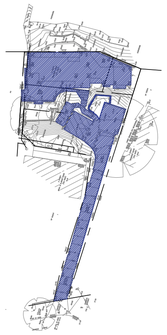
NOT FOR CONSTRUCTION

CIVIL CONSULTING ENGINEERS

PROPOSED ALTERATIONS & ADDITIONS
8A LINKMEAD AVENUE, CLONTARF



EXISTING IMPERVIOUS AREA: 475m² (62%)

SCALE = 1 : 750

PROPOSED IMPERVIOUS AREA: 497m² (65%)

SCALE = 1 : 750

STORMWATER DRAINAGE NOTES:

1. ALL PIPES TO BE 100mm ø UNLESS NOTED OTHERWISE.
2. ALL PIPES TO BE uPVC TO AS 1254–2002 UNLESS NOTED OTHERWISE.
3. ALL PIPES TO BE LAYED AT 1 % MINIMUM GRADE UNLESS NOTED OTHERWISE.
4. ALL PIPES SHALL BE LAID ON A 75mm SAND BED, COMPACTED TO 100% S.M.D.D. BELOW PAVEMENTS. (NO COMPACTION REQUIRED BELOW LANDSCAPING). COVER TO SURFACE FROM TOP OF PIPE TO BE 300mm MINIMUM. BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMMING AND WATERING IN. TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED.
5. ALL DOWN PIPES TO BE 100mm ø UNLESS NOTED OTHERWISE.
6. DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT WITH WORK.
7. PROVIDE CLEANING EYES AT ALL DOWNPIPES.
8. ALL PITS TO BE CAST INSITU OR, IF PRECAST, APPROVED BY ENGINEER. CAST INSITU PITS TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH 1 N12 TOP TIE UNLESS NOTED OTHERWISE. CAST INSITU PITS GREATER THAN 1000 DEEP TO BE MINIMUM 900x600 AND TO HAVE 150mm THICK CONCRETE WALLS AND BASE. WALLS TO BE REINFORCED WITH N12 AT 250 EACH WAY UNLESS NOTED OTHERWISE.
9. ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS AS PER COUNCIL STANDARDS.
10. ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS AND SPECIFICATIONS.
11. PRIOR TO COMMENCING ANY SITE WORKS THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES TO APPROVED SEDIMENT AND EROSION CONTROL PLAN, EPA GUIDELINES AND COUNCIL SPECIFICATIONS. ALL MEASURES TO REMAIN IN PLACE UNTIL COMPLETION AND STABILIZATION OF THE SITE TO COUNCIL SATISFACTION.
12. ALL LEVELS SHOWN ARE TO AHD UNLESS NOTED OTHERWISE.
13. ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR FROM TREE ROOT SYSTEMS.
14. ALL EXISTING EARTHENWARE PIPES TO BE UPGRADED TO uPVC.
15. ALL WORKS TO BE IN ACCORDANCE WITH AS 3500.3:2018 NATIONAL PLUMBING DRAINAGE CODE PART 3 – STORMWATER DRAINAGE.
16. UNLESS NOTED OTHERWISE, SUB–SOIL DRAINS ARE TO BE INSTALLED IN ACCORDANCE WITH AS3500.3 ALONGSIDE WALLS THAT IMPEDE THE NATURAL FLOW OF GROUNDWATER. THIS MAY ALSO INVOLVE TRENCHING INTO THE CLAY OR ROCK SUBGRADE TO DIRECT GROUNDWATER AWAY FROM STRUCTURES.
17. IF NOT INDICATED ON PLANS, PROVIDE LEAF CATCHERS TO ALL DOWNPIPES.
18. EXISTING STORMWATER SYSTEM TO BE CHECKED AND UPGRADED AS REQUIRED IN ACCORDANCE WITH AS 3500.3:2018.
19. CARE SHOULD BE TAKEN WHEN UNDERTAKING WORKS IN THE VICINITY OF SELECTED TREES NOT TO DISTURB THE TREE ROOT SYSTEM. HAND DIGGING OF TRENCHES MAY BE NECESSARY. REFER ARBORISTS REPORT WHERE REQUIRED.
20. CONTRACTOR TO LOCATE ALL EXISTING SERVICES PRIOR TO EXCAVATION AND NOTIFY ENGINEER OF ANY POTENTIAL CLASHES WITH THE PROPOSED DRAINAGE EASEMENT PIPE LINE.
21. ALL SUB–SOIL DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH THE STRUCTURAL AND GEOTECHNICAL REQUIREMENTS, AUSTRALIAN STANDARDS AS 3500.3:2018 AND IS TO BE DIRECTED TO THE SITE DRAINAGE SYSTEM BY MEANS OF GRAVITY DISCHARGE ONLY. DO NOT CONNECT SUB–SOIL PIPES TO AREAS WITH HIGHER SURFACE LEVELS U.N.O..
22. ALL PIPES SHOWN ARE INDICATIVE ONLY AND MINIMUM CLEARANCES FROM THE EXTERNAL WALLS OF BUILDINGS, FOR THE EXCAVATION OF TRENCHES, ARE TO BE PROVIDED IN ACCORDANCE WITH AS 3500.3:2018.
23. ANY COMPONENTS OF THE EXISTING SYSTEM PROPOSED TO BE RETAINED ARE TO BE CERTIFIED DURING CONSTRUCTION TO BE IN GOOD CONDITION AND OF ADEQUATE CAPACITY TO CONVEY ADDITIONAL RUNOFF AND BE REPLACED OR UPGRADED IF REQUIRED.
24. ANY CHARGED PIPES MUST BE A MINIMUM OF 100mm (UNLESS NOTED OTHERWSIE) WITH ALL JOINTS MUST BE SOLVENT WELDED. A CLEANING EYE, OR FLUSH OUT POINT, MUST BE PROVIDED AT THE LOW POINT IN THE SYSTEM WITHIN A PIT THAT CAN BE DRAINED TO AN ONSITE DISPERSAL SYSTEM.
25. PROVISION IS TO BE MADE FOR THE COLLECTION AND DISPOSAL IN AN APPROVED MANNER OF ANY OVERLAND FLOW OR SUB–SURFACE FLOW ENTERING THE SUBJECT PROPERTY, OR CONCENTRATED AS A RESULT OF THE PROPOSED WORKS. ANY REDIRECTION OR TREATMENT OF FLOWS ENTERING THE PROPERTY SHALL NOT ADVERSELY AFFECT ANY OTHER PROPERTIES.
26. PREVENT ANY STORMWATER EGRESS INTO ADJACENT PROPERTIES BY CREATING PHYSICAL BARRIERS AND SURFACE DRAINAGE INTERCEPTION.
27. GUTTER GUARDS MUST BE INSTALLED ON ALL GUTTERS TO MINIMISE DEBRIS ENTERING THE SYSTEM.
28. ALL SUB–SOIL DRAINAGES, STRIP DRAINS AND DRAINAGE PITS SHALL DISCHARGE TO THE ESTABLISHED SITE DISCHARGE POINT U.N.O AND BE CONSTRUCTED IN ACCORDANCE WITH AS3500.3:2018 REQUIREMENTS.
29. OVERFLOW PATHS SHALL BE PROVIDED TO ALLOW FOR FLOWS IN EXCESS OF THE CAPACITY OF THE PIPE/DRAINAGE SYSTEM DRAINING THE SITE.
30. WHERE ANY NEW STORMWATER DRAINAGE SYSTEM CROSSES THE FOOTPATH AREA WITHIN ANY ROAD, SEPERATE APPROVAL UNDER SECTION 138 OF THE ROAD ACT 1993 MUST BE OBTAINED FROM COUNCIL FOR THOSE WORKS PRIOR TO THE ISSUE OF ANY CONSTRUCTION CERTIFICATE.
31. CONCEALED DOWNPIPES MUST BE INSTALLED IN ACCORDANCE WITH SECTION 4.5.6 OF AUSTRALIAN STANDARDS AS3500.3:2018 REQUIREMENTS. BUILDER TO ENSURE LOCATIONS DO NOT RESTRICT NORMAL OPERATION OF DOORS, WINDOWS, ACCESS OPENINGS OR OCCUPANCY OF A BUILDING, DO NOT CAUSE NUISANCE OR LEAD TO INJURY OF A PERSON, DO NOT INTERFERE WITH THE STRUCTURAL INTEGRITY OF THE WALL OR COLUMN, AS CLOSE AS PRACTICABLE TO THE SUPPORTING STRUCTURE, ARE PROTECTED FROM MECHANICAL DAMAGE, AT LEAST 100mm CLEAR OF ANY ELECTRICAL CABLE OR GAS PIPE, AT LEAST 50mm FROM ANY OTHER PIPEWORK OR SERVICE. CONCEALED DOWNPIPES TO HAVE INSPECTION OPENINGS THAT EXTEND TO THE FACE OF THE WALL OR SLAB FOR MAINTENANCE. SEAMS AND JOINTS TO BE WATERTIGHT. IF INSPECTION OPENINGS ARE REQUIRED FOR TESTING AND MAINTENANCE PURPOSES, INSPECTION OPENINGS SHALL HAVE A NOMINAL SIZE OF NOT LESS THAT THE NOMINAL DIAMETER OF THE DOWNPIPE.
32. WHERE A DOWNPIPE IS CONNECTED TO A SITE STORMWATER DRAIN LOCATED BELOW A SLAB–ON–GROUND, THE CONNECTION OF A CONCEALED DOWNPIPE SHALL BE LOCATED ABOVE THE LEVEL OF THE FLOOR.
33. SUPPORT SYSTEMS OF DOWNPIPES OR PIPEWORK MUST BE INSTALLED IN ACCORDANCE AUSTRALIAN STANDARDS AS3500.3:2018 REQUIREMENTS.
34. FOR CONCEALED EAVES GUTTERS, U.N.O THE TOP EDGE OF THE FASCIA SHOULD NOT BE LESS THAN 25mm BELOW THE TOP OF THE BACK OF THE GUTTER, OR INTEGRAL FLASHING (TAIL) WITH THE TOP EDGE OF THE FLASHING NOT LESS THAN 25mm ABOVE THE TOP OF THE FASCIA.
35. THE FOLLOWING ABBREVIATIONS DENOTE:

FSL – FINISHED SURFACE LEVEL OR RL – REDUCED LEVEL
IL – INVERT LEVEL OF PIPE
INV. – INVERT LEVEL OF PIT
CL – CENTRELINE OF ORIFICE
TWL – TOP WATER LEVEL

NOTE:
THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THAT THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.

RAINWATER HARVESTING REQUIREMENTS:

1. CONSIDERING THE ROOF CATCHMENT AREA, LOCATION OF PROPERTY, INTENDED USE OF RAINWATER AND GARDEN SIZE WE RECOMMEND PROVIDING A RAINWATER TANK FOR USE AS PER BASIX REQUIREMENTS, HCCRENS WATER SMART PRACTICE NOTE (N).4) AND THE NSW HEALTH REQUIRMENTS FOR NON DRINKING USE ONLY AS FOLLOWS:
a) TO WATER GARDEN AREAS b) POOL TOP–UP.
2. THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.
3. REFERENCES: COOMBES P.J. & KUCZERA G. (2001), "RAINWATER TANK DESIGN FOR WATER SUPPLY & STORMWATER MANAGEMENT." STORMWATER INDUSTRY ASSOCIATION REGIONAL CONFERENCE. PATRICK DUPONT & STEVE SHACKEL, "RAINWATER" AUSTRALIAN GOVERNMENT (2004), "GUIDANCE ON USE OF RAINWATER TANKS".
4. ALL CONNECTIONS TO PLUMBING AND RAINWATER TANKS TO BE IN ACCORDANCE WITH SYDNEY WATERS' GUIDE "INSTALLING A RAINWATER TANK" AVAILABLE AT www.sydneywater.com.au OR FROM LOCAL COUNCIL GUIDLINES.
5. PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIX–DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANING AND NATURAL RESOURCES AND AS3500.1.
6. IF NOT SPECIFIED ON PLANS, THE FIRST FLUSH SYSTEM IS TO HAVE A MINIMUM SIZE OF 20L PER 100m2 OF ROOF CATCHMENT AREA PRIOR TO ENTERING THE RAINWATER TANK. INDIVIDUAL SITE ANALYSIS IS REQUIRED IN HEAVILY POLLUTED AREAS TO DETERMINE IF LARGER VOLUMES OF FIRST FLUSH RAINWATER ARE TO BE DIVERTED. IF IN DOUBT, CHECK WITH LOCAL HEALTH AUTHORITIES.
7. SCREENED DOWNPIPE RAINWATER HEAD OR OTHER SUITABLE LEAF AND DEBRIS DEVICE TO BE INSTALLED ON EACH DOWNPIPE. SCREEN MESH TO BE 4–6mm AND DESIGNED TO BE SELF–CLEANING.
8. FIRST FLUSH DEVICES, OR APPROVED ALTERATIVE, TO BE INSTALLED WITH AN AUTOMATED DIVERSION AND DRAINAGE SYSTEM, THAT IS, NO MANUAL DIVERSION AND DRAINAGE VALVES. REFER TYPICAL FLUSH OUT PIT FOR DETAILS. THIS SHOULD CATER FOR THE FIRST 1mm OF RAINFALL.
9. BEFORE PURCHASING MATERIALS OR PAINT TO BE USED ON ROOF CATCHMENT AREAS, THE MANUFACTURER'S RECOMMENDATIONS ON LABELS AND BROCHURES FOR RAINWATER TANK SUITABILITY TO BE READ AND ADHERED TO.
10. PRE–STORAGE PITS FOR UNDERGROUND RAINWATER STORAGE TANKS AND FLUSH OUT PITS MAY ASSIST IN LIMITING SILT, AND PREVENT VERMIN, INSECTS (INCLUDING MOSQUITOES) AND DEBRIS FROM ENTERING THE RAINWATER STORAGE AREA.
11. RAINWATER TANK TO BE WATER PROOFED IN ACCORDANCE WITH HB 230–200B
12. BUILDER OR PLUMBER TO ENSURE THE INSTALLATION OF THE RAINWATER TANK SYSTEM IS IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AND THE RAINWATER TANK DESIGN AND INSTALLATION HANDBOOK – HB 230–2008. IF IN DOUBT CONTACT ENGINEER.
13. NOISE EMISSIONS FROM ANY PUMPS DO NOT EXCEED 5dB(A) ABOVE AMBIENT BACKGROUND NOISE LEVEL MEASURED AT THE ALLOTMENT BOUNDARY.
14. AT THE COMPLETION OF THE WATER SERVICE INSTALLATION AND PRIOR TO HYDROSTATIC TESTING, THE SYSTEM SHALL BE THOROUGHLY FLUSHED TO REMOVE ANY FOREIGN MATTER. THE FLUSHING SHALL BE UNDERTAKEN IN ACCORDANCE WITH AS3500.1:2003 REQUIREMENTS – APPENDIX I, PARAGRAPH I3 AND CONTINUE UNTIL THE FLUSHED WATER RUNS COMPLETELY CLEAR. THE SYSTEM SHALL THEN BE PRESSURE TESTED IN ACCORDANCE WITH CLAUSE 16.3.1.
15. AT THE COMPLETION OF THE WATER SERVICE INSTALLATION THE RAINWATER STORAGE TANKS ARE TO BE TESTED IN ACCORDANCE WITH SECTION 16 OF AS3500.1:2003.

EROSION CONTROL NOTES:

1. SILT FENCE AND ASSOCIATED WORKS INCLUDING INTERCEPTOR DRAIN IS TO BE INSTALLED BEFORE THE COMMENCEMENT OF ANY EXCAVATION.
2. CUTS TO BE EXECUTED TO THE REQUIRED LEVEL USING CONVENTIONAL EXCAVATION MACHINERY. INITIALLY THE DEPTH OF FILL/CLAY IS TO BE ESTABLISHED TO ENSURE NEIGHBOURING PROPERTIES ARE NOT ADVERSELY AFFECTED. EARTH BATTERS TO BE A MAXIMUM SLOPE OF 1.0 m VERT. TO 1.7 m HORIZ. (AS PER GEOTECHNICAL REPORT). ANY BATTERS GREATER THAN 1.0 m VERT. TO 1.7 m HORIZ. ARE TO BE ADEQUATELY SHORED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
3. ANY PERMANENT RETAINING STRUCTURE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
4. ALL PERMANENT RETAINING STRUCTURES ARE TO BE COMPLETED WITH MINIMUM DELAY FOLLOWING EXCAVATION.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER.
6. CONTRCTOR TO MINIMISE DISTURBED AREAS.
7. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
8. DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE.
9. ROADS AND FOOTPATH TO BE SWEPT DAILY.

SCHEDULE OF WORKS:

1. SILT FENCE AND ASSOCIATED WORKS INCLUDING INTERCEPTOR DRAIN IS TO BE INSTALLED BEFORE THE COMMENCEMENT OF ANY EXCAVATION.
2. CUTS TO BE EXECUTED TO THE REQUIRED LEVEL USING CONVENTIONAL EXCAVATION MACHINERY. INITIALLY THE DEPTH OF FILL/CLAY IS TO BE ESTABLISHED TO ENSURE NEIGHBOURING PROPERTIES ARE NOT ADVERSELY AFFECTED. EARTH BATTERS TO BE A MAXIMUM SLOPE OF 1.0 m VERT. TO 1.7 m HORIZ. (AS PER GEOTECHNICAL REPORT). ANY BATTERS GREATER THAN 1.0 m VERT. TO 1.7 m HORIZ. ARE TO BE ADEQUATELY SHORED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
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STORMWATER CALCULATIONS ACCORDING TO NORTHERN BEACHES COUNCIL (MANLY DCP)	
DEVELOPMENT SITE LOCATION	ZONE 3
TOTAL SITE AREA	768 m^2
TOTAL EXISTING SITE IMPERVIOUS AREA	475 m^2 (62%)
TOTAL PROPOSED SITE IMPERVIOUS AREA	497 m^2 (65%)
INCREASE IN SITE IMPERVIOUS AREA	22 m^2
IMPERVIOUS PERCENTAGE PRE DEVELOPMENT	62 %
IMPERVIOUS PERCENTAGE POST DEVELOPMENT	65 %
DEVELOPMENT TYPE	ALTERATIONS & ADDITIONS
ONSITE DETENTION (OSD) VOLUME	0 m^3
RAINWATER (BASIX) REQUIREMENT – MINIMUM VOLUME	2.3 m^3
RAINWATER REQUIREMENT – FIREFIGHTING TBC	0 m^3
DISCHARGE REQUIREMENTS	DISCHARGE TO FISHER BAY
1% AEP (1:100 YEAR ARI) PEAK FLOW RATE TO STREET	N/A
DISCUSSIONS WITH COUNCIL CONFIRM ONSITE STORMWATER DETENTION (OSD) IS NOT REQUIRED FOR THIS DEVELOPMENT (22/06/2020)	

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS AS3500.3:2018 – TABLE 7.5.2.1

DEPTH TO INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS (mm)		
	RECTANGULAR		CIRCULAR
	Width	Length	Diameter ø
≤ 450	350	350	–
≤ 600	450	450	600
> 600 ≤ 900	600	600	900
> 900 ≤ 1200	600	900	1000
> 1200	900	900	1000

SURVEY NOTES:

1. THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY THE PROJECT SURVEY. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. RTS CIVIL CONSULTING ENGINEERS PTY LTD DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE.
2. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT THE ENGINEER.
3. REFERENCE SHOULD BE MADE DIRECTLY TO THE SURVEYOR BEFORE SETTING OUT.

EXISTING UNDERGROUND SERVICES NOTES:

1. THE LOCATIONS OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE.
2. RTS CIVIL CONSULTING ENGINEERS PTY LTD CANNOT GUARANTEE THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.
3. CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY.
4. CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
5. 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.
6. CONTRACTOR IS TO CONFIRM FINDINGS FOR THE LOCAL COUNCL OR SYDNEY WATER IN RELATION TO THE SEWER OR WATER MAINS LOCATED. CONFIRMATION OF MAINS IS REQUIRED PRIOR TO CONSTRUCTION. POSSIBLE CONFLICT OF SERVICES ARE TO BE REPORTED TO THE SUPERINTENDENT OR ENGINEER FOR FURTHER DIRECTIONS.

EXTERNAL NOTES:

1. ALL ACTIVITIES AND WORKS EXTERNAL TO THE SITE, OR THAT AFFECT PUBLIC ROADS, ARE TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S CODES AND STANDARDS.
2. PUBLIC FOOTPATHS SHALL BE RECONSTRUCTED TO THE SATISFACTION OF COUNCIL'S DIRECTOR OF ENGINEERING SERVICES. A ROAD OPENING PERMIT SHALL BE OBTAINED FOR ALL WORKS CARRIED OUT IN A PUBLIC OR COUNCIL CONTROLLED LAND.
3. RESTORATION OF LANDSCAPING, ROADS AND PATHS SHALL BE TO COUNCIL'S REQUIREMENTS. ALL OTHER RESTORATION SHALL BE TOTHE SATISFACTION OF THE AFFECTED PARTIES.
4. WHERE WORKS ARE UNDERTAKEN ON PUBLIC ROADS, ADEQUATE TRAFFIC CONTROL AND DIRECTIONS TO MOTORISTS SHALL BE PROVIDED BY OTHERS.

DRAWING SCHEDULE:

CP100 – COVER PAGE, NOTES & CALCULATIONS
SW100 – LEVEL 1 & ROOF CONCEPTUAL STORMWATER MANAGEMENT PLAN
SW101 – LOWER & GROUND FLOOR CONCEPTUAL STORMWATER MANAGEMENT PLAN
SW200 – STORMWATER DRAINAGE DETAILS
SE100 – SITE SEDIMENT & EROSION CONTROL PLAN
SE200 – SEDIMENT & EROSION CONTROL DETAILS

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DIAL 1100 BEFORE YOU DIG

NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE

DEVELOPERS & EXCAVATORS MAY BE HELD FINANCIALLY RESPONSIBLE BY THE ASSET OWNER SHOULD THEY DAMAGE UNDERGROUND NETWORKS.

CARELESS DIGGING CAN:DIGGING CAN:

- CAUSE DEATH OR SERIOUS INJURY TO WORKERS AND THE GENERAL PUBLIC
- INCONVENIENCE USERS OF ELECTRICITY, GAS, WATER AND COMMUNICATIONS
- LEAD TO CRIMINAL PROSECUTION AND DAMAGES CLAIMS
- CAUSE EXPENSIVE FINANCIAL LOSSES TO BUSINESS
- CUT OFF EMERGENCY SERVICES
- DELAY PROJECT COMPLETION TIMES WHILE THE DAMAGE IS REPAIRED

MINIMISE YOUR RISK AND DIAL BEFORE YOU DIG. – TEL. 1100

ALL DIMENSIONS MUST BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.

A1 ORIGINAL

Rev:	Date:	Description:	Reviewed:
C	22.11.21	UPDATED TO SUIT AMENDED ARCHITECTURALS	R.M
–	–	–	–
A	05.03.21	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M

Issued for: DEVELOPMENT APPLICATION
Approved by:
Date : 22.11.21
Rhys Mikhail .....
Director | Principal Engineer | NER: 2570082 | RPEQ: 17480
BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC IntPE(Aus)

Title:	Initial:	Date:
DESIGN	R.M	12.02.2021
DRAWN	S.M	12.02.2021
CHECKED	R.M	26.02.2021
APPROVED	R.M	26.02.2021

CIVIL CONSULTING ENGINEERS
STORMWATER • CIVIL • FLOOD MITIGATION
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Architect: CM STUDIO cm
Client: VANESSA & ANDREW

Project and Drawing Title:
8A LINKMEAD AVENUE, CLONTARF
COVERPAGE, NOTES & CALCULATIONS

Local Council: NORTHERN BEACHES COUNCIL

Project Number:	Drawing ID:	Issue:
210201	CP100	C

NOT FOR CONSTRUCTION

NOTES:
1. U.N.O REFER TO THE COVERPAGE CP100 SERIES FOR DETAILED NOTES AND CALCULATIONS.
2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

LEGEND

	STORMWATER PIT
	NEW STORMWATER PIPE
	STORMWATER PIPE FLOW DIRECTION
	EXISTING STORMWATER PIPE
	FLUSH–OUT LINE
	BOUNDARY LINE
DP1 100ø	DENOTES DOWNPIPE
	DENOTES SIZE OF DOWNPIPE
DP1	90ø DOWNPIPE TO SITE STORMWATER SYSTEM (CARPORT)
DP2	90ø DOWNPIPE TO SITE STORMWATER SYSTEM (DWELLING)
DP3	EXISTING DOWNPIPE TO BE REPLACED IF REQUIRED
SP1	90ø SPREADER TO LOWER ROOF
GD1	EXISTING DRIVEWAY GRATED DRAINS
GD2	150mm LANDSCAPING GRATED DRAIN
EG1	UPPER ROOF EAVES GUTTER TO ARCHITECTS DETAIL
EG2	UPPER ROOF EAVES GUTTER TO DRAIN TO EG1 TO ARCHITECTS DETAIL
EG3	LOWER ROOF EAVES GUTTER TO ARCHITECTS DETAIL
EG4	CARPORT EAVES GUTTER TO ARCHITECTS DETAIL
RWT	2,275L MIN. (BASIX) UNDER DECK RAINWATER TANK TO FUTURE DETAIL

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS AS3500.3: 2018 – TABLE 7.5.2.1			
DEPTH TO INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS (mm)		
	RECTANGULAR		CIRCULAR
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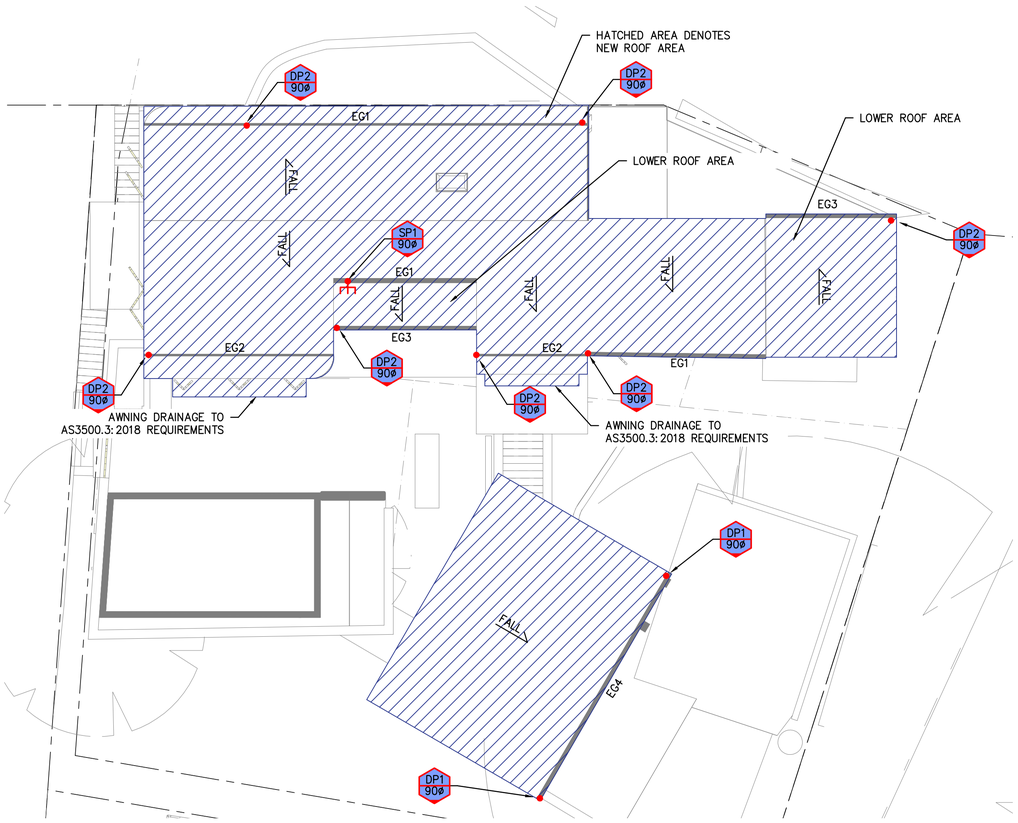
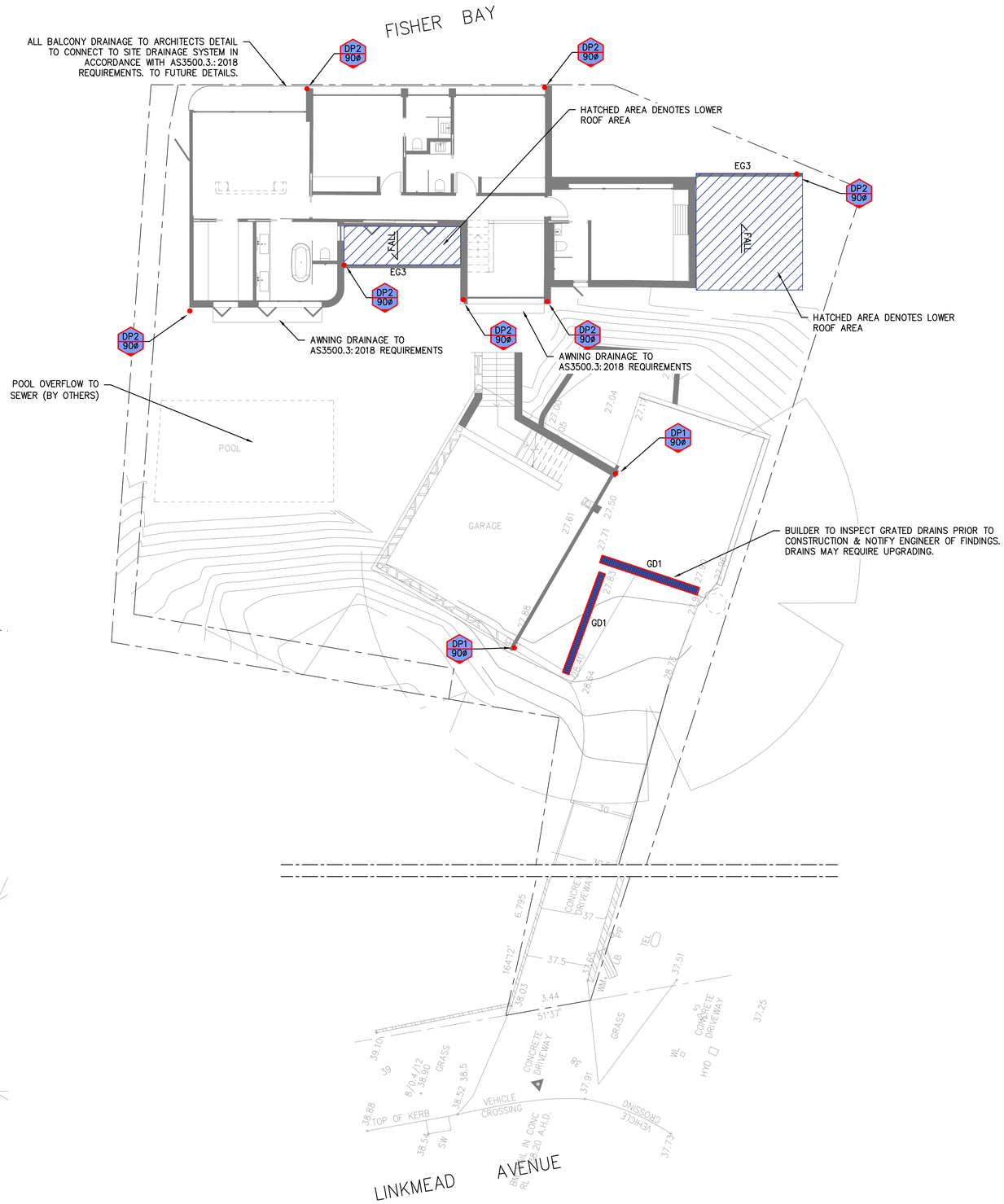


ROOF STORMWATER MANAGEMENT PLAN

SCALE = 1 : 100

NOTE:
THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTLILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THAT THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.



LEVEL 1 STORMWATER MANAGEMENT PLAN

SCALE = 1 : 100

DIAL 1100 BEFORE YOU DIG

A1 ORIGINAL

Rev:	Date:	Description:	Reviewed:
C	22.11.21	UPDATED TO SUIT AMENDED ARCHITECTURALS	R.M
–	–	–	–
A	05.03.21	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M

Issued for: DEVELOPMENT APPLICATION

Approved by:

Date : 22.11.21

Rhys Mikhail

Director | Principal Engineer | NER: 2570082 | RPEQ: 17480
BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC IntPE(Aus)

Title:	Initial:	Date:
DESIGN	R.M	12.02.2021
DRAWN	S.M	12.02.2021
CHECKED	R.M	26.02.2021
APPROVED	R.M	26.02.2021

CIVIL CONSULTING ENGINEERS
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Architect: CM STUDIO

Client: VANESSA & ANDREW

Project and Drawing Title: 8A LINKMEAD AVENUE, CLONTARF
LEVEL 1 & ROOF CONCEPTUAL STORMWATER MANAGEMENT PLAN

Local Council: NORTHERN BEACHES COUNCIL

Project Number:	Drawing ID:	Issue:
210201	SW100	C

NOT FOR CONSTRUCTION

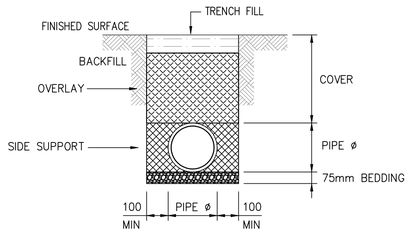
NOTES:
1. U.N.O REFER TO THE COVERPAGE CP100 SERIES FOR DETAILED NOTES AND CALCULATIONS.
2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

LEGEND

	STORMWATER PIT
	NEW STORMWATER PIPE
	STORMWATER PIPE FLOW DIRECTION
	EXISTING STORMWATER PIPE
	FLUSH–OUT LINE
	BOUNDARY LINE
DP1 100ø	DENOTES DOWNPIPE
	DENOTES SIZE OF DOWNPIPE
DP1	90ø DOWNPIPE TO SITE STORMWATER SYSTEM (CARPORT)
DP2	90ø DOWNPIPE TO SITE STORMWATER SYSTEM (DWELLING)
DP3	EXISTING DOWNPIPE TO BE REPLACED IF REQUIRED
SP1	90ø SPREADER TO LOWER ROOF
GD1	EXISTING DRIVEWAY GRATED DRAINS
GD2	150mm LANDSCAPING GRATED DRAIN
EG1	UPPER ROOF EAVES GUTTER TO ARCHITECTS DETAIL
EG2	UPPER ROOF EAVES GUTTER TO DRAIN TO EG1 TO ARCHITECTS DETAIL
EG3	LOWER ROOF EAVES GUTTER TO ARCHITECTS DETAIL
EG4	CARPORT EAVES GUTTER TO ARCHITECTS DETAIL
RWT	2,275L MIN. (BASIX) UNDER DECK RAINWATER TANK TO FUTURE DETAIL

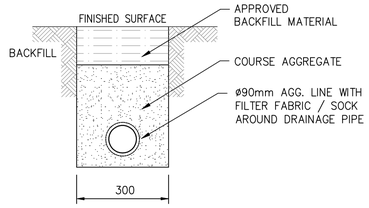
MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS AS3500.3: 2018 – TABLE 7.5.2.1			
DEPTH TO INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS (mm)		
	RECTANGULAR		CIRCULAR
	Width	Length	Diameter ø
≤ 450	350	350	–
≤ 600	450	450	600
> 600 ≤ 900	600	600	900
> 900 ≤ 1200	600	900	1000
> 1200	900	900	1000

NOTE – STANDARD uPVC PIPE TRENCH:
SUITABLE BEDDING TO AS2032:
1. SAND FREE FROM ROCK OR OTHER HARD AND SHARP OBJECTS THAT WOULD BE RETAINED ON 13.2 SIEVE.
2. CRUSHED ROCK OR GRAVEL OF APPROVED GRADING UP TO MAXIMUM SIZE OF 14mm.
3. THE EXCAVATED MATERIAL MAY BE USED IF IT IS FREE FROM ROCK OR HARD MATTER AND BROKEN UP SO THAT IT CONTAINS NO SOIL LUMPS HAVING ANY DIMENSIONS GREATER THAN 75mm WHICH WOULD PREVENT ADEQUATE COMPACTION OF THE BEDDING.
SIDE SUPPORT: MATERIAL FOR PIPE SUPPORT SHOULD BE ADEQUATELY TAMPED IN LAYERS OF NOT MORE THAN 150mm.
OVERLAY: PIPE OVERLAY MATERIAL SHOULD BE LEVELED AND TAMPED IN LAYERS TO A MINIMUM HEIGHT OF 150mm ABOVE THE CROWN OF PIPE.
COVER: FOR MIN COVER REFER TO AS3500.3: 2018.



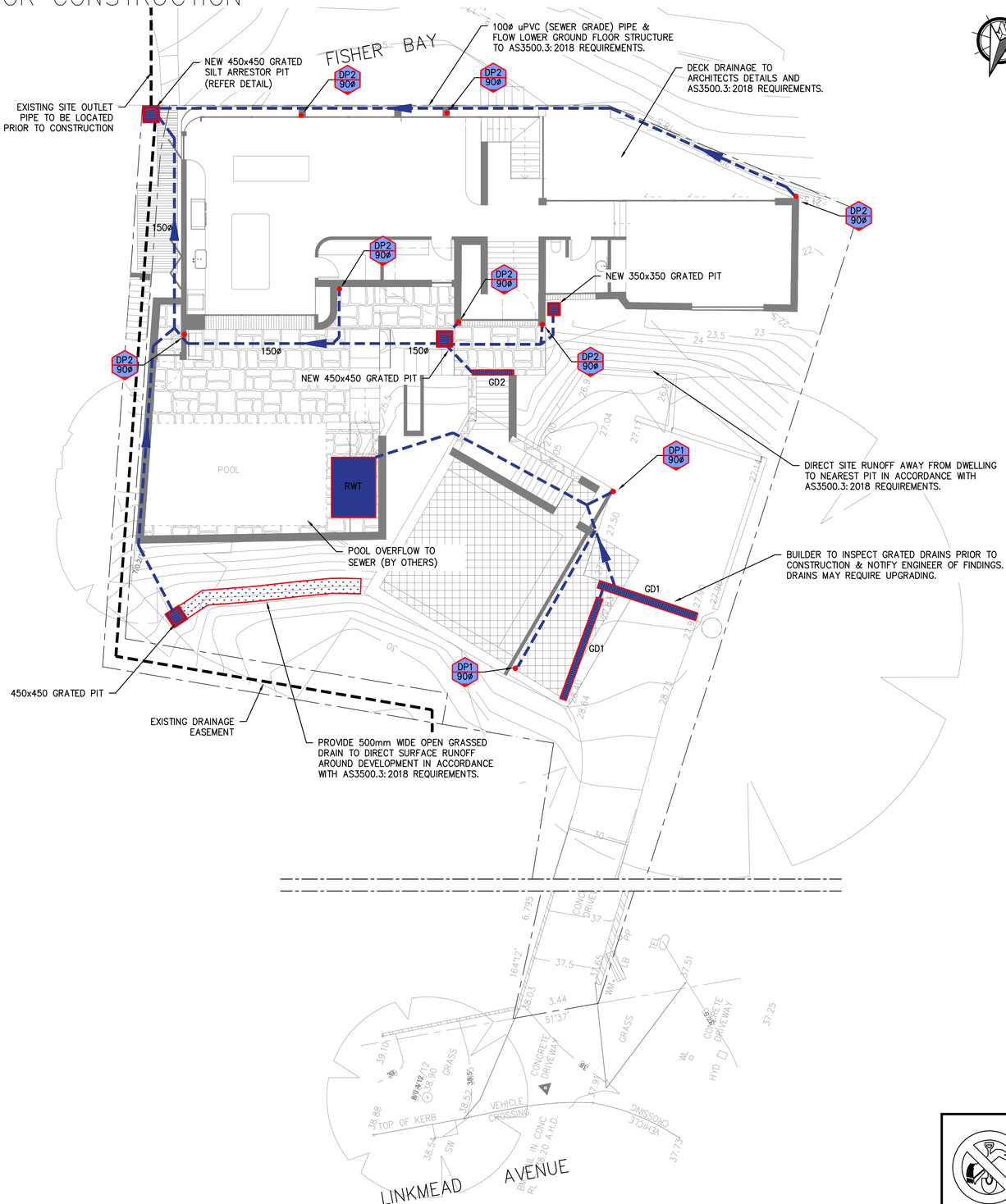
TYPICAL uPVC PIPE TRENCH DETAIL

SCALE = N.T.S.



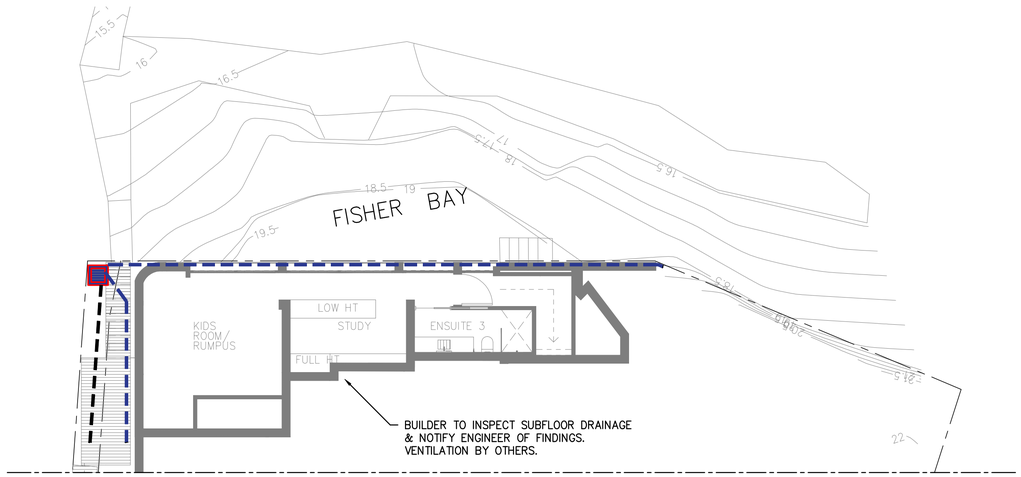
TYPICAL SUB–SOIL TRENCH DETAIL

SCALE = N.T.S.



GROUND STORMWATER MANAGEMENT PLAN

SCALE = 1 : 100



LOWER GROUND STORMWATER MANAGEMENT PLAN

SCALE = 1 : 100

NOTE:
THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTLILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THAT THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.

DIAL 1100 BEFORE YOU DIG

A1 ORIGINAL

Rev:	Date:	Description:	Reviewed:
C	22.11.21	UPDATED TO SUIT AMENDED ARCHITECTURALS	R.M
–	–	–	–
A	05.03.21	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M

Issued for: DEVELOPMENT APPLICATION

Approved by:

Date : 22.11.21

Rhys Mikhail

Director | Principal Engineer | NER: 2570082 | RPEQ: 17480
BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC IntPE(Aus)

Title:	Initial:	Date:
DESIGN	R.M	12.02.2021
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CHECKED	R.M	26.02.2021
APPROVED	R.M	26.02.2021

RTS CIVIL CONSULTING ENGINEERS
STORMWATER • CIVIL • FLOOD MITIGATION
ABN: 81 615 065 588 Phone: 0490 507 300 Email: admin@rtscivil.com.au Web: rtscivil.com.au

Architect: CM STUDIO cm

Client: VANESSA & ANDREW

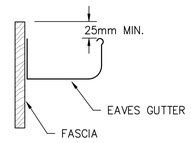
Project and Drawing Title: 8A LINKMEAD AVENUE, CLONTARF
LOWER & GROUND FLOOR CONCEPTUAL STORMWATER MANAGEMENT PLAN

Local Council: NORTHERN BEACHES COUNCIL

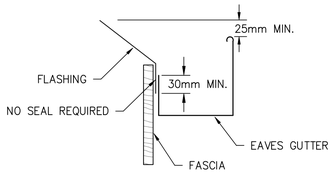
Project Number:	Drawing ID:	Issue:
210201	SW101	C

NOTES:
1. U.N.O REFER TO THE COVERPAGE CP100 SERIES FOR DETAILED NOTES AND CALCULATIONS.
2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

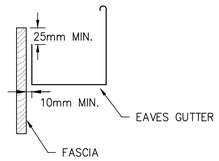
NOT FOR CONSTRUCTION



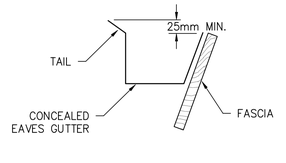
(A) EAVES GUTTER WITH LOW FRONT



(B) EAVES GUTTER WITH HIGH FRONT AND REAR FLASHING



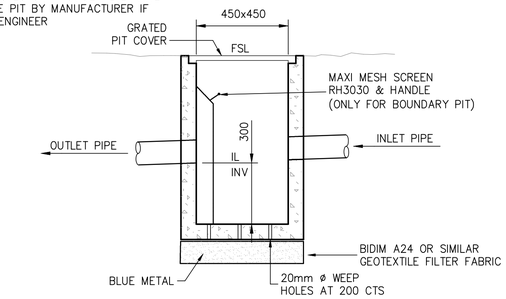
(C) EAVES GUTTER WITH HIGH FRONT AND MIN. 10mm GAP TO FACIA



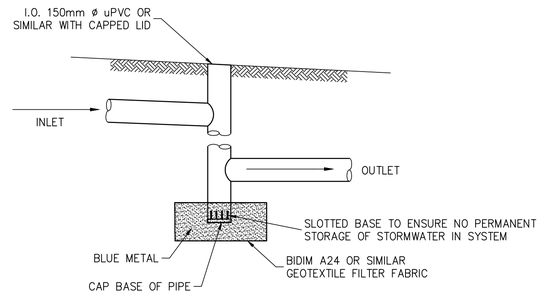
(D) CONCEALED EAVES GUTTER WITH TAIL

EAVES GUTTER OVERFLOW METHODS
SCALE: 1:20

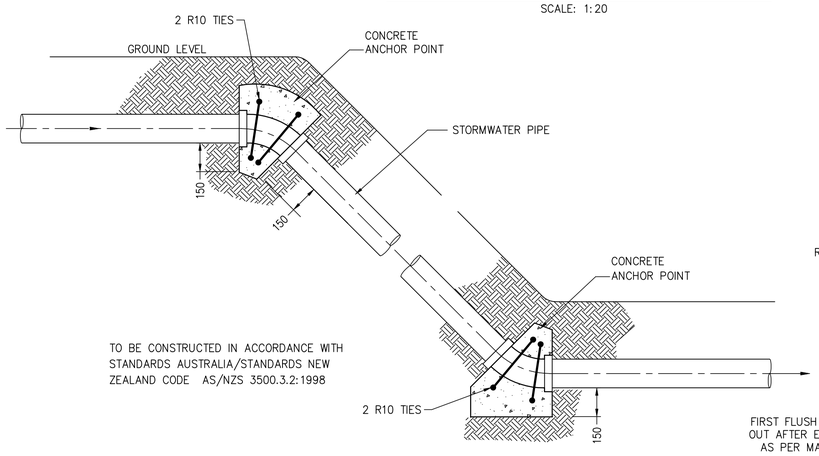
NOTE:
PRECAST OR CAST INSITU PIT. REFER STORMWATER NOTES OR PROVIDE ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER IF APPROVED BY ENGINEER



TYPICAL SILT ARRESTOR PIT DETAIL
SCALE = 1 : 20



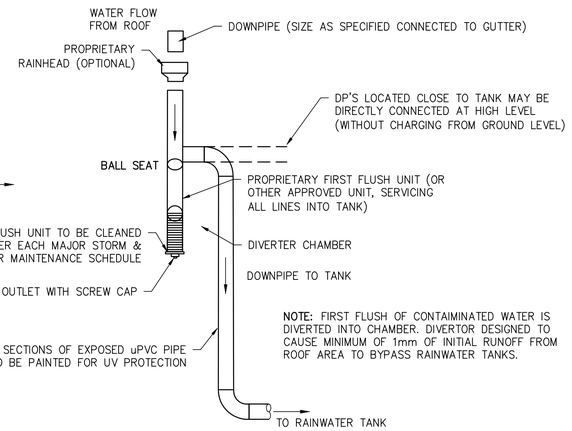
SECTION THROUGH INSPECTION OPENING DENOTED I.O. ON PLAN
SCALE = 1 : 20



TO BE CONSTRUCTED IN ACCORDANCE WITH STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND CODE AS/NZS 3500.3.2:1998

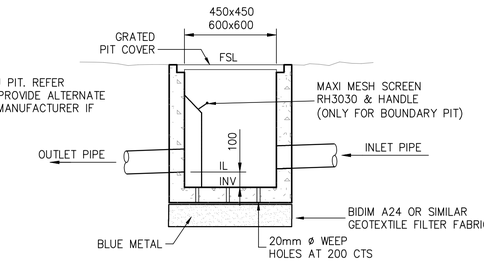
ANCHOR BLOCKS TO BE LOCATED AT THE BEND OR JUNCTION AT THE TOP AND BOTTOM OF THE INCLINED SITE STORMWATER DRAIN AND AT INTERVALS NOT EXCEEDING 3.0m

CONCRETE ANCHOR POINT DETAIL FOR EARTH SLOPE GREATER THAN 1 V. TO 3 H.
SCALE = 1 : 20



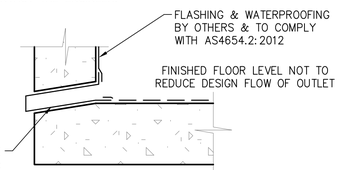
TYPICAL WALL MOUNTED FIRST FLUSH DETAIL
NOT TO SCALE

NOTE:
PRECAST OR CAST INSITU PIT. REFER STORMWATER NOTES OR PROVIDE ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER IF APPROVED BY ENGINEER

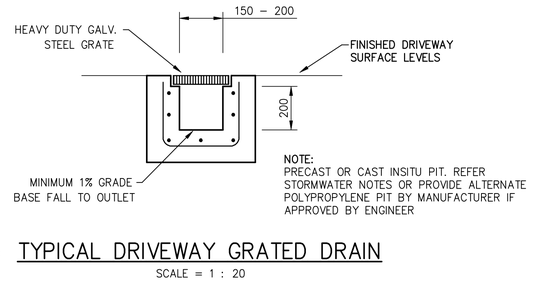


TYPICAL PIT DETAIL
SCALE = 1 : 20

NOTE:
FLOOR DRAINS TO BE INSTALLED WITHIN ALL PLANTERS AND PATIOS TO ARCHITECTS DETAILS AND AS3500.3 REQUIREMENTS. FLOOR DRAINS ARE TO DRAIN BY GRAVITY TO THE NEAREST DRAINAGE STRUCTURE AND MUST BE LOCATED AT LEAST 500mm ABOVE CONNECTION POINT. BALCONY HOB TO ARCHITECT DETAILS. ENSURE ALL BALCONIES ARE FITTED WITH 2 x 50mmø SPITTER PIPES TO ACT AS OVERFLOW POINT IN ACCORDANCE WITH AS4564.2:2012 REQUIREMENTS.
IF IN DOUBT, CONTACT THE ENGINEER.



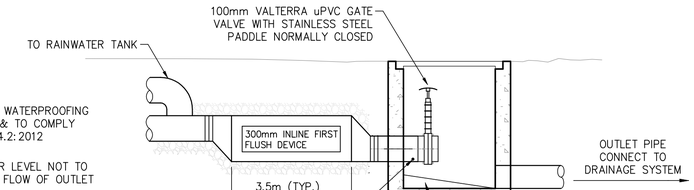
PREFORMED OUTLET TO PARAPET OR BALCONY OVERFLOW
NOT TO SCALE



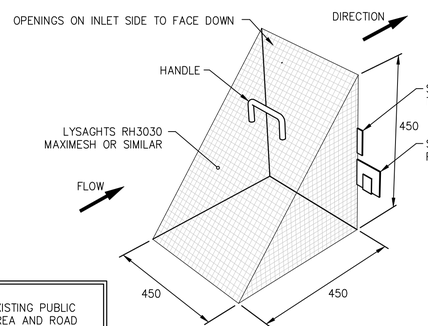
NOTE:
PRECAST OR CAST INSITU PIT. REFER STORMWATER NOTES OR PROVIDE ALTERNATE POLYPROPYLENE PIT BY MANUFACTURER IF APPROVED BY ENGINEER

TYPICAL DRIVEWAY GRATED DRAIN
SCALE = 1 : 20

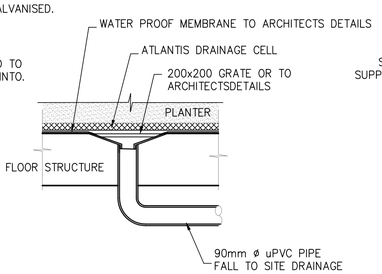
NOTE:
THIS CAN BE ANY TYPICAL PIT PROVIDED OR IF NEEDED TO BE FITTED AT LOW POINT OF SITE AND THERE IS NO ADEQUATE DISCHARGE POINT NEARBY, PROVIDE 300mm SUMP. CONTACT ENGINEER IF IN DOUBT.



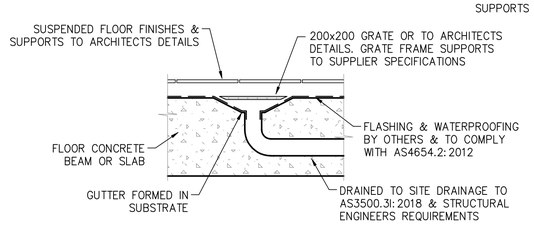
FIRST FLUSH DETAIL – INGROUND (OPTIONAL)
SCALE = 1 : 20



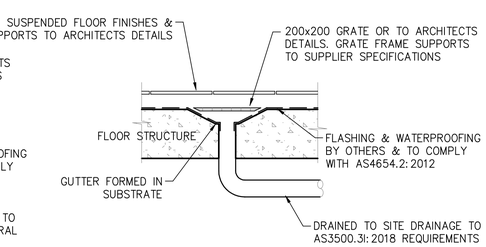
MAXI MESH SCREEN DETAIL
SCALE = N.T.S.



STANDARD FLOOR DRAIN
SCALE = 1 : 20



STANDARD FLOOR PATIO DRAIN
SCALE = 1 : 20



STANDARD FLOOR DRAIN (OPTION FOR BALCONIES ONLY)
SCALE = 1 : 20

NOTE:
THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTLILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THAT THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.

DIAL 1100 BEFORE YOU DIG

A1 ORIGINAL

Rev:	Date:	Description:	Reviewed:
C	22.11.21	UPDATED TO SUIT AMENDED ARCHITECTURALS	R.M
–	–	–	–
A	05.03.21	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M

Issued for: DEVELOPMENT APPLICATION

Approved by:
Date : 22.11.21
Rhys Mikhail
Director | Principal Engineer | NER: 2570082 | RPEQ: 17480
BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC IntPE(Aus)

Title:	Initial:	Date:
DESIGN	R.M	12.02.2021
DRAWN	S.M	12.02.2021
CHECKED	R.M	26.02.2021
APPROVED	R.M	26.02.2021

RTS CIVIL CONSULTING ENGINEERS
STORMWATER • CIVIL • FLOOD MITIGATION
ABN: 81 615 065 588 Phone: 0490 507 300 Email: admin@rtscivil.com.au Web: rtscivil.com.au

Architect: CM STUDIO cm

Client: VANESSA & ANDREW

Project and Drawing Title:
8A LINKMEAD AVENUE, CLONTARF
STORMWATER DRAINAGE DETAILS

Local Council: NORTHERN BEACHES COUNCIL

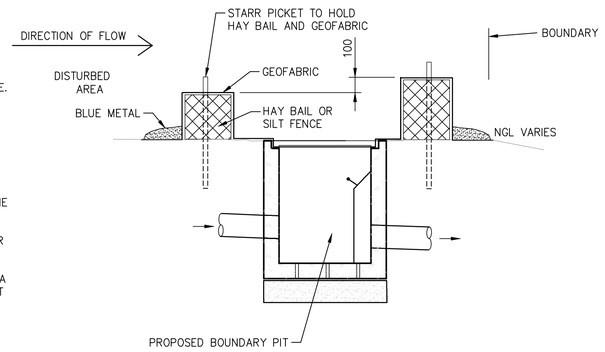
Project Number:	Drawing ID:	Issue:
210201	SW200	C

NOTES:
1. U.N.O REFER TO THE COVERPAGE CP100 SERIES FOR DETAILED NOTES AND CALCULATIONS.
2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

NOT FOR CONSTRUCTION

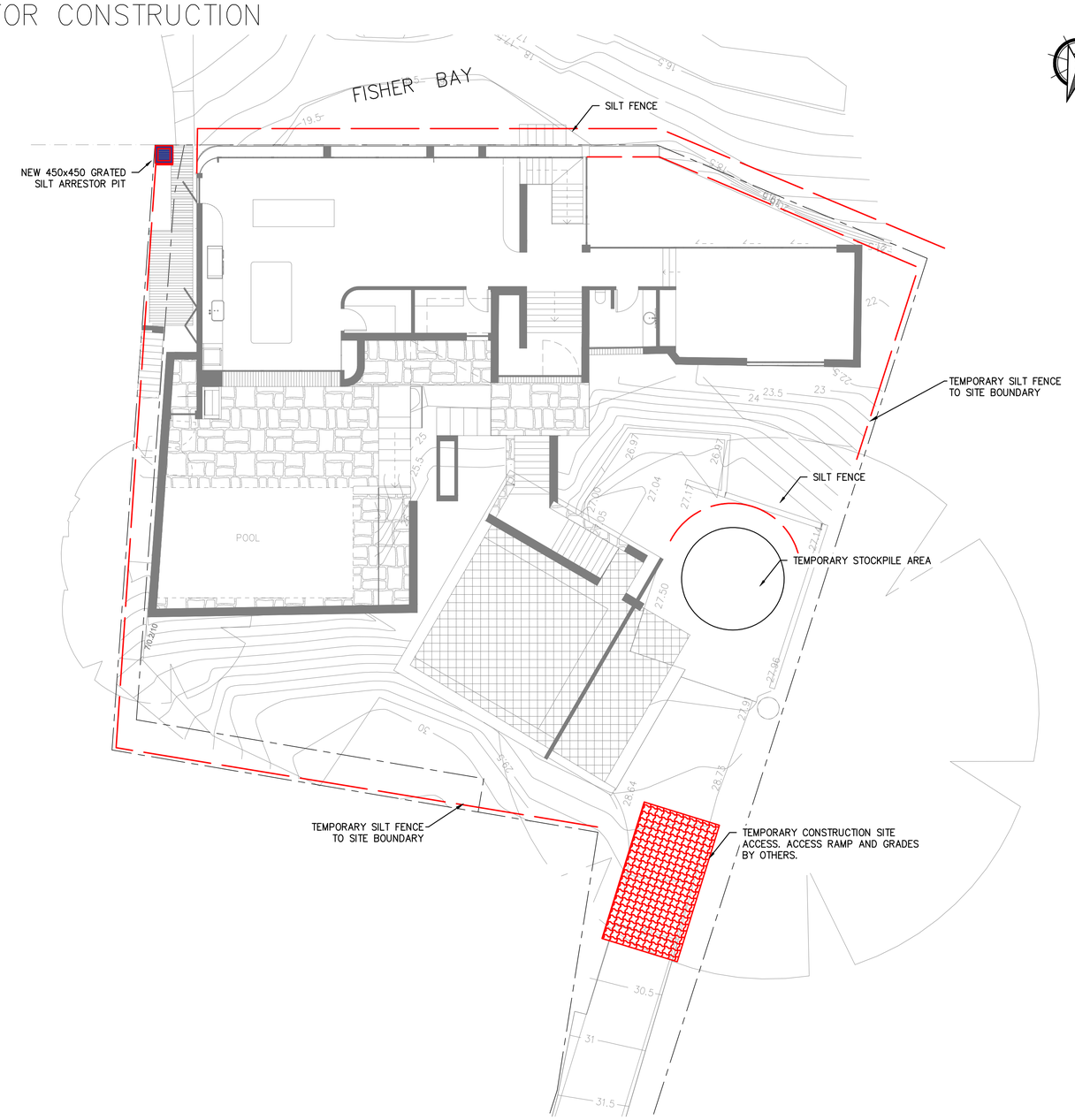
SEDIMENT AND EROSION CONTROL NOTES:

1. SILT FENCE AND ASSOCIATED WORKS INCLUDING INTERCEPTOR DRAIN IS TO BE INSTALLED BEFORE THE COMMENCEMENT OF ANY EXCAVATION.
2. GEOTECHNICAL ENGINEER IS TO PROVIDE SITE STABILITY REQUIREMENTS. CUTS ARE TO BE EXECUTED TO THE REQUIRED LEVEL USING CONVENTIONAL EXCAVATION MACHINERY. AS A GUIDE, INITIALLY THE DEPTH OF FILL/CLAY IS TO BE ESTABLISHED TO ENSURE NEIGHBOURING PROPERTIES ARE NOT ADVERSELY AFFECTED. EARTH BATTERS TO BE A MAXIMUM SLOPE OF 1.0m VERT. TO 1.7m HORIZ. (AS PER GEOTECHNICAL REPORT). ANY BATTERS GREATER THAN 1.0m VERT. TO 1.7m HORIZ. ARE TO BE ADEQUATELY SHORED IN ACCORDANCE WITH GEOTECHNICAL ENGINEERS DETAILS AND INSTRUCTIONS.
3. ANY PERMANENT RETAINING STRUCTURE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERS DETAILS AND INSTRUCTIONS.
4. ALL PERMANENT RETAINING STRUCTURES ARE TO BE COMPLETED WITH MINIMUM DELAY FOLLOWING EXCAVATION.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER.
6. CONTRCTOR TO MINIMISE DISTURBED AREAS.
7. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
8. DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE.
9. ROADS AND FOOTPATH TO BE SWEPT DAILY.
10. CONSTRUCTION VEHICLES ARE TO LEAVE AND ENTER THE SITE OVER AN ALL WEATHER SURFACE CONSISTING OF COURSE CRUSHED STONE OR BLUE METAL CONSTRUCTED WITHIN THE FRONT SETBACK AREA OPPOSITE THE EXISTING FOOTPATH CROSSING UNLESS NOTED OTHERWISE.
11. EXCAVATION MACHINERY ARE TO BE UNLOADED AND LOADED UPON THIS ALL WEATHER SURFACE. CONCRETE PUMPS AND TRUCKS WILL ALSO UTILISE THE ALL WEATHER SURFACE FOR THEIR OPERATIONS.
12. MATERIALS WILL BE UNLOADED UPON THE ALL WEATHER SURFACE WITHIN THE FRONT SETBACK AREA BY MEANS OF CRANES MOUNTED ON THE BACK OF DELIVERY TRUCKS OR UNLOADED BY HAND. A MOBILE CRANE MAY BE REQUIRED DURING THE CONSTRUCTION PROCESS.
13. SOME STOCKPILING OF TOPSOIL REMOVED FROM THE BUILDING AREA MAY BE STORED ON THE SITE DURING THE CONSTRUCTION WITHIN THE PROPERTY IN AN AREA ENCLOSED WITHIN THE SEDIMENT CONTROL FENCING.
14. ALL EXCAVATED & CONSTRUCTION MATERIALS, SHED, SKIP BINS, TEMPORARY WATER CLOSETS, SPOIL AND EQUIPMENT, ETC SHALL BE KEPT WITHIN THE PROPERTY. NO VEHICLES OR MACHINES SHALL BE KEPT WITHIN THE PROPERTY. NO VEHICLES OR MACHINES SHALL STAND ON COUNICIL FOOTPATHS FOR LARGE LENGTHS OF TIME.
15. ALL RUBBISH & RECYCLABLE MATERIAL SHALL BE STOCKPILED IN WASTE BINS IN THE AREA NOMINATED ON THE SITE PLAN WITHIN THE SITE BOUNDARY. PUBLIC PROPERTY SHALL BE KEPT FREE OF RUBBISH AND RECYCLABLES AT ALL TIMES ANY WASTE MATERIALS SHALL BE REGULARLY COLLECTED FROM THE SITE AND DISPOSED OF IN AN APPROPRIATE FASHION.
16. ANY BUILDING OR DEMOLITION WORKS INVOLVING ASBESTOS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELAVANT STANDARDS.
17. VEHICLES LEAVING THE SITE WILL DO SO VIA THE ALL WEATHER BALLAST DRIVEWAY MADE OF COURSE AGGREGATE OR SIMILLAR LOCATED WITHIN THE FRONT SETBACK AREA OF THE DEVELOPMENT. ANY DIRT OR MATERIAL DEPOSITED ON THE ROAD RESERVE OR ROADWAY IS TO BE PROMPTLY CLEANED.
18. ANY EXCAVATED AREA REQUIRING SUPPORT WILL BE UNDERTAKEN BY THE OWNER USING STRUCTURALLY APPROVED RETAINING STRUCTURES.
19. ADEQUATE SAFETY SIGNAGE MUST BE ERECTED IN A PROMINENT POSITION ON THE WORK SITE, WARNING OF UNAUTHORISED ENTRY TO WORK SITE AND INTENDING DANGERS.
20. SAFETY FENCES SHALL BE PROVIDED AROUND ALL BOUNDARIES UNLESS A CONTINUOUS STRUCTURALLY ADEQUATE FENCE PRESENTLY EXISTS. THE FENCING SHALL BE ADEQUATE TO RESTRICT PUBLIC ACCESS TO THE SITE WHEN BUILDING WORK IS NOT IN PROGRESS OR THE SITE IS UNOCCUPIED.
21. NOISE LEVELS SHALL NOT EXCEED COUNCIL REGULATION LEVELS. BUILDING AND DEMOLITION WORKS SHALL ONLY BE CARRIED OUT BETWEEN HOURS AND DAYS SPECIFIED BY COUNCIL.
22. GEOTEXTILE FABRIC SHALL BE PLACED ON THE INSIDE OF THE SITE FENCING PRIOR TO SITE DISTURBANCE TO PREVENT SEDIMENT WASHING FROM CLEARED AND DISTURBED AREAS OF THE SITE INTO THE STORMWATER SYSTEM. DURING CONSTRUCTION, UNLESS OTHERWSIE NOTED, UNCONTAMINATED RUNOFF FROM CLEARED OR DISTURBED AREAS ARE TO BE DIRECTED TO A TEMPORARY SILT ARRESTOR PIT THAT SHALL BE PROVIDED WITHIN THE SITE AT THE STREET BOUNDARY PROCESSING SITE STORMWATER BEFORE IT IS DISCHARGED TO THE STREET DRAINAGE SYSTEM OR WATERCOURSE.
23. ALL TOP SOIL STRIPPED & STOCKPILED ONSITE IS TO BE BE PLACED IN NOMINATED AREAS ON PLAN OR TO COUNCIL REQUIREMENTS. ALL DISTURBED AREAS ARE TO BE STABILISED UPON THE COMPLETION OF BUILDING WORKS.
24. ALL SEDIMENT CONTROL STRUCTURES ARE TO BE CONTINUALLY MAINTAINED DURING CONSTRUCTION AND INSPECTED FOR STRUCTURAL DAMAGE AFTER EACH RAINFALL EVENT, WITH TRAPPED SEDIMENT BEING REMOVED TO THE TOPSOIL STOCKPILE.
25. WHERE THERE IS THE POTENTIAL OF SITE EROSION TO PRODUCE EXCESSIVE SEDIMENT RUNOFF, SUITABLE GEOTEXTILE BARRIERS SHALL BE PLACED TO ALLEVIATE THE RISK ACCORDINGLY. BARE SURFACES SHALL BE KEPT MOIST TO REDUCE DUST LEVELS. GEOTEXTILE FABRIC LOCATED ON THE INSIDE OF FENCES SHALL ALSO BE UTILISED FOR DUST CONTROL WHERE NECESSARY.
26. SEDIMENT CONTROL STRUCTURES E.G.: SEDIMENT FENCE MUST BE PLACED AT THE BASE OF ALL MATERIALS ON SITE TO MITIGATE SEDIMENT RUN-OFF.
27. A PERIMETER BUND AND/OR DIVERSION DRAIN MUST BE CONSTRUCTED AROUND THE DISTURBED AREAS TO PREVENT ANY OUTSIDE CLEAN STORMWATER FROM MIXING WITH POLLUTED POLLUTED/CONTAMINATED STORMWATER.
28. ALL POLLUTED/CONTAMINATED WATER FROM THE SITE, INCLUDING DEWATERING DISCHARGE, MUST BE TREATED TO ACHIEVE THE WATER QUALITY OBJECTIVES IN TABLE 8.2.1 OF THE QUEENSLAND WATER QUALITY GUIDELINES (DERM SEPTEMBER 2009) PRIOR TO DISCHARGING FROM THE SITE.
29. INSPECTIONS FOR EROSION AND SEDIMENT CONTROL MEASURES ARE TO OCCUR IN ACCORDANCE WITH THE COMPLIANCE PROCEDURES IN CITY PLANNING POLICY SC6.9 – LAND DEVELOPMENT GUIDELINES, SECTION 6.9.3.6.1.2 – COMPLIANCE.



SEDIMENT TRAP CONSTRUCTION SPECIFICATION:

1 – SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
2 – THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRED AS NEEDED.
3 – CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN A MANNER, THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
4 – THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONSTRUCTED DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.



SITE SEDIMENT & EROSION CONTROL PLAN

SCALE = 1 : 100

NOTE:
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DIAL 1100 BEFORE YOU DIG

A1 ORIGINAL

Rev:	Date:	Description:	Reviewed:
C	22.11.21	UPDATED TO SUIT AMENDED ARCHITECTURALS	R.M
–	–	–	–
A	05.03.21	STORMWATER MANAGEMENT PLAN FOR DA SUBMISSION	R.M

Issued for: DEVELOPMENT APPLICATION

Approved by:

Date : 22.11.21

Rhys Mikhail

Director | Principal Engineer | NER: 2570082 | RPEQ: 17480
BEng (Civil) Hons MIEAust CPEng NER RPEQ APEC IntPE(Aus)

Title:	Initial:	Date:
DESIGN	R.M	12.02.2021
DRAWN	S.M	12.02.2021
CHECKED	R.M	26.02.2021
APPROVED	R.M	26.02.2021

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Architect: CM STUDIO cm

Client: VANESSA & ANDREW

Project and Drawing Title: 8A LINKMEAD AVENUE, CLONTARF
SITE SEDIMENT & EROSION CONTROL PLAN

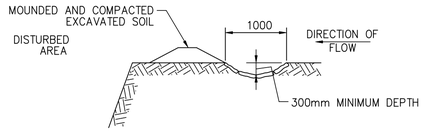
Local Council: NORTHERN BEACHES COUNCIL

Project Number:	Drawing ID:	Issue:
210201	SE100	C

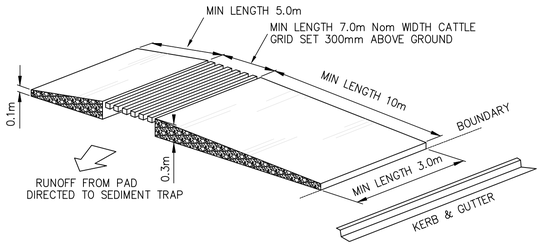
NOTES:
1. U.N.O REFER TO THE COVERPAGE CP100 SERIES FOR DETAILED NOTES AND CALCULATIONS.
2. ALL DIMENSIONS SHALL BE VERIFIED ONSITE BY BUILDER BEFORE COMMENCING WITH WORK.

NOT FOR CONSTRUCTION

NOTE:
ROCK LINE DISH DRAIN, JOINTS BETWEEN ROCKS TO BE FILLED WITH MORTAR.

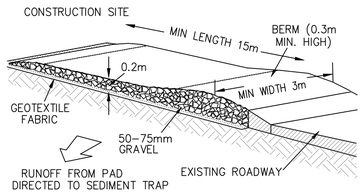


CATCH DRAIN – ROCK LINED
SCALE = N.T.S.



NOTE: WHEEL WASH OR SPRAY MAY BE REQUIRED DURING WET WEATHER

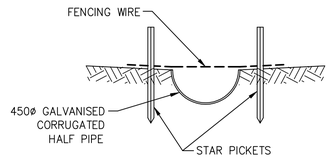
TYPICAL TEMPORARY CONSTRUCTION ENTRY & EXIT DETAIL (TYPE 2)



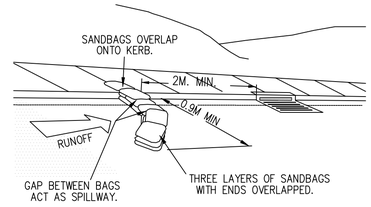
NOTE: WHEEL WASH OR SPRAY MAY BE REQUIRED DURING WET WEATHER. GRAVEL SHALL BE CLEANED/REMOVED WHEN THE EXPOSED HEIGHT OF THE GRAVEL IS LESS THAN 30mm.

TYPICAL TEMPORARY CONSTRUCTION ENTRY & EXIT DETAIL (TYPE 1)

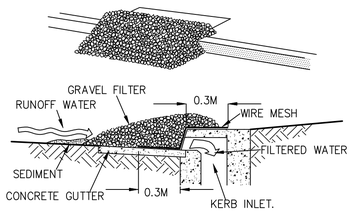
NOTE:
1. STRIP TOPSOIL AND LEVEL SITE.
2. COMPACT SUBGRADE AS REQUIRED.
3. COVER AREA WITH NEEDLE–PUNCHED GEOTEXTILE.
4. CONSTRUCT 200mm THICK PAD OVER GEOTEXTILE USING ROADBASE OR 30mm AGGREGATE. MINIMUM LENGTH 15 METRES OR TO BUILDING ALIGNMENT. MINIMUM WIDTH 3m.
5. CONSTRUCT HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT FENCE OR OTHER SEDIMENT TRAP.
6. OR CONSTRUCT A CATTLE GRID LOCATED AT ANY POINT WHERE TRAFFIC ENTERS OF LEAVES THE SITE.



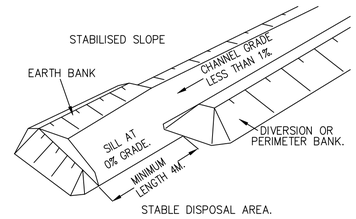
TEMPORARY DISH DRAIN
SCALE = N.T.S.



SEDIMENT TRAP SANDBAGS AT KERB INLETS
SCALE = N.T.S.

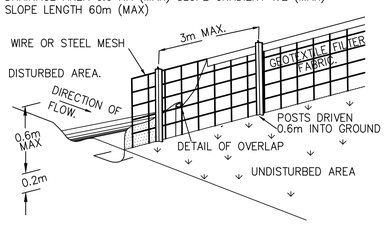


GRAVEL KERB INLET SEDIMENT TRAP
SCALE = N.T.S.



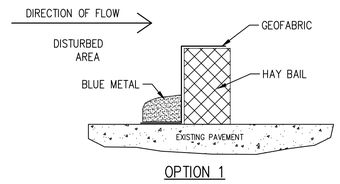
TYPICAL SPREADER DETAIL
SCALE = N.T.S.

DRAINAGE AREA 0.6 HA (MAX) SLOPE GRADIENT 1:2 (MAX)
SLOPE LENGTH 60m (MAX)

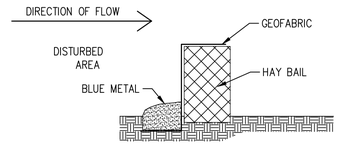


TYPICAL TEMPORARY SEDIMENT (SILT) FENCE

NOTE:
1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE.
2. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND, 3 METRES APART.
3. DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
4. BACKFILL TRENCH OVER BASE OF FABRIC.
5. FIX SELF–SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES or AS RECOMMENDED BY GEOTEXTILE MANUFACTURER.
6. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.

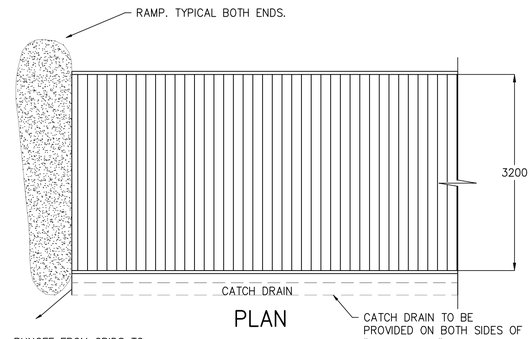


OPTION 1

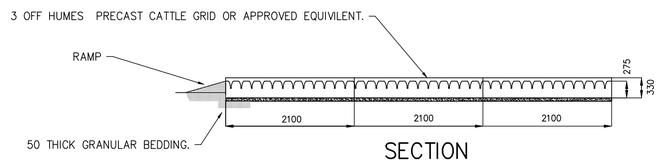


OPTION 2

REMOVABLE HAY BAIL DETAIL
SCALE = N.T.S.



PLAN

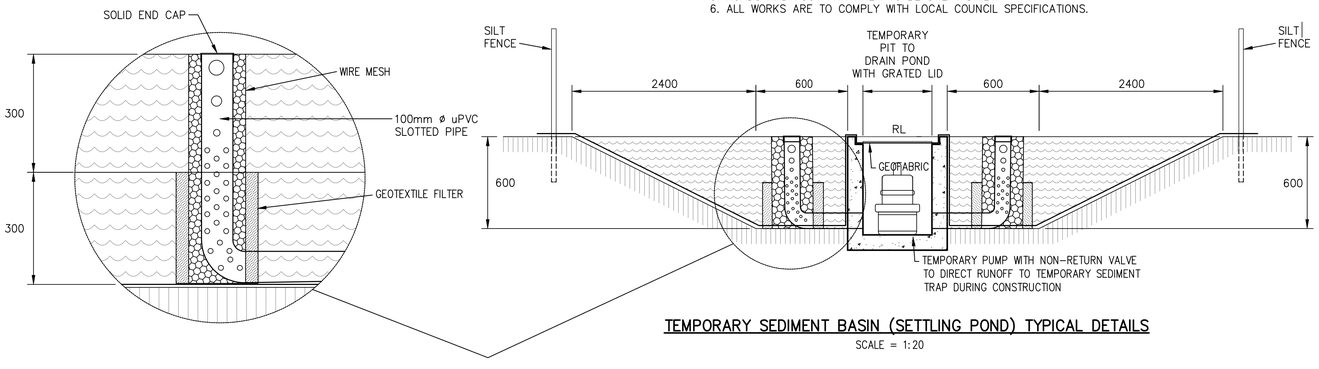


SECTION

CATTLE GRID ENTRY & EXIT ALTERNATIVE
SCALE = 1:20

NOTES:
1. EXCAVATE AREA APPROX. 3.3m WIDE BY 2.2m LENGTH. THE FLOOR OF THE EXCAVATION MUST BE FLAT, WITHOUT HIGH POINTS. AN EXCAVATED DEPTH OF 100mm ACCOMODATES A BEDDING LAYER 50mm THICK AND GRID SET DOWN OF 50mm. THE LATTER MINIMISES SILT UP OF GRID AND SLOWS DOWN TRAFFIC.
2. BEDDING MATERIAL SHALL BE SAND OR OTHER SUITABLE APPROVED MATERIAL. BEDDING MATERIAL SHALL BE EVENLY RAKED OVER FLOOR OR EXCAVATION TO A DEPTH SLIGHTLY MORE THAN 50mm. ENSURE BEDDING IS LEVEL IN BOTH DIRECTIONS.
3. LOWER CATTLE GRID ONTO THE PREPARED BASE. ENSURE THAT NO PART OF THE UNIT IS SITTING ON ANY HIGH POINTS.
4. BACKFILL AND COMPACT AROUND GRID. GRADE EXCAVATED ROAD MATERIAL UP TO GRID EACH SIDE TO FORM A RAMP. IF DEPRESSIONS OCCUR ON THESE RAMPS WITH USE, ADD ADDITIONAL MATERIAL.

NOTE:
1. ALL EROSION AND SEDIMENT CONTROL ARE MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER.
2. CONTRACTOR TO MINIMISE DISTURBED AREAS WHERE POSSIBLE.
3. ALL STOCKPILES ARE TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATHS.
4. DRAINAGE IS TO BE CONNECTED TO SITE STORMWATER DRAINAGE SYSTEM AS SOON AS POSSIBLE.
5. ROADS AND FOOTPATH AREA TO BE SWEPT DAILY.
6. ALL WORKS ARE TO COMPLY WITH LOCAL COUNCIL SPECIFICATIONS.



TEMPORARY SEDIMENT BASIN (SETTLING POND) TYPICAL DETAILS
SCALE = 1:20

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Architect: CM STUDIO cm

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Project and Drawing Title: 8A LINKMEAD AVENUE, CLONTARF
SEDIMENT & EROSION CONTROL DETAILS

Local Council: NORTHERN BEACHES COUNCIL

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