PROPOSED RESIDENCE AT 79 MAIDEN STREET, GREENACRE

GENERAL

- These drawings shall be read in conjunction with all architectural and other consultants drawings and specifications and with such other written instructions and sketches as may be issued during the course of the Contract. Any discrepancies shall be referred to the Superintendent before proceeding with any related works. Construction from these drawings, and their associated consultant's drawings is not to commence until approved by the Local Automities.
- All materials and workmanship shall be in accordance with the relevant and current Standards Au codes and with the By-Laws and Ordinances of the relevant building authorities except where vari ried by the project specificatio
- G3 All set out dimensions shall be obtained from Architect's and Engineer's details. All discrepancies shall be referred to the Architect and Engineer for decision before proceeding with related work.
- G4 During construction the structure shall be maintained in a stable condition and no part shall be overstressed Temporary bracing shall be provided by the builder/subcontractor to keep the works and excavations stable
- Unless noted otherwise levels are in metres and dimensions are in millimetres G6
- The alignment and level of all services shown are approximate only. The contractor shall confirm the position and level of all services prior to commencement of construction. Any damage to services shall be rectified at the contractors expense
- G7 Any substitution of materials shall be approved by the Engineer and included in any tender.
- G8 All services, or conduits for servicing shall be installed prior to commencement of pavement construction
- G9 Subsoil drainage, comprising 100 agriculture pipe in geo-stocking to be placed as shown and as may be directed by the superintendent. Subsoil drainage shall be constructed in accordance with the relevant loca authority construction specificatio
- G10 The structural components detailed on these drawings have been designed in accordance with the relevant Standards Australia codes and Local Government Ordinances for the following loadings. Refer to the Architectural drawings for proposed floor usage. Refer to drawings for live loads and superimposed dead

DRAINAGE NOTES

- D1 All drainage levels to be confirmed on site, prior to any construction commencing.
- D2 All pipes within the property to be a minimum of 100 dia upvc @ 1% minimum grade, uno.
- All pits within the property are to be fitted with "weldlok" or approved equivalent grates:
- Light duty for landscaped areas
 Heavy duty where subjected to vehicular traffic All pits within the property to be constructed as one of the following: D4 ecast stor
- 2) Cast insitu mass concrete
 3) Cement rendered 230mm brickwork subject to the relevant local authority construction specification. Ensure all grates to pits are set below finished surface level within the property. Top of pit RL's are anorximate only and may be varied subject to approval of the engineer. All invert levels are to be achieved.
- D6 Any pipes beneath relevant local authority road to be rubber ring jointed RCP, uno
- D7 All pits in roadways are to be fitted with heavy duty grates with locking bolts and continuous hinge.
- D8 Provide step irons to stormwater pits greater than 1200 in depth.
- D9 Trench back fill in roadways shall comprise sharp, clean granular back fill in accordance with the relevant local authority specification to non-trafficable areas to be compacted by rodding and tamping using a flat
- D10 Where a high early discharge (hed) pit is provided all pipes are to be connected to the hed pit, uno.
- D11 Down pipes shall be a minimum of dn100 sw grade upvc or 100 x100 colorbond/zincalume steel, uno.
- D12 Colorbond or zincalume steel box gutters shall be a minimum of 450 wide x 150 deep.
- D13 Eaves gutters shall be a minimum of 125 wide x 100 deep (or of equivalent area) colorbond or zincalume Subsoil drainage shall be provided to all retaining walls & embankments, with the lines feeding into the D14

EROSION AND SEDIMENT CONTROL NOTES

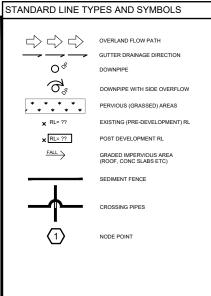
- These notes are to be read in conjunction with erosion and sediment control details in this drawing set.
- The contractor shall implement all soil erosion and sediment control measures as necessary and to the satisfaction of the relevant local authority prior to the commencement of and during construction. No disturbance to the site shall be permitted ofter than in the immediate area of the wrisk and no material shall be removed from the site without the relevant local authority approval. All erosion and sediment control devices to be installed and maintained in accordance with standards outlined in nsw department of housing's "managing utban stormwater soils and constructions". E2
- Place straw bales length wise in a row as parallel as possible to the site contours, uno. Bale ends to be tightly butted. Bales are to be placed so that straws are parallel to the row. Bales are to be placed 1.5m to 2m downshow from the toe of the disturbed batter uno. E3
- Council approved filter fabric to be entrenched 150mm deep upslope towards disturbed surface. Fabric to be a minimum SF2000 or better. Fix fabric to posts with wire ties or as recomended with manufacturer's specifications. Fabric pints to have a minimum of 150mm overlap. Wire to be strung between posts with filter E4 fabric overlap to prevent sagging.
- Stabalised entry/exit points to remain intact until finished driveway is complete. Construction of entry/exit points to be maintained and repaired as required so that it's function is not compromised. Construction of entry/exit point to be in accordance with the detail contained within this drawing set. E5
- All drainage pipe inlets to be capped until: - pits constructed and protected with silt barrier
- E6 Provide and maintain silt traps around all surface inlet pits until catchment is revegetated or paved.
- The contractor shall regularly maintain all erosion and sediment control devices and remove accumulated silt from such devices such that more than 60% of their capacity is lost. All the silt is to be placed outside the limit of works. The period for maintaining these devices shall be at least until all disturbed areas are revegetated and further as may be directed by the superintendent or council. E7
- The contractor shall implement dust control by regularly wetting down (but not saturating) disturbed area.
- Topsoil shall be stripped and stockpiled outside hazard areas such as drainage lines. This topsoil shall be respread later on areas to be revegetated and stabilised only, (i.e. all footpaths, batters, site regarding areas, basins and cathdrains). Topsoil shall not be respread on any other areas unless specifically instructed by E9 becampare backets of the superintered of the superint of the superint of the superintered and the superintered and
- E10 Lay 300 wide minimum turf strip on 100 topsoil behind all kerb and gutter with 1000 long returns every 6000 and around structures immediately after backfilling as per the relevant local authority specification.

NOTE: DO NOT

ARCHITECTURA

- E11 The contractor shall grass seed all disturbed areas with an approved mix as soon as practicable after completion of earthworks and regrading.
- E12 Revegetate all trenches immediately upon completion of backfilling
- E13 When any devices are to be handed over to council they shall be in clean and stable condition.

STANDARD LINE TYPES AND SYMBOLS PROPOSED KERB & GUTTER _____ EXISTING KERB & GUTTER ____ PROPOSED BELOW GROUND PIPELINE PROPOSED SUSPENDED PIPELINE EXISTING PIPELINE ____ ss ____ SUBSOIL DRAINAGE LINE PROPOSED KERB INLET PIT EXISTING KERB INI ET PIT PROPOSED JUNCTION OR INLET PIT --EXISTING JUNCTION OR INLET PIT DESIGN CENTRELINE ____ EXISTING EDGE OF BITUMEN _____ T _____ TELECOMUNICATION CONDUIT _____ G _____ GAS MAIN _____w _____ WATER MAIN — s — SEWER MAIN _____v ____ UNDERGROUND ELECTRICITY CABLES PERMANENT MARK & S.S.M Δ Δ BENCH MARK, SURVEY STATION



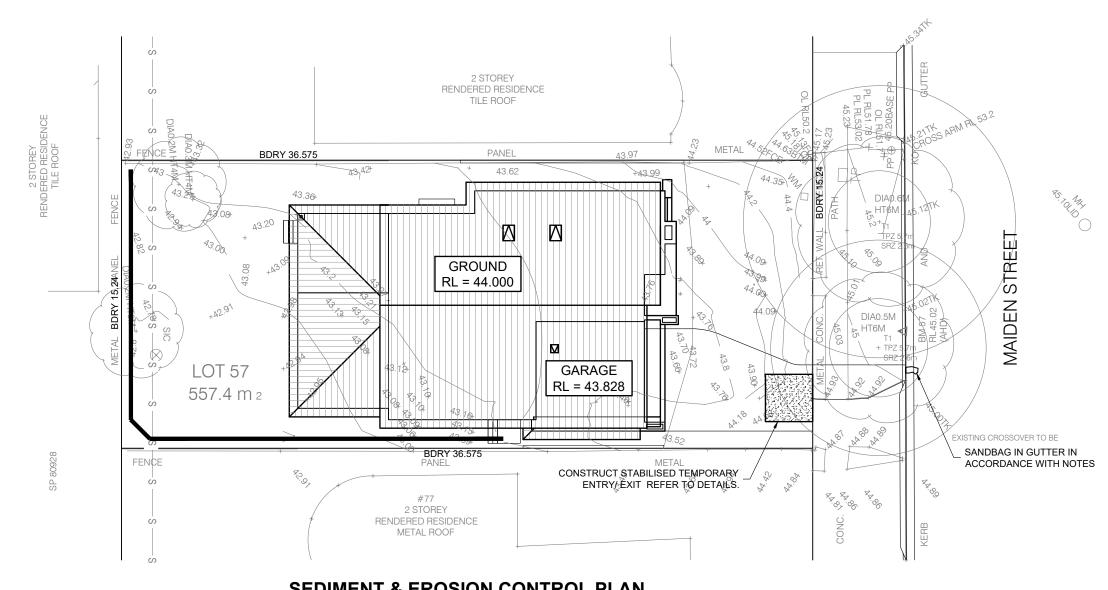
LEGE	ND		
AHD	Australian height datum	SS	Stainless steel
AG	Ag-pipe (Sub soil drainage)	SU	Box gutter sump
ARI BG	Average recurrence interval Box Gutter	TW	Top of wall Top water level
BWI	Box Gutter Bottom water level	U/S	Lop water level
CI	Cover level	VG	
CO	Clean out inspection opening		Vally gutter Unless noted otherwise
DCP	Discharge control pit	UNU	Unless noted otherwise
DP	Down pipe		
DRP	Dropper pipe		
FBG	Existing box gutter		
EDP	Existing down pipe		
EEG	Existing eaves gutter		
EG	Eaves gutter		
FRC	Fiber reinforced concrete		
FW	Floor waste		
GD	Grated drain		
GSIP	Grated surface inlet pit		
HED	High early discharge		
HP	High point of gutter		
IL.	Invert level		
10	Inspection opening		
O/F	Overflow		
OSD	On-site detention		
PSD	Permissible site discharge		
P1	Pipe 1		
RCP	Reinforced concrete pipe		
RHS RI	Rectangular hollow section Reduced level		
RR.I	Rubber ring joint		
RRT	Rubber ring joint Rainwater re-use tank		
RWH	Rainwater re-use tank Rain water head		
RWO	Rain water outlet		
SLAP	Sealed lid access pit		
SP	Spreader pipe		
SPR	Spreader		

RECOMMENDED MAINTENA	NCE SCHED	ULE	
DISCHARGE CONTROL PIT (DCP)	FREQUENCY	RESPONSIBILITY	PROCEDURE
inspect flap valve and remove any blockage.	Six monthly	Owner	Remove grate. Ensure flap valve moves freely and remove any blockages or debris.
inspect screen and clean.	Six monthly	Owner	Revove grate and screen if required and clean it.
inspect & remove any blockage of orifice.	Six monthly	Owner	Remove grate & screen to inspect orifice. see plan for location of dcp.
inspect dcp sump & remove any sediment-sludge.	Six monthly	Owner	Remove grate and screen. Remove sediment/sludge build-up and check orifice and flap valve clear.
inspect grate for damage or blockage.	Six monthly	Owner	Check both sides of grate for corrosion, (especially corners and welds) damage or blockage.
inspect return pipe from storage and return any blockage.	Six monthly	Owner	Remove grate and screen. ventilate underground storage if present. open flap valve and remove any blockages in return line. Check for sludge/debris on upstream side of return line.
inspect outlet pipe and remove any blockage.	Six monthly	Maintenance Contractor	Remove grate and screen. ventilate underground storage if present. Check orifice and remove any blockages in outlet pipe. Flush outlet pipe to confirm it drains freely. Check for sludge/debris on upstream side of return line.
Check fixing of step irons is secure.	Six monthly	Maintenance Contractor	Remove grate and ensure fixings secure prior to placing weight on step iron.
inspect overflow weir & remove any blockage.	Six monthly	Maintenance Contractor	Remove grate and open cover to ventilate underground storage if present. ensure weir clear of blockages.
Empty basket at overflow weir (if present).	Six monthly	Maintenance Contractor	Remove grate and ventilate underground storage chamber if present. Empty basket, check fixings secure and not corroded.
Check attachment of orifice plate to wall of pit (gaps less than 5 mm).	Annually	Maintenance Contractor	Remove grate and screen. ensure plate mounted securely, tighten fixings if required. seal gaps as required.
Check attachment of screen to wall of pit.	Annually	Maintenance Contractor	Remove grate and screen. ensure screen fixings secure. repair as required.
Check screen for corrosion.	Annually	Maintenance Contractor	Remove grate and examine screen for rust or corrosion, especially at corners or welds.
Check attachment of flap valve to wall of .	Annually	Maintenance Contractor	Remove grate. Ensure fixings of valve are secure.
Check flap valve seals against wall of pit.	Annually	Maintenance Contractor	Remove grate. fill pit with water and check that flap seals against side of pit with minimal leakage.
Check any hinges of flap valve move freely.	Annually	Maintenance Contractor	Remove grate. Test valve hinge by moving flap to full extent.
inspect dcp walls (internal and external, if appropriate) for cracks or spalling.	Annually	Maintenance Contractor	Remove grate to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Check step irons for corrosion.	Annually	Maintenance Contractor	Remove grate. Examine step irons and repair any corrosion or damage.
Check orifice diameter correct and retains sharp edge.	Five yearly	Maintenance Contractor	Compare diameter to design (see work-as- executed) and ensure edge is not pitted or damaged.
STORAGE			
inspect & remove any blockage of orifice.	Six monthly	Owner	Remove grate and screen. remove sediment/sludge build-up.
Check orifice diameter correct and retains sharp edge.	Six monthly	Owner	Remove blockages from grate and check if pit blocked.
inspect screen and clean.	Six monthly	Owner	Remove debris and floatable material likely to be carried to grates.
Check attachment of orifice plate to wall of pit (gaps less than 5 mm).	Annually	Maintenance	Remove grate to inspect internal walls. repair as required. clear vegetation from external walls if necessary and repair as required.
Check attachment of screen to wall of pit.	Five yearly	Maintenance Contractor	Compare actual storage available with work-as executed plans. If volume loss is greater than 5%, arrange for reconstruction to replace the volume lost. Council to be notified of the proposal.
Check attachment of screen to wall of pit.	Five yearly	Maintenance Contractor	Check along drainage lines and at pits for subsidence likely to indicate leakages.

	D	23.10.24	REVISED PIT LEVEL	F.I.	COPYRIGHT All rights reserved.
	С	30.08.24	REVISED DRAINAGE LAYOUT	F.I.	These drawings, plans and spe
	в	28.08.24	REVISED TO SUIT ARBORISTS COMMENTS	F.I.	the copyright are the property o Studio and must not be used, re
T SCALE OFF DRAWINGS. REFER TO	А	15.08.24	ISSUED FOR APPROVAL	P.C.	copied wholly or in part without permission of Engineering Stud
L PLANS. VERIFY DIMENSIONS ON SITE	REV	DATE	DESCRIPTION	BY	pointion of Engineering oldu



PROPOSED RESIDENCE AT 79 MAIDEN STREET, GREENACRE	JOB NUMBER: 240554			SIZE:
FOR FOWLER HOMES	DESIGNED BY: S.R.	DATE: AUGUST 2024		
GENERAL NOTES	DRAWN BY: J.W.	SCALE: N.T.S		

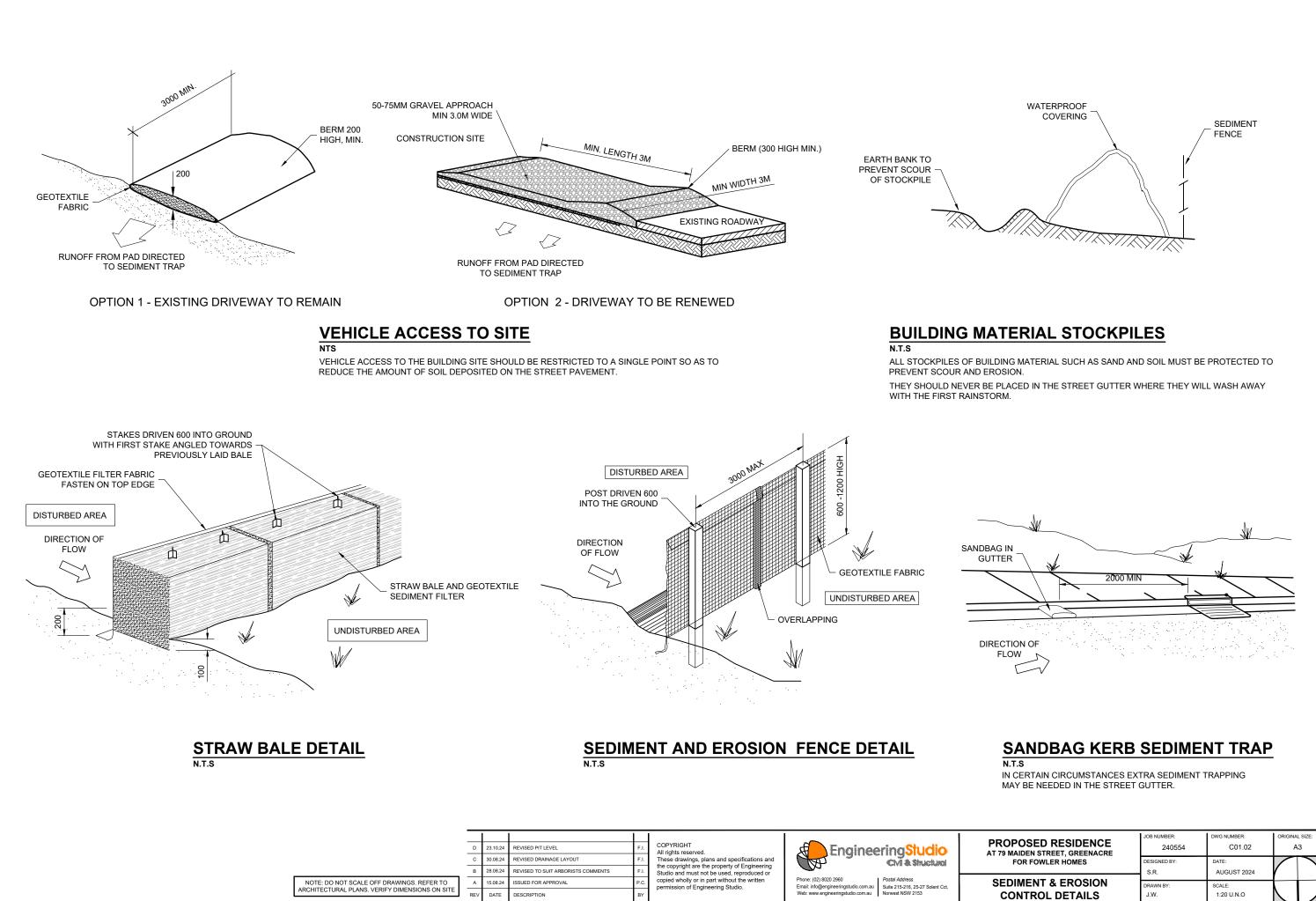




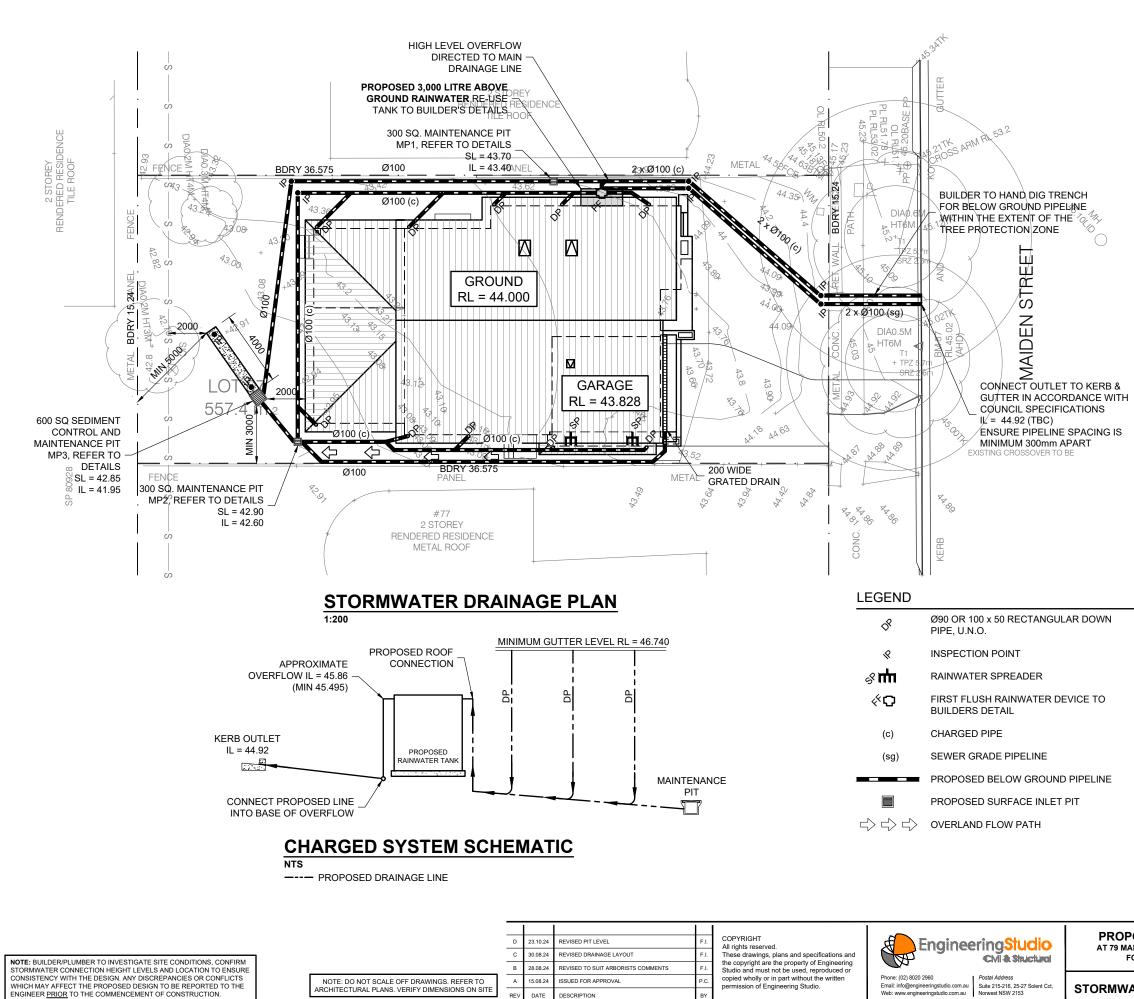
- DENOTES SEDIMENT FENCE

						_		
	D	23.10.24	REVISED PIT LEVEL	F.I.	COPYRIGHT All rights reserved.	Enginee	eringStudio	
	С	30.08.24	REVISED DRAINAGE LAYOUT	F.I.	These drawings, plans and specifications and		Civil & Shucturol	
	в	28.08.24	REVISED TO SUIT ARBORISTS COMMENTS	F.I.	the copyright are the property of Engineering Studio and must not be used, reproduced or			
NOTE: DO NOT SCALE OFF DRAWINGS. REFER TO	A	15.08.24	ISSUED FOR APPROVAL	P.C.	copied wholly or in part without the written permission of Engineering Studio.	Phone: (02) 8020 2960 Email: info@engineeringstudio.com.au	Postal Address Suite 215-216. 25-27 Solent Cct.	
ARCHITECTURAL PLANS. VERIFY DIMENSIONS ON SITE	REV	DATE	DESCRIPTION	BY		Web: www.engineeringstudio.com.au	Norwest NSW 2153	

PROPOSED RESIDENCE AT 79 MAIDEN STREET, GREENACRE FOR FOWLER HOMES	JOB NUMBER: 240554	DWG NUMBER: C01.01	ORIGINAL	
	DESIGNED BY: S.R.	DATE: AUGUST 2024		
SEDIMENT & EROSION CONTROL PLAN	DRAWN BY: J.W.	SCALE: 1:200 U.N.O		



POSED RESIDENCE	JOB NUMBER: 240554	DWG NUMBER: C01.02	ORIGINAL SIZE: A3	
FOR FOWLER HOMES	DESIGNED BY: S.R.	DATE: AUGUST 2024		
DIMENT & EROSION ONTROL DETAILS	DRAWN BY: J.W.	SCALE: 1:20 U.N.O		



S	TORMWATER DESIGN SUMMARY	
10	OUNCIL: CANTERBURY-BANKSTOWN COUNCIL) YEAR, 5 MIN STORM YEAR, 5 MIN STORM	= 208 mm/hr = 166 mm/hr
тс	TAL SITE AREA	= 557.40 m ²
IMI TC	OPOSED ROOF AREA PERVIOUS PATHS & DRIVEWAYS ITAL IMPERVIOUS SITE AREA PERVIOUS SITE PERCENTAGE	= 252.50 m ² = 37.70 m ² = 290.20 m ² = 52.1%
	0% PROPOSED ROOF AREA DIRECTED TO 3,000L -USE TANK. HIGH LEVEL OVERFLOW DIRECTED	

GUTTER VIA CHARGED LINE. ROOF GUTTERS HAVE BEEN DESIGNED FOR 1% AEP STORM EVENT.

ON-SITE DETENTION DESIGN SUMMARY

ON-SITE DETENTION SYSTEM NOT REQUIRED IN ACCORDANCE WITH BANKSTOWN COUNCIL'S DEVELOPMENT ENGINEERING STANDARDS CLAUSE 10.1.2 EXEMPTION TO ON-SITE DETENTION WHICH STATES THAT ON-SITE DETENTION WILL NOT BE REQUIRED WHERE THE COMBINED IMPERVIOUS AREA IS NOT GREATER THAN 75%.

ABSORPTION TRENCH DESIGN SUMMARY

DETERMINED HARDSTAND CATCHMENT	= 38.00m ²
REQUIRED VOID VOLUME = 38 * 0.015 VOLUME OF TRENCH	= 0.57m ³ = 0.175 m ³ /m
	- 2 0Em

TOTAL LENGTH OF TRENCH REQUIRED = $\frac{0.37}{0.175}$ = 3.25m LENGTH OF 410 JUMBO TRENCH PROVIDED = 4.0m

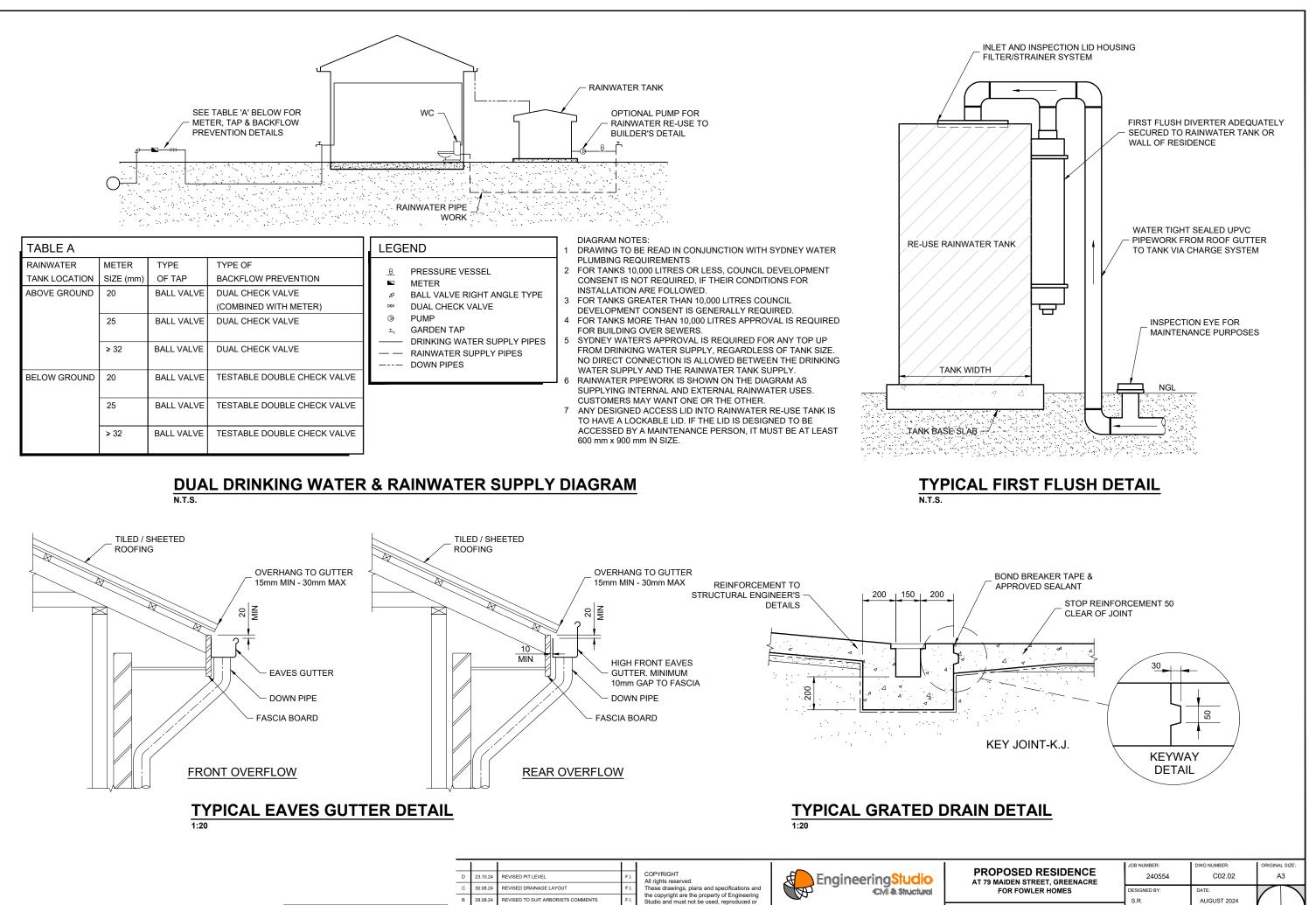
HYDRAULIC GRADE LINE (HGL) ANALYSIS

DETERMINED FLOW RATE AT 1% A.E.P. DETERMINED FLOW RATE AT 1% A.E.P.	= 14.6 l/s
PER 100mm DRAINAGE LINE	= 7.3 l/s
PIPE VELOCITY	= 0.0073/πx0.005 ² = 0.0073/0.0078 = 0.93 m/s
PIPE FRICTION LOSS (20m PIPELINE)	= 0.165 m
%%960	
45 DEGREE BEND LOSS	$K_{b} = 0.3$ = $\frac{0.3 \times 0.93^{2}}{2\times9.81}$ = 0.013 m
90 DEGREE BEND LOSS	$K_b = 1.1$ = $\frac{1.1 \times 0.93^2}{2X9.81}$ = 0.049 m
TOTAL BEND LOSSES = 0.013 + 0.013 + 0.049 TOTAL HEAD LOSSES = 0.075 + 0.165	= 0.075m = 0.24m
MINIMUM RAINWATER TANK OVERFLOW IL	= 44.92 + 0.24 + 0.5 = 45.495

STORMWATER DRAINAGE NOTES

- ALL DRAINAGE LINES SHALL BE uPVC (CLASS SH) STORMWATER DRAINAGE PIPE, U.N.O.
- ALL DRAINAGE LINES SHALL BE LAID @ 1% FALL MIN, U.N.O.
 FIRST FLUSH RAINWATER DEVICES TO BE FITTED TO
- DRAINAGE LINES TO BUILDER'S DETAIL. TYPICAL
- MINIMUM EFFECTIVE EAVES GUTTER SLOPE = 1:500 U.N.O.
- MINIMUM EFFECTIVE EAVES GUTTER SLOPE = 1.500 0.N.
 MINIMUM EFFECTIVE EAVES GUTTER SIZE = 5800 mm²

POSED RESIDENCE AIDEN STREET, GREENACRE	JOB NUMBER: 240554	DWG NUMBER: C02.01	ORIGINAL SIZE:	
FOR FOWLER HOMES	DESIGNED BY: S.R.	DATE: AUGUST 2024	$\langle \ \rangle$	
ATER DRAINAGE PLAN	DRAWN BY: J.W.	SCALE: 1:200 U.N.O		



Phone: (02) 8020 2960

Email: info@engineeringstudio.com.au Web: www.engineeringstudio.com.au

Suite 215-216, 25-27 Solent Cct.

Norwest NSW 2153

copied wholly or in part without the written

mission of Engineering Studio

NOTE: DO NOT SCALE OFF DRAWINGS, REFER TO

ARCHITECTURAL PLANS, VERIFY DIMENSIONS ON SITE

5.08.24

SSUED FOR APPROVAL

DESCRIPTION

PROPOSED RESIDENCE AT 79 MAIDEN STREET, GREENACRE FOR FOWLER HOMES	JOB NUMBER: 240554	DWG NUMBER: C02.02	ORIGINAL SIZE	2
	DESIGNED BY: S.R.	DATE: AUGUST 2024	$\langle \ \rangle$	$\overline{\ }$
STORMWATER DETAILS SHEET 1	DRAWN BY: J.W.	SCALE: 1:20 U.N.O		

