMP, ELECTRICS (bore already installed, price to equip)	1	item	\$60,000	\$60,000
	14.2 IRRIGATION SYSTEM	36666	m2	\$16	\$586,656
<b>15</b>	<b>CONSOLIDATION (13 weeks)</b>	13	wks	\$6,000	<b>\$78,000</b>
<b>16</b>	<b>CONTINGENCY</b>	1	item	\$100,000	<b>\$100,000</b>
<b>17</b>	<b>TOTAL OPC ESTIMATE (excluding GST)</b>				<b>\$3,236,751</b>

**Exclusions**

Pavilion, including services and connection  
Retaining / access / tiered seating to pavilion  
Iron filter to bore  
Standard size turf rolls (not jumbo)  
On-street car parking (understood this will be a separate package)  
Works will be constructed in one stage  
Hard digging  
Spotting  
Public Artwork

# ANSTEY KEANE PLAYING FIELDS



Client: City of Armadale  
 Date: 4/05/2022  
 Revision: B  
 Subject: Preliminary Order of Probable Cost Estimate  
 Stages: 1

1 Construction Works		Stage 1
1.1	Demolition	\$ 120,000
1.2	Earthworks	\$ 2,005,000
1.3	Roadworks	\$ 239,000
<b>Sub-Total Construction Cost</b>		<b>\$ 2,364,000</b>

2 Cost Summary		
2.1	<b>Sub-Total Construction Cost</b>	<b>\$ 2,364,000</b>
2.2	<b>Total inc 15% Contingency</b>	<b>\$ 2,719,000</b>

2 Fees & Charges		
2.3	Supervision Fees (1.5%)	\$ 9,000
2.4	Maintenance Bond (2.5%)	\$ 6,000
<b>Total Fees &amp; Charges</b>		<b>\$ 15,000</b>

3 Total Budget Estimate		<b>\$ 2,734,000</b>
-------------------------	--	---------------------

4 Notes and Assumptions	
<b>4.1</b>	<b>General</b>
4.1.1	Costs are based on unapproved preliminary design drawings JDS222054.0 SK001 Rev A, SK002 Rev A, SK301 Rev A, SK302 Rev A, SK303 Rev A and SK304 Rev A prepared by JDSi Consulting Engineers. Finalisation of this approval of the detailed design needs to be completed for a detailed budget estimate.
4.1.2	Rates are based on current market contract rates for adjacent projects, but will need to be confirmed at time of tender.
4.1.3	The effect of GST has NOT been included in these costings.
4.1.4	Construction water assumed to be obtained from scheme water.
4.1.5	Cost estimate is based on no external civil works being required i.e. no infrastructure upgrades or service network reinforcement unless advised otherwise.
4.1.6	No allowance for ASS treatment. The requirement for ASS treatment to be verified by detailed geotechnical and environmental investigations as well as detailed design.
4.1.7	Nominal allowance for offsite disposal of unsuitable material from site.
4.1.8	No allowance for retaining, fencing, electrical, carpark lighting, landscaping and irrigation.
4.1.9	Estimate assumes works will be completed in 1 stage. Additional preliminaries and management costs will apply should works be carried out in multiple stages.
4.1.10	Estimate is based on current information only and is subject to further studies.
4.1.11	No allowance for Contractor preliminaries.
<b>4.2</b>	<b>Earthworks &amp; Demolition</b>
4.2.1	Estimate includes nominal allowance to demolish existing hardstanding areas and buildings.
4.2.2	Estimates assumes 100mm topsoil strip is required.
4.2.3	Import fill requirements based on preliminary detailed design. Fill import rate of \$30.52/m <sup>3</sup> applied in estimate.
4.2.4	Estimate includes allowance to strip, process and reuse topsoil as structural fill.
4.2.5	No allowance for excavation through; processing of; or, disposal of hard rock material has been made in this estimate.
<b>4.3</b>	<b>Retaining Walls</b>
4.3.1	No allowance for structural retaining walls or permanent fencing of any type has been made in the estimate at this stage. This is subject to design development and further studies.
<b>4.4</b>	<b>Sewer Reticulation</b>
4.4.1	No allowance for sewer reticulation to serve the proposed site. The Site is served from the Solaris sewer reticulation.
<b>4.5</b>	<b>Stormwater Drainage</b>
4.5.1	No allowance for stormwater has been made in the estimate at this stage. This is subject to design development and further studies.
<b>4.6</b>	<b>Roadworks</b>
4.6.1	Estimate includes allowance for carpark construction, linemarking and at grade connections to adjacent road network only
4.6.2	No allowance for footpath in this estimate.
<b>4.7</b>	<b>Water Reticulation</b>
4.7.1	No allowance for water reticulation to serve the proposed site.
<b>4.8</b>	<b>Communications</b>
4.8.1	No allowance for communications has been made in this estimate.
<b>4.9</b>	<b>Electrical</b>
4.9.1	No allowance for electrical reticulation or lighting to any portion of the DOS has been made in the estimate.
<b>4.10</b>	<b>Fees</b>
4.10.1	No allowance for consultancy fees and site investigations has been made in this estimate.



Contract No : JDS222054.0

Date : 4/05/2022

Rev : B

**A3 ANSTEY KEANE PLAYING FIELDS**

**A3.1 Lump Sum Tender Summary Schedule**

Item	Description	Amount (exc GST)	GST	Amount (inc GST)
1.0	Demolition	\$ 119,970.00	\$ 11,997.00	\$ 131,967.00
2.0	Earthworks	\$ 2,004,568.85	\$ 200,456.89	\$ 2,205,025.74
3.0	Roadworks	\$ 238,087.60	\$ 23,808.76	\$ 261,896.36
<b>Total</b>		<b>\$ 2,362,626.45</b>	<b>\$ 236,262.65</b>	<b>\$ 2,598,889.10</b>

**A3.1.1 Detail Schedule - Demolition**

Item	Description	Qty	Unit	Rate	Amount
<b>1.0</b>	<b>Demolition</b>				
1.01	Demolish and Offsite Disposal of Asphalt surface Treatments / crossovers	1,300	m2	\$28.50	\$ 37,050.00
1.02	Demolish and Offsite Disposal of Concrete Kerbing	50	m	\$16.00	\$ 800.00
1.03	Demolish and Offsite Disposal of 1.8m Chain mesh Fencing	1,000	m	\$12.00	\$ 12,000.00
1.04	Demolish and Offsite Disposal of 1.8m High Gate	1	each	\$120.00	\$ 120.00
1.05	Demolish residential house / outbuildings etc	1	Item	\$70,000.00	\$ 70,000.00
<b>TOTAL EARTHWORKS</b>					<b>\$ 119,970.00</b>

A3.1.2 Detail Schedule - Earthworks

Item	Description	Qty	Unit	Rate	Amount
<b>2.0</b>	<b>Earthworks</b>				
	<b>Earthworks of the development site:</b>				
2.01	Clearing, grubbing and stockpile mulch onsite (Clearing of Batter Line)	48768	m <sup>2</sup>	\$ 0.57	\$ 27,651.46
2.02	Strip topsoil for reuse in accordance with geotechnical report (min 100mm thick)	48768	m <sup>2</sup>	\$ 0.50	\$ 24,579.07
	Screen topsoil for reuse in accordance with geotechnical report	4876.8	m <sup>3</sup>	\$ -	incl
	Blend topsoil with select fill from site or imported fill at 1 to 1 ratio in accordance with geotechnical report	9753.6	m <sup>3</sup>	\$ -	incl
	Dispose of unsuitable material from processing of topsoil material	487.68	m <sup>3</sup>	\$ 85.50	\$ 41,696.64
2.03	Proof roll	48768	m <sup>2</sup>	\$ 0.20	\$ 9,753.60
2.04	Bulk Earthworks				
	a) Cut to fill, place and compact	85.685	m3	\$ 7.14	\$ 611.79
	b) Import, place and compact clean sand fill (based on bank compacted volume)	61296.723	m3	\$ 30.52	\$ 1,870,775.99
2.05	Construct and shape swale	60	m	\$ 30.00	\$ 1,800.00
2.06	Stabilise surface by hydromulch	44391	m <sup>2</sup>	\$ 0.35	\$ 15,536.85
	a) E/O dye		m <sup>2</sup>	\$ 0.06	\$ -
	b) E/O seed	44391	m <sup>2</sup>	\$ 0.06	\$ 2,663.46
2.07	Protect existing tree	3	item	\$ 500.00	\$ 1,500.00
2.08	Liasion with Geotechnical Engineer for Earthworks Certification	1	Item	\$ 4,500.00	\$ 4,500.00
2.09	Provision of QA and as-constructed survey as per the specification	1	Item	\$ 3,500.00	\$ 3,500.00
2.10	Other items (the contractor shall list all other items as per the specification and construction drawings deemed required to complete the works)				
<b>TOTAL EARTHWORKS</b>					<b>\$ 2,004,568.85</b>

A3.1.3 Detail Schedule - Roadworks

Item	Description	Qty	Unit	Rate	Amount
<b>3.0</b>	<b>Roadworks</b>				
3.01	Construct Asphalt Carpark				
	a) Compact and trim pavement subgrade	4377	m <sup>2</sup>	\$ 3.45	\$ 15,100.65
	b) 200mm compacted thickness limestone subbase	4377	m <sup>2</sup>	\$ 10.60	\$ 46,396.20
	c) 150mm compacted thickness crushed rock roadbase	4377	m <sup>2</sup>	\$ 14.00	\$ 61,278.00
	d) 7mm prime seal	3900	m <sup>2</sup>	\$ 3.50	\$ 13,650.00
	e) 30mm AC10 asphalt	3900	m <sup>2</sup>	\$ 13.35	\$ 52,065.00
	f) Semi-mountable kerb kerb	795	m	\$ 20.45	\$ 16,257.75
	f) Linemarking	1	each	\$ 7,000.00	\$ 7,000.00
3.02	Construct Concrete Crossover	4	each	\$ 1,635.00	\$ 6,540.00
3.03	Tie into existing	4	no	\$ 1,400.00	\$ 5,600.00
3.04	Construct temporary drainage sump	2	each	\$ 2,500.00	\$ 5,000.00
3.05	Quality Assurance				
	a) Compaction testing during construction	1	Item	\$ 3,600.00	\$ 3,600.00
	b) Material testing	1	Item	\$ 2,500.00	\$ 2,500.00
	c) As constructed survey and documentation (liaise with Principal Surveyor)	1	Item	\$ 1,850.00	\$ 1,850.00
	d) Final inspection	1	Item	\$ 1,250.00	\$ 1,250.00
3.06	Other items (the contractor shall list all other items as per the specification and construction drawings deemed required to complete the works)				
<b>TOTAL ROADWORKS</b>					<b>\$ 238,087.60</b>

---

INDICATIVE ORDER OF COST ESTIMATE

## ANSTEY KEANE COMMUNITY INFRASTRUCTURE PROJECT



# ANSTEY KEANE COMMUNITY INFRASTRUCTURE PROJECT

## INDICATIVE ORDER OF COST ESTIMATE

### PROJECT DETAILS

#### Basis of Estimate

This Indicative Order of Cost Estimate is based upon the information received on 25th & 26th September 2018, the email from Andrew Barnett dated 30th January 2019, and the email from Rob Sklarski's email to Adam Robinson dated 9 February 2022; to which we have applied rates and prices that are applicable at the date of this report.

We highlight that the level of information the attached estimate has been based on is extremely high level. The values should be utilised as a guide for strategic master planning review and options analysis only. They should not be used for decision making analysis to commit to a project (including acquisition, finance approval, equity approval or the like). We recommend that a more detailed design and cost planning be prepared before such commitment is to be considered.

#### Items Specifically Included

This Indicative Order of Cost Estimate specifically includes the following:

- Demolition and Site Preparation
- New Build Construction and External Works
- Design Contingency (7.5%)
- Construction Contingency (5%)
- Loose Furniture & Equipment
- Audio Visual & IT
- Headworks Fees & Charges
- Public Art

#### Items Specifically Excluded

This Indicative Order of Cost Estimate specifically excludes the following:

- Playing Fields and Landscaping
- Removal of Hazardous Materials (including asbestos and acid sulphate soils)
- Dewatering
- Excavation in Rock
- Professional Fees
- City of Armadale Fees and Charges
- Land Costs
- Impacts of COVID-19 beyond the current situation
- Escalation beyond February 2022
- GST

#### Documents

This Indicative Order of Cost Estimate has been based on the following:

- Anstey Keane Precinct - Community Infrastructure Cost-Estimate Table 1: Community Building Components
- Anestey Keane Urban Precict - Playing Field Concept with Aerial dated 23 July 2018 - Revision 1802
- Andrew Barnett's email to Adam Robinson dated 30 January 2019
- Rob Sklarski's email to Adam Robinson dated 9 February 2022

# ANSTEY KEANE COMMUNITY INFRASTRUCTURE PROJECT

## INDICATIVE ORDER OF COST ESTIMATE



FECA: Fully Enclosed Covered Area  
Rates Current At February 2022

### LOCATION SUMMARY

Ref	Report:	FECA m <sup>2</sup>	FECA \$/m <sup>2</sup>	Total Cost \$
A	Demolition and Site Prep			2,481,078.00
B	Community Building	1,043	3,256	3,395,900.00
C	External Site Infrastructure Services			375,000.00
<b>ESTIMATED NET COST</b>		<b>1,043</b>	<b>5,994</b>	<b>6,251,978.00</b>

### MARGINS & ADJUSTMENTS

Preliminaries				Incl.
Builders Margin				Incl.
Construction Sub-total		1,043	5,994	6,251,978.00
Design Contingency	7.5%			469,000.00
Construction Contingency	5.0%			337,000.00
Loose Furniture & Equipment	1.4%			100,000.00
Audio Visual and IT	1.0%			75,000.00
Statutory Fees & Charges	0.0%			0.50
Professional Fees				Excl.
City of Armadale Direct Fees and Charges				Excl.
Headworks Fees and Charges	4.1%			300,000.00
Public Art	1.0%			75,329.80
Land Costs				Excl.
Impacts of COVID-19 beyond the current situation				Excl.
Escalation beyond February 2022				Excl.
GST				Excl.
<b>ESTIMATED TOTAL COST</b>		<b>1,043</b>	<b>7,295</b>	<b>7,608,308.30</b>

# ANSTEY KEANE COMMUNITY INFRASTRUCTURE PROJECT

## INDICATIVE ORDER OF COST ESTIMATE

### LOCATION ELEMENTS ITEM

A Demolition and Site Prep

Rates Current At February 2022

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
<b>AR Alterations and Renovations to Existing Buildings</b>					
23	Demolish existing buildings and structures	m <sup>2</sup>	1,581.0	135.00	213,435.00
78	Allowance for sundry demolition	Item			30,000.00
<b>Alterations and Renovations to Existing Buildings</b>					<b>243,435.00</b>
<b>XP Site Preparation</b>					
24	Site clearance	m <sup>2</sup>	49,374.0	2.50	123,435.00
25	Allowance for clearing of mature trees	No	45.0	900.00	40,500.00
26	900mm of imported clean fill laid to appropriate levels	m <sup>2</sup>	49,374.0	42.00	2,073,708.00
65	No allowance for removal of contaminated material (asbestos and acid sulphate soils etc.)	Item			Excl.
66	No allowance for dewatering	Item			Excl.
67	No allowance for retaining	Item			Excl.
<b>Site Preparation</b>					<b>2,237,643.00</b>
<b>DEMOLITION AND SITE PREP</b>					<b>2,481,078.00</b>

# ANSTEY KEANE COMMUNITY INFRASTRUCTURE PROJECT

## INDICATIVE ORDER OF COST ESTIMATE

### LOCATION ELEMENTS ITEM

B Community Building

FECA: 1,043 m<sup>2</sup> Cost/m<sup>2</sup>: 3,256  
Rates Current At February 2022

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
<b>FT</b>	<b>Fitments</b>				
58	Allowance for signage including City logo, name etc	Item			30,000.00
	<b>Fitments</b>			<b>29/m<sup>2</sup></b>	<b>30,000.00</b>
<b>SE</b>	<b>Special Equipment</b>				
62	Allowance for Club Room Kitchenette / Kiosk Fitout	Item			30,000.00
63	Allowance for Main Hall Kitchen Fitout	Item			50,000.00
	<b>Special Equipment</b>			<b>77/m<sup>2</sup></b>	<b>80,000.00</b>
<b>XR</b>	<b>Roads, Footpaths and Paved Areas</b>				
38	Allowance for external building surround pavements	Item			120,000.00
40	Allowance for external stairs and ramps	Item			25,000.00
	<b>Roads, Footpaths and Paved Areas</b>			<b>139/m<sup>2</sup></b>	<b>145,000.00</b>
<b>XB</b>	<b>Outbuildings and Covered Ways</b>				
64	Allowance for covered terrace and verandah areas	m <sup>2</sup>	250.0	550.00	137,500.00
	<b>Outbuildings and Covered Ways</b>			<b>132/m<sup>2</sup></b>	<b>137,500.00</b>
<b>XK</b>	<b>External Stormwater Drainage</b>				
37	Allowance for building stormwater drainage (including retention cells etc.)	Item			60,000.00
	<b>External Stormwater Drainage</b>			<b>58/m<sup>2</sup></b>	<b>60,000.00</b>
<b>XD</b>	<b>External Sewer Drainage</b>				
61	Allowance for grease trap	Item			35,000.00
	<b>External Sewer Drainage</b>			<b>34/m<sup>2</sup></b>	<b>35,000.00</b>
<b>XW</b>	<b>External Water Supply</b>				
80	Allowance for drinking station	No	1.0	9,000.00	9,000.00
	<b>External Water Supply</b>			<b>9/m<sup>2</sup></b>	<b>9,000.00</b>
<b>XE</b>	<b>External Electric Light and Power</b>				
32	Allowance for external light and power	Item			30,000.00
	<b>External Electric Light and Power</b>			<b>29/m<sup>2</sup></b>	<b>30,000.00</b>
<b>XC</b>	<b>External Communications</b>				
33	No allowance for building PA system	Item			Excl.
	<b>External Communications</b>				<b>Excl.</b>
<b>XS</b>	<b>External Special Services</b>				
34	No allowance for external security / CCTV	Item			Excl.
	<b>External Special Services</b>				<b>Excl.</b>
<b>BA</b>	<b>Building Areas</b>				
1	Club Room	m <sup>2</sup>	80.0	2,900.00	232,000.00
2	Multi-Purpose Activity Space	m <sup>2</sup>	80.0	2,900.00	232,000.00
3	Main Hall	m <sup>2</sup>	160.0	2,900.00	464,000.00

# ANSTEY KEANE COMMUNITY INFRASTRUCTURE PROJECT

## INDICATIVE ORDER OF COST ESTIMATE

### LOCATION ELEMENTS ITEM

B Community Building (continued)

FECA: 1,043 m<sup>2</sup> Cost/m<sup>2</sup>: 3,256  
Rates Current At February 2022

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
4	Meeting Room	m <sup>2</sup>	30.0	3,100.00	93,000.00
5	Club Room Kitchenette/Kiosk	m <sup>2</sup>	30.0	3,350.00	100,500.00
6	Main Hall Kitchen	m <sup>2</sup>	30.0	3,350.00	100,500.00
7	Change rooms (x4)	m <sup>2</sup>	100.0	3,100.00	310,000.00
8	Change Room Showers/Toilets	m <sup>2</sup>	60.0	3,900.00	234,000.00
9	Toilets (male and female)	m <sup>2</sup>	30.0	3,900.00	117,000.00
10	Parenting Room	m <sup>2</sup>	12.0	3,050.00	36,600.00
12	UAT	m <sup>2</sup>	12.0	4,100.00	49,200.00
13	Umpire room	m <sup>2</sup>	12.0	3,300.00	39,600.00
14	First Aid Room	m <sup>2</sup>	12.0	3,000.00	36,000.00
15	Kitchen/Kitchenette Storage Spaces	m <sup>2</sup>	20.0	2,900.00	58,000.00
16	Chair/Table Store Rooms	m <sup>2</sup>	25.0	2,400.00	60,000.00
17	Internal Storage Space	m <sup>2</sup>	60.0	2,200.00	132,000.00
18	External Storage Space	m <sup>2</sup>	75.0	1,100.00	82,500.00
19	Communication/Plant	m <sup>2</sup>	5.0	4,500.00	22,500.00
20	Circulation	m <sup>2</sup>	195.0	2,200.00	429,000.00
21	Cleaners Room/Toilet Ducts	m <sup>2</sup>	5.0	3,000.00	15,000.00
22	Bin Store Room	m <sup>2</sup>	10.0	2,600.00	26,000.00
<b>Building Areas</b>				<b>2,751/m<sup>2</sup></b>	<b>2,869,400.00</b>
<b>COMMUNITY BUILDING</b>				<b>3,256/m<sup>2</sup></b>	<b>3,395,900.00</b>

# ANSTEY KEANE COMMUNITY INFRASTRUCTURE PROJECT

## INDICATIVE ORDER OF COST ESTIMATE

### LOCATION ELEMENTS ITEM

C External Site Infrastructure Services

Rates Current At February 2022

Ref	Description	Unit	Qty	Rate \$	Total Cost \$
<b>XD</b>	<b>External Sewer Drainage</b>				
27	Allowance for external sewer drainage	Item			40,000.00
	<b>External Sewer Drainage</b>				<b>40,000.00</b>
<b>XW</b>	<b>External Water Supply</b>				
35	Allowance for external water supply	Item			35,000.00
	<b>External Water Supply</b>				<b>35,000.00</b>
<b>XG</b>	<b>External Gas</b>				
36	Allowance for gas supply	Item			35,000.00
	<b>External Gas</b>				<b>35,000.00</b>
<b>XF</b>	<b>External Fire Protection</b>				
28	Allowance for external fire protection services (no allowance for fire tanks and pumps)	Item			30,000.00
	<b>External Fire Protection</b>				<b>30,000.00</b>
<b>XE</b>	<b>External Electric Light and Power</b>				
29	Allowance for new substation and site main switchboard	Item			145,000.00
31	Allowance for electrical mains	Item			90,000.00
	<b>External Electric Light and Power</b>				<b>235,000.00</b>
	<b>EXTERNAL SITE INFRASTRUCTURE SERVICES</b>				<b>375,000.00</b>



**RLB.com**

AFRICA | AMERICAS | ASIA | EUROPE | MIDDLE EAST | OCEANIA



**ANSTEY KEANE PLAYING FIELDS**

LANDSCAPE & IRRIGATION CONSTRUCTION OPC  
 REFERENCE REFER CONCEPT DESIGN  
 REVISION REV A  
 DATE 16.03.2022



REF	ITEM DESCRIPTION	Qty	Unit	Rate	SUB TOTAL \$
<b>PLAYING FIELDS CONSTRUCTION</b>					
<b>1</b>	<b>PRELIMINARIES</b>				<b>\$150,000</b>
	1.1. GENERAL PRELIMINARIES	1	Item	\$150,000	\$150,000
<b>2</b>	<b>OHS COMPLIANCE</b>				<b>\$10,000</b>
	2.1. OHS COMPLIANCE	1	Item	\$10,000	\$10,000
<b>3</b>	<b>SITE WORKS</b>				<b>\$73,200</b>
	3.1. GENERAL	1	Item	\$15,000	\$15,000
	3.2. SITEWORKS & SET OUT	1	Item	\$3,000	\$3,000
	3.3. DUST MANAGEMENT	24	Wks	\$1,500	\$36,000
	3.4. TRAFFIC MANAGEMENT	24	Wks	\$800	\$19,200
<b>4</b>	<b>EARTHWORKS AND GRADING</b>				<b>\$386,774</b>
	4.1. BULK EARTHWORKS	10000	m3	\$35	\$350,000
	4.2. FINAL MINOR TRIM (+/- 100mm)	49032	m2	\$1	\$36,774
<b>5</b>	<b>STRUCTURES</b>				<b>\$80,000</b>
	5.1. SHELTER (LARGE)	1	each	\$25,000	\$25,000
	5.2. SHELTER (MEDIUM)	1	each	\$15,000	\$15,000
	5.3. SHADE SAILS TO PLAY AREA	1	each	\$40,000	\$40,000
<b>6</b>	<b>PLAY AREA</b>				<b>\$250,000</b>
	6.1. ALLOWANCE FOR PLAY AREA	1	item	\$250,000	\$250,000
<b>7</b>	<b>SPORTS EQUIPMENT</b>				<b>\$200,000</b>
	7.1. MULTI-USE HALF COURT	1	item	\$25,000	\$25,000
	7.2. CRICKET PITCH	2	each	\$10,000	\$20,000
	7.3. CRICKET TRAINING NETS	1	item	\$85,000	\$85,000
	7.4. AFL GOAL POSTS	1	set	\$8,000	\$8,000
	7.5. SOCCER GOAL POSTS	2	set	\$6,000	\$12,000
	7.6. FITNESS NODES	2	each	\$25,000	\$50,000
<b>8</b>	<b>HARDSTAND</b>				<b>\$802,090</b>
	8.1. CONCRETE FOOTPATH (natural grey in-situ)	2855	sq m	\$60	\$171,300
	8.2. MOWING KERB	82	lin m	\$45	\$3,690
	8.3. CAR PARKING	3765	sq m	\$140	\$527,100
	8.4. PROVISION FOR DRAINAGE TO CAR PARKS	1	item	\$100,000	\$100,000
<b>9</b>	<b>SITE FURNITURE (COMPLETE SUPPLY &amp; INSTALL)</b>				<b>\$93,000</b>
	9.1. BENCH SEATS	6	each	\$1,800	\$10,800
	9.2. PICNIC TABLES	4	each	\$5,000	\$20,000
	9.3. BOLLARD (REMOVABLE)	4	each	\$1,300	\$5,200
	9.4. MAINTENANCE ACCESS GATE	2	each	\$3,000	\$6,000
	9.5. BBQ, ELECTRIC DOUBLE (inc all connections)	1	each	\$12,000	\$12,000
	9.6. DRINKING FOUNTAIN – (inc all connections )	1	each	\$6,500	\$6,500
	9.7. RUBBISH BIN SURROUND (inc 240lt wheelie bins)	4	each	\$5,750	\$23,000
	9.8. BIKE STANDS	10	each	\$950	\$9,500
	9.9. PINE POST RAIL FENCING WITH CHAINMESH	850	lin m	\$75	\$63,750
<b>10</b>	<b>SOFT LANDSCAPE WORKS</b>				<b>\$610,328</b>
	TREE PLANTING (Complete inc supply, install and staked/guyed as specified)				
	10.1. - 1000 litre	4	each	\$3,000	\$12,000
	10.2. - 500 litre	20	each	\$1,200	\$24,000
	10.3. - 200 litre	30	each	\$450	\$13,500
	10.4. - 100 litre	110	each	\$290	\$31,900
	SHRUB PLANTING (Complete inc supply, install as specified)				
	10.5. - Tubestock (4/Sqm)	19764	each	\$2.40	\$47,434
	10.6. SOIL CONDITIONER (Turf 50mm)	31725	sq m	\$3	\$95,175
	10.7. SOIL CONDITIONER (Gardens 75mm)	4941	sq m	\$3	\$14,823
	10.8. SOIL CONDITIONER (Trees)	164	each	\$150	\$24,600
	10.9. MULCHING (Imported - Supply and Install)	4941	sq m	\$6	\$29,646
	10.10. TURF INSTANT ROLL ON (Kikuyu)	31725	sq m	\$10	\$317,250
<b>11</b>	<b>MISCELLANEOUS</b>				<b>\$6,560</b>
	11.1. ROOT CONTROL BARRIER (3 lin m per tree)	164	per tree	\$40	\$6,560
<b>12</b>	<b>LIGHTING AND ELECTRICAL</b>				<b>\$350,000</b>
	12.1. PLAYING FIELDS LIGHTING	1	item	\$300,000	\$300,000
	12.2. CARPARK LIGHTING	1	item	\$50,000	\$50,000
<b>13</b>	<b>INSPECTION/CERTIFICATION</b>				<b>\$6,000</b>
	13.1. STRUCTURAL ENGINEER	1	item	\$2,000	\$2,000
	13.2. PLAY AUDIT	1	item	\$2,000	\$2,000
	13.3. ELECTRICAL CERTIFICATION	1	item	\$2,000	\$2,000
<b>14</b>	<b>IRRIGATION</b>				<b>\$646,656</b>

	14.1. BORE, PUMP, ELECTRICS	1	item	\$60,000	\$60,000
	14.2 IRRIGATION SYSTEM	36666	m2	\$16	\$586,656
<b>15</b>	<b>CONSOLIDATION (13 weeks)</b>	13	wks	\$6,000	<b>\$78,000</b>
<b>16</b>	<b>CONTINGENCY</b>	1	item	\$100,000	<b>\$100,000</b>
<b>17</b>	<b>TOTAL OPC ESTIMATE (excluding GST)</b>				<b>\$3,842,608</b>

**Exclusions**

Pavilion, including services and connection  
Retaining / access / tiered seating to pavilion  
Iron filter to bore  
Standard size turf rolls (not jumbo)  
On-street car parking (understood this will be a separate package)  
Works will be constructed in one stage  
Hard digging  
Spotting  
Public Artwork

**City of Armadale - Shared Paths Estimate - 6/2/2019**

	Quantity	Unit	Unit rate	Total Cost		Total Length	Total Price
<b>Construct 3.0m wide red asphaltic footpaths to City of Armadale standards</b>							
20mm Red asphalt (2% red oxide)	3	m2	\$11.90	\$35.70			
300mm wide Reinforced flush kerbing	0.6	m	\$56.92	\$34.15			
150mm compacted limestone base	3.7	m2	\$11.63	\$43.03			
Subgrade preparation, trim and compact	3.7	m2	\$5.96	\$22.05			
				\$134.94			
10% Preliminaries				\$13.49			
10% Contingencies				\$14.84			
				\$163.27		2237	\$365,238.01
<b>Construct 2.5m wide red asphaltic footpaths to City of Armadale standards</b>							
20mm Red asphalt (2% red oxide)	2.5	m2	\$11.90	\$29.75			
300mm wide Reinforced flush kerbing	0.6	m	\$56.92	\$34.15			
150mm compacted limestone base	3.1	m2	\$11.63	\$36.05			
Subgrade preparation, trim and compact	3.1	m2	\$5.96	\$18.48			
				\$118.43			
10% Preliminaries				\$11.84			
10% Contingencies				\$13.03			
				\$143.30		811	\$116,217.52
<b>Construct 2.5m wide concrete footpath to City of Armadale standards</b>							
2.5m wide colour grey	2.5	m2	\$37.93	\$94.83			
Subgrade preparation, trim and compact	3	m2	\$5.96	\$17.88			
				\$112.71			
10% Preliminaries				\$11.27			
10% Contingencies				\$12.40			
				\$136.37		1735	\$236,607.24

**ANSTEY ROAD, FORRESTDALE  
LANDSCAPE PRELIMINARY ORDER OF COST**  
for PRM

Emerge Associates  
REV C 23-Oct-18

No	LOCATION	COMMENTS	QTY	UNIT	RATE	COST
1	Public Open Space 1	Minimum standard POS treatment	3,128	m2	\$ 65	\$ 203,320
2	Public Open Space 2 - Entry Park	Standard POS treatment with playground	2,103	m2	\$ 80	\$ 168,240
3	Public Open Space 3 - Multiuse Corridor	Minimum standard POS treatment	4,894	m2	\$ 65	\$ 318,110
4	Public Open Space 4 - Multiuse corridor	Feature POS with significant facilities and Living Stream	18,987	m2	\$ 110	\$ 2,088,570
5	Public Open Space 5 - Multiuse Corridor	Standard POS treatment with playground and Living Stream	14,462	m2	\$ 95	\$ 1,373,890
6	Public Open Space 6	Minimum standard POS treatment	3,677	m2	\$ 65	\$ 239,005
7	Major Entry Statements	Major entry points incl larger signage, mature trees, lighting	1	m2	\$ 150,000	\$ 150,000
8	Minor Entry Statements	Minor entry points incl smaller precinct style signage, no lighting	3	ea	\$ 50,000	\$ 150,000
9	Roundabouts	Transplant, 2 x uprights, retic, low shrub planting	4	ea	\$ 21,000	\$ 84,000
10	Street Trees to Anstey Rd	500lit trees to both sides of Anstey Rd frontage @ 10m ctrs	100	ea	\$ 2,000	\$ 200,000
11	Public Art	Allowance for public art	1	sum	\$ 200,000	\$ 200,000
12	Bores and Electrics	Standard bore and electrics	2	ea	\$ 100,000	\$ 200,000
13	Retic Mainlines	Assume 3000 lin m	3,000	lin m	\$ 30	\$ 90,000
14	Iron Filters and enclosures	Iron staining is anticipated locally (\$75K filter plus \$15K enclosure)	2	ea	\$ 100,000	\$ 200,000
15	Construction Consolidation	13 weeks	13	wks	\$ 1,950	\$ 25,350
<b>SubTotal</b>						<b>\$ 5,963,045</b>
GST						\$ 596,305
<b>TOTAL</b>						<b>\$ 6,559,350</b>

STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10	STAGE 11	STAGE 12	STAGE 13	STAGE 14	BY OTHERS	Check Total						
\$ 440,800				\$ 318,110										\$ 203,320	\$ 203,320						
					\$ 1,524,656	\$ 417,714				\$ 146,200					\$ 2,088,570						
						\$ 686,945		\$ 686,945							\$ 1,373,890						
													\$ 239,005		\$ 239,005						
\$ 150,000															\$ 150,000						
		\$ 50,000				\$ 50,000								\$ 50,000	\$ 150,000						
\$ 21,000		\$ 21,000		\$ 21,000									\$ 21,000		\$ 84,000						
		\$ 30,000						\$ 50,000	\$ 30,000						\$ 200,000						
					\$ 100,000	\$ 40,000									\$ 200,000						
					\$ 100,000										\$ 200,000						
					\$ 59,000		\$ 4,000	\$ 5,000	\$ 3,000				\$ 19,000		\$ 90,000						
					\$ 100,000			\$ 100,000							\$ 200,000						
				\$ 5,070	\$ 3,621	\$ 6,519	\$ 5,070	\$ 2,535					\$ 2,535		\$ 25,350						
<b>SubTotal</b>						<b>\$ 1,025,870</b>	<b>\$ -</b>	<b>\$ 101,000</b>	<b>\$ -</b>	<b>\$ 346,731</b>	<b>\$ 1,831,175</b>	<b>\$ 1,204,729</b>	<b>\$ 50,000</b>	<b>\$ 722,480</b>	<b>\$ -</b>	<b>\$ 146,200</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 331,540</b>	<b>\$ 203,320</b>	<b>\$ 5,963,045</b>
GST						\$ 102,587	\$ -	\$ 10,100	\$ -	\$ 34,673	\$ 183,117	\$ 120,473	\$ 5,000	\$ 72,248	\$ -	\$ 14,620	\$ -	\$ -	\$ 33,154	\$ 20,332	\$ 596,305
<b>TOTAL</b>						<b>\$ 1,128,457</b>	<b>\$ -</b>	<b>\$ 111,100</b>	<b>\$ -</b>	<b>\$ 381,405</b>	<b>\$ 2,014,292</b>	<b>\$ 1,325,202</b>	<b>\$ 55,000</b>	<b>\$ 794,728</b>	<b>\$ -</b>	<b>\$ 160,820</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 364,694</b>	<b>\$ 223,652</b>	<b>\$ 6,559,350</b>

Number of Lots	550	Avg Cost/lot excl GST	\$ 10,842
----------------	-----	-----------------------	-----------

17.2%	0.0%	1.7%	0.0%	5.8%	30.7%	20.2%	0.8%	12.1%	0.0%	2.5%	0.0%	0.0%	5.6%	3.4%	100.0%
-------	------	------	------	------	-------	-------	------	-------	------	------	------	------	------	------	--------

MAINTENANCE		POS Area m2 (incl verges)	50,658
16	Year 1 (after 13 wks const'n consolidation)	All POS (50,658m2 x \$2/m2 = \$101,500 for 52 weeks)	39 wks \$ 1,950 \$ 76,050
17	Year 2	All POS (50,658m2 x \$2/m2 = \$101,500 for 52 weeks)	52 wks \$ 1,950 \$ 101,400
<b>SubTotal</b>			<b>\$ 177,450</b>
GST			\$ 17,745

- Notes:**
- POS m2 areas increased by 5% to allow for POS road verges
  - Lot walls, fencing, gates in civil package
  - Assume no planted medians or median trees
  - 2 x bores and iron filters with mainline linkages are proposed
  - 600 Residential street trees form part of Front Yard Packages budget
  - Anstey Rd verge ground treatment covered by Front Yard Package
  - Assume no works to Primary School required

EXPECTED 1:5 DRAINAGE COST SPLIT						
18	Public Open Space 3 - Multiuse corridor	Above 1:5 flood zone	3,744	m2	\$ 56	\$ 208,860
		Below 1:5 flood zone	1,150	m2	\$ 95	\$ 109,250
Total (as above)			4,894	m2	\$ 65	\$ 318,110
19	Public Open Space 4 - Multiuse corridor	Above 1:5 flood zone	15,847	m2	\$ 113	\$ 1,790,270
		Below 1:5 flood zone	3,140	m2	\$ 95	\$ 298,300
Total (as above)			18,987	m2	\$ 110	\$ 2,088,570
20	Public Open Space 5 - Multiuse Corridor	Above 1:5 Flood zone	10,422	m2	\$ 95	\$ 990,090
		Below 1:5 Flood zone	4,040	m2	\$ 95	\$ 383,800
Total (as above)			14,462	m2	\$ 95	\$ 1,373,890
Total All above 1:5			30,013			\$ 2,989,220
Total All below 1:5			8,330			\$ 791,350

Check Total All \$ 3,780,570

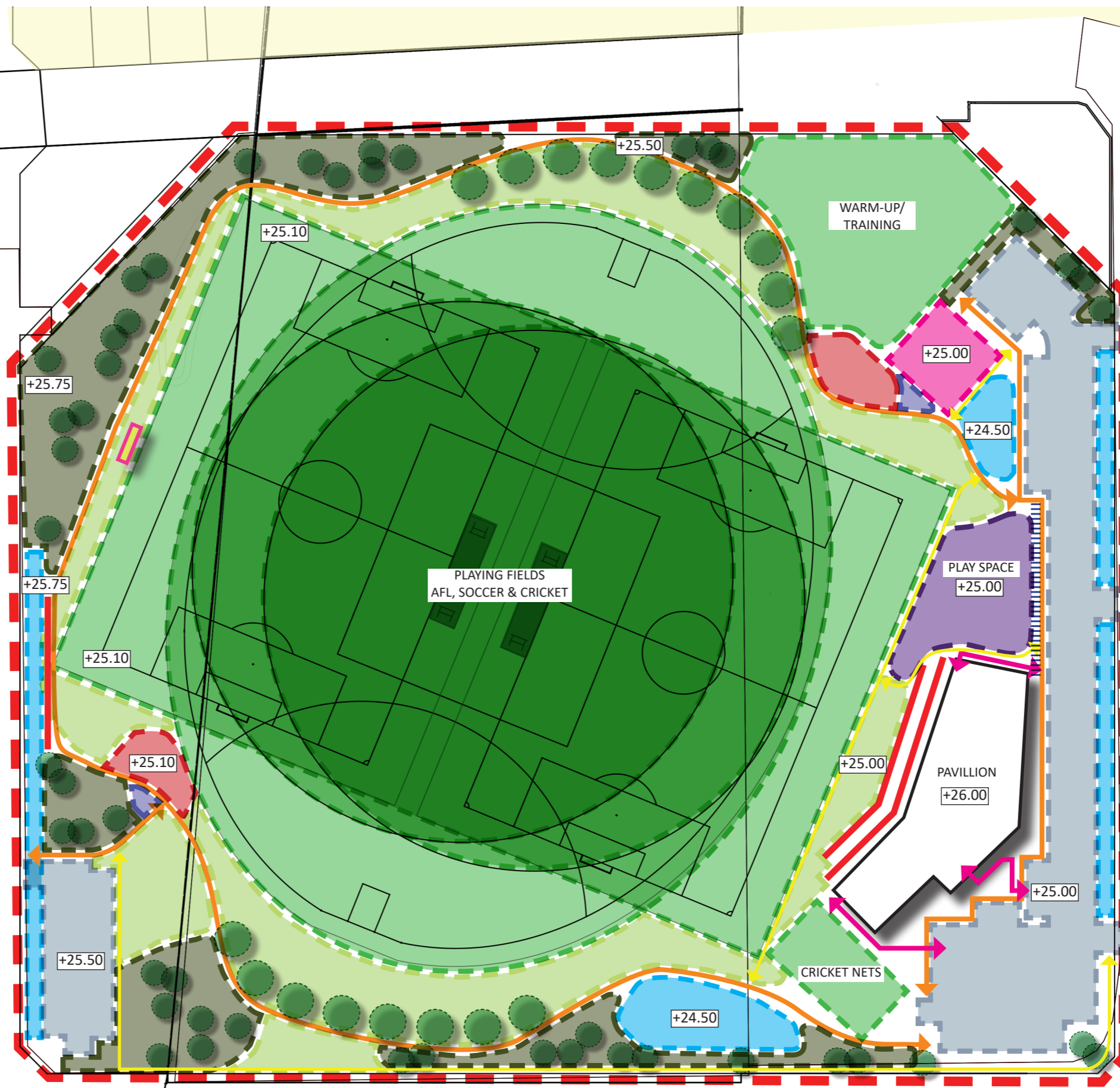
**DCA4 Precinct 2 Landscaping Costs**

No	COST ESTIMATE
1-6, 12-14	\$4,881,135
16-17 (maintenance - 2 years)	\$177,450
<b>Total</b>	<b>\$5,058,585</b>

## F. Infrastructure Concept Plans

**LEGEND**

- - - EXTENT OF WORKS
- ↔ MAJOR PEDESTIRAN MOVEMENT
- ↔ SECONDARY PEDESTIRAN MOVEMENT
- ↔ ACCESIBLE ACCESS TO PAVILLION
- RETAINING TERRACE WALL
- ||||| PLAYGROUND FENCING
- SPORTING FACILITIES
- PASSIVE TURF
- PLANTING
- PLAY SPACE
- HALF COURT
- SHELTER / SEATING
- FITNESS POD
- DRAINAGE
- CAR PARKING
- SCORE BOARD
- TREE PLANTING



ANSTEY ROAD





**LEGEND**

- 01 SWALE CONNECTION FROM ADJACENT POS IN GAS PIPELINE EASEMENT (NATIVE REEDS & SEDGE PLANTING)
- 02 REST STOPS WITH FEATURE SHADE TREE AND TABLE SETTING / SEATING
- 03 SHADE STRUCTURE OVERLOOKING SMALL PLAY AREA WITH NATURE-BASED PLAY, LOGS & ROCK SCRAMBLE
- 04 TURF AREA FOR ACTIVE RECREATION
- 05 TRANSFORMER SITE
- 06 PLANTED DRAINAGE BASIN WITH NATIVE REEDS, SEDGES & TREES
- 07 PLANTED 1:1-1:10 EVENT DRAINAGE BASIN WITH WINTER-WET NATIVE REEDS, SEDGES & TREES
- 08 DUAL USE PATH
- 09 ROCK WEIR SEPARATING DRAINAGE BASINS
- 10 SLOPING DRYLAND VEGETATION WITH NATIVE SHRUBS, GROUNDCOVERS & TREES
- 11 MAINTENANCE ACCESS
- 12 NATIVE STREET TREES ALONG MAIN ROAD
- 13 WATERCORP SITE
- 14 EXISTING WATERCORP DRAIN

**ANSTEY ROAD, FORRESTDAL - POS D + BAILEYS BRANCH DRAIN**

CONCEPT PLAN  
FEBRUARY 2022

JOB NO. 1405607  
1:400 @ A1

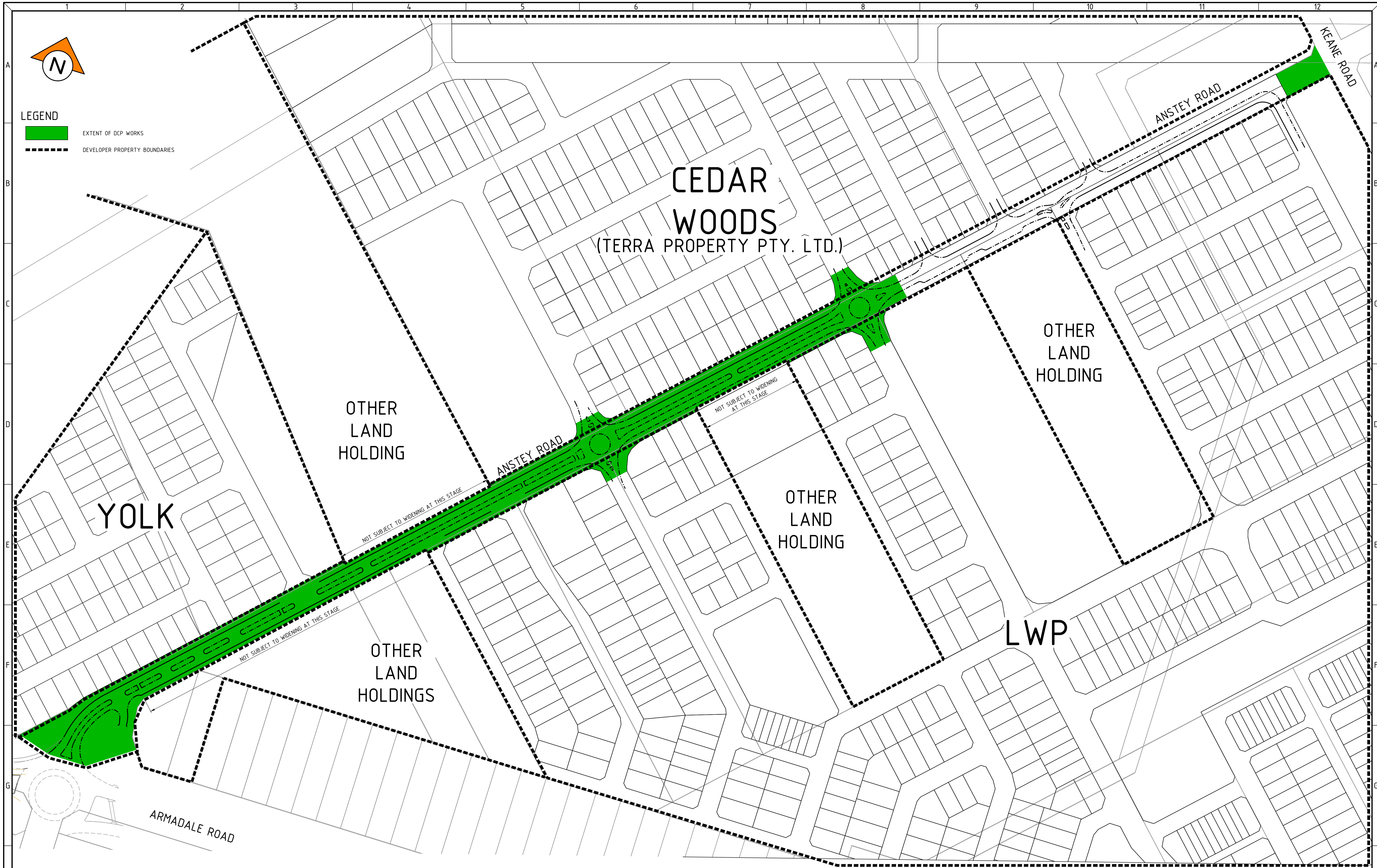
C1.101  
0 4 8 16 24 40m  
REV B

COPYRIGHT THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF PLAN E



**LANDSCAPE ARCHITECTS**  
414 ROKEBY RD SUBIACO WA 6008  
T: (08) 9388 9566 E: mail@plane.com.au





**PRELIMINARY**

REV	DATE	DRAWN	CHECKED	APPROVED

Plotted By: apanzich Plot Date: 20/09/19 - 11:23 Cad File: I:\JDS13642\JDS13642.00\02 CIVIL\Drawings\DWG\Sketches\JDS13642\_SK085.dwg

**COPYRIGHT**  
 This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
 This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.  
**NOTE**  
 This drawing shall be preliminary only until it is issued for construction.  
 Certified Quality System to ISO 9001



CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**LOT 91, 101 & 200 ANSTEY ROAD FORRESTDALE**  
 DRAWING TITLE:  
**ANSTEY ROAD UPGRADE WORKS DCP PLAN**

DRAWN A. PANZICH	WAPC No.
DESIGNED A. PANZICH	SCALE: A1 DIAGRAMMATIC
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642	CO-ORDS PCG-94
DRAWING No. SK085	REVISION A

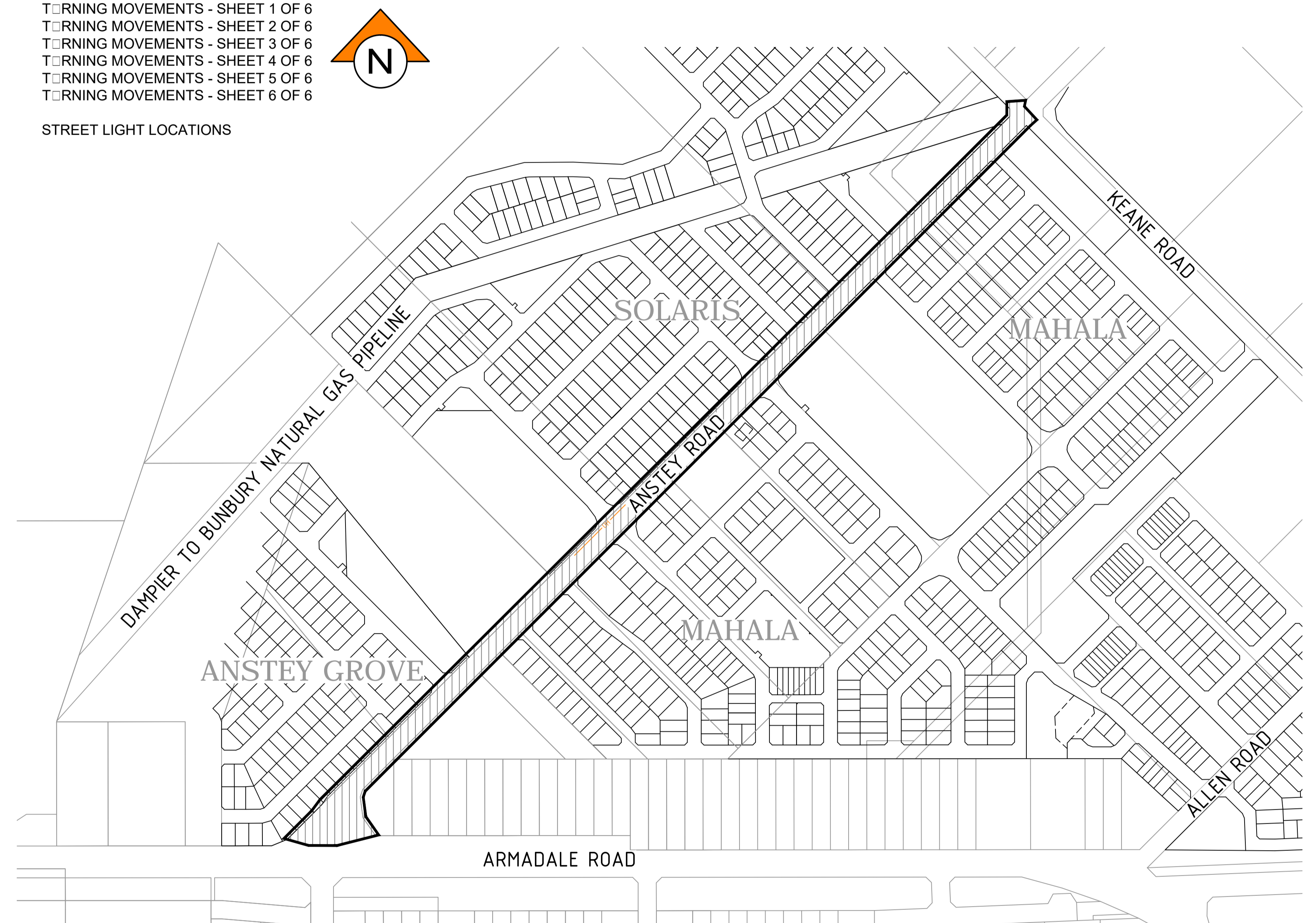


# ANSTEY ROAD P GRADE FORRESTDALE

TERRA PROPERTY PTY. LTD.

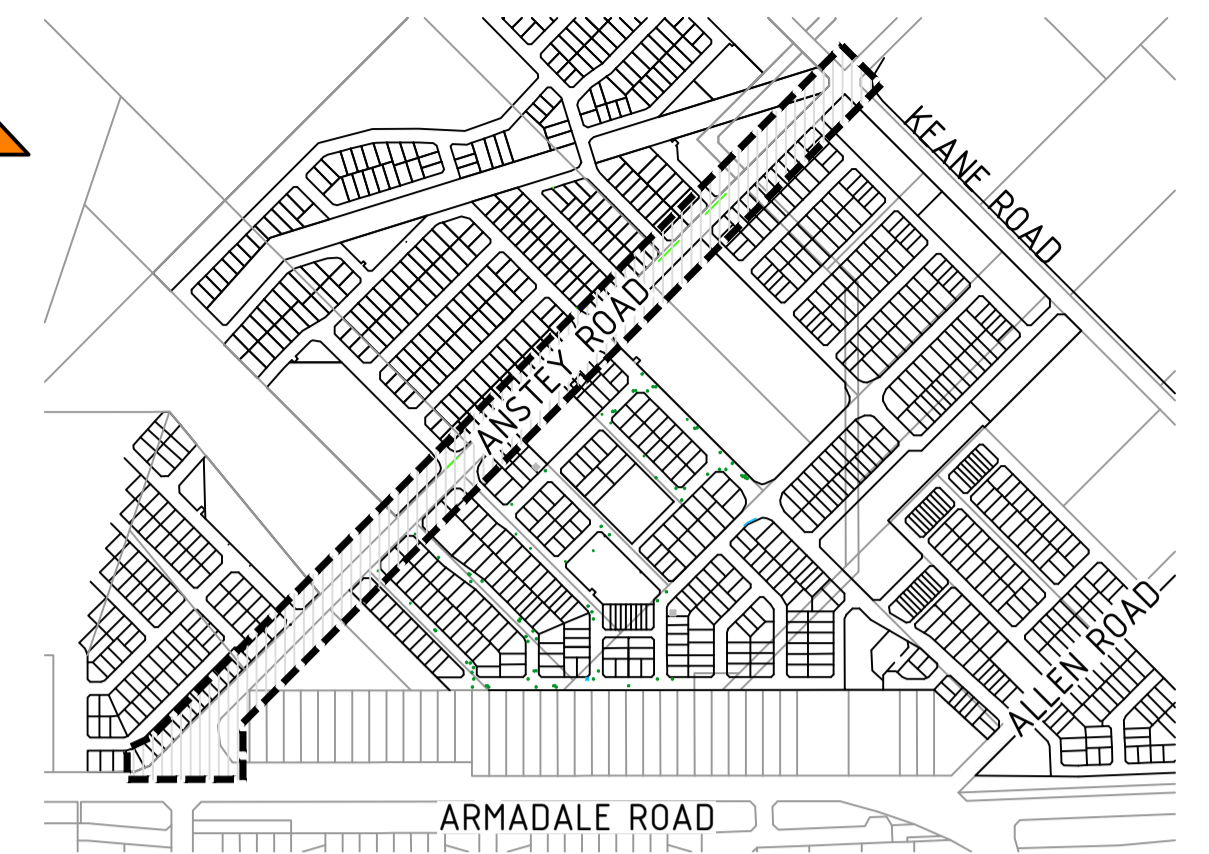
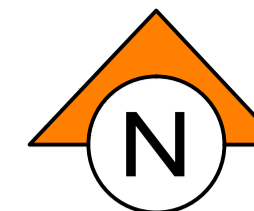
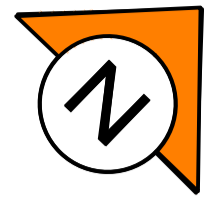
## FEBRUARY 2022 DRAWING LIST

<input type="checkbox"/> DS13642.RW01_C000	COVER SHEET	<input type="checkbox"/> DS13642.RW01_C370	DRAINAGE CATCHMENT PLAN
<input type="checkbox"/> DS13642.RW01_C050	EXISTING SERVICES PLAN	<input type="checkbox"/> DS13642.RW01_C390	TURNING MOVEMENTS - SHEET 1 OF 6
<input type="checkbox"/> DS13642.RW01_C060	DEMOLITION PLAN - SHEET 1 OF 2	<input type="checkbox"/> DS13642.RW01_C391	TURNING MOVEMENTS - SHEET 2 OF 6
<input type="checkbox"/> DS13642.RW01_C061	DEMOLITION PLAN - SHEET 2 OF 2	<input type="checkbox"/> DS13642.RW01_C392	TURNING MOVEMENTS - SHEET 3 OF 6
<input type="checkbox"/> DS13642.RW01_C070	VEGETATION CLEARING PLAN	<input type="checkbox"/> DS13642.RW01_C393	TURNING MOVEMENTS - SHEET 4 OF 6
<input type="checkbox"/> DS13642.RW01_C100	EARTHWORKS PLAN - SHEET 1 OF 2	<input type="checkbox"/> DS13642.RW01_C394	TURNING MOVEMENTS - SHEET 5 OF 6
<input type="checkbox"/> DS13642.RW01_C101	EARTHWORKS PLAN - SHEET 2 OF 2	<input type="checkbox"/> DS13642.RW01_C395	TURNING MOVEMENTS - SHEET 6 OF 6
<input type="checkbox"/> DS13642.RW01_C110	CUT TO FILL PLAN	<input type="checkbox"/> DS13642.RW01_E001	STREET LIGHT LOCATIONS
<input type="checkbox"/> DS13642.RW01_C300	ROAD PLAN AND PROFILE - SHEET 1 OF 4		
<input type="checkbox"/> DS13642.RW01_C301	ROAD PLAN AND PROFILE - SHEET 2 OF 4		
<input type="checkbox"/> DS13642.RW01_C302	ROAD PLAN AND PROFILE - SHEET 3 OF 4		
<input type="checkbox"/> DS13642.RW01_C303	ROAD PLAN AND PROFILE - SHEET 4 OF 4		
<input type="checkbox"/> DS13642.RW01_C305	TYPICAL ROAD CROSS SECTIONS		
<input type="checkbox"/> DS13642.RW01_C306	ANSTEY ROAD CROSS SECTIONS - SHEET 1 OF 12		
<input type="checkbox"/> DS13642.RW01_C307	ANSTEY ROAD CROSS SECTIONS - SHEET 2 OF 12		
<input type="checkbox"/> DS13642.RW01_C308	ANSTEY ROAD CROSS SECTIONS - SHEET 3 OF 12		
<input type="checkbox"/> DS13642.RW01_C309	ANSTEY ROAD CROSS SECTIONS - SHEET 4 OF 12		
<input type="checkbox"/> DS13642.RW01_C310	ANSTEY ROAD CROSS SECTIONS - SHEET 5 OF 12		
<input type="checkbox"/> DS13642.RW01_C311	ANSTEY ROAD CROSS SECTIONS - SHEET 6 OF 12		
<input type="checkbox"/> DS13642.RW01_C312	ANSTEY ROAD CROSS SECTIONS - SHEET 7 OF 12		
<input type="checkbox"/> DS13642.RW01_C313	ANSTEY ROAD CROSS SECTIONS - SHEET 8 OF 12		
<input type="checkbox"/> DS13642.RW01_C314	ANSTEY ROAD CROSS SECTIONS - SHEET 9 OF 12		
<input type="checkbox"/> DS13642.RW01_C315	ANSTEY ROAD CROSS SECTIONS - SHEET 10 OF 12		
<input type="checkbox"/> DS13642.RW01_C316	ANSTEY ROAD CROSS SECTIONS - SHEET 11 OF 12		
<input type="checkbox"/> DS13642.RW01_C317	ANSTEY ROAD CROSS SECTIONS - SHEET 12 OF 12		
<input type="checkbox"/> DS13642.RW01_C330	ROAD INTERSECTION DETAILS - SHEET 1 OF 7		
<input type="checkbox"/> DS13642.RW01_C331	ROAD INTERSECTION DETAILS - SHEET 2 OF 7		
<input type="checkbox"/> DS13642.RW01_C332	ROAD INTERSECTION DETAILS - SHEET 3 OF 7		
<input type="checkbox"/> DS13642.RW01_C333	ROAD INTERSECTION DETAILS - SHEET 4 OF 7		
<input type="checkbox"/> DS13642.RW01_C334	ROAD INTERSECTION DETAILS - SHEET 5 OF 7		
<input type="checkbox"/> DS13642.RW01_C335	ROAD INTERSECTION DETAILS - SHEET 6 OF 7		
<input type="checkbox"/> DS13642.RW01_C336	ROAD INTERSECTION DETAILS - SHEET 7 OF 7		
<input type="checkbox"/> DS13642.RW01_C340	SIGNS AND LINEMARKING PLAN - SHEET 1 OF 2		
<input type="checkbox"/> DS13642.RW01_C341	SIGNS AND LINEMARKING PLAN - SHEET 2 OF 2		
<input type="checkbox"/> DS13642.RW01_C350	DRAINAGE PLAN - SHEET 1 OF 2		
<input type="checkbox"/> DS13642.RW01_C351	DRAINAGE PLAN - SHEET 2 OF 2		
<input type="checkbox"/> DS13642.RW01_C352	ANSTEY ROAD STORMWATER BASIN PLAN AND DETAILS		
<input type="checkbox"/> DS13642.RW01_C360	DRAINAGE LONGITUDINAL SECTION - SHEET 1 OF 6		
<input type="checkbox"/> DS13642.RW01_C361	DRAINAGE LONGITUDINAL SECTION - SHEET 2 OF 6		
<input type="checkbox"/> DS13642.RW01_C362	DRAINAGE LONGITUDINAL SECTION - SHEET 3 OF 6		
<input type="checkbox"/> DS13642.RW01_C363	DRAINAGE LONGITUDINAL SECTION - SHEET 4 OF 6		
<input type="checkbox"/> DS13642.RW01_C364	DRAINAGE LONGITUDINAL SECTION - SHEET 5 OF 6		
<input type="checkbox"/> DS13642.RW01_C365	DRAINAGE LONGITUDINAL SECTION - SHEET 6 OF 6		

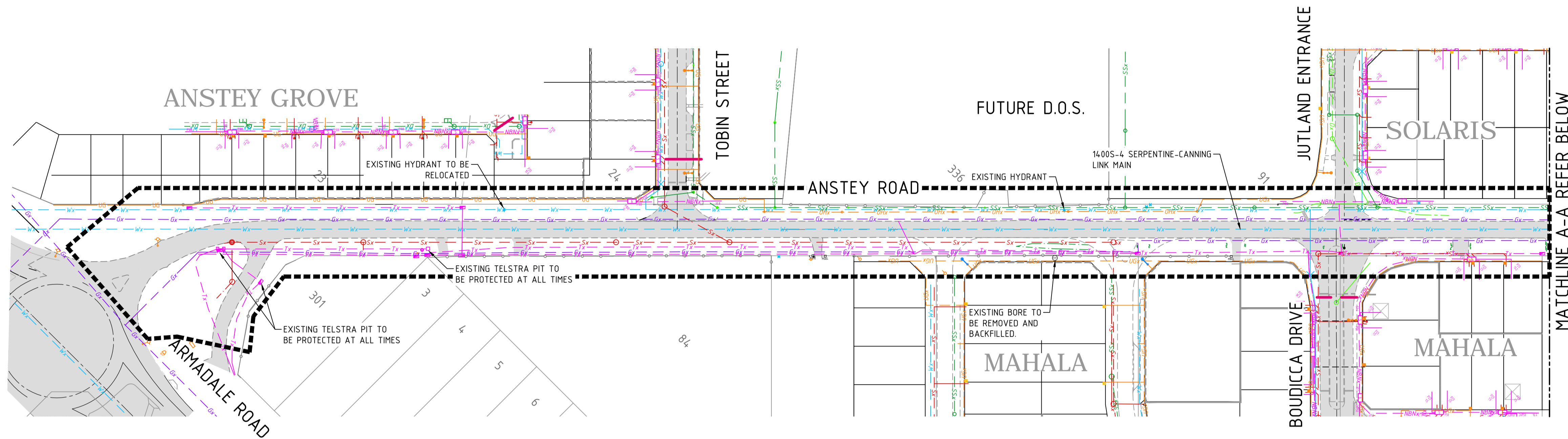


CONTRACT No.  DS13642.RW01  
WAPC No. 158169





LOCALITY PLAN  
SCALE: DIAGRAMATIC

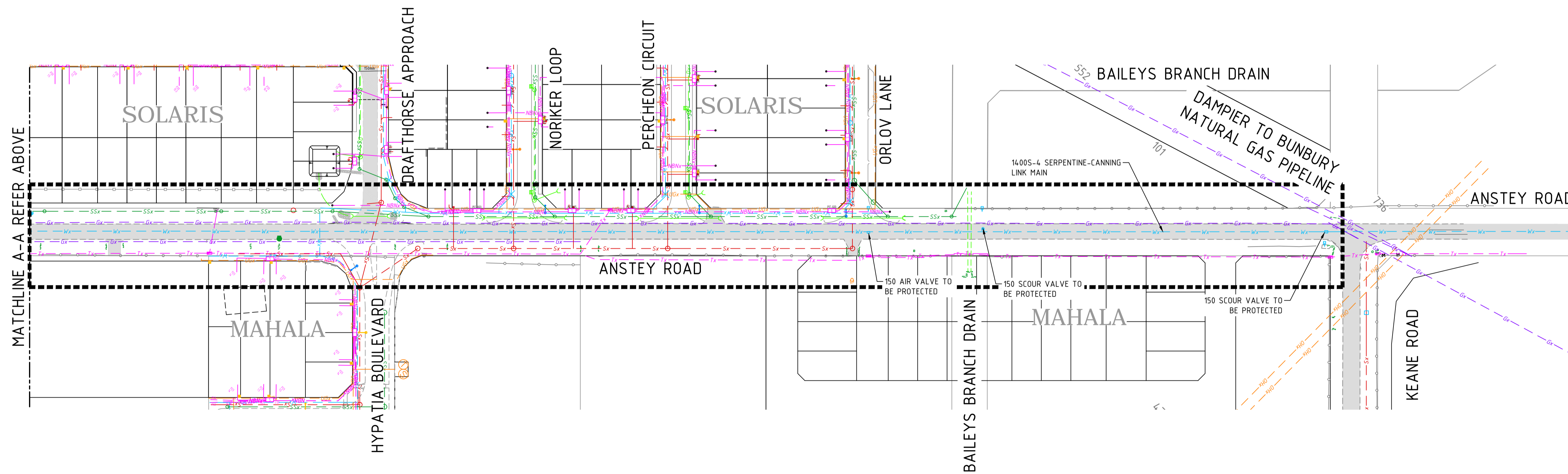


NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION.
2. SERVICES SHOWN ARE FOR GENERAL LOCATION ONLY. IT IS THE CONTRACTORS RESPONSIBILITY IN LOCATING AND PROTECTING SERVICES.
3. CONTRACTOR TO PROTECT EXISTING GROUND WATER MONITORING BORES ONSITE AT ALL TIMES.
4. CONTRACTOR TO PROTECT ANY EXISTING SERVICES ONSITE UNLESS OTHERWISE NOTED.
5. CONTRACTOR TO INVESTIGATE THE PRESENCE OF EXISTING SERVICES ONSITE PRIOR TO DECOMMISSIONING ANY LIVE SERVICES.
6. EXISTING SERVICES SHOWN MAY NOT BE COMPLETE AND FOR INFORMATION ONLY.

LEGEND

- LIMIT OF WORKS
- EXISTING ROAD
- Sx- EXISTING SEWER
- Wx- EXISTING WATER
- Dx- EXISTING DRAINAGE
- SSx- EXISTING SUBSOIL
- Tx- EXISTING TELECOMS
- Gx- EXISTING GAS
- OHx- EXISTING OVERHEAD POWER
- UGx- EXISTING UNDERGROUND POWER
- NBWx- EXISTING NBN/OPTICOM
- WV EXISTING WATER VALVE
- WH EXISTING WATER HYDRANT
- TP EXISTING TELSTRA PIT
- RW EXISTING RETAINING WALLS
- LP EXISTING LIGHT POLE
- LS EXISTING LIGHT POLE & STREET SIGN



**WARNING - HIGH PRESSURE GAS PIPELINE IN THE VICINITY**

The Department of Lands (DoL) requires that all parties wishing to undertake works within the DBNGP Corridor apply for approval under Section 41 of the Dampier to Bunbury Pipeline Act 1997 (DBPA). Works cannot commence until conditional approval has been granted by the Manager of the Infrastructure Corridors division, DoL on behalf of the DBNGP Land Access Minister. If works progress without section 41 approval, then penalties may apply under the appropriate regulations.

0 10 20 40 60m  
SCALE 1:1000 @ ORIGINAL SHEET SIZE A1

REV	DATE	DRAWN	CHECKED	APPROVED	
B	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL
A	23.08.21	TDR	BG	DH	ISSUED FOR COMMENT

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

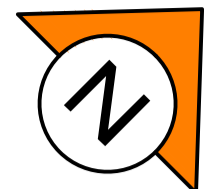
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**

DRAWING TITLE:  
**EXISTING SERVICES PLAN**

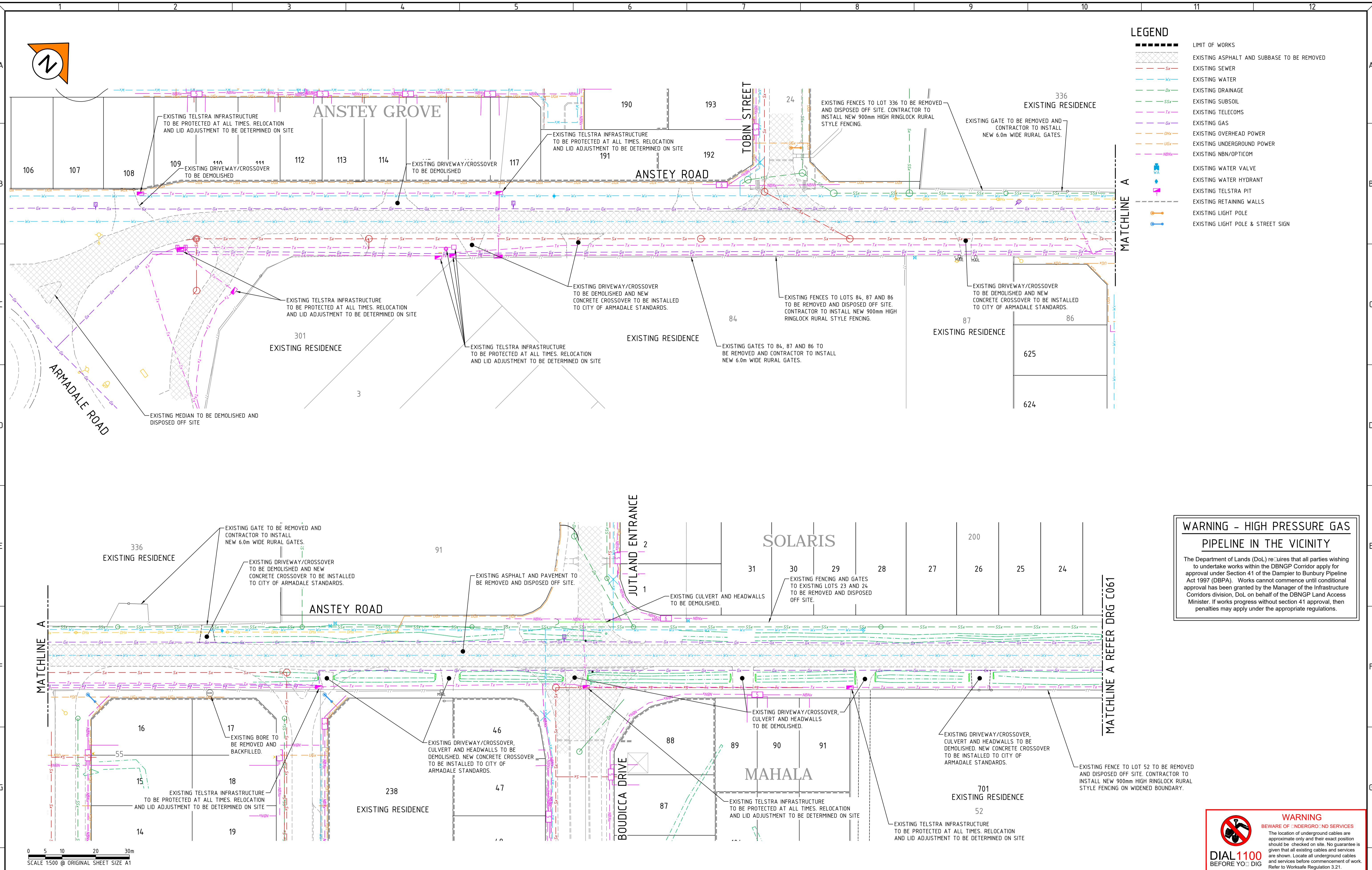
DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 1:1000
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C050	REVISION B





**LEGEND**

- LIMIT OF WORKS
- EXISTING ASPHALT AND SUBBASE TO BE REMOVED
- Sx- EXISTING SEWER
- Wx- EXISTING WATER
- Dx- EXISTING DRAINAGE
- Ssx- EXISTING SUBSOIL
- Tx- EXISTING TELECOMS
- Gx- EXISTING GAS
- Ox- EXISTING OVERHEAD POWER
- Ux- EXISTING UNDERGROUND POWER
- NBx- EXISTING NBN/OPTICOM
- EXISTING WATER VALVE
- EXISTING WATER HYDRANT
- EXISTING TELSTRA PIT
- EXISTING RETAINING WALLS
- EXISTING LIGHT POLE
- EXISTING LIGHT POLE & STREET SIGN



**WARNING - HIGH PRESSURE GAS PIPELINE IN THE VICINITY**

The Department of Lands (DoL) requires that all parties wishing to undertake works within the DBNGP Corridor apply for approval under Section 41 of the Damper to Bunbury Pipeline Act 1997 (DBPA). Works cannot commence until conditional approval has been granted by the Manager of the Infrastructure Corridors division, DoL on behalf of the DBNGP Land Access Minister. If works progress without section 41 approval, then penalties may apply under the appropriate regulations.

**WARNING**  
BEWARE OF UNDERGROUND SERVICES

The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

0 5 10 20 30m  
SCALE 1500 @ ORIGINAL SHEET SIZE A1

B	15.02.22	AP	BG	RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	ISSUED FOR COUNCIL APPROVAL
REV	DATE	DRAWN	CHECKED	APPROVED

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS

Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

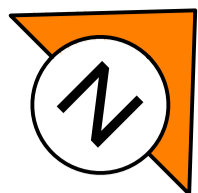
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**

DRAWING TITLE:  
**DEMOLITION PLAN SHEET 1 OF 2**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE 1:500
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSI PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C060	REVISION B



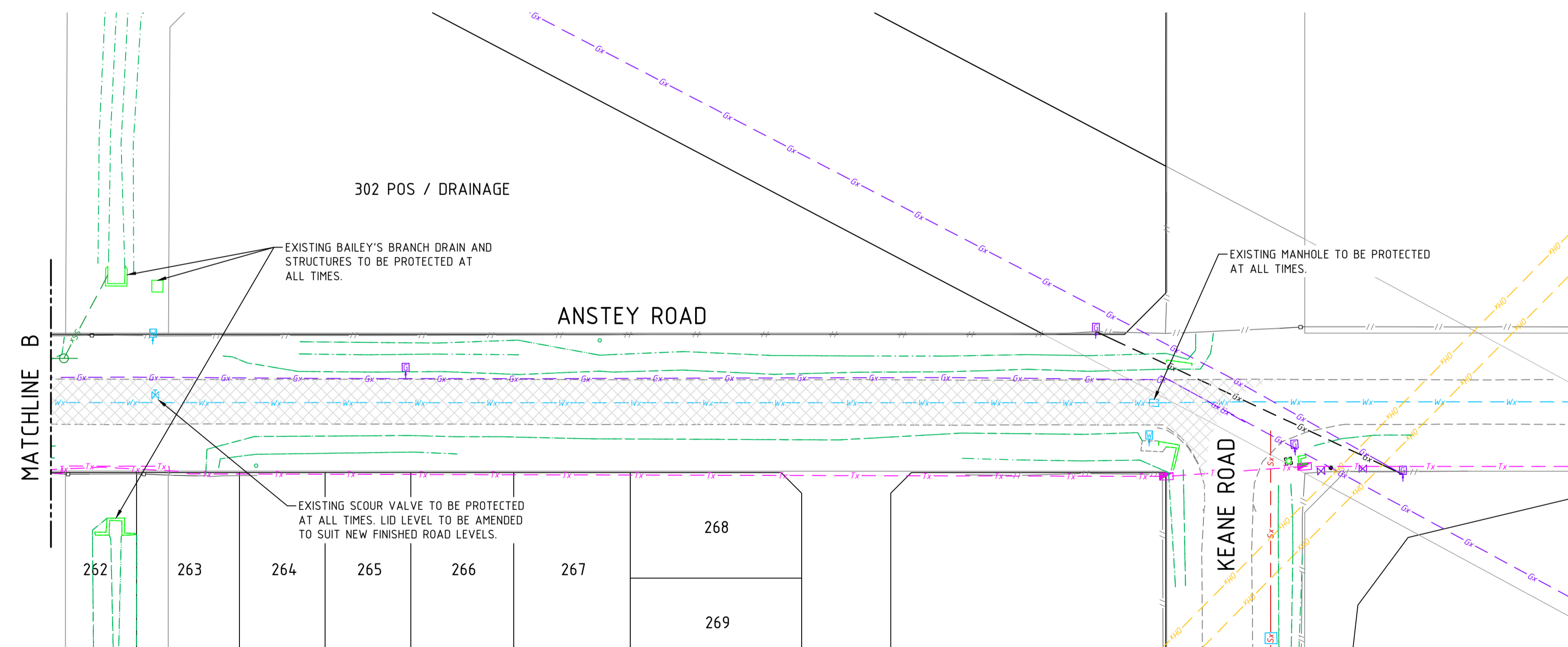
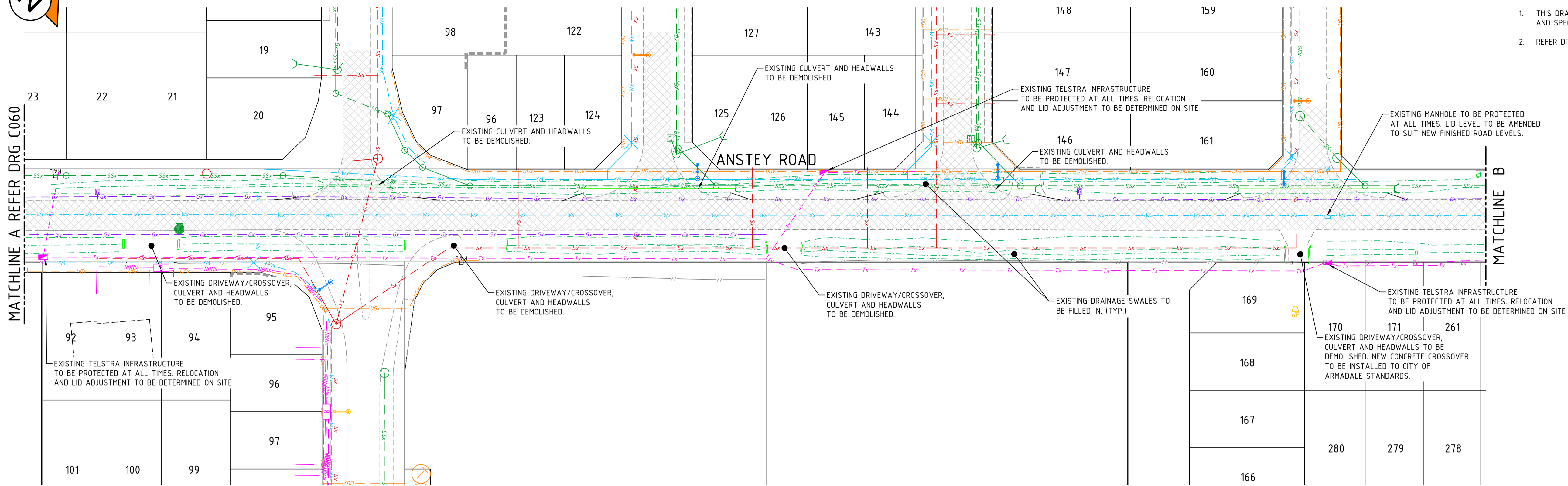


**NOTES**

- 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
- 2. REFER DRAWING JDS13642.RW01\_C060 FOR NOTES AND LEGEND.

MATCHLINE A REFER DRG C060

MATCHLINE B



**WARNING - HIGH PRESSURE GAS PIPELINE IN THE VICINITY**

The Department of Lands (DoL) requires that all parties wishing to undertake works within the DBNGP Corridor apply for approval under Section 41 of the Dampier to Bunbury Pipeline Act 1997 (DBPA). Works cannot commence until conditional approval has been granted by the Manager of the Infrastructure Corridors division, DoL on behalf of the DBNGP Land Access Minister. If works progress without section 41 approval, then penalties may apply under the appropriate regulations.

0 5 10 20 30m  
SCALE 1:500 @ ORIGINAL SHEET SIZE A1

**WARNING**  
**BEWARE OF UNDERGROUND SERVICES**

The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

Plotted By: APanzich Plot Date: 28/02/22 - 11:27 Cad File: I:\JDS13642\JDS13642.RW01\02 CIVIL\Drawings\JDS13642.RW01\_C060-C061.dwg

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS

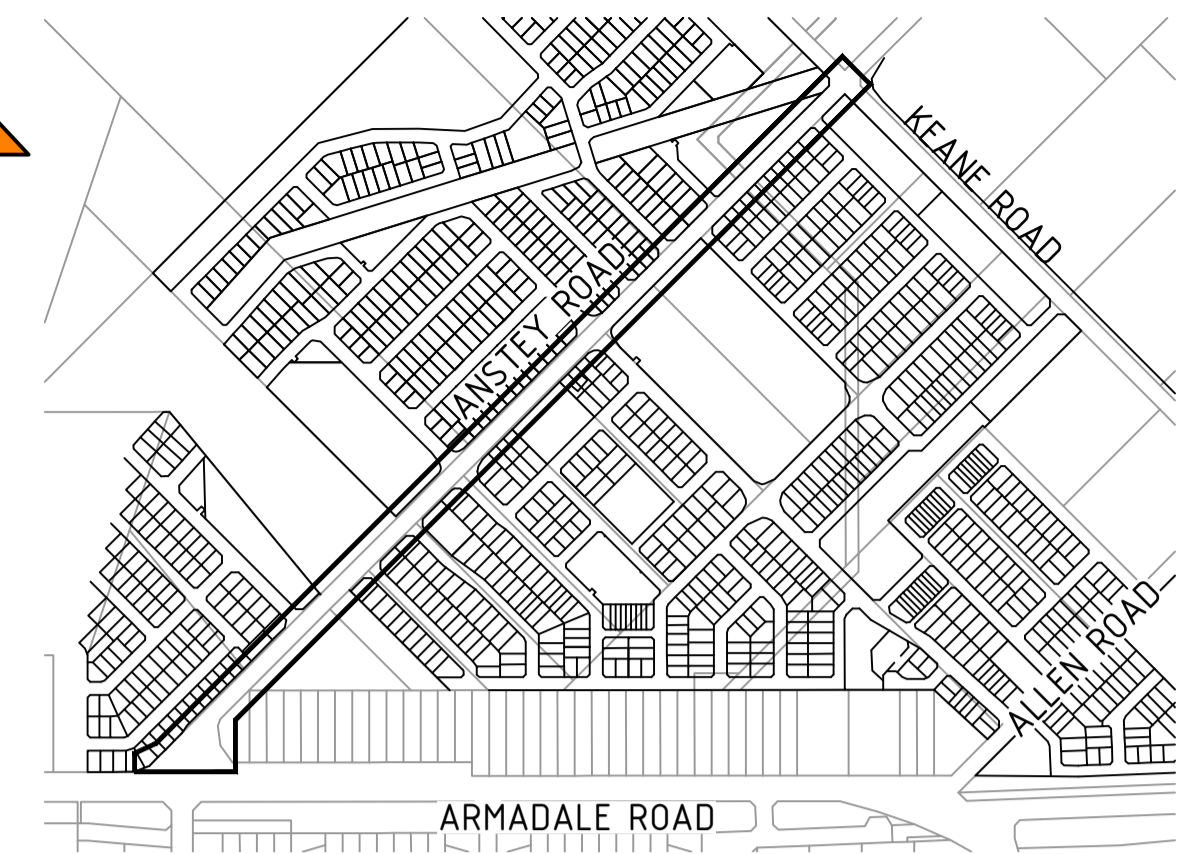
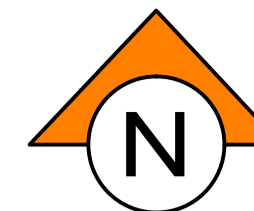
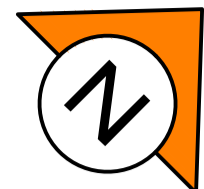
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**

DRAWING TITLE:  
**DEMOLITION PLAN SHEET 2 OF 2**

DRAWN	A. PANZICH	WAPC No.	158169
DESIGNED	A. PANZICH	SCALE	A1 1:500
PROJECT MANAGER	D. HELLMUTH	DATUM	AHD
		CO-ORDS	PCG 94
JDSi PROJECT No.	JDS13642.RW01	DRAWING No.	C061
		REVISION	B



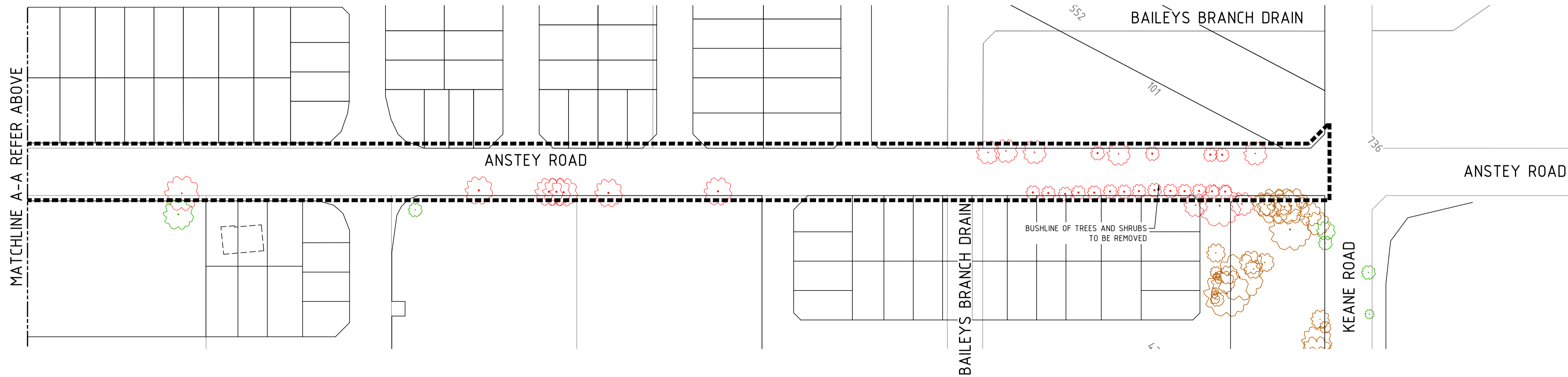
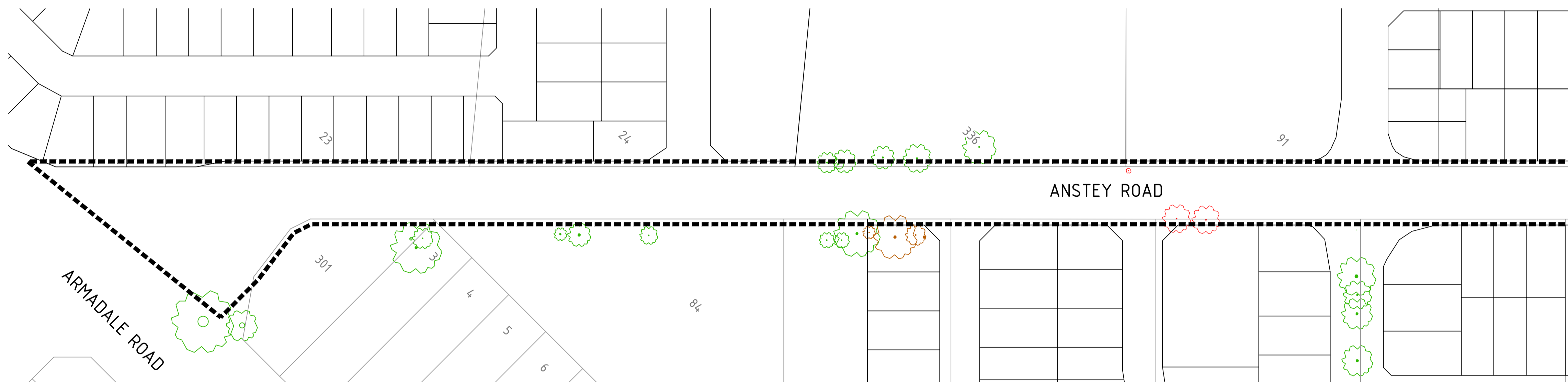
LOCALITY PLAN  
SCALE: DIAGRAMMATIC

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION.
2. IT IS THE CONTRACTORS RESPONSIBILITY IN LOCATING AND PROTECTING SERVICES.
3. TREES TO BE REMOVED SHOWN ON THIS PLAN MAY HAVE ALREADY REMOVED.

LEGEND

- LIMIT OF WORKS
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED BY OTHERS



**WARNING - HIGH PRESSURE GAS PIPELINE IN THE VICINITY**

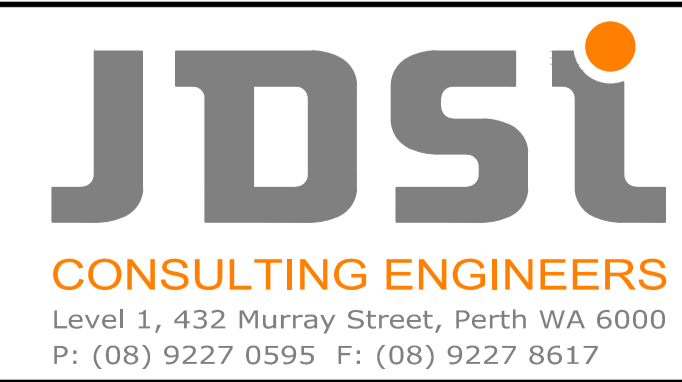
The Department of Lands (DoL) requires that all parties wishing to undertake works within the DBNGP Corridor apply for approval under Section 41 of the Dampier to Bunbury Pipeline Act 1997 (DBPA). Works cannot commence until conditional approval has been granted by the Manager of the Infrastructure Corridors division, DoL on behalf of the DBNGP Land Access Minister. If works progress without section 41 approval, then penalties may apply under the appropriate regulations.

0 10 20 40 60m  
SCALE 1:1000 @ ORIGINAL SHEET SIZE A1

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001



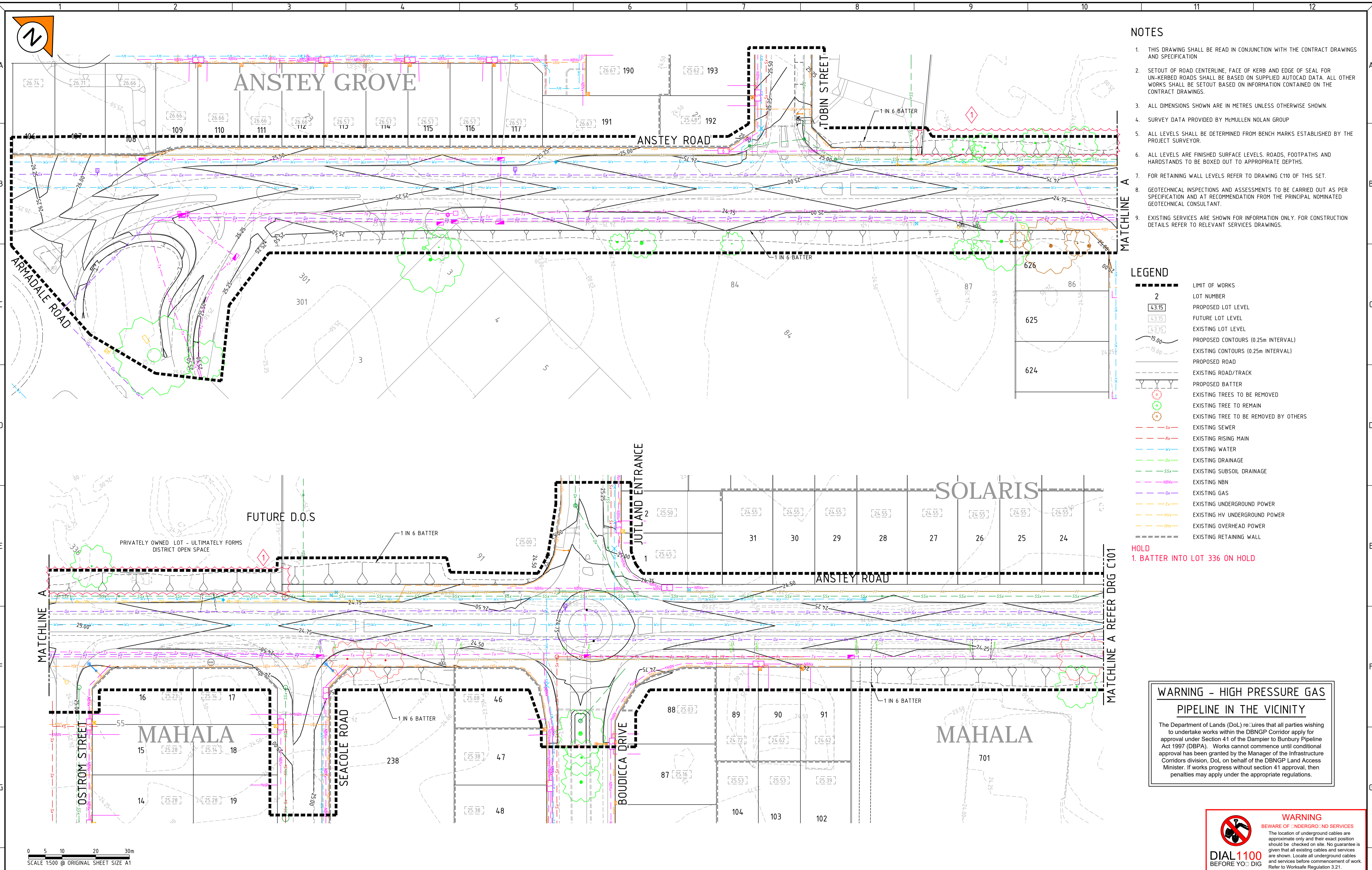
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**

DRAWING TITLE:  
**VEGETATION CLEARING PLAN**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE 1:1000
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSI PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C070	REVISION B





- NOTES**
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
  - SETOUT OF ROAD CENTERLINE, FACE OF KERB AND EDGE OF SEAL FOR UN-KERBED ROADS SHALL BE BASED ON SUPPLIED AUTOCAD DATA. ALL OTHER WORKS SHALL BE SETOUT BASED ON INFORMATION CONTAINED ON THE CONTRACT DRAWINGS.
  - ALL DIMENSIONS SHOWN ARE IN METRES UNLESS OTHERWISE SHOWN.
  - SURVEY DATA PROVIDED BY McMULLEN NOLAN GROUP
  - ALL LEVELS SHALL BE DETERMINED FROM BENCH MARKS ESTABLISHED BY THE PROJECT SURVEYOR.
  - ALL LEVELS ARE FINISHED SURFACE LEVELS. ROADS, FOOTPATHS AND HARDSTANDS TO BE BOXED OUT TO APPROPRIATE DEPTHS.
  - FOR RETAINING WALL LEVELS REFER TO DRAWING C110 OF THIS SET.
  - GEO TECHNICAL INSPECTIONS AND ASSESSMENTS TO BE CARRIED OUT AS PER SPECIFICATION AND AT RECOMMENDATION FROM THE PRINCIPAL NOMINATED GEO TECHNICAL CONSULTANT.
  - EXISTING SERVICES ARE SHOWN FOR INFORMATION ONLY. FOR CONSTRUCTION DETAILS REFER TO RELEVANT SERVICES DRAWINGS.

- LEGEND**
- LIMIT OF WORKS
  - LOT NUMBER
  - PROPOSED LOT LEVEL
  - FUTURE LOT LEVEL
  - EXISTING LOT LEVEL
  - PROPOSED CONTOURS (0.25m INTERVAL)
  - EXISTING CONTOURS (0.25m INTERVAL)
  - PROPOSED ROAD
  - EXISTING ROAD/TRACK
  - PROPOSED BATTER
  - EXISTING TREES TO BE REMOVED
  - EXISTING TREE TO REMAIN
  - EXISTING TREE TO BE REMOVED BY OTHERS
  - EXISTING SEWER
  - EXISTING RISING MAIN
  - EXISTING WATER
  - EXISTING DRAINAGE
  - EXISTING SUBSOIL DRAINAGE
  - EXISTING NBN
  - EXISTING GAS
  - EXISTING UNDERGROUND POWER
  - EXISTING HV UNDERGROUND POWER
  - EXISTING OVERHEAD POWER
  - EXISTING RETAINING WALL

**HOLD**  
 1. BATTER INTO LOT 336 ON HOLD

**WARNING - HIGH PRESSURE GAS PIPELINE IN THE VICINITY**

The Department of Lands (DoL) requires that all parties wishing to undertake works within the DBNGP Corridor apply for approval under Section 41 of the Damper to Bunbury Pipeline Act 1997 (DBPA). Works cannot commence until conditional approval has been granted by the Manager of the Infrastructure Corridors division, DoL on behalf of the DBNGP Land Access Minister. If works progress without section 41 approval, then penalties may apply under the appropriate regulations.

**WARNING**  
 BEWARE OF UNDERGROUND SERVICES

The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
 BEFORE YOU DIG

0 5 10 20 30m  
 SCALE 1:500 @ ORIGINAL SHEET SIZE A1

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
 This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
 This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
 This drawing shall be preliminary only until it is issued for construction.  
 Certified Quality System to ISO 9001

**JDSi**  
 CONSULTING ENGINEERS

Level 1, 432 Murray Street, Perth WA 6000  
 P: (08) 9227 0595 F: (08) 9227 8617

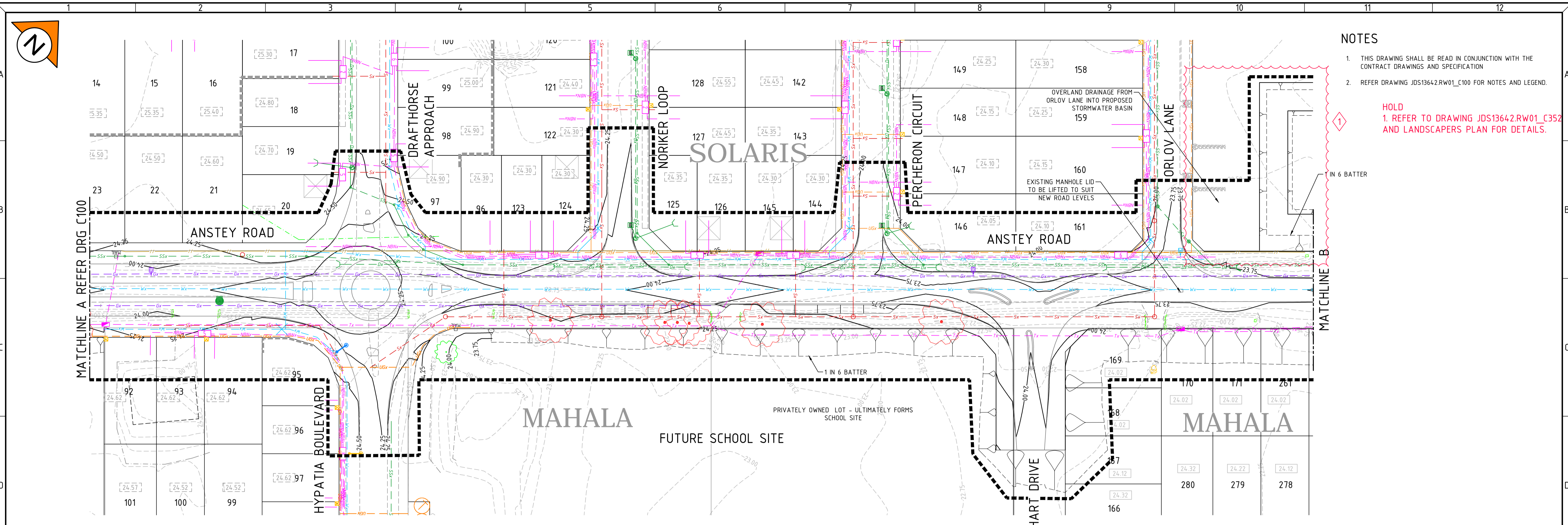
CLIENT:  
 TERRA PROPERTY PTY. LTD.

PROJECT:  
 ANSTEY ROAD UPGRADE FORRESTDAL

DRAWING TITLE:  
 EARTHWORKS PLAN SHEET 1 OF 2

DRAWN	A. PANZICH	WAPC No.	158169
DESIGNED	A. PANZICH	SCALE	1:500
PROJECT MANAGER	D. HELLMUTH	DATUM	AHD
		CO-ORDS	PCG 94
JDSI PROJECT No.	JDS13642.RW01	DRAWING No.	C100
		REVISION	B

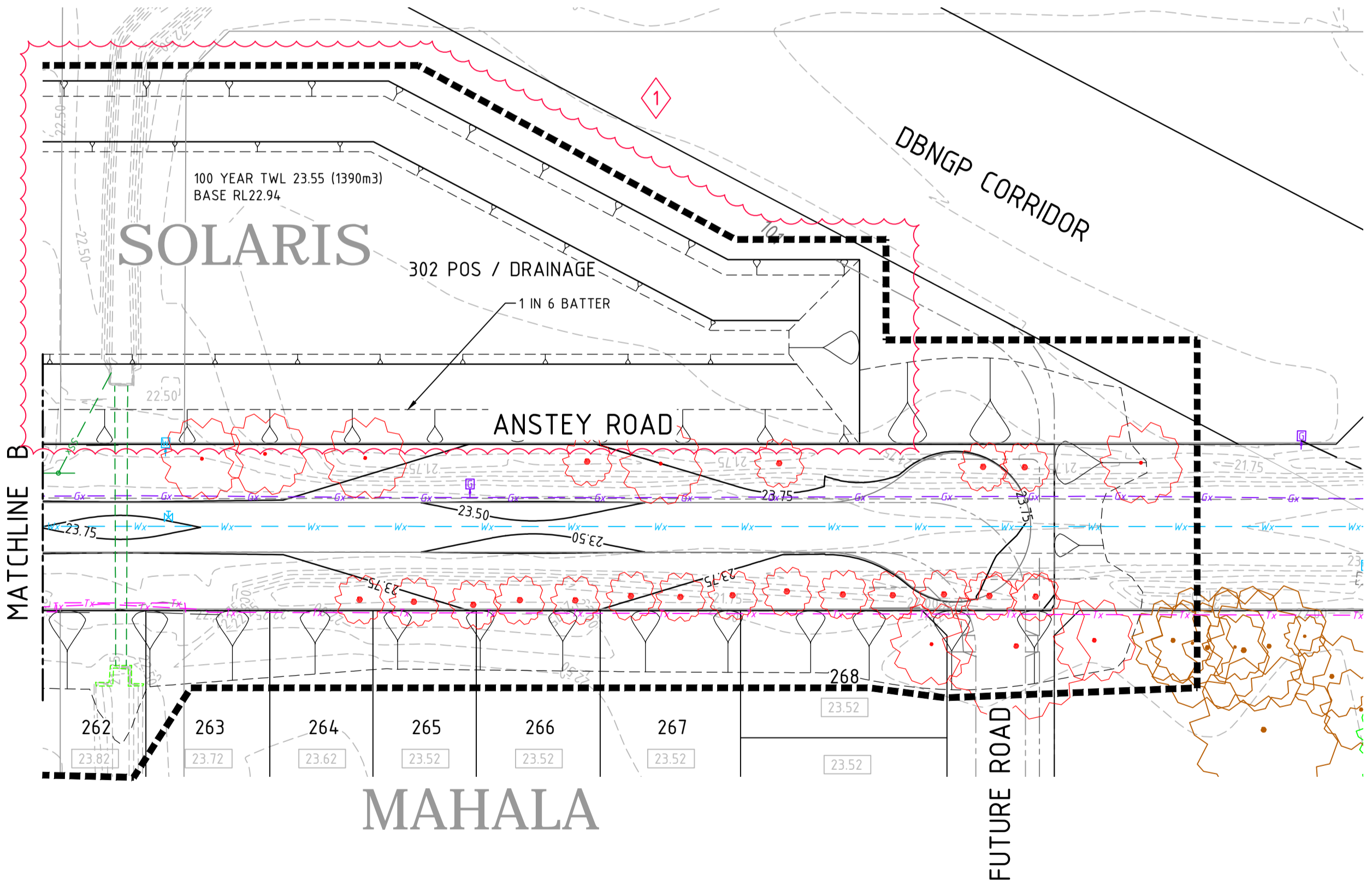




**NOTES**

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
- REFER DRAWING JDS13642.RW01\_C100 FOR NOTES AND LEGEND.

**HOLD**  
 1. REFER TO DRAWING JDS13642.RW01\_C352 AND LANDSCAPERS PLAN FOR DETAILS.



**WARNING - HIGH PRESSURE GAS PIPELINE IN THE VICINITY**

The Department of Lands (DoL) requires that all parties wishing to undertake works within the DBNGP Corridor apply for approval under Section 41 of the Dampier to Bunbury Pipeline Act 1997 (DBPA). Works cannot commence until conditional approval has been granted by the Manager of the Infrastructure Corridors division, DoL on behalf of the DBNGP Land Access Minister. If works progress without section 41 approval, then penalties may apply under the appropriate regulations.

**WARNING BEWARE OF UNDERGROUND SERVICES**

The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100 BEFORE YOU DIG**

0 5 10 20 30m  
 SCALE 1500 @ ORIGINAL SHEET SIZE A1

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

COPYRIGHT	
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright. This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.	
NOTE	
This drawing shall be preliminary only until it is issued for construction.	
Certified Quality System to ISO 9001	

**JDSi**  
 CONSULTING ENGINEERS  
 Level 1, 432 Murray Street, Perth WA 6000  
 P: (08) 9227 0595 F: (08) 9227 8617

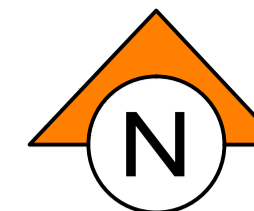
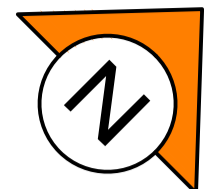
CLIENT:  
 TERRA PROPERTY PTY. LTD.

PROJECT:  
 ANSTEY ROAD UPGRADE FORRESDALE

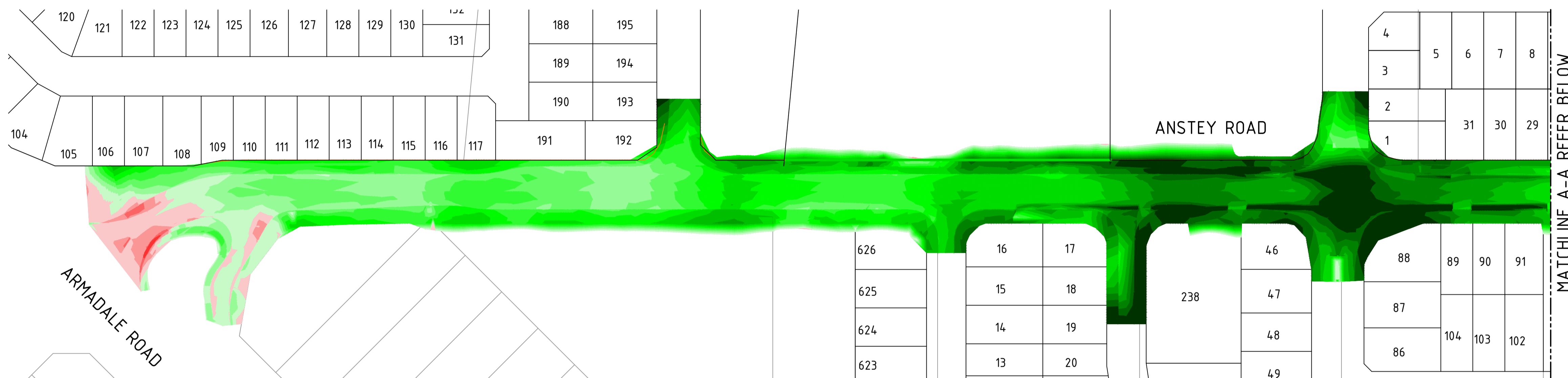
DRAWING TITLE:  
 EARTHWORKS PLAN SHEET 2 OF 2

DRAWN	A. PANZICH	WAPC No.	158169
DESIGNED	A. PANZICH	SCALE	A1 1:500
PROJECT MANAGER	D. HELLMUTH	DATUM	AHD
		CO-ORDS	PCG 94
JDSi PROJECT No.	JDS13642.RW01	DRAWING No.	C101
		REVISION	B





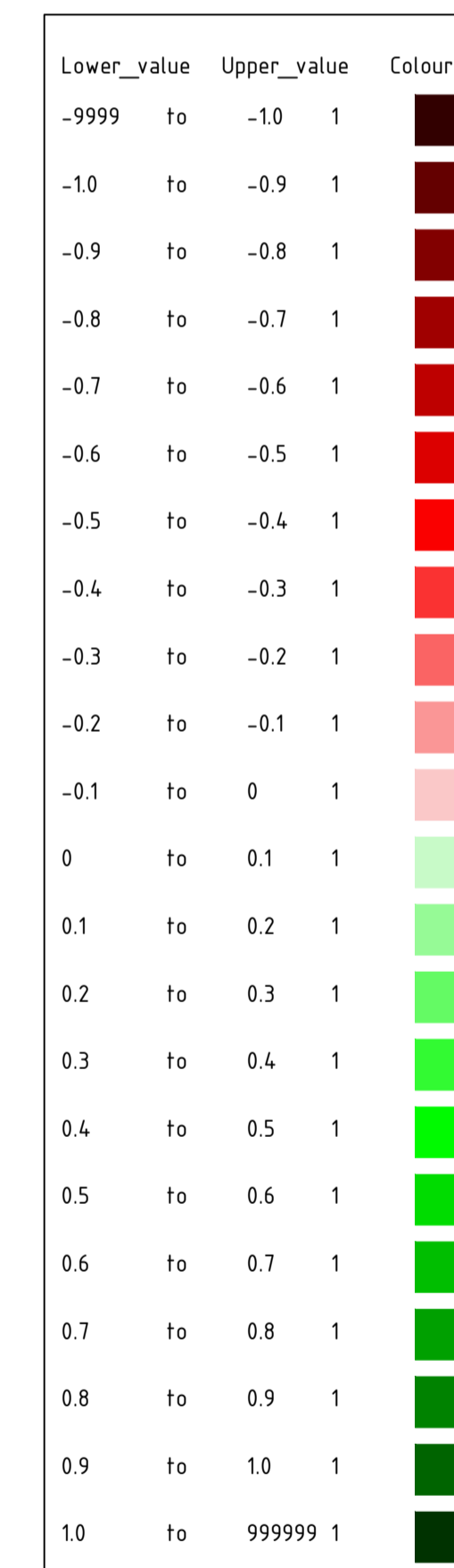
LOCALITY PLAN  
SCALE: DIAGRAMMATIC



MATCHLINE A-A REFER BELOW



MATCHLINE A-A REFER ABOVE

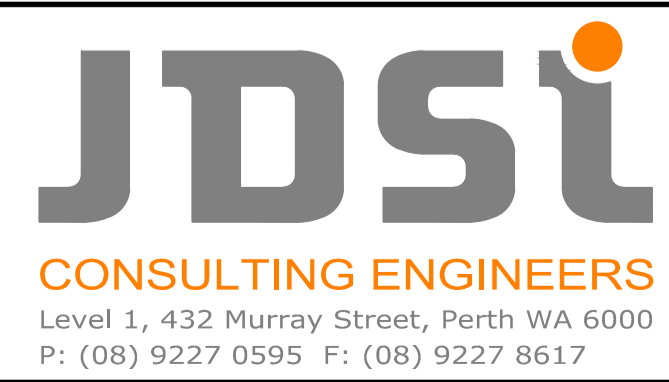


0 10 20 40 60m  
SCALE 1:1000 @ ORIGINAL SHEET SIZE A1

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001



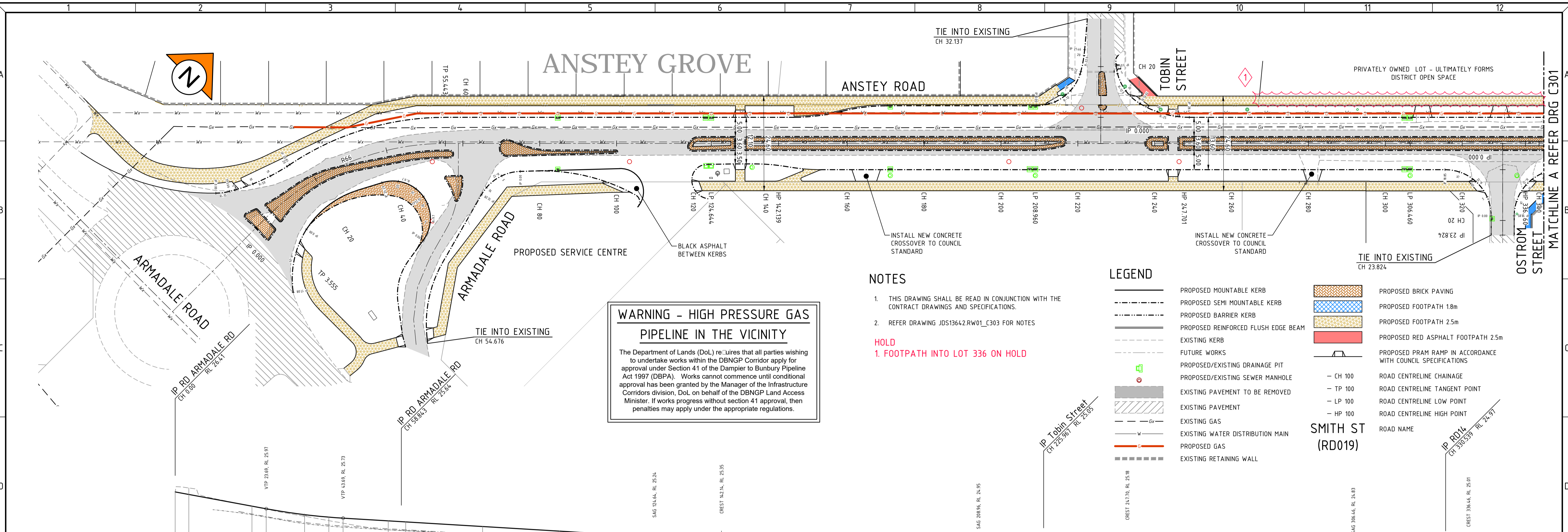
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**

DRAWING TITLE:  
**CUT TO FILL PLAN**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE 1:1000
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C110	REVISION B





**WARNING - HIGH PRESSURE GAS PIPELINE IN THE VICINITY**

The Department of Lands (DoL) requires that all parties wishing to undertake works within the DBNGP Corridor apply for approval under Section 41 of the Damper to Bunbury Pipeline Act 1997 (DBPA). Works cannot commence until conditional approval has been granted by the Manager of the Infrastructure Corridors division, DoL on behalf of the DBNGP Land Access Minister. If works progress without section 41 approval, then penalties may apply under the appropriate regulations.

- NOTES**
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.
  - REFER DRAWING JDS13642.RW01\_C303 FOR NOTES
- HOLD**
- 1. FOOTPATH INTO LOT 336 ON HOLD**

**LEGEND**

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI MOUNTABLE KERB
- PROPOSED BARRIER KERB
- PROPOSED REINFORCED FLUSH EDGE BEAM
- EXISTING KERB
- FUTURE WORKS
- PROPOSED/EXISTING DRAINAGE PIT
- PROPOSED/EXISTING SEWER MANHOLE
- EXISTING PAVEMENT TO BE REMOVED
- EXISTING PAVEMENT
- EXISTING GAS
- EXISTING WATER DISTRIBUTION MAIN
- PROPOSED GAS
- EXISTING RETAINING WALL
- PROPOSED BRICK PAVING
- PROPOSED FOOTPATH 1.8m
- PROPOSED FOOTPATH 2.5m
- PROPOSED RED ASPHALT FOOTPATH 2.5m
- PROPOSED PRAM RAMP IN ACCORDANCE WITH COUNCIL SPECIFICATIONS
- ROAD CENTRELINE CHAINAGE
- ROAD CENTRELINE TANGENT POINT
- ROAD CENTRELINE LOW POINT
- ROAD CENTRELINE HIGH POINT
- ROAD NAME

**LONGITUDINAL SECTION RD ANSTEY ROAD**

SCALE HORIZ 1 : 500  
VERT 1 : 50

GRADE (%)	VC LENGTH / K VALUE	DATUM RL 21.0	CENTRE LINE DESIGN LEVEL	LEFT EDGE	RIGHT EDGE	EXISTING SURFACE LEVEL	CENTRE LINE CHAINAGE	HORIZONTAL ALIGNMENT	SUPER ELEVATION
-1.84%	20m VC K=16.1		26.41			26.41	0.00		
			26.34			26.51	3.56		
			26.04	25.84	25.92	26.04	20.00		
			25.97	25.77	25.75	25.96	23.69		
			25.82	25.62	25.59	25.78	33.69		
			25.76	25.55	25.52	25.66	40.00		
			25.73	25.53	25.49	25.60	43.69		
			25.66	25.45	25.43	25.43	55.44		
			25.63	25.43	25.40	25.41	60.00		
			25.51	25.31	25.30	25.28	80.00		
			25.39	25.19	25.19	25.20	100.00		
			25.27	25.07	25.10	25.09	120.00		
			25.24	25.04	25.08	25.06	124.64		
			25.34	25.13	25.17	24.98	140.00		
			25.24	25.04	25.04	24.93	160.00		
			25.12	24.92	24.92	24.88	180.00		
			25.00	24.80	24.80	24.83	200.00		
			24.95	24.74	24.74	24.81	208.96		
			25.01	24.81	24.81	24.76	220.00		
			25.13	24.93	24.93	24.66	240.00		
			25.18	24.98	24.98	24.64	247.70		
			25.11	24.90	24.90	24.62	260.00		
			24.99	24.78	24.78	24.59	280.00		
			24.87	24.66	24.66	24.52	300.00		
			24.83	24.62	24.62	24.49	306.46		
			24.91	24.71	24.71	24.45	320.00		
			25.01	24.80	24.80	24.39	336.46		
			24.99	24.78	24.78	24.38	340.00		

REV	DATE	DRAWN	CHECKED	APPROVED	
C	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
B	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL
A	23.08.21	TDR	BG	DH	ISSUED FOR COMMENT

Plotted By:	APanzich	Plot Date:	28/02/22 - 12:41	Cad File:	L:\JDS13642\JDS13642.RW01\02 CIVIL\Drawings\JDS13642.RW01_C300-C303.dwg
-------------	----------	------------	------------------	-----------	---

**Copyright**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**Note**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS

Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESDALE**

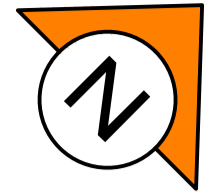
DRAWING TITLE:  
**ROAD PLAN AND PROFILE SHEET 1 OF 4**

DRAWN	A. PANZICH	IWAP No.	158169
DESIGNED	A. PANZICH	SCALE	A1
PROJECT MANAGER	D. HELLMUTH	DATUM	AHD
JDSi PROJECT No.	JDS13642.RW01	CO-ORDS	PCG 94
DRAWING No.	C300	REVISION	C









**NOTES**

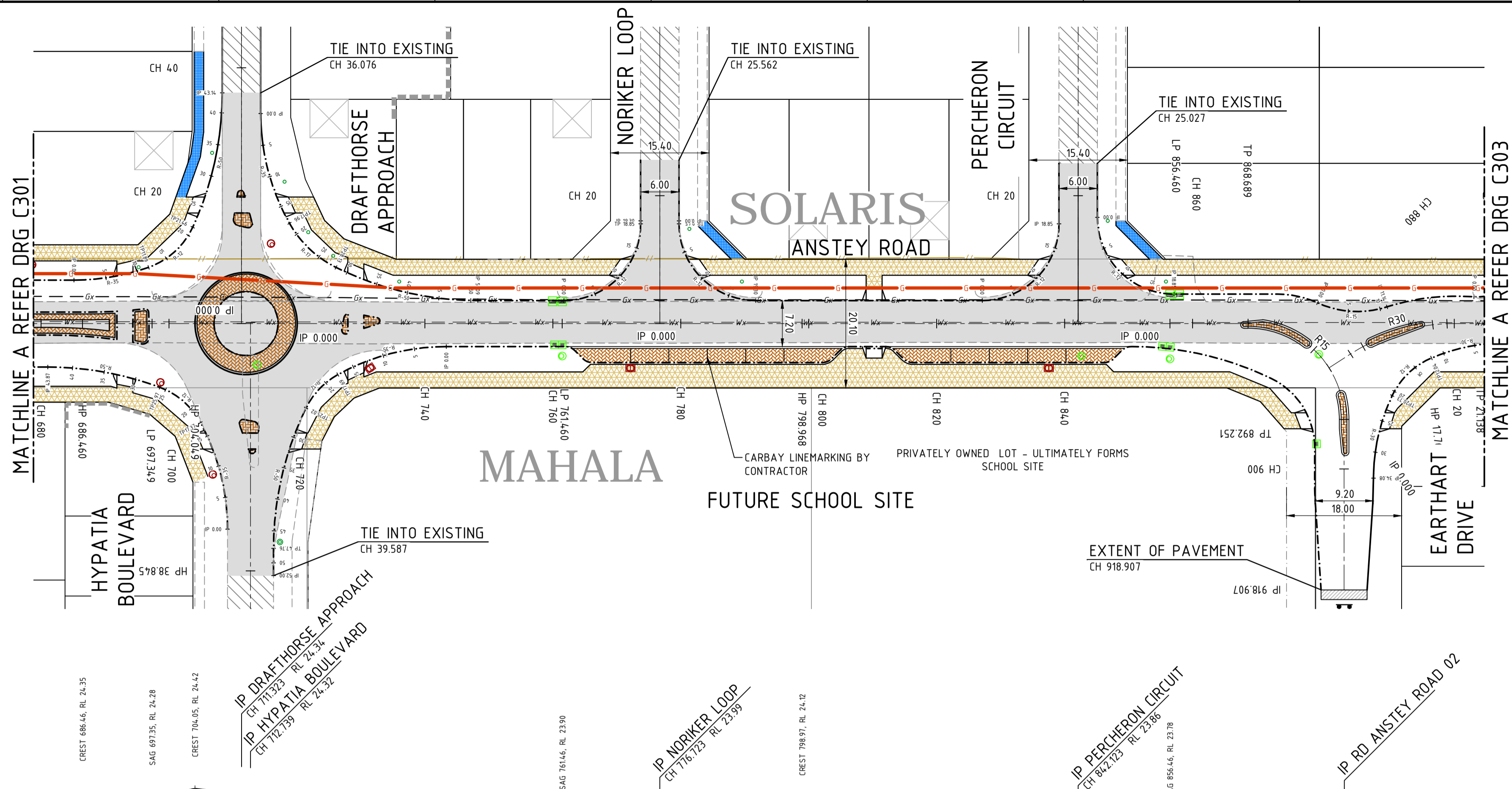
- 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.
- 2. REFER DRAWING JDS13642.RW01\_C303 FOR NOTES

**LEGEND**

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI MOUNTABLE KERB
- PROPOSED BARRIER KERB
- PROPOSED REINFORCED FLUSH EDGE BEAM
- EXISTING KERB
- FUTURE WORKS
- PROPOSED/EXISTING DRAINAGE PIT
- PROPOSED/EXISTING SEWER MANHOLE
- EXISTING PAVEMENT TO BE REMOVED
- EXISTING PAVEMENT
- EXISTING GAS
- EXISTING WATER DISTRIBUTION MAIN
- PROPOSED GAS
- PROPOSED BRICK PAVING
- PROPOSED FOOTPATH 1.8m
- PROPOSED FOOTPATH 2.5m
- CONSTRUCT TO LIMESTONE SUBBASE ONLY
- PROPOSED PRAM RAMP IN ACCORDANCE WITH COUNCIL SPECIFICATIONS
- CH 100 ROAD CENTRELINE CHAINAGE
- TP 100 ROAD CENTRELINE TANGENT POINT
- LP 100 ROAD CENTRELINE LOW POINT
- HP 100 ROAD CENTRELINE HIGH POINT
- RD NAME
- EXISTING RETAINING WALL

**WARNING - HIGH PRESSURE GAS PIPELINE IN THE VICINITY**

The Department of Lands (DoL) requires that all parties wishing to undertake works within the DBNGP Corridor apply for approval under Section 41 of the Damper to Bunbury Pipeline Act 1997 (DBPA). Works cannot commence until conditional approval has been granted by the Manager of the Infrastructure Corridors division, DoL on behalf of the DBNGP Land Access Minister. If works progress without section 41 approval, then penalties may apply under the appropriate regulations.

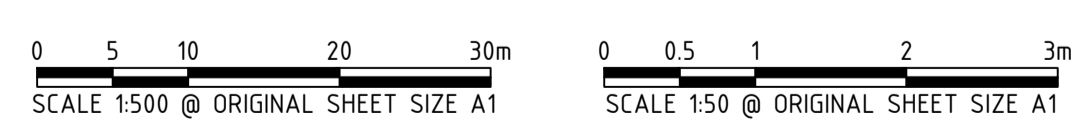


GRADE (%)  
VC LENGTH / K VALUE

DATUM RL 19.0

CENTRE LINE DESIGN LEVEL	24.31	24.35	24.28	24.42	24.24	24.15	24.06	23.91	24.01	24.12	24.00	23.88	23.78	23.80	23.85	23.92	23.99	24.04	22.56
LEFT EDGE	24.11							23.80	23.90	24.01	23.89	23.77	23.67	23.65	23.66	23.75	23.86	23.90	
RIGHT EDGE	24.11							23.80	23.90	24.01	23.89	23.77	23.67	23.65	23.68	23.71	23.75	23.80	
EXISTING SURFACE LEVEL	23.80	23.81	23.82	23.82	23.81	23.80	23.73	23.75	23.72	23.67	23.60	23.52	23.49	23.49	23.46	23.16	22.45	22.50	
CENTRE LINE CHAINAGE	680.00	686.46	697.35	704.05	720.00	726.75	740.00	760.00	780.00	798.97	820.00	840.00	856.46	860.00	868.69	880.00	892.25	900.00	918.91
HORIZONTAL ALIGNMENT	LHS -3%																		
SUPER ELEVATION	LHS and RHS -3%																		

**LONGITUDINAL SECTION RD ANSTEY ROAD**  
SCALE HORIZ 1 : 50  
VERT 1 : 50



REV	DATE	DRAWN	CHECKED	APPROVED	
C	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
B	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL
A	23.08.21	TDR	BG	DH	ISSUED FOR COMMENT

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.  
**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

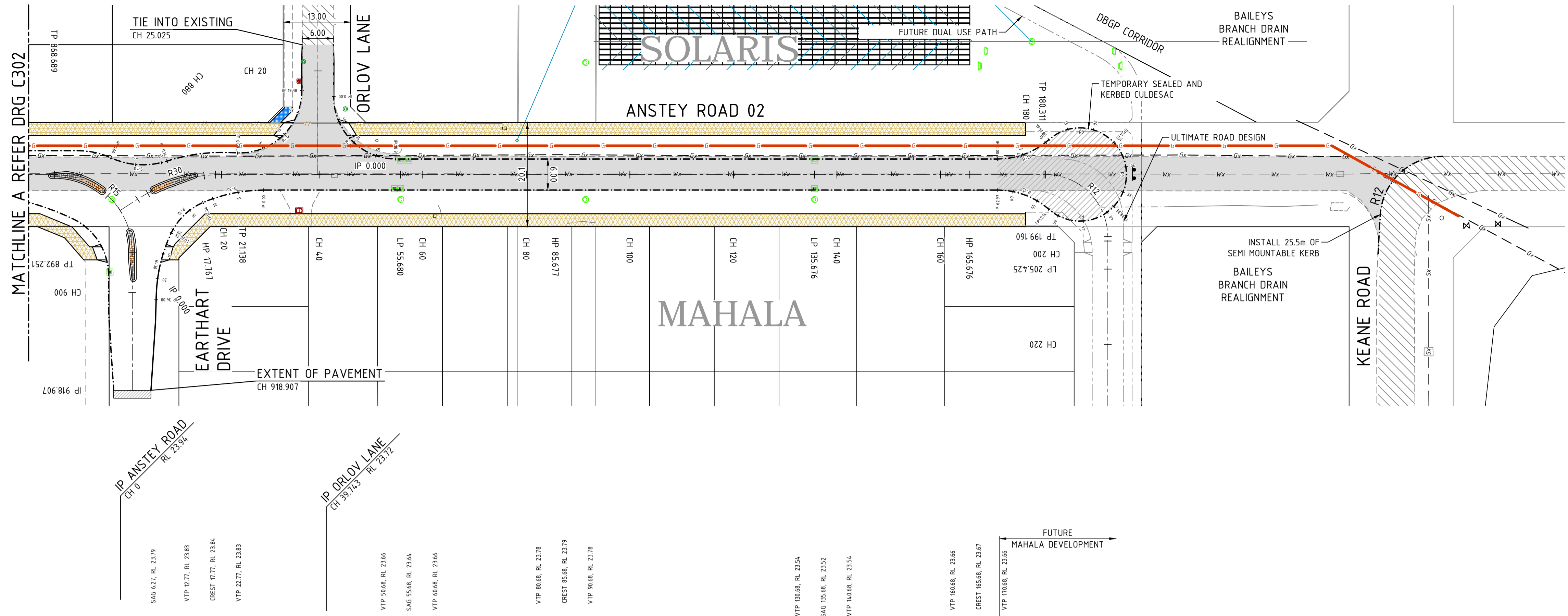
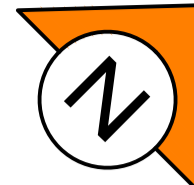
**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**  
DRAWING TITLE:  
**ROAD PLAN AND PROFILE SHEET 3 OF 4**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE AS SHOWN
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C302	REVISION C





**NOTES**

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.
- SETOUT OF ROAD CENTERLINE, FACE OF KERB AND EDGE OF SEAL FOR UN-KERBED ROADS SHALL BE BASED ON SUPPLIED AUTOCAD DATA. ALL OTHER WORKS SHALL BE SETOUT BASED ON INFORMATION CONTAINED ON THE CONTRACT DRAWINGS AND SPECIFICATION.
- ALL CONSTRUCTION DETAILS TO BE TO LOCAL AUTHORITY SPECIFICATION AND SATISFACTION.
- ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE.
- ALL ROADS TO BE BLACK ASPHALT UNLESS SHOWN OTHERWISE.
- ALL LEVELS SHALL BE DETERMINED FROM BENCHMARKS ESTABLISHED BY THE PROJECT SURVEYOR.
- ALL TRANSITIONS TO EXISTING WORK SHALL BE SMOOTH AND OF NEAT APPEARANCE.
- THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT IN A STRAIGHT LINE AND MAKE SMOOTH CONNECTION PRIOR TO CONSTRUCTION COMMENCING.
- THE CONTRACTOR SHALL REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT.
- FOR LOCATION OF UNDERGROUND SERVICES REFER TO RELEVANT SERVICES PLAN.
- ALL PARKING BAYS AND EMBAYMENT PARKING AREAS SHALL BE LINE-MARKED IN ACCORDANCE WITH THE SPECIFICATIONS. WHERE AN EDGE OR BOND BEAM IS INSTALLED TO DELINEATE THE EDGE OF THE PARKING BAY, THEN THE LINE MARKING ON THAT EDGE MAY BE DELETED WHEN APPROVED BY THE SUPERINTENDENT.

**LEGEND**

- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI MOUNTABLE KERB
- PROPOSED BARRIER KERB
- PROPOSED REINFORCED FLUSH EDGE BEAM
- EXISTING KERB
- FUTURE WORKS
- PROPOSED/EXISTING DRAINAGE PIT
- PROPOSED/EXISTING SEWER MANHOLE
- EXISTING PAVEMENT TO BE REMOVED
- EXISTING PAVEMENT
- EXISTING GAS
- EXISTING WATER DISTRIBUTION MAIN
- PROPOSED GAS
- PROPOSED OPEN DRAIN
- PROPOSED BRICK PAVING
- PROPOSED FOOTPATH 1.8m
- PROPOSED FOOTPATH 2.5m
- PROPOSED PRAM RAMP IN ACCORDANCE WITH COUNCIL SPECIFICATIONS
- CH 100 ROAD CENTRELINE CHAINAGE
- TP 100 ROAD CENTRELINE TANGENT POINT
- LP 100 ROAD CENTRELINE LOW POINT
- HP 100 ROAD CENTRELINE HIGH POINT
- ROAD NAME

**SMITH ST (RD019)**

**WARNING - HIGH PRESSURE GAS PIPELINE IN THE VICINITY**

The Department of Lands (DoL) requires that all parties wishing to undertake works within the DBNGP Corridor apply for approval under Section 41 of the Damper to Bunbury Pipeline Act 1997 (DBPA). Works cannot commence until conditional approval has been granted by the Manager of the Infrastructure Corridors division, DoL, on behalf of the DBNGP Land Access Minister. If works progress without section 41 approval, then penalties may apply under the appropriate regulations.

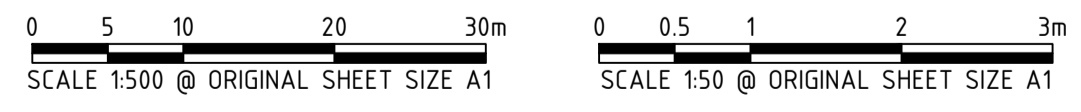
GRADE (%)

VC LENGTH / K VALUE

DATUM RL 19.0

CENTRE LINE DESIGN LEVEL	23.94	23.84	23.83	23.84	23.83	23.72	23.66	23.64	23.65	23.77	23.79	23.78	23.72	23.60	23.54	23.52	23.53	23.65	23.67	23.66	23.60	23.49	23.36	23.26
LEFT EDGE			23.70	23.73	23.75	23.64	23.57	23.54	23.56	23.68	23.70	23.69	23.63	23.51	23.45	23.43	23.44	23.56	23.58	23.57	23.51	23.40	23.27	
RIGHT EDGE						23.63	23.57	23.55	23.56	23.68	23.70	23.69	23.63	23.51	23.45	23.43	23.44	23.56	23.60	23.63	23.66	23.58	23.45	
EXISTING SURFACE LEVEL	22.23	22.98	23.29	23.31	23.30	23.25	23.22	23.21	23.21	23.18	23.17	23.17	23.15	23.11	23.09	23.09	23.08	23.05	23.05	23.05	23.03	22.17	22.38	22.47
CENTRE LINE CHAINAGE	0.00	4.01	12.77	17.77	21.14	40.00	50.68	55.68	60.00	80.00	85.68	90.68	100.00	120.00	130.68	135.68	140.00	160.00	165.68	170.68	180.00	199.16	220.00	237.62
HORIZONTAL ALIGNMENT	R=30.0m												R=12.0m											
SUPER ELEVATION	LHS -3%												RHS -3%											

**LONGITUDINAL SECTION RD ANSTEY ROAD 02**  
SCALE HORIZ 1 : 500  
VERT 1 : 50



REV	DATE	DRAWN	CHECKED	APPROVED	
C	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
B	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL
A	23.08.21	TDR	BG	DH	ISSUED FOR COMMENT

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

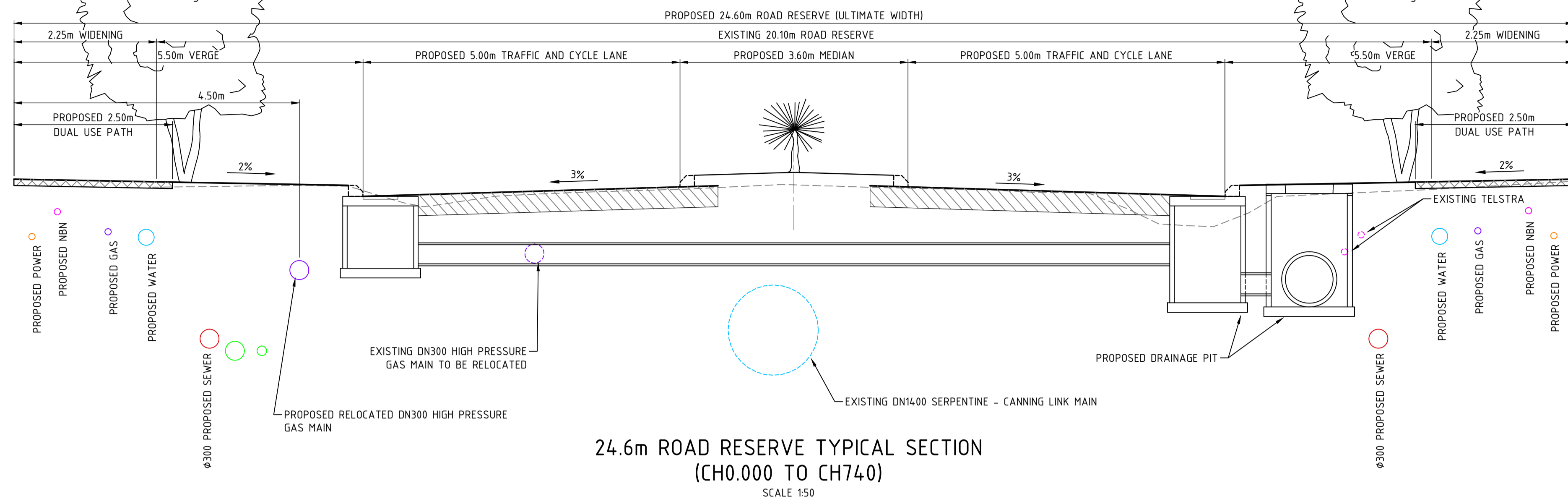
**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

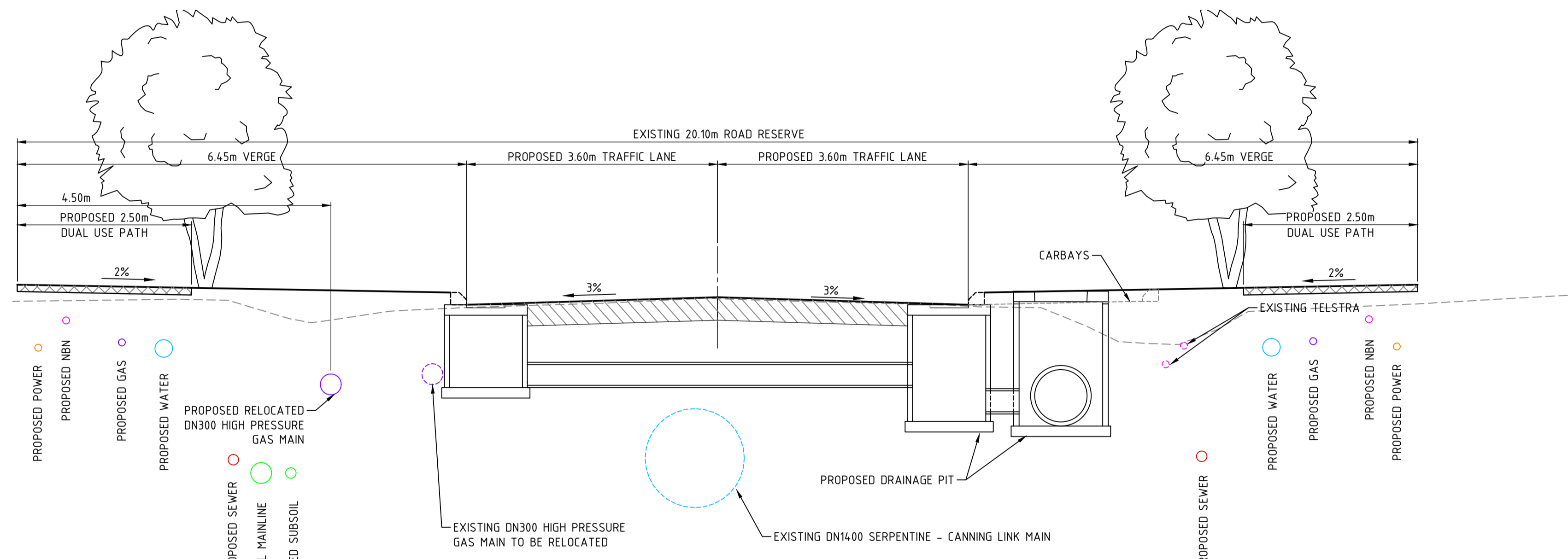
PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**

DRAWING TITLE:  
**ROAD PLAN AND PROFILE SHEET 4 OF 4**

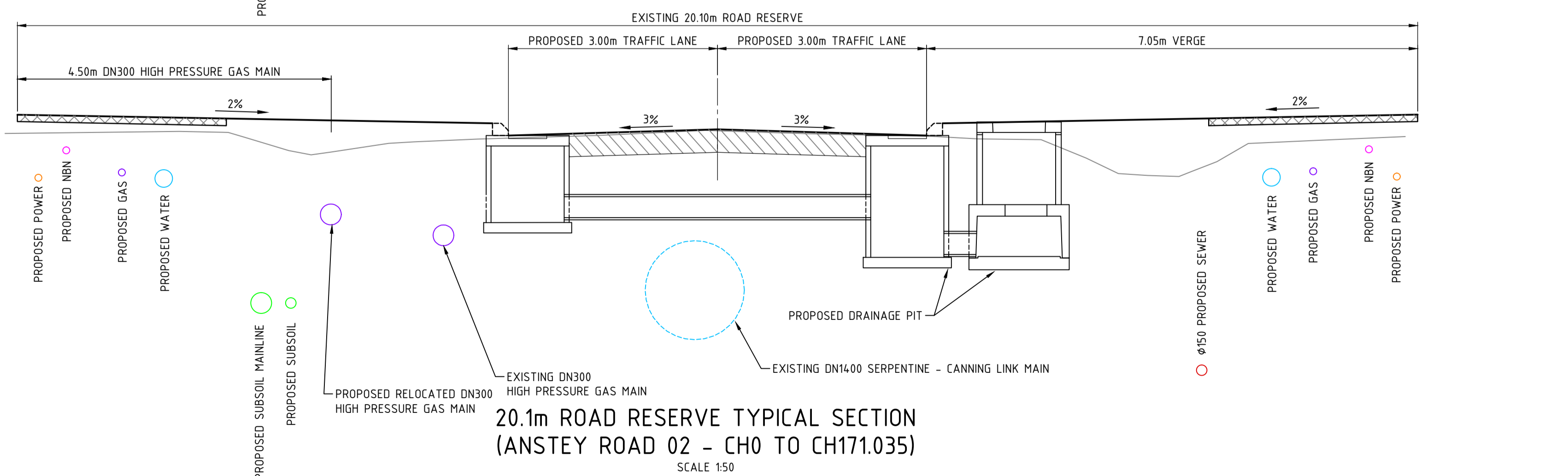
DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 AS SHOWN
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C303	REVISION C



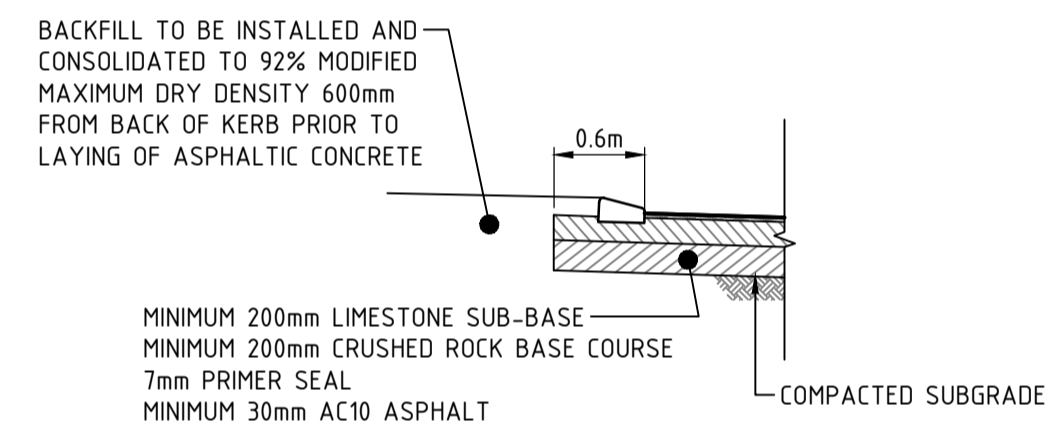
24.6m ROAD RESERVE TYPICAL SECTION  
(CH0.000 TO CH740)  
SCALE 1:50



24.6m ROAD RESERVE TYPICAL SECTION  
(CH740 TO CH900)  
SCALE 1:50



20.1m ROAD RESERVE TYPICAL SECTION  
(ANSTEY ROAD 02 - CH0 TO CH171.035)  
SCALE 1:50



TYPICAL PAVEMENT DETAIL  
SCALE 1:50

0 0.5 1 2 3m  
SCALE 1:50 @ ORIGINAL SHEET SIZE A1

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

Plotted By: APanzich Plot Date: 28/02/22 - 11:33 Cad File: I:\JDS13642\JDS13642.RW01\02 CIVIL\Drawings\JDS13642.RW01\_C305.dwg

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright. This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**

DRAWING TITLE:  
**TYPICAL ROAD CROSS SECTIONS**

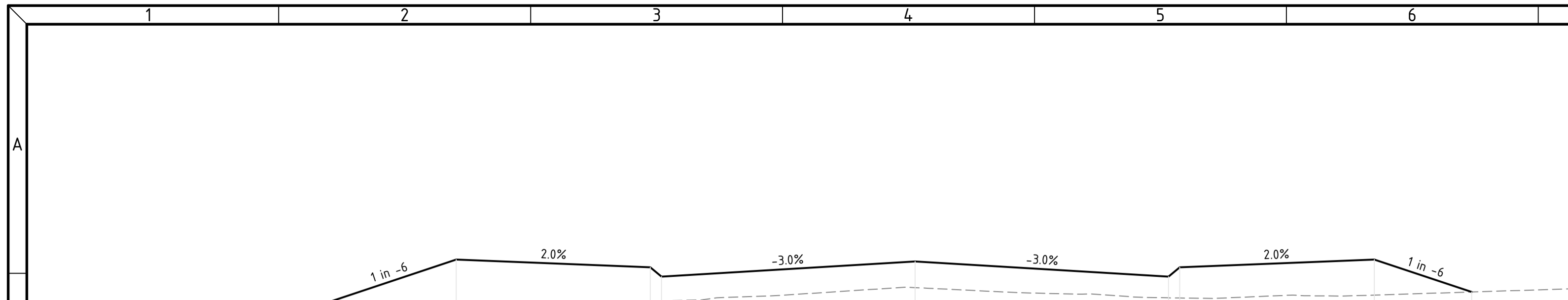
DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C305	REVISION B







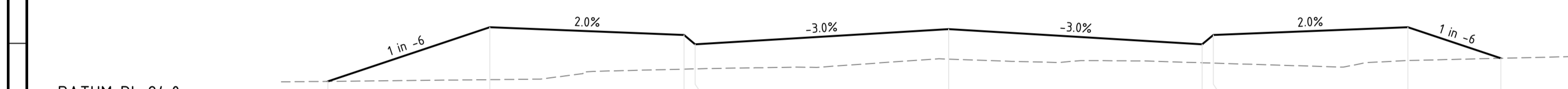




DATUM RL 23.0

DESIGN SURFACE LEVEL	24.318	24.892	24.788	24.663	24.867	24.457
DEPTH	0.000	-0.721	-0.452	-0.324	-0.351	0.000
EXISTING SURFACE LEVEL	24.318	24.171	24.336	24.339	24.515	24.457
OFFSET	-15.750	-12.308	-7.100	-6.800	0.000	14.932

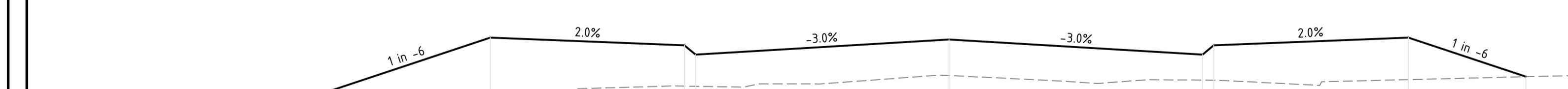
CH 300.000



DATUM RL 24.0

DESIGN SURFACE LEVEL	24.288	25.012	24.908	24.783	24.987	24.597
DEPTH	0.000	-0.701	-0.456	-0.378	-0.401	0.000
EXISTING SURFACE LEVEL	24.288	24.311	24.451	24.408	24.585	24.597
OFFSET	-16.652	-12.307	-7.100	-6.800	0.000	14.874

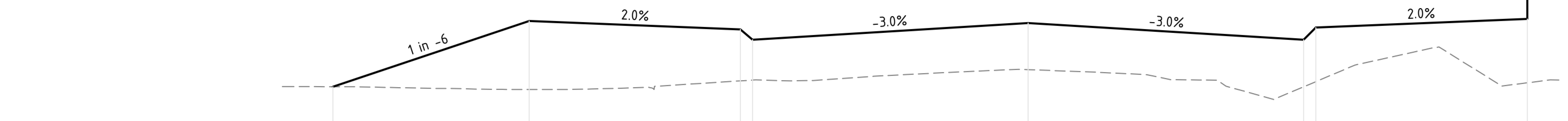
CH 280.000



DATUM RL 24.0

DESIGN SURFACE LEVEL	24.406	25.132	25.028	24.903	25.107	24.607
DEPTH	0.000	-0.722	-0.548	-0.468	-0.484	0.000
EXISTING SURFACE LEVEL	24.406	24.410	24.480	24.477	24.622	24.607
OFFSET	-16.663	-12.307	-7.100	-6.800	0.000	15.474

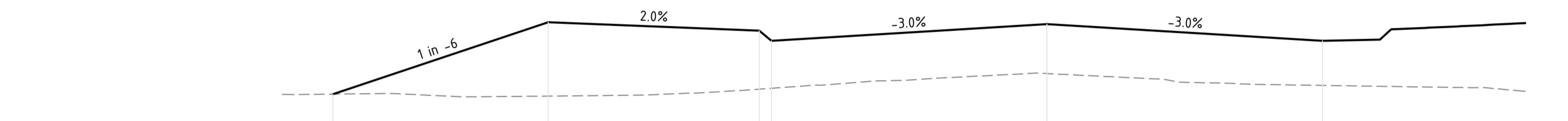
CH 260.000



DATUM RL 23.0

DESIGN SURFACE LEVEL	24.084	24.892	24.788	24.663	24.867	24.917
DEPTH	0.000	-0.842	-0.632	-0.457	-0.573	-0.785
EXISTING SURFACE LEVEL	24.084	24.050	24.156	24.166	24.294	24.132
OFFSET	-17.154	-12.309	-7.100	-6.800	0.000	12.320

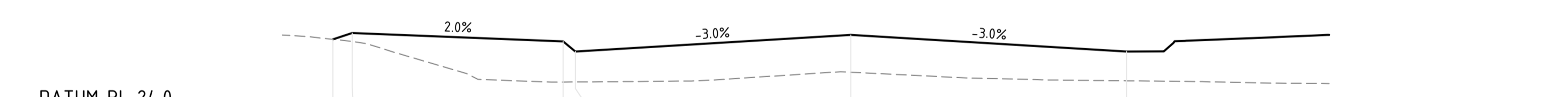
CH 360.000



DATUM RL 23.0

DESIGN SURFACE LEVEL	24.127	25.012	24.908	24.783	24.987	24.783
DEPTH	0.000	-0.909	-0.720	-0.584	-0.607	-0.549
EXISTING SURFACE LEVEL	24.127	24.103	24.188	24.199	24.379	24.234
OFFSET	-17.620	-12.309	-7.100	-6.800	0.000	6.800

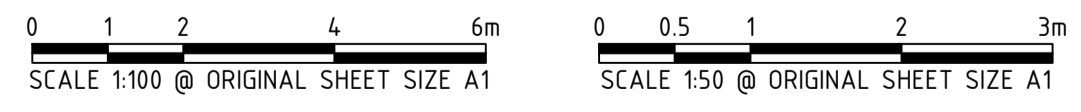
CH 340.000



DATUM RL 24.0

DESIGN SURFACE LEVEL	24.855	24.934	24.830	24.705	24.909	24.705
DEPTH	0.000	-0.106	-0.502	-0.376	-0.460	-0.362
EXISTING SURFACE LEVEL	24.855	24.829	24.328	24.329	24.449	24.344
OFFSET	-12.783	-12.308	-7.100	-6.800	0.000	6.800

CH 320.000



REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

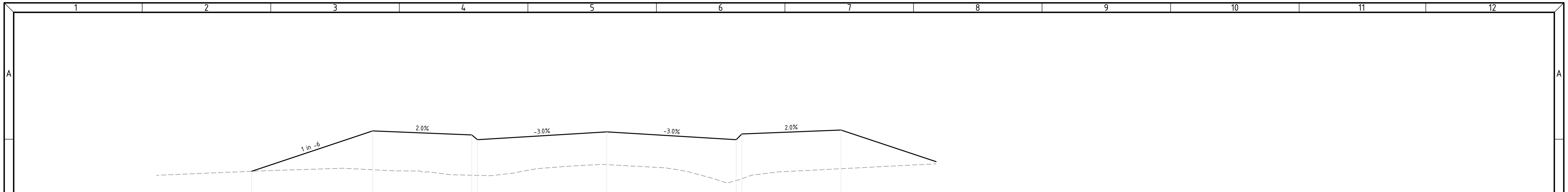
**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**

DRAWING TITLE:  
**ANSTEY ROAD CROSS SECTIONS SHEET 3 OF 12**

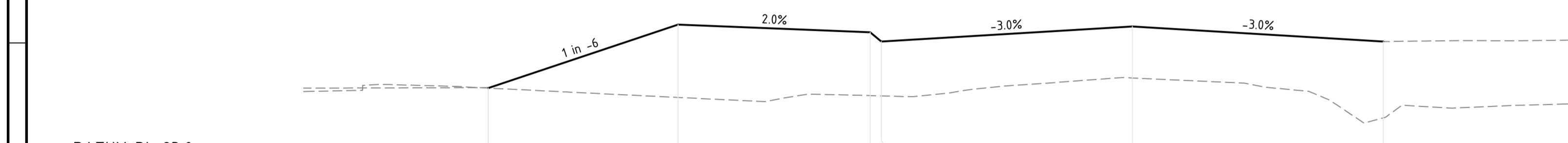
DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:100 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C308	REVISION B



DATUM RL 23.0

DESIGN SURFACE LEVEL	23.831	24.892	24.788	24.663	24.867	24.663	24.892	24.917
DEPTH	0.000	-1.021	-1.061	-0.940	-0.862	-1.076	-1.179	-1.019
EXISTING SURFACE LEVEL	23.831	23.871	23.726	23.723	24.005	23.587	23.634	23.898
OFFSET	-18.676	-12.310	-7.100	-6.800	0.000	6.800	7.100	12.309

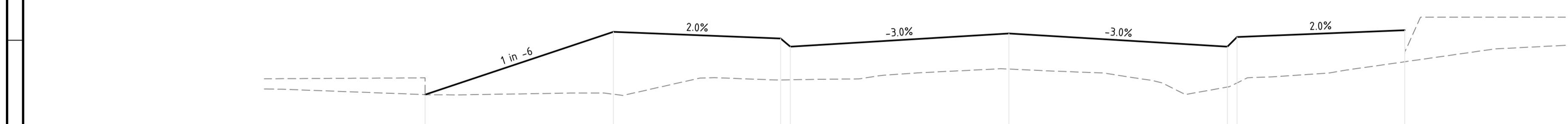
CH 420.000



DATUM RL 23.0

DESIGN SURFACE LEVEL	23.957	24.814	24.710	24.585	24.789	24.585
DEPTH	0.000	-0.984	-0.855	-0.734	-0.656	-1.031
EXISTING SURFACE LEVEL	23.957	23.831	23.856	23.851	24.093	23.554
OFFSET	-17.454	-12.310	-7.100	-6.800	0.000	6.800

CH 400.000



DATUM RL 23.0

DESIGN SURFACE LEVEL	23.795	24.772	24.668	24.543	24.747	24.543	24.797
DEPTH	0.000	-0.970	-0.644	-0.516	-0.554	-0.629	-0.715
EXISTING SURFACE LEVEL	23.795	23.801	24.024	24.026	24.193	23.913	23.977
OFFSET	-18.169	-12.309	-7.100	-6.800	0.000	6.800	7.100

CH 380.000



REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

<p>PlotFtd By: APanzich Plot Date: 28/02/22 - 11:33 Cad File: I:\JDS13642\JDS13642.RW01\02 CIVIL\Drawings\JDS13642.RW01_C306-C317.dwg</p>					
---	--	--	--	--	--

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

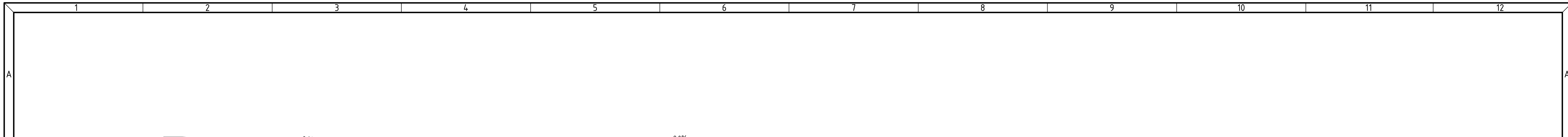
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**

DRAWING TITLE:  
**ANSTEY ROAD CROSS SECTIONS SHEET 4 OF 12**

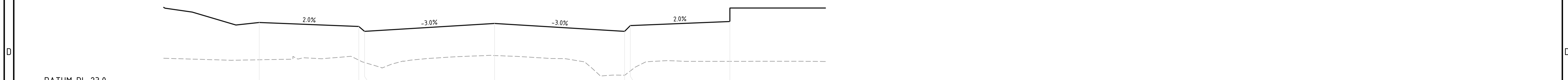
DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:100 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C309	REVISION B



DATUM RL 22.0

DESIGN SURFACE LEVEL	24.552	24.428	24.303	24.507	24.303	24.453	24.557
DEPTH	-0.779	-0.692	-0.648	-0.733	-1.101	-1.099	-0.686
EXISTING SURFACE LEVEL	23.753	23.736	23.655	23.774	23.202	23.354	23.871
OFFSET	-12.309	-7.100	-6.800	0.000	6.800	7.100	12.308

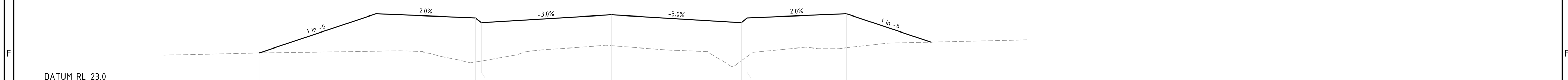
CH 540.000



DATUM RL 23.0

DESIGN SURFACE LEVEL	24.652	24.548	24.423	24.627	24.423	24.573	24.677
DEPTH	-0.970	-0.875	-0.812	-0.835	-1.143	-1.181	-1.035
EXISTING SURFACE LEVEL	23.682	23.673	23.611	23.792	23.280	23.392	23.642
OFFSET	-12.309	-7.100	-6.800	0.000	6.800	7.100	12.309

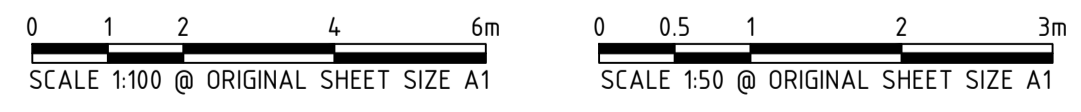
CH 520.000



DATUM RL 23.0

DESIGN SURFACE LEVEL	23.755	24.772	24.668	24.543	24.747	24.543	24.668	24.772	24.035
DEPTH	0.000	-0.971	-1.152	-1.003	-0.805	-0.992	-1.100	-0.884	0.000
EXISTING SURFACE LEVEL	23.755	23.801	23.516	23.540	23.942	23.551	23.668	23.888	24.035
OFFSET	-18.412	-12.309	-7.100	-6.800	0.000	6.800	7.100	12.309	16.732

CH 440.000



REV	DATE	DRAWN	CHECKED	APPROVED
B	15.02.22	AP	BG	
A	29.10.21	AP	BG	DH

RE-ISSUED FOR COUNCIL APPROVAL  
 ISSUED FOR COUNCIL APPROVAL

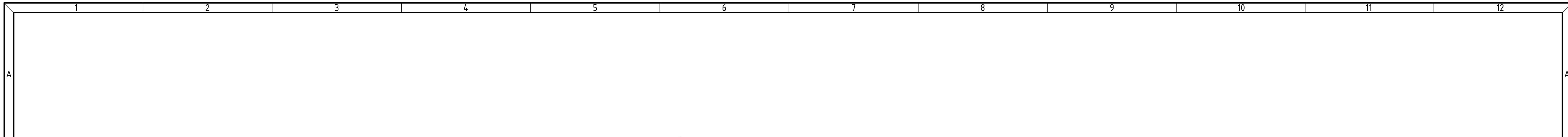
**COPYRIGHT**  
 This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
 This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.  
**NOTE**  
 This drawing shall be preliminary only until it is issued for construction.  
 Certified Quality System to ISO 9001



CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**  
 DRAWING TITLE:  
**ANSTEY ROAD CROSS SECTIONS SHEET 5 OF 12**

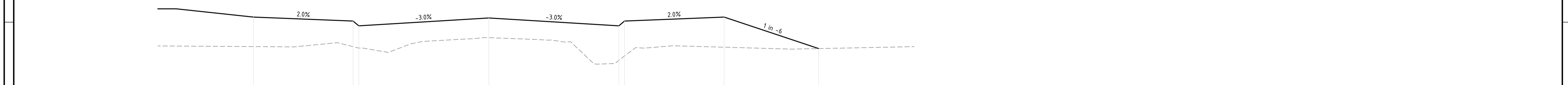
DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:100 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C310	REVISION B



DATUM RL 23.0

DESIGN SURFACE LEVEL		24.454	24.350	24.275	24.429	24.225	24.350	24.454	23.581
DEPTH		-0.952	-0.744	-0.609	-0.662	-0.523	-0.656	-0.850	0.000
EXISTING SURFACE LEVEL		23.503	23.606	23.616	23.767	23.702	23.694	23.605	23.581
OFFSET		-12.308	-7.100	-6.800	0.000	6.800	7.100	12.308	17.549

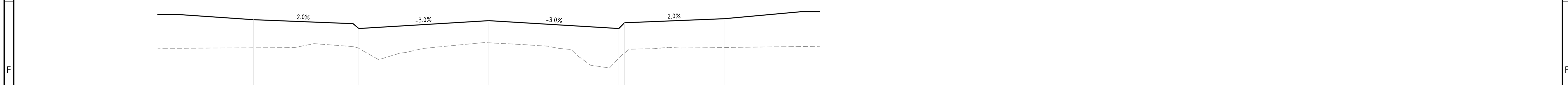
CH 600.000



DATUM RL 22.0

DESIGN SURFACE LEVEL		24.334	24.230	24.105	24.309	24.105	24.230	24.334	23.510
DEPTH		-0.772	-0.669	-0.582	-0.514	-0.901	-0.913	-0.788	0.000
EXISTING SURFACE LEVEL		23.562	23.561	23.523	23.795	23.704	23.317	23.546	23.510
OFFSET		-12.308	-7.100	-6.800	0.000	6.800	7.100	12.308	17.252

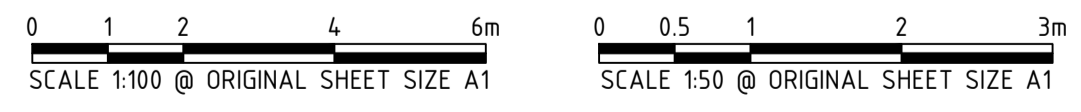
CH 580.000



DATUM RL 22.0

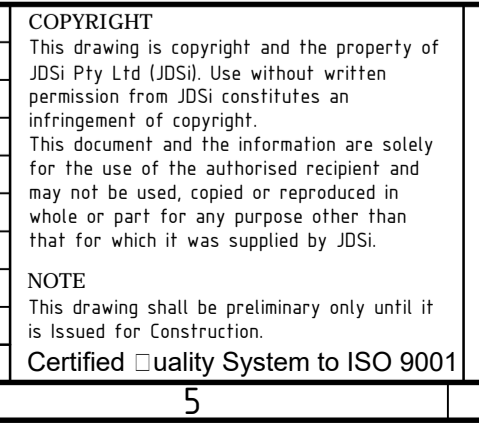
DESIGN SURFACE LEVEL		24.412	24.308	24.183	24.387	24.183	24.333	24.437
DEPTH		-0.734	-0.599	-0.519	-0.578	-0.775	-0.790	-0.751
EXISTING SURFACE LEVEL		23.678	23.709	23.664	23.809	23.408	23.542	23.686
OFFSET		-12.308	-7.100	-6.800	0.000	6.800	7.100	12.308

CH 560.000



REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

COPYRIGHT					
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.					
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.					
NOTE					
This drawing shall be preliminary only until it is issued for construction.					
Certified Quality System to ISO 9001					



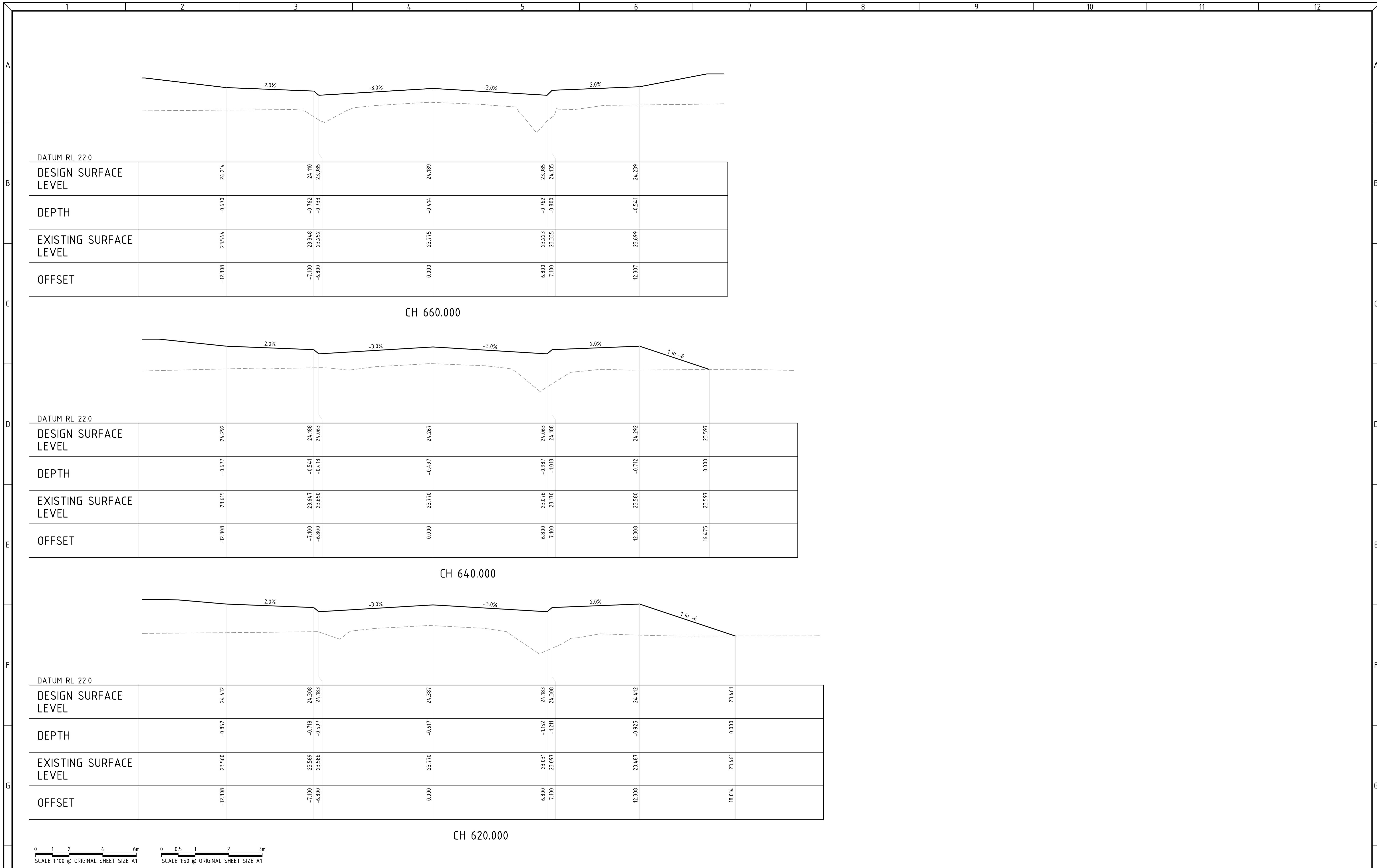
CLIENT:  
TERRA PROPERTY PTY. LTD.

PROJECT:  
ANSTEY ROAD UPGRADE  
FORRESTDALE

DRAWING TITLE:  
ANSTEY ROAD CROSS SECTIONS  
SHEET 6 OF 12

DRAWN	A. PANZICH	WAPC No.	158169
DESIGNED	A. PANZICH	SCALE	H 1:100 V 1:50
PROJECT MANAGER	D. HELLMUTH	DATUM	AHD
		CO-ORDS	PCG 94
JDSi PROJECT No.	JDS13642.RW01	DRAWING No.	C311
		REVISION	B





DATUM RL 22.0

DESIGN SURFACE LEVEL	24.214	24.110	23.985	24.189	23.985	24.135	24.239
DEPTH	-0.670	-0.762	-0.733	-0.614	-0.762	-0.800	-0.541
EXISTING SURFACE LEVEL	23.544	23.348	23.252	23.775	23.223	23.335	23.699
OFFSET	-12.308	-7.100	-6.800	0.000	6.800	7.100	12.307

CH 660.000

DATUM RL 22.0

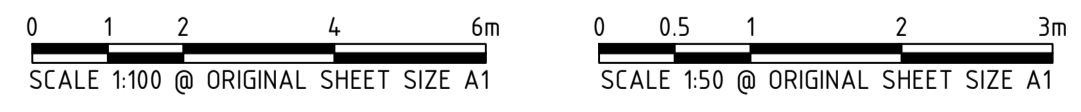
DESIGN SURFACE LEVEL	24.292	24.188	24.063	24.267	24.063	24.188	24.292	23.597
DEPTH	-0.677	-0.541	-0.413	-0.497	-0.987	-1.018	-0.712	0.000
EXISTING SURFACE LEVEL	23.615	23.647	23.650	23.770	23.076	23.170	23.580	23.597
OFFSET	-12.308	-7.100	-6.800	0.000	6.800	7.100	12.308	16.475

CH 640.000

DATUM RL 22.0

DESIGN SURFACE LEVEL	24.412	24.308	24.183	24.387	24.183	24.308	24.412	23.461
DEPTH	-0.852	-0.718	-0.597	-0.617	-1.152	-1.211	-0.925	0.000
EXISTING SURFACE LEVEL	23.560	23.589	23.586	23.770	23.031	23.097	23.487	23.461
OFFSET	-12.308	-7.100	-6.800	0.000	6.800	7.100	12.308	18.014

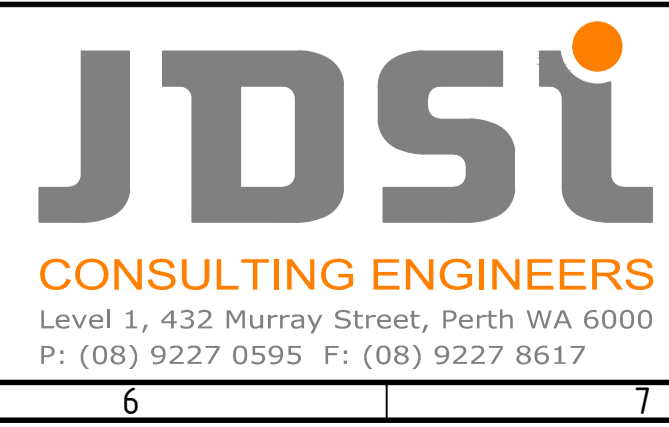
CH 620.000



REV	DATE	DRAWN	CHECKED	APPROVED	DESCRIPTION
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

Copyright  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

NOTE  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

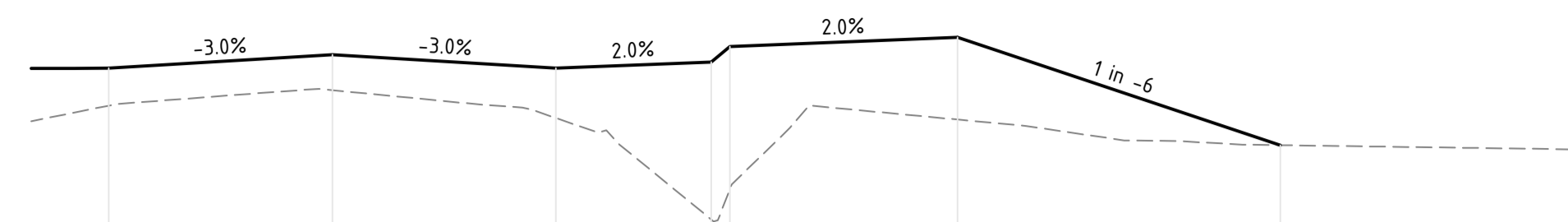


CLIENT:  
TERRA PROPERTY PTY. LTD.

PROJECT:  
ANSTEY ROAD UPGRADE FORRESTDALE

DRAWING TITLE:  
ANSTEY ROAD CROSS SECTIONS SHEET 7 OF 12

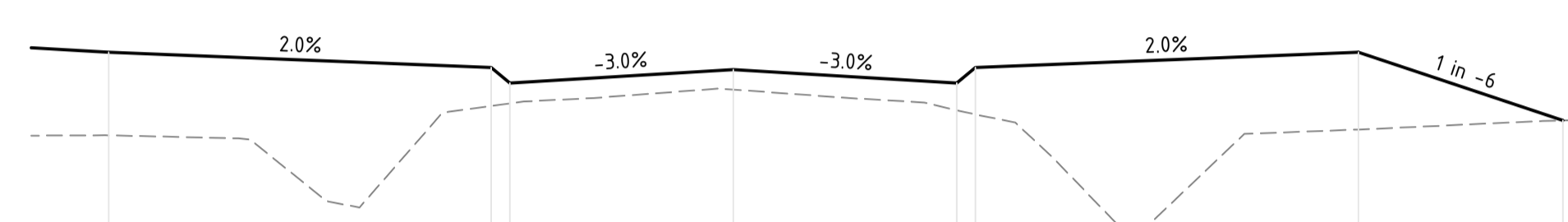
DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:100 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C312	REVISION B



DATUM RL 22.0

DESIGN SURFACE LEVEL	23.901	24.009	23.901	23.951	24.076	24.149	23.283
DEPTH	-0.301	-0.285	-0.400	-1.266	-1.149	-0.661	0.000
EXISTING SURFACE LEVEL	23.600	23.724	23.501	22.685	22.927	23.489	23.283
OFFSET	-3.600	0.000	3.600	6.100	6.400	10.066	15.267

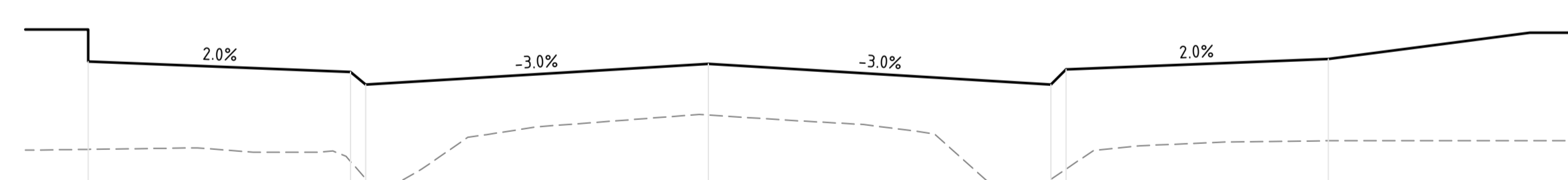
CH 780.000



DATUM RL 22.0

DESIGN SURFACE LEVEL	24.049	23.926	23.801	23.909	23.801	23.926	24.049	23.500
DEPTH	-0.668	-0.310	-0.164	-0.160	-0.219	-0.377	-0.622	0.000
EXISTING SURFACE LEVEL	23.381	23.616	23.637	23.749	23.582	23.549	23.421	23.500
OFFSET	-10.057	-3.900	-3.600	0.000	3.600	3.900	10.067	13.361

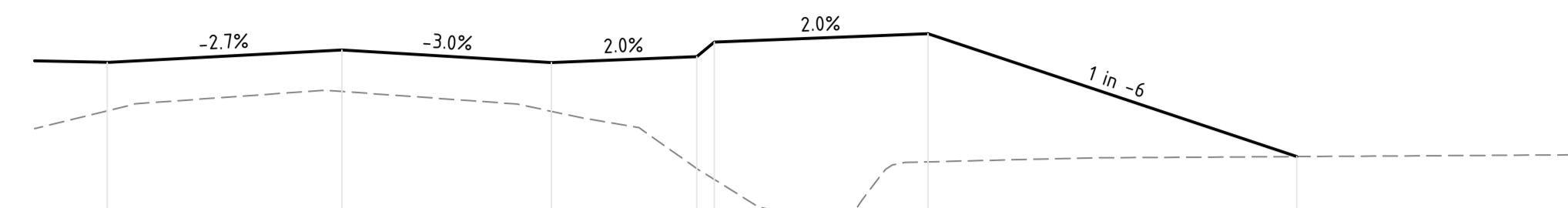
CH 760.000



DATUM RL 22.0

DESIGN SURFACE LEVEL	24.334	24.230	24.105	24.309	24.105	24.255	24.359
DEPTH	-0.872	-0.890	-0.936	-0.506	-0.941	-0.989	-0.812
EXISTING SURFACE LEVEL	23.462	23.341	23.169	23.803	23.164	23.266	23.547
OFFSET	-12.307	-7.100	-6.800	0.000	6.800	7.100	12.307

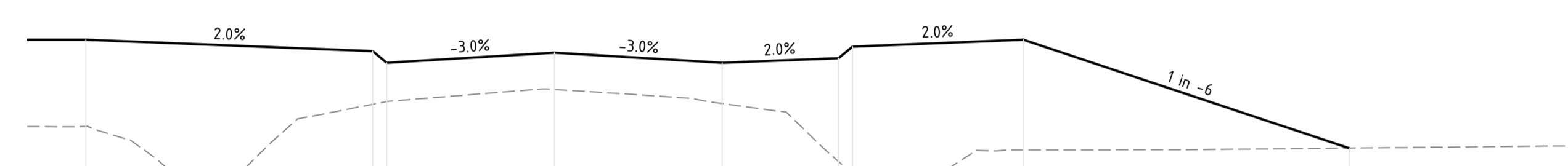
CH 680.000



DATUM RL 22.0

DESIGN SURFACE LEVEL	23.769	23.877	23.769	23.819	23.944	24.017	22.961
DEPTH	-0.414	-0.356	-0.419	-0.960	-1.179	-1.101	0.000
EXISTING SURFACE LEVEL	23.354	23.520	23.349	22.859	22.765	22.916	22.961
OFFSET	-4.029	0.000	3.600	6.097	6.397	10.066	16.400

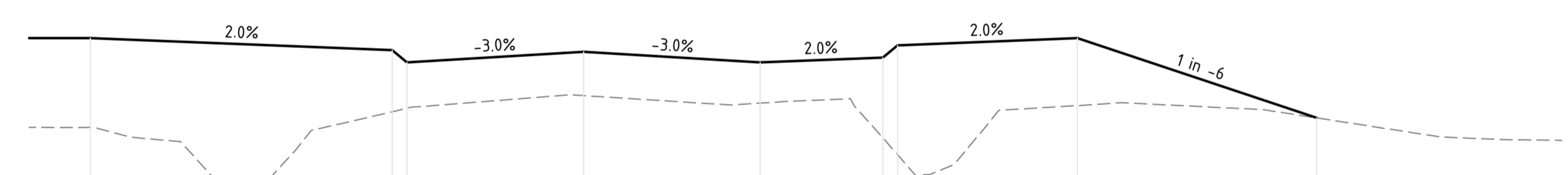
CH 840.000



DATUM RL 22.0

DESIGN SURFACE LEVEL	24.137	24.014	23.889	23.997	23.889	23.939	24.137	22.972
DEPTH	-0.931	-0.571	-0.417	-0.395	-0.438	-1.113	-1.185	0.000
EXISTING SURFACE LEVEL	23.206	23.443	23.472	23.602	23.451	22.826	22.952	22.972
OFFSET	-10.056	-3.900	-3.600	0.000	3.600	6.099	10.066	17.058

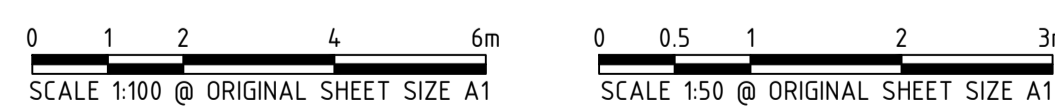
CH 820.000



DATUM RL 22.0

DESIGN SURFACE LEVEL	24.257	24.134	24.009	24.117	24.009	24.059	24.257	23.444
DEPTH	-0.910	-0.629	-0.466	-0.446	-0.445	-0.818	-0.888	0.000
EXISTING SURFACE LEVEL	23.347	23.505	23.543	23.671	23.564	23.241	23.569	23.444
OFFSET	-10.056	-3.900	-3.600	0.000	3.600	6.000	10.066	14.946

CH 800.000



REV	DATE	DRAWN	CHECKED	APPROVED	DESCRIPTION
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

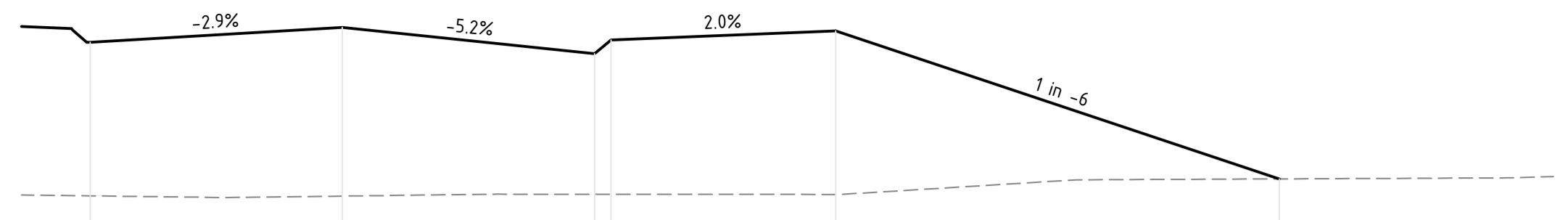
**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**

DRAWING TITLE:  
**ANSTEY ROAD CROSS SECTIONS SHEET 8 OF 12**

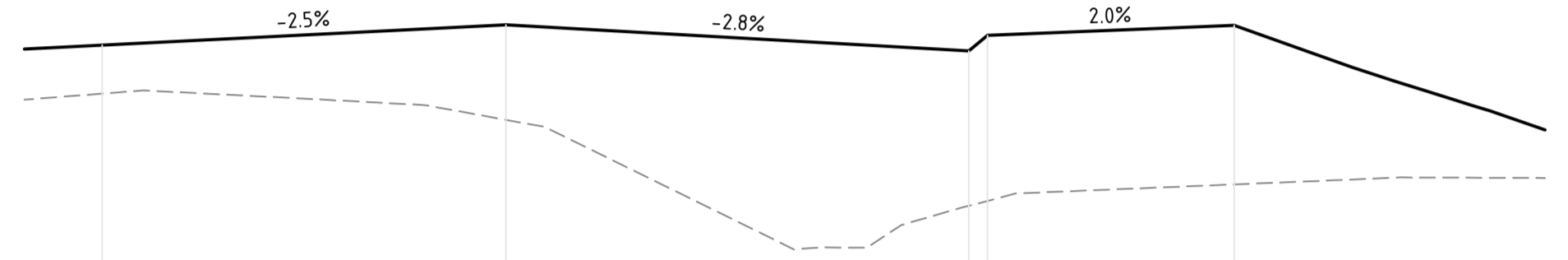
DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:100 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C313	REVISION B



DATUM RL 22.0

DESIGN SURFACE LEVEL	23.904	24.039	23.800	23.925	24.007	22.659
DEPTH	-1.399	-1.537	-1.280	-1.406	-1.489	0.000
EXISTING SURFACE LEVEL	22.505	22.503	22.519	22.519	22.518	22.659
OFFSET	-4.600	0.000	4.600	4.900	9.000	17.087

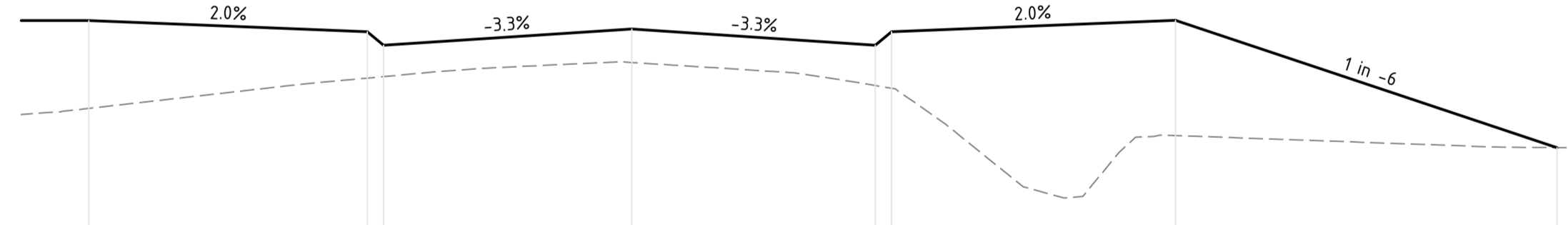
CH 900.000



DATUM RL 21.0

DESIGN SURFACE LEVEL	23.755	23.919	23.710	23.835	23.914
DEPTH	-0.389	-0.764	-1.245	-1.332	-1.278
EXISTING SURFACE LEVEL	23.366	23.155	22.464	22.502	22.636
OFFSET	-6.501	0.000	7.449	7.149	11.723

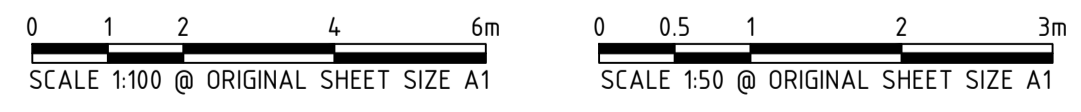
CH 880.000



DATUM RL 21.0

DESIGN SURFACE LEVEL	23.877	23.714	23.649	23.799	23.648	23.773	23.879	22.701
DEPTH	-0.812	-0.429	-0.290	-0.311	-0.373	-0.524	-1.066	0.000
EXISTING SURFACE LEVEL	23.064	23.344	23.358	23.489	23.276	23.250	22.813	22.701
OFFSET	-10.056	-4.900	-4.600	0.000	4.508	4.808	10.066	17.134

CH 860.000



REV	DATE	DRAWN	CHECKED	APPROVED	DESCRIPTION
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

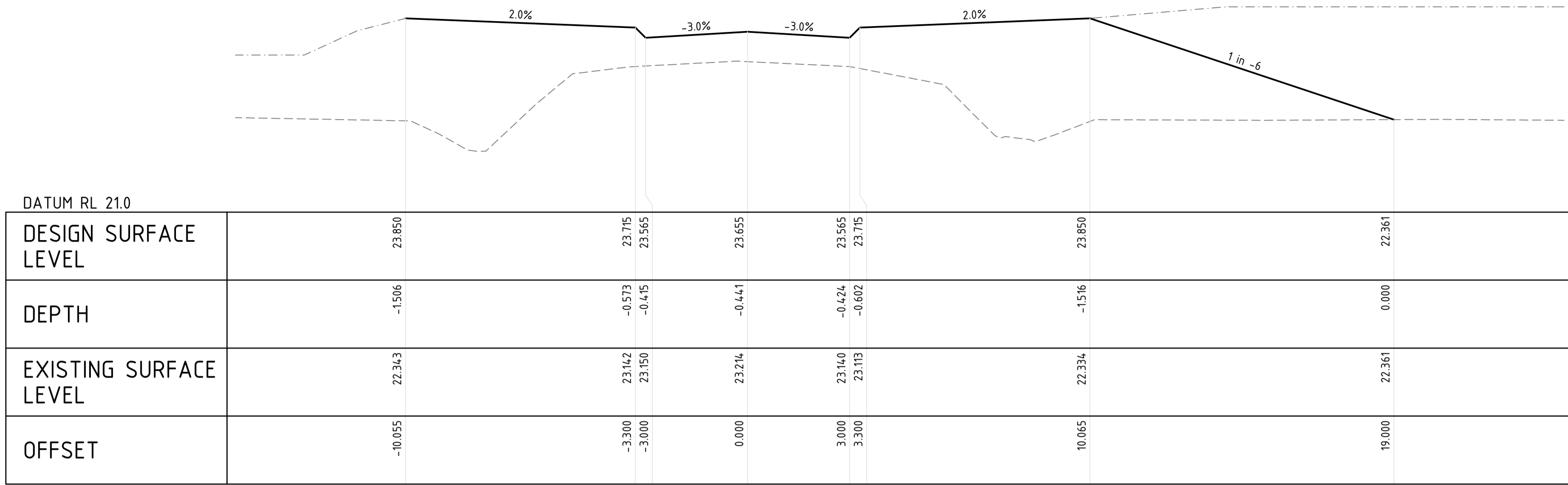


CLIENT:  
**TERRA PROPERTY PTY. LTD.**

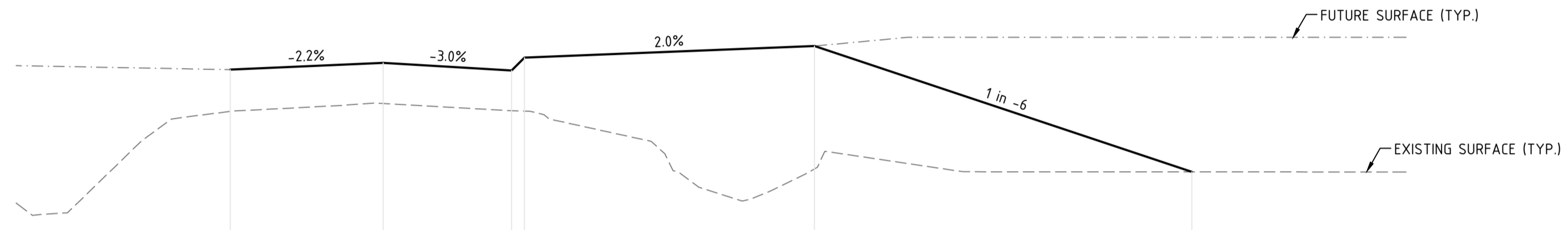
PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**

DRAWING TITLE:  
**ANSTEY ROAD CROSS SECTIONS SHEET 9 OF 12**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:100 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C314	REVISION B

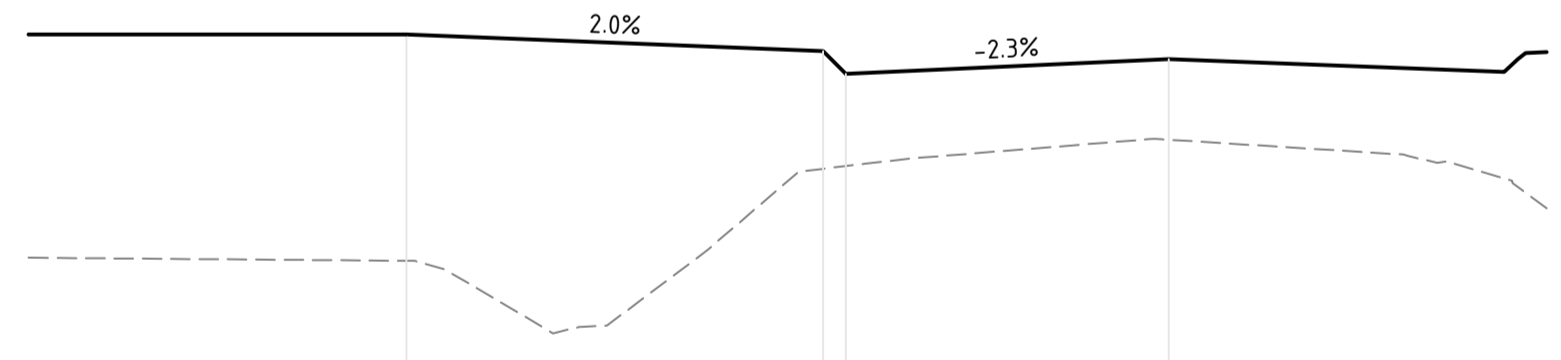


CH 60.000



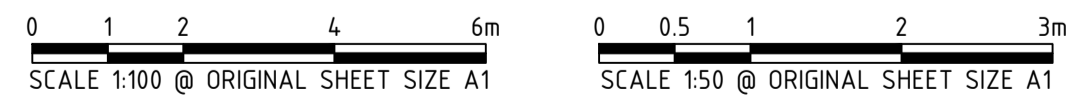
DATUM RL 21.0		1	2	3	4	5	6	7	8	9	10	11	12
DESIGN SURFACE LEVEL			23.643	23.723		23.633	23.783		23.918			22.449	
DEPTH			-0.487	-0.476		-0.470	-0.624		-1.434			0.000	
EXISTING SURFACE LEVEL			23.156	23.247		23.163	23.159		22.484			22.449	
OFFSET			-3.568	0.000		3.000	3.300		10.065			18.876	

CH 40.000



DATUM RL 21.0		1	2	3	4	5	6	7	8	9	10	11	12
DESIGN SURFACE LEVEL			24.001		23.891	23.741		23.838					
DEPTH			-1.496		-0.778	-0.609		-0.532					
EXISTING SURFACE LEVEL			22.505		23.114	23.132		23.306					
OFFSET			-10.084		-4.573	-4.273		0.000					

CH 20.000



REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSI Pty Ltd (JDSI). Use without written permission from JDSI constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSI.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

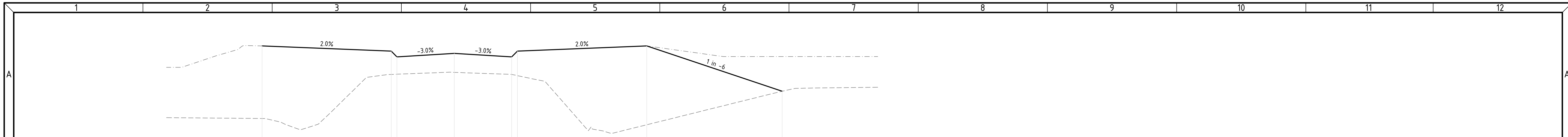
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**

DRAWING TITLE:  
**ANSTEY ROAD CROSS SECTIONS SHEET 10 OF 12**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:100 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSI PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C315	REVISION B

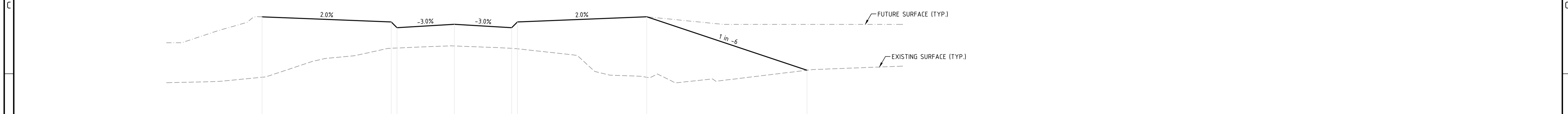




DATUM RL 21.0

DESIGN SURFACE LEVEL	23.798	23.653	23.513	23.653	23.798	22.617
DEPTH	-1.891	-0.607	-0.452	-0.457	-2.055	0.000
EXISTING SURFACE LEVEL	21.906	23.055	23.061	23.024	21.743	22.617
OFFSET	-10.055	-3.300	-3.000	3.000	10.064	17.149

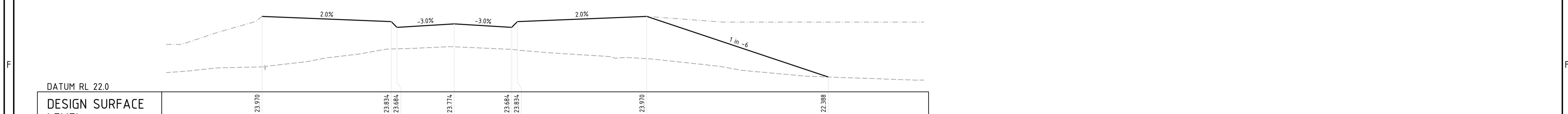
CH 120.000



DATUM RL 21.0

DESIGN SURFACE LEVEL	23.918	23.783	23.633	23.783	23.918	22.521
DEPTH	-1.581	-0.688	-0.531	-0.539	-1.582	0.000
EXISTING SURFACE LEVEL	22.337	23.095	23.101	23.081	22.336	22.521
OFFSET	-10.055	-3.300	-3.000	3.000	10.065	18.449

CH 100.000



DATUM RL 22.0

DESIGN SURFACE LEVEL	23.970	23.834	23.684	23.834	23.970	22.388
DEPTH	-1.317	-0.715	-0.561	-0.575	-1.103	0.000
EXISTING SURFACE LEVEL	22.652	23.120	23.124	23.092	22.866	22.388
OFFSET	-10.055	-3.300	-3.000	3.000	10.065	19.556

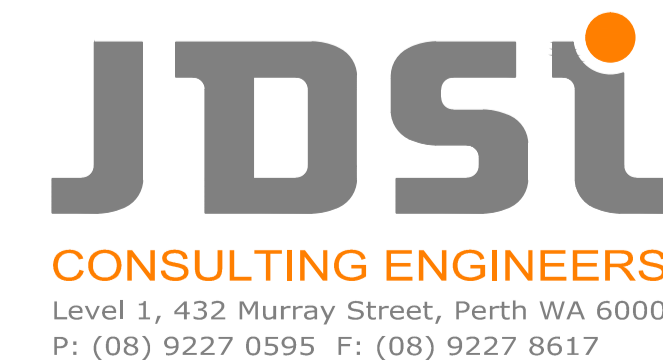
CH 80.000



REV	DATE	DRAWN	CHECKED	APPROVED	DESCRIPTION
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001



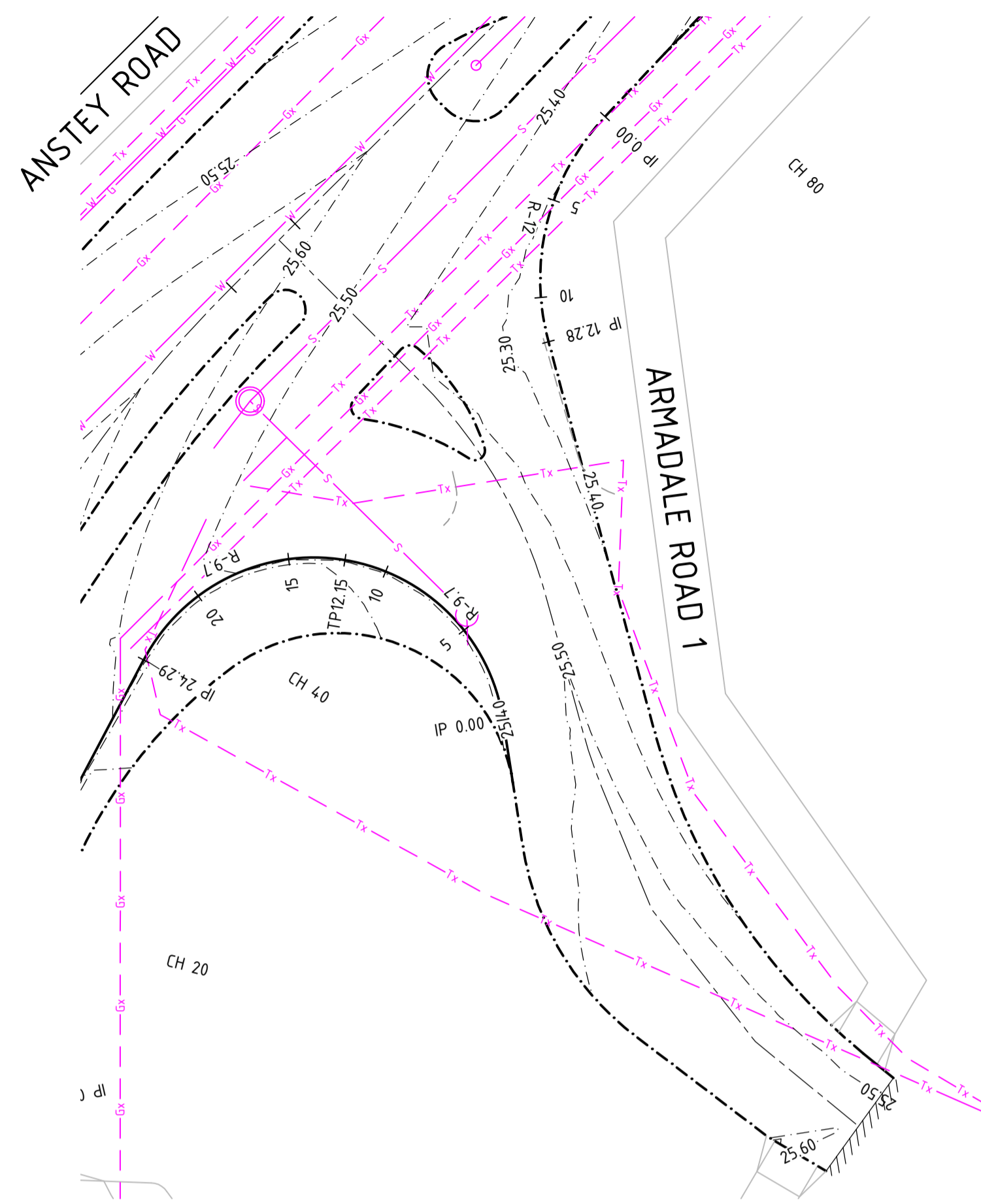
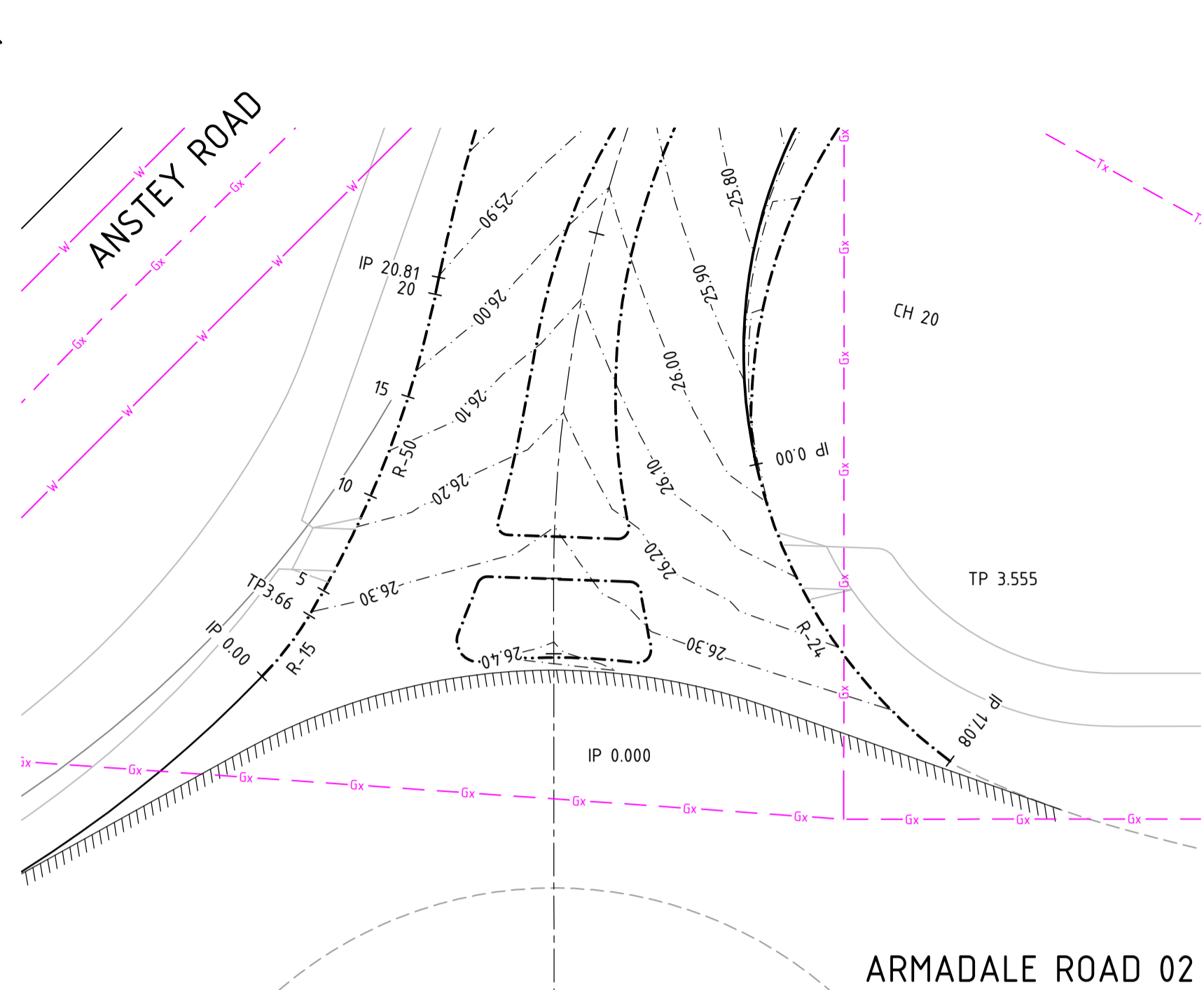
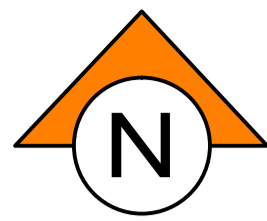
CLIENT:  
TERRA PROPERTY PTY. LTD.

PROJECT:  
ANSTEY ROAD UPGRADE  
FORRESTDAL

DRAWING TITLE:  
ANSTEY ROAD CROSS SECTIONS  
SHEET 11 OF 12

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:100 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C316	REVISION B



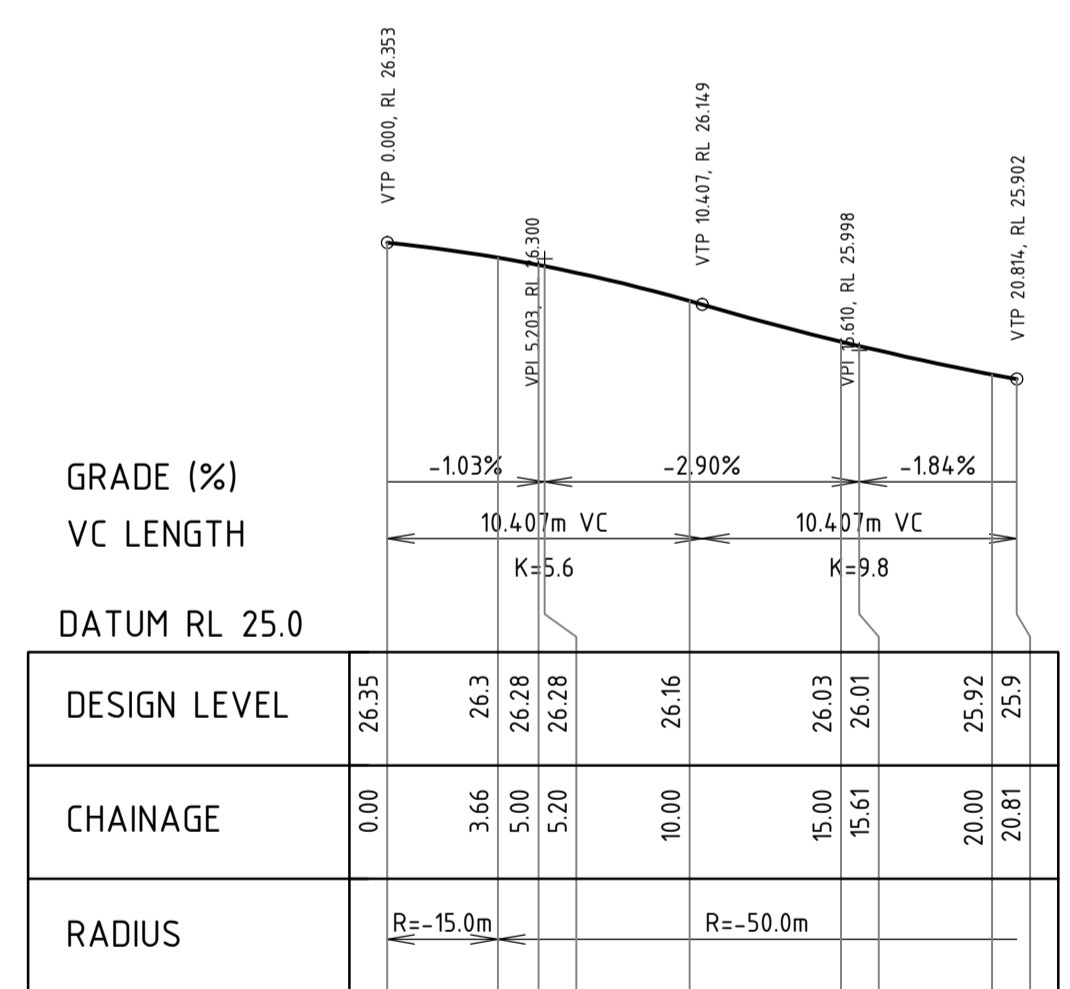


NOTES

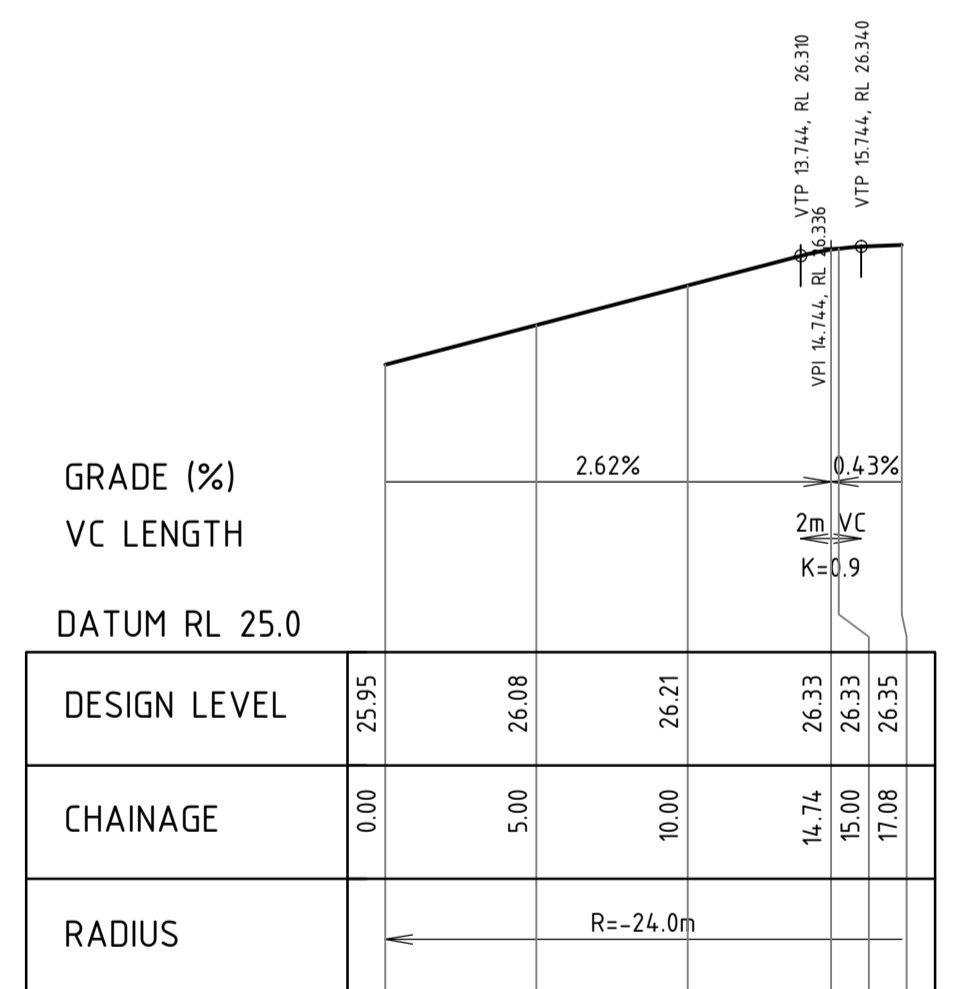
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
2. SETOUT OF ROAD CENTERLINE, FACE OF KERB AND EDGE OF SEAL FOR UN-KERBED ROADS SHALL BE BASED ON SUPPLIED AUTOCAD DATA. ALL OTHER WORKS SHALL BE SETOUT BASED ON INFORMATION CONTAINED ON THE CONTRACT DRAWINGS AND SPECIFICATION
3. ALL CONSTRUCTION DETAILS TO BE TO LOCAL AUTHORITY SPECIFICATION AND SATISFACTION
4. ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE
5. ALL LEVELS SHALL BE DETERMINED FROM BENCHMARKS ESTABLISHED BY THE PROJECT SURVEYOR
6. ALL TRANSITIONS TO EXISTING WORK SHALL BE SMOOTH AND OF NEAT APPEARANCE
7. ALL TRENCHING, PIPE BEDDING AND BACKFILLING SHALL BE IN ACCORDANCE WITH AS3725
8. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT
9. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT IN A STRAIGHT LINE AND MAKE SMOOTH CONNECTION
10. ALL PARKING BAYS AND EMBAYMENT PARKING AREAS SHALL BE LINE-MARKED IN ACCORDANCE WITH AS 2890 AND THE SPECIFICATION. ROAD MARKING PAINT SHALL COMPLY WITH AND BE APPLIED IN ACCORDANCE WITH AS 4049 AND THE AUSTRALIAN PAINT APPROVAL SCHEME SPECIFICATIONS. WHERE AN EDGE OR BOND BEAM IS INSTALLED TO DELINEATE THE EDGE OF THE PARKING BAY, THEN THE LINE MARKING ON THAT EDGE MAY BE DELETED WHEN APPROVED BY THE SUPERINTENDENT

LEGEND

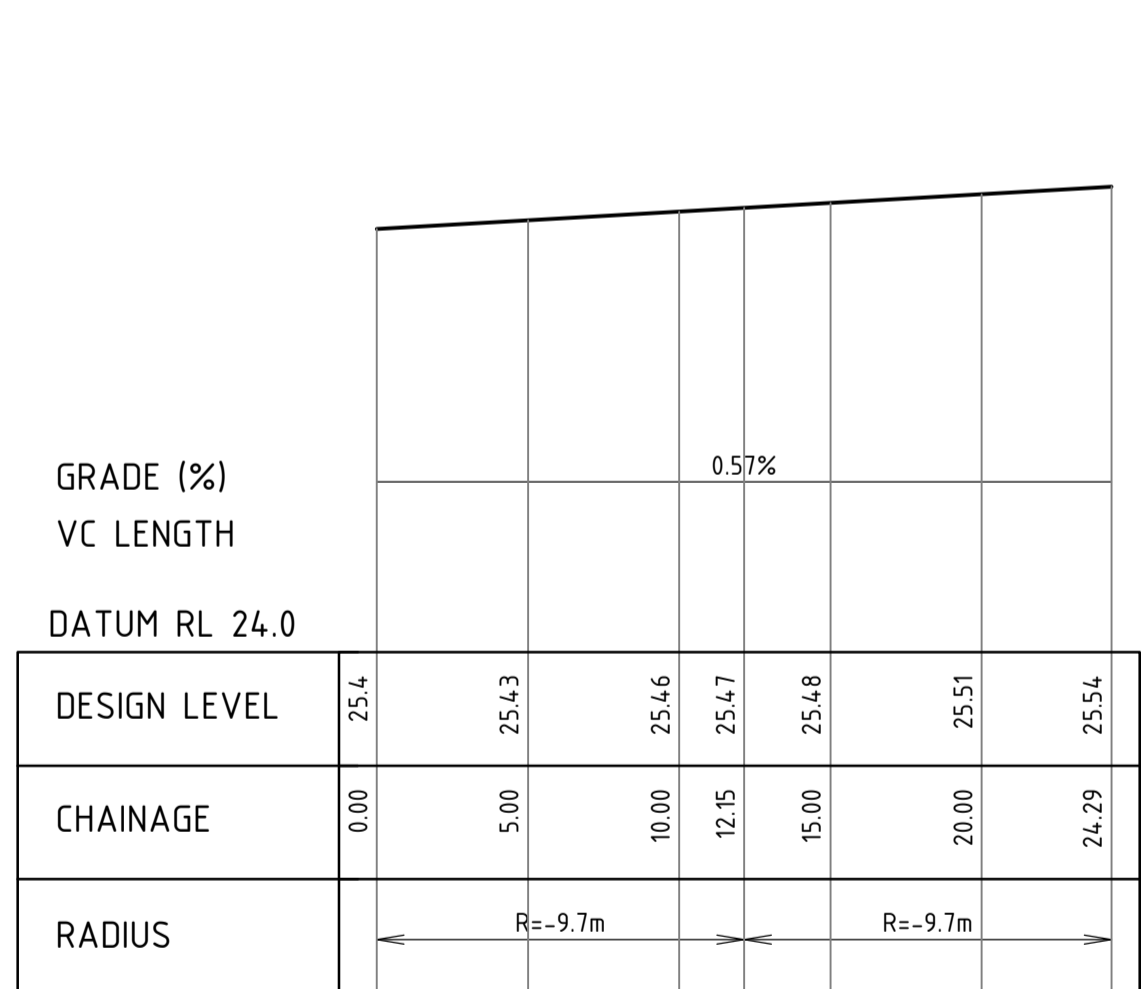
- 2 PROPOSED LOT NUMBER
- PROPOSED MOUNTABLE KERB
- - - PROPOSED SEMI MOUNTABLE KERB
- PROPOSED BARRIER KERB
- PROPOSED REINFORCED FLUSH EDGE BEAM
- - - EXISTING KERB
- - - FUTURE KERB
- PROPOSED DRAINAGE & SEP
- PROPOSED DRAINAGE & MANHOLE
- PROPOSED DRAINAGE & GULLY
- PROPOSED SUBSOIL DRAINAGE
- EXISTING DRAINAGE & PITS
- FUTURE DRAINAGE & PITS
- PROPOSED/EXISTING/FUTURE SEWER
- PROPOSED/EXISTING/FUTURE WATER
- DESIGN CONTOURS (0.1m INTERVAL)
- MAKE SMOOTH TRANSITION TO EXISTING PAVEMENT
- CONSTRUCT TO LIMESTONE SUBBASE ONLY
- PROPOSED PRAM RAMP IN ACCORDANCE WITH COUNCIL SPECIFICATIONS
- CHEVRON BOARD
- PROPOSED STREET SIGN
- PROPOSED STREET LIGHT
- PROPOSED STREET LIGHT WITH 2 ROAD NAME SIGNS
- PROPOSED TACTILE INDICATORS (INSTALL TO AS1428.4-1992 STANDARDS)



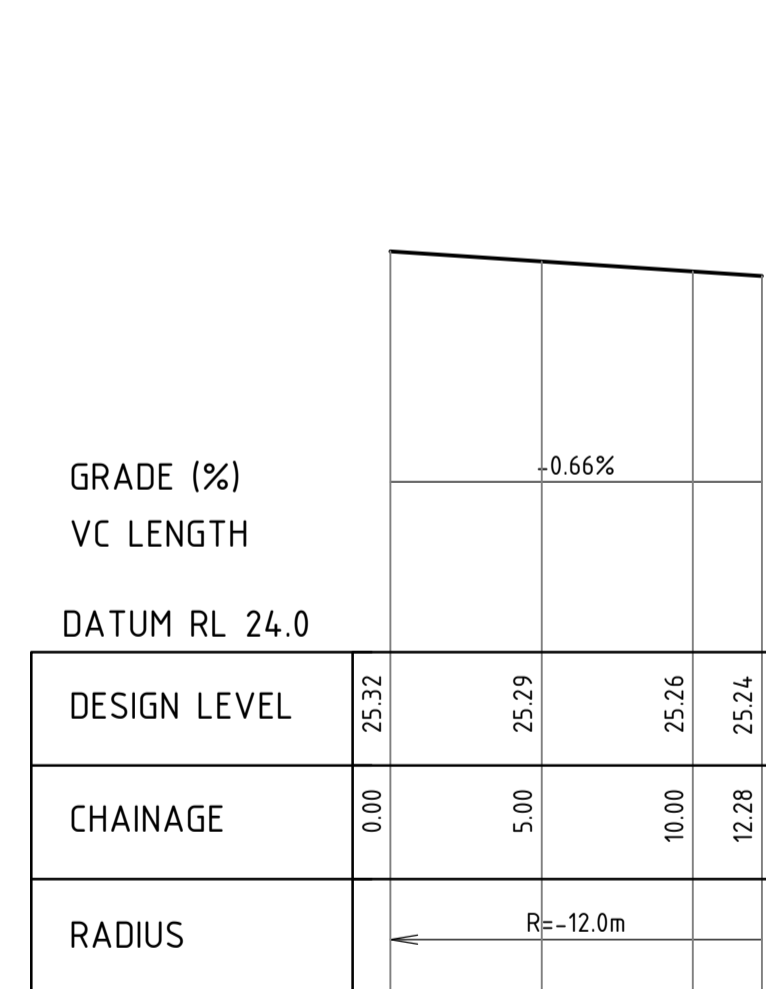
KERB RETURN LONGITUDINAL SECTION  
RD ARMADALE RD 02 TO RD ANSTEY RD  
SCALE HORIZ 1 : 250  
VERT 1 : 25



KERB RETURN LONGITUDINAL SECTION  
RD ANSTEY RD TO RD ARMADALE RD 02  
SCALE HORIZ 1 : 250  
VERT 1 : 25



KERB RETURN LONGITUDINAL SECTION  
RD ARMADALE RD TO RD ANSTEY RD 1  
SCALE HORIZ 1 : 250  
VERT 1 : 25



KERB RETURN LONGITUDINAL SECTION  
RD ANSTEY RD TO RD ARMADALE RD 1  
SCALE HORIZ 1 : 250  
VERT 1 : 25



**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	RE-ISSUED FOR COUNCIL APPROVAL
A	25.02.22	AP	BG		
Plotted By: APanzich Plot Date: 28/02/22 - 11:33 Cad File: I:\JDS13642\JDS13642.RW01\02 CIVIL\Drawings\JDS13642.RW01_C330-C336.dwg					

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

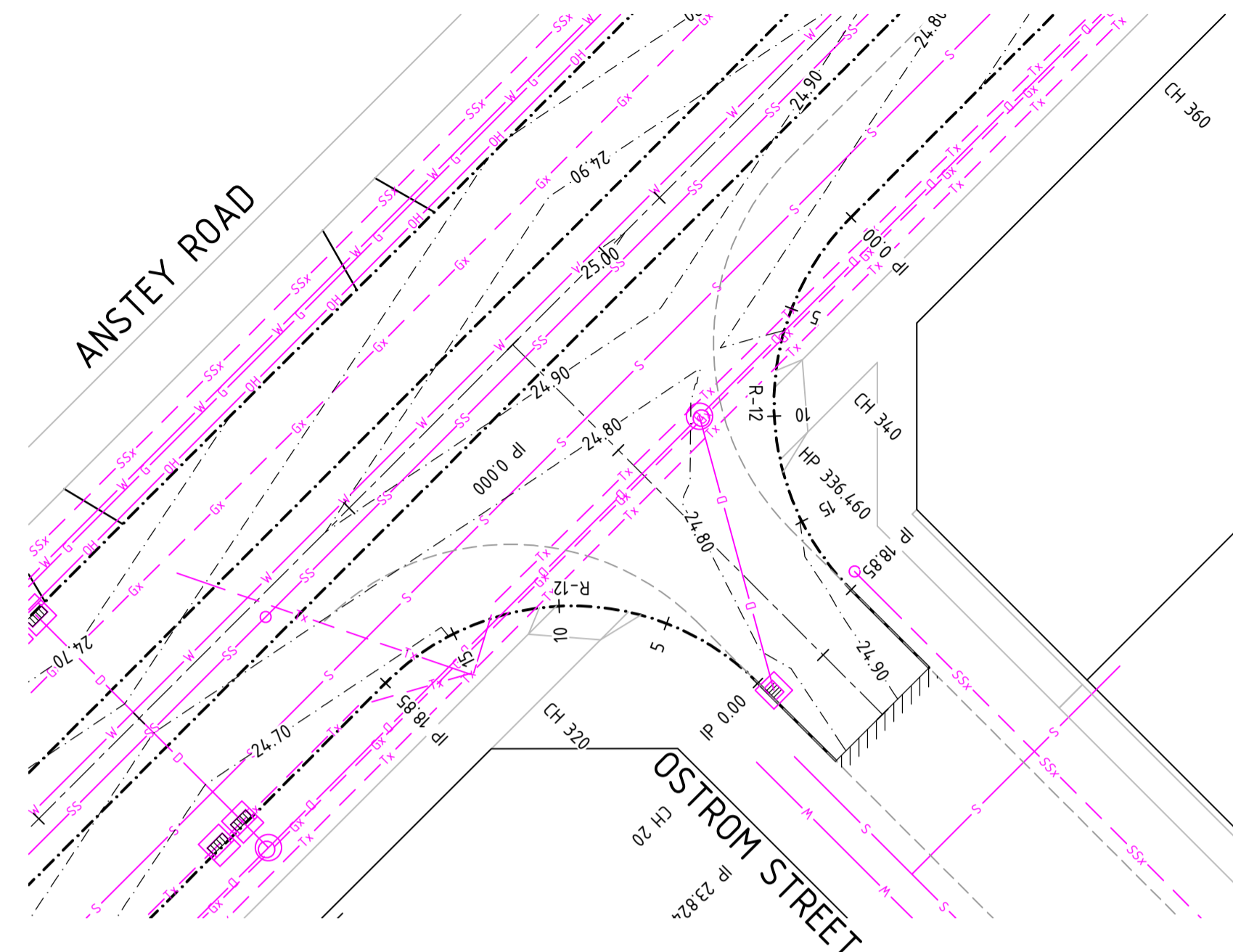
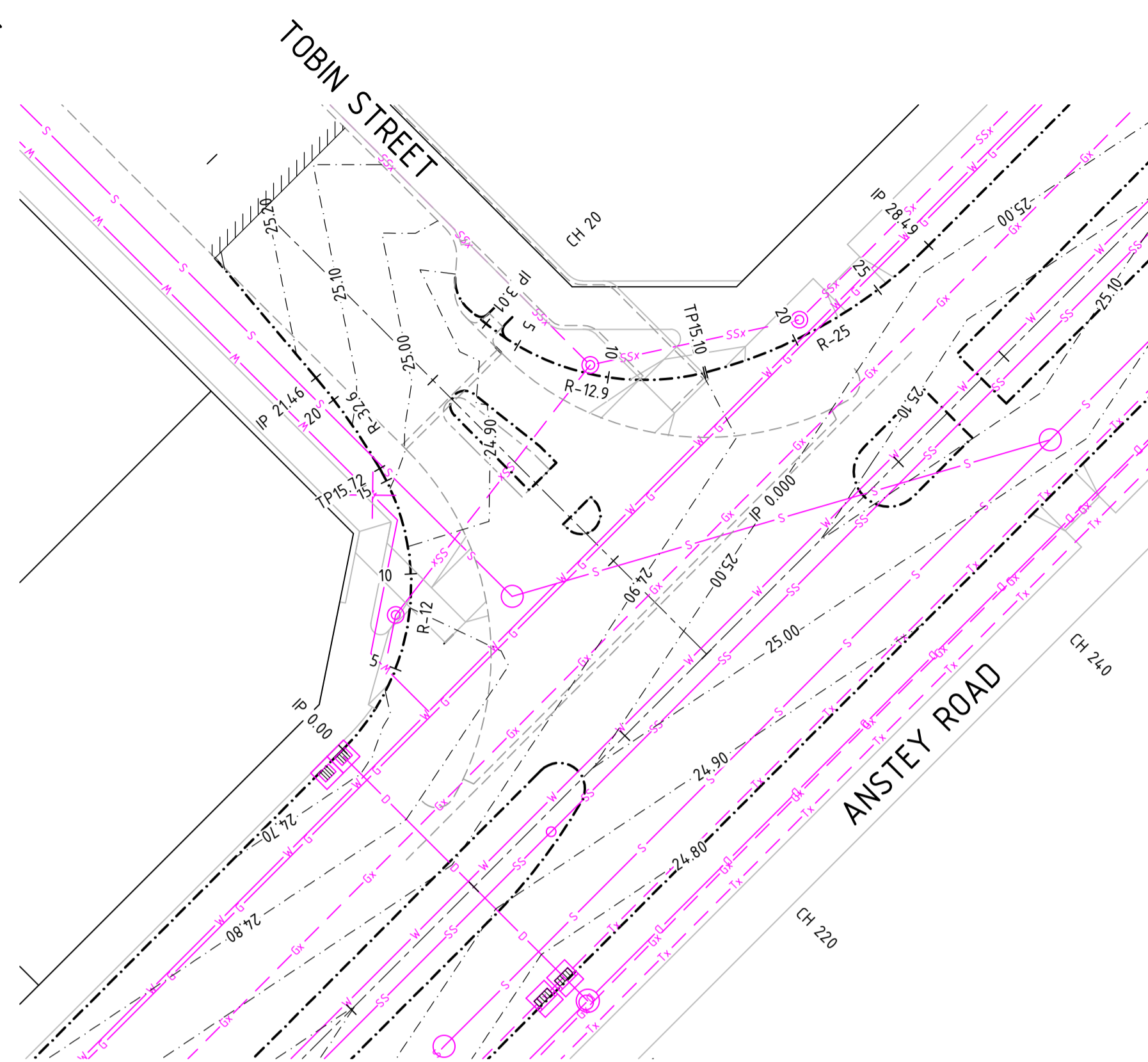
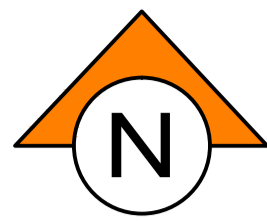
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**

DRAWING TITLE:  
**ROAD INTERSECTION DETAILS SHEET 1 OF 7**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE AS SHOWN
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C330	REVISION A





**NOTES**

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
2. SETOUT OF ROAD CENTERLINE, FACE OF KERB AND EDGE OF SEAL FOR UN-KERBED ROADS SHALL BE BASED ON SUPPLIED AUTOCAD DATA. ALL OTHER WORKS SHALL BE SETOUT BASED ON INFORMATION CONTAINED ON THE CONTRACT DRAWINGS AND SPECIFICATION
3. ALL CONSTRUCTION DETAILS TO BE TO LOCAL AUTHORITY SPECIFICATION AND SATISFACTION
4. ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE
5. ALL LEVELS SHALL BE DETERMINED FROM BENCHMARKS ESTABLISHED BY THE PROJECT SURVEYOR
6. ALL TRANSITIONS TO EXISTING WORK SHALL BE SMOOTH AND OF NEAT APPEARANCE
7. ALL TRENCHING, PIPE BEDDING AND BACKFILLING SHALL BE IN ACCORDANCE WITH AS3725
8. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT
9. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT IN A STRAIGHT LINE AND MAKE SMOOTH CONNECTION
10. ALL PARKING BAYS AND EMBAYMENT PARKING AREAS SHALL BE LINE-MARKED IN ACCORDANCE WITH AS 2890 AND THE SPECIFICATION. ROAD MARKING PAINT SHALL COMPLY WITH AND BE APPLIED IN ACCORDANCE WITH AS 4049 AND THE AUSTRALIAN PAINT APPROVAL SCHEME SPECIFICATIONS. WHERE AN EDGE OR BOND BEAM IS INSTALLED TO DELINEATE THE EDGE OF THE PARKING BAY, THEN THE LINE MARKING ON THAT EDGE MAY BE DELETED WHEN APPROVED BY THE SUPERINTENDENT

**LEGEND**

- 2
- PROPOSED LOT NUMBER
  - PROPOSED MOUNTABLE KERB
  - PROPOSED SEMI MOUNTABLE KERB
  - PROPOSED BARRIER KERB
  - PROPOSED REINFORCED FLUSH EDGE BEAM
  - EXISTING KERB
  - FUTURE KERB
  - PROPOSED DRAINAGE & SEP
  - PROPOSED DRAINAGE & MANHOLE
  - PROPOSED DRAINAGE & GULLY
  - PROPOSED SUBSOIL DRAINAGE
  - EXISTING DRAINAGE & PITS
  - FUTURE DRAINAGE & PITS
  - PROPOSED/EXISTING/FUTURE SEWER
  - PROPOSED/EXISTING/FUTURE WATER
  - DESIGN CONTOURS (0.1m INTERVAL)
  - MAKE SMOOTH TRANSITION TO EXISTING PAVEMENT
  - CONSTRUCT TO LIMESTONE SUBBASE ONLY
  - PROPOSED PRAM RAMP IN ACCORDANCE WITH COUNCIL SPECIFICATIONS
  - CHEVRON BOARD
  - PROPOSED STREET SIGN
  - PROPOSED STREET LIGHT
  - PROPOSED STREET LIGHT WITH 2 ROAD NAME SIGNS
  - PROPOSED TACTILE INDICATORS (INSTALL TO AS1428 4-1992 STANDARDS)

GRADE (%)  
VC LENGTH  
DATUM RL 24.0

DESIGN LEVEL	24.84	24.85	24.88	24.9	24.93	24.95	24.97
CHAINAGE	3.01	5.00	10.00	15.00	15.10	20.00	28.49
RADIUS	R=-12.9m			R=-25.0m			

**KERB RETURN LONGITUDINAL SECTION  
TOBIN ST TO ANSTEY RD 01**

SCALE HORIZ 1 : 250  
VERT 1 : 25

GRADE (%)  
VC LENGTH  
DATUM RL 23.0

DESIGN LEVEL	24.66	24.72	24.73	24.85	25.01	25.04	25.05	25.14	25.17
CHAINAGE	0.00	5.00	5.37	10.00	15.00	15.72	16.10	20.00	21.46
RADIUS	R=-12.0m			R=-32.6m					

**KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD TO TOBIN ST 01**

SCALE HORIZ 1 : 250  
VERT 1 : 25

GRADE (%)  
VC LENGTH  
DATUM RL 23.0

DESIGN LEVEL	24.75	24.79	24.79	24.85	24.89	24.9	24.93
CHAINAGE	0.00	4.71	5.00	10.00	14.14	15.00	18.85
RADIUS	R=-12.0m						

**KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD TO OSTROM STREET**

SCALE HORIZ 1 : 250  
VERT 1 : 25

GRADE (%)  
VC LENGTH  
DATUM RL 23.0

DESIGN LEVEL	24.75	24.77	24.76	24.73	24.7	24.68
CHAINAGE	0.00	3.41	5.00	10.00	15.00	18.85
RADIUS	R=-12.0m					

**KERB RETURN LONGITUDINAL SECTION  
OSTROM STREET TO ANSTEY RD**

SCALE HORIZ 1 : 250  
VERT 1 : 25

0 2.5 5 10 15m  
SCALE 1:250 @ ORIGINAL SHEET SIZE A1

0 0.25 0.5 1.0 1.5m  
SCALE 1:25 @ ORIGINAL SHEET SIZE A1

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	RE-ISSUED FOR COUNCIL APPROVAL
A	25.02.22	AP	BG		
Plot	By: APanzich	Date: 28/02/22	Time: 11:34	Cad File: L:\JDSI3642\JDSI3642.RW01\02 CIVIL\Drawings\JDSI3642.RW01_C330-C336.dwg	

**JDSI**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE  
FORRESTDALE**

DRAWING TITLE:  
**ROAD INTERSECTION DETAILS  
SHEET 2 OF 7**

DRAWN  
A. PANZICH

DESIGNED  
A. PANZICH

PROJECT MANAGER  
D. HELLMUTH

JDSI PROJECT No.  
**JDSI3642.RW01**

WAPC No.  
158169

SCALE  
A1

AS SHOWN

DATUM  
AHD

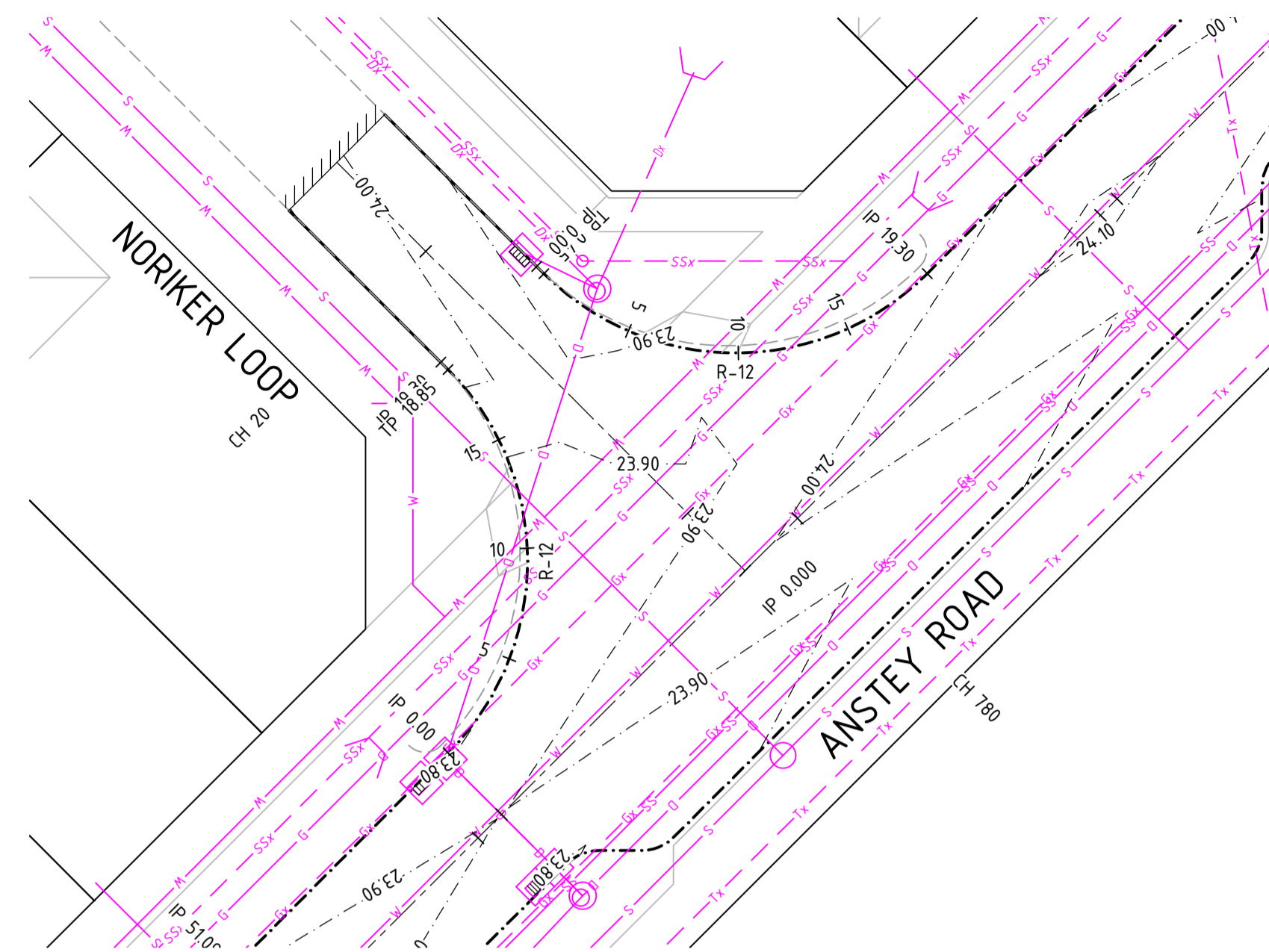
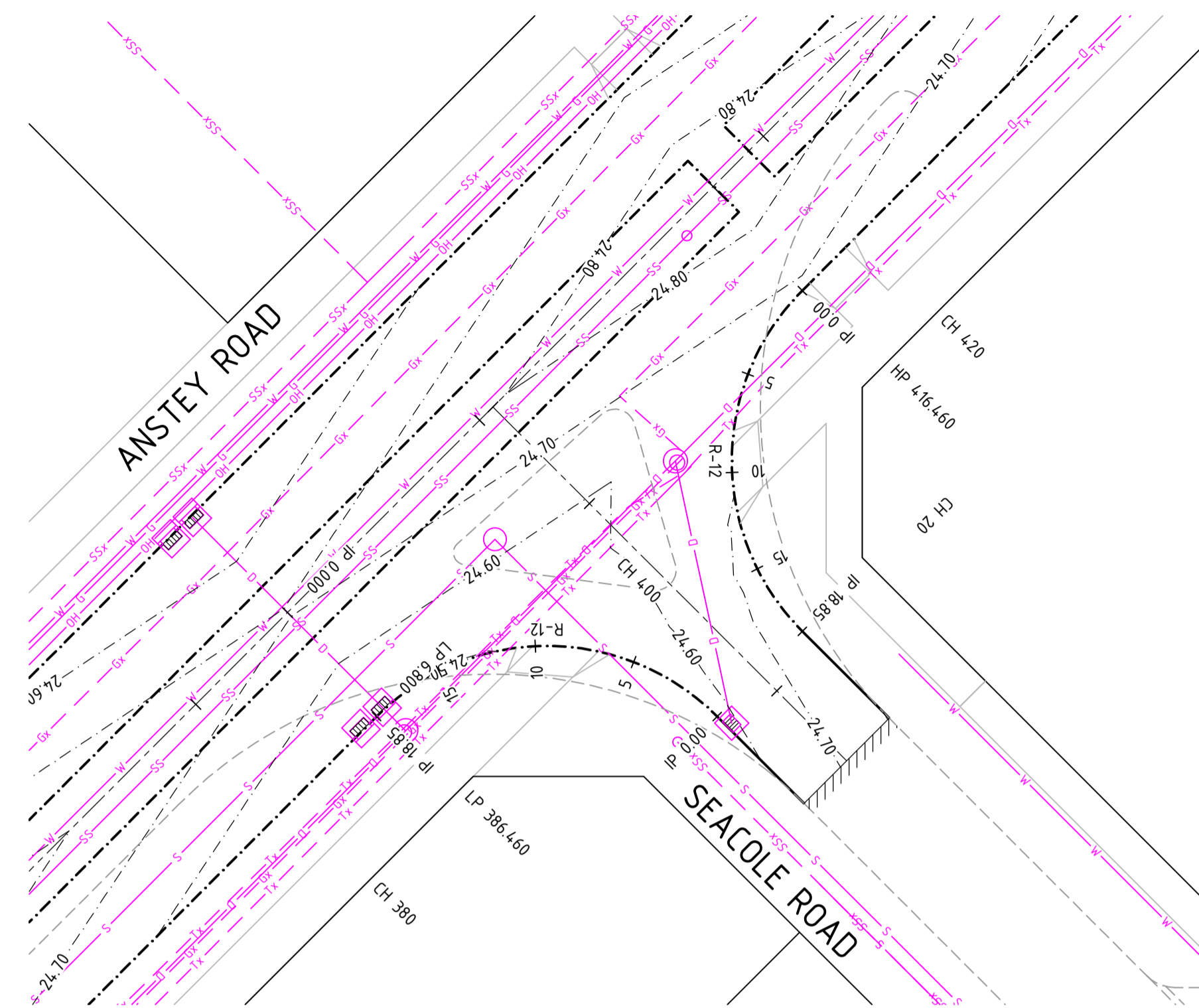
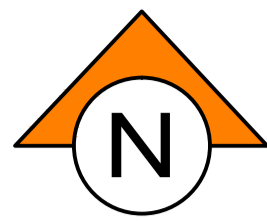
CO-ORDS  
PCG 94

DRAWING No.  
C331

REVISION  
A

<p>Copyright © 2022 JDSI Pty Ltd (JDSI). Use without written permission from JDSI constitutes an infringement of copyright. This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSI.</p> <p>NOTE: This drawing shall be preliminary only until it is issued for construction.</p> <p>Certified Quality System to ISO 9001</p>				
---	--	--	--	--



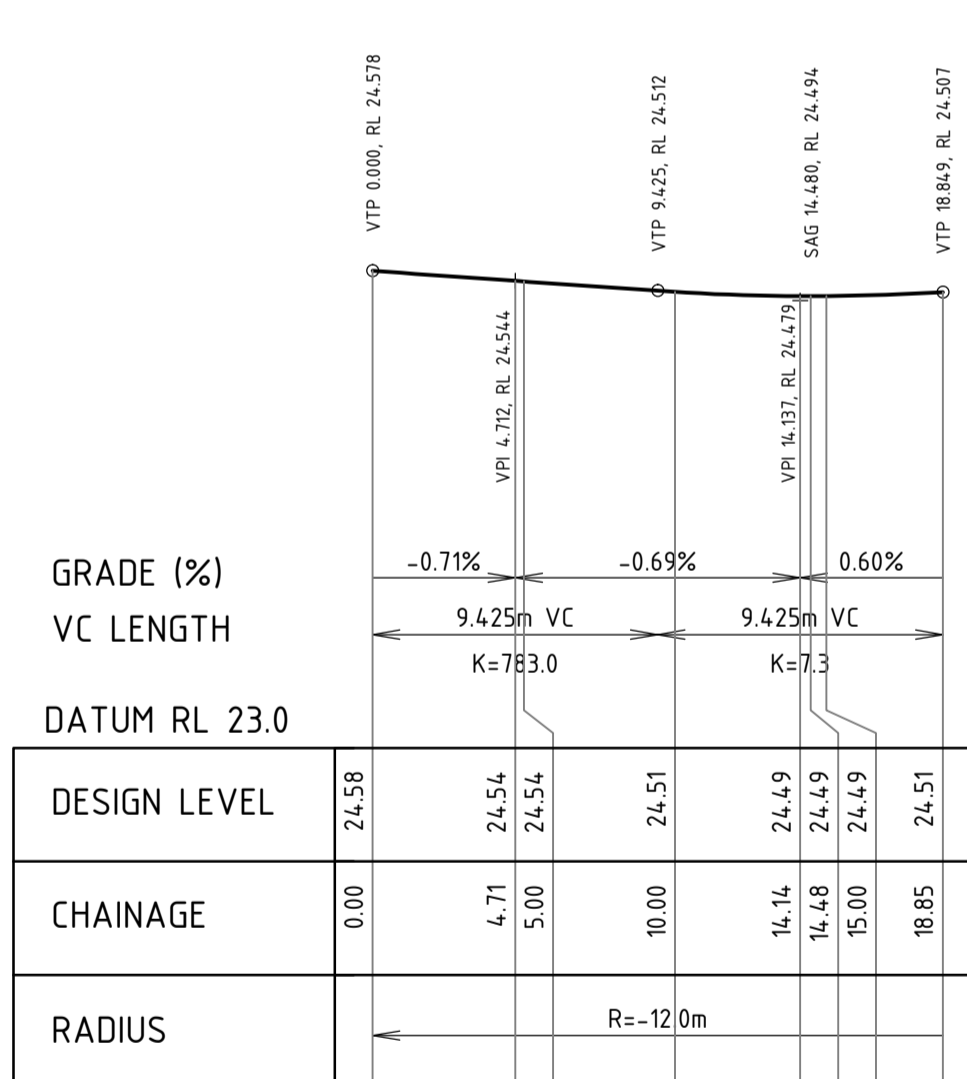


**NOTES**

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
- SETOUT OF ROAD CENTERLINE, FACE OF KERB AND EDGE OF SEAL FOR UN-KERBED ROADS SHALL BE BASED ON SUPPLIED AUTOCAD DATA. ALL OTHER WORKS SHALL BE SETOUT BASED ON INFORMATION CONTAINED ON THE CONTRACT DRAWINGS AND SPECIFICATION
- ALL CONSTRUCTION DETAILS TO BE TO LOCAL AUTHORITY SPECIFICATION AND SATISFACTION
- ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE
- ALL LEVELS SHALL BE DETERMINED FROM BENCHMARKS ESTABLISHED BY THE PROJECT SURVEYOR
- ALL TRANSITIONS TO EXISTING WORK SHALL BE SMOOTH AND OF NEAT APPEARANCE
- ALL TRENCHING, PIPE BEDDING AND BACKFILLING SHALL BE IN ACCORDANCE WITH AS3725
- THE CONTRACTOR SHALL REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT
- THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT IN A STRAIGHT LINE AND MAKE SMOOTH CONNECTION
- ALL PARKING BAYS AND EMBAYMENT PARKING AREAS SHALL BE LINE-MARKED IN ACCORDANCE WITH AS 2890 AND THE SPECIFICATION. ROAD MARKING PAINT SHALL COMPLY WITH AND BE APPLIED IN ACCORDANCE WITH AS 4049 AND THE AUSTRALIAN PAINT APPROVAL SCHEME SPECIFICATIONS. WHERE AN EDGE OR BOND BEAM IS INSTALLED TO DELINEATE THE EDGE OF THE PARKING BAY, THEN THE LINE MARKING ON THAT EDGE MAY BE DELETED WHEN APPROVED BY THE SUPERINTENDENT

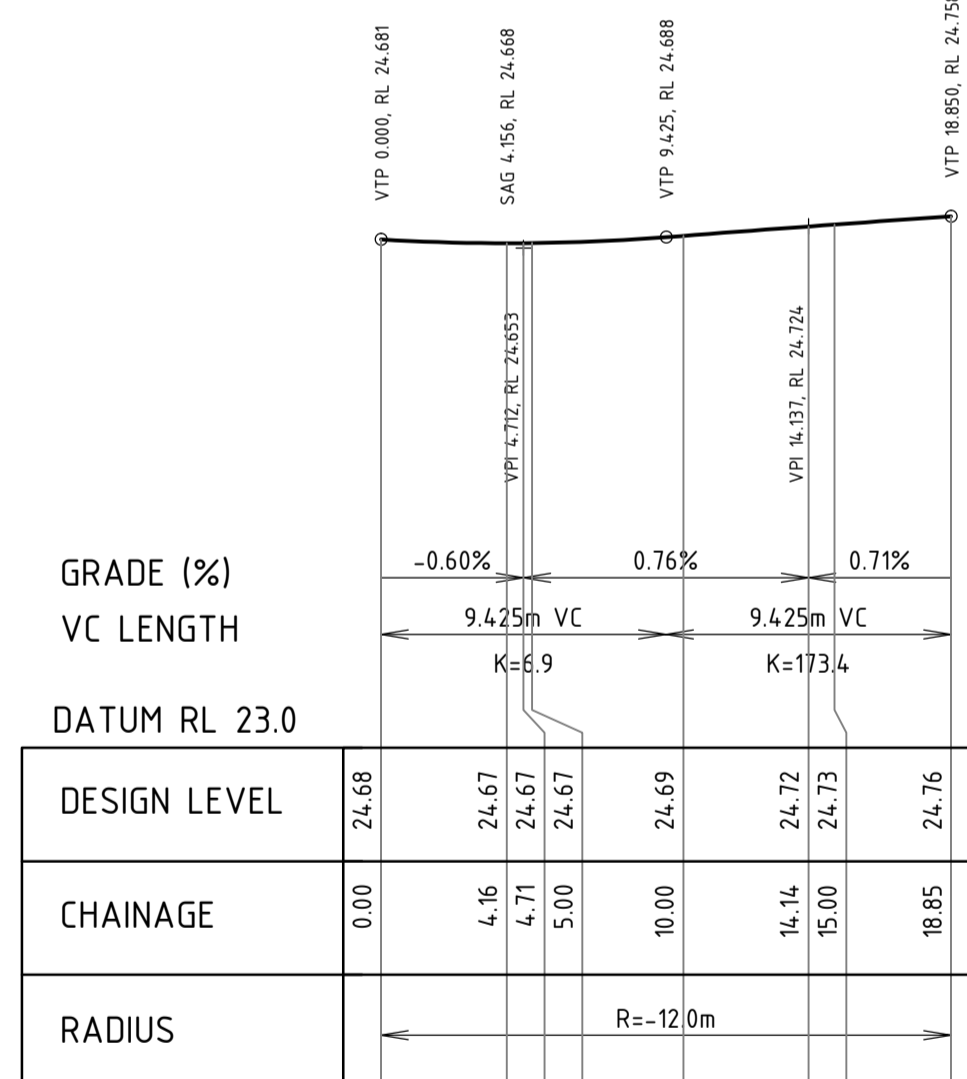
**LEGEND**

- 2
- PROPOSED LOT NUMBER
  - PROPOSED MOUNTABLE KERB
  - PROPOSED SEMI MOUNTABLE KERB
  - PROPOSED BARRIER KERB
  - PROPOSED REINFORCED FLUSH EDGE BEAM
  - EXISTING KERB
  - FUTURE KERB
  - PROPOSED DRAINAGE & SEP
  - PROPOSED DRAINAGE & MANHOLE
  - PROPOSED DRAINAGE & GULLY
  - PROPOSED SUBSOIL DRAINAGE
  - EXISTING DRAINAGE & PITS
  - FUTURE DRAINAGE & PITS
  - PROPOSED/EXISTING/FUTURE SEWER
  - PROPOSED/EXISTING/FUTURE WATER
  - DESIGN CONTOURS (0.1m INTERVAL)
  - MAKE SMOOTH TRANSITION TO EXISTING PAVEMENT
  - CONSTRUCT TO LIMESTONE SUBBASE ONLY
  - PROPOSED PRAM RAMP IN ACCORDANCE WITH COUNCIL SPECIFICATIONS
  - CHEVRON BOARD
  - PROPOSED STREET SIGN
  - PROPOSED STREET LIGHT
  - PROPOSED STREET LIGHT WITH 2 ROAD NAME SIGNS
  - PROPOSED TACTILE INDICATORS (INSTALL TO AS1428.4-1992 STANDARDS)



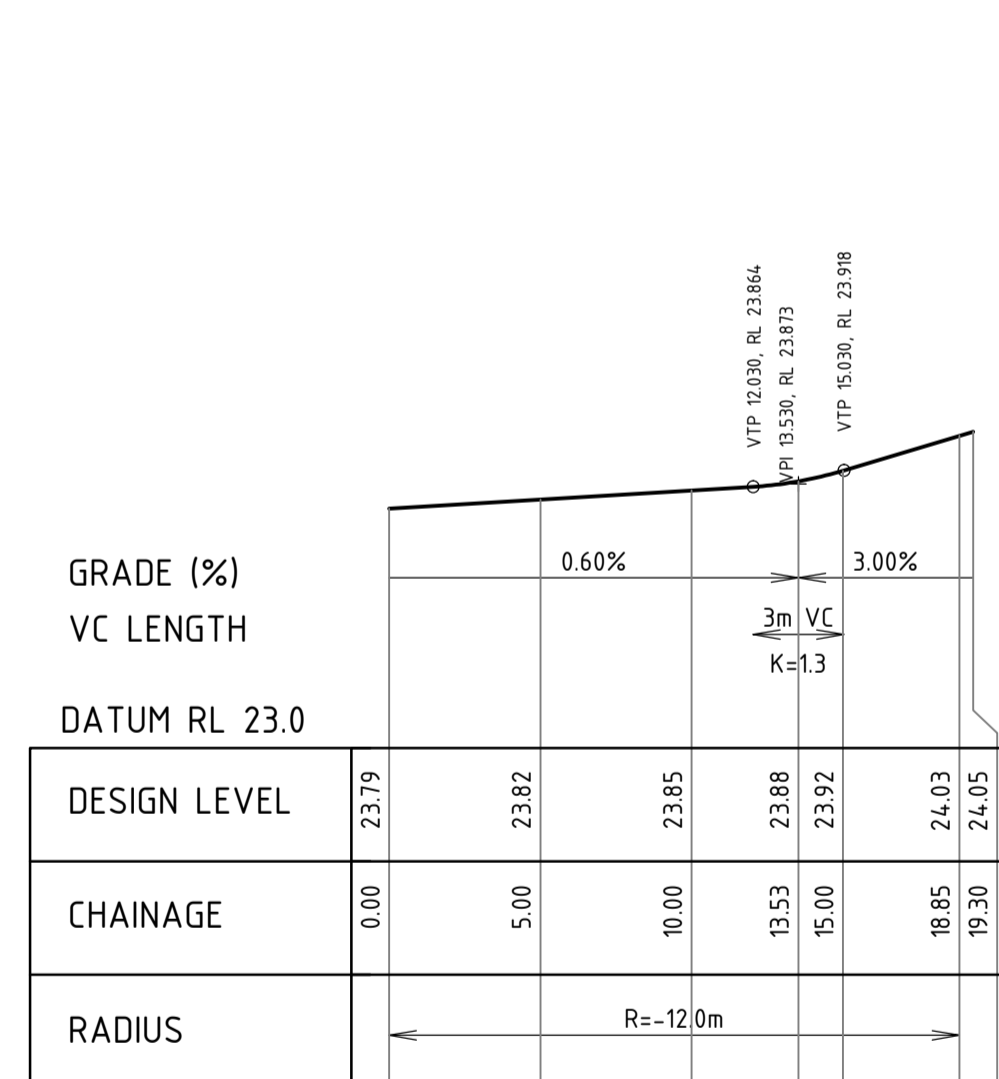
**KERB RETURN LONGITUDINAL SECTION  
SEACOLE ROAD TO ANSTEY RD**

SCALE HORIZ 1 : 250  
VERT 1 : 25



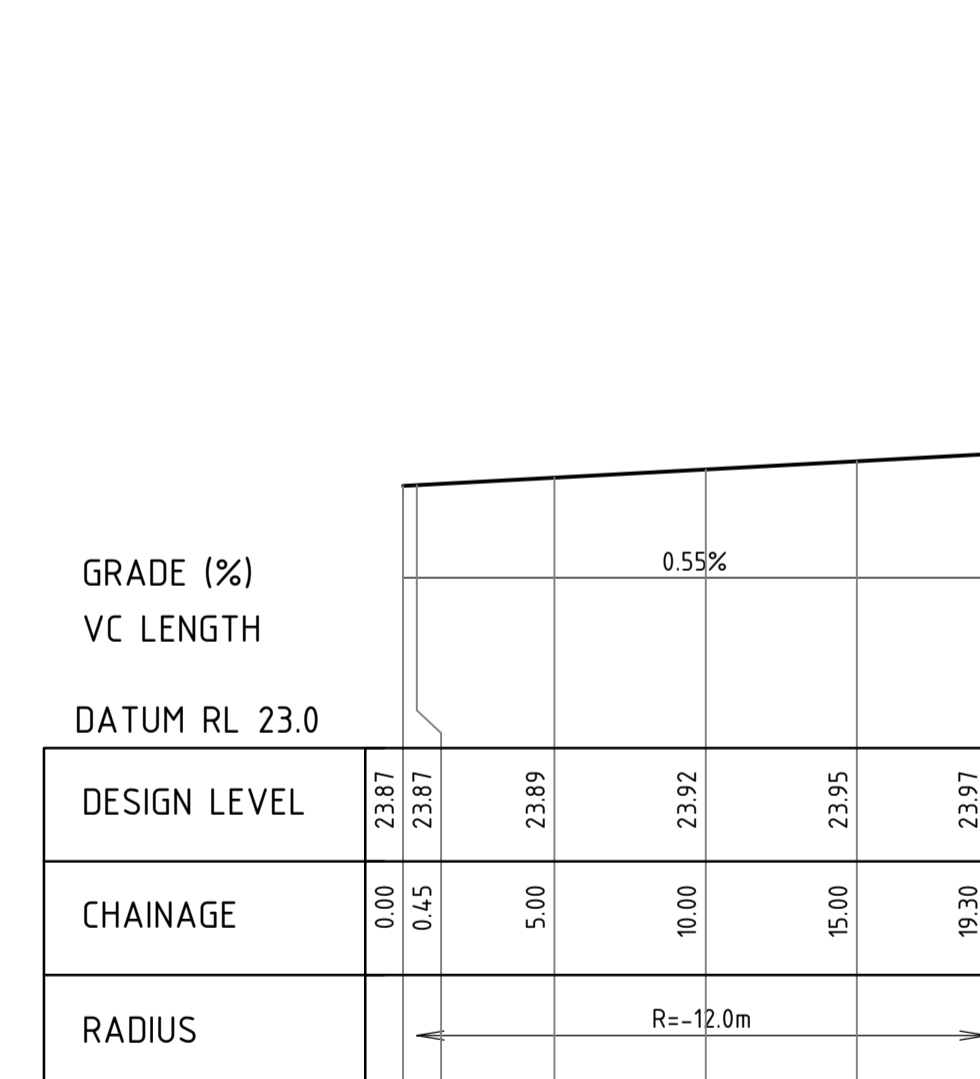
**KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD TO SEACOLE ROAD**

SCALE HORIZ 1 : 250  
VERT 1 : 25



**KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD TO NORIKER LOOP**

SCALE HORIZ 1 : 250  
VERT 1 : 25



**KERB RETURN LONGITUDINAL SECTION  
NORIKER LOOP TO ANSTEY RD**

SCALE HORIZ 1 : 250  
VERT 1 : 25

0 2.5 5 10 15m  
SCALE 1:250 @ ORIGINAL SHEET SIZE A1

0 0.25 0.5 1.0 1.5m  
SCALE 1:25 @ ORIGINAL SHEET SIZE A1

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	RE-ISSUED FOR COUNCIL APPROVAL
A	25.02.22	AP	BG		
Plotted By: APanzich Plot Date: 28/02/22 - 11:34 Cad File: I:\JDSI3642\JDSI3642.RW01\02 CIVIL\Drawings\JDSI3642.RW01_C330-C336.dwg					

**COPYRIGHT**  
This drawing is copyright and the property of JDSI Pty Ltd (JDSI). Use without written permission from JDSI constitutes an infringement of copyright. This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSI.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSI**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

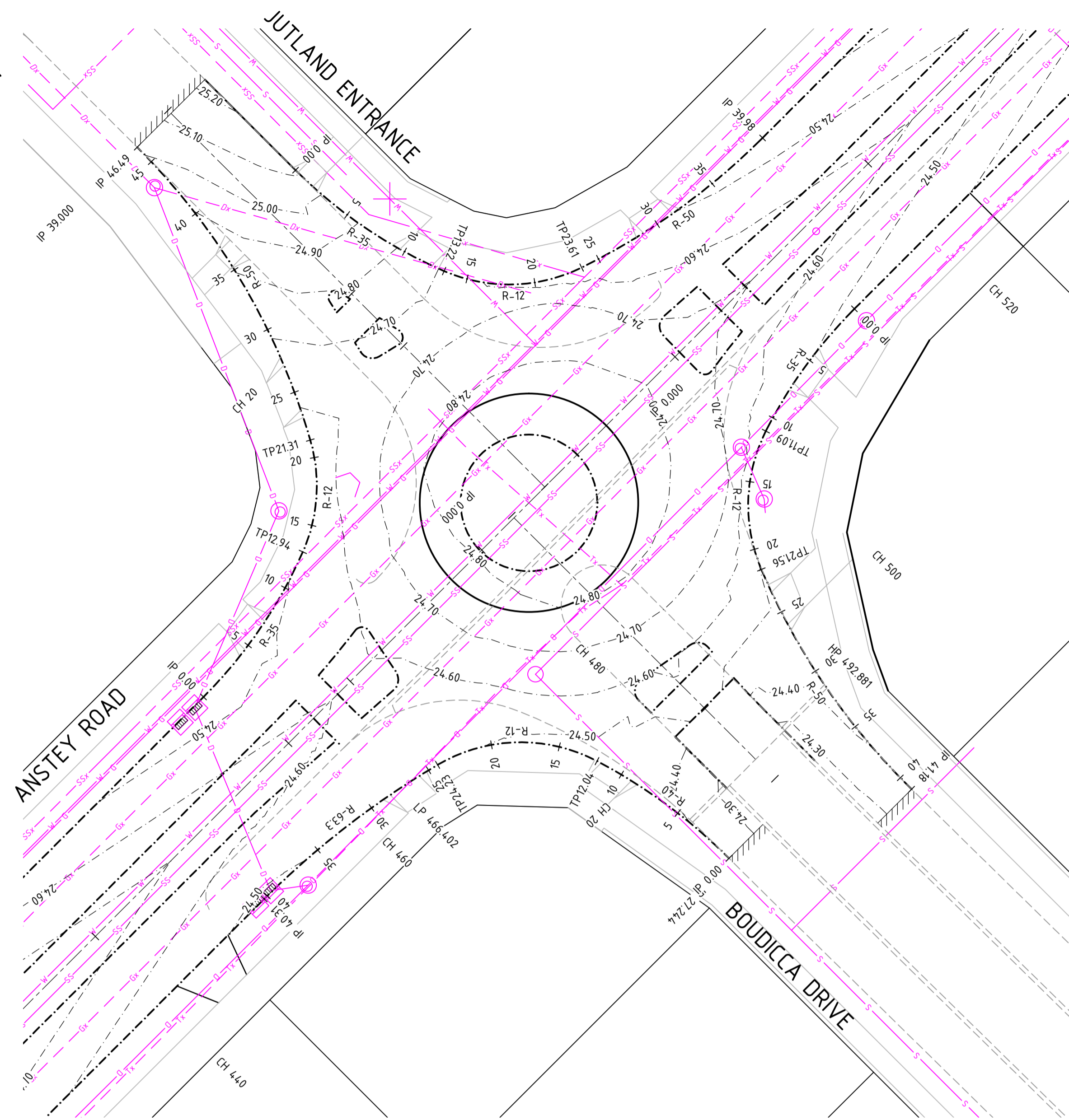
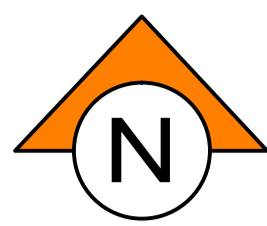
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE  
FORRESTDAL**

DRAWING TITLE:  
**ROAD INTERSECTION DETAILS  
SHEET 3 OF 7**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 AS SHOWN
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSI PROJECT No. JDSI3642.RW01	CO-ORDS PCG 94
DRAWING No. C332	REVISION A



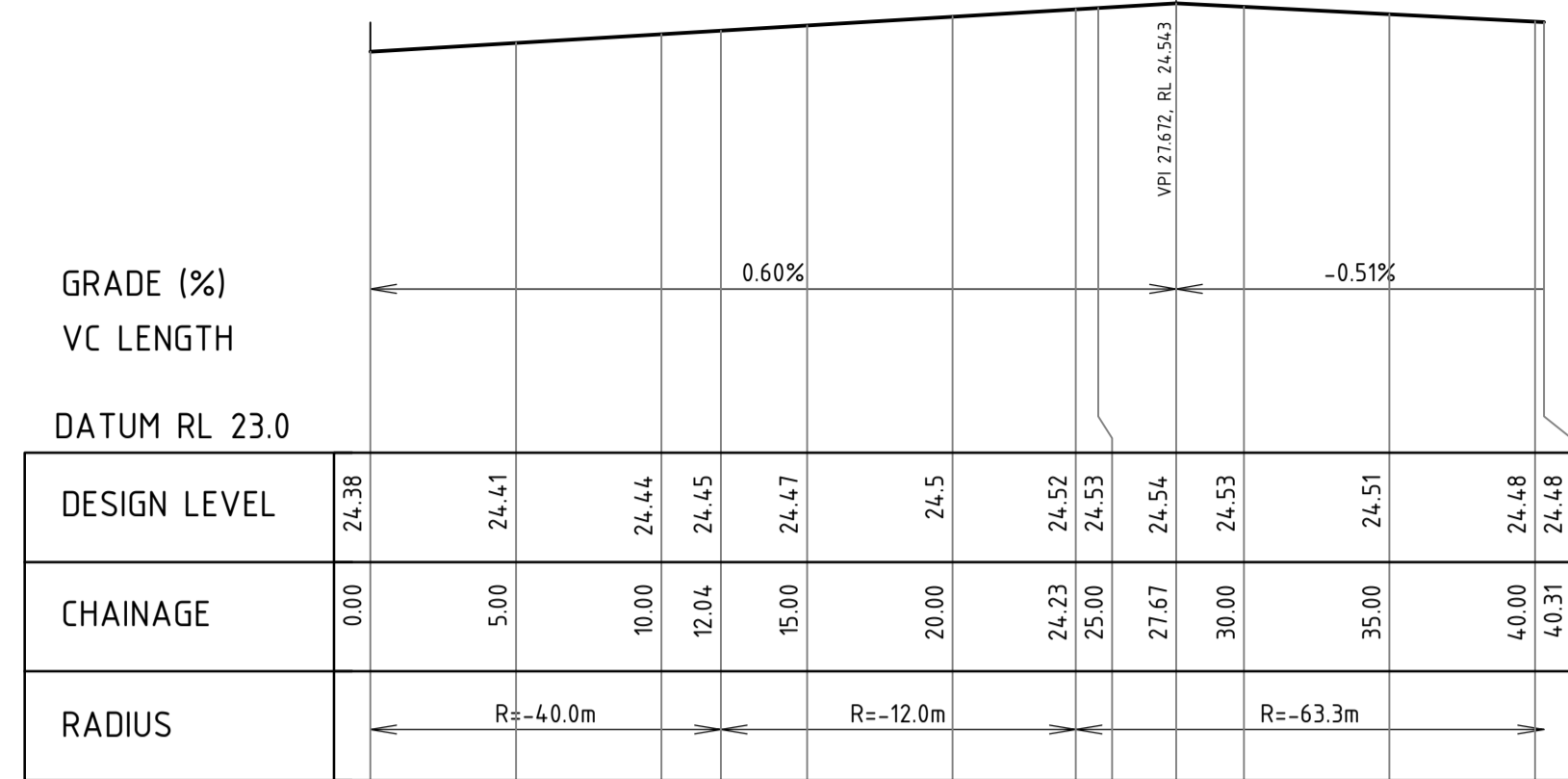


**NOTES**

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
2. SETOUT OF ROAD CENTERLINE, FACE OF KERB AND EDGE OF SEAL FOR UN-KERBED ROADS SHALL BE BASED ON SUPPLIED AUTOCAD DATA. ALL OTHER WORKS SHALL BE SETOUT BASED ON INFORMATION CONTAINED ON THE CONTRACT DRAWINGS AND SPECIFICATION
3. ALL CONSTRUCTION DETAILS TO BE TO LOCAL AUTHORITY SPECIFICATION AND SATISFACTION
4. ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE
5. ALL LEVELS SHALL BE DETERMINED FROM BENCHMARKS ESTABLISHED BY THE PROJECT SURVEYOR
6. ALL TRANSITIONS TO EXISTING WORK SHALL BE SMOOTH AND OF NEAT APPEARANCE
7. ALL TRENCHING, PIPE BEDDING AND BACKFILLING SHALL BE IN ACCORDANCE WITH AS3725
8. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT
9. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT IN A STRAIGHT LINE AND MAKE SMOOTH CONNECTION
10. ALL PARKING BAYS AND EMBAYMENT PARKING AREAS SHALL BE LINE-MARKED IN ACCORDANCE WITH AS 2890 AND THE SPECIFICATION. ROAD MARKING PAINT SHALL COMPLY WITH AND BE APPLIED IN ACCORDANCE WITH AS 4049 AND THE AUSTRALIAN PAINT APPROVAL SCHEME SPECIFICATIONS. WHERE AN EDGE OR BOND BEAM IS INSTALLED TO DELINEATE THE EDGE OF THE PARKING BAY, THEN THE LINE MARKING ON THAT EDGE MAY BE DELETED WHEN APPROVED BY THE SUPERINTENDENT

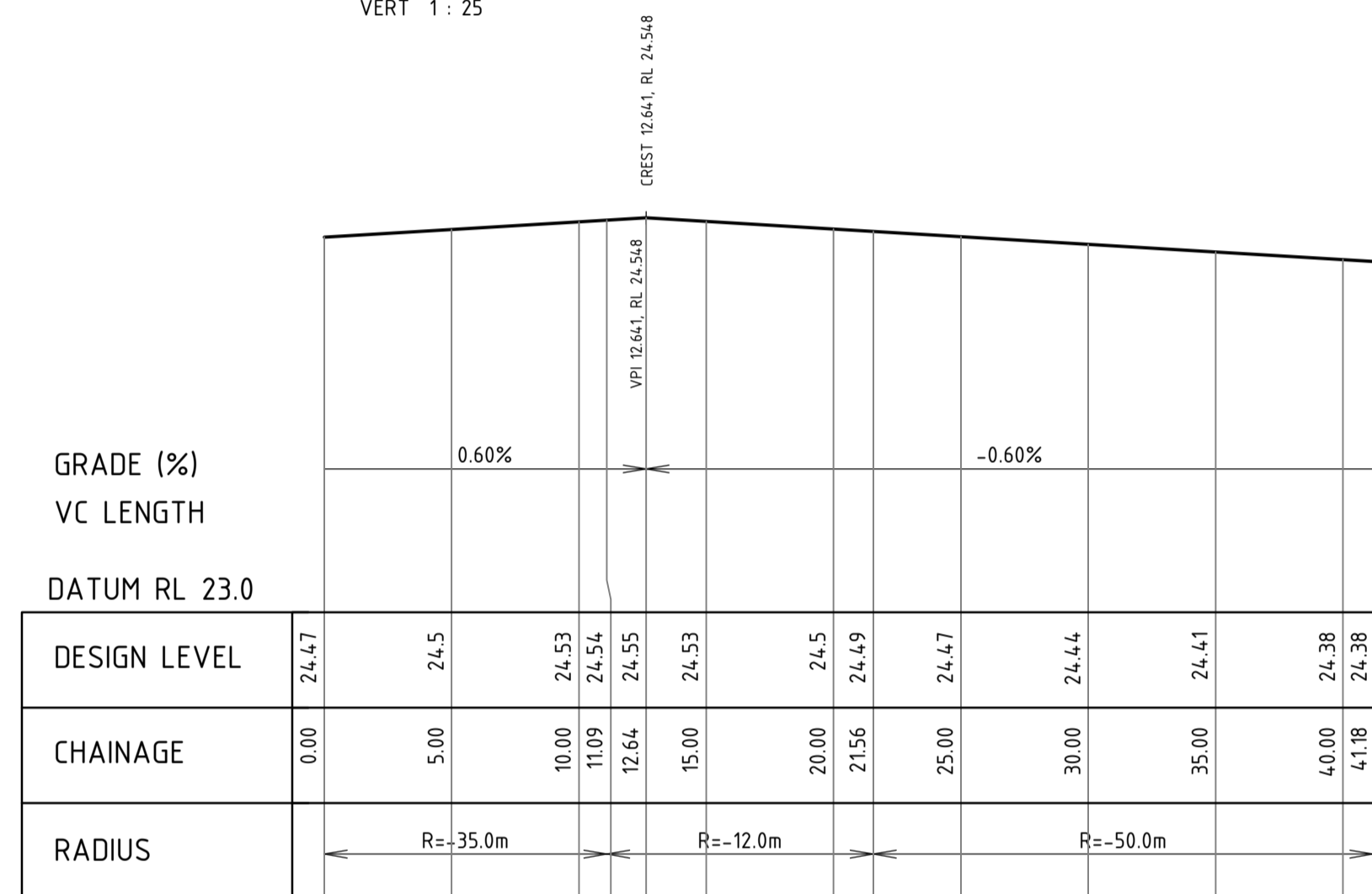
**LEGEND**

- 2
- PROPOSED LOT NUMBER
  - PROPOSED MOUNTABLE KERB
  - PROPOSED SEMI MOUNTABLE KERB
  - PROPOSED BARRIER KERB
  - PROPOSED REINFORCED FLUSH EDGE BEAM
  - EXISTING KERB
  - FUTURE KERB
  - PROPOSED DRAINAGE & SEP
  - PROPOSED DRAINAGE & MANHOLE
  - PROPOSED DRAINAGE & GULLY
  - PROPOSED SUBSOIL DRAINAGE
  - EXISTING DRAINAGE & PITS
  - FUTURE DRAINAGE & PITS
  - PROPOSED/EXISTING/FUTURE SEWER
  - PROPOSED/EXISTING/FUTURE WATER
  - DESIGN CONTOURS (0.1m INTERVAL)
  - MAKE SMOOTH TRANSITION TO EXISTING PAVEMENT
  - CONSTRUCT TO LIMESTONE SUBBASE ONLY
  - PROPOSED PRAM RAMP IN ACCORDANCE WITH COUNCIL SPECIFICATIONS
  - CHEVRON BOARD
  - PROPOSED STREET SIGN
  - PROPOSED STREET LIGHT
  - PROPOSED STREET LIGHT WITH 2 ROAD NAME SIGNS
  - PROPOSED TACTILE INDICATORS (INSTALL TO AS1428.4-1992 STANDARDS)



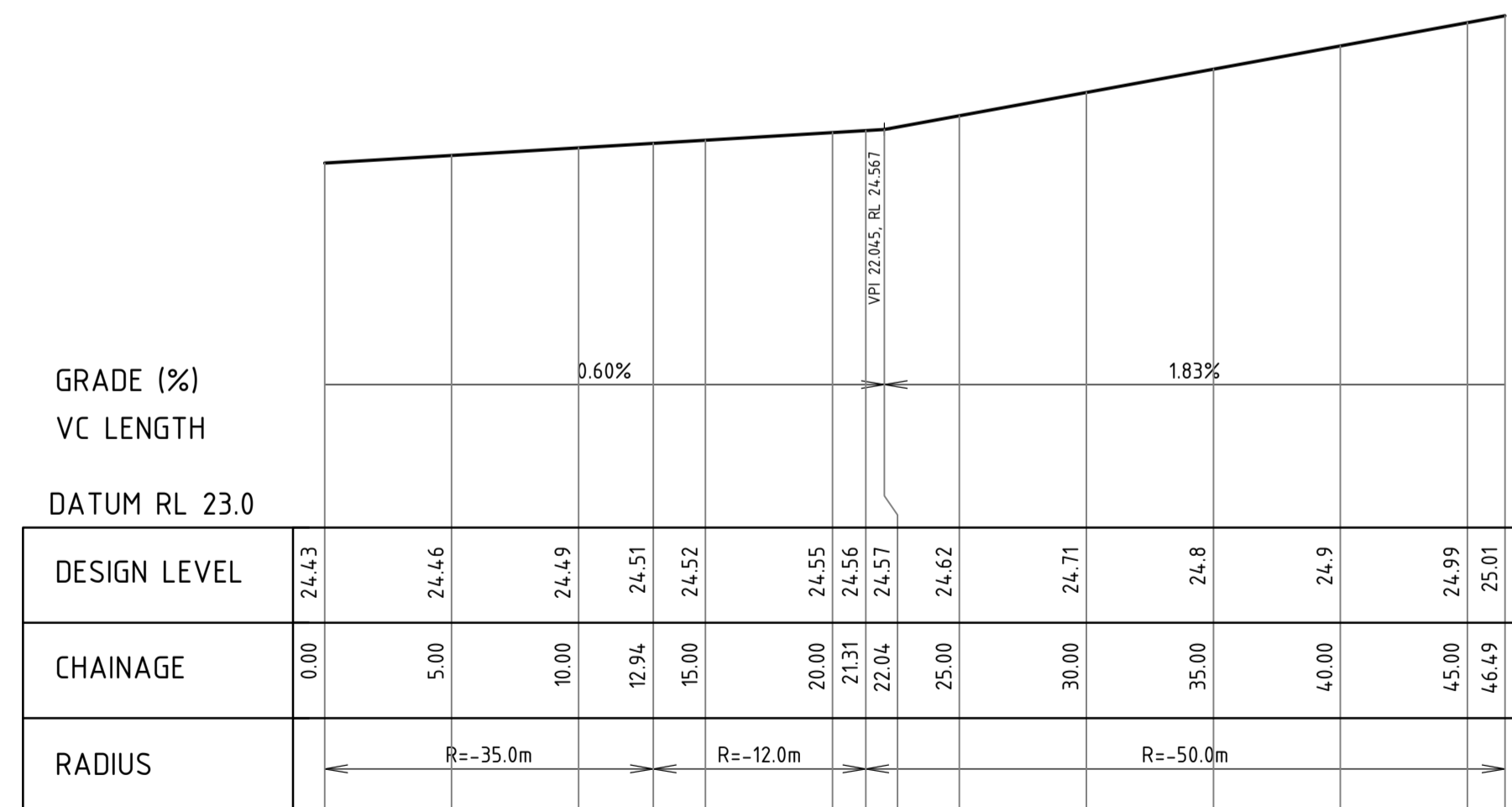
**KERB RETURN LONGITUDINAL SECTION  
BOUDICCA DRIVE TO ANSTEY RD**

SCALE HORIZ 1 : 250  
VERT 1 : 25



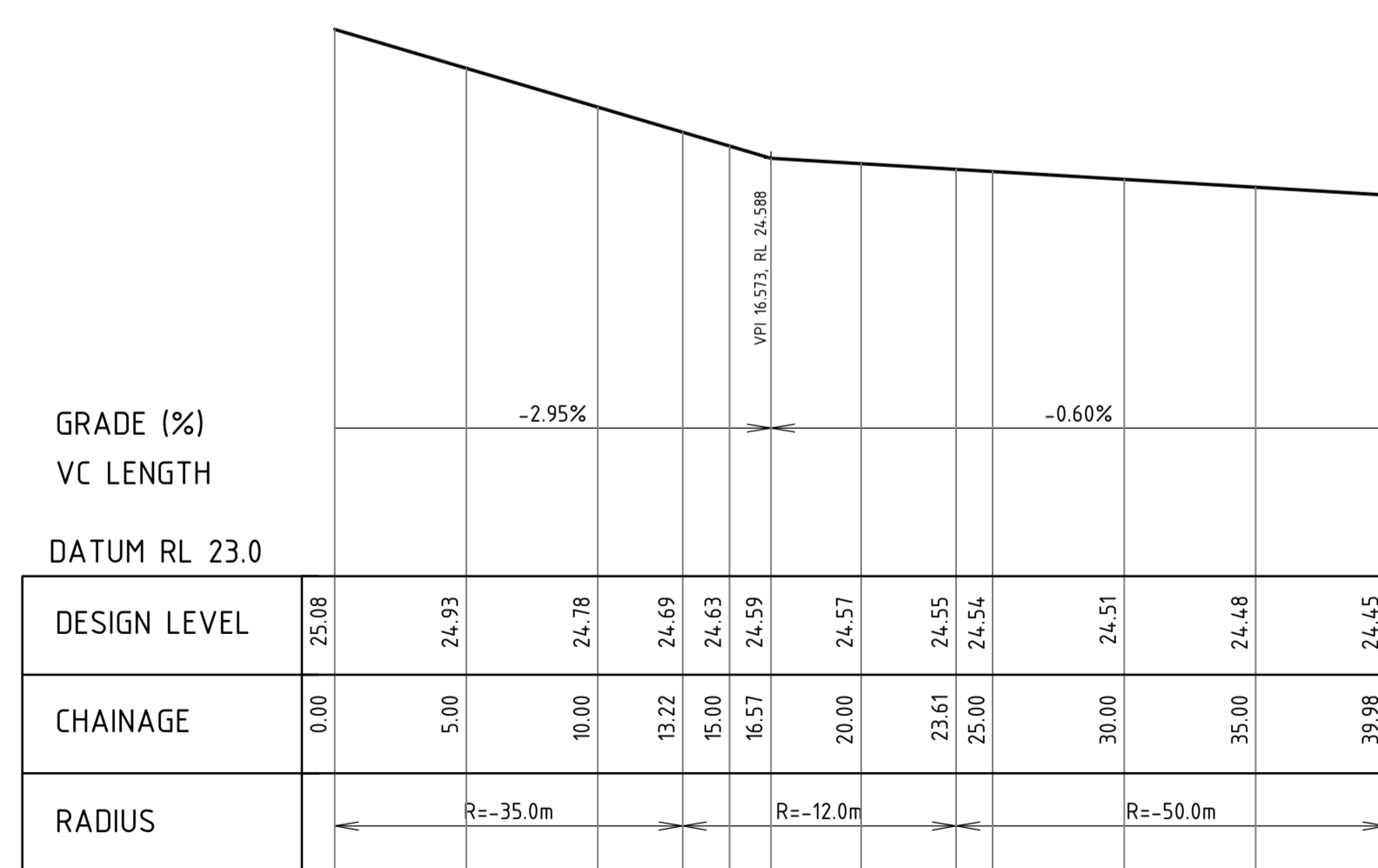
**KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD TO BOUDICCA DRIVE**

SCALE HORIZ 1 : 250  
VERT 1 : 25



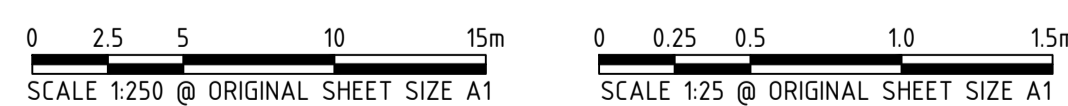
**KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD TO JUTLAND ENTRANCE**

SCALE HORIZ 1 : 250  
VERT 1 : 25



**KERB RETURN LONGITUDINAL SECTION  
JUTLAND ENTRANCE TO ANSTEY RD**

SCALE HORIZ 1 : 250  
VERT 1 : 25



**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	RE-ISSUED FOR COUNCIL APPROVAL
A	25.02.22	AP	BG		
Plotted By: APanzich Plot Date: 28/02/22 - 11:34 Cad File: I:\JDSI\3642\JDSI3642.RW01\02 CIVIL\Drawings\JDSI3642.RW01_C330-C336.dwg					

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.  
**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

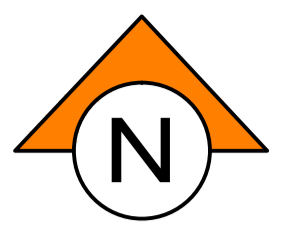
**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

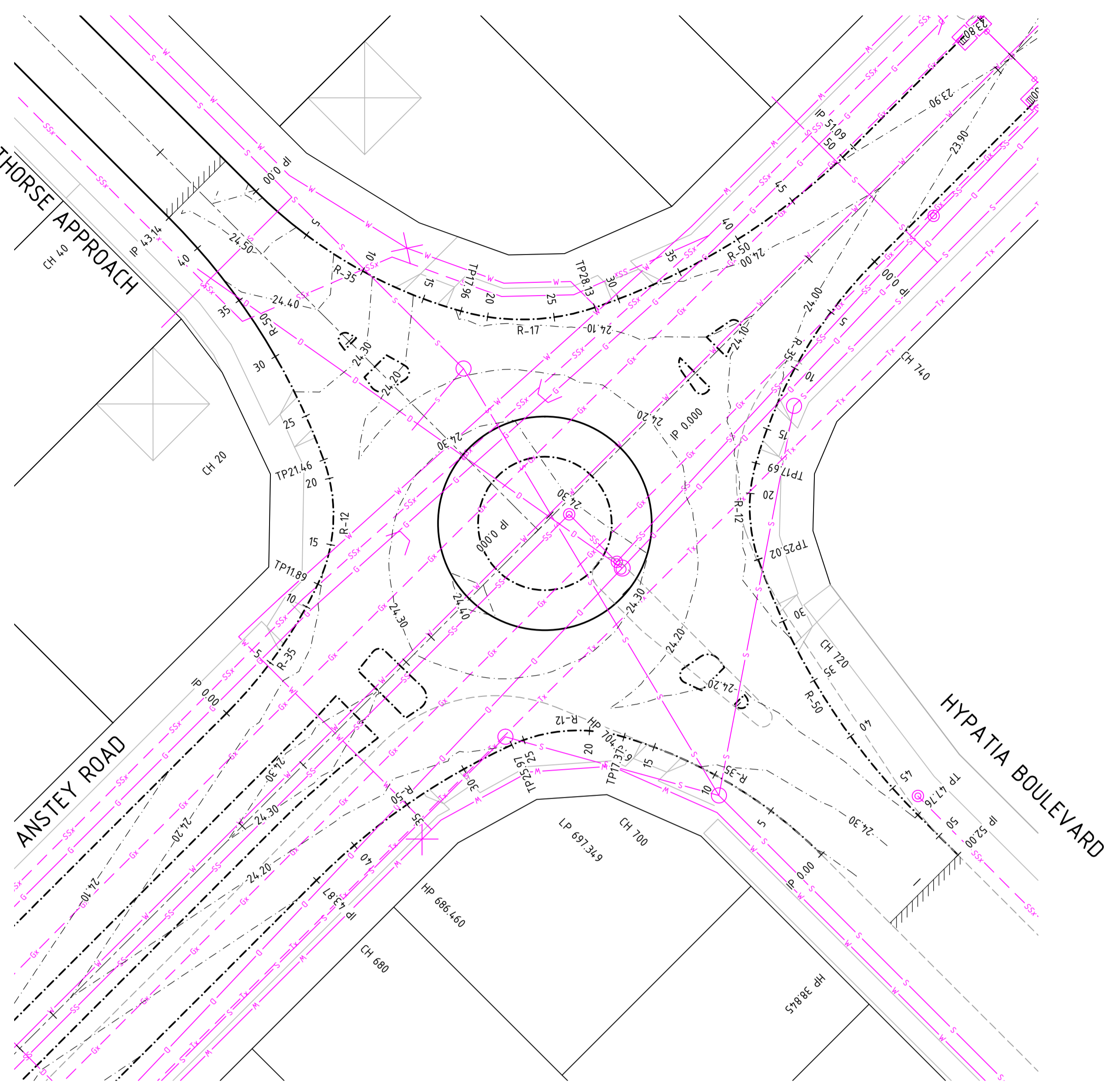
PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**  
DRAWING TITLE:  
**ROAD INTERSECTION DETAILS SHEET 4 OF 7**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE AS SHOWN
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSI PROJECT No. JDSI3642.RW01	CO-ORDS PCG 94
DRAWING No. C333	REVISION A





DRAFTHORSE APPROACH

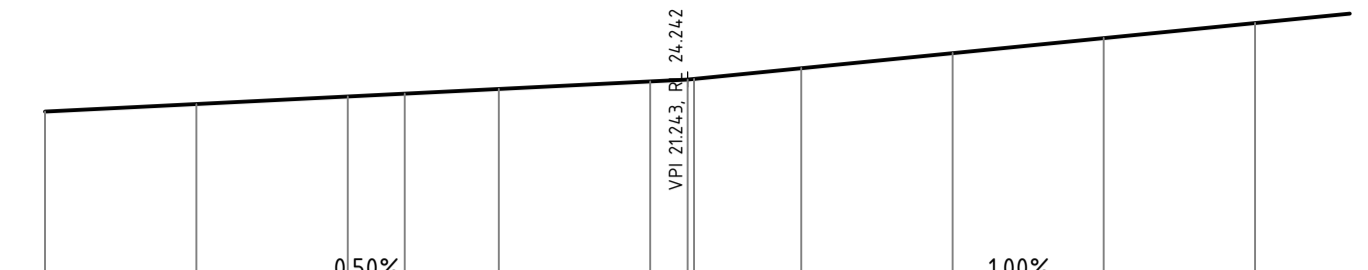


GRADE (%)  
VC LENGTH  
DATUM RL 23.0

DESIGN LEVEL	24.14	24.16	24.19	24.2	24.21	24.24	24.24	24.24	24.28	24.33	24.38	24.43	
CHAINAGE	0.00	5.00	10.00	11.89	15.00	20.00	21.24	21.46	25.00	30.00	35.00	40.00	43.14
RADIUS	← R=35.0m			← R=12.0m			← R=50.0m						

KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD TO DRAFTHORSE APPROACH

SCALE HORIZ 1 : 250  
VERT 1 : 25



GRADE (%)  
VC LENGTH  
DATUM RL 23.0

DESIGN LEVEL	24.62	24.47	24.32	24.18	24.09	24.09	24.07	24.04	24.02	24.01	23.98	23.95	23.92	23.89	23.89
CHAINAGE	0.00	5.00	10.00	15.00	17.96	18.04	20.00	25.00	28.13	30.00	35.00	40.00	45.00	50.00	51.09
RADIUS	← R=35.0m			← R=17.0m				← R=50.0m							

KERB RETURN LONGITUDINAL SECTION  
DRAFTHORSE APPROACH TO ANSTEY RD

SCALE HORIZ 1 : 250  
VERT 1 : 25

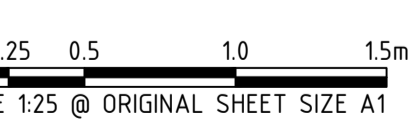


GRADE (%)  
VC LENGTH  
DATUM RL 23.0

DESIGN LEVEL	23.92	23.95	23.98	24.01	24.02	24.03	24.06	24.06	24.09	24.12	24.15	24.17	24.19	24.2	24.21
CHAINAGE	0.00	5.00	10.00	15.00	17.69	20.00	25.00	25.02	30.00	35.00	40.00	45.00	47.76	50.00	52.00
RADIUS	← R=35.0m			← R=12.0m			← R=50.0m								

KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD TO HYPATIA BOULEVARD

SCALE HORIZ 1 : 250  
VERT 1 : 25

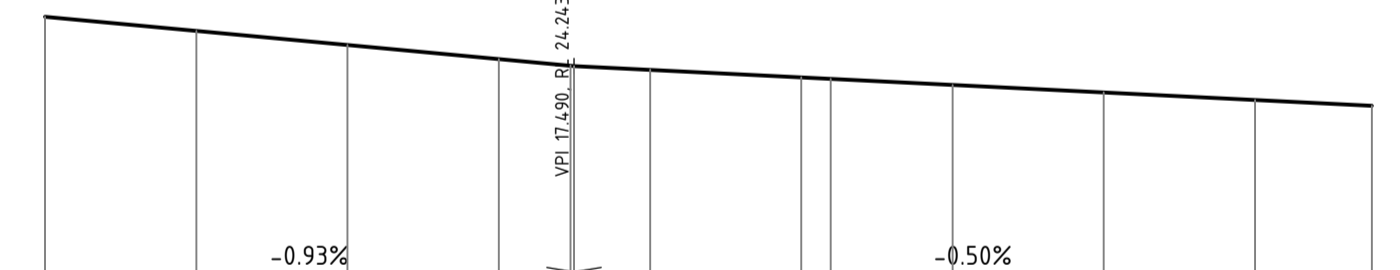


GRADE (%)  
VC LENGTH  
DATUM RL 23.0

DESIGN LEVEL	24.41	24.36	24.31	24.27	24.24	24.24	24.23	24.21	24.2	24.18	24.16	24.13	24.11
CHAINAGE	0.00	5.00	10.00	15.00	17.37	17.49	20.00	25.00	25.97	30.00	35.00	40.00	43.87
RADIUS	← R=35.0m			← R=12.0m				← R=50.0m					

KERB RETURN LONGITUDINAL SECTION  
HYPATIA BOULEVARD TO ANSTEY RD

SCALE HORIZ 1 : 250  
VERT 1 : 25



NOTES

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
- SETOUT OF ROAD CENTERLINE, FACE OF KERB AND EDGE OF SEAL FOR UN-KERBED ROADS SHALL BE BASED ON SUPPLIED AUTOCAD DATA. ALL OTHER WORKS SHALL BE SETOUT BASED ON INFORMATION CONTAINED ON THE CONTRACT DRAWINGS AND SPECIFICATION
- ALL CONSTRUCTION DETAILS TO BE TO LOCAL AUTHORITY SPECIFICATION AND SATISFACTION
- ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE
- ALL LEVELS SHALL BE DETERMINED FROM BENCHMARKS ESTABLISHED BY THE PROJECT SURVEYOR
- ALL TRANSITIONS TO EXISTING WORK SHALL BE SMOOTH AND OF NEAT APPEARANCE
- ALL TRENCHING, PIPE BEDDING AND BACKFILLING SHALL BE IN ACCORDANCE WITH AS3725
- THE CONTRACTOR SHALL REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT
- THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT IN A STRAIGHT LINE AND MAKE SMOOTH CONNECTION
- ALL PARKING BAYS AND EMBAYMENT PARKING AREAS SHALL BE LINE-MARKED IN ACCORDANCE WITH AS 2890 AND THE SPECIFICATION. ROAD MARKING PAINT SHALL COMPLY WITH AND BE APPLIED IN ACCORDANCE WITH AS 4049 AND THE AUSTRALIAN PAINT APPROVAL SCHEME SPECIFICATIONS. WHERE AN EDGE OR BOND BEAM IS INSTALLED TO DELINEATE THE EDGE OF THE PARKING BAY, THEN THE LINE MARKING ON THAT EDGE MAY BE DELETED WHEN APPROVED BY THE SUPERINTENDENT

LEGEND

- 2
- PROPOSED LOT NUMBER
  - PROPOSED MOUNTABLE KERB
  - PROPOSED SEMI MOUNTABLE KERB
  - PROPOSED BARRIER KERB
  - PROPOSED REINFORCED FLUSH EDGE BEAM
  - EXISTING KERB
  - FUTURE KERB
  - PROPOSED DRAINAGE & SEP
  - PROPOSED DRAINAGE & MANHOLE
  - PROPOSED DRAINAGE & GULLY
  - PROPOSED SUBSOIL DRAINAGE
  - EXISTING DRAINAGE & PITS
  - FUTURE DRAINAGE & PITS
  - PROPOSED/EXISTING/FUTURE SEWER
  - PROPOSED/EXISTING/FUTURE WATER
  - DESIGN CONTOURS (0.1m INTERVAL)
  - MAKE SMOOTH TRANSITION TO EXISTING PAVEMENT
  - CONSTRUCT TO LIMESTONE SUBBASE ONLY
  - PROPOSED PRAM RAMP IN ACCORDANCE WITH COUNCIL SPECIFICATIONS
  - CHEVRON BOARD
  - PROPOSED STREET SIGN
  - PROPOSED STREET LIGHT
  - PROPOSED STREET LIGHT WITH 2 ROAD NAME SIGNS
  - PROPOSED TACTILE INDICATORS (INSTALL TO AS1428.4-1992 STANDARDS)

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	RE-ISSUED FOR COUNCIL APPROVAL
A	25.02.22	AP	BG		

Copyright  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.  
NOTE  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

CLIENT:  
TERRA PROPERTY PTY. LTD.

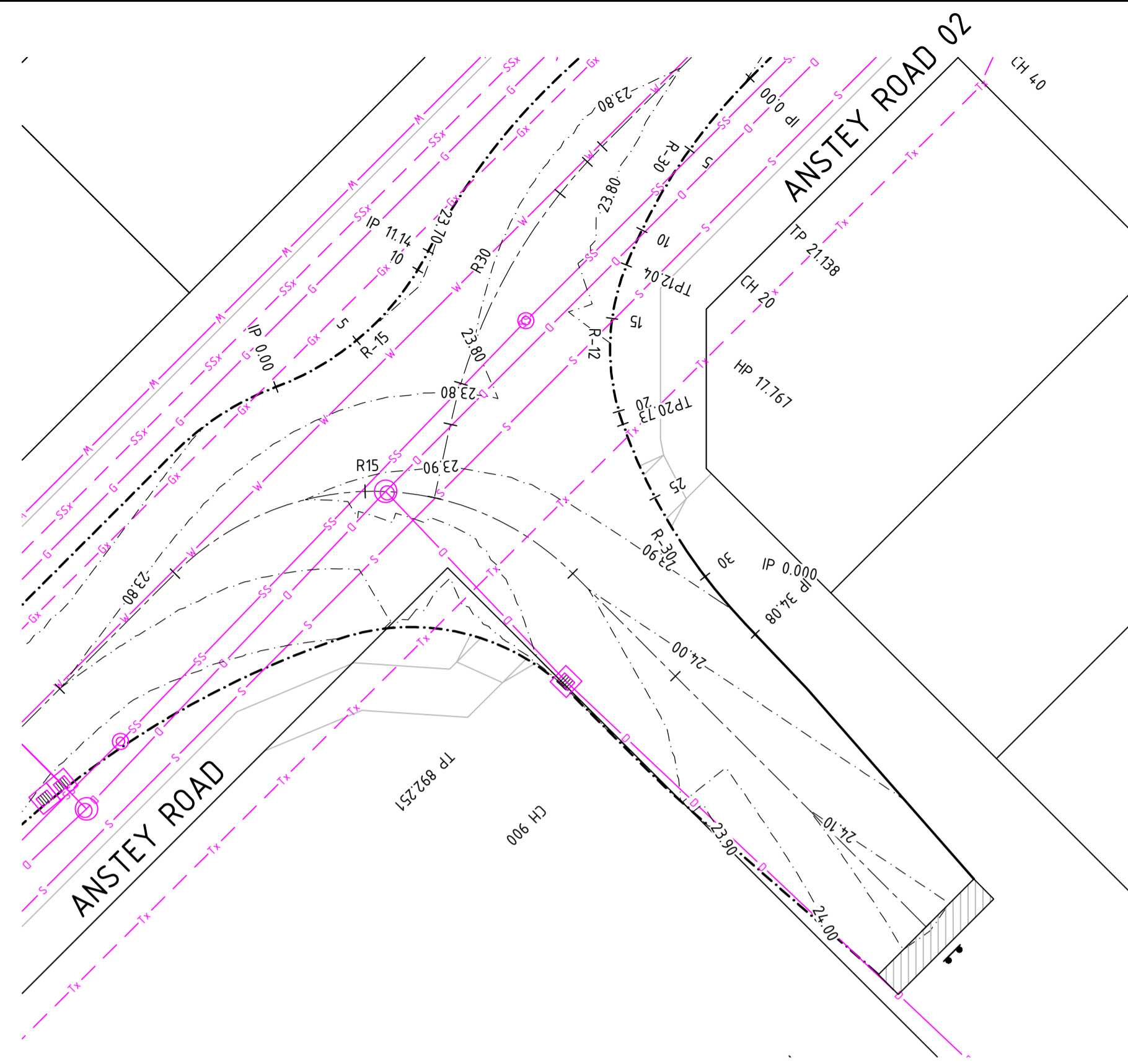
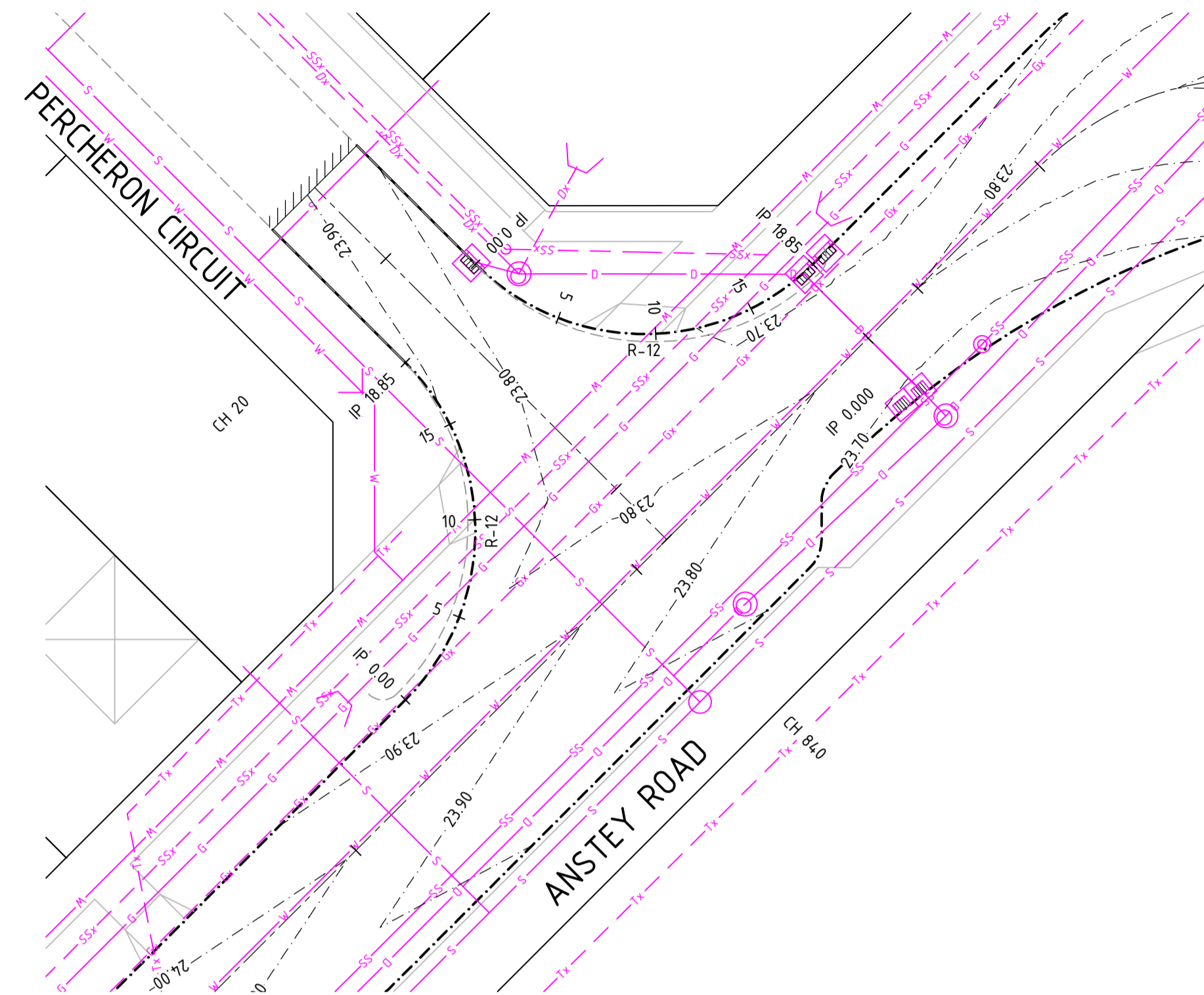
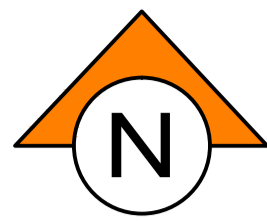
**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

PROJECT:  
ANSTEY ROAD UPGRADE  
FORRESTDALE

DRAWING TITLE:  
ROAD INTERSECTION DETAILS  
SHEET 5 OF 7

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE AS SHOWN
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C334	REVISION A



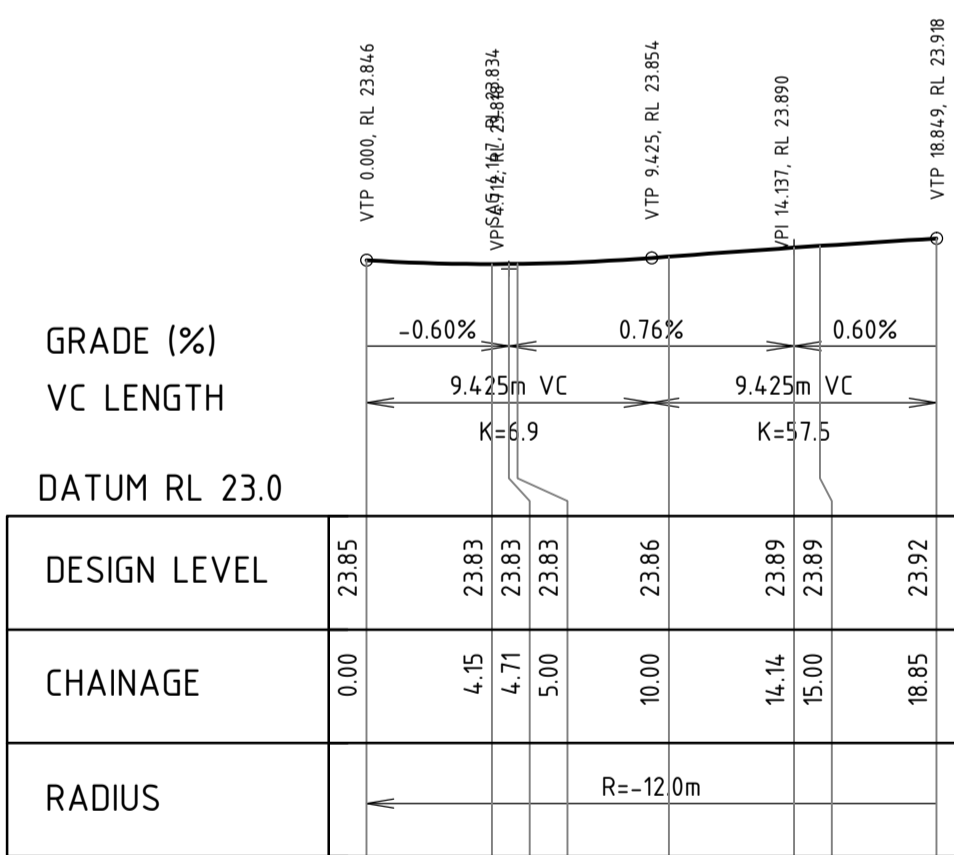


**NOTES**

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
- SETOUT OF ROAD CENTERLINE, FACE OF KERB AND EDGE OF SEAL FOR UN-KERBED ROADS SHALL BE BASED ON SUPPLIED AUTOCAD DATA. ALL OTHER WORKS SHALL BE SETOUT BASED ON INFORMATION CONTAINED ON THE CONTRACT DRAWINGS AND SPECIFICATION
- ALL CONSTRUCTION DETAILS TO BE TO LOCAL AUTHORITY SPECIFICATION AND SATISFACTION
- ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE
- ALL LEVELS SHALL BE DETERMINED FROM BENCHMARKS ESTABLISHED BY THE PROJECT SURVEYOR
- ALL TRANSITIONS TO EXISTING WORK SHALL BE SMOOTH AND OF NEAT APPEARANCE
- ALL TRENCHING, PIPE BEDDING AND BACKFILLING SHALL BE IN ACCORDANCE WITH AS3725
- THE CONTRACTOR SHALL REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT
- THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT IN A STRAIGHT LINE AND MAKE SMOOTH CONNECTION
- ALL PARKING BAYS AND EMBAYMENT PARKING AREAS SHALL BE LINE-MARKED IN ACCORDANCE WITH AS 2890 AND THE SPECIFICATION. ROAD MARKING PAINT SHALL COMPLY WITH AND BE APPLIED IN ACCORDANCE WITH AS 4049 AND THE AUSTRALIAN PAINT APPROVAL SCHEME SPECIFICATIONS. WHERE AN EDGE OR BOND BEAM IS INSTALLED TO DELINEATE THE EDGE OF THE PARKING BAY, THEN THE LINE MARKING ON THAT EDGE MAY BE DELETED WHEN APPROVED BY THE SUPERINTENDENT

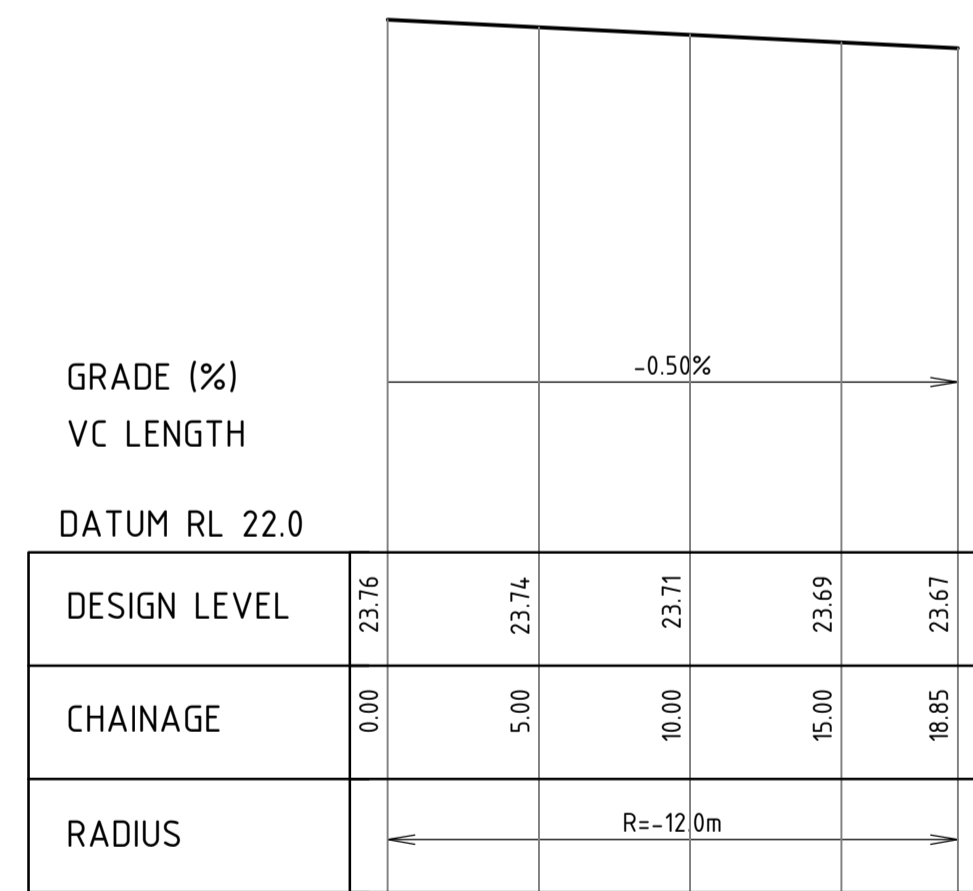
**LEGEND**

- 2
- PROPOSED LOT NUMBER
  - PROPOSED MOUNTABLE KERB
  - PROPOSED SEMI MOUNTABLE KERB
  - PROPOSED BARRIER KERB
  - PROPOSED REINFORCED FLUSH EDGE BEAM
  - EXISTING KERB
  - FUTURE KERB
  - PROPOSED DRAINAGE & SEP
  - PROPOSED DRAINAGE & MANHOLE
  - PROPOSED DRAINAGE & GULLY
  - PROPOSED SUBSOIL DRAINAGE
  - EXISTING DRAINAGE & PITS
  - FUTURE DRAINAGE & PITS
  - PROPOSED/EXISTING/FUTURE SEWER
  - PROPOSED/EXISTING/FUTURE WATER
  - DESIGN CONTOURS (0.1m INTERVAL)
  - MAKE SMOOTH TRANSITION TO EXISTING PAVEMENT
  - CONSTRUCT TO LIMESTONE SUBBASE ONLY
  - PROPOSED PRAM RAMP IN ACCORDANCE WITH COUNCIL SPECIFICATIONS
  - CHEVRON BOARD
  - PROPOSED STREET SIGN
  - PROPOSED STREET LIGHT
  - PROPOSED STREET LIGHT WITH 2 ROAD NAME SIGNS
  - PROPOSED TACTILE INDICATORS (INSTALL TO AS1428.4-1992 STANDARDS)



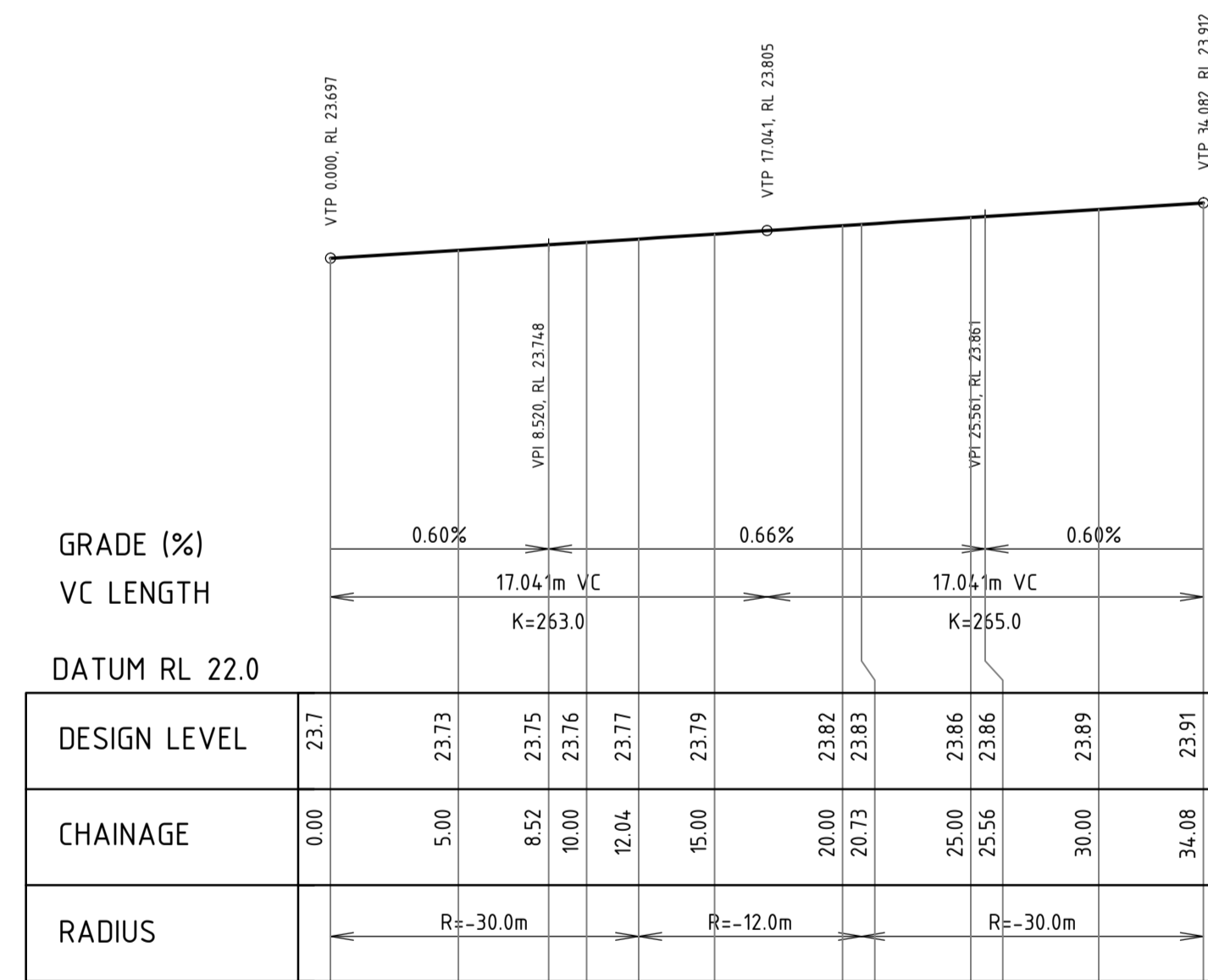
**KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD TO PERCHERON CIRCUIT**

SCALE HORIZ 1 : 250  
VERT 1 : 25



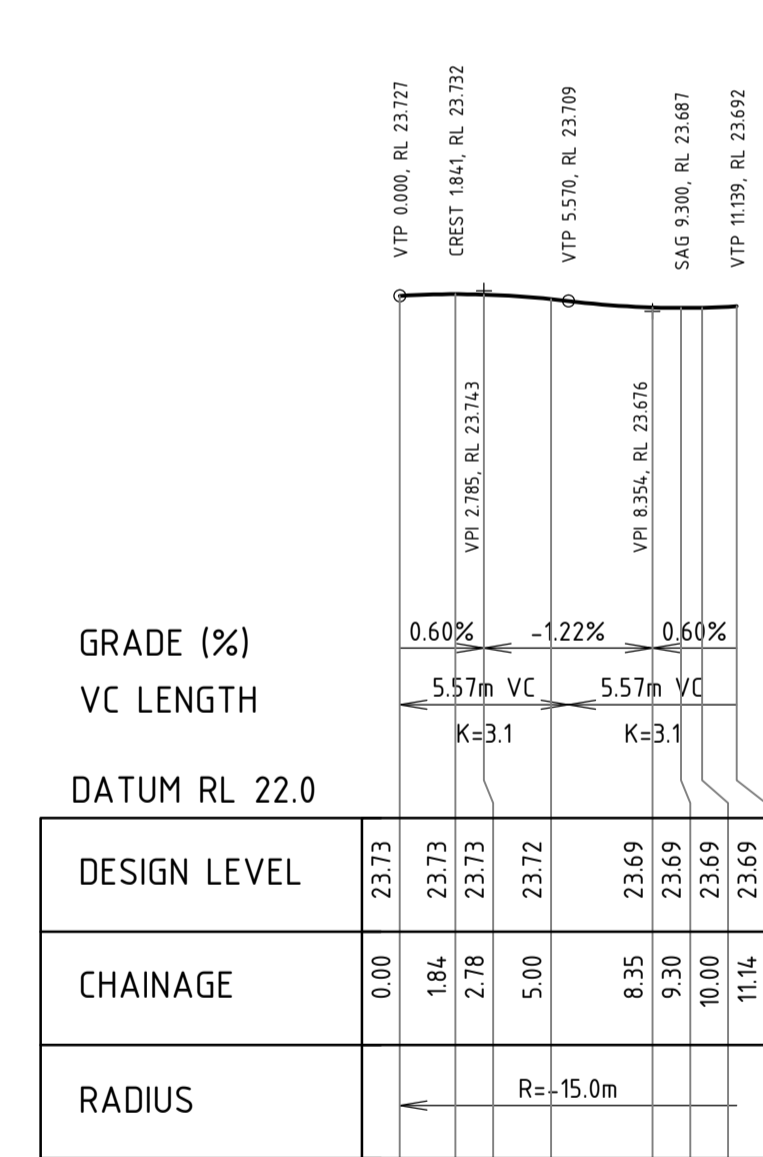
**KERB RETURN LONGITUDINAL SECTION  
PERCHERON CIRCUIT TO ANSTEY RD**

SCALE HORIZ 1 : 250  
VERT 1 : 25



**KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD TO ANSTEY RD 02**

SCALE HORIZ 1 : 250  
VERT 1 : 25



**KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD 02 TO ANSTEY RD**

SCALE HORIZ 1 : 250  
VERT 1 : 25



REV	DATE	DRAWN	CHECKED	APPROVED
A	25.02.22	AP	BG	

RE-ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.  
**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

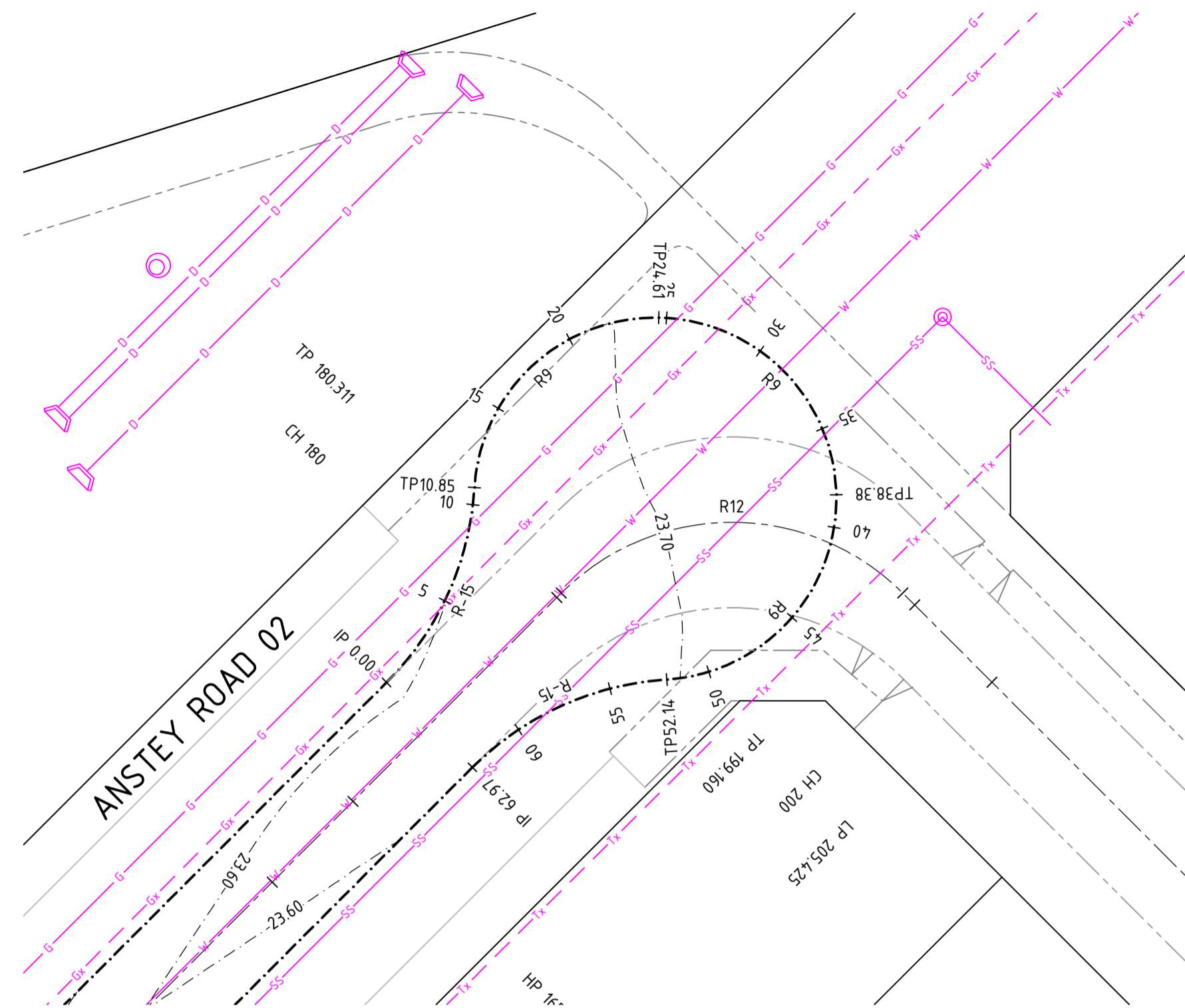
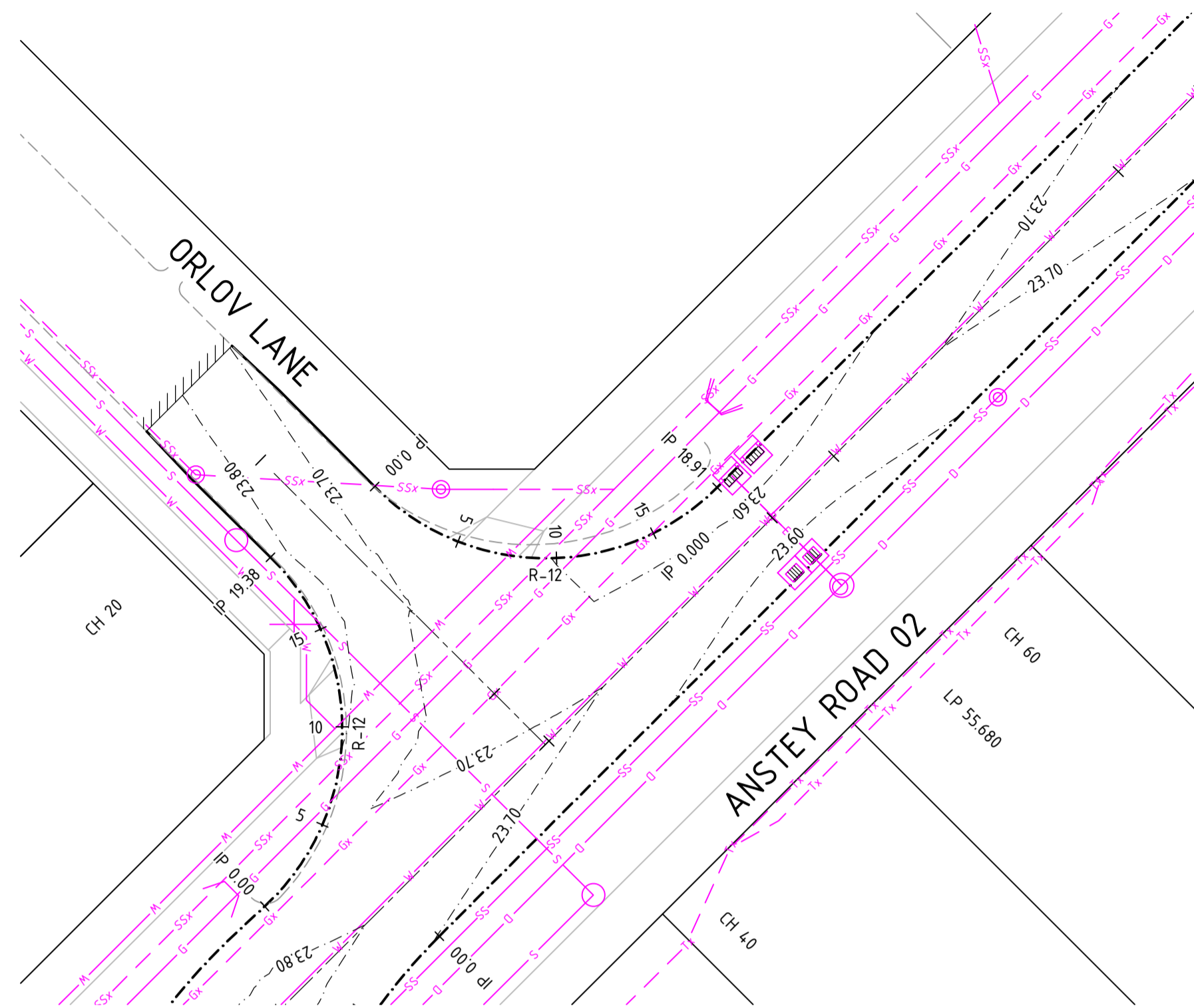
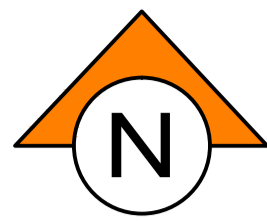
**CLIENT:**  
TERRA PROPERTY PTY. LTD.

**PROJECT:**  
ANSTEY ROAD UPGRADE  
FORRESTDAL  
**DRAWING TITLE:**  
ROAD INTERSECTION DETAILS  
SHEET 6 OF 7

<b>DRAWN</b> A. PANZICH	<b>WAPC No.</b> 158169
<b>DESIGNED</b> A. PANZICH	<b>SCALE</b> AS SHOWN
<b>PROJECT MANAGER</b> D. HELLMUTH	<b>DATUM</b> AHD
<b>JDSi PROJECT No.</b> JDS13642.RW01	<b>CO-ORDS</b> PCG 94
<b>DRAWING No.</b> C335	<b>REVISION</b> A

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.  
**DIAL 1100**  
BEFORE YOU DIG





**NOTES**

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
2. SETOUT OF ROAD CENTERLINE, FACE OF KERB AND EDGE OF SEAL FOR UN-KERBED ROADS SHALL BE BASED ON SUPPLIED AUTOCAD DATA. ALL OTHER WORKS SHALL BE SETOUT BASED ON INFORMATION CONTAINED ON THE CONTRACT DRAWINGS AND SPECIFICATION
3. ALL CONSTRUCTION DETAILS TO BE TO LOCAL AUTHORITY SPECIFICATION AND SATISFACTION
4. ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE
5. ALL LEVELS SHALL BE DETERMINED FROM BENCHMARKS ESTABLISHED BY THE PROJECT SURVEYOR
6. ALL TRANSITIONS TO EXISTING WORK SHALL BE SMOOTH AND OF NEAT APPEARANCE
7. ALL TRENCHING, PIPE BEDDING AND BACKFILLING SHALL BE IN ACCORDANCE WITH AS3725
8. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT
9. THE CONTRACTOR SHALL SAW CUT EXISTING PAVEMENT IN A STRAIGHT LINE AND MAKE SMOOTH CONNECTION
10. ALL PARKING BAYS AND EMBAYMENT PARKING AREAS SHALL BE LINE-MARKED IN ACCORDANCE WITH AS 2890 AND THE SPECIFICATION. ROAD MARKING PAINT SHALL COMPLY WITH AND BE APPLIED IN ACCORDANCE WITH AS 4049 AND THE AUSTRALIAN PAINT APPROVAL SCHEME SPECIFICATIONS. WHERE AN EDGE OR BOND BEAM IS INSTALLED TO DELINEATE THE EDGE OF THE PARKING BAY, THEN THE LINE MARKING ON THAT EDGE MAY BE DELETED WHEN APPROVED BY THE SUPERINTENDENT

**LEGEND**

- 2
- PROPOSED LOT NUMBER
  - PROPOSED MOUNTABLE KERB
  - PROPOSED SEMI MOUNTABLE KERB
  - PROPOSED BARRIER KERB
  - PROPOSED REINFORCED FLUSH EDGE BEAM
  - EXISTING KERB
  - FUTURE KERB
  - PROPOSED DRAINAGE & SEP
  - PROPOSED DRAINAGE & MANHOLE
  - PROPOSED DRAINAGE & GULLY
  - PROPOSED SUBSOIL DRAINAGE
  - EXISTING DRAINAGE & PITS
  - FUTURE DRAINAGE & PITS
  - PROPOSED/EXISTING/FUTURE SEWER
  - PROPOSED/EXISTING/FUTURE WATER
  - DESIGN CONTOURS (0.1m INTERVAL)
  - MAKE SMOOTH TRANSITION TO EXISTING PAVEMENT
  - CONSTRUCT TO LIMESTONE SUBBASE ONLY
  - PROPOSED PRAM RAMP IN ACCORDANCE WITH COUNCIL SPECIFICATIONS
  - CHEVRON BOARD
  - PROPOSED STREET SIGN
  - PROPOSED STREET LIGHT
  - PROPOSED STREET LIGHT WITH 2 ROAD NAME SIGNS
  - PROPOSED TACTILE INDICATORS (INSTALL TO AS1428.4-1992 STANDARDS)

**GRADE (%)**  
VC LENGTH  
DATUM RL 22.0

DESIGN LEVEL	23.75	23.78	23.81	23.84	23.85	23.83
CHAINAGE	0.00	5.00	10.00	15.00	16.35	19.38
RADIUS	R=12.0m					

**KERB RETURN LONGITUDINAL SECTION  
ANSTEY RD 02 TO ORLOV LANE**

SCALE HORIZ 1 : 250  
VERT 1 : 25

**GRADE (%)**  
VC LENGTH  
DATUM RL 22.0

DESIGN LEVEL	23.64	23.65	23.63	23.6	23.57	23.54
CHAINAGE	0.00	2.00	5.00	10.00	15.00	18.91
RADIUS	R=12.0m					

**KERB RETURN LONGITUDINAL SECTION  
ORLOV LANE TO ANSTEY RD 02**

SCALE HORIZ 1 : 250  
VERT 1 : 25

**GRADE (%)**  
VC LENGTH  
DATUM RL 22.0

DESIGN LEVEL	23.57	23.6	23.63	23.66	23.69	23.71	23.72	23.75	23.77	23.77	23.77	23.74	23.71	23.7	23.68	23.65	23.63				
CHAINAGE	0.00	5.00	10.00	10.85	15.00	20.00	24.61	25.00	30.00	35.00	36.85	36.85	36.85	38.38	40.00	45.00	50.00	52.14	55.00	60.00	62.97
RADIUS	R=15.0m			R=9.0m			R=9.0m			R=9.0m			R=15.0m								

**KERB RETURN LONGITUDINAL SECTION  
CULDESAC**

SCALE HORIZ 1 : 250  
VERT 1 : 25

0 2.5 5 10 15m  
SCALE 1:250 @ ORIGINAL SHEET SIZE A1

0 0.25 0.5 1.0 1.5m  
SCALE 1:25 @ ORIGINAL SHEET SIZE A1

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	RE-ISSUED FOR COUNCIL APPROVAL
A	25.02.22	AP	BG		

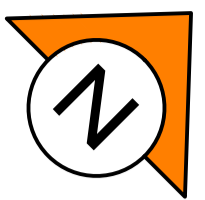
**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.  
**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**  
DRAWING TITLE:  
**ROAD INTERSECTION DETAILS SHEET 7 OF 7**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE AS SHOWN
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C336	REVISION A

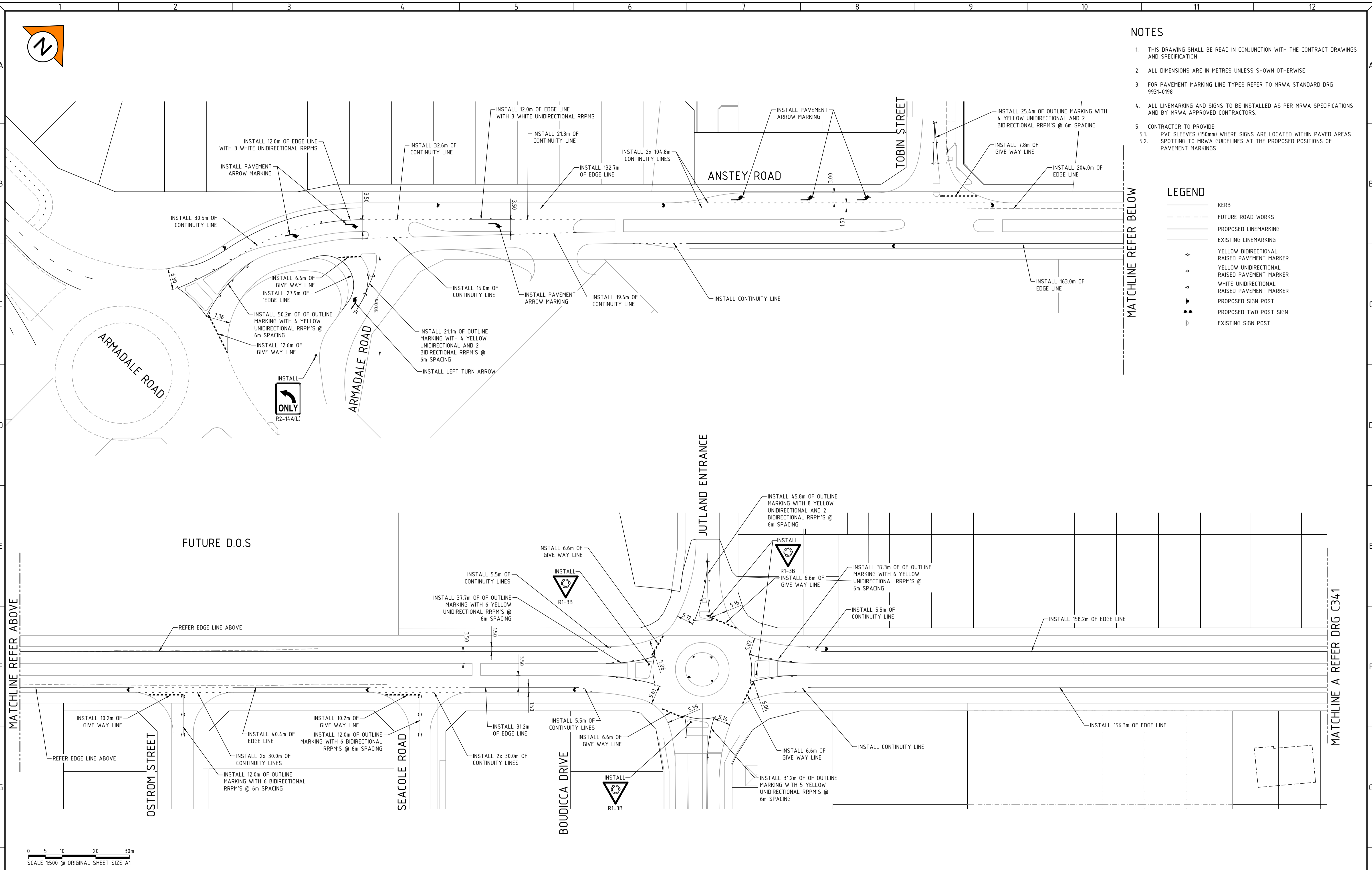


NOTES

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
- ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE
- FOR PAVEMENT MARKING LINE TYPES REFER TO MRWA STANDARD DRG 9931-0198
- ALL LINEMARKING AND SIGNS TO BE INSTALLED AS PER MRWA SPECIFICATIONS AND BY MRWA APPROVED CONTRACTORS.
- CONTRACTOR TO PROVIDE:
  - PVC SLEEVES (150mm) WHERE SIGNS ARE LOCATED WITHIN PAVED AREAS
  - SPOTTING TO MRWA GUIDELINES AT THE PROPOSED POSITIONS OF PAVEMENT MARKINGS

LEGEND

- KERB
- FUTURE ROAD WORKS
- PROPOSED LINEMARKING
- EXISTING LINEMARKING
- YELLOW BIDIRECTIONAL RAISED PAVEMENT MARKER
- YELLOW UNIDIRECTIONAL RAISED PAVEMENT MARKER
- WHITE UNIDIRECTIONAL RAISED PAVEMENT MARKER
- PROPOSED SIGN POST
- PROPOSED TWO POST SIGN
- EXISTING SIGN POST



REV	DATE	DRAWN	CHECKED	APPROVED	
C	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
B	15.02.22	AP			RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

COPYRIGHT This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright. This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi. NOTE This drawing shall be preliminary only until it is issued for construction. Certified Quality System to ISO 9001				
---	--	--	--	--

**JDSi**  
CONSULTING ENGINEERS

Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**

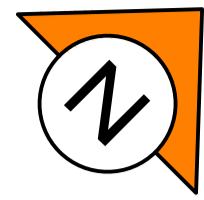
DRAWING TITLE:  
**SIGNS AND LINEMARKING PLAN SHEET 1 OF 2**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 1:500
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C340	REVISION C







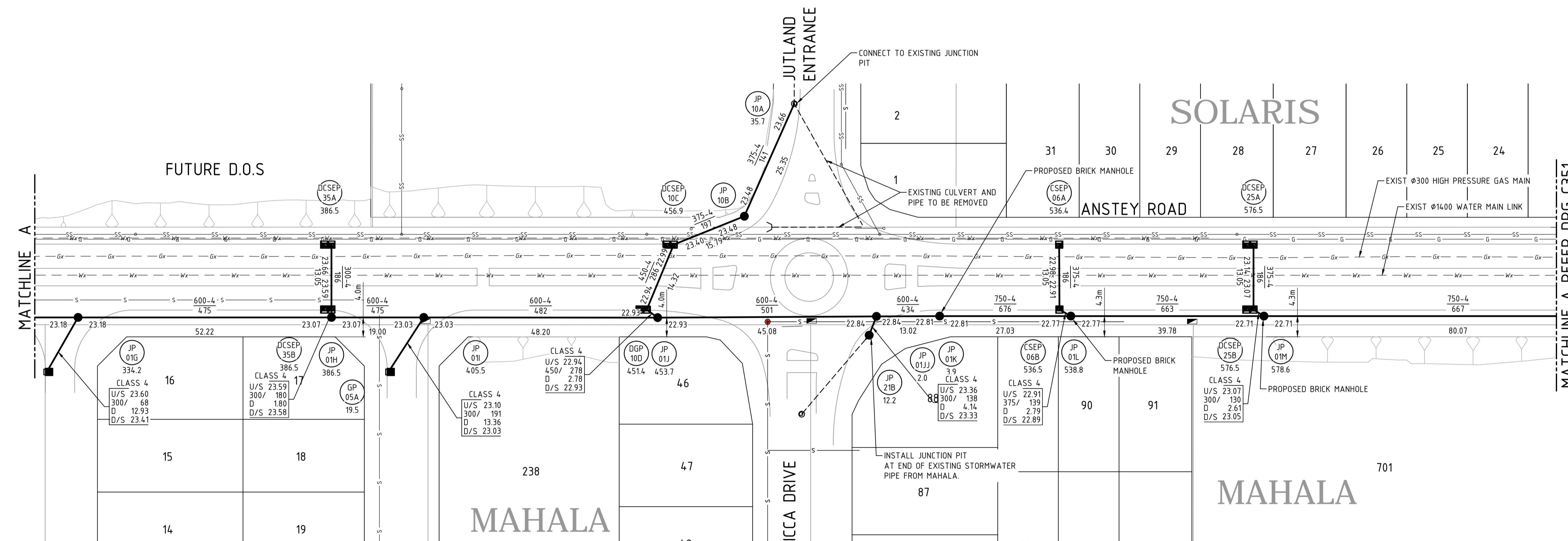
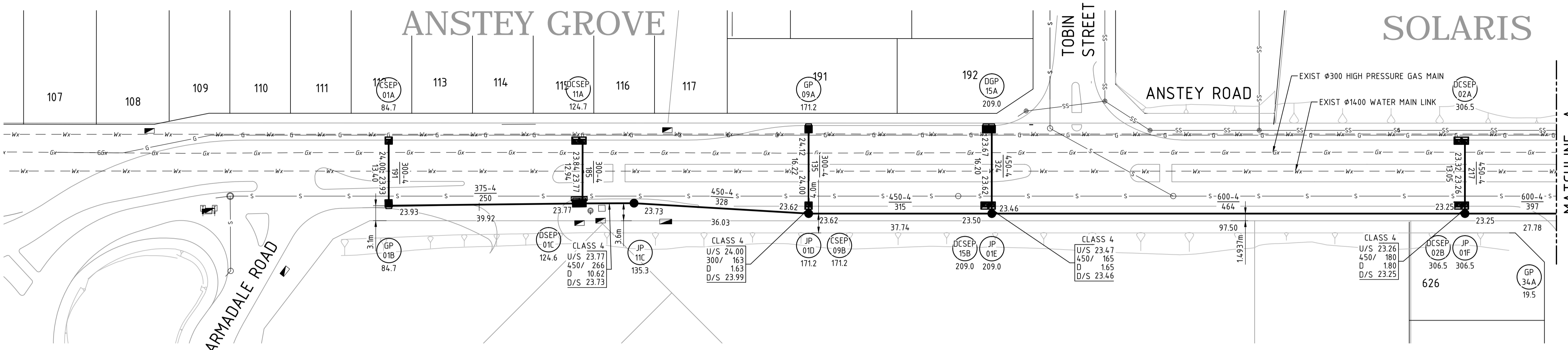


NOTES

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
- SETOUT OF ROAD CENTERLINE, FACE OF KERB AND EDGE OF SEAL FOR UN-KERBED ROADS SHALL BE BASED ON SUPPLIED AUTOCAD DATA. ALL OTHER WORKS SHALL BE SETOUT BASED ON INFORMATION CONTAINED ON THE CONTRACT DRAWINGS.
- THE CONSTRUCTION OF WORKS SHALL BE TO THE APPROVAL OF THE LOCAL AUTHORITY
- ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE
- ALL LEVELS SHALL BE DETERMINED FROM BENCHMARKS ESTABLISHED BY THE PROJECT SURVEYOR
- ALL TRENCHING, PIPE BEDDING AND BACKFILLING SHALL BE IN ACCORDANCE WITH AS3725
- ALL DRAINAGE PITS SHALL BE LOCATED AS SHOWN IRRESPECTIVE OF PIPE LENGTHS SHOWN ON THE DRAWINGS
- AT LOW POINTS THE ENTRY PITS SHALL BE LOCATED AT THE LOW POINT OF THE ROAD PAVEMENT
- THE DRAINAGE PIT LIDS SHALL BE SET TO SUIT THE VERGE SLOPE, NOMINALLY 2% UPWARDS FROM THE TOP OF BACK OF KERB
- WHERE A SEWER LINE INTERSECTS WITH STORMWATER DRAINAGE LINE AND THE SEWER PASSES OVER THE DRAIN THEN THE SEWER SHALL HAVE A TIMBER PILE AND KEEL PROVIDED FOR THE FULL EXTENT NECESSARY TO SUPPORT THE SEWER DURING EXCAVATION FOR THE DRAIN
- THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY DISCREPANCY OR CLASH WITH OTHER SERVICES TO THE SUPERINTENDENT
- ALL JUNCTION PITS LOCATED IN THE ROAD PAVEMENT SHALL HAVE TRAFFICABLE LIDS
- IRRIGATION DUCTS TO BE DETERMINED ON SITE WITH SUPERINTENDENT
- FOR SERVICE CROSSING LEVELS REFER TO DRAINAGE LONGITUDINAL SECTIONS
- ROAD PAVEMENT TYPES AND BRICK PAVING REMOVED FOR CLARITY - REFER TO PAVEMENT DRAWING FOR DETAILS
- IN CIRCUMSTANCES WHERE MULTIPLE PIPES ENTER A LINER A MINIMUM OF 40% OF THE LINER SHALL REMAIN IN ANY HORIZONTAL PLANE

LEGEND

- LIMIT OF WORKS
- 2 LOT NUMBER
- PIPE DIA-CLASS GRADE PROPOSED DRAINAGE WITH NOTATION
- LENGTH(m)
- U/S 00.00  
PIPE DIA / GRADE (CLASS OTHER THAN 2)  
LENGTH  
D/S 00.00
- UPSTREAM INVERT LEVEL  
PIPE DIA / GRADE (CLASS OTHER THAN 2)  
LENGTH  
DOWNSTREAM INVERT LEVEL
- PROPOSED DRAINAGE
- - - EXISTING DRAINAGE
- - - FUTURE DRAINAGE
- PROPOSED JUNCTION PIT
- PROPOSED DOUBLE GULLY PIT
- PROPOSED GULLY PIT
- JP 1 PIT TYPE
- CH 0.0 PIT NUMBER
- CHAINAGE
- JP JUNCTION PIT
- DGP DOUBLE GRATED PIT
- GP GRATED PIT
- DCSEP DOUBLE COMBINATION SIDE ENTRY PIT
- CSEP COMBINATION SIDE ENTRY PIT
- PROPOSED/EXISTING/FUTURE SEWER
- PROPOSED/EXISTING/FUTURE SUBSOIL DRAINAGE
- EXISTING WATER
- EXISTING GAS
- RELOCATED HIGH PRESSURE GAS MAIN



0 5 10 20 30m  
SCALE 1:500 @ ORIGINAL SHEET SIZE A1

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
C	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
B	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL
A	23.08.21	AP	BG	DH	ISSUED FOR COMMENT

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

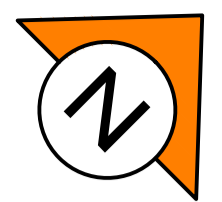
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**

DRAWING TITLE:  
**DRAINAGE PLAN SHEET 1 OF 2**

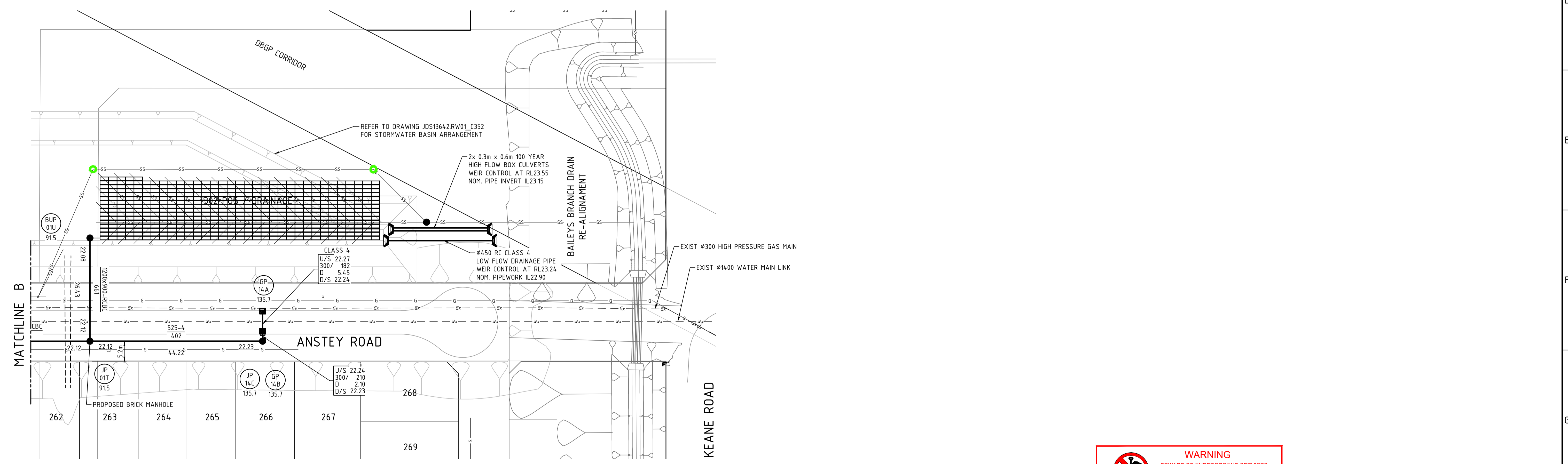
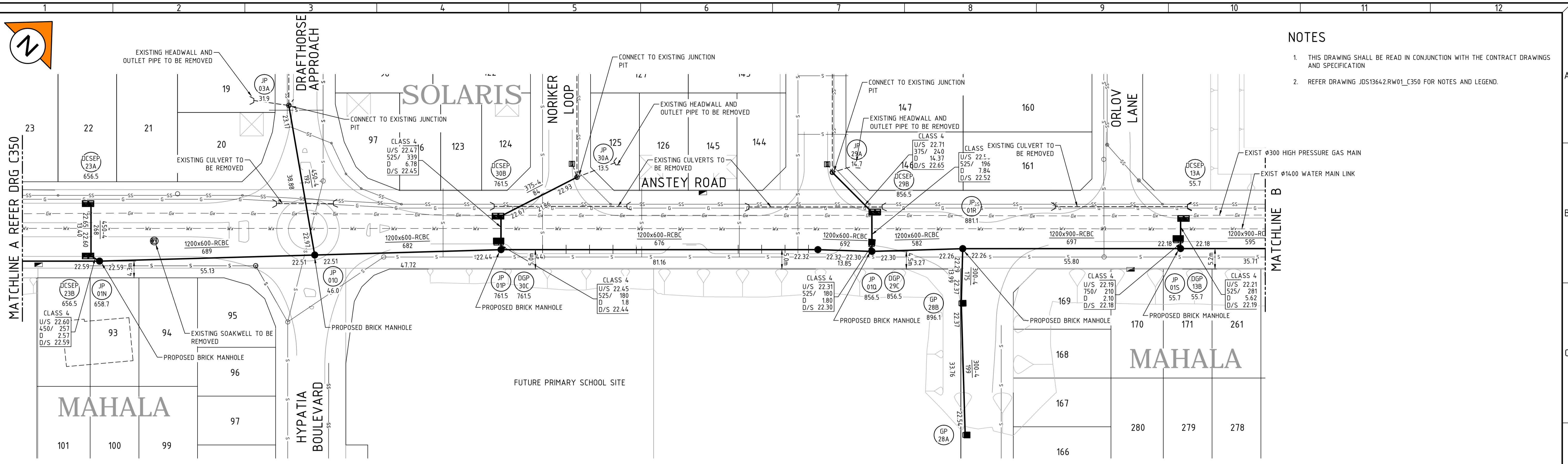
DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 1:500
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C350	REVISION C





**NOTES**

- 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION
- 2. REFER DRAWING JDS13642.RW01\_C350 FOR NOTES AND LEGEND.



0 5 10 20 30m  
SCALE 1:500 @ ORIGINAL SHEET SIZE A1

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
C	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
B	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL
A	23.08.21	AP	BG	DH	ISSUED FOR COMMENT

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

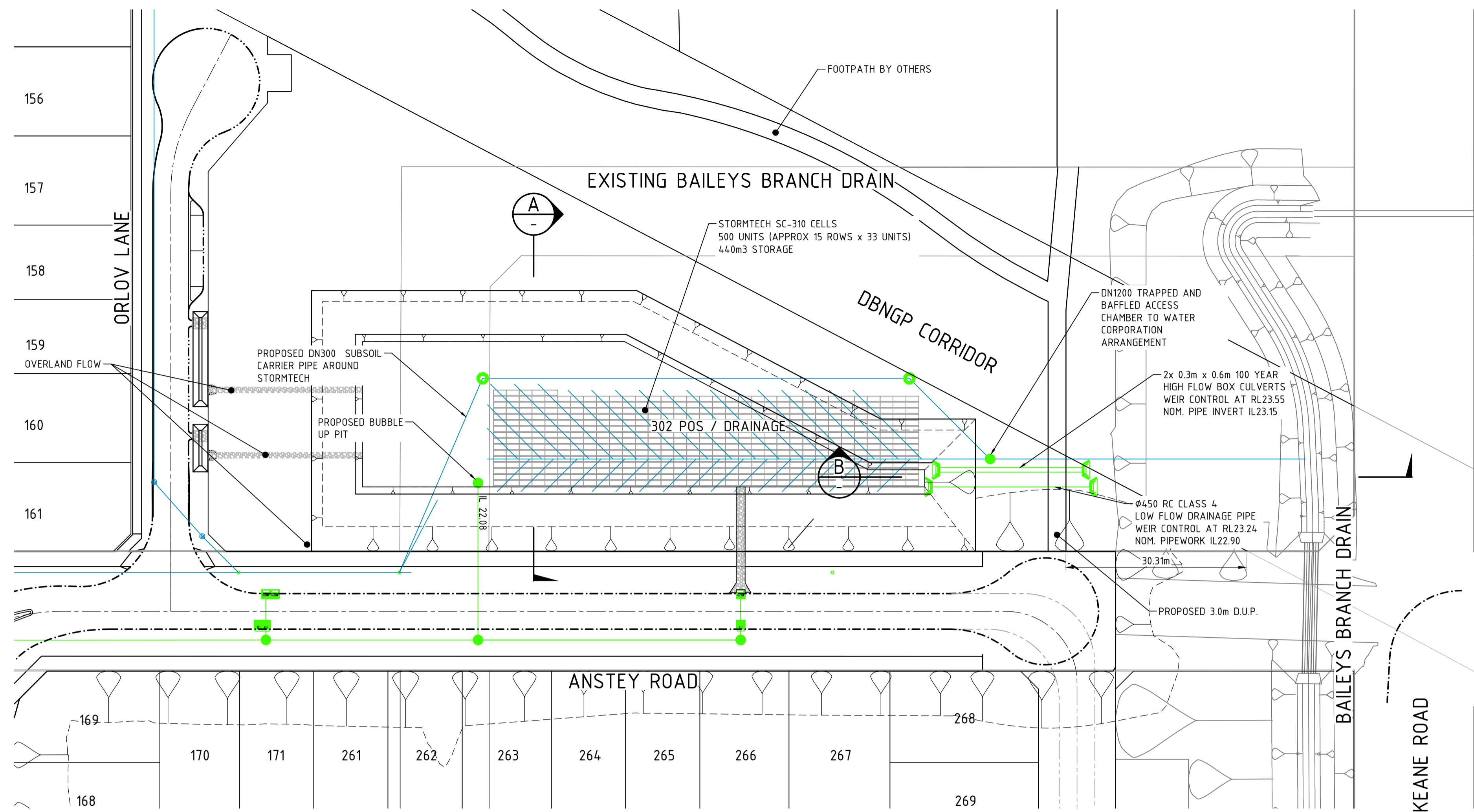
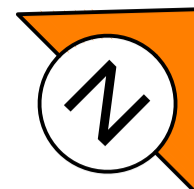
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESDALE**

DRAWING TITLE:  
**DRAINAGE PLAN SHEET 2 OF 2**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 1:500
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C351	REVISION C





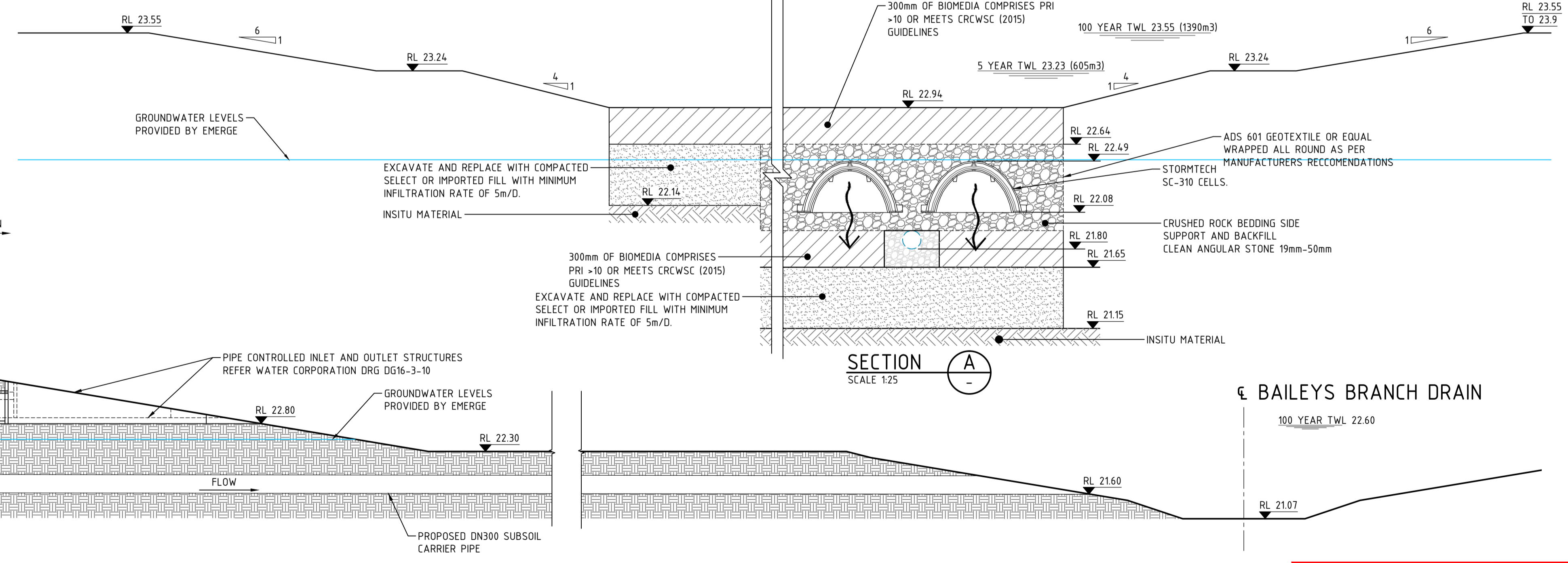
**LEGEND**

- LIMIT OF WORKS
- 2 LOT NUMBER
- PROPOSED BATTER
- PROPOSED DRAINAGE
- PROPOSED JUNCTION PIT
- PROPOSED SIDE ENTRY PIT
- PROPOSED DOUBLE SIDE ENTRY PIT
- PROPOSED COMBINATION SIDE ENTRY/GULLY PIT
- PROPOSED GULLY PIT
- PROPOSED STORMTECH UNITS
- PROPOSED/EXISTING SUBSOIL DRAINAGE
- PROPOSED MOUNTABLE KERB
- PROPOSED SEMI MOUNTABLE KERB
- PROPOSED REINFORCED FLUSH EDGE BEAM
- PROPOSED PRAM RAMP IN ACCORDANCE WITH COUNCIL SPECIFICATIONS

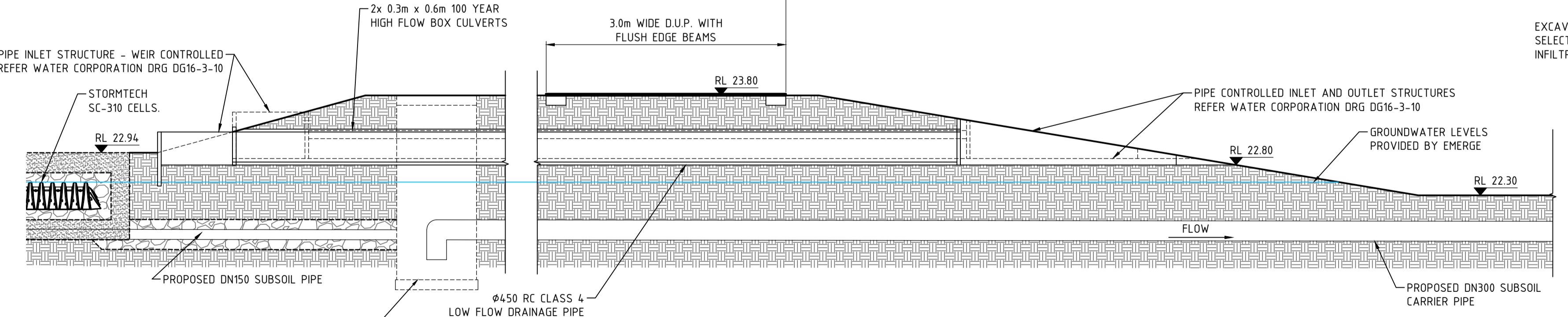
SMITH ST ROAD NAME

STORMWATER BASIN VOLUMES		
EVENT	VOLUME	NOTES
1 YEAR	4.40m <sup>3</sup>	UNDERGROUND STORAGE (STORMTECH)
5 YEAR	104.5m <sup>3</sup>	UNDERGROUND STORAGE (4.40m <sup>3</sup> ) AND BASIN STORAGE TO RL23.23 (605m <sup>3</sup> )
100 YEAR	1830m <sup>3</sup>	UNDERGROUND STORAGE (4.40m <sup>3</sup> ) AND BASIN STORAGE TO RL23.55 (1390m <sup>3</sup> )

**PLAN**  
SCALE 1:500



**SECTION A**  
SCALE 1:25



**SECTION B**  
SCALE 1:50



**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	RE-ISSUED FOR COUNCIL APPROVAL
A	15.02.22	AP			

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.  
**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**  
DRAWING TITLE:  
**ANSTEY ROAD STORMWATER BASIN PLAN AND DETAILS**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 AS SHOWN
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C352	REVISION A



1 2 3 4 5 6 7 8 9 10 11 12

A

B

C

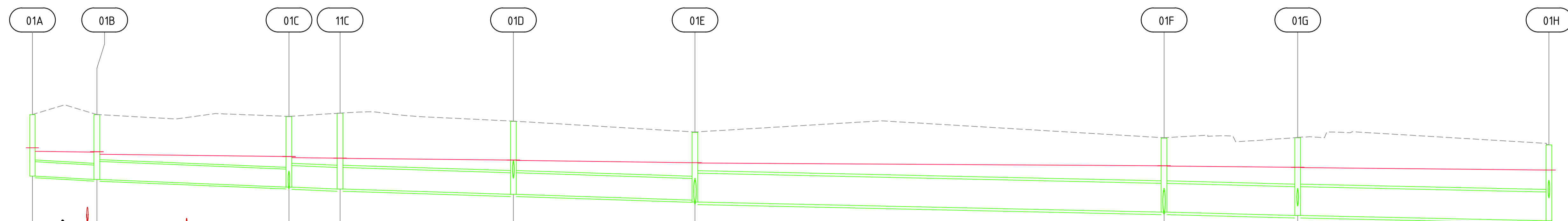
D

E

F

G

H



DN1400 WATER CLR 0.85  
SEW01 CLR 0.55  
SEW08 CLR 0.70

PIPE SIZE (mm)	300	375	450	450	450	600	600	600	
PIPE GRADE	CLASS 4 1 IN 191	CLASS 4 1 IN 250	CLASS 4 1 IN 266	CLASS 4 1 IN 328	CLASS 4 1 IN 315	CLASS 4 1 IN 464	CLASS 4 1 IN 397	CLASS 4 1 IN 475	
DATUM R.L.	19.00								
FINISHED SURFACE LEVEL	25.28	25.28	25.24	25.31	25.14	24.92	24.80	24.80	24.65
DEPTH TO INVERT	1.28	1.35	1.47	1.58	1.52	1.41 1.45	1.54	1.62	1.58
INVERT LEVEL	24.00	23.93 23.93	23.77 23.77	23.73 23.73	23.62 23.62	23.50 23.46	23.25 23.25	23.18 23.18	23.07
PIPE LENGTH	13.40	39.92	10.62	36.03	37.74	97.50	27.78	52.22	

DRAIN LINE 01

0 5 10 20 30m  
SCALE 1:500 @ ORIGINAL SHEET SIZE A1

0 0.5 1 2 3m  
SCALE 1:50 @ ORIGINAL SHEET SIZE A1

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL
Plot Date:	28/02/22 - 11:36				

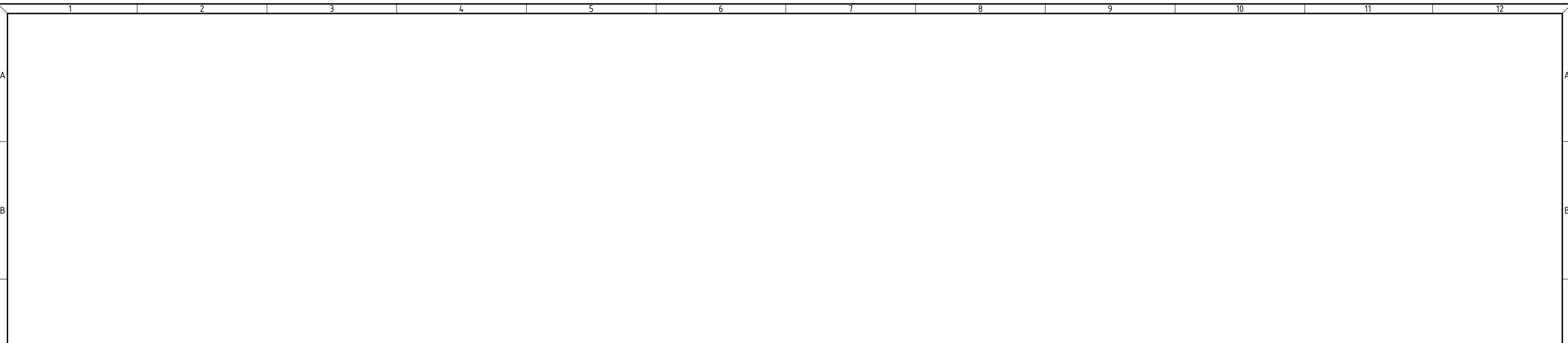
**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.  
**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
TERRA PROPERTY PTY. LTD.

PROJECT:  
ANSTEY ROAD UPGRADE FORRESTDALE  
DRAWING TITLE:  
DRAINAGE LONGSECTIONS SHEET 1 OF 6

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:500 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C360	REVISION B



	01H	01I	01J	01JJ	01K	01L	01M	01N	01O
PIPE SIZE (mm)	600 CLASS 4		600 CLASS 4	600 CLASS 4	600 CLASS 4	750 CLASS 4	750 CLASS 4	750 CLASS 4	1200x600 CLASS RBC
PIPE GRADE	1 IN 475		1 IN 482	1 IN 501	1 IN 434	1 IN 676	1 IN 663	1 IN 667	1 IN 689
DATUM R.L.	18.00								17.00
FINISHED SURFACE LEVEL	24.65	24.64	24.64	24.62	24.64	24.48	24.27	24.15	24.32
DEPTH TO INVERT	1.58	1.61	1.71	1.78	1.83	1.70	1.55	1.55	1.80
INVERT LEVEL	23.07	23.03	22.93	22.84	22.81	22.77	22.71	22.59	22.51
PIPE LENGTH	19.00	48.20	45.08	13.02	27.03	39.78	80.07	55.13	

DRAIN LINE 01



**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

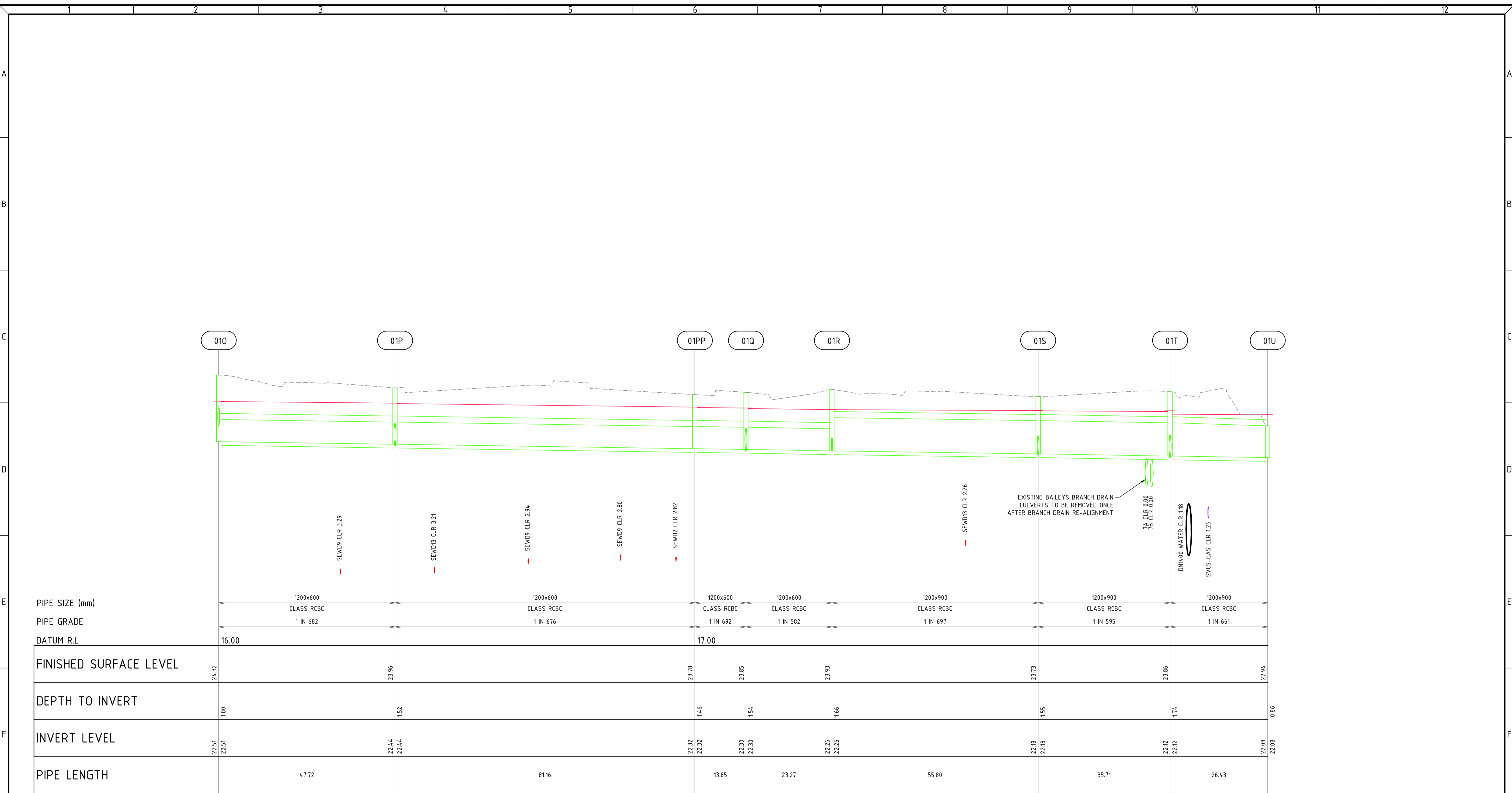
**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**

DRAWING TITLE:  
**DRAINAGE LONGSECTIONS SHEET 2 OF 6**

DRAWN	A. PANZICH	WAPC No.	158169
DESIGNED	A. PANZICH	SCALE	H 1:500 V 1:50
PROJECT MANAGER	D. HELLMUTH	DATUM	AHD
JDSi PROJECT No.	JDS13642.RW01	CO-ORDS	PCG 94
DRAWING No.	C361	REVISION	B



DRAIN LINE 01



**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

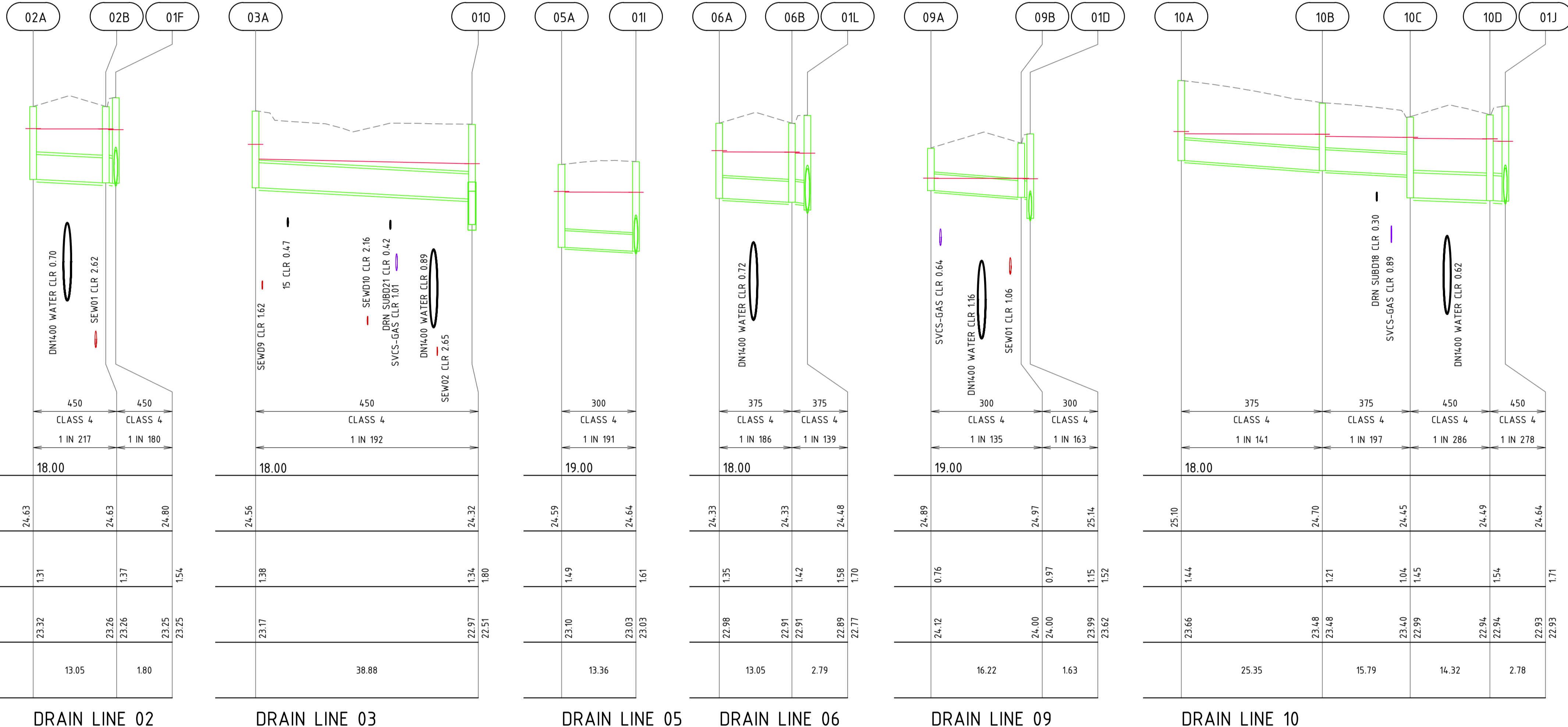
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**

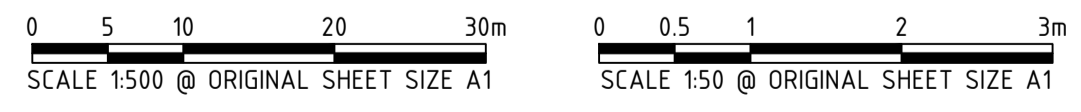
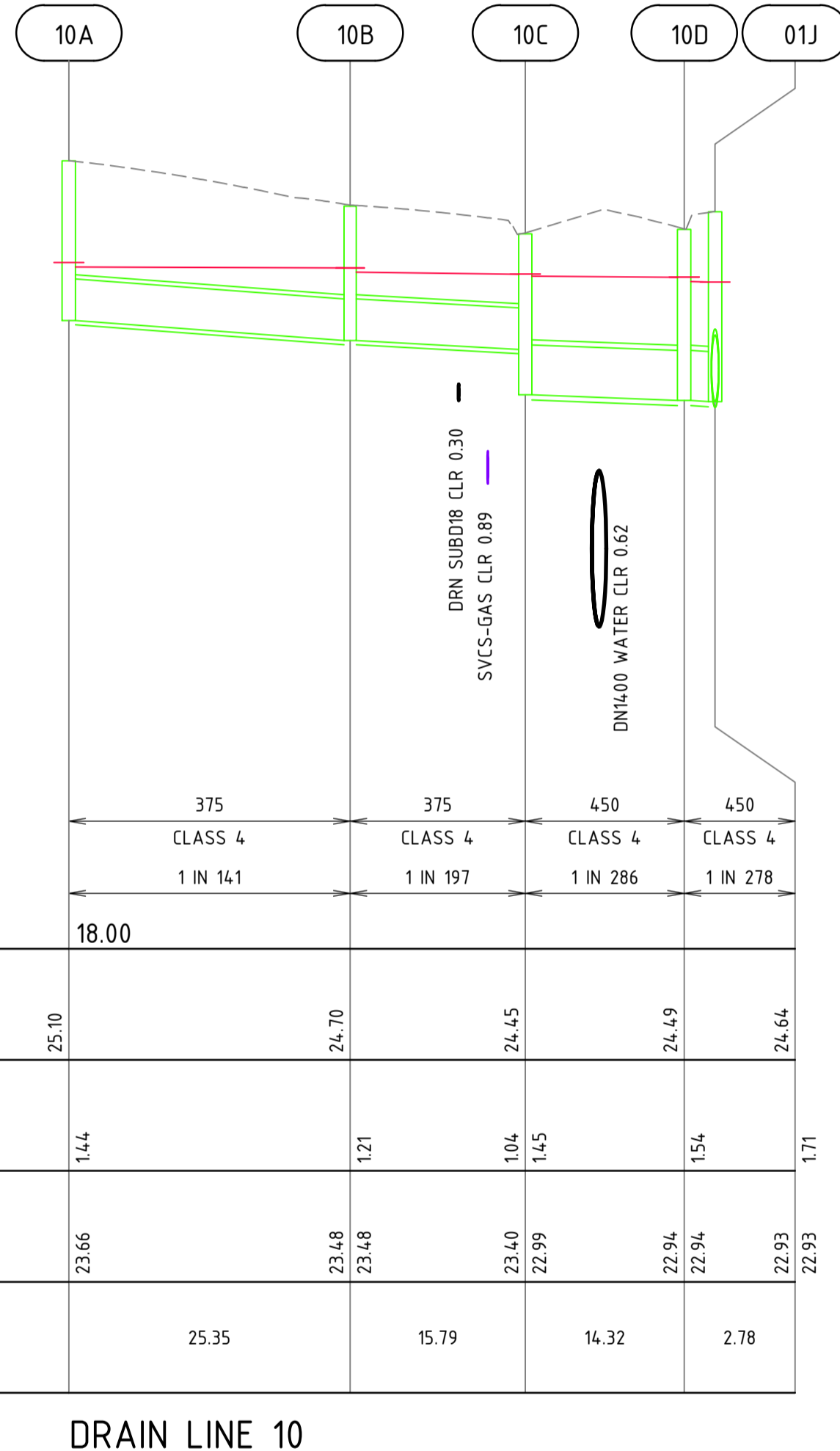
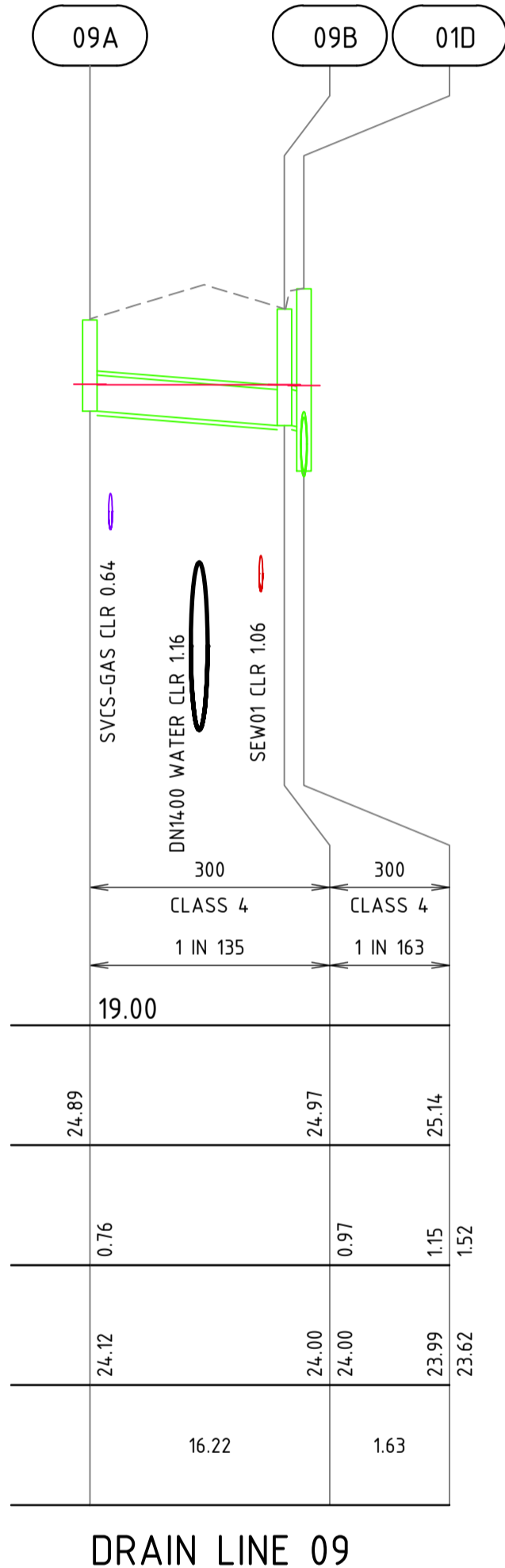
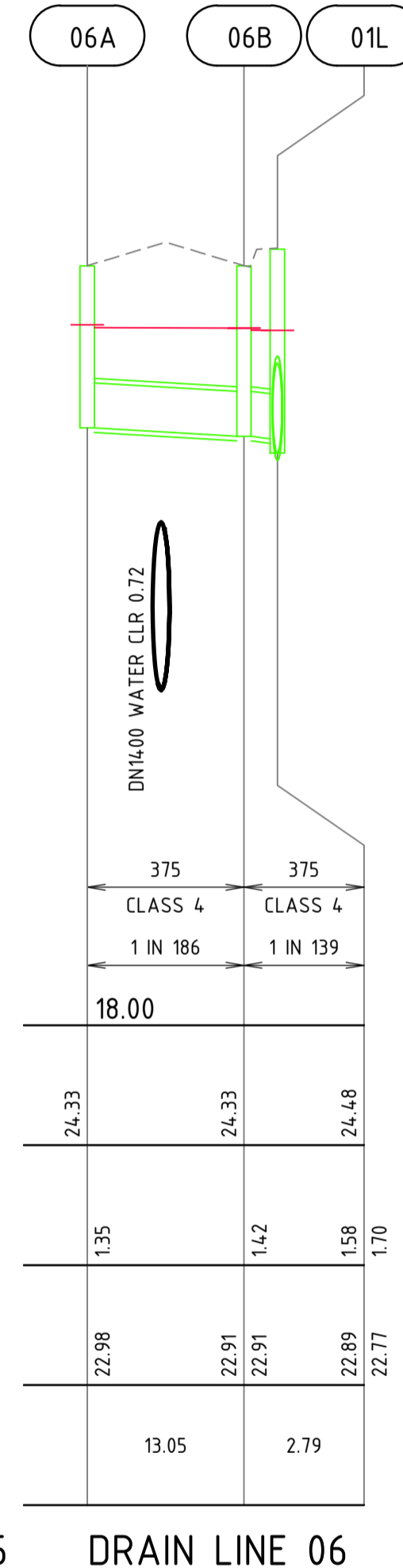
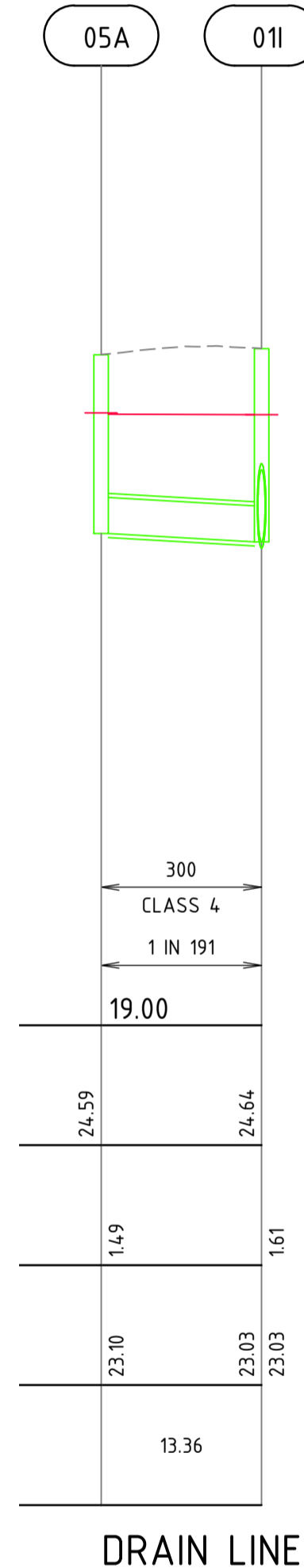
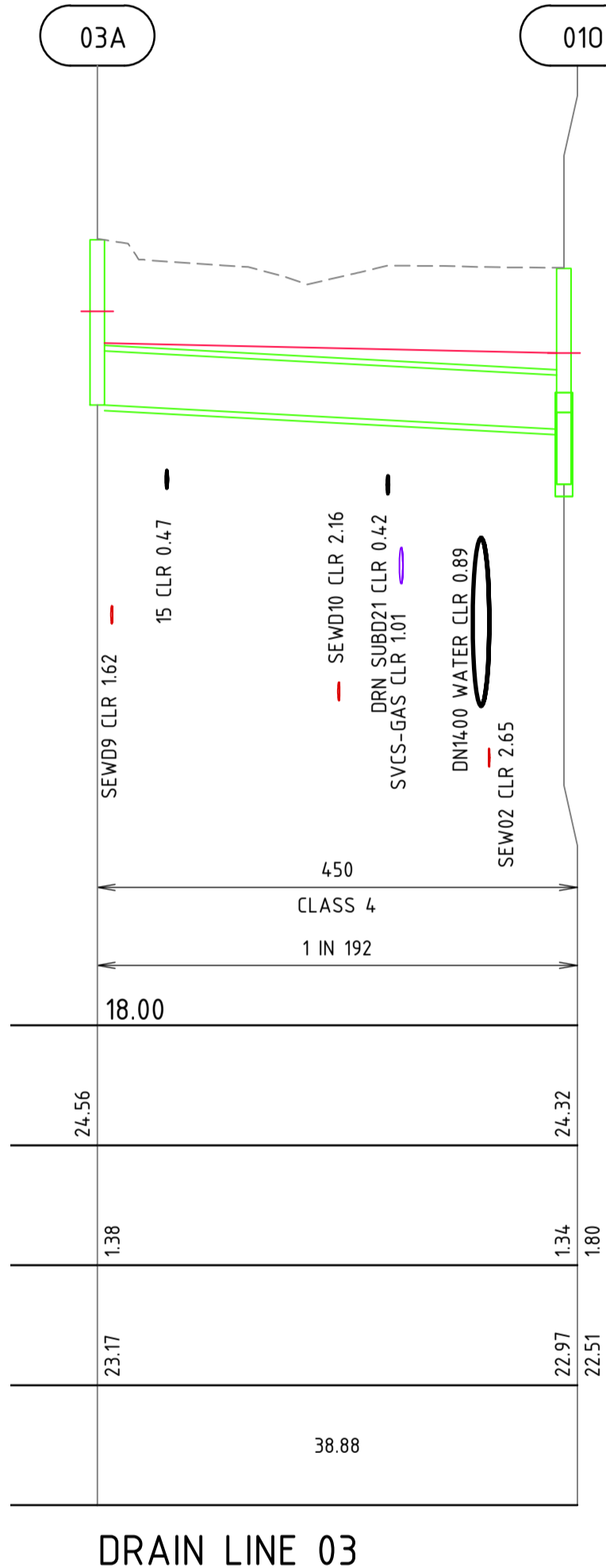
DRAWING TITLE:  
**DRAINAGE LONGSECTIONS SHEET 3 OF 6**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:500 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C362	REVISION B





PIPE SIZE (mm)	450		450	
PIPE GRADE	CLASS 4 1 IN 217		CLASS 4 1 IN 180	
DATUM R.L.	18.00			
FINISHED SURFACE LEVEL	24.63	24.63	24.80	
DEPTH TO INVERT	1.31	1.37	1.54	
INVERT LEVEL	23.32	23.26	23.25	23.25
PIPE LENGTH	13.05	1.80		



**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

RE-ISSUED FOR COUNCIL APPROVAL	AP	BG	
ISSUED FOR COUNCIL APPROVAL	AP	BG	DH
REV	DATE	DRAWN	CHECKED
B	15.02.22	AP	BG
A	29.10.21	AP	BG

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**

DRAWING TITLE:  
**DRAINAGE LONGSECTIONS SHEET 4 OF 6**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:500 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C363	REVISION B

1 2 3 4 5 6 7 8 9 10 11 12

A

B

C

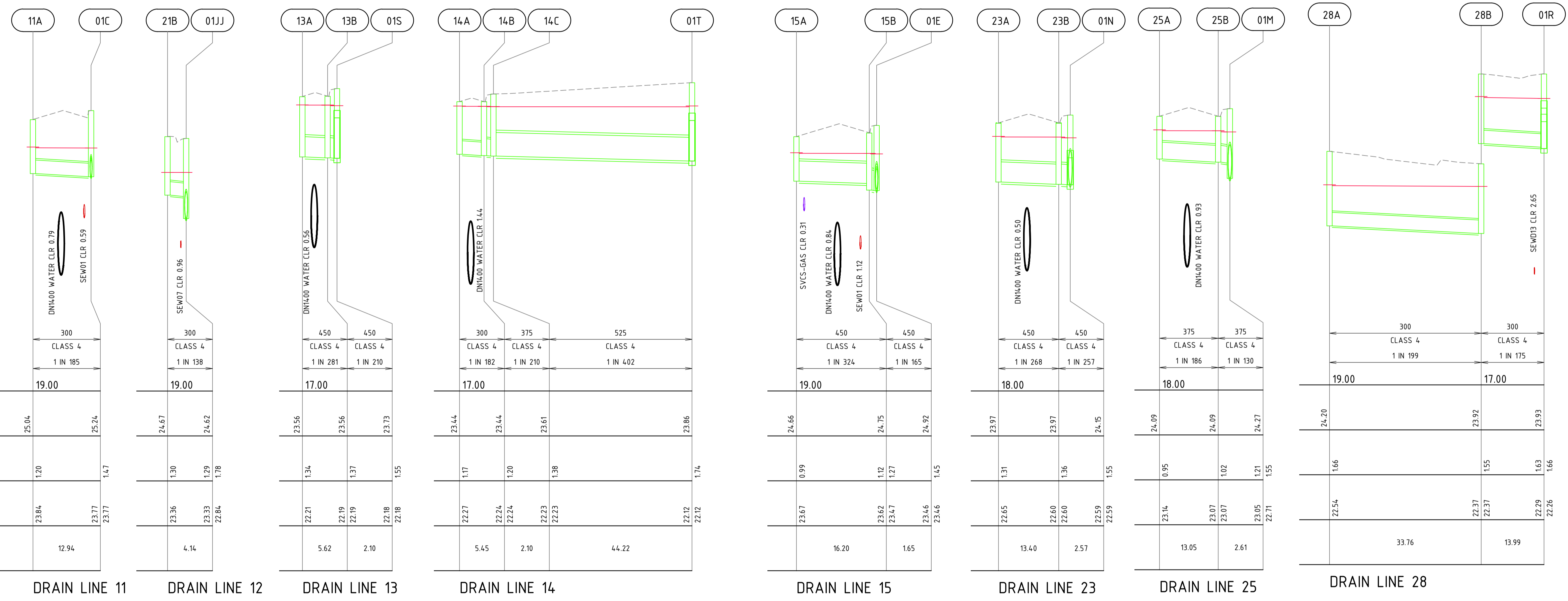
D

E

F

G

H



PIPE SIZE (mm)	300	300
PIPE GRADE	CLASS 4 1 IN 185	CLASS 4 1 IN 138
DATUM R.L.	19.00	19.00
FINISHED SURFACE LEVEL	25.04	25.24
DEPTH TO INVERT	1.20	1.47
INVERT LEVEL	23.84	23.77
PIPE LENGTH	12.94	

DRAIN LINE 11

DRAIN LINE 12

DRAIN LINE 13

DRAIN LINE 14

DRAIN LINE 15

DRAIN LINE 23

DRAIN LINE 25

DRAIN LINE 28



**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL
Plotted By: APanzich Plot Date: 28/02/22 - 11:36 Cad File: I:\JDSI3642\JDSI3642.RW01\02 CIVIL\Drawings\JDSI3642.RW01_C360-C365.dwg					

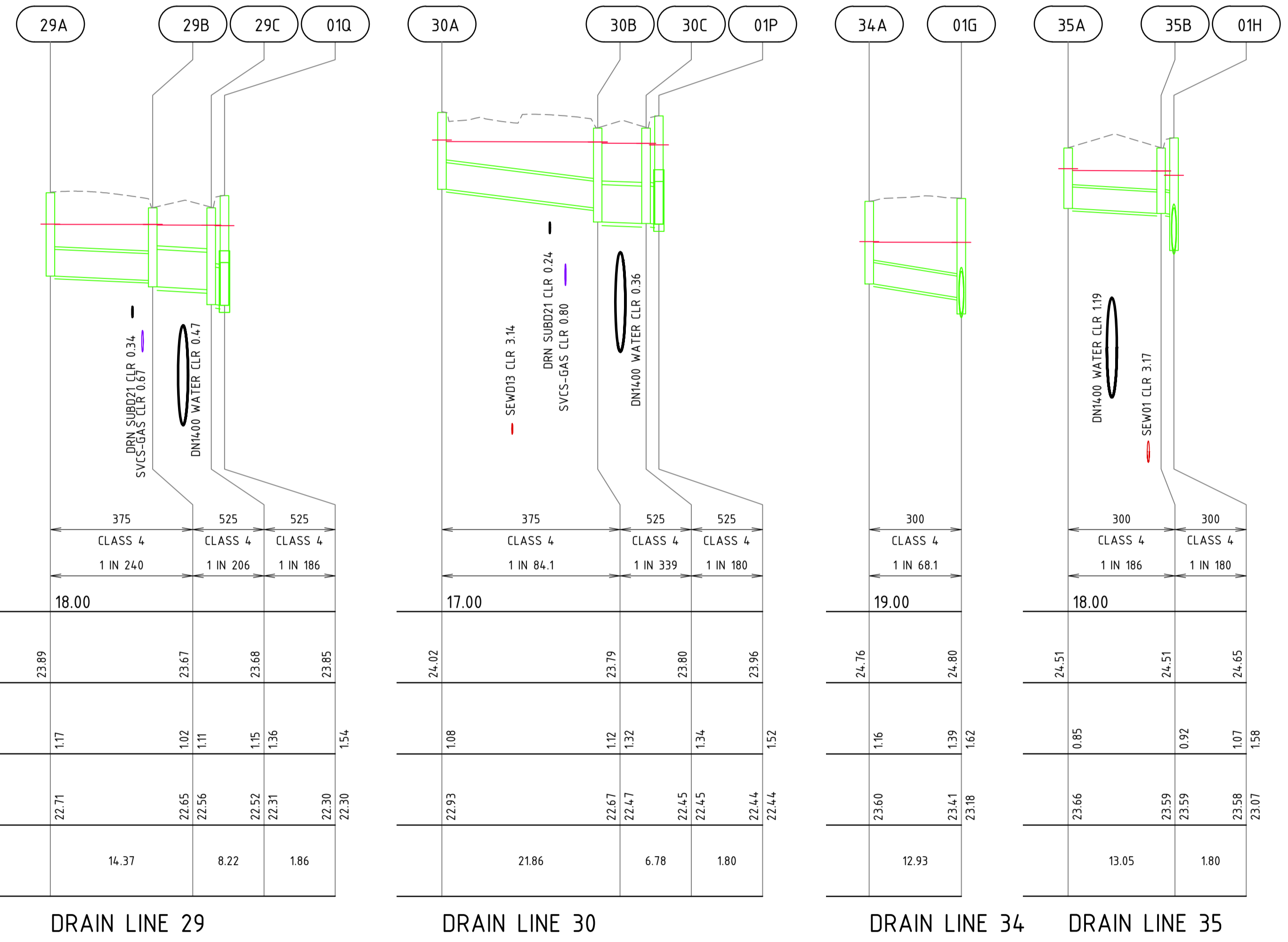
**COPYRIGHT**  
This drawing is copyright and the property of JDSI Pty Ltd (JDSI). Use without written permission from JDSI constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSI.  
**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSI**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDAL**  
DRAWING TITLE:  
**DRAINAGE LONGSECTIONS SHEET 5 OF 6**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE H 1:500 V 1:50
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSI PROJECT No. JDS13642.RW01	DRAWING No. C364
	REVISION B

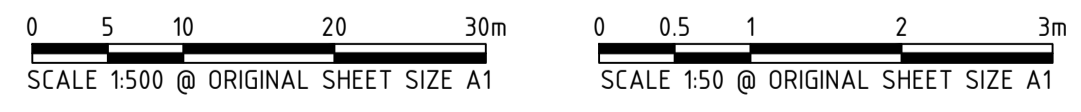


PIPE SIZE (mm)	375	525	525
PIPE GRADE	1 IN 240	1 IN 206	1 IN 186
DATUM R.L.	18.00		
FINISHED SURFACE LEVEL	23.89	23.67	23.85
DEPTH TO INVERT	1.17	1.02	1.54
INVERT LEVEL	22.71	22.65	22.30
PIPE LENGTH	14.37	8.22	1.86

PIPE SIZE (mm)	375	525	525
PIPE GRADE	1 IN 84.1	1 IN 339	1 IN 180
DATUM R.L.	17.00		
FINISHED SURFACE LEVEL	24.02	23.79	23.96
DEPTH TO INVERT	1.08	1.12	1.52
INVERT LEVEL	22.93	22.67	22.44
PIPE LENGTH	21.86	6.78	1.80

PIPE SIZE (mm)	300
PIPE GRADE	1 IN 68.1
DATUM R.L.	19.00
FINISHED SURFACE LEVEL	24.76
DEPTH TO INVERT	1.16
INVERT LEVEL	23.60
PIPE LENGTH	12.93

PIPE SIZE (mm)	300	300
PIPE GRADE	1 IN 186	1 IN 180
DATUM R.L.	18.00	
FINISHED SURFACE LEVEL	24.51	24.65
DEPTH TO INVERT	0.85	1.07
INVERT LEVEL	23.66	23.58
PIPE LENGTH	13.05	1.80



**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

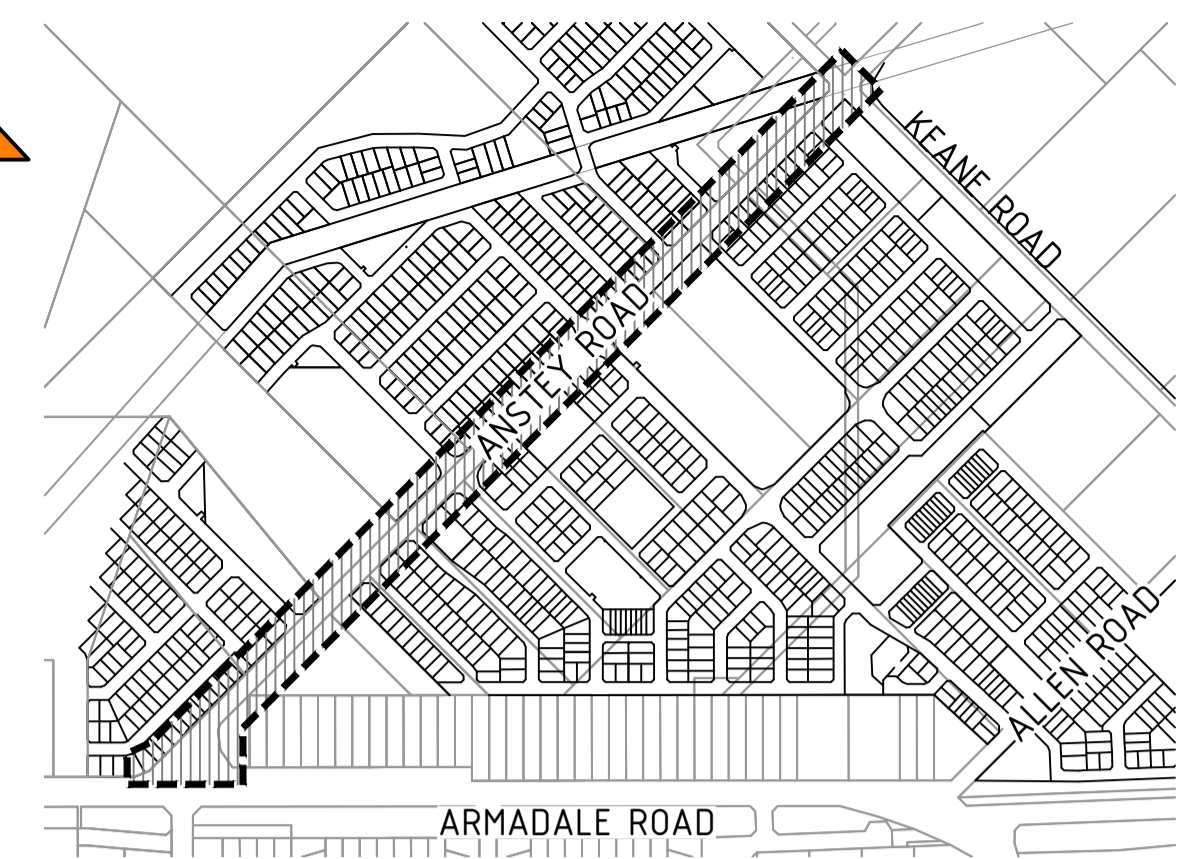
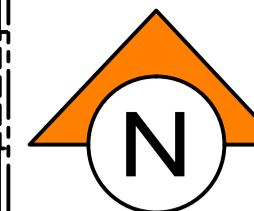
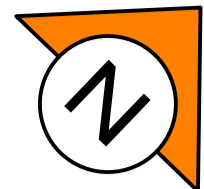
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESTDALE**

DRAWING TITLE:  
**DRAINAGE LONGSECTIONS SHEET 6 OF 6**

DRAWN	A. PANZICH	WAPC No.	158169
DESIGNED	A. PANZICH	SCALE	H 1:500 V 1:50
PROJECT MANAGER	D. HELLMUTH	DATUM	AHD
JDSi PROJECT No.	JDS13642.RW01	CO-ORDS	PCG 94
DRAWING No.	C365	REVISION	B





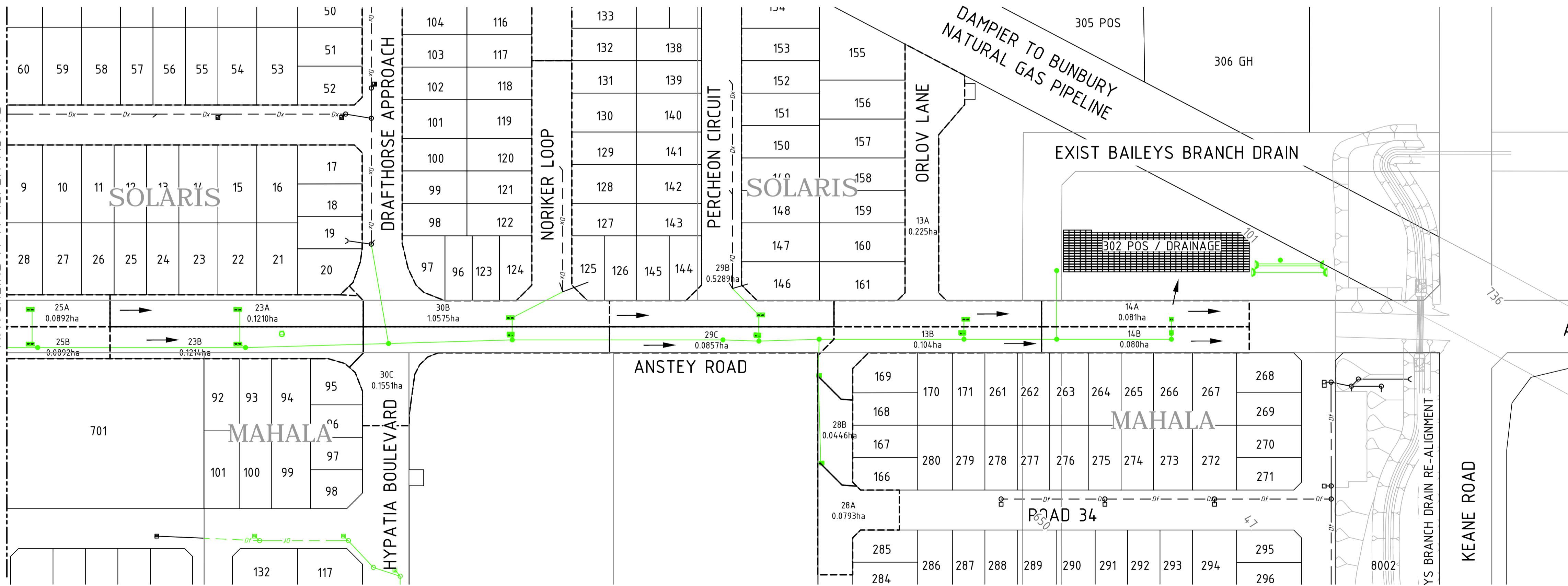
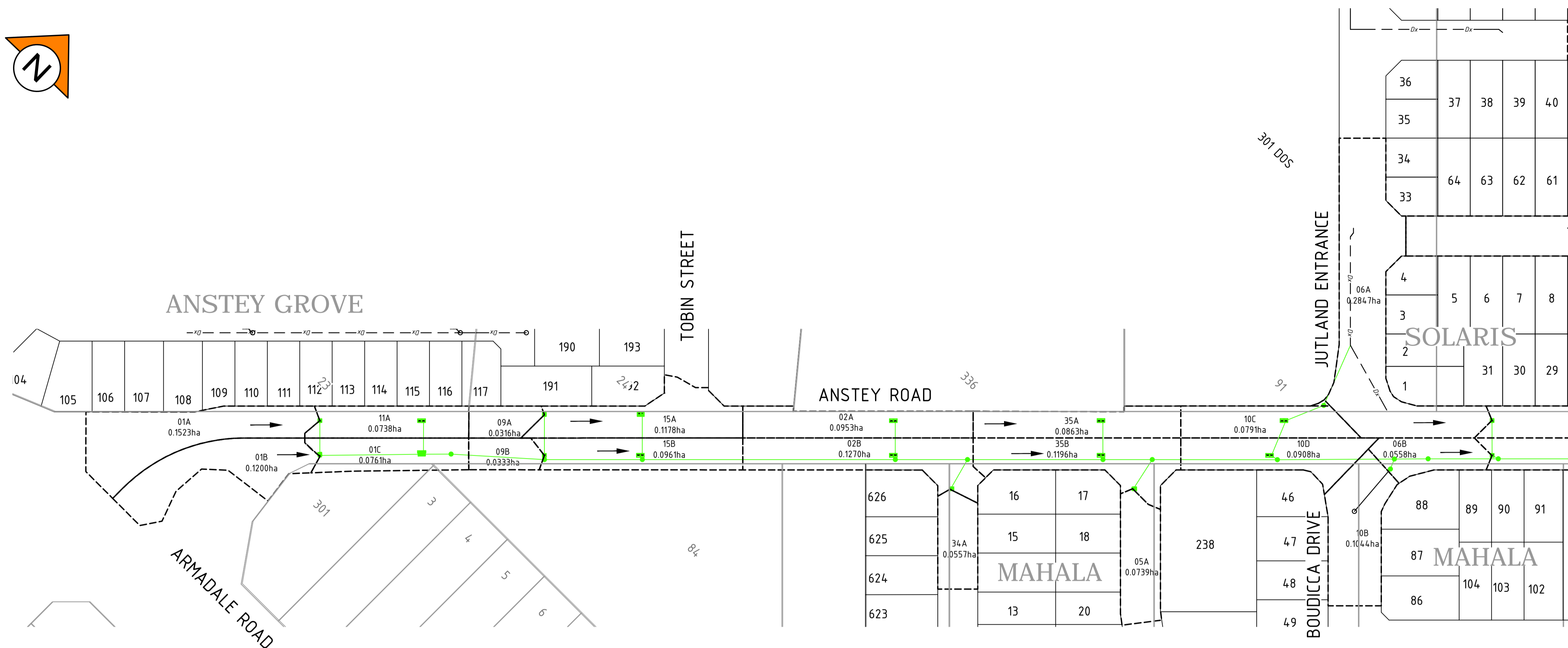
LOCALITY PLAN  
SCALE: DIAGRAMATIC

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DRAWINGS AND SPECIFICATION.
2. FOR DETAILED LAYOUT REFER TO DRAWING C350 OF THIS SET.

LEGEND

- PROPOSED STORMWATER DRAINAGE
- EXISTING STORMWATER DRAINAGE
- FUTURE STORMWATER DRAINAGE
- ROAD RESERVE CATCHMENT
- CATCHMENT AREA (ha)
- DIRECTION OF 100 YEAR A.R.I. STORM FLOW PATH



0 10 20 40 60m  
SCALE 1:1000 @ ORIGINAL SHEET SIZE A1

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

**DIAL 1100**  
BEFORE YOU DIG

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

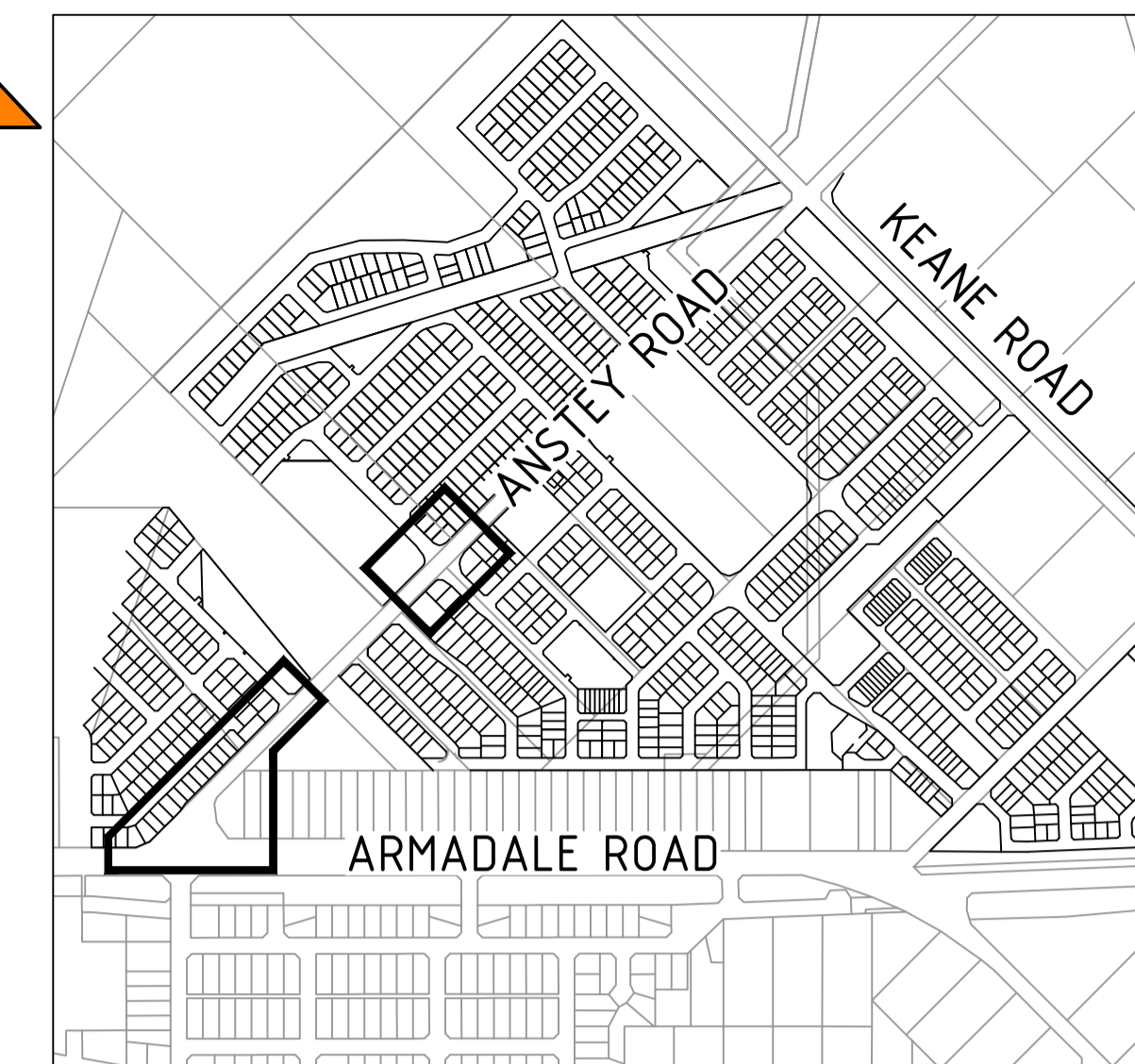
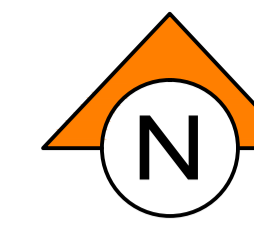
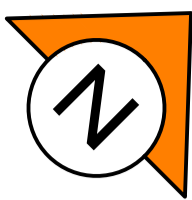
CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**ANSTEY ROAD UPGRADE FORRESDALE**

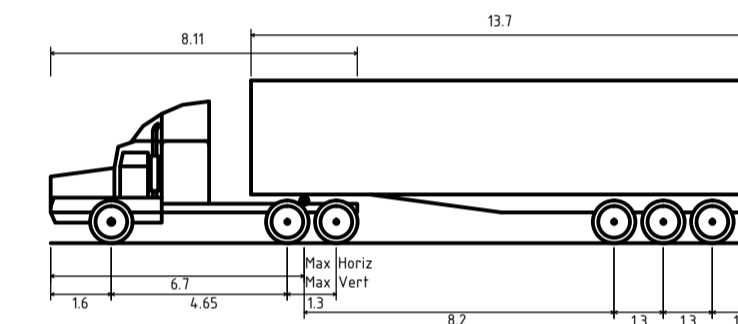
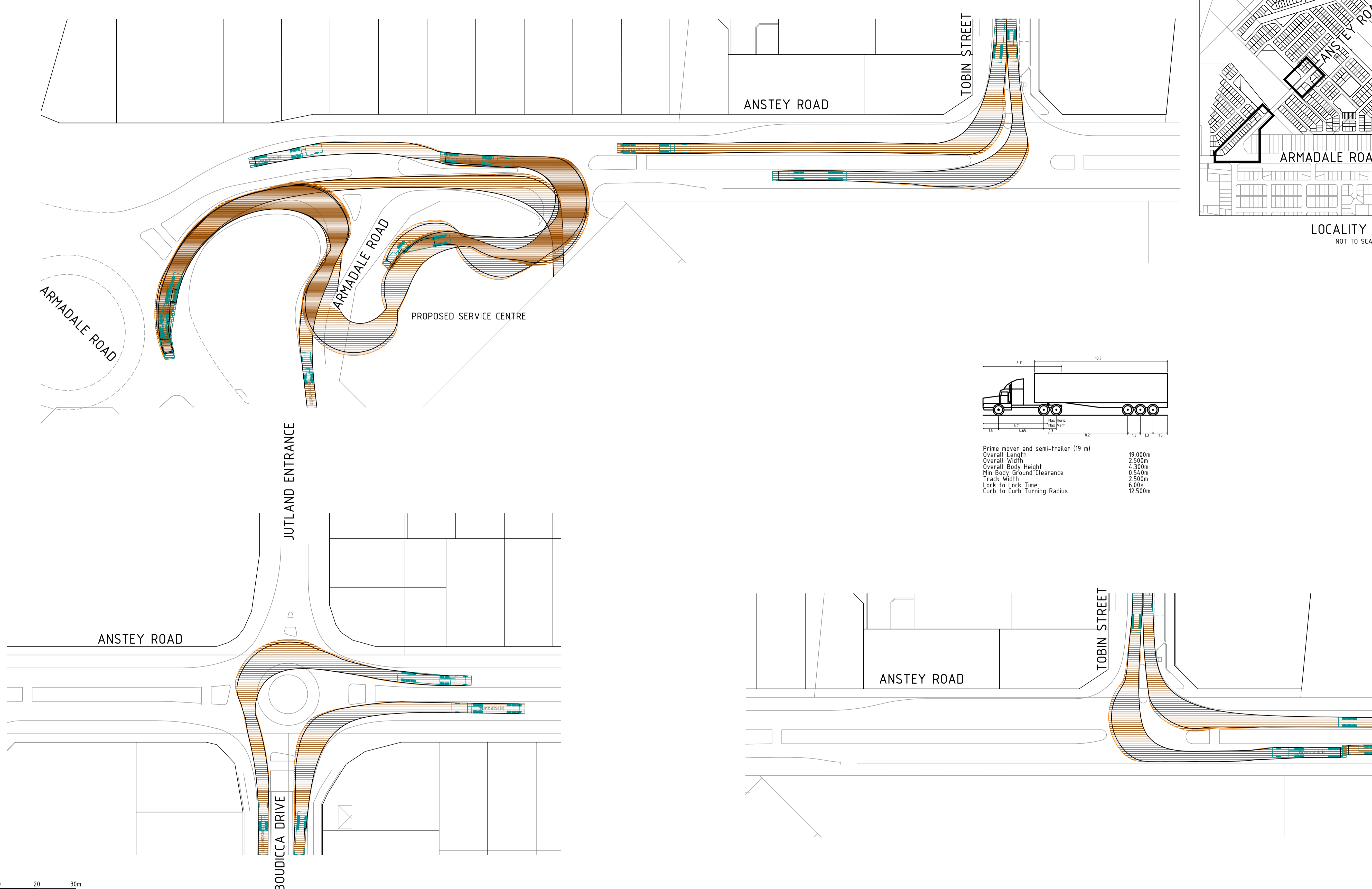
DRAWING TITLE:  
**DRAINAGE CATCHMENT PLAN**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE 1:1000
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C370	REVISION B





LOCALITY PLAN  
NOT TO SCALE



Prime mover and semi-trailer (19 m)	19,000m
Overall Length	25.00m
Overall Width	4.300m
Overall Body Height	0.540m
Min Body Ground Clearance	2.500m
Track Width	6.00s
Lock to Lock Time	12.500m
Curb to Curb Turning Radius	

0 5 10 20 30m  
SCALE 1500 @ ORIGINAL SHEET SIZE A1

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

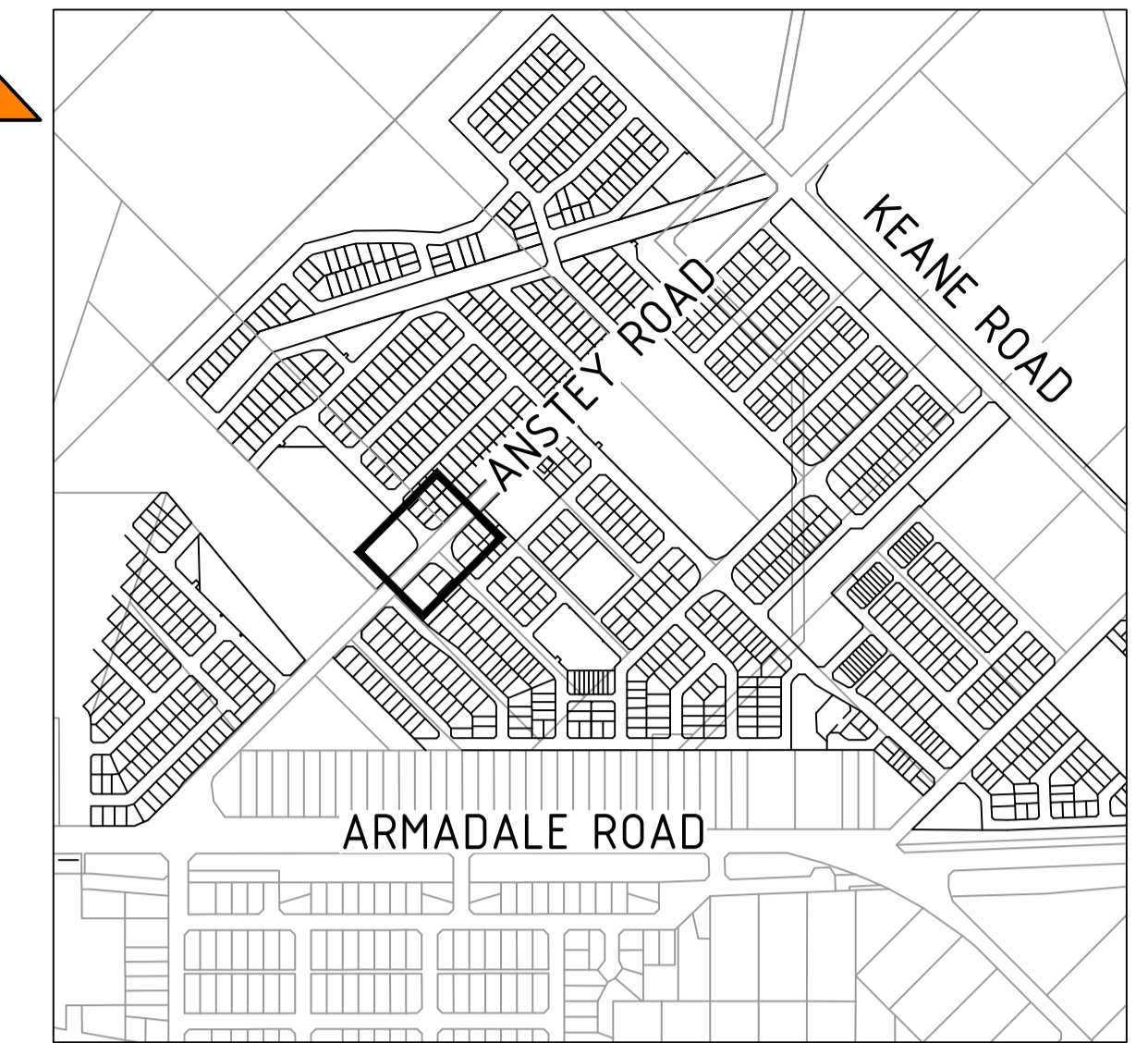
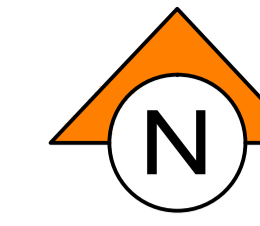
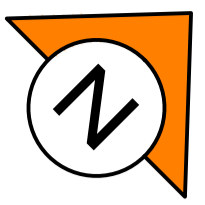
**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001



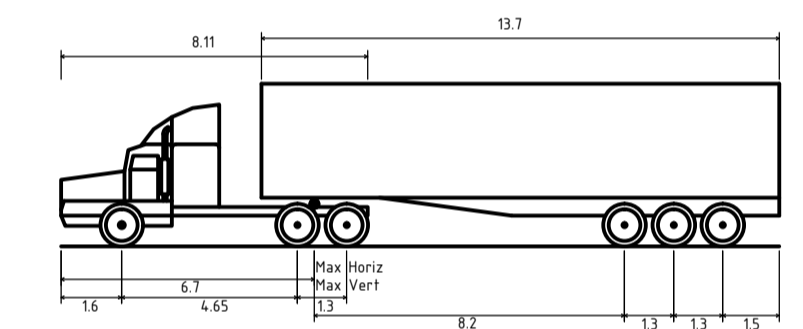
CLIENT:  
TERRA PROPERTY PTY. LTD.

PROJECT:  
ANSTEY ROAD UPGRADE FORRESTDAL  
DRAWING TITLE:  
TURNING MOVEMENTS SHEET 1 OF 6

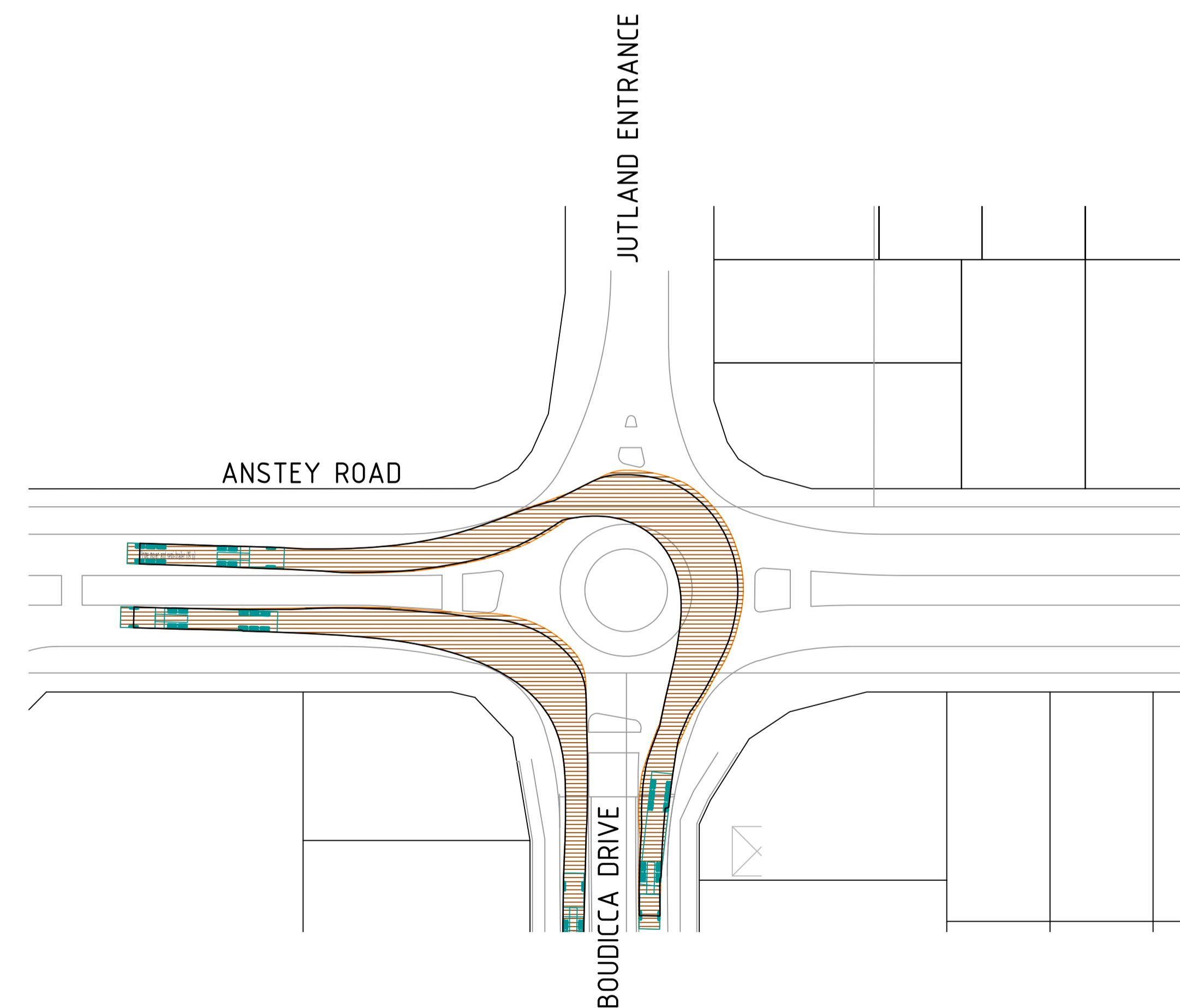
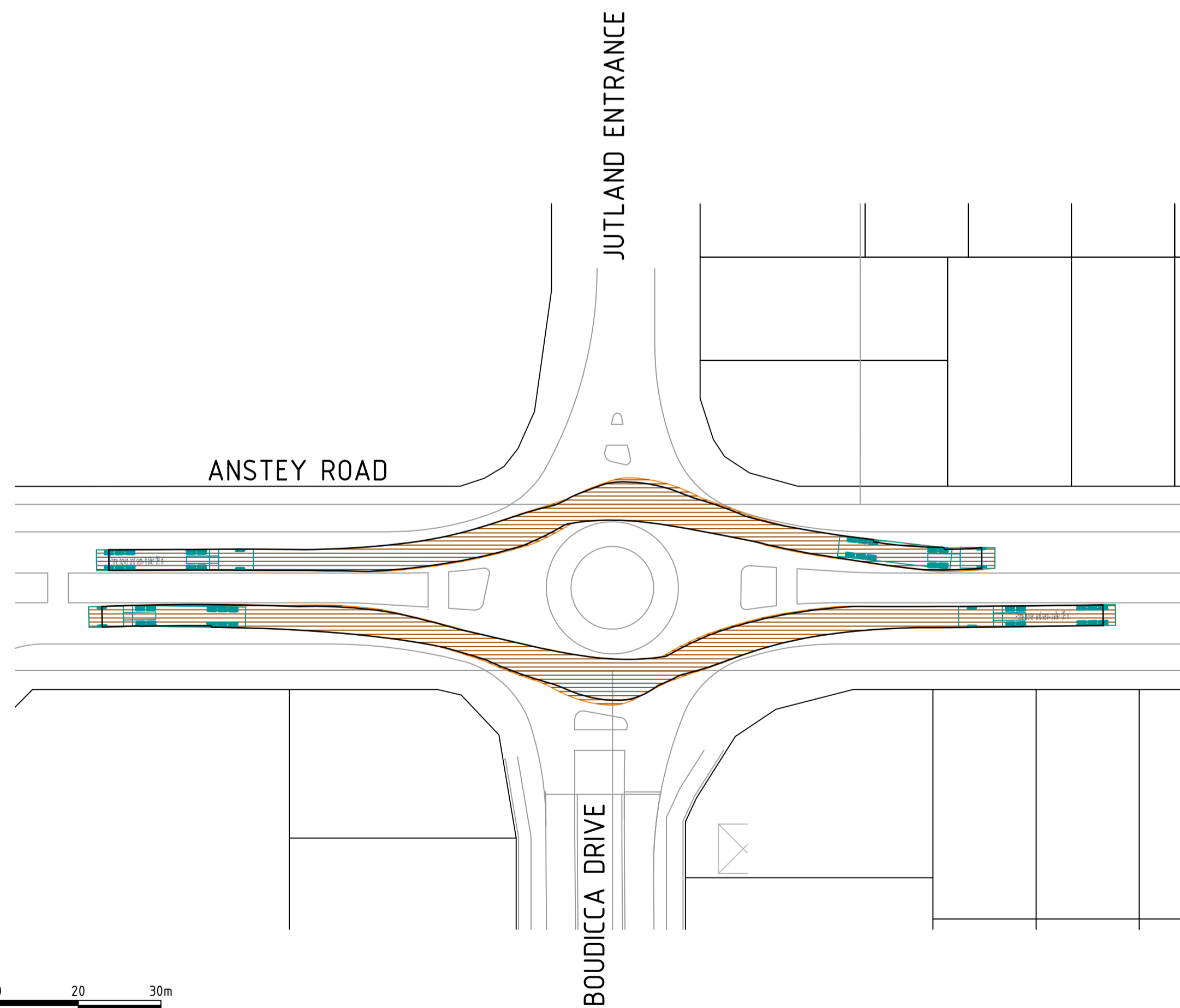
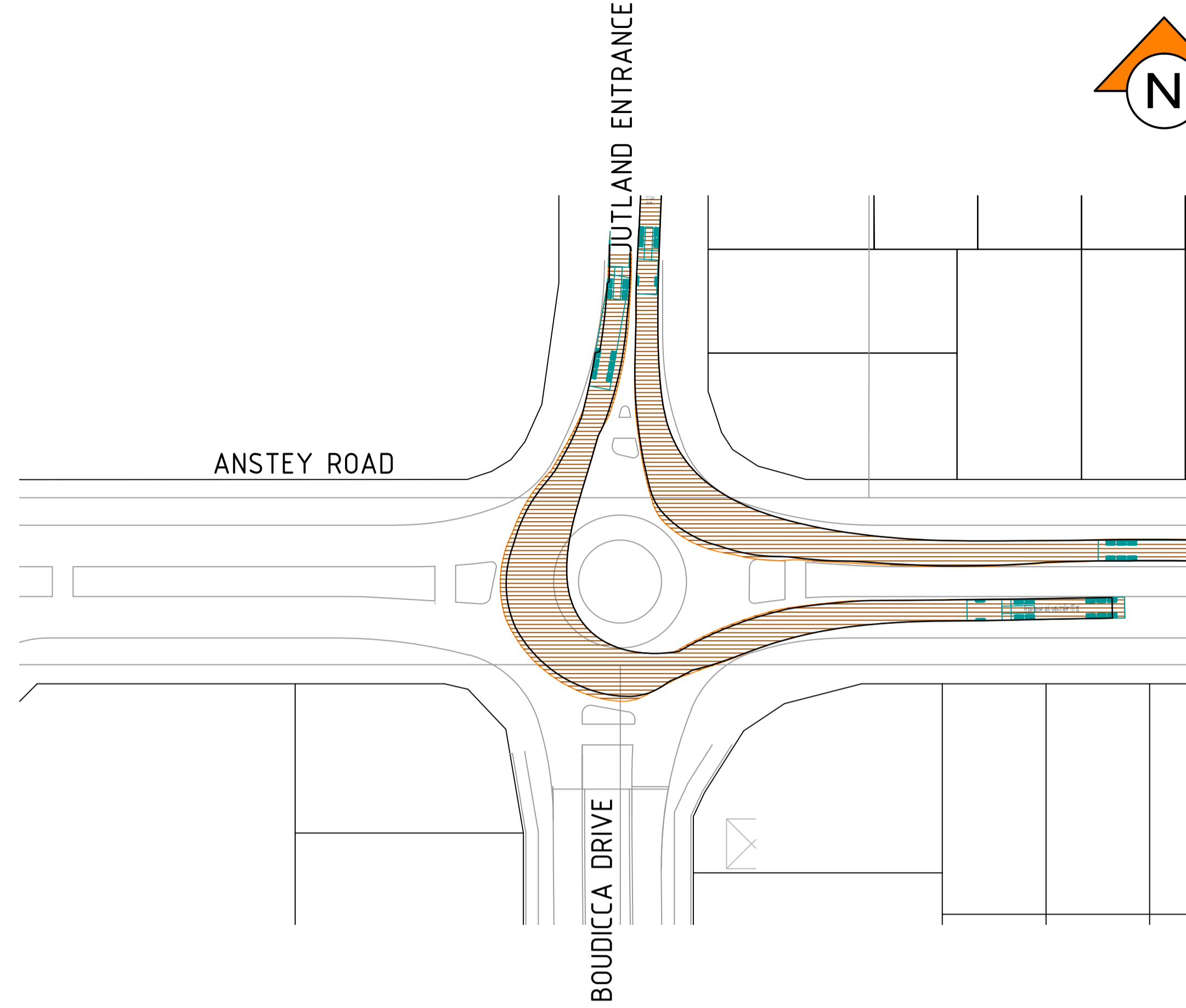
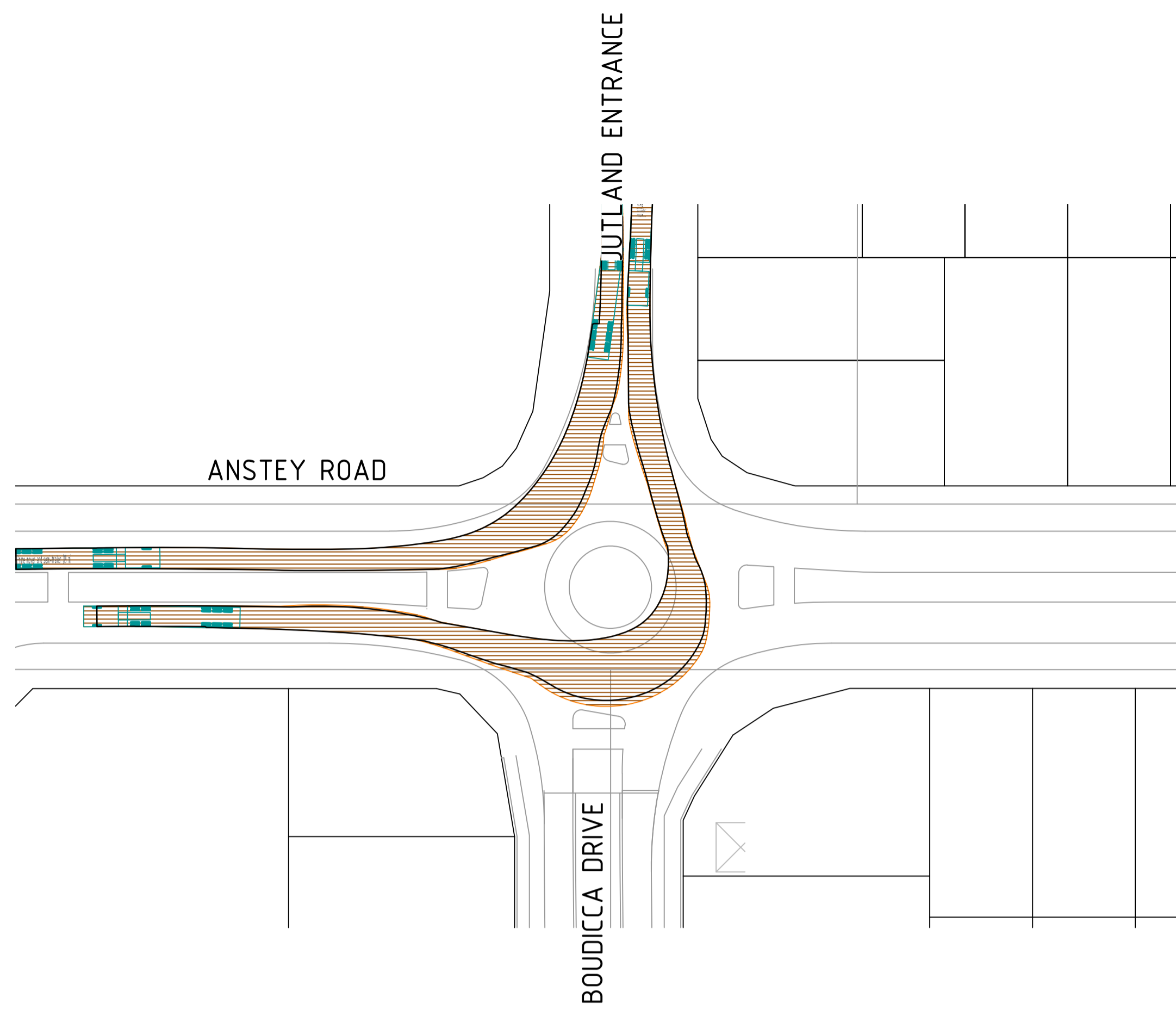
DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 1:500
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C390	REVISION B



LOCALITY PLAN  
NOT TO SCALE



Prime mover and semi-trailer (19 m)  
Overall Length 19.000m  
Overall Width 2.500m  
Overall Body Height 4.300m  
Min Body Ground Clearance 0.540m  
Track Width 2.500m  
Lock to Lock Time 6.00s  
Curb to Curb Turning Radius 12.500m



0 5 10 20 30m  
SCALE 1500 @ ORIGINAL SHEET SIZE A1

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

**JDSi**  
CONSULTING ENGINEERS  
Level 1, 432 Murray Street, Perth WA 6000  
P: (08) 9227 0595 F: (08) 9227 8617

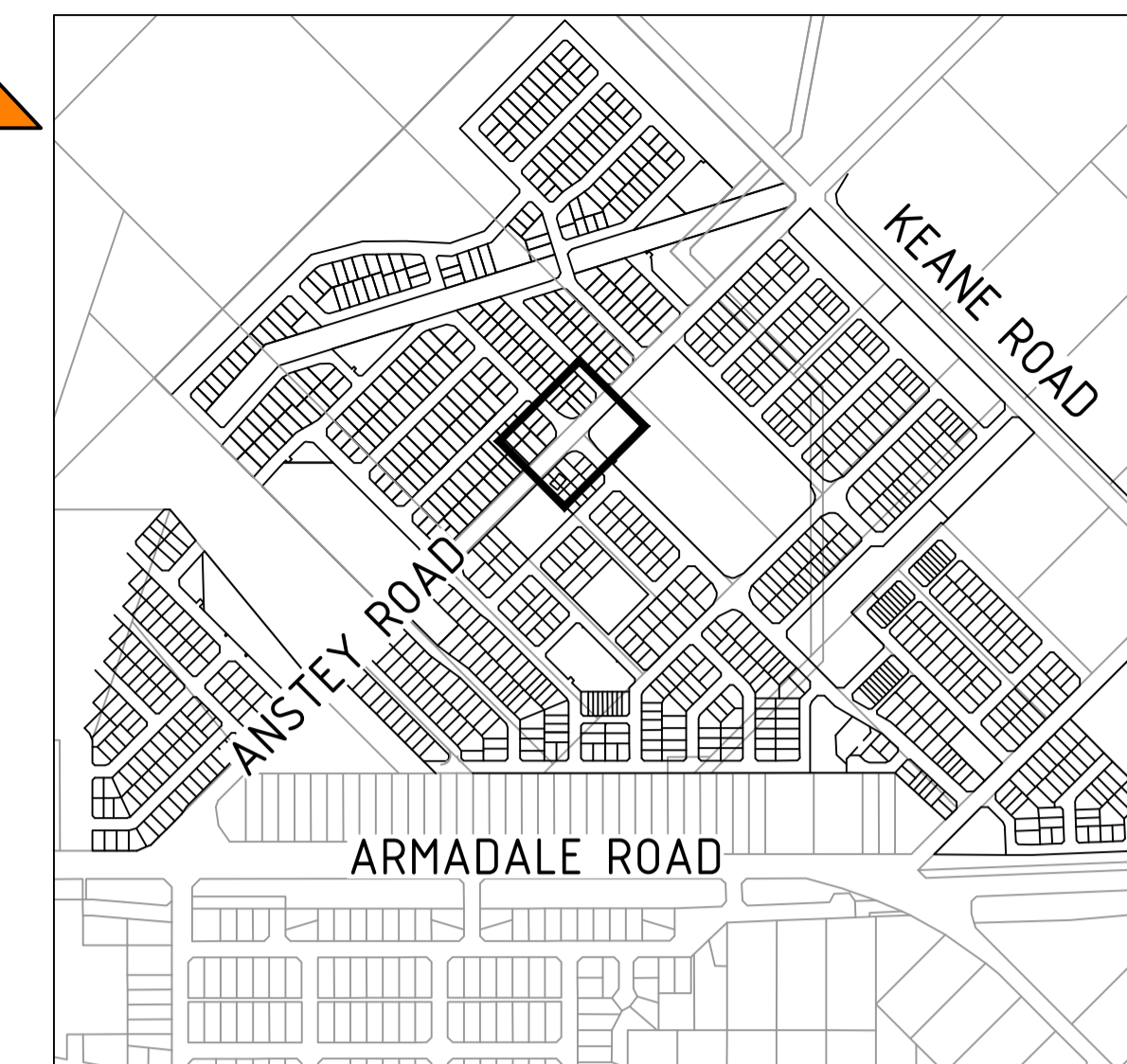
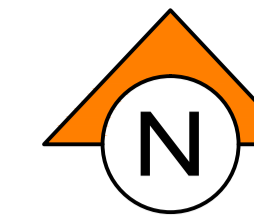
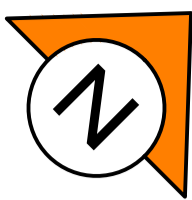
CLIENT:  
TERRA PROPERTY PTY. LTD.

PROJECT:  
ANSTEY ROAD UPGRADE  
FORRESTDALE

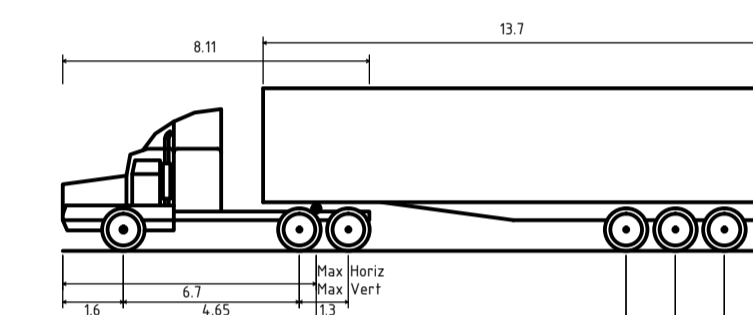
DRAWING TITLE:  
TURNING MOVEMENTS  
SHEET 2 OF 6

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE 1:500
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C391	REVISION B

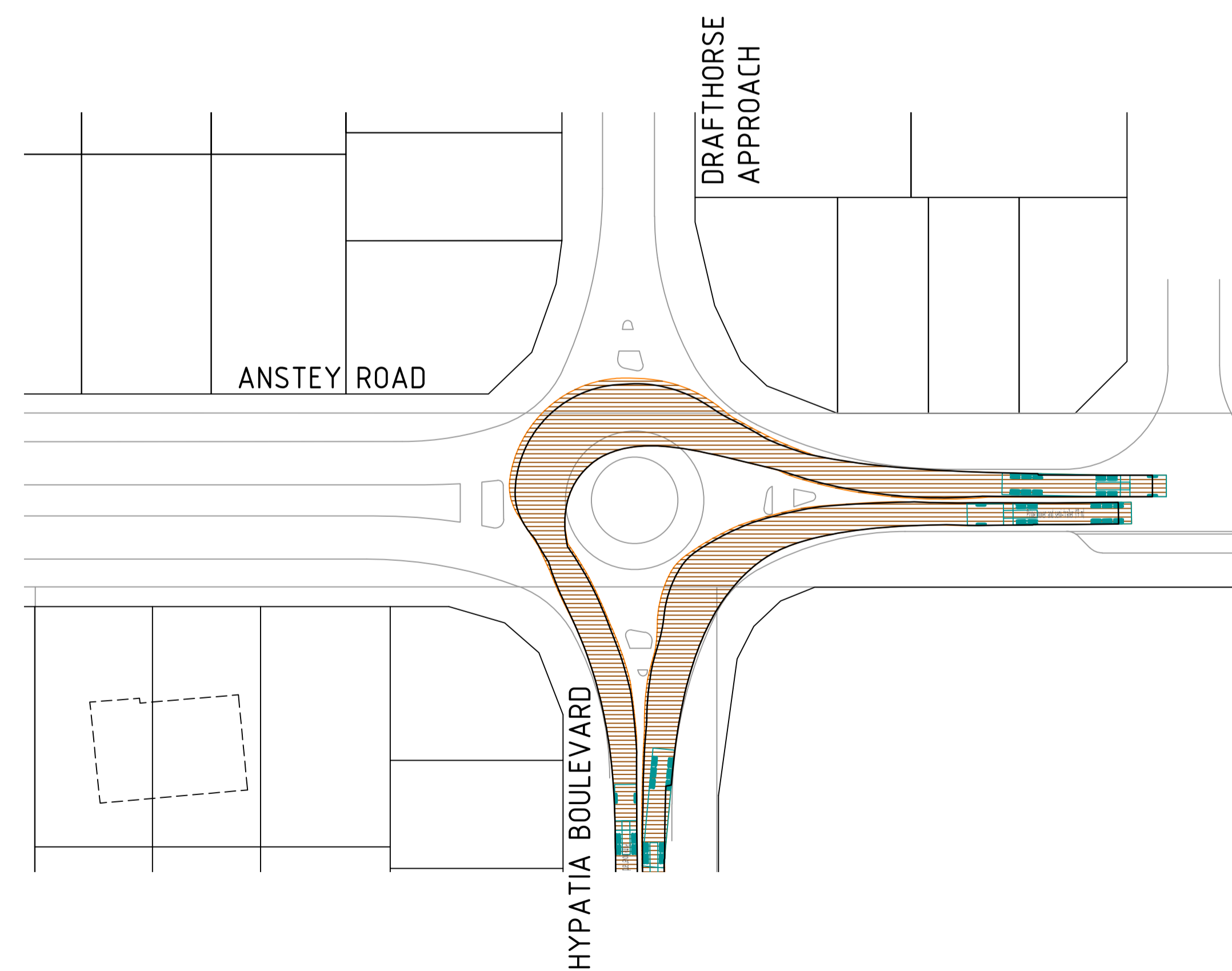
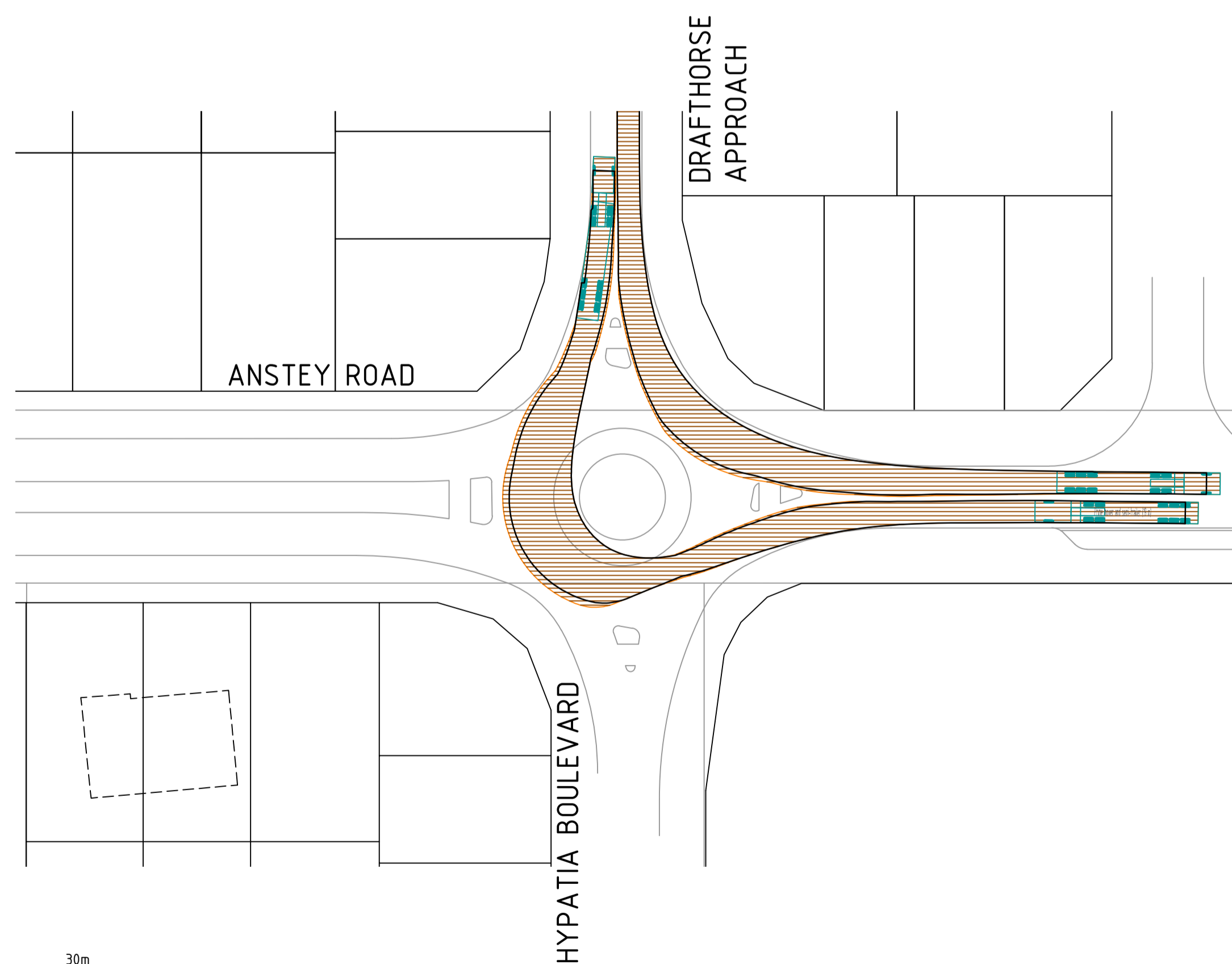
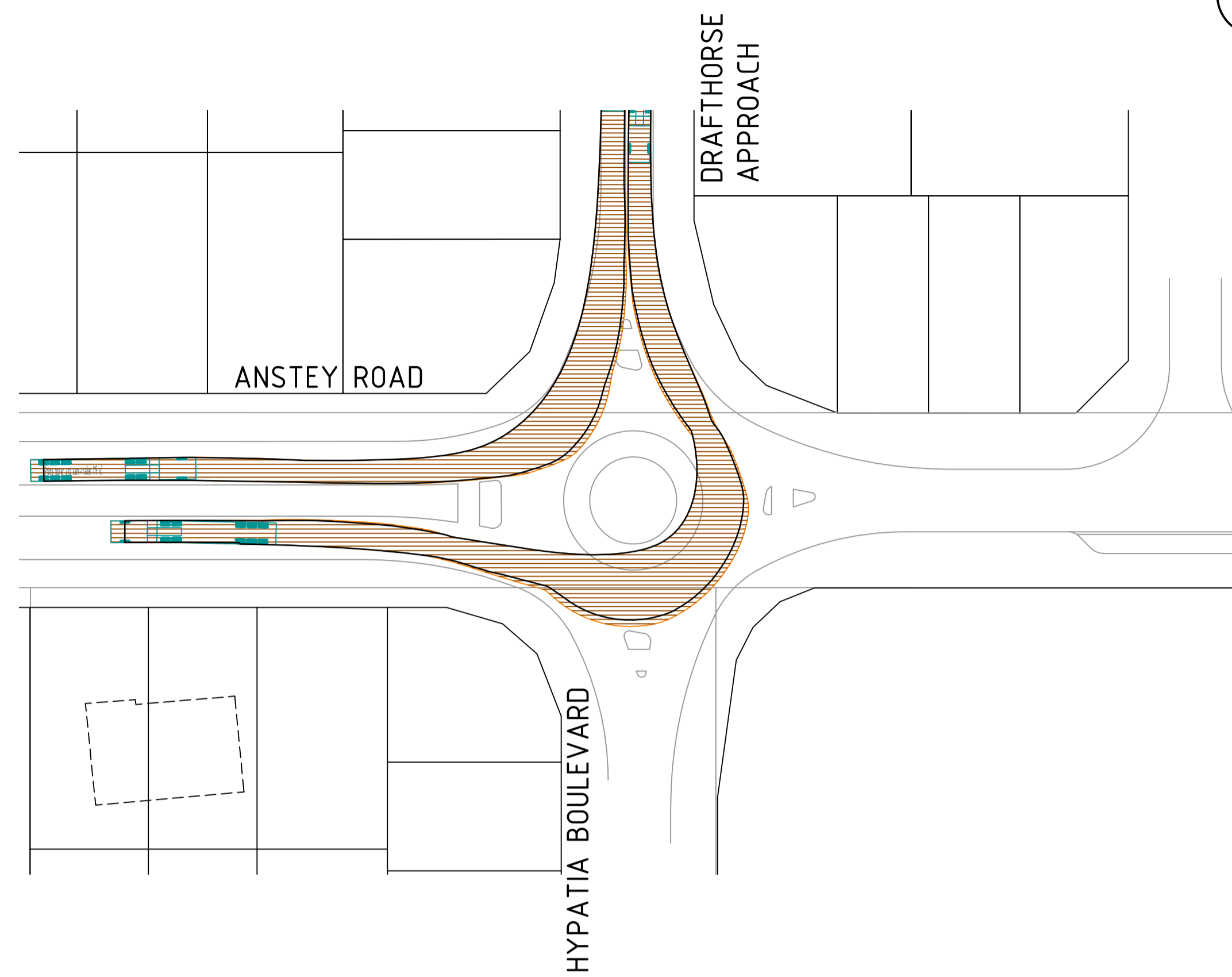
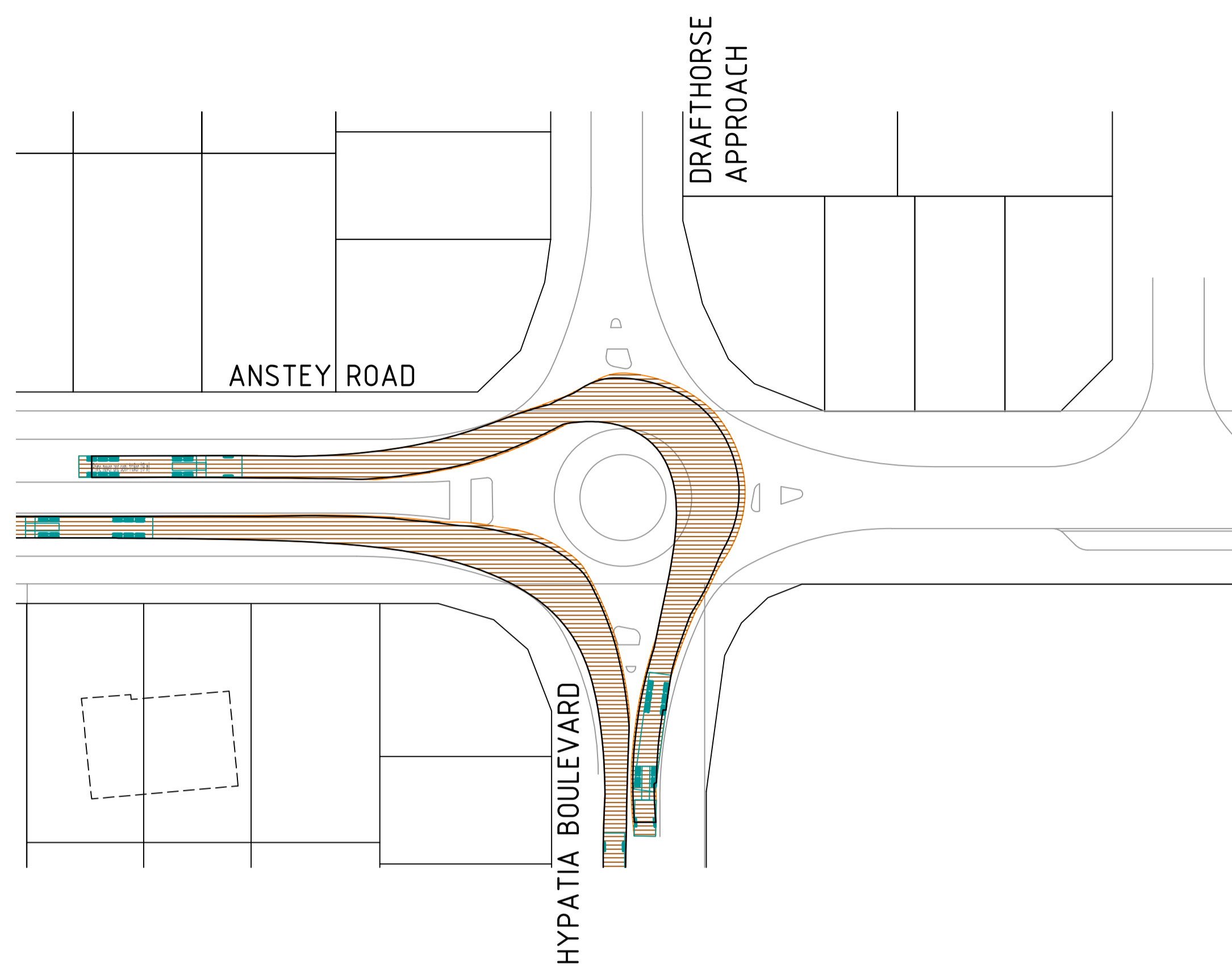




LOCALITY PLAN  
NOT TO SCALE



Prime mover and semi-trailer (19 m)  
Overall Length 19.000m  
Overall Width 2.500m  
Overall Body Height 4.300m  
Min Body Ground Clearance 0.540m  
Track Width 2.500m  
Lock to Lock Time 6.00s  
Curb to Curb Turning Radius 12.500m



0 5 10 20 30m  
SCALE 1:500 @ ORIGINAL SHEET SIZE A1

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

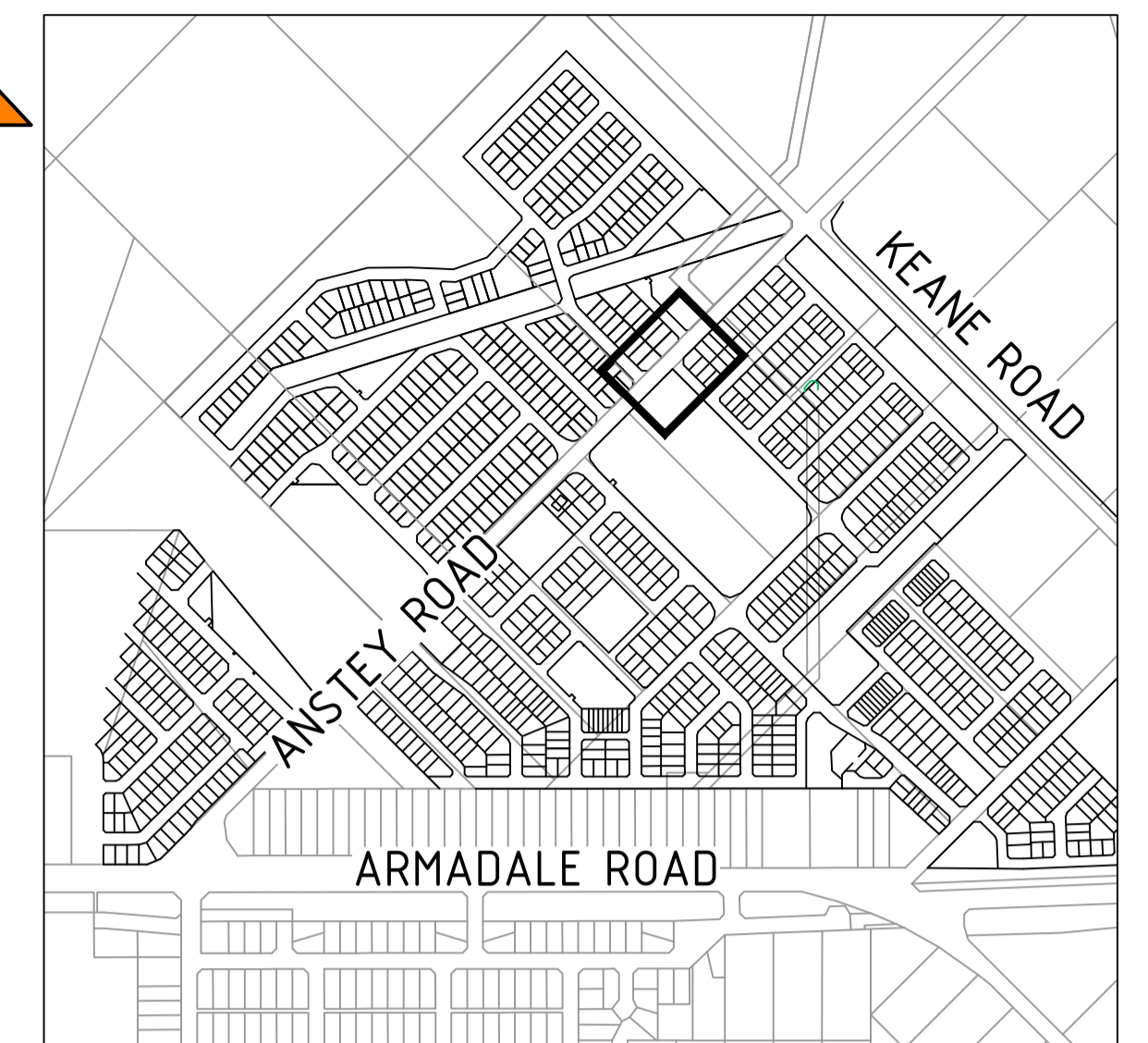
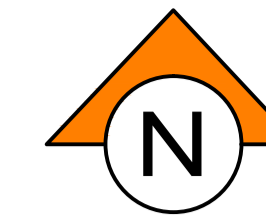
**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001



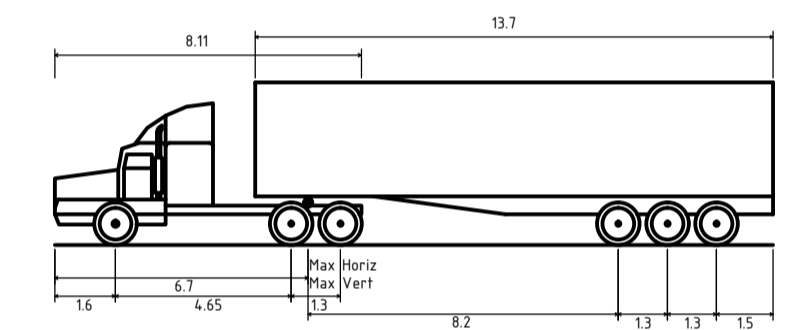
CLIENT:  
TERRA PROPERTY PTY. LTD.

PROJECT:  
ANSTEY ROAD UPGRADE FORRESDALE  
DRAWING TITLE:  
TURNING MOVEMENTS SHEET 3 OF 6

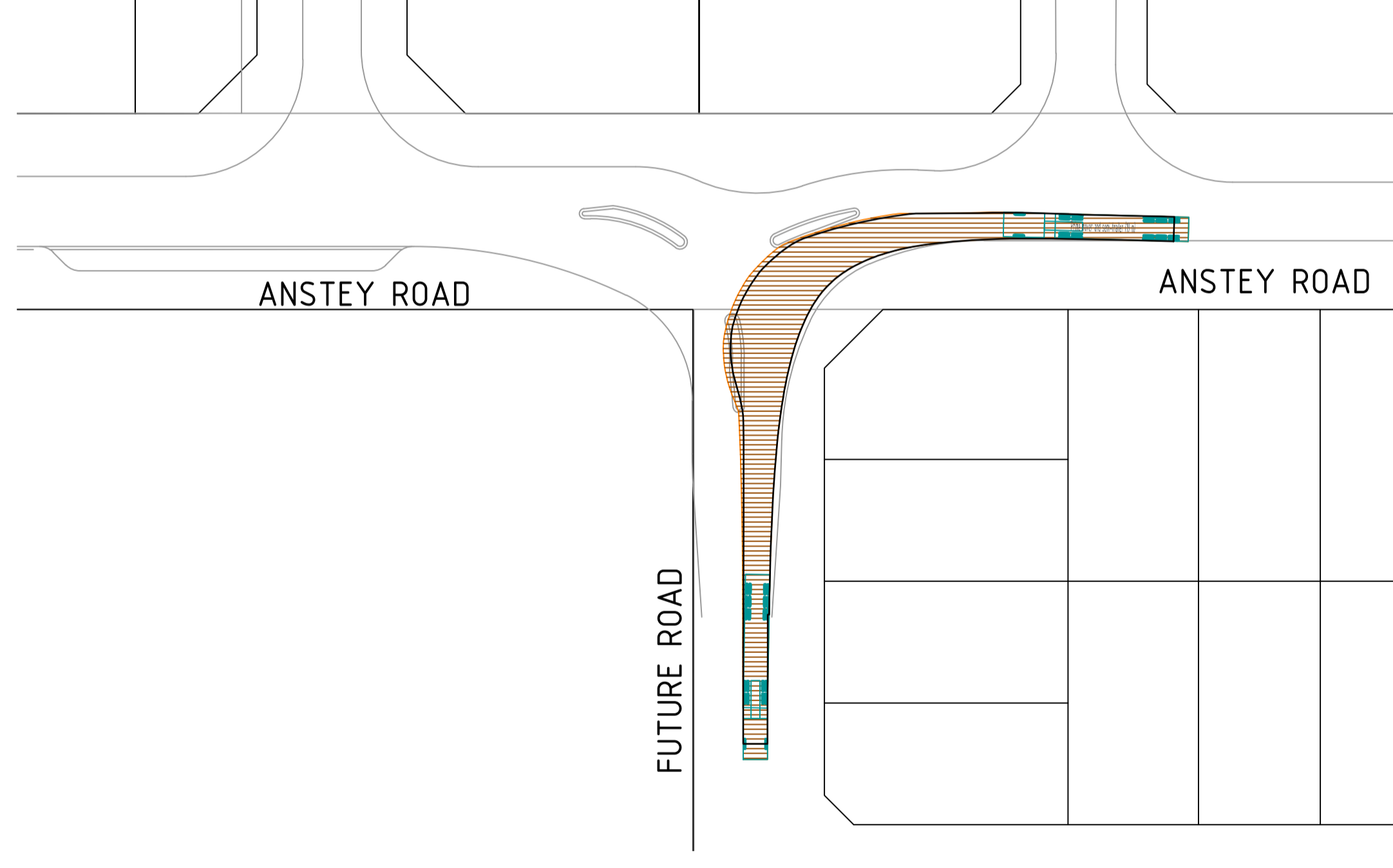
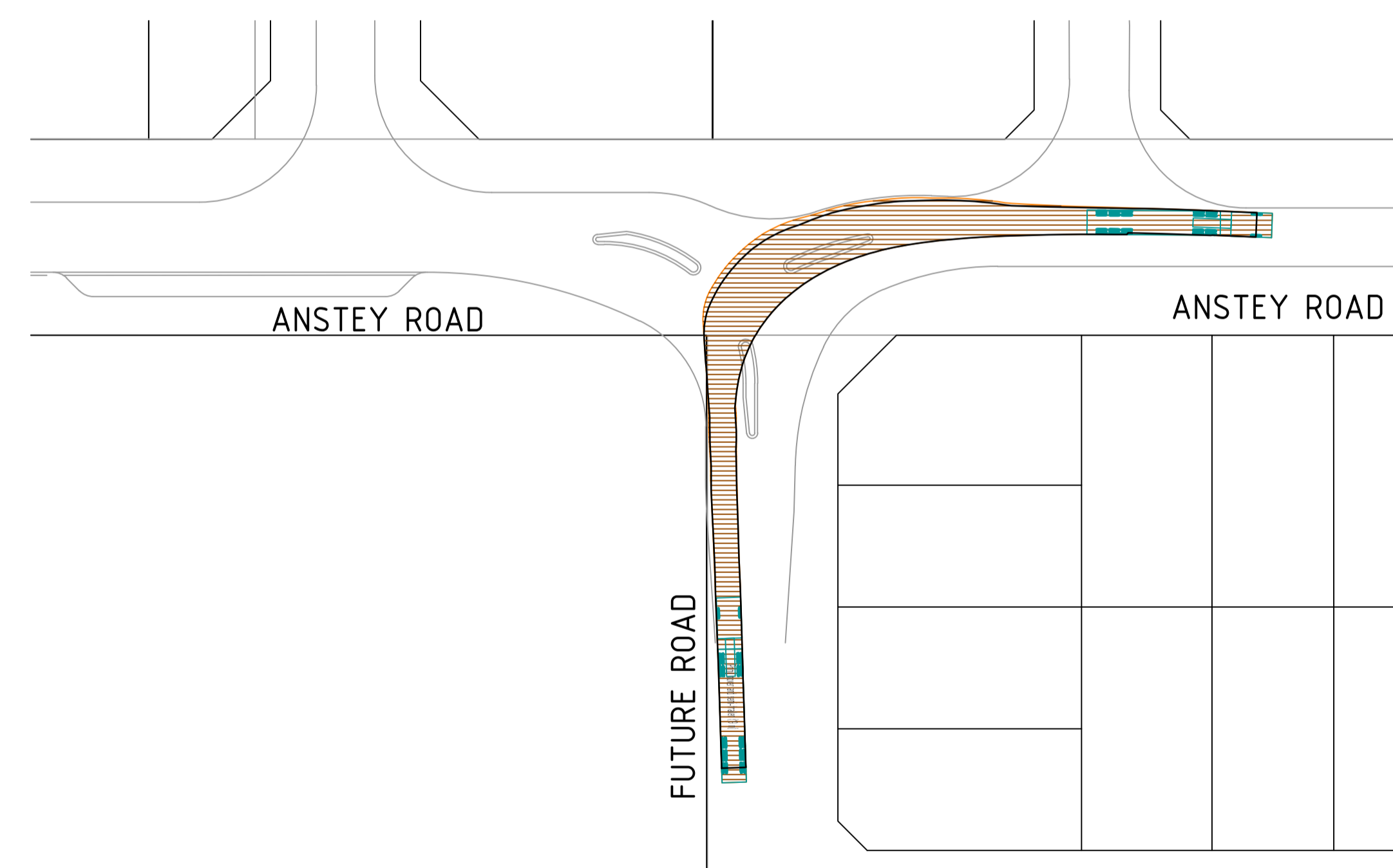
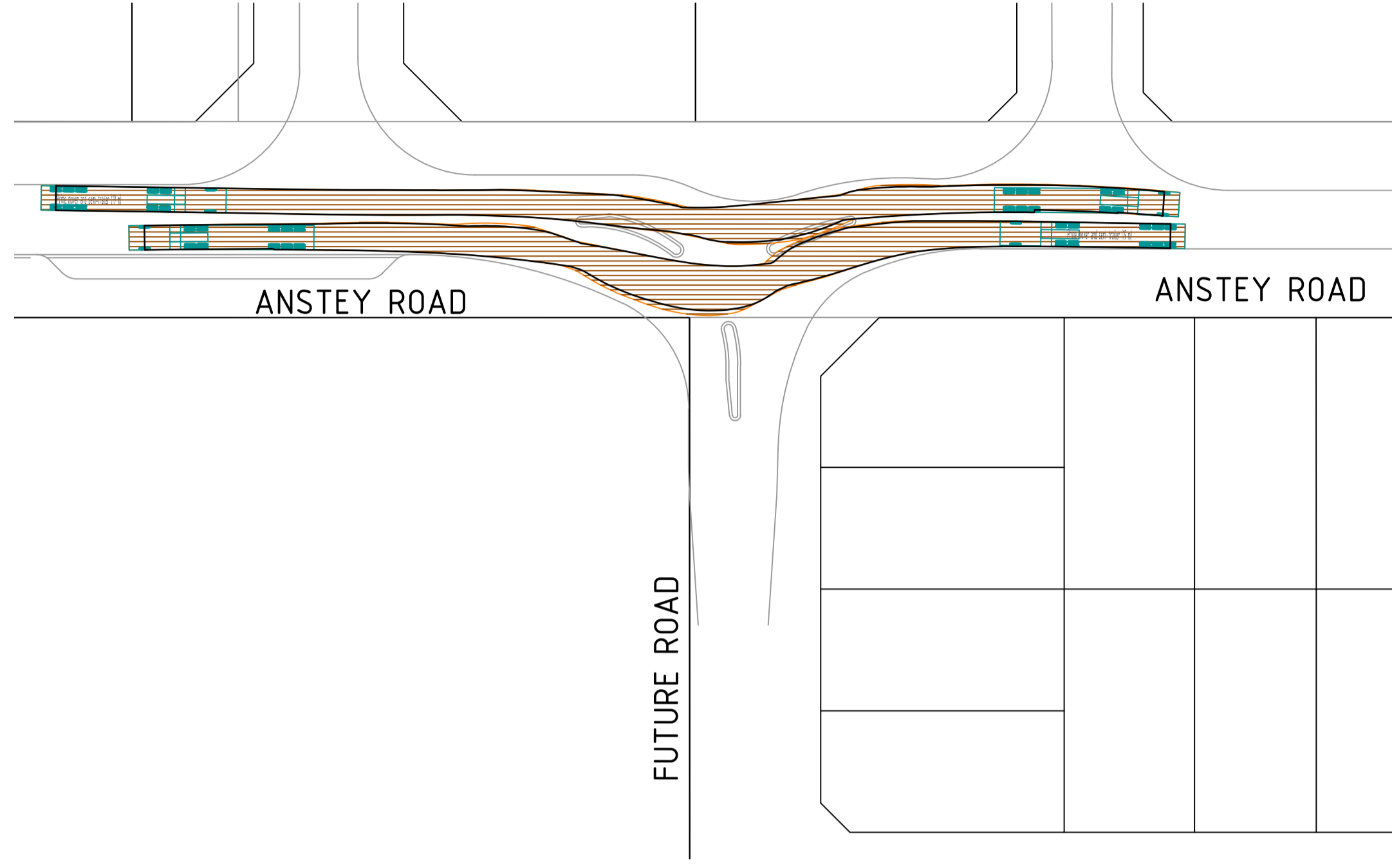
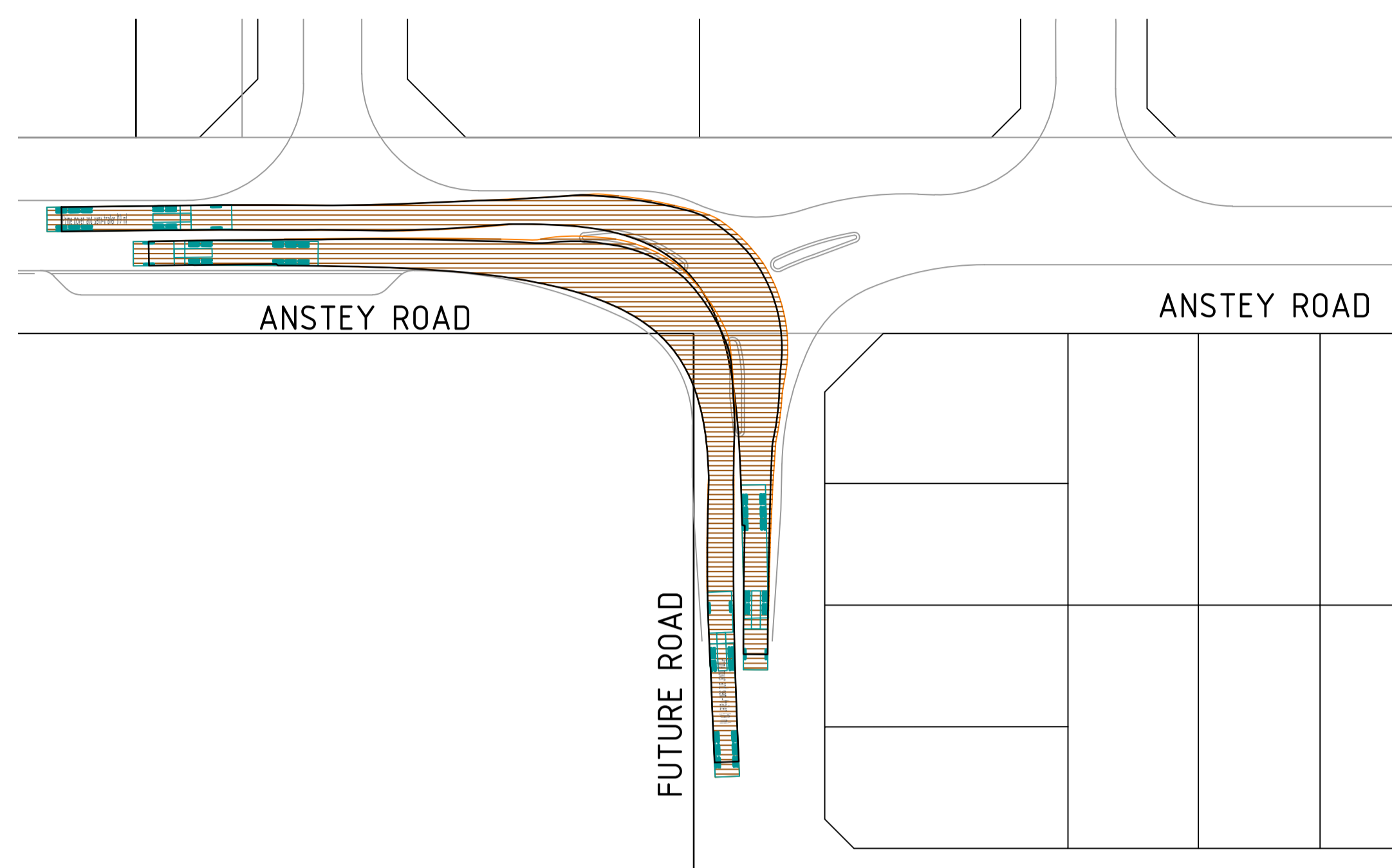
DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 1:500
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C392	REVISION B



LOCALITY PLAN  
NOT TO SCALE



Prime mover and semi-trailer (19 m)	19.000m
Overall Length	2.500m
Overall Width	4.300m
Overall Body Height	0.540m
Min Body Ground Clearance	2.500m
Track Width	6.00m
Lock to Lock Time	12.500m
Curb to Curb Turning Radius	

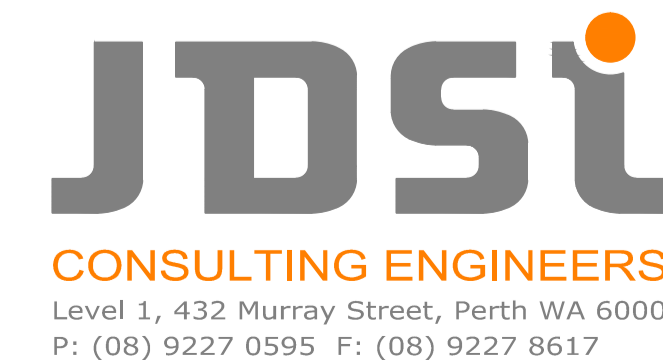


0 5 10 20 30m  
SCALE 1:500 @ ORIGINAL SHEET SIZE A1

REV	DATE	DRAWN	CHECKED	APPROVED	
B	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL
A	29.10.21	AP	BG	DH	ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001



CLIENT:  
TERRA PROPERTY PTY. LTD.

PROJECT:  
ANSTEY ROAD UPGRADE  
FORRESTDALE

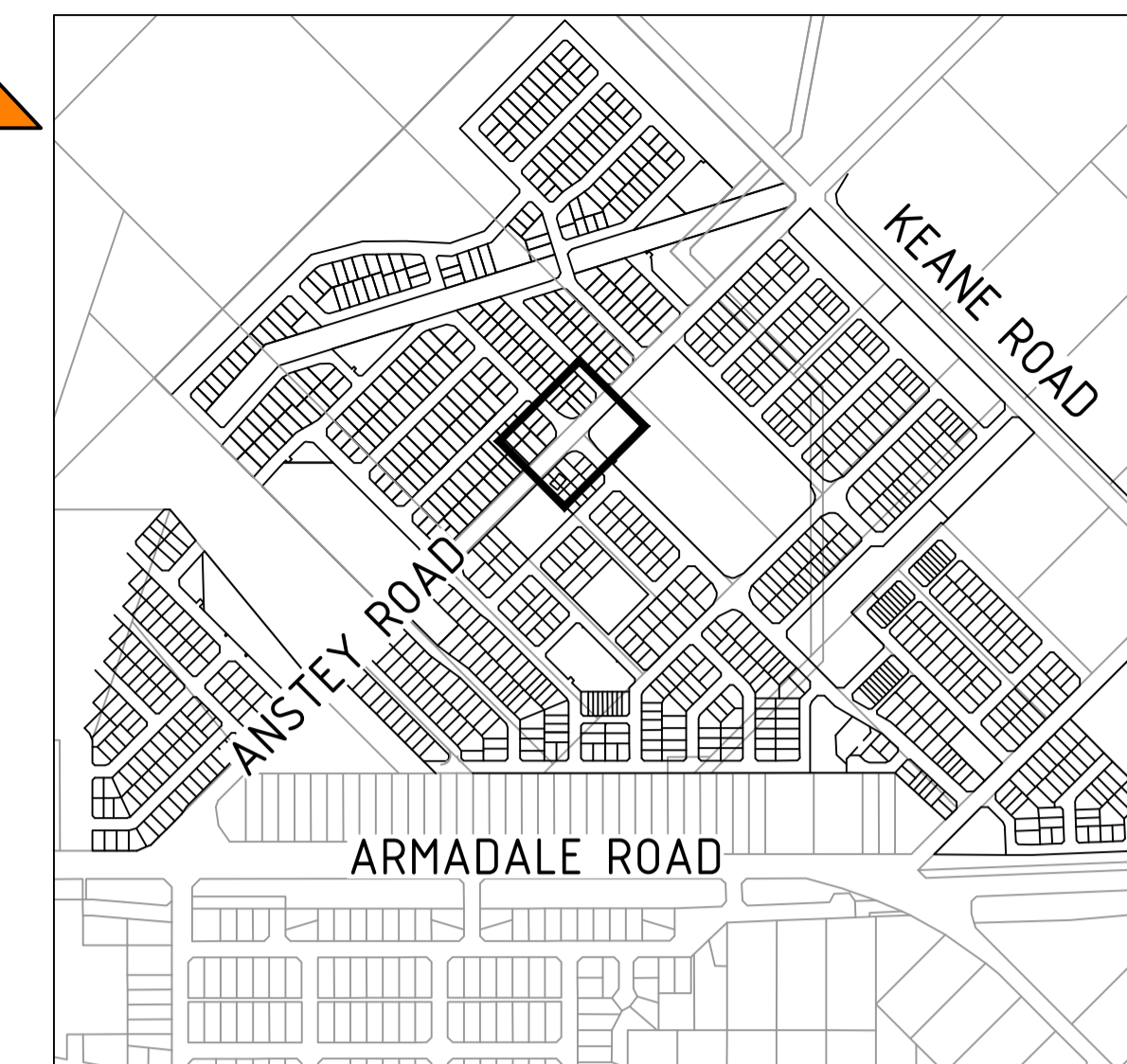
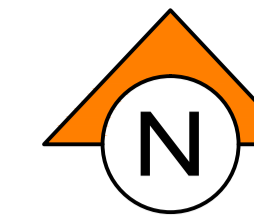
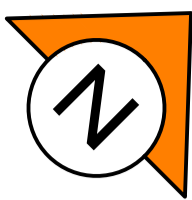
DRAWING TITLE:  
TURNING MOVEMENTS  
SHEET 4 OF 6

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 1:500
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C393	REVISION B

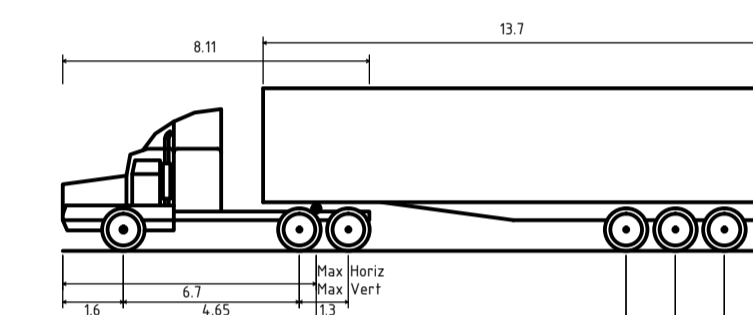








LOCALITY PLAN  
NOT TO SCALE



Prime mover and semi-trailer (19 m)  
Overall Length 19.000m  
Overall Width 2.500m  
Overall Body Height 4.300m  
Min Body Ground Clearance 0.540m  
Track Width 2.500m  
Lock to Lock Time 6.00s  
Curb to Curb Turning Radius 12.500m



0 5 10 20 30m  
SCALE 1:500 @ ORIGINAL SHEET SIZE A1

REV	DATE	DRAWN	CHECKED	APPROVED	
A	15.02.22	AP	BG		RE-ISSUED FOR COUNCIL APPROVAL

**COPYRIGHT**  
This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright.  
This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi.

**NOTE**  
This drawing shall be preliminary only until it is issued for construction.  
Certified Quality System to ISO 9001

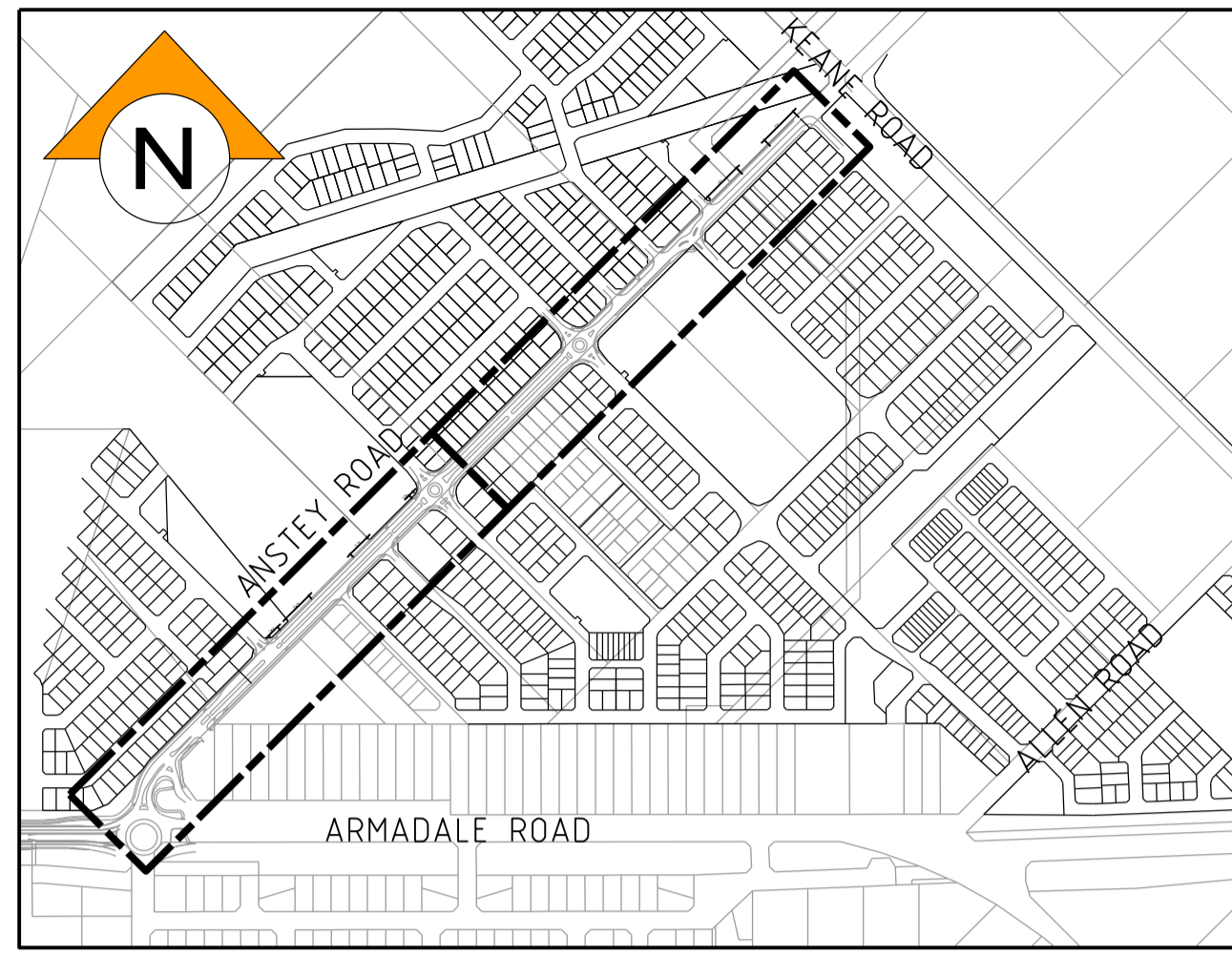


CLIENT:  
**TERRA PROPERTY PTY. LTD.**

PROJECT:  
**LOT 91, 101 & 200 ANSTEY ROAD FORRESDALE**

DRAWING TITLE:  
**TURNING MOVEMENTS SHEET 6 OF 6**

DRAWN A. PANZICH	WAPC No. 158169
DESIGNED A. PANZICH	SCALE @ A1 1:500
PROJECT MANAGER D. HELLMUTH	DATUM AHD
JDSi PROJECT No. JDS13642.RW01	CO-ORDS PCG 94
DRAWING No. C395	REVISION A

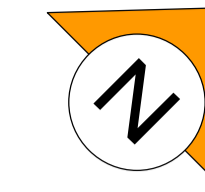


**SITE LOCALITY PLAN**

SCALE: DIAGRAMMATIC

**WESTERN POWER SCOPE OF WORKS**

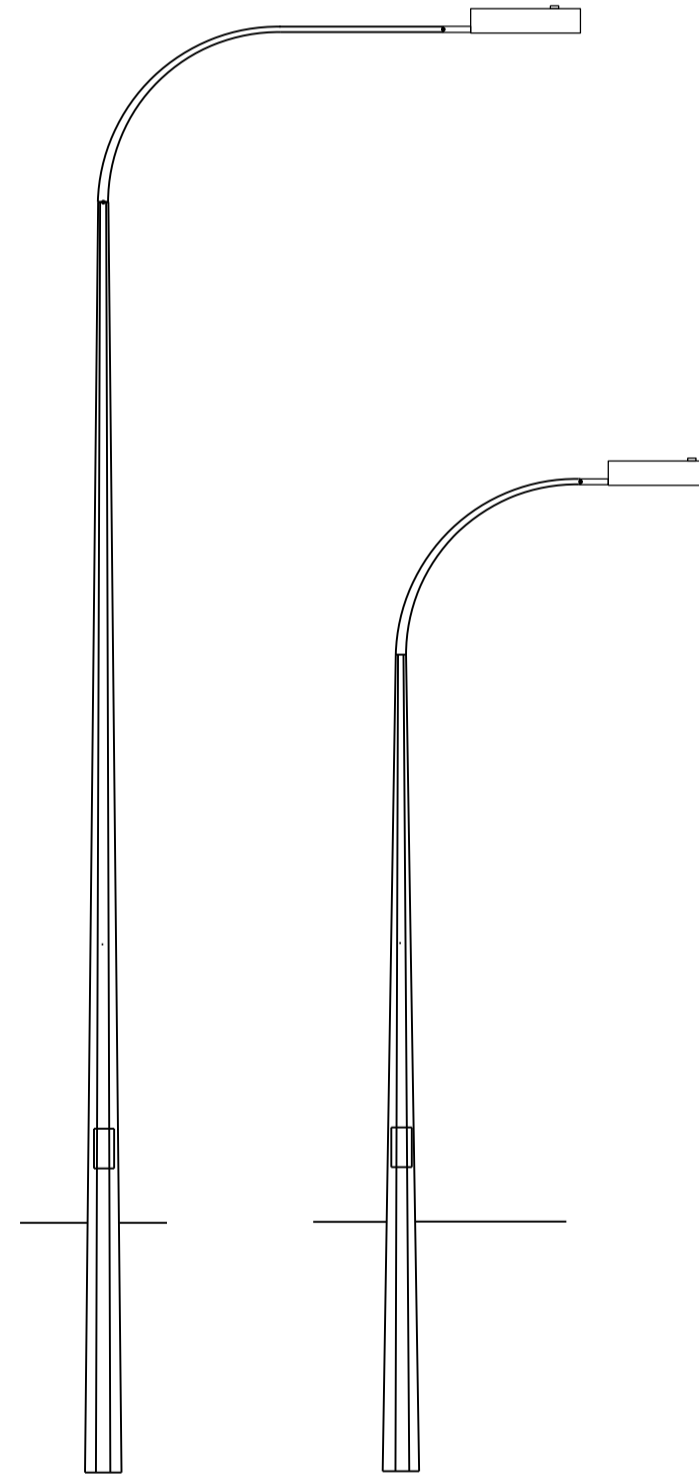
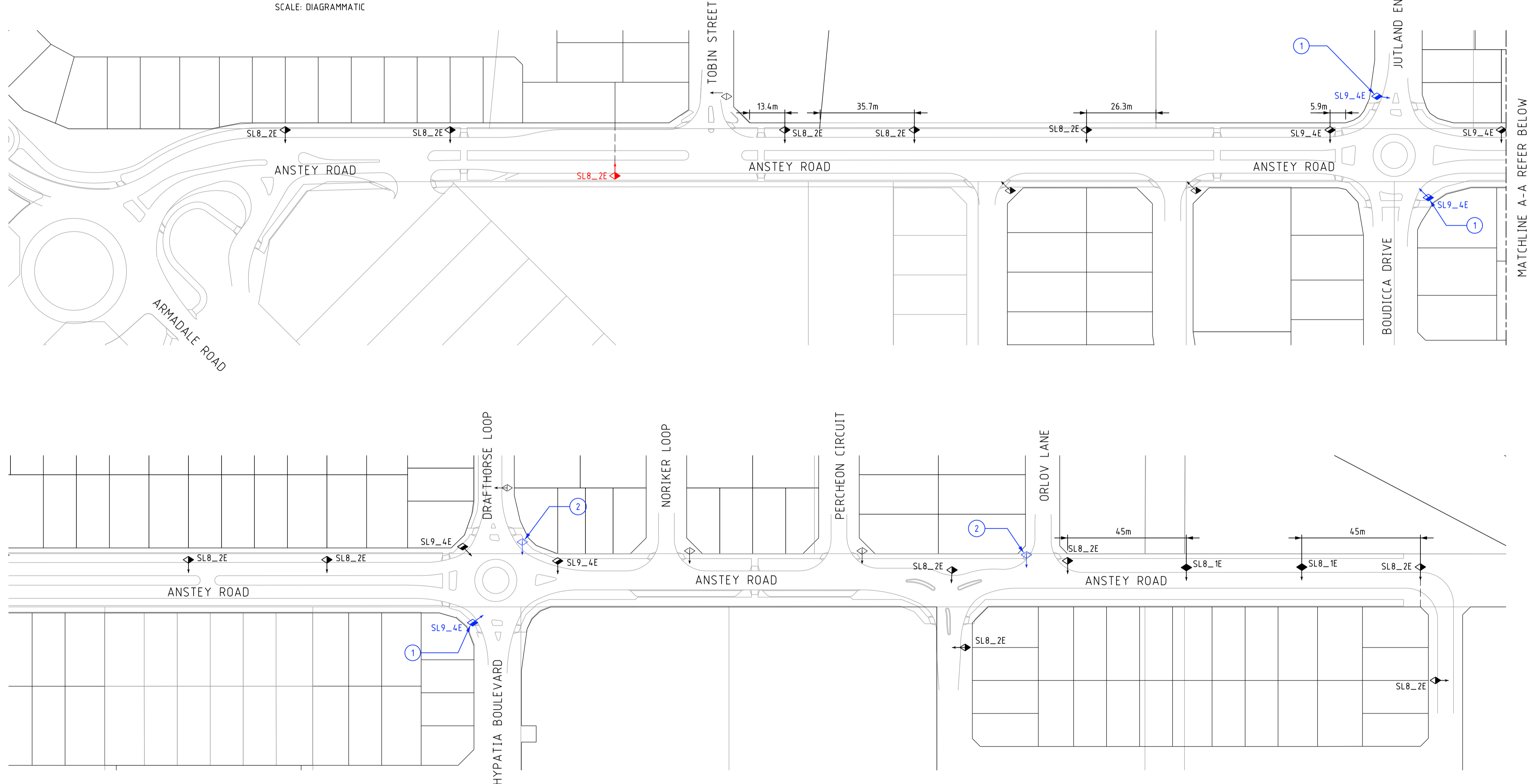
- ① EXISTING STREETLIGHT TO BE REMOVED AND REPLACED WITH 10.5m 80W LED. ALLOW FOR ALL CU MATERIALS FOR A COMPLETE INSTALLATION.
- ② EXISTING STREETLIGHT TO BE REMOVED. ALLOW FOR ALL CU MATERIALS FOR A COMPLETE INSTALLATION.



ARROW: DIRECTION TO PEG WHICH DUCTS ARE TO BE ALIGNED  
 DASHED LINE: DENOTES PREVIOUSLY REQUESTED DUCTS

DUCTS TO BE LAID TO WP SPECIFICATION AS OUTLINED IN UNDERGROUND DISTRIBUTION SCHEMES MANUAL - POLICY AND INSTALLATION OPTIONS

LEGEND										
SCHEME BDY.	---									
RETAINING WALL	---									
RESTRICTED ZONE	---									
EASEMENT	---									
<b>HV CABLES</b>										
CN53 - 400mm <sup>2</sup> (3X1c)	---									
CN49 - 240mm <sup>2</sup> (3X1c)	---									
CN48 - 185mm <sup>2</sup> (3X1c)	---									
CN50 - 95mm <sup>2</sup> (3X1c)	---									
CN51 - 50mm <sup>2</sup> (3X1c)	---									
CN54 - 50mm <sup>2</sup> (1c)	---									
CN46 - 35mm <sup>2</sup> (3X1c)	---									
CN47 - 35mm <sup>2</sup> (1c)	---									
EXISTING HV CABLES (SIZE AND TYPE INDICATED)	---									
<b>LV-SL CABLES</b>										
CN45 - 240mm <sup>2</sup> (1x3c)	---									
CN44 - 185mm <sup>2</sup> (1x3c)	---									
CN43 - 120mm <sup>2</sup> (1x3c)	---									
CN42 - 25mm <sup>2</sup> (1x3c)	---									
CN41 - 18mm <sup>2</sup> SL (1c)	---									
4.0 C PILEOT	---									
EXISTING LV CABLES (SIZE AND TYPE INDICATED)	---									
<b>STREET LIGHTS</b>										
12W CFL	70W HPS	150W HPS	250W HPS	250W HPS AERODROME	1c LED	2c LED	3c LED	4c LED	5c LED	6c LED
LEGEND DEFINES TYPE & WATTAGE - NOT COLOUR										
<b>PILLARS / PITS / ETC</b>										
MINI (WORKING END)	UNIVERSAL	MINI	LINK	CABLE MARKER U/G	Serviced Uncleared De-energised Lot	UHS PIT	UTILITIES PIT	BOSP PIT	100/200AMP CUTOUT	CONDUIT / POLY PIPE
<b>TRANSFORMER</b>		<b>EXISTING SWITCHGEAR</b>								
<b>AERIAL CONDUCTORS AND POLES</b>										
NEW POLE (ANY TYPE AS INDICATED)										
EXISTING POLE (ANY TYPE AS INDICATED)										
EXISTING AERIAL CONDUCTORS (SIZE AND TYPE INDICATED)										
EXISTING INFRASTRUCTURE TYPICALLY DEPICTED USING ABOVE SYMBOLRY WITH UNPROMINENT LINE WEIGHT										



GENERAL STREETLIGHTING  
 10.5m STANDARD POLE C/W  
 3m STANDARD SINGLE OUTREACH  
 ROAD FLAIR 80W LED (SL9\_4E)  
 GALVANISED  
 NOT TO SCALE

GENERAL STREETLIGHTING  
 6.5m STANDARD POLE C/W  
 1.5m STANDARD SINGLE OUTREACH  
 ROAD GRACE 53W LED (SL8\_2E)  
 ROAD GRACE 20W LED (SL8\_1E)  
 GALVANISED

Dimensions and scales to be checked prior to measuring cable lengths.  
 (Scale bar only valid for sections of drawing that are as per specified scale)



**NOT FOR CONSTRUCTION**

**PRELIMINARY ISSUE ONLY**

NO DESIGN CHANGES WITHOUT MANAGER APPROVAL  
 NO CHANGES TO DESIGN UNLESS APPROVED BY DESIGN MANAGER

**PRELIMINARY ISSUE ONLY**

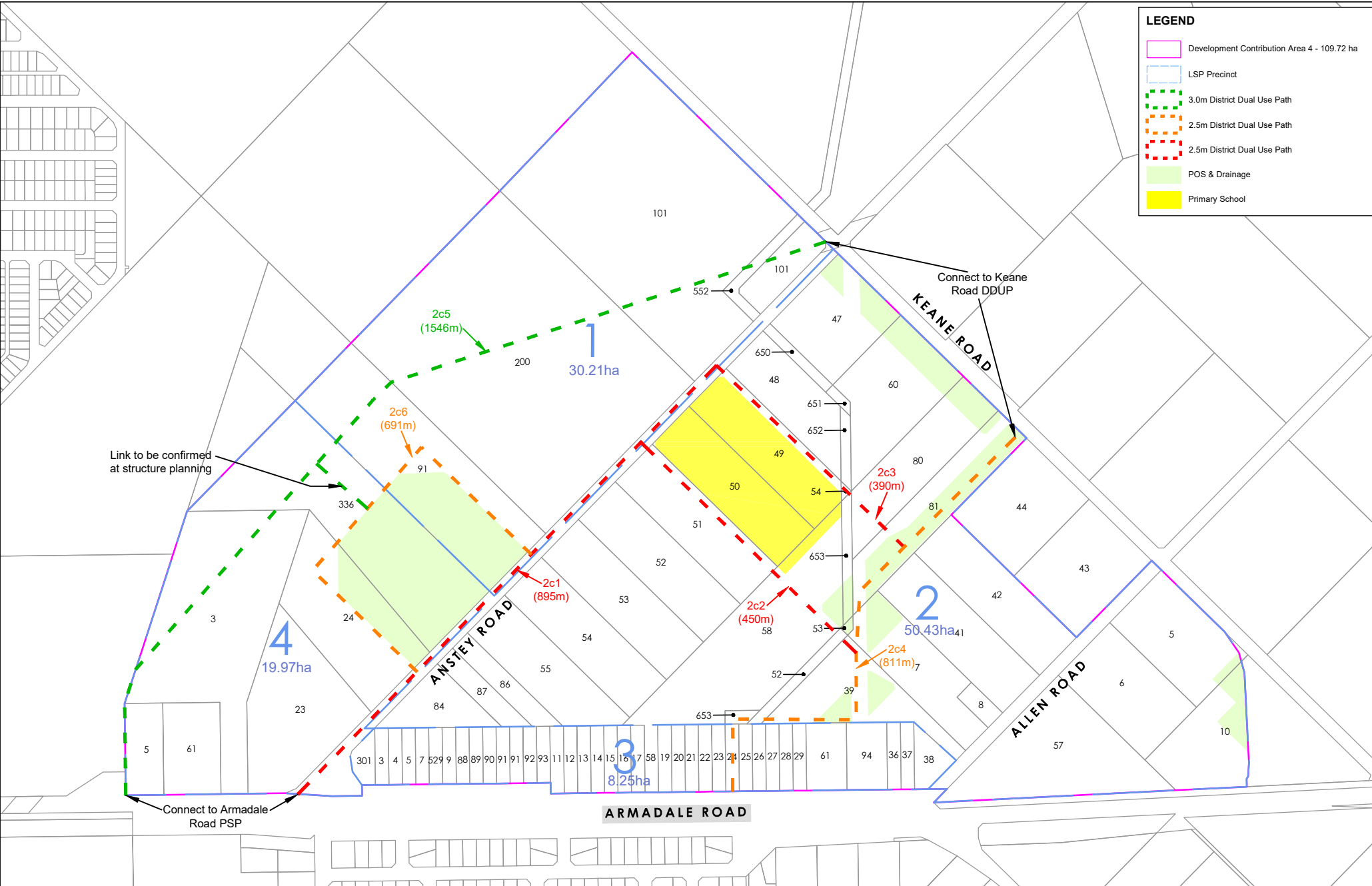
<b>REVISIONS</b> REV. DATE DRAWN PROJECT REVIEW CHECKED APPROVED ISSUED TO		<b>REVISION DESCRIPTION</b>		<b>COPYRIGHT</b> This drawing is copyright and the property of JDSi Pty Ltd (JDSi). Use without written permission from JDSi constitutes an infringement of copyright. This document and the information are solely for the use of the authorised recipient and may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by JDSi. <b>NOTE</b> This drawing shall be preliminary only until it is issued for construction. Certified Quality System to ISO 9001		<b>JDSi CONSULTING ENGINEERS</b> Level 1, 432 Murray Street, Perth WA 6000 P: (08) 9227 0595 F: (08) 9227 8617		<b>CLIENT:</b> TERRA PROPERTY PTY LTD		<b>PROJECT:</b> ANSTEY ROAD UPGRADE FORRESTDALE <b>DRAWING TITLE:</b> STREETLIGHT LOCATIONS SHEET 1 OF 2		<b>DRAWN:</b> L.CONTEMPRATO <b>DESIGNED:</b> L.CONTEMPRATO <b>PROJECT MANAGER:</b> D.HELLMUTH		<b>WAPC No.:</b> 158169 <b>SCALE:</b> A1 <b>DATUM/COORD:</b> AHD/PCG94 <b>WP REFERENCE:</b> NA	
JDSi PROJECT No. JDS13642.RW01		DRAWING No. E001		REVISION No. -		JDSi PROJECT No. JDS13642.RW01		DRAWING No. E001		REVISION No. -		WAPC No. 158169		SCALE: A1	

## G. Shared Use Path Plan

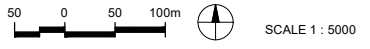


**LEGEND**

- Development Contribution Area 4 - 109.72 ha
- LSP Precinct
- 3.0m District Dual Use Path
- 2.5m District Dual Use Path
- 2.5m District Dual Use Path
- POS & Drainage
- Primary School



**Development Contribution Plan 4 - Shared Use Paths**  
Anstey Keane Precinct



## H. Valuations Summary

**DETERMINATION OF ASSESSED VALUES**

Assign No.	Property Description (Lot)	Previous Agreed Value (Year 1)	Current Area (ha) (2022)	HTW (2022)	Acu. (2022)	% Variance between Acu. & HTW	\$ Variance between Acu. & HTW	Median	Variance Previous to Now	Percentage Previous to Now	Agreement with CoA Proposed Value 2022		\$ Variance between Acu. & HTW	% Variance between Acu. & HTW	Value chosen (Agree/Median)	Final Proposed Value 2022
				\$/ha	\$/ha	%	\$/ha	\$/ha	\$/ha	%	HTW	Acu.	\$/ha	%		\$/ha
<b>1</b>	<b>Road Widening for Anstey Road Upgrade</b>															
	Lot 336 Anstey	\$90	0.0278	\$110	\$100	-9%	(\$10)	\$105	\$15	14%	\$110	\$110	\$0	0%	A	\$110
<b>2</b>	<b>POS</b>															
	Lot 336 Anstey	\$90	2.4600	\$110	\$100	-9%	(\$10)	\$105	\$15	14%	\$110	\$110	\$0	0%	A	\$110
	Lot 24 Anstey	\$90	0.7635	\$110	\$100	-9%	(\$10)	\$105	\$15	14%	\$110	\$110	\$0	0%	A	\$110
	Lot 91 Anstey	\$90	1.6500	\$110	\$100	-9%	(\$10)	\$105	\$15	14%	\$110	\$110	\$0	0%	A	\$110
<b>3</b>	<b>WWPS</b>															
	Lot 39 Anstey	\$90	0.1377	\$110	\$100	-9%	(\$10)	\$105	\$15	14%	\$110	\$110	\$0	0%	A	\$110
<b>4</b>	<b>Road Widening for Keane Road Roundabout DCP 4 Side</b>															
	Lot 43 Keane	\$30	0.0257	\$30	\$30	0%	\$0	\$30	\$0	0%	\$30	\$30	\$0	0%	A	\$30
	Lot 5 Allen	\$90	0.0328	\$125	\$100	-20%	(\$25)	\$113	\$23	20%	\$125	\$125	\$0	0%	A	\$125
<b>5</b>	<b>POS Shortfall Land</b>															
	Lot 6 Allen	\$90	0.0836	\$110	\$100	-9%	(\$10)	\$105	\$15	14%	\$110	\$110	\$0	0%	A	\$110
	Lot 8 Allen	\$180	0.0084	\$190	\$185	-3%	(\$5)	\$187.50	\$8	4%	\$190	\$185	(\$5)	-3%	M	\$187.50
	Lot 84 Anstey	\$120	0.0382	\$120	\$115	-4%	(\$5)	\$117.50	(\$3)	-2%	\$120	\$115	(\$5)	-4%	M	\$117.50
	Lot 86 Anstey	\$125	0.0248	\$135	\$130	-4%	(\$5)	\$132.50	\$8	6%	\$135	\$130	(\$5)	-4%	M	\$132.50
	Lot 87 Anstey	\$125	0.0206	\$135	\$130	-4%	(\$5)	\$132.50	\$8	6%	\$135	\$130	(\$5)	-4%	M	\$132.50
	Lot 52 Anstey	\$90	0.0182	\$110	\$100	-9%	(\$10)	\$105	\$15	14%	\$110	\$110	\$0	0%	A	\$110
	Lot 54 Anstey	\$90	0.0187	\$110	\$100	-9%	(\$10)	\$105	\$15	14%	\$110	\$110	\$0	0%	A	\$110



# I. Audited Income and Expenditure Statements



# Independent Auditor's Report

To the City of Armadale

## Opinion

We have audited the **Statement of Income and Expenditure** of the City of Armadale: Anstey Keane Development Contribution Plan.

In our opinion, the accompanying Statement of Income and Expenditure of the City of Armadale Anstey Keane Development Contribution Plan for the year ended 30 June 2020, is prepared, in all material respects, in accordance with the reporting requirements of the Development Contribution Plan No 4 Schedule 9 of the City of Armadale's TPS No 4.

The **Statement of Income and Expenditure** comprises:

- the Statement of Income and Expenditure of the City of Armadale: Anstey Keane Development Contribution Plan received in accordance with the Development Contribution Plan No 4 Schedule 9 of the City of Armadale's TPS No 4 as at 30 June 2020; and
- Note 1 Basis of Preparation

## Basis for opinion

We conducted our audit in accordance with *Australian Auditing Standards*. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the Statement of Income and Expenditure* section of our report.

We are independent of the City of Armadale in accordance with the ethical requirements of the *Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to our audit of the *Statement of Income and Expenditure* in Australia. We have fulfilled our other ethical responsibilities in accordance with the Code.

## Emphasis of matter – basis of preparation and restriction on use and distribution

We draw attention to Note 1 to the Statement of Income and Expenditure which describes the basis of preparation.

The Statement of Income and Expenditure has been prepared to assist the Accountable Authority of the City of Armadale in meeting its reporting requirements under Development Contribution Plan No 4 Schedule 9 of the City of Armadale's TPS No 4.

As a result, the Statement of Income and Expenditure and this Auditor's Report may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

Our report is intended solely for the City of Armadale and should not be used by or distributed to parties other than the City of Armadale. We disclaim any assumption of responsibility for any reliance on this

report, or on the Statement of Income and Expenditure to which it relates, to any person other than the City of Armadale or for any other purpose than that for which it was prepared.

### **Responsibilities of the Management and Those Charged with Governance for the Statement of Income and Expenditure**

The Accountable Authority of the City of Armadale are responsible for:

- the preparation of the Statement of Income and Expenditure in accordance with the Development Contribution Plan No 4 Schedule 9 of the City of Armadale's TPS No 4
- implementing necessary internal control to enable the preparation of the Statement of Income and Expenditure that is free from material misstatement, whether due to fraud or error
- assessing the City of Armadale's ability to continue as a going concern and whether the use of the going concern basis of accounting is appropriate. This includes disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless they either intend to liquidate the City of Armadale or to cease operations, or have no realistic alternative but to do so.

### **Auditor's responsibilities for the audit of the Statement of Income and Expenditure**

Our objective is:

- to obtain reasonable assurance about whether the Statement of Income and Expenditure is free from material misstatement, whether due to fraud or error; and
- to issue an Auditor's Report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with *Australian Auditing Standards* will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error. They are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this Statement of Income and Expenditure.

A further description of our responsibilities for the audit of the Statement of Income and Expenditure is located at the Auditing and Assurance Standards Board website at: [http://www.auasb.gov.au/auditors\\_responsibilities/ar8.pdf](http://www.auasb.gov.au/auditors_responsibilities/ar8.pdf). This description forms part of our Auditor's Report.



KPMG



Matthew Hingeley

Partner

Perth

Dated: 14 March 2022



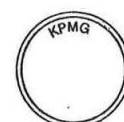
**City of Armadale**  
**Development Contribution Plan No. 4**  
**Statement of Income & Expenditure 2019 / 2020**

<b>INCOME:</b>		<b>Amount</b>
	<b>Development Cost Contributions</b>	
	Operating Owner Cost Contributions	841,985
	Receiving Owner Cost Contributions	0
	Transfers and Adjustments	-733,120
	<b>Subtotal</b>	<b>108,865</b>
	<b>TOTAL INCOME</b>	<b>108,865</b>
<b>EXPENDITURE:</b>		
	<b>Capital Expenditure</b>	
	Contributions to City Infrastructure	0
	Infrastructure Non-Council	0
	Land for Infrastructure	0
	<b>Subtotal</b>	<b>0</b>
	<b>Other Expenditure</b>	
	General Works - DCP Administration	108,865
	<b>Subtotal</b>	<b>108,865</b>
	<b>TOTAL EXPENDITURE</b>	<b>108,865</b>
	<b>Previous Year Balance</b>	<b>0</b>
	<b>Interest Earnings</b>	<b>0</b>
	<b>Transfer to Reserve</b>	<b>841,985</b>
	<b>Transfer from Reserve</b>	<b>-169,005</b>
	<b>Balance Carried Forward</b>	<b>672,980</b>

**Note - 1**

The above Statement of Income and Expenditure has been prepared in respect of the Development Contribution Plan No. 4 Schedule 9 of the City of Armadale's TPS No. 4 for the period 1 July 2019 to 30 June 2020, in accordance with the requirements of the Development Contribution Plan.

Income and expenditure is recorded on an accruals basis.





# Independent Auditor's Report

To the City of Armadale

## Opinion

We have audited the **Statement of Income and Expenditure** of the City of Armadale: Anstey Keane Development Contribution Plan.

In our opinion, the accompanying Statement of Income and Expenditure of the City of Armadale Anstey Keane Development Contribution Plan for the year ended 30 June 2021, is prepared, in all material respects, in accordance with the reporting requirements of the Development Contribution Plan No 4 Schedule 9 of the City of Armadale's TPS No 4.

The **Statement of Income and Expenditure** comprises:

- the Statement of Income and Expenditure of the City of Armadale: Anstey Keane Development Contribution Plan received in accordance with the Development Contribution Plan No 4 Schedule 9 of the City of Armadale's TPS No 4 as at 30 June 2020; and
- Note 1 Basis of Preparation

## Basis for opinion

We conducted our audit in accordance with *Australian Auditing Standards*. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the Statement of Income and Expenditure* section of our report.

We are independent of the City of Armadale in accordance with the ethical requirements of the *Accounting Professional and Ethical Standards Board's APES 110 Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to our audit of the *Statement of Income and Expenditure* in Australia. We have fulfilled our other ethical responsibilities in accordance with the Code.

## Emphasis of matter – basis of preparation and restriction on use and distribution

We draw attention to Note 1 to the Statement of Income and Expenditure which describes the basis of preparation.

The Statement of Income and Expenditure has been prepared to assist the Accountable Authority of the City of Armadale in meeting its reporting requirements under Development Contribution Plan No 4 Schedule 9 of the City of Armadale's TPS No 4.

As a result, the Statement of Income and Expenditure and this Auditor's Report may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

Our report is intended solely for the City of Armadale and should not be used by or distributed to parties other than the City of Armadale. We disclaim any assumption of responsibility for any reliance on this

report, or on the Statement of Income and Expenditure to which it relates, to any person other than the City of Armadale or for any other purpose than that for which it was prepared.

### **Responsibilities of the Management and Those Charged with Governance for the Statement of Income and Expenditure**

The Accountable Authority of the City of Armadale are responsible for:

- the preparation of the Statement of Income and Expenditure in accordance with the Development Contribution Plan No 4 Schedule 9 of the City of Armadale's TPS No 4
- implementing necessary internal control to enable the preparation of the Statement of Income and Expenditure that is free from material misstatement, whether due to fraud or error
- assessing the City of Armadale's ability to continue as a going concern and whether the use of the going concern basis of accounting is appropriate. This includes disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless they either intend to liquidate the City of Armadale or to cease operations, or have no realistic alternative but to do so.

### **Auditor's responsibilities for the audit of the Statement of Income and Expenditure**

Our objective is:

- to obtain reasonable assurance about whether the Statement of Income and Expenditure is free from material misstatement, whether due to fraud or error; and
- to issue an Auditor's Report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with *Australian Auditing Standards* will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error. They are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this Statement of Income and Expenditure.

A further description of our responsibilities for the audit of the Statement of Income and Expenditure is located at the Auditing and Assurance Standards Board website at: [http://www.auasb.gov.au/auditors\\_responsibilities/ar8.pdf](http://www.auasb.gov.au/auditors_responsibilities/ar8.pdf). This description forms part of our Auditor's Report.



KPMG



Matthew Hingeley

Partner

Perth

Dated: 14 March 2022



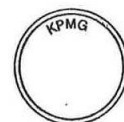
**City of Armadale**  
**Development Contribution Plan No. 4**  
**Statement of Income & Expenditure 2020 / 2021**

<b>INCOME:</b>		<b>Amount</b>
	<b>Development Cost Contributions</b>	
	Operating Owner Cost Contributions	3,266,451
	Receipting Owner Cost Contributions	586,279
	Transfers and Adjustments	-3,704,806
	<b>Subtotal</b>	<b>147,924</b>
	<b>TOTAL INCOME</b>	<b>147,924</b>
<b>EXPENDITURE:</b>		
	<b>Capital Expenditure</b>	
	Contributions to City Infrastructure	0
	Infrastructure Non-Council	0
	Land for Infrastructure	0
	<b>Subtotal</b>	<b>0</b>
	<b>Other Expenditure</b>	
	General Works - DCP Administration	147,924
	<b>Subtotal</b>	<b>147,924</b>
	<b>TOTAL EXPENDITURE</b>	<b>147,924</b>
	<b>Previous Year Balance</b>	<b>672,980</b>
	<b>Interest Earnings</b>	<b>4,420</b>
	<b>Transfer to Reserve</b>	<b>3,852,730</b>
	<b>Transfer from Reserve</b>	<b>-147,924</b>
	<b>Balance Carried Forward</b>	<b>4,382,206</b>

**Note - 1**

The above Statement of Income and Expenditure has been prepared in respect of the Development Contribution Plan No. 4 Schedule 9 of the City of Armadale's TPS No. 4 for the period 1 July 2020 to 30 June 2021, in accordance with the requirements of the Development Contribution Plan.

Income and expenditure is recorded on an accruals basis.



# J.DCP 4 Annual Status Report

**DCP 4 Annual Status Report 2022**

**Table 1: Summary of Infrastructure Delivery**

Item of Infrastructure	Scheduled Delivery Priority in DCP	Progress/Status (% complete)	Expected Delivery	Detail of Funding	Reasons for Delay
1a - Full costs to acquire land for a minimum of 4.9ha of Public Open Space at a location approved by the City within Development Contribution Area 4.	Pending completion of land acquisition. No agreement yet with one affected landowner.	0%	2023/2024	Fully funded by DCP	Some potential delays with acquisition due to uncertainty regarding agreement with landowners.
1b Full costs to construct a minimum of 4.9ha of public open space, including a senior sized multi use playing field area, to the specifications and dimensions approved by the City and at a location approved by the City within Development Contribution Area 4 minus contributions from other sources if and when they become available.	Detailed design work in progress. Construction to commence following completion of land acquisition.	1%	2026/2027	Fully funded by DCP	Project on track
1c Full costs to construct sporting and community buildings and structures at the public open space included under Infrastructure Items 1a and 1b minus contributions from other sources if and when they become available.	Construction to commence following completion of playing field construction.	0%	2029/2030	Fully funded by DCP	Project on track
2a Full cost to upgrade Anstey Road, including road widening land, from Armadale Road to the Primary School as detailed in the Development Contribution Plan Report and Infrastructure Cost Schedule.	Construction to commence following completion of land acquisition for road widening and adequate funding availability in DCP reserve account.	5%	2023/2024	Fully funded by DCP	Project on track
2b Contribution towards upgrading Keane Road as detailed in the Development Contribution Plan Report and Infrastructure Cost Schedule, with the contribution calculated being equivalent to the standard of a Residential Access Street C in accordance with Liveable Neighbourhoods (as amended), excluding costs associated with realigning the road or upgrading of the Armadale Road intersection.	Contingent on completion of road upgrade works by DevelopmentWA for Forrestdale Business Park West.	0%	2029/2030	Contribution only towards overall costs of road upgrade to industrial standard funded by DevelopmentWA	Project on track
2c Fixed maximum contribution towards a shared path network within the Anstey Keane Urban Precinct as detailed in the Development Contribution Plan Report.	Contingent on timing for completion of subdivision works by developers.	0%	2028/2029	Contribution only	Project on track
3a Partial contribution only towards improvements to the Baileys Branch Drain immediate surrounds that deliver a multiple use corridor as detailed in the Development Contribution Plan Report and Infrastructure Cost Schedule. The contribution is a partial offset only of the full cost that will need to be met by applicable subdividers and is based on the cost and development of land that would be provided on lots with a shortfall of Public Open Space within Precinct 2 of DCA 4 and in lieu of them needing to cede free of cost and develop POS land in accordance with WAPC policy. It is to be paid on a per liner metre basis upon construction that is to be undertaken by applicable subdividers to the satisfaction of the City.	Timing to align with subdivisional works staging in Mahala Estate.	0%	2024/2025	Contribution only	Project on track
4a Contribution towards the acquisition of land for a sewer pump station as detailed on the approved structure plan.	Timing to align with subdivisional works staging in Mahala Estate.	0%	2022/2023	Contribution only	Project on track
4b Contribution towards the upgrade of the ATCO High Pressure Gas Pipeline in Anstey Road as it pertains to the Anstey Keane Precinct (Forrestdale).	Contingent on timing for commencement of works for Item 2a.	0%	2023/2024	Contribution only subject to confirmation by ATCO Gas	Project on track

**Table 2: Financial position of Development Contribution Fund Account**

	Received/value of contributions collected or land acquired	DCP funds expended/value	Current balance of DCF account	Value of credits	Interest earned on DCP funds
Cash component	\$5,697,515.12	\$256,789.00	\$4,382,206.00	\$0.00	\$4,420.00
Works in kind	\$0.00	\$0.00	\$0.00	\$379,356.26	\$0.00
Land contribution	\$128,997.00	\$0.00	\$0.00	\$128,997.00	\$0.00
<b>TOTAL</b>	<b>\$5,826,512.12</b>	<b>\$256,789.00</b>	<b>\$4,382,206.00</b>	<b>\$508,353.26</b>	<b>\$4,420.00</b>



## K. DCP 4 Capital Expenditure Plan

# Development Contribution Plan No. 4 Capital Expenditure Plan - September 2022

This plan provides an informed opinion on probable income and expenditure for DCP 4, including the probable timing of projects.

			Start													Forecast End Period
Financial Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Opening Balance	0	-781,844.54	-3,876,021.63	-6,518,985.92	-10,903,520.68	-10,864,775.09	-7,898,727.87	-7,081,574.67	-2,252,290.54	-4,587,846.28	-1,816,829.85	639,436.48	0.00	0.00	0.00	
Total Cash Revenue	-841,984.54	-3,462,996.09	-3,112,522.79	-4,642,383.76	-5,431,629.91	-2,554,481.28	-1,136,051.80	-2,091,614.21	-2,509,265.74	-1,256,854.73	-327,054.67	0.00	0.00	0.00	0.00	
Total Cash Reimbursements	0.00	368,819.00	469,558.50	257,849.00	5,470,375.50	5,520,528.50	1,953,205.00	6,920,898.34	173,710.00	4,027,871.16	2,783,321.00	32,210.00	0.00	0.00	0.00	
Total Infrastructure or Land Revenue (Credit)	60,140.00	-493,450.00	-1,090,452.00	-821,060.00	-316,288.00	-526,718.00	-2,324,481.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Cash Balance Sub Total	-781,844.54	-3,094,177.09	-2,642,964.29	-4,384,534.76	38,745.59	2,966,047.22	817,153.20	4,829,284.13	-2,335,555.74	2,771,016.43	2,456,266.33	32,210.00	0.00	0.00	0.00	
Total Revenue	-781,844.54	-3,956,446.09	-4,202,974.79	-5,463,443.76	-5,747,917.91	-3,081,199.28	-3,460,532.80	-2,091,614.21	-2,509,265.74	-1,256,854.73	-327,054.67	0.00	0.00	0.00	0.00	
Total DCP Reserve Fund Cash Closing Balance (negative value means the DCP reserve is in credit)	-781,844.54	-3,876,021.63	-6,518,985.92	-10,903,520.68	-10,864,775.09	-7,898,727.87	-7,081,574.67	-2,252,290.54	-4,587,846.28	-1,816,829.85	639,436.48	671,646.48	0.00	0.00	0.00	
<b>Income</b>																
Development Contributions Due	-841,984.54	-3,956,446.09	-4,202,974.79	-5,463,443.76	-5,747,917.91	-3,081,199.28	-3,460,532.80	-2,091,614.21	-2,509,265.74	-1,256,854.73	-327,054.67	0.00	0.00	0.00	0.00	
Development Contributions Cash	0.00	-3,462,996.09	-3,112,522.79	-4,642,383.76	-5,431,629.91	-2,554,481.28	-1,136,051.80	-2,091,614.21	-2,509,265.74	-1,256,854.73	-327,054.67	0.00	0.00	0.00	0.00	
Development Contributions Works / Credit	0.00	493,450.00	1,090,452.00	821,060.00	316,288.00	526,718.00	2,324,481.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Expenditure</b>																
Administration Charges - Reimbursement	60,140.00	239,822.00	110,310.00	80,630.00	36,270.00	46,130.00	1,867,350.00	77,930.00	48,710.00	48,210.00	32,140.00	32,210.00	0.00	0.00	0.00	
Administration Charges - Credit	0.00	493,450.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Administration Charges including contribution towards salaries and on cost for staff supporting the administration of Development Contribution Plan 4		80,000.00	80,000.00	80,000.00	75,000.00	75,000.00	75,000.00	75,000.00	40,000.00	40,000.00	40,000.00	40,000.00				
Consultancy and Legal - General		50,000.00	50,000.00	30,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00				
Compensation Allocation							1,800,000.00									
Audit Fees		10,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00				
Interest Earnings		-4,420.00	-33,190.00	-42,870.00	-62,230.00	-52,870.00	-23,150.00	-12,570.00	-6,790.00	-7,290.00	-23,360.00	-8,290.00				
Consultancy - Valuations		28,200.00	8,000.00	8,000.00	8,000.00	8,000.00										
Start Up Costs - CITY	60,140.00	75,542.00														
Start Up Costs - Landowners		493,450.00														
Bank Charges		500.00	500.00	500.00	500.00	1,000.00	500.00	500.00	500.00	500.00	500.00	500.00				
Contributions to Infrastructure - Reimbursement	0.00	128,997.00	359,248.50	177,219.00	5,434,105.50	5,474,398.50	85,855.00	6,842,968.34	125,000.00	3,979,661.16	2,751,181.00	0.00	0.00	0.00	0.00	
Contributions to Infrastructure - Credit	0.00	0.00	1,090,452.00	821,060.00	316,288.00	526,718.00	2,324,481.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1a - Community Infrastructure - Sporting and Community Facility Land - LOT 336 POS Area - McLennan						2,974,543.00										
1a - Community Infrastructure - Sporting and Community Facility Land - CEDAR WOODS							1,997,105.00									
1a - Community Infrastructure - Sporting and Community Facility Land - YOLK			923,835.00													
1b - Community Infrastructure - Sporting and Community Facility - Senior Size Playing Field - CITY								6,000,474.34								
1c - Community Infrastructure - Sporting and Community Buildings and other structures - CITY										3,308,901.16						
1b, 1c - Community Infrastructure - Design and other allowances - CITY			160,000.00	90,000.00	85,000.00	20,000.00	55,000.00	700,000.00	125,000.00	670,760.00						
2a - Anstey Road Land - Landowners		128,997.00	199,248.50	33,638.00												
2a - Anstey Road Construction Consultancy - Landowners				821,060.00												
2a - Anstey Road Construction - Landowners					2,479,855.50	2,479,855.50										
2b - Keane Road - DevWA											2,751,181.00					





**Opinion on Probable Future Income  
Overall**

<b>Financial Year</b>	<b>Number of Contributions</b>
2020	-\$841,984.54
2021	-\$3,956,446.09
2022	-\$4,202,974.79
2023	-\$5,463,443.76
2024	-\$5,747,917.91
2025	-\$3,081,199.28
2026	-\$3,460,532.80
2027	-\$2,091,614.21
2028	-\$2,509,265.74
2029	-\$1,256,854.73
2030	-\$327,054.67
2031	\$0.00
2032	\$0.00
2033	\$0.00
2034	\$0.00
2035	\$0.00
	<b>-\$32,939,289</b>

**Opinion on Probable Income by Precinct**

Opinion on Probable Number of Contributions per year

Fiencial Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Total	Comment		
Precinct																				
1 - Cedar Woods	-\$841,984.54	-\$1,060,737.61	-\$2,017,360.54	-\$1,205,844.23	-\$2,271,263.33													-\$7,397,190.25		
2 - All Lots other than Lots 6 Allen, 8 Allen, 52 Anstey Remaining, 84 Anstey, 86 Anstey, 87 Anstey, 10 Keane - LWP		-\$1,833,616.33	-\$1,367,977.57	-\$3,872,562.87	-\$3,476,654.58	-\$3,081,199.28	-\$1,695,973.26												-\$15,327,983.89	
2 - Lot 10 Keane - DevWA									-\$417,651.53	-\$255,030.17									-\$672,681.70	Timing Subject to Further Investigation
2 - Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, Lot 52 Anstey Pt Pt 2 - Other / Individual							-\$674,769.89	-\$674,769.89	-\$674,769.89	-\$674,769.89									-\$2,699,079.56	Timing Subject to Further Investigation
3 - Other / Individual								-\$327,054.67	-\$327,054.67	-\$327,054.67	-\$327,054.67								-\$1,308,218.68	Timing Subject to Further Investigation
4 - Volk		-\$1,062,092.15	-\$817,636.68	-\$385,036.66															-\$2,264,765.49	
4 - Other / Individual							-\$1,089,789.65	-\$1,089,789.65	-\$1,089,789.65										-\$3,269,368.95	Timing Subject to Further Investigation
<b>TOTAL</b>	<b>-\$841,984.54</b>	<b>-\$3,956,446.09</b>	<b>-\$4,202,974.79</b>	<b>-\$5,463,443.76</b>	<b>-\$5,747,917.91</b>	<b>-\$3,081,199.28</b>	<b>-\$3,460,532.80</b>	<b>-\$2,091,614.21</b>	<b>-\$2,509,265.74</b>	<b>-\$1,256,854.73</b>	<b>-\$327,054.67</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>-\$32,939,288.52</b>		

Rates	
Base Rate:	-\$452,984.31
Additional Rate	-\$85,109.70
Base Rate + Ad. Rate:	-\$538,094.01

Precinct Net Dev. Area	Area (ha)
1	18.9546
2 - All Lots other than Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey	34.6203
2 - Lot 10 Keane	1.4842
2 - Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey	5.014
3	2.8866
4	12.5351

**Lot Forecasts 2022**

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Totals
1 - Cedar Woods	44	98	40	43	81	0	0	0	0	0	0	0	306
2 - All Lots other than Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, 10 Keane LWP	0	55	71	137	123	109	60	0	0	0	0	0	555
Lot 10 Keane - DevWA	0	0	0	0	0	0	0	0	18	11	0	0	29
2 - Lots 6 Allen, 8 Allen, 84 Anstey, 86 Anstey, 87 Anstey, Lot 52 Anstey Pt 1 Pt2 - Other / Individual	0	0	0	0	0	0	28	28	28	28	0	0	112
3 - Other / Individual	0	0	0	0	0	0	0	15	15	15	15	0	60
4 - Volk	0	50	34	16	0	0	0	0	0	0	0	0	100
4 - Other / Individual	0	0	0	0	0	0	46	46	46	0	0	0	138
<b>Total</b>	<b>44</b>	<b>203</b>	<b>145</b>	<b>196</b>	<b>204</b>	<b>109</b>	<b>134</b>	<b>89</b>	<b>107</b>	<b>54</b>	<b>15</b>	<b>0</b>	<b>1300</b>