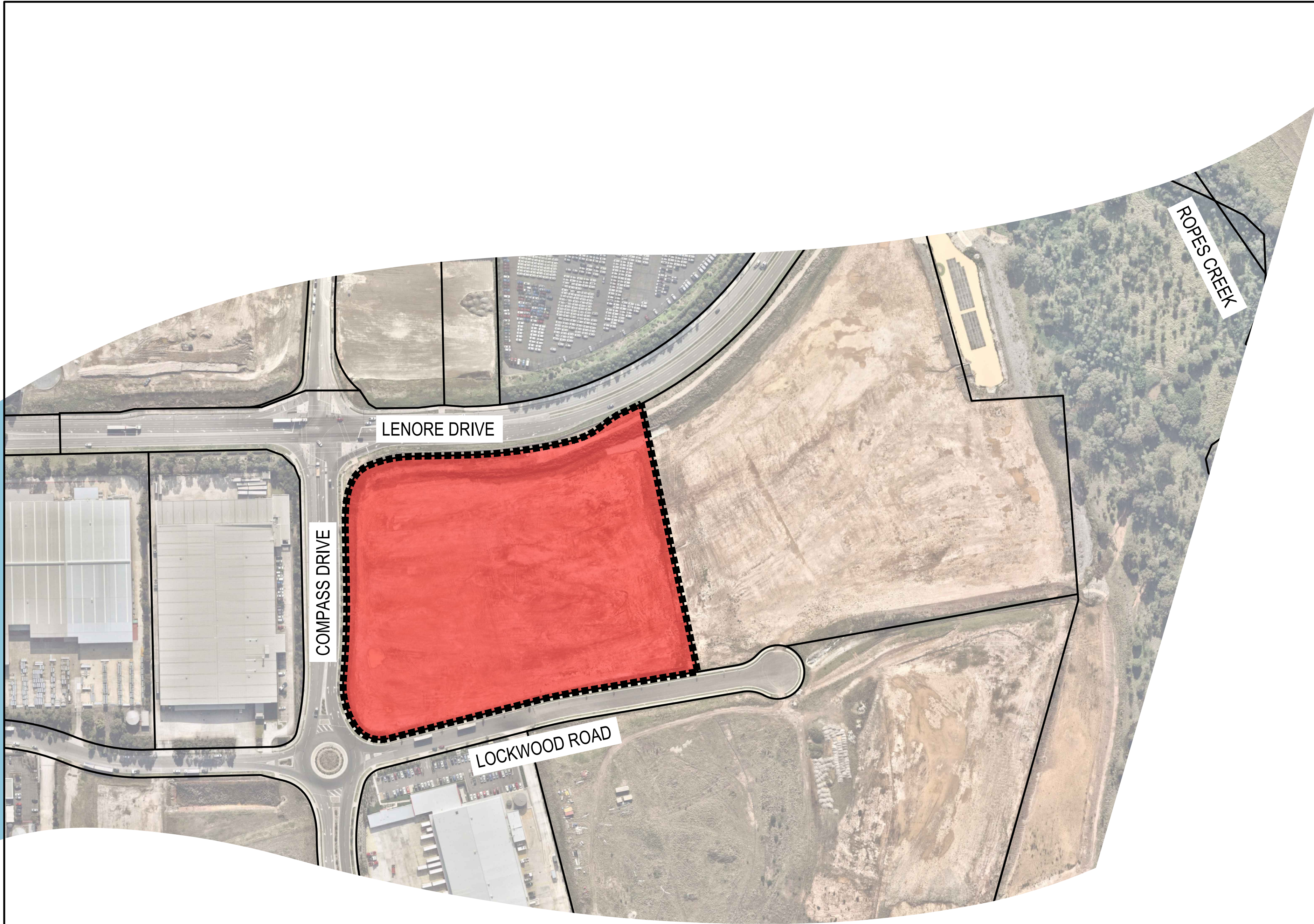




FITZPATRICK INVESTMENTS PTY LTD

ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

DRAWING SCHEDULE

DRAWING NUMBER	DESCRIPTION
220011-DA-C01.01	COVER SHEET AND DRAWING SCHEDULE
220011-DA-C01.21	GENERAL NOTES
220011-DA-C01.41	GENERAL ARRANGEMENT PLAN
220011-DA-C03.01	EROSION AND SEDIMENTATION CONTROL PLAN
220011-DA-C03.21	EROSION AND SEDIMENTATION CONTROL DETAILS
220011-DA-C03.31	SEDIMENT BASIN DETAILS
220011-DA-C04.01	BULK EARTHWORKS - CUT AND FILL PLAN
220011-DA-C05.01	SITEWORKS AND STORMWATER MANAGEMENT PLAN - SHEET 01
220011-DA-C05.02	SITEWORKS AND STORMWATER MANAGEMENT PLAN - SHEET 02
220011-DA-C05.03	SITEWORKS AND STORMWATER MANAGEMENT PLAN - SHEET 03
220011-DA-C05.04	SITEWORKS AND STORMWATER MANAGEMENT PLAN - SHEET 04
220011-DA-C05.05	SITEWORKS AND STORMWATER MANAGEMENT PLAN - SHEET 05
220011-DA-C05.06	SITEWORKS AND STORMWATER MANAGEMENT PLAN - SHEET 06
220011-DA-C11.01	PAVEMENT, SIGNAGE AND LINE MARKING PLAN
220011-DA-C12.11	RETAINING WALL DETAILS
220011-DA-C12.21	SITE SECTIONS
220011-DA-C14.01	SITEWORKS DETAILS
220011-DA-C20.01	PRE-DEVELOPMENT STORMWATER CATCHMENT PLAN
220011-DA-C20.21	POST-DEVELOPMENT STORMWATER CATCHMENT PLAN
220011-DA-C23.01	SAFETY IN DESIGN

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
4	27/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH	MKH	
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH	MKH	
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH	MKH	
1	1/09/2022	COORDINATION ISSUE	SHH	SHH	MKH	

Client

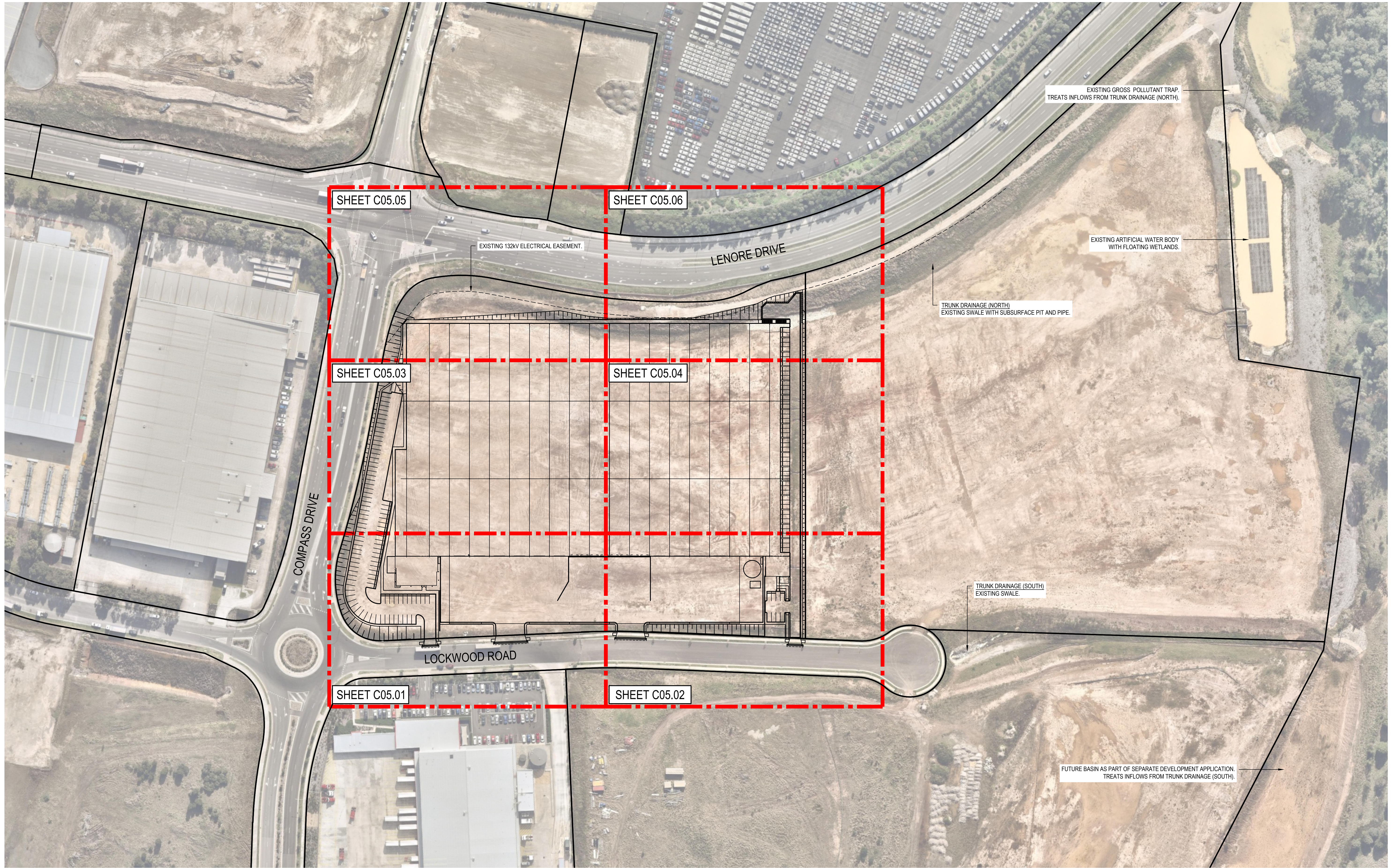
Scale

SCALE 1:2000 @A1

North

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Phone: 02 9922 6135

Scale 1:2000	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date 01/09/2022	Project Number/Drawing Number 220011-DA-C01.01
Size A1	Revision 4
Datum MGA1994	



REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH	MKH	
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH	MKH	
1	1/09/2022	COORDINATION ISSUE	SHH	SHH	MKH	

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Scale

0 20 40 60 80 100m

SCALE 1:1000 @A1

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Project
ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

Title
GENERAL ARRANGEMENT PLAN

Scale
1:1000

Date
01/09/2022

Size
A1

Datum
MGA1994

Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number
220011-DA-C01.41

Revision
3

LEGEND

TEMPORARY CONSTRUCTION ACCESS
(SD 6-14)

STOCKPILES (SD 4-1)

SEDIMENT FENCE (SD 6-8)

DIVERSION BANK (WITH CHANNEL)

SEDIMENT TRAP FOR KERB INLET
(ON GRADE - SANDBAG)

SEDIMENT TRAP FOR KERB INLET
(AT LOW POINT - SANDBAG)

GEOTEXTILE INLET FILTER (SD 6-12)

STRAWBALE SEDIMENT FILTER (SD 6-7)

COMPASS DRIVE

LENORE DRIVE

LOCKWOOD ROAD

PROPOSED SEDIMENT BASIN. EXACT LOCATION AND ORIENTATION TO BE DETERMINED AT DETAILED DESIGN STAGE. REFER DRG. C03.31 FOR INDICATIVE DETAIL.

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH

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Scale

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ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

Title

EROSION AND SEDIMENTATION
CONTROL PLAN

Scale

1:500

Date

01/09/2022

Size

A1

Datum

MGA1994

Status

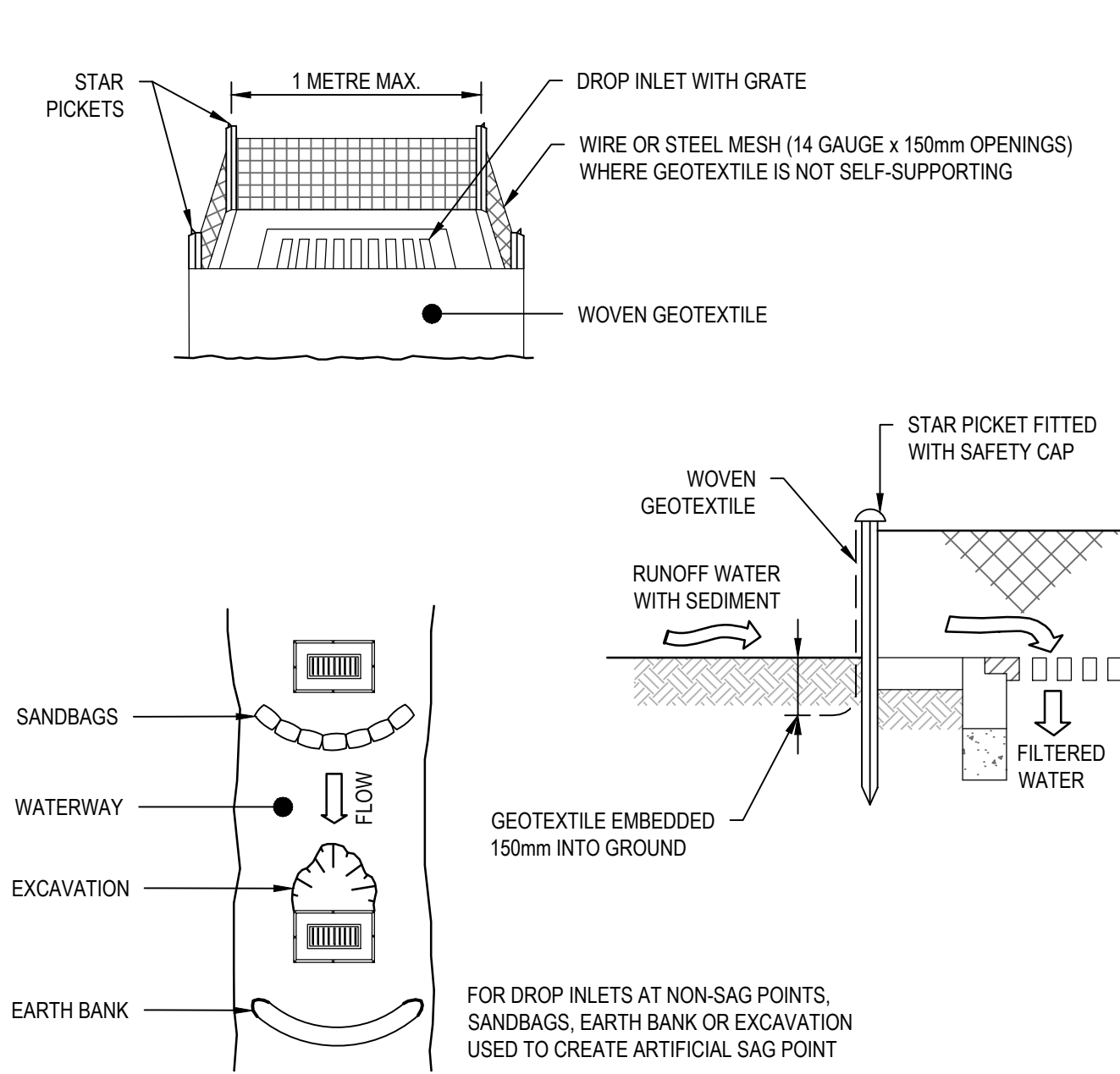
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NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number

220011-DA-C03.01

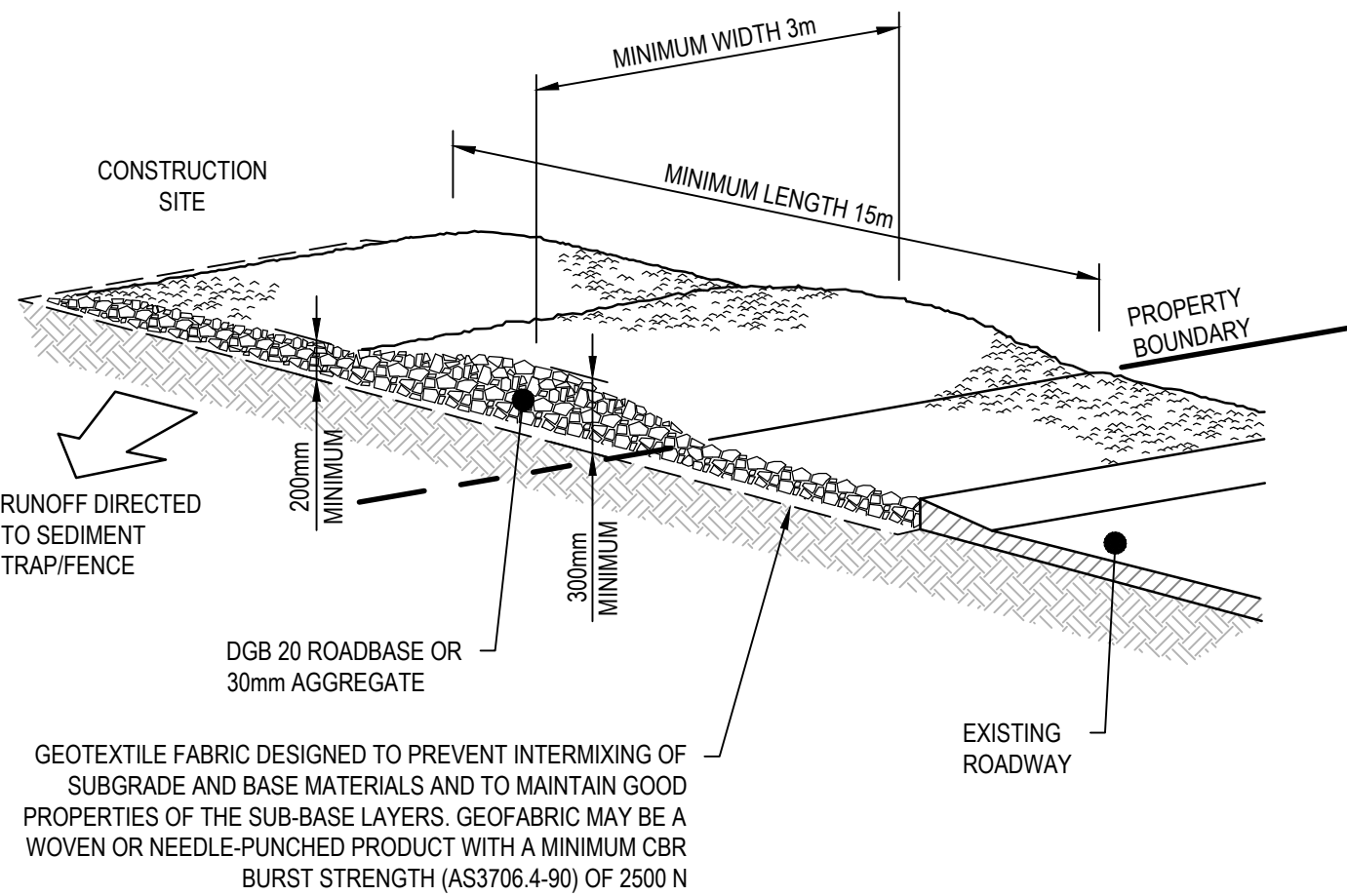
Revision

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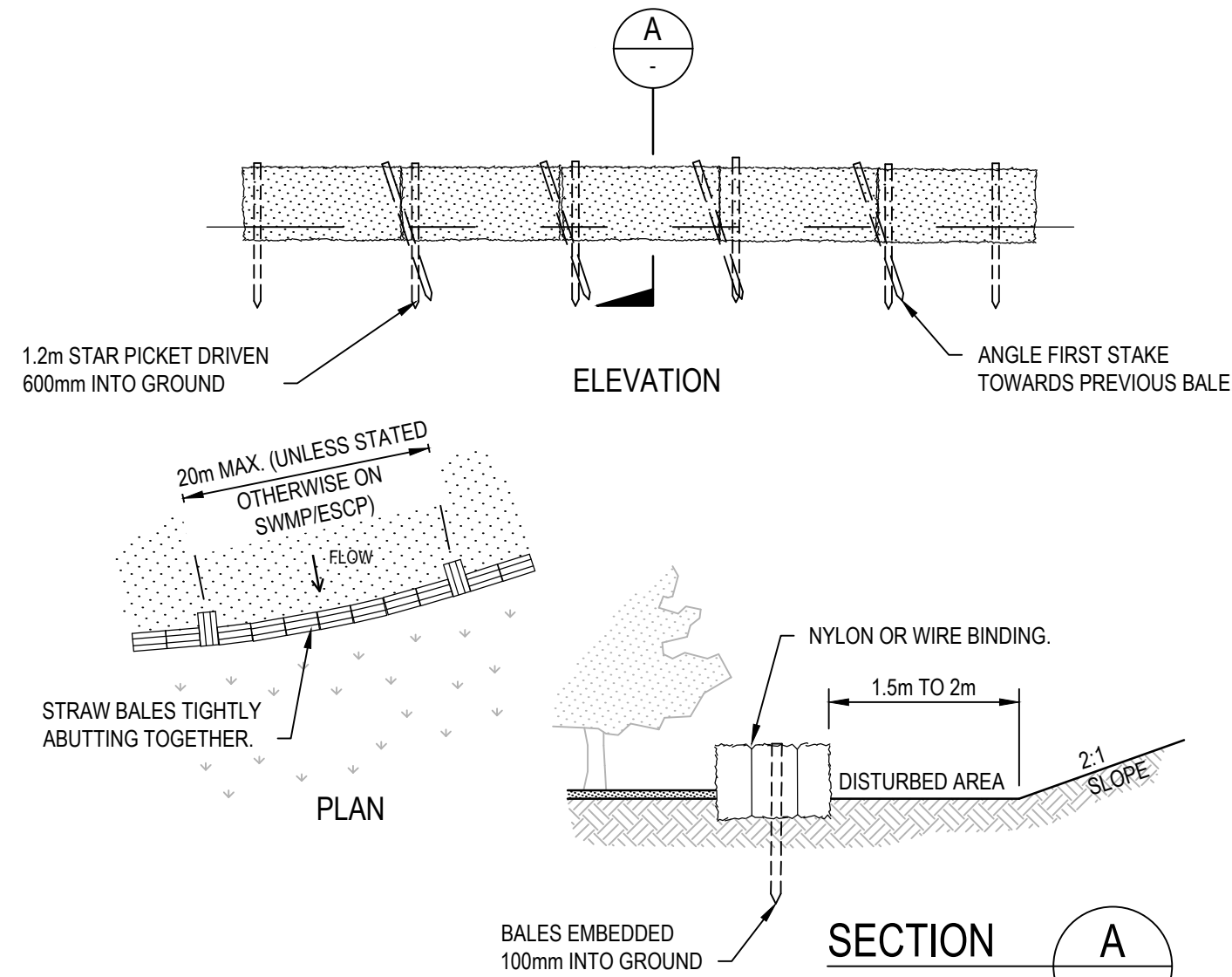
- CONSTRUCTION NOTES**
- FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
 - FOLLOW STANDARD DRAWING 6-7 AND STANDARD DRAWING 6-8 FOR INSTALLATION PROCEDURES FOR THE STRAW BALES OR GEOFABRIC. REDUCE THE PICKET SPACING TO 1 METRE CENTRES.
 - IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
 - DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER (SD 6-12)



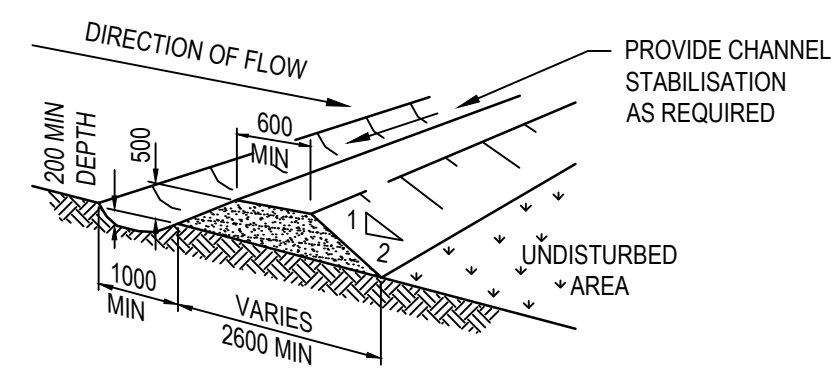
- CONSTRUCTION NOTES**
- STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
 - COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
 - CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
 - ENSURE THE STRUCTURE IS AT LEAST 15 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3 METRES WIDE.
 - WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

TEMPORARY CONSTRUCTION ACCESS (SD 6-14)



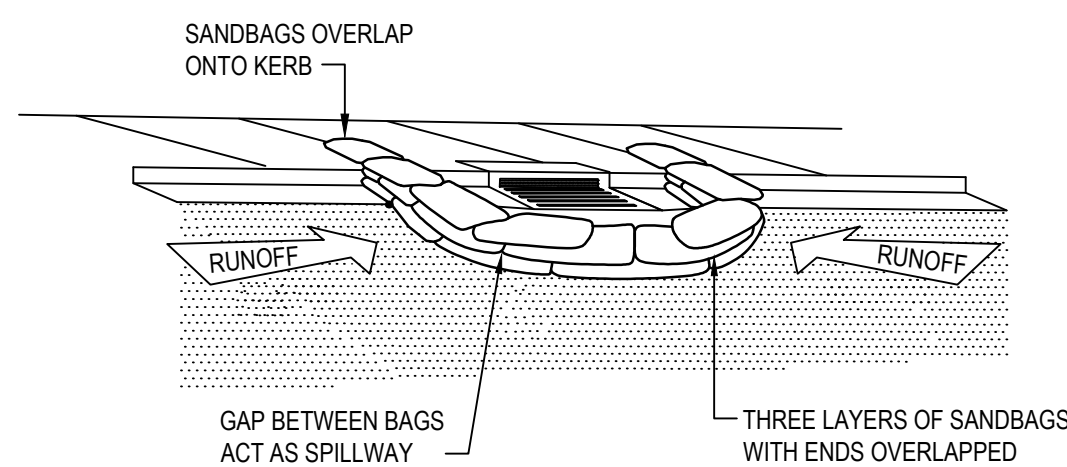
- CONSTRUCTION NOTES**
- CONSTRUCT THE STRAW BALE FILTER AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE.
 - PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN BALES. STRAWS ARE TO BE PLACED PARALLEL TO GROUND.
 - ENSURE THAT THE MAXIMUM HEIGHT OF THE FILTER IS ONE BALE.
 - EMBED EACH BALE IN THE GROUND 75mm TO 100mm AND ANCHOR WITH TWO 1.2 METRE STAR PICKETS OR STAKES. ANGLE THE FIRST STAR PICKET OR STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE. DRIVE THEM 600mm INTO THE GROUND AND, IF POSSIBLE, FLUSH WITH THE TOP OF THE BALES. WHERE STAR PICKETS ARE USED AND THEY PROTRUDE ABOVE THE BALES, ENSURE THEY ARE FITTED WITH SAFETY CAPS.
 - WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWNSLOPE FROM A DISTURBED BATTER, ENSURE THE BALES ARE PLACED 1 TO 2 METRES DOWNSLOPE FROM THE TOE.
 - ESTABLISH A MAINTENANCE PROGRAM THAT ENSURES THE INTEGRITY OF THE BALES IS RETAINED - THEY COULD REQUIRE REPLACEMENT EACH TWO TO FOUR MONTHS.

STRAW BALE FILTER (SD 6-7)



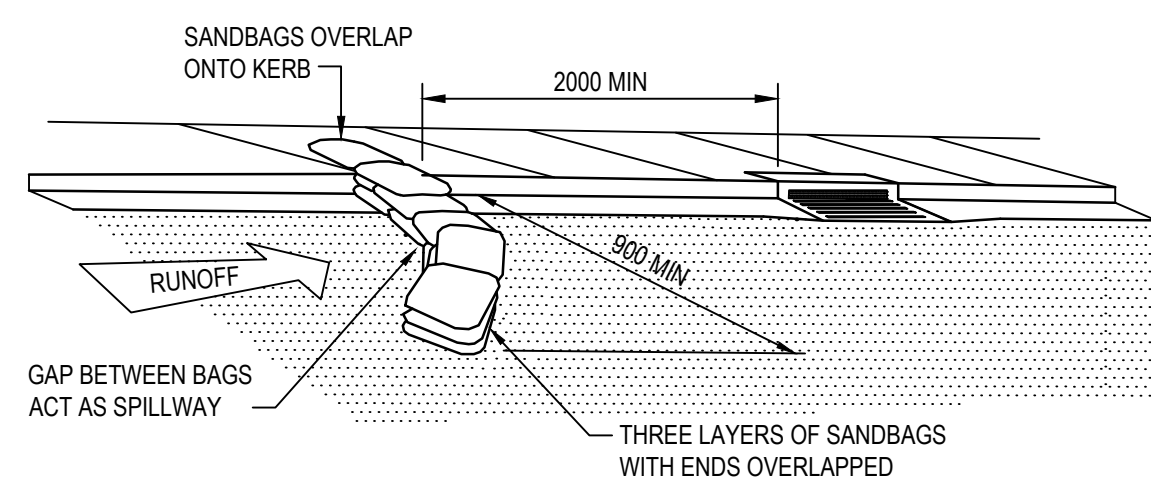
DIVERSION BANK (WITH CHANNEL)

NOT TO SCALE



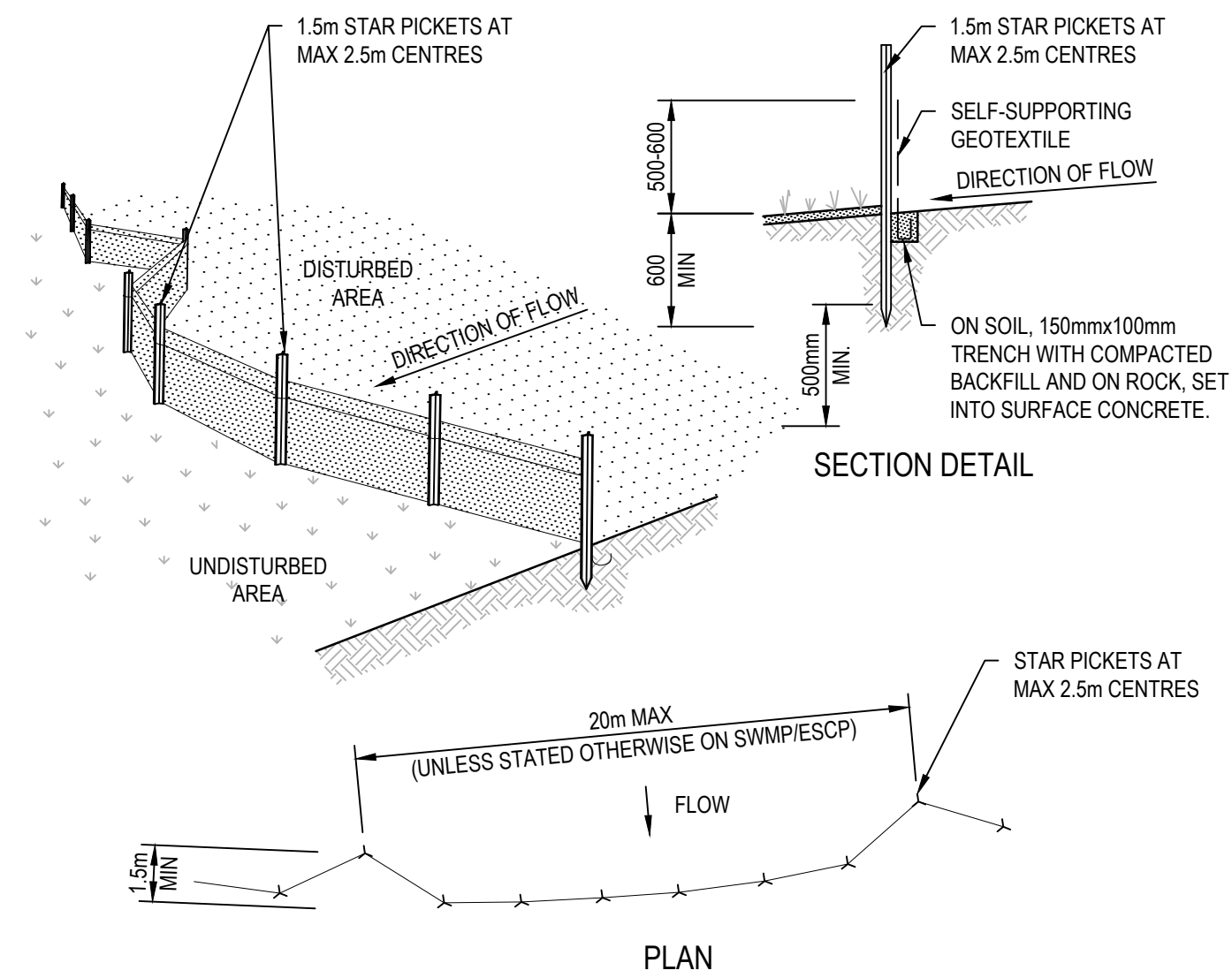
SEDIMENT TRAP FOR KERB INLET (AT LOW POINT - SANDBAG)

NOT TO SCALE



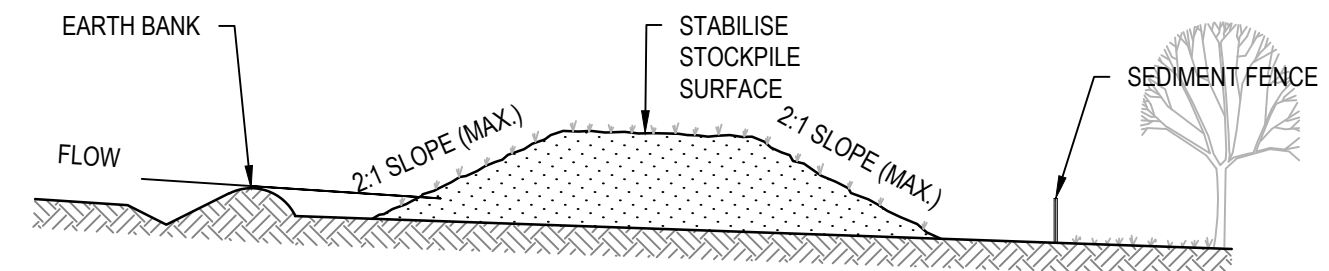
SEDIMENT TRAP FOR KERB INLET (ON GRADE - SANDBAG)

NOT TO SCALE



- CONSTRUCTION NOTES**
- CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
 - CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
 - DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
 - FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
 - JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
 - BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

SEDIMENT FENCE (SD 6-8)



- CONSTRUCTION NOTES**
- PLACE STOCKPILES MORE THAN 2m (PREFERABLY 5m) FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
 - CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
 - WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
 - WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
 - CONSTRUCT EARTH BANKS (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (STANDARD DRAWING 6-8) 1 TO 2m DOWNSLOPE.

STOCKPILES (SD 4-1)

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH

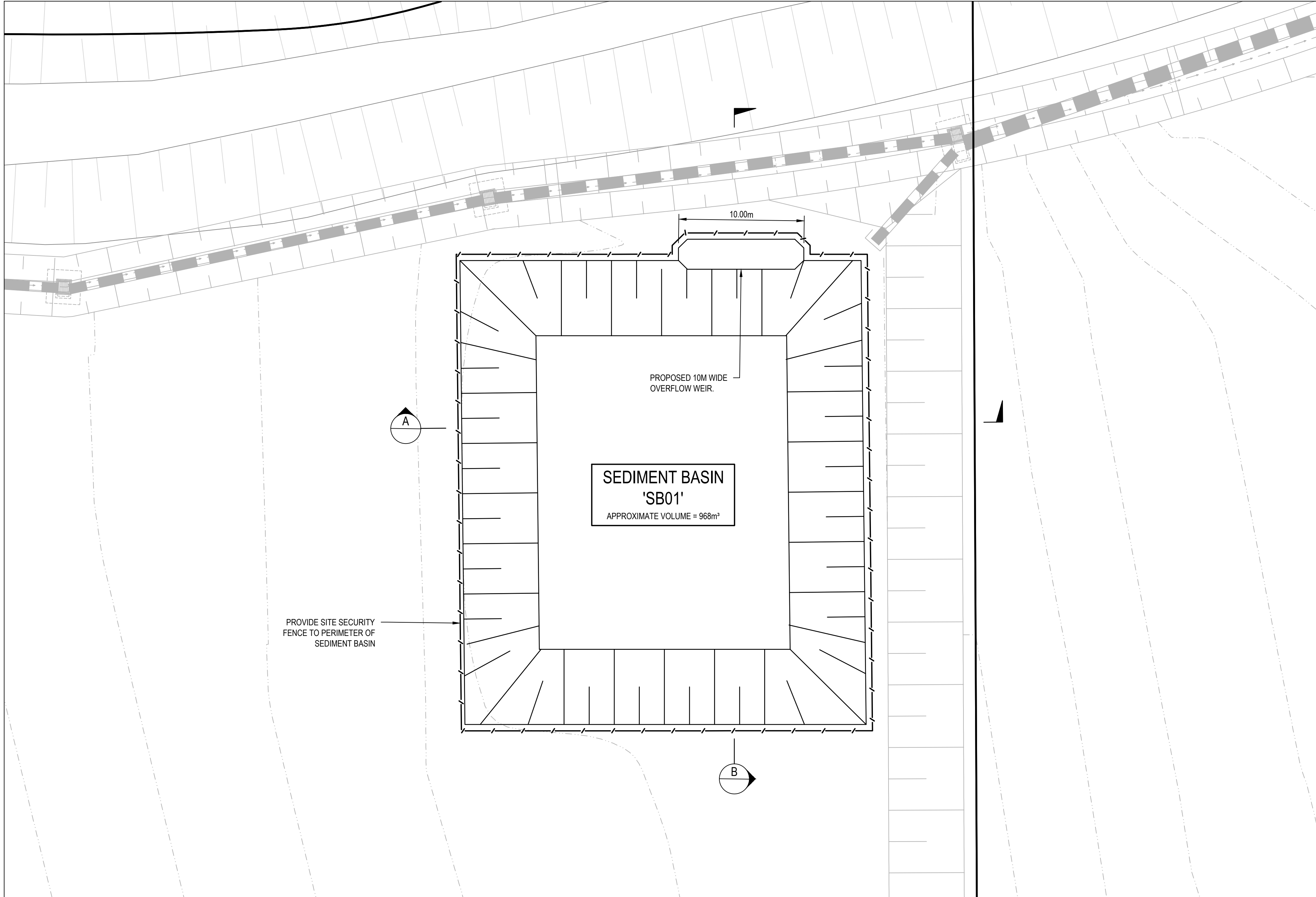
Client	Fitzpatrick Investments
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Scale	North
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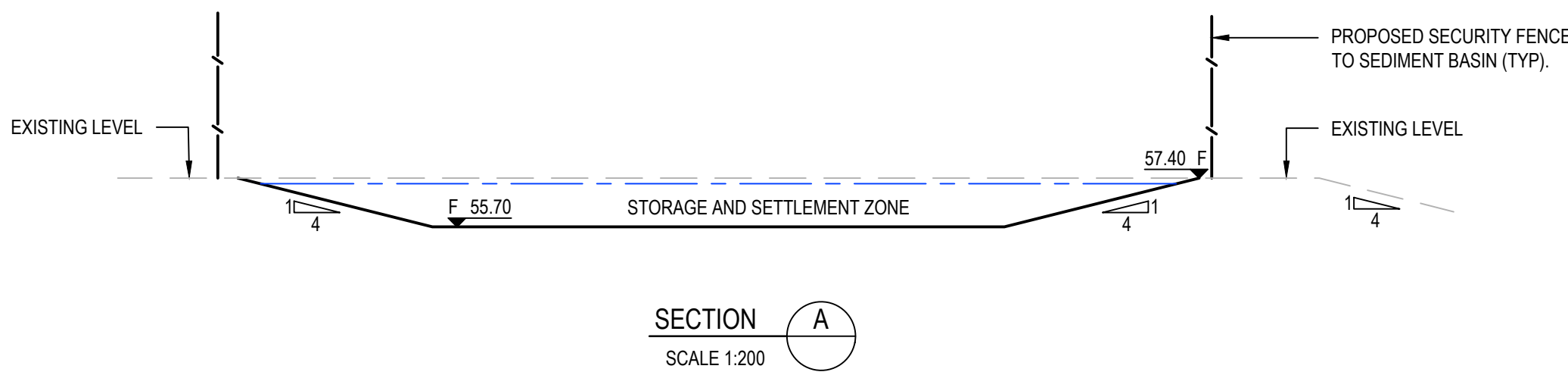
enspire
Enspire Solutions Pty Ltd Level 4, 153 Walker Street, North Sydney NSW 2060 ABN: 71 624 801 690 Phone: 02 9922 6135

Project	ERSKINE PARK INDUSTRIAL ESTATE LOCKWOOD ROAD (LOT 102 DP1268632) DEVELOPMENT APPLICATION
Title	EROSION AND SEDIMENTATION DETAILS

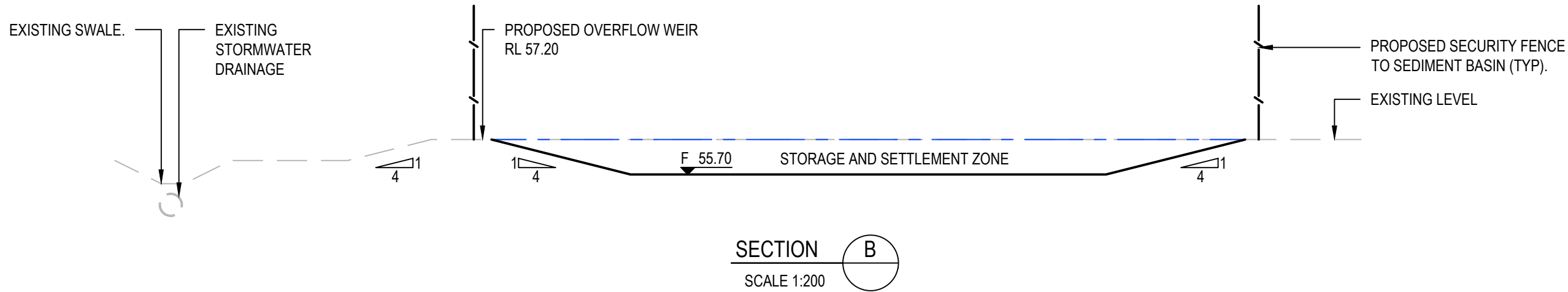
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Date	01/09/2022	Project Number/Drawing Number	220011-DA-C03.21
Size	A1	Revision	3
Datum	MGA1994		



SB01 PLAN
SCALE 1:200



SECTION A
SCALE 1:200



SECTION B
SCALE 1:200

1. Erosion Hazard and Sediment Basins

Site Name:	Erskine Park Industrial Estate
Site Location:	Erskine Park
Precinct/Stage:	Lockwood Road (Lot 102 DP1268632)
Other Details:	

Site area	Sub-catchment or Name of Structure	Notes
Total catchment area (ha)	SB01 4.9	
Disturbed catchment area (ha)	4.9	

Soil analysis (enter sediment type if known, or laboratory particle size data)

Sediment Type (C, F or D) if known:	D	From Appendix C (if known)
% sand (fraction 0.02 to 2.00 mm)	29	Enter the percentage of each soil fraction. E.g. enter 10 for 10%
% silt (fraction 0.002 to 0.02 mm)	29	
% clay (fraction finer than 0.002 mm)	29	
Dispersion percentage	10.0	E.g. enter 10 for dispersion of 10%
% of whole soil dispersible	4.35	See Section 6.3.3(e). Auto-calculated
Soil Texture Group	D	Automatic calculation from above

Rainfall data

Design rainfall depth (no of days)	5	See Section 6.3.4 and, particularly, Table 6.3 on pages 6-24 and 6-25.
Design rainfall depth (percentile)	75	
x-day, y-percentile rainfall event (mm)	19	
Rainfall R-factor (if known)		Only need to enter one or the other here
IFD: 2-year, 6-hour storm (if known)	10.08	

RUSLE Factors

Rainfall erosivity (R-factor)	2240	Auto-filled from above
Soil erodibility (K-factor)	0.075	RUSLE LS factor calculated for a high rill/interrill ratio.
Slope length (m)	300	
Slope gradient (%)	1.4	
Length/gradient (LS-factor)	0.42	
Erosion control practice (P-factor)	1.3	
Ground cover (C-factor)	1	

Sediment Basin Design Criteria (for Type D/F basins only. Leave blank for Type C basins)

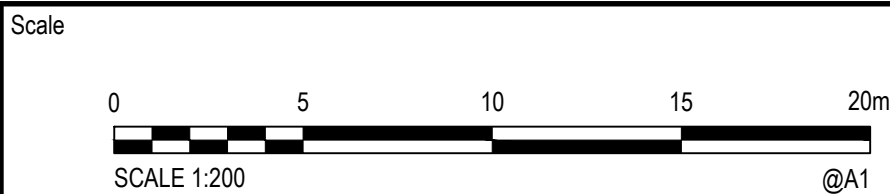
Storage (soil) zone design (no of months)	2	Minimum is generally 2 months
Cv (Volumetric runoff coefficient)	0.79	See Table F2, page F-4 in Appendix F

Calculations and Type D/F Sediment Basin Volumes

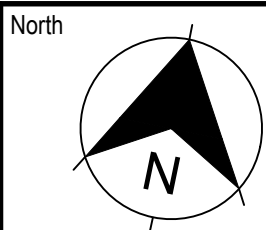
Soil loss (t/ha/yr)	92	
Soil Loss Class	1	See Table 4.2, page 4-13
Soil loss (m³/ha/yr)	70	Conversion to cubic metres
Sediment basin storage (soil) volume (m³)	58	See Sections 6.3.4(i) for calculations
Sediment basin settling (water) volume (m³)	735	See Sections 6.3.4(i) for calculations
Sediment basin total volume (m³)	793	

NB for sizing of Type C (coarse) sediment basins, see Worksheet 3 (if required).

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
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1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH



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Project
ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION
Title
SEDIMENT BASIN
DETAILS

Scale
1:200
Date
01/09/2022
Size
A1
Datum
MGA1994

Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION
Project Number/Drawing Number
220011-DA-C03.31
Revision
3



CUT AND FILL VOLUMES		
1.	REFER SPECIFICATION NOTES FOR EARTHWORKS GENERAL REQUIREMENTS.	
2.	ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL/RELEVANT AUTHORITY SPECIFICATIONS AND DETAILS.	
3.	NO ALLOWANCE HAS BEEN MADE FOR BULKING FACTORS.	
4.	NO ALLOWANCE HAS BEEN MADE FOR TOPSOIL STRIPPING AND DETAILED EARTHWORKS. ie SERVICE TRENCHING, DETAILED EXCAVATION AND THE LIKE.	
5.	APPROXIMATE BULK EARTHWORKS VALUES AS FOLLOWS;	
5.1.	CUT	24,450m ³
5.2.	FILL	15,540m ³
5.3.	BALANCE	8,910m ³ (EXPORT)

LEGEND	
[Color Box]	GREATER THAN 7.0m CUT
[Color Box]	6.0m TO 7.0m CUT
[Color Box]	5.0m TO 6.0m CUT
[Color Box]	4.0m TO 5.0m CUT
[Color Box]	3.0m TO 4.0m CUT
[Color Box]	2.0m TO 3.0m CUT
[Color Box]	1.0m TO 2.0m CUT
[Color Box]	0.0m TO 1.0m CUT
[Color Box]	0.0m TO 1.0m FILL
[Color Box]	1.0m TO 2.0m FILL
[Color Box]	2.0m TO 3.0m FILL
[Color Box]	3.0m TO 4.0m FILL
[Color Box]	4.0m TO 5.0m FILL
[Color Box]	GREATER THAN 5.0m FILL

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH

Client

Scale

SCALE 1:500 @A1

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Project

ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

Title

BULK EARTHWORKS
CUT AND FILL PLAN

Scale

1:500

Date

01/09/2022

Size

A1

Datum

MGA1994

Status

FOR APPROVAL
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Project Number/Drawing Number

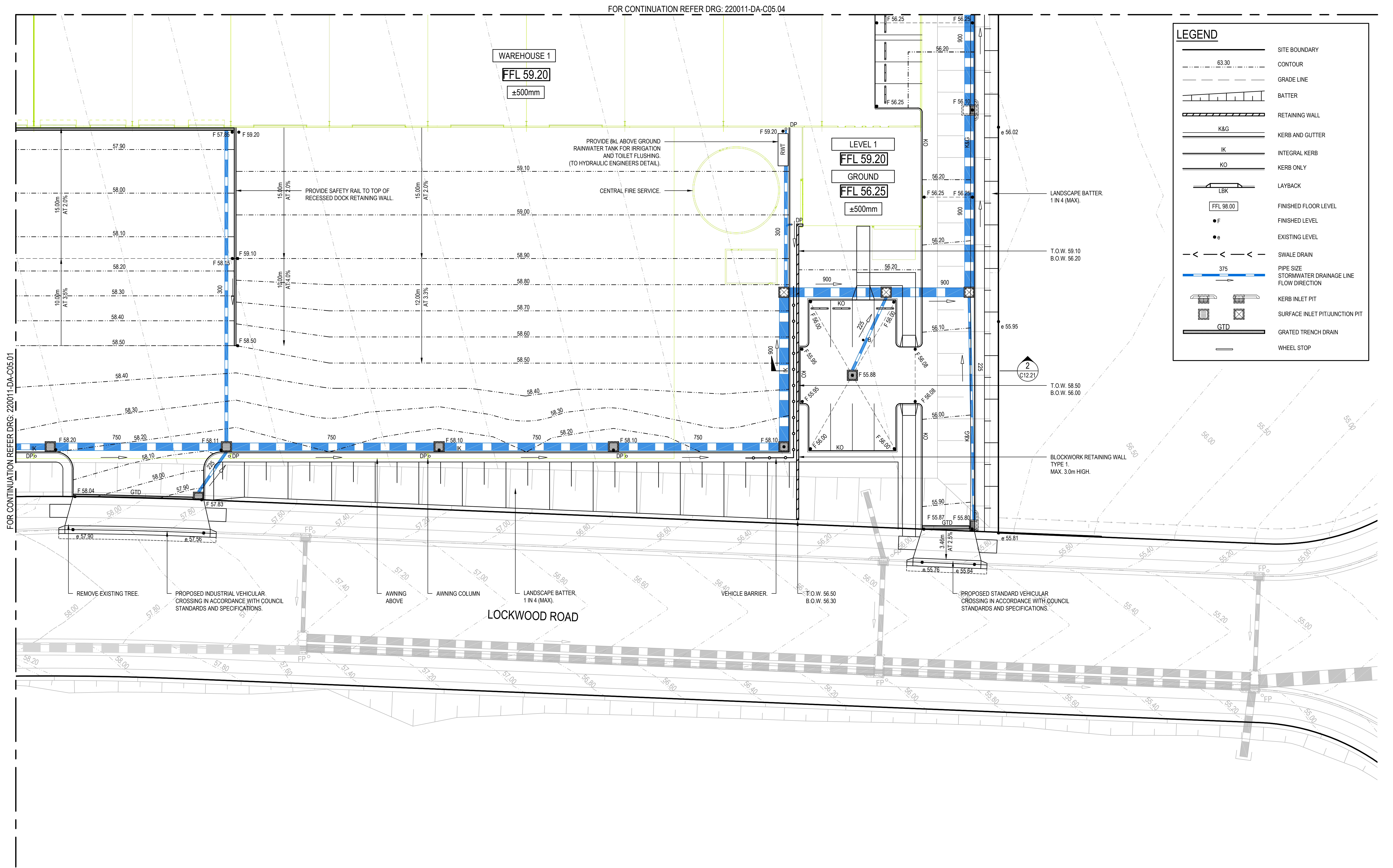
220011-DA-C04.01

Revision

3



Scale 1:200	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION	
Date 01/09/2022		
Size A1		
Datum MGA1994		
Project Number/Drawing Number		Revision
220011-DA-C05.01		3



REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH

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Scale

0 5 10 15 20m

SCALE 1:200

@A1

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Project

ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

Title

SITWORKS AND STORMWATER
MANAGEMENT PLAN
SHEET 02

Scale

1:200

Date

01/09/2022

Size

A1

Datum

MGA1994

Status

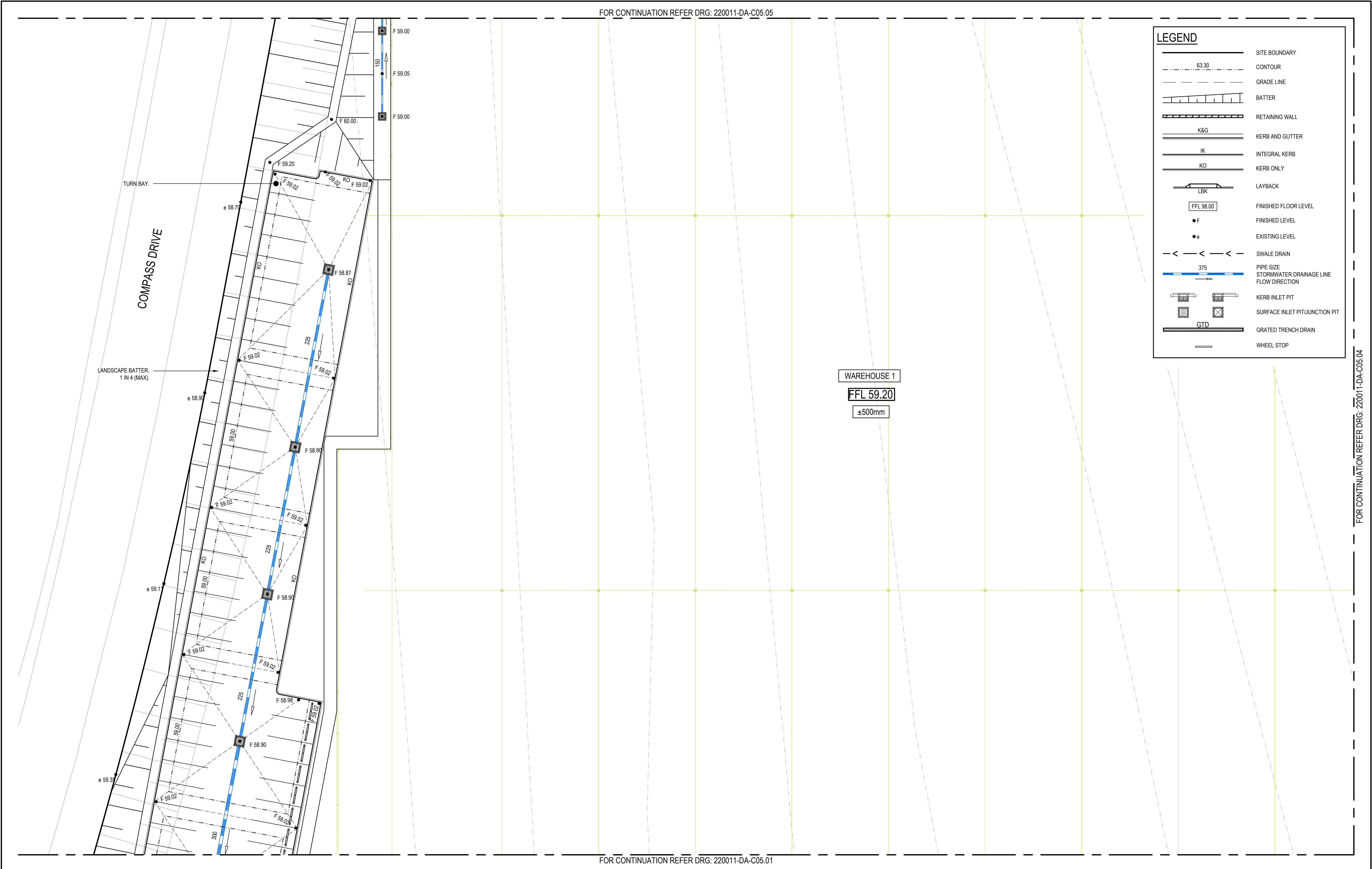
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number

220011-DA-C05.02

Revision

3



REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH

Client

Fitzpatrick Investments

Scale

0 5 10 15 20m

SCALE 1:200 @A1

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Project
ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

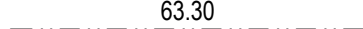
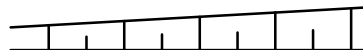
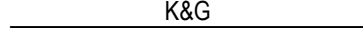
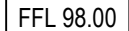
Title
SITEWORKS AND STORMWATER
MANAGEMENT PLAN
SHEET 03

Scale 1:200	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date 01/09/2022	Project Number/Drawing Number 220011-DA-C05.03
Size A1	Revision 3
Datum MGA1994	

FOR CONTINUATION REFER DRG: 220011-DA-C05.03



LEGEND

	SITE BOUNDARY
	CONTOUR
	GRADE LINE
	BATTER
	RETAINING WALL
	KERB AND GUTTER
	INTEGRAL KERB
	KERB ONLY
	LAYBACK
	FINISHED FLOOR LEVEL
	FINISHED LEVEL
	EXISTING LEVEL
	SWALE DRAIN
	PIPE SIZE STORMWATER DRAINAGE LINE FLOW DIRECTION
	KERB INLET PIT
	SURFACE INLET PIT/JUNCTION PIT
	GRATED TRENCH DRAIN
	WHEEL STOP

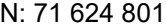
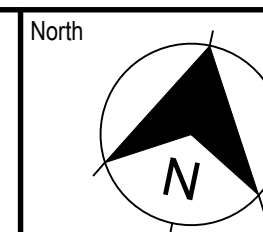
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Scale



0 5 10 15 20m

SCALE 1:200 @A1



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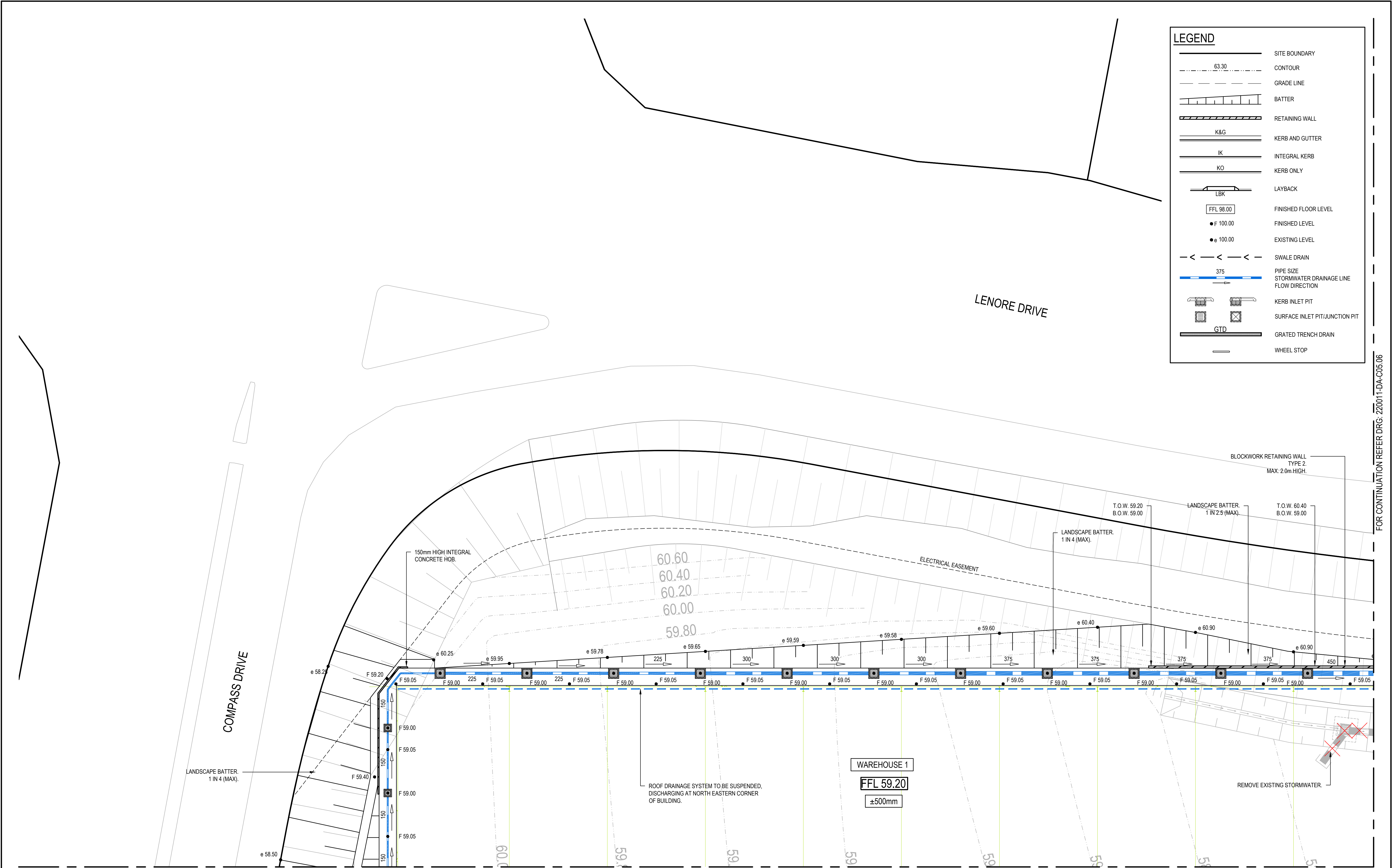
Project	ERSKINE PARK INDUSTRIAL ESTATE LOCKWOOD ROAD (LOT 102 DP1268632) DEVELOPMENT APPLICATION
Title	SITEWORKS AND STORMWATER MANAGEMENT PLAN SHEET 04

Scale	1:200
Date	01/09/2022
Size	A1
Datum	MGA1994

Status: **FOR APPROVAL**
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number	220011-DA-C05.04
-------------------------------	------------------

3 |



LEGEND	
	SITE BOUNDARY
	CONTOUR
	GRADE LINE
	BATTER
	RETAINING WALL
	K&G
	IK
	KO
	LBK
	FFL 98.00
	• F 100.00
	• e 100.00
	SWALE DRAIN
	375
	STORMWATER DRAINAGE LINE
	FLOW DIRECTION
	KERB INLET PIT
	SURFACE INLET PIT/JUNCTION PIT
	GTD
	WHEEL STOP

FOR CONTINUATION REFER DRG: 220011-DA-C05.06

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH

Client

Scale

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Project
ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

Title
SITWORKS AND STORMWATER
MANAGEMENT PLAN
SHEET 05

Scale
1:200

Date
01/09/2022

Size
A1

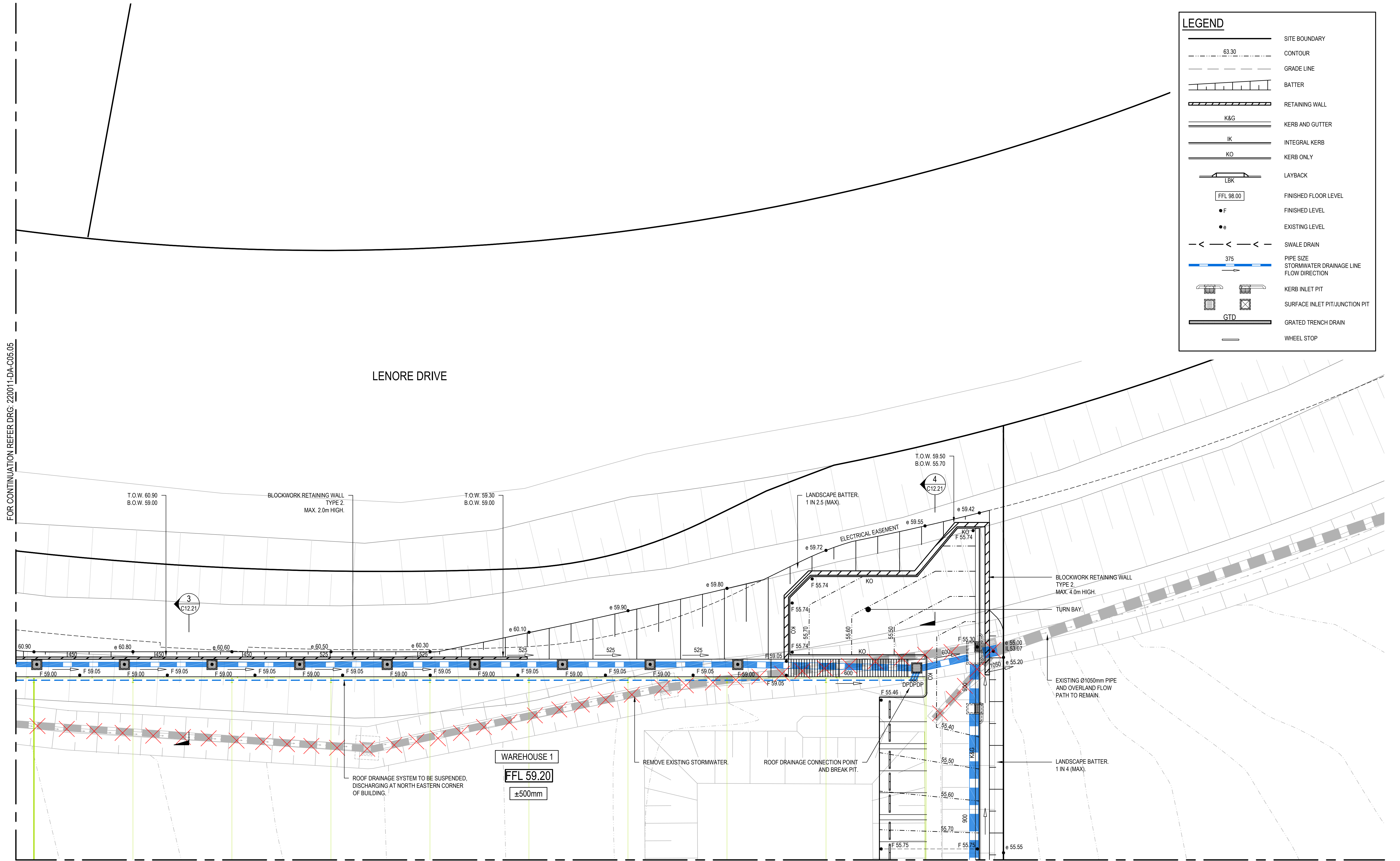
Datum
MGA1994

Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number
220011-DA-C05.05

Revision
3

FOR CONTINUATION REFER DRG: 220011-DA-C05.05



LEGEND

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[Symbol]	CONTOUR
[Symbol]	GRADE LINE
[Symbol]	BATTER
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[Symbol]	EXISTING LEVEL
[Symbol]	SWALE DRAIN
[Symbol]	PIPE SIZE
[Symbol]	STORMWATER DRAINAGE LINE
[Symbol]	FLOW DIRECTION
[Symbol]	KERB INLET PIT
[Symbol]	SURFACE INLET PIT/JUNCTION PIT
[Symbol]	GTD
[Symbol]	GRATED TRENCH DRAIN
[Symbol]	WHEEL STOP

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH

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Scale

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SCALE 1:200 @A1

North

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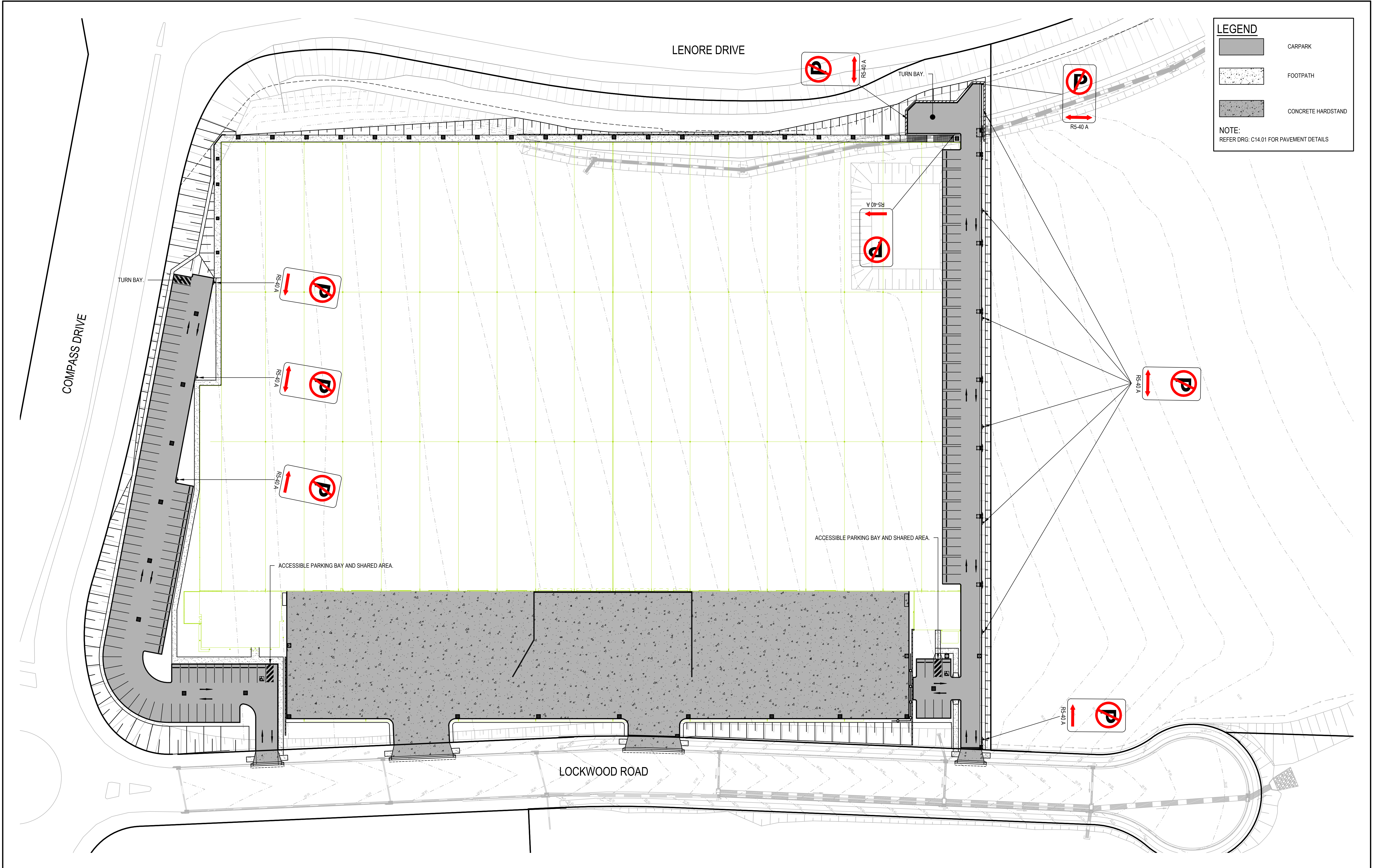
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Phone: 02 9922 6135

Project
ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

Title
SITWORKS AND STORMWATER
MANAGEMENT PLAN
SHEET 06

Scale 1:200	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date 01/09/2022	Project Number/Drawing Number 220011-DA-C05.06
Size A1	Revision 3
Datum MGA1994	



REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH	MKH	
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH	MKH	
1	1/09/2022	COORDINATION ISSUE	SHH	SHH	MKH	

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Scale

0 10 20 30 40 50m

SCALE 1:500 @A1

North

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Project
ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

Title
PAVEMENT, SIGNAGE AND LINEMARKING PLAN

Scale
1:500

Date
01/09/2022

Size
A1

Datum
MGA1994

Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

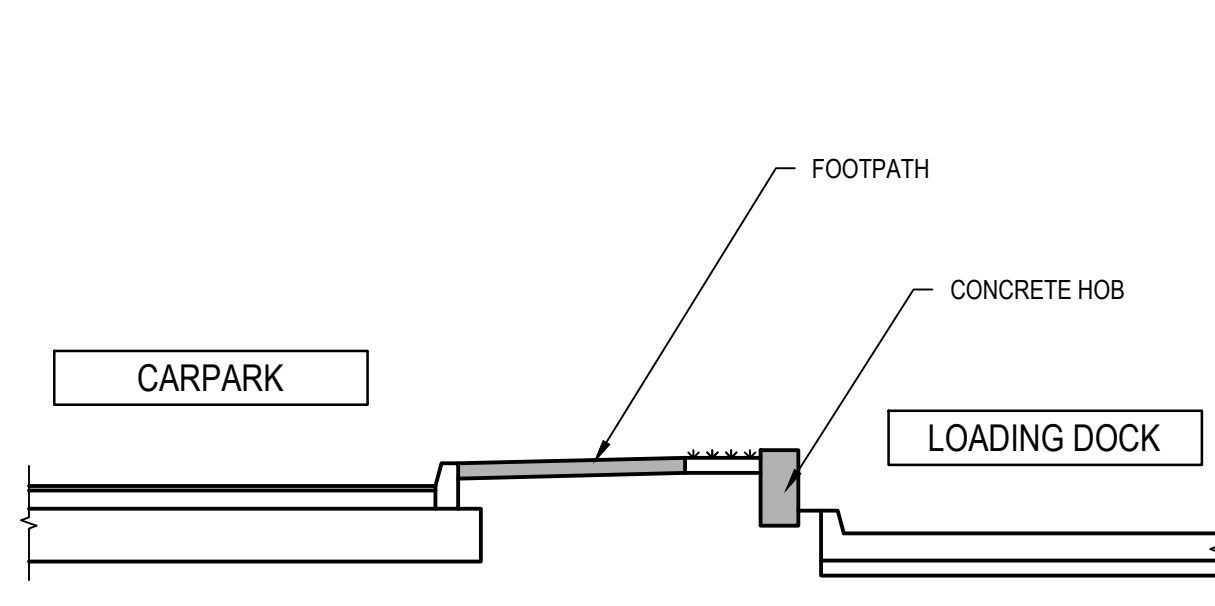
Project Number/Drawing Number
220011-DA-C11.01

Revision
3

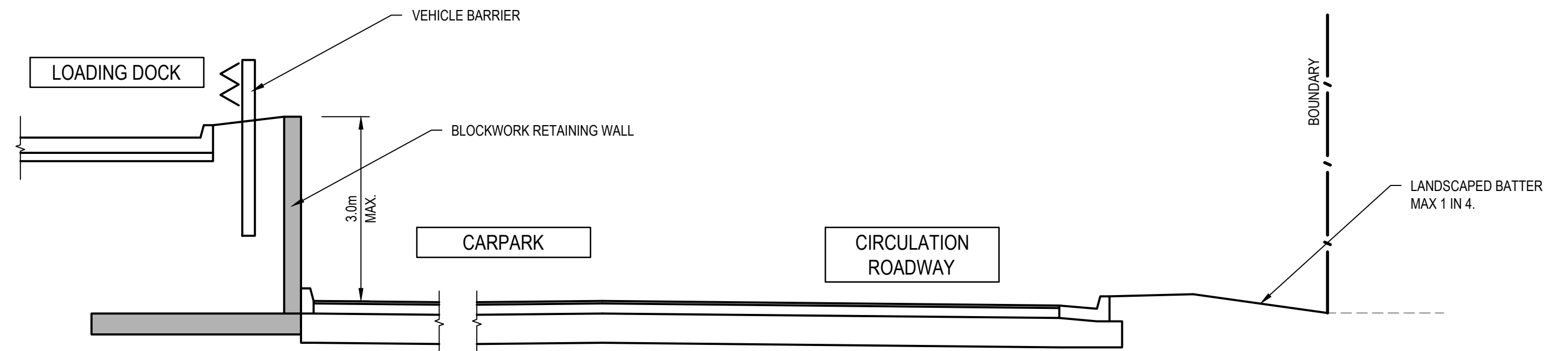


BLOCKWORK RETAINING WALL TYPE 2
SCALE 1:20

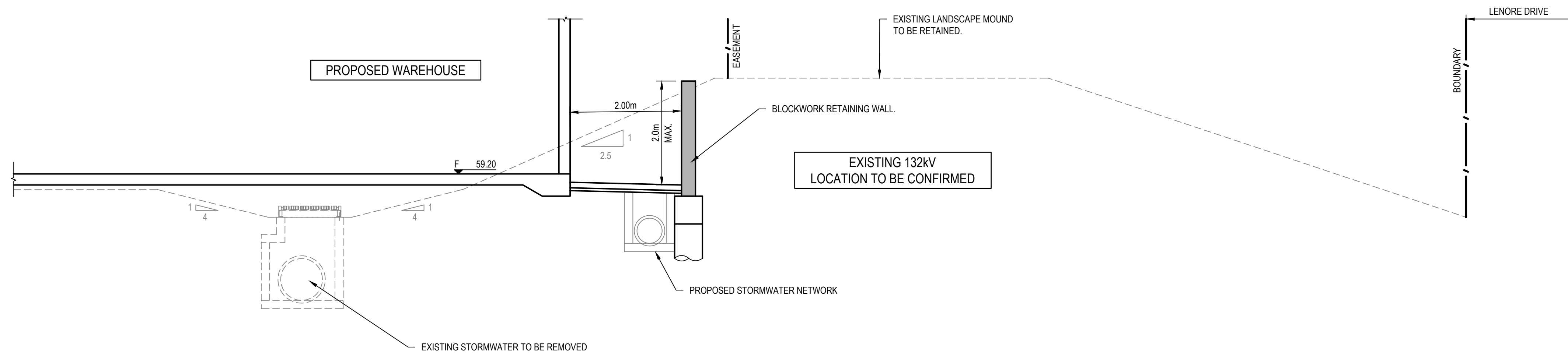
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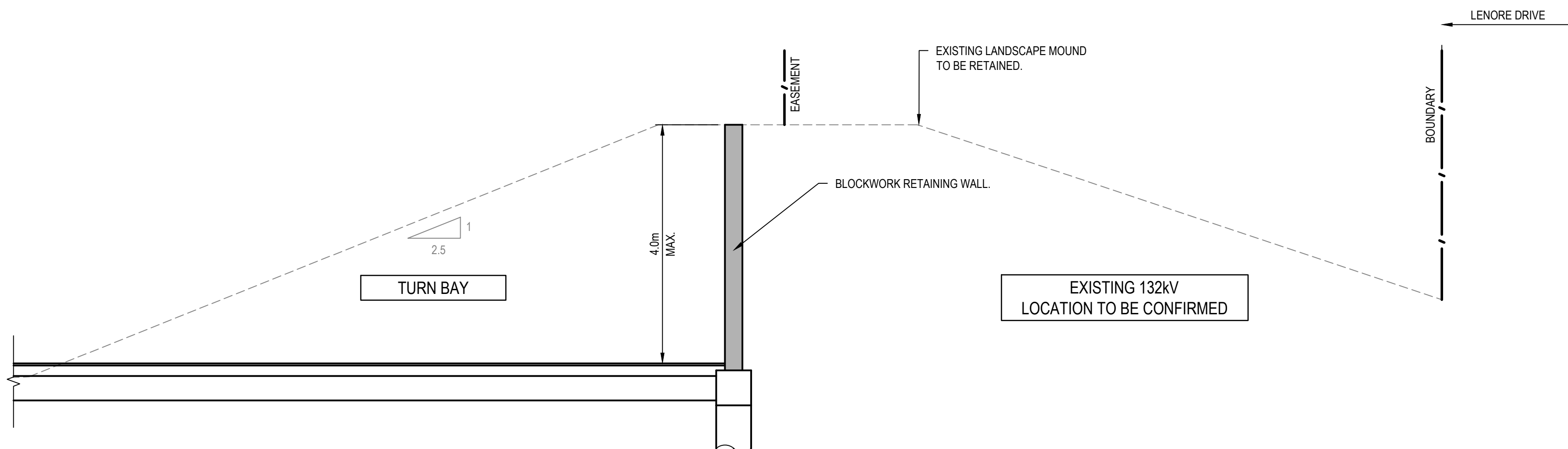
TYPICAL SECTION ALONG CONCRETE HOB 1
SCALE 1:50 C5.01



TYPICAL SECTION ALONG CONCRETE HOB 2
SCALE 1:50 C5.02



TYPICAL SECTION ALONG EXISTING EASEMENT 3
SCALE 1:50 C5.06



TYPICAL SECTION ALONG EXISTING EASEMENT 4
SCALE 1:50 C5.06

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH

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Scale

SCALE 1:50 @A1

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Project
ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

Title
SITE SECTIONS

Scale
1:500

Date
01/09/2022

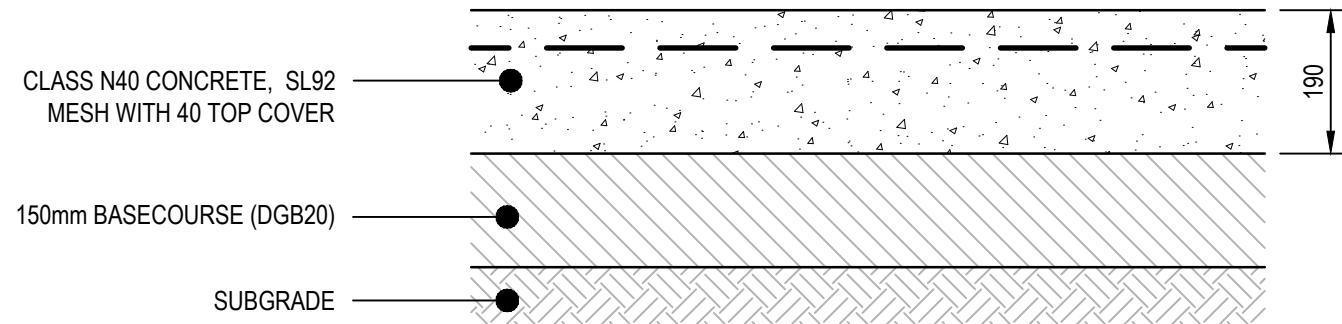
Size
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Datum
MGA1994

Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

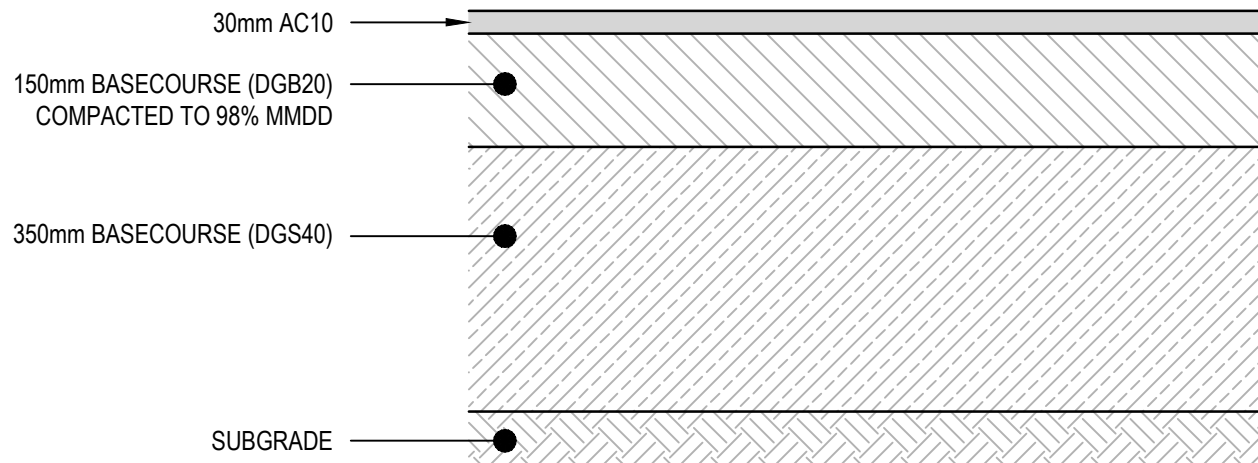
Project Number/Drawing Number
220011-DA-C12.21

Revision
3



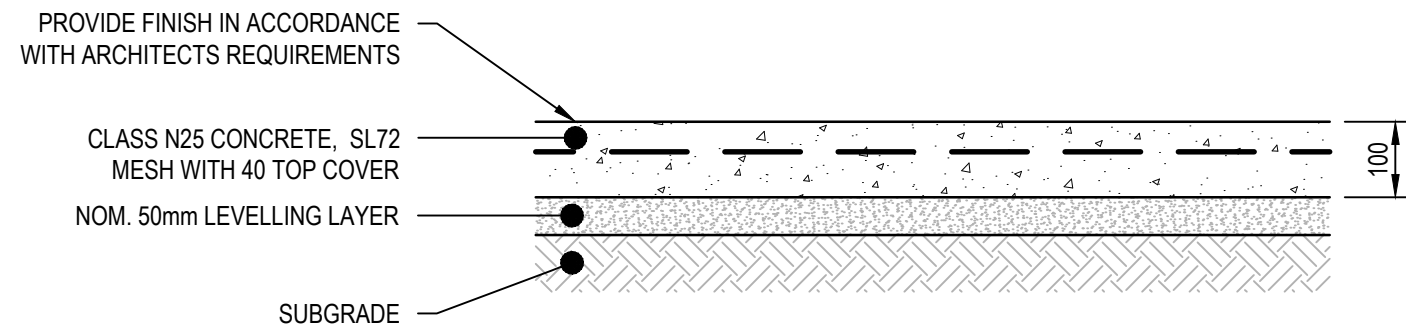
HARDSTAND RIGID PAVEMENT

- SCALE 1:10
- NOTES:
- MIN CBR 3.0% (CONTRACTOR TO CONFIRM ONSITE).
 - DESIGN LOADING = 1x10⁷ ESA's



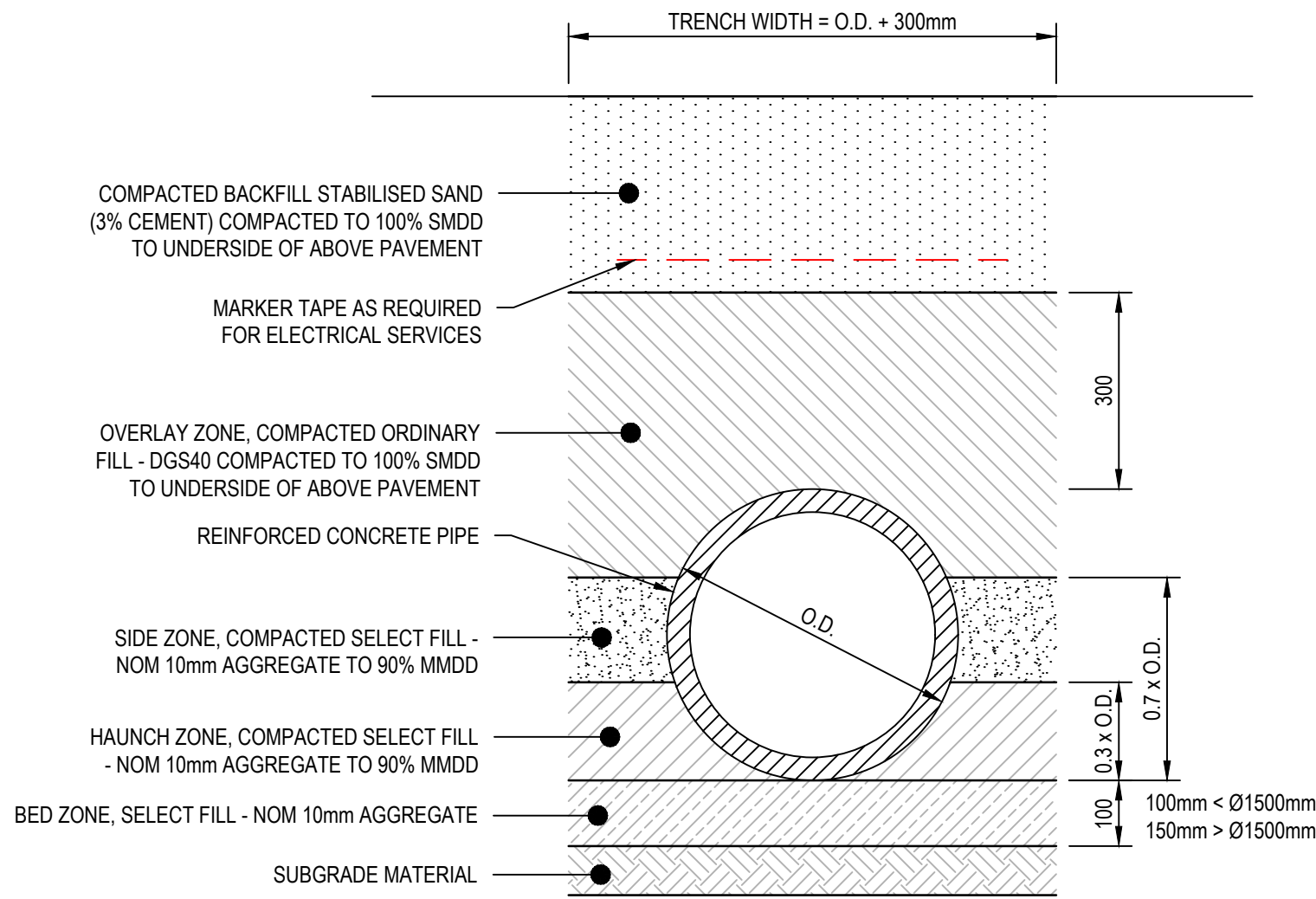
CARPARK FLEXIBLE PAVEMENT

- SCALE 1:10
- NOTES:
- MIN CBR 3.0% (CONTRACTOR TO CONFIRM ONSITE).
 - DESIGN LOADING = 5x10⁷ ESA's
 - PRIME AND TACK COAT BASECOURSE SURFACE PRIOR TO PLACEMENT OF AC WEARING COURSE.



CONCRETE FOOTPATH

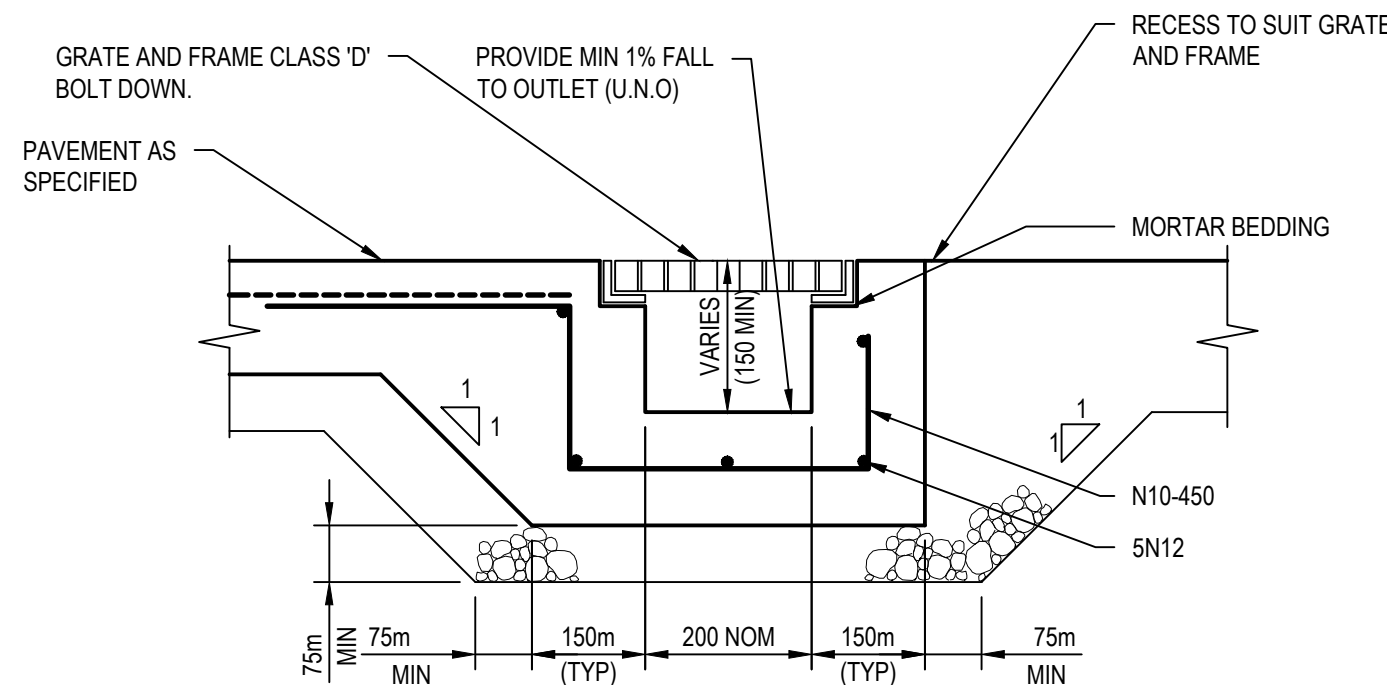
SCALE 1:10



TYPICAL PIPE TRENCH - UNDER ROADS

SCALE 1:10

- NOTES:
- TRENCH WIDTH MAY NEED TO BE INCREASED SUBJECT TO ACHIEVING COMPACTION. ENSURE MINIMUM 300mm CLEARANCE BETWEEN, WHEN USING MULTIPLE PIPES TO ACHIEVE ADEQUATE COMPACTION.
 - MINIMUM PIPE COVER UNDER ROADS TO BE 600mm U.N.O. FOR CLASS '2' PIPES.
 - THE CONTRACTOR SHALL ENSURE THAT SHORING OF TRENCHES IS INSTALLED AS REQUIRED BY STATUTORY REQUIREMENTS.
 - ENSURE BACKFILLING COMPACTION MEETS THE FOLLOWING STANDARDS:
 - TRENCHES UNDER PAVED AREAS / BUILDING - 100% SMDD



GRATED TRENCH DRAIN (GTD)

SCALE 1:10

NOTE:

- COUNCIL'S STANDARDS SHOWN ON PENRITH CITY COUNCIL STANDARD DRAWINGS SD1001, SD1002, SD1003/1, SD1003/2, SD1004, SD2001/1, SD2001/2, SD2001/3, SD2003 AND SD2004 ARE TO BE USED UNLESS NOTED OTHERWISE.

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH

Client

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Scale 0 200 400 600 800 1000mm

SCALE 1:10 @A1

0 500 1000 1500 2000mm

SCALE 1:20 @A1

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Project
ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

Scale
AS SHOWN

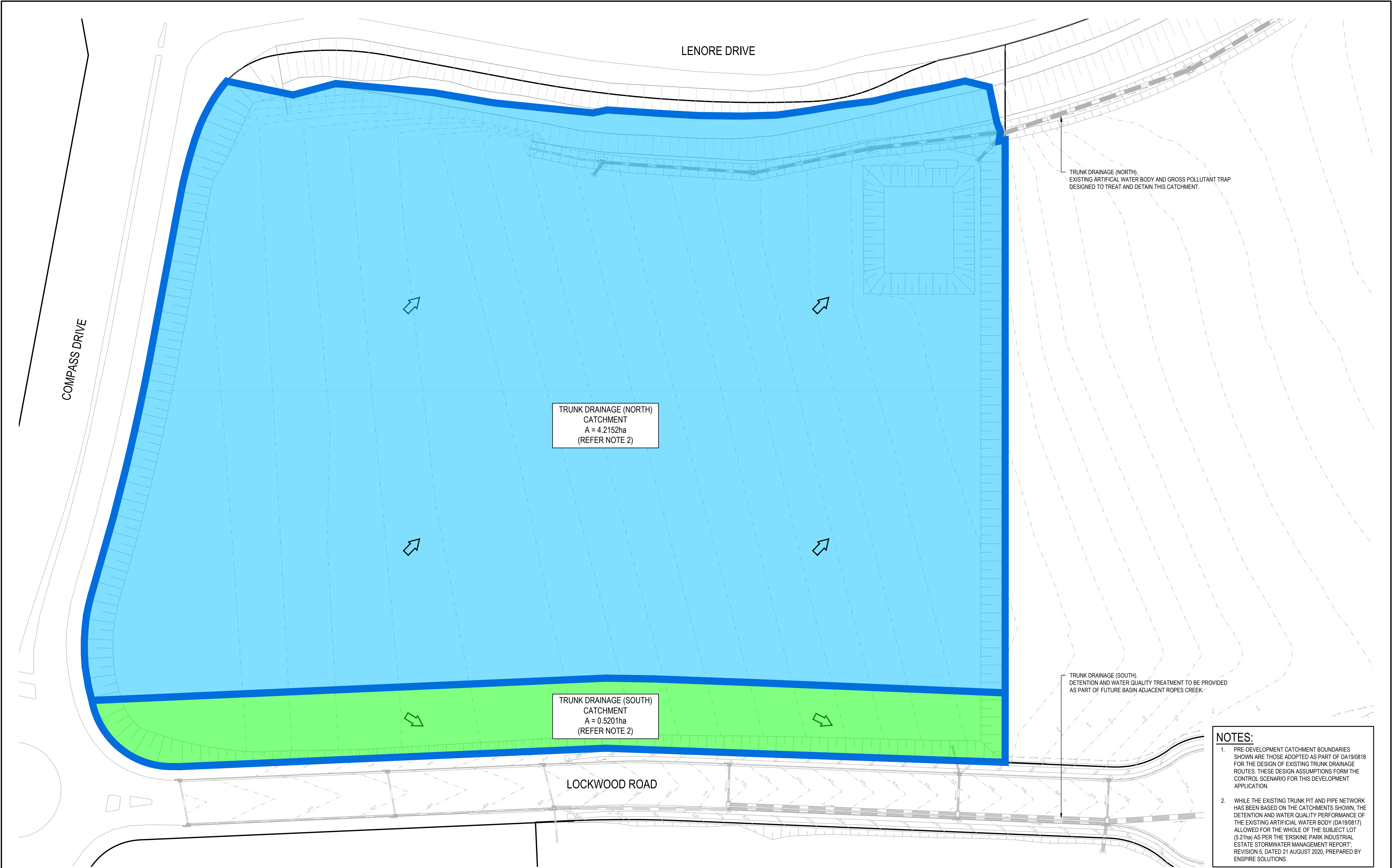
Date
01/09/2022

Title
SITEWORKS DETAILS

Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number
220011-DA-C14.01

Revision
3



- NOTES:**
- PRE-DEVELOPMENT CATCHMENT BOUNDARIES SHOWN ARE THOSE ADOPTED AS PART OF DA19/0818 FOR THE DESIGN OF EXISTING TRUNK DRAINAGE ROUTES. THESE DESIGN ASSUMPTIONS FORM THE CONTROL SCENARIO FOR THIS DEVELOPMENT APPLICATION.
 - WHILE THE EXISTING TRUNK PIT AND PIPE NETWORK HAS BEEN BASED ON THE CATCHMENTS SHOWN, THE DETENTION AND WATER QUALITY PERFORMANCE OF THE EXISTING ARTIFICIAL WATER BODY (DA19/0817) ALLOWED FOR THE WHOLE OF THE SUBJECT LOT (5.21ha) AS PER THE 'ERSKINE PARK INDUSTRIAL ESTATE STORMWATER MANAGEMENT REPORT', REVISION 5, DATED 21 AUGUST 2020, PREPARED BY ENSPIRE SOLUTIONS.

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH

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Scale

0 10 20 30 40 50m

SCALE 1:500 @A1

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Project

ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

Title

PRE-DEVELOPMENT
STORMWATER CATCHMENT PLAN

Scale

1:500

Date

01/09/2022

Size

A1

Datum

MGA1994

Status

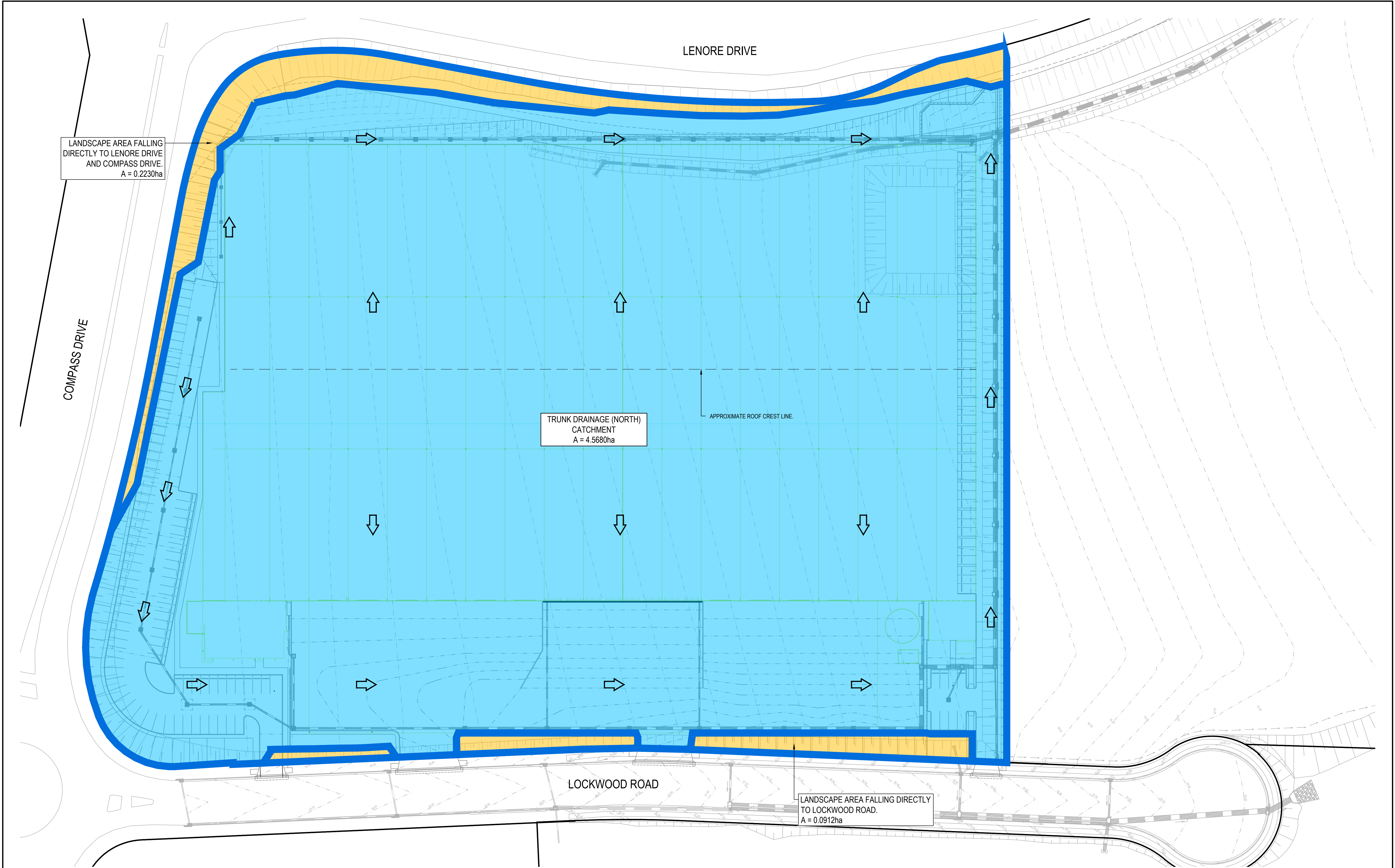
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number

220011-DA-C20.01

Revision

3



REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	23/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
2	20/09/2022	ISSUED FOR DEVELOPMENT APPLICATION	SHH	SHH		MKH
1	1/09/2022	COORDINATION ISSUE	SHH	SHH		MKH

Client

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Scale

0 10 20 30 40 50m

SCALE 1:500 @A1

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Project

ERSKINE PARK INDUSTRIAL ESTATE
LOCKWOOD ROAD (LOT 102 DP1268632)
DEVELOPMENT APPLICATION

Title

POST-DEVELOPMENT
STORMWATER CATCHMENT PLAN

Scale

1:500

Date

01/09/2022

Size

A1

Datum

MGA1994

Status

FOR APPROVAL
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Project Number/Drawing Number

220011-DA-C20.21

Revision

3

INTRODUCTION

THIS SAFETY IN DESIGN REPORT HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE WORK HEALTH AND SAFETY ACT 2011 AND THE WORK HEALTH AND SAFETY REGULATION PART 6.2 CLAUSE 295. UNDER THE WORK HEALTH AND SAFETY ACT DESIGNERS HAVE THE RESPONSIBILITY TO ENSURE THEIR DESIGN ELIMINATES OR MINIMISES RISKS TO HEALTH AND SAFETY AND GIVE ADEQUATE INFORMATION TO PEOPLE COMMISSIONING THE DESIGN AND UNDERTAKING CONSTRUCTION OPERATION AND MAINTENANCE ACTIVITIES BASED ON THE DESIGN.

THIS REPORT SPECIFICS POTENTIAL HEALTH AND SAFETY RISKS AND HAZARDS ASSOCIATED WITH THE DESIGN ELEMENTS DOCUMENTED IN THIS DRAWING PACKAGE TO RELEVANT PERSONNEL DURING THE DESIGN, CONSTRUCTION, OPERATION AND MAINTENANCE PROCESS AND ASSESSES THEIR LIKELIHOOD AND CONSEQUENCES. THIS REPORT PROPOSES ACTIONS AND STRATEGIES AGAINST RISKS IDENTIFIED TO ACHIEVE EFFECTIVE MITIGATION OF THE RISKS AND HAZARDS, AND ASSESSES RESIDUAL RISKS BASED ON CONTROL MEASURES BEING IMPLEMENTED. ANY SAFETY ISSUES UNRESOLVED THROUGH DESIGN ARE ALSO IDENTIFIED FOR THEIR APPROPRIATE MANAGEMENT.

THE INFORMATION CONTAINED IN THIS SAFETY IN DESIGN REPORT HAS BEEN PREPARED PRIOR TO THE COMMENCEMENT OF THE WORK ON SITE. IT DOES NOT TAKE ACCOUNT OF ANY MATTERS OR INFORMATION WHICH MAY COME TO LIGHT AFTER THAT TIME. WHEN A DESIGN IS ALTERED, AN ADDITIONAL REVIEW MUST BE CONDUCTED TO ENSURE NEW RISKS HAVE BEEN CAPTURED DUE TO MODIFICATION OF THE DESIGN. ADDITIONALLY, CLIENTS ARE REQUIRED TO INFORM ENSPIRE OF ANY EXISTING RISKS AND HAZARDS IN THE AREA WHERE CONSTRUCTION WILL TAKE PLACE.

THE RISKS IDENTIFIED IN THIS SAFETY IN DESIGN REPORT ARE PROJECT AND DESIGN SPECIFIC RISKS WHICH WOULD NOT BE EASILY RECOGNIZED BY A REASONABLY COMPETENT STAKEHOLDER. IT DOES NOT ADDRESS THE COMMON-PLACE HAZARDS OR HAZARDS WHERE KNOWN SOLUTIONS APPLY, AND WHICH ARE ASSOCIATED WITH CONSTRUCTION, OPERATION AND MAINTENANCE GENERALLY. THESE COMMON-PLACE HAZARDS MUST BE CONTROLLED BY THE APPLICATION OF NORMAL GOOD MANAGEMENT PRACTICES.

THIS DESIGN REPORT ASSUMES THAT DURING CONSTRUCTION, OPERATION AND MAINTENANCE OF THE DEVELOPMENT, THE PRINCIPAL WILL ENGAGE EXPERIENCED AND COMPETENT PERSONNEL AS PART OF THE RESPECTIVE TENDER EVALUATION PROCESS. IT IS THE HEAD CONTRACTOR'S OBLIGATION TO PREPARE AND IMPLEMENT SITE SPECIFIC WORK HEALTH AND SAFETY MANAGEMENT PLANS TO MITIGATE COMMON RISKS ASSOCIATED WITH GENERAL CONSTRUCTION AND OPERATION ACTIVITIES IN ACCORDANCE WITH THE WORK HEALTH AND SAFETY ACT 2011.

THE SCOPE OF THE MAIN ACTIVITIES INVOLVED IN THESE WORKS ARE:

- DESIGN OF ROADS, STORMWATER INFRASTRUCTURE AND SERVICES;
- CONSTRUCTION OF ROADS, STORMWATER INFRASTRUCTURE AND SERVICES;
- SITE VISITS AND INSPECTIONS;
- POST CONSTRUCTION OPERATION AND MAINTENANCE.

SAFETY IN DESIGN RELIES ON EFFECTIVE DOCUMENTATION AND COMMUNICATION BETWEEN EVERYONE INVOLVED IN THE LIFE CYCLE OF THE DESIGN ELEMENTS. IN ACCORDANCE WITH THE WORK HEALTH AND SAFETY REGULATION 2017, THE DESIGNER MUST PROVIDE A COPY OF THIS SAFETY IN DESIGN REPORT TO THE PRINCIPAL CONTRACTOR IN PARALLEL WITH THE COMPLETED DESIGN DOCUMENTATION AND ENSURE THAT THE FOLLOWING ACTIONS ARE UNDERTAKEN:

- ONSITE SAFETY INDUCTIONS, INCLUDING HAZARDS IDENTIFIED IN THIS REPORT, SHOULD BE CONDUCTED FOR ALL STAFF;
- SAFETY MANAGEMENT PLANS SHOULD BE PREPARED FOR THE HAZARDS IDENTIFIED IN THIS REPORT;
- THERE SHOULD BE NO VARIATION ON DESIGN REQUIREMENTS WITHOUT CONSULTATION WITH THE ORIGINAL DESIGNERS;
- ONSITE MANAGEMENT OF CONTRACTORS TO ENSURE THAT HAZARDS THAT ARISE THROUGH STARTING/COMPLETION OF JOBS DOES NOT OCCUR; AND
- THIS DESIGN MAY INTERFACE WITH OTHER PLANS AND ACCOUNT SHOULD BE TAKEN OF ANY INTERFACE ISSUES.

IT IS RECOMMENDED THAT THIS SAFETY IN DESIGN REPORT BE PASSED ONTO ANY PARTICIPANT IN THE PROJECT WHO MAY EXTEND THE DESIGN OR FURTHER DEVELOP THE DESIGN.

A SAFE DESIGN PROCESS SHOULD BE ENGAGED EARLY IN THE DEVELOPMENT OF THE DESIGN TO IDENTIFY ALL CONCEIVABLE RISKS AND HAZARDS THAT MAY AFFECT THE FUNDAMENTALS OF THE DESIGN AND AVOID UNNECESSARY REWORK. IT SHOULD BE IMPLEMENTED THROUGH A STRUCTURED APPROACH ACROSS EACH PHASE OF THE DESIGN PROCESS.

DELIVERY OF SAFE DESIGN FOR EACH DESIGN PHASE OF THE PROJECT HAS BEEN CARRIED OUT FOLLOWING THE STEPS BELOW:

- STEP 1: PRELIMINARY RISK IDENTIFICATION
THE DESIGNER/DESIGN TEAM TO CONDUCT A PRELIMINARY ASSESSMENT AND IDENTIFY ANY POTENTIAL RISKS RELEVANT TO THE SCOPE OF DESIGN WORKS. WITH PROJECTS INVOLVING MULTIPLE DISCIPLINES, THE DESIGNER/DESIGN TEAM TO ATTEND SAFETY IN DESIGN WORKSHOP AND IDENTIFY RISKS IN CONSULTATION WITH OTHER KEY PROJECT STAKEHOLDERS.
- STEP 2: RISK ASSESSMENT AND MITIGATION
THE DESIGNER/DESIGN TEAM TO ASSESS THE LIKELIHOOD AND SEVERITY OF EACH HAZARD AND DEVELOP CONTROLS AND MEASURES TO ELIMINATE OR MINIMISE THE CONSEQUENCES OF THE HAZARD.
- STEP 3: VERIFICATION
ENSURE TO PERFORM INTERNAL VERIFICATION ON THE SAFE DESIGN RISK REGISTER PRIOR TO ISSUING TO THE CONTRACTOR AND CLIENT.
- STEP 4: REVIEW DESIGN
THE DESIGNER/DESIGN TEAM TO IDENTIFY ANY ALTERATIONS IN DESIGN AND REVIEW AND UPDATE RISK REGISTER ACCORDINGLY.

ORGANISATION	PROJECT ROLE	MAIN CONTACT	CONTACT DETAILS
FITZPATRICK INVESTMENTS PTY LTD	DEVELOPMENT PROPONENT	JAMIE STEWART	TEL: (02) 8117 5105 EMAIL: jamie.stewart@fitzpatrickproperty.com.au ADD: 22-24 JUNCTION STREET FOREST LODGE NSW 2037
ENSPIRE SOLUTIONS	CIVIL DESIGN CONSULTANT	MICHAEL HODGES	TEL: 9922 6135 EMAIL: michael.hodges@enspiresolutions.com.au ADD: LEVEL 4, 153 WALKER STREET NORTH SYDNEY NSW 2060

LEVEL	MEASURE	CRITERIA
1	RARE	WOULD ONLY OCCUR IN HIGHLY EXCEPTIONAL CIRCUMSTANCES THAT ARE UNLIKELY TO EXIST IN ANY PHASE OF THE DEVELOPMENTS LIFECYCLE PERIOD. EXTREMELY REMOTE CHANCE OF OCCURRENCE IN DEVELOPMENT'S LIFECYCLE PERIOD. 'ONCE IN A LIFETIME' EVENT.
2	UNLIKELY	NOT LIKELY TO OCCUR IN THE DEVELOPMENT'S LIFECYCLE PERIOD. A SMALL, BUT REMOTE CHANCE OF OCCURRENCE DUE TO CIRCUMSTANCES / SITUATIONS THAT COULD ARISE.
3	POSSIBLE	LIKELY TO OCCUR AT LEAST ONCE BUT NOT EXPECTED TO OCCUR MUCH MORE THAT THIS IN THE DEVELOPMENT'S LIFECYCLE PERIOD.
4	LIKELY	LIKELY TO OCCUR MORE THAN ONCE IN THE DEVELOPMENT'S LIFECYCLE PERIOD BUT NOT AN 'EVERDAY' OCCURRENCE. PRECONDITIONS WILL ARISE AT TIMES THROUGHOUT THE PERIOD.
5	ALMOST CERTAIN	WILL OCCUR CIRCUMSTANCES OR SITUATIONS ARE LIKELY TO ARISE OFTEN THROUGHOUT THE DEVELOPMENT'S LIFECYCLE PERIOD WHICH PROVIDES THE OPPORTUNITY FOR CRYSTALLISATION OF RISK. EXPECT FREQUENT, REGULAR OCCURRENCES.

LEVEL	MEASURE	CRITERIA
1	INSIGNIFICANT	NO INJURIES; NO ENVIRONMENTAL IMPACT.
2	MINOR	FIRST AID; ENVIRONMENTAL RELEASE IMMEDIATELY CONTAINED.
3	MODERATE	MEDICAL TREATMENT; ENVIRONMENTAL RELEASE NOT IMMEDIATELY CONTAINED WITH NO DETRIMENTAL EFFECTS.
4	MAJOR	LOST TIME AND/OR LONG-TERM INJURY/ILLNESS; ENVIRONMENTAL RELEASE NOT IMMEDIATELY CONTAINED WITH TOXIC EFFECTS.
5	CATASTROPHIC	FATALITY; RELEASE TO THE ENVIRONMENT WITH LONG TERM OR PERMANENT TOXIC EFFECTS.

CONSEQUENCE	CATASTROPHIC	(5)	HIGH	VERY HIGH	VERY HIGH	VERY HIGH	VERY HIGH
	MAJOR	(4)	HIGH	HIGH	VERY HIGH	VERY HIGH	VERY HIGH
	MODERATE	(3)	MODERATE	MODERATE	HIGH	HIGH	VERY HIGH
	MINOR	(2)	LOW	LOW	MODERATE	HIGH	VERY HIGH
	INSIGNIFICANT	(1)	LOW	LOW	LOW	MODERATE	HIGH
			RARE (1)	UNLIKELY (2)	POSSIBLE (3)	LIKELY (4)	ALMOST CERTAIN (5)
							LIKELIHOOD

ITEM	ACTIVITY	HAZARD	STAGE	INITIAL RISK			DESIGN ACTION	RESIDUAL RISK			PERSON RESPONSIBLE FOR CONTROLS	STATUS
				LIKELIHOOD	CONSEQUENCE	RISK LEVEL		LIKELIHOOD	CONSEQUENCE	RISK LEVEL		
1	SEDIMENT BASIN OPERATION	FALLING INTO BASIN WHICH HOLDS WATER	CONSTRUCTION	2	5	VERY HIGH	- PROVIDE MAN-PROOF FENCE TO PERIMETER. - MAINTAIN WATER LEVELS IN BASIN. - MINIMISE PERMANENT WATER DEPTH.	2	3	MODERATE	CONTRACTOR	ACTION ASSIGNED
2	PIPE TRENCHING	FALL INTO DEEP EXCAVATIONS	CONSTRUCTION	1	4	HIGH	- PROVIDE SAFETY BARRIERS - PROVIDE BENCHING	1	2	LOW	CONTRACTOR	ACTION ASSIGNED
3	RETAINING WALL CONSTRUCTION	CRUSHING INJURY	CONSTRUCTION	2	5	VERY HIGH	- APPROPRIATE RETAINING WALL SYSTEM SPECIFIED TO MINIMISE HANDLING. - RETAINED HEIGHT ASSUMES NO LATERAL RESTRAINT AT LOW SIDE OF WALL PRIOR TO FORMATION OF FINISHED SURFACE LEVEL.	1	3	MODERATE	CONTRACTOR	ACTION ASSIGNED
4	WORKING ADJACENT TO 132KV TRANSMISSION EASEMENT	ELECTROCUTION PROPERTY DAMAGE	CONSTRUCTION	4	5	VERY HIGH	- ADOPT APPROPRIATE TEMPORARY SHORING TECHNIQUES FOR WORKS IN CLOSE PROXIMITY. - ADJUST DESIGN TO INCREASE OFFSET TO EXISTING ELECTRICAL ASSETS. - IDENTIFY ACTUAL LOCATION AND DEPTH OF EXISTING SERVICES PRIOR TO COMMENCING WORKS.	1	4	HIGH	CONTRACTOR	ACTION ASSIGNED

										Client		Scale	North	 Enspire Solutions Pty Ltd Level 4, 153 Walker Street, North Sydney NSW 2060 ABN: 71 624 801 690 Phone: 02 9922 6135	Project ERSKINE PARK INDUSTRIAL ESTATE LOCKWOOD ROAD (LOT 102 DP1268632) DEVELOPMENT APPLICATION	Scale	N.T.S	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION	Project Number/Drawing Number 220011-DA-C23.01	Revision 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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