

CIVIL PLAN

PROPOSED EQUESTRIAN FACILITY AT

1A DHARUG CLOSE, MULGOA NSW

LEGEND	
DP ●	DOWNPIPE
	STORMWATER LINE
	STORMWATER LINE DRAINING TO RWT
	OVER FLOW PIPE
	SUBSOIL LINE
	STORMWATER RISING MAIN
	EXISTING STORMWATER LINE
	AUTHORITY STORMWATER LINE
	HIGH LEVEL STORMWATER LINE
	AUTHORITY SEWER LINE
	AUTHORITY WATER LINE
	AUTHORITY GAS LINE
	AUTHORITY ELECTRICITY LINE
	AUTHORITY FIBRE OPTIC LINE
	AUTHORITY COMMS LINE
	FENCE LINE
	GRADED SURFACE INLET PIT
	GRADED SURFACE INLET PIT WITH ENVIROPOD INSERT
	JUNCTION PIT
	KERB INLET PIT
	EXISTING GRADED SURFACE INLET PIT
	GRADED TRENCH DRAIN
	EXISTING JUNCTION PIT
	EXISTING KERB INLET PIT
	EXISTING TELSTRA PIT
	EXISTING HYDRANT
	EXISTING STOP VALVE
	EXISTING GAS VALVE
	EXISTING POWER POLE
	EXISTING BOUNDARY TRAP

DIAL BEFORE YOU DIG SHOULD BE CONTACTED PRIOR TO ANY EXCAVATION ON SITE

TM: TRADE MARK OF THE ASSOCIATION OF DIAL BEFORE YOU DIG SERVICES LTD. USED UNDER LICENSE.

SERVICES SHOWN ON PLAN ARE INDICATIVE, EXACT DEPTH AND LOCATION TO BE CONFIRMED ONSITE. CONTRACTOR TO CARRY OUT DIAL BEFORE YOU DIG APPLICATION AND ENGAGE A REGISTERED SURVEYOR TO PEG OUT ALL EXISTING SERVICES PRIOR TO ANY WORK COMMENCING ONSITE.

LEGEND	
FF ●	FIRST FLUSH
	EXISTING SEWER MANHOLE
OFF	OVERLAND FLOW PATH
RWO●	RAINWATER OUTLET
CO ●	CLEAR OUT POINT
DDO ●	DISH DRAIN OUTLET
PD ●	PLANTER DRAIN
	CAPPING
	PIT TAG/NUMBER
RH	RAINHEAD
	DOWNPIPE DROP
	NON RETURN VALVE
	WALL PENETRATION
DP	DOWNPIPE SPREADER
	WARNING LIGHT
	SPOT LEVELS
	BENCHMARK

ABBREVIATIONS:

Ø or DIA	DIAMETER
CBR	CALIFORNIA BEARING RATIO
CH	CHAINAGE
CL	CENTER LINE
CO	CLEAR OUT
DD	DISH DRAIN
DDO	DISH DRAIN OUTLET
DEJ	DOWELLED EXPANSION JOINT
DGB	DENSE GRADED BASECOURSE
DGS	DENSE GRADED SUB-BASE
DP	DOWNPIPE
e	EXISTING
FFL	FINISHED FLOOR LEVEL
GTD	GRADED TRENCH DRAIN
GSIP	GRADED SURFACE INLET PIT
HYD	HYDRANT
IJ	ISOLATING JOINT
IK	INTEGRAL KERB
IL	INVERT LEVEL
IP	INTERSECTION POINT
KIP	KERB INLET PIT
KO	KERB ONLY
K&G	KERB & GUTTER
KR	KERB RETURN
LS	LONGITUDINAL SECTION
NGL	NATURAL GROUND LEVEL
OFF	OVERLAND FLOW PATH
OSD	ON-SITE DETENTION
R	RADIUS
RCF	REINFORCED CONCRETE PIPE
RK	ROLL KERB & GUTTER
RL	REDUCED LEVEL
RW	RETAINING WALL
RWT	RAINWATER TANK
SJ	SAWN CONTROL JOINT
SMH	SEWER MAN HOLE
SW	STORMWATER
SWP	STORMWATER PIT
SWRM	STORMWATER RISING MAIN
SWS	STORMWATER SUMP
SV	STOP VALVE
TOK	TOP OF KERB
TOW	TOP OF WALL
TWL	TOP WATER LEVEL
TP	TANGENT POINT
UPVC	UNPLASTICISED POLYVINYL CHLORIDE
UNO	UNLESS NOTED OTHERWISE
WPJ	WEAKENED PLANE JOINT
FF	FIRST FLUSH DEVICE
TYP	TYPICAL
BM	BENCH MARK

DRAWING REGISTER

NUMBER	NAME	REVISION
S101	SPECIFICATIONS SHEET	A
S200	GENERAL ARRANGEMENT PLAN	A
S300	GRADING PLAN 1 OF 2	A
S301	GRADING PLAN 2 OF 2	A
S302	BULK EXCAVATION PLAN	A
S303	SLOPE ANALYSIS PLAN	A
S400	GENERAL LONG SECTIONS 1 OF 2	A
S401	GENERAL LONG SECTIONS 2 OF 2	A

DRAINAGE NOTES:

ALL PIPES TO BE LAID ON 75mm SAND BED WITH THE BARRELS FULLY SUPPORTED

100mm AND 150mm DIAMETER PIPES TO BE LAID ON MINIMUM 1% GRADE

MINIMUM DEPTH OF COVER FOR PIPES NOT SUBJECT TO VEHICULAR LOADING TO BE 300mm

ALL DRAINAGE PIPES LAID UNDER PAVEMENT SHALL BE REINFORCED CONCRETE WITH RUBBER RING JOINTS

BACKFILL TRENCHES WITH COMPACTED SAND OR APPROVED AGGREGATE MATERIAL

ALL PITS TO HAVE 600x600mm INTERNAL DIMENSIONS (U.N.O.)

SILT ARRESTORS TO HAVE 900x900mm INTERNAL DIMENSIONS

HEAVY DUTY GRATES AND COVERS ARE TO BE PROVIDED IN TRAFFICABLE AREAS

PIT GRATE TO BE TYPE WELDLOK OR APPROVED EQUIVALENT

ALL PITS SHALL BE PROVIDED WITH A LOCKING CLIP

ALL PITS SHALL BE MAINTAINED REGULARLY

TOP OF BENCHING SHALL BE TO THE HALF OF THE OUTLET PIPE DIAMETER

MAXIMUM FRONT ENTRY PIPE:-

STRAIGHT ENTRY - Ø750

SKREW ENTRY 45° - Ø525

Ø100 SUBSOIL DRAINAGE PIPE 3000mm LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED ADJACENT TO INLET PIPES

COMPRESSIVE STRENGTH f_c FOR CAST IN SITU CONCRETE TO BE A MINIMUM OF 20MPa AT 28 DAYS

PROVIDE CLEANING EYES TO ALL DOWNPIPES NOT DIRECTLY CONNECTED TO PITS

ISOLATED JOINTS TO BE PROVIDED TO ISOLATE CONCRETE PAVEMENTS FROM PITS

ALL TRENCH GRATES PROVIDED SHALL HAVE A MINIMUM CLEAR WIDTH OF 200mm

STORMWATER DRAINAGE CONNECTIONS TO THE MAIN SYSTEM SHALL BE TO THE REQUIREMENTS AND THE SATISFACTION OF LOCAL COUNCIL

STORMWATER PIPE BEDDING/PAVING NOTES:

WHERE TRENCH BASE IS ROCK A MINIMUM OF 75mm BEDDING TO BE PROVIDED UNDER PIPE COLLARS.

STORMWATER PIPE BEDDING DETAIL TO BE IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENTS. BEDDING DETAILS TO BE CONFIRMED UPON EXCAVATION & PRIOR TO INSTALLATION OF PIPEWORK.

FOOTPATH REINSTATEMENT NOTES:

REMOVE ALL SAND FILL WITHIN THE FOOTPATH AREA TO THE EXISTING SUBGRADE.

SUPPORT ALL AUTHORITY SERVICES TO STRUCTURAL ENGINEERS DETAILS DURING EXCAVATION.

REINSTATE FOOTPATH SUBGRADE.

THE CONTRACTOR SHALL PROVIDE CERTIFICATION OF COMPACTION FROM A NATA REGISTERED TESTING AUTHORITY. MINIMUM THREE TESTS PER LAYER AS FOLLOWS:

SELECT FILL 95% MODIFIED
SELECT FILL (LESS THAN 300mm 98% MODIFIED
BELOW BASE COURSE)
BASE COURSE 100% MODIFIED

EROSION & SEDIMENT CONTROL NOTES:

PROVIDE SILT FENCE/HAY BAIL BARRIERS TO THE LOW SIDE OF ALL EXPOSED EARTH EXCAVATIONS (TYPICAL).

ISOLATE EXISTING STORMWATER PITS WITH HAY BALES TO FILTER ALL INCOMING FLOWS.

DO NOT STOCK PILE EXCAVATED MATERIAL ON THE ROAD WAY.

SURVEY

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY ----, BEING REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. BMY BUILDING CONSULTANTS DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAW.

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT BMY BUILDING CONSULTANTS.

ADOPT DATUM ---- RL:---- (A.H.D) AS PER ----

IT IS THE BUILDERS RESPONSIBILITY TO MAKE SURE ALL SURVEY MARKS TO BE PRESERVED AT ALL COST.

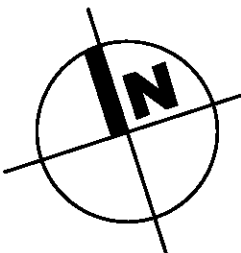
BMY BUILDING CONSULTANTS Pty Ltd
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A	ISSUE FOR \$4.55	18.11.2021	M.Y	M.Y



PROJECT

1A DHARUG CLOSE, MULGOA

CLIENT

MASTERCORP

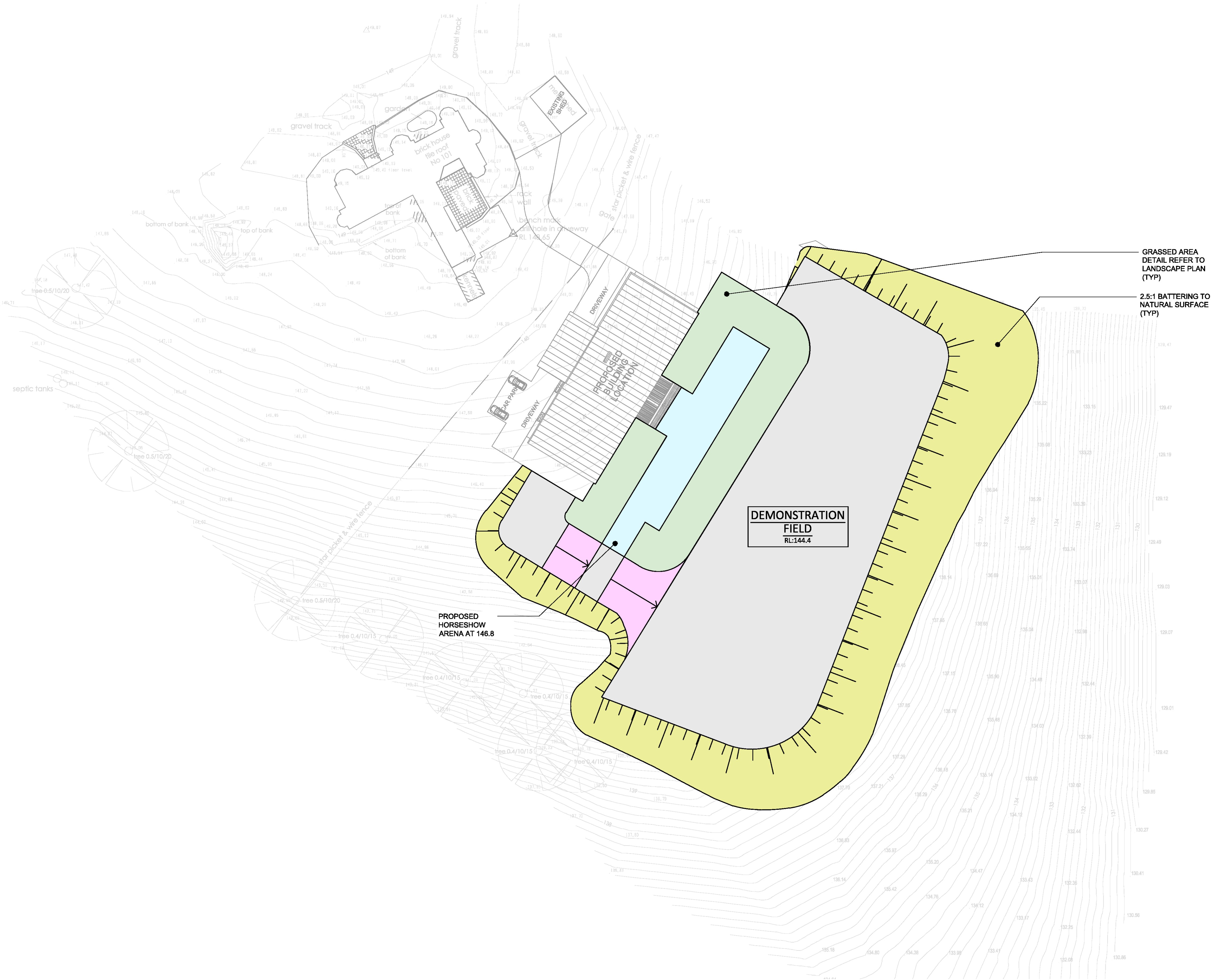
DRAWING

SPECIFICATIONS SHEET

MOUSSA YOUSSEF B.E (Civil - Structures), Dip. Eng. Prac

PROJECT NO.	DRAWING NO.	REVISION	DATE
----	S101	A	18.11.2021
SCALE @ A1	DRAWN	AUTHORISED	
1:100	M.Y	M.Y	



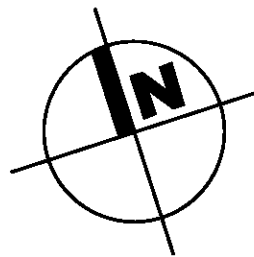


GENERAL ARRANGEMENT PLAN
SCALE 1:500

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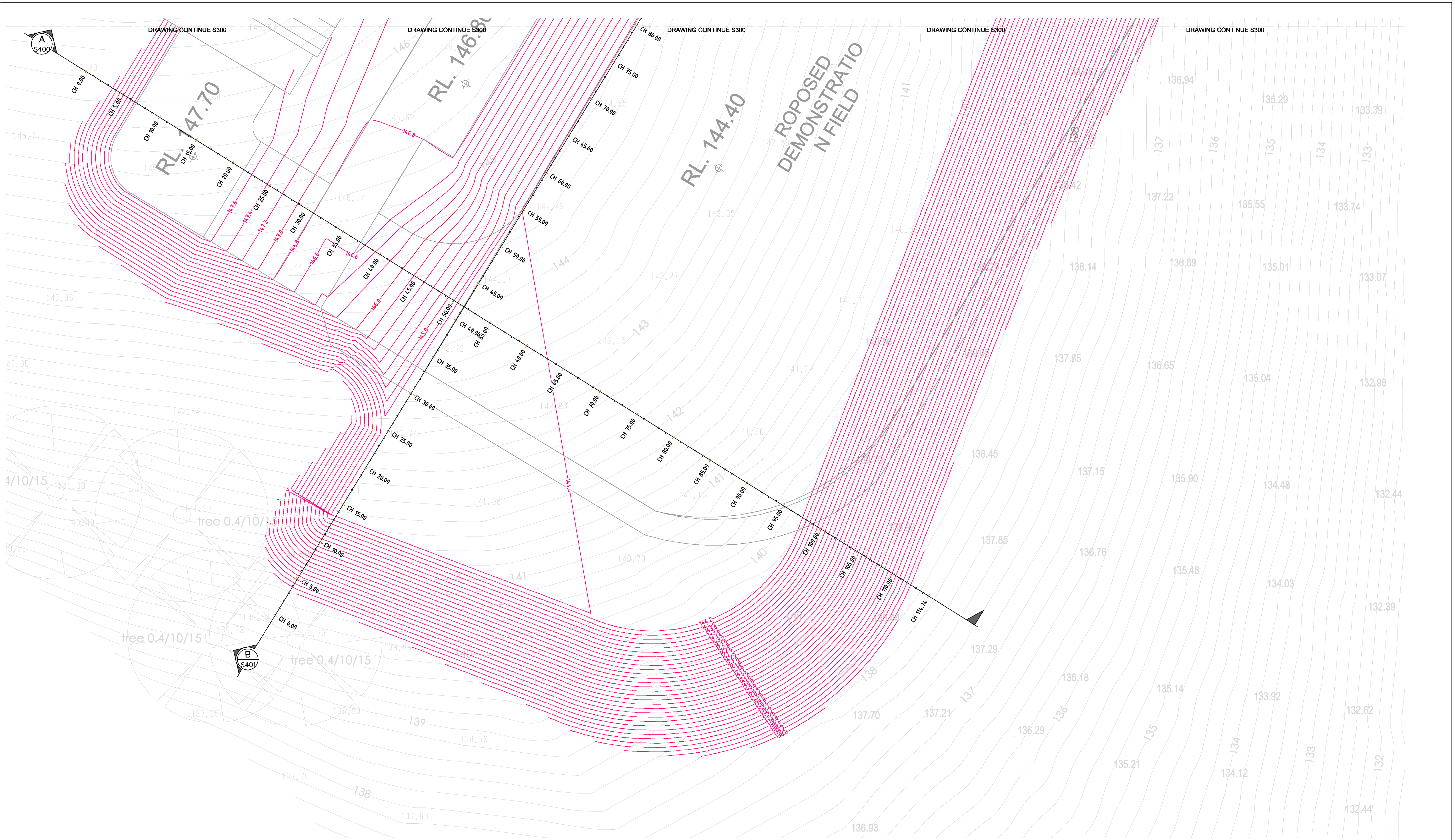


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1A DHARUG CLOSE, MULGOA
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DRAWING			
GENERAL ARRANGEMENT PLAN			
PROJECT NO.	DRAWING NO.	REVISION	DATE
----	S200	A	18.11.2021
SCALE @ A1	DRAWN	AUTHORISED	
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0 SCALE 1:100 10m			

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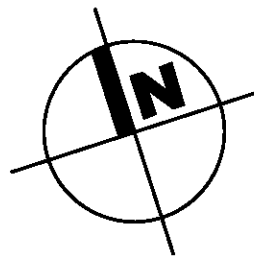


GRADING PLAN 2 OF 2
SCALE 1:200

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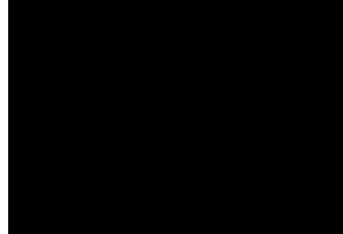
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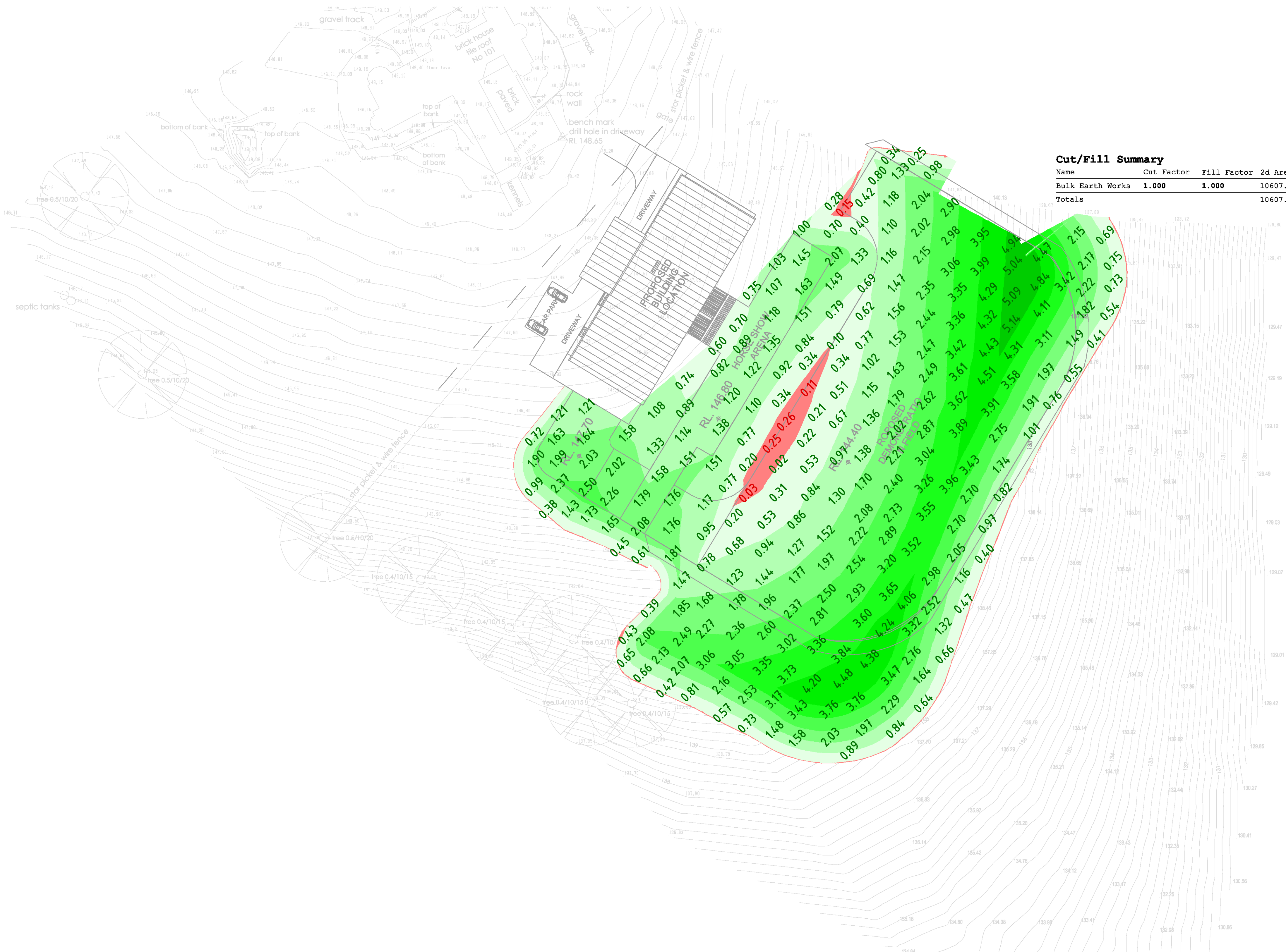
DRAWING
GRADING PLAN 2 OF 2

PROJECT NO.	DRAWING NO.	REVISION	DATE
----	S301	A	18.11.2021
SCALE @ A1	DRAWN	AUTHORISED	
1:100	M.Y	M.Y	



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Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
Bulk Earth Works	1.000	1.000	10607.319sq.m	16.681 Cu. M.	20347.818 Cu. M.	20331.137 Cu. M.<Fill>
Totals			10607.319sq.m	16.681 Cu. M.	20347.818 Cu. M.	20331.137 Cu. M.<Fill>

Surface Analysis: Elevation Ranges

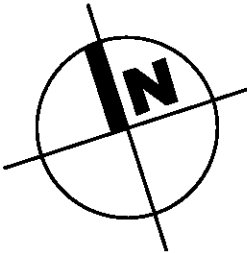
Number	Color	Minimum Elevation (m)	Maximum Elevation (m)	2D Area (m²)	Volume (m³)
1		-1.000	0.050	249.7	537.0
2		0.050	0.800	18510	7141.0
3		0.800	1.600	2975.8	5627.4
4		1.600	2.400	2131.8	3491.5
5		2.400	3.200	1633.6	2123.5
6		3.200	4.000	1194.4	1079.5
7		4.000	4.800	625.9	322.3
8		4.800	999.000	145.2	42.3

BULK EXCAVATION PLAN
SCALE 1:500

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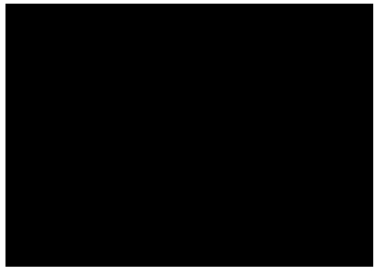
PROJECT
1A DHARUG CLOSE, MULGOA
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DRAWING
BULK EXCAVATION PLAN

PROJECT NO.	DRAWING NO.	REVISION	DATE
----	S302	A	18.11.2021
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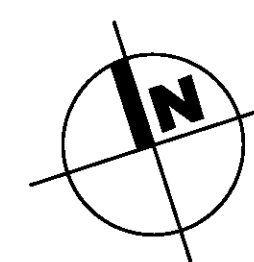
SLOPE ANALYSIS PLAN 2 OF 2
SCALE 1:500

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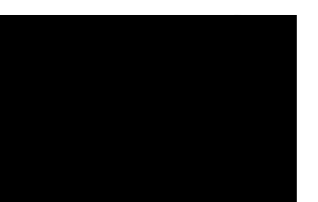
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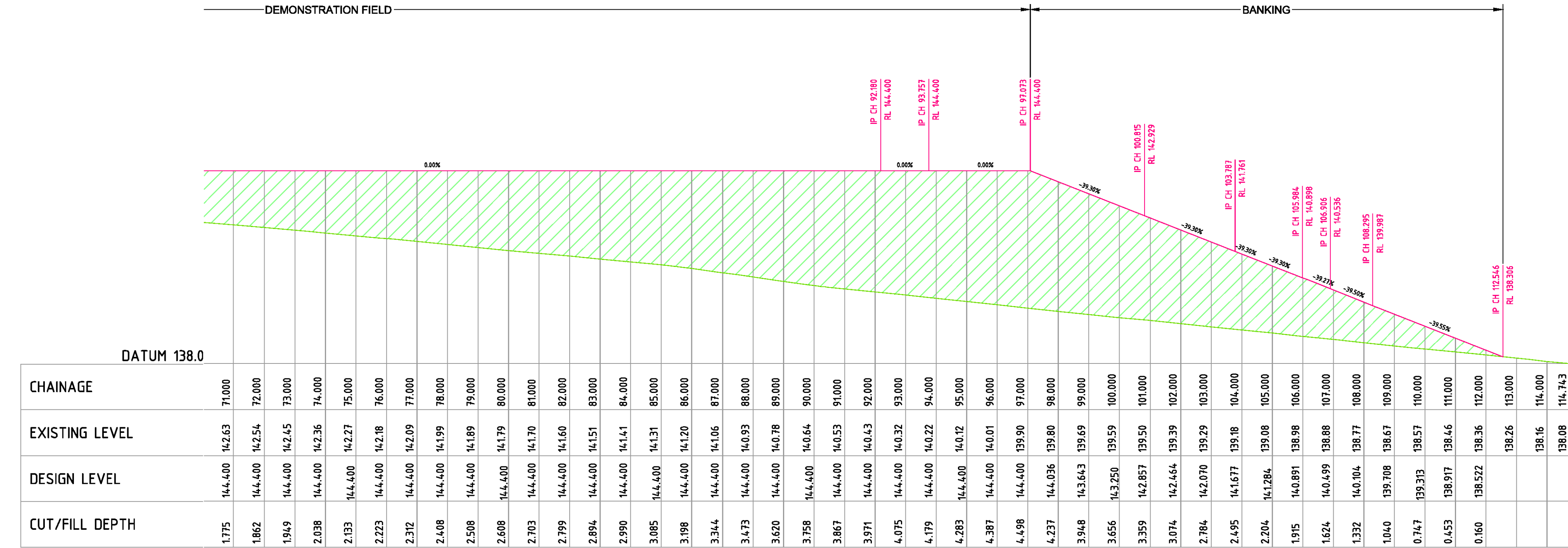
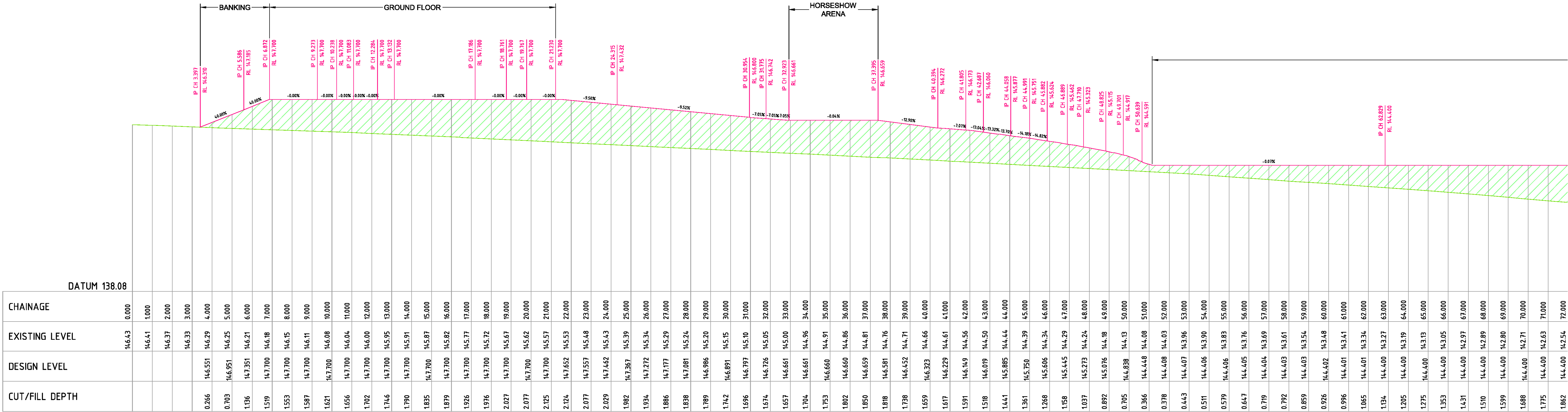
SLOPE ANALYSIS PLAN

PROJECT NO. ----	DRAWING NO. S303	REVISION A	DATE 18.11.2021
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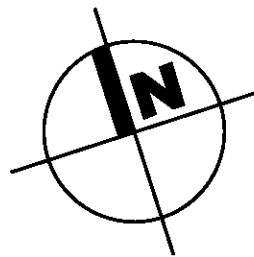
Section A | General Section 1
SCALES: HORIZONTAL 1:100 VERTICAL 1:100

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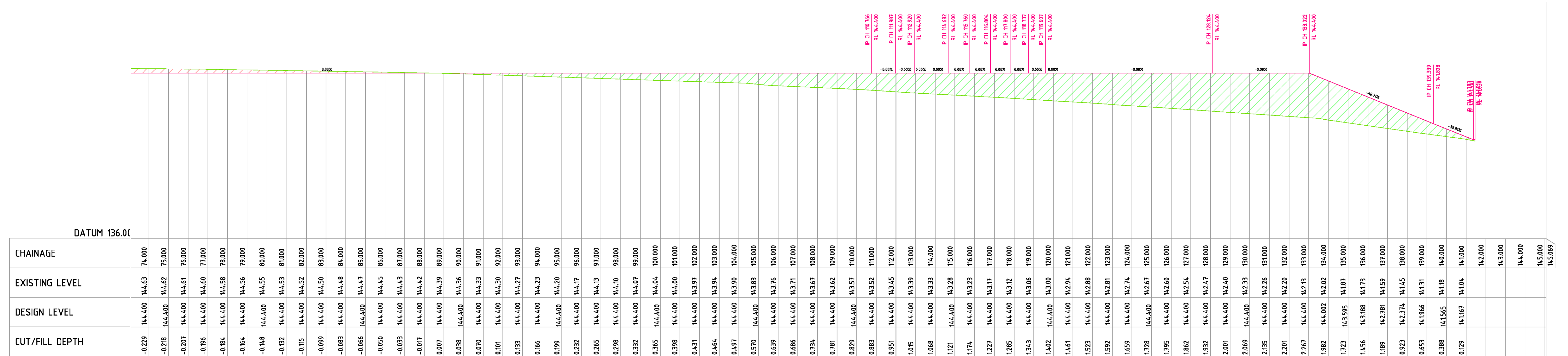
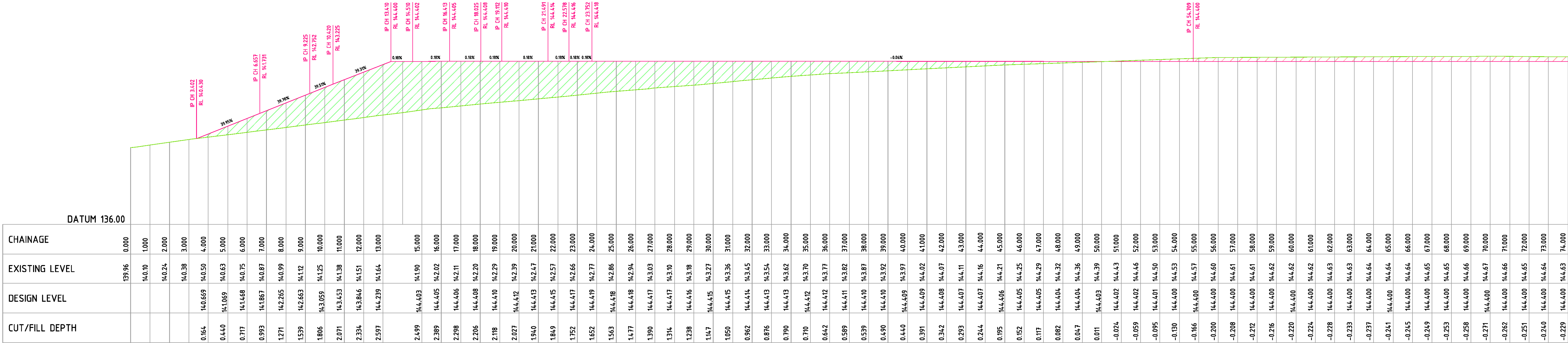
DRAWING
GENERAL LONG SECTIONS

PROJECT NO.	DRAWING NO.	REVISION	DATE
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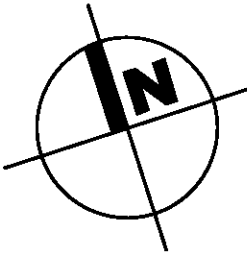


Section B | General Section 2
SCALES: HORIZONTAL 1:100 VERTICAL 1:100

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DRAWING
GENERAL LONG SECTIONS

PROJECT NO.	DRAWING NO.	REVISION	DATE
----	S401	A	18.11.2021
SCALE @ A1	DRAWN	AUTHORISED	
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