DANGER

WHEN EXCAVATING WITHIN ANY SITE, FOOTPATH AND ROADWAY, ALL SERVICES SHALL BE LOCATED PRIOR TO COMMENCEMENT OF THE EXCAVATION WORKS.

CONTACT "DIAL BEFORE YOU DIG" ON PHONE No. 1100 OR GO TO THE WEB SITE

"www.1100.com.au"

NOTES

1. 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.
2. THE BUILDER IS TO VERIFY ALL LEVELS ON SITE PRIOR TO COMMENCING CONSTRUCTION.
3. SILT FENCE IS TO BE ERECTED PRIOR TO COMMENCING WORK. FENCE TO BE MAINTAINED IN WORKING ORDER DURING TIME OF CONSTRUCTION.
4. W.A.E. DRAWING BY A REGISTERED SURVEYOR IS REQUIRED PRIOR TO CERTIFICATION OF DRAINAGE.
5. 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.
6. ALL TERRACE FLOOR & PLANTER GRATES TO HAVE FIRE COLLARS FITTED.
7. 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.
8. ALL LEVELS SHALL RELATE TO THE ESTABLISHED BENCH MARK.
9. THE BASE OF ALL DRAINAGE PITS SHALL BE BENCHED TO THE INVERT OF THE OULET PIPE.
10. ALL GUTTERS SHALL BE MINIMUM 100 x 75mm AND DOWNPIPES SHALL BE MINIMUM 100 x 75mm UNLESS NOTED OTHERWISE.
11. ALL STORMWATER DRAINAGE PIPES SHALL BE A MINIMUM Ø100mm 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.
12. 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.
13. 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.
14. 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 RTA 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.
15. 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.
16. ALL SUB-SOIL DRAINAGE SHALL BE A MINIMUM OF Ø65mm AND SHALL BE PROVIDED WITH A FILTER SOCK. THE SUBSOIL DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS TO BE PROVIDED BY THE LANDSCAPE ARCHITECT.
17. 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.

LEGEND

DRAINAGE LINE
AG. LINE — o — o —
SILT FENCE — × —
EXISTING LEVEL 165.00 × DESIGN LEVEL 166.00
SILT BARRIER AROUND PIT
TOP OF WALL R.L. 166.00 – TOW 166.00

SURFACE INLET PIT
SEALED JUNCTION PIT
CLEANING EYE (OR INSEPECTION EYE) CE
DOWN PIPE DP
SPREADER PIPE SP
PLANTER GRATE PG
FLOOR GRATE FG
PUMP RISING MAIN RISER

PUMP HOLDING TANK
AREA = 16.0 Sq.m
AVERAGE DEPTH = 1500mm
TWL = RL 17.57
VOLUME AVAILABLE= 24 Cu.m

ALL SUB-SOIL DRAINAGE LAID AROUND BASEMENT PERIMETER WALLS SHALL BE DRAINED TO BASEMENT DRAINAGE SYSTEM

SUGGESTED LOCATION OF PUMP OUT CONTROL PANEL

Ø150mm PVC @ 3.0%
Ø65 PVC CLASS 6 RISING PRESSURE MAIN
GRATED DRAIN 200x100
Ø150mm PVC @ 2.6%
Ø150mm PVC @ 3.4%
Ø150mm PVC @ 2%
Ø150mm PVC @ 3%
Ø65 PVC CLASS 6 RISING PRESSURE MAIN
Ø65 PVC CLASS 6 RISING PRESSURE MAIN TO CONNECT TO THE STORMFILTER TANK AT IL 21.40

P 600x600 S.L. 18.27 I.L. 17.77
P 600x600 S.L. 18.77 I.L. 18.27
P 600x600 S.L. 19.65 I.L. 19.15
P 600x600 S.L. 19.09 I.L. 18.59
P 600x600 S.L. 19.66 I.L. 19.16
P 600x600 S.L. 20.20 I.L. 19.70
P 800x600 S.L. 18.68 I.L. 18.18

OG PIT 600x600 S.L. 20.00 I.L. 19.20
PROVIDE AN OCEAN GUARD FILTRATION BASKET WITHIN PIT TO FILTER INFLOWS FROM DRIVEWAY RAMP. SEE OG PIT DETAIL
GRATED DRAIN 300x100 S. 20.08 I. 19.70

1 in 45 (2.2%)
1 in 30 (3.3%)
FALL
RL 20.080
RL 20.644
BUILDING LINE ABOVE
DEEP SOIL AREA
PLANT
GARAGE
STORE UNDER
STAIR
RAMP DOWN GARAGE

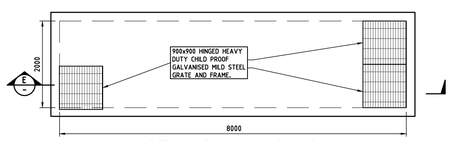
BASEMENT STORMWATER LAYOUT
SCALE 1:100

PENNANT STREET

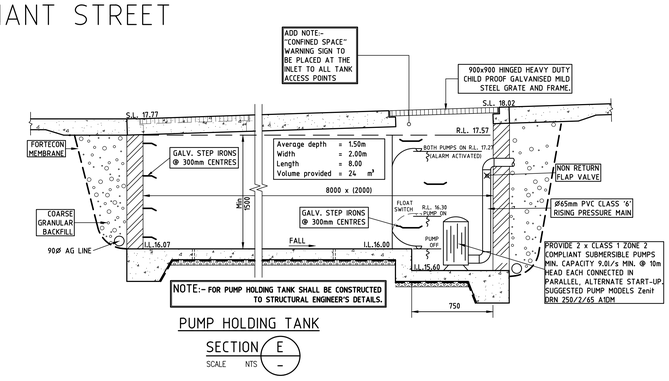
STANDARD PUMP OUT DESIGN NOTES

THE PUMP OUT SYSTEM SHALL BE DESIGNED TO BE OPERATED IN THE FOLLOWING MANNER:-

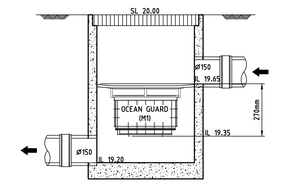
- THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATELY SO AS TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE.
- A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD THIS FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS.
- A SECOND FLOAT SHALL BE PROVIDED AT A HIGHER LEVEL, APPROXIMATELY 300MM ABOVE THE MINIMUM WATER LEVEL, WHEREBY ONE OF THE PUMPS WILL OPERATE AND DRAIN THE TANK TO THE LEVEL OF THE LOW-LEVEL FLOAT.
- A THIRD FLOAT SHALL BE PROVIDED AT A HIGH LEVEL, WHICH IS APPROXIMATELY THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHOULD START THE OTHER PUMP THAT IS NOT OPERATING AND ACTIVATE THE ALARM.
- AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT AND A PUMP FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL. THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE.



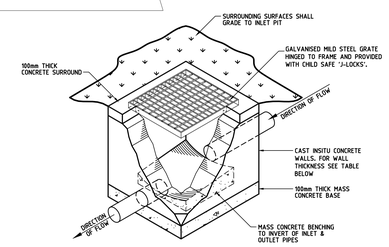
PLAN DETAIL OF PUMP HOLDING TANK
SCALE 1:50



PUMP HOLDING TANK
SECTION E –
SCALE NTS



PIPE FLOW CONFIGURATION FOR OG PIT
SCALE NTS



TYPICAL GRATED INLET PIT DETAIL
NOT TO SCALE

TABLE FOR PIT WALL THICKNESS

PIT DEPTH (mm)	WALL THICKNESS (mm)	REINFORCEMENT
0-600	150	-
601-1500	150	N12.200 V+H CENTRAL
1501-3000	200	N12.200 V+H CENTRAL

NOTE: PROVIDE ADDITIONAL CORNER BARS N12 @ 200mm CENTERS WHERE WALLS ARE REINFORCED

REV.	AMENDMENT	BY	DATE
C	AMENDED TO SUIT REVISED MUSIC MODELLING	GB	03/09/2020
B	AMENDED TO SUIT ARCHITECTURAL CHANGES	GB	11/05/20
A	ISSUED FOR DEVELOPMENT APPROVAL	GB	22/02/19

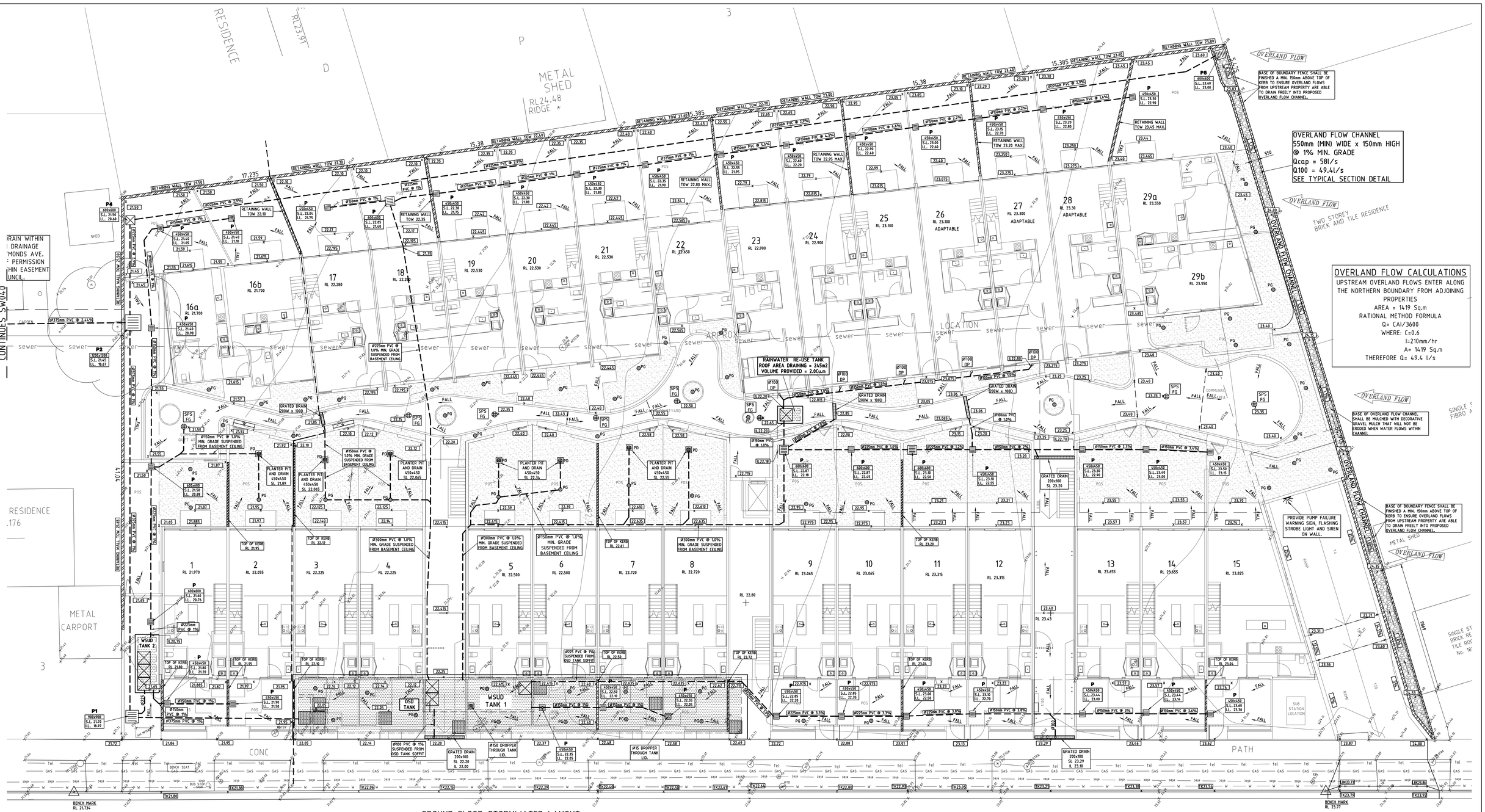
FOR COUNCIL / CONSTRUCTION CERTIFICATE ISSUE
CHECKED BY Signature: Steve Arraj Date: 03.09.2020
STEVE ARRAJ B.E.(Civil)

MANCE ARRAJ
CIVIL & STRUCTURAL ENGINEERS
First Floor, 278-282 Church Street, Parramatta
P.O. Box 2555 North Parramatta NSW 1750
Ph. 02 8897 8800 www.mancearraj.com.au

PROJECT
PROPOSED RESIDENTIAL DEVELOPMENT
178-188 PENNANT STREET
NORTH PARRAMATTA

DRAWING TITLE
STORMWATER DRAINAGE LAYOUT DRAWING
BASEMENT LEVEL AND PUMP OUT TANK
DETAILS AND NOTES

DESIGNED GB
CHECKED SA
DATUM AHD
SCALE AS SHOWN
PROJECT NUMBER 2576-DA
DRAWING NUMBER SW010
ISSUE C
AO



BASE OF BOUNDARY FENCE SHALL BE FINISHED A MIN. 150mm ABOVE TOP OF KERB TO ENSURE OVERLAND FLOWS FROM UPSTREAM PROPERTY ARE ABLE TO DRAIN FREELY INTO PROPOSED OVERLAND FLOW CHANNEL.

OVERLAND FLOW CHANNEL
550mm (MIN) WIDE x 150mm HIGH
@ 1% MIN. GRADE
Qcap = 58l/s
Q100 = 49.4l/s
SEE TYPICAL SECTION DETAIL

OVERLAND FLOW CALCULATIONS

UPSTREAM OVERLAND FLOWS ENTER ALONG THE NORTHERN BOUNDARY FROM ADJOINING PROPERTIES
AREA = 1419 Sq.m
RATIONAL METHOD FORMULA
Q= CAI/3600
WHERE: C=0.6
I=210mm/hr
A= 1419 Sq.m
THEREFORE Q= 49.4 l/s

BASE OF OVERLAND FLOW CHANNEL SHALL BE MULCHED WITH DECORATIVE GRAVEL MULCH THAT WILL NOT BE ERODED WHEN WATER FLOWS WITHIN CHANNEL

BASE OF BOUNDARY FENCE SHALL BE FINISHED A MIN. 150mm ABOVE TOP OF KERB TO ENSURE OVERLAND FLOWS FROM UPSTREAM PROPERTY ARE ABLE TO DRAIN FREELY INTO PROPOSED OVERLAND FLOW CHANNEL.

GROUND FLOOR STORMWATER LAYOUT

SCALE 1:100

DANGER

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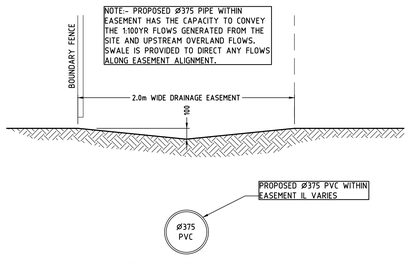
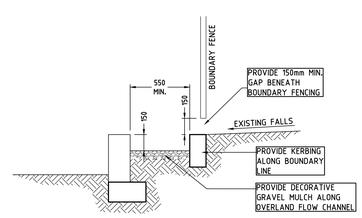
CONTACT "DIAL BEFORE YOU DIG" ON PHONE No. 1100 OR GO TO THE WEB SITE

"www.1100.com.au"



OVERLAND FLOW SWALE ALONG DRAINAGE EASEMENT TYPICAL SECTION DETAIL

SCALE 1:20



OVERLAND FLOW CHANNEL TYPICAL SECTION DETAIL

SCALE 1:20

REV.	AMENDMENT	BY	DATE
D	AMENDED TO SUIT COUNCIL LETTER DATED 26-06-2020	GB	03/09/2020
C	DRAINAGE EASEMENT ADDED, LEVELS OF STORMWATER ADJUSTED	GB	11/05/20
B	STORMWATER RE-USE TANK ADDED	GB	04/04/19
A	ISSUED FOR DEVELOPMENT APPROVAL	GB	22/02/19

FOR COUNCIL / CONSTRUCTION CERTIFICATE ISSUE

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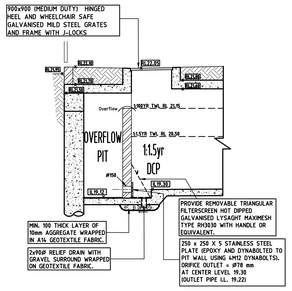
PROJECT
PROPOSED RESIDENTIAL DEVELOPMENT
178-188 PENNANT STREET
NORTH PARRAMATTA

DRAWING TITLE
STORMWATER DRAINAGE LAYOUT DRAWING
GROUND LEVEL

DESIGNED	GB
CHECKED	SA
DATUM	AHD
SCALE	AS SHOWN

PROJECT NUMBER 2576-DA
DRAWING NUMBER SW020
ISSUE D
AO



SECTION THROUGH 1:1.5YR CONTROL PIT

SECTION B
SCALE 1:50

DANGER
CONFINED SPACE
NO ENTRY WITHOUT CONFINED SPACE TRAINING

CONFINED SPACE DANGER SIGN

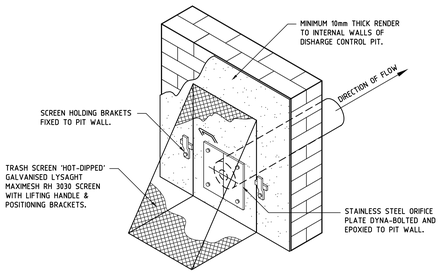
COLOURS - 'DANGER' AND BACKGROUND - WHITE
ELLIPTICAL AREA - RED
RECTANGLE CONTAINING ELLIPSE - BLACK
OTHER LETTERING AND BORDER - BLACK

A) A CONFINED SPACE DANGER SIGN SHALL BE POSITIONED IN A LOCATION AT ALL ACCESS POINTS, SUCH THAT IT IS CLEARLY VISIBLE TO PERSONS PROPOSING TO ENTER THE BELOW GROUND TANK/S CONFINED SPACE.

B) MINIMUM DIMENSIONS OF THE SIGN - 300mm x 450mm (LARGE ENTRIES, SUCH AS DOORS)
- 250mm x 180mm (SMALL ENTRIES SUCH AS GRATES & MANHOLES)

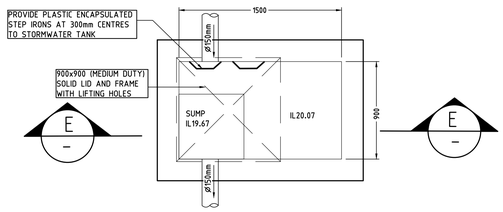
C) THE SIGN SHALL BE MANUFACTURED FROM COLOUR BONDED ALUMINIUM OR POLYPROPELENE.

D) SIGN SHALL BE AFFIXED USING SCREWS AT EACH CORNER OF THE SIGN.



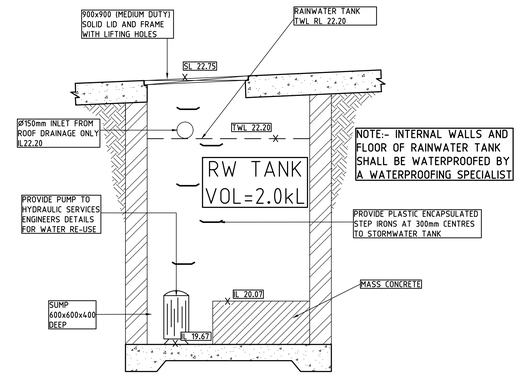
TRASH RACK INSTALLATION DETAIL

NOT TO SCALE



PLAN RAINWATER TANK

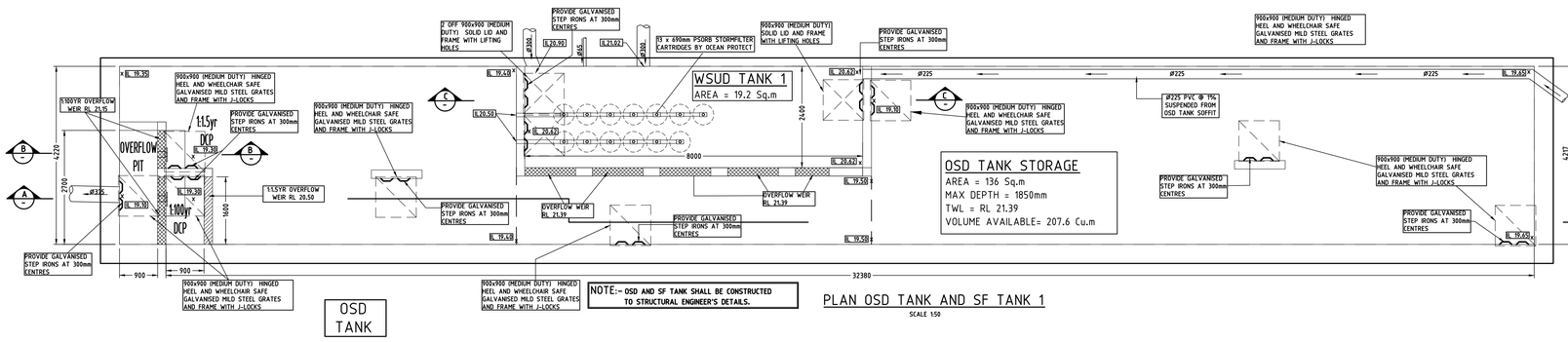
SCALE 1:20



NOTE:-RAINWATER TANK SHALL BE CONSTRUCTED TO STRUCTURAL ENGINEER'S DETAILS.

SECTION RAINWATER RE-USE TANK

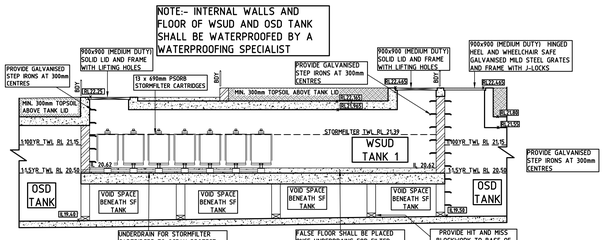
SECTION E
SCALE 1:20



NOTE:- OSD AND SF TANK SHALL BE CONSTRUCTED TO STRUCTURAL ENGINEER'S DETAILS.

PLAN OSD TANK AND SF TANK 1

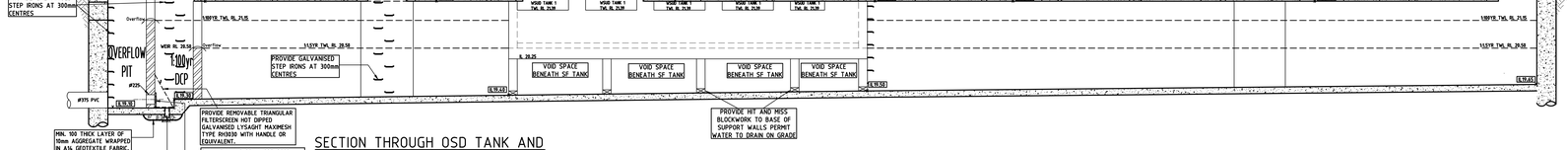
SCALE 1:50



SECTION THROUGH WSUD TANK 1

SECTION C
SCALE 1:50

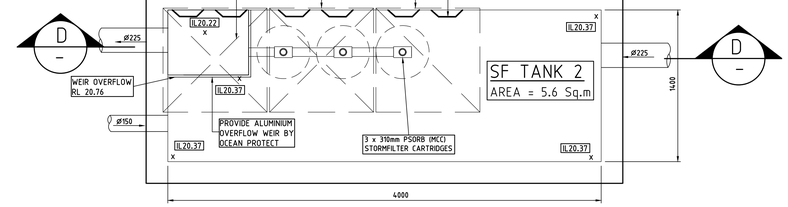
NOTE:-WSUD AND OSD TANK SHALL BE CONSTRUCTED TO STRUCTURAL ENGINEER'S DETAILS.



SECTION THROUGH OSD TANK AND 1:100YR CONTROL PIT

SECTION A
SCALE 1:50

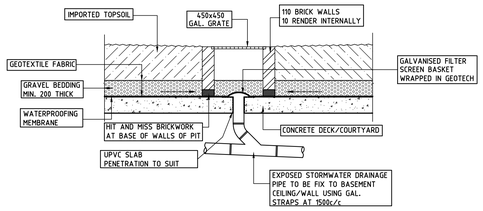
NOTE:- OSD AND SF TANK SHALL BE CONSTRUCTED TO STRUCTURAL ENGINEER'S DETAILS.



NOTE:-WSUD TANK 2 SHALL BE CONSTRUCTED TO STRUCTURAL ENGINEER'S DETAILS.

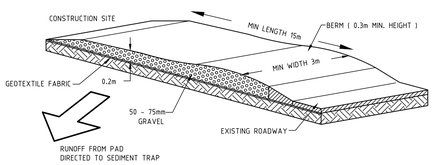
PLAN WSUD TANK 2

SCALE 1:20



PLANTER PIT AND DRAIN DETAIL (PD)

NOT TO SCALE



TEMPORARY CONSTRUCTION EXIT / ENTRANCE

N.T.S.

600mm

WARNING
PUMP OUT SYSTEM FAILURE IN BASEMENT WHEN LIGHT IS FLASHING AND SIREN SOUNDING

450mm

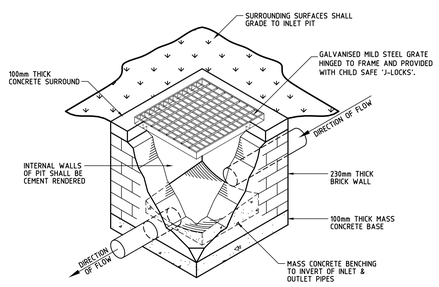
BASEMENT PUMP OUT FAILURE WARNING SIGN

NOTE:-

1 - SIGN SHALL BE PLACED IN A CLEAR AND VISIBLE LOCATION WHERE VEHICLES ENTER THE BASEMENT

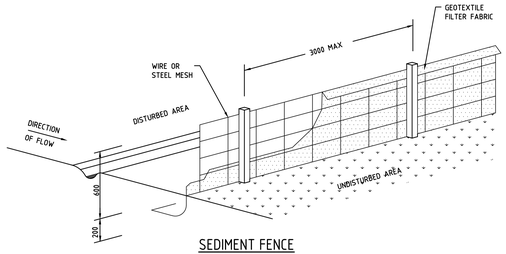
COLOURS:-

"WARNING" - RED
BORDER AND OTHER LETTERING - BLACK



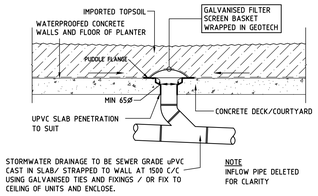
TYPICAL GRATED INLET PIT DETAIL

NOT TO SCALE



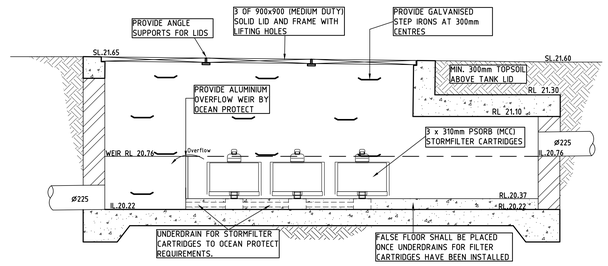
SEDIMENT FENCE

N.T.S.



PLANTER GRATE DETAIL (PG)

SCALE 1:20



SECTION THROUGH WSUD TANK 2

NOTE:- WSUD TANK 2 SHALL BE CONSTRUCTED TO STRUCTURAL ENGINEER'S DETAILS.

SECTION D
SCALE 1:20

REV.	AMENDMENT	BY	DATE
D	DETAILS AMENDED TO SUIT COUNCIL REQUESTS	GB	03/09/2020
C	TANK DETAILS AMENDED TO SUIT NEW LEVELS	GB	11/05/20
B	STORMWATER REUSE TANK DETAILS ADDED	GB	04/04/19
A	ISSUED FOR DEVELOPMENT APPROVAL	GB	22/02/19

FOR COUNCIL / CONSTRUCTION CERTIFICATE ISSUE

CHECKED BY
Signature: Steve Arraj
Date: 03.09.2020
STEVE ARRAJ B.E.(Civil)

MANCE ARRAJ
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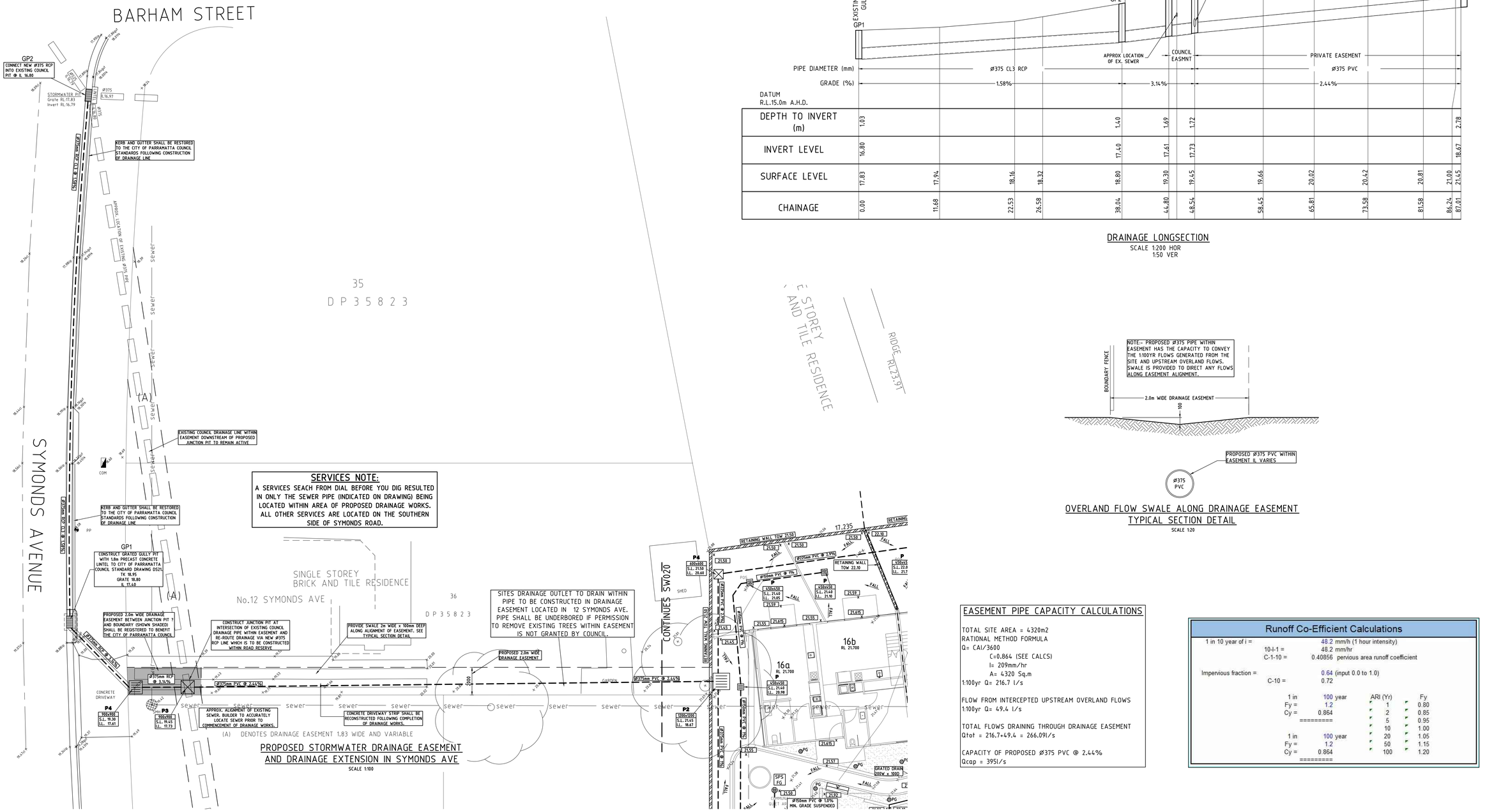
PROJECT
PROPOSED RESIDENTIAL DEVELOPMENT
178-188 PENNANT STREET
NORTH PARRAMATTA

DRAWING TITLE
OSD, RAINWATER AND SF 1 AND 2 TANK PLANS AND SECTIONS AND OTHER DRAINAGE DETAILS AND SIGNAGE

DESIGNED	GB
CHECKED	SA
DATUM	AHD
SCALE	AS SHOWN

PROJECT NUMBER 2576-DA
DRAWING NUMBER SW030
ISSUE D
AO



DRAINAGE LONGSECTION
SCALE 1:200 HOR
1:50 VER

OVERLAND FLOW SWALE ALONG DRAINAGE EASEMENT
TYPICAL SECTION DETAIL
SCALE 1:20

EASEMENT PIPE CAPACITY CALCULATIONS

TOTAL SITE AREA = 4320m2
RATIONAL METHOD FORMULA
Q= CAI/3600
C=0.864 (SEE CALCS)
I= 209mm/hr
A= 4320 Sq.m
1:100yr Q= 216.7 l/s

FLOW FROM INTERCEPTED UPSTREAM OVERLAND FLOWS
1:100yr Q= 49.4 l/s

TOTAL FLOWS DRAINING THROUGH DRAINAGE EASEMENT
Qtot = 216.7+49.4 = 266.09l/s

CAPACITY OF PROPOSED Ø375 PVC @ 2.44%
Qcap = 395l/s

Runoff Co-Efficient Calculations

1 in 10 year of i =	48.2 mm/h (1 hour intensity)				
10-I-1 =	48.2 mm/hr				
C-1-10 =	0.40856 pervious area runoff coefficient				
Impervious fraction =	0.64 (input 0.0 to 1.0)				
C-10 =	0.72				
1 in	100 year	ARI (Yr)	Fy		
Fy =	1.2	1	0.80		
Cy =	0.864	2	0.85		
		5	0.95		
		10	1.00		
1 in	100 year	20	1.05		
Fy =	1.2	50	1.15		
Cy =	0.864	100	1.20		

REV.	AMENDMENT	BY	DATE
B	DRAINAGE LONGSECTION AND SWALE SECTION ADDED	GB	03/09/2020
A	ISSUED FOR DEVELOPMENT APPROVAL	GB	11/05/20

FOR COUNCIL / CONSTRUCTION CERTIFICATE ISSUE
CHECKED BY
Signature: Steve Arraj
Date: 03.09.2020
STEVE ARRAJ B.E.(Civil)

MANCE ARRAJ
CIVIL & STRUCTURAL ENGINEERS
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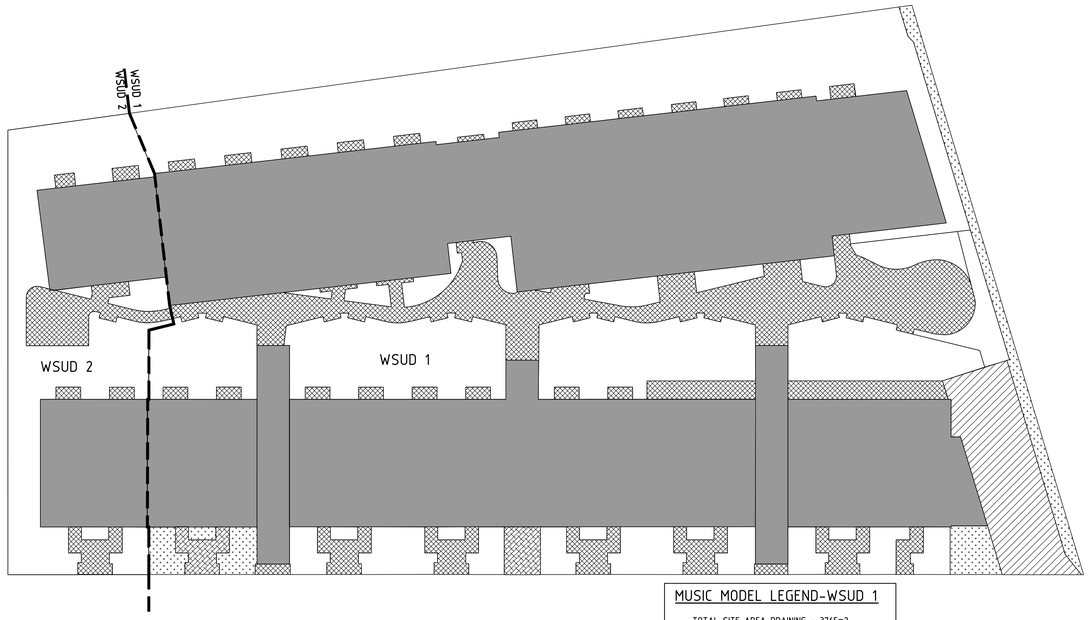
PROJECT
PROPOSED RESIDENTIAL DEVELOPMENT
178-188 PENNANT STREET
NORTH PARRAMATTA

DRAWING TITLE
PROPOSED DRAINAGE EASEMENT THROUGH 12 SYMONDS AVE AND COUNCIL DRAINAGE EXTENSION ALONG SYMONDS AVENUE

DESIGNED	GB
CHECKED	SA
DATUM	AHD
SCALE	AS SHOWN

PROJECT NUMBER 2576-DA
DRAWING NUMBER SW040
ISSUE B
AO



MUSIC MODEL LEGEND-WSUD 2

TOTAL SITE AREA DRAINING = 555m2

ROOF AREA DRAINING = 223m2

PERVIOUS AREA DRAINING = 267m2

IMPERVIOUS AREAS DRAINING = 65m2

MUSIC MODEL LEGEND-WSUD 1

TOTAL SITE AREA DRAINING = 3765m2

ROOF AREA DRAINING = 1883m2

DRIVEWAY = 123m2

PERVIOUS AREA DRAINING = 1174m2

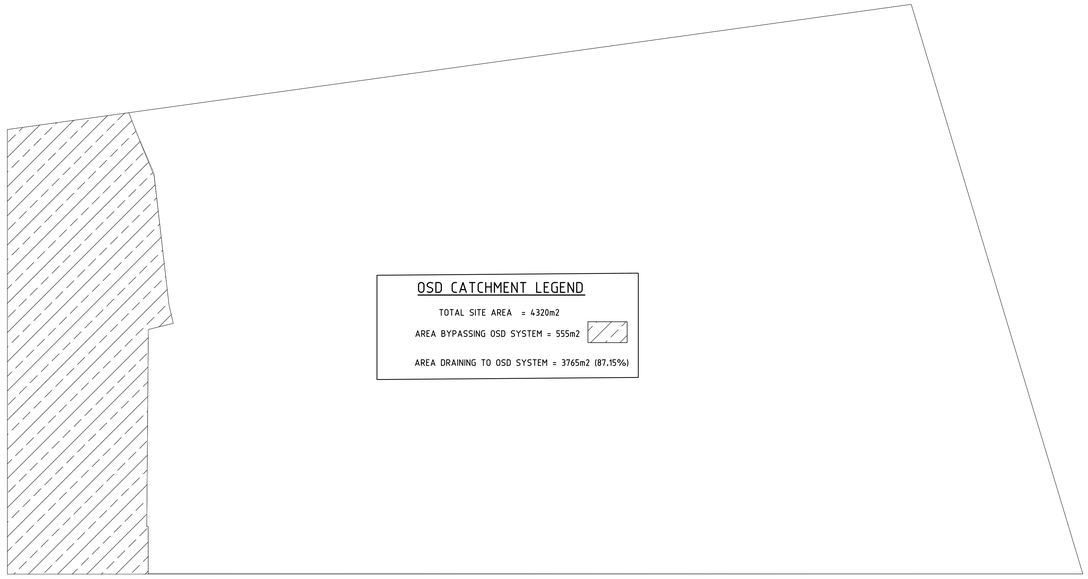
IMPERVIOUS AREAS DRAINING = 457m2

PERVIOUS BYPASS = 98m2

IMPERVIOUS BYPASS = 30m2

MUSIC MODEL CATCHMENT PLAN

SCALE 1:200



OSD CATCHMENT LEGEND

TOTAL SITE AREA = 4320m2

AREA BYPASSING OSD SYSTEM = 555m2

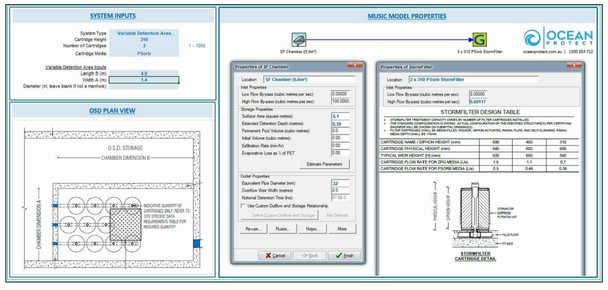
AREA DRAINING TO OSD SYSTEM = 3765m2 (87.15%)

OSD CATCHMENT PLAN

SCALE 1:200

MUSIC MODEL RESULTS

WSUD TANK 1 - MUSIC MODEL INPUT VALUES



WSUD TANK 2 - MUSIC MODEL INPUT VALUES

REV.	AMENDMENT	BY	DATE
A	ISSUED FOR DEVELOPMENT APPROVAL	GB	03/09/2020

FOR COUNCIL / CONSTRUCTION CERTIFICATE ISSUE

CHECKED BY

Signature: *Steve Arraj* Date: 03.09.2020

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PROJECT
PROPOSED RESIDENTIAL DEVELOPMENT
178-188 PENNANT STREET
NORTH PARRAMATTA

DRAWING TITLE
MUSIC MODEL, MUSIC CATCHMENT PLAN AND OSD CATCHMENT PLAN

DESIGNED	GB
CHECKED	SA
DATUM	AHD
SCALE	AS SHOWN

PROJECT NUMBER 2576-DA

DRAWING NUMBER SW050

ISSUE A

AO