

STORMWATER MANAGEMENT PLAN

PROPOSED ALTERATION AND ADDITIONS

4 GOODWIN STREET, NARRABEEN NSW 2101

GENERAL NOTES:

- 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 THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.
- THE BUILDER IS TO VERIFY ALL LEVELS ON SITE PRIOR TO COMMENCING CONSTRUCTION. SILT FENCE IS TO BE ERECTED PRIOR TO COMMENCING WORK. FENCE TO BE MAINTAINED IN WORKING ORDER DURING TIME OF CONSTRUCTION.
- W.A.E. DRAWING BY A REGISTERED SURVEYOR IS REQUIRED PRIOR TO CERTIFICATION OF DRAINAGE.
- ALL THE CLEANING EYES (OR INSPECTION EYES) FOR THE UNDER GROUND PIPES HAVE TO BE TAKEN UP TO THE FINISHED GROUND LEVEL FOR EASY IDENTIFICATION AND MAINTENANCE PURPOSES.
- ALL TERRACE FLOOR & PLANTER GRATES TO HAVE FIRE COLLARS FITTED.
- ALL PITS HAVING AN INTERNAL DEPTH THAT EXCEEDS 1.0m SHALL BE PROVIDED WITH GALVANISED STEP IRONS AT 300mm CENTRES PLACED IN A STAGGERED PATTERN AND SHALL BE IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS AS 4198-1994.
- ALL LEVELS SHALL RELATE TO THE ESTABLISHED BENCH MARK.
- THE BASE OF ALL DRAINAGE PITS SHALL BE BENCH TO THE INVERT OF THE OULET PIPE.
- ALL GUTTERS SHALL BE MINIMUM 100 x 75mm AND DOWNPIPES SHALL BE MINIMUM 100 x 75mm UNLESS NOTED OTHERWISE.
- ALL STORMWATER DRAINAGE PIPES SHALL BE A MINIMUM 8100mm PVC LAID AT 1% MINIMUM GRADE UNLESS NOTED OTHERWISE ON THE DRAWING. WHERE GROUND COVER OVER THE PIPES IS LESS THAN 300mm THE STORMWATER PIPES SHALL BE SEWER GRADE uPVC.
- THE BUILDER SHALL ENSURE THAT THE STORMWATER ENGINEERING DRAWINGS CORRESPOND TO THE ARCHITECTURAL, STRUCTURAL AND LANDSCAPE DRAWINGS.
- IF THERE EXISTS ANY DISCREPANCIES BETWEEN THE DRAWINGS THE BUILDER SHALL REPORT THE DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORKS.
- ALL MULCHING TO BE USED WITHIN THE AREA DESIGNATED AS ON SITE DETENTION STORAGE SHALL BE OF A NON-FLOATABLE MATERIAL SUCH AS DECORATIVE RIVER GRAVEL. PINE BARK MULCHING SHALL NOT BE USED WITHIN THE DETENTION STORAGE AREA.
- ALL WORKS WITHIN THE FOOTPATH AREA SHALL BE SUITABLY BARRICADED AND SIGNPOSTED IN ACCORDANCE WITH A TRAFFIC MANAGEMENT PLAN THAT HAS BEEN PREPARED BY A QUALIFIED AND RMS ACCREDITED TRAFFIC ENGINEER AND APPROVED BY COUNCIL.
- IT IS THE RESPONSIBILITY OF THE BUILDER OR CONTRACTOR CARRYING OUT THE WORKS WITHIN THE FOOTPATH AREA AND ROAD RESERVE TO OBTAIN THE NECESSARY APPROVED DOCUMENTS AS OUTLINED ABOVE.
- ALL RETAINING WALLS SHALL BE CONSTRUCTED COMPLETELY WITHIN THE PROPERTY BOUNDARY LIMITS TO DETAILS PREPARED BY THE STRUCTURAL ENGINEER. WALLS FORMING THE ON SITE DETENTION SYSTEM SHALL BE OF MASONARY/BRICK CONSTRUCTION AND SHALL BE WATER TIGHT.
- ALL SUB-SOIL DRAINAGE SHALL BE A MINIMUM OF 865mm AND SHALL BE PROVIDED WITH A FLITER SOCK. THE SUBSOIL DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS TO BE PROVIDED BY THE LANDSCAPE ARCHITECT.
- PRIOR TO COMMENCING ANY WORKS ON THE SITE, THE BUILDER SHALL ENSURE THAT THE INVERT LEVELS OF WHERE THE SITES STORMWATER SYSTEM CONNECTS INTO THE COUNCIL'S KERB/DRAINAGE SYSTEM MATCHES THE DESIGN LEVELS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY.

SERVICES NOTES:

- IT IS THE CONSTRUCTORS RESPONSIBILITY TO NOTIFY THE RELEVANT SERVICES AUTHORITIES OF THE WORKS AND VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO ANY CONSTRUCTION ACTIVITIES COMMENCING.
- THE CONSTRUCTOR SHALL LIAISE AND COORDINATE THE TIMING OF THE CONSTRUCTION OF THE WORKS WITH THE RELEVANT SERVICES AUTHORITIES AND/OR OTHER CONSTRUCTORS INSTALLING SERVICES CONCURRENTLY AT THIS SITE.
- THE LOCATION OF ALL EXISTING SERVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND HAVE BEEN TAKEN FROM INFORMATION PROVIDED BY THE RELEVANT SERVICE AUTHORITIES.
- THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE CAUSED TO EXISTING SERVICES AS A RESULT OF THE CONSTRUCTION WORKS.
- THE COORDINATION OF TELECOMMUNICATIONS, ELECTRICAL, GAS, WATER, SEWER, STORMWATER AND ANY OTHER SERVICE SHALL BE THE RESPONSIBILITY OF THE CONSTRUCTOR.

RAINWATER TANK NOTES:

- LABELS SHALL BE FIXED ADJACENT TO ALL OUTDOOR WATERING TAPS STATING THAT THE WATER IS NOT TO BE CONSUMED.
- AN EMERGENCY MAINS TAP SHALL BE PROVIDED ADJACENT TO THE WATER METER AND CONNECTED TO THE MAINS SUPPLY.
- RAINWATER TANK SUPPLY SHALL NOT BE CONNECTED TO DRINKING AND BATHING WATER TAP OUTLETS.
- FIRST FLUSH DEVICES TO BE FITTED TO ALL DOWNPIPES CONNECTED TO RAINWATER TANK.
- TANK SHALL BE CONNECTED TO A SYDNEY WATER APPROVED CONTROL PANEL TO ENSURE MAINS WATER SUPPLY IS PROVIDED WHEN TANK EMPTIES.
- ALL PIPES WITHIN CHARGED RAINWATER COLLECTION SYSTEM TO BE MIN. 8100 uPVC AND ALL JOINTS SOLVENT WELDED.
- ALL PLUMBING WORKS SHALL BE CARRIED OUT BY A LICENSED PLUMBER IN ACCORDANCE WITH SYDNEY WATER GUIDELINES AND THE "NSW CODE OF PRACTICE: PLUMBING & DRAINAGE".

SEDIMENT & EROSION CONTROL NOTES:

- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL STANDARDS AND THE DEPARTMENT OF HOUSING'S "MANAGING URBAN STORMWATER: SOILS AND CONSTRUCTION" MANUAL.
- NO CONSTRUCTION WORKS ARE TO COMMENCE ON SITE UNTIL ALL EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AND HAVE BEEN INSPECTED AND APPROVED BY THE PRINCIPAL CERTIFYING AUTHORITY.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REGULARLY INSPECTED, IN PARTICULAR AFTER STORMS, AND REPAIRED OR MAINTAINED AS REQUIRED TO ENSURE THE MEASURES' CORRECT AND EFFICIENT FUNCTION THROUGHOUT THE DURATION OF THE WORKS, UNTIL SUCH TIME AS THE PRINCIPAL CERTIFYING AUTHORITY AUTHORISES THE REMOVAL OF SUCH MEASURES.
- ALL STOCKPILES SHALL BE CLEAR OF ALL TREES AND DRAINAGE LINES (INCLUDING OVERLAND FLOW PATHS) AND PROTECTED FROM EROSION.
- DUST CONTROL MEASURES SHALL BE IMPLEMENTED CONTINUOUSLY DURING CONSTRUCTION.
- ALL AREAS OF THE SITE DISTURBED AND GRADED SHALL BE REVEGETATED AS SOON AS CONSTRUCTION WORKS HAVE BEEN COMPLETED.

BOX GUTTER NOTES:

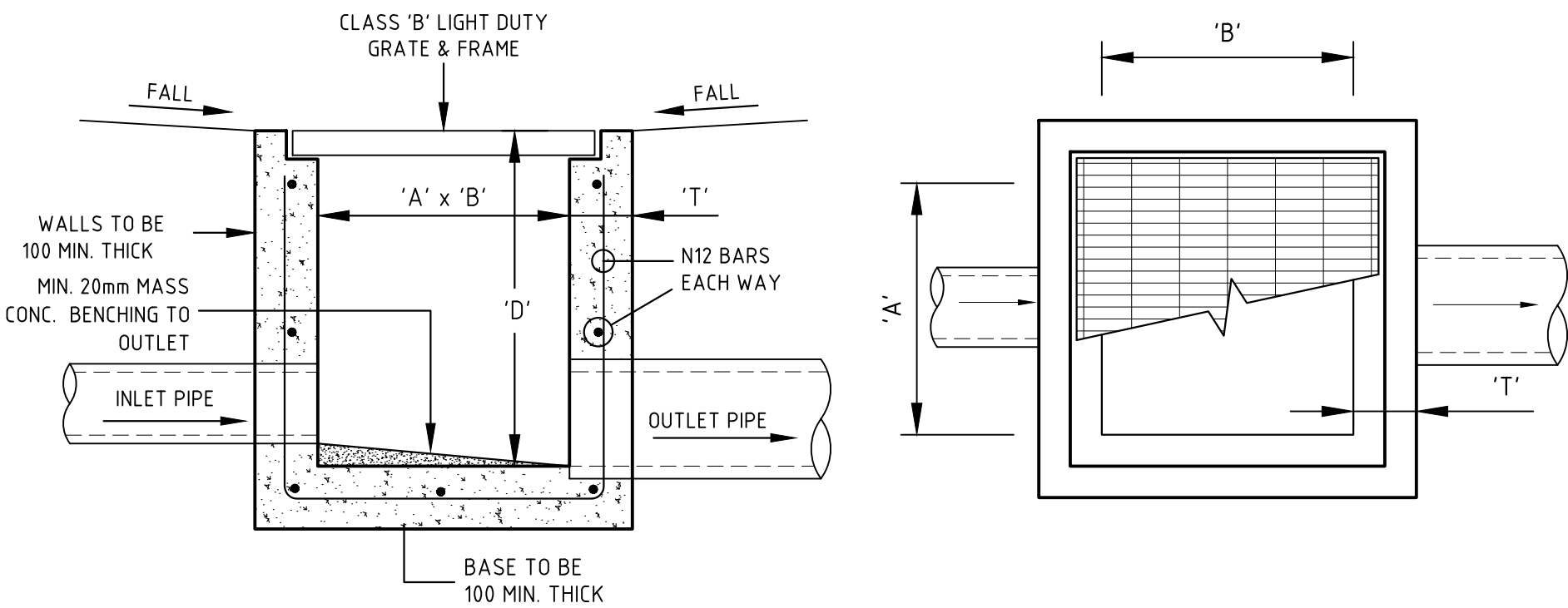
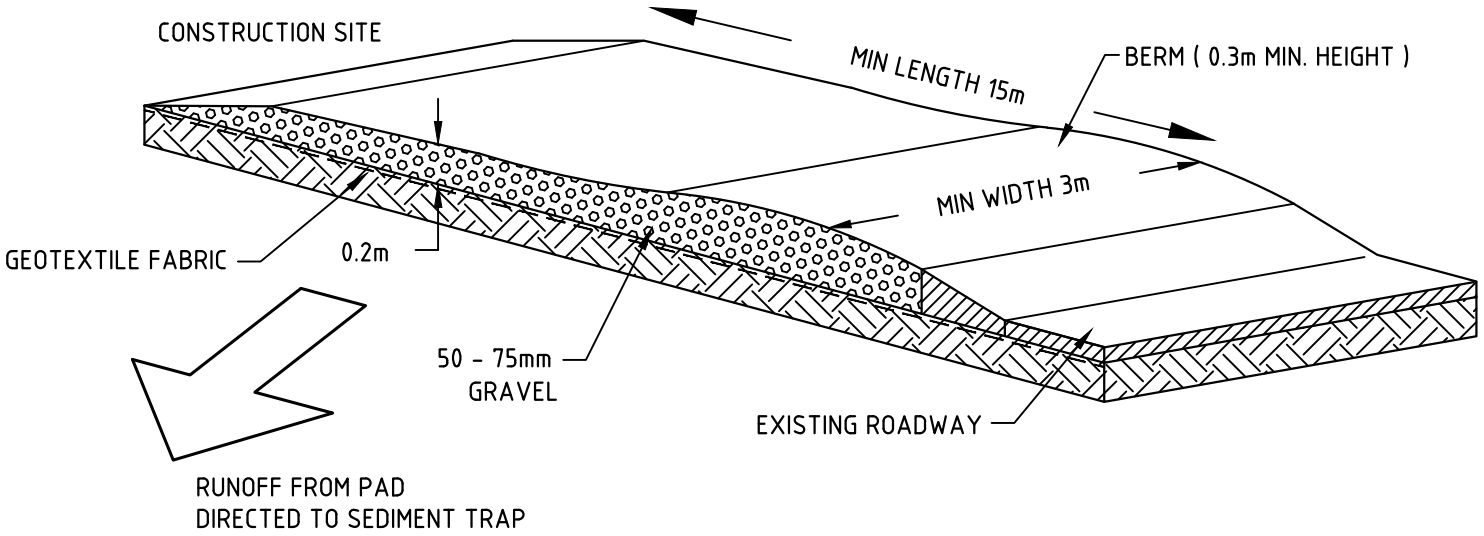
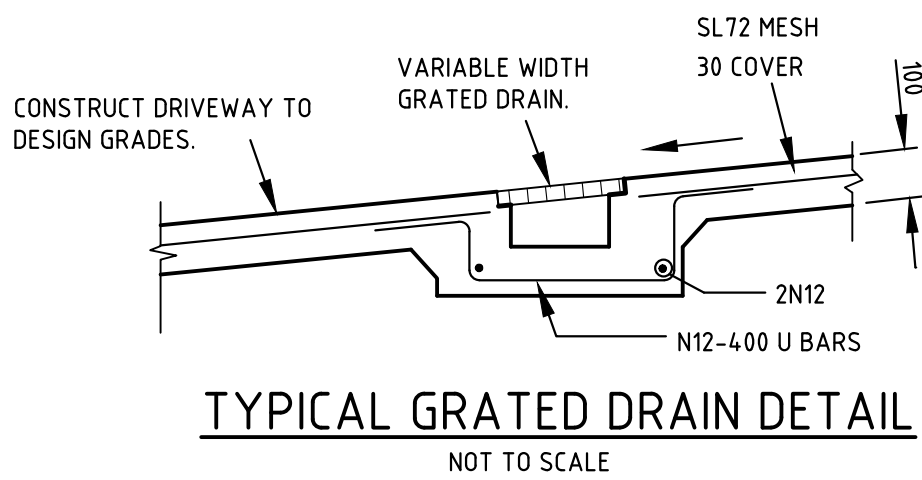
- ALL BOX GUTTERS TO HAVE A MINIMUM UNIFORM SLOPE OF 0.5% OVER THE ENTIRE GUTTER LENGTH U.N.O.
- PLUMBER /BUILDER IS TO ENSURE THAT ALL EMERGENCY OVERFLOW PROVISIONS DETAILED ARE IMPLEMENTED IN ACCORDANCE WITH THE APPROVED PLANS AS WELL AS ADDITIONAL MEASURES WHERE DEEMED NECESSARY ON SITE.
- BOX GUTTER WIDTH AND DEPTH SHOWN ON THIS PLAN ARE THE MINIMUM ALLOWABLE DIMENSIONS AT THE UPSTREAM END/CREST OF GUTTER U.N.O.
- ALL RESIDENTIAL BOX GUTTERS TO HAVE A MINIMUM WIDTH OF 200MM

CHARGED LINES/DOWNPIPES NOTES:

- ALL CHARGED LINES SHALL BE MIN. 100mm SEWER GRADE uPVC FROM CONNECTION POINT TO THE RAINWATER TANK INLET.
- ALL EXPOSED PIPEWORK SHALL BE PAINTED IN A COLOUR TO COMPLIMENT THE DEVELOPMENT AND TO PROTECT AGAINST ULTRA-VIOLET LIGHT DAMAGE FROM THE SUN.
- ALL JOINTS WITHIN THE CHARGED SYSTEM MUST BE SOLVENT WELDED AND PRESSURE TESTED IN ACCORDANCE WITH AS3500.3 TO UNDERSIDE OF GUTTERS.
- CLEAR-OUT POINTS (IN ADDITION TO THOSE SHOWN ON PLAN) SHALL BE PROVIDED AT 20m INTERVALS AND AT CRITICAL BENDS WITHIN THE CHARGED SYSTEM.

LEGEND:

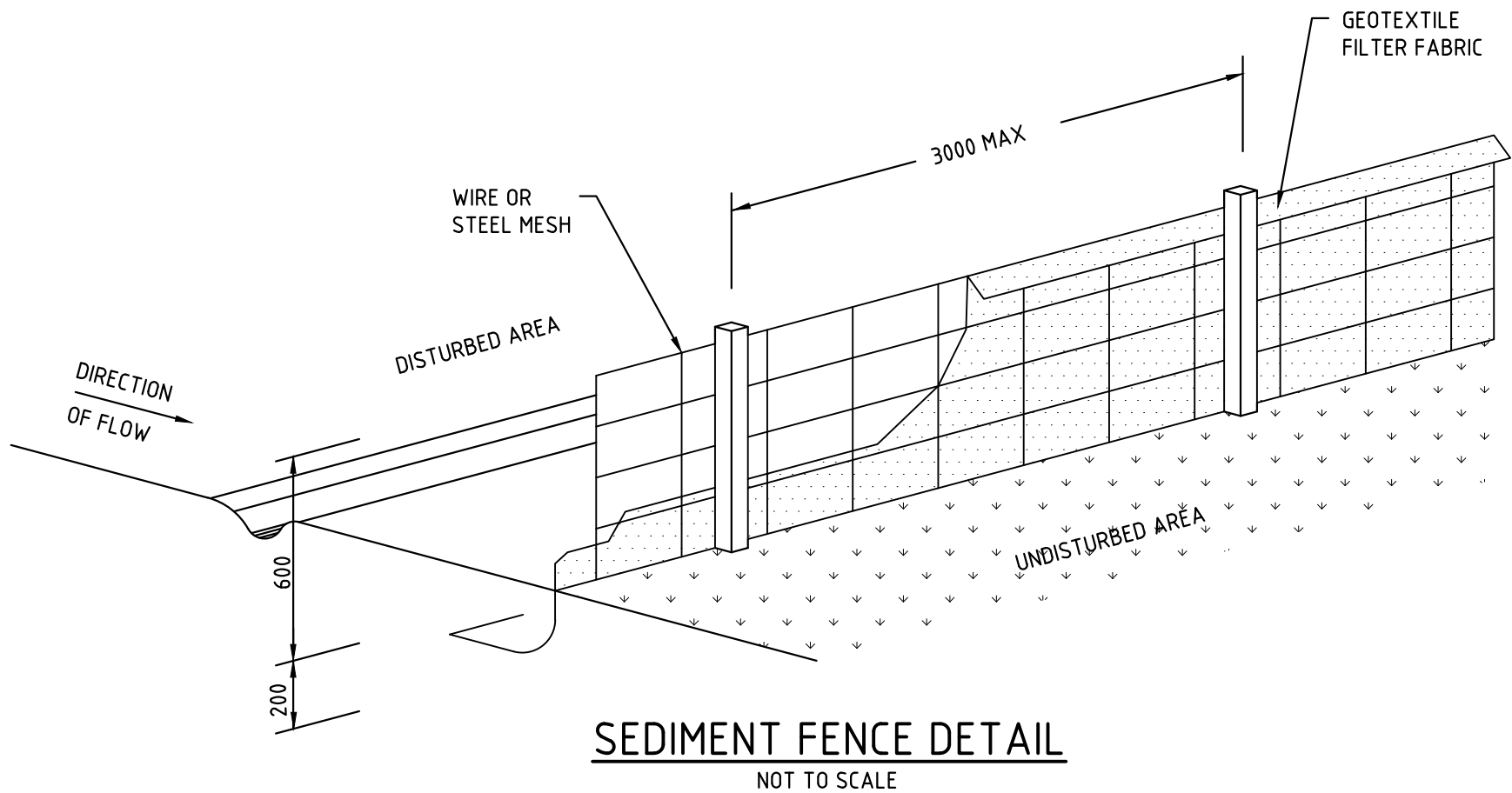
---	PROPOSED PIEWORK
—■—	PROPOSED PUMP RISER
→→→	PIPE CAST IN SLAB
—▲—	PROPOSED AG. LINE
—x—	SILT FENCE
● [DP]	DOWNSPIRE
73.88	EXISTING LEVEL
RL 73.88	PROPOSED LEVEL
FALL	ROOF / SURFACE FALL
FG	Ø100 FLOOR GRATE
SPS FG	SPS FLOOR GRATE
PG	PLANTER GRATE
[Grated Drain]	GRATED DRAIN
[Surface Inlet Pit]	SURFACE INLET PIT
[Sealed Junction Pit]	SEALED JUNCTION PIT
[Cleaning Eye]	CLEANING EYE
PIT P1	PIT NO.
450x450	PIT SIZE
S.L. 10.45	SURFACE LEVEL
I.L. 10.00	INVERT LEVEL
GD1	GRATED DRAIN NO.
200x100	WIDTH & DEPTH
S.L. 10.45	SURFACE LEVEL
I.L. 10.00	PIPE INV. LEVEL
F.F.L.	denotes FINISHED FLOOR LVL
F.G.L.	denotes FINISHED GARAGE LVL
S.L.	denotes SURFACE LEVEL
I.L.	denotes PIT/PIPE INVERT
CL	denotes ORIFICE CENTERLINE
TK	denotes TOP OF KERB
GI	denotes GUTTER INVERT
LIP	denotes LIP LINE
LB	denotes LAY BACK
BP	denotes BACK of PATH
FP	denotes FRONT of PATH
BDY	denotes BOUNDARY
EB	denotes EDGE OF BITUMEN
CR	denotes CENTRELINE
PP	denotes POWER POLE
SC	denotes SAW CUT



DEPTH	'A'	'B'	'T'	REO SPACING
D ≤ 450	350	350	100	N12-400 H + V
450 < D ≤ 600	450	450		
600 < D ≤ 900	600	600		N12-200 H + V & N12 CORNER BARS
900 < D ≤ 1200	600	900	150	
1200 < D ≤ 2000	900	900		

TYPICAL SURFACE INLET PIT DETAIL

SCALE 1:10



SCALE BAR 1:100		0 1 2 3 4 5 10	
M J W		CIVIL & STORMWATER CONSULTING ENGINEERS	
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A		ISSUED FOR COUNCIL APPROVAL	
ISSUE		DESCRIPTION	
PROJECT		BY DATE	
ALTERATIONS AND ADDITIONS		26/04/2022	
4 GOODWIN STREET			
NARRABEEN NSW 2101			
DRAWING TITLE			
STORMWATER LAYOUT PLAN			
TITLE PAGE, NOTES & DETAILS SHEET			
ISSUED FOR LOCAL COUNCIL APPROVAL			
CHECKED AND APPROVED BY:		Date:	
Signature:		20.04.2022	
Mathew J. Wahbe			
B.E.Hons (CIVIL), MIEAust PEEng			
DESIGNED	MJW	JOB NUMBER	ISSUE
CHECKED	MJW	1011-DA	A
DATUM	AHD	SHEET NUMBER	
SCALE	1:100	SW001	A1

