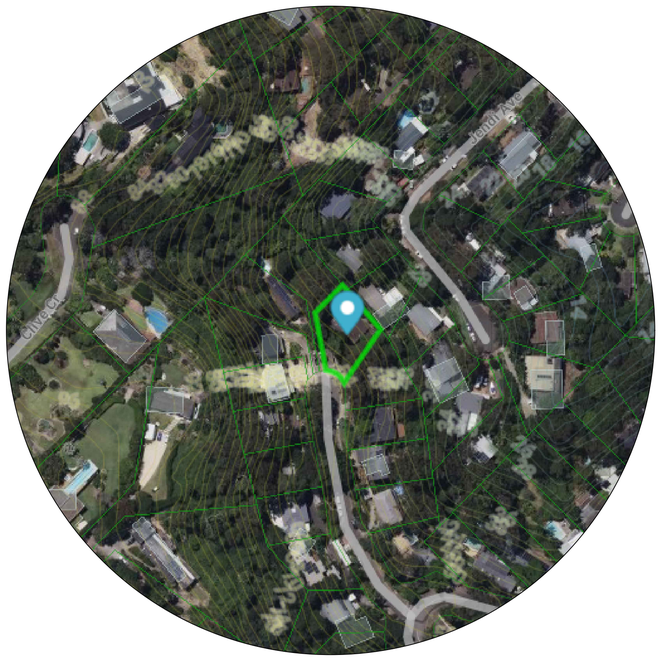
STORMWATER MANAGEMENT PLANS
10 KOOKABURRA CLOSE, BAYVIEW
DEVELOPMENT APPLICATION

SCHEDULE OF DRAWINGS	
DRAWING No.	DESCRIPTION
24185-SW01	COVER SHEET
24185-SW02	SEDIMENT AND EROSION CONTROL PLAN
24185-SW03	STORMWATER MANAGEMENT PLAN SHEET 1
24185-SW04	STORMWATER MANAGEMENT PLAN SHEET 2
24185-SW05	STORMWATER MANAGEMENT DETAILS
24185-CV01	CIVIL AND LONGSECTION SHEET
24185-CV02	COUNCIL STANDARD DRAWINGS



SITE LOCALCITY PLAN
NTS

GENERAL

1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE LOCAL COUNCIL ENGINEERING SPECIFICATIONS.
2. FINAL LOCATION OF NEW DOWNPIPES TO BE DETERMINED BY BUILDER/ARCHITECT AT TIME OF CONSTRUCTION.
3. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ARCHITECTS AND OTHER CONSULTANT DRAWINGS. ANY DISCREPANCIES MUST BE REFEREED TO THE ENGINEER BEFORE PROCEEDING.
4. INSPECTIONS BY THE CERTIFIEING AUTHORITY SHALL BE CARRIED OUT FOR ALL THE CIVIL WORKS PRIOR TO RELEASE OF THE HOLD POINTS INCLUDING THE FOLLOWING STAGES:
   - 4.1. PRIOR TO INSTALLATION OF EROSION AND SEDIMENT CONTROL STRUCTURES
   - 4.2. FINAL INSPECTION AFTER ALL WORKS ARE COMPLETED AND 'WORK AS EXECUTED' PLANS HAVE BEEN SUBMITTED TO COUNCIL
5. MAKE SMOOTH JUNCTIONS WITH EXISTING WORKS.
6. NO WORK TO BE CARRIED OUT ON COUNCIL PROPERTY OR ADJOINING PROPERTIES WITHOUT THE WRITTEN PERMISSION FROM THE OWNER/S.
7. VEHICULAR ACCESS AND ALL SERVICES TO BE MAINTAINED AT ALL TIMES TO ADJOINING PROPERTIES AFFECTED BY CONSTRUCTION.
8. ALL RUBBISH, BUILDINGS, SHEDS AND FENCES TO BE REMOVED TO SATISFACTION OF COUNCIL'S ENGINEER.
9. THE CONTRACTOR SHALL OBTAIN ALL LEVELS FROM ESTABLISHED BENCH MARKS ONLY.

WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services are approximate only and their exact position should be proven on site.
No guarantee is given that all existing services are shown.
Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
www.1100.com.au

TABLE 7.1
MINIMUM PIPE COVER
(from finished surface to top of pipe)

millimetres

Location	Cast iron, ductile iron, galvanized steel	Other authorized* products
	Minimum cover	
1 Not subject to vehicular loading:		
(a) without pavement—		
(i) for single dwellings	Nil	100
(ii) for other than Item (i)	Nil	300
(b) with pavement of brick or unreinforced concrete	Nil†	50†
2 Subject to vehicular loading:		
(a) other than roads—		
(i) without pavement	300	450
(ii) with pavement of—		
(A) reinforced concrete for heavy vehicular loading	Nil†‡	100†‡
(B) brick or unreinforced concrete for light vehicular loading	Nil†‡	75†‡
(b) roads—		
(i) sealed	300	500‡
(ii) unsealed	300	500‡
3 Subject to construction equipment loading or in embankment conditions	300	500‡

* Includes overlay above the top of the pipe of not less than 50 mm thick.
† Below the underside of the pavement.
‡ Subject to compliance with AS 1762, AS 2033, AS/NZS 2566.1, AS 3725 or AS 4060.

AS3500.3

EXISTING UNDERGROUND SERVICES NOTES

CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY. CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS. CONTRACTORS ARE TO UNDERTAKE A SERVICES SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.

SITEWORKS NOTES

1. ORIGIN OF LEVELS:- REFER SURVEY NOTES.
2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. A
3. MAKE SMOOTH CONNECTION WITH EXISTING WORKS.
4. ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
5. BASE AND SUB-BASE LAYERS ARE TO BE INSPECTED AND TESTED BY AN INDEPENDENT GEOTECHNICAL TESTING AUTHORITY TO LEVEL 1 RESPONSIBILITY AS DEFINED IN AS3798.
6. ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS FORM 3051, COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m³ OF BASECOURSE MATERIAL PLACED.
7. ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS FORM 3051, AND COMPACTED TO MINIMUM 95% MODIFIED DENSITY IN ACCORDANCE WITH A.S 1289 5.2.1 FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m³ OF SUB-BASE COURSE MATERIAL PLACED.
8. SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT THIS SHALL BE CLEARLY INDICATED IN THEIR TENDER AND THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY INDICATED.
9. 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.

MINIMUM GRADIENT OF SITE STORMWATER DRAINS

Nominal size	Minimum gradient		Nominal size	Minimum gradient	
DN	Aust.	NZ	DN	Aust.	NZ
90	1:100	1:90	225	1:200	1:350
100	1:100	1:120	300	1:250	1:350
150	1:100	1:200	375	1:300	1:350

AS3500.3

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS

Depth to invert of outlet		Minimum internal dimensions mm		
		Rectangular		Circular
		Width	Length	Diameter
	≤600	450	450	600
>600	≤900	600	600	900
>900	≤1200	600	900	1 000
> 1 200		900	900	1 000

AS3500.3

STORMWATER DRAINAGE NOTES

1. ALL PIPES ON DRAWINGS TO BE MIN 1% GRADE UNLESS NOTED OTHERWISE.
2. ALL DOWNPIPES TO BE 100Φ PVC UNLESS NOTED OTHERWISE.
3. PIPES 375 DIA. AND LARGER TO BE REINFORCED CONCRETE CLASS '2' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O.
4. PIPES 300 DIA AND LESS SHALL BE DWV GRADE (CLASS SN8) uPVC WITH SOLVENT WELDED JOINTS.
5. EQUIVALENT STRENGTH FRC PIPES MAY BE USED.
6. ALL PIPES ARE TO BE UNIFORMLY SUPPORTED ALONG THE LENGTH OF THE BARREL BY SUITABLE FILL MATERIAL. REFER TO BEDDING SUPPORT TYPE.
7. PIPES WITH SOCKETS SHALL BE LAID IN BEDDING WHERE SUITABLE RECESSES HAVE BEEN PROVIDED TO ENSURE PIPES DO NOT BEAR ON THEIR SOCKETS.
8. ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN HEIGHT.
9. PIPES TO BE INSTALLED TO TYPE HS1 SUPPORT IN ACCORDANCE WITH AS 3725 (2007) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75).
10. REFER TO AS/NRS 3725:2007 TABLE B1 FOR REQUIRED FILL DEPTHS ABOVE PIPE BARREL PRIOR TO USE OF COMPACTION MACHINERY OR TRAVERSING OF PIPES BY GENERAL SITE EQUIPMENT.
11. WHERE WORKING METHODS REQUIRE HIGHER CLASS PIPE, THE CONTRACTOR SHALL REFER TO AS 3725 (2007) TO DETERMINE THE APPROPRIATE PIPE CLASS.
12. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (2018) AND AS/NZS 3500 3.2 (2018).
13. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
14. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.
15. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
16. GRATES AND COVERS SHALL CONFORM TO AS 3996.
17. ALL BOX CULVERTS SHALL BE STRUCTURALLY DESIGNED BY THE MANUFACTURER AND DELIVERED TO SITE AS FIT FOR PURPOSE.
18. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
19. 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.

REVISION	DESCRIPTION	ISSUED	DATE
1	ISSUED FOR DA	AE	12.09.2024

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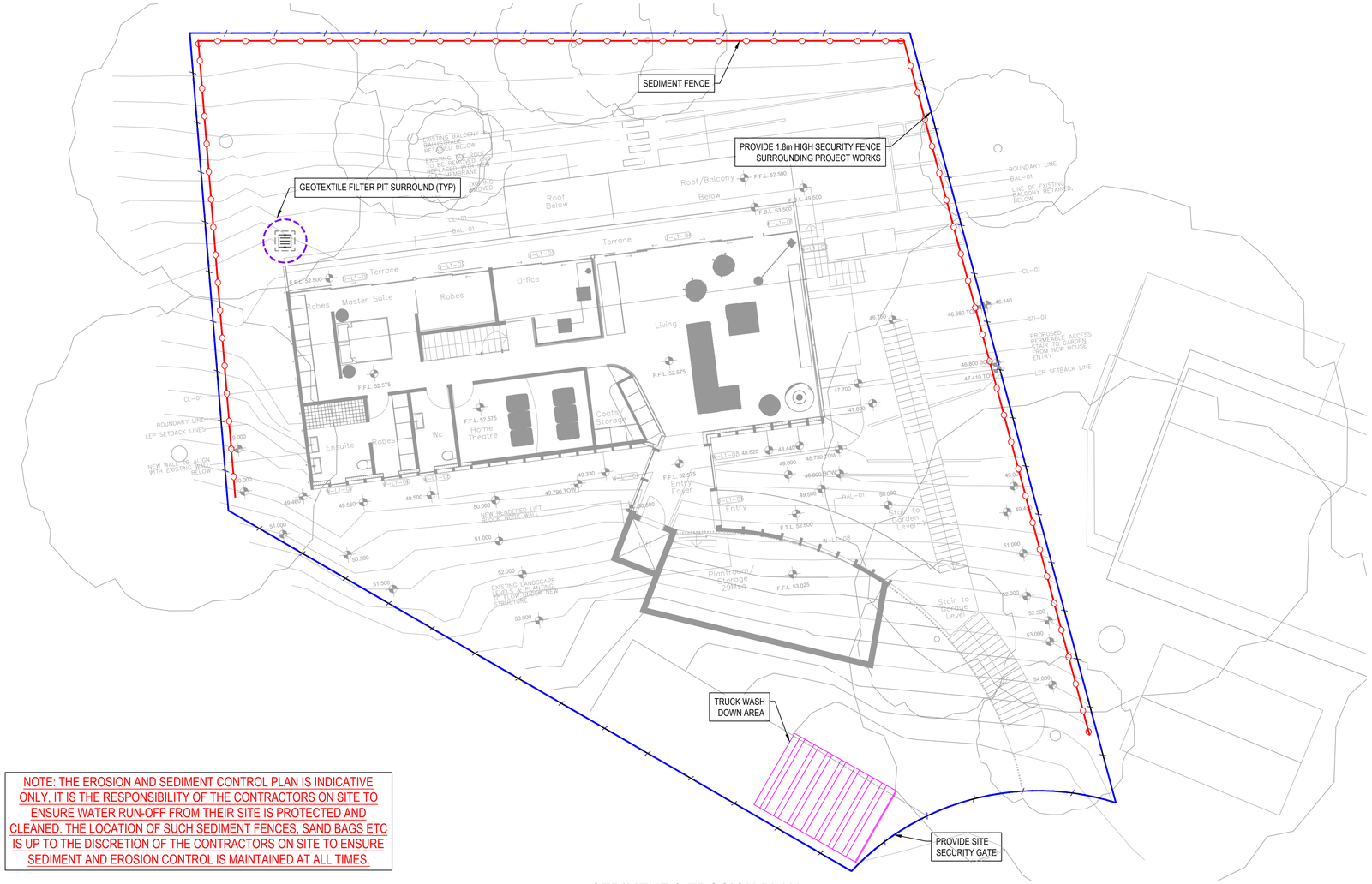
DRAWN BY	AE	PROJECT: 10 KOOKABURRA CLOSE, BAYVIEW	PROJECT NUMBER: 24185
DRAWN DATE	SEP'24		
COORDINATE SYSTEM	MGA-56	DRAWING TITLE: COVER SHEET	SHEET SIZE: A1
HEIGHT DATUM	AHD		

STATUS: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

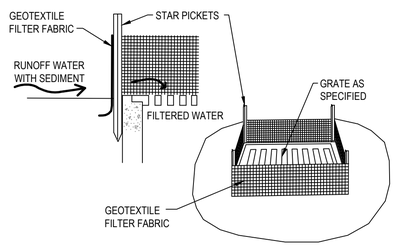
DRAWING NUMBER: SW01 REV: 1



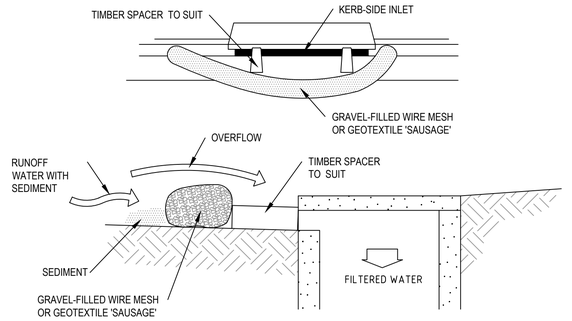
NOTE: THE EROSION AND SEDIMENT CONTROL PLAN IS INDICATIVE ONLY, IT IS THE RESPONSIBILITY OF THE CONTRACTORS ON SITE TO ENSURE WATER RUN-OFF FROM THEIR SITE IS PROTECTED AND CLEANED. THE LOCATION OF SUCH SEDIMENT FENCES, SAND BAGS ETC IS UP TO THE DISCRETION OF THE CONTRACTORS ON SITE TO ENSURE SEDIMENT AND EROSION CONTROL IS MAINTAINED AT ALL TIMES.

LEGEND

- SEDIMENT FENCE
- 1.8m SECURITY FENCE
- SITE SECURITY GATE
- GEOTEXTILE FILTER PIT SURROUND
- MESH AND GRAVEL INLET FILTER
- WASH DOWN AREA



GEOTEXTILE FILTER PIT SURROUND
NTS



MESH AND GRAVEL INLET FILTER
NTS

SEDIMENT & EROSION PLAN
SCALE 1:100

SEDIMENT AND EROSION CONTROL NOTES

GENERAL INSTRUCTION

1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION TO THE SATISFACTION OF COUNCIL, NSW OFFICE OF WATER, OFFICE OF ENVIRONMENT AND HERITAGE, 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 AS DOCUMENTED 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. NSW DEPARTMENT OF HOUSING 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

6. 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. UNDERTAKE 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 DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.

10. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER 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.

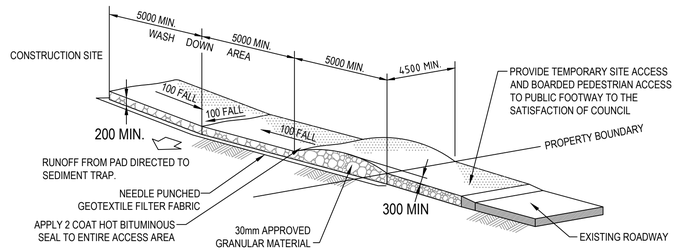
12. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

13. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.

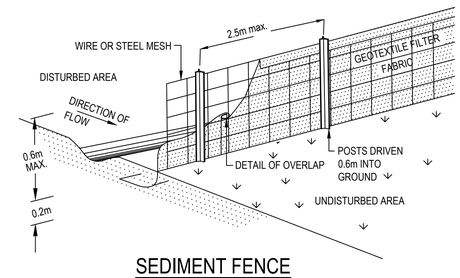
14. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:

OTHER MATTERS

a. PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE
b. ENSURING THAT NOTHING IS NAILED TO THEM
c. PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.
(I) ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICH EVER IS THE GREATER
(II) A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH
(III) CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.



STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA
NTS



SEDIMENT FENCE
NTS

REVISION	DESCRIPTION	ISSUED	DATE
1	ISSUED FOR DA	AE	12.09.2024

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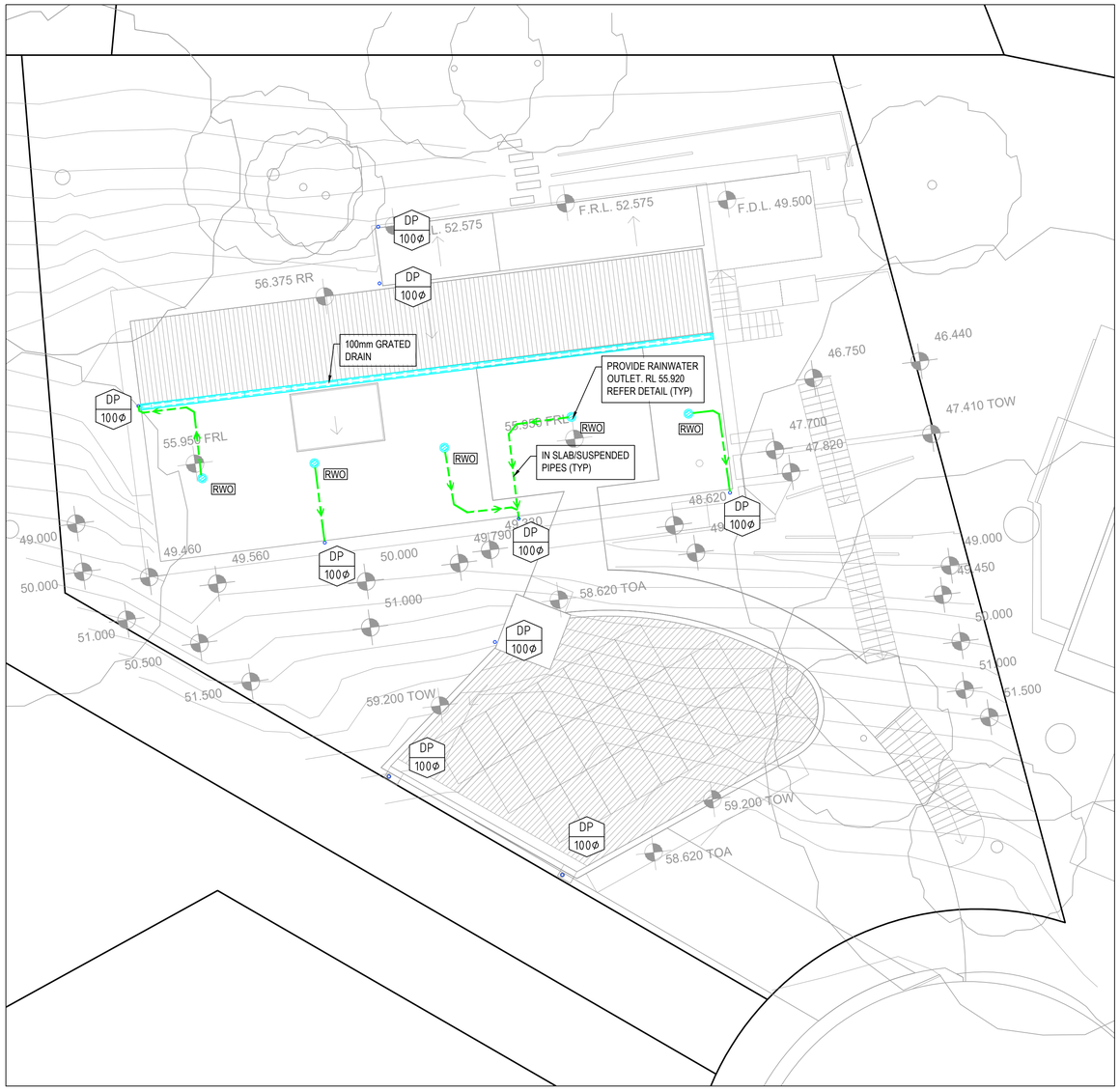
SCALE 1:100 (1 0 1 2 3 4 5)

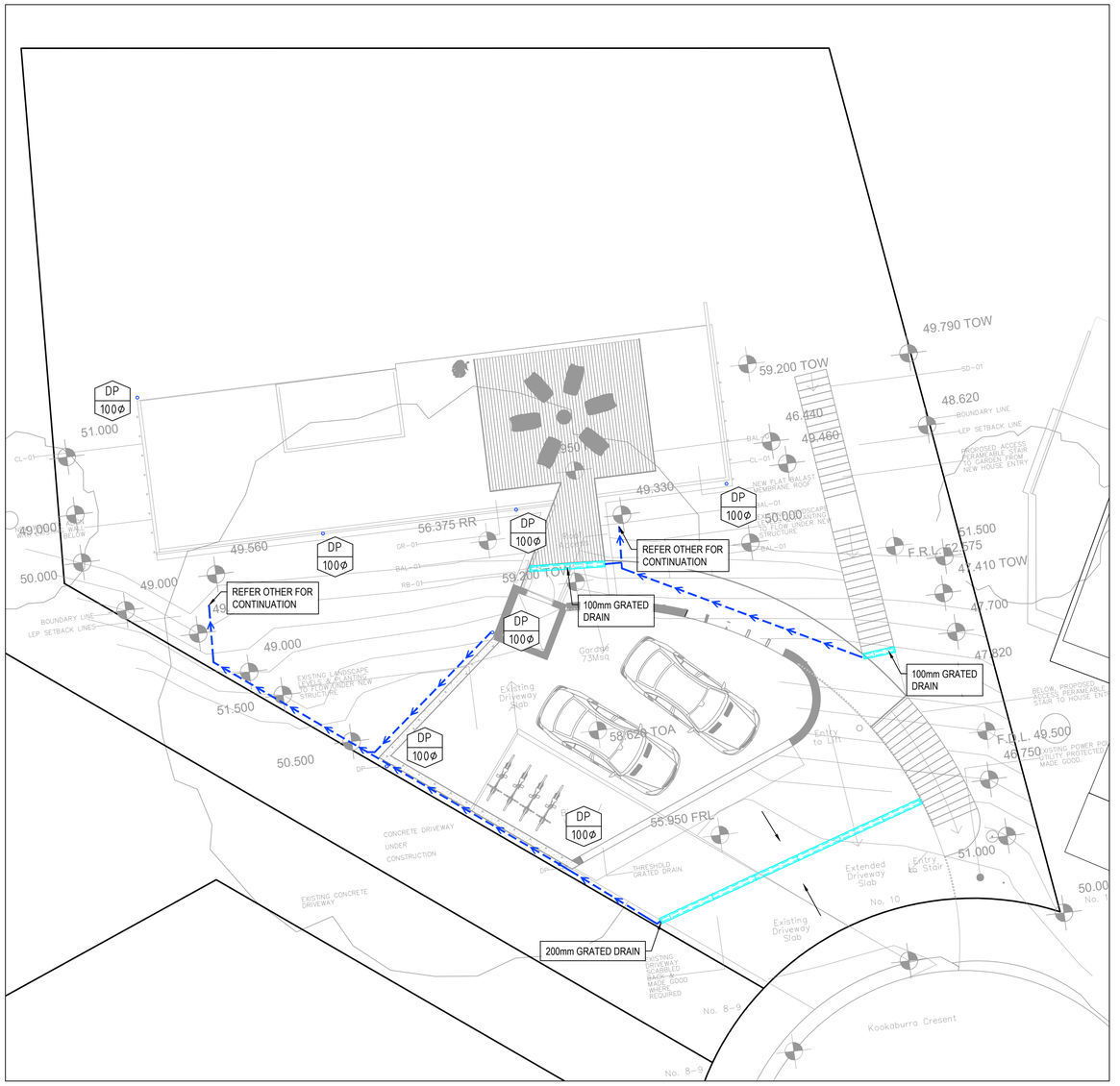
DRAWN BY	AE
DRAWN DATE	SEP'24
COORDINATE SYSTEM	MGA-56
HEIGHT DATUM	AHD

PROJECT: 10 KOOKABURRA CLOSE, BAYVIEW
DRAWING TITLE: SEDIMENT AND EROSION CONTROL PLAN
PROJECT NUMBER: 24185
SHEET SIZE: A1
STATUS: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES
DRAWING NUMBER: SW02
REV: 1



ROOF - STORMWATER MANAGEMENT PLAN

SCALE 1:100



FIRST FLOOR - STORMWATER MANAGEMENT PLAN

SCALE 1:100

DESIGN SUMMARY

NORTHERN BEACHES COUNCIL

OSD REQUIREMENT:
OSD IS REQUIRED. REFER DETAILS

LEGAL POINT OF DISCHARGE:
DISCHARGE VIA LEVEL SPREADER

LEGEND

- CHARGED LINE (ROOF WATER)
- GRAVITY PIPE (TO BE Ø100 @ 1% MIN UNO)
- GRAVITY PIPE - IN SLAB/SUSPENDED (TO BE Ø80 @ 1% MIN UNO)
- DP 100ø — DOWNPIPE SIZE
- DRAINAGE PIT
- I.R — INSPECTION RISER
- GRATED DRAIN
- RWO — RAINWATER OUTLET
- FD — FLOOR DRAIN OUTLET

REVISION	DESCRIPTION	ISSUED	DATE
1	ISSUED FOR DA	AE	12.09.2024

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SCALE 1:100 1 0 1 2 3 4 5

DRAWN BY	AE	PROJECT	10 KOOKABURRA CLOSE, BAYVIEW
DRAWN DATE	SEP'24		
COORDINATE SYSTEM	MGA-56	DRAWING TITLE	STORMWATER MANAGAMENT PLAN SHEET 1
HEIGHT DATUM	AHD		

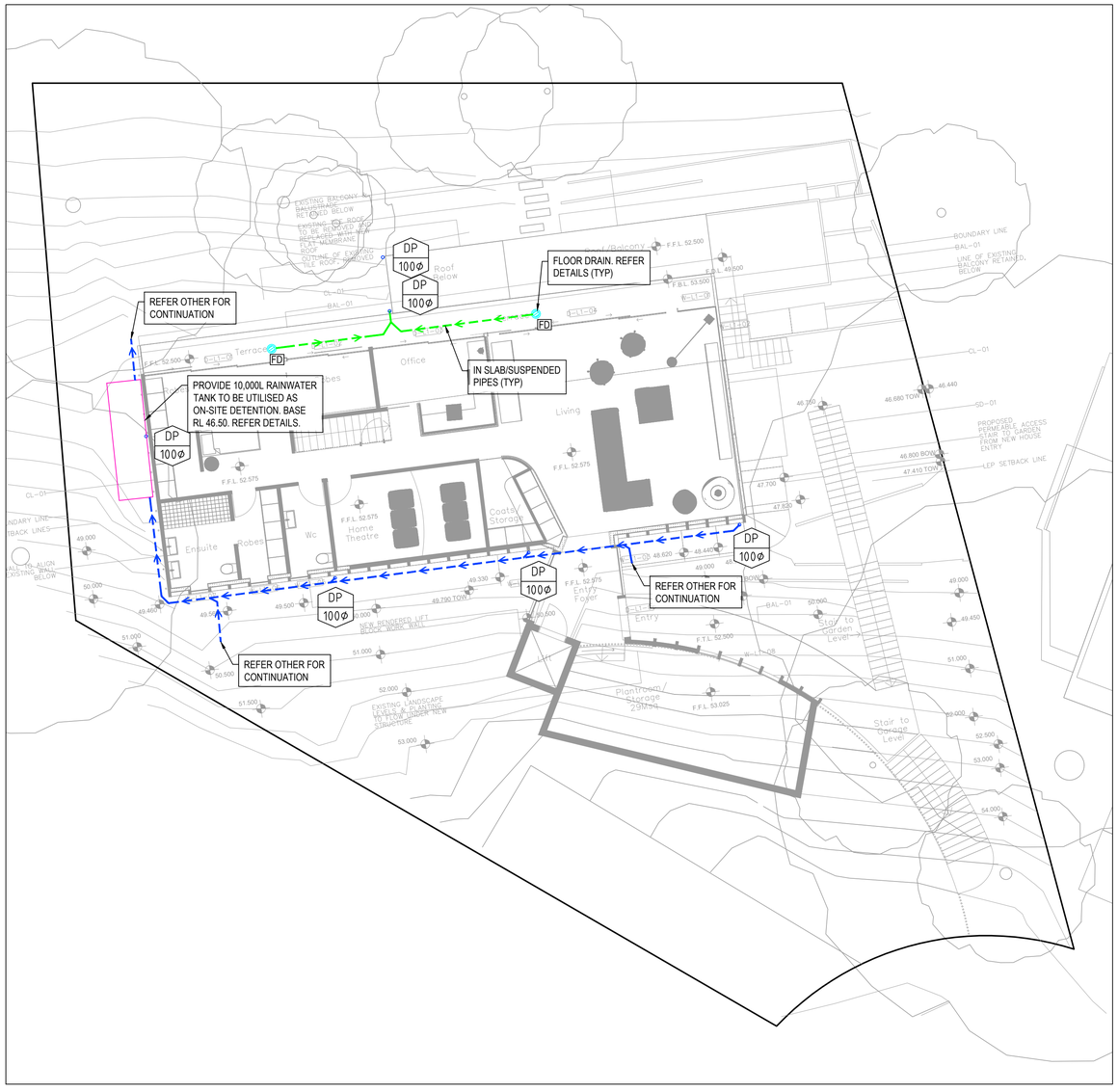
PROJECT NUMBER 24185

SHEET SIZE: A1

STATUS FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

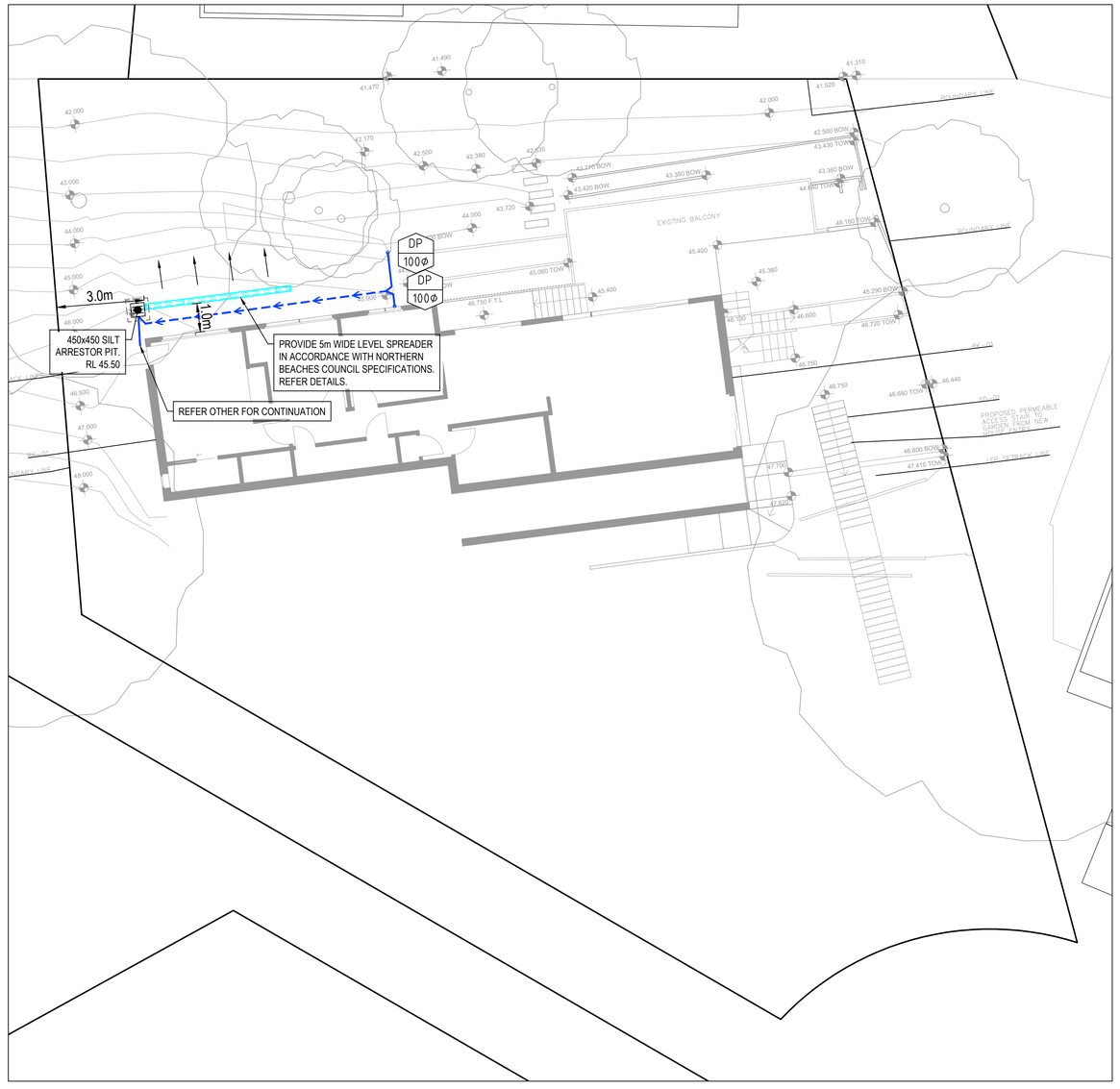
DRAWING NUMBER SW03

REV: 1



GROUND FLOOR - STORMWATER MANAGEMENT PLAN

SCALE 1:100



LOWER GROUND FLOOR - STORMWATER MANAGEMENT PLAN

SCALE 1:100

DESIGN SUMMARY

NORTHERN BEACHES COUNCIL

OSD REQUIREMENT:
OSD IS REQUIRED. REFER DETAILS

LEGAL POINT OF DISCHARGE:
DISCHARGE VIA LEVEL SPREADER

LEGEND

- CHARGED LINE (ROOF WATER)
- GRAVITY PIPE (TO BE Ø100 @ 1% MIN UNO)
- GRAVITY PIPE - IN SLAB/SUSPENDED (TO BE Ø80 @ 1% MIN UNO)
- DP 100ø — DOWNPIPE SIZE
- DRAINAGE PIT
- I.R — INSPECTION RISER
- GRATED DRAIN
- RWO — RAINWATER OUTLET
- FD — FLOOR DRAIN OUTLET

REVISION	DESCRIPTION	ISSUED	DATE
1	ISSUED FOR DA	AE	12.09.2024

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SCALE 1:100 1 0 1 2 3 4 5

DRAWN BY	AE	PROJECT	10 KOOKABURRA CLOSE, BAYVIEW
DRAWN DATE	SEP'24		
COORDINATE SYSTEM	MGA-56	DRAWING TITLE	STORMWATER MANAGAMENT PLAN SHEET 2
HEIGHT DATUM	AHD		

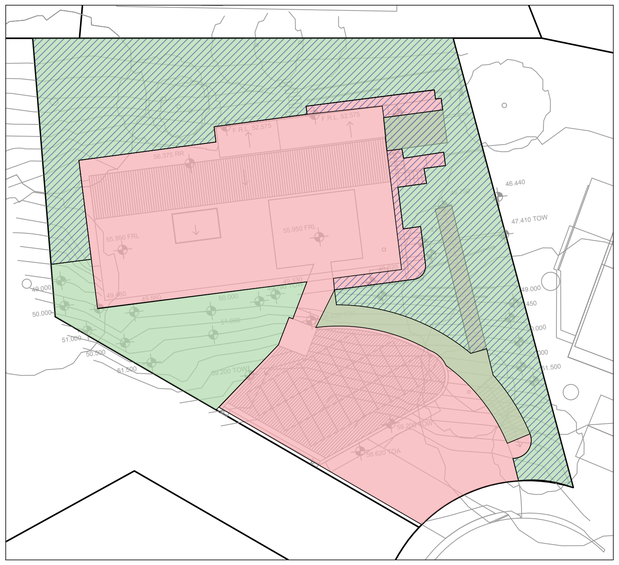
PROJECT NUMBER 24185

SHEET SIZE: A1

STATUS
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DRAWING NUMBER SW04

REV: 1



CATCHMENT PLAN
SCALE 1:200

LEGEND

- IMPERVIOUS AREA TO OSD = 408m²
- IMPERVIOUS AREA BYPASS OSD = 42m²
- PERVIOUS AREA TO OSD = 77m²
- PERVIOUS AREA BYPASS OSD =280m²

CUSTOM OSD DETAIL	
HEIGHT	2.32m
WIDTH	2.85m
LENGTH	4.0m
VOLUME	10m³
(A)	46.500
(B)	46.500
(C)	48.720
(D)	49.720
ORIFICE Ø	71
ORIFICE CL	46.55

(A) & (B) ARE THE SAME AS THERE IS NO RAINWATER TANK ASPECT PROPOSED

ANY MODIFICATIONS TO THE OSD TANK DURING CONSTRUCTION ARE TO BE NOTIFIED TO THE CONSULTING ENGINEER IMMEDIATELY.

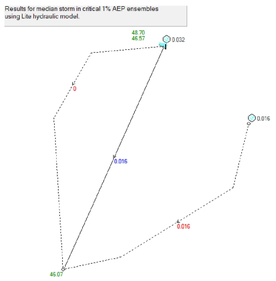
OSD SUMMARY

ON SITE DETENTION WAS PROVIDED IN THE FORM OF AN ABOVE GROUND OSD TANK. THE DETENTION TANK WAS PROVIDED TO ENSURE THE TOTAL FLOWS FROM THE DEVELOPED SITE WAS <= TO THE PRE-DEVELOPED (100% PERVIOUS SITE) THE PROPOSED FLOWS WERE <= THE PRE-DEVELOPED. THE RESULTS ARE SHOWN BELOW.

Results for median storm in critical 1% AEP ensembles using Lite hydraulic model.

0.039

PRE-DEV 1% AEP STORM



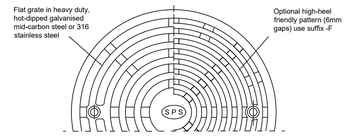
POST-DEV 1% AEP STORM

OSD RESULTS			
STORM	PRE DEV (l/s)	POST DEV (l/s)	OSD VOLUME (m³)
20% AEP	16	16	3.80
1% AEP	39	32	10.00

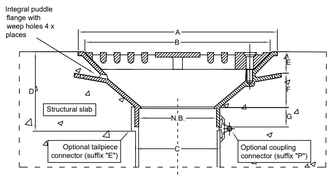
SPS Truflo 100mm & 150mm RWO with Class D Heavy-Duty Flat Grate

Specification codes:
TIA100F (100mm CI body, galvanised flat grate)
TIA150F (150mm CI body, galvanised flat grate)
TBS100F (100mm bronze body, 316SS flat grate)
TBS150F (150mm bronze body, 316SS flat grate)
- for 80mm outlet, use "100/80" instead of "100"

Suggested applications:
Car park decks
Plant rooms



Load-tested to Class D of AS3996-2006



Dimensions (mm)

N.B	A	B	C	D	E	F	G
80	260	240	82	106	28	45	25
100	260	240	103	106	28	45	25
150	260	240	151	86	28	37	25

*For flow rate data please refer to appendix.

Speciality Plumbing Supplies Pty Ltd
Tel: (02) 9417 1900 Fax: (02) 9417 0108 E-mail: info@spsdrains.com.au

1.02

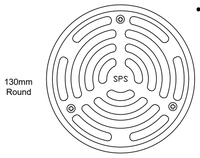
RAINWATER OUTLET DRAIN (RWO) DETAIL
NTS

SPS 130mm Round Push-in Floor Drain

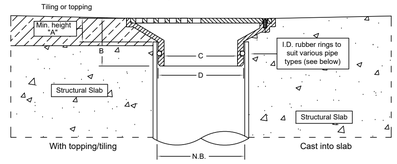
Specification codes:
R130/80SR4 (80mm - polished 304SS)
R130/80SR (80mm - satin 316SS)
R130/85SR (90mm - satin 316SS)
R130SR4 (100mm - polished 304SS)
R130SR (100mm - satin 316SS)

80mm outlet
90mm outlet
100mm outlet

- Round grate available in 304 or 316 Stainless Steel.
- O-ring spigot pushes into pipe. See below for specific size & material compatibility.



Typical Applications



N.B.	A	B	C	D	Pipe compatibility
80mm	20	49	64	72	PVC and copper
90mm	20	49	75	85.5	PVC stormwater only
100mm	17	41	90.5	97	PVC, HDPE and copper

*For flow rate data please refer to appendix.

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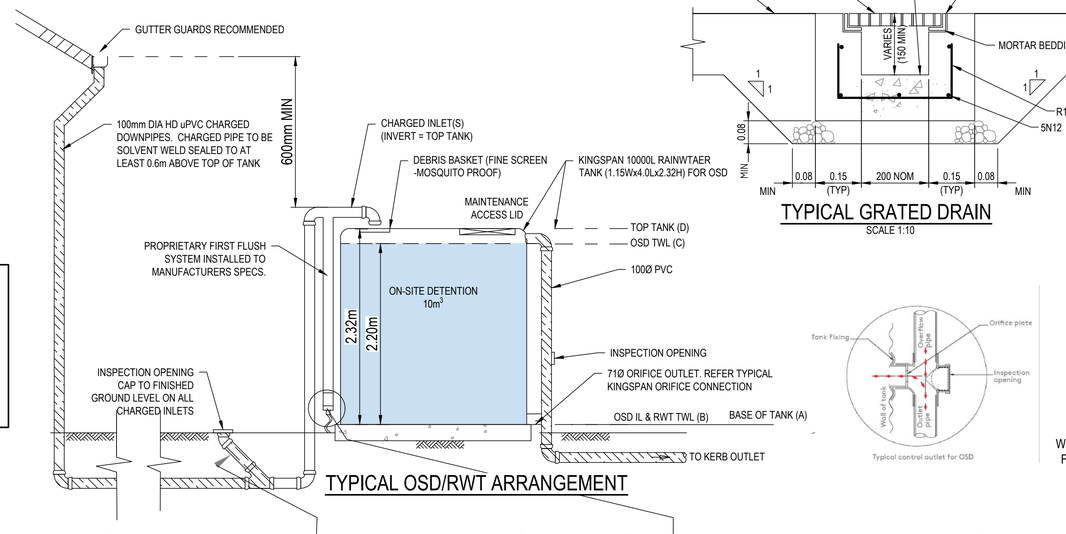
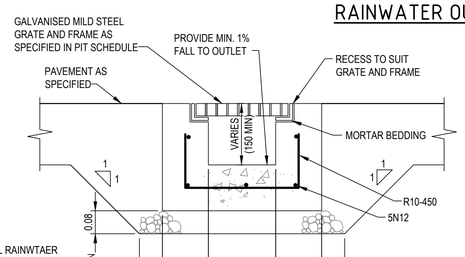
2.04

FLOOR DRAIN (FD) DETAIL
NTS



TYPICAL OSD/RWT ARRANGEMENT

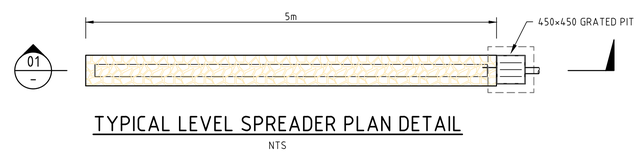


TYPICAL GRATED DRAIN
SCALE 1:10

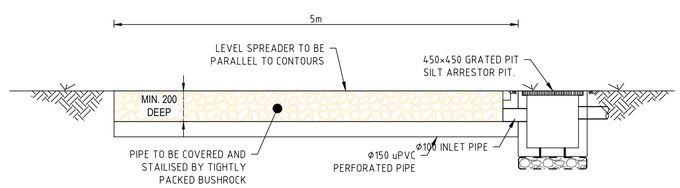
INSPECTION RISER DETAIL 2

INSPECTION RISER DETAIL 1

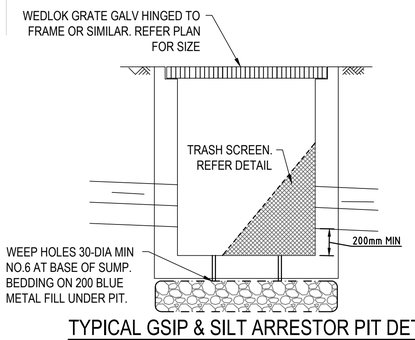
ABOVE GROUND OSD TANKS
NTS



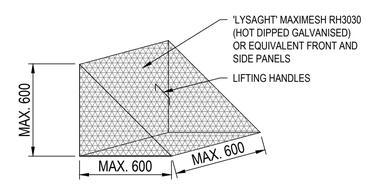
TYPICAL LEVEL SPREADER PLAN DETAIL
NTS



TYPICAL LEVEL SPREADER SECTION 01
NTS



TYPICAL GSIP & SILT ARRESTOR PIT DETAIL
NTS



TRASH SCREEN DETAIL
NTS

NOTES:
1. MAXIMESH SCREENS MUST BE PLACED SUCH THAT THE LONG AXIS OF THE OVAL SHAPED HOLES ARE ORIENTATED HORIZONTALLY WITH THE PORTRUDING LIP ANGLED UPWARDS AND FACING TOWARDS THE OUTLET.
2. THE SCREEN IS TO BE FORMED BY WELDING TWO TRIANGULAR MAXIMESH (OR EQUIVALENT) PANELS TO A RECTANGULAR FRONT MAXIMESH PANEL (OR EQUIVALENT)

REVISION	DESCRIPTION	ISSUED	DATE
1	ISSUED FOR DA	AE	12.09.2024

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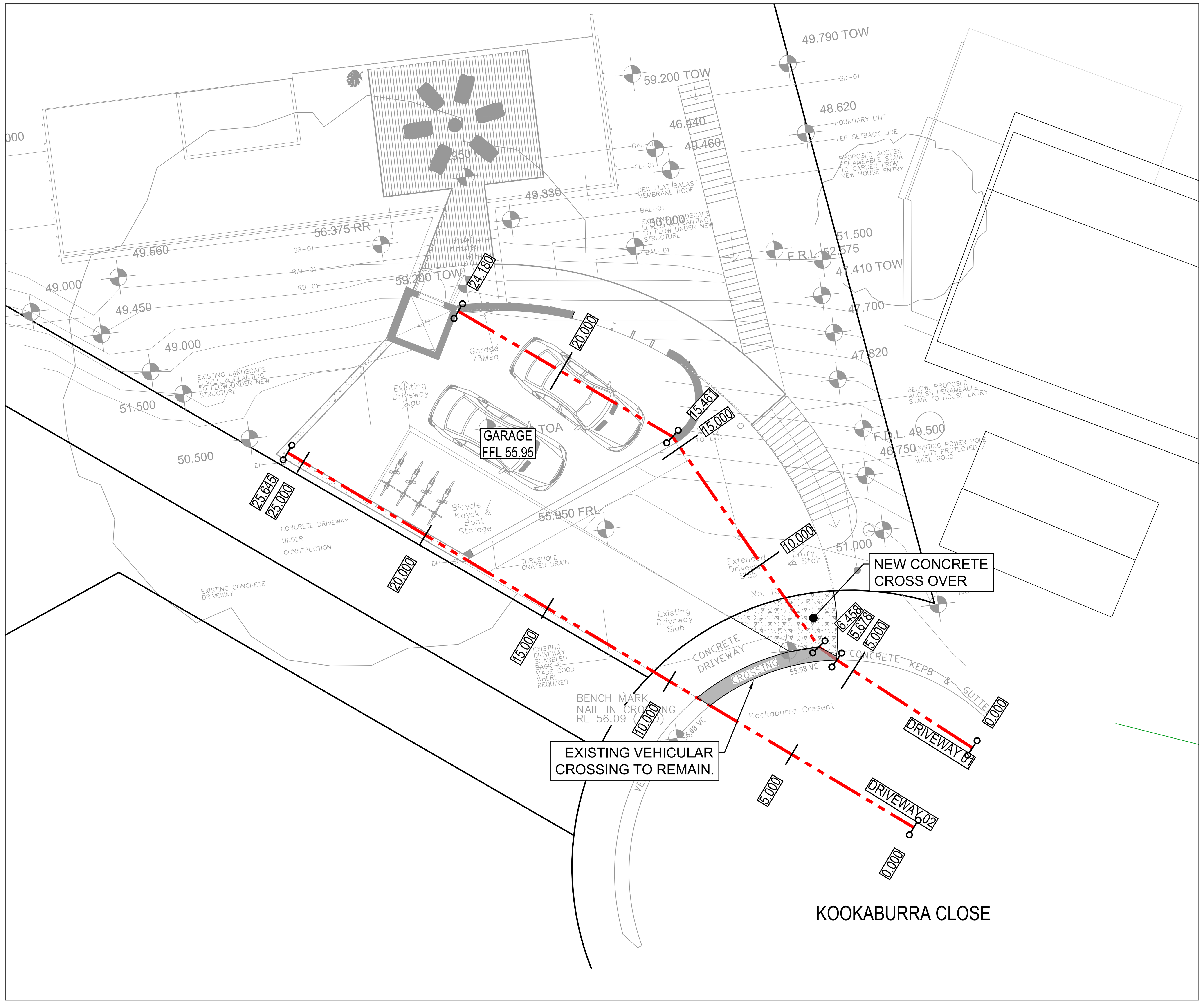
CIVIL . STORMWATER . FLOODING

SCALE 1:100 1 0 1 2 3 4 5

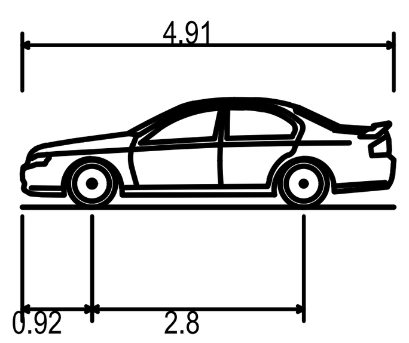
DRAWN BY	AE	PROJECT	10 KOOKABURRA CLOSE, BAYVIEW
DRAWN DATE	SEP'24		
COORDINATE SYSTEM	MGA-56	DRAWING TITLE	STORMWATER MANAGAMENT DETAILS
HEIGHT DATUM	AHD		

PROJECT NUMBER 24185
SHEET SIZE: A1
STATUS FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES
DRAWING NUMBER SW05
REV: 1



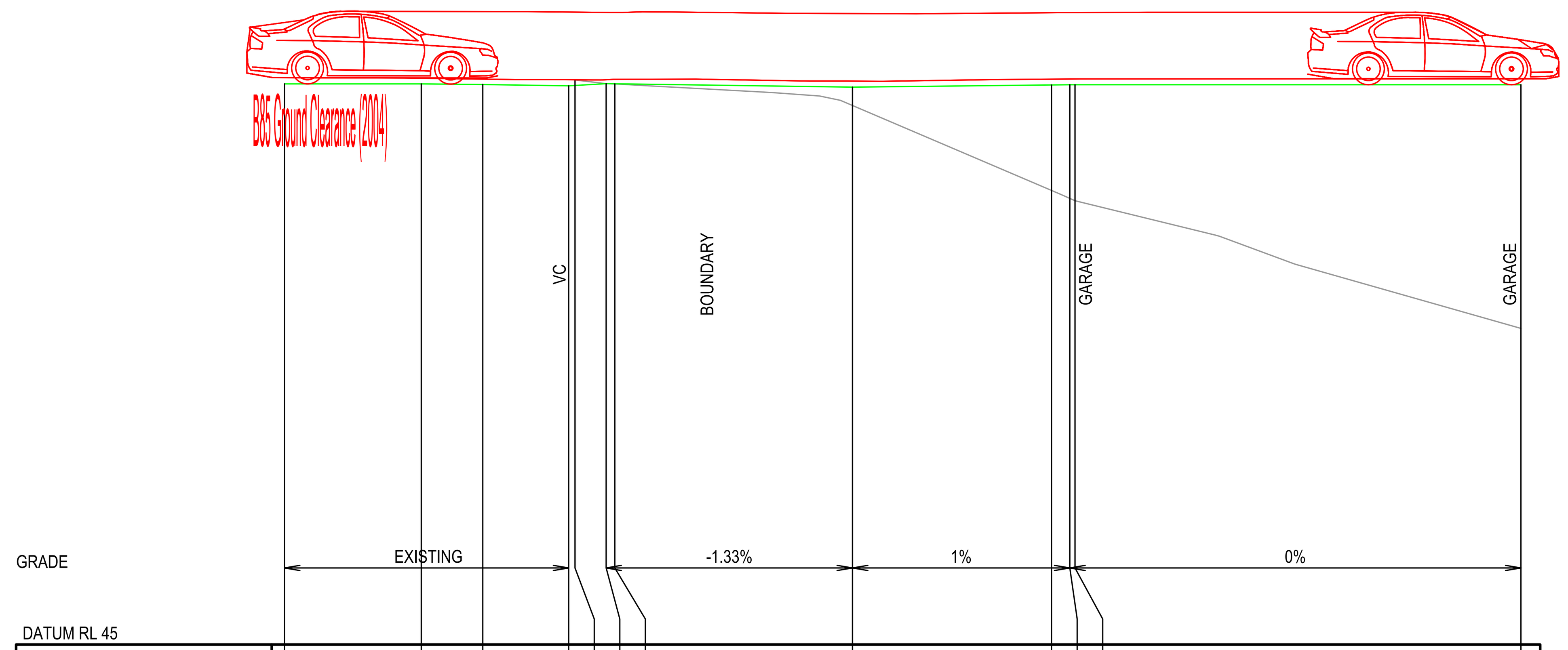
CIVIL PLAN

SCALE 1:100



B85 Vehicle (Realistic min radius) (2004)

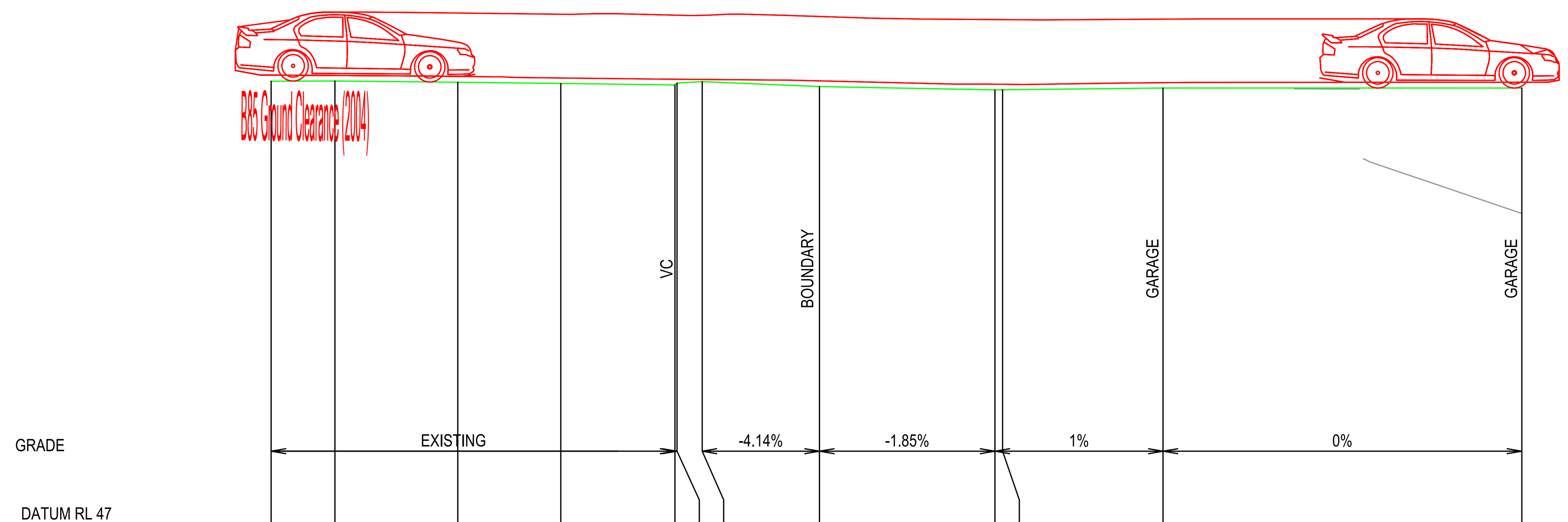
Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.750m



W.A.E.												
DESIGN LEVEL	55.969	55.970	55.958	55.933	55.939	55.972	55.969	55.907	55.946	55.950	55.950	55.950
EXISTING SURFACE	55.969	55.970	55.959	55.933	56.047	55.973	55.969	55.547	53.886	53.728	53.681	51.185
CHAINAGE	0.000	2.676	3.874	5.557	5.678	6.288	6.458	11.107	15.000	15.358	15.461	24.180

1 LONG SECTION

1:100 HORI
1:100VERT



W.A.E.												
DESIGN LEVEL	56.085	56.096	56.070	56.046	56.013	56.053	56.082	55.982	55.916	55.917	55.950	55.950
EXISTING SURFACE	56.085	56.096	56.070	56.047	56.014		56.082					53.379
CHAINAGE	0.000	1.309	3.826	5.942	8.281	8.322	8.838	11.245	14.844	15.000	18.290	25.645

2 LONG SECTION

1:100 HORI
1:100VERT

REVISION	DESCRIPTION	ISSUED	DATE
1	ISSUED FOR DA	AE	12.09.2024

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SCALE 1:100

DRAWN BY	AE
DRAWN DATE	SEP'24
COORDINATE SYSTEM	MGA-56
HEIGHT DATUM	AHD

PROJECT: 10 KOOKABURRA CLOSE, BAYVIEW

DRAWING TITLE: CIVIL AND LONGSECTION SHEET

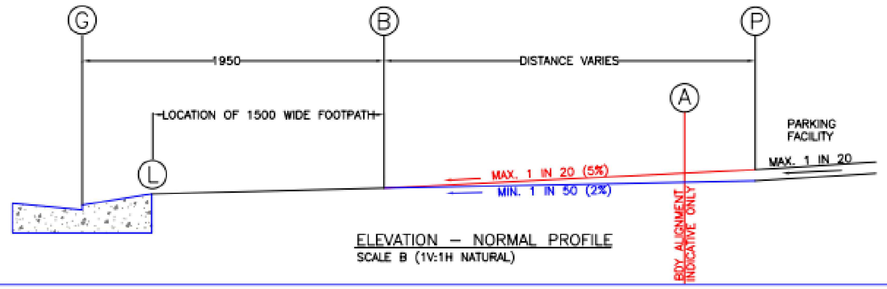
PROJECT NUMBER: 24185

SHEET SIZE: A1

STATUS: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

DRAWING NUMBER: CV01

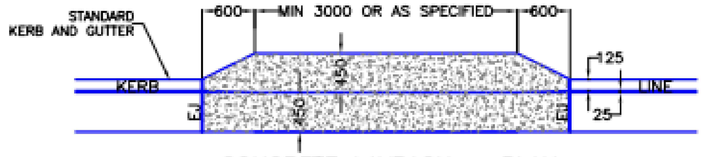
REV: 1



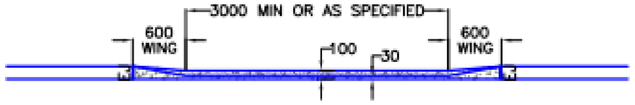
ELEVATION – NORMAL PROFILE
SCALE B (1V:1H NATURAL)

DRIVEWAY SET–OUT SCHEDULE

POINT	REMARK	LEVELS
G	GUTTER INVERT	DRIVEWAY CROSSING SET–OUT POINT
L	REAR OF LAYBACK	100mm ABOVE GUTTER INVERT (MAY BE ALTERED AT COUNCIL'S DISCRETION)
B	1950mm FROM GUTTER INVERT	138mm ABOVE GUTTER INVERT
A	BOUNDARY ALIGNMENT	PLACE 10mm EXPANSION JOINT
P	PARKING FACILITY	MAXIMUM GRADE PARALLEL TO ANGLE OF PARKING 1V:20H. FOR ANY OTHER DIRECTION 1V:16H



CONCRETE LAYBACK – PLAN
NOT TO SCALE



CONCRETE LAYBACK – FRONT ELEVATION
NOT TO SCALE

CONCRETE DRIVEWAY NOTES

1. LAYBACK AND GUTTER SHALL BE CONSTRUCTED IN PLAIN CONCRETE AND FINISHED WITH A STEEL TROWEL.
2. THE MINIMUM COMPRESSIVE STRENGTH FOR DRIVEWAYS SHALL BE 25MPa AT 28 DAYS. FOR COMMERCIAL OR INDUSTRIAL DRIVEWAYS THE SLAB DEPTH SHALL BE INCREASED TO MINIMUM OF 180mm WITH SL82 STEEL MESH AND TOP COVER OF 30mm.
3. THE SUBGRADE SHALL BE EVENLY COMPACTED USING A VIBRATORY COMPACTION EQUIPMENT UNTIL IT SHOWS NO SIGNS OF MOVEMENT, OR AS DIRECTED BY COUNCIL.
4. ALL VEHICLE CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH LEVELS AND SPECIFICATION ISSUED BY COUNCIL AND MUST COMPLY WITH AS/NZS 2890.1:2004 "OFF STREET CAR PARKING" CODE.
5. ALL KERBING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWINGS AND SPECIFICATION ISSUED BY COUNCIL.
6. WHERE COUNCIL OR ITS REPRESENTATIVE DIRECTS THAT THE GUTTER IS TO BE RETAINED, THE CONTRACTOR IS TO PLACE A 75mm DEEP SAW CUT IN THE GUTTER INVERT AND REMOVE THE KERB AND/OR LAYBACK.
7. WHERE COUNCIL OR ITS REPRESENTATIVE DIRECTS THAT THE GUTTER IS TO BE REMOVED, A ROAD OPENING PERMIT OR APPLICATION IS TO BE OBTAINED PRIOR TO COMMENCEMENT OF WORKS.
8. THE CONSTRUCTION OF ALL VEHICLE CROSSINGS AND ASSOCIATED WORKS MUST BE PERFORMED BY A COUNCIL APPROVED CONTRACTOR.
9. SAWCUT 500mm ASPHALT STRIP AND MATCH IN LAYBACK WITH ROAD SURFACE TO SMOOTH TRANSITION.

VEHICLE CROSSING CONSTRUCTION NOTES

1. AT LEAST 48 HOURS' NOTICE OF INTENTION SHALL BE GIVEN TO COUNCIL ENGINEER TO POUR CONCRETE WITHIN THE ROAD RESERVE AND NO CONCRETE SHALL BE PLACED UNTIL THE FORMWORK HAS BEEN APPROVED AND AN INSPECTION NOTICE ISSUED.
2. ALL DISTURBED AREAS OF THE FOOTWAY ADJACENT TO THE VEHICLE CROSSING SHALL BE TURFED AND FINISHED LEVEL WITH THE CONCRETE SURFACE. RAISED EDGES ARE UNACCEPTABLE.
3. THE ROAD ADJOINING THE VEHICLE CROSSING SHALL BE BATTERED AND TURFED AT A MAXIMUM GRADIENT OF 1V:6H OR AS DIRECTED BY COUNCIL.
4. CONCRETE FOOTPATH ADJUSTMENTS SHALL BE IN ACCORDANCE WITH COUNCIL'S SPECIFICATION AND SATISFACTION.
5. THE SUBGRADE MUST BE THOROUGHLY COMPACTED BY THE USE OF VIBRATORY COMPACTION EQUIPMENT UNTIL IT SHOWS NO SIGNS OF MOVEMENT, OR AS DIRECTED BY COUNCIL.
6. VEHICLE CROSSING SLABS MUST BE POURED IN PLAIN CONCRETE. SLAB SURFACE MUST BE COVE FINISHED (OR EQUIVALENT) AND EDGES TO BE FINISHED WITH A 50mm MARGIN.
7. ALL CHANGES IN GRADE SHALL BE SCREEDED TO ENSURE NO RIGID/SHARP TRANSITIONS.
8. THE MINIMUM COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 25MPa AT 28 DAYS.
9. THE MINIMUM THICKNESS OF CONCRETE SHALL BE AS FOLLOWS:
   (a) SINGLE RESIDENTIAL DWELLING: 130mm THICK REINFORCED WITH SL72 MESH PLACED 30mm BELOW TOP OF CONCRETE SLAB
   (b) MULTI–UNIT RESIDENTIAL: 150mm THICK REINFORCED WITH SL82 MESH PLACED 30mm BELOW TOP OF CONCRETE SLAB
   (c) COMMERCIAL OR INDUSTRIAL: 180mm THICK REINFORCED WITH SL82 MESH PLACED 30mm BELOW TOP OF CONCRETE SLAB
10. THE VEHICLE CROSSING UP TO 2400mm FROM THE GUTTER INVERT SHALL BE GRADED PARALLEL WITH THE ROAD CENTRELINE.
11. THE VEHICLE CROSSING SHALL BE CONSTRUCTED PERPENDICULAR TO THE ROAD PAVEMENT UNLESS OTHERWISE INSTRUCTED BY COUNCIL.
12. THE CONSTRUCTION OF ALL VEHICLE CROSSINGS AND ASSOCIATED WORKS ON THE ROAD RESERVE MUST BE COMPLETED BY A COUNCIL APPROVED CONCRETE CONTRACTOR.
13. NO TREE ROOTS GREATER THAN 50mm IN DIAMETER ARE TO BE REMOVED UNLESS AUTHORISED BY A QUALIFIED ARBORIST.
14. ANY ROOTS APPROVED FOR REMOVAL SHALL BE CLEAN CUT WITH SHARP TOOLS SUCH AS SECATEURS, PRUNERS, HANDSAWS, CHAINSAWS OR SPECIALISED ROOT PRUNING EQUIPMENT.

IMPORTANT DRIVEWAY DESIGN NOTES:

1. THE STANDARD DRIVEWAY PROFILES SHOWN MAY NOT SUIT ALL TERRAIN CONDITIONS.
2. THESE STANDARD DRIVEWAY PROFILES MAY NEED TO BE MODIFIED TO SUIT.
3. THE STANDARD DRIVEWAY PROFILES SHOWN MAY NOT TAKE INTO CONSIDERATION CONNECTING FOOTPATHS WHERE THE FOOTPATH MEETS THE DRIVEWAY. FOR DISABLED ACCESSIBILITY, A SECTION OF THE DRIVEWAY MAY NEED TO BE DESIGNED WITH A MAXIMUM 2.5% CROSS–FALL GRADED TOWARDS THE KERB OR ROAD SIDE. ALSO THE STANDARD DRIVEWAY PROFILES SHOWN HAS NOT BEEN DESIGNED TO ACCOMMODATE ANY SPECIAL NEEDS, FOR EXAMPLE, IN A FLOOD PLANNING AREA WHERE A MINIMUM FREE BOARD CREST IS REQUIRED TO PROTECT THE PARKING FACILITY.
4. WHERE MODIFICATION OF THE DRIVEWAY IS REQUIRED TO MEET EXISTING OR PROPOSED CROSS FALLS OR LEVELS, THE FINAL DESIGN PROFILE MUST BE CHECKED AGAINST THE AUSTRALIAN STANDARD AS/NZS 2890.1:2004 "OFF STREET CAR PARKING" CODE FOR SCRAPING AND BOTTOMING USING THE 85TH PERCENTILE PASSENGER VEHICLE.
5. THE DESIGNER WILL NEED TO LIAISE WITH COUNCIL TO DEVELOP A SUITABLE DESIGN SOLUTION.

No	DATE	AMENDMENTS	INITIALS
1	16/08/22	INITIATE DRAWINGS	BJ

LEVEL DATUM: AHD
CO–ORD SYSTEM: N.A.
SURVEYED: N.A.
WORK–AS–EXECUTED
BY: N.A.
DATE: ##/##/####

PLOT DATE: 07/07/2022
PRELIMINARY
DRAWN BY: THOMAS LAU
DATED: 20/04/18
INITIATED BY: STEVE WATSON (ASSET MANAGER)

DESIGN APPROVED
DESIGNED BY: THOMAS LAU
DATED: 20/04/18
APPROVED BY: E. HAVENSTEIN
DESIGN MANAGER

APPROVED FOR CONSTRUCTION
PROJ. MGR: N.A.
DATE: ##/##/####
APPROVED BY: THOMAS LAU
PRINCIPAL ENGINEER

A 0 0.10 0.20 0.30 0.40 0.50 METRES 1:20 @ A3
B 0 0.2 0.4 0.6 0.8 1 METRES 1:40 @ A3
C 0 0.5 1.0 1.5 2.0 2.5 METRES 1:100 @ A3

northern beaches council

STANDARD DRAWINGS
DRIVEWAY PROFILE – NORMAL (N)

DRAWING NO. 1

REVISION	DESCRIPTION	ISSUED	DATE
1	ISSUED FOR DA	AE	12.09.2024

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SCALE 1:100 1 0 1 2 3 4 5

DRAWN BY	AE	PROJECT	10 KOOKABURRA CLOSE, BAYVIEW
DRAWN DATE	SEP'24		
COORDINATE SYSTEM	MGA–56	DRAWING TITLE	COUNCIL STANDARD DETAILS
HEIGHT DATUM	AHD		

PROJECT NUMBER 24185
SHEET SIZE: A1
STATUS FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES
DRAWING NUMBER CV02
REV: 1