

INSTALL 7.1KL DUAL SYSTEM
RAINWATER/OSD TANK TO COLLECT ENTIRE
ROOF. REFER TO DETAILS.
TOP OF TANK RL: 34.95
BASE OF TANK RL: 32.95

ALL NEW STORMWATER PIPES AND
DOWNPIPES TO BE Ø100mm uPVC
U.N.O. (TYP)

CONSTRUCT 4 x 6.7m LONG ABSORPTION
TRENCH TO DISPERSE STORMWATER
RUNOFF FROM IMPERVIOUS AREAS. REFER
TO CALCULATION DETAILS SHEET FOR
MORE INFORMATION (TYP).

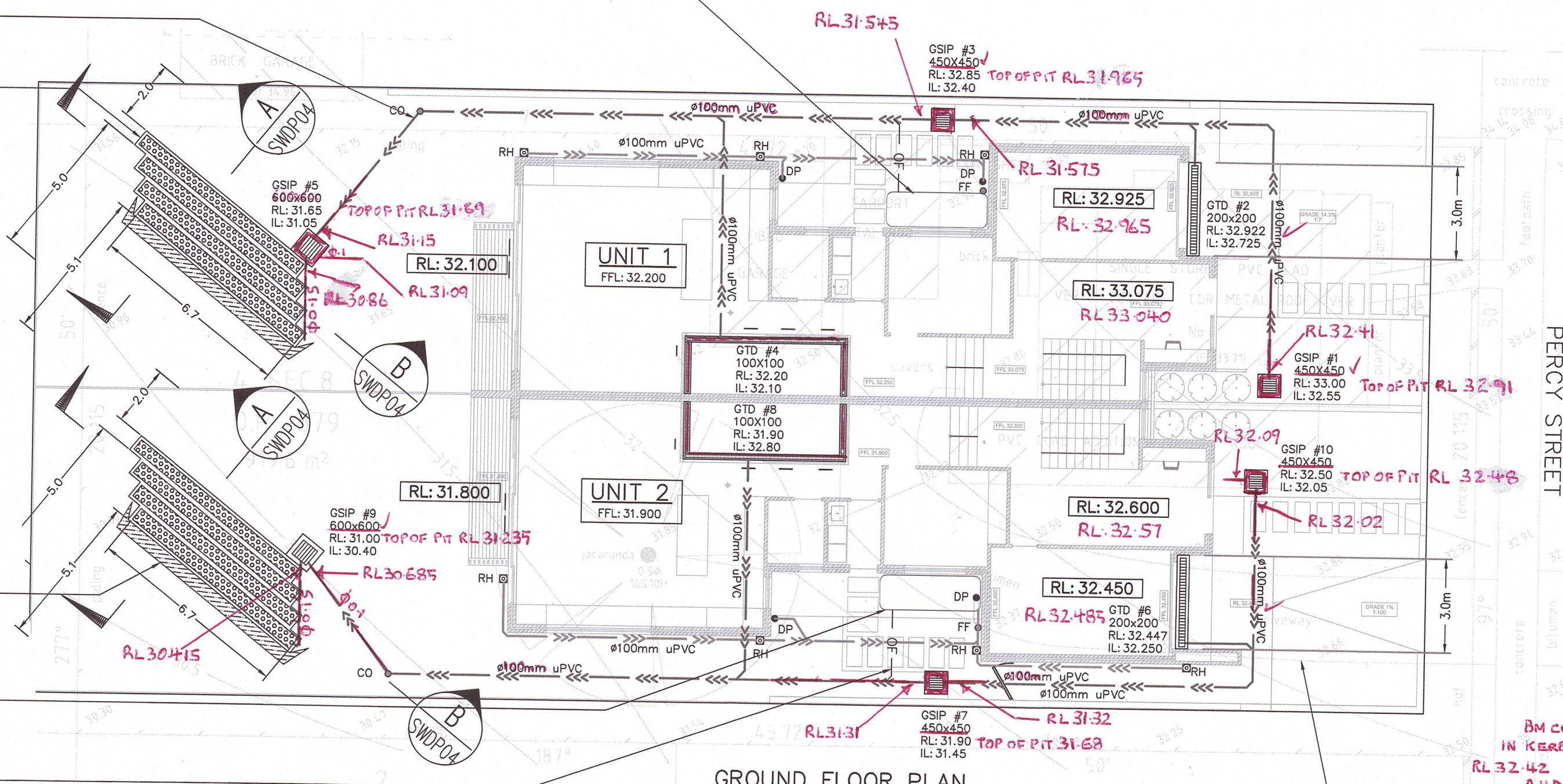
COMBINED OSD/RAINWATER TANK UNIT 1: 7.1KL RAINWATER TANK	
TOP OF TANK RL:	34.95
BASE OF TANK RL:	32.95
OSD ZONE	
TWL:	34.85
IL:	33.48
CROSS SECTIONAL AREA (MINIMUM):	3.76m ²
HEIGHT:	2.0m
VOLUME REQUIRED:	5.1m ³
VOLUME PROVIDED:	5.15m ³
ORIFICE Ø:	45mm
ORIFICE C:	33.50
PSD:	4.73L/s
RAINWATER TANK ZONE:	
TWL:	33.48
IL:	32.95
HEIGHT:	0.53m
CROSS SECTIONAL AREA (MINIMUM):	3.76m ²
VOLUME:	2.0m ³

COMBINED OSD/RAINWATER TANK UNIT 2: 7.1KL RAINWATER TANK	
TOP OF TANK RL:	34.00
BASE OF TANK RL:	32.00
OSD ZONE	
TWL:	33.90
IL:	32.53
CROSS SECTIONAL AREA (MINIMUM):	3.76m ²
HEIGHT:	2.0m
VOLUME REQUIRED:	5.1m ³
VOLUME PROVIDED:	5.15m ³
ORIFICE Ø:	45mm
ORIFICE C:	32.55
PSD:	4.73L/s
RAINWATER TANK ZONE:	
TWL:	32.53
IL:	32.00
HEIGHT:	0.53m
CROSS SECTIONAL AREA (MINIMUM):	3.76m ²
VOLUME:	2.0m ³

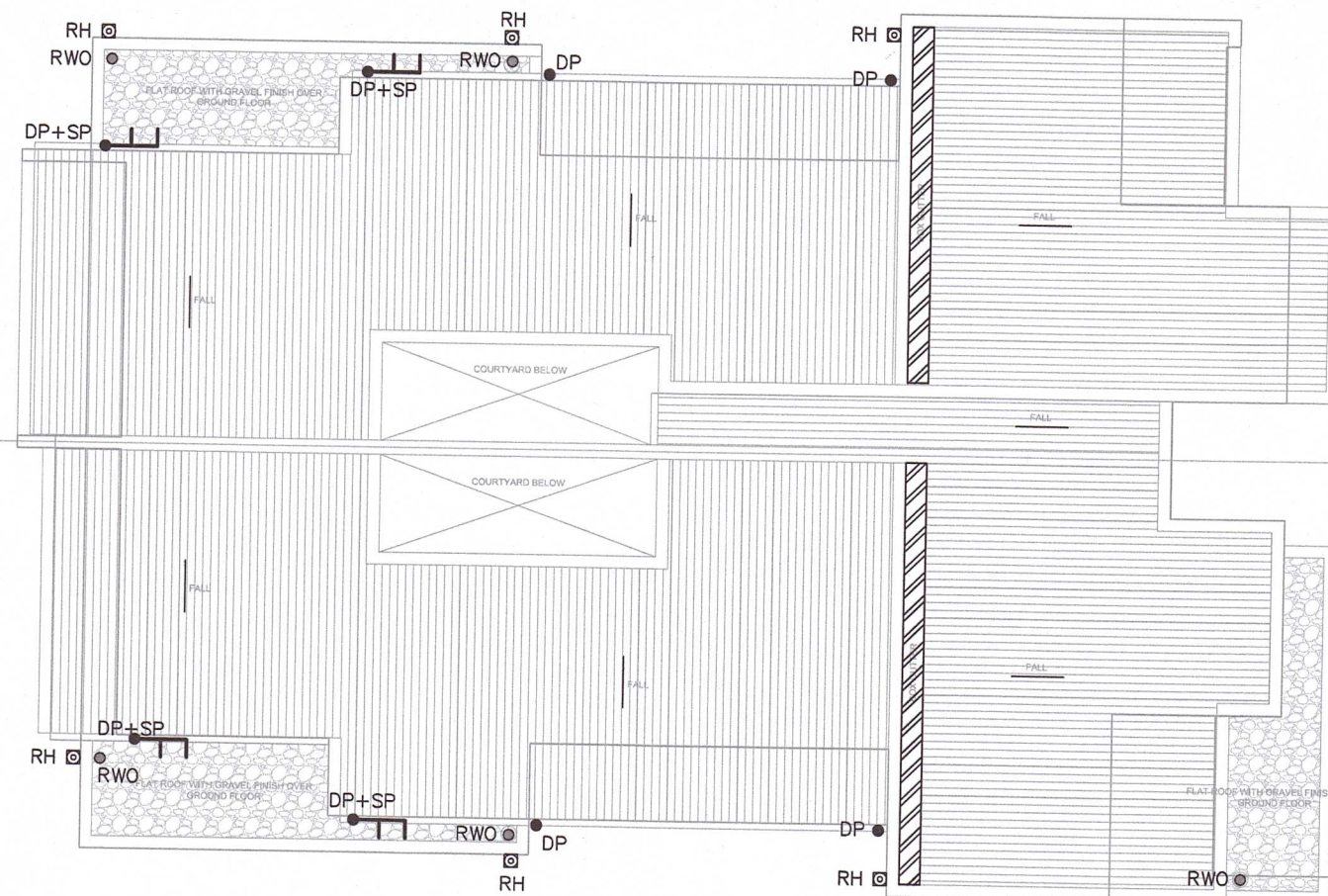
CONSTRUCT 0.5m WIDE LEVEL SPREADING
MOUND TO EMULATE EXISTING SHEET
FLOWS FOR 100yr STORM EVENT (TYP).

INSTALL 7.1KL DUAL SYSTEM
RAINWATER/OSD TANK TO COLLECT ENTIRE
ROOF. REFER TO DETAILS.
TOP OF TANK RL: 34.00
BASE OF TANK RL: 32.00

Ø100mm OSD EMERGENCY OVERFLOW
PIPE INCASE OF BLOCKAGES DURING
100yr STORM EVENT (TYP).



GROUND FLOOR PLAN
SCALE 1:100



ROOF PLAN
SCALE 1:100

DESIGN NOTES:

THE SITE IS LOCATED IN RYDE CITY COUNCIL.

SITE AREA = 919.6m²

THE OSD STORAGE SYSTEM WILL BE A COMBINED
SYSTEM WITH RAINWATER TANK. REFER TO OSD
CALCULATION SHEETS ATTACHED.

INSTALL RAINWATER TANKS TO COLLECT ENTIRE
ROOF AREA FOR RE-USE PURPOSES.

RAINWATER TANKS TO BE EQUIPPED WITH FIRST
FLUSH AND MOSQUITO PREVENTION DEVICES.

INSTALL ABSORPTION TRENCH TO COLLECT ENTIRE
IMPERVIOUS AREAS IN ACCORDANCE WITH RYDE
COUNCIL'S STORMWATER MANAGEMENT TECHNICAL
MANUAL.

ON-SITE ABSORPTION SYSTEMS ARE LOCATED
MINIMUM 5 METRES FROM DOWNSTREAM PROPERTY
BOUNDARY AND A MINIMUM 3 METRES FROM
BUILDINGS.

LOCATION OF ALL STORMWATER PIPES, PITS &
TRENCHES TO BE CO-ORDINATED WITH EXISTING
TREES TO BE RETAINED (TYP).

DOWNPIPE LOCATIONS ARE INDICATIVE AND TO BE
CONFIRMED DURING CONSTRUCTION.

ALL NEW STORMWATER PIPES TO HAVE A MINIMUM
OF 300mm TOPSOIL COVER OR 100mm
CONCRETE COVER U.N.O.

ABSORPTION SYSTEM NOTES:

AN ABSORPTION SYSTEM IS PROVIDED FOR THE
PROPOSED DEVELOPMENT IN ACCORDANCE WITH
COUNCIL'S DCP 2014: PART 8.2 - STORMWATER
AND FLOODPLAIN MANAGEMENT

THE INFILTRATION TRENCH IS DESIGNED WITH A
CAPACITY IN ACCORDANCE TO COUNCIL'S
ABSORPTION TRENCH CALCULATION SHEET IN
APPENDIX 2 AS PER COUNCIL'S DCP PART 8.2 -
STORMWATER AND FLOODPLAIN MANAGEMENT
SECTION 1.3.5 d).

MINIMUM SETBACK OF 5m FROM THE
DOWNSTREAM PROPERTY BOUNDARY AND 3m
FROM BUILDINGS ARE PROVIDED AS PER
COUNCIL'S DCP PART 8.2 - STORMWATER AND
FLOODPLAIN MANAGEMENT SECTION 1.3.5 e).

A DEBRIS/SILT COLLECTION PIT IS CONSTRUCTED
IMMEDIATELY UPSTREAM OF THE UNDERGROUND
SYSTEM, A CAPPED OBSERVATION RISER
INSTALLED OVER THE UNDERGROUND SYSTEM AS
PER COUNCIL'S DCP PART 8.2 - STORMWATER
AND FLOODPLAIN MANAGEMENT SECTION 1.3.5 g).

BALLENDEEN SURVEYORS
C1/102-106 BOYCE ROAD
MAROUBRA JCTN. SYDNEY 2038
PHONE (02) 9344 5506

WE OF BALLENDEEN SURVEYORS
STATE THAT THE APPROX POSITIONS
AND REDUCED LEVELS OF THE
SYSTEM MARK IN RED OF THIS
PLAN TO BE CORRECT: DATED 12TH DECEMBER
2022 REF 20220198



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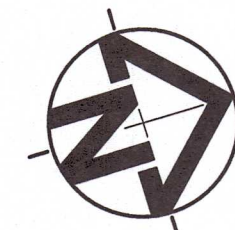
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Client
SYDESIGN
Project
6 PERCY STREET, GLADESVILLE

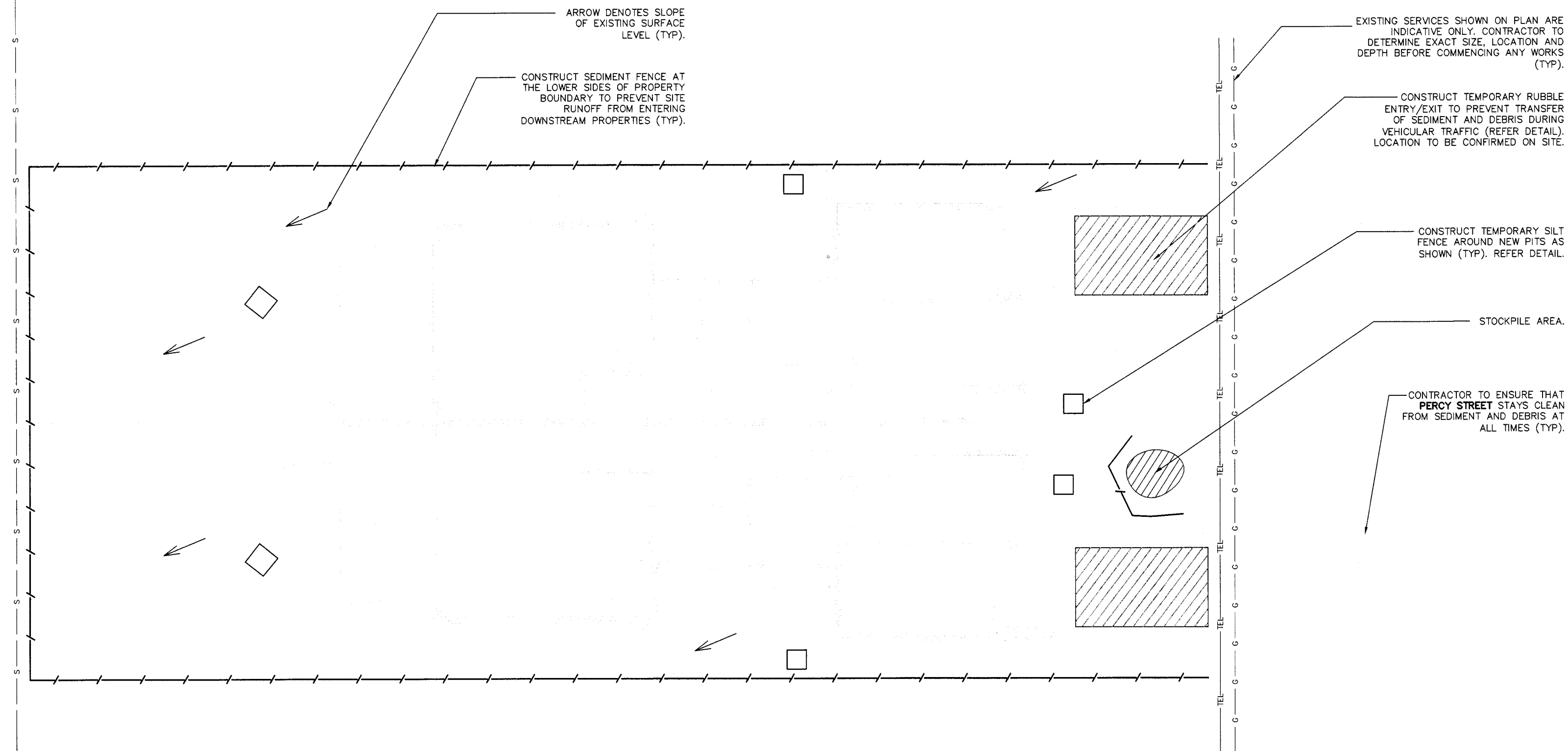
Title
**SITE STORMWATER PLAN
& DETAILS**



Date
14.10.2019
Scale
**1:100 @ A1
(original size)**
1:200 @ A3

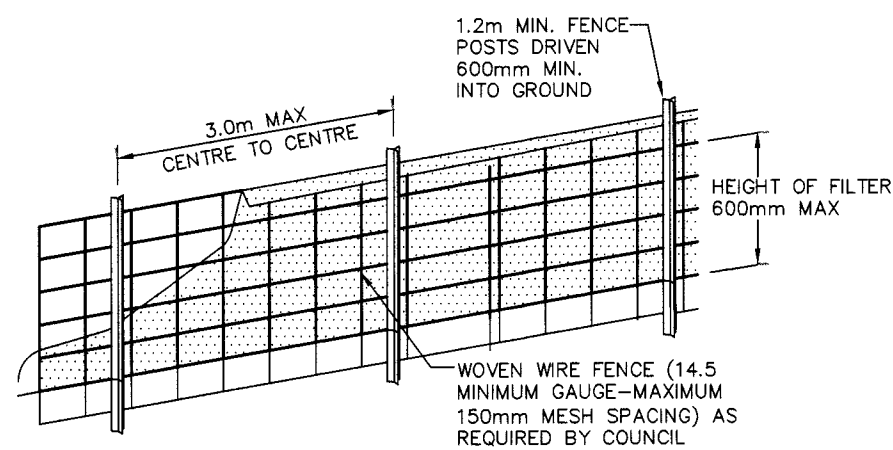
Design
S.C.H
Drawn
S.L
Checked
SCH
Project Number
SW18074

Approved
P.E.
PAUL EL-BAYEH
B.E., M.E. (struct/foundation), M.I.E. Aust
Drawing Number
SWDP03
Revision
02



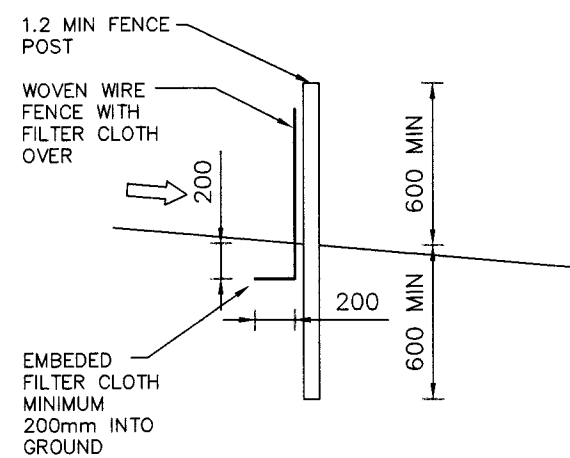
EROSION & SEDIMENT CONTROL PLAN

SCALE 1:100

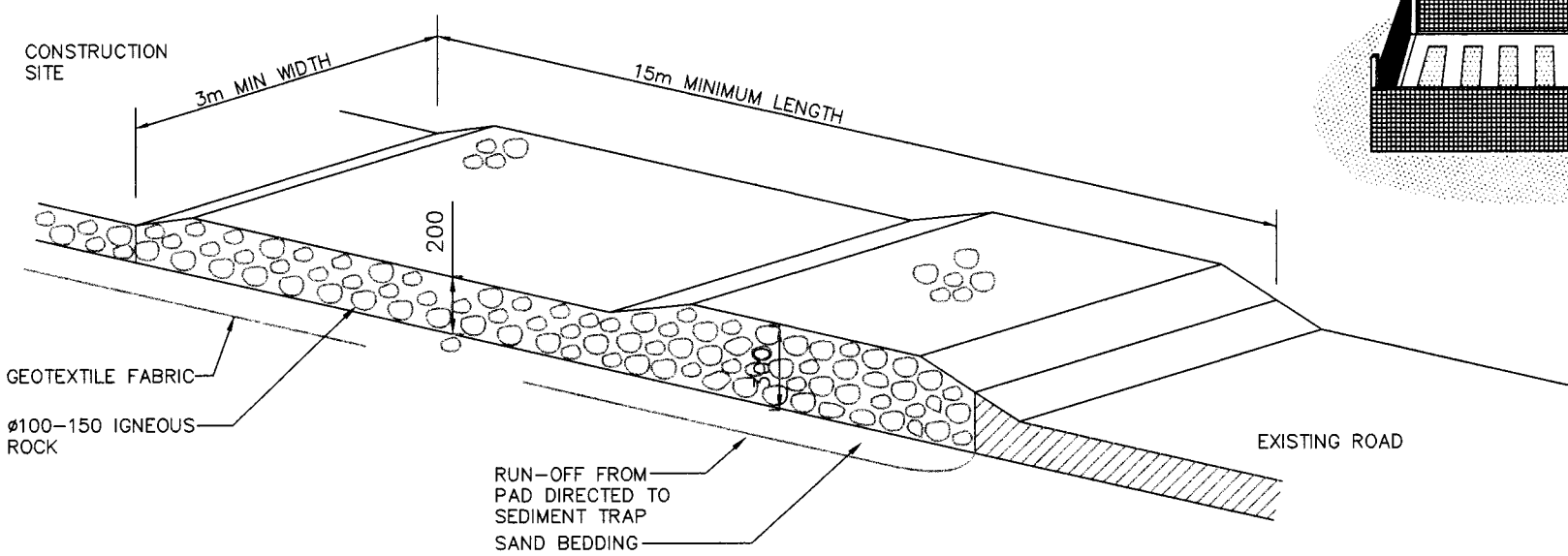


DIAGRAMMATIC VIEW

DETAIL 1
SEDIMENT FENCE
NOT TO SCALE

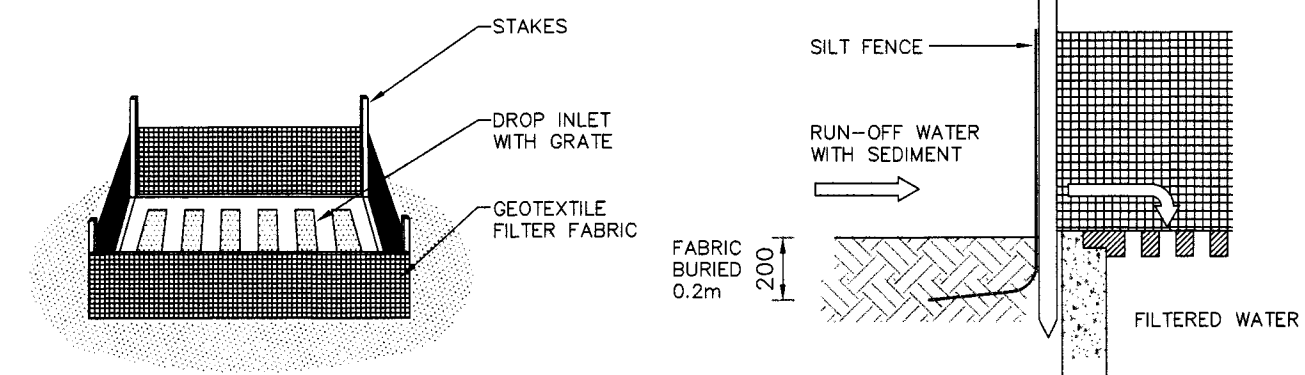


TYPICAL SECTION



RUBBLE ALTERNATIVE

DETAIL 2
TEMPORARY
CONSTRUCTION EXIT
NOT TO SCALE



DETAIL 3
SUMP SEDIMENT TRAP
NOT TO SCALE

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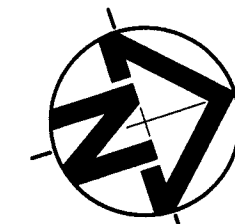
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Client
SYDESIGN
Project
6 PERCY STREET, GLADESVILLE

Title
**EROSION & SEDIMENT
CONTROL PLAN**



Date
14.10.2019
Scale
**1:100 @ A1
(original size)**
1:200 @ A3

Design
S.C.H.
Drawn
S.L.
Checked
SCH
Project Number
SW18074

Approved
P.E.
PAUL EL-BAYEH
B.E., M.E.(struct/foundation), M.I.E. Aust
Drawing Number
SWDP02
Revision
02

PROPOSED DUAL OCCUPANCY AT
6 PERCY STREET, GLADESVILLE NSW
CONCEPT STORMWATER DRAINAGE PLAN

LEGEND	
DP •	DOWNPIPE
—>>>—	STORMWATER LINE
—>>>—	STORMWATER LINE DRAINING TO RWT
—OF—	OVER FLOW PIPE
—SSD—	SUBSOIL LINE
—SWRM—	STORMWATER RISING MAIN
—e—	EXISTING STORMWATER LINE
—SW—SW—	AUTHORITY STORMWATER LINE
—HL—HL—	HIGH LEVEL STORMWATER LINE
—S—	AUTHORITY SEWER LINE
—W—	AUTHORITY WATER LINE
—G—G—	AUTHORITY GAS LINE
—E—	AUTHORITY ELECTRICITY LINE
—FO—FO—FO—	AUTHORITY FIBRE OPTIC LINE
—TEL—	AUTHORITY COMMS LINE
—/—/—/—	FENCE LINE
	GRATED SURFACE INLET PIT
	GRATED SURFACE INLET PIT WITH ENVIROPD INSERT
	JUNCTION PIT
	KERB INLET PIT
	EXISTING GRATED SURFACE INLET PIT
	GRATED TRENCH DRAIN
	EXISTING JUNCTION PIT
	EXISTING KERB INLET PIT
	EXISTING TELSTRA PIT
	EXISTING HYDRANT
	EXISTING STOP VALVE
	EXISTING GAS VALVE
	EXISTING POWER POLE
	EXISTING BOUNDARY TRAP

LEGEND	
FF •	FIRST FLUSH
	EXISTING SEWER MANHOLE
OFF →	OVERLAND FLOW PATH
RWO •	RAINWATER OUTLET
PS •	PIPE STAND
CO •	CLEAR OUT POINT
DDO •	DISH DRAIN OUTLET
PD •	PLANTER DRAIN
J	CAPPING
(1.01)	PIT TAG/NUMBER
RH	RAINHEAD
	DOWNPIPE DROP
	NON RETURN VALVE
	WALL PENETRATION
DP	DOWNPIPE SPREADER
	WARNING LIGHT
0.00 •	SPOT LEVELS
	BENCHMARK

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SERVICES SHOWN ON PLAN ARE INDICATIVE, EXACT DEPTH AND LOCATION TO BE CONFIRMED ONSITE. CONTRACTOR TO CARRY OUT DIAL BEFORE YOU DIG APPLICATION AND ENGAGE A REGISTERED SURVEYOR TO PEG OUT ALL EXISTING SERVICES PRIOR TO ANY WORK COMMENCING ONSITE.

DRAWING REGISTER		
NUMBER	NAME	REVISION
SWDP01	COVER SHEET	02
SWDP02	EROSION & SEDIMENT CONTROL PLAN	02
SWDP03	SITE STORMWATER PLAN & DETAILS	02
SWDP04	DETAILS SHEET	02

DRAINAGE NOTES:

ALL PIPES TO BE LAID ON 75mm SAND BED WITH THE BARRELS FULLY SUPPORTED

100mm AND 150mm DIAMETER PIPES TO BE LAID ON MINIMUM 1% GRADE

MINIMUM DEPTH OF COVER FOR PIPES NOT SUBJECT TO VEHICULAR LOADING TO BE 300mm

ALL DRAINAGE PIPES LAID UNDER PAVEMENT SHALL BE REINFORCED CONCRETE WITH RUBBER RING JOINTS

BACKFILL TRENCHES WITH COMPACTED SAND OR APPROVED AGGREGATE MATERIAL

ALL PITS TO HAVE 600x600mm INTERNAL DIMENSIONS (U.N.O.)

SILT ARRESTORS TO HAVE 900x900mm INTERNAL DIMENSIONS

HEAVY DUTY GRATES AND COVERS ARE TO BE PROVIDED IN TRAFFICABLE AREAS

PIT GRATE TO BE TYPE WELDLK OR APPROVED EQUIVALENT

ALL PITS SHALL BE PROVIDED WITH A LOCKING CLIP

ALL PITS SHALL BE MAINTAINED REGULARLY

TOP OF BENCHING SHALL BE TO THE HALF OF THE OUTLET PIPE DIAMETER

MAXIMUM FRONT ENTRY PIPE:-

STRAIGHT ENTRY - #750

SKREW ENTRY 45° - #525

#100 SUBSOIL DRAINAGE PIPE 3000mm LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED ADJACENT TO INLET PIPES

COMPRESSIVE STRENGTH f_c FOR CAST IN SITU CONCRETE TO BE A MINIMUM OF 20MPa AT 28 DAYS

PROVIDE CLEANING EYES TO ALL DOWNPIPES NOT DIRECTLY CONNECTED TO PITS

ISOLATED JOINTS TO BE PROVIDED TO ISOLATE CONCRETE PAVEMENTS FROM PITS

ALL TRENCH GRATES PROVIDED SHALL HAVE A MINIMUM CLEAR WIDTH OF 200mm

STORMWATER DRAINAGE CONNECTIONS TO THE MAIN SYSTEM SHALL BE TO THE REQUIREMENTS AND THE SATISFACTION OF LOCAL COUNCIL

ABBREVIATIONS:

Ø or DIA	DIAMETER
CBR	CALIFORNIA BEARING RATIO
CH	CHAINAGE
CL	CENTER LINE
CO	CLEAR OUT
DDO	DISH DRAIN OUTLET
DEJ	DOWELLED EXPANSION JOINT
DGB	DENSE GRADED BASECOURSE
DGS	DENSE GRADED SUB-BASE
DP	DOWNPIPE
e	EXISTING
FFL	FINISHED FLOOR LEVEL
GTD	GRATED TRENCH DRAIN
GSP	GRATED SURFACE INLET PIT
HYD	HYDRANT
IJ	ISOLATING JOINT
IK	INTEGRAL KERB
IL	INVERT LEVEL
IP	INTERSECTION POINT
KIP	KERB INLET PIT
KO	KERB ONLY
K&G	KERB & GUTTER
KR	KERB RETURN
LS	LONGITUDINAL SECTION
NGL	NATURAL GROUND LEVEL
OFF	OVERLAND FLOW PATH
OSD	ON-SITE DETENTION
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RK	ROLL KERB & GUTTER
RL	REDUCED LEVEL
RW	RETAINING WALL
RWT	RAINWATER TANK
SJ	SAWM CONTROL JOINT
SMH	SEWER MAN HOLE
SW	STORMWATER
SWP	STORMWATER PIT
SWRM	STORMWATER RISING MAIN
SWS	STORMWATER SUMP
SV	STOP VALVE
TOK	TOP OF KERB
TOW	TOP OF WALL
TWL	TOP WATER LEVEL
TP	TANGENT POINT
UPVC	UNPLASTICISED POLYVINYL CHLORIDE
UNO	UNLESS NOTED OTHERWISE
WPJ	WEAKENED PLANE JOINT
FF	FIRST FLUSH DEVICE
TYP	TYPICAL
BM	BENCH MARK

STORMWATER PIPE BEDDING/PAVING NOTES:

WHERE TRENCH BASE IS ROCK A MINIMUM OF 75mm BEDDING TO BE PROVIDED UNDER PIPE COLLARS.

STORMWATER PIPE BEDDING DETAIL TO BE IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENTS. BEDDING DETAILS TO BE CONFIRMED UPON EXCAVATION & PRIOR TO INSTALLATION OF PIPEWORK.

FOOTPATH REINSTATEMENT NOTES:

REMOVE ALL SAND FILL WITHIN THE FOOTPATH AREA TO THE EXISTING SUBGRADE.

SUPPORT ALL AUTHORITY SERVICES TO STRUCTURAL ENGINEERS DETAILS DURING EXCAVATION.

REINSTATE FOOTPATH SUBGRADE.

THE CONTRACTOR SHALL PROVIDE CERTIFICATION OF COMPACTION FROM A NATA REGISTERED TESTING AUTHORITY. MINIMUM THREE TESTS PER LAYER AS FOLLOWS:

SELECT FILL	95% MODIFIED
SELECT FILL (LESS THAN 300mm BELOW BASE COURSE)	98% MODIFIED
BASE COURSE	100% MODIFIED

EROSION & SEDIMENT CONTROL NOTES:

PROVIDE SILT FENCE/HAY BAIL BARRIERS TO THE LOW SIDE OF ALL EXPOSED EARTH EXCAVATIONS (TYPICAL).

ISOLATE EXISTING STORMWATER PITS WITH HAY BALES TO FILTER ALL INCOMING FLOWS.

DO NOT STOCK PILE EXCAVATED MATERIAL ON THE ROAD WAY.

SURVEY

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY JIM ALVR SURVEYING, BEING REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. CAPITAL ENGINEERING CONSULTANTS DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAW.

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT CAPITAL ENGINEERING CONSULTANTS.

ADOPT DATUM SSM 76871 RL:31.25 (A.H.D) AS PER JIM ALVR SURVEYING.

IT IS THE BUILDERS RESPONSIBILITY TO MAKE SURE ALL SURVEY MARKS TO BE PRESERVED AT ALL COST.

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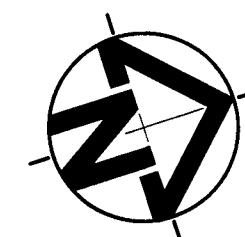


Client
SYDESIGN

Project

6 PERCY STREET, GLADESVILLE

Title
COVER SHEET



Date
14.10.2019

Scale
1:100 @ A1 (original size)
1:200 @ A3

Design
S.C.H

Drawn
S.L

Checked
SCH

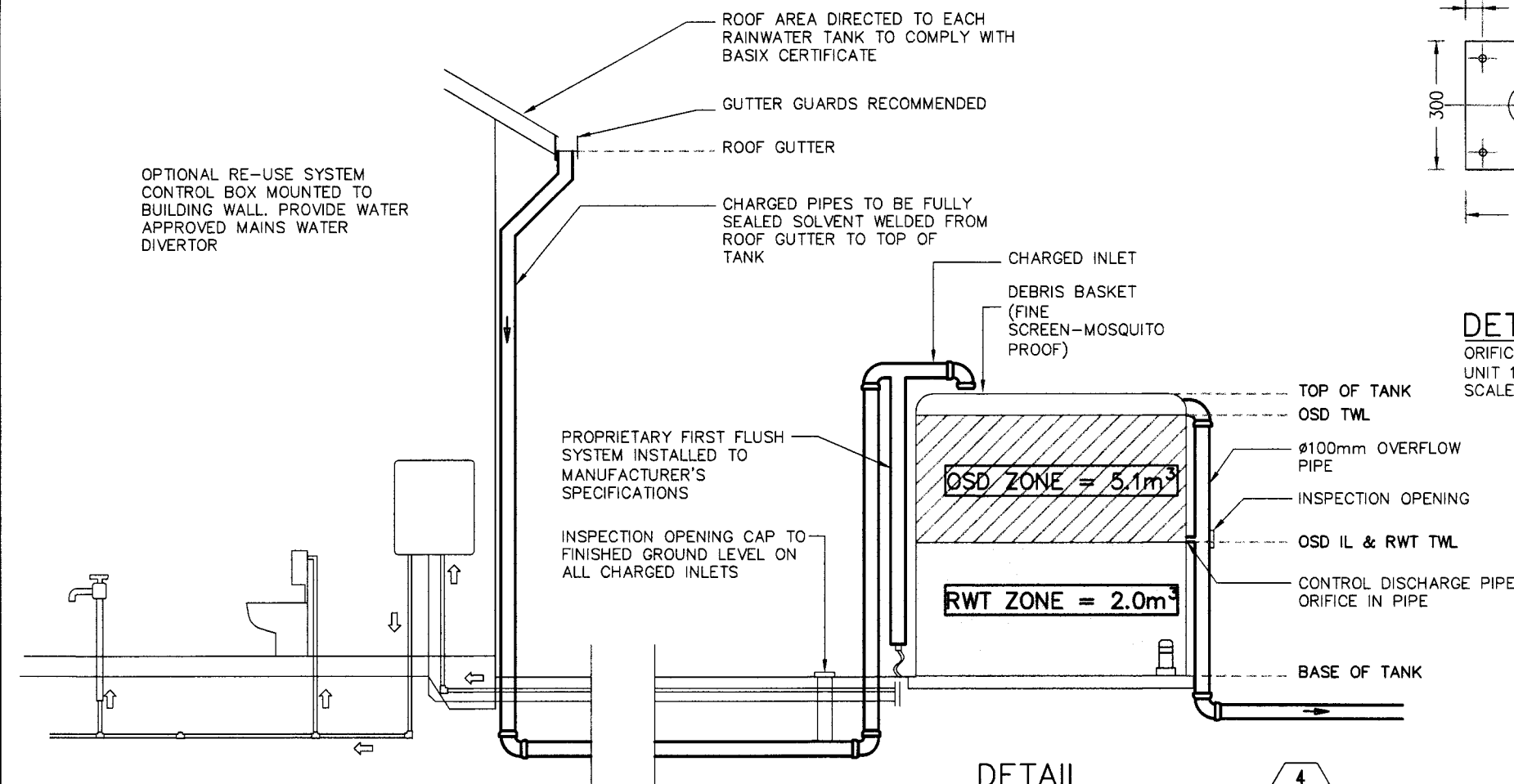
Project Number
SW18074

Approved
P.E.

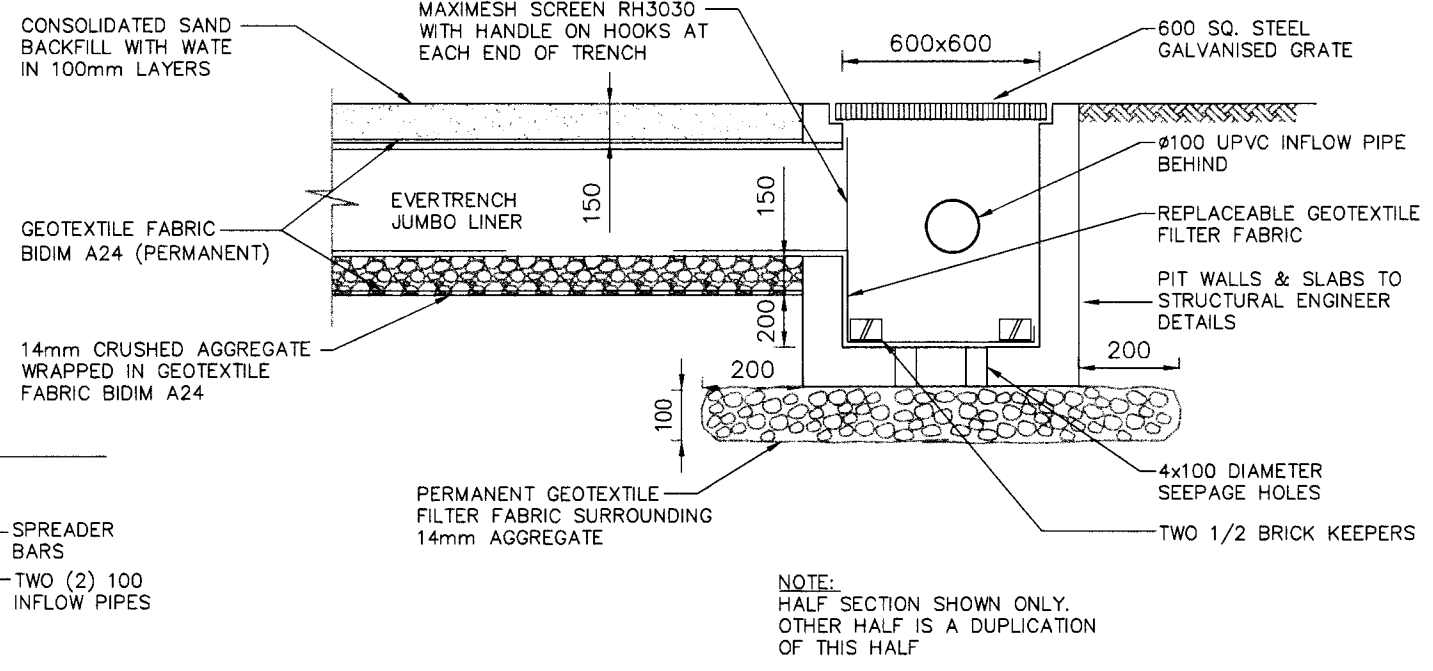
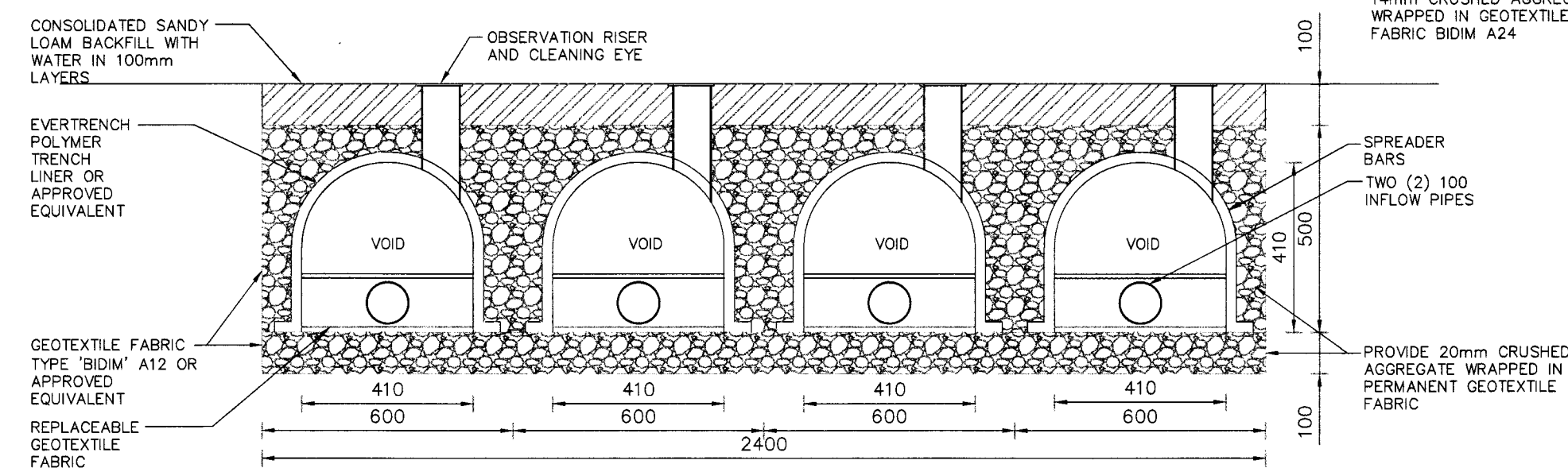
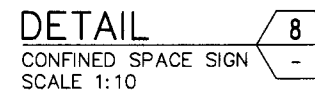
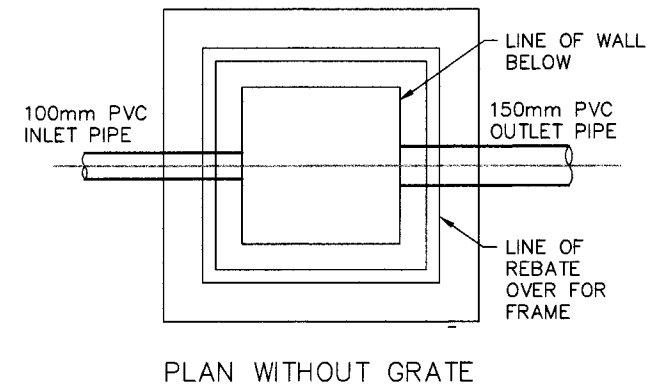
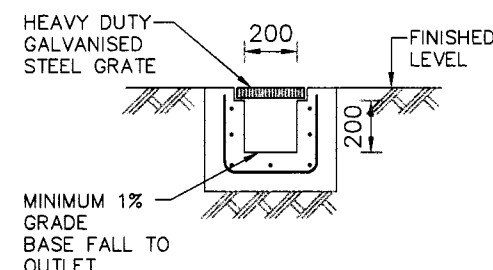
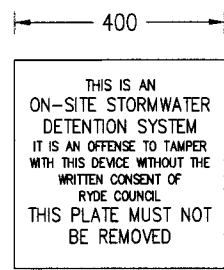
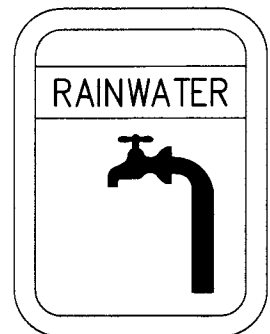
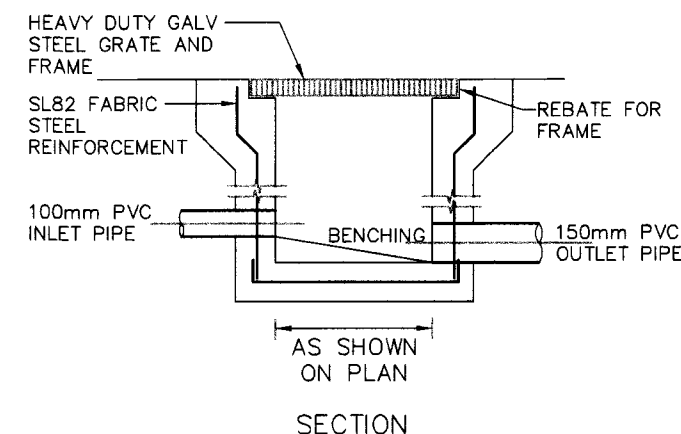
PAUL EL-BAYEH
B.E.(struct/foundation), M.I.E. Aust

Drawing Number
SWDP01

Revision
02



LEGEND:
BACKGROUND IS YELLOW
TEXT IS WHITE ON BLACK
BACKGROUND



NOTE:
HALF SECTION SHOWN ONLY.
OTHER HALF IS A DUPLICATION
OF THIS HALF



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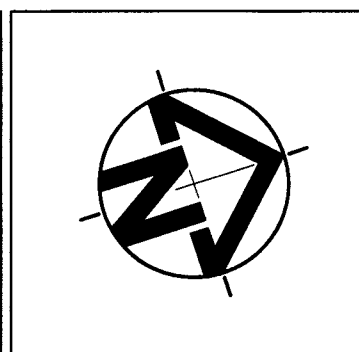
FOR APPROVAL

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Client
SYDESIGN
Project
6 PERCY STREET, GLADESVILLE

Title
DETAILS SHEET



Date 14.10.2019	Design S.C.H	Approved P.E. PAUL EL-BAYEH B.E., M.E. (struct/foundation), M.I.E. Aust
Scale 1:100 @ A1 (original size) 1:200 @ A3	Drawn S.L Checked SCH	Project Number SW18074
	Drawing Number SWDP04	Revision 02