

1. THE CONTRACTOR SHALL INSTALL EFFECTIVE EROSION AND SEDIMENTATION CONTROL MEASURES TO THE SATISFACTION OF THE SUPERINTENDANT PRIOR TO COMMENCING EARTHWORKS. THESE MEASURES SHALL BE MAINTAINED FOR THE DURATION OF THE CONTRACT.
2. ADEQUATE DRAINAGE OF ALL WORKING AREAS SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF CONSTRUCTION TO ENSURE RUN-OFF OF WATER WITHOUT PONDING, EXCEPT WHERE PONDING FORMS PART OF AN APPROVED EROSION AND SEDIMENTATION CONTROL SYSTEM.
3. THE CONTRACTOR SHALL OBTAIN THE WRITTEN CONSENT OF THE SUPERINTENDANT OR THE USE OF ANY STOCKPILE WITE WHICH IS NOT SHOWN ON THE DRAWINGS. PROPOSAL IN THIS REGARD SHALL BE SUBMITTED AT LEAST THREE WORKING DAYS BEFORE STOCKPILING IS DUE TO COMMENCE AND SHALL SPECIFY THE MAXIMUM DIMENSIONS OF THE PROPOSAL.
4. COMPACTION OF ALL MATERIALS INCLUDING ROAD SURFACES SHALL BE AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.

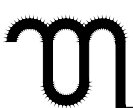
1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTS, DRAWINGS AND SPECIFICATIONS, AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE PROJECT MANAGER FOR DECISION BEFORE PROCEEDING WITH THE WORK.
2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
3. SETTING OUT DIMENSIONS SHOWN ON THE DRAWING SHALL BE VERIFIED BY THE CONTRACTOR. ALL BENCHMARKS ARE TO BE CONFIRMED FOR LEVEL PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
4. DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVER-STRESSED.
5. TBM'S AND LEVELS ARE SHOWN TO AHD. CONTRACTOR TO PERFORM QUALITY CONTROL SURVEY AND MAINTAIN IT DURING THE EXTENT OF THE CONSTRUCTION PERIOD.
6. THE LOCATION OF ALL EXISTING SERVICES HAVE BEEN OBTAINED FROM THE AVAILABLE AUTHORITY RECORDS. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVE ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE LOWERING AND REALIGNMENT OF MINOR DISTRIBUTION SERVICES IN CONSULTATION WITH THE RELEVANT CODE OF PRACTICE STIPULATED BY THE ASSET OWNER. ALL EXISTING STREET SIGNS TO BE REINSTATED AS REQUIRED.
8. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATIONS AND TO THE SATISFACTION OF THE SUPERINTENDENT, COUNCIL, AND THE SERVICE AUTHORITIES. THE SUPERINTENDENT SHALL CARRY OUT REGULAR SITE INSPECTIONS. THE CONTRACTOR SHALL NOTIFY COUNCIL 7 DAYS PRIOR TO COMMENCEMENT OF WORKS.
9. THE CONTRACTOR IS TO SUBMIT AN ENVIRONMENTAL MANAGEMENT PLAN IDENTIFYING THE RISKS ASSOCIATED WITH THE WORKS AND CONTROL MEASURES FOR APPROVAL, PRIOR TO COMMENCING WORKS ON SITE. THE EMP MUST COMPLY WITH ALL STATUTES, BY-LAWS, STANDARDS, AND SECTION 6.3 OF URBAN STORMWATER – BEST PRACTICE ENVIRONMENTAL MANAGEMENT GUIDELINES. THE CONTRACTOR SHALL CONTROL SEDIMENTATION, EROSION , AND POLLUTION DURING CONSTRUCTION IN ACCORDANCE WITH THE 'GUIDELINES FOR ENVIRONMENTAL MANAGEMENT – DOING IT RIGHT ON SUBDIVISIONS'.
10. ANY STRUCTURES, PAVEMENTS OR SURFACE DAMAGED, DIRTIED OR MADE UNSERVICEABLE DUE TO CONSTRUCTION WORK SHALL BE REINSTATED TO THE SATISFACTION OF THE SUPERINTENDENT. ALL MATERIAL ASSETS MODIFIED OR DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED TO THE SATISFACTION OF THE RELIANT CITY COUNCIL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES BY SETTLEMENT SUBSIDENCE OR REMOVAL SUPPORT CONSEQUENT UPON OPERATION UNDER THE CONTRACT AND SHALL MAKE GOOD ALL DAMAGES AT THEIR OWN COST.
11. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT LOCAL COUNCIL'S STANDARD DRAWINGS AND TO THE SATISFACTION OF THE COUNCIL SUPERVISING ENGINEER.
12. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS4300 AND WITH THE PLANS APPROVED BY THE LOCAL CITY COUNCIL.
13. ANY VARIATION TO THE DETAILS SHOWN ON THE DRAWINGS MUST BE AUTHORISED BY THE SUPERINTENDENT PRIOR TO FABRICATION AND/OR CONSTRUCTION
14. ALL CONSTRUCTION WORKS SHALL BE RESTRICTED TO THE HOURS AS ADVISED BY THE SUPERINTENDENT
15. THE CONTRACTOR SHALL NOT ENTER OR WORK IN ADJOINING PROPERTIES WITHOUT WRITTEN PERMISSION FROM THE PROPERTY OWNERS OR RESPONSIBLE AUTHORITIES.
16. ALL NEW WORKS TO HAVE A SMOOTH JUNCTION WITH EXISTING WORK
17. ALL PROPERTY ITEMS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURES SPECIFICATIONS. ANY ALTERNATIVE PRODUCTS ARE TO BE APPROVED BY THE SUPERINTENDENT PRIOR TO INSTALLATION.
18. THE CONTRACTOR IS RESPONSIBLE TO CARRY OUT ALL WORKS WITH ADEQUATELY SKILLED, TRAINED, AND QUALIFIED TRADE WORKERS.
19. IT IS THE MAIN CONTRACTORS RESPONSIBILITY TO SUPPLY THE RELEVANT NOTES, SPECIFICATIONS, AND DRAWINGS TO ALL SUB-CONTRACTORS.
20. TRAFFIC CONTROL MEASURES ARE TO BE IMPLEMENTED AT ALL TIMES IN ACCORDANCE WITH AS2543. A SITE SAFETY PLAN IS TO BE PREPARED BY THE CONTRACTOR IN ACCORDANCE WITH THE RELEVANT STANDARDS.
21. THE CONTRACTOR IS TO ENSURE THE SITE IS KEPT AT CONSISTENTLY CLEARED OF RUBBISH AND IS MAINTAINED IN A SAFE AND TIDY CONDITION TO THE SATISFACTION OF THE SUPERINTENDENT.
22. THE CONTRACTOR IS TO COMPLY WITH THE REQUIREMENTS OF THE LATEST OCCUPATIONAL HEALTH AND SAFETY ACT.
23. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY FENCING TO THE SATISFACTION OF THE SUPERINTENDENT DURING THE CONTRACT TO PREVENT UNAUTHORISED ENTRY INTO THE SITE. WITH CONTRACTOR SHALL ALSO REMOVE TEMPORARY FENCING ON COMPLETION OF THE WORK.
24. ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS.
25. ROADS ADJOINING THE SITE MUST BE KEPT CLEAN AND FREE OF ALL EXCAVATED/TRANSPORTED SPOIL MATERIAL.

1. DO NOT SCALE FROM DRAWINGS. USE WRITTEN DIMENSIONS ONLY.
2. BUILDER TO CHECK & VERIFY ALL DIMENSIONS & LEVELS PRIOR TO COMMENCEMENT OF WORK.
3. IT IS THE OWNERS RESPONSIBILITY TO ENSURE THAT THE ENGINEER HAS INVESTIGATED SUBSOIL CONDITIONS & DESIGNED ALL STRUCTURAL ELEMENTS TO SUIT.
4. THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY MSL CONSULTING ENGINEERS



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PI	29.08.2023	CONCEPT PLAN		DTA Architects Pty Ltd PH (02) 9601 1011
REV	DATE	NOTATION/AMENDMENT		ELECTRICAL / BASIS CONSULT GREENVIEW CONSULT
DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE.				

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BUSINESS PARTNER:



NSW
GOVERNMENT

Land & Housing Corporation
NORTHERN NSW REGION

PROJECT:

SENIORS HOUSING DEVELOPMENT

at
Lots 6, 7 & 8 in DP 35468
17-21 Wardell Road
Alstonville NSW 2477

BUSINESS PARTNER:



NSW
GOVERNMENT

Land & Housing Corporation
NORTHERN NSW REGION

EC01 ALL EROSION AND SILTATION CONTROL DEVICES ARE TO BE PLACED PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORKS. THE LOCATION OF SUCH DEVICES (SHOWN ON THESE DRAWINGS) IS INDICATIVE ONLY AND FINAL POSITION SHOULD BE DETERMINED ON SITE.

EC02 SURPLUS TOPSOIL SHALL BE STOCKPILED WHERE DIRECTED. DIVERSION BANKS ARE TO BE PLACED UPSTREAM AND SHALL DISCHARGE TO SEDIMENT BARRIERS. ALL STOCKPILES ARE TO BE VEGETATED WITHIN 14 DAYS OF FORMATION. SILT FENCES ARE TO BE PLACED ON THE DOWNSTREAM FACE.

EC03 DURING TRENCH EXCAVATION ALL SPOIL SHALL BE MOUNDED ON THE UPHILL SIDE OF TRENCHES AND PLACEMENT IS TO COMPLY WITH THE SUPERINTENDENTS REQUIREMENTS.

EC04 PROVIDE SEDIMENT TRAPS TO ALL INLET PITS.

EC05 ALL TURF SODS AND SEEDED AREAS ARE TO BE WATERED AND FERTILISED AS DIRECTED.

EC06 ALL EROSION AND SILTATION CONTROL DEVICES ARE TO BE CLEARED OF DEPOSITED SILT AND MAINTAINED TO THE SATISFACTION OF THE SUPERINTENDENT.

EC07 GENERALLY BARRIERS SHOULD BE PLACED APPROXIMATELY 5.0 METRES OUTSIDE POTENTIAL DISTURBED AREAS.

EC09 A LOG BOOK OR OTHER SUITABLE RECORDS MUST BE KEPT BY THE SITE SUPERVISOR IN ACCORDANCE WITH THE EPA'S REQUIREMENTS.

EC08 CONTRACTOR TO FOLLOW THE RECOMMENDED SEQUENCE OF OPERATIONS AS SPECIFIED BY THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT IN THE BROCHURE "PREPARING SOIL AND WATER MANAGEMENT PLANS".

EC10 BUILDER IS TO CONDUCT WORKS IN ACCORDANCE WITH COUNCILS CONDITION TO DUST SUPPRESSION AND SEDIMENT REMOVAL MEASURES.

EC11 BUILDER TO CONFIRM LOCATION OF STOCKPILES, FENCING, STABILISED ACCESS ETC. ON COMMENCEMENT OF WORK. ENGINEER TO BE NOTIFIED.

EC12 WASTE MATERIALS ARE TO BE STOCKPILED OR LOADED INTO SKIP-BINS LOCATED AS SHOWN ON PLAN.

EC13 STOCKPILES OF LOOSE MATERIALS SUCH AS SAND, SOIL, GRAVEL MUST BE COVERED WITH GEOTEXTILE SILT FENCE MATERIAL. PLASTIC SHEETING OR MEMBRANE MUST NOT BE USED. SAFETY BARRICADING SHOULD BE USED TO ISOLATE STOCKPILES OF SOLID MATERIALS SUCH AS STEEL REINFORCING, FORMWORK, SCAFFOLDING.

EC14 TRUCKS REMOVING EXCAVATED / DEMOLISHED MATERIAL SHOULD TRAVEL ON STABILISED CONSTRUCTION PATHS. MATERIAL TO BE TAKEN TO THE TRUCK TO REDUCE TRUCK MOVEMENT ON SITE. TRUCKS TO BE LIMITED TO SINGLE UNIT HEAVY RIGID VEHICLES. (NO SEMITRAILERS)

EC15 ANY SEDIMENT DEPOSITED ON THE PUBLIC WAY, INCLUDING FOOTPATH RESERVE AND ROAD SURFACE, IS TO BE REMOVED IMMEDIATELY.

EC16 PROVIDE BARRIERS AROUND ALL CONSTRUCTION WORKS WITHIN THE FOOTPATH AREA TO PROVIDE SAFE ACCESS FOR PEDESTRIANS.

EC17 CONCRETE PUMPS AND CRANES ARE TO OPERATE FROM WITHIN THE BALLAST ENTRY DRIVEWAY AREA AND ARE NOT TO OPERATE FROM THE PUBLIC ROADWAY UNLESS SPECIFIC COUNCIL PERMISSION IS OBTAINED.

EC18 DELIVERY VEHICLES MUST NOT STAND WITHIN THE PUBLIC ROADWAY FOR MORE THAN 20 MINUTES AT A TIME.

EC19 ANY EXCAVATION WORK ADJACENT TO ADJOINING PROPERTIES OR THE PUBLIC ROADWAY IS NOT TO BE COMMENCED UNTIL THE STRUCTURAL ENGINEER IS CONSULTED AND SPECIFIC INSTRUCTIONS RECEIVED FROM THE ENGINEER.

EC20 TOILET FACILITIES MUST BE EITHER A FLUSHING TYPE OR APPROVED PORTABLE CHEMICAL CLOSET. CHEMICAL CLOSETS ARE TO BE MAINTAINED & SERVICED ON A REGULAR BASIS SO THAT OFFENSIVE ODOUR IS NOT EMITTED.

EC21 ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE HILLS SHIRE COUNCIL'S ENVIRONMENTAL SITE MANAGEMENT DEVELOPMENT CONTROL PLAN DOCUMENTS, CURRENT EDITION.

EC23 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL MEASURES ARE TAKEN DURING THE COURSE OF THE CONSTRUCTION TO PREVENT SEDIMENT EROSION AND POLLUTION OF THE DOWNSTREAM SYSTEM, SUPERVISING ENGINEER SHOULD BE CONTACTED IF IN DOUBT. ALL SEDIMENT CONTROL STRUCTURES TO BE INSPECTED AFTER EACH RAINFALL EVENT FOR STRUCTURAL DAMAGE AND TRAPPED SEDIMENT TO BE REMOVED TO A NOMINATED SOIL STOCKPILE SITE.

EC22 PROVIDE BARRIERS AROUND ALL CONSTRUCTION WORKS WITHIN THE FOOT PATH AREA TO PROVIDE SAFE ACCESS FOR PEDESTRIANS.

1. ROCK SIZES ARE SPECIFIED ACCORDING TO THEIR POSITION AND RESISTANCE TO HYDRAULIC FORCES. THE ROCK HAS BEEN SHOWN SCHEMATICALLY IN THE DRAWINGS AND SHALL BE 100mm NOMINAL SIZE.
2. ROCK SUPPLIED FOR THE WORKS MUST BE HARD, DURABLE, AND LOCALLY SOURCED.
3. ROCK IN THE FORM OF BLOCKS WITH ANGULAR EDGES IS REQUIRED TO ENSURE CONSISTENT INTERLOCKING DURING PLACEMENT.
4. ROCK IS TO BE IN THE NATURAL FORM AND NOT CUT OF SHAPED.
5. ALL GAPS WITHIN ROCK TO BE FILLED WITH COARSE GRAVEL TO THE TOP AND THEN FILLED WITH A FILTER MEDIA. THIS GRADED ROCK IS TO BE OVERLAID ON A COARSE GRAVEL BEDDING WITH A MIN. 20mm THICKNESS. PROVIDE A GEOTEXTILE FABRIC BIDIM A64, OR APPROVED EQUIVALENT.

1 PROVIDE SHAKE DOWN PAD AT ENTRY OF SITE.
2 CONSTRUCT SEDIMENT FENCING (REFER DETAILS)
3 CONSTRUCT DRAINAGE & CIVIL WORKS (MODIFY SEDIMENT CONTROL DRAINS
4 TO SUIT CONSTRUCTION.
5 PITS & PIPES TO BE PROTECTED WITH FILTER BARRIERS REFER DETAILS
6 AT COMPLETION OF ALL WORKS REVEGETATE BATTERS WITHIN 14 DAYS
AFTER COMPLETION OF BUILDING WORKS, ALL CONTROL MEASURES CAN BE
REMOVED.

- 1 ALL EROSION CONTROL MEASURES ARE TO BE MAINTAINED AT ALL TIMES SO THAT THOSE MEASURES ARE FULLY FUNCTIONAL/OPERATIONAL DURING THE CURRENCY OF WORKS. ALL SUCH CONTROLS MUST ALSO BE FULLY FUNCTIONAL/OPERATIONAL SHOULD WORK OPERATIONS CEASE TEMPORARILY, (e.g. WEEKENDS, ROSTERED DAYS OFF, etc.)
- 2 RESPREAD MATERIAL GAINED DURING MAINTENANCE OPERATION OR ALTERNATIVELY PLACE ON STOCKPILES.
- 3 NON-COMPLIANCE WITH AGREED PERFORMANCE CRITERIA WILL BE IDENTIFIED BY: VISUAL INSPECTIONS IDENTIFYING
 - BUILD-UP OF SEDIMENT OFF THE SITE
 - EXCESSIVE SEDIMENT BUILD-UP ON THE SITE
 - EXCESSIVE EROSION ON THE SITE
 - RELEASE OF CONSTRUCTION MATERIAL FROM THE SITE
 - POOR VEGETATION ESTABLISHMENT
 - POORLY MAINTAINED, DAMAGED OR FAILED ESC DEVICES.
 - DETERIORATED WATER QUALITY IDENTIFIED BY THE ENVIRONMENTAL CONSULTANT AS BEING ATTRIBUTABLE TO THE CONSTRUCTION ACTIVITIES.
- 4 BUILD-UP OF SEDIMENT OFF THE SITE - THE MATERIAL MUST BE COLLECTED AND DISPOSED OF IN A MANNER THAT WILL NOT CAUSE ONGOING ENVIRONMENTAL NUISANCE OR HARM, THEN ON-SITE ESC MEASURES AMENDED, WHERE APPROPRIATE, TO REDUCE THE RISK OF FURTHER EROSION.
- 5 EXCESSIVE SEDIMENT BUILD-UP ON THE SITE - COLLECT AND DISPOSE OF MATERIAL, THEN AMEND UP-SLOPE DRAINAGE AND/OR EROSION CONTROL MEASURES AS APPROPRIATE TO REDUCE FURTHER OCCURRENCE.
- 6 SEDIMENT FENCE FAILURE - REPLACE AND MONITOR MORE FREQUENTLY. REGULAR FAILURES MAY MEAN THAT THE SEDIMENT FENCE LOCATION, ALIGNMENT OR INSTALLATION MAY NEED TO BE AMENDED.
- 7 IF THE RELEASE OF EXCESSIVE SEDIMENT AND/OR OTHER MATERIALS OFF THE SITE OCCURS, OR WATER QUALITY MONITORING INDICATES LEVELS ARE NOT WITHIN THE WQS, CLEAN UP DEPOSITION, AND INSPECT ALL CONTROL MEASURES.

 NSW GOVERNMENT	LOCKED BAG 5022 PARRAMATTA NSW 2124 PHONE No 1800 738 718	 MSL Consulting Engineers Pty Limited ABN 72 903 080 591 ACN 142 291 166 Suite 102, 1-12 Harbour St, Wollongong NSW PO Box 567 Dapto NSW C 250 4205 5247 e: info@mslengineers.com.au w: www.mslengineers.com.au				PROJECT MANAGER LAND & HOUSING CORPORATION PH (02) 9354 1876	STRUCTURAL/STORMWATER/CIVIL CONSULTANT MSL CONSULTING ENGINEERS PTY LTD PH (02) 4225 5247	 NSW GOVERNMENT	Land & Housing Corporation NORTHERN NSW REGION	BUSINESS PARTNER:  NSW GOVERNMENT	PROJECT: SENIORS HOUSING DEVELOPMENT at Lots 6, 7 & 8 in DP 35468 17-21 Wardell Road Alstonville NSW 2477	TITLE: SPECIFICATION SHEET	STATUS: DA ISSUE <table><tr><td>DATE:</td><td>SCALE:</td><td>PROJ:</td><td>JOB:</td></tr><tr><td>29/08/23</td><td>NTS @ A1</td><td>BGZDW</td><td>22318</td></tr><tr><td>STAGE:</td><td>DRAWN:</td><td>CHECKED:</td><td>CERTIFY:</td></tr><tr><td>B</td><td>WT</td><td>MP</td><td>MP</td></tr></table>	DATE:	SCALE:	PROJ:	JOB:	29/08/23	NTS @ A1	BGZDW	22318	STAGE:	DRAWN:	CHECKED:	CERTIFY:	B	WT	MP	MP	FILE: PLOTTED: 29/08/2023	TYPE: SW	SHEET: 1 of 5	REV: B																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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NOTE:
REFER TO HYDRAULIC
DRAWINGS FOR ALL
DOWNPIPES SIZE &
LOCATION

PROVIDE INTERCEPTOR SWALE
TO DIVERT OVERFLOW FLOWS
TO WARDELL ROAD

Carport
9
DP35468

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EXISTING DRAINAGE PIT
RL 147.80
IL 146.98



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B	22.09.2023	ISSUED FOR D.A.
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Land & Housing Corporation
NORTHERN NSW REGION

PROJECT:
SENIORS HOUSING DEVELOPMENT
at
Lots 6, 7 & 8 in DP 35468
17-21 Wardell Road
Alstonville NSW 2477

TITLE:
SITE DRAINAGE PLAN

FILE:
RLOTTED:
29/08/2023

STATUS:
DA ISSUE
DATE: 29/08/23
SCALE: 1:100 @ A1
STAGE: B
PROJECT: WT
CHECKED: MP
JOB: BGZDW
CERTIFIED: MP
JOB: 22318
REV: B

BEFORE EXCAVATION FOR PIPEWORK LOCATE DEPTH OF EXISTING SERVICES & CONTACT DIAL BEFORE YOU DIG

ALL EXISTING LEVELS TO BE CONFIRMED ON SITE AND ENGINEER TO BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK.

DEPTH AND LOCATION OF ALL EXISTING SERVICES TO BE CONFIRMED BY BUILDER ON SITE. ENGINEER TO BE NOTIFIED.

SYMBOLS & NOTATION	
	Ø150 STORMWATER DRAINAGE LINE UNLESS NOTED OTHERWISE
	Ø150 STORMWATER DRAINAGE LINE FROM ROOF CATCHMENT TO RAINWATER TANK
	Ø90 AG LINE CONNECT TO STORMWATER OUTLET OR VERTICAL SLOT DRAIN
	600 OR 900 SQUARE GRATED PIT FITTED WITH OCEANGUARD BASKETS
	450 SQUARE GRATED PIT
	150 WIDE TRENCH GRATE @ MIN. 1.0% BASE FALL
	300 WIDE TRENCH GRATE @ MIN. 1.0% BASE FALL
	DOWNPIPE
	INTERCEPTOR SWALE
	OVERLAND FLOWS

OSD SUMMARY

SITE TRIBUTARY AREA = 1815m²

STORAGE DETAILS
STORAGE RETENTION
SSR = 0.1815Ha x 260 = 47.19m³

PERMISSIBLE SITE DISCHARGE
PSD = 0.1815Ha x 480 = 87.12 L/s

ORIFICE RESTRICTION:
Q = C A (2gh)^{0.5}
ORIFICE DIAMETER = Ø200 mm

STORAGE REQUIRED
= 47.19m³

STORAGE PROVIDED
= 47.85m³

NOTE:
RAINWATER TANK - TANK CAPACITY TO BE IN ACCORDANCE WITH BASIX REQUIREMENT

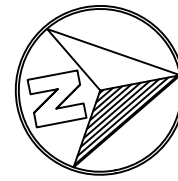
5m² STORMFILTER CHAMBER
PROVIDE 3 CARTRIDGE, 690mm
PSORB STORMFILTER SYSTEM

PROPOSED UNDERGROUND OSD,
STORMFILTER CHAMBER &
RAINWATER TANK

OCEANGUARD SHALL BE
INSTALLED AS PER
"OCEANGUARD GRATED STRIP
DRAIN CONFIGURATION"

ALL ROOF RUNOFF INLETS TO
CONNECT INTO UNDERGROUND
RAINWATER TANK

OSD OUTLET PIPE @ MIN. 1.0% FALL TO BE
CONNECTED INTO EXISTING DRAINAGE MAIN.
AT INVERT 148.1 (APPROX)



PROVIDE INTERCEPTOR SWALE
TO DIVERT OVERFLOW FLOWS
TO WARDELL ROAD

OCEANGUARD SHALL BE
INSTALLED AS PER
"OCEANGUARD GRATED STRIP
DRAIN CONFIGURATION"

OCEANGUARD SHALL BE
INSTALLED AS PER
"OCEANGUARD SURFACE FLOW
CONFIGURATION"

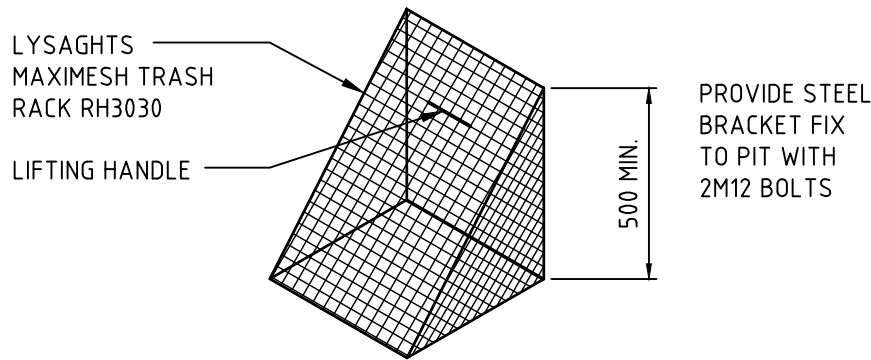
OCEANGUARD SHALL BE
INSTALLED AS PER
"OCEANGUARD SURFACE FLOW
CONFIGURATION"

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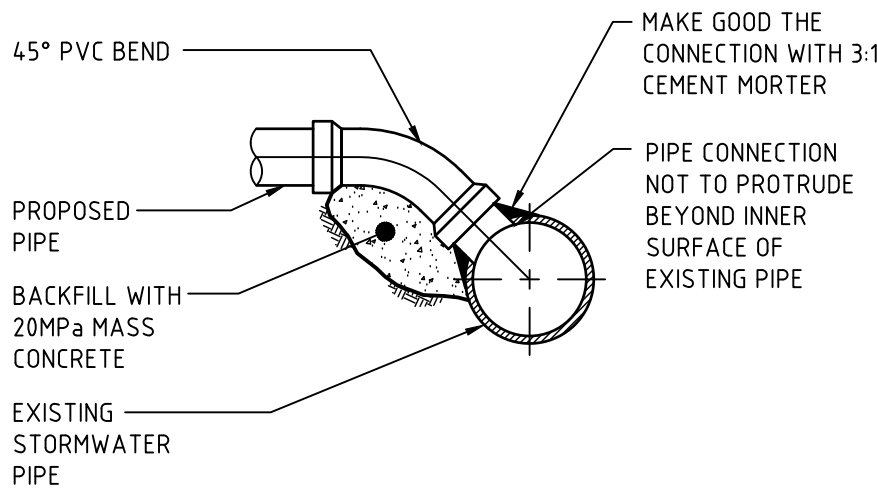
THE ON-SITE FACILITY HAS BEEN DESIGNED TO WITHSTAND MAXIMUM LOADING (W80) WHICH IS LIKELY TO BE USED THE ACCESSWAY. THE DESIGN WAS APPLIED IN ACCORDANCE WITH AS/NZ 1170 - STRUCTURAL DESIGN ACTIONS.

PROVIDE CORROSION RESISTANT IDENTIFICATION PLAQUE AT OSD LOCATION STATING THE FOLLOWING:
"THIS STRUCTURE IS AN OSD FACILITY, FORMING PART OF THE STORMWATER DRAINAGE NETWORK AND IS NOT TO BE TAMPERED WITH. IDENTIFICATION NUMBER: DA-xxxx/xxx MAINTENANCE TO BE CARRIED IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE FOR THIS SITE"



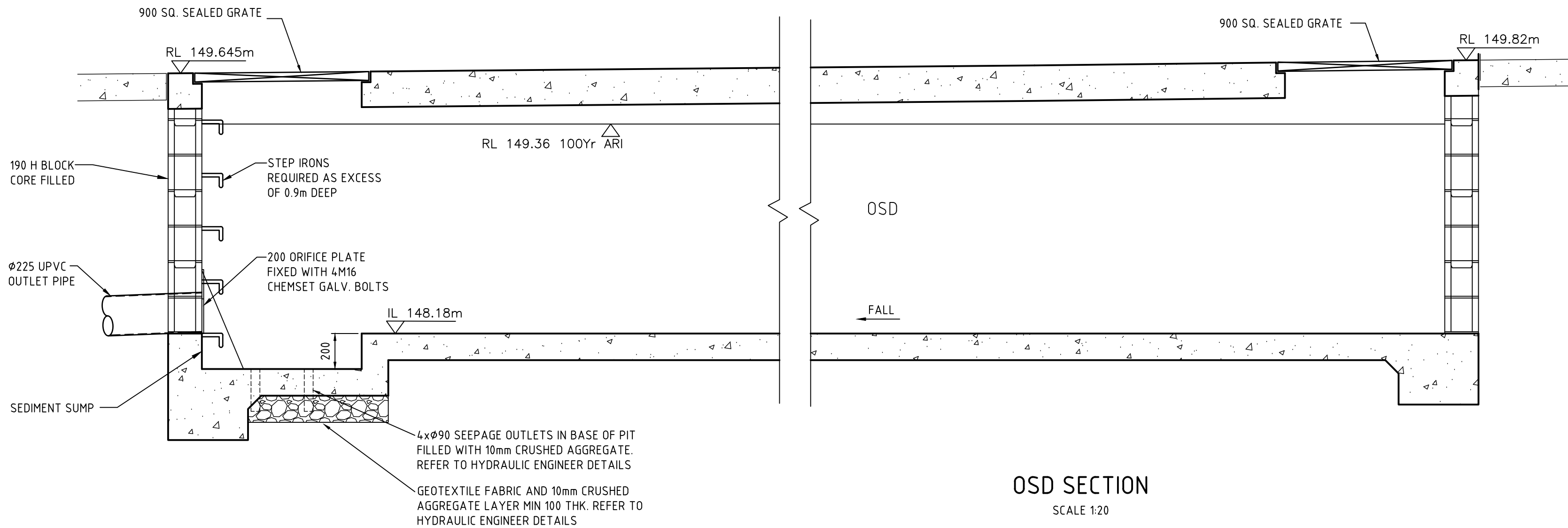
MESH SCREEN DETAIL

NOT TO SCALE
GALVANISED LYSAGHT RH3030MAXI MESH SCREEN IN GALVANISED STEEL FRAME WITH LIFTING HANDLES



CONNECTION TO EXISTING DRAINAGE LINE

NOT TO SCALE



OSD SECTION
SCALE 1:20

REFER TO OCEANPROTECT DESIGN FOR FULL WATER QUALITY DESIGN & DETAILS. CONTACT OCEANPROTECT FOR ANY QUESTIONS IN REGARDS TO WATER QUALITY DESIGN.

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- THE DESIGN & DETAILS CONTAINED ON THIS DRAWING IS SUPPLIED IN CONFIDENCE & IS NOT TO BE USED FOR ANY OTHER PURPOSE, EXCEPT THAT AUTHORISED BY MSL CONSULTING ENGINEERS



 <div>NSW GOVERNMENT</div>	LOCKED BAG 5022 PARRAMATTA NSW 2124 PHONE No 1800 738 718 www.dpie.nsw.gov.au/ land-and-housing-corporation	 <div>MSL Consulting Engineers Pty Limited ABN 72 903 080 591 ACN 142 291 160 Suite 102 - 62 Harbour St. Wollongong NSW PO Box 567 Dapto NSW p 02 4226 5247 e info@mslengineers.com.au w www.mslengineers.com.au</div>			<div>BUSINESS PARTNER:<div><div>NSW GOVERNMENT</div></div>Land & Housing Corporation NORTHERN NSW REGION</div>		<div>PROJECT:<div>SENIORS HOUSING DEVELOPMENT</div> at Lots 6, 7 & 8 in DP 35468 17-21 Wardell Road Alstonville NSW 2477</div>		TITLE: <div>OSD SECTION AND STORMWATER DETAILS</div>		STATUS: <div>DA ISSUE</div>					
							DATE: <div>29/08/23</div>		SCALE: <div>NTS @ A1</div>		PROJ: <div>BGZDW</div>		JOB: <div>22318</div>			
			B 22.09.2023 ISSUED FOR D.A.		ARCHITECT: <div>DTA Architects Pty Ltd PH (02) 9601 1011</div>		HYDRAULIC CONSULTANT: <div>ABEL & BROWN PTY LTD PH (02) 9709 5705</div>		STAGE: <div>B</div>		DRAWN: <div>WT</div>		CHECKED: <div>MP</div>		CERTIFIED: <div>MP</div>	
			P1 29.08.2023 CONCEPT PLAN		ELECTRICAL / BASIC CONSULTANT: <div>GREENVIEW CONSULTING PTY LTD PH 0412 294 712</div>		LANDSCAPE CONSULTANT: <div>RAY FUGGLE & ASSOCIATED PTY LTD PH 0412 294 712</div>		TYPE: <div>SW</div>		SHEET: <div>3 of 5</div>		REV: <div>B</div>			
REV DATE NOTATION/AMENDMENT		DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.														



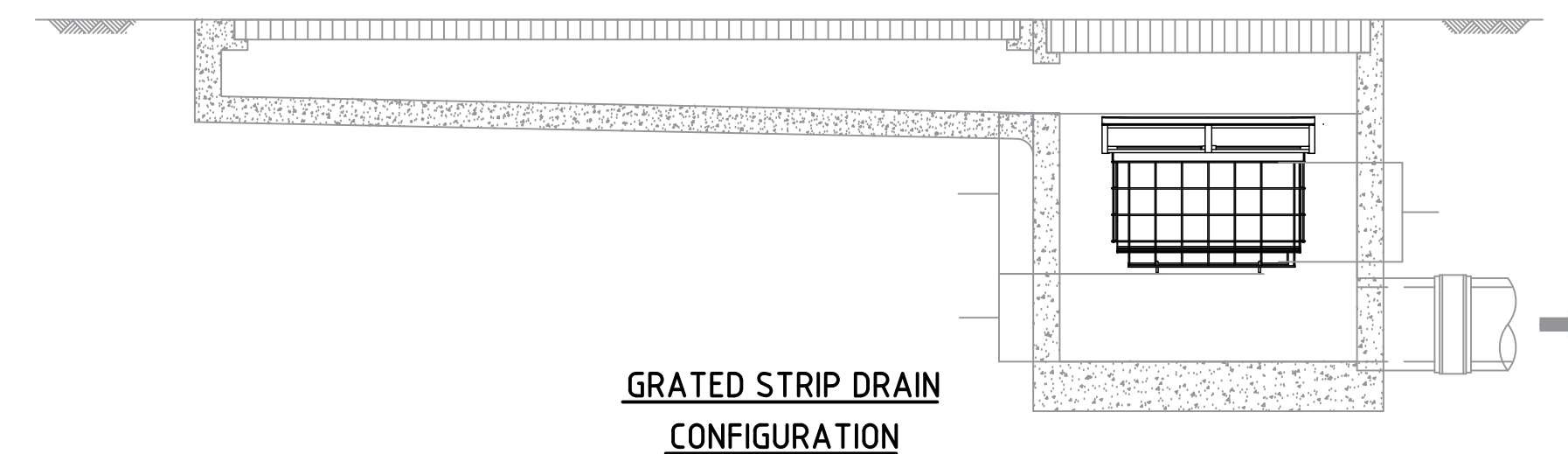
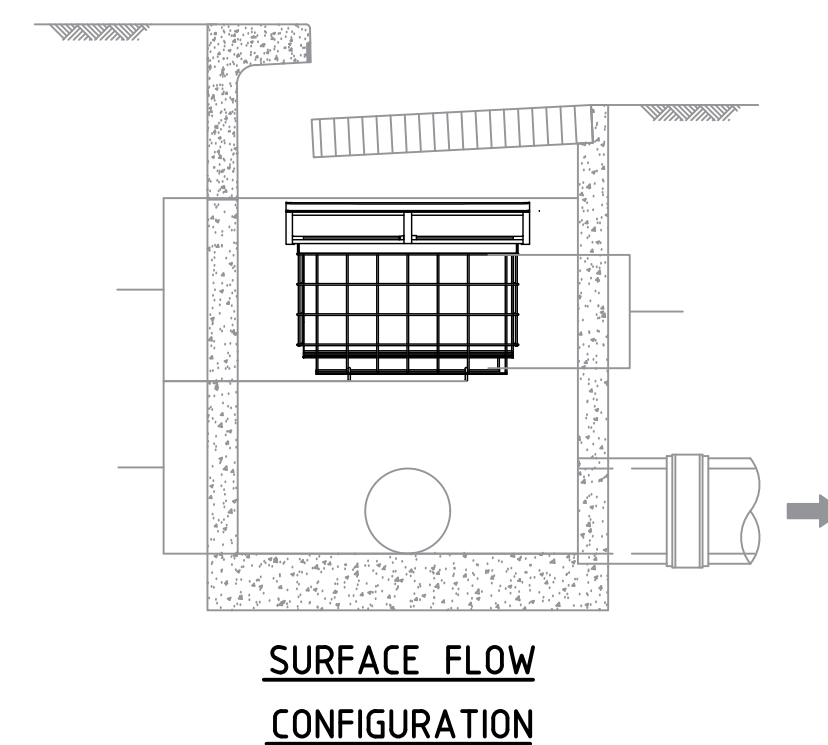
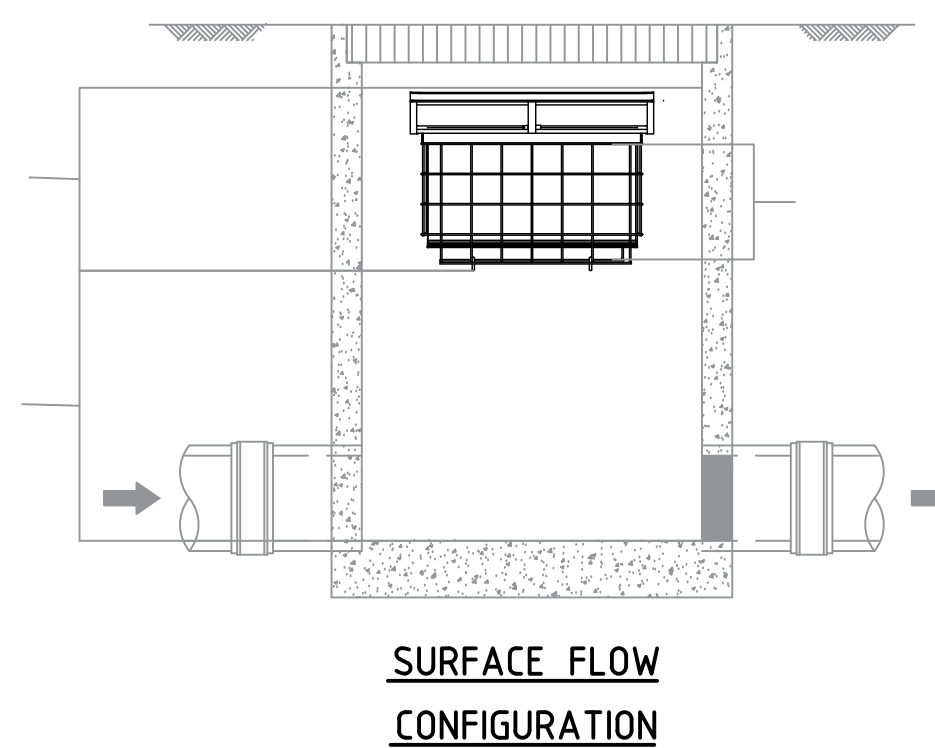
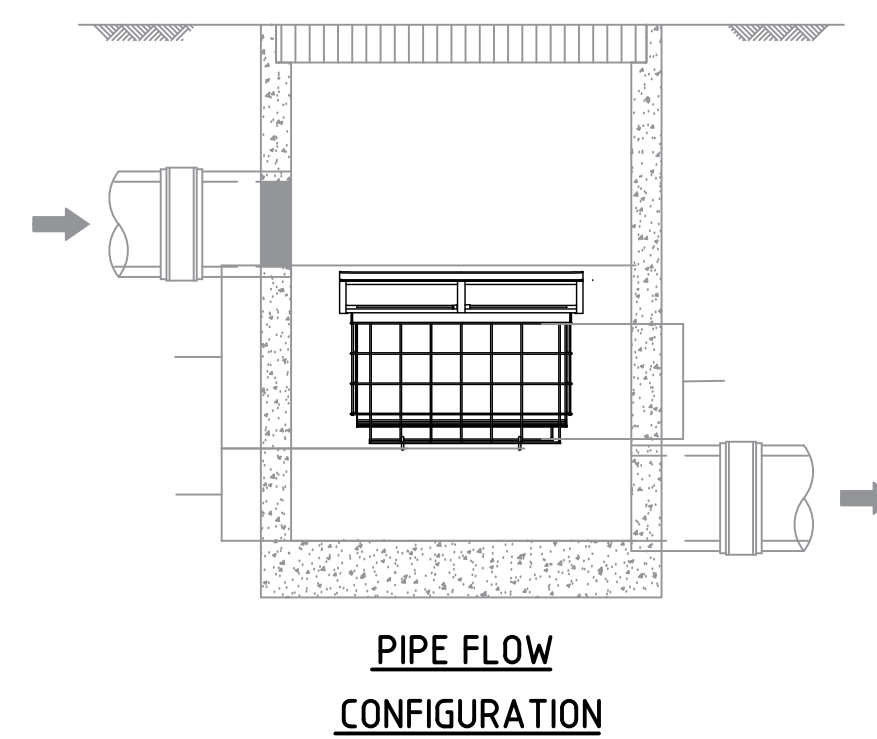
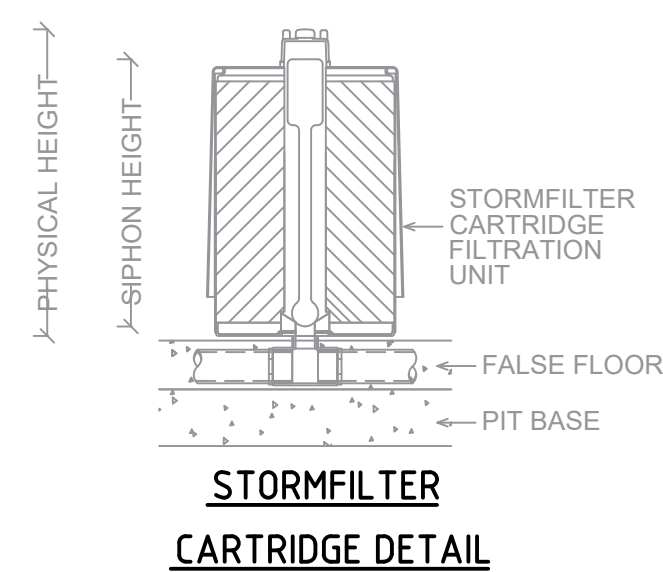
NOTES :
ALTERNATIVE PIT CONSTRUCTION MAY BE USED, SUBJECT TO
THE ENGINEERS APPROVAL

- | Depth to Invert | Pit Internal Dimensions |
|-----------------|-------------------------|
| <600 | 450x450 |
| >600 <900 | 600x600 |
| >900 <1200 | 600x900 |
| >1200 | 900x900 |
- PROVIDE STEP IRONS UNDER LID AT 300 CTS. TO COUNCIL SPECIFICATIONS WHERE PIT DEPTH IS DEEPER THAN 1000mm.
 - REINFORCEMENT NOTED IS ONLY REQUIRED FOR PITS EXCEEDING 900 DEEP. SUBJECT TO COUNCIL REQUIREMENTS. PITS GREATER THAN 2500 mm DEEP WILL REQUIRE STRUCTURAL ENGINEER'S DESIGN.
 - PROVIDE Ø90 x 3000 LONG SUBSOIL DRAINAGE STUB PIPE SURROUNDING WITH 100mm THICKNESS OF NOMINAL 20mm COARSE FILTER MATERIAL WRAPPED IN GEOTEXTILE FILTER FABRIC (BIDIM A24 OR APPROVED SIMILAR), TO BE PARALLEL TO UPSTREAM SIDE OF EACH INLET PIPE.
 - ALTERNATIVE PIT CONSTRUCTION MAY BE USED SUBJECT TO THE ENGINEERS APPROVAL.
 - CONCRETE STRENGTH $f'c = 32 \text{ MPa}$



ALTERNATIVE PIT CONSTRUCTION MAY BE USED, SUBJECT TO THE ENGINEERS APPROVAL

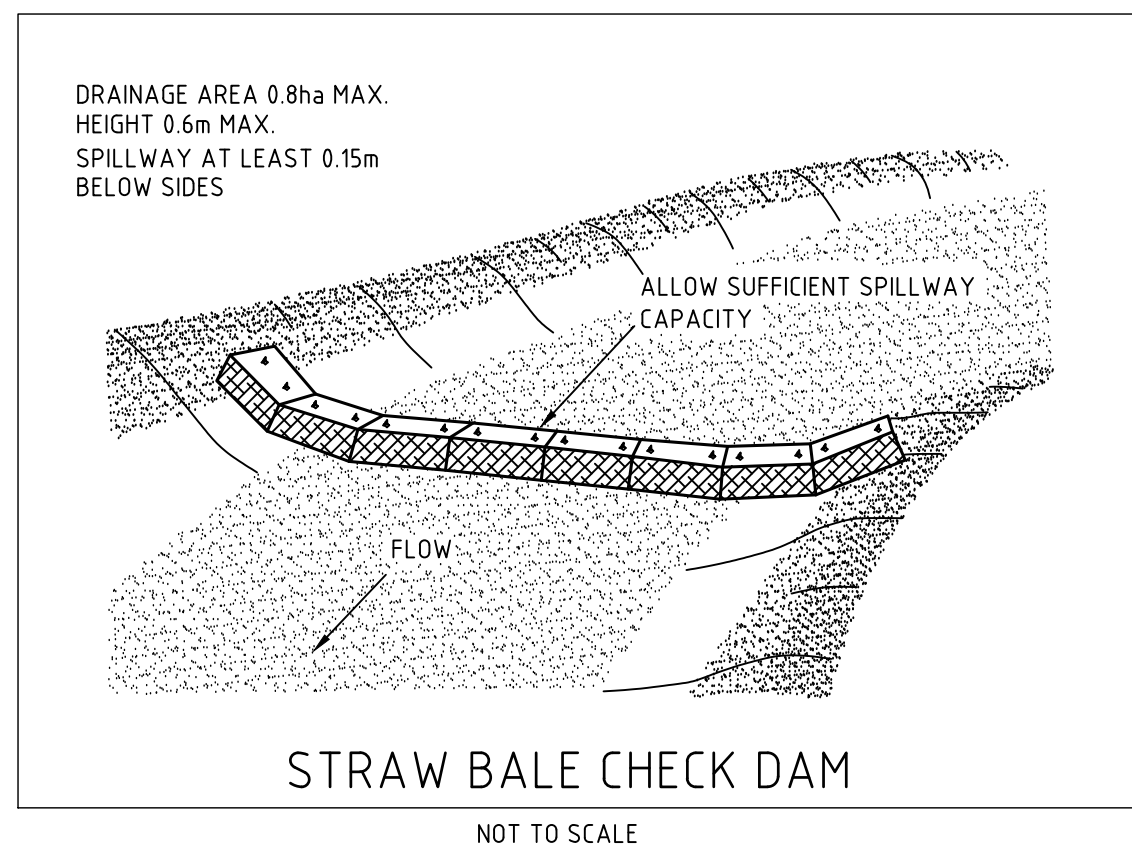
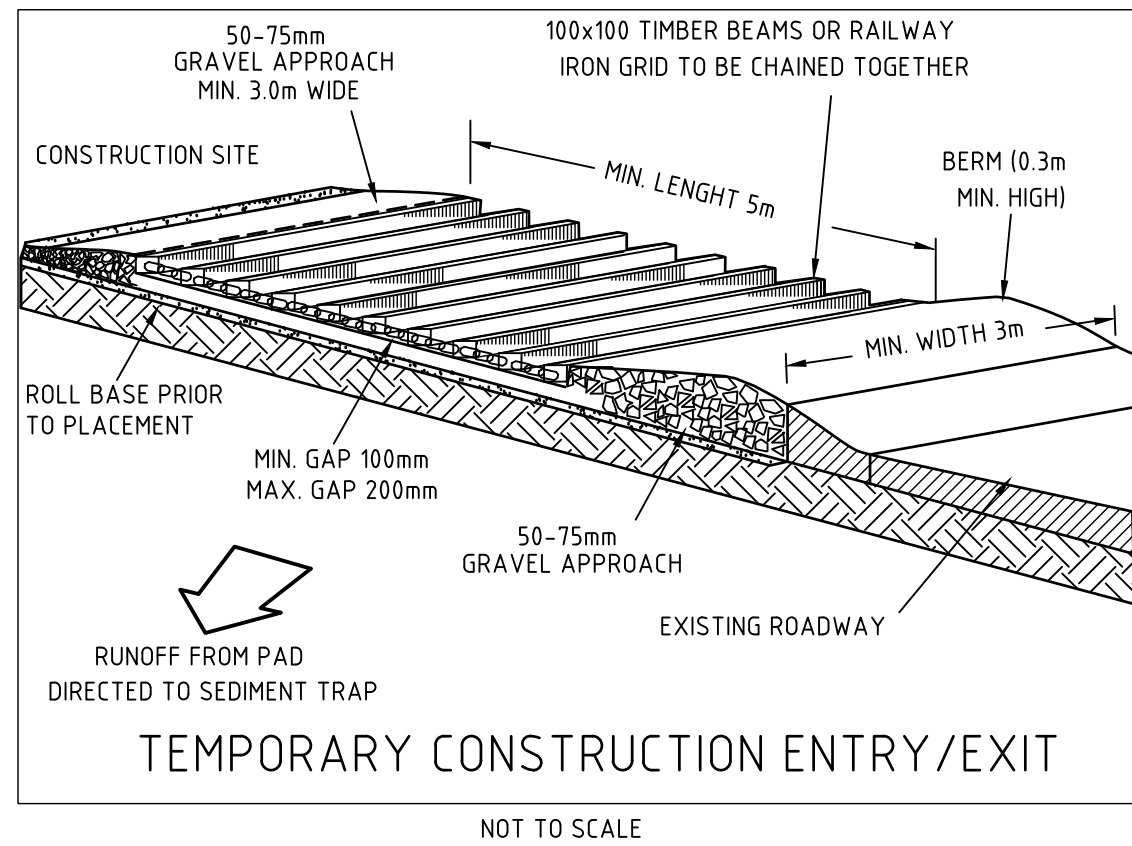
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 - CONCRETE STRENGTH $f_c = 32 \text{ MPa}$



	Sources	Residual Load	% Reduction
Flow (ML/yr)	2.87	2.64	7.9
Total Suspended Solids (kg/yr)	452	87.2	80.7
Total Phosphorus (kg/yr)	0.961	0.322	66.5
Total Nitrogen (kg/yr)	5.94	3.13	47.3
Gross Pollutants (kg/yr)	55.8	0	100

REFER TO OCEANPROTECT DESIGN FOR FULL WATER
QUALITY DESIGN & DETAILS. CONTACT
OCEANPROTECT FOR ANY QUESTIONS IN REGARDS TO
WATER QUALITY DESIGN.

0 5 10 20 40MM
SCALE FOR PRINTING
PURPOSE ONLY



SEDIMENT LEGEND

- SITE ENTRANCE/EXIT
- SITE FENCE
- SEDIMENT FENCING
- SEDIMENT TRAP FOR KERB INLET
- GEOTEXTILE INLET FILTER
- CATCH DRAIN
- CATCH DAM
- TOPSOIL STOCKPILE AREA. PROVIDE HAYBALE BARRIER ON DOWNSTREAM SIDE AND DIVERSION BANK ON UPSTREAM SIDE. IF STOCKPILE IS TO BE LEFT FOR MORE THAN 2 MONTHS, TEMPORARILY REVEGETATE FOR STABILISATION

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P.O. 6208 5247
e: info@mslengineers.com.au
w: www.mslengineers.com.au

REV	DATE	NOTATION/AMENDMENT
B	22.09.2023	ISSUED FOR D.A.
P1	29.08.2023	CONCEPT PLAN
REV	DATE	NOTATION/AMENDMENT

DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.

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LAND & HOUSING CORPORATION
PH (02) 9354 1876

ARCHITECT
DTA Architects Pty Ltd
PH (02) 9601 1011

ELECTRICAL / BASIC CONSULTANT
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STRUCTURAL/STORMWATER/CIVIL CONSULTANT
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PH (02) 4226 5247

HYDRAULIC CONSULTANT
ABEL & BROWN PTY LTD
PH (02) 9709 5705

LANDSCAPE CONSULTANT
RAY FUGGLE & ASSOCIATED PTY LTD
PH 0412 234 712

BUSINESS PARTNER:
NSW GOVERNMENT
Land & Housing Corporation
NORTHERN NSW REGION

PROJECT:
SENIORS HOUSING DEVELOPMENT
at
Lots 6, 7 & 8 in DP 35468
17-21 Wardell Road
Alstonville NSW 2477

TITLE:
SEDIMENT CONTROL PLAN

FILE:

PLOTTED:
29/08/2023

STATUS:
DA ISSUE

DATE:
29/08/23

SCALE:
1:100 @ A1

PROJ:
BGZDW

JOB:
22318

DRAWN:
WT

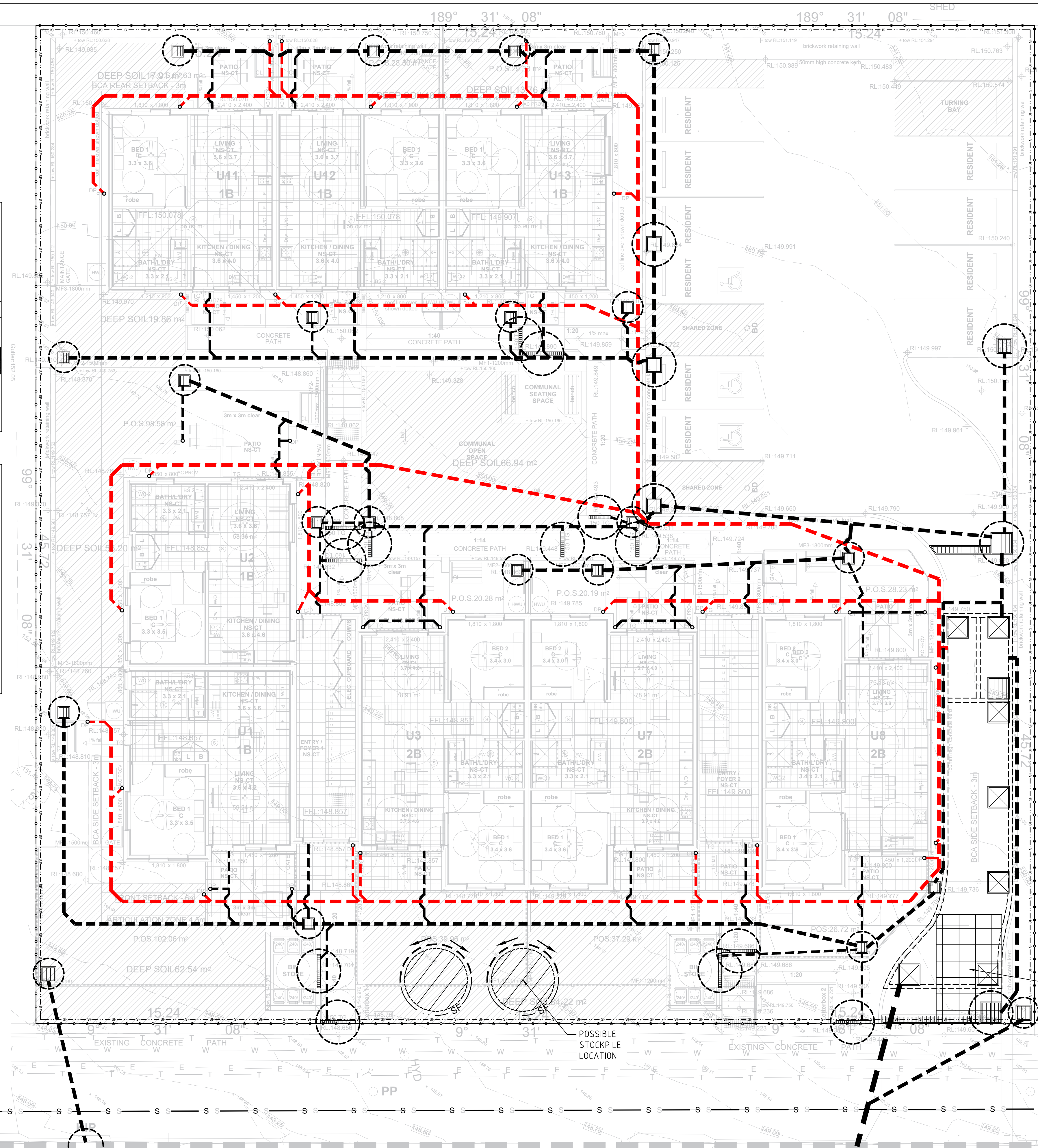
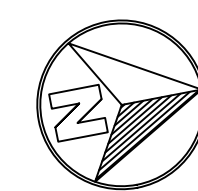
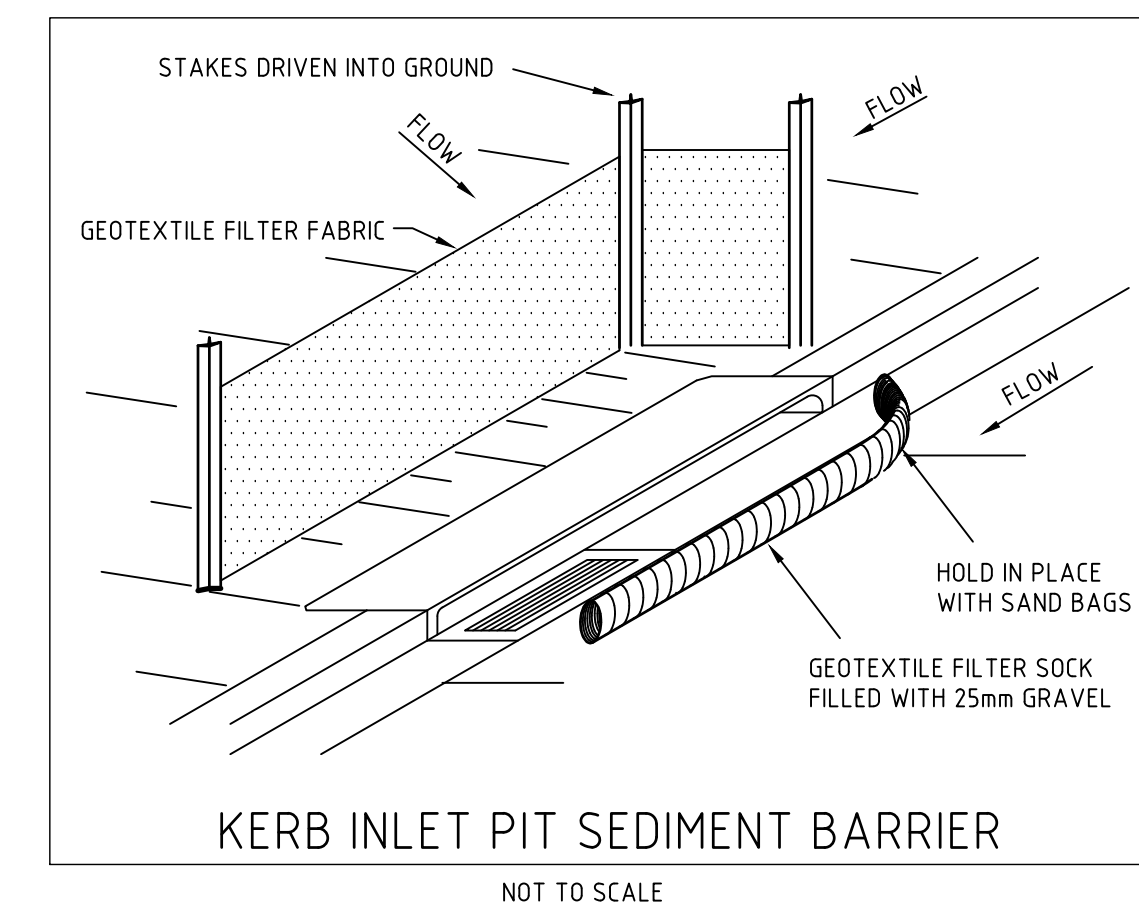
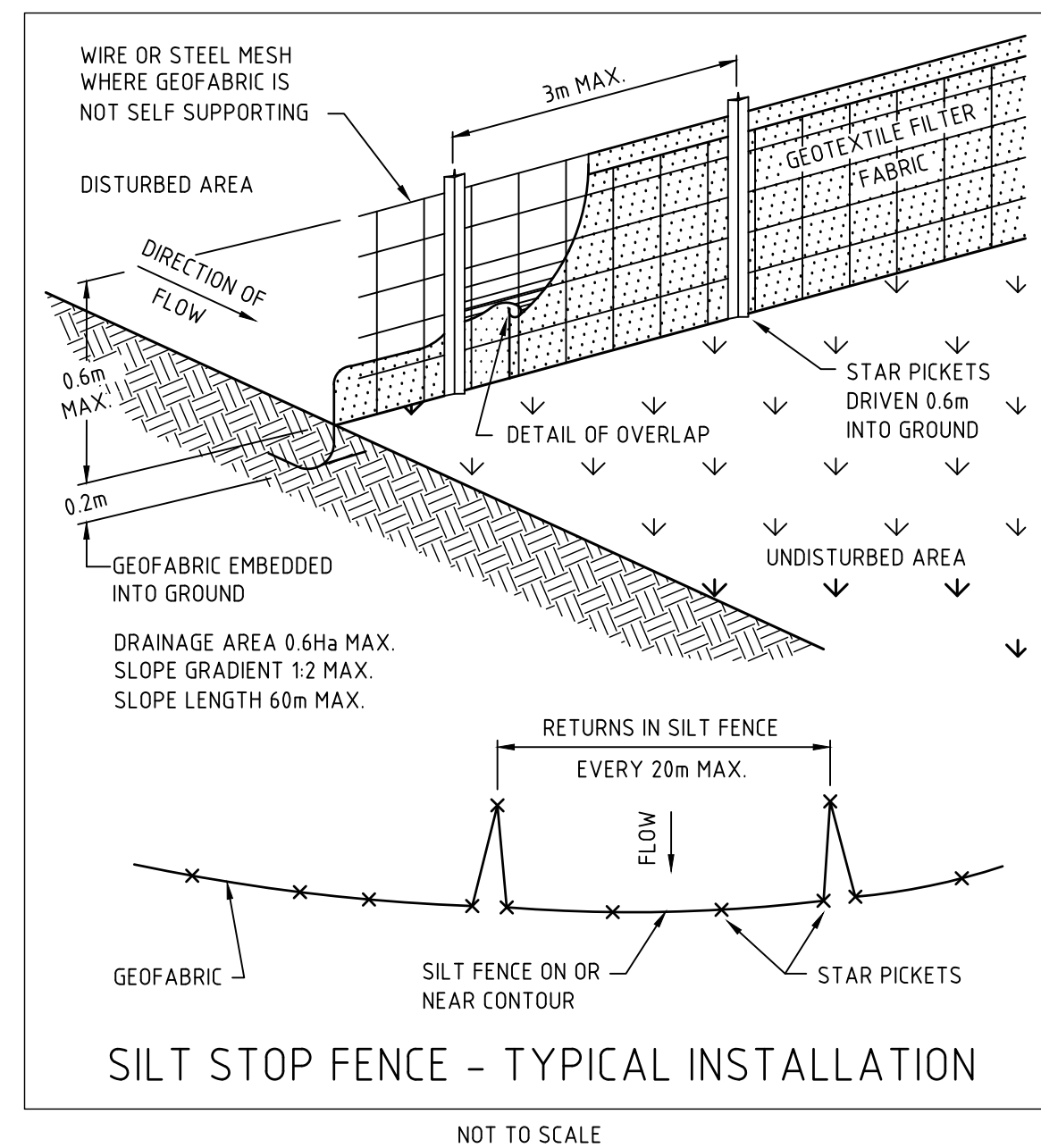
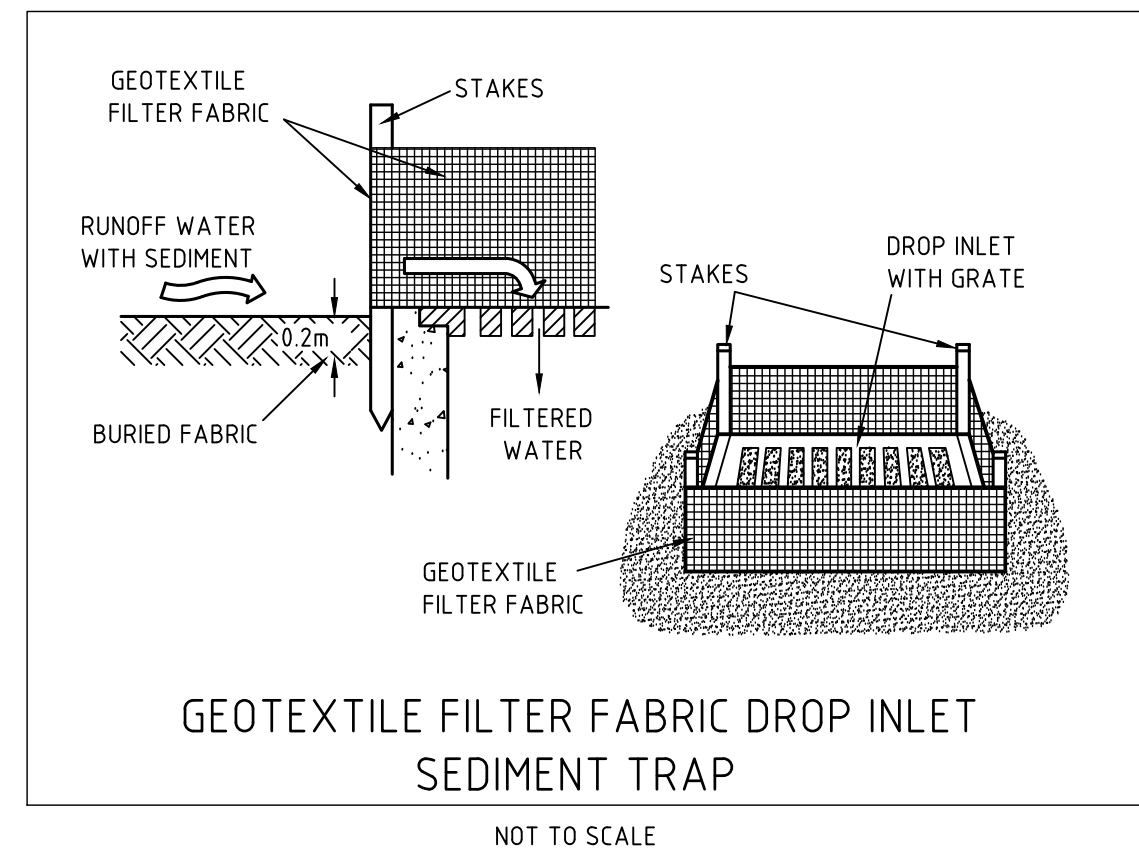
CHECKED:
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CERTIFIED:
MP

TYPE:
SW

SHEET:
5 of 5

REV:
B



0 5 10 20 40MM
SCALE FOR PRINTING PURPOSE ONLY