



FOR:



BY:



PROJECT: **No 51, 134 & 146
Station Lane Lochinvar**

TITLE: **Base Plan**

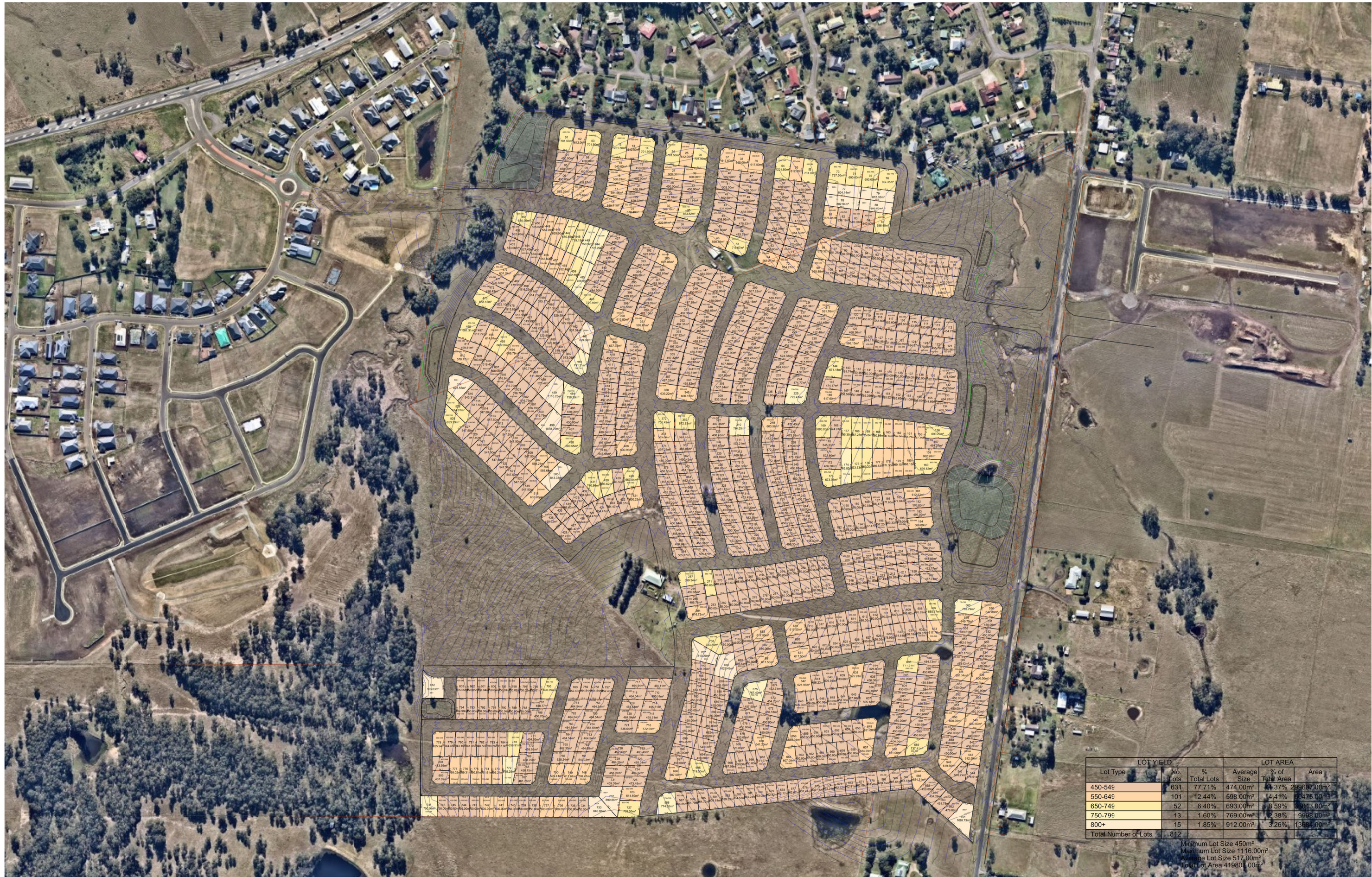
REVISION						
First Issue	AV	AV	AV	29.06.21	BP	
	AV	AV	Appd.	05.02.20		
	Drawn	Design		Date		
SCALE: Scale 1:3000(A3)						
						

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PROJECT N° LV	MILESTONE BP
PLAN 01	REVISION 2



LOT YIELD			LOT AREA		
Lot Type	No. Lots	% Total Lots	Average Size	% of Total Area	Area
450-549	631	77.71%	474.00m ²	4.37%	299697.00m ²
550-649	101	12.44%	598.00m ²	4.41%	60476.00m ²
650-749	52	6.40%	693.00m ²	8.59%	36043.00m ²
750-799	13	1.60%	769.00m ²	12.38%	9998.00m ²
800+	15	1.85%	912.00m ²	3.26%	13684.00m ²
Total Number of Lots			812		

Minimum Lot Size 450m²
Maximum Lot Size 1116.00m²
Average Lot Size 517.00m²
Total Lot Area 419804.00m²

FOR:



BY:



PROJECT: No 51, 134 & 146
Station Lane Lochinvar

TITLE: Lot Mix Plan

REVISION

First Issue

AV

Drawn

AV

Design

AV

Appd.

28.06.21

Date

LMP

SCALE:

Scale 1:3000(A3)

50

100

150

200

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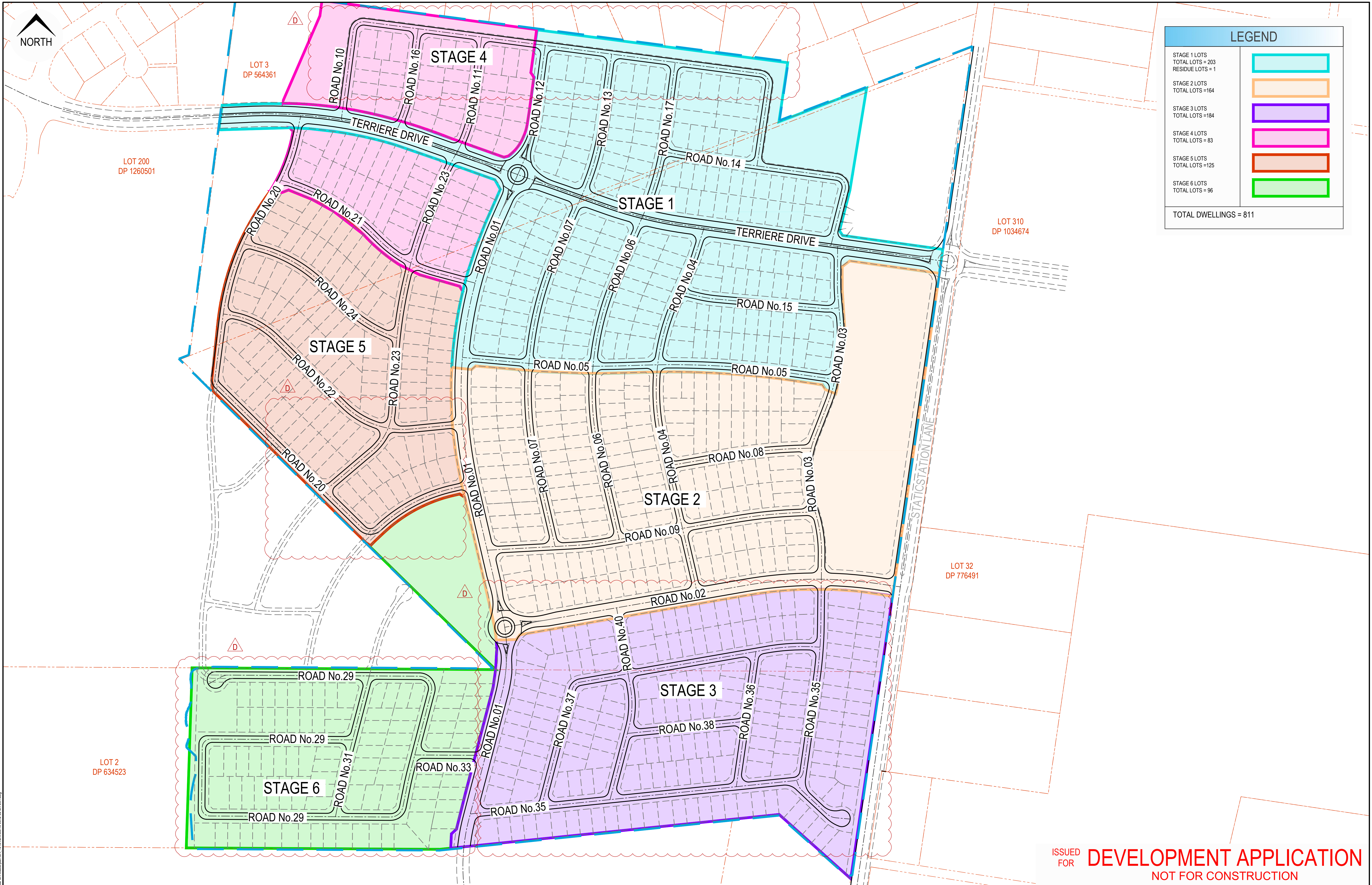


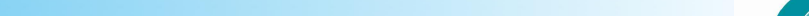
PROJECT N°
LV

PLAN
02

MILESTONE
LMP

REVISION
1



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D	AP	JM	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED										
C	MG	CS	MP	15/09/2020	GENERAL MASTERPLAN UPDATES										
B	CS	CS	MP	05/05/2020	ISSUED FOR MASTER PLAN DA APPROVAL										
A	MG	CS	MP	20/04/2020	ISSUED FOR MASTER PLAN DA APPROVAL										
Rev	Drawn	Design	Appd.	Date	Revision Description										

Prepared by:

DA - 2020 - 468



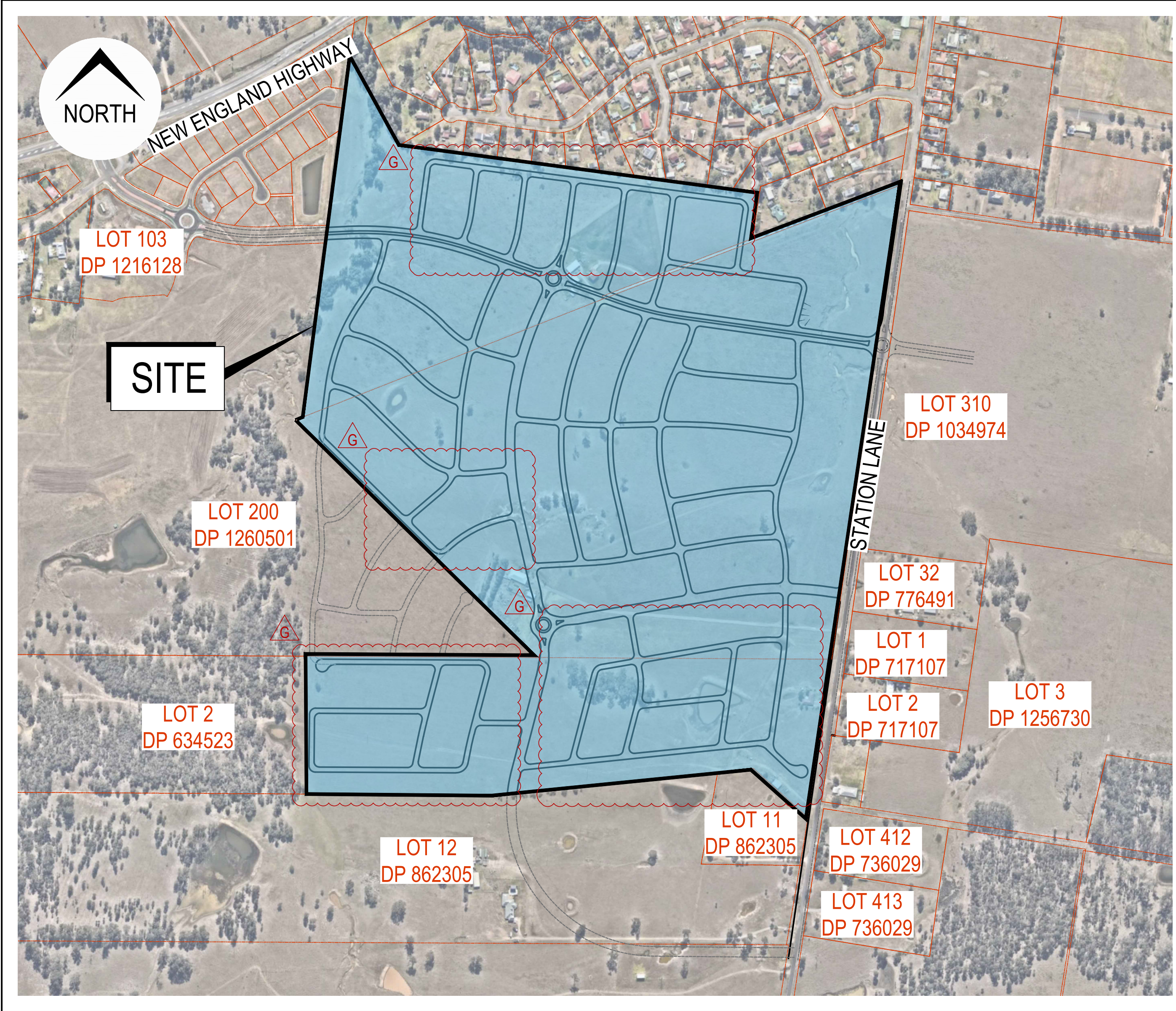
Prepared for:



LGA:



PLAN INDEX		
No.	PLAN	REV
PRELIMINARIES		
DA 000	COVER SHEET & PLAN INDEX	G
DA 001	GENERAL LAYOUT PLAN NOTES & LEGEND	E
DA 002	EXISTING SITE LOCALITY & SURVEY PLAN	C
DA 003	LAND USE PLAN	D
DA 004	DEMOLITION & TREE MANAGEMENT PLAN	B
DA 005	SITE REGRADING ALIGNMENT PLAN	C
DA 006	SITE REGRADING PLAN SHEET 01 OF 04	C
DA 007	SITE REGRADING PLAN SHEET 02 OF 04	C
DA 008	SITE REGRADING PLAN SHEET 03 OF 04	C
DA 009	SITE REGRADING PLAN SHEET 04 OF 04	C
DA 010	SITE REGRADING SECTIONS SHEET 01 OF 09	C
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DA 012	SITE REGRADING SECTIONS SHEET 03 OF 09	B
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ENGINEERING & ROADWORKS		
DA 200	ENGINEERING PLAN	E
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DA 300	TYPICAL ROAD CROSS SECTIONS	A
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DA 400	EXISTING STORMWATER CATCHMENT PLAN	A
DA 401	POST DEVELOPMENT STORMWATER CATCHMENT PLAN	A
DA 402	WSUD/ MUSIC BASIN CATCHMENT PLAN	D

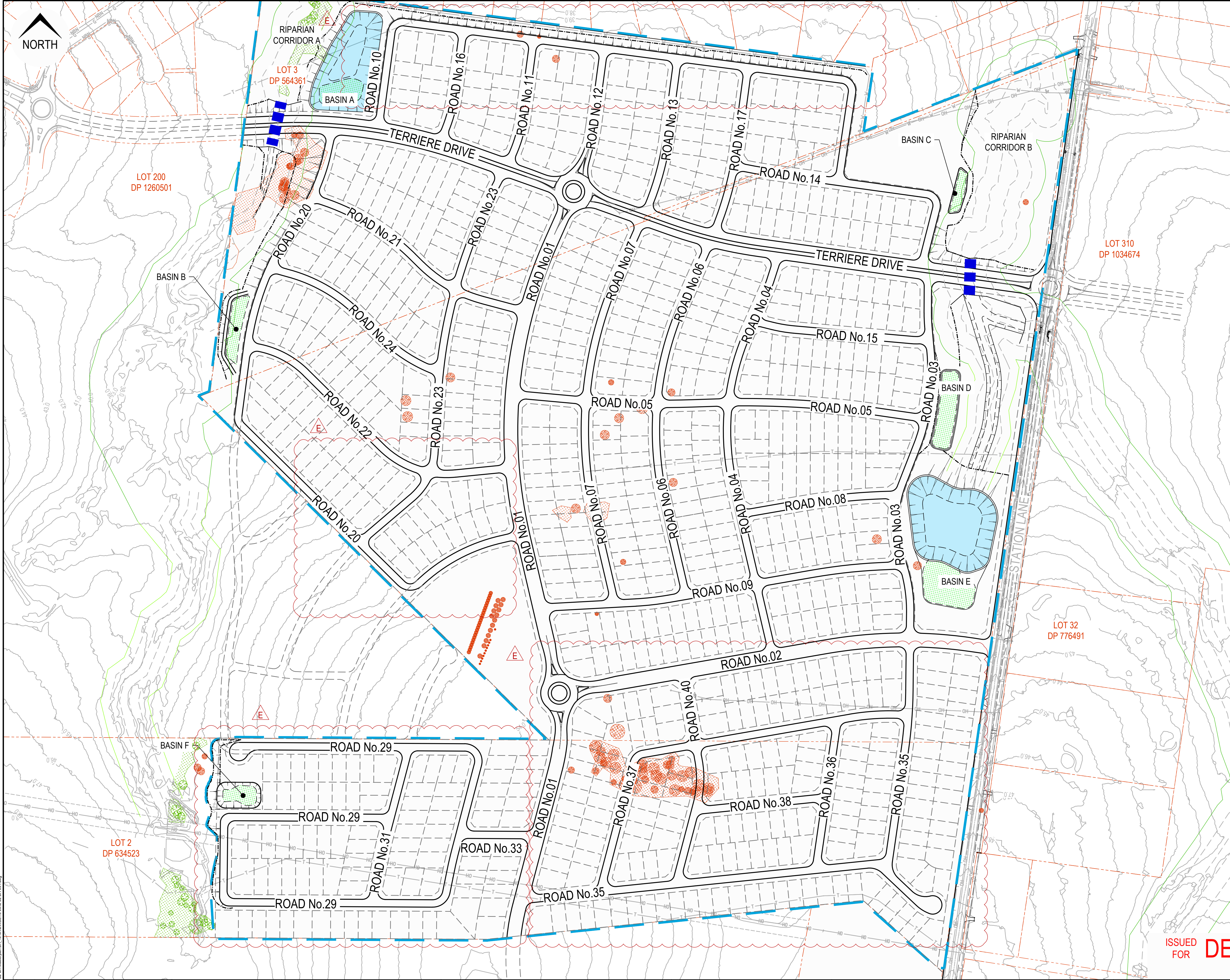


SITE / LOCATION (Image courtesy of Nearmap 14.08.2019)

LOT 3 D.P.564631
LOT 2 & 4 D.P.634523

51, 134 & 146 STATION LANE, LOCHINVAR MASTER PLAN DESIGN

ISSUED FOR **DEVELOPMENT APPLICATION**
NOT FOR CONSTRUCTION



LEGEND			
UTILITY - ELECTRICITY GAS SEWER WATER TELECOMS NBN OPTIC FIBRE OVERHEAD WIRE	EXISTING	PROPOSED	FUTURE
	E G S W T NBN OF OH	E G S W T NBN OF OH	E G S W T NBN OF OH
CONTOUR LINE & LABEL	20.0	20.0	20.0
LOT NUMBER & BOUNDARY	LOT #	LOT #	LOT #
APPROXIMATE LIMIT OF WORKS			
EXISTING PAVEMENT			
BUILDING / ENVELOPE			
ROAD, NUMBER, CONTROL LINE & CHAINAGE MARK	ROAD	ROAD	ROAD
EASEMENT (REFER LEGEND)	(A) (B) (C)	(A) (B) (C)	(A) (B) (C)
TREE - TO BE RETAINED			
TREE - TO BE REMOVED			
EXISTING CADASTRAL			
2ND ORDER STREAM VRZ			
3RD ORDER STREAM VRZ			
CULVERT CROSSING			
EXISTING VEGETATION TO BE REMOVED			
EXISTING VEGETATION TO BE RETAINED			

GENERAL NOTES

- ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH MAITLAND CITY COUNCIL WORKS SPECIFICATION CIVIL (CURRENT EDITION) AND/OR AS DIRECTED BY THEIR REPRESENTATIVE.
- THE CONTRACTOR IS TO IDENTIFY, LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION WORKS AND WHERE NECESSARY MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE OR ADJUST WHERE NECESSARY.
- COUNCIL'S TREE PRESERVATION ORDER MUST BE OBSERVED AND NO TREE SHALL BE FELLED, LOPPED OR REMOVED WITHOUT THE PRIOR APPROVAL OF COUNCIL.
- DIMENSIONS SHALL NOT BE SCALED FROM THE PLANS. CLARIFICATION OF DIMENSIONS SHALL BE SOUGHT FROM THE SUPERINTENDENT OR REFERRED TO THE DESIGNER.
- ALL NEW WORK IS TO MAKE A SMOOTH JUNCTION WITH THE EXISTING CONDITIONS.

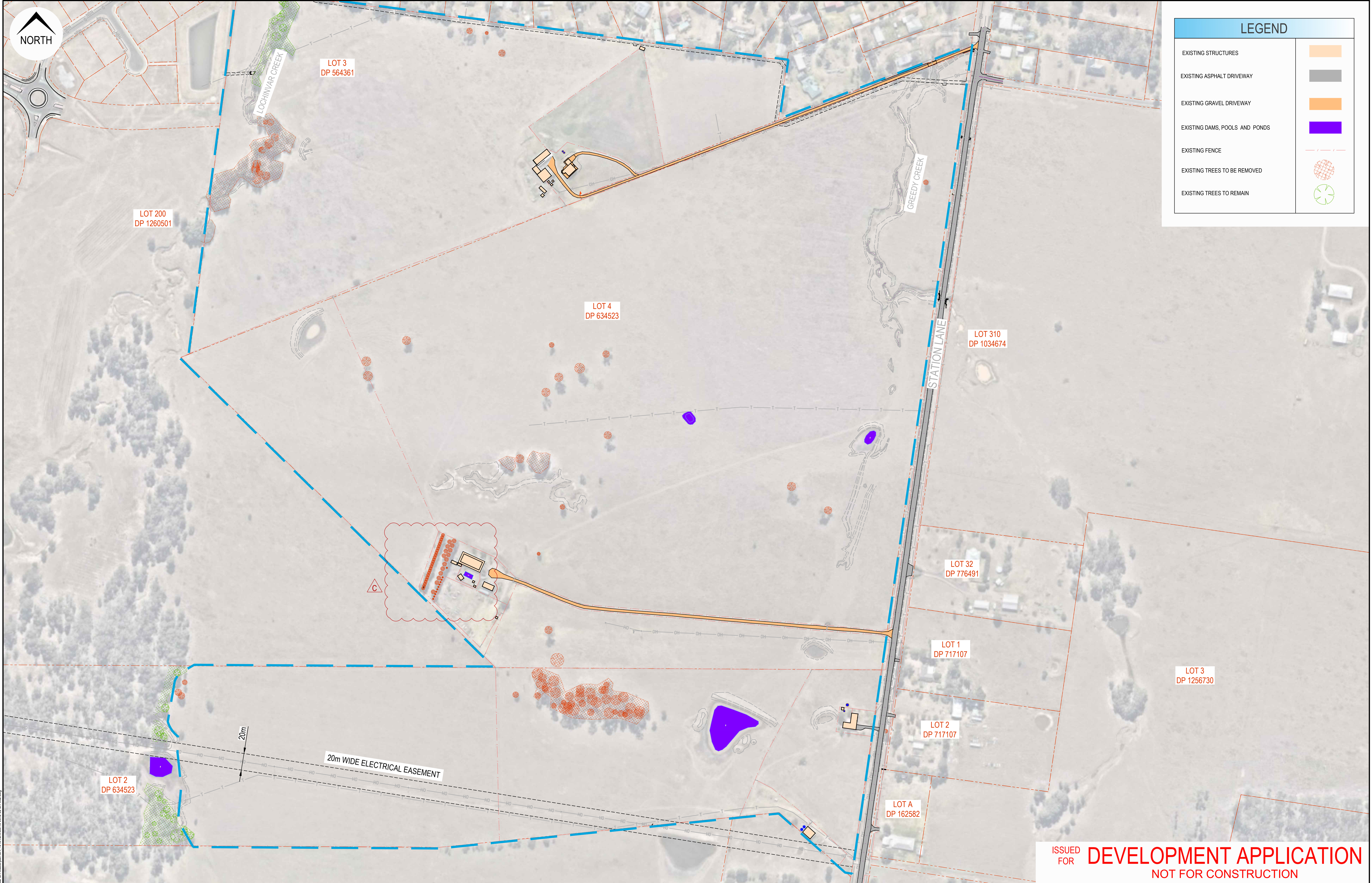


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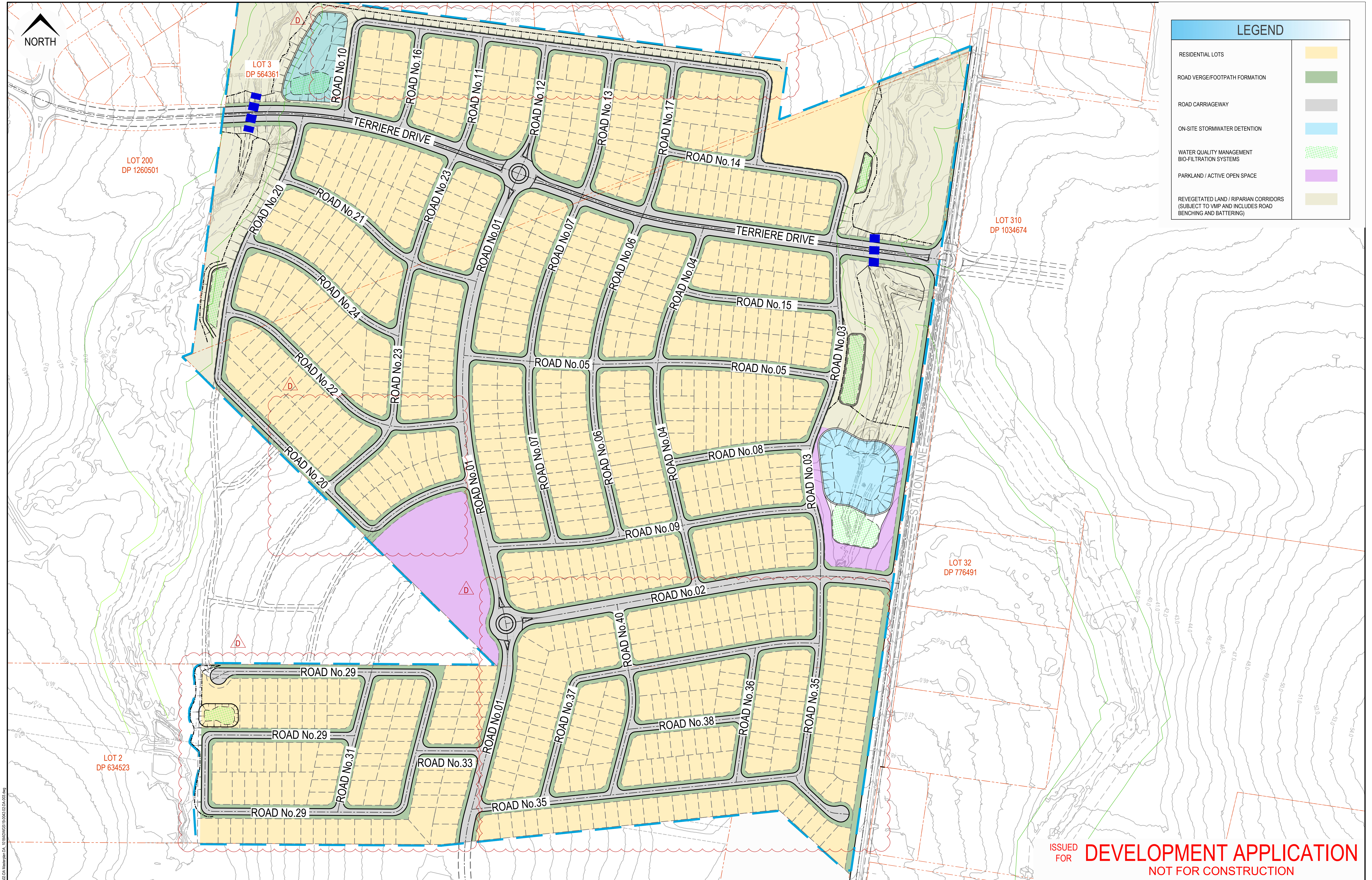


LEGEND	
EXISTING STRUCTURES	
EXISTING ASPHALT DRIVEWAY	
EXISTING GRAVEL DRIVEWAY	
EXISTING DAMS, POOLS AND PONDS	
EXISTING FENCE	
EXISTING TREES TO BE REMOVED	
EXISTING TREES TO REMAIN	

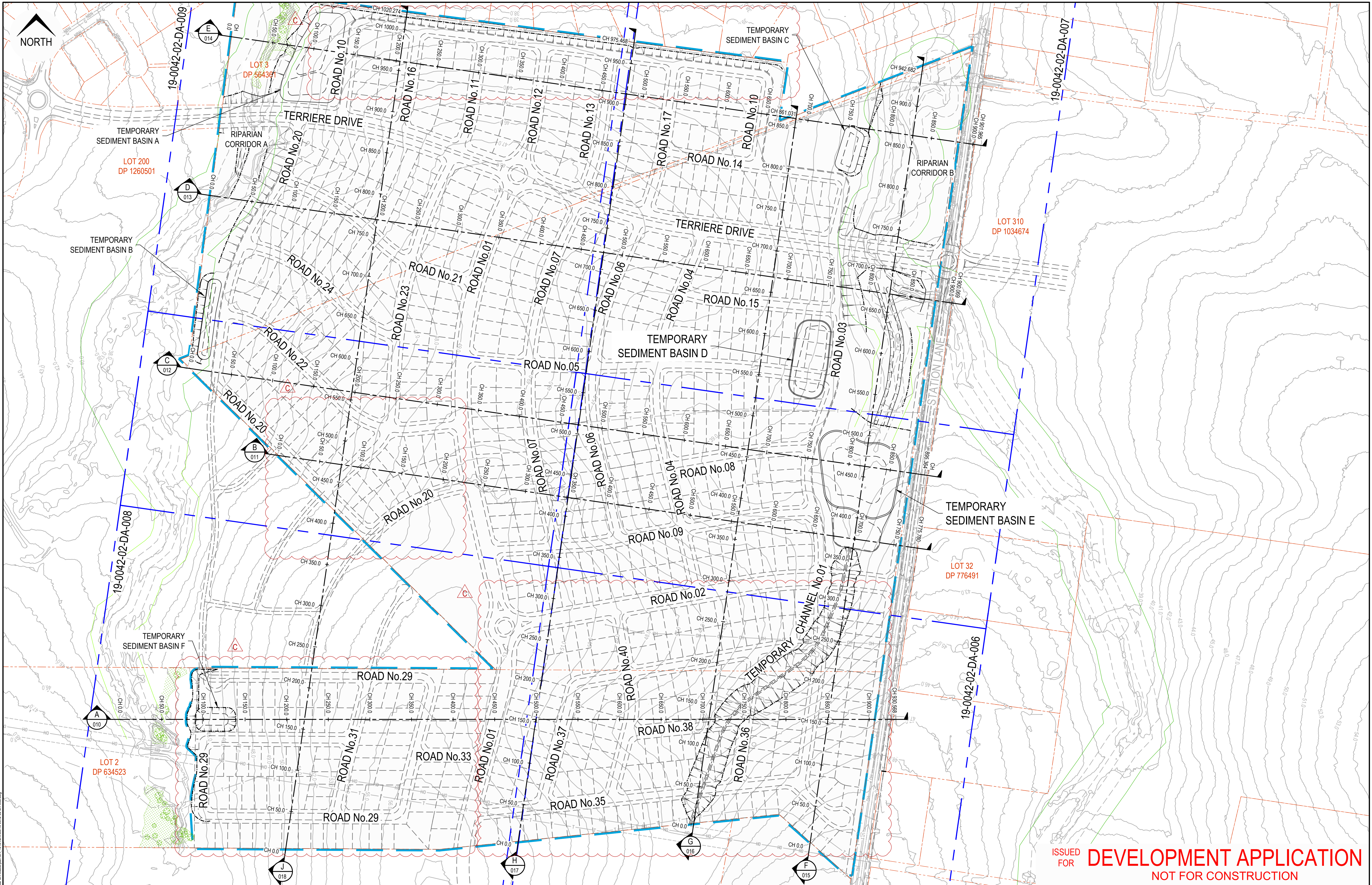
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C	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL												
B	MG	CS	MP	27/04/2020	ISSUED FOR MASTER PLAN DA APPROVAL												
A	MG	CS	MP	20/04/2020	ISSUED FOR MASTER PLAN DA APPROVAL												
Rev	Drawn	Design	Appd.	Date	Revision Description												

Project: File Name: C:\Users\orion\Documents\SYNO\2020\Masterplan DA_19-0042\20-04-2020.dwg



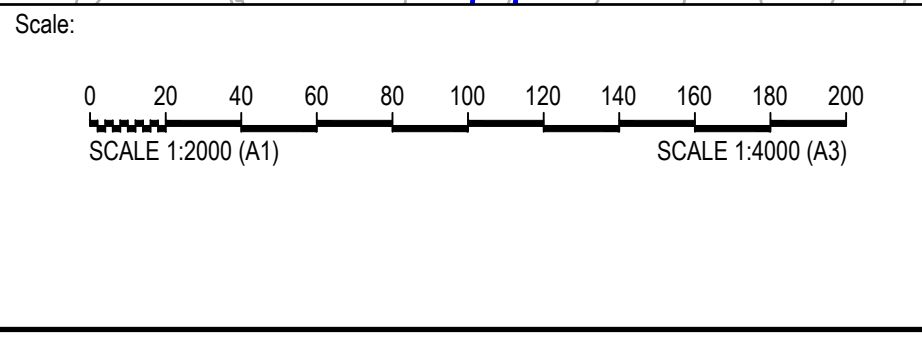
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Rev	Drawn	Design	Appd.	Date	Revision Description								Project No. 19-0042		Set No. 02		Milestone DA		Plan 003		Revision D	



ISSUED FOR **DEVELOPMENT APPLICATION**
NOT FOR CONSTRUCTION

Rev	Drawn	Design	Appd.	Date	Revision Description
C	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED
B	MG	CS	MP	15/09/2020	GENERAL MASTERPLAN UPDATES
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL

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Project: No. 51, 134, 146 STATION LANE, LOCHINVAR MASTERPLAN DA

Title: SITE REGRADING ALIGNMENT PLAN				
Project No.	Set No.	Milestone	Plan	Revision
19-0042	02	DA	005	C



LEGEND

APPROXIMATE EXTENT OF FILL	0.0 - 0.5m	
	0.5 - 1.0m	
	1.0 - 1.5m	
	1.5 - 2.0m	
	2.0 - 2.5m	
	> 2.5m	
APPROXIMATE EXTENT OF CUT	0.0 - 0.5m	
	0.5 - 1.0m	
	1.0 - 1.5m	
	1.5 - 2.0m	
	2.0 - 2.5m	
	> 2.5m	

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IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY, LOCATE AND AVOID DAMAGE TO THEM AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDE LINES/STANDARDS.



VOLUMES

CUT -	263,276m³
FILL -	265,610m³
IMPORT -	2,334m³

NOTES:

- VOLUME CALCULATED BETWEEN BULK EARTHWORKS DESIGN TIN AND STRIPPED SURFACE SURVEY TIN.
- 500mm ALLOWANCE FOR ROAD PAVEMENT THICKNESS WITHIN BULK EARTHWORKS DESIGN TIN (NO PAVEMENT DESIGN REPORT SUBJECT TO DETAILED DESIGN STAGE)
- DOES NOT INCLUDE ROAD BOXING OR ANY WORKS WITHIN STATION LANE.
- VOLUMES DO INCLUDE TEMPORARY CHANNEL 01
- FINISHED DESIGN BULK EARTHWORKS SURFACE CONTOURS SHOWN INCLUDING TEMPORARY CHANNEL 01.
- TOPSOIL STRIPPING FOR MAXIMUM 150mm OF TOPSOIL.
- NO BULKING FACTOR HAS BEEN APPLIED.
- NO ALLOWANCE HAS BEEN MADE FOR TRENCHING OR SERVICES
- NO ALLOWANCE HAS BEEN MADE FOR UNSUITABLE MATERIAL ASSOCIATED WITH EXISTING DAMS SUCH AS WATER, MUD, SLUDGE ETC.
- CONSTRUCTION OF ROADS & RETAINING WALLS DOES NOT FORM PART OF BULK EARTHWORKS SCOPE.
- ROADS & RETAINING WALLS ARE TO BE CONSTRUCTED AS PART OF CIVIL WORKS IN FUTURE CC.

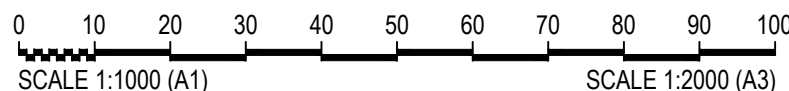
NOTES:

- ALL ENM/VMN IS TO BE CERTIFIED.
- CONSTRUCTION AND COMPACTION TO BE IN ACCORDANCE WITH COUNCIL'S WORKS SPECIFICATIONS.
- BULK EARTHWORKS ONLY. APPROVAL TO SUBGRADE LEVEL.
- ROAD BOXING DEPTHS = 500mm THROUGHOUT.
- LOT REGRADING = 150mm LOWER THAN FINISHED DESIGN SURFACE

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Scale:



For:



By:



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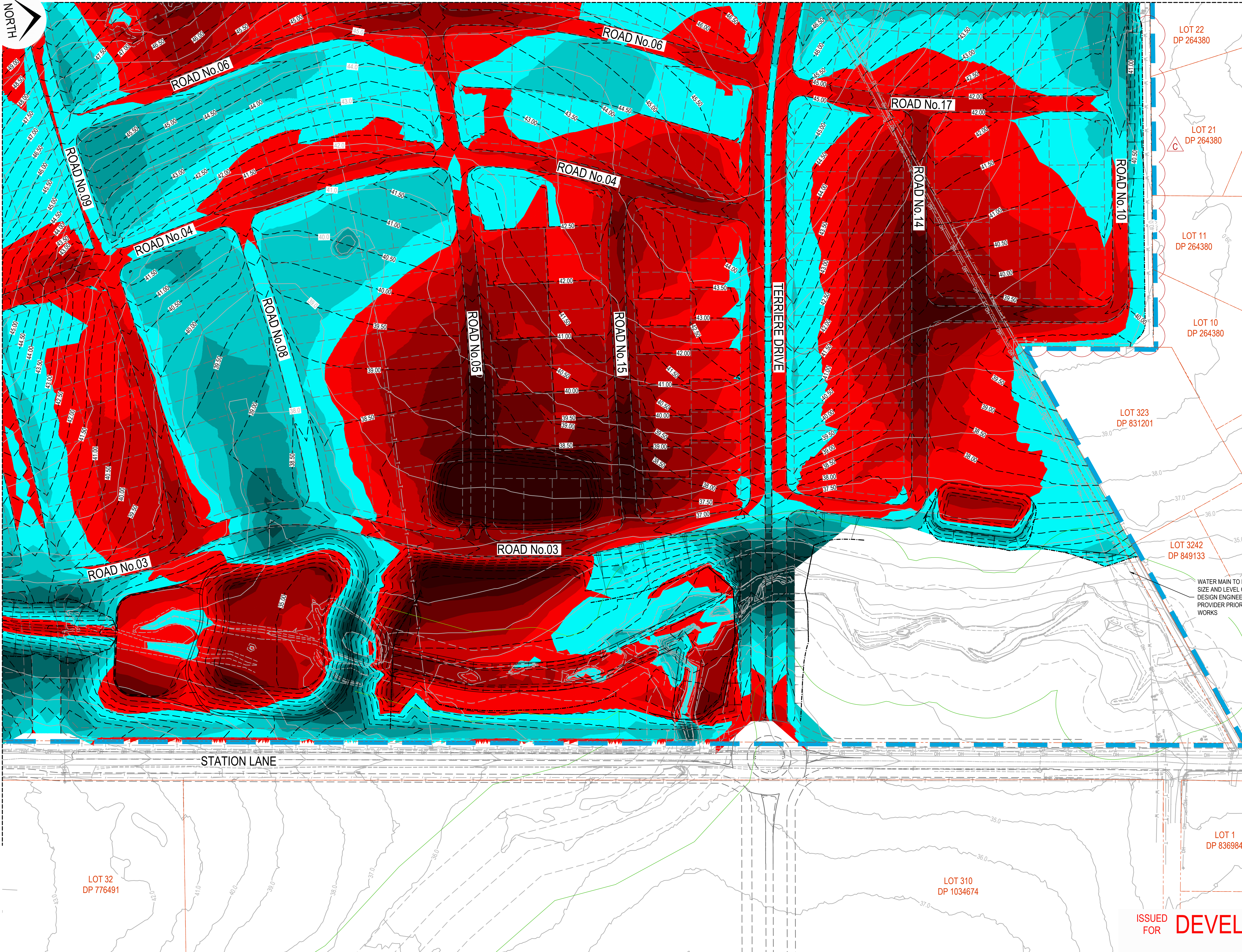
Project:

No. 51, 134, 146 STATION LANE, LOCHINVAR MASTERPLAN DA

Title:

SITE REGRADING PLAN SHEET 01 OF 04

Project No.	Set No.	Milestone	Plan	Revision
19-0042	02	DA	006	C



LEGEND	
APPROXIMATE EXTENT OF FILL	0.0 - 0.5m
	0.5 - 1.0m
	1.0 - 1.5m
	1.5 - 2.0m
	2.0 - 2.5m
APPROXIMATE EXTENT OF CUT	> 2.5m
	0.0 - 0.5m
	0.5 - 1.0m
	1.0 - 1.5m
	1.5 - 2.0m
	2.0 - 2.5m
	> 2.5m

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VOLUMES	
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IMPORT -	2,334m³

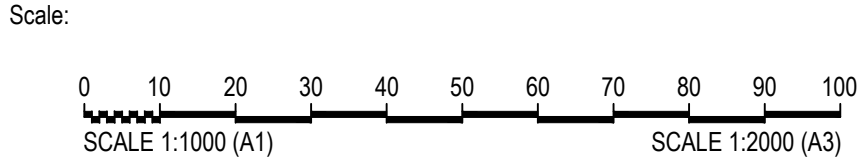
- NOTES:
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 - 500mm ALLOWANCE FOR ROAD PAVEMENT THICKNESS WITHIN BULK EARTHWORKS DESIGN TIN (NO PAVEMENT DESIGN REPORT SUBJECT TO DETAILED DESIGN STAGE)
 - DOES NOT INCLUDE ROAD BOXING OR ANY WORKS WITHIN STATION LANE.
 - VOLUMES DO INCLUDE TEMPORARY CHANNEL 01
 - FINISHED DESIGN BULK EARTHWORKS SURFACE CONTOURS SHOWN INCLUDING TEMPORARY CHANNEL 01.
 - TOPSOIL STRIPPING FOR MAXIMUM 150mm OF TOPSOIL.
 - NO BULKING FACTOR HAS BEEN APPLIED.
 - NO ALLOWANCE HAS BEEN MADE FOR TRENCHING OR SERVICES
 - NO ALLOWANCE HAS BEEN MADE FOR UNSUITABLE MATERIAL ASSOCIATED WITH EXISTING DAMS SUCH AS WATER, MUD, SLUDGE ETC.
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- NOTES:
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 - LOT REGRADING = 150mm LOWER THAN FINISHED DESIGN SURFACE

ISSUED FOR **DEVELOPMENT APPLICATION**
NOT FOR CONSTRUCTION

Rev	Drawn	Design	Appd.	Date	Revision Description
C	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED
B	MG	CS	MP	15/09/2020	GENERAL MASTERPLAN UPDATES
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL

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Project: No. 51, 134, 146 STATION LANE, LOCHINVAR MASTERPLAN DA

SITE REGRADING PLAN SHEET 02 OF 04				
Project No.	Set No.	Milestone	Plan	Revision
19-0042	02	DA	007	C



LEGEND

APPROXIMATE EXTENT OF FILL	0.0 - 0.5m	
	0.5 - 1.0m	
	1.0 - 1.5m	
	1.5 - 2.0m	
	2.0 - 2.5m	
	> 2.5m	
APPROXIMATE EXTENT OF CUT	0.0 - 0.5m	
	0.5 - 1.0m	
	1.0 - 1.5m	
	1.5 - 2.0m	
	2.0 - 2.5m	
	> 2.5m	

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 - FINISHED DESIGN BULK EARTHWORKS SURFACE CONTOURS SHOWN INCLUDING TEMPORARY CHANNEL 01.
 - TOPSOIL STRIPPING FOR MAXIMUM 150mm OF TOPSOIL
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 - LOT REGRADING = 150mm LOWER THAN FINISHED DESIGN SURFACE

ACCREDITED SERVICE PROVIDER TO BE ENGAGED TO COORDINATE REQUIREMENTS FOR THE RELOCATION AND UNDERGROUNDING OF EXISTING OVERHEAD POWER LINE. NO WORKS TO BE UNDERTAKEN WITHIN ELECTRICAL TRANSMISSION EASEMENT WITHOUT UTILITY PROVIDER APPROVAL.

REFER TO DRAWING 19-0042-02-DA-006 FOR CONTINUATION

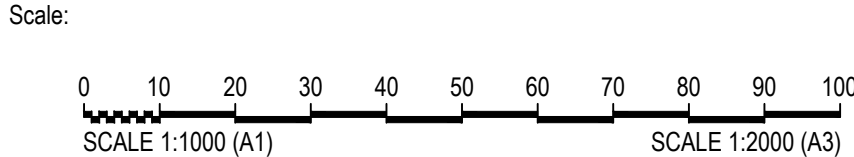
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REFER TO DRAWING 19-0042-02-DA-009 FOR CONTINUATION

Project File Name: C:\Users\orian\OneDrive\Documents\19-0042-02-DA-006.dwg

Rev	Drawn	Design	Appd.	Date	Revision Description
C	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED
B	MG	CS	MP	15/09/2020	GENERAL MASTERPLAN UPDATES
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL

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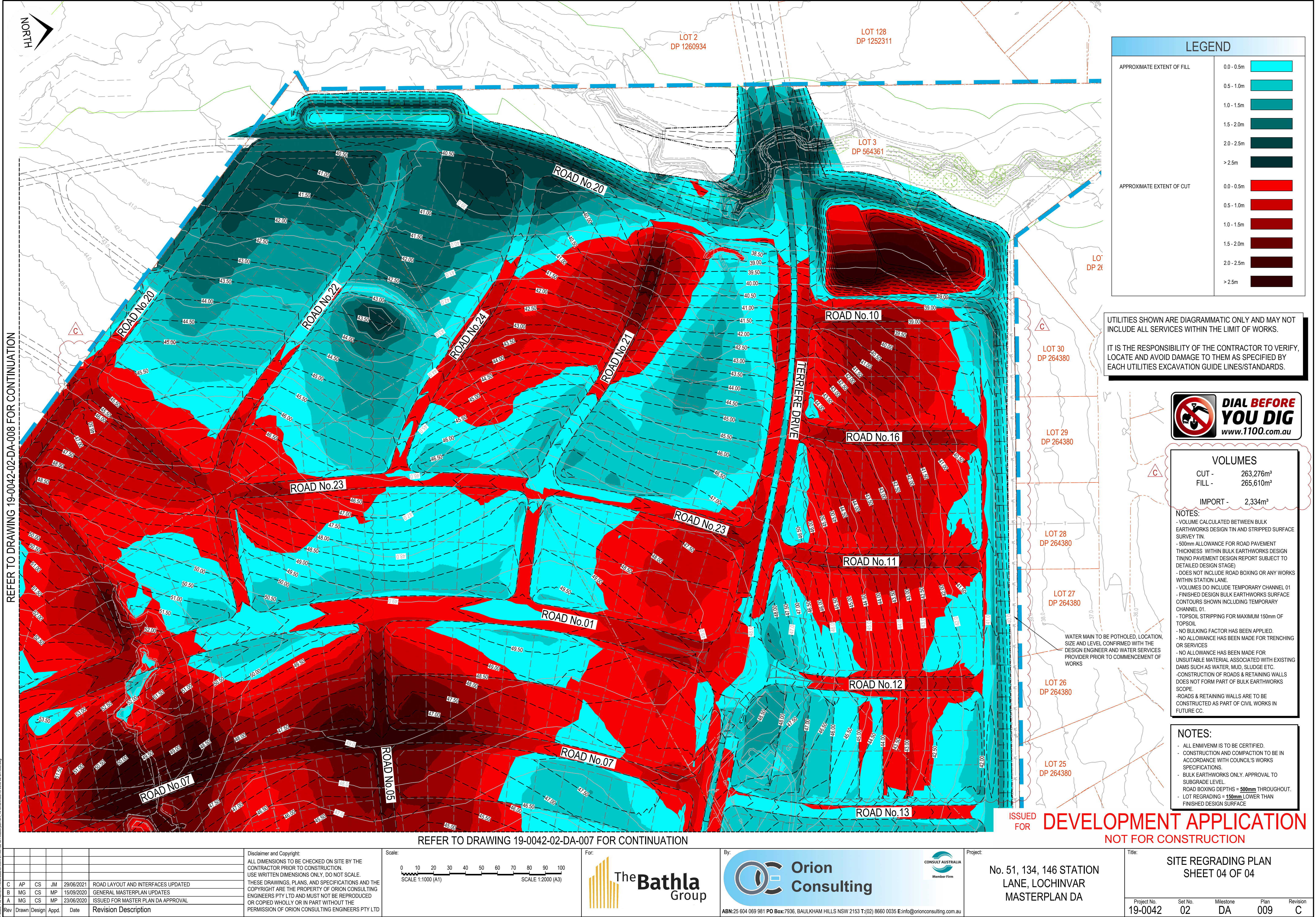


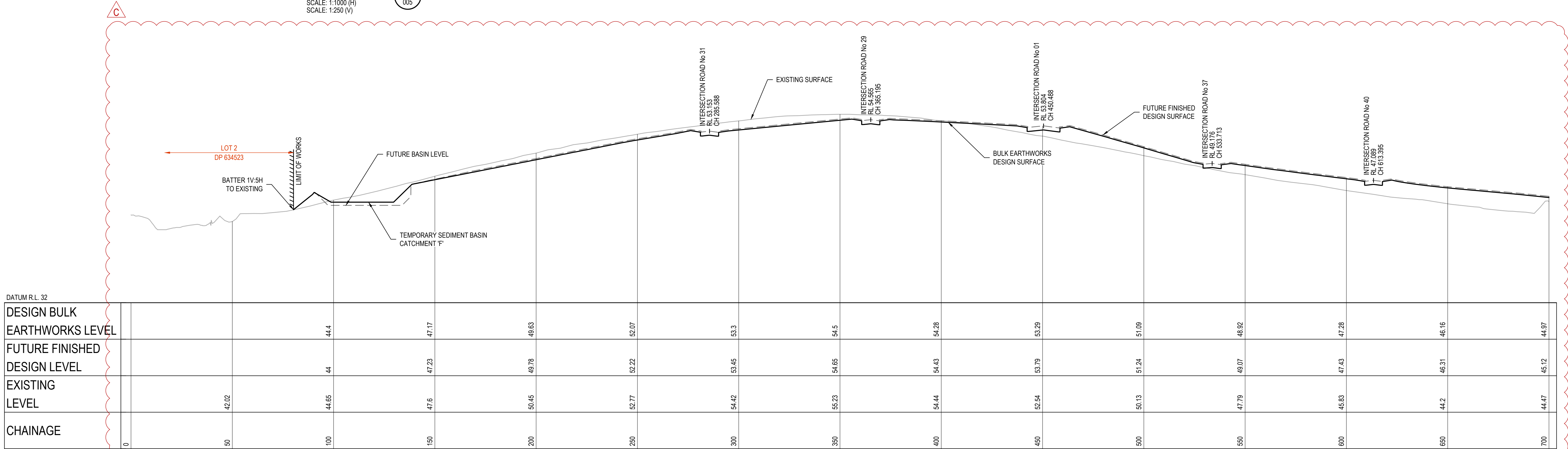
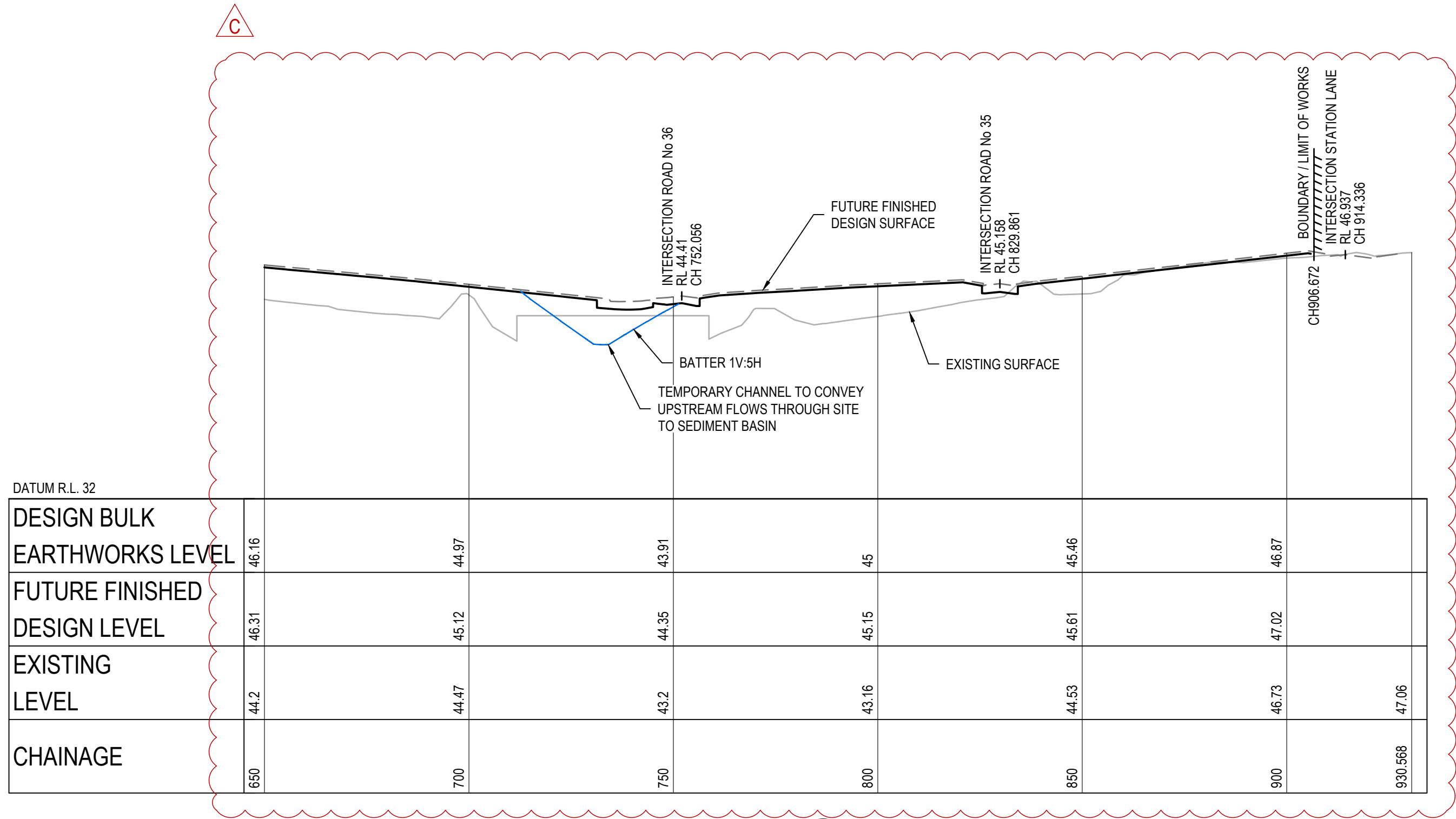
By: Orion Consulting

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Project: No. 51, 134, 146 STATION LANE, LOCHINVAR MASTERPLAN DA

Title: SITE REGRADING PLAN SHEET 03 OF 04				
Project No. 19-0042	Set No. 02	Milestone DA	Plan 008	Revision C



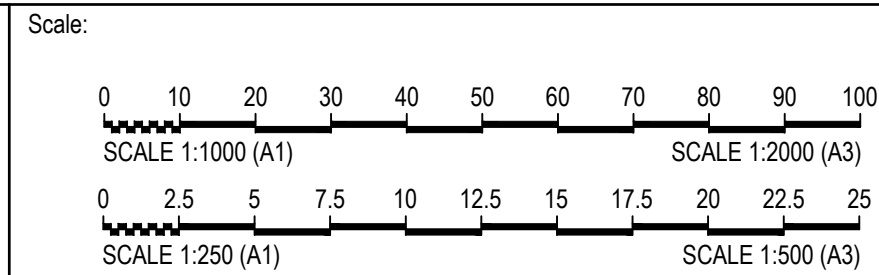


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Project: File Name: C:\Users\adam\ORION\SYNO\02\DA Masterplan DA_19-0042-02-DA-010.dwg

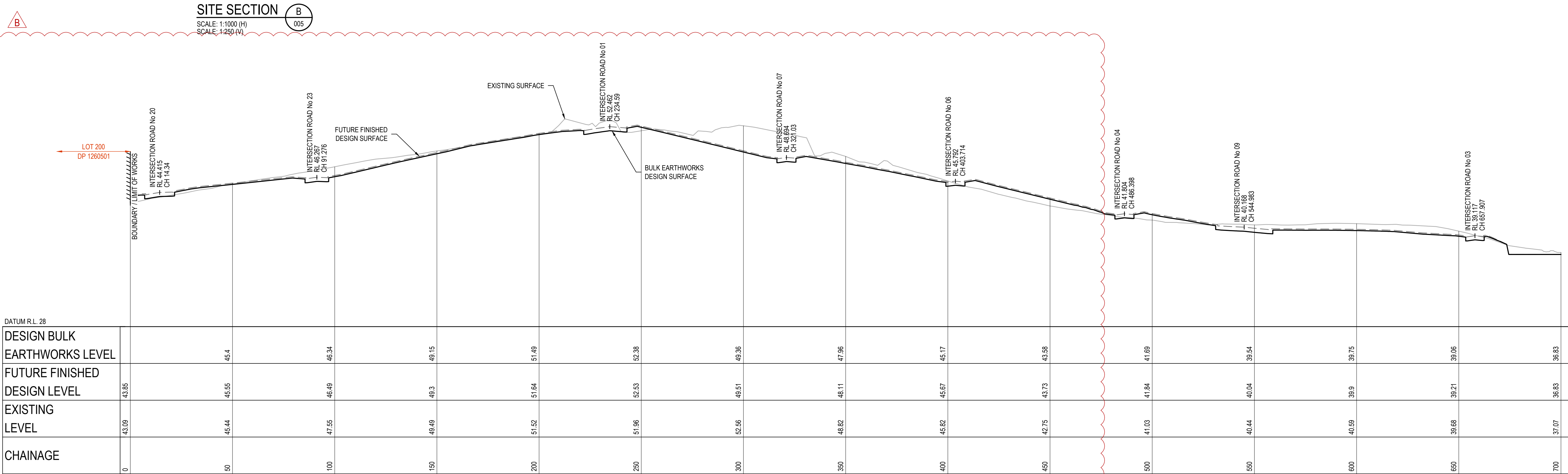
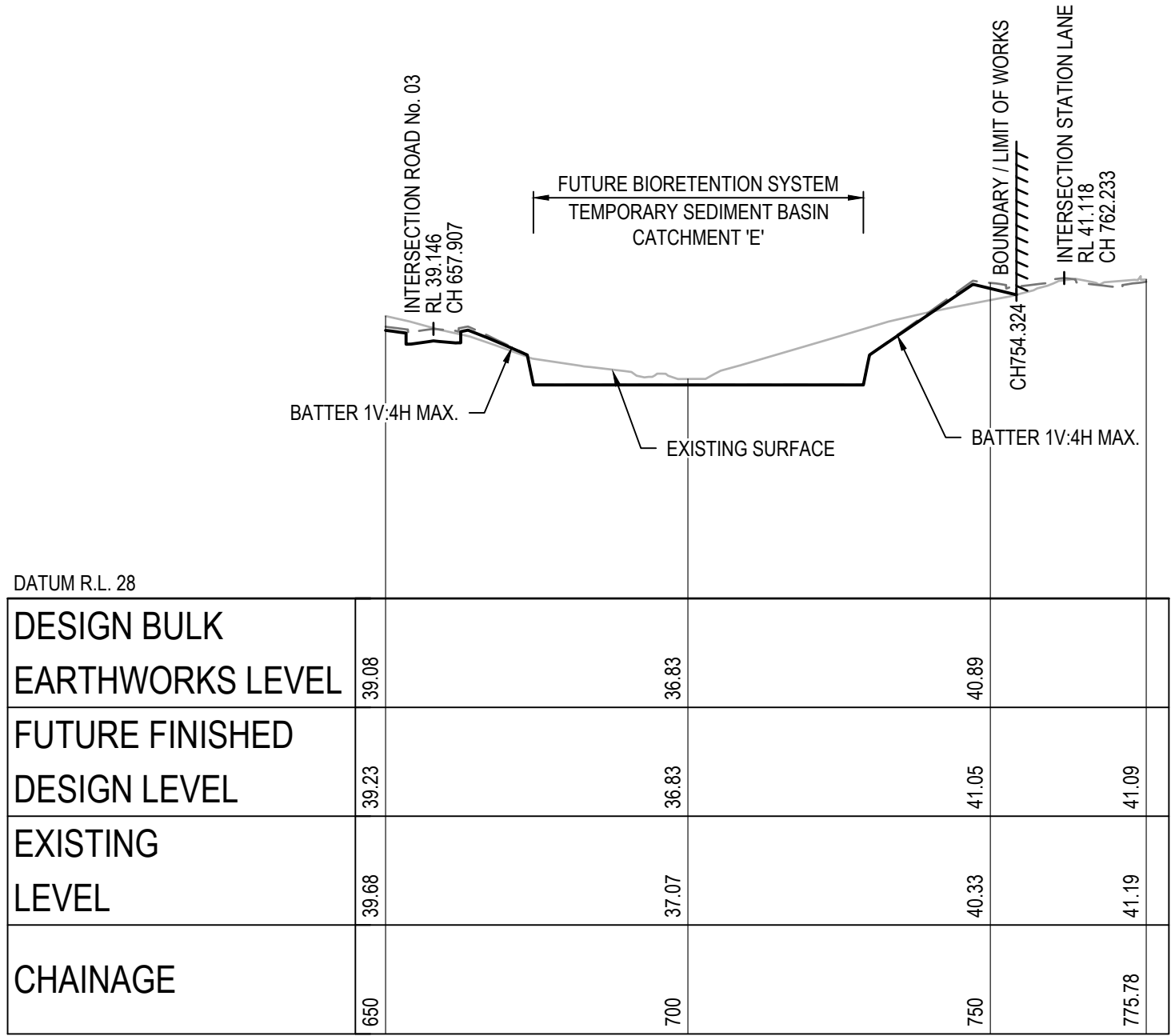
Rev	Drawn	Design	Appd.	Date	Revision Description
C	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED
B	MG	CS	MP	15/09/2020	GENERAL MASTERPLAN UPDATES
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL

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Project: No. 51, 134, 146 STATION LANE, LOCHINVAR MASTERPLAN DA

Title: SITE REGRADING SECTIONS SHEET 01 OF 09				
Project No. 19-0042	Set No. 02	Milestone DA	Plan 010	Revision C



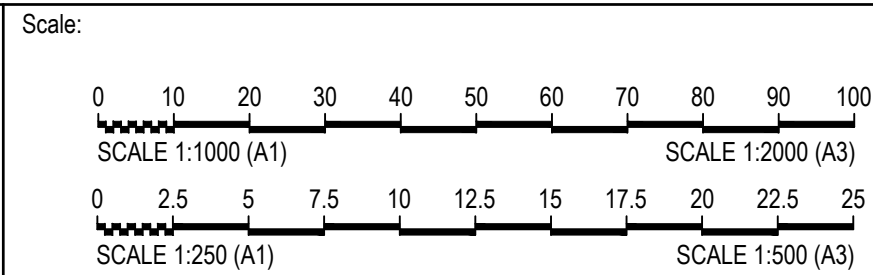
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Project: File Name: C:\Users\orion\OneDrive\Documents\19-0042-02-DA-011.dwg

Rev	Drawn	Design	Appd.	Date	Revision Description
B	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL

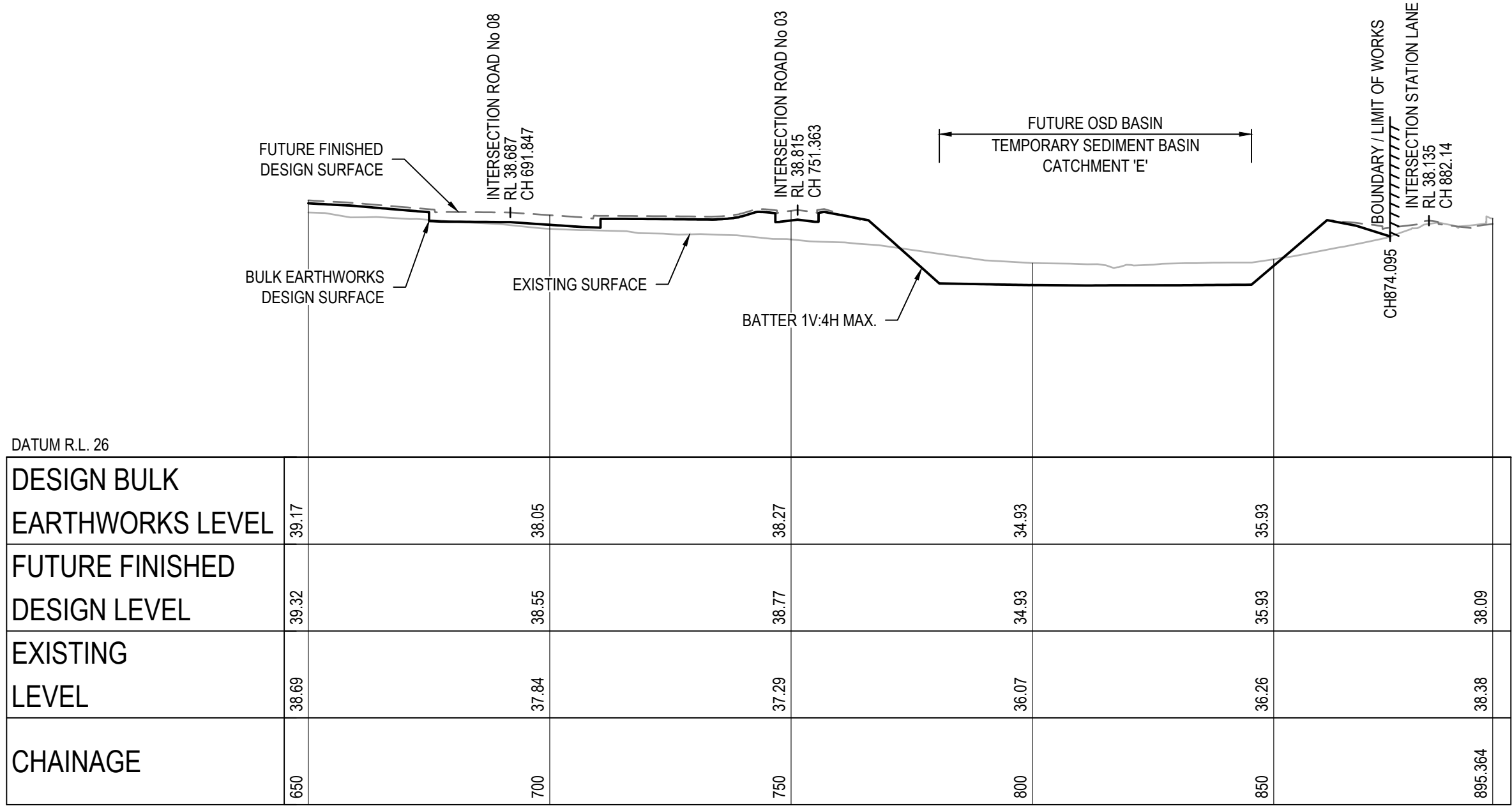
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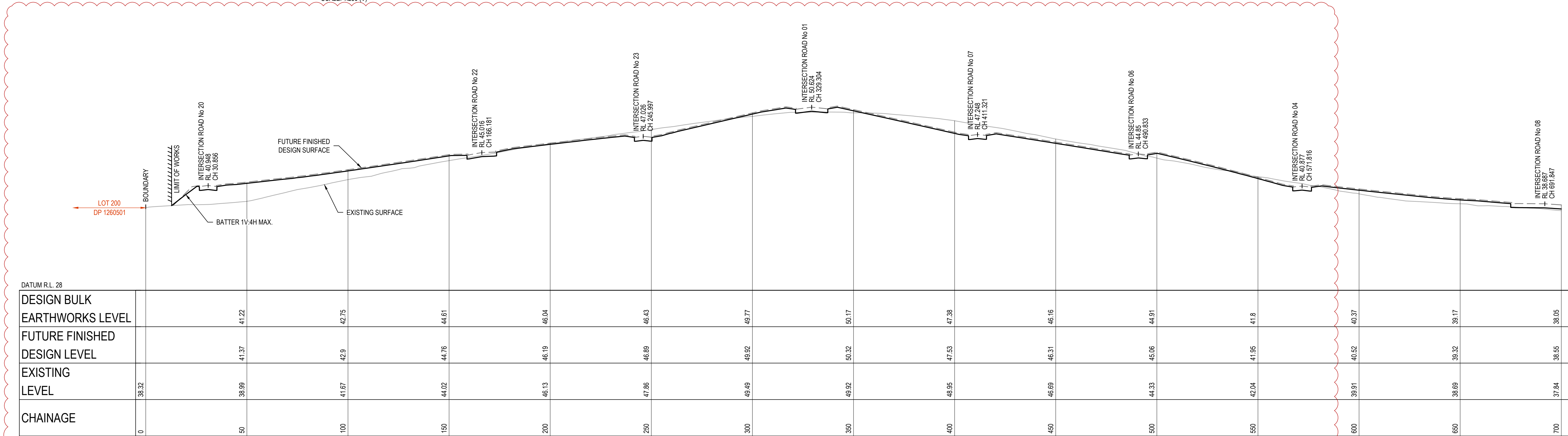
Project:

No. 51, 134, 146 STATION
LANE, LOCHINVAR
MASTERPLAN DA

Title: SITE REGRADING SECTIONS SHEET 02 OF 09				
Project No.	Set No.	Milestone	Plan	Revision
19-0042	02	DA	011	B



SITE SECTION C
SCALE: 1:1000 (H)
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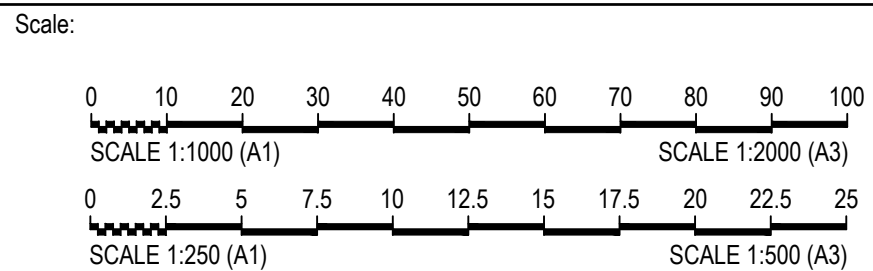
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ISSUED FOR **DEVELOPMENT APPLICATION**
NOT FOR CONSTRUCTION

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Rev	Drawn	Design	Appd.	Date	Revision Description
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL
B	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED

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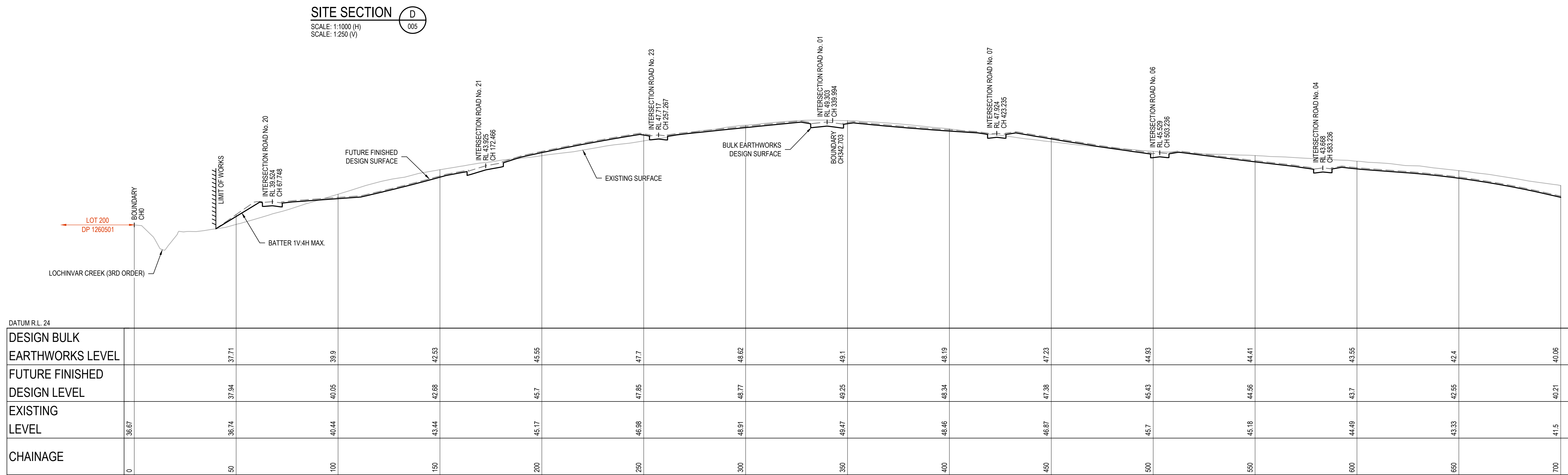


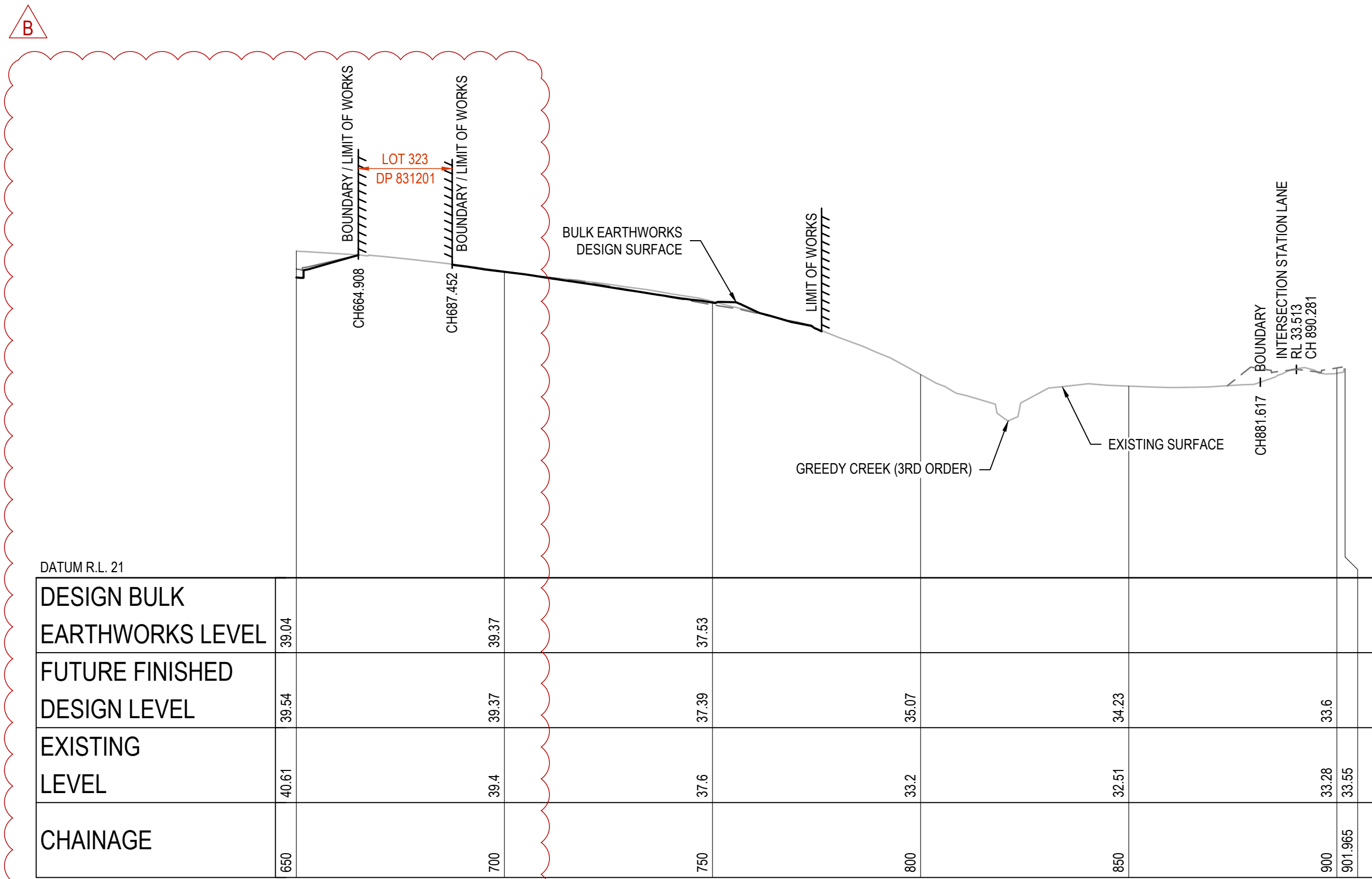
By: **Orion Consulting**

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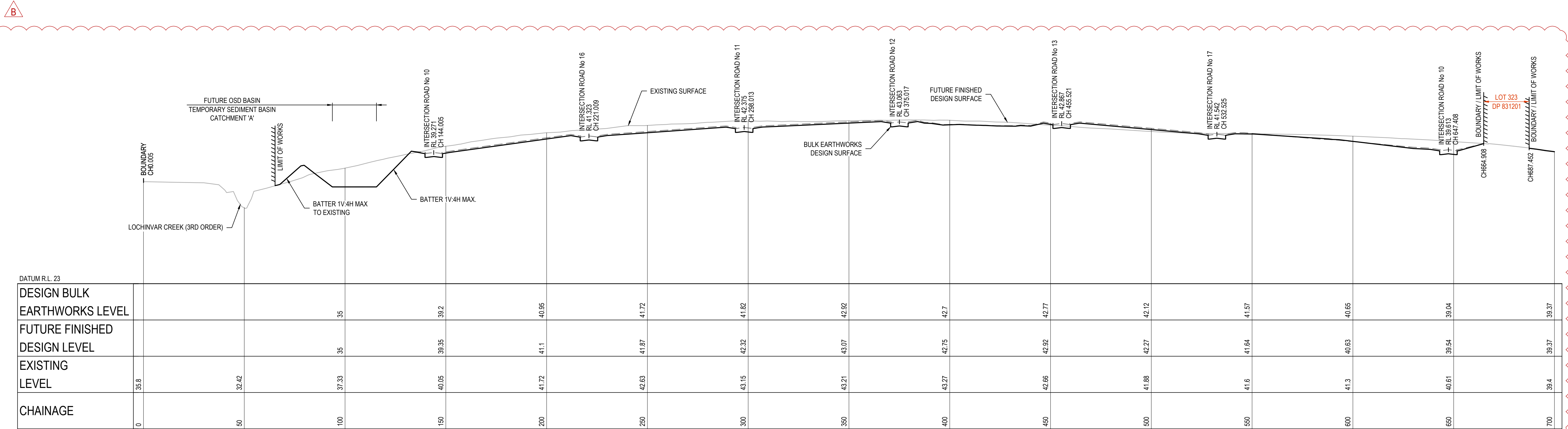
Project: No. 51, 134, 146 STATION LANE, LOCHINVAR MASTERPLAN DA

SITE REGRADING SECTIONS SHEET 03 OF 09				
Project No.	Set No.	Milestone	Plan	Revision
19-0042	02	DA	012	B

[illegible]



SITE SECTION E
SCALE: 1:1000 (H)
SCALE: 1:250 (V)



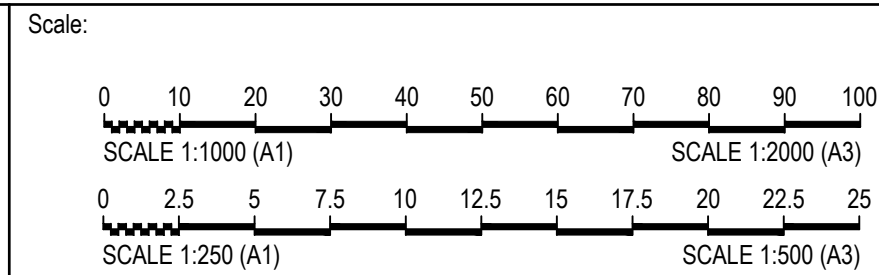
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NOT FOR CONSTRUCTION

Project: File Name: C:\Users\user\OneDrive\Documents\19-0042-02-DA-014.dwg

Rev	Drawn	Design	Appd.	Date	Revision Description
B	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL

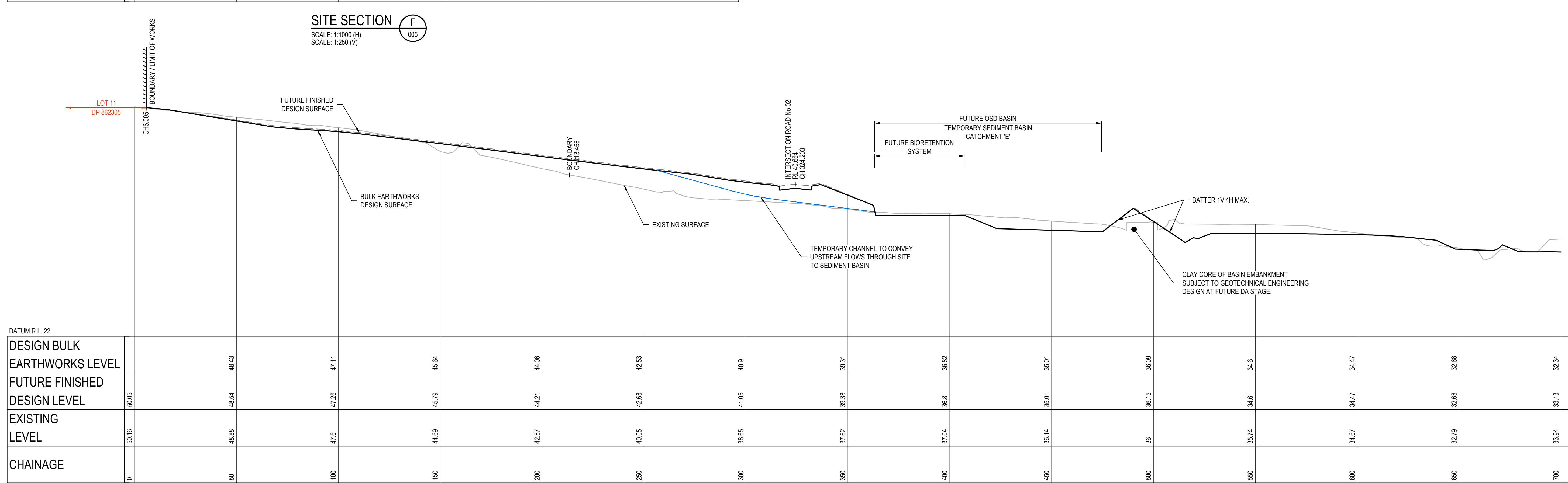
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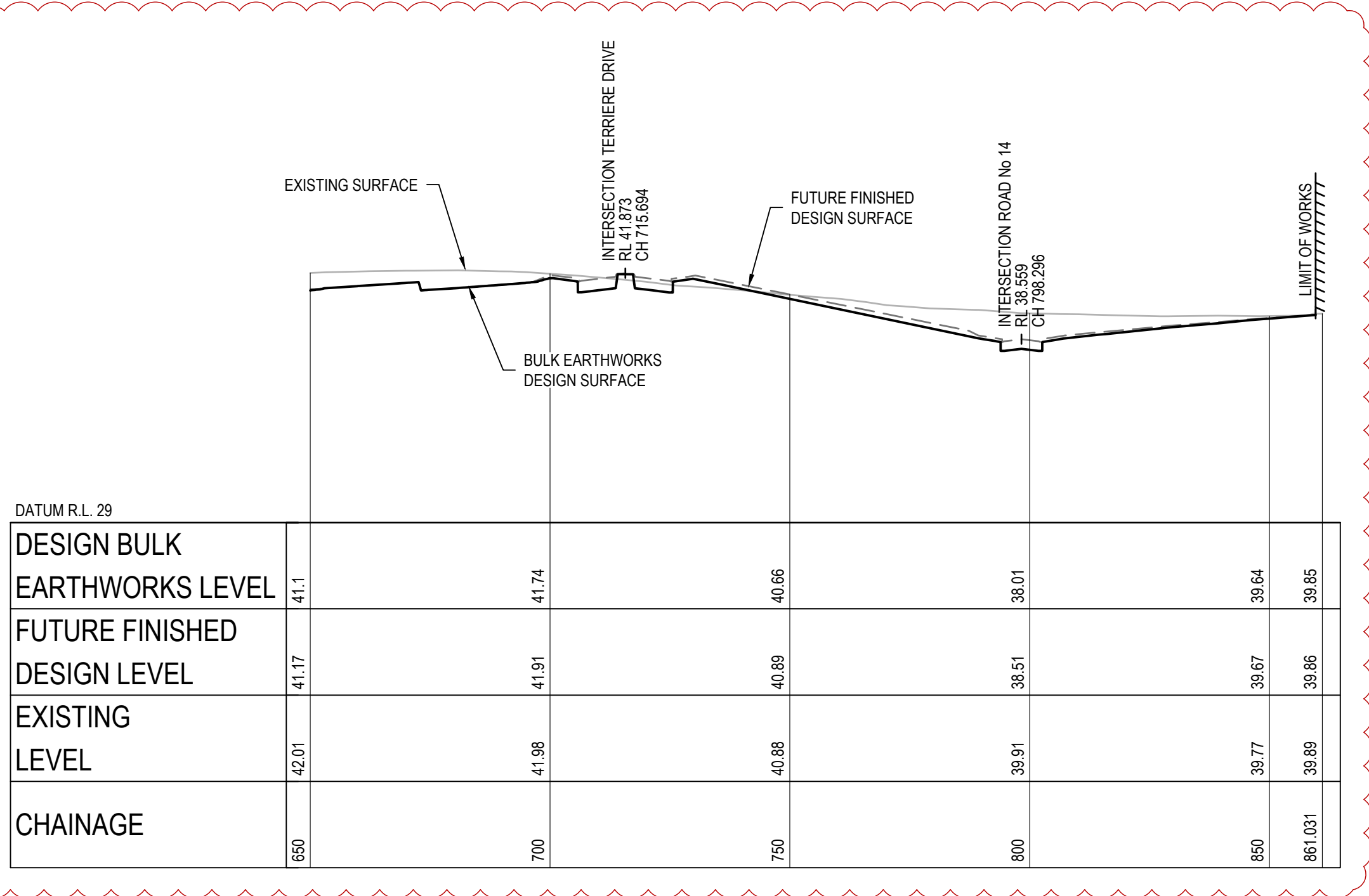
Project:

No. 51, 134, 146 STATION
LANE, LOCHINVAR
MASTERPLAN DA

Title: SITE REGRADING SECTIONS SHEET 05 OF 09				
Project No.	Set No.	Milestone	Plan	Revision
19-0042	02	DA	014	B

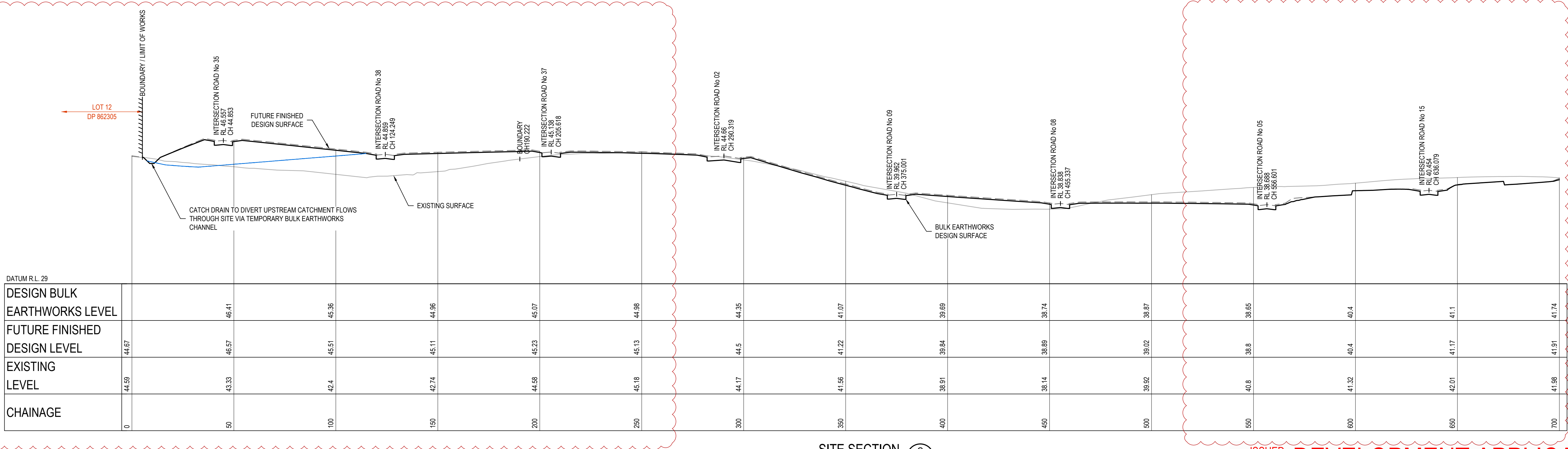


B



SITE SECTION G
SCALE: 1:1000 (H)
SCALE: 1:250 (V)

B



SITE SECTION G
SCALE: 1:1000 (H)
SCALE: 1:250 (V)

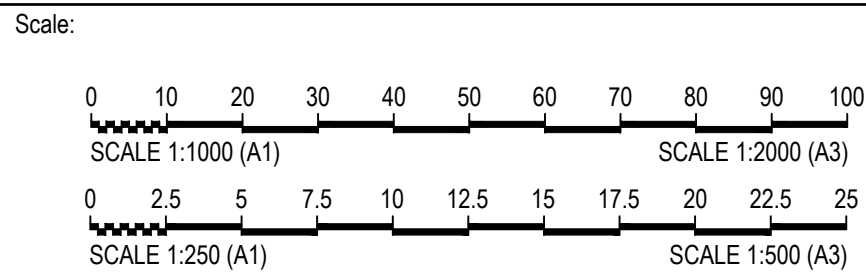
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Project: File Name: C:\Users\adam\OneDrive\Documents\19-0042\DA\16.dwg

Rev	Drawn	Design	Appd.	Date	Revision Description
B	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL

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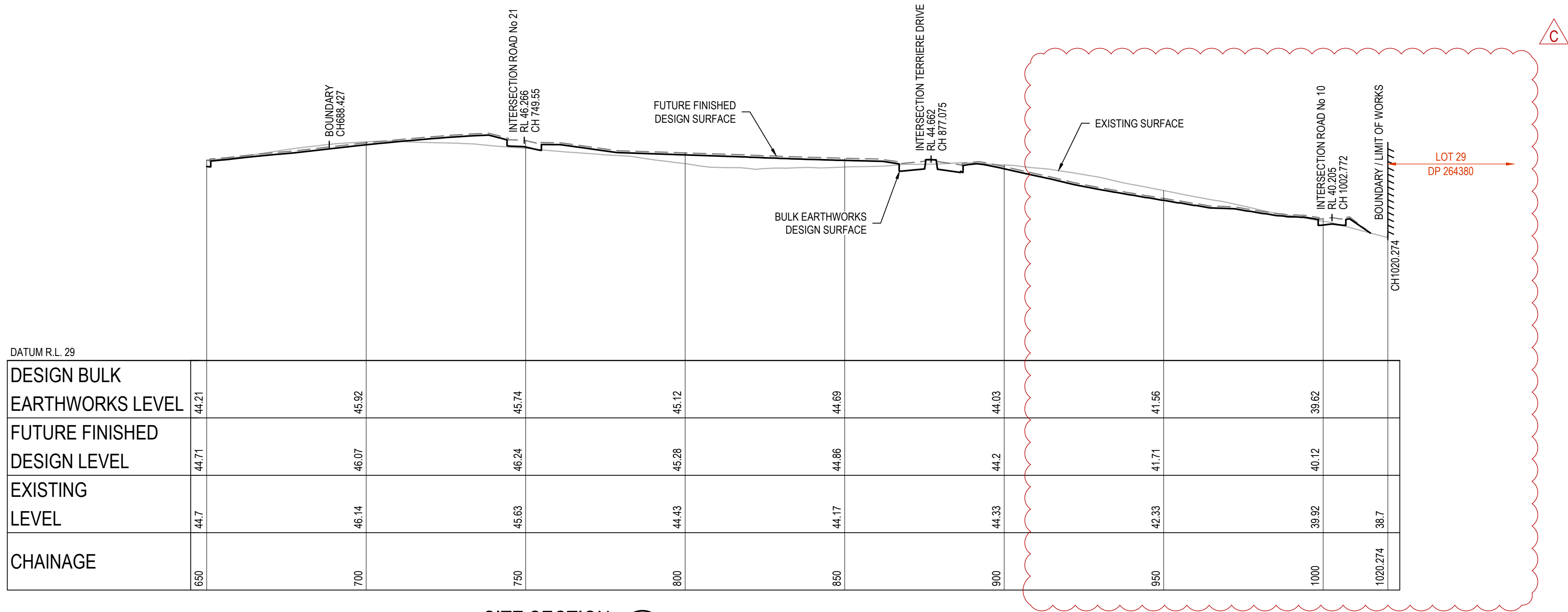


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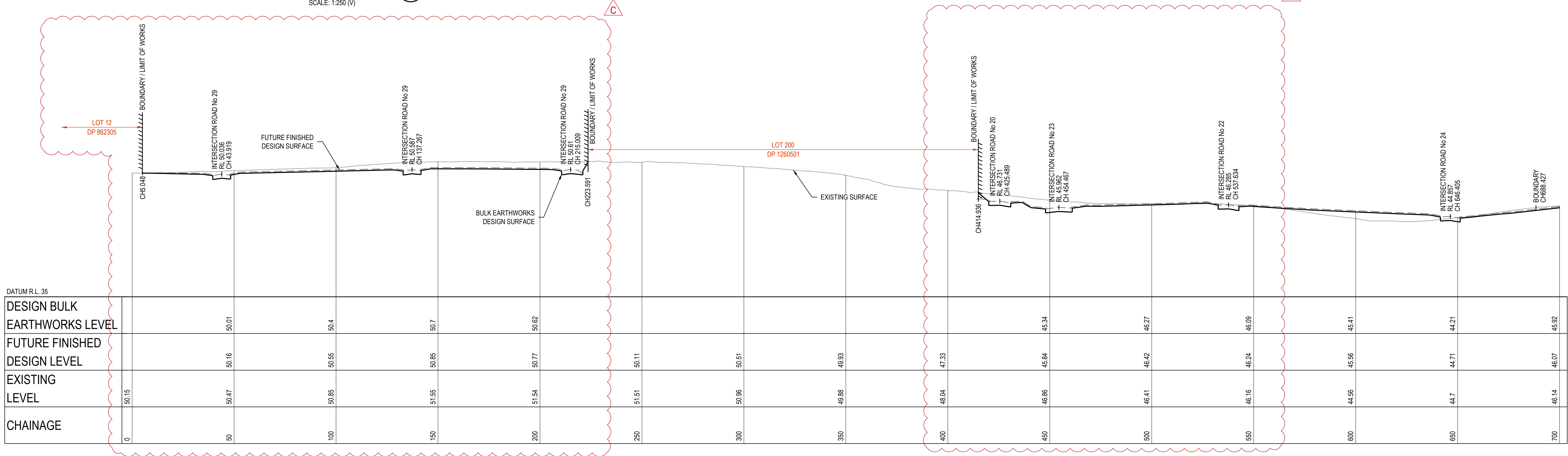


Project: No. 51, 134, 146 STATION LANE, LOCHINVAR MASTERPLAN DA

Title: SITE REGRADING SECTIONS SHEET 07 OF 09				
Project No. 19-0042	Set No. 02	Milestone DA	Plan 016	Revision B



SITE SECTION J
SCALE: 1:1000 (H)
SCALE: 1:250 (V)



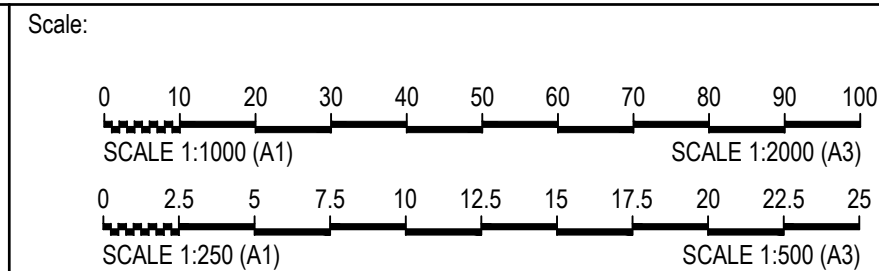
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Project: File Name: C:\Users\orion\OneDrive\Documents\19-0042\19-0042-02-DA-018.dwg

Rev	Drawn	Design	Appd.	Date	Revision Description
C	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED
B	MG	CS	MP	15/09/2020	GENERAL MASTERPLAN UPDATES
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL

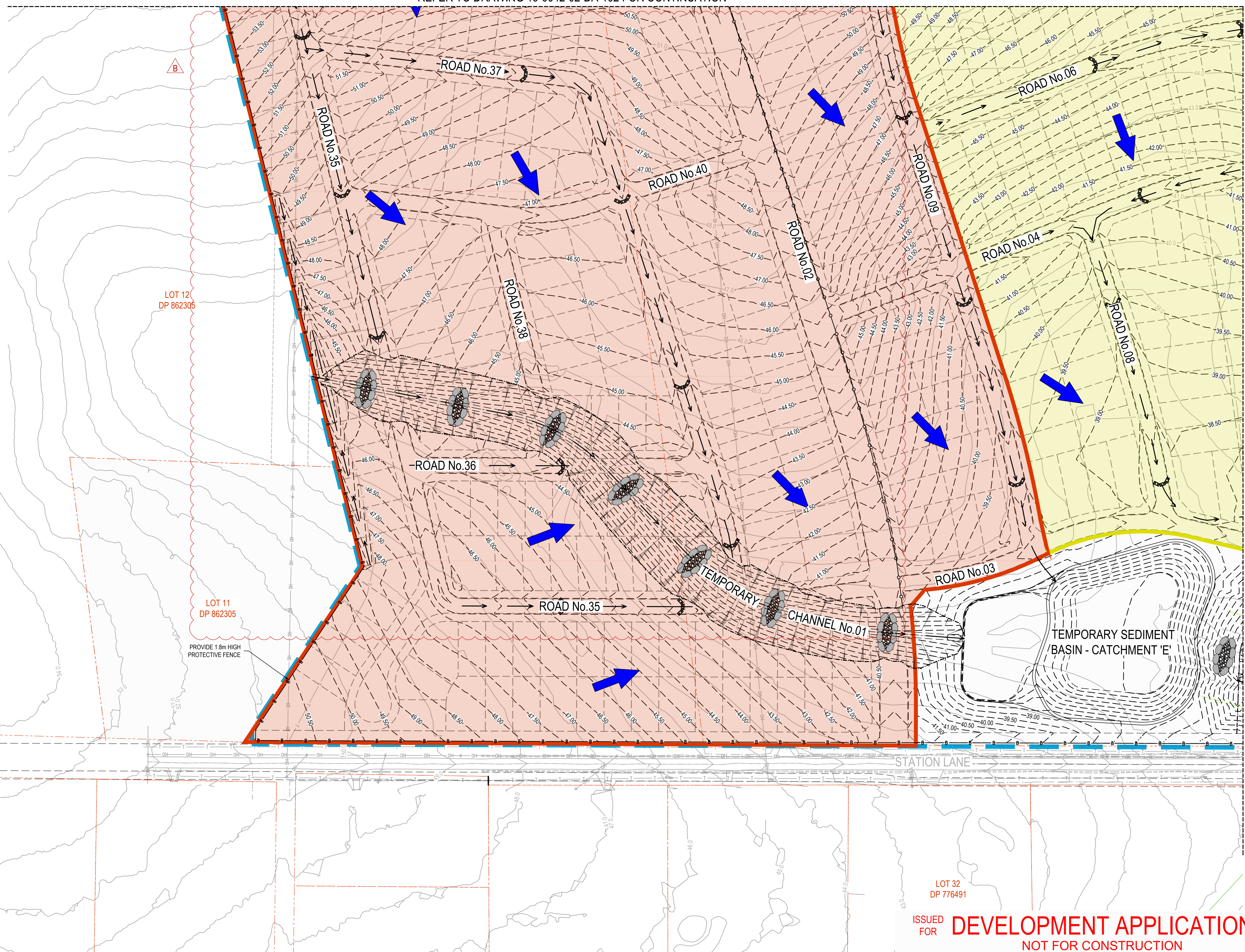
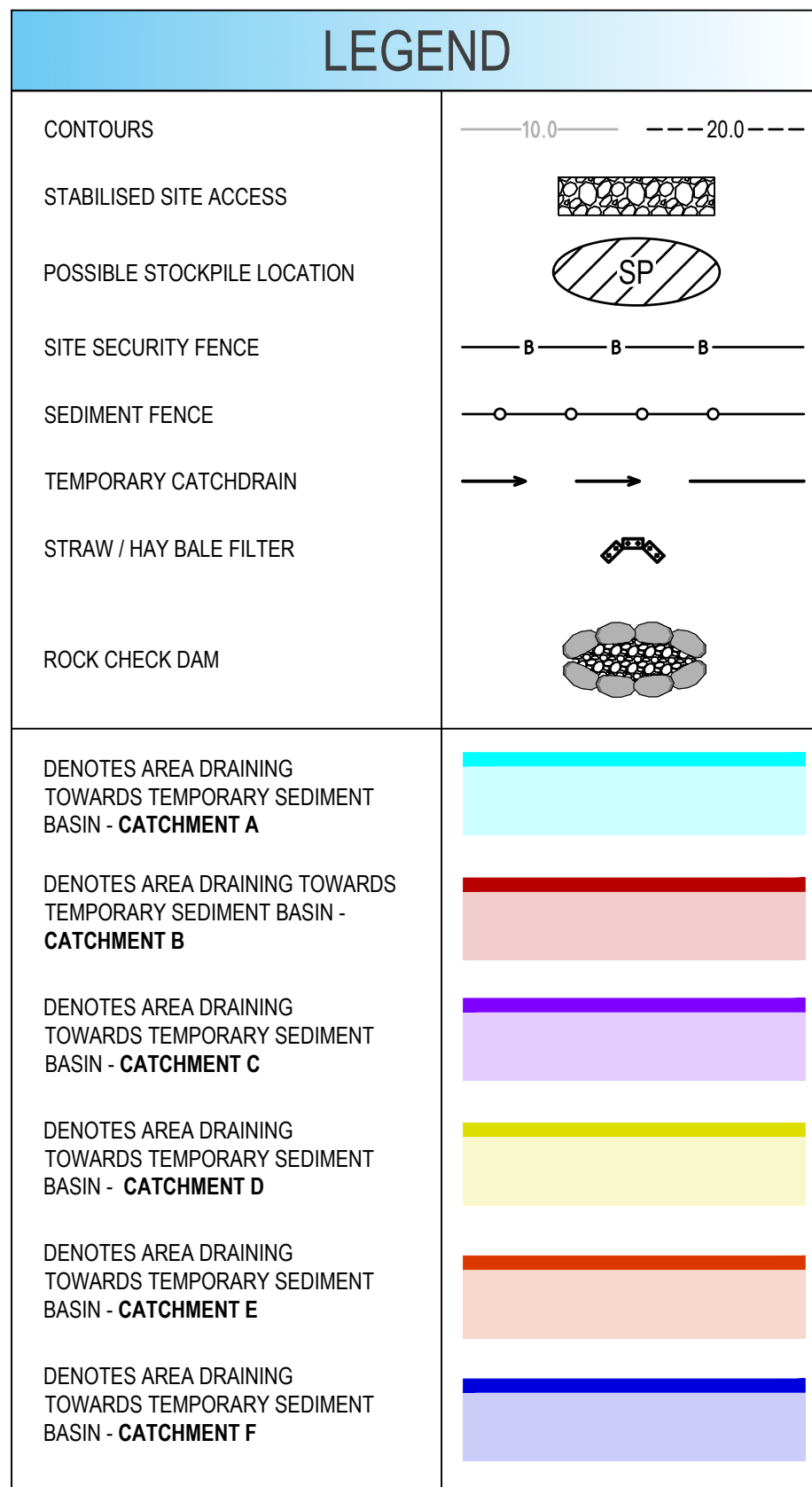
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Project:

No. 51, 134, 146 STATION
LANE, LOCHINVAR
MASTERPLAN DA

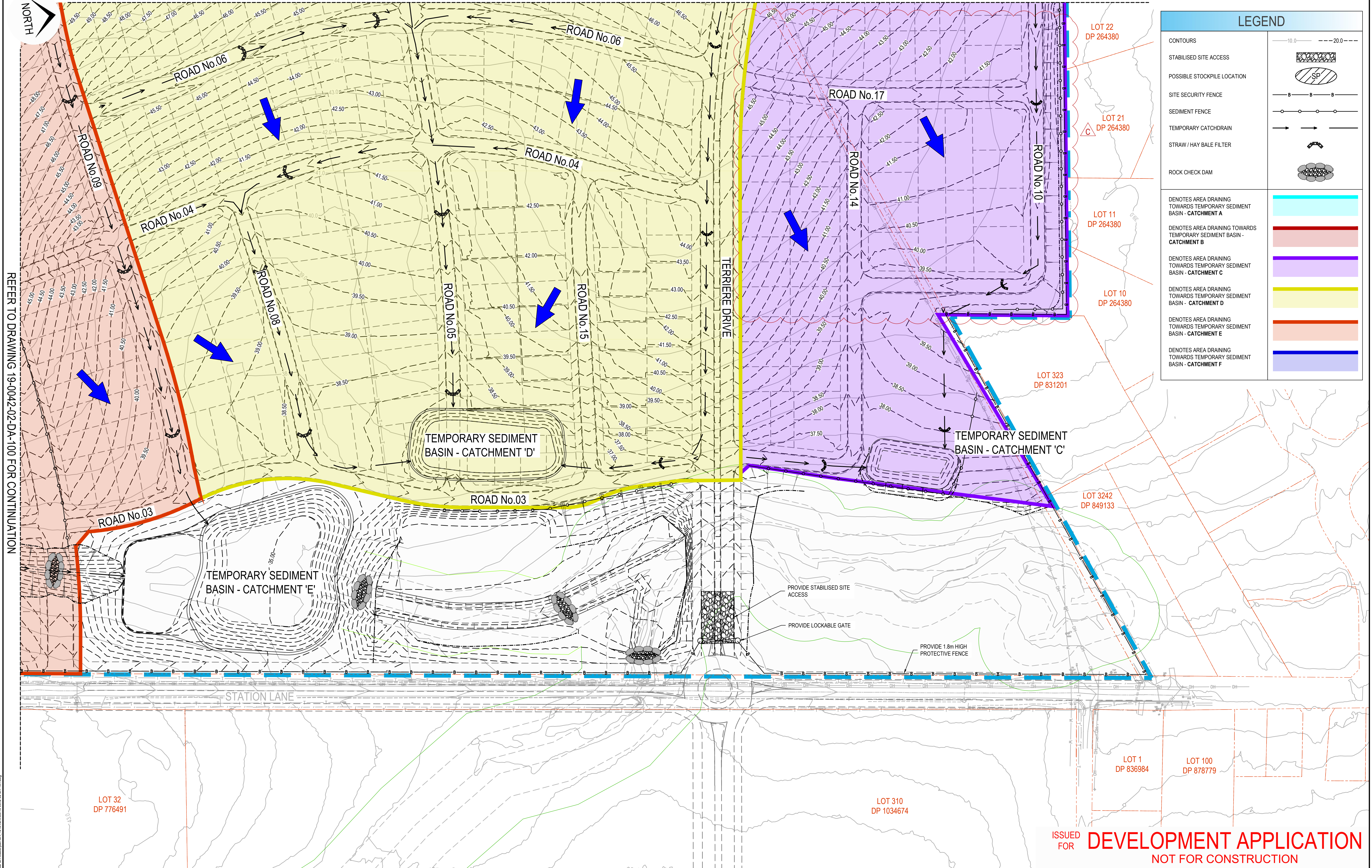
Title: SITE REGRADING SECTIONS SHEET 09 OF 09				
Project No. 19-0042	Set No. 02	Milestone DA	Plan 018	Revision C



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Rev						Draw						Design						Appd.						Date						Revision Description					
B						AP						CS						JM						29/06/2021						ROAD LAYOUT AND INTERFACES UPDATED					
A						MG						CS						MP						23/06/2020						ISSUED FOR MASTER PLAN DA APPROVAL					

REFER TO DRAWING 19-0042-02-DA-103 FOR CONTINUATION



LEGEND	
CONTOURS	10.0 20.0
STABILISED SITE ACCESS	
POSSIBLE STOCKPILE LOCATION	
SITE SECURITY FENCE	
SEDIMENT FENCE	
TEMPORARY CATCHDRAIN	
STRAW / HAY BALE FILTER	
ROCK CHECK DAM	
DENOTES AREA DRAINING TOWARDS TEMPORARY SEDIMENT BASIN - CATCHMENT A	
DENOTES AREA DRAINING TOWARDS TEMPORARY SEDIMENT BASIN - CATCHMENT B	
DENOTES AREA DRAINING TOWARDS TEMPORARY SEDIMENT BASIN - CATCHMENT C	
DENOTES AREA DRAINING TOWARDS TEMPORARY SEDIMENT BASIN - CATCHMENT D	
DENOTES AREA DRAINING TOWARDS TEMPORARY SEDIMENT BASIN - CATCHMENT E	
DENOTES AREA DRAINING TOWARDS TEMPORARY SEDIMENT BASIN - CATCHMENT F	

REFER TO DRAWING 19-0042-02-DA-100 FOR CONTINUATION

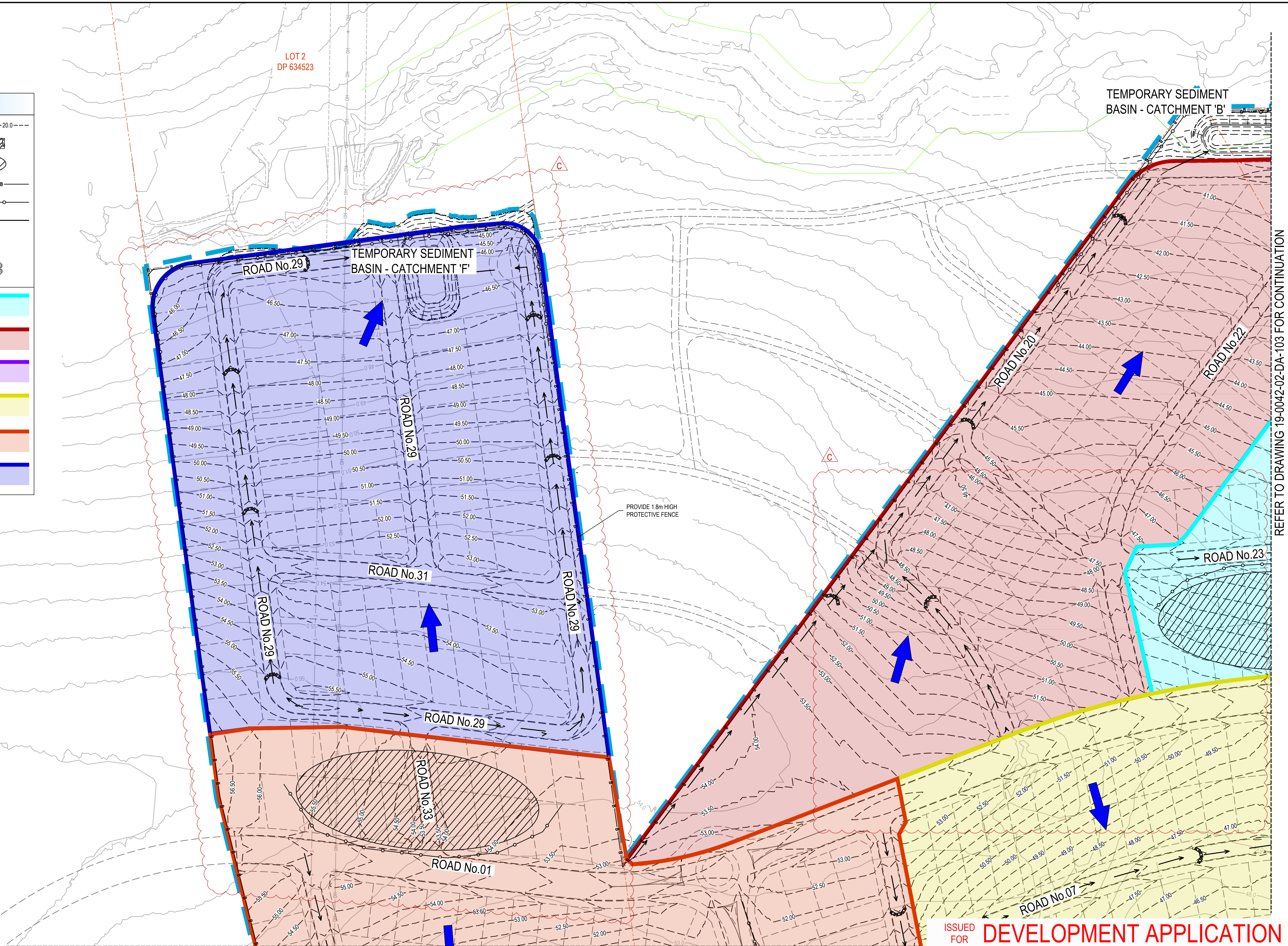
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C	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED												
B	MG	CS	MP	15/09/2020	GENERAL MASTERPLAN UPDATES												
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL												
Rev	Drawn	Design	Appd.	Date	Revision Description												
														Project No. 19-0042		Set No. 02	
														Milestone DA		Plan 101	
														Revision C			



LEGEND

CONTOURS	10.0 20.0
STABILISED SITE ACCESS	
POSSIBLE STOCKPILE LOCATION	
SITE SECURITY FENCE	
SEDIMENT FENCE	
TEMPORARY CATCHDRAIN	
STRAW / HAY BALE FILTER	
ROCK CHECK DAM	
DENOTES AREA DRAINING TOWARDS TEMPORARY SEDIMENT BASIN - CATCHMENT A	
DENOTES AREA DRAINING TOWARDS TEMPORARY SEDIMENT BASIN - CATCHMENT B	
DENOTES AREA DRAINING TOWARDS TEMPORARY SEDIMENT BASIN - CATCHMENT C	
DENOTES AREA DRAINING TOWARDS TEMPORARY SEDIMENT BASIN - CATCHMENT D	
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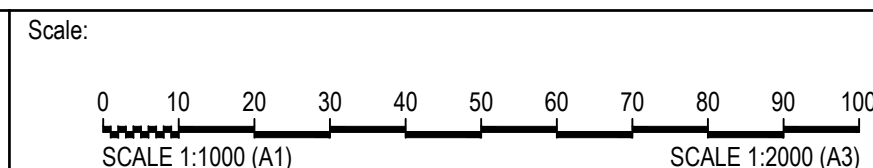
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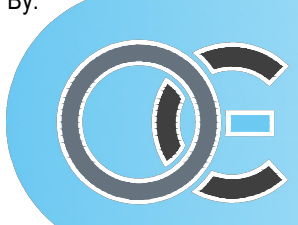
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REFER TO DRAWING 19-0042-02-DA-103 FOR CONTINUATION

Rev	Drawn	Design	Appd.	Date	Revision Description
C	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED
B	MG	CS	MP	15/09/2020	GENERAL MASTERPLAN UPDATES
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL

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By:  **Orion Consulting**
ABN:25 604 069 981 PO Box:7936, BAULKHAM HILLS NSW 2153 T:(02) 8660 0035 E:info@orionconsulting.com.au

For:  **CONSULT AUSTRALIA**
Member Firm

Project: No. 51, 134, 146 STATION LANE, LOCHINVAR MASTERPLAN DA

SOIL & WATER MANAGEMENT PLAN SHEET 03 OF 04				
Project No.	Set No.	Milestone	Plan	Revision
19-0042	02	DA	102	C

GENERAL NOTES:

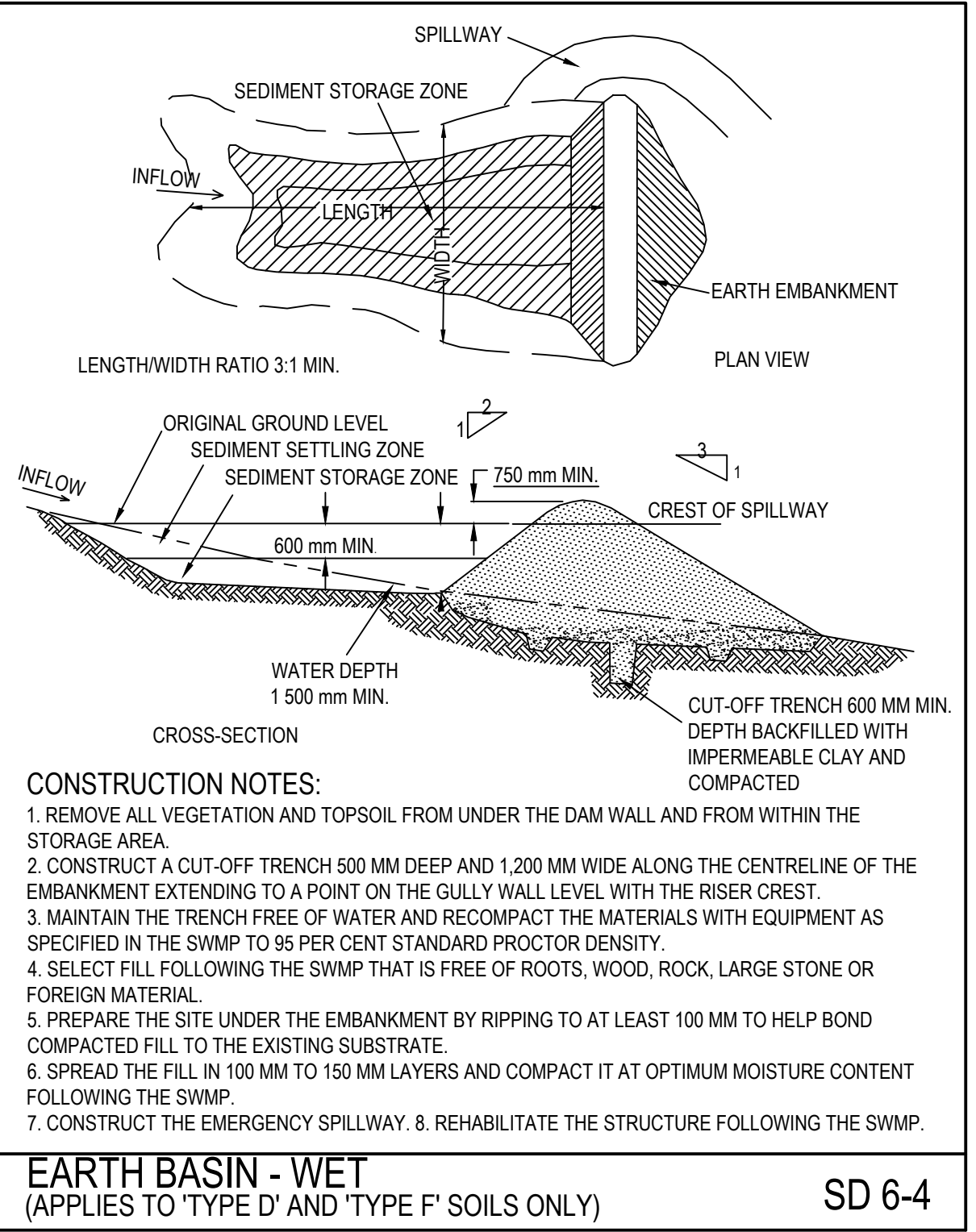
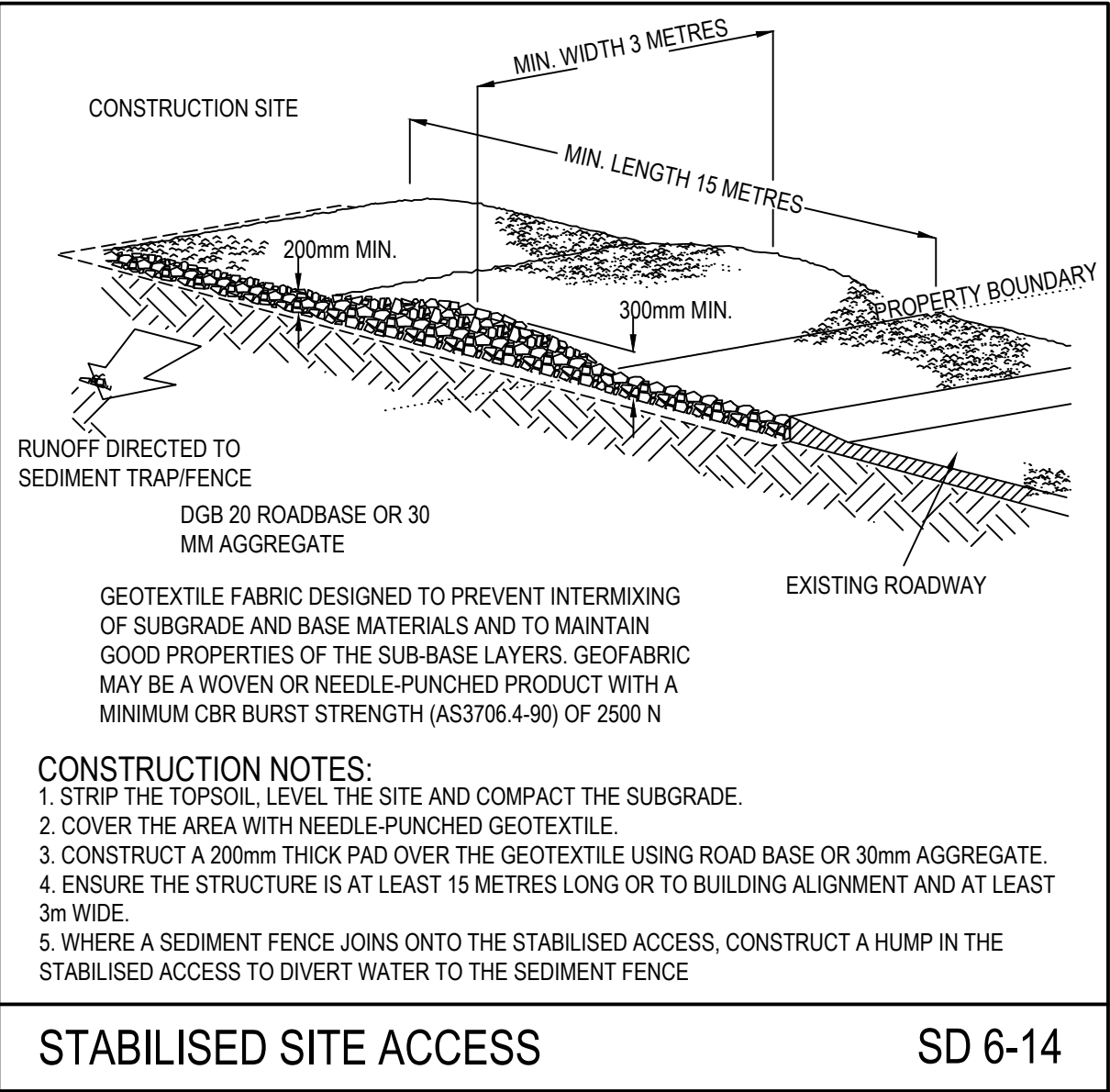
- 1. ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING REVEGETATION AND STORAGE OF SOIL AND TOPSOIL, SHALL BE IMPLEMENTED TO THE REQUIREMENTS OF THE "ENVIRONMENT PROTECTION AUTHORITY" AND "DEPT OF LAND AND WATER CONSERVATION". MEASURES OUTLINED IN THE SEDIMENT & EROSION CONTROL PLAN MUST BE IMPLEMENTED PRIOR TO AND MAINTAINED DURING AND AFTER THE CONSTRUCTION WORKS.
 - 2. TOPSOIL FROM ALL AREAS TO BE DISTURBED SHALL BE STOCKPILED AND LATER RESPREAD TO AID REVEGETATION IN THOSE AREAS.
 - 3. ALL DRAINAGE WORKS SHALL BE CONSTRUCTED AND STABILIZED AS EARLY AS POSSIBLE DURING DEVELOPMENT.
 - 4. ALL TAIL-OUT DRAINS SHALL BE GRASSED AND TRAPEZOIDAL IN SECTION. STRAW BALES SHALL BE PLACED AS A SEDIMENT CONTROL DEVICE WHERE REQUIRED.
 - 5. VEHICULAR TRAFFIC SHALL BE CONTROLLED DURING DEVELOPMENT CONFINING ACCESS WHERE POSSIBLE TO PROPOSED OR EXISTING ROAD ALIGNMENTS. AREAS TO BE LEFT UNDISTURBED SHALL BE MARKED OFF.
 - 6. DISTURBANCE OF VEGETATION SHALL BE LIMITED TO FILL AREAS, ROADWAYS AND DRAINAGE LINES. NO LOT GRADING SHALL BE CARRIED OUT IN UNDISTURBED AREAS WITHOUT CONSULTATION WITH COUNCIL'S ENGINEER.
 - 7. ALL DISTURBED AREAS SHALL BE REVEGETATED WITHIN 14 WORKING DAYS FROM THE CONCLUSION OF LAND SHAPING.
 - 8. MINIMISE DUST BY WATERING WHEN REQUIRED.
- STOCKPILE NOTES:
- 9. SPOIL AND TOPSOIL STOCKPILES SHALL BE LOCATED AWAY FROM DRAINAGE LINES AND AREAS WHERE WATER MAY CONCENTRATE.
 - 10. IF STOCKPILES ARE TO BE IN PLACE FOR LONGER THAN 14 DAYS THEN THEY SHALL BE STABILIZED BY COVERING WITH A MULCH OR WITH TEMPORARY VEGETATION.
 - 11. FOLLOWING CONSTRUCTION, TOPSOIL SHALL BE RESPREAD TO A MINIMUM DEPTH OF 100mm ON THE BARE SOIL SURFACES AND REVEGETATE.
 - 12. ALL STOCKPILES TO BE (MAX) 2m HIGH AND PROTECTED WITH SILT FENCE.

SPECIAL NOTES:

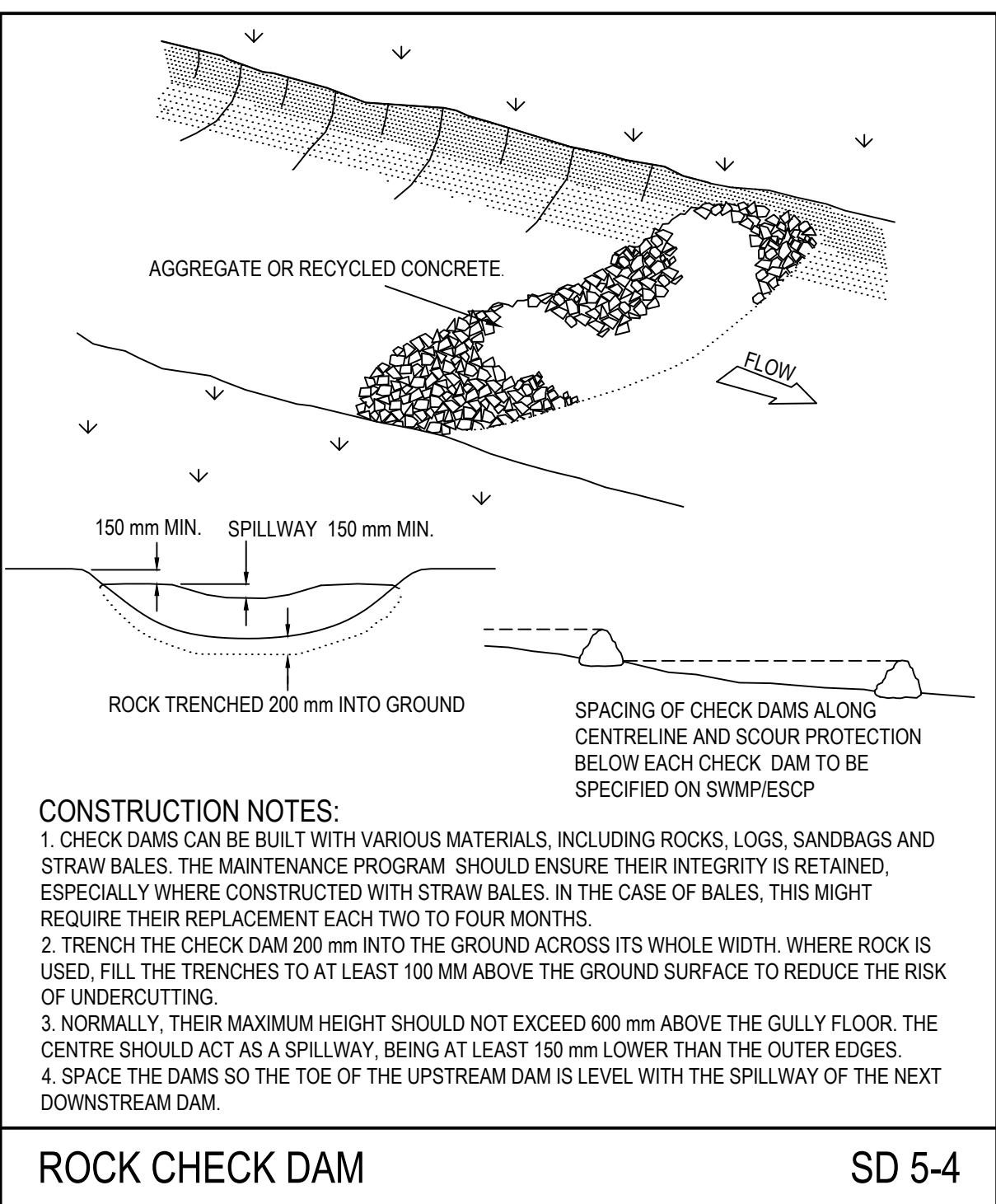
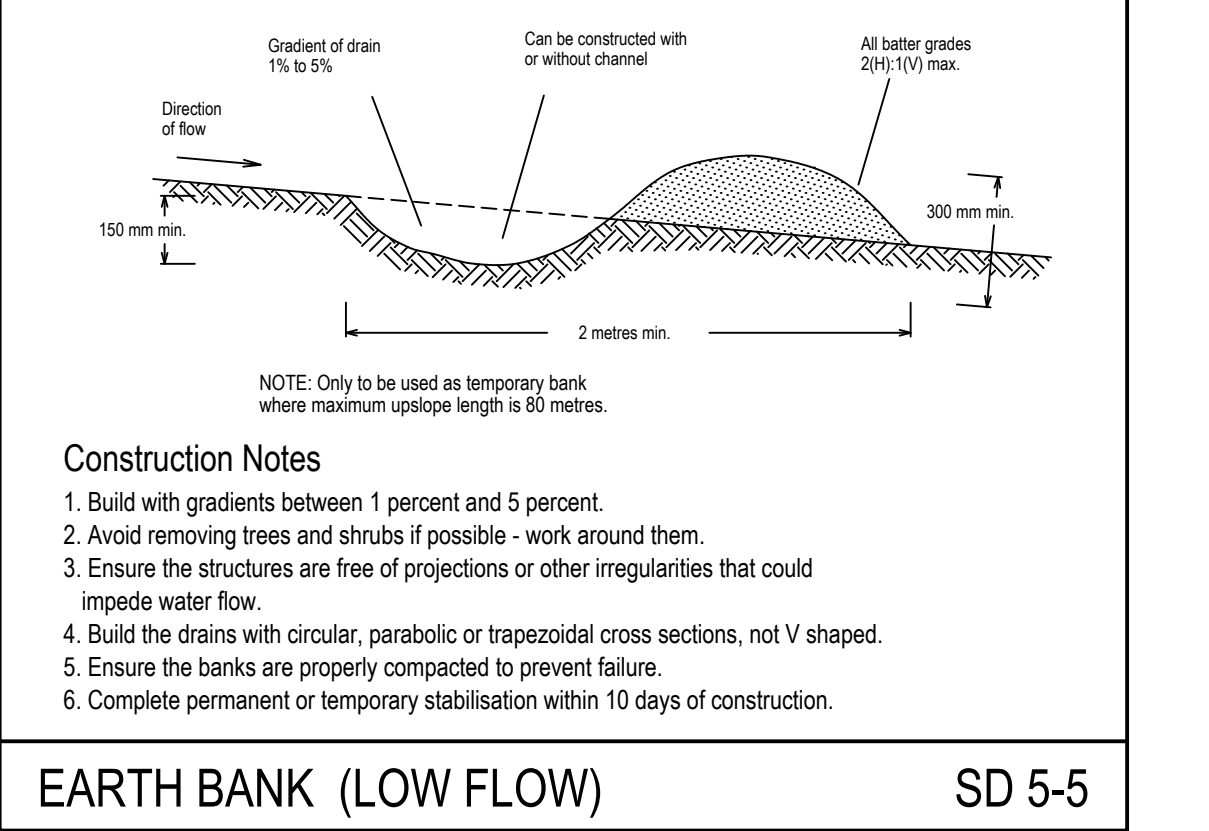
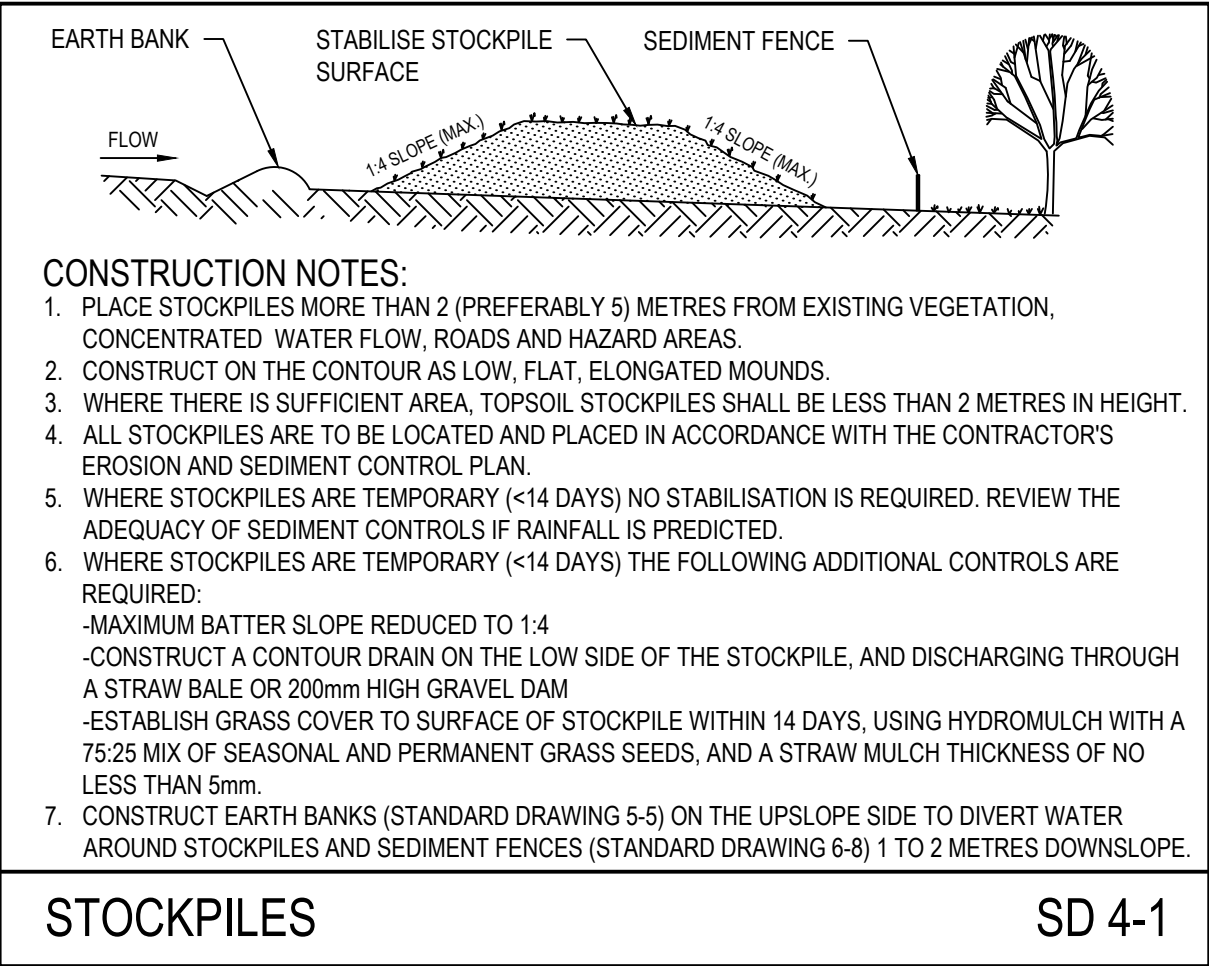
- 13. LOCATION AND EXTENT OF SOIL AND WATER MANAGEMENT DEVICES IS DIAGRAMMATIC ONLY AND THE ACTUAL REQUIREMENTS SHALL BE CONFIRMED ON SITE.
- 14. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE GUIDELINES SET OUT IN "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION " -4TH EDITION AND THE ACCOMPANYING ROAD AND DRAINAGE PLANS.
- 15. CONFORMITY WITH THIS PLAN SHALL IN NO WAY REDUCE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AGAINST WATER DAMAGE DURING THE COURSE OF THE CONTRACT.
- 16. MANAGEMENT DEVICES SHALL BE MAINTAINED ON A REGULAR BASIS. WHERE CLEANING IS REQUIRED, THE SEDIMENT SHALL BE REMOVED TO A POINT NOMINATED BY THE ENGINEER.
- 17. PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS, AND AFTER THE ROAD CENTRELINES HAVE BEEN PEGGED AND/OR PERMANENTLY MARKED, THE SITE MUST BE INSPECTED BY COUNCIL'S REPRESENTATIVE AND THE APPLICANT'S REPRESENTATIVE TO IDENTIFY AND APPROPRIATELY MARK:
 - a) THE TREES TO BE RETAINED.
 - b) ALL TREES TO BE LEFT UNDISTURBED AND TO BE CORDONED OFF.
- 18. NO TREES SHALL BE REMOVED WITHOUT COUNCIL'S CLEARANCE.
- 19. MANAGEMENT DEVICES TO REMAIN UNTIL THE END OF THE MAINTENANCE PERIOD.

SEDIMENTATION CONTROL DEVICES:

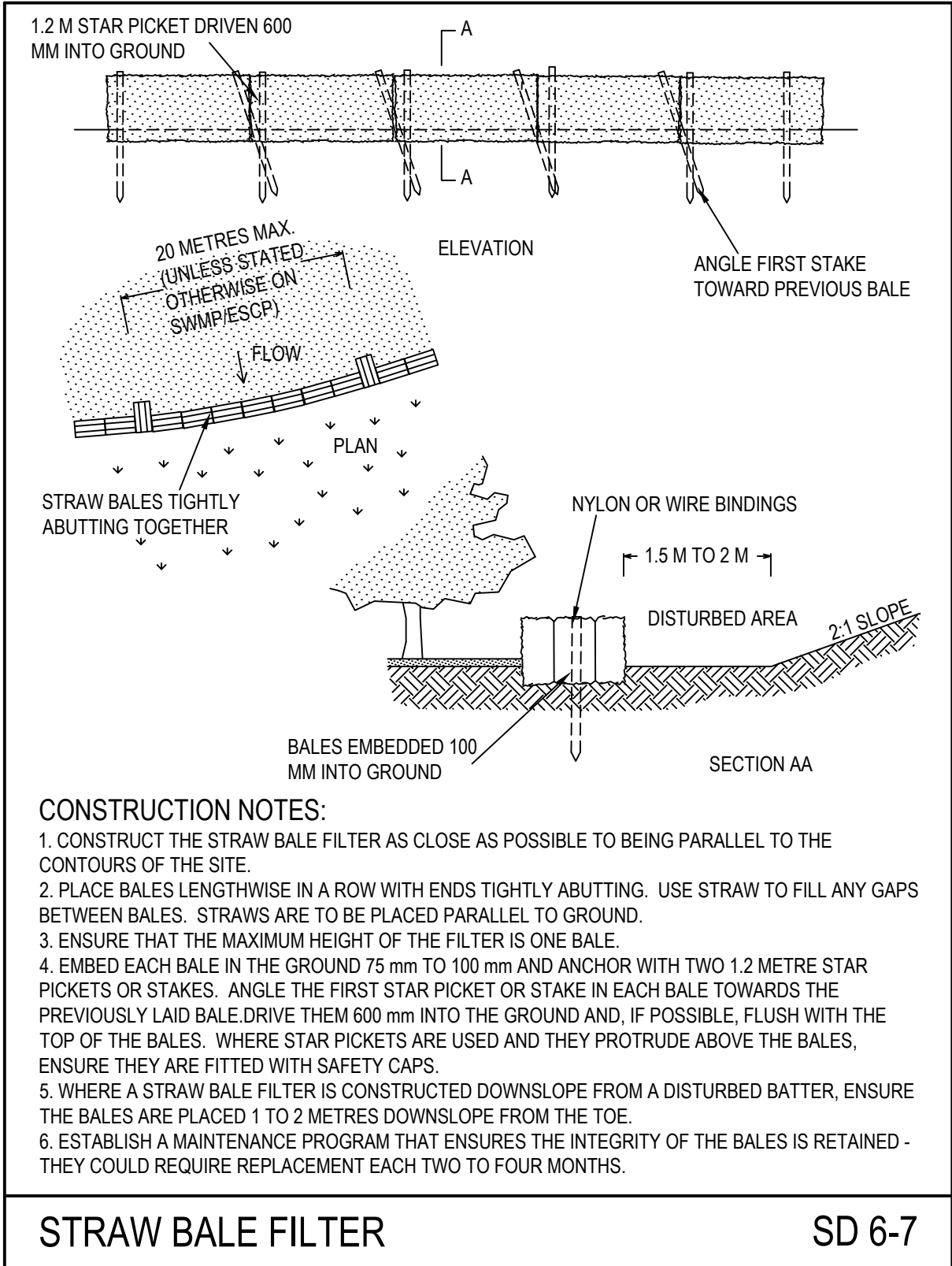
- 20. ALL STRAW BALES SHALL BE BOUND WITH WIRE. STRAW BALES SHALL BE PLACED END TO END IN A SINGLE ROW AND EMBEDDED INTO THE SOIL TO A DEPTH OF 100mm. EACH BALE SHALL BE SECURELY ANCHORED WITH TWO STEEL STAKES DRIVEN 450mm INTO THE GROUND AND LOCATED ON THE BALE CENTRE LINE.
- 21. SILT FENCES SHALL BE CONSTRUCTED BY STRETCHING A FILTER FABRIC (PROPEX OR SIMILAR) BETWEEN POSTS AT 2m (3m MAX) CENTRES. FABRIC SHALL BE BURIED 150mm ALONG ITS LOWER EDGE.



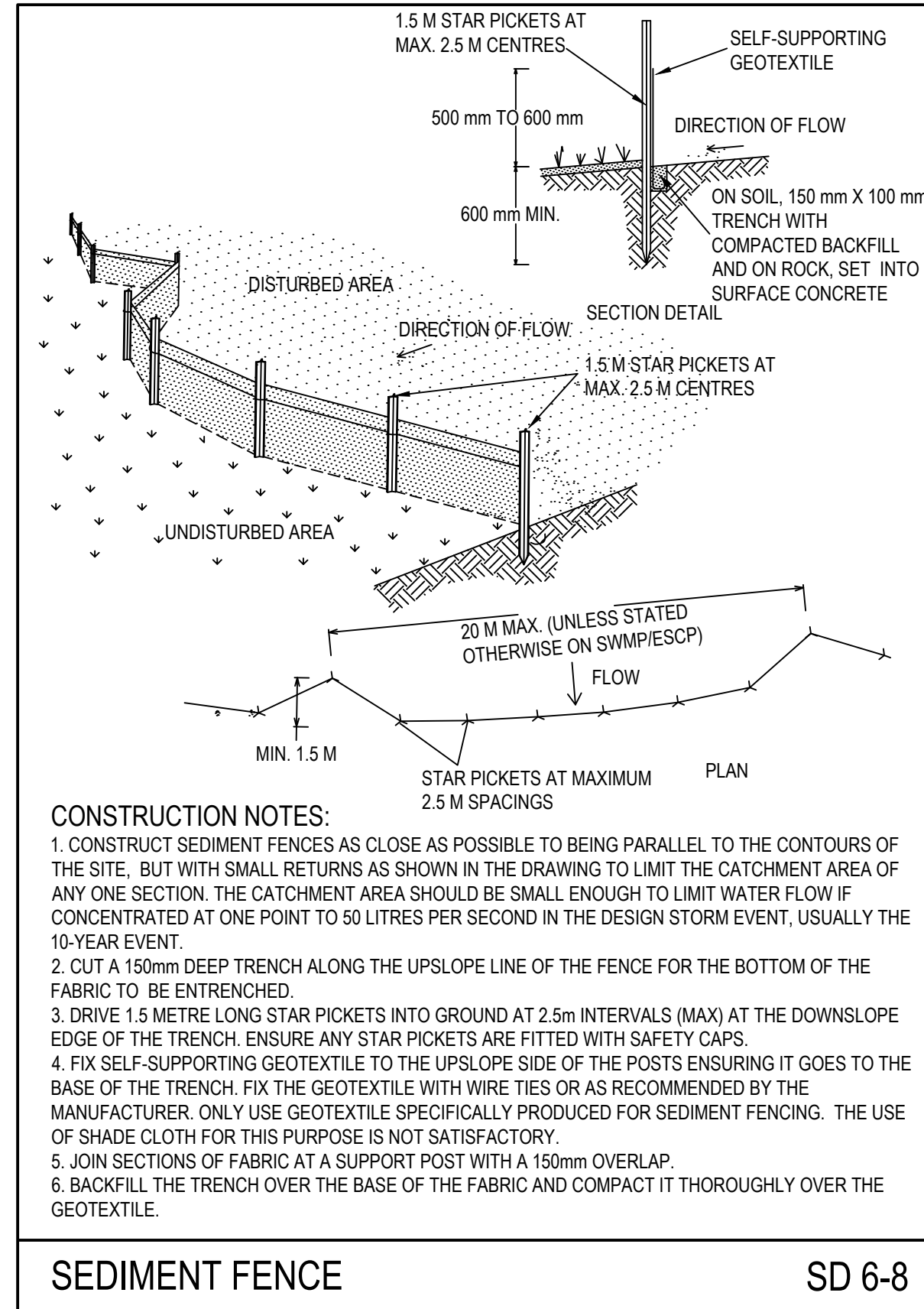
EARTH BASIN - WET (APPLIES TO 'TYPE D' AND 'TYPE F' SOILS ONLY)



ROCK CHECK DAM



STRAW BALE FILTER



SEDIMENT FENCE

1. Erosion Hazard and Sediment Basins									
Site Name: Bathla Lochinvar URA									
Site Location: Lochinvar, Maitland City Council									
Precinct/Stage: Bulk Earthworks Masterplan									
Other Details:									
Site area	Sub-catchment or Name of Structure						Notes		
	A	B	C	D	E	F			
Total catchment area (ha)	11.2	6.2	6.4	17.2	18.6	6			
Disturbed catchment area (ha)	11.2	6.2	6.4	17.2	18.6	6			
Soil analysis (enter sediment type if known, or laboratory particle size data)									
Sediment type (C, F or D) if known:	D	D	D	D	D	D	From Appendix C (if known)		
% sand (fraction 0.02 to 2.00 mm)							Enter the percentage of each soil fraction. E.g. enter 10 for 10%		
% silt (fraction 0.002 to 0.02 mm)									
% clay (fraction finer than 0.002 mm)							E.g. enter 10 for dispersion of 10%		
Dispersion percentage							See Section 6.3.3(e). Auto-calculated		
% of whole soil dispersible							Automatic calculation from above		
Soil Texture Group	D	D	D	D	D	D			
Rainfall data									
Design rainfall depth (no of days)	5	5	5	5	5	5	See Section 6.3.4 and, particularly, Table 6.3 on pages 6-24 and 6-25.		
Design rainfall depth (percentile)	80	80	80	80	80	80			
x-day, y-percentile rainfall event (mm)	24.4	24.4	24.4	24.4	24.4	24.4			
Rainfall R-factor (if known)							Only need to enter one or the other here		
IFD: 2-year, 6-hour storm (if known)	9	9	9	9	9	9			
RUSLE Factors									
Rainfall erosivity (R-factor)	1850	1850	1850	1850	1850	1850	Auto-filled from above		
Soil erodibility (K-factor)	0.031	0.031	0.031	0.031	0.031	0.031			
Slope length (m)	80	80	80	80	80	80			
Slope gradient (%)	4	3.4	2.8	3	2.5	3.5	RUSLE LS factor calculated for a high rill/interill ratio.		
Length/gradient (LS-factor)	0.91	0.75	0.60	0.65	0.53	0.78			
Erosion control practice (P-factor)	1.3	1.3	1.3	1.3	1.3	1.3			
Ground cover (C-factor)	1	1	1	1	1	1			
Sediment Basin Design Criteria (for Type D/F basins only. Leave blank for Type C basins)									
Storage (soil) zone design (no of months)	2	2	2	2	2	2	Minimum is generally 2 months		
Cv (Volumetric runoff coefficient)	0.5	0.5	0.5	0.5	0.5	0.5	See Table F-2, page F-4 in Appendix F		
Calculations and Type D/F Sediment Basin Volumes									
Soil loss (t/ha/yr)	68	56	45	49	39	58			
Soil Loss Class	1	1	1	1	1	1	See Table 4.2, page 4-13		
Soil loss (m ³ /ha/yr)	52	43	34	37	30	45	Conversion to cubic metres		
Sediment basin storage (soil) volume (m ³)	98	45	37	107	94	45	See Sections 6.3.4(i) for calculations		
Sediment basin settling (water) volume (m ³)	1366	756	781	2098	2269	732	See Sections 6.3.4(i) for calculations		
Sediment basin total volume (m ³)	1464	801	818	2205	2363	777			
NB for sizing of Type C (coarse) sediment basins, see Worksheet 3 (if required).									

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Project: File Name: C:\Users\adam\OneDrive\Documents\SYNO\02-20-Maitland\DA_10184\DWG\19-0042-02-DA-104.dwg

Rev	Drawn	Design	Appd.	Date	Revision Description
C	AP	CS	JM	29/06/2021	MINOR CHANGES TO SEDIMENT BASIN VOLUMES
B	MG	CS	MP	15/09/2020	GENERAL MASTERPLAN UPDATES
A	MG	CS	MP	23/06/2020	ISSUED FOR MASTER PLAN DA APPROVAL

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Scale:



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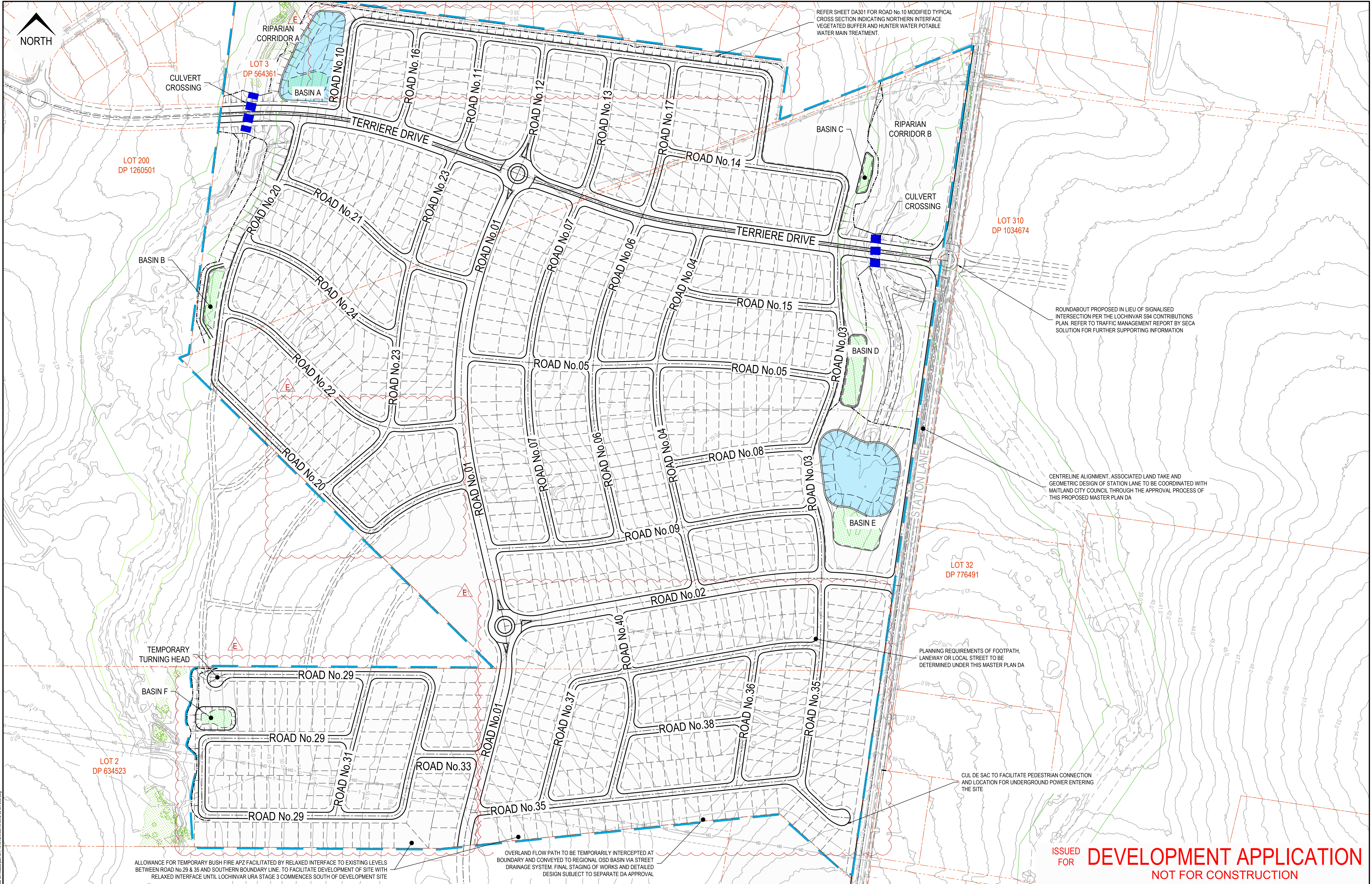
Project:

No. 51, 134, 146 STATION
LANE, LOCHINVAR
MASTERPLAN DA

Title:

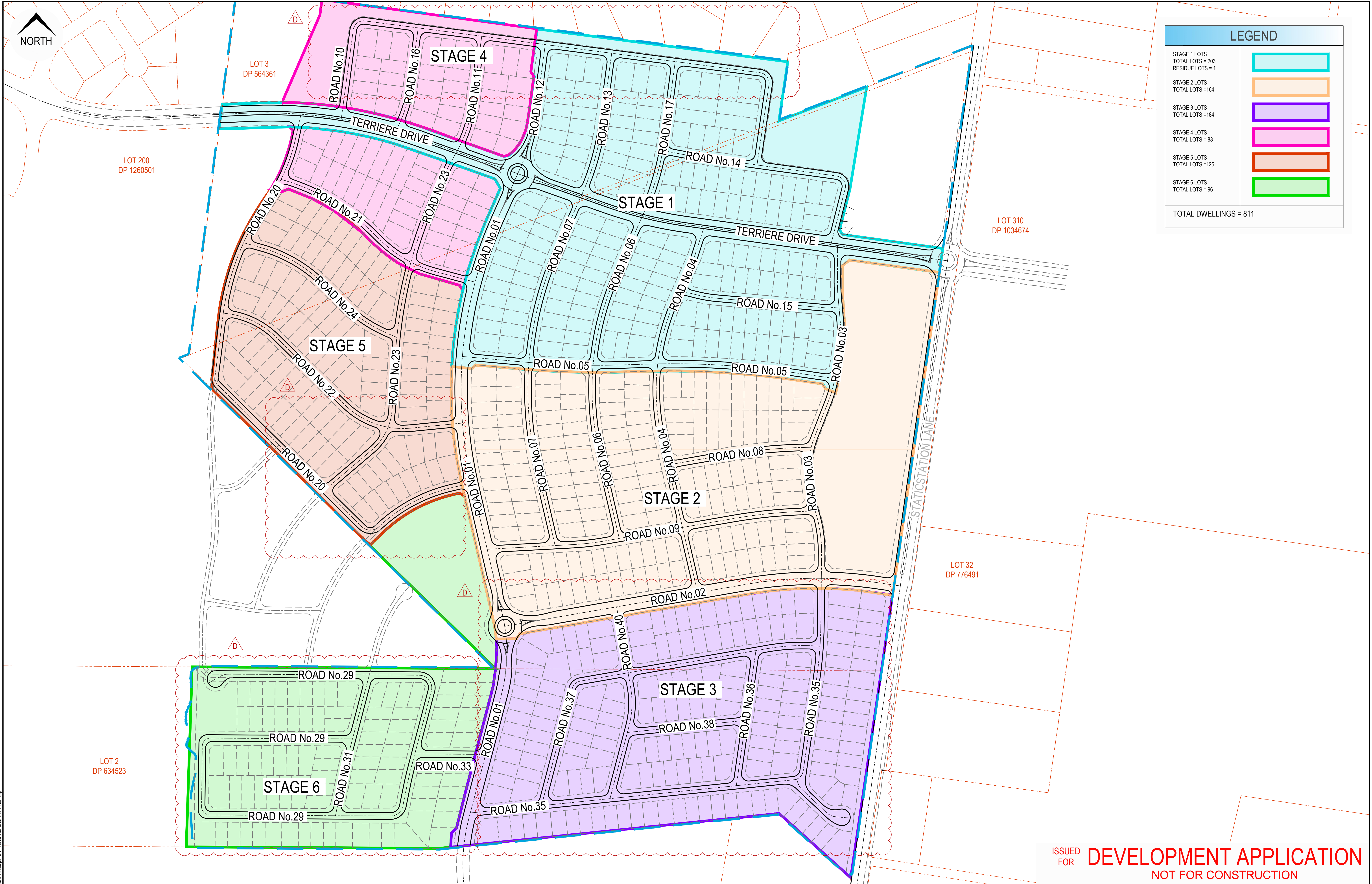
SOIL & WATER
MANAGEMENT NOTES
& DETAILS

Project No.	Set No.	Milestone	Plan	Revision
19-0042	02	DA	104	C



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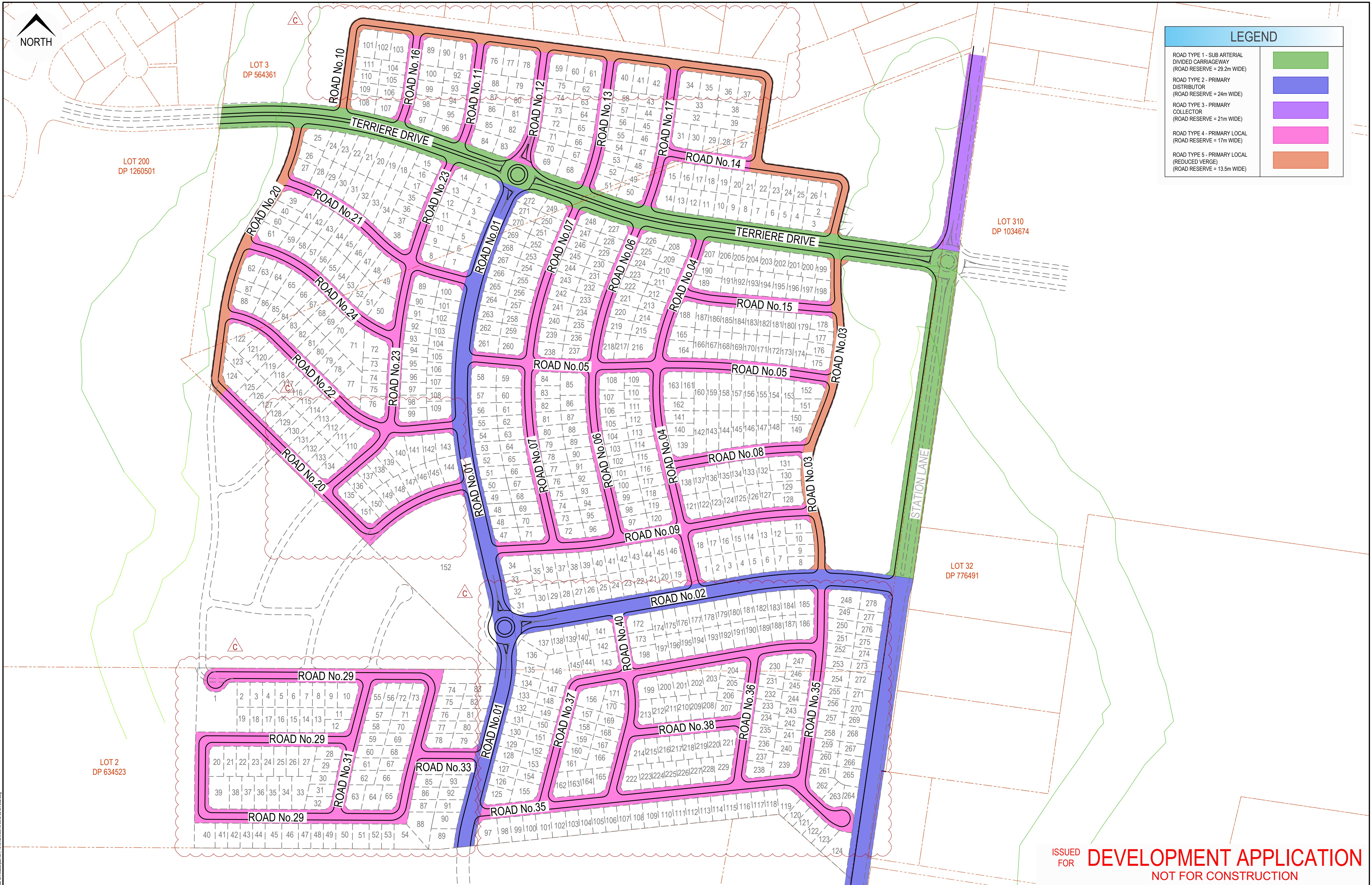
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Rev	Drawn	Design	Appd.	Date	Revision Description							Project No. 19-0042	Set No. 02	Milestone DA	Plan 200	Revision E

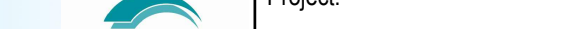


LEGEND	
STAGE 1 LOTS TOTAL LOTS = 203 RESIDUE LOTS = 1	
STAGE 2 LOTS TOTAL LOTS = 164	
STAGE 3 LOTS TOTAL LOTS = 184	
STAGE 4 LOTS TOTAL LOTS = 83	
STAGE 5 LOTS TOTAL LOTS = 125	
STAGE 6 LOTS TOTAL LOTS = 96	
TOTAL DWELLINGS = 811	

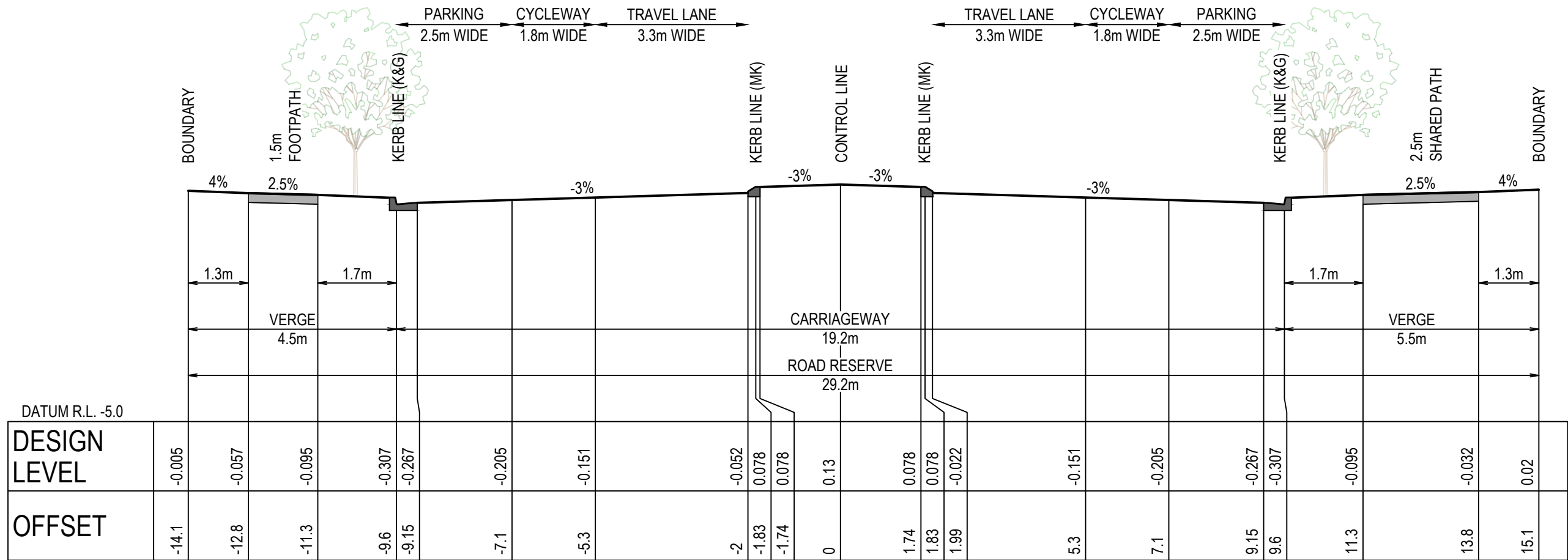
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<table><tr><td>D</td><td>AP</td><td>JM</td><td>JM</td><td>29/06/2021</td><td>ROAD LAYOUT AND INTERFACES UPDATED</td></tr><tr><td>C</td><td>MG</td><td>CS</td><td>MP</td><td>15/09/2020</td><td>GENERAL MASTERPLAN UPDATES</td></tr><tr><td>B</td><td>CS</td><td>CS</td><td>MP</td><td>05/05/2020</td><td>ISSUED FOR MASTER PLAN DA APPROVAL</td></tr><tr><td>A</td><td>MG</td><td>CS</td><td>MP</td><td>20/04/2020</td><td>ISSUED FOR MASTER PLAN DA APPROVAL</td></tr></table>	D	AP	JM	JM	29/06/2021							ROAD LAYOUT AND INTERFACES UPDATED	C	MG	CS	MP	15/09/2020	GENERAL MASTERPLAN UPDATES	B	CS	CS	MP	05/05/2020	ISSUED FOR MASTER PLAN DA APPROVAL	A	MG	CS	MP	20/04/2020	ISSUED FOR MASTER PLAN DA APPROVAL
	D	AP	JM	JM	29/06/2021							ROAD LAYOUT AND INTERFACES UPDATED																		
	C	MG	CS	MP	15/09/2020							GENERAL MASTERPLAN UPDATES																		
	B	CS	CS	MP	05/05/2020							ISSUED FOR MASTER PLAN DA APPROVAL																		
A	MG	CS	MP	20/04/2020	ISSUED FOR MASTER PLAN DA APPROVAL																									
<table><tr><td>Rev</td><td>Drawn</td><td>Design</td><td>Appd.</td><td>Date</td><td>Revision Description</td></tr></table>	Rev	Drawn	Design	Appd.	Date	Revision Description																								
	Rev	Drawn	Design	Appd.	Date	Revision Description																								



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C	AP	CS	JM	29/06/2021	ROAD LAYOUT AND INTERFACES UPDATED						
B	MG	CS	MP	15/09/2020	GENERAL MASTERPLAN UPDATES						
A	MG	CS	MP	20/04/2020	ISSUED FOR MASTER PLAN DA APPROVAL						
Rev	Drawn	Design	Appd.	Date	Revision Description						

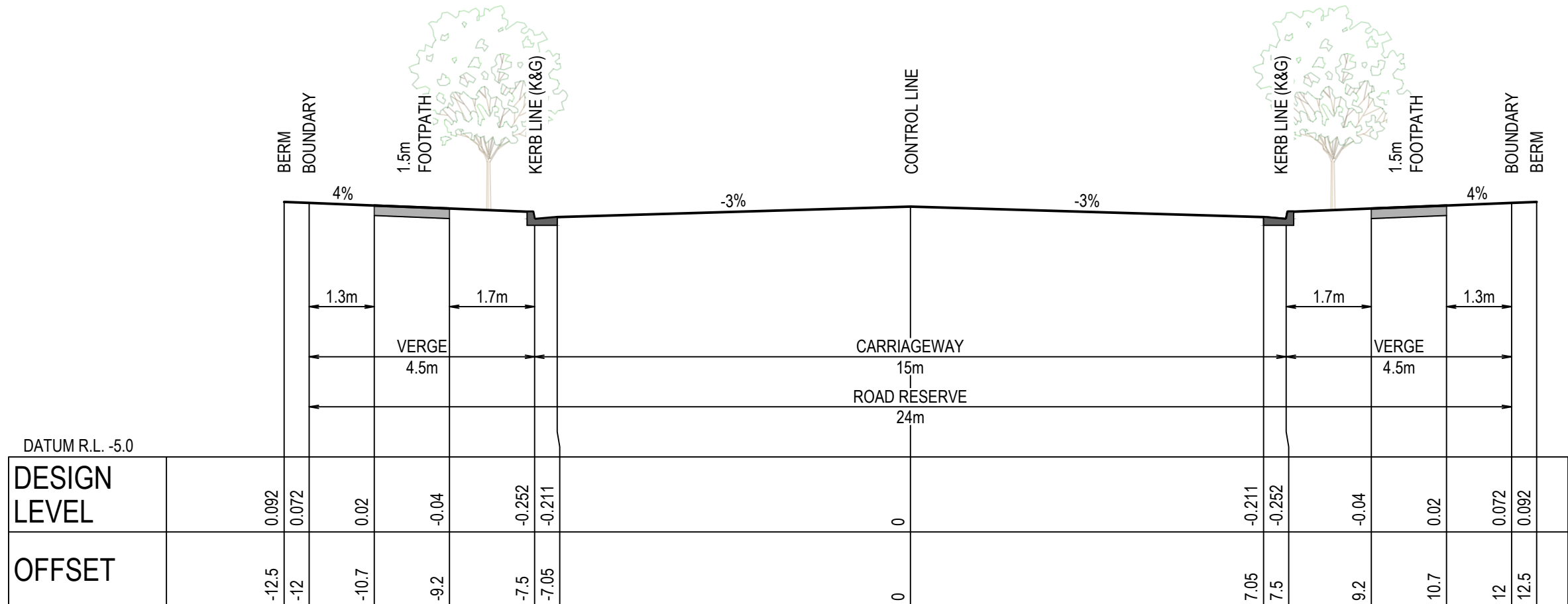
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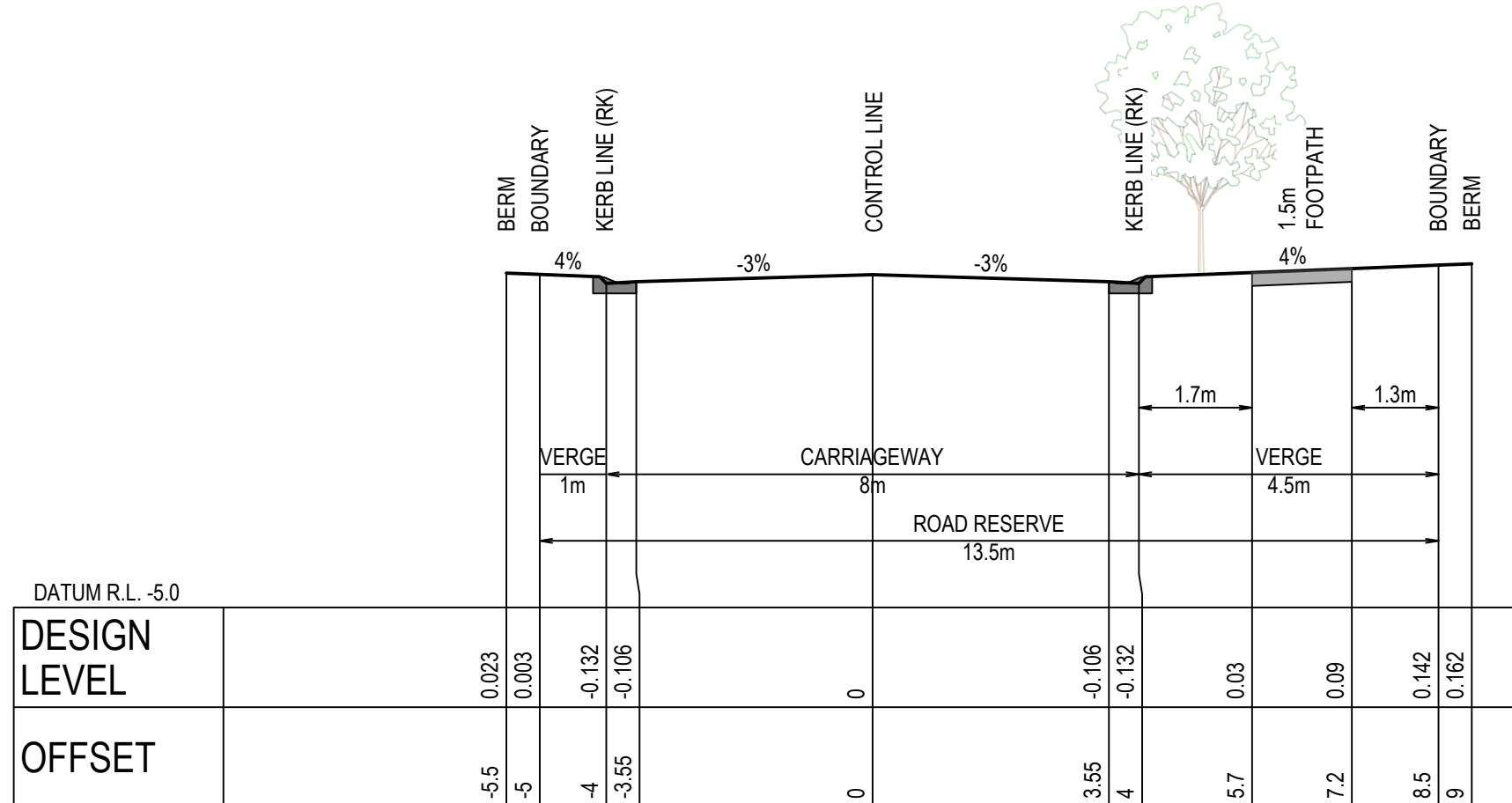
ROAD TYPE 1 - SUB ARTERIAL DIVIDED CARRIAGEWAY
SCALE 1:100 NATURAL



ROAD TYPE 4 - PRIMARY LOCAL
SCALE 1:100 NATURAL



ROAD TYPE 2 - PRIMARY DISTRIBUTOR
SCALE 1:100 NATURAL



ROAD TYPE 5 - PRIMARY LOCAL (REDUCED VERGE)
SCALE 1:100 NATURAL

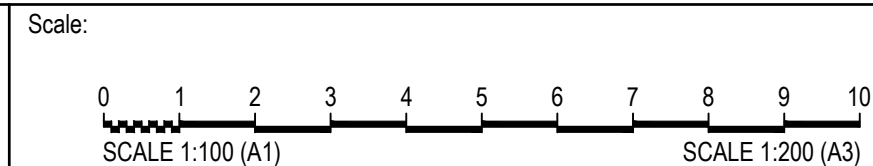


ROAD TYPE 3 - PRIMARY COLLECTOR
(12m WIDE PER LOCHINVAR U.R.A. DCP)
SCALE 1:100 NATURAL

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A	MG	CS	MP	20/04/2020	ISSUED FOR MASTER PLAN DA APPROVAL

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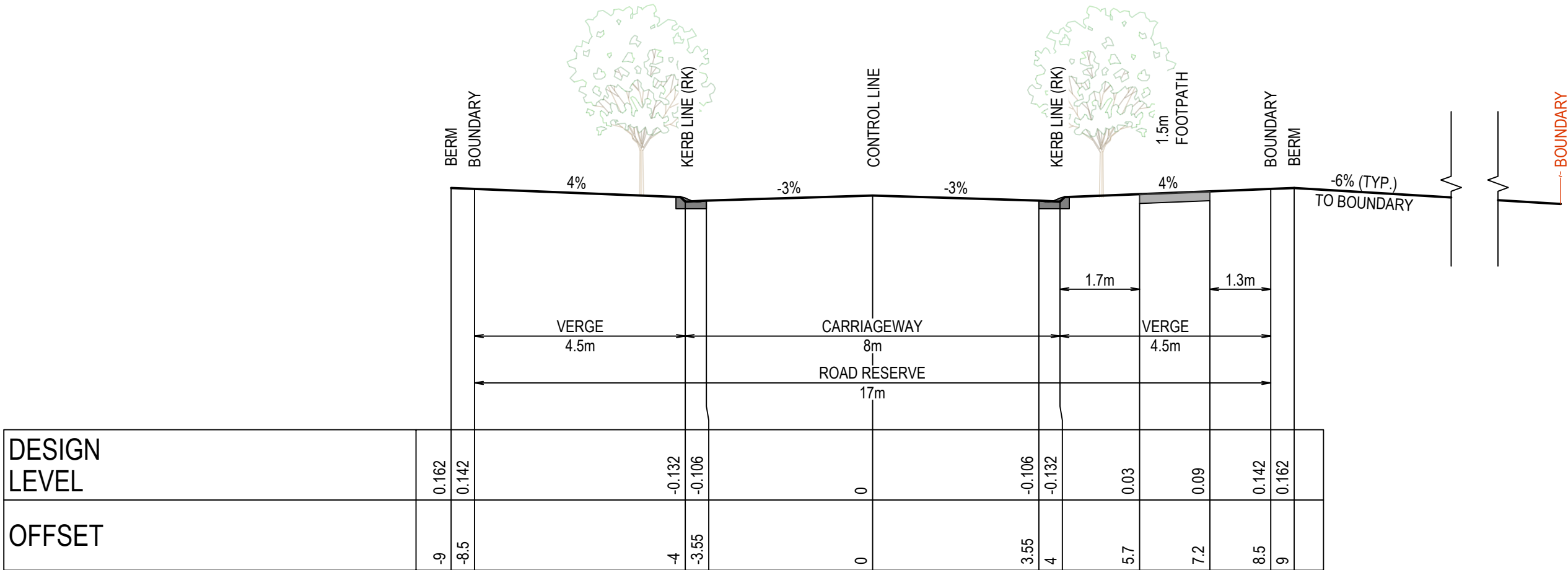


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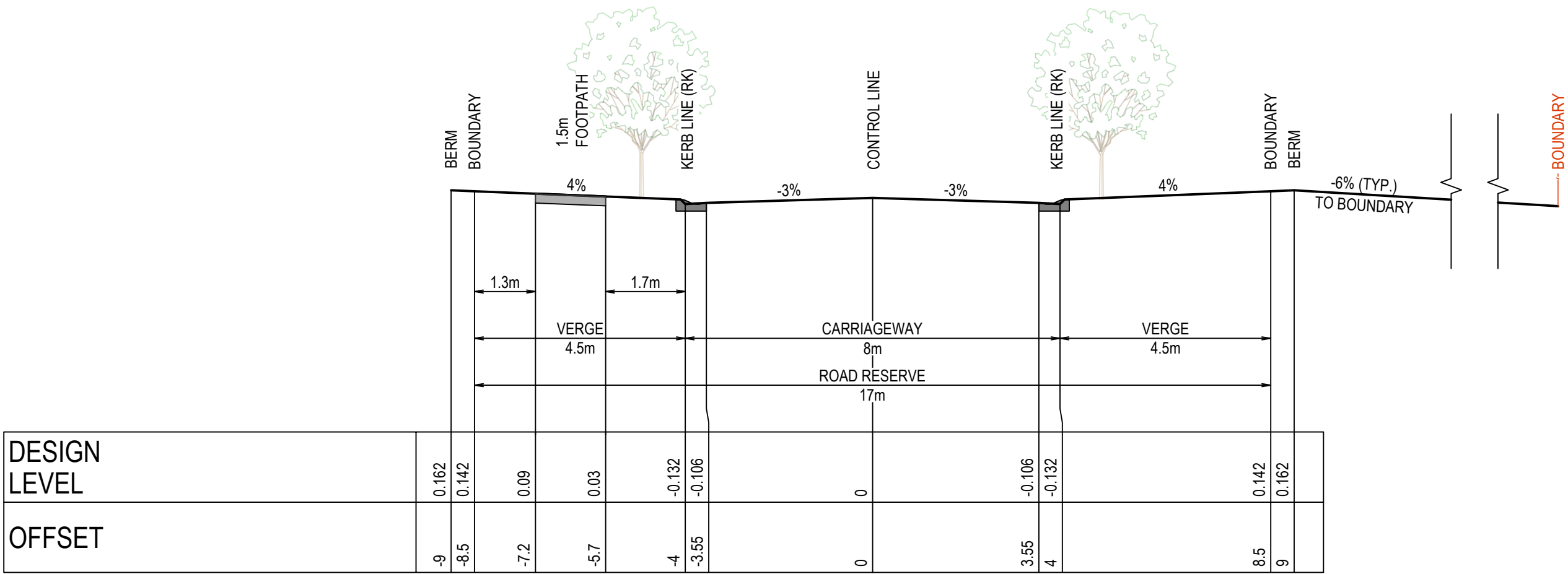
Project: Consult Australia
No. 51, 134, 146 STATION LANE, LOCHINVAR MASTERPLAN DA

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Project No.	Set No.	Milestone	Plan	Revision
19-0042	02	DA	300	A

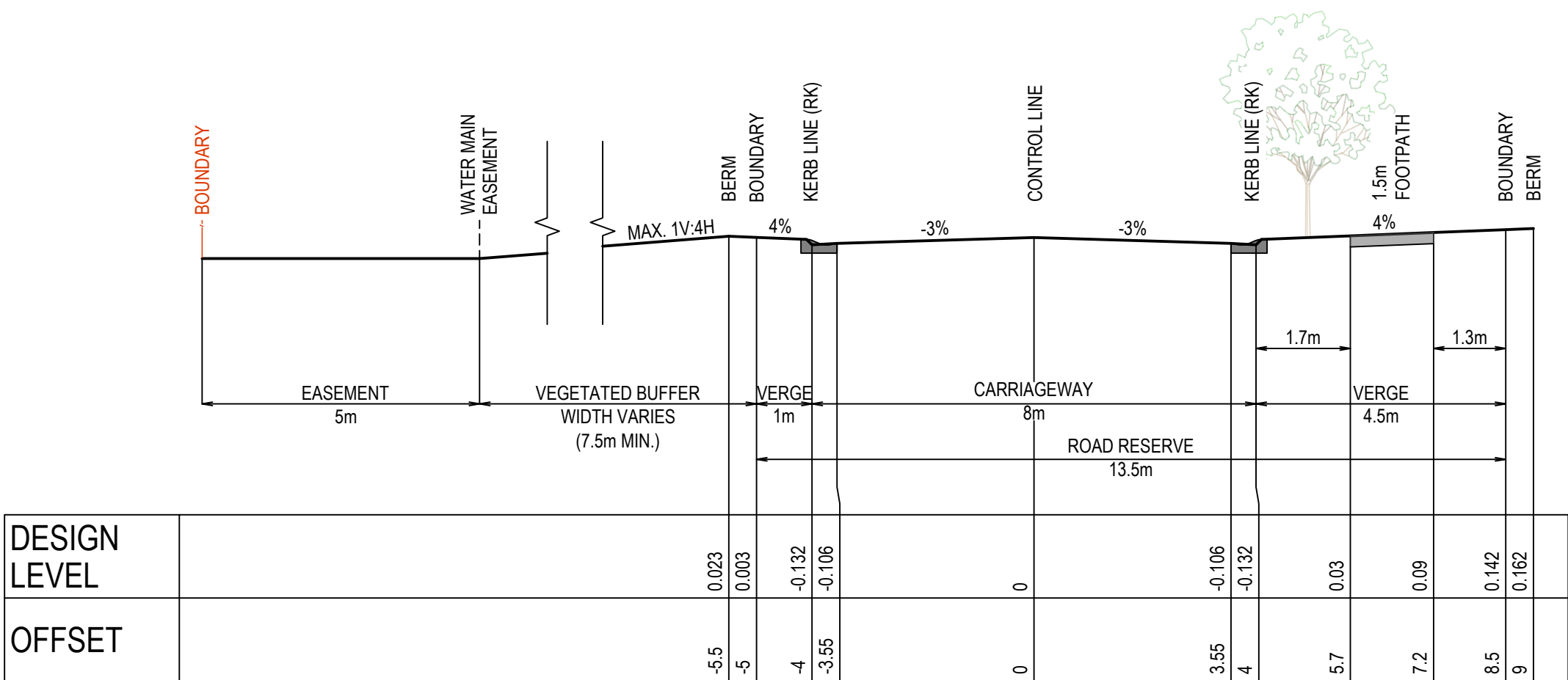
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MODIFIED CROSS SECTION - ROAD 35
SCALE 1:100 NATURAL



MODIFIED CROSS SECTION - ROAD 29
SCALE 1:100 NATURAL

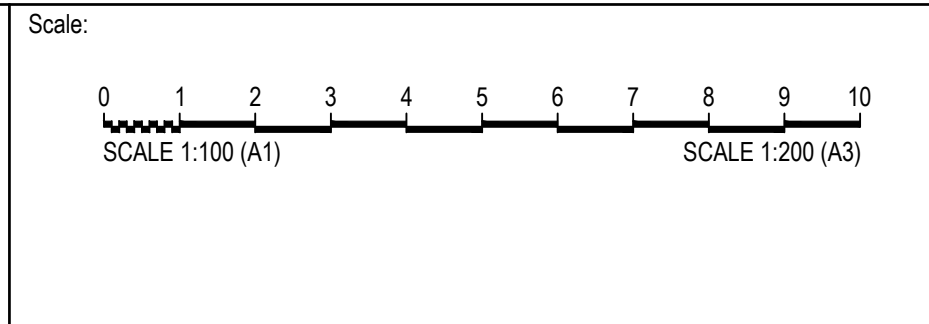


MODIFIED CROSS SECTION - ROAD 10
SCALE 1:100 NATURAL

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A	AP	CS	JM	29/06/2021	ISSUED FOR MASTER PLAN DA APPROVAL

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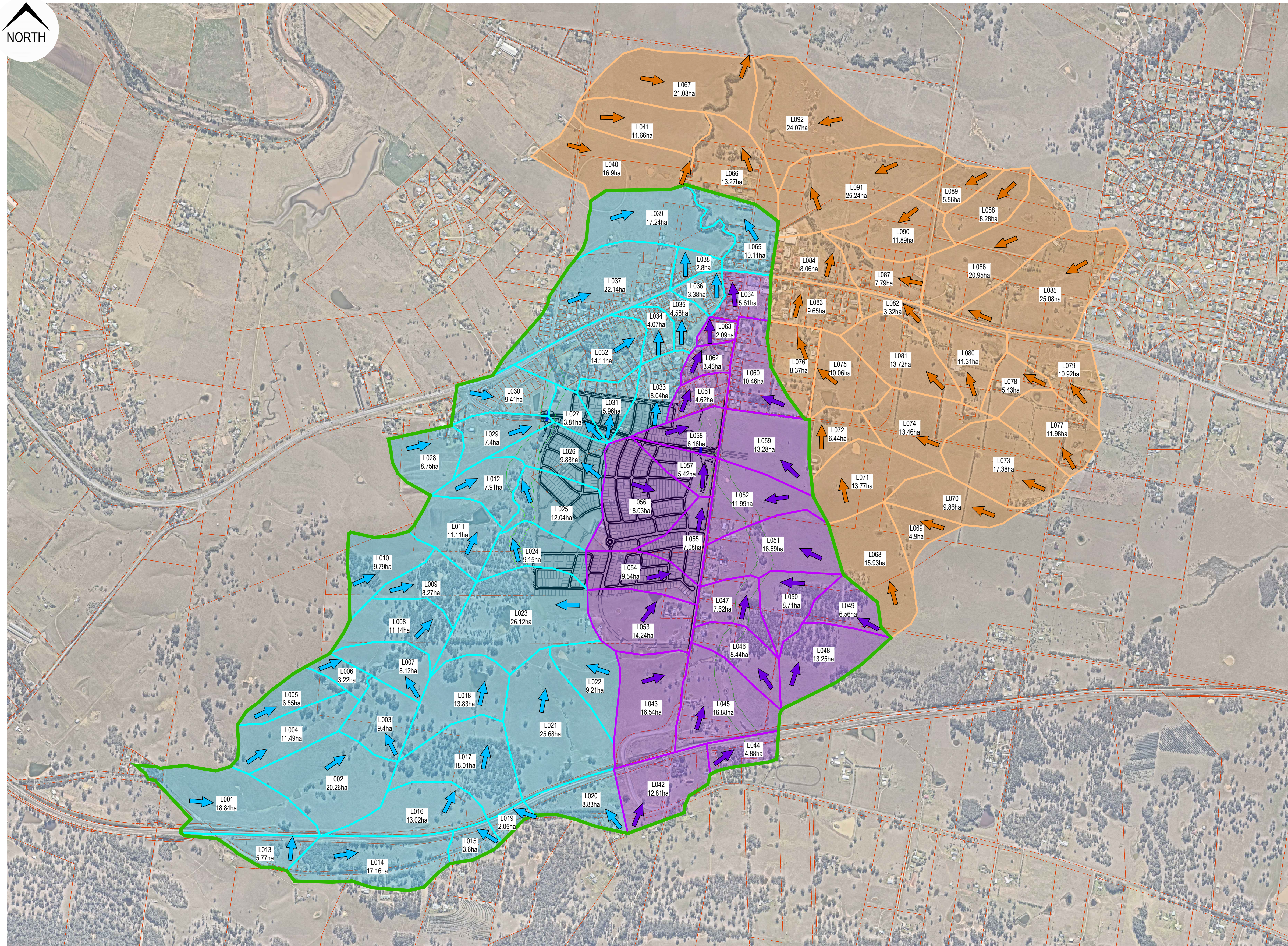


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Project: No. 51, 134, 146 STATION LANE, LOCHINVAR MASTERPLAN DA

MODIFIED TYPICAL ROAD CROSS SECTIONS				
Project No.	Set No.	Milestone	Plan	Revision
19-0042	02	DA	301	A



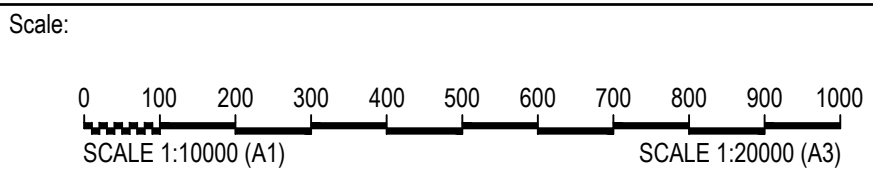
LEGEND	
CATCHMENT NAME, AREA & DIRECTION OF FALL	L.000 0.0000 ha →
CONTOURS (EXISTING & DESIGN)	—10.0— — -20.0—
LOCHINVAR CREEK CATCHMENT	
GREEDY CREEK CATCHMENTS	
EXTERNAL / DOWNSTREAM CATCHMENTS	
TOTAL STUDY AREA	

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Title: EXISTING STORMWATER CATCHMENT PLAN				
Project No.	Set No.	Milestone	Plan	Revision
19-0042	02	DA	400	A

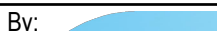
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Rev	Drawn	Design	Appd.	Date	Revision Description

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For:

The **Bathla**
Group

By:  **Orion Consulting**

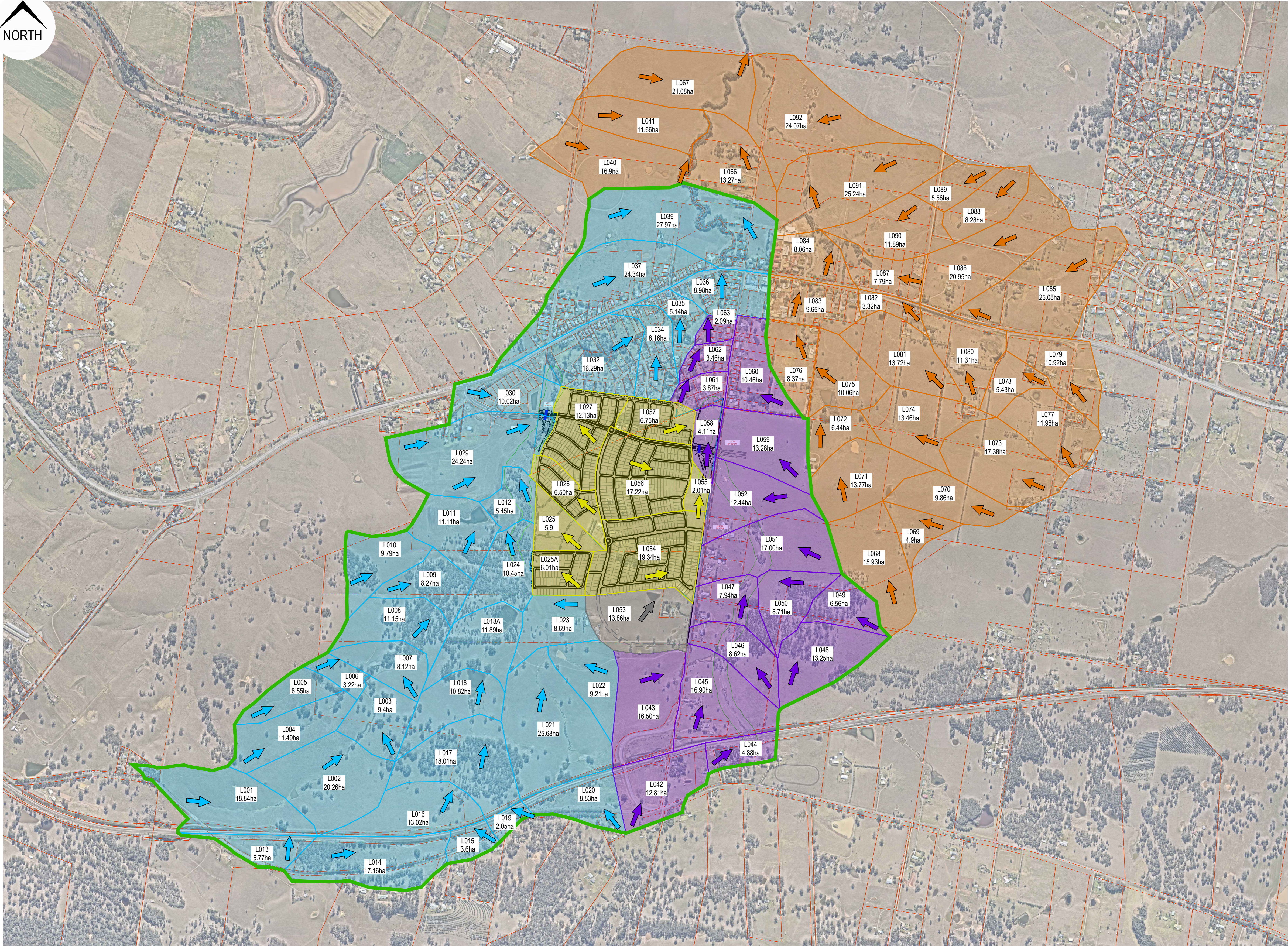
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Member Firm

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Project:

No. 51, 134, 146 STATION
LANE, LOCHINVAR
MASTERPLAN DA

EXISTING STORMWATER CATCHMENT PLAN

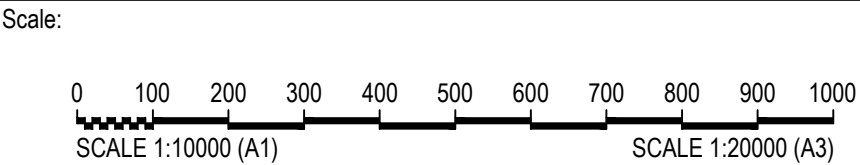


LEGEND	
CATCHMENT NAME, AREA & DIRECTION OF FALL	L000 0.0000 ha →
CONTOURS (EXISTING & DESIGN)	— 10.0 — — 20.0 —
LOCHINVAR CREEK CATCHMENT	→
DESIGN CATCHMENTS	→
GREEDY CREEK CATCHMENTS	→
EXTERNAL / DOWNSTREAM CATCHMENTS	→
DENOTES FUTURE CATCHMENT, BOUNDARY AND DIRECTION	→
TOTAL STUDY AREA	→

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Rev	Drawn	Design	Appd.	Date	Revision Description
A	MG	CS	MP	20/04/2020	ISSUED FOR MASTER PLAN DA APPROVAL

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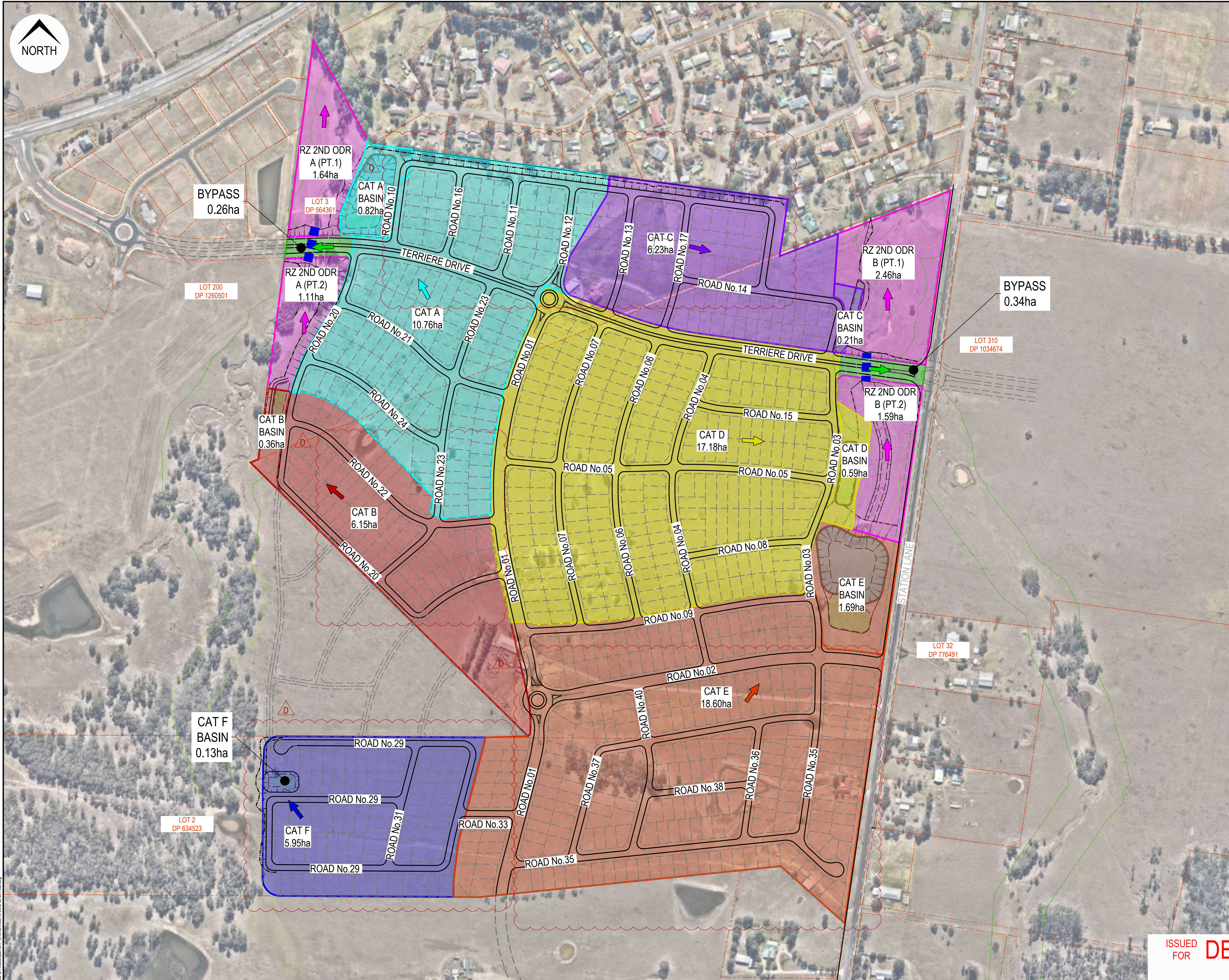


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Project: No. 51, 134, 146 STATION LANE, LOCHINVAR MASTERPLAN DA

Title: POST DEVELOPMENT STORMWATER CATCHMENT PLAN				
Project No. 19-0042	Set No. 02	Milestone DA	Plan 401	Revision A



LEGEND	
CATCHMENT NAME, AREA & DIRECTION OF FALL	L000 0.0000 ha
CONTOURS (EXISTING & DESIGN)	10.0 -20.0
DENOTES CATCHMENT A DRAINING TOWARDS GPT AND OSD BASIN-FILTRATION SYSTEM	
DENOTES CATCHMENT B DRAINING TOWARDS GPT AND BIO-FILTRATION SYSTEM	
DENOTES CATCHMENT C DRAINING TOWARDS GPT AND BIO-FILTRATION SYSTEM	
DENOTES CATCHMENT D DRAINING TOWARDS GPT AND BIO-FILTRATION SYSTEM	
DENOTES CATCHMENT E DRAINING TOWARDS GPT, OSD AND BIO-FILTRATION SYSTEM	
DENOTES CATCHMENT F DRAINING TOWARDS GPT AND BIO-FILTRATION SYSTEM	
BYPASS CATCHMENT AND BOUNDARY (NOT ABLE TO BE COLLECTED IN BASIN)	
DENOTES RIPARIAN CORRIDOR CATCHMENTS TO BYPASS DEVELOPMENT SITE	

NOTE

REFER TO THE IWCM REPORT FOR WATER QUALITY BASIN SIZES AND WATER QUALITY TREATMENT TRAIN DETAILS

ISSUED FOR **DEVELOPMENT APPLICATION**
NOT FOR CONSTRUCTION

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