



LENDLEASE

WERRINGTON - NORTHERN LOTS SUBDIVISION

LOTS 1230, 2010 & 2230
DEVELOPMENT APPLICATION AND CONSTRUCTION CERTIFICATE

DRAWING SCHEDULE

DRAWING NUMBER	DESCRIPTION
190060-02-DA-C01.01	COVER SHEET AND DRAWING SCHEDULE
190060-02-DA-C01.21	SPECIFICATION NOTES
190060-02-DA-C01.41	GENERAL ARRANGEMENT PLAN
190060-02-DA-C03.01	BULK EARTHWORKS EROSION AND SEDIMENTATION CONTROL PLAN - SHEET 01
190060-02-DA-C03.02	BULK EARTHWORKS EROSION AND SEDIMENTATION CONTROL PLAN - SHEET 02
190060-02-DA-C03.21	EROSION AND SEDIMENTATION CONTROL DETAILS
190060-02-DA-C05.01	SITEWORKS AND STORMWATER MANAGEMENT PLAN - SHEET 01
190060-02-DA-C05.02	SITEWORKS AND STORMWATER MANAGEMENT PLAN - SHEET 02
190060-02-DA-C11.01	PAVEMENT PLAN - SHEET 01
190060-02-DA-C11.02	PAVEMENT PLAN - SHEET 02
190060-02-DA-C23.01	SAFETY IN DESIGN

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
4	29/10/2021	ISSUED FOR DA - LOT LAYOUT UPDATED	TB			CVE
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Client

Scale

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North

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Scale 1:1500	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION	
Date 01/10/2021		
Size A1		
Datum MGA2020	Project Number/Drawing Number 190060-02-DACC-C01.01	Revision 4

1. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH PENRITH CITY COUNCIL STANDARDS.
2. PENRITH CITY COUNCIL STANDARD DETAILS TO BE USED WHERE POSSIBLE.
3. UTILITY ADJUSTMENTS AT DEVELOPERS EXPENSE.
4. CONDUITS TO BE PLACED WHERE REQUIRED BY THE RELEVANT AUTHORITIES.
5. SUBSOIL DRAINAGE LINES SHALL BE INSTALLED BEHIND ALL KERBS EXCEPT WHERE STORMWATER DRAINAGE IS LOCATED ALONG THE KERBLINE.
6. A MINIMUM OF 3m OF SUBSOIL LINE SHALL BE LAID INTO UPSTREAM SIDE OF ALL DRAINAGE PITS.
7. FLUSHING POINTS SHALL BE INSTALLED TO COUNCIL SPECIFICATION

GENERAL INSTRUCTIONS

1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION TO THE SATISFACTION OF COUNCIL, NSW OFFICE OF WATER, DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT. THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE DRAWINGS SHALL ONLY BE USED AS A GUIDE BY THE CONTRACTOR AND SHALL REPRESENT THE MINIMUM REQUIREMENT ONLY.
2. THE CONTRACTOR SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED TO SUIT CONSTRUCTION STAGING AND WORK PRACTICES OR AS OTHERWISE DIRECTED BY THE SUPERINTENDENT.
ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH
a. LOCAL AUTHORITY REQUIREMENTS
b. EPA REQUIREMENTS
c. LANDCOM MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
3. MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
4. WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS.
5. CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.

LAND DISTURBANCE

- b. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
 - a. INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.
 - b. CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL.
 - c. UNDERTAKEN SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

EROSION CONTROL

7. DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
 8. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.
- SEDIMENT CONTROL**
9. STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSTREAM WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.

10. ANY SAND USED IN THE C

- THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
11. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.
 12. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.
 13. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
 14. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH SECTION 4 OF AS4970 "PROTECTION OF TREES ON DEVELOPMENT SITES" AND COUNCIL CONSENT CONDITIONS.

1. ALL WORKS TO BE IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS, SPECIFICATIONS AND AUSTRALIAN STANDARDS. CONFLICTS SHALL BE REFERRED TO THE SUPERINTENDENT FOR DIRECTION.
2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO THE SUPERINTENDENT.
3. THE CONTRACTOR IS TO DESIGN, OBTAIN APPROVALS AND CARRY OUT REQUIRED TEMPORARY TRAFFIC CONTROL PROCEDURES DURING CONSTRUCTION IN ACCORDANCE WITH TNSW AND LOCAL AUTHORITY REGULATIONS AND REQUIREMENTS.
4. THE CONTRACTOR IS TO OBTAIN ALL AUTHORITY APPROVALS AS REQUIRED.
5. RESTORE ALL PAVED, COVERED, GRASSED AND LANDSCAPED AREAS TO THEIR ORIGINAL CONDITION ON COMPLETION OF WORKS.
6. ON COMPLETION OF ANY TRENCHING WORKS, ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL, GRASSED AREAS AND ROAD PAVEMENTS.
7. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
8. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO LODGMENT OF TENDER AND ON SITE WORKS. THE PRICE AS TENDERED SHALL BE INCLUSIVE OF ALL WORKS SHOWN ON THE TENDER PROJECT DRAWINGS. ADDITIONAL PAYMENTS FOR WORKS SHOWN ON THE TENDER PROJECT DRAWINGS WILL NOT BE APPROVED.
9. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS AND SPECIFICATIONS, AND ANY OTHER WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING TO DEVELOPMENT OF THE SUBJECT SITE.
10. THESE PLANS SHALL BE READ IN CONJUNCTION WITH ALL APPROVED DRAWINGS AND SPECIFICATIONS PREPARED BY OTHER PROJECT CONSULTANTS.
11. DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS. ALL DIMENSIONS ARE IN MILLIMETERS (mm) AND ALL LEVELS ARE IN METRES (m). UNO. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).
12. IN CASE OF DOUBT OR DISCREPANCY REFER TO THE SUPERINTENDENT FOR CLARIFICATION OR CONFIRMATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. OTHERWISE THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF REMEDIATION WORKS.
13. WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS OBTAINED.
14. THE CONTRACTOR SHALL COMPLY WITH ALL STATUTORY AND INDUSTRIAL REQUIREMENTS FOR PROVISION OF A SAFE WORKING ENVIRONMENT INCLUDING TRAFFIC CONTROL.
15. THE CONTRACTOR SHALL ENSURE THAT AT ALL TIMES ACCESS TO ALL BUILDINGS ADJACENT THE WORKS IS NOT DISRUPTED.
16. WHERE NECESSARY THE CONTRACTOR SHALL PROVIDE SAFE PASSAGE OF VEHICLES AND/OR PEDESTRIANS THROUGH OR BY THE SITE.
17. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS, (eg. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS.
18. ALL VARIATIONS TO SPECIFIED PRODUCTS OR DESIGNS SHALL BE REFERRED TO THE DESIGN ENGINEER IN WRITING FOR APPROVAL.
19. EPA AND NOISE CONTROL REQUIREMENTS MUST BE ADHERED TO REGARDING THE LEVEL OF NOISE AND WORKING HOURS, TO ENSURE THAT RESIDENTS AND OTHER APPLICABLE NEIGHBOURS TO THE SITE ARE NOT DISTURBED UNREASONABLY. THE GENERATION OF NOISE MUST BE MINIMISED.

1. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (2003) AND AS/NZS 3500 3.2 (2003).

2. PIPES UP TO 300 DIA SHALL BE SEWER GRADE uPVC (CLASS SN4) WITH SOLVENT WELDED JOINTS.

3. PIPES 300 DIA. AND LARGER TO BE REINFORCED CONCRETE MIN CLASS 2" APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O.

4. ALL PIPES ARE TO BE LAID AT (min) 1.0% GRADE (UNO)

5. ALL PIPES ARE TO BE UNIFORMLY SUPPORTED ALONG THE LENGTH OF THE BARREL BY SUITABLE FILL MATERIAL. REFER TO BEDDING SUPPORT TYPE.

6. PIPES WITH SOCKETS SHALL BE LAID IN BEDDING WHERE SUITABLE RECESSES HAVE BEEN PROVIDED TO ENSURE PIPES DO NOT BEAR ON THEIR SOCKETS.

7. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.

8. ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE

9. ENSURE ALL VERTICALS AND DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN HEIGHT.

10. WHERE WORKING METHODS REQUIRE HIGHER CLASS PIPE, THE CONTRACTOR SHALL REFER TO AS 3725 TO DETERMINE THE APPROPRIATE PIPE CLASS. ANY CHANGES IN PROPOSED PIPE CLASS SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR APPROVAL PRIOR TO INSTALLATION.

11. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.

12. PRECAST PITS MAY BE USED SUBJECT TO WRITTEN APPROVAL BY THE SUPERINTENDENT.

13. ALL PIPE PENETRATIONS (EXISTING, IN-SITU AND PRECAST) ARE TO BE FINISHED FLUSH WITH THE INTERNAL PIT WALL AND PROPERLY SEALED WITH CEMENT RENDER. MASS CONCRETE BRANCHING IS TO BE INSTALLED TO MATCH THE OUTLET PIPE INVERT LEVEL AND A LOOKABLE HINGED GRATE AND FRAME WITH CONCRETE SURROUND INSTALLED U.N.O.

14. COVERS

A. USE **HOT DIPPED GALVANISED** GRATES AND CONCRETE FILLED COVERS WITH HINGES AND HOLD DOWN BOLTS COMPLYING WITH AS3996 AND OTHER RELEVANT AUSTRALIAN AND COUNCIL STANDARDS.

B. ALL COVERS AND GRATES TO BE POSITIONED IN A FRAME AND MANUFACTURED AS A UNIT.

C. ALL COVERS AND GRATES TO BE FITTED WITH POSITIVE COVER LIFTING KEYS.

D. OBTAIN SUPERINTENDENT'S APPROVAL FOR THE USE OF CAST IRON SOLID COVERS AND GRATES. CAST IRON SOLID COVERS (IF APPROVED) TO CONSIST OF CROSS-WEBBED, CELLULAR CONSTRUCTION WITH THE RIBS UPPEMOST TO ALLOW INFILLING WITH CONCRETE. INSTALL POSITIVE COVER LIFTING KEYS AND PLASTIC PLUGS.

E. UNLESS DETAILED OR SPECIFIED OTHERWISE COVERS AND GRATES TO BE CLASS "D" IN VEHICULAR PAVEMENTS AND CLASS "B" ELSEWHERE.

16. NOTE THAT THE PIT COVER LEVEL NOMINATED IN GUTTERS ARE TO THE INVERT OF THE GUTTER WHICH IS 40mm LOWER THAN THE PAVEMENT LEVEL AT LIP OF GUTTER.

17. Ø100mm SUB-SOIL DRAINAGE LINES SHALL BE CONNECTED TO A STORMWATER DRAINAGE PIT AND PROVIDED IN THE FOLLOWING LOCATIONS:

A. ADJACENT ALL TRAFFICKED AND CARPARK PAVEMENT AREAS (BEHIND KERB);

B. ALL PLANTER AND TREE BEDS PROPOSED ADJACENT TO PAVEMENT AREAS;

C. BEHIND RETAINING WALLS (IN ACCORDANCE WITH DRAWINGS);

D. BELOW ALL TRAFFICABLE DISH DRAINS;

E. ALL OTHER AREAS SHOWN ON THE DRAWINGS.

18. THE CONTRACTOR SHALL INSTALL FLOWING POINTS TO ALL SUBSOIL DRAINAGE LINES AND DOWNPIPE LINES AS SPECIFIED ON DRAWINGS. AT MAXIMUM CENTRES TO COUNCIL SPECIFICATION AND AT ALL UPSTREAM ENDPNTS.

19. PROVIDE 3.0m LENGTH OF Ø100 SUBSOIL DRAINAGE PIPE WRAPPED IN A NON-WOVEN GEOTEXTILE FABRIC, TO THE UPSTREAM SIDE OF STORMWATER PITS, LAID IN STORMWATER PIPE TRENCHES AND CONNECTED TO THE DRAINAGE PIT.

20. SUBSOIL TRENCHES SHALL BE BACKFILLED WITH SINGLE SIZED 10mm AGGREGATE WRAPPED IN NON-WOVEN GEOTEXTILE FABRIC. SUBSOIL TRENCHES BELOW TRAFFICABLE PAVEMENTS SHALL BE BACKFILLED WITH NO FINE CONCRETE WRAPPED IN NON-WOVEN GEOTEXTILE FABRIC. U.N.O.

21. ALL RECTANGULAR HOLLOW SECTIONS (RHS) SPECIFIED AS STORMWATER CONDUTTS TO BE HOT DIPPED GALVANISED AND HAVE (MINIMUM) 5mm WALL THICKNESS.

22. ALL BOX CULVERTS SHALL BE STRUCTURALLY DESIGNED BY THE MANUFACTURER AND DELIVERED TO SITE AS FIT FOR PURPOSE.
23. ELECTRICAL PITS ARE TO DRAIN TO THE NEAREST STORMWATER PIT WITH VERMIN PROOF NON-RETURN FLAP VALVES AS REQUIRED. THE CONTRACTOR IS TO CONFORM WITH THE ELECTRICAL DESIGNER AS PART OF THE TENDER.
24. THE CONTRACTOR SHALL ENSURE AND PROTECT THE INTEGRITY OF ALL STORMWATER PIPES DURING CONSTRUCTION, ANY AND ALL DAMAGE TO THESE PIPES AS A RESULT OF THESE WORKS SHALL BE REPAIRED BY THE CONTRACTOR UNDER THE DIRECTION OF THE SUPERINTENDENT, AND AT NO EXTRA COST.
25. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
26. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED DURING THIS PROCESS. ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.
27. ANY VARIATION TO SPECIFIED PRODUCTS OR DETAILS SHALL BE REFERRED TO THE SUPERINTENDENT FOR APPROVAL.

1. PROVIDE RAINWATER RE-USE SYSTEM TO SUPPLY WATER AS SPECIFIED.
2. GUTTER GUARD TO BE INSTALLED ON ALL EAVES GUTTERS.
3. PRESSURE PUMP / TAP TO BE PROVIDED FOR RE-USE OF CAPTURED TANK WATER.
4. ALL RAINWATER SERVICES SHALL BE CLEARLY LABELLED 'NON POTABLE WATER' WITH APPROPRIATE HAZARD IDENTIFICATION.
5. PIPEWORK USED FOR RAINWATER SERVICES SHALL BE COLOURED LILAC IN ACCORDANCE WITH AS1345.
7. ALL VALVES AND APERTURES SHALL BE CLEARLY AND PERMANENTLY LABELLED WITH SAFETY SIGNS TO COMPLY WITH AS1319.
8. AN AIR GAP OR A RPZD TO BE INSTALLED TO ENSURE BACKFLOW PREVENTION.
9. RAINWATER TANK RETICULATION SYSTEM AND MAINS TOP ARRANGEMENT TO BE INSTALLED IN ACCORDANCE WITH AS/NZS 3500.1, 2:2003 AND THE NSW CODE OF PRACTICE: PLUMBING AND DRAINING AND H8230-2008 RAINWATER TANK DESIGN AND INSTALLATION HANDBOOK.
10. A FIRST FLUSH DEVICE IS TO BE PROVIDED AT RAINWATER TANK INLET OR DOWNPIPES.

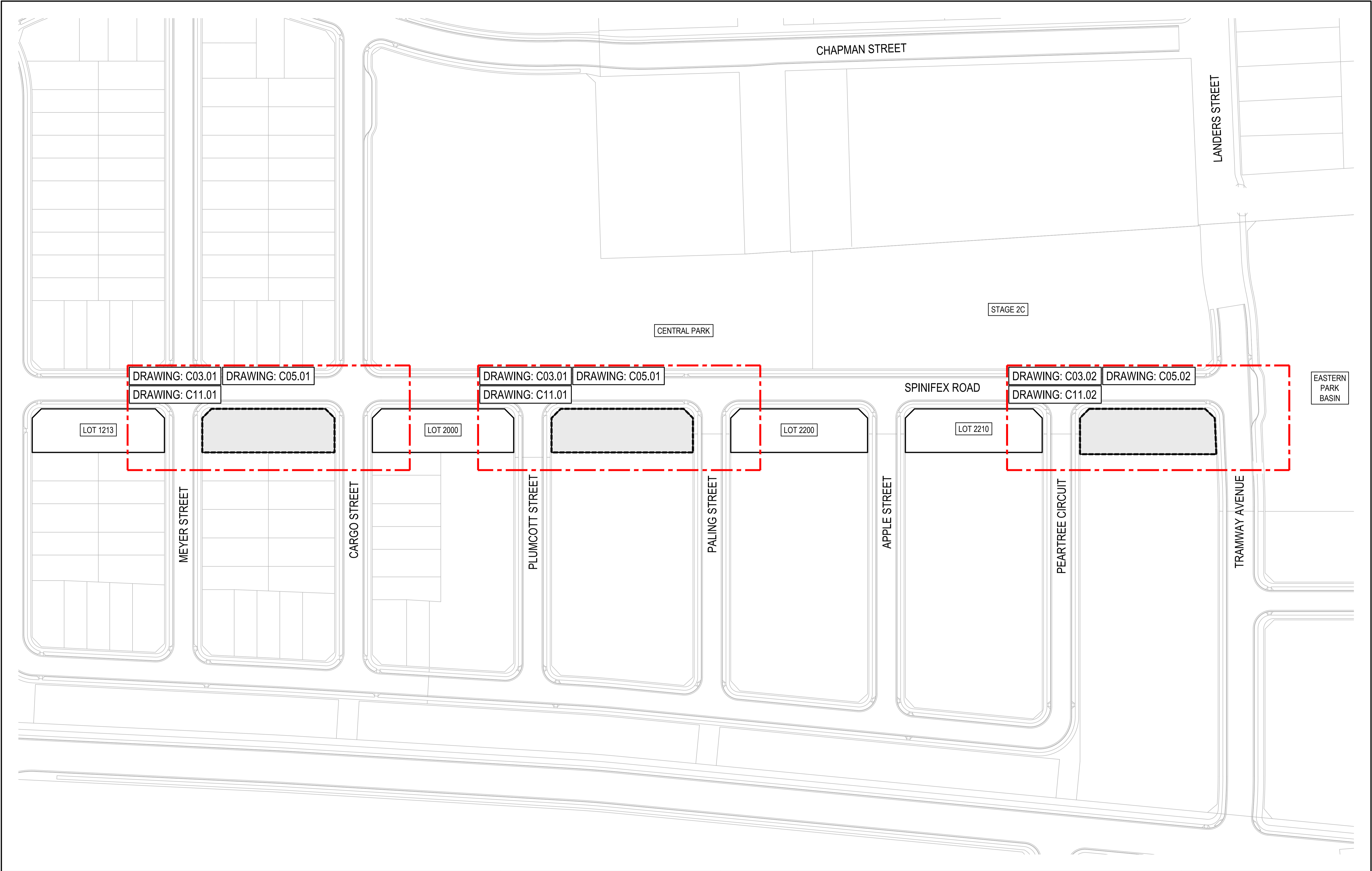
COMMUNICATIONS AND DATA PROVIDER PLANS SHOW ONLY THE PRESENCE OF CABLES AND PLANT. THEY ONLY SHOW THEIR POSITION RELATIVE TO ROAD BOUNDARIES, PROPERTY FENCES ETC. AT THE TIME OF INSTALLATION AND EACH PROVIDER DOES NOT WARRANT OR HOLD OUT THAT SUCH PLANS ARE ACCURATE THEREAFTER DUE TO CHANGES THAT MAY OCCUR OVER TIME. DO NOT ASSUME DEPTH OR ALIGNMENT OF CABLES OR PLANT AS THESE VARY SIGNIFICANTLY. THE CONTRACTOR HAS A DUTY OF CARE WHEN EXCAVATING NEAR COMMUNICATIONS AND DATA CABLES AND PLANT.

BEFORE USING MACHINE EXCAVATORS COMMUNICATIONS PLANT MUST FIRST BE PHYSICALLY EXPOSED BY SOFT DIG POTHOLING TO IDENTIFY ITS LOCATION. PROVIDERS WILL SEEK COMPENSATION FOR DAMAGES CAUSED TO ITS PROPERTY AND LOSSES CAUSED TO THE PROVIDERS AND ITS CUSTOMERS.

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SCALE 1:750 @A1

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Project
WERRINGTON - NORTHERN LOTS
SUBDIVISION
LOTS 1230, 2010 & 2230

Title
GENERAL ARRANGEMENT PLAN

Scale
1:750

Date
01/10/2021

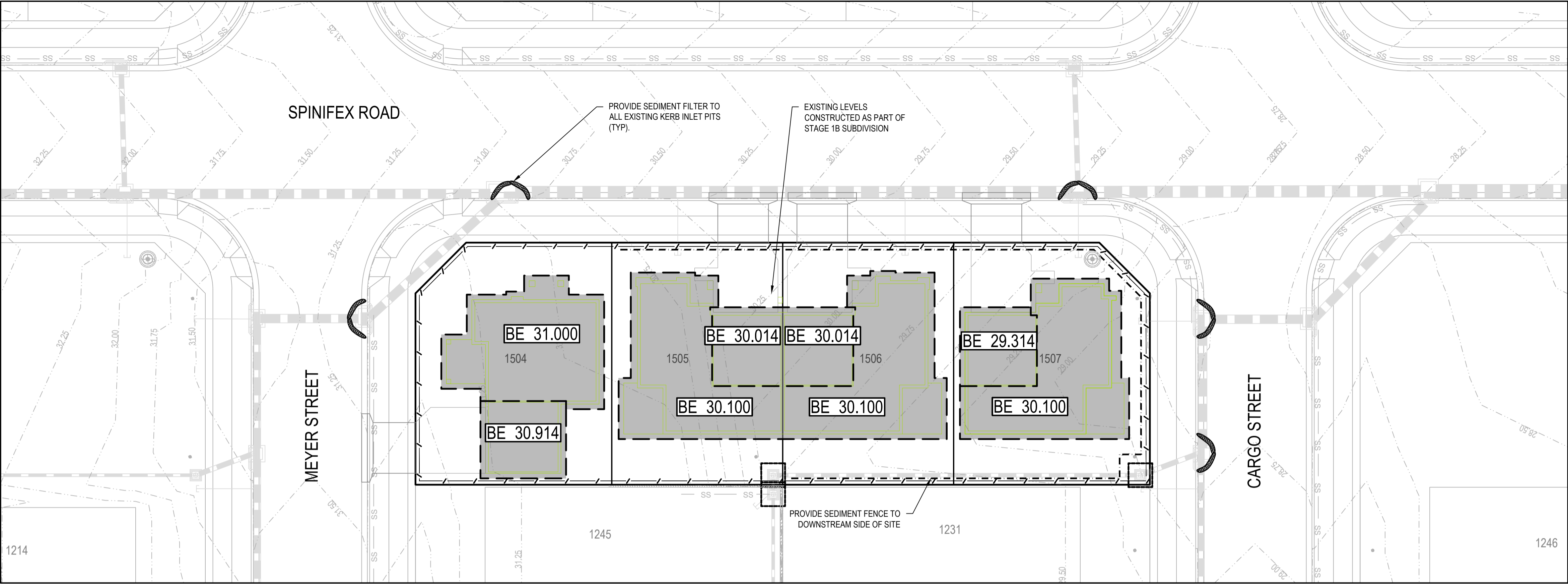
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Size
A1

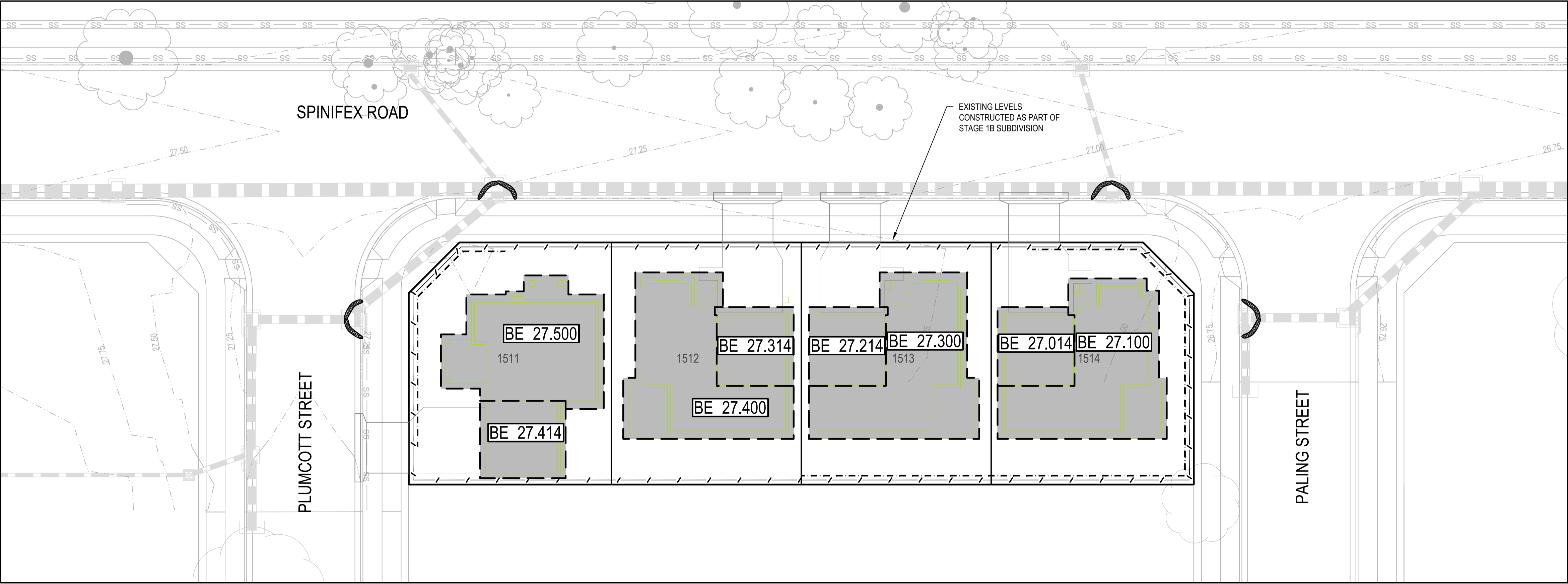
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190060-02-DACC-C01.41

Revision
4



LOT 1230
SCALE 1:200



LOT 2010
SCALE 1:200

LEGEND	
	SITE BOUNDARY
	EXISTING CONTOUR
	SITE FENCE
	SEDIMENT FENCE (SD 6-8) REFER DRG: C03.21 FOR DETAIL
	MESH AND GRAVEL INLET FILTER OR SEDIMENT TRAP FOR KERB INLET PIT (SD 6-11) REFER DRG: C03.21 FOR DETAIL
	GEOTEXTILE INLET FILTER (SD 6-12) REFER DRG: C03.21 FOR DETAILS

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SCALE 1:200 @A1

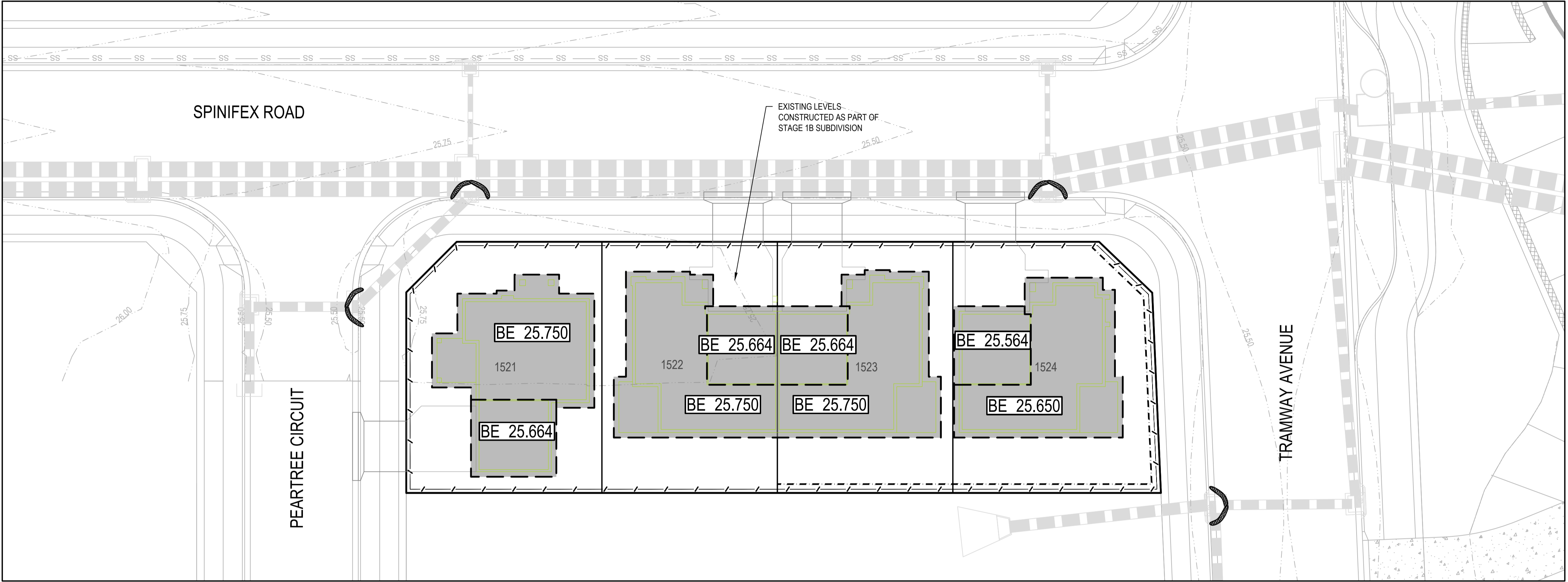
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Project
WERRINGTON - NORTHERN LOTS
SUBDIVISION
LOTS 1230, 2010 & 2230

Title
BULK EARTHWORKS
EROSION AND SEDIMENTATION CONTROL PLAN
SHEET 01

Scale 1:200	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
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LOT 2230
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SCALE 1:200 @A1

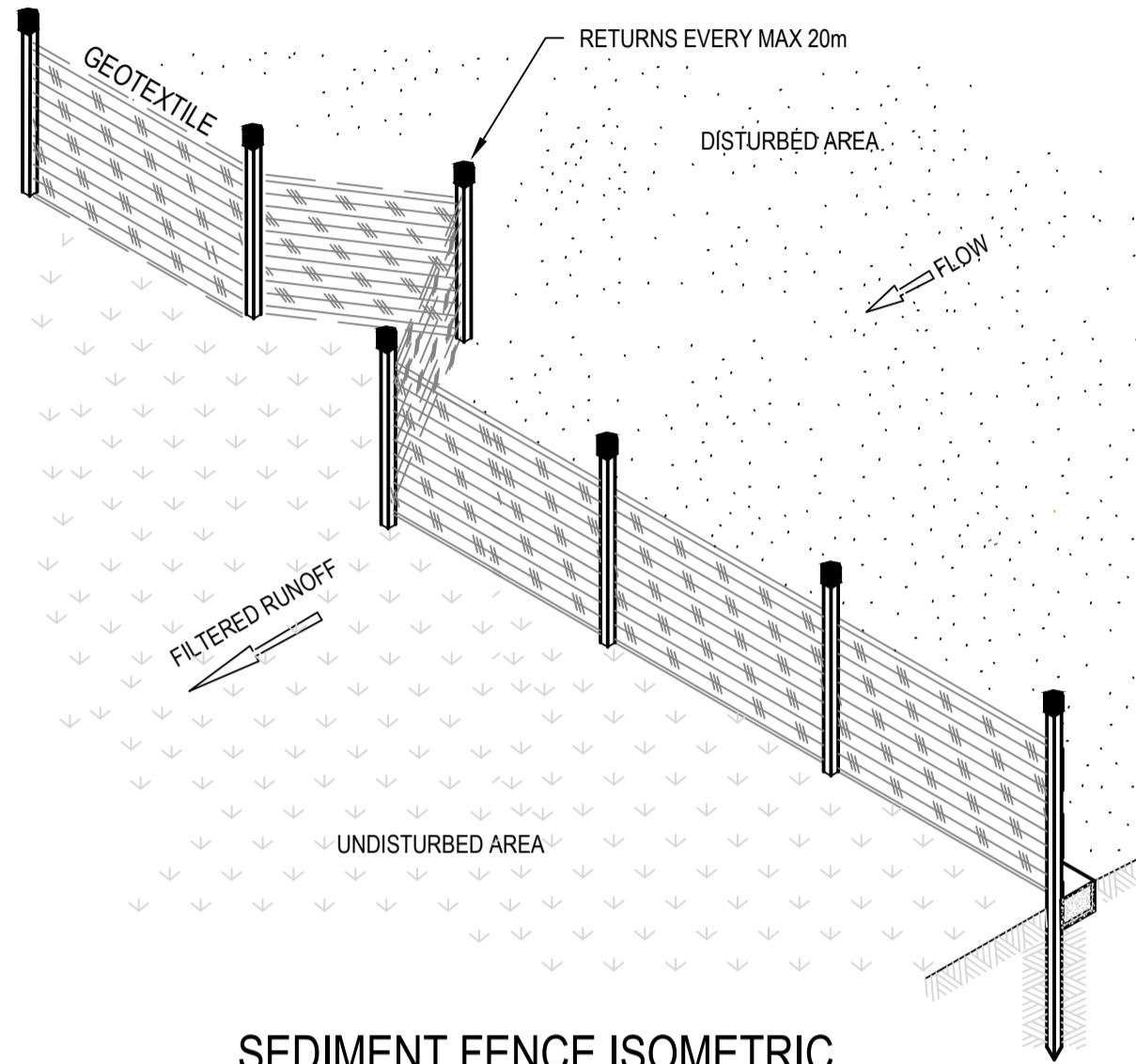
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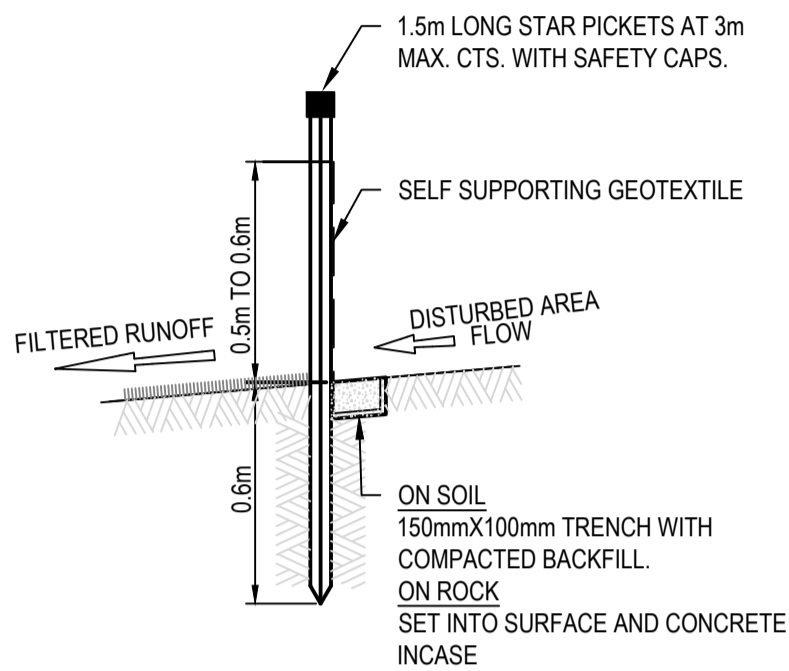
Project
WERRINGTON - NORTHERN LOTS
SUBDIVISION
LOTS 1230, 2010 & 2230

Title
BULK EARTHWORKS
EROSION AND SEDIMENTATION CONTROL PLAN
SHEET 02

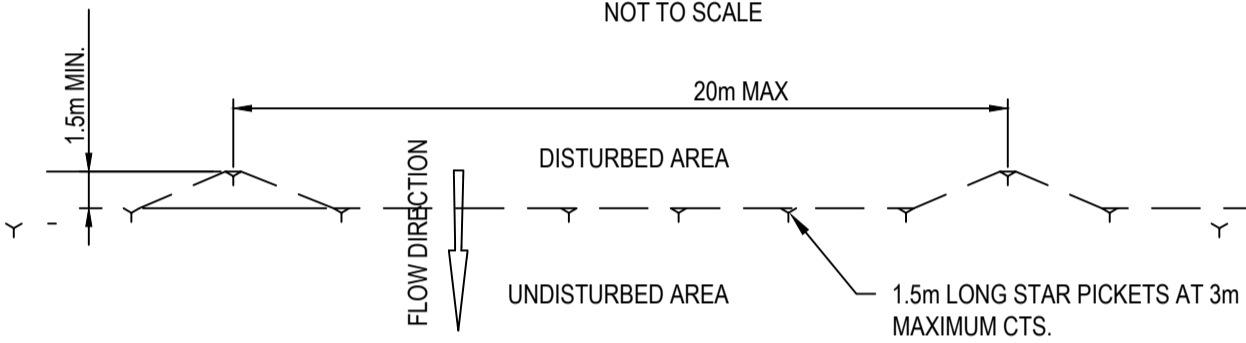
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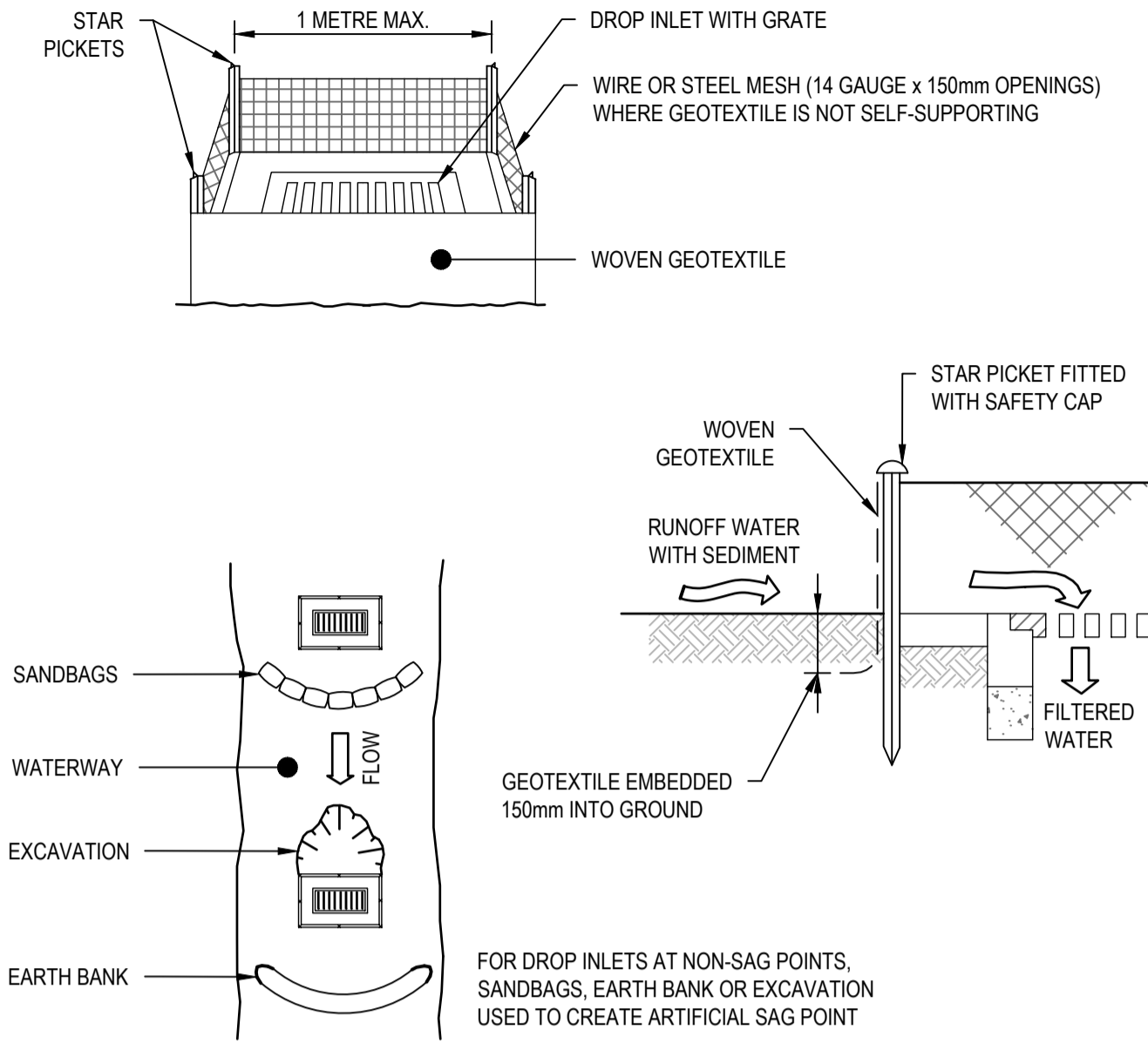
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NOT TO SCALE



SEDIMENT FENCE SECTION
NOT TO SCALE

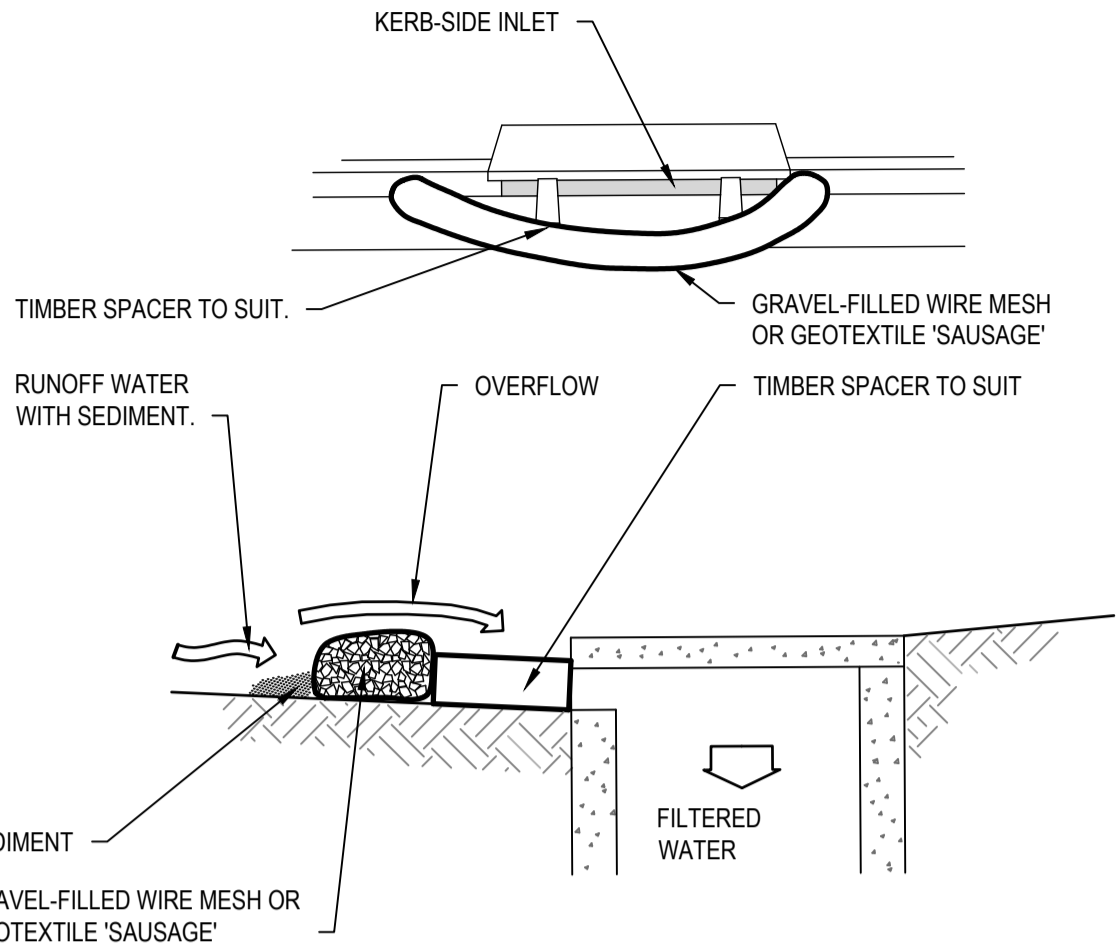


SEDIMENT FENCE PLAN
NOT TO SCALE



- 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)



NOTE: THIS PRACTICE ONLY TO BE USED WHERE SPECIFIED IN APPROVED SWMP/ESCP.

- CONSTRUCTION NOTES
- INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS.
 - FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
 - FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
 - PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
 - FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
 - SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.

MESH AND GRAVEL INLET FILTER (SD 6-11)

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
4	29/10/2021	ISSUED FOR DA - LOT LAYOUT UPDATED	TB			CVE
3	18/10/2021	ISSUED FOR DEVELOPMENT APPLICATION	GJJ			CVE
2	13/10/2021	ISSUED FOR CLIENT REVIEW	GJJ			CVE
1	01/10/2021	ISSUED FOR CLIENT REVIEW	GJJ			CVE



Scale

North

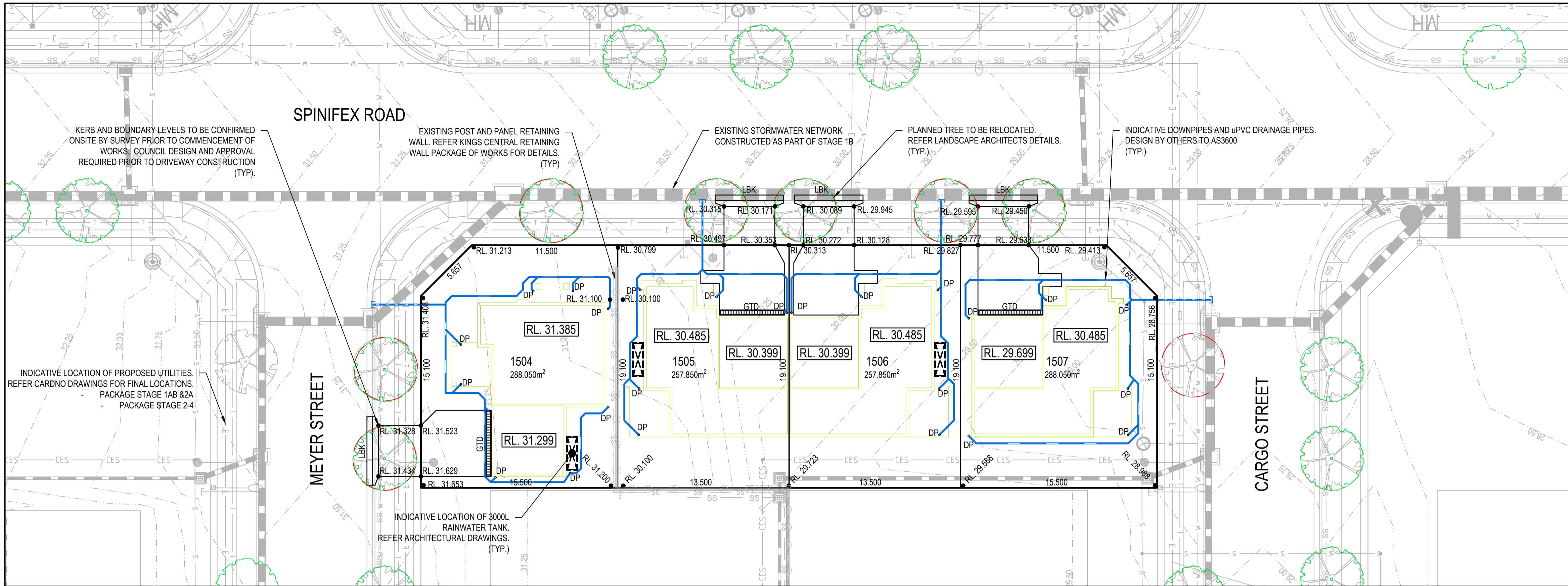
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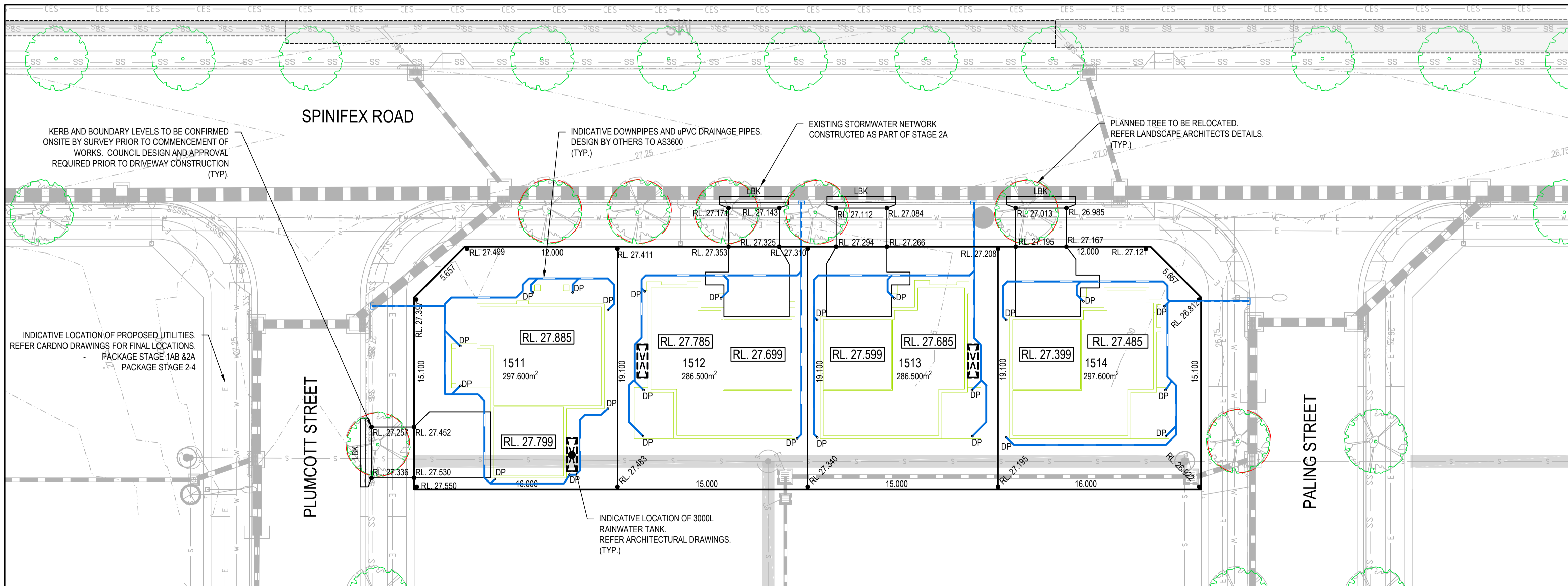
Project
WERRINGTON - NORTHERN LOTS
SUBDIVISION
LOTS 1230, 2010 & 2230

Title
EROSION AND SEDIMENTATION
CONTROL DETAILS

Scale	Status
N.T.S	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date	01/10/2021
Size	A1
Datum	MGA2020
Project Number/Drawing Number	190060-02-DACC-C03.21
Revision	4



LOT 1230
SCALE 1:200



LOT 2010
SCALE 1:200

LEGEND

	SITE BOUNDARY
	EXISTING CONTOUR
	PROPOSED CONTOUR
	LAYBACK
	REFER PENRITH CITY COUNCIL STANDARD DRG. SD1004 FOR DETAIL
	STORMWATER DRAINAGE LINE (uPVC)
	GRATED TRENCH DRAIN
	DOWNPIPE (INDICATIVE LOCATION)
	STORMWATER LINE/PIT NUMBER
	STORMWATER KERB OUTLET
	REFER PENRITH CITY COUNCIL STANDARD DRG. SD1003 FOR DETAIL
	EXISTING STORMWATER DRAINAGE LINE
	EXISTING KERB INLET PIT
	EXISTING SURFACE INLET PIT/JUNCTION PIT

NOTES:

- THESE PLANS HAVE BEEN DESIGN IN ACCORDANCE WITH RELEVANT LOCAL AUTHORITY GUIDELINES FOR DEVELOPMENT APPLICATION PURPOSES TO DEMONSTRATE FEASIBILITY AND ARE SUBJECT TO COUNCIL APPROVAL AND DETAILED DESIGN AT CONSTRUCTION CERTIFICATE STAGE.
- DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS. ALL DIMENSIONS ARE IN METERS (m) AND ALL LEVELS ARE IN METERS (m), UNO. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).
- ALL WORKS EXTERNAL TO THE SITE ARE TO BE UNDERTAKEN IN ACCORDANCE WITH COUNCIL SPECIFICATIONS AND STANDARD DRAWINGS. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN ALL RELEVANT COUNCIL SPECIFICATIONS AND STANDARD DRAWINGS PRIOR TO CONSTRUCTION.

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
4	29/10/2021	ISSUED FOR DA - LOT LAYOUT UPDATED	TB			CVE
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1	01/10/2021	ISSUED FOR CLIENT REVIEW	GJJ			CVE

Client

Scale

SCALE 1:200 @A1

North

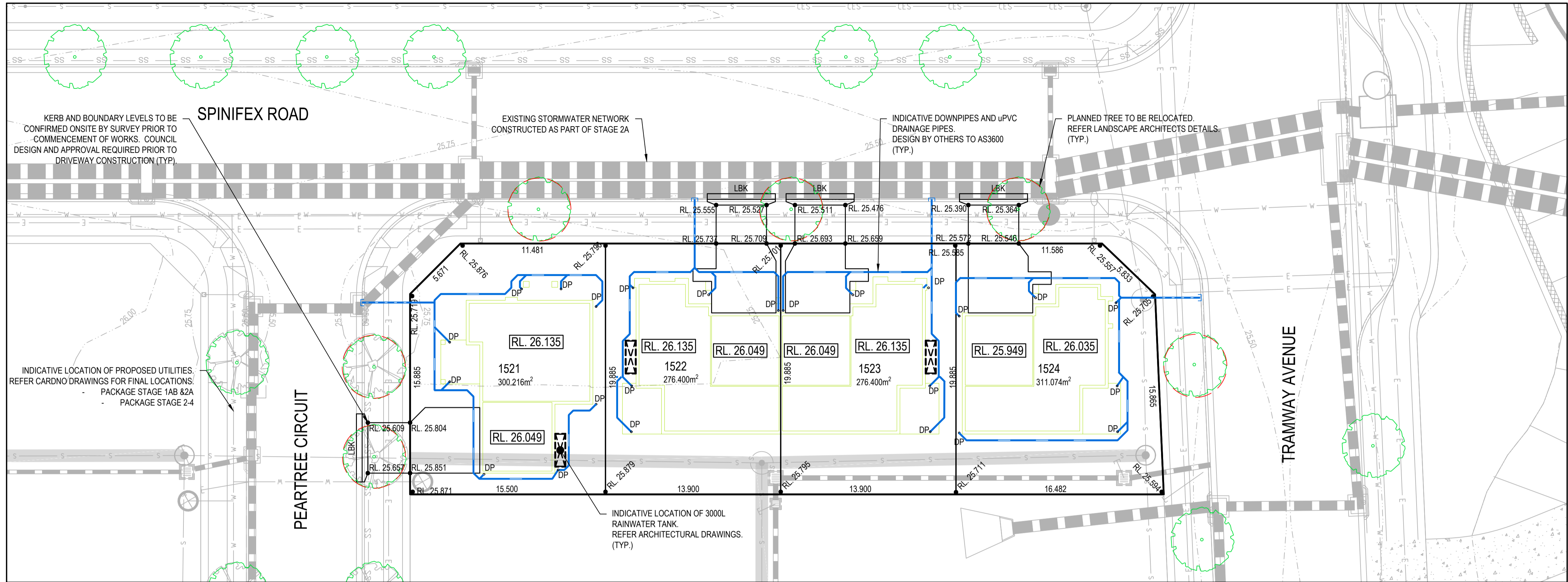
Enspire Solutions Pty Ltd
1302/83 Mount Street, North Sydney NSW 2060
ABN: 71 624 801 690
Phone: 02 9922 6135

Project
WERRINGTON - NORTHERN LOTS
SUBDIVISION
LOTS 1230, 2010 & 2230

Title
SITEWORKS AND STORMWATER MANAGEMENT PLAN

SHEET 01

Scale 1:200	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Date 01/10/2021	Project Number/Drawing Number 190060-02-DACC-C05.01
Size A1	Revision 4
Datum MGA2020	



LEGEND

SITE BOUNDARY

EXISTING CONTOUR

PROPOSED CONTOUR

LAYBACK
REFER PENRITH CITY COUNCIL STANDARD
DRG. SD1004 FOR DETAIL

STORMWATER DRAINAGE LINE (uPVC)

GRATED TRENCH DRAIN

DOWNPIPE (INDICATIVE LOCATION)

STORMWATER LINE/PIT NUMBER

STORMWATER KERB OUTLET
REFER PENRITH CITY COUNCIL STANDARD
DRG. SD1003 FOR DETAIL

EXISTING STORMWATER DRAINAGE LINE

EXISTING KERB INLET PIT

EXISTING SURFACE INLET

PIT/JUNCTION PIT

NOTES:

1. THESE PLANS HAVE BEEN DESIGN IN ACCORDANCE WITH RELEVANT LOCAL AUTHORITY GUIDELINES FOR DEVELOPMENT APPLICATION PURPOSES TO DEMONSTRATE FEASIBILITY AND ARE SUBJECT TO COUNCIL APPROVAL AND DETAILED DESIGN AT CONSTRUCTION CERTIFICATE STAGE.

2. DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS. ALL DIMENSIONS ARE IN METERS (m) AND ALL LEVELS ARE IN METERS (m). UNO. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).

3. ALL WORKS EXTERNAL TO THE SITE ARE TO BE UNDERTAKEN IN ACCORDANCE WITH COUNCIL SPECIFICATIONS AND STANDARD DRAWINGS. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN ALL RELEVANT COUNCIL SPECIFICATIONS AND STANDARD DRAWINGS PRIOR TO CONSTRUCTION.

LOT 2230
SCALE 1:200

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
4	29/10/2021	ISSUED FOR DA - LOT LAYOUT UPDATED		TB		CVE
3	18/10/2021	ISSUED FOR DEVELOPMENT APPLICATION		GJJ		CVE
2	13/10/2021	ISSUED FOR CLIENT REVIEW		GJJ		CVE
1	01/10/2021	ISSUED FOR CLIENT REVIEW		GJJ		CVE

Client

Scale

SCALE 1:200 @A1

North

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1302/83 Mount Street, North Sydney NSW 2060
ABN: 71 624 801 690
Phone: 02 9922 6135

Project
WERRINGTON - NORTHERN LOTS
SUBDIVISION
LOTS 1230, 2010 & 2230

Title
SITEWORKS AND STORMWATER MANAGEMENT PLAN

SHEET 02

Scale
1:200

Date
01/10/2021

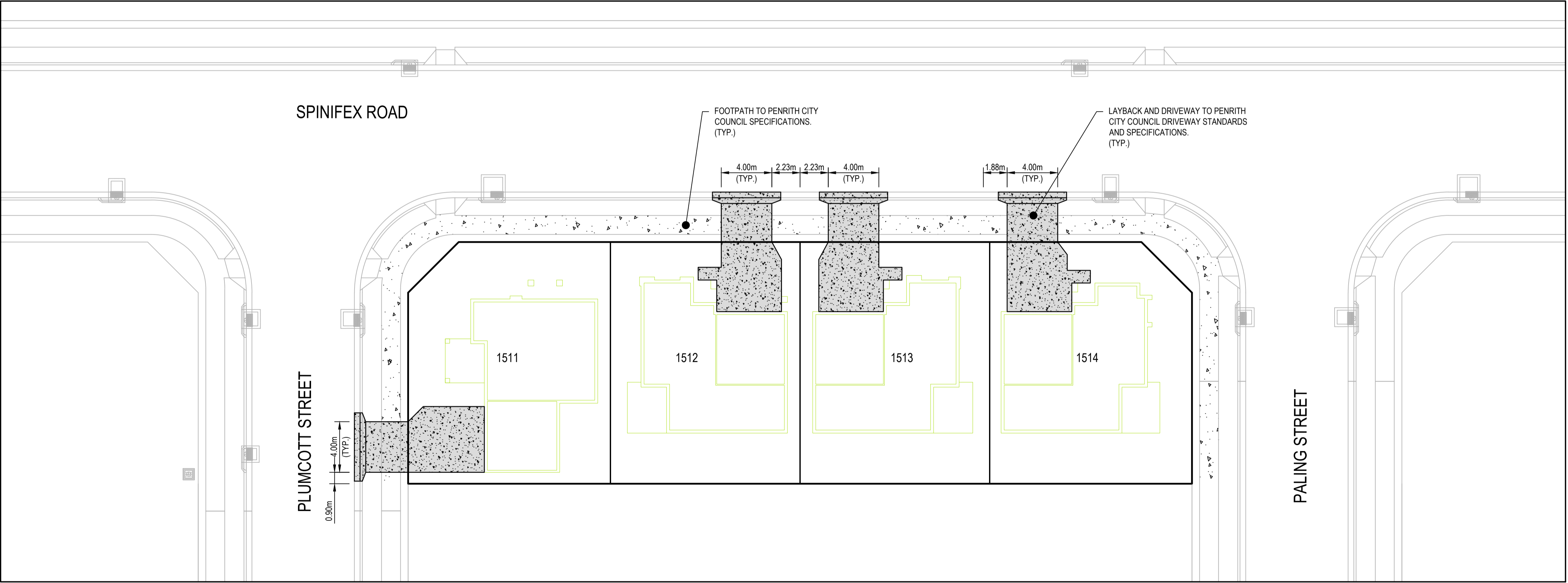
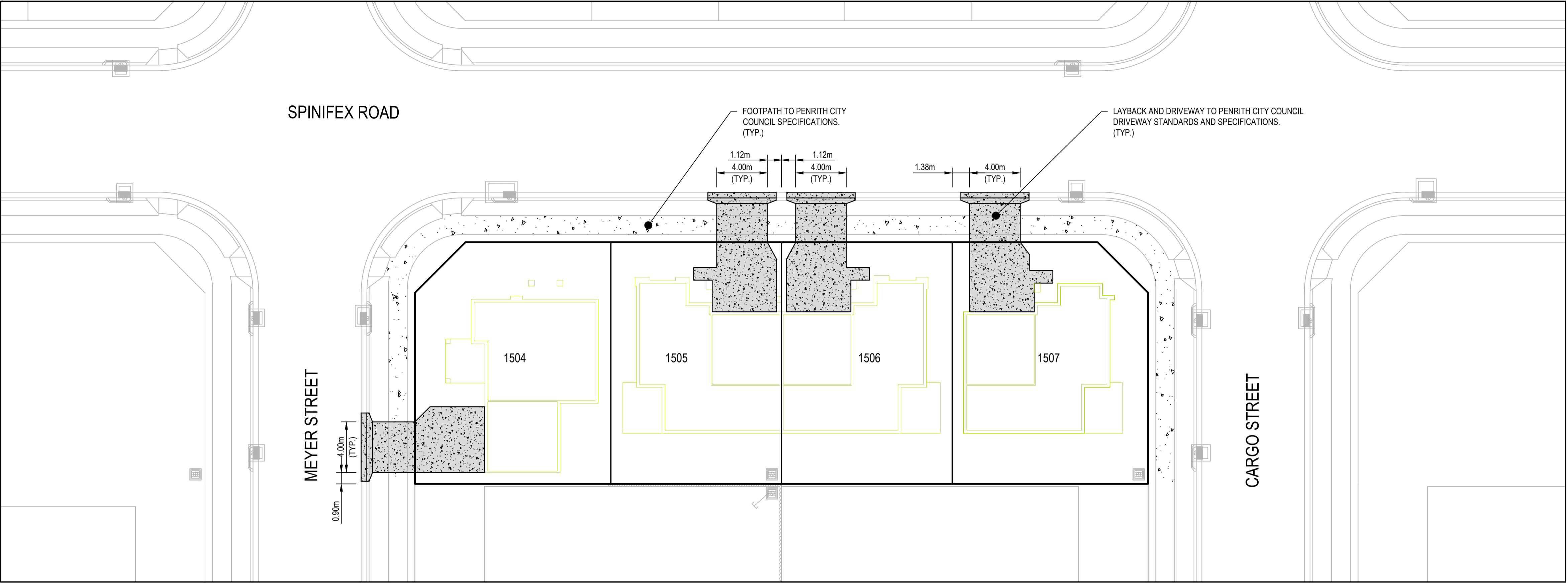
Size
A1

Datum
MGA2020

Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number
190060-02-DACC-C05.02

Revision
4

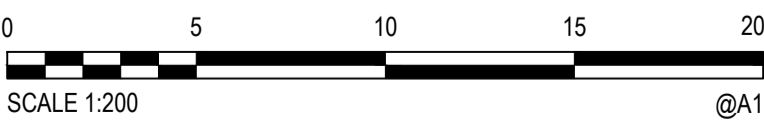


REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
4	29/10/2021	ISSUED FOR DA - LOT LAYOUT UPDATED	TB			CVE
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1	01/10/2021	ISSUED FOR CLIENT REVIEW	GJJ			CVE

Client

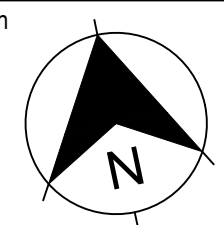


Scale



SCALE 1:200 @A1

North



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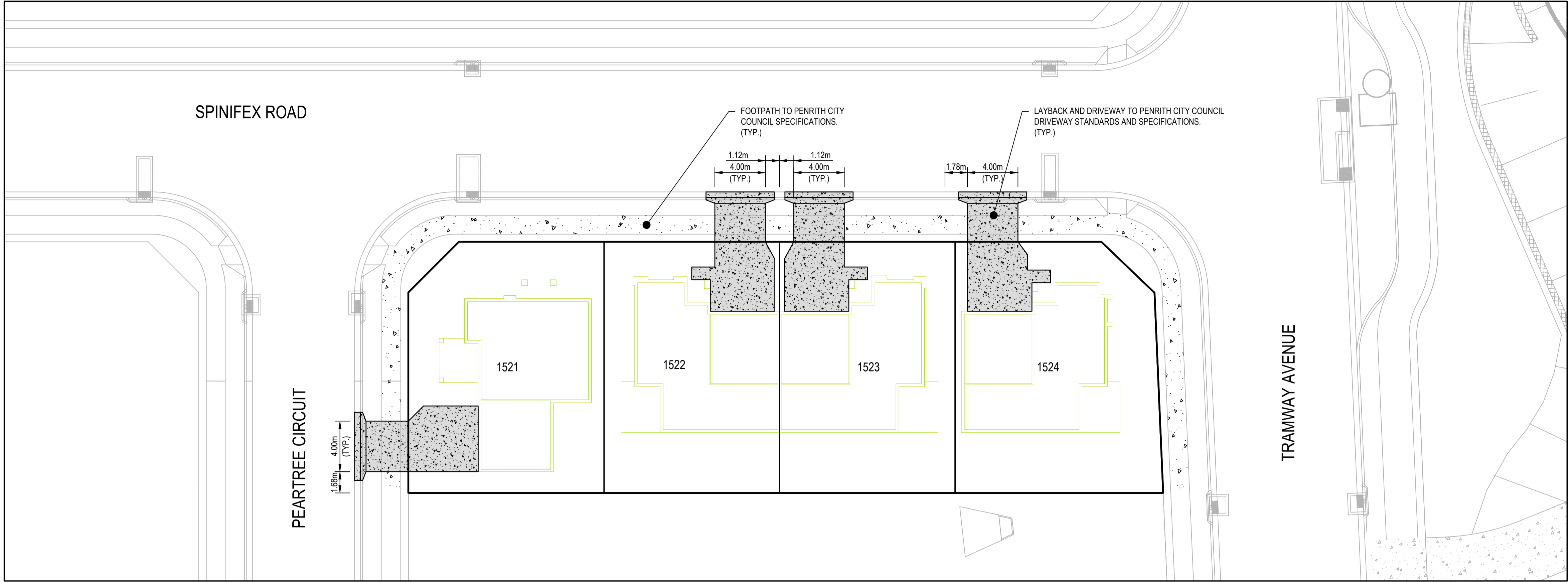
Enspire Solutions Pty Ltd
1302/83 Mount Street, North Sydney NSW 2060
ABN: 71 624 801 690
Phone: 02 9922 6135

Project
WERRINGTON - NORTHERN LOTS
SUBDIVISION
LOTS 1230, 2010 & 2230

Title
PAVEMENT PLAN

SHEET 01

Scale 1:200	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION	
Date 01/10/2021		
Size A1	Project Number/Drawing Number 190060-02-DACC-C11.01	Revision 4
Datum MGA2020		



LOT 2230
SCALE 1:200

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
4	29/10/2021	ISSUED FOR DA - LOT LAYOUT UPDATED	TB			CVE
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2	13/10/2021	ISSUED FOR CLIENT REVIEW	GJJ			CVE
1	01/10/2021	ISSUED FOR CLIENT REVIEW	GJJ			CVE

Client

Scale

North

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Project
WERRINGTON - NORTHERN LOTS
SUBDIVISION
LOTS 1230, 2010 & 2230

Title
PAVEMENT PLAN
SHEET 02

Scale 1:200	Status FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION	
Date 01/10/2021		
Size A1	Project Number/Drawing Number 190060-02-DACC-C11.02	Revision 4
Datum MGA2020		

INTRODUCTION

THIS SAFETY IN DESIGN REPORT HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE WORK HEALTH AND SAFETY REGULATION 2017 AND THE WORK HEALTH AND SAFETY REGULATION PART 6.2 CLAUSE 295. UNDER THE WORK HEALTH AND SAFETY REGULATION 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.

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 OF HAZARDS WHERE KNOWN SOLUTIONS APPLY, AND WHICH ARE ASSOCIATED WITH CONSTRUCTION, OPERATION AND MAINTENANCE AND DEMOLITION 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 REGULATION 2017.

PROPOSED WORKS

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

- DETAILED DESIGN OF BULK EARTHWORKS, STORMWATER PIT AND PIPE INFRASTRUCTURE AND SERVICES;
- CONSTRUCTION OF BULK EARTHWORKS, STORMWATER PIT AND PIPE INFRASTRUCTURE AND SERVICES;
- SITE VISITS AND INSPECTIONS;
- POST CONSTRUCTION OPERATION AND MAINTENANCE.
- FUTURE DEMOLITION

INFORMATION TRANSFER

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.

SAFE DESIGN PROCESS

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 (IF APPROPRIATE) 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
LENDLEASE	DEVELOPMENT PROPONENT	REBECCA MCALPINE	TEL: +61 408 786 569 EMAIL: REBECCA.MCALPINE@LENDLEASE.COM ADD: LEVEL 14, TOWER 3, INTERNATIONAL TOWERS SYDNEY, EXCHANGE PLACE, 300 BARANGAROO AVE, BARANGAROO, NSW 2000
ENSPIRE SOLUTIONS	CIVIL DESIGN CONSULTANT	CAMERON VELLA	TEL: +61 431 467 254 EMAIL: CAMERON.VELLA@ENSPIRESOLUTIONS.COM.AU ADD: 1302/83 MOUNT STREET, NORTH SYDNEY, NSW 2060
TBC	PRINCIPAL CONTRACTOR	TBC	TBC
HOMEOWNER	ASSET OPERATOR / MAINTENANCE		
TBC	DEMOLITION CONTRACTOR		

LEVEL	MEASURE	CRITERIA
1	RARE	WOULD ONLY OCCUR IN HIGHLY EXCEPTIONAL CIRCUMSTANCES THAT ARE UNLIKELY TO EXIST IN ANY PHASE OF THE DEVELOPMENT'S 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 THAN THIS IN THE DEVELOPMENT'S LIFECYCLE PERIOD.
4	LIKELY	LIKELY TO OCCUR MORE THAN ONCE IN THE DEVELOPMENT'S LIFECYCLE PERIOD BUT NOT AN 'EVERYDAY' 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	CONSTRUCTION TRAFFIC	CONSTRUCTION WORKERS STRUCK BY VEHICLE	CONSTRUCTION	2	5	VERY HIGH	WEAR HIGH VIZ, TRAFFIC MANAGEMENT TO BE IN PLACE, INDUCTION TO DELINEATE TRAFFIC AREAS.	2	5	HIGH	CONTRACTOR	ACTION ASSIGNED
2	PUBLIC ROAD TRAFFIC	CONSTRUCTION WORKERS STRUCK BY VEHICLE	CONSTRUCTION	2	5	VERY HIGH	WEAR HIGH VIZ, TRAFFIC MANAGEMENT TO BE IN PLACE, INDUCTION TO DELINEATE TRAFFIC AREAS.	2	5	HIGH	CONTRACTOR	ACTION ASSIGNED
3	OPERATING AROUND LIVE UTILITIES	UTILITIES STRIKE. ELECTROCUTION, HIGH PRESSURE WATERMAIN HAZARD, GAS LEAK AND RISK OF EXPLOSION	CONSTRUCTION	2	5	VERY HIGH	LOCAL UTILITIES IN LOCATIONS OF CROSSEOVERS. HAND EXCAVATE ONLY IN LOCATIONS OF UTILITIES, DYBD INVESTIGATIONS	2	5	HIGH	CONTRACTOR	ACTION ASSIGNED
4	PIPE TRENCHING	UTILITIES STRIKE AND FALLS. ELECTROCUTION, HIGH PRESSURE WATERMAIN HAZARD, GAS LEAK AND RISK OF EXPLOSION	CONSTRUCTION	2	5	VERY HIGH	PROVIDE MARKERS TO IDENTIFY DEEP TRENCHES. LOCATE UTILITIES IN LOCATIONS OF CROSSEOVERS. HAND EXCAVATE ONLY IN LOCATIONS OF UTILITIES, DYBD INVESTIGATIONS	2	5	HIGH	CONTRACTOR	ACTION ASSIGNED

[illegible]