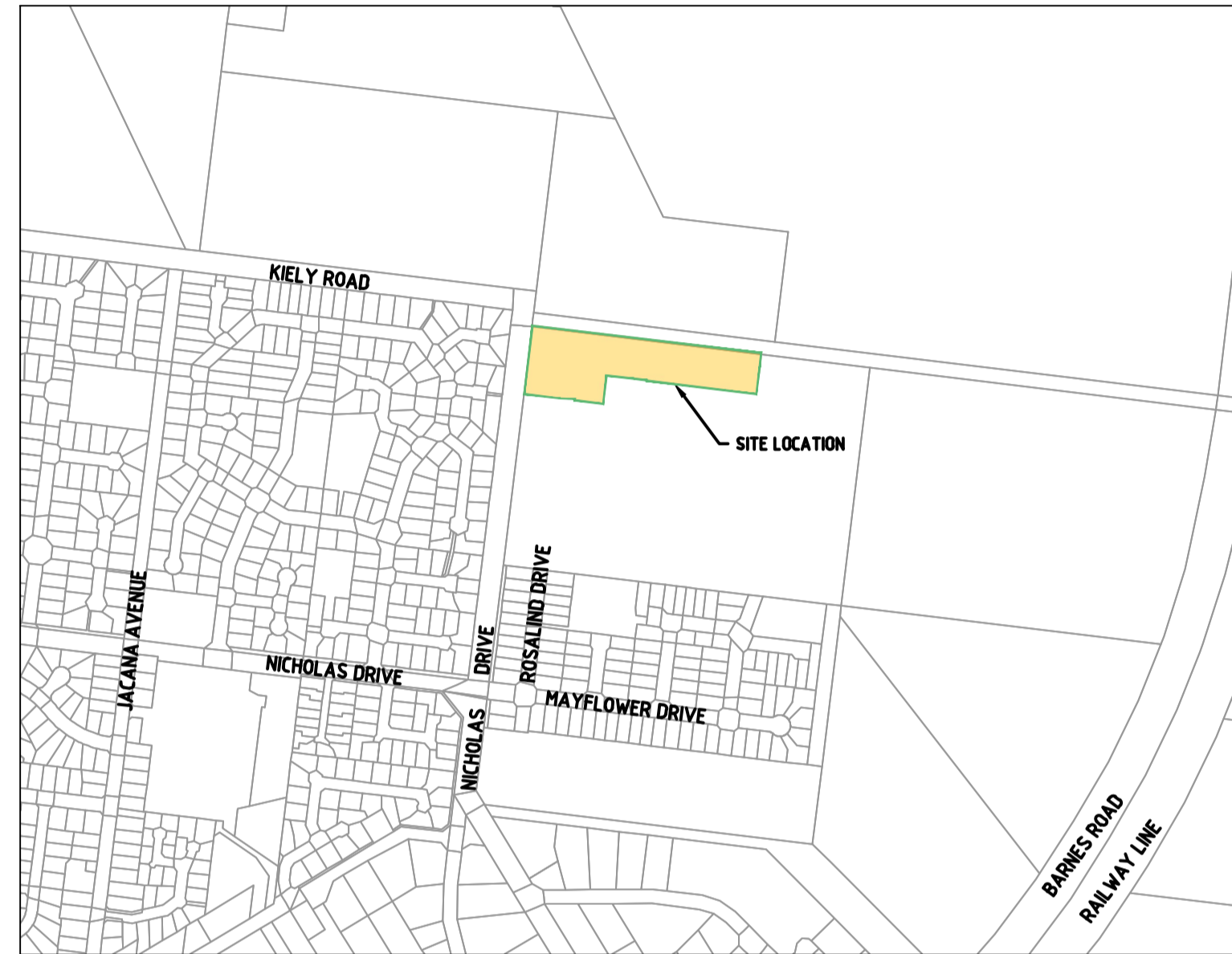


MAIDEN'S GREEN STAGE 6 CONSTRUCTION CERTIFICATE KIELY ROAD PROJECTS PTY LTD

GENERAL NOTES

A. GENERAL

- ALL WORK TO BE CARRIED OUT TO MURRAY RIVER COUNCIL SPECIFICATIONS, STANDARD DRAWINGS AND TO THE SATISFACTION OF COUNCIL'S SENIOR SURVEILLANCE OFFICER OR HIS REPRESENTATIVE.
 - ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM AND ALL COORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA) ZONE 55.
 - THE LOCATION OF EXISTING SERVICES SHOULD BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCING ANY EXCAVATION BY CONTACTING ALL SERVICE AUTHORITIES. ANY EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE OFFERED AS A GUIDE ONLY AND ARE NOT GUARANTEED AS CORRECT.
 - FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND ONLY RE-TOPSOILED ON THE DIRECTION OF THE ENGINEER, TO THE FINAL FILL LEVELS SHOWN ON THE DRAWINGS. ALL FILLING IS TO BE:
 - APPROVED BY THE PROJECT GEOTECHNICAL CONSULTANT.
 - PLACED IN LAYERS NOT EXCEEDING 200MM LOOSE THICKNESS.
 - MOISTURE CONDITIONED TO WITHIN 85% TO 115% OF OPTIMUM MOISTURE CONTENT.
 - COMPACTED TO A MINIMUM 95% (STANDARD) DRY DENSITY RATIO.
 - PLACED UNDER "LEVEL 1" SUPERVISION IN ACCORDANCE WITH AS 3798-1996.
 - EXISTING DEPRESSIONS & DRAINS TRAVERSING THE SITE ARE TO BE CLEANED OUT AND DESLUDGED TO FIRM BASE AND FILLED TO FINISHED SURFACE LEVELS TO THE SPECIFIED COMPACTION STANDARDS.
 - TBM'S TO BE RE-ESTABLISHED BY THE LICENSED SURVEYOR IF FOUND TO BE MISSING AT THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR CARE AND MAINTENANCE OF TBM'S THEREAFTER.
 - POSITION CONDUITS SO THAT A MINIMUM DISTANCE BETWEEN TAPPING IS 10M. CONDUITS TO BE LOCATED MIDWAY BETWEEN FENCE LINE OF LOT, UNLESS OTHERWISE SHOWN.
 - BEFORE COMMENCING WORK ON EXCAVATIONS IN EXCESS OF 1.5 M DEEP, A SAFE WORK METHOD STATEMENT (SWMS) MUST BE PREPARED. ALL EXCAVATIONS ARE TO BE IN ACCORDANCE WITH THE RELEVANT NSW ACTS AND REGULATIONS.
 - COUNCIL'S REPRESENTATIVE IS TO BE NOTIFIED IN WRITING 72 HOURS PRIOR TO THE COMMENCEMENT OF WORKS.
 - NO EXCAVATION WITHIN 5M OF ANY EXISTING TREE WITHOUT APPROVAL OF THE ENGINEER.
 - NO BLASTING IS PERMITTED WITHOUT OBTAINING COUNCIL'S SPECIAL DISPENSATION.
 - EXCAVATED MATERIAL SURPLUS TO FILLING REQUIREMENTS OF THE WORKS SHALL BE REMOVED FROM SITE AS SPECIFIED.
 - ALL SURPLUS ROCK, CONCRETE AND BITUMINOUS RUBBLE SHALL BE DISPOSED OFF SITE AS SPECIFIED. THE CONTRACTOR SHALL CHECK WITH SUPERINTENDENT WHETHER ANY LARGE ROCKS ARE REQUIRED FOR LANDSCAPE PURPOSES PRIOR TO DISPOSAL.
 - NATURESTRIPS AND ALL AREAS OF CUT OUTSIDE ROAD RESERVE TO BE SURFACED WITH 100MM MINIMUM COMPACTED LAYER OF TOPSOIL.
 - THE LOCATION OF ALL SERVICE CONDUITS ARE TO BE MARKED 5mm INTO THE FACE OF BOTH KERBS, IMMEDIATELY ABOVE THE CONDUIT WITH UNIFORM 50mm HIGH LETTER, WHERE CONDUITS CROSS FOOTPATHS, THE LOCATION IS TO BE MARKED IN THE PATH (NEAR THE EDGE) IN THE SAME FASHION.
 - ENVIRONMENTAL REQUIREMENTS - ALL TREES MUST BE PRESERVED AND PROTECTED AT ALL TIMES. TREES MARKED X ON THE DESIGN PLANS MAY BE REMOVED.
- ### B. ROAD WORKS
- FOOTPATHS ARE TO BE 1.5M WIDE UNLESS SHOWN OTHERWISE. FOOTPATHS TO BE CONSTRUCTED TO THE MURRAY RIVER COUNCIL'S STANDARDS.
 - CONSTRUCT LAYBACK SECTION AT VEHICLE CROSSING, REVERSING BAYS AND CAR PARKING BAYS AND PRAM CROSSING TO MURRAY RIVER COUNCIL'S STANDARDS.
 - ALL CHAINAGES REFER TO ROAD PAVEMENT CENTRELINES EXCEPT IN COURT HEADS AND INTERSECTIONS WHERE CHAINAGES REFER TO BACK OF KERB.
 - THE CONTRACTOR IS REQUIRED TO CONFINE CONSTRUCTION VEHICLES TO THE ROAD RESERVE AND EASEMENTS. ANY DAMAGE CAUSED TO ALLOTMENTS MUST BE MADE GOOD.
 - ALL BATTERS SHALL BE TO MURRAY RIVER COUNCIL STANDARDS.
 - CUT 1 IN 12 UNLESS OTHERWISE SHOWN.
 - FILL 1 IN 12 UNLESS OTHERWISE SHOWN.
 - ALL SET OUT INFORMATION GIVEN IS TO LIP OF KERB UNLESS OTHERWISE SHOWN.
 - WHERE CRUSHED ROCK IS SHOWN UNDER CONCRETE FOOTPATHS CONSTRUCTED ON FILL, THE CRUSHED ROCK IS TO BE 20MM CLASS.
 - WHERE CUT BATTERS ARE STEEPER THAN 1:6 THEY MUST BE HYDRO MULCHED.
 - SUBGRADE BE COMPACTED TO A MINIMUM OF 98% STANDARD MAXIMUM DRY DENSITY (AS3798), WITH THE SUBBASE COMPACTED IN ACCORDANCE WITH SCALE C IN VICROADS TABLE 304.071 USING FINE CRUSHED ROCK AND THE BASE COURSE TO AN AVERAGE OF 100% MINIMUM MODIFIED DRY DENSITY. ANY FILLING BENEATH ROAD PAVEMENT AREAS TO BE COMPACTED TO 100% OF MAXIMUM DRY DENSITY. COMPACTION TESTING TO BE AS PER COUNCIL REQUIREMENTS.
 - ANY BACKFILL WITHIN 1.0M OF A COUNCIL ASSET (ROAD) IS TO BE FCR. FILL MATERIAL IS ACCEPTABLE IF COMPACTED TO ENSURE 95% COMPACTION. COMPACTION TESTING TO BE PERFORMED AT ONE PER 60M OF TRENCH.
 - CONCRETE TO HAVE 28DAY STRENGTH OF 25MPA UNLESS NOTED OTHERWISE.
 - LEVEL 1 COMPACTION REPORT REQUIRED FOR ANY FILL ON THE ROAD RESERVE. THIS MUST BE PROVIDED TO MURRAY RIVER COUNCIL PRIOR TO ANY PROOF ROLL.
 - PAVEMENT TESTING IS TO BE COMPLETED IN ACCORDANCE WITH MURRAY RIVER COUNCIL 'ENGINEERING GUIDELINES FOR SUBDIVISIONS FOR SUBDIVISIONS AND DEVELOPMENT STANDARDS'.
 - THE PRE-APPROVED PREFERRED DRIVEWAY LOCATIONS SHOWN ON DRG NO. "310351CC030" ARE TO BE CONSTRUCTED BY EACH LANDOWNER AT A LATER DATE.



LOCALITY PLAN
NOT TO SCALE



LEGEND

DESCRIPTION	EXISTING	PROPOSED
FILTERED WATER MAIN, VALVE AND HYDRANT		
RAW WATER		
UNDERGROUND ELECTRICITY		
OVERHEAD ELECTRICITY & POLE		
TELECOMMUNICATIONS & SERVICE PIT		
GAS MAIN		
SEWER & MANHOLE		
SEWER RISING MAIN		
COUNCIL STORMWATER DRAIN & PIT		
COUNCIL STORMWATER PITS		
STORMWATER DRAINAGE PIT NUMBER		
GAS & WATER CONDUITS		
VEHICLE CROSSING		
SURFACE CONTOUR MINOR		
SURFACE CONTOUR MAJOR		
SURFACE LEVEL		
BATTER LEVEL (TOP / TOE)		
EARTHWORKS GRADE		
SIGN AND POST		
LIGHT & POLE (BY OTHERS)		
STREET SIGN		
PERMANENT SURVEY MARK		
TEMPORARY BENCH MARK		
BOLLARD		
ROAD CHAINAGES		
LOT CHAINAGE		
SETOUT POINT		
LIMIT OF WORKS		
EARTHWORK - FILL GREATER THAN 200mm		
BATTER		
ROCK BEACHING		
FENCE - TREE PROTECTION		
FENCE - VEHICLE EXCLUSION		
FENCES		
TREE (& SURVEYED CANOPY) TO BE RETAINED		
TREE TO BE REMOVED		
VEGETATION LINE		



WARNING
BEWARE OF UNDERGROUND/OVERHEAD SERVICES

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

SERVICE LOCATION TABLE

ROAD NAME	FILTERED WATER		RAW WATER		GAS		NBN (TELECOM)		ELECTRICITY				
	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	POLE		U/G CABLE		
ROSALIND DRIVE (NORTH-SOUTH)	W	2.15	W	2.65	W	3.15	E	1.0	E	VARIES		E	0.40
ROSALIND DRIVE (EAST-WEST)	S	3.55	S	4.05	S	4.55	S	2.75	N	1.0x	S	2.15	
PRINCES WAY	W	2.15	W	2.55	W	2.95	E	1.0	E	1.0x	E	0.40	

- TELECOMMUNICATIONS AND ELECTRICITY CABLES TO BE CONSTRUCTED IN A COMMON TRENCH IN ACCORDANCE WITH ELECTRICITY AUTHORITY STANDARD DRG'S.
- GAS AND WATER MAINS TO BE CONSTRUCTED IN A COMMON TRENCH.
- x = OFFSET FROM BACK OF KERB

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Rev	Amendments	Approved	Date
2	ISSUED FOR APPROVAL - ADD TWO LOTS AND ADD STAGING SPLIT	J.F	DEC 2025
1	FOR CONSTRUCTION APPROVAL & MINOR ROAD BOUNDARY AND DRAINAGE PIT AMENDMENTS	J.F	DEC 2024
0	ISSUED FOR CONSTRUCTION	J.F	30/04/24
A	ISSUED FOR APPROVAL	J.F	SEP 2023

Scale

ISO 9001
ISO 45001
ISO 14001

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Designed D.SHEEHAN/S.MAHER	Checked B.IBBS
Authorised J.FEHRING	Date DEC 2025

**MAIDEN'S GREEN
STAGE 6
COVER SHEET**

MURRAY RIVER COUNCIL
KIELY ROAD PROJECTS PTY LTD

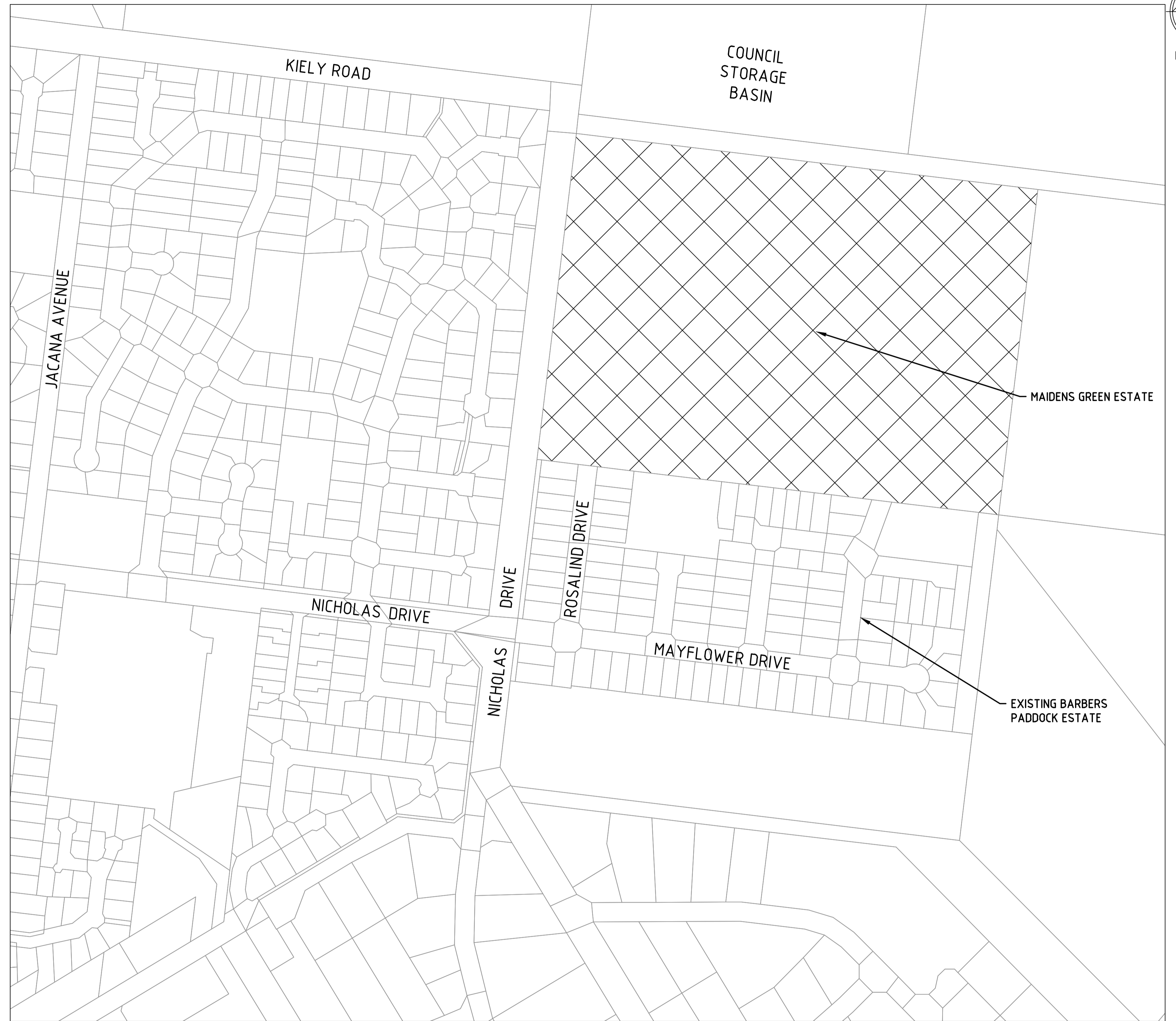
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DRAWING SCHEDULE

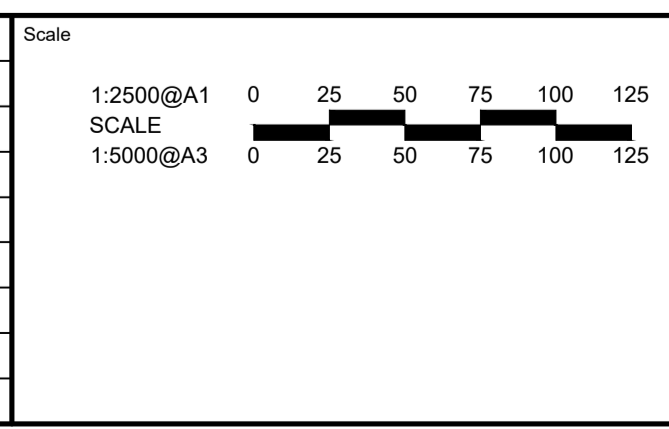
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CC001	COVER SHEET - SHEET 1	1	2
CC002	DRAWING SCHEDULE - SHEET 1	2	2
CC005	GENERAL ARRANGEMENT PLAN - SHEET 1	3	2
CC025	STAGING PLAN - SHEET 1	4	2
CC030	ROAD LAYOUT PLAN - SHEET 1	5	2
CC100	ROAD LONGITUDINAL SECTIONS - SHEET 1	6	2
CC101	ROAD LONGITUDINAL SECTIONS - SHEET 2	7	2
CC140	ROAD CROSS SECTIONS - SHEET 1	8	2
CC141	ROAD CROSS SECTIONS - SHEET 2	9	2
CC142	ROAD CROSS SECTIONS - SHEET 3	10	2
CC270	INTERSECTION DETAILS - SHEET 1	11	2
CC400	HYDRAULICS - NOTES & LEGEND - SHEET 1	12	2
CC430	HYDRAULICS - DRAINAGE PROFILES - SHEET 1	13	2
CC431	HYDRAULICS - DRAINAGE PROFILES - SHEET 2	14	2
CC432	HYDRAULICS - DRAINAGE PROFILES - SHEET 3	15	2
CC500	HYDRAULICS - SEWER & WATER - SHEET 1	16	2
CC501	HYDRAULICS - SEWER & WATER - SHEET 2	17	2
CC502	HYDRAULICS - SEWER & WATER - SHEET 3	18	2
CC530	HYDRAULICS - SEWER PROFILES - SHEET 1	19	2

2



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0	ISSUED FOR CONSTRUCTION	J.F	30/04/24
A	ISSUED FOR APPROVAL	J.F	SEP 2023



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Designed D.SHEEHAN/S.MAHER	Checked B.IBBS
Authorised J.FEHRING	Date DEC 2025

**MAIDEN'S GREEN
STAGE 6
DRAWING SCHEDULE**

MURRAY RIVER COUNCIL
KIELY ROAD PROJECTS PTY LTD

CONSTRUCTION APPROVAL Drg No **310351CC002** Rev **2**

DESIGN PAVEMENT PROFILE

PAVEMENT LAYER	DESCRIPTION	DEPTH (mm)
		TYPE A
WEARING COURSE	SIZE 10 TYPE N ASPHALT, WITH PRIME	40
BASE COURSE	CLASS 1 20mm FCR, COMPACTED TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY (MDD)	160
SUBBASE COURSE	CLASS 3 20mm FCR, COMPACTED TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY (MDD)	140
GEOFABRIC	A14 BIDIM NONWOVEN GEOTEXTILE (EXTEND 300mm BEHIND BACK OF KERB)	
SUBGRADE	3% LIME, 1% CEMENT STABILISATION OF EXISTING MATERIAL, COMPACTED TO 98% STANDARD COMPACTION.	200
TOTAL PAVEMENT DEPTH		540

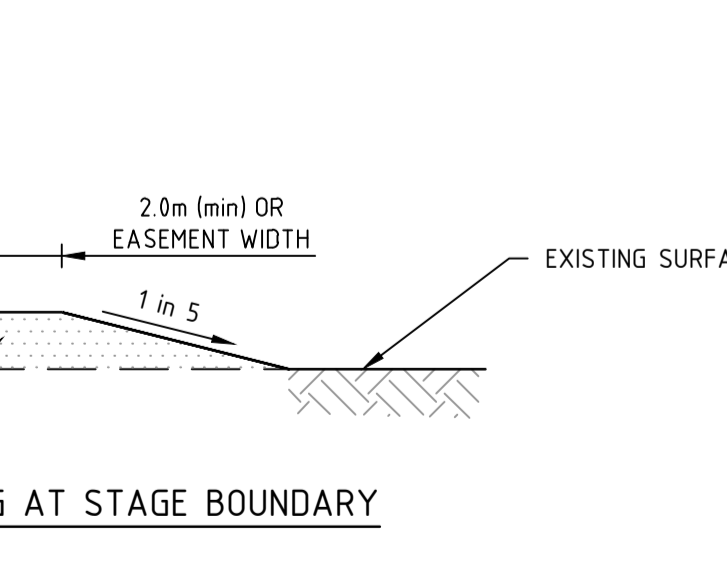
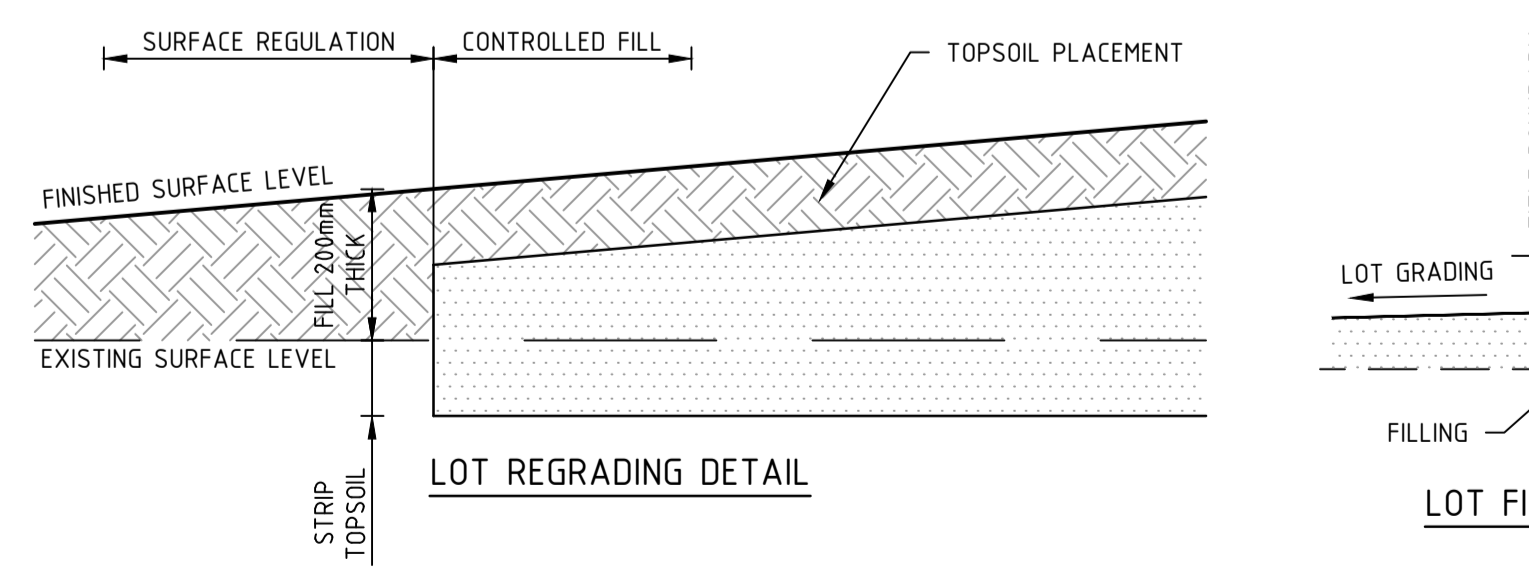
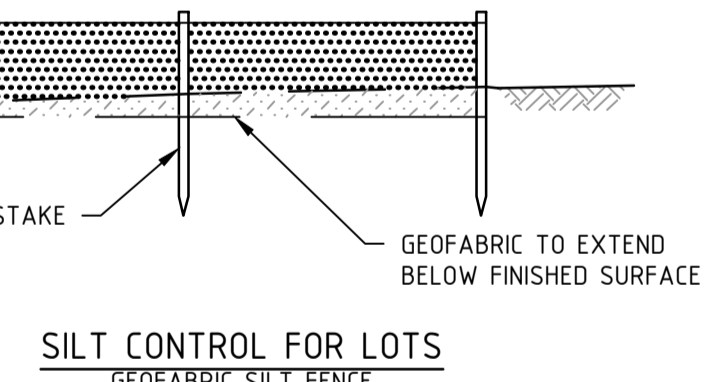
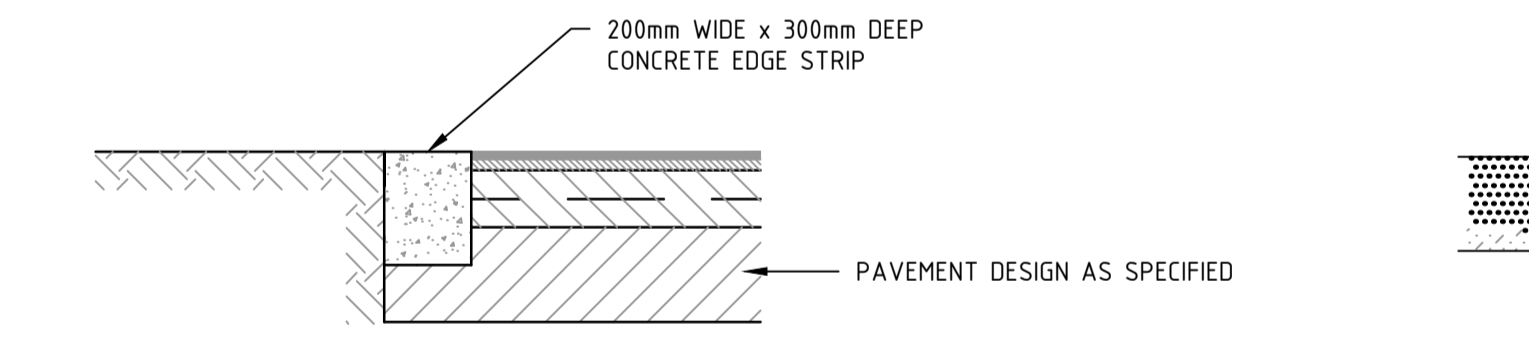
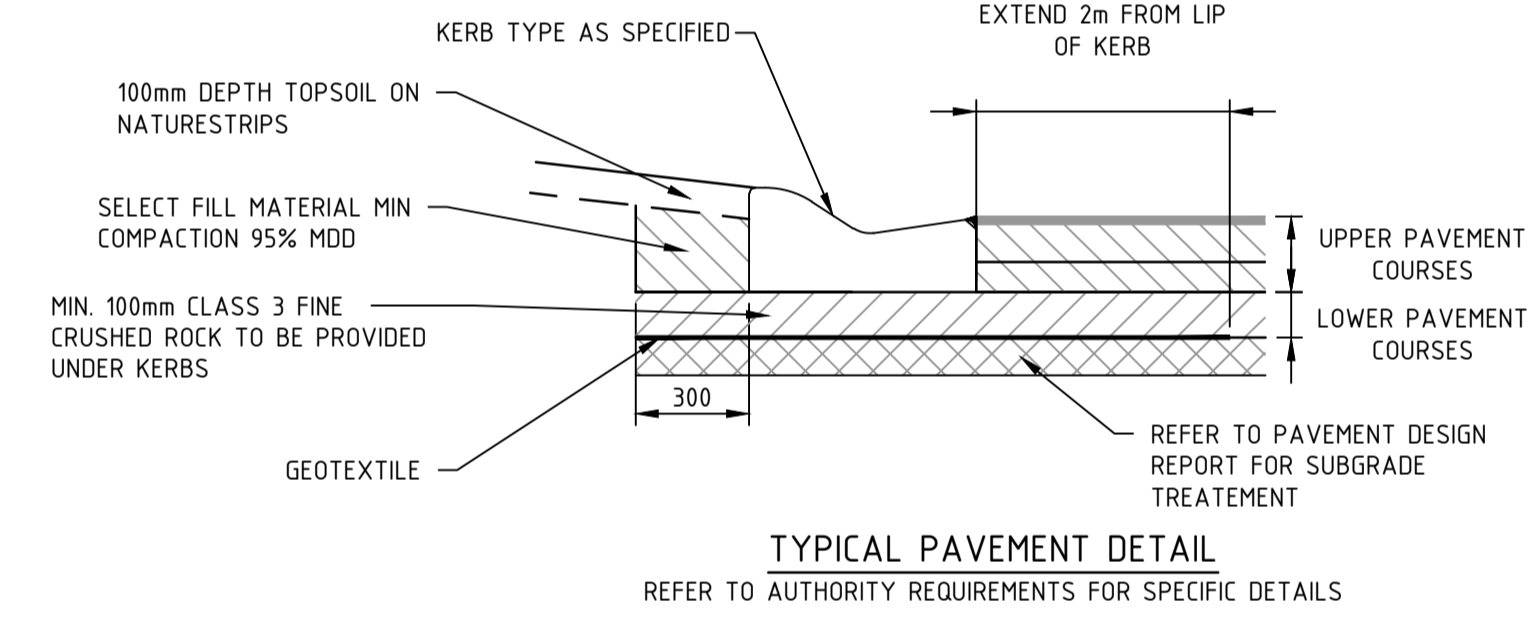
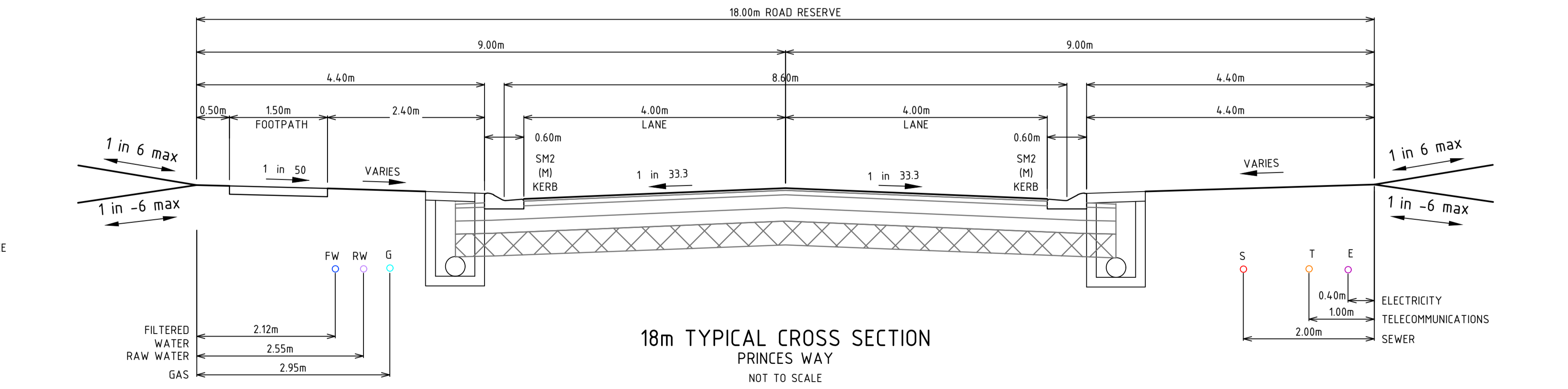
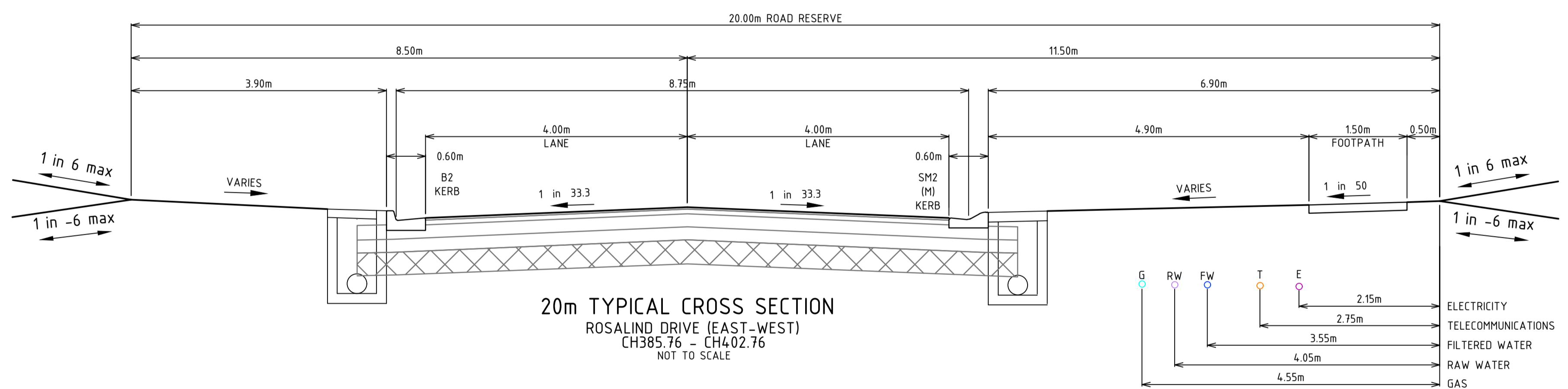
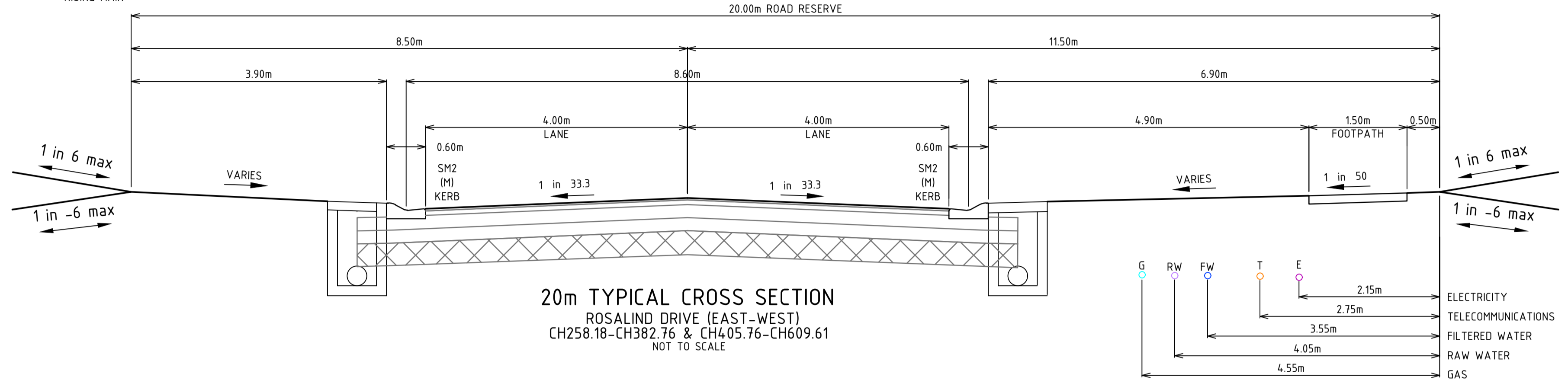
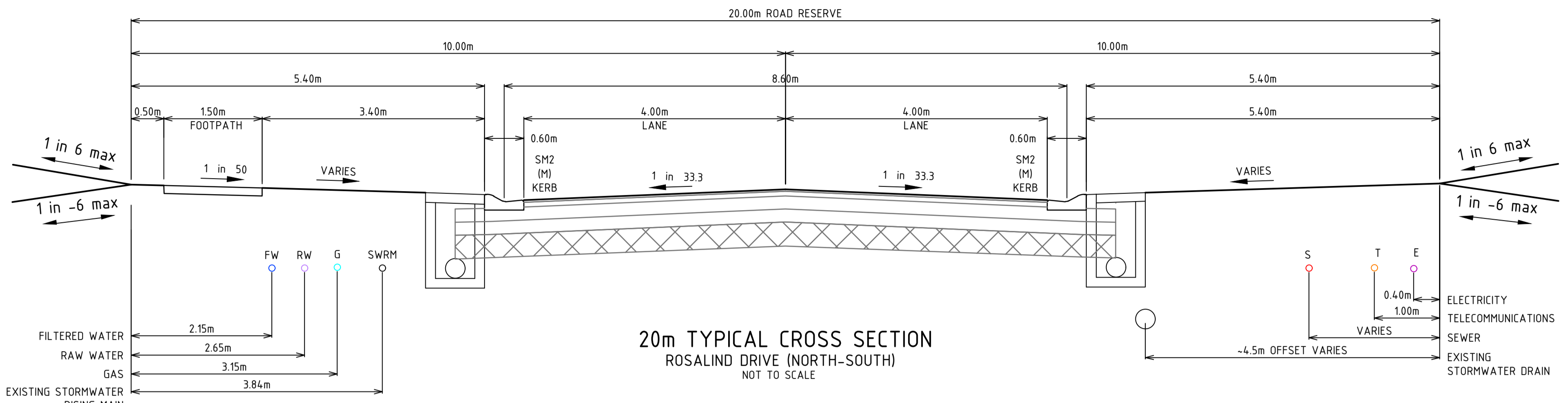
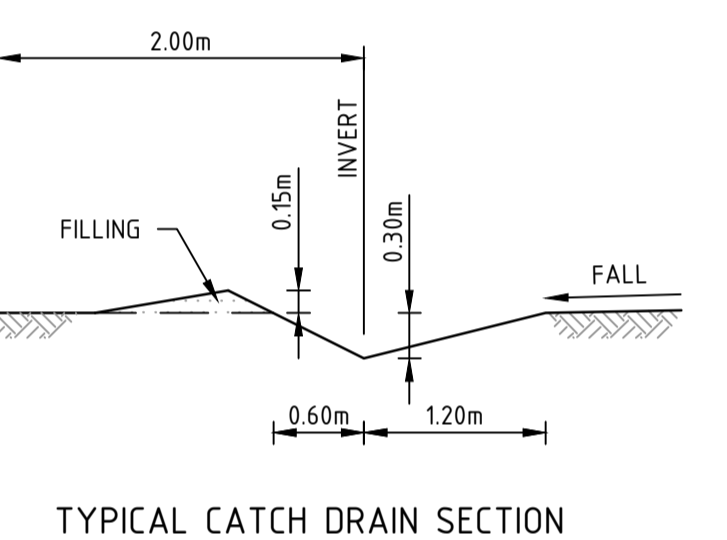
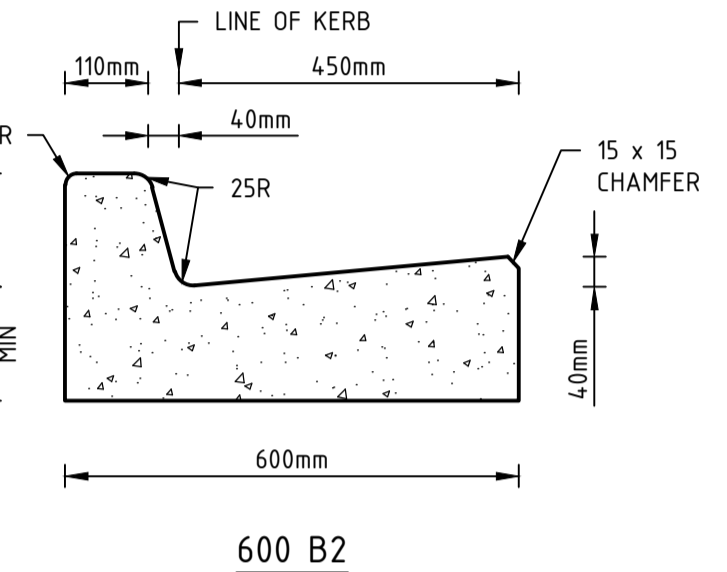
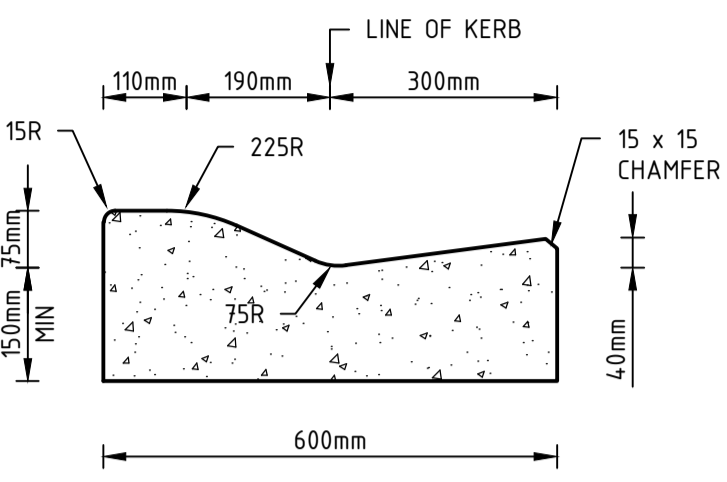
PAVEMENT DETAILS

THE PAVEMENT DESIGNS SHOWN HERE HAVE BEEN PROVIDED BY MURRAY RIVER COUNCIL. SPIRE DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE ACCURACY, ADEQUACY OR APPROPRIATENESS OF THE GEOTECHNICAL WORK AND PAVEMENT DESIGNS. ANY QUERIES IN RESPECT TO THE PAVEMENT DESIGNS SHOULD BE ADDRESSED TO MURRAY RIVER COUNCIL AND COPIED TO SPIRE.

GENERAL NOTES:

- ALL WORKS TO BE COMPLETED IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS AND CCAA LITERATURE.
- ALL CONCRETE TO BE MINIMUM 25MPa COMPRESSIVE STRENGTH
- CONCRETE TO BE THOROUGHLY COMPACTED USING EITHER SURFACE AND/OR IMMERSION VIBRATORS, PARTICULARLY AROUND REINFORCEMENT AND IN CORNERS OF FORMS.
- PRIOR TO CASTING, THE UNBOUND GRANULAR SUBBASE MUST BE DAMP TO ENSURE NO EARLY "DRYING OUT" OF THE CONCRETE.
- SAW CUTTING OF CONCRETE SHOULD BE COMMENCED AS SOON AS CONCRETE PERMITS BY EXPERIENCED CONTRACTORS, BUT NO LATER THAN 12 HOURS AFTER POUR.
- ALL DOWELS TO BE GRADE 250R STEEL BARS, 800mm LONG AND PLACED AT 300mm CENTRES. REFER CCAA- "CONCRETE PAVEMENT DESIGN FOR RESIDENTIAL STREETS" FOR DOWEL DIAMETERS. DOWELS MUST BE ACCURATELY PLACED TO ENSURE THE JOINT DOES NOT "LOCK". INSERTION OF DOWELS DURING THE PLACING OF CONCRETE IS NOT ACCEPTABLE. DOWELS MUST BE SAWN AND NOT CROPPED.
- ALL JOINTS TO BE APPROPRIATELY SEALED TO RESIST THE INTRUSION OF SAND AND GRAVEL AND TO MINIMISE THE INGRESS OF WATER.

ROAD NAME	TYPE
ROSALIND DRIVE	A
PRINCES WAY	A



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Rev	Amendments	Approved	Date
2	ISSUED FOR APPROVAL - ADD TWO LOTS AND ADD STAGING SPLIT	J.F	DEC 2025
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Scale
AS SHOWN



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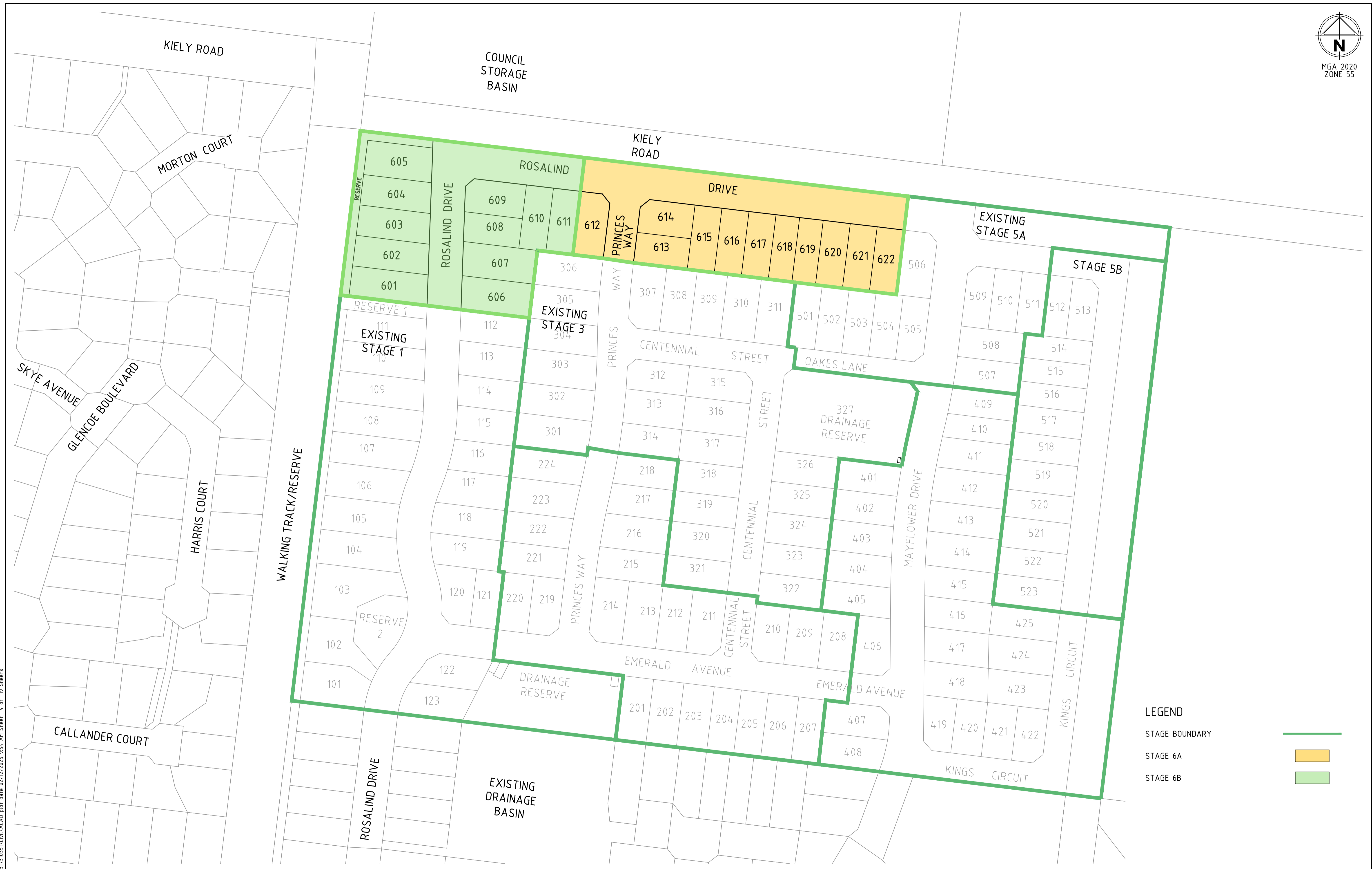
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Designed
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Checked
B.IBBS
Authorised
J.FEHRING
Date
DEC 2025

**MAIDEN'S GREEN
STAGE 6
GENERAL ARRANGEMENT PLAN**

MURRAY RIVER COUNCIL
KIELY ROAD PROJECTS PTY LTD

CONSTRUCTION APPROVAL Drg No **310351CC005** Rev **2**

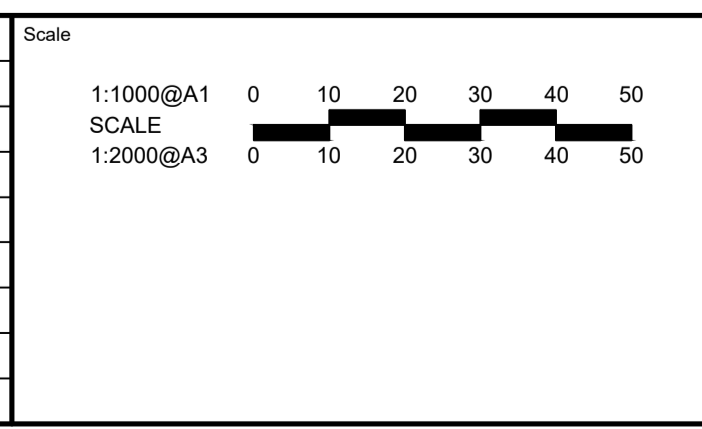


LEGEND

- STAGE BOUNDARY
- STAGE 6A
- STAGE 6B

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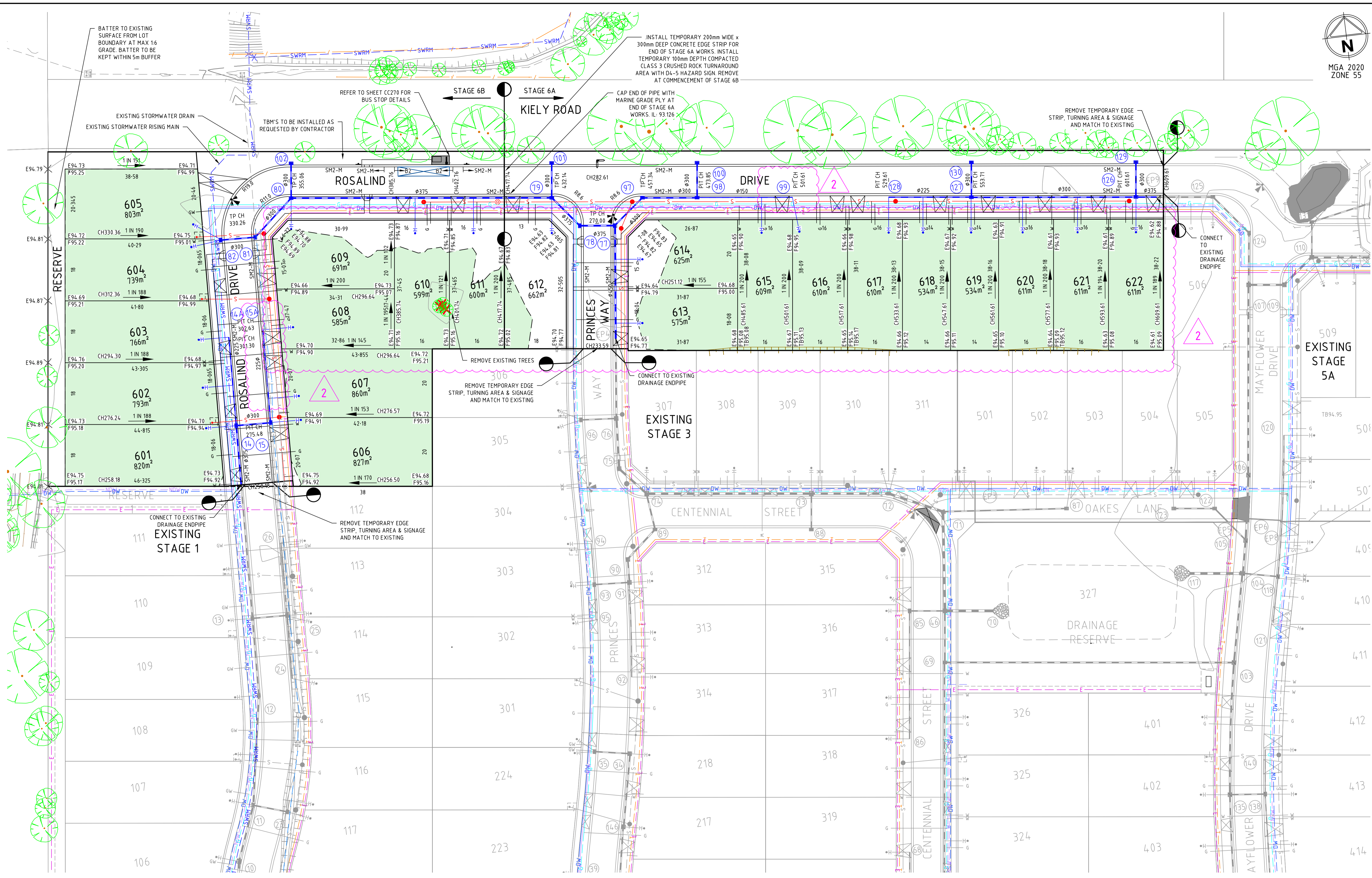
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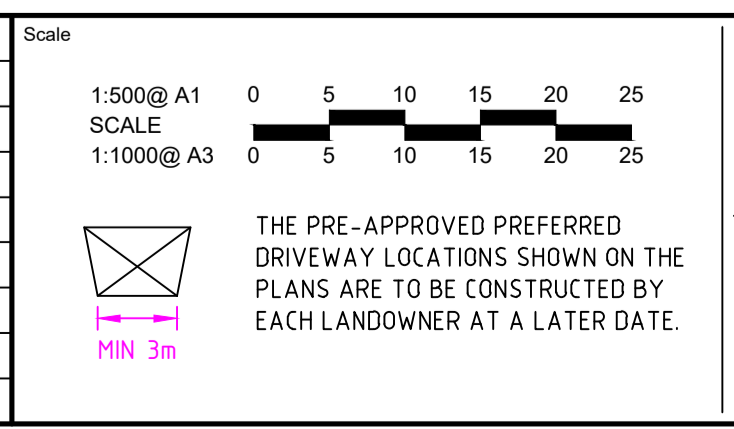
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MAIDEN'S GREEN
STAGE 6
STAGING PLAN
 - MURRAY RIVER COUNCIL
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CONSTRUCTION APPROVAL Drg No 310351CC025 Rev 2



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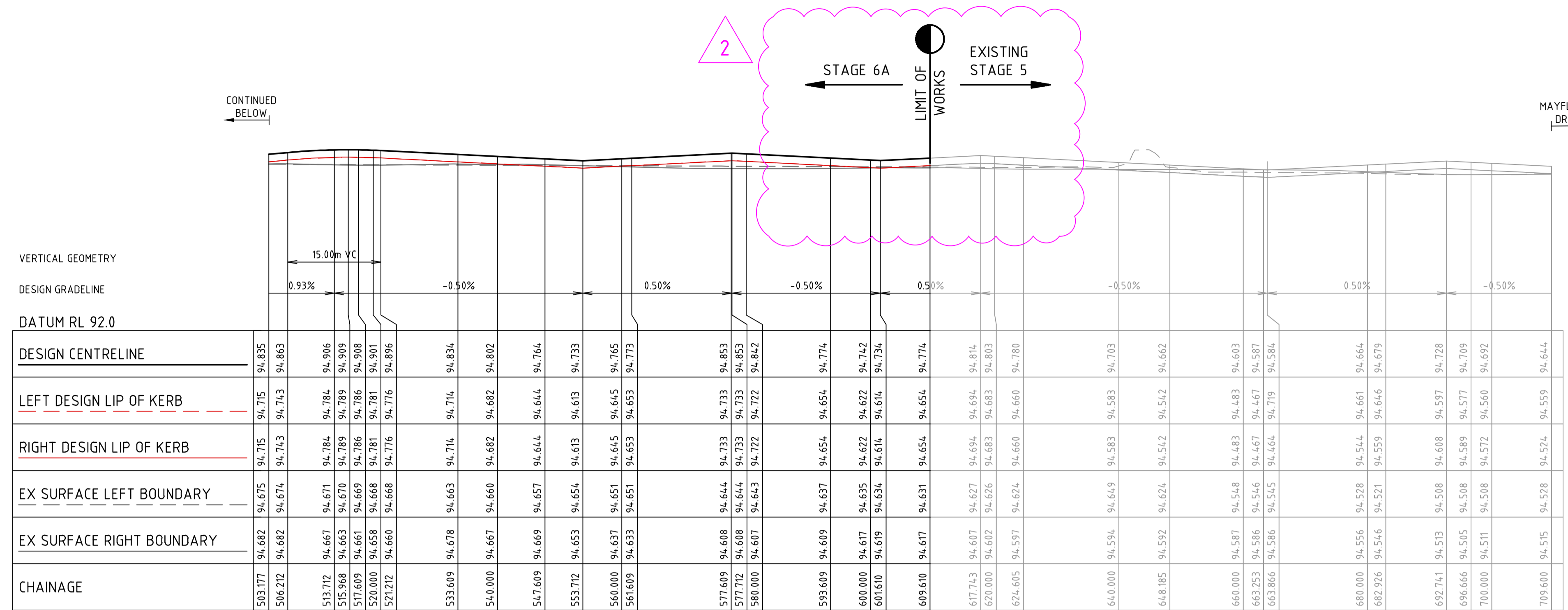
**MAIDEN'S GREEN
 STAGE 6
 ROAD LAYOUT PLAN**

MURRAY RIVER COUNCIL
 KIELY ROAD PROJECTS PTY LTD

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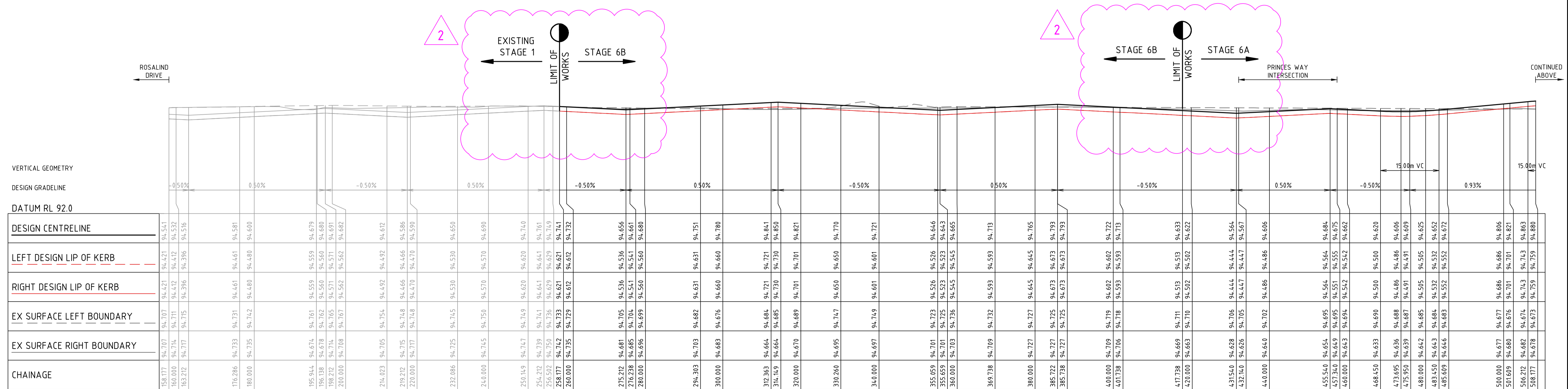
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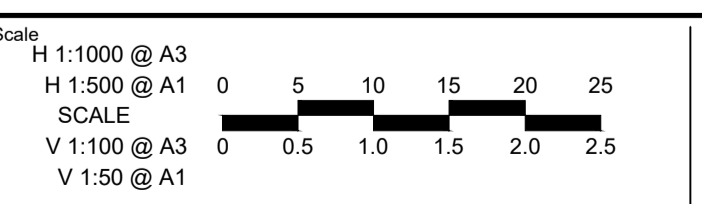
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ROSALIND DRIVE



ROSALIND DRIVE

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0	ISSUED FOR CONSTRUCTION	J.F	30/04/24
A	ISSUED FOR APPROVAL	J.F	SEP 2023



ISO 9001
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 ISO 14001
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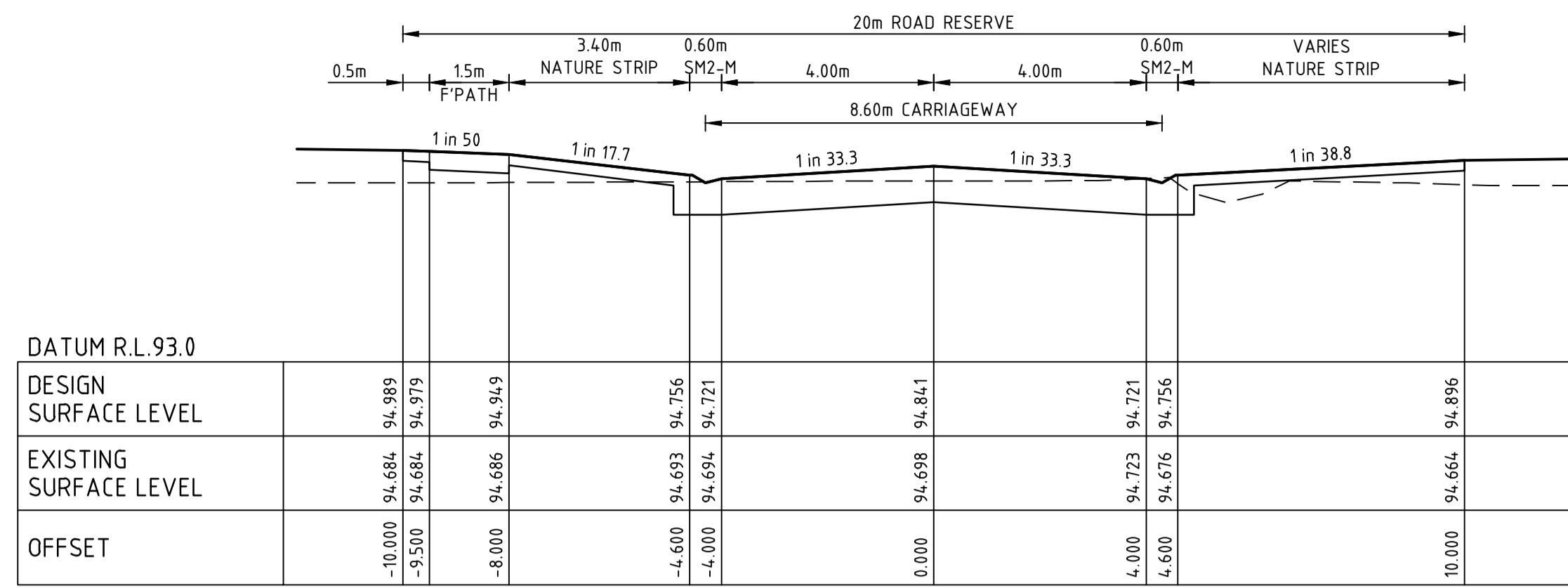
spiire

16 BRIDGE STREET BENDIGO
 VICTORIA 3550 AUSTRALIA T 61 3 5448 2500
 spiire.com.au ABN 55 050 029 635

Designed D.SHEEHAN/S.MAHER	Checked B.IBBS
Authorised J.FEHRING	Date DEC 2025

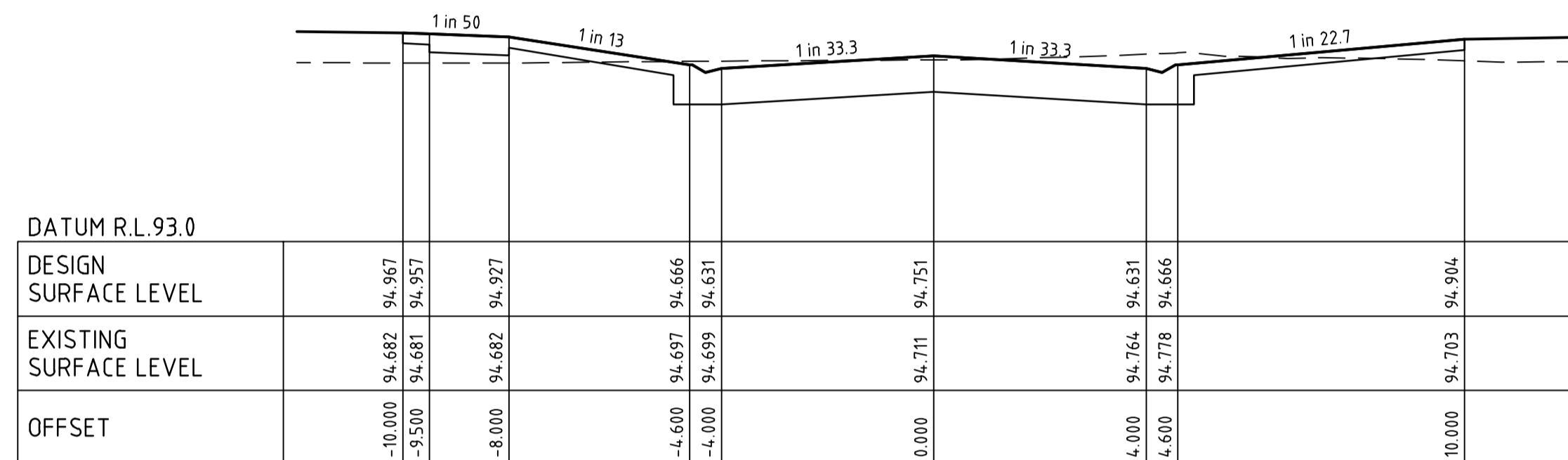
**MAIDEN'S GREEN
 STAGE 6
 ROAD LONGITUDINAL SECTIONS
 ROSALIND DRIVE - SHEET 1 OF 2
 MURRAY RIVER COUNCIL
 KIELY ROAD PROJECTS PTY LTD**

CONSTRUCTION APPROVAL Drg No **310351CC100** Rev **2**



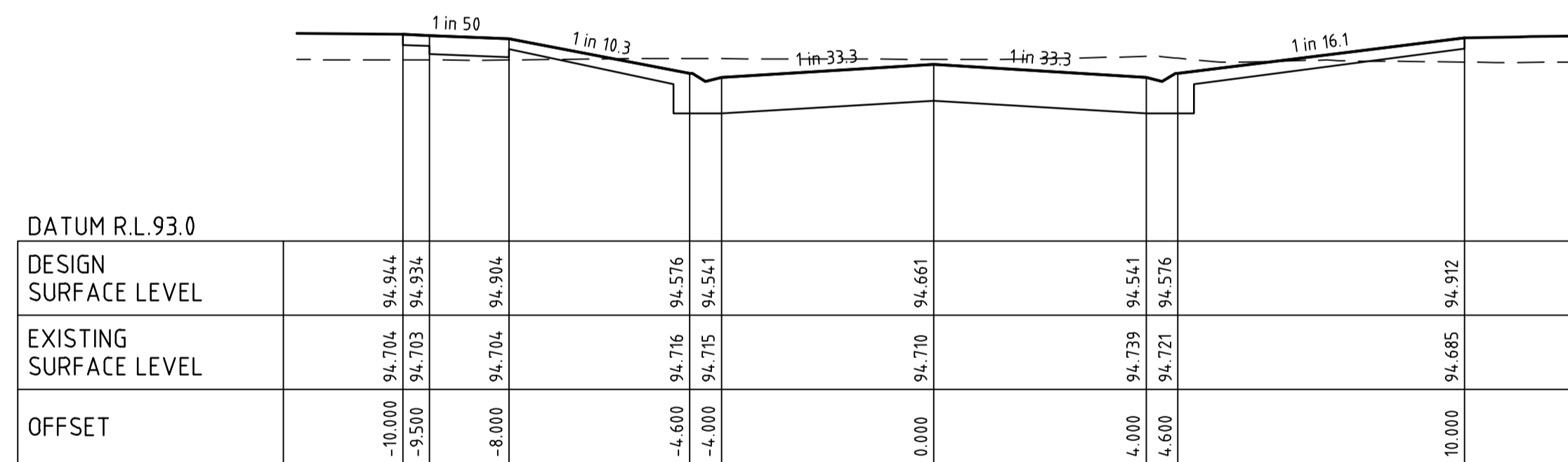
ROSALIND DRIVE

CH 312.36



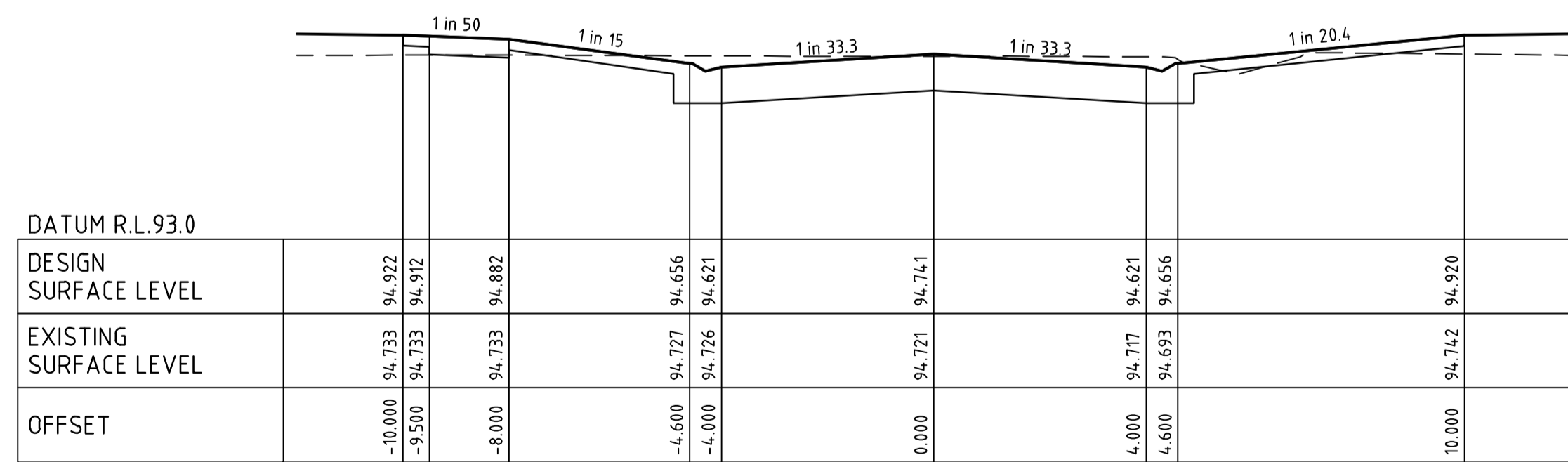
ROSALIND DRIVE

CH 294.30



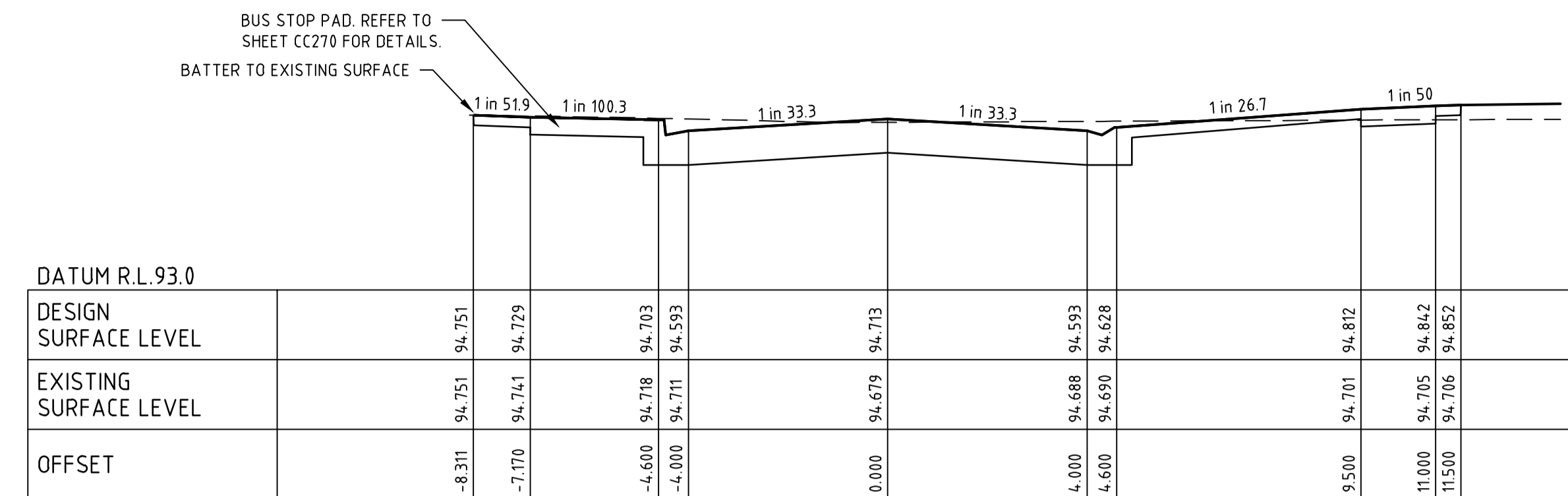
ROSALIND DRIVE

CH 276.24



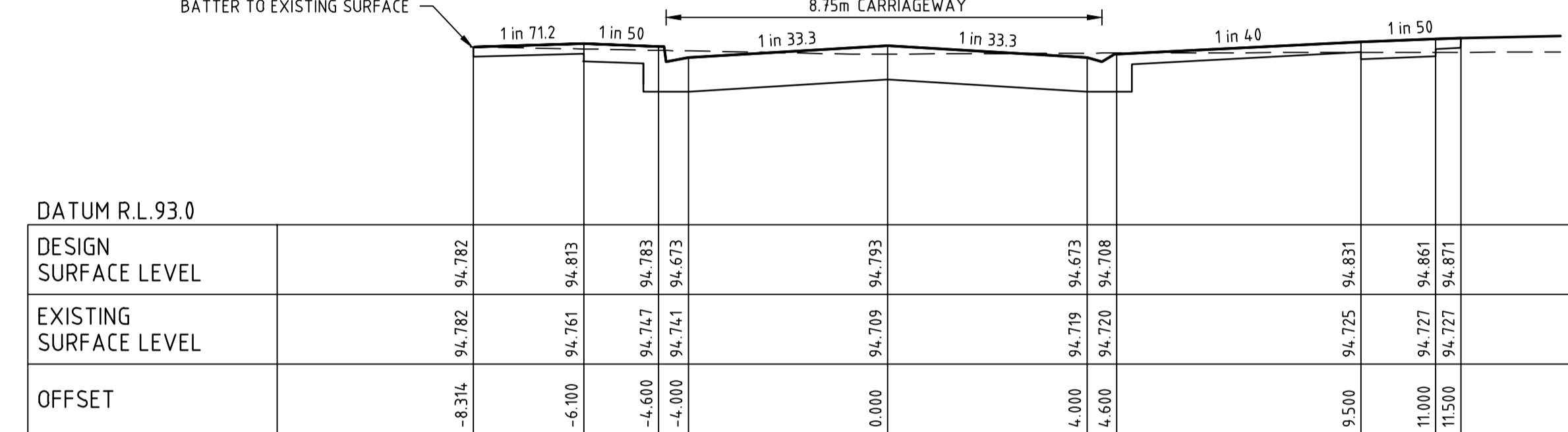
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CH 258.18



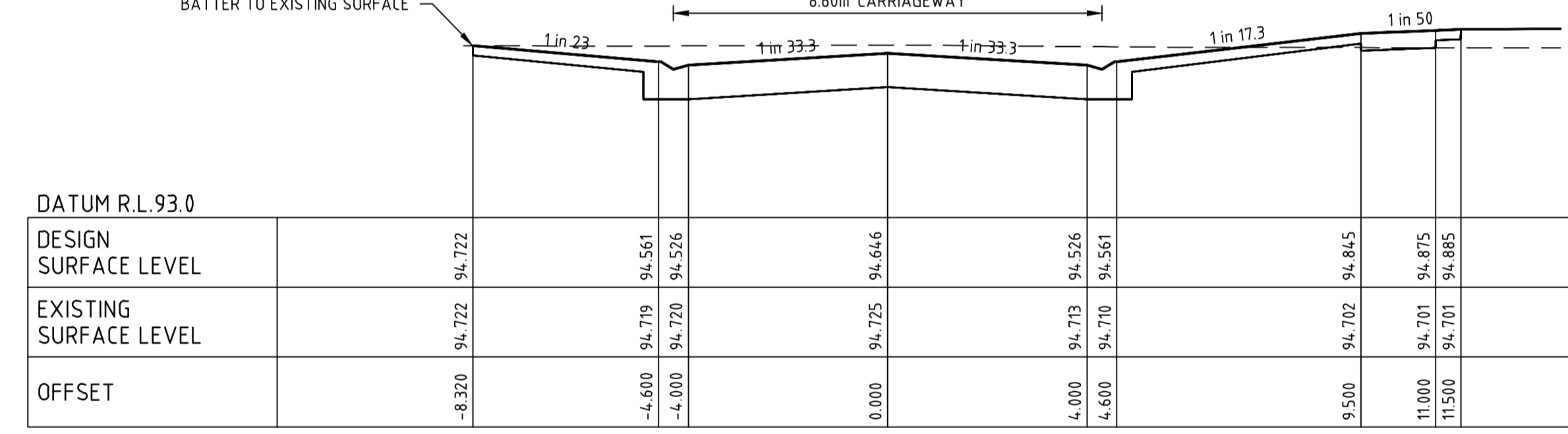
ROSALIND DRIVE

CH 401.74



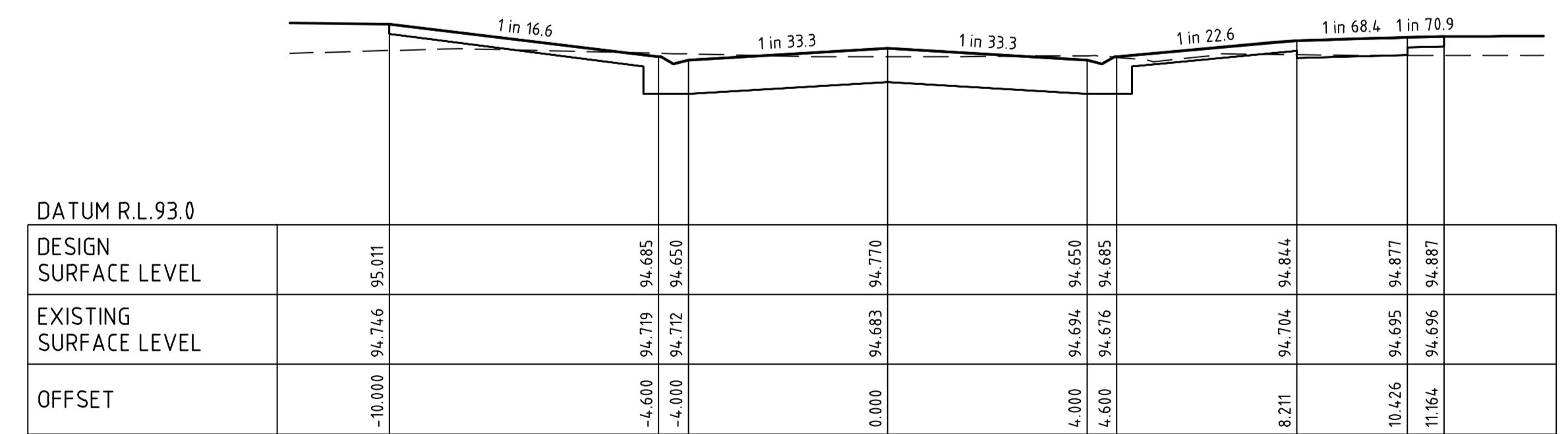
ROSALIND DRIVE

CH 385.74



ROSALIND DRIVE

CH 355.06

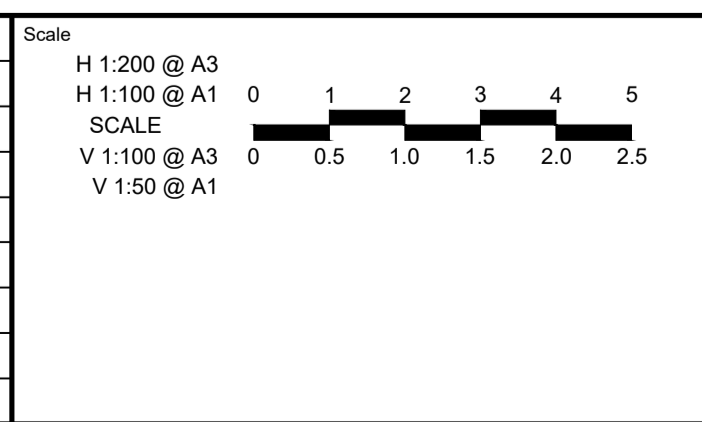


ROSALIND DRIVE

CH 330.26

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Rev	Amendments	Approved	Date
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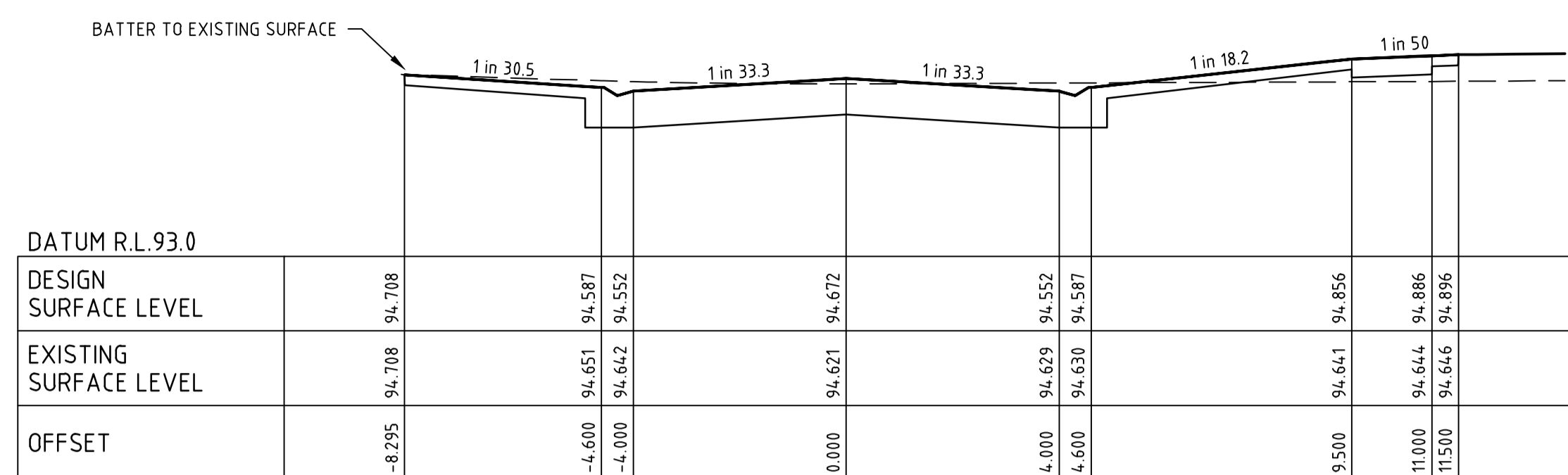
16 BRIDGE STREET BENDIGO
VICTORIA 3550 AUSTRALIA T 61 3 5448 2500
spiire.com.au ABN 55 050 029 635

Designed
D.SHEEHAN/S.MAHER
Authorised
J.FEHRING

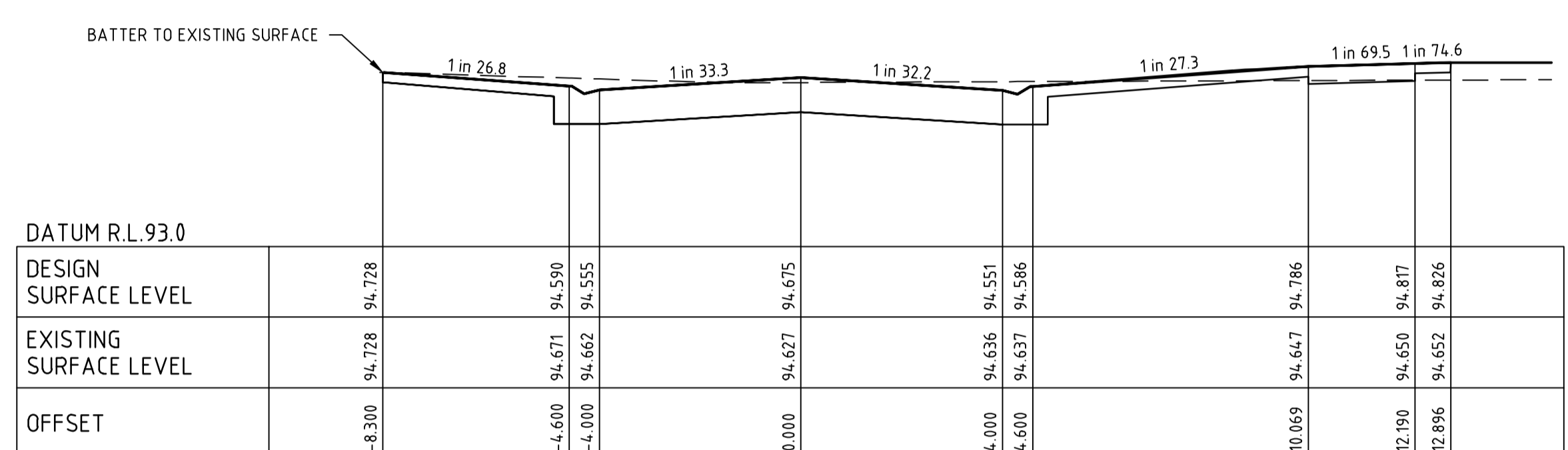
Checked
B.IBBS
Date
DEC 2025

**MAIDEN'S GREEN
STAGE 6
ROAD CROSS SECTIONS
SHEET 1 OF 3**
MURRAY RIVER COUNCIL
KIELY ROAD PROJECTS PTY LTD

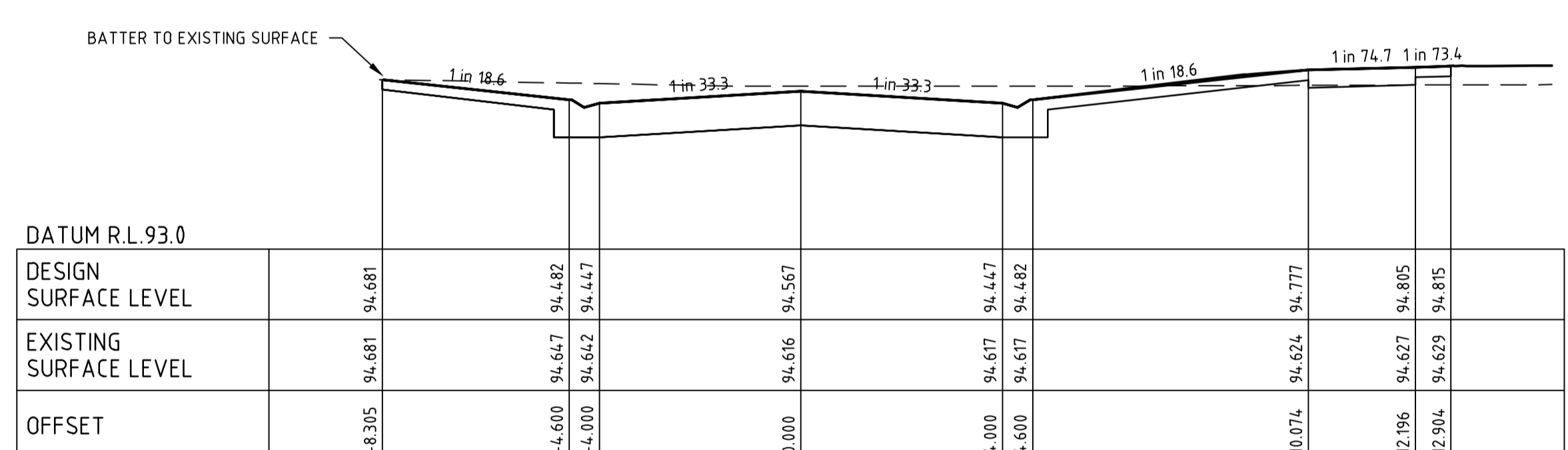
CONSTRUCTION APPROVAL Drg No **310351CC140** Rev **2**



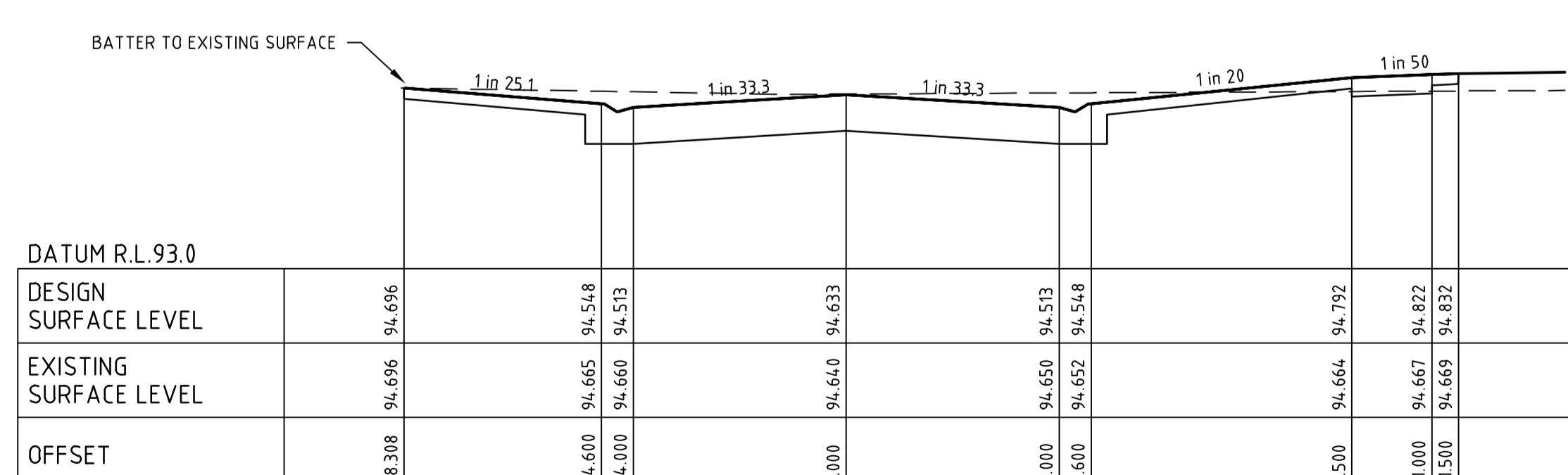
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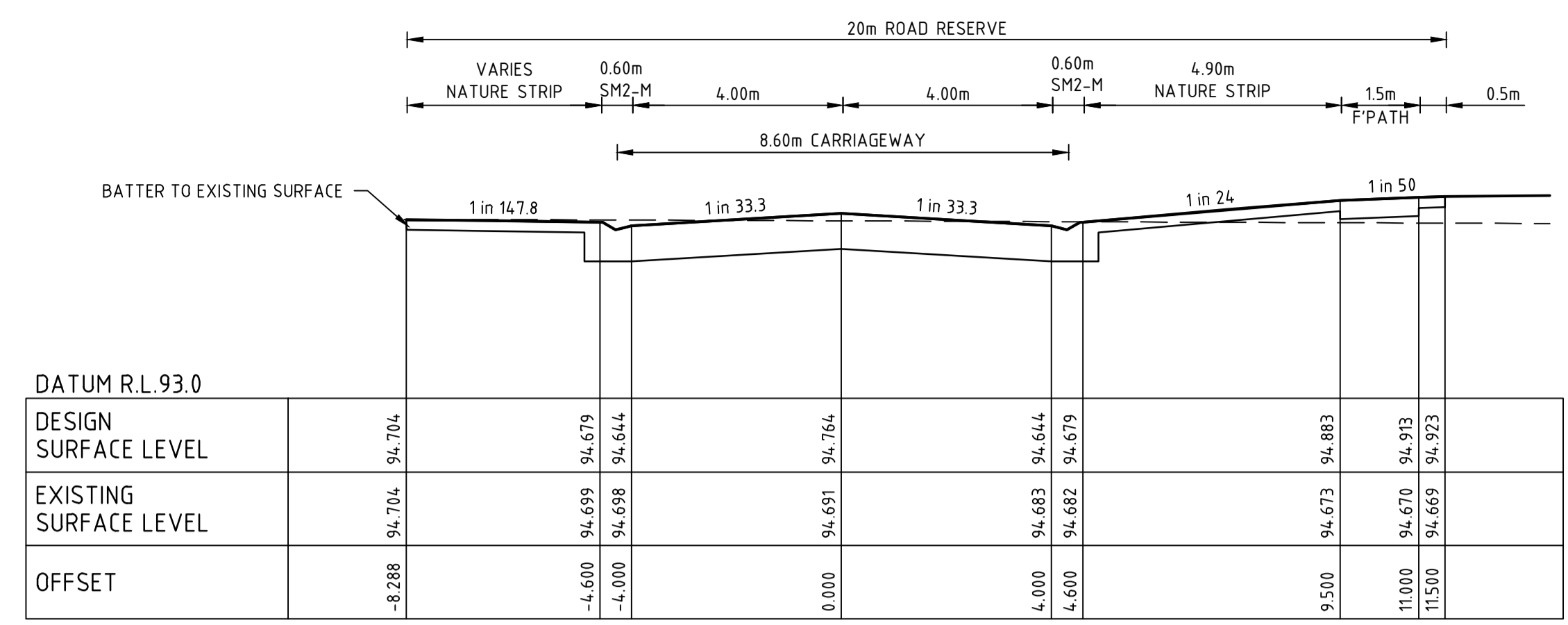
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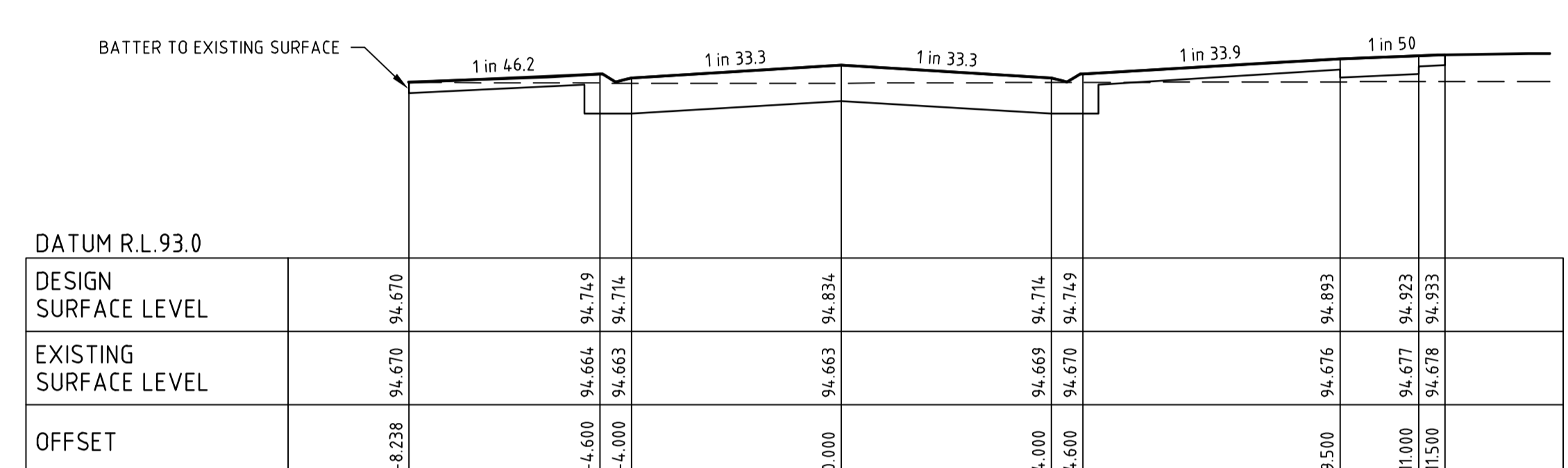
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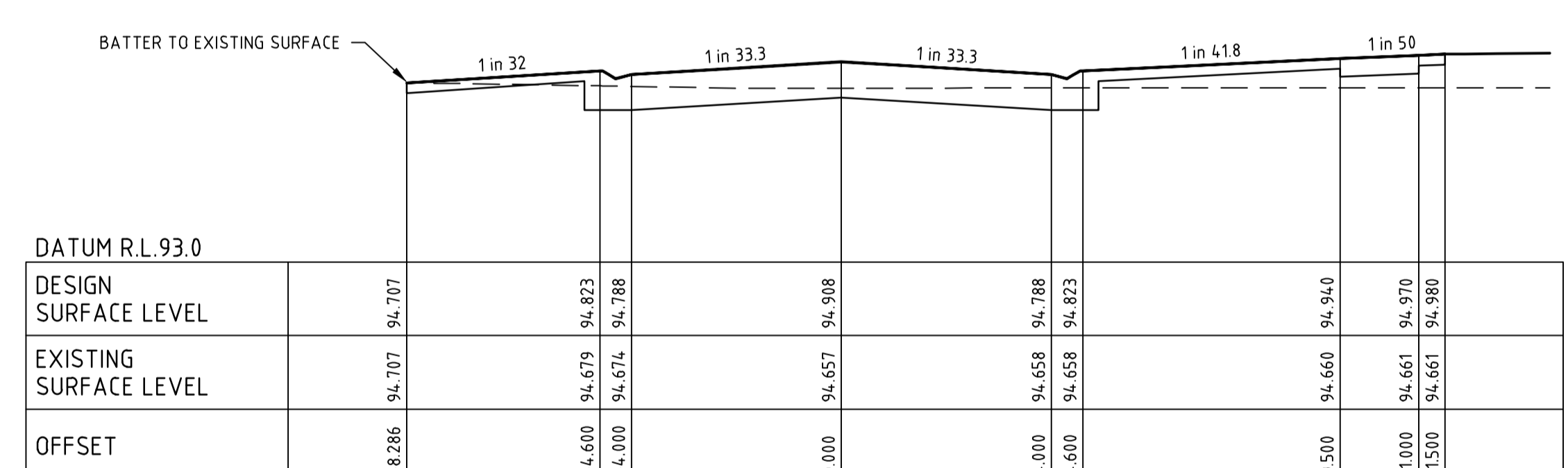
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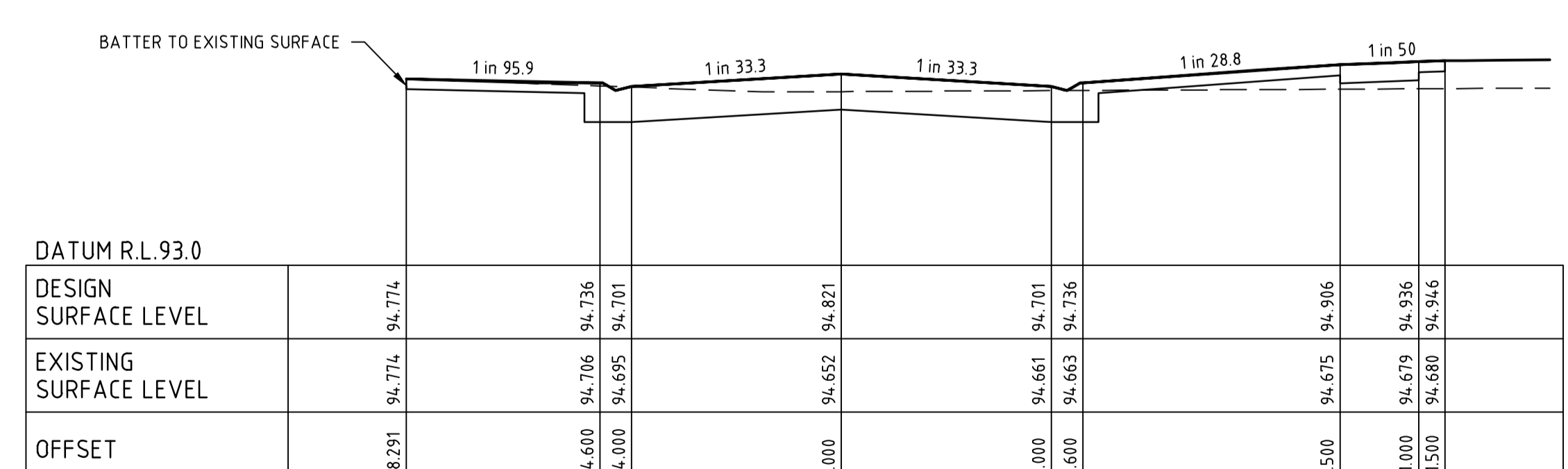
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ROSALIND DRIVE CH 533.61



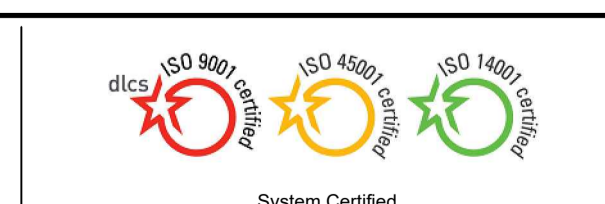
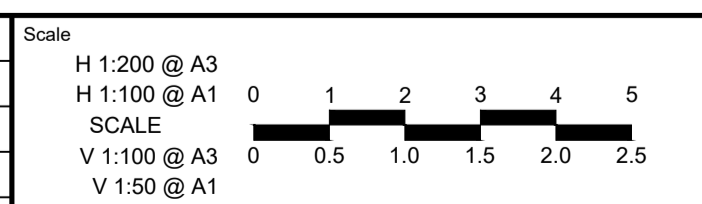
ROSALIND DRIVE CH 517.61



ROSALIND DRIVE CH 501.61

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Rev	Amendments	Approved	Date
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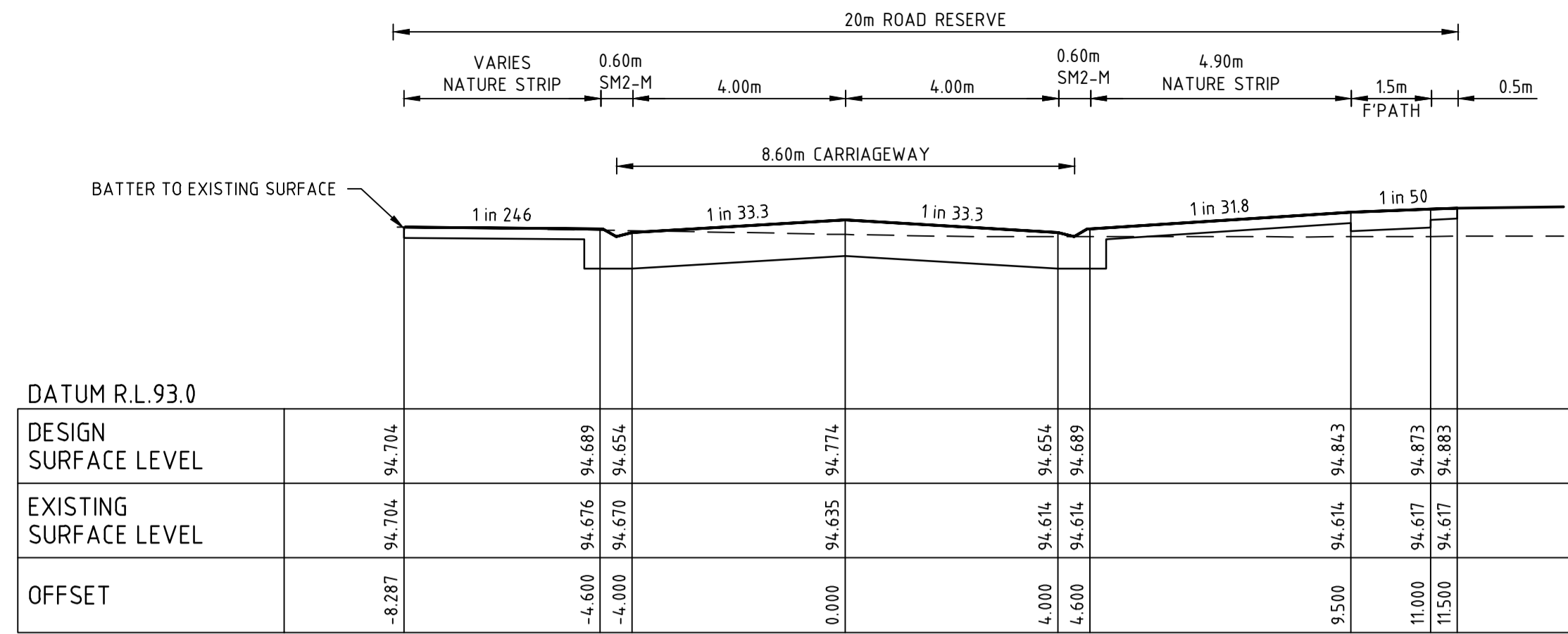


16 BRIDGE STREET BENDIGO
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Authorised J.FEHRING	Date DEC 2025

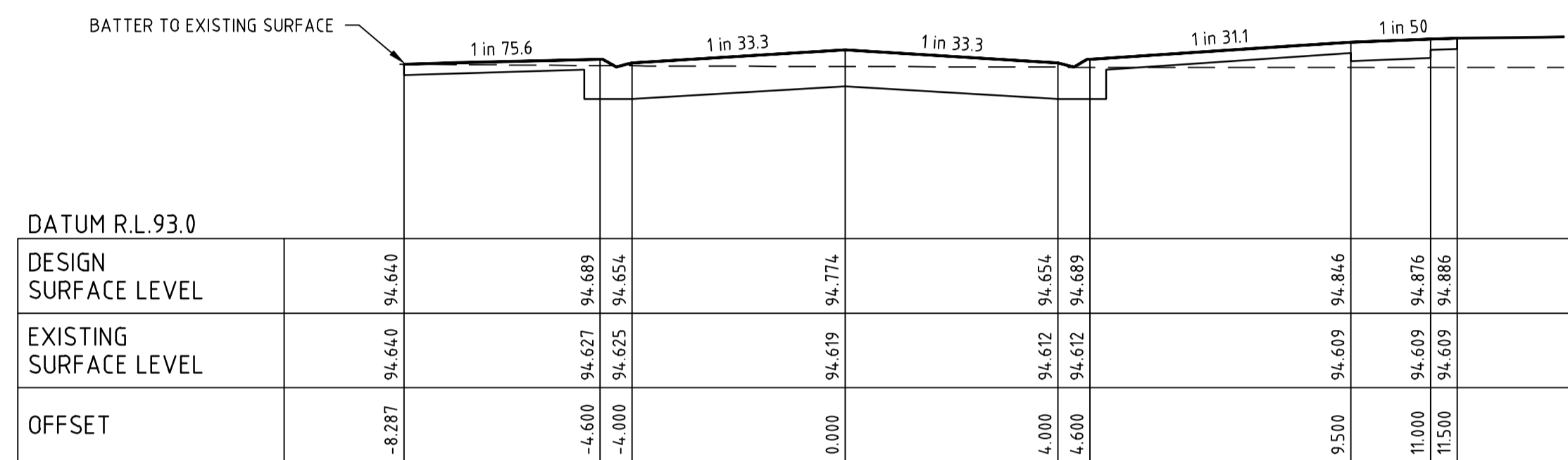
**MAIDEN'S GREEN
 STAGE 6
 ROAD CROSS SECTIONS
 SHEET 2 OF 3**
 MURRAY RIVER COUNCIL
 KIELY ROAD PROJECTS PTY LTD

CONSTRUCTION APPROVAL Drg No **310351CC141** Rev **2**



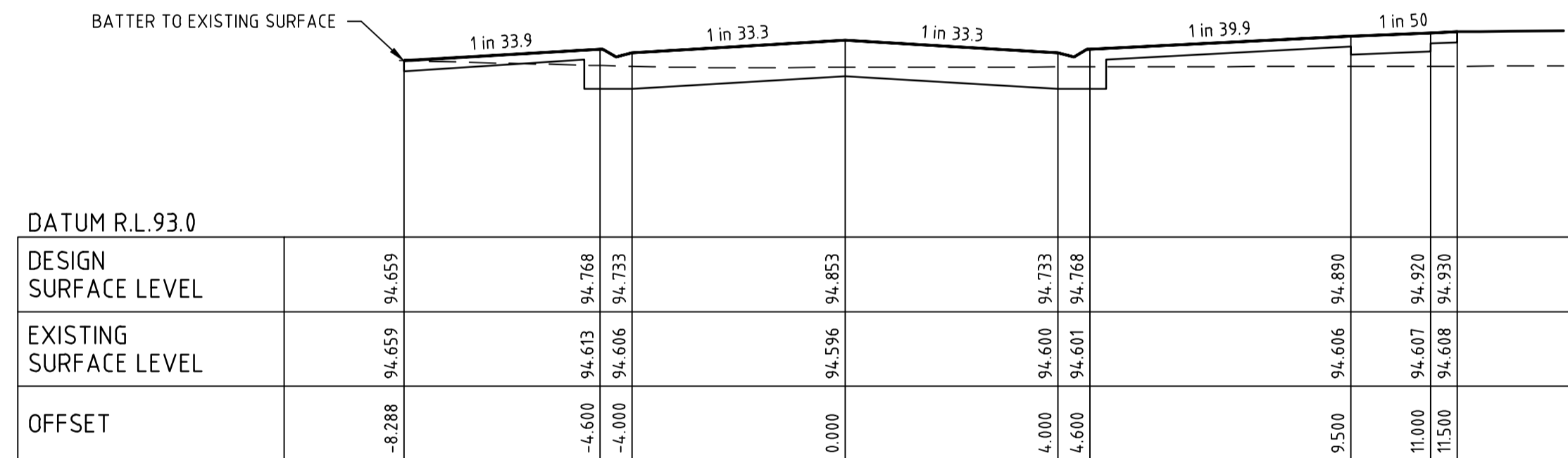
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OFFSET	-8.287

ROSALIND DRIVE CH 609.61



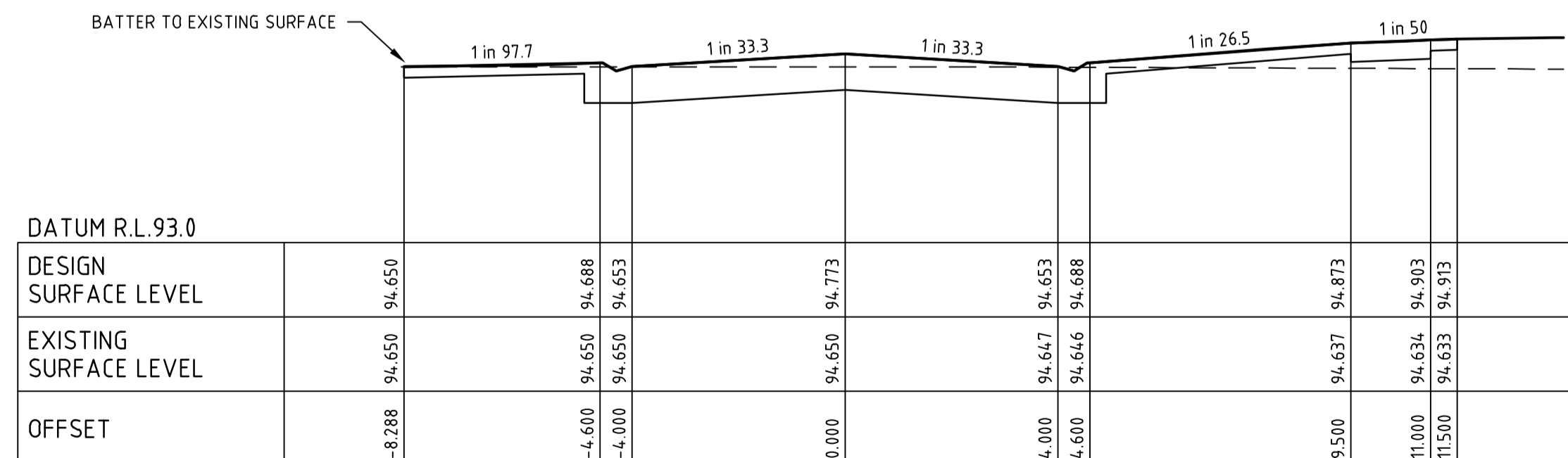
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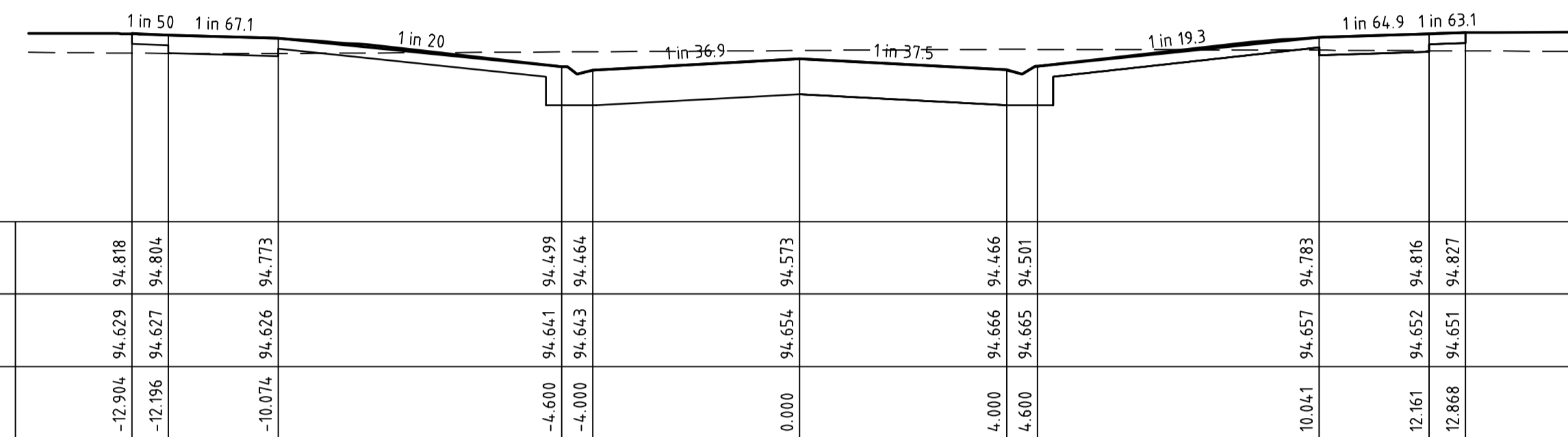
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DESIGN SURFACE LEVEL	94.659
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OFFSET	-8.288

ROSALIND DRIVE CH 577.61



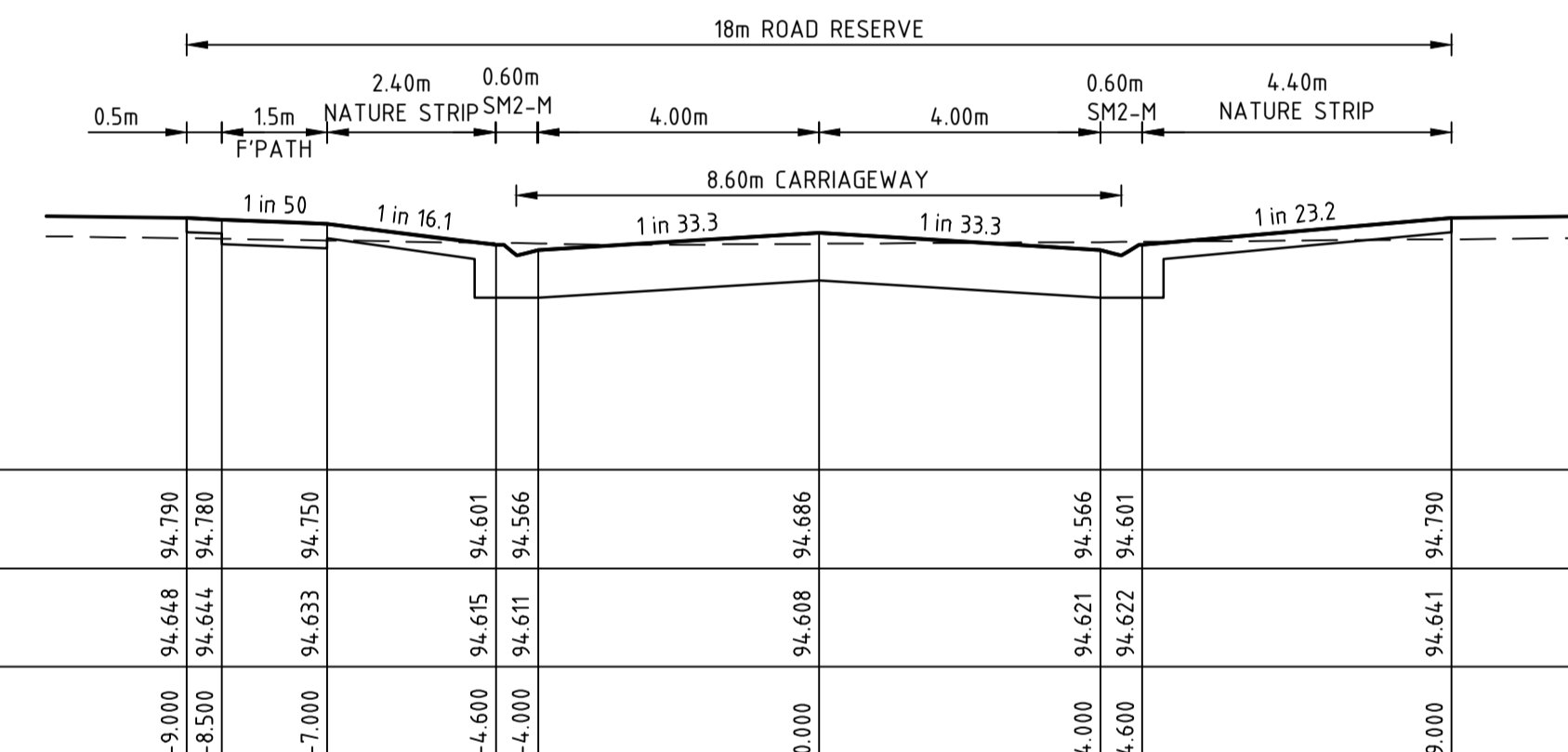
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DESIGN SURFACE LEVEL	94.650
EXISTING SURFACE LEVEL	94.650
OFFSET	-8.288

ROSALIND DRIVE CH 561.61



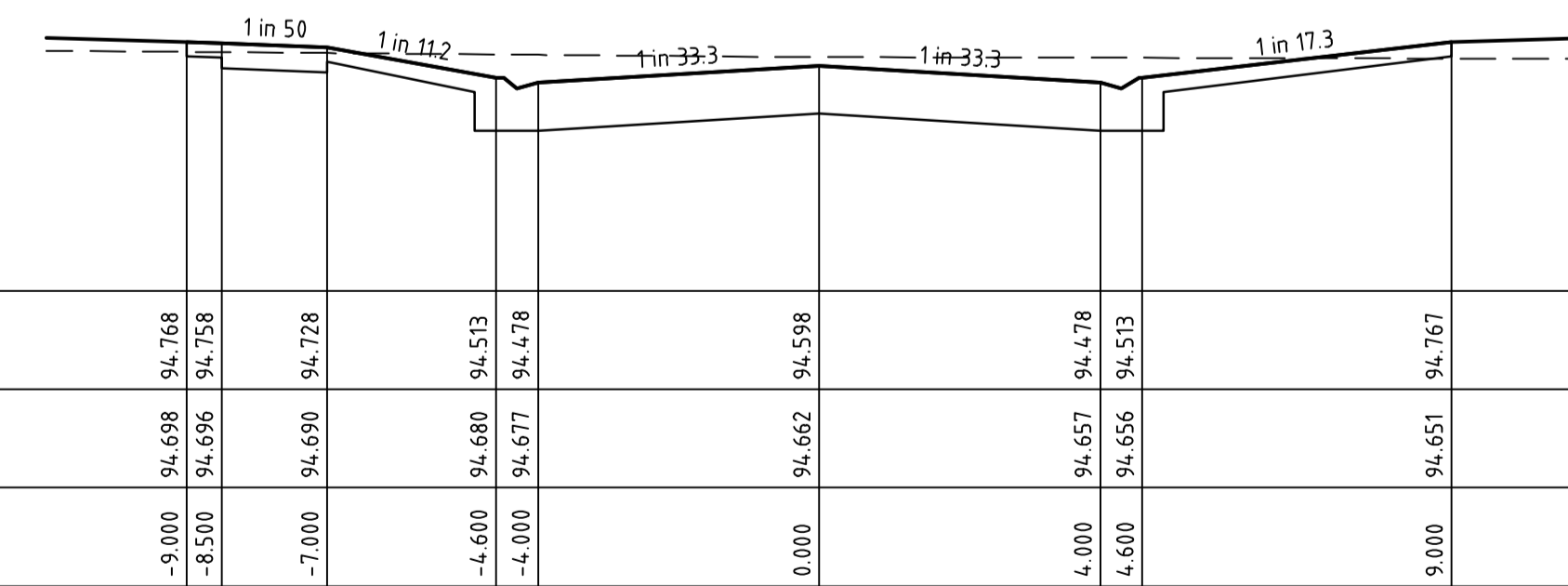
DATUM R.L. 93.0	
DESIGN SURFACE LEVEL	94.818
EXISTING SURFACE LEVEL	94.818
OFFSET	-12.904

PRINCES WAY CH 270.00



DATUM R.L. 93.0	
DESIGN SURFACE LEVEL	94.790
EXISTING SURFACE LEVEL	94.790
OFFSET	-9.000

PRINCES WAY CH 251.12

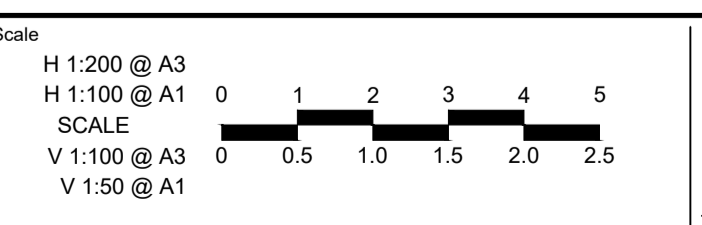


DATUM R.L. 93.0	
DESIGN SURFACE LEVEL	94.768
EXISTING SURFACE LEVEL	94.768
OFFSET	-9.000

PRINCES WAY CH 233.59

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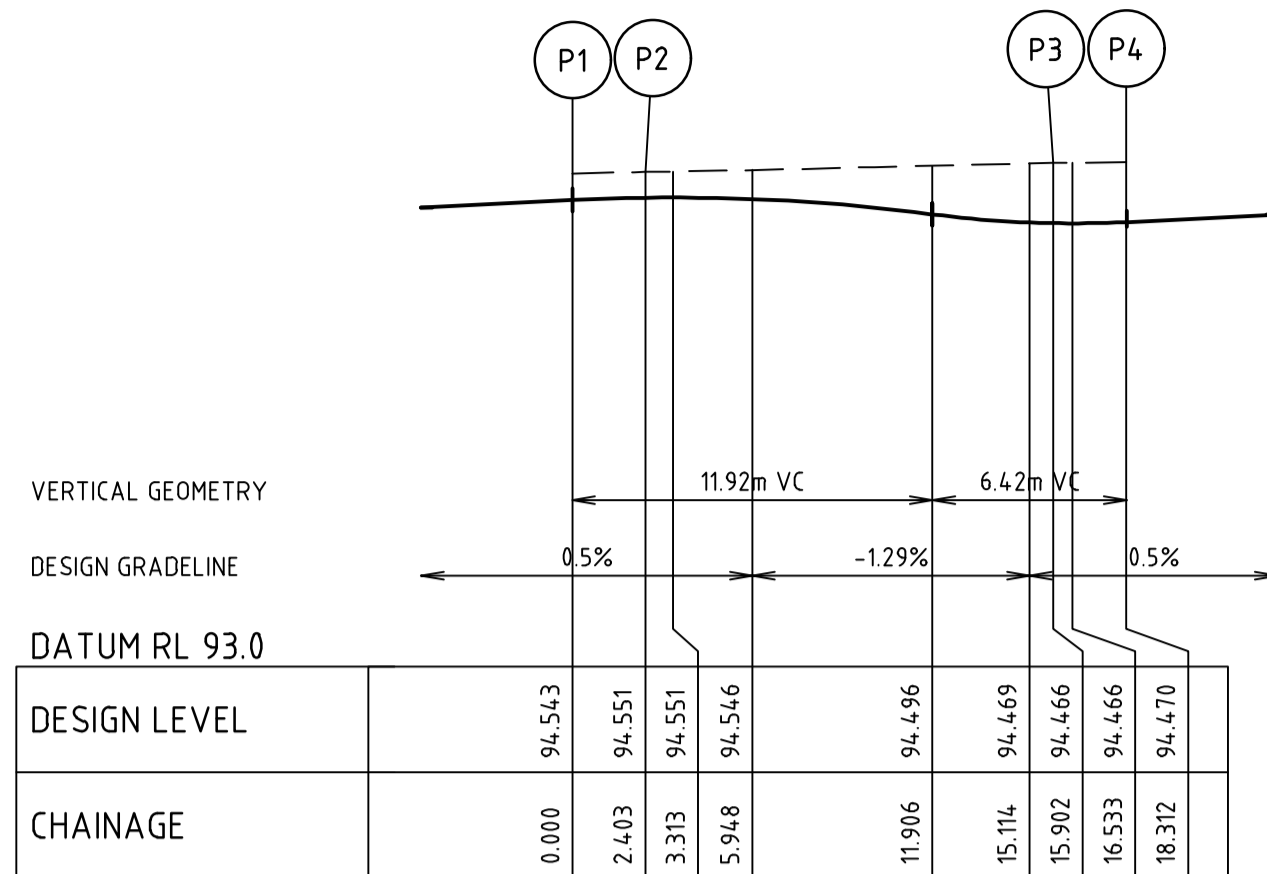
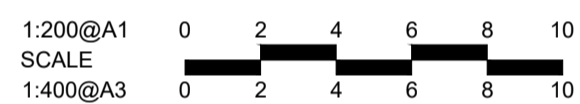
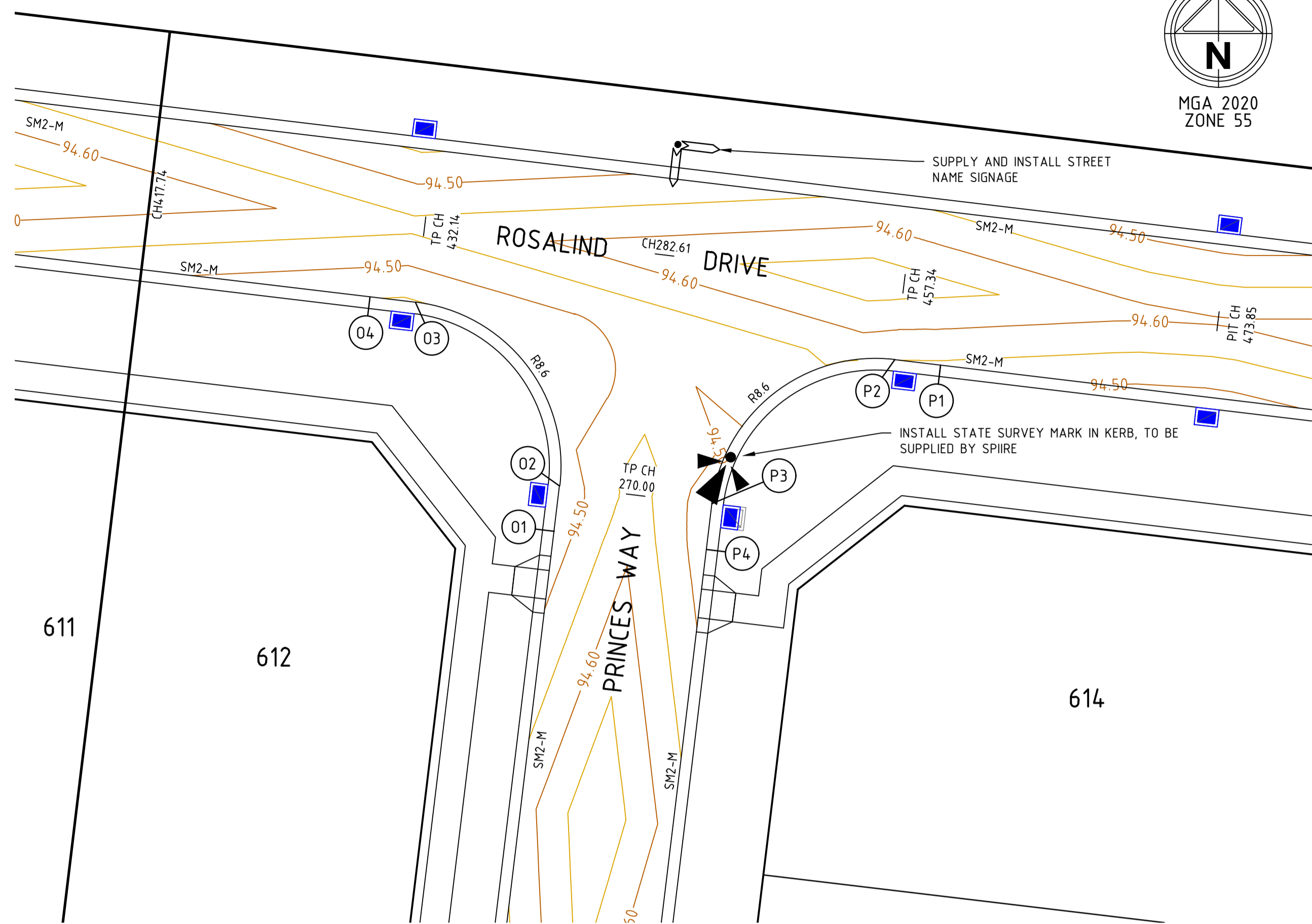


16 BRIDGE STREET BENDIGO
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Designed
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Checked
B.IBBS
Date
DEC 2025

MAIDEN'S GREEN
STAGE 6
ROAD CROSS SECTIONS
SHEET 3 OF 3
MURRAY RIVER COUNCIL
KIELY ROAD PROJECTS PTY LTD

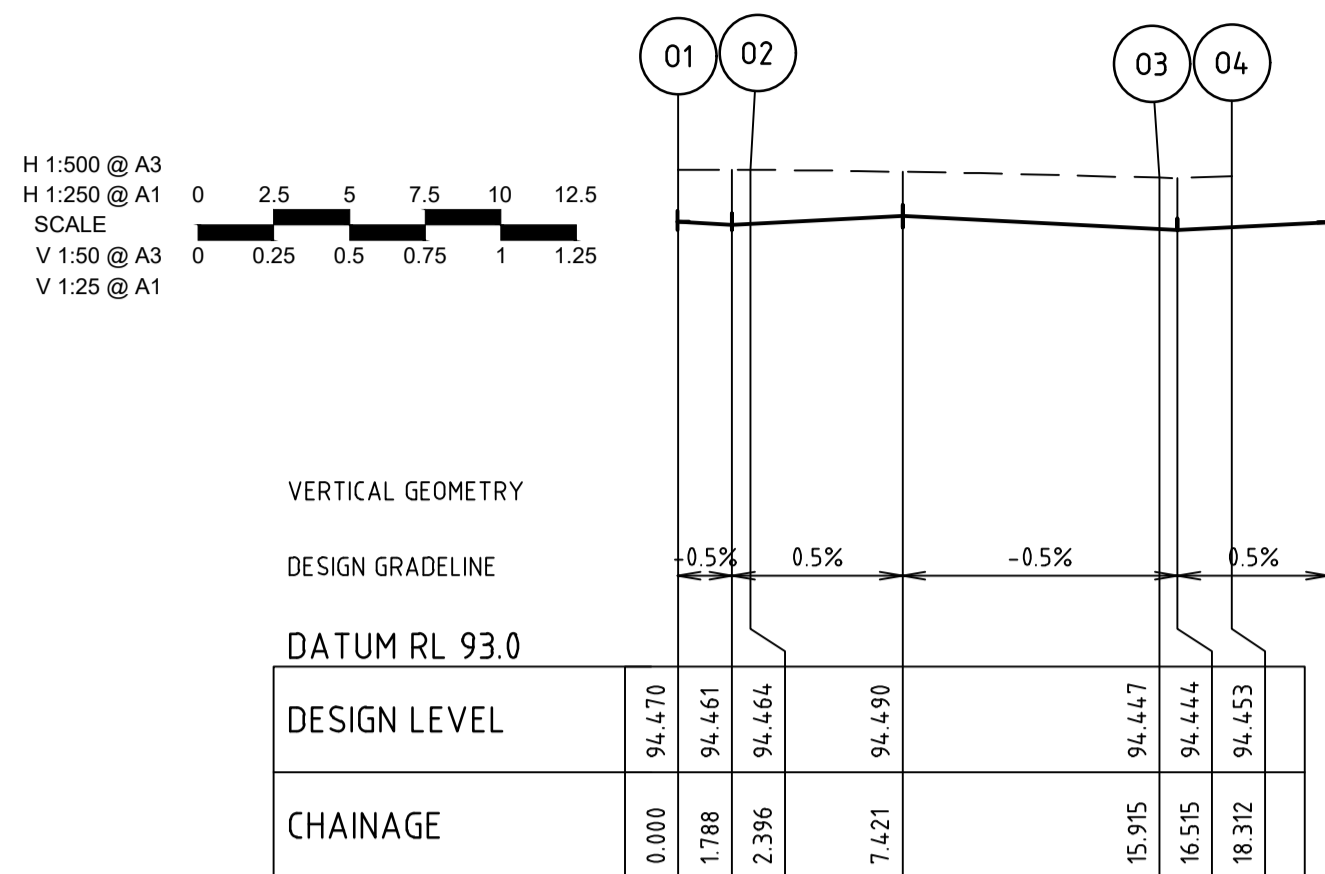
CONSTRUCTION APPROVAL 310351CC142



ALIGNMENT P

POINT NO	EASTING	NORTHING	RL	CHAINAGE
P1	299081.017	6002964.216	94.543	0.000
P2	299078.631	6002964.501	94.551	2.403
¼	299075.030	6002964.166	94.546	6.047
½	299072.298	6002962.724	94.526	9.152
¾	299070.251	6002960.411	94.491	12.258
P3	299069.073	6002956.992	94.466	15.902
P4	299068.784	6002954.599	94.470	18.312

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
P2-P3	8.600	13.499	12.155	2.515	1.961



ALIGNMENT O

POINT NO	EASTING	NORTHING	RL	CHAINAGE
O1	299060.840	6002955.543	94.470	0.000
O2	299061.127	6002957.921	94.464	2.396
¼	299060.794	6002961.528	94.483	6.046
½	299059.351	6002964.264	94.481	9.155
¾	299057.035	6002966.313	94.465	12.265
O3	299053.609	6002967.490	94.447	15.915
O4	299051.229	6002967.775	94.453	18.312

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
O2-O3	8.600	13.519	12.169	2.522	1.966



611
612

614

ALIGNMENT T

POINT NO	EASTING	NORTHING	RL	CHAINAGE
T1	298956.779	6002966.404	94.650	0.000
¼	298956.953	6002968.369	94.641	1.974
½	298957.325	6002970.285	94.633	3.926
¾	298957.892	6002972.153	94.625	5.879
T2	298958.656	6002973.972	94.617	7.853
¼	298959.605	6002975.702	94.610	9.827
½	298960.715	6002977.307	94.602	11.779
¾	298961.984	6002978.790	94.595	13.732
T3	298963.415	6002980.149	94.587	15.706
¼	298964.978	6002981.352	94.579	17.680
½	298966.640	6002982.376	94.571	19.632
¾	298968.398	6002983.224	94.563	21.585
T4	298970.253	6002983.894	94.556	23.559
¼	298972.168	6002984.368	94.548	25.533
½	298974.101	6002984.638	94.541	27.485
¾	298976.052	6002984.709	94.533	29.438
T5	298978.020	6002984.577	94.526	31.412

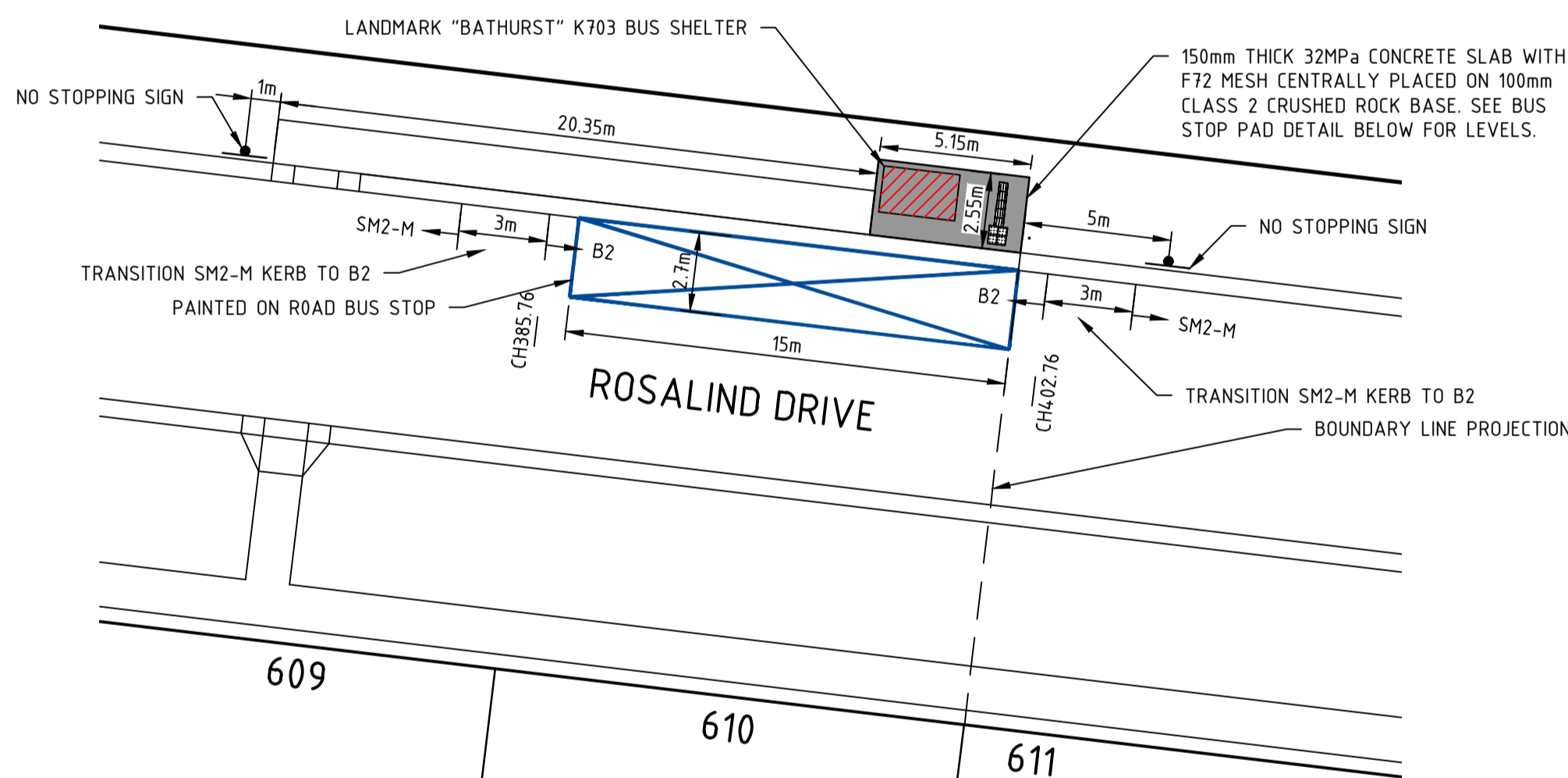
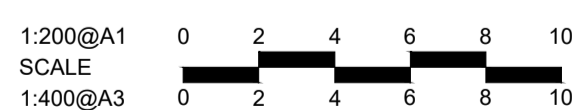
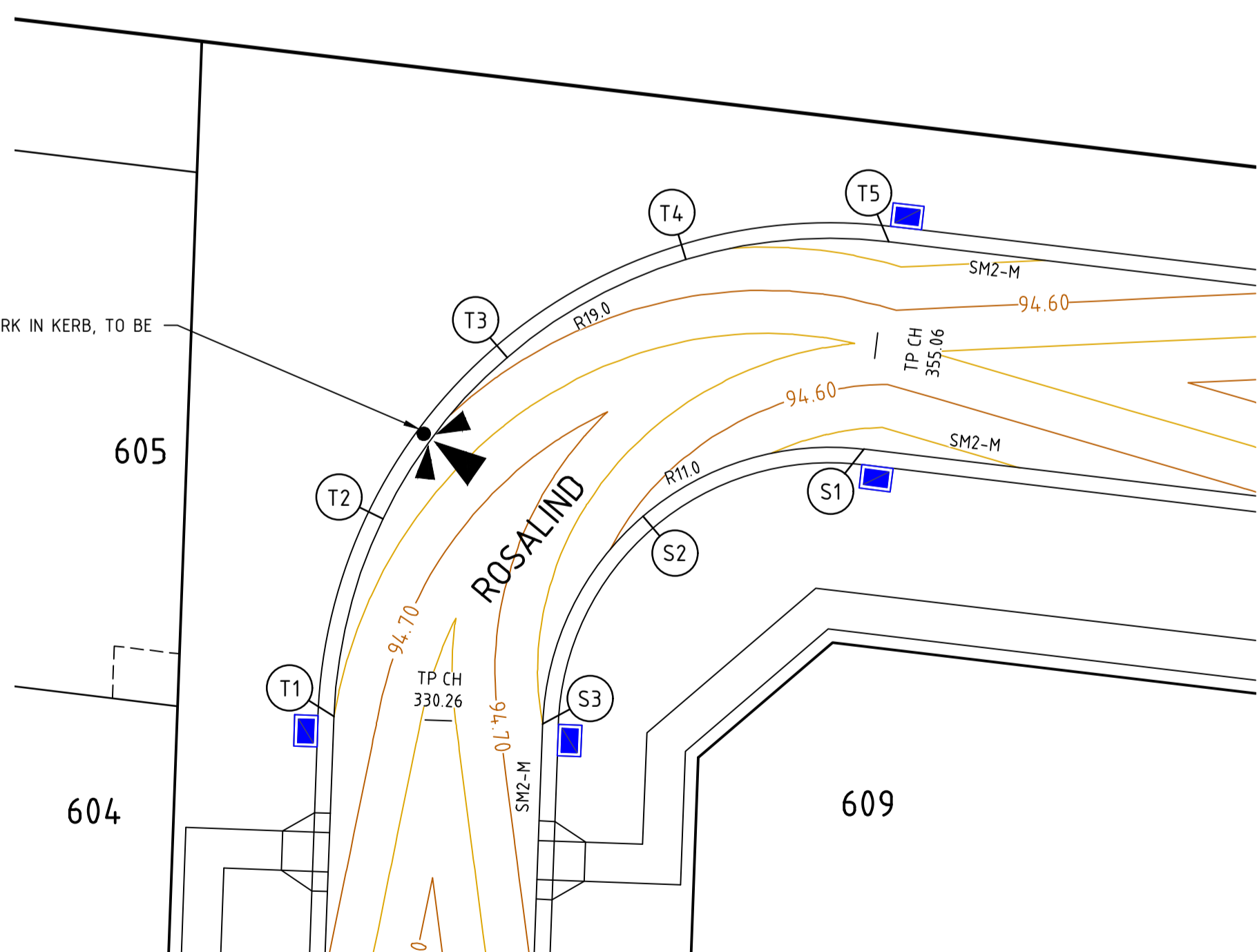
CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
T1-T2	19.000	7.853	7.797	0.404	0.304
T2-T3	19.000	7.853	7.797	0.404	0.304
T3-T4	19.000	7.853	7.797	0.404	0.304
T4-T5	19.000	7.853	7.797	0.404	0.304

ALIGNMENT S

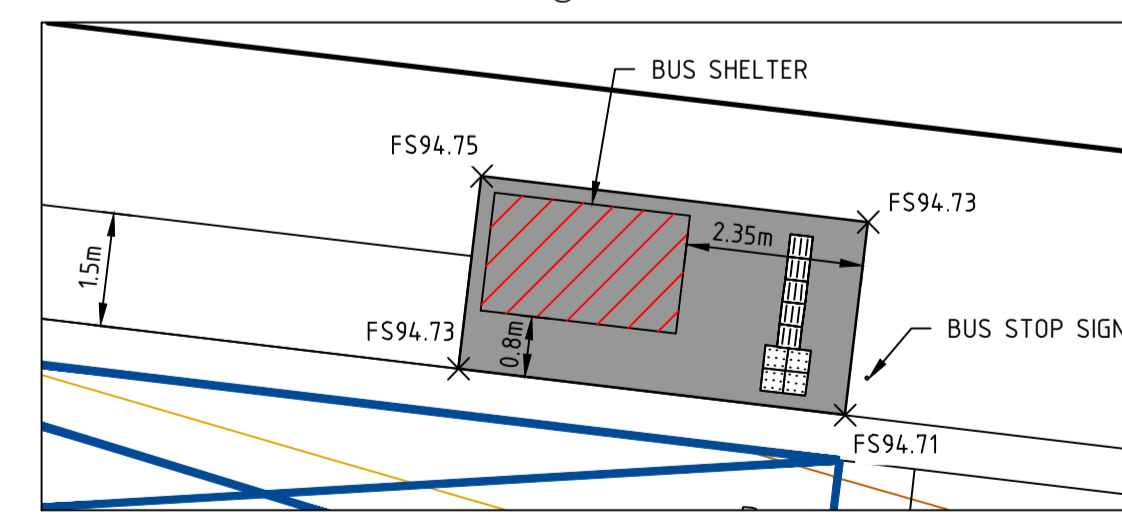
POINT NO	EASTING	NORTHING	RL	CHAINAGE
S1	298977.071	6002976.634	94.526	0.000
¼	298974.754	6002976.665	94.542	2.322
½	298972.575	6002976.238	94.557	4.546
¾	298970.526	6002975.383	94.572	6.771
S2	298968.615	6002974.070	94.588	9.093
¼	298967.023	6002972.386	94.604	11.415
½	298965.860	6002970.494	94.619	13.639
¾	298965.102	6002968.407	94.634	15.863
S3	298964.774	6002966.112	94.650	18.186

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
S1-S2	11.000	9.093	8.836	0.926	0.702
S2-S3	11.000	9.093	8.836	0.926	0.702

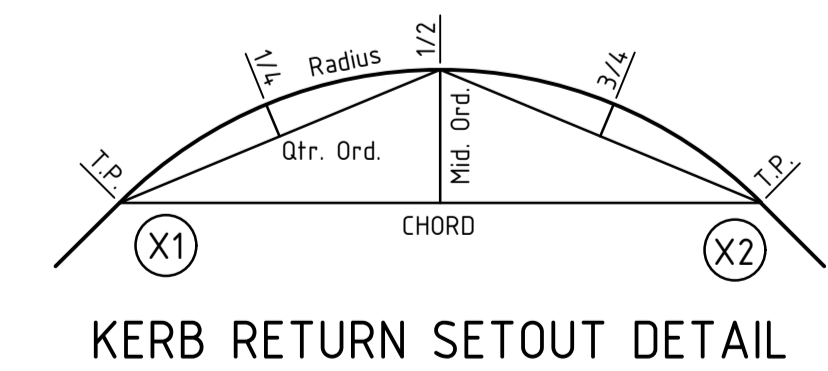
INSTALL STATE SURVEY MARK IN KERB, TO BE SUPPLIED BY SPIRE



BUS STOP DETAIL



BUS STOP PAD DETAIL



KERB RETURN SETOUT DETAIL

file name: 310351CC270.dwg, layout name: CC270, plotted by: Sam Maher, file location: \\spire\benidra\data\310351\310351\civil\A3\A3.dwg, plot date: 02/12/2025, 9:55 AM, Sheet: 11 of 19, Sheets

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16 BRIDGE STREET BENDIGO VICTORIA 3550 AUSTRALIA T 61 3 5448 2500 spiire.com.au ABN 55 050 029 635

Designed D.SHEEHAN/S.MAHER
Authorised J.FEHRING

Checked B.IBBS
Date DEC 2025

MAIDEN'S GREEN STAGE 6 INTERSECTION DETAILS

MURRAY RIVER COUNCIL KIELY ROAD PROJECTS PTY LTD

CONSTRUCTION APPROVAL 310351CC270

WATER NOTES

GENERAL NOTES:

- ONLY PRODUCTS APPROVED AND CATALOGUED BY THE WATER AGENCY SHALL BE USED.
- WORKS MUST BE CONSTRUCTED ACCORDING TO WSA 03-2011-3.1 MRWA EDITION & MURRAY RIVER COUNCIL ENGINEERING GUIDELINES. THE CONTRACTOR SHALL ENSURE THAT THEY ARE CONVERSANT WITH ALL CURRENT REVISIONS, AMENDMENTS AND UPDATES THAT THE RELEVANT WATER AGENCY HAS MADE TO THEIR STANDARDS.
- DW ASSETS SHALL ONLY BE CONSTRUCTED AFTER DEEPER ASSETS AFFECTING THE WATER MAINS HAVE BEEN CONSTRUCTED (EG: SEWERAGE & DRAINAGE ASSETS).
- THIS DESIGN IS TO BE READ IN CONJUNCTION WITH ROAD AND DRAINAGE PLANS.
- THE CONTRACTOR SHALL OBTAIN A ROAD OPENING PERMIT FOR ANY WORKS WITHIN THE ROAD RESERVE AND COMPLY WITH ALL REQUIREMENTS OF THE ROAD AUTHORITY.
- FOR INTERPRETATION OF THE SYMBOLS USED IN THIS DESIGN, REFER TO DRAWING MRWA-W-100.
- TRAFFIC MANAGEMENT TO BE IN ACCORDANCE WITH AS1742.3 (TRAFFIC CONTROL DEVICE FOR WORKS IN ROADS)
- USE EXTREME CARE WHEN WORKING NEAR EXISTING TREES TO MINIMISE DAMAGE TO ROOT SYSTEM AND CANOPY.
- ALL TREES MUST BE PRESERVED AND PROTECTED AT ALL TIMES. TREES MARKED X ON DESIGN PLANS MAY BE REMOVED.
- NO BLASTING IS PERMITTED WITHIN 20M OF EXISTING WATER MAINS.

SURVEY, SET OUT AND ASSET RECORDING

- TEMPORARY BENCH MARKS (TBM) FOR THE SET OUT OF WORKS TO THE AUSTRALIAN HEIGHT DATUM (AHD) ARE PROVIDED IN THE DESIGN DRAWINGS.
- ALL LEVELS ARE IN METRES TO AHD.
- ALL CO-ORDINATES ARE IN METRES TO THE MAP GRID OF AUSTRALIA (MGA 55- 2020).
- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
- THE CONTRACTOR IS DIRECTLY RESPONSIBLE FOR ENSURING THE PROJECT SET OUT IS CONSISTENT WITH THE DESIGN. SHOULD ACTUAL SITE CONDITIONS CONFLICT IN ANY WAY WITH THAT DOCUMENTED, THE CONTRACTOR SHALL CONTACT THE SUPERINTENDENT FOR CLARIFICATION BEFORE PROCEEDING.
- WHERE NOT ALLOWED FOR IN THE CONTRACT, THE CONTRACTOR IS TO ENGAGE A SUITABLY QUALIFIED AND EXPERIENCED SURVEYOR TO UNDERTAKE ASSET RECORDING OF THE WORK. ALL SURVEYOR WORKS AND DATA RECORDING SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE MRWA SURVEY MANUAL.
- ALL SPECIFIC PIPE MATERIALS (EG: PVC-D) SHALL BE INDICATED IN THE AS CONSTRUCTED INFORMATION

PRODUCTS AND MATERIALS

- ALL INSERTION/GASKET KITS ARE TO INCLUDE STAINLESS STEEL FASTENERS.
- FOR THE PIPE SCHEDULE, REFER TO TABLE 1.
- FOR THE PIPE MATERIAL SCHEDULE, REFER TO TABLE 2.
- ALL WATER MAINS TO BE RRJ PVC-M SERIES 1 CLASS 12, UNLESS OTHERWISE NOTED.
- WHERE PE PIPE CONSTRUCTION IS REQUIRED, REFER TO DRAWING MRWA-W-103 AND WSA 01 (PE PIPELINE CODE). WELDERS SHALL BE ACCREDITED TO PMBWELD302B (ELECTROFUSION). BUTT WELDING IS NOT ACCEPTED BY MURRAY SHIRE COUNCIL.
- ALL HANDLING OF PIPES & FITTINGS TO BE CARRIED OUT IN ACCORDANCE WITH GENERAL SPECIFICATION FOR CONSTRUCTION OF PRESSURE PIPES.

APPURTENANCES (FITTINGS)

- ALL VALVES AND HYDRANTS SHALL BE MARKED ACCORDING TO DRAWINGS MRWA-W-300 AND MRWA-W-301.
- VALVE SURROUNDS, COVERS AND SPINDLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH DRAWING MRWA-W-302.
- HYDRANT SURFACE ARRANGEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DRAWINGS MRWA-W-303.
- FLANGE AND FLANGE BOLTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DRAWINGS MRWA-W-306A AND MRWA-W-306B.
- FOR THE HYDRANT AND WASHOUT SCHEDULE, REFER TO TABLE 3.
- ALL VALVES SHALL BE LOCATED DIRECTLY OUT FROM THE APEX OF THE SPLAY CORNER (UNLESS OTHERWISE INDICATED).
- ALL VALVES ARE TO BE ANTI-CLOCKWISE CLOSING

WATER MAIN ALIGNMENT, TRENCHING & COVER

- TRENCH, PIPE PLACEMENT, EMBEDMENT AND BACKFILL DIMENSIONS AS PER STANDARD DRAWING MRWA-W-202.
- OFFSETS OF MAINS FROM PROPERTY BOUNDARIES SHALL BE: MIN 600MM (MAINS < DN100) AND MIN 1M (MAINS > DN100), EXCEPT WHERE INDICATED IN THE DRAWINGS.
- ALL WATER MAINS SHALL PASS OVER DRAINS AND SEWERS UNLESS SHOWN OTHERWISE IN THE DESIGN DRAWINGS.
- MAINS SHALL BE ALIGNED IN ACCORDANCE WITH THE SERVICES ALIGNMENT SCHEDULE, REFER TO TABLE 5.
- THE MAXIMUM DEPTH FROM THE SURFACE LEVEL TO TOP OF PIPE MUST NOT EXCEED 1.5M

EMBEDMENT

- UNLESS OTHERWISE APPROVED BY THE WATER AGENCY, ALL EMBEDMENT MATERIALS SHALL BE IN ACCORDANCE WITH WSA-PS-361.
- EMBEDMENT SHALL BE PLACED AS PER DRAWINGS MRWA-W-201 AND MRWA-W-202.

BACKFILL

- BACKFILL IN TRAFFICABLE AND NON-TRAFFICABLE AREAS SHALL BE IN ACCORDANCE WITH MRWA SPECIFICATION NO. 04-03.1 (BACKFILL SPECIFICATION), AND AS DETAILED IN MRWA-W-201. THE CONTRACTOR IS REQUIRED TO OBTAIN WRITTEN CONFIRMATION OF THE ROAD AUTHORITIES ACCEPTANCE OF THE PROPOSED BACKFILL.
- COMPACTION TRIALS AND COMPACTION TESTING SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE MRWA BACKFILL SPECIFICATIONS.
- TRENCH SUBSIDENCE OVER WATER MAINS IS NOT ACCEPTABLE.
- ALL TRENCHES CROSSING PAVEMENT AREAS OR BENEATH KERB OR FOOTPATH ARE TO BE BACKFILLED WITH CLASS 3 20MM FINE CRUSHED ROCK.
- ALL ROAD CROSSINGS FOR PROPERTY SERVICES TO BE BACKFILLED WITH 3% CEMENT STABILISED FCR.

THRUST RESTRAINT

- FOR THE THRUST RESTRAINT SCHEDULE, REFER TO TABLE 6.
- CONSTRUCT CONCRETE THRUST RESTRAINTS AS PER DRAWINGS MRWA-W- 204, 205A, 205B & 205C AS APPLICABLE.
- THE CONTRACTOR SHALL CONFIRM THE ACTUAL GROUND CONDITIONS (USING STANDARD DRAWING MRWA-W-200 AS A GUIDE) AND DISCUSS WITH THE SUPERINTENDENT ANY GROUND CONDITIONS WHICH ARE FOUND TO BE DIFFERENT TO THAT NOMINATED. THE NOMINAL AHPB OF THE GROUND USED IN CALCULATING EACH THRUST RESTRAINT IS 50KPA.

CONNECTIONS (ALL TYPES)

- CONNECTION OF > DN100 OFFTAKES TO EXISTING MAINS SHALL BE AS INDICATED IN THE DESIGN DRAWINGS AND AS PER DRAWING MRWA-W-106.
- CONNECTION OF DN40, 50 & 63 PE OFFTAKES SHALL BE AS PER DRAWING MRWA-W-107.
- ALL WATER SERVICE ROAD CROSSINGS TO BE 32mm PN8 POLY (IF TWO PROPERTIES BEING CONNECTED) OR 25MM PN8 POLY (IF SINGLE PROPERTY CONNECTED). EACH SERVICE TO BE SLEEVED IN 50MM CLASS 12 UPVC.
- WATER TAPPINGS (TREATED AND RAW) INCLUDING TAPPING SADDLES AND 20mm COPPER SERVICE CONNECTIONS, METER STOP TAP (TREATED) AND BALL VALVE QUICK ACTION (RAW) TO BE PROVIDED 1m WITHIN EACH LOT. TAPPING SADDLES ARE TO BE GUNMETAL STYLE ONLY. SEE STANDARD DRAWING (TO BE REQUESTED FROM MURRAY RIVER COUNCIL).

OTHER SERVICES

- TO RECEIVE THE MOST UP TO DATE INFORMATION PRIOR TO CONSTRUCTION, "DIAL BEFORE YOU DIG" SHALL BE UNDERTAKEN TO AID IN THE LOCATION OF OTHER SERVICES. OTHER SERVICES SHALL BE CAREFULLY LOCATED PRIOR TO FULL EXCAVATION AT THE CONTRACTOR'S RISK AND COST. ANY CLASHES OF PROPOSED NEW WORKS WITH OTHER ASSETS SHALL BE REPORTED TO THE SUPERINTENDENT IMMEDIATELY FOR CLARIFICATION.
- THE LOCATION AND DEPTH OF ANY EXISTING SERVICES SHOULD BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCING ANY EXCAVATION BY CONTACTING ALL LOCAL SERVICE AUTHORITIES.
- OFFSETS TO OTHER SERVICES SHALL BE AS PER TABLE 5 OR OTHERWISE AS PER TABLE 5.5 OF WSA03-2011-3.1 MRWA EDITION. THESE CLEARANCES SHALL APPLY TO SURFACE COVERS AS WELL AS UNDERGROUND ASSETS.
- VERTICAL CLEARANCES FROM OTHER SERVICES SHALL BE AS PER TABLE 7
- LAY MAINS OVER DRAINS UNLESS OTHERWISE SHOWN.
- GAS & WATER MAINS TO BE LAID IN A COMMON TRENCH.

ASSET RECORDING

- THE CONTRACTOR MUST RECORD ALL CONSTRUCTION DETAILS INCLUDING OFFSETS OF MAINS AND LOCATIONS OF FITTINGS SUCH AS VALVES, TEES, FIRE PLUGS ETC. AND TESTING DETAILS, USING APPROPRIATE "LINE SHEETS"
- "LINE SHEETS" ARE TO BE PROVIDED TO THE SUPERVISING ENGINEER AS AS CONSTRUCTED PLANS, WITHIN 1 WEEK OF THE COMPLETE OF THE WORKS.

TESTING, ASSET ACCEPTANCE AND LIVE CONNECTIONS

- POST CONSTRUCTION ACTIVITIES SUCH AS SWABBING, WATER QUALITY TESTING, PRESSURE TESTING AND CHLORINATION SHALL BE CARRIED OUT IN ACCORDANCE WITH WSA03-2011-3.1 MRWA EDITION AND THE MRWA WATER QUALITY COMPLIANCE SPECIFICATION & MURRAY RIVER COUNCIL REQUIREMENTS. ALL TEST RESULTS SHALL BE DOCUMENTED AND REPORTED TO THE SUPERINTENDENT.
- THE CONTRACTOR SHALL PROVIDE 14 DAYS NOTICE TO THE SUPERINTENDENT PRIOR TO TESTING BEING UNDERTAKEN.
- THE CONTRACTOR SHALL PROVIDE AT LEAST 10 DAYS NOTICE TO THE SUPERINTENDENT PRIOR TO CONNECTING NEW WORKS TO THE EXISTING NETWORK. SHUT DOWN WORK SHALL BE SCHEDULED FOR 9AM WEEKDAYS AND BE COMPLETED BETWEEN 9AM - 4PM.
- VALVES CONNECTING NEW ASSETS TO MURRAY RIVER COUNCIL'S LIVE SYSTEM SHALL ONLY BE OPERATED BY MURRAY RIVER COUNCIL.
- ALL WORKS MUST BE CONSTRUCTED AND FINISHED IN A TRADESMANSHIP LIKE MANNER.

DRAINAGE NOTES

- ALL DRAINAGE PIPES & PITS ARE TO BE AT 1m OFFSET TO PROPERTY BOUNDARIES UNLESS SHOWN OTHERWISE
- THE CONTRACTOR MUST CONTACT SERVICING AUTHORITIES TO ARRANGE SERVICE LOCATIONS PRIOR TO COMMENCEMENT OF EXCAVATION FOR THIS PROJECT
- PITS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARDS OF THE MUNICIPALITY. STEEL GRATES ARE TO BE HOT DIP GALVANISED AFTER MANUFACTURE. THE TOP OF ALL GRATES MUST BE APPROXIMATELY 150mm BELOW THE SURROUNDING SURFACE LEVEL. PROPERTY DRAINAGE CONNECTIONS ARE TO BE PROVIDED AS NECESSARY.
- ALL SIDE ENTRY PITS IN ROLLOVER KERB & CHANNEL ARE TO BE CONSTRUCTED USING AN APPROVED ROLLOVER TYPE LINTEL OR A REINFORCED ROLLOVER PROFILE PIT LID. STANDARD SQUARE PROFILE PIT LIDS WITHOUT LINTEL ARE NOT ACCEPTABLE. SIDE ENTRY PIT THROAT CLEARANCE TO BE 100mm MAX.
- PIT LIDS TO BE CLASS B IN NON-TRAFFICABLE AREAS AND CLASS D IN TRAFFICABLE AREAS.
- TRENCHES WITHIN PAVEMENT AREAS ARE TO BE BACKFILLED WITH CLASS 4 FCR. THE TRENCH IS TO BE BACKFILLED IN 150MM LAYERS AND CONSOLIDATED.
- ALL PIPE STUBS ARE TO CONSIST OF ONE FULL PIPE LENGTH UNLESS SHOWN OTHERWISE.
- FINISHED LEVELS FOR SIDE ENTRY PITS MUST BE DETERMINED FROM KERB LEVELS AND SHOULD BE SLOPED TO SUIT NATURESTRIPS ETC. THE FSLs INDICATED IN THE PIT SCHEDULE ARE BACK OF KERB LEVELS.
- STEP IRONS ARE NOT REQUIRED IN DRAINAGE PITS.
- CONCRETE PIPES ARE TO BE CLASS 2 RRJ RCP AND PVC PIPES ARE TO BE CLASS SN8 UNLESS OTHERWISE NOTED.
- ALL EXCAVATIONS FOR DRAINAGE WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEW SOUTH WALES WORK COVER AUTHORITY.
- REINFORCEMENT BARS SHALL COMPLY WITH AS4671, GRADE 400Y. LAPS IN REINFORCEMENT BARS SHALL BE 300 MIN. AND CLEAR COVER 50 MIN.
- CONCRETE SHALL BE NORMAL CLASS N32 STANDARD STRENGTH GRADE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS1379.
- ENDWALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RELEVANT PROVISIONS OF AS3600.
- DIRECT CONNECTION OF PVC HOUSE DRAIN TO RCP DRAINAGE TO BE CONSTRUCTED WITH "CONCONET" OR APPROVED EQUIVALENT FITTING. 150mmØ PVC PIPES ARE NOT TO BE DIRECTLY CONNECTED TO CONCRETE PIPES LESS THAN 450mmØ IN DIAMETER. 100mmØ HOUSE CONNECTION PIPE TO BE USED FOR ALL LOTS IN STAGE.
- WHERE PVC HOUSE CONNECTIONS ARE MADE DIRECTLY TO PIPES, THE HOUSE CONNECTION IS TO BE RAISED TO SURFACE LEVEL WITHIN THE PROPERTY AND CAPPED AS PER S0520.
- ALL DRAINAGE PIPES ARE TO BE INSPECTED VIA CCTV AFTER INSTALLATION, HARD COPY AND ELECTRONIC COPY OF THE CCTV IS TO BE PROVIDED TO MURRAY RIVER COUNCIL. CCTV MUST INCLUDE GRADES.

SEWER NOTES

- ALL LEVELS ARE IN METRES TO AUSTRALIAN HEIGHT DATUM (A.H.D.)
- CO-ORDINATES FOR SETTING OUT, WHERE SHOWN, ARE TO M.G.A
- WORKS MUST BE TO CONSTRUCTED ACCORDING TO THE WSA SEWERAGE CODE OF AUSTRALIA WSA 02-2014-3.1. THE CONTRACTOR SHALL ENSURE THAT THEY ARE CONVERSANT WITH THE CURRENT REVISIONS, AMENDMENTS, SPECIFICATIONS, STANDARD DRAWINGS AND UPDATES THAT MURRAY RIVER COUNCIL HAVE MADE TO THEIR CONSTRUCTION STANDARD
- ALL MATERIALS ARE TO BE IN ACCORDANCE WITH MURRAY RIVER COUNCIL'S PREFERRED EQUIPMENT MANUFACTURERS LIST.
- THE CONTRACTOR MUST CLEARLY UNDERSTAND THE REQUIREMENTS OF THE WSA CODE FOR THE CONSTRUCTION OF MH'S AND THEIR BASES. REFER TO THE WSA 300 SERIES DOCUMENTS WITH CLEARLY DETAIL MINIMUM REQUIREMENTS AND DIMENSIONS IN MILLIMETRES ETC. ACCEPTABLE TO MURRAY RIVER COUNCIL.
- TRENCH SUBSIDENCE OVER SEWER MAINS IS NOT ACCEPTABLE TO MURRAY RIVER COUNCIL
- CHAINAGES WHERE SHOWN ON DETAIL PLANS ARE DISCONTINUOUS AT MAINTENANCE STRUCTURES.
- CHAINAGES SHOWN ON LONGITUDINAL PLANS ARE CONTINUOUS.
- PIPE MATERIAL, UNLESS SHOWN OTHERWISE.

PIPELINE MATERIALS

PIPE TYPE	PIPE CLASS	AUS. STANDARD	LOCATION
PVC	SN10	AS/NZS 1260-2009	100Ø PROPERTY BRANCHES
PVC	SN8	AS/NZS 1260-2009	150Ø RETICULATION SEWERS
PVC	SN8	AS/NZS 1260-2009	225Ø RETICULATION SEWERS

NOTE: SEWERPRO PIPE IS NOT ACCEPTABLE.

- ACCESS CHAMBERS
- ACCESS CHAMBER COVERS SHALL BE LEVEL WITH AND SHALL CONFORM TO SLOPE AND CROSSFALL OF THE FINISHED SURFACE. THE FINISHED SURFACE LEVELS SHOWN ARE APPROXIMATE ONLY. THE PRINCIPAL CONTRACTOR IS RESPONSIBLE FOR SETTING THE CONSTRUCTION LEVELS INCLUDING COVER GRADES BASED ON THE ROAD AND DRAINAGE PLANS. ALL SEWER COVERS ARE TO BE CONSTRUCTED TO THESE LEVELS. MAXIMUM SLOPE FOR CLASS C OR D COVERS TO BE 1 IN 10. MAXIMUM SLOPE FOR CLASS A OR B COVERS TO BE 1 IN 4. ACCESS CHAMBERS AND INSPECTION SHAFTS IN ROAD RESERVES AND R.O.W.'S CONSTRUCTED PRIOR TO THE CONSTRUCTION OF FOOTPATHS SHALL BE PROVIDED WITH A TEMPORARY COVER. THE PLACING OF THE FINAL COVER SHALL NOT BE CARRIED OUT UNTIL THE CONCRETE FOOTPATH HAS BEEN CONSTRUCTED. ALL MAINTENANCE HOLE COVERS IN ROAD RESERVE MUST BE A CLASS D SOLID DUCTILE IRON LID.
- ALL ACCESS CHAMBERS TO BE 1050MM DIAMETER UNLESS OTHERWISE SHOWN.
- ALL ACCESS CHAMBERS OTHER THAN MAINTENANCE HOLES IN TRAFFICABLE AREA TO BE FITTED WITH CLASS B COVERS.
- EARTHWORKS
- IN AREAS SUBJECT TO EARTHWORKS, THE CONSTRUCTION OF SEWERS MUST NOT COMMENCE UNTIL THE EARTHWORKS HAVE BEEN COMPLETED OR THE SUPERINTENDENT GIVES WRITTEN APPROVAL TO COMMENCE. SUCH APPROVAL WOULD NOT BE GIVEN UNLESS THE CONTRACTOR CAN DEMONSTRATE THAT THE SEWER WOULD BE SATISFACTORILY PROTECTED AGAINST DAMAGE FROM CONSTRUCTION LOADS.

PVC:

WHERE CLEAR COVER LESS THAN 600MM, TYPE F2C BEDDING AND COVERING SHALL BE PLACED AROUND SEWERS. UNDER ROAD PAVEMENTS WHERE THE CLEARANCE BETWEEN THE TOP AND BOTTOM OF BOXING AND TOP OF SEWER IS LESS THAN 900MM, TYPE F2C BEDDING AND COVERING SHALL BE PLACED AROUND SEWERS.

- THE CONTRACT IS IN ACCORDANCE WITH AS2124-1992. IN ACCORDANCE WITH CLAUSE 15 OF AS2124-1992, THE CONTRACTOR MUST ENSURE THE SAFETY OF THE CONTRACTORS EMPLOYEES AND ALL OTHER PEOPLE WHO ARE ON OR ADJACENT THE SITE.
- MURRAY RIVER COUNCIL MUST BE NOTIFIED BY THE CONTRACTOR 72 HOURS PRIOR TO COMMENCING WORKS ON EXISTING SEWER.
- CONNECTION TO LIVE SEWER: CONFINED SPACE ENTRY MUST BE IN ACCORDANCE WITH BOTH MURRAY RIVER COUNCIL AND WH&S REQUIREMENTS. CONTRACTOR MUST NOT ENTER A CONFINED SPACE UNTIL ALL REQUIRED INFORMATION HAS BEEN SUBMITTED TO MURRAY RIVER COUNCIL.
- PROPERTY BRANCH FITTINGS MUST BE LOCATED AT LEAST 1m WITHIN PROPERTY BEING SERVICED, AND CLEAR OF ANY OBSTRUCTIONS. PROPERTY CONNECTION POINT JUMP UPS ARE TO BE FINISHED 1m ABOVE FINISHED SURFACE LEVEL AS PER MURRAY RIVER COUNCIL REQUIREMENTS, PROPERTY BRANCH MUST BE A MINIMUM 1m FROM SIDE BOUNDARIES.
- 7 CLEAR DAYS NOTICE PRIOR TO COMMENCEMENT OF THE WORKS MUST BE GIVEN TO THE SUPERINTENDENT.
- WSA CODE REQUIREMENTS FOR MINIMUM VERTICAL, AND HORIZONTAL CLEARANCES FROM THE SEWER ASSETS, TO OTHER SERVICES ARE NOT COMPROMISED.
- ALL MH'S PROPOSED TO BE LOCATED WITHIN LOTS, CLOSE TO THE FOOTPATHS/STREET FRONTAGES, WHERE PROPOSED FINISHED SURFACES ARE CONTOURED, OR SLIGHTLY HIGHER THAN A FOOTPATH OR OTHER SURFACES. MURRAY RIVER COUNCIL REQUIRES THE CONCRETE COVERS OF THE MH'S CONSTRUCTED IN THESE LOCATIONS, USING A TAPERED PRECAST CONCRETE MAKE UP RINGS, OR PRECAST SPACER RINGS. REFER TO SEW-13008-V OF THE CODE.
- SERVICE CONNECTIONS
- ALL NEW SERVICE CONNECTIONS MUST BE IN ACCORDANCE WITH THE REQUIREMENTS OF MURRAY RIVER COUNCIL SPECIFICATION OF WORKS FOR CONSTRUCTION OF RETICULATION SEWERS, ADDENDUM AND ASSOCIATED STRUCTURES, AS3500 AND THE SEWERAGE STANDARD DRAWINGS.
- THE CONNECTION POINT MUST BE EXTENDED A MINIMUM OF 1.0 METRES INTO THE BOUNDARY OF A LOT. A FURTHER DISTANCE MAY BE REQUIRED TO CLEAR STORM WATER DRAINS. THIS DISTANCE IS 300MM OR THE THE EDGE OF THE EASEMENT.
- PROPERTY CONNECTION SIDE-LINE MUST BE LOCATED A MINIMUM OF 1.0METRES FROM A SIDE BOUNDARY. A SIDE-LINE MUST NOT EXCEED A MAXIMUM LENGTH OF 3.0METRES IN LENGTH UNLESS APPROVED BY MURRAY RIVER COUNCIL.
- THE SIDE-LINE MUST BE CONSTRUCTED TO ACHIEVE A MINIMUM OF 600mm HORIZONTAL CLEARANCE FROM ANY OTHER SERVICES, FOR EXAMPLE 600mm MINIMUM FROM THE NEAREST EDGE OF A STORM WATER DRAIN OR PIT.
- BLASTING - NO BLASTING IS PERMITTED.
- TESTING
- ALL NEW SEWERS MUST BE PRESSURE TESTED. WHERE THE CONTRACTOR DOES NOT HAVE A QUALITY

ASSURANCE SYSTEM IN PLACE, ALL PIPES MUST BE INSPECTED BY THE SUPERVISING ENGINEER.

- WI N25 GRADE CONCRETE - GP TYPE CEMENT MUST BE USED IN ALL CONSTRUCTION, UNLESS OTHERWISE NOTED IN MURRAY RIVER COUNCIL'S DESIGN GUIDELINE.
- SEWER SETOUTS
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF THE HORIZONTAL ALIGNMENT AND FOR OFFSETTING PEGS DURING CONSTRUCTION.
- SETOUT AND VERIFICATION OF LEVELS SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR MUST LOCATE ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS.
- THE LEVEL OF ALL EXISTING OUTFALL SEWERS MUST BE CONFIRMED BY THE CONTRACTOR PRIOR TO WORKS COMMENCING.
- CLASS 3 FCR BACKFILL MUST BE USED WHERE SEWER MAINS CROSS ROAD PAVEMENT, FOOTPATHS OR DEFINED DRIVEWAYS.
- PIPES JOINS ARE TO BE CONSTRUCTED STRICTLY TO THE MANUFACTURER'S SPECIFICATIONS - MANUALLY JOINED AND NOT USING MECHANICAL EQUIPMENT SUCH AS AN EXCAVATOR BUCKET ETC.
- THE CONTRACTOR MUST ADHERE TO THE CODE OF PRACTICE FOR "SAFETY PRECAUTIONS IN TRENCHING OPERATIONS" UNDER THE "OCCUPATIONAL HEALTH & SAFETY ACT 2004"
- CAST IRON CONCRETE INFILL STYLE COVERS ARE NOT ACCEPTABLE.
- THE CONCRETE FINISH OF THE MANHOLE BENCHING AND CHANNELS HAS BEEN FINISHED WITH A METAL FLOAT. A BROOM FINISH IS NOT ACCEPTABLE.
- IN ACCORDANCE WITH SECTION 22.7 (WSA 02-2002-2.3, VERSION 1.0) MURRAY RIVER COUNCIL REQUIRES SATISFACTORY EVIDENCE IN THE FORM OF CALIBRATED CCTV RECORDING OF THE ASSETS ACCOMPANIED BY A DETAILED REPORT. A HARD AND ELECTRONIC COPY IS TO BE PROVIDED TO MURRAY RIVER COUNCIL. THE GRADE OF THE PIPE IS ALSO REQUIRED TO BE SHOWN ON CCTV.
- IN ACCORDANCE WITH SECTION 8.10 (WSA 02-2002-2.3, MELBOURNE RETAIL WATER AGENCIES EDITION, VERSION 1.0) WHERE TRENCH STOPS OR BULKHEADS ARE REQUIRED AS PART OF THE DESIGN FOR A SEWER MAIN EXTENSION THEY MUST BE CLEARLY DETAILED ON THE PRELIMINARY DESIGN PLANS.
- PRIOR TO MURRAY RIVER PRACTICAL COMPLETION INSPECTION THE FOLLOWING MUST BE COMPLETED.
 - ALL STRUCTURES MUST REACH PRACTICAL COMPLETION PRIOR TO THE CCTV RECORDING
 - SILICONE SEALANT OR SIMILAR, IS NOT AN ACCEPTABLE MATERIAL TO BE USED TO FILL THE REBATE IN CAST IRON MH COVERS. FERRO PRE IS ACCEPTABLE.
 - CUT PIPES MUST BE CUT AT RIGHT ANGLE TO THE PIPE, BE DE BURRED AND PREPARED PER THE MANUFACTURERS SPECIFICATIONS PRIOR TO ANY PIPE JOINTS BEING CONSTRUCTED
 - CLEANING FLUID MUST BE VISIBLE
 - EXCESSIVE GLUE IS NOT ACCEPTABLE
 - SECTIONS OF PIPE WHICH HAVE BEEN DISTORTED OR DAMAGED IN ANY WAY, MUST NOT BE CONSTRUCTED AS PART OF THE SEWER MAINS
 - SEWERS MUST BE LAID STRAIGHT AND WITH A CONSISTENT UNIFORM GRADIENT
 - SEWERS AND STRUCTURES (MH'S, MS'S, TMS'S) MUST BE FREE OF ANY DEBRIS
 - SURFACE AND/OR TRENCH/GROUND WATER IS NOT PERMITTED TO ENTER SEWERS
 - ANY SIGNS OF WATER INGRESS DUE TO MATERIAL FAILURE, JOINT CONSTRUCTION FAILURE, POROUS CONCRETE, DAMAGED CONCRETE PRODUCTS OR THE USE OF SECONDS WILL NOT BE ACCEPTABLE. ALL MATERIALS MUST BE OF THE HIGHEST QUALITY AND COMPLIANT WITH THE RELEVANT AUSTRALIAN STANDARDS
 - ALL WORKS MUST BE CONSTRUCTED AND FINISHED IN A TRADESMANSHIP LIKE MANNER. SUBSTANDARD WORKS WILL NOT BE ACCEPTABLE.
 - TRENCHES MUST BE REINSTATED PER THE MINIMUM REQUIREMENT OF THE WSA CODE. TRENCH SUBSIDENCE IS NOT ACCEPTABLE AT ANY TIME.
 - ALL SEWER GRADES ARE DESIGNED TO THE 2014 WSA CODE AND INCLUDES ALL FUTURE LOTS THAT ARE SERVICED WITHIN THIS SEWER NETWORK WHEN DETERMINING THE MINIMUM ACCEPTABLE GRADES.

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Rev	Amendments	Approved	Date
2	ISSUED FOR APPROVAL - ADD TWO LOTS AND ADD STAGING SPLIT	J.F	DEC 2025
1	FOR CONSTRUCTION APPROVAL & MINOR ROAD BOUNDARY AND DRAINAGE PIT AMENDMENTS	J.F	DEC 2024
0	ISSUED FOR CONSTRUCTION	J.F	30/04/24
A	ISSUED FOR APPROVAL	J.F	SEP 2023

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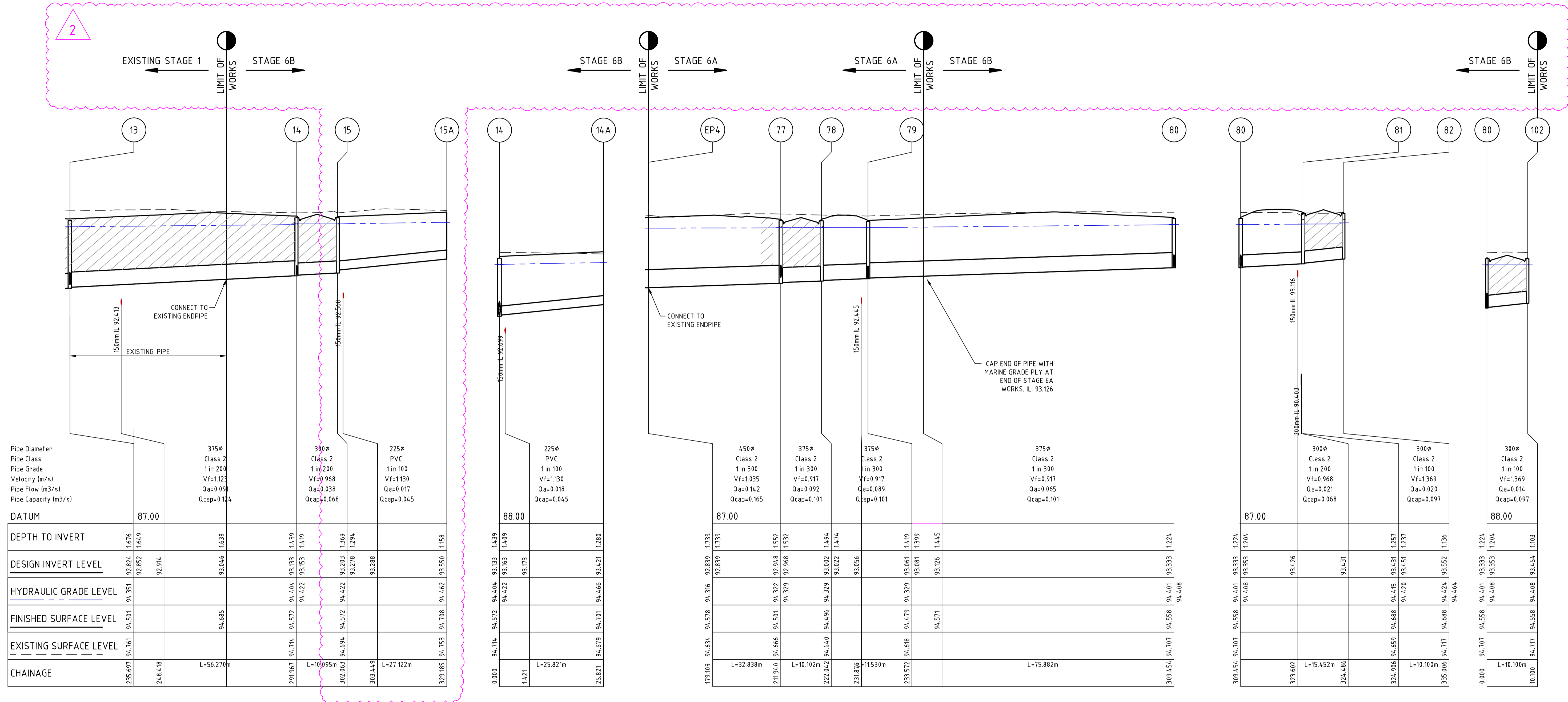
Designed D.SHEEHAN/S.MAHER	Checked B.IBBS
Authorised J.FEHRING	Date DEC 2025

**MAIDEN'S GREEN
STAGE 6
HYDRAULICS - NOTES & LEGEND**

MURRAY RIVER COUNCIL
KIELY ROAD PROJECTS PTY LTD

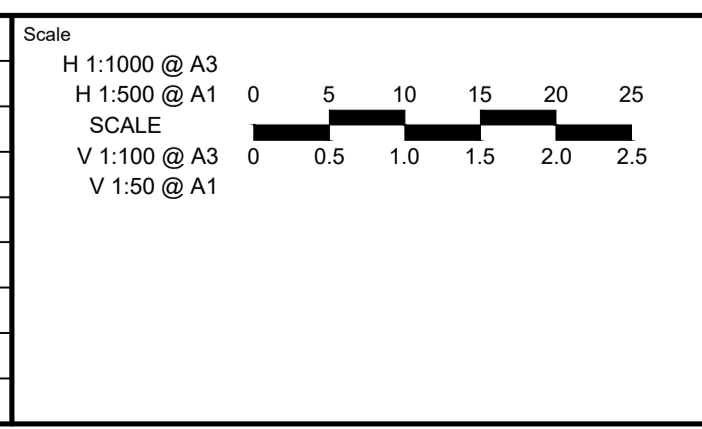
CONSTRUCTION APPROVAL Drg No **310351CC400** Rev **2**


 CLASS 4 CRUSHED ROCK BACKFILL



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Rev	Amendments	Approved	Date
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Authorised J.FEHRING	Date DEC 2025

MAIDEN'S GREEN


STAGE 6

HYDRAULICS - DRAINAGE PROFILES

SHEET 1 OF 3

 MURRAY RIVER COUNCIL

 KIELY ROAD PROJECTS PTY LTD

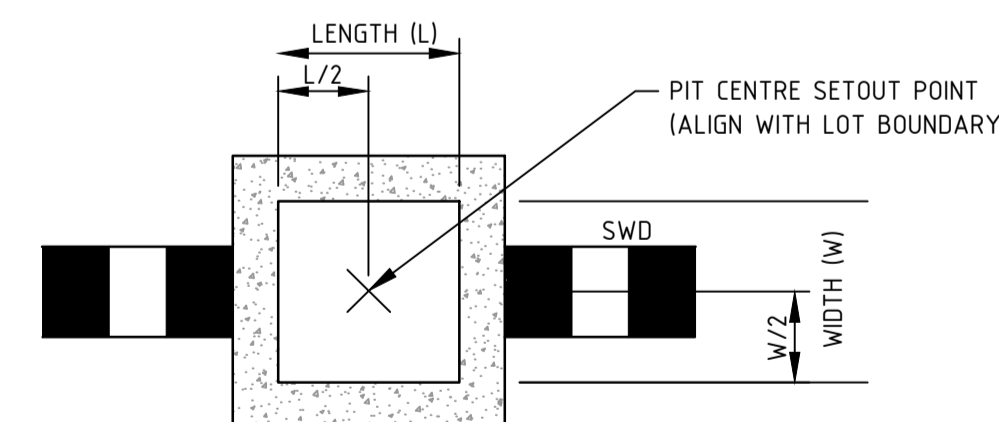
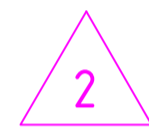

Drg No
310351CC430
Rev
2

PIT SETOUT CO-ORDINATES

NAME	POINT	EASTING	NORTHING
EP4	END OF PIPE	299066.453	6002923.628
EP9	END OF PIPE	299227.694	6002945.554

DRAINAGE PIT SCHEDULE

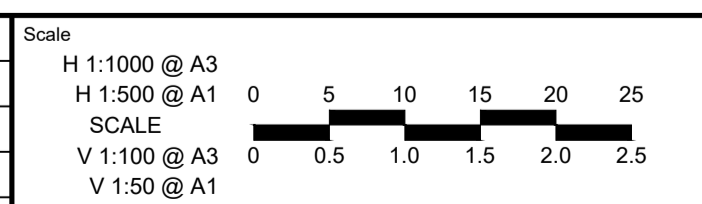
PIT		INTERNAL		INLET		OUTLET		PIT		REMARKS
NAME	TYPE	WIDTH	LENGTH	DIA	INV LEVEL	DIA	INV LEVEL	FS LEVEL	DEPTH	
14	SIDE ENTRY PIT	600	900	300	93.153	375	93.133	94.572	1.439	AS PER IDM SD 440
15	SIDE ENTRY PIT	600	900	225	93.163	300	93.203	94.572	1.369	AS PER IDM SD 440
15A	ENDPIPE					225	93.550	94.708	1.158	AS PER IDM SD 440
14A	ENDPIPE					225	93.421	94.701	1.280	INSPECTION OPENING AS PER IDM SD 515
EP4	ENDPIPE			450	92.839	450	92.839	94.578	1.739	CONNECT TO EXISTING ENDPIPE
77	SIDE ENTRY PIT	900	900	375	92.968	450	92.948	94.501	1.552	AS PER IDM SD 440, HAUNCHED TO 900X600
78	SIDE ENTRY PIT	600	900	375	93.022	375	93.002	94.496	1.494	AS PER IDM SD 440
79	SIDE ENTRY PIT	600	900	375	93.081	375	93.061	94.479	1.419	AS PER IDM SD 440
80	SIDE ENTRY PIT	600	900	300	93.353	375	93.333	94.558	1.224	AS PER IDM SD 440 WITH TRAFFICABLE COVER
81	SIDE ENTRY PIT	600	900	300	93.451	300	93.431	94.688	1.257	AS PER IDM SD 440 WITH TRAFFICABLE COVER
82	SIDE ENTRY PIT	600	900			300	93.552	94.688	1.136	AS PER IDM SD 440
97	SIDE ENTRY PIT	600	900	300	93.176	300	93.156	94.585	1.429	AS PER IDM SD 440
98	SIDE ENTRY PIT	600	900	150	93.406	300	93.256	94.521	1.266	AS PER IDM SD 440
99	ENDPIPE					150	93.683	94.736	1.052	INSPECTION OPENING AS PER IDM SD 515
100	SIDE ENTRY PIT	600	900			300	93.377	94.521	1.145	AS PER IDM SD 440
101	SIDE ENTRY PIT	600	900			300	93.182	94.479	1.298	AS PER IDM SD 440
102	SIDE ENTRY PIT	600	900			300	93.454	94.558	1.103	AS PER IDM SD 440
EP9	ENDPIPE			375	92.950	375	92.950	94.679	1.729	CONNECT TO EXISTING ENDPIPE
126	SIDE ENTRY PIT	600	900	300	93.000	375	92.980	94.649	1.669	AS PER IDM SD 440
127	SIDE ENTRY PIT	600	900	225	93.259	300	93.239	94.648	1.409	AS PER IDM SD 440
128	ENDPIPE					225	93.500	94.769	1.269	INSPECTION OPENING AS PER IDM SD 515
129	SIDE ENTRY PIT	600	900			300	93.156	94.649	1.493	AS PER IDM SD 440
130	SIDE ENTRY PIT	600	900			300	93.478	94.648	1.170	AS PER IDM SD 440



TYPICAL DRAINAGE PIT SETOUT POINT 'C'
JUNCTION PIT/ EASEMENT PIT
NOT TO SCALE

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Rev	Amendments	Approved	Date
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A	ISSUED FOR APPROVAL	J.F	SEP 2023



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Designed
D.SHEEHAN/S.MAHER
Authorised
J.FEHRING
Checked
B.IBBS
Date
DEC 2025

MAIDEN'S GREEN
STAGE 6
HYDRAULICS - DRAINAGE PROFILES
SHEET 3 OF 3
MURRAY RIVER COUNCIL
KIELY ROAD PROJECTS PTY LTD
CONSTRUCTION APPROVAL Drg No **310351CC432** Rev **2**



	FILTERED WATER	RAW WATER
MAXIMUM DESIGN HEAD(m)	4.6m	4.9m
ZONE	RESIDENTIAL	RESIDENTIAL
TEST PRESSURE (kPa)	1000kPa	1000kPa

TABLE 2: PIPE MATERIAL SCHEDULE

MATERIAL	REFERENCE
PVC-M	WSA-PS-209
DICL	WSA-PS-202
PE (PROPERTY SERVICE)	WSA-PS-215

TABLE 4: CURVED PIPE AND DEFLECTION SCHEDULE (NOT USED)

TABLE 5: SERVICE ALIGNMENT SCHEDULE (SEE DRG NO. 310351CC001 SERVICE OFFSET TABLE)

TABLE 6: THRUST RESTRAINT SCHEDULE

LOCATION	TYPE	THRUST	AHBP (kPa) USED	THRUST AREA (m ²)	QUANTITY
A	PLAIN	2 X DN150 90° BEND	50	0.68	1
B	IN LINE	2 X DN150x100 TEE	50	0.43	1
C	PLAIN	2 X DN150 ENDS	50	0.96	1

TABLE 7: VERTICAL CLEARANCES

EXISTING OR PROPOSED SERVICE	MINIMUM VERTICAL CLEARANCE (mm)
WATER MAINS ≤ DN375	150
WATER MAINS > DN375	300
GAS MAINS	150
TELECO CONDUITS AND CABLES	150
ELECTRICITY CONDUITS AND CABLES	225
STORMWATER DRAIN & PITS	150
SEWERS - GRAVITY	500
SEWERS - PRESSURE & VACUUM	500

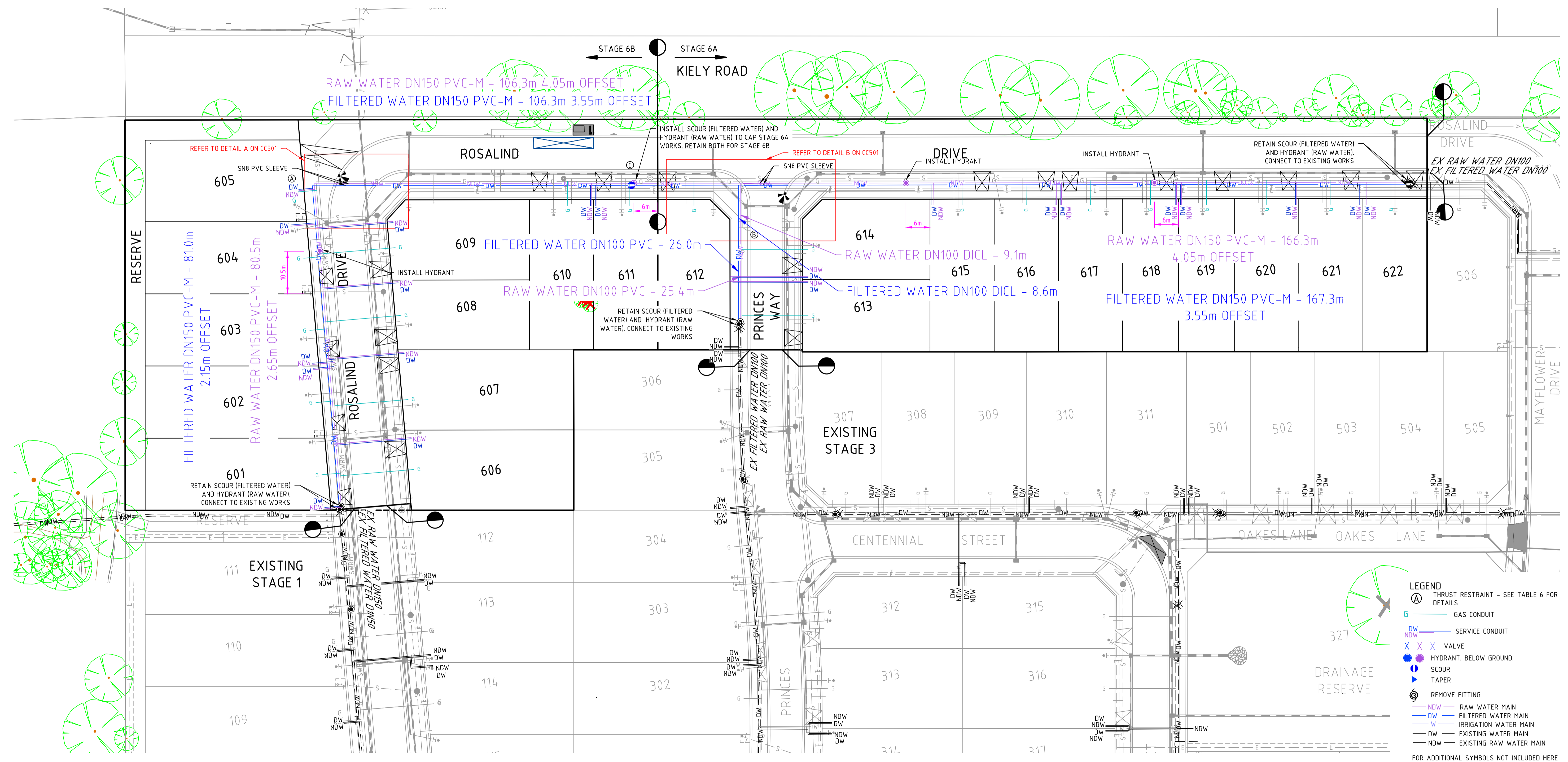
- VERTICAL CLEARANCE BETWEEN WATER MAINS SHALL DEPEND ON THE LARGER MAIN DIAMETER.
 - WATER MAINS SHALL CROSS OVER SEWERS AND DRAINS UNLESS SHOWN OTHERWISE.
 - MAINTAIN ADDITIONAL CLEARANCE FROM HIGH VOLTAGE ELECTRICAL CABLES TO ALLOW FOR A PROTECTIVE BARRIER AND MARKING.

TABLE 1: NEW PIPE SCHEDULE

NEW WORK			FILTERED WATER	RAW WATER
SIZE (mm)	TYPE	CLASS	LENGTH (m)	LENGTH (m)
150	PVC-M AS/NZS 4441	SERIES 1 PN12	354.6	353.1
100	PVC-M AS/NZS 4441	SERIES 1 PN12	26.0	25.4
100	DICL AS/NZS 2280	PN35	8.6	9.1

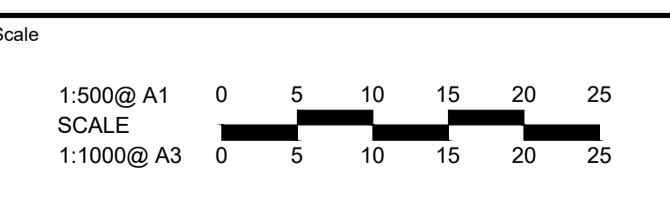
TABLE 3: HYDRANT & WASHOUT SCHEDULE

MAIN SIZE	FITTING TYPE	LOCATION	STREET	LOCATION
150	HYDRANT - RW	IN LINE	ROSALIND DRIVE	10.5m N OF SBL LOT 604
150	HYDRANT - RW	IN LINE	ROSALIND DRIVE	6.0m W OF EBL LOT 611
150	HYDRANT - RW	IN LINE	ROSALIND DRIVE	6.0m W OF EBL LOT 614
150	HYDRANT - RW	IN LINE	ROSALIND DRIVE	6.0m W OF EBL LOT 618
150	SCOUR - DW	IN LINE	ROSALIND DRIVE	6.6m W OF EBL LOT 611



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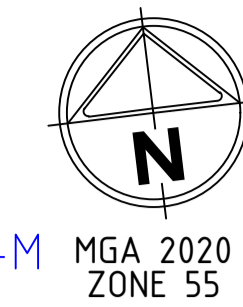
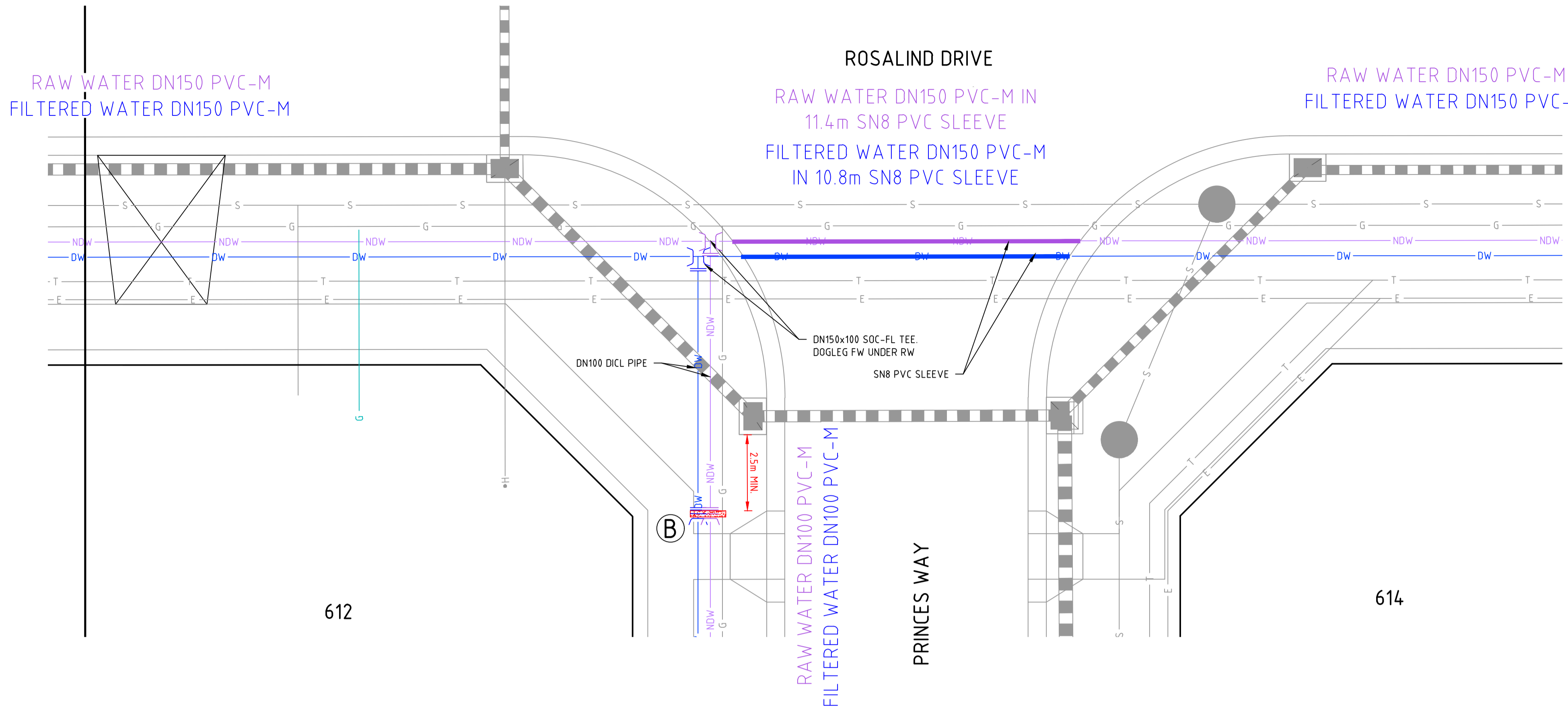


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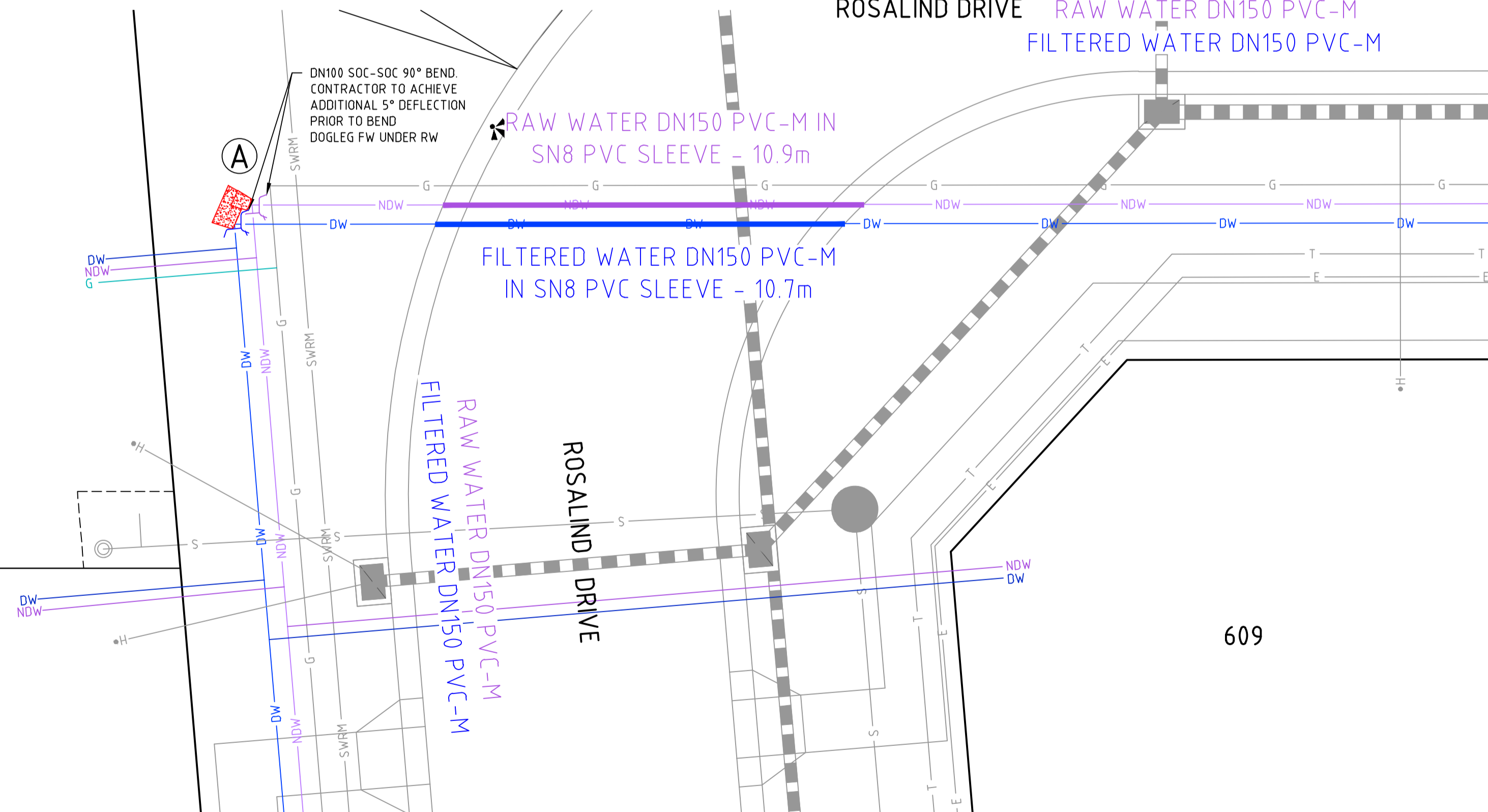
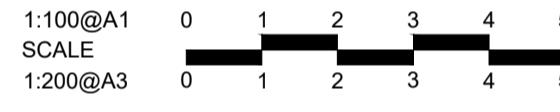
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Authorised J.FEHRING	Date DEC 2025

MAIDEN'S GREEN
STAGE 6
HYDRAULICS - SEWER & WATER
WATER LAYOUT PLAN
 MURRAY RIVER COUNCIL
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CONSTRUCTION APPROVAL Drg No **310351CC500** Rev **2**



DETAIL A
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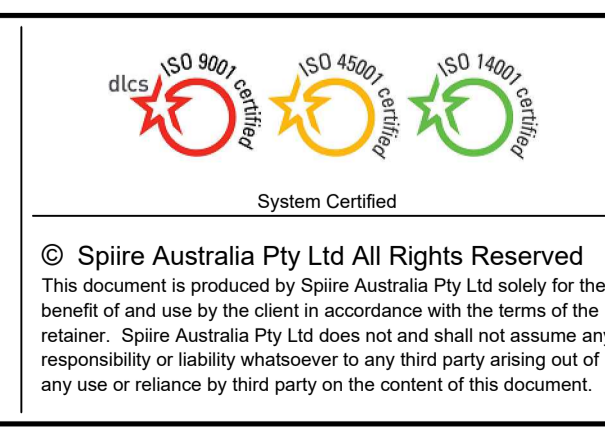
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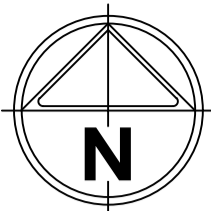
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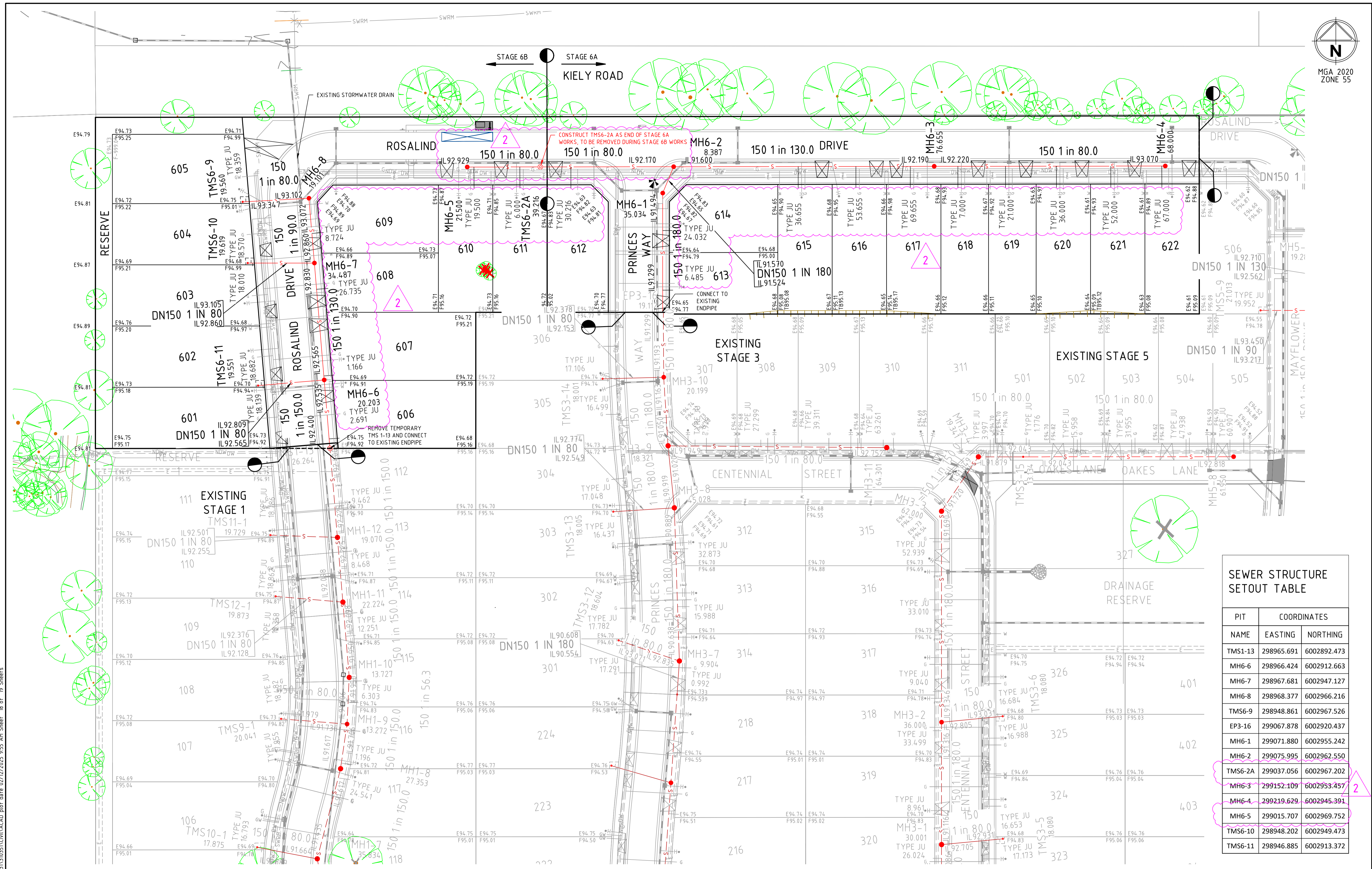
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MAIDEN'S GREEN
STAGE 6
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 WATER DETAILS
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MGA 2020
ZONE 55

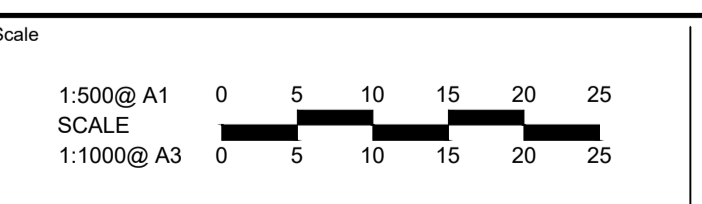


SEWER STRUCTURE SETOUT TABLE

PIT NAME	COORDINATES	
	EASTING	NORTHING
TMS1-13	298965.691	6002892.473
MH6-6	298966.424	6002912.663
MH6-7	298967.681	6002947.127
MH6-8	298968.377	6002966.216
TMS6-9	298948.861	6002967.526
EP3-16	299067.878	6002920.437
MH6-1	299071.880	6002955.242
MH6-2	299075.995	6002962.550
TMS6-2A	299037.056	6002967.202
MH6-3	299152.109	6002953.457
MH6-4	299219.629	6002945.391
MH6-5	299015.707	6002969.752
TMS6-10	298948.202	6002949.473
TMS6-11	298946.885	6002913.372

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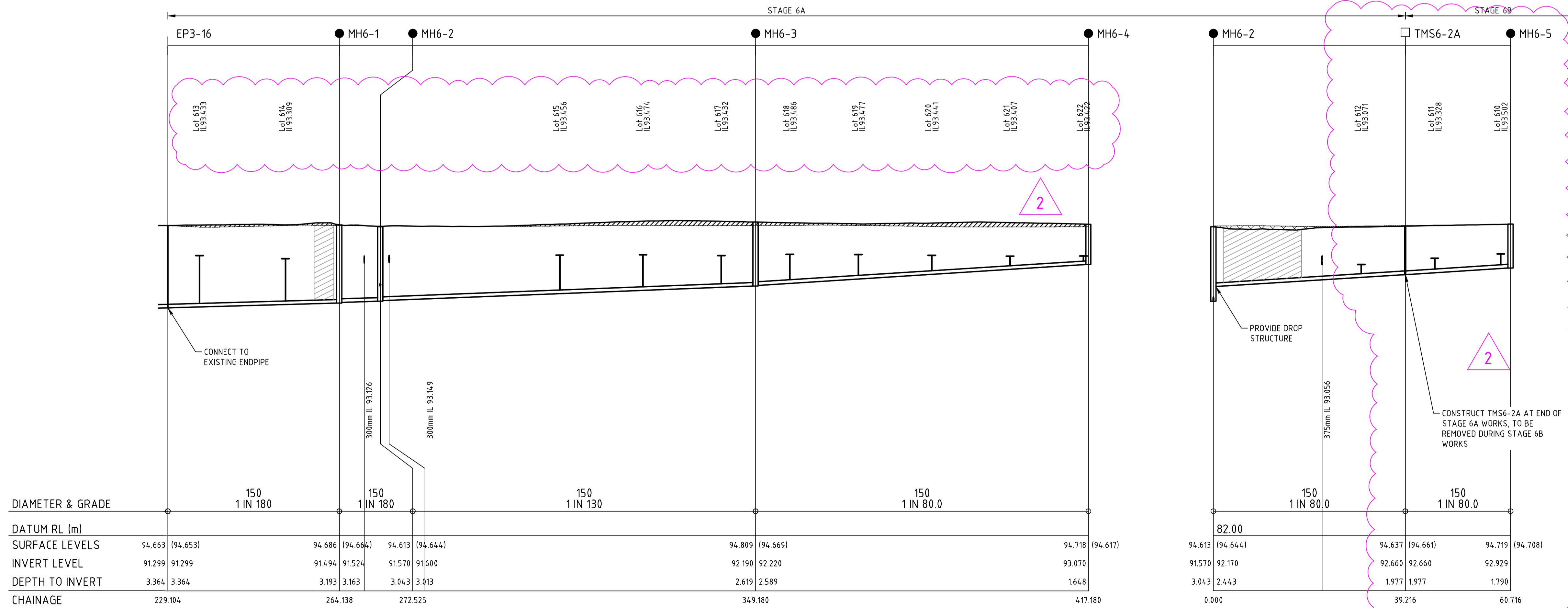
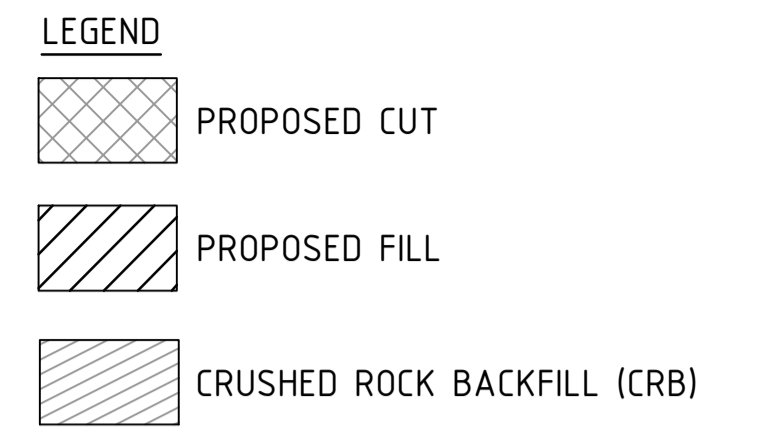
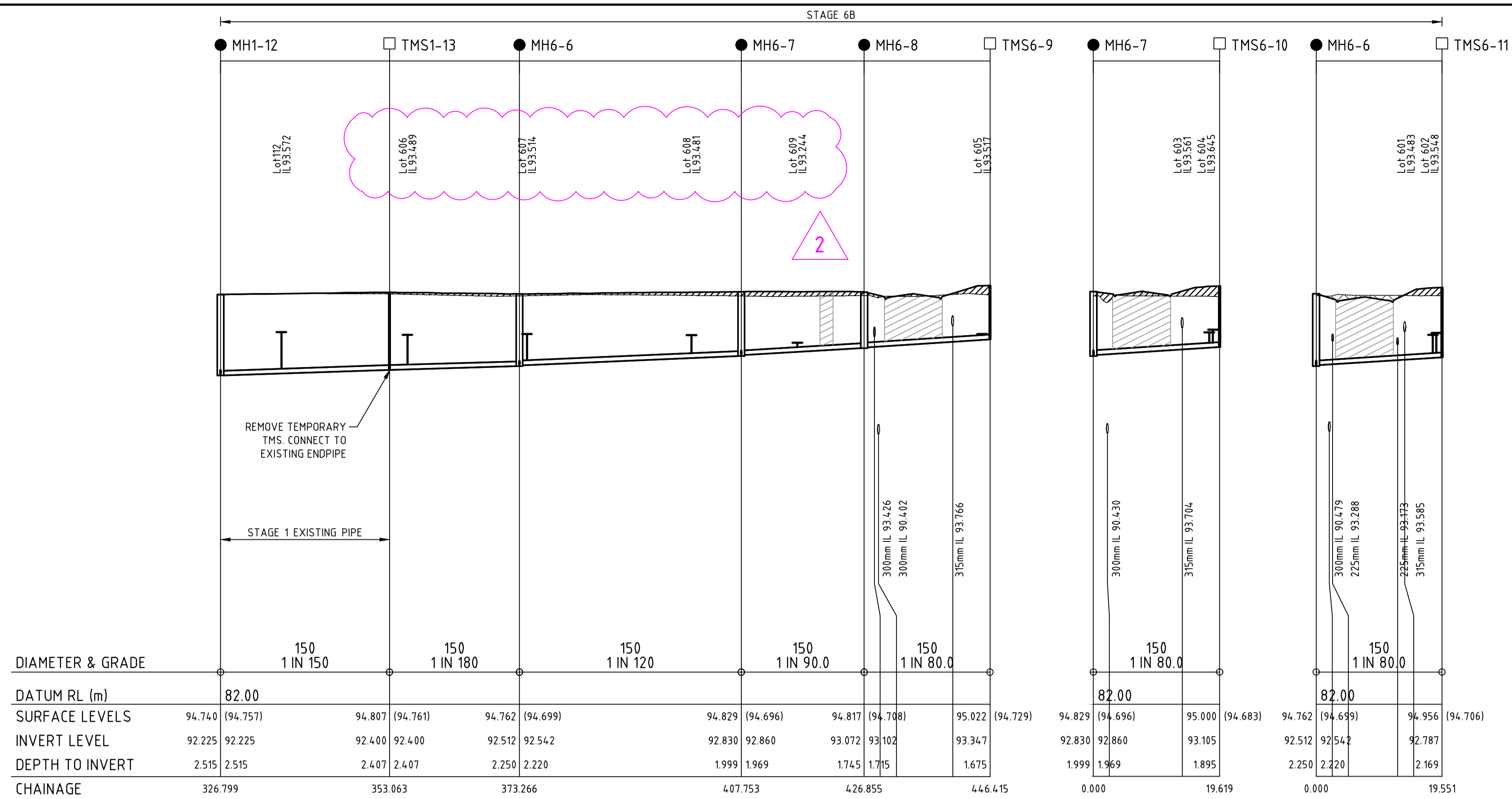
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**MAIDEN'S GREEN
STAGE 6
HYDRAULICS - SEWER & WATER
SEWER LAYOUT PLAN**
MURRAY RIVER COUNCIL
KIELY ROAD PROJECTS PTY LTD

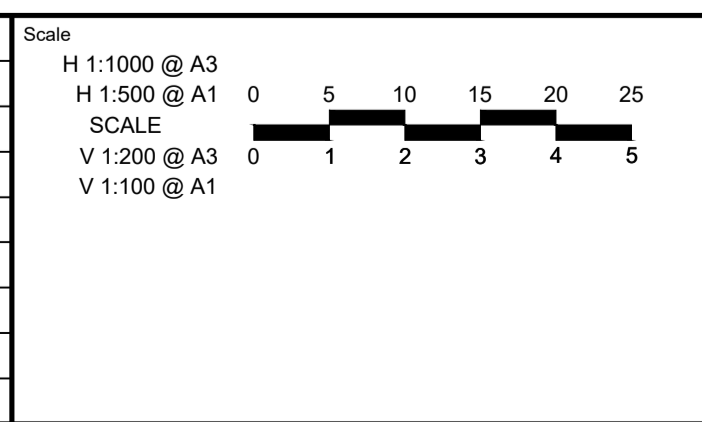
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Rev 2

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