

GENERAL NOTES :

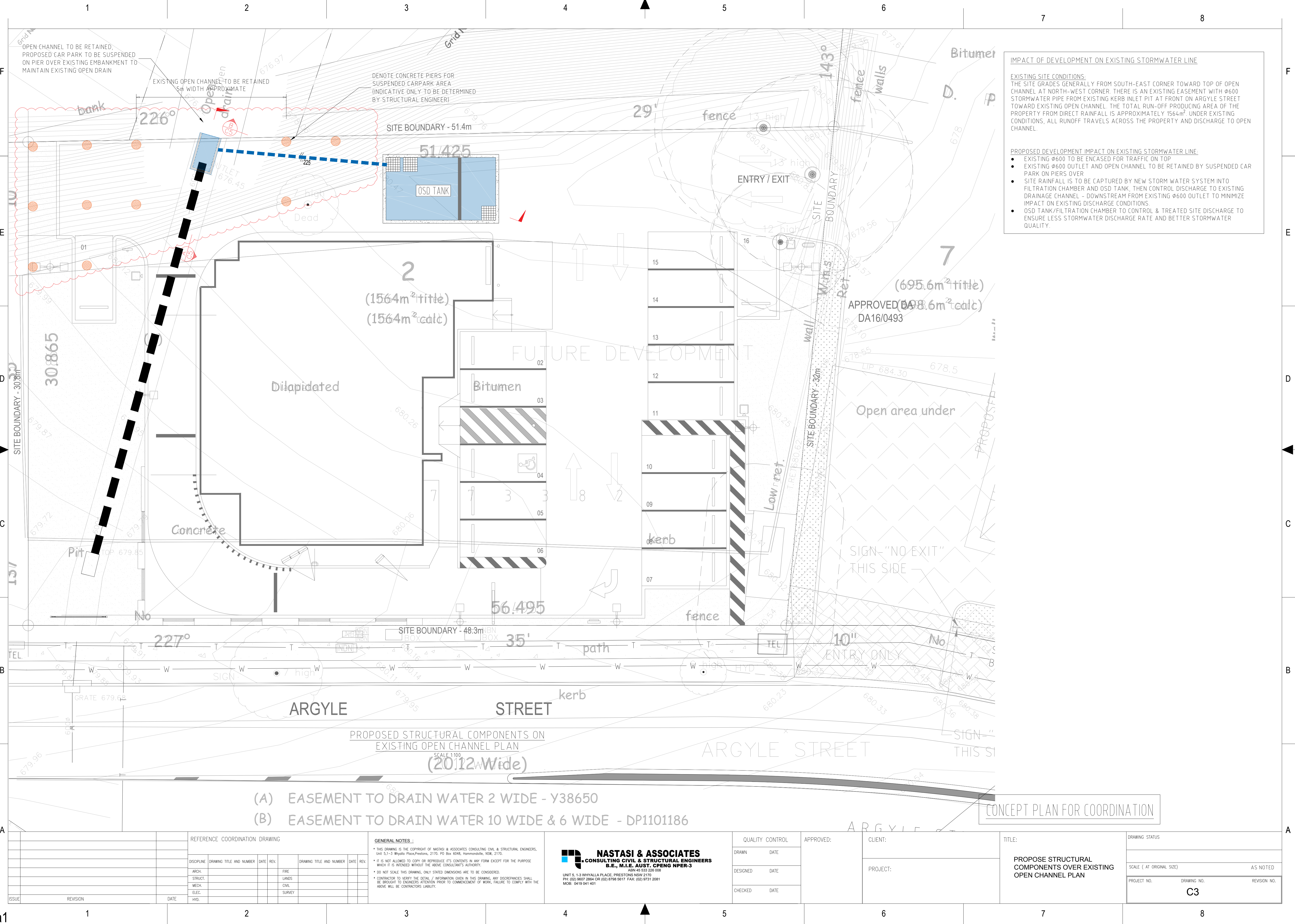
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APPROVED:

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IMPACT OF DEVELOPMENT ON EXISTING STORMWATER LINE

EXISTING SITE CONDITIONS:
THE SITE GRADES GENERALLY FROM SOUTH-EAST CORNER TOWARD TOP OF OPEN CHANNEL AT NORTH-WEST CORNER. THERE IS AN EXISTING EASEMENT WITH Ø600 STORMWATER PIPE FROM EXISTING KERB INLET PIT AT FRONT ON ARGYLE STREET TOWARD EXISTING OPEN CHANNEL. THE TOTAL RUN-OFF PRODUCING AREA OF THE PROPERTY FROM DIRECT RAINFALL IS APPROXIMATELY 1564m². UNDER EXISTING CONDITIONS, ALL RUNOFF TRAVELS ACROSS THE PROPERTY AND DISCHARGE TO OPEN CHANNEL.

PROPOSED DEVELOPMENT IMPACT ON EXISTING STORMWATER LINE:

- EXISTING Ø600 TO BE ENCASED FOR TRAFFIC ON TOP
- EXISTING Ø600 OUTLET AND OPEN CHANNEL TO BE RETAINED BY SUSPENDED CAR PARK ON PIERS OVER
- SITE RAINFALL IS TO BE CAPTURED BY NEW STORM WATER SYSTEM INTO FILTRATION CHAMBER AND OSD TANK, THEN CONTROL DISCHARGE TO EXISTING DRAINAGE CHANNEL - DOWNSTREAM FROM EXISTING Ø600 OUTLET TO MINIMIZE IMPACT ON EXISTING DISCHARGE CONDITIONS.
- OSD TANK/FILTRATION CHAMBER TO CONTROL & TREATED SITE DISCHARGE TO ENSURE LESS STORMWATER DISCHARGE RATE AND BETTER STORMWATER QUALITY.

				REFERENCE COORDINATION DRAWING				GENERAL NOTES : * THIS DRAWING IS THE COPYRIGHT OF NASTASI & ASSOCIATES CONSULTING CIVIL & STRUCTURAL ENGINEERS, Unit 5,1-3 Whyalla Place,Prestons, 2170, PO Box 6048, Homewood, NSW, 2170. * IT IS NOT ALLOWED TO COPY OR REPRODUCE ITS CONTENTS IN ANY FORM EXCEPT FOR THE PURPOSE WHICH IT IS INTENDED WITHOUT THE ABOVE CONSULTANT'S AUTHORITY. * DO NOT SCALE THIS DRAWING, ONLY STATED DIMENSIONS ARE TO BE CONSIDERED. * CONTRACTOR TO VERIFY THE DETAIL / INFORMATION GIVEN IN THIS DRAWING, ANY DISCREPANCIES SHALL BE BROUGHT TO ENGINEERS ATTENTION PRIOR TO COMMENCEMENT OF WORK, FAILURE TO COMPLY WITH THE ABOVE WILL BE CONTRACTORS LIABILITY.				NASTASI & ASSOCIATES CONSULTING CIVIL & STRUCTURAL ENGINEERS B.E., M.I.E. AUST. CPENG NPER-3 UNIT 5, 1-3 WHYALLA PLACE, PRESTONS NSW 2170 PH: (02) 9607 2864 OR (02) 8798 5617 FAX: (02) 9731 2081 MOB: 0419 041 401				QUALITY CONTROL		APPROVED:		CLIENT:		TITLE:		DRAWING STATUS			
				DISCIPLINE		DRAWING TITLE AND NUMBER		DATE		REV.		DRAWING TITLE AND NUMBER		DATE		REV.											
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				HYD.																							
ISSUE		REVISION		DATE																							

SIDE ROAD (UNFORMED)

30.8m

51.4m

32.0m

APPROVED DA
DA16/0493

48.3m

ARGYLE STREET

ROOF DRAINAGE PLAN

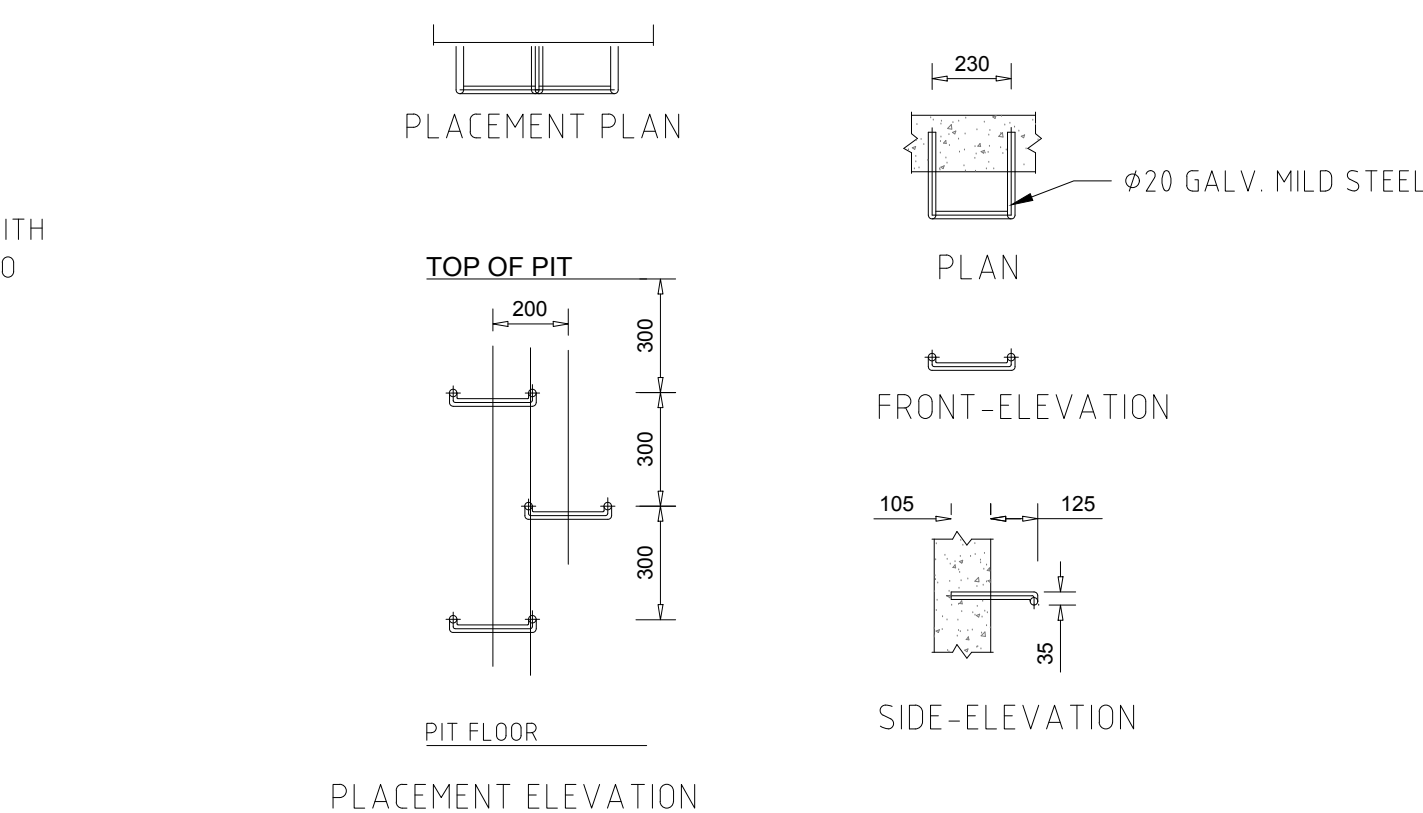
SCALE 1:100

- DRIVEWAY SLAB TO HAVE 1% MIN FALL TO SURFACE PIT
- ALL SURFACE PITS TO BE FITTED WITH HEAVY DUTY CLASS C GRATE & FRAME

CONCEPT PLAN FOR COORDINATION

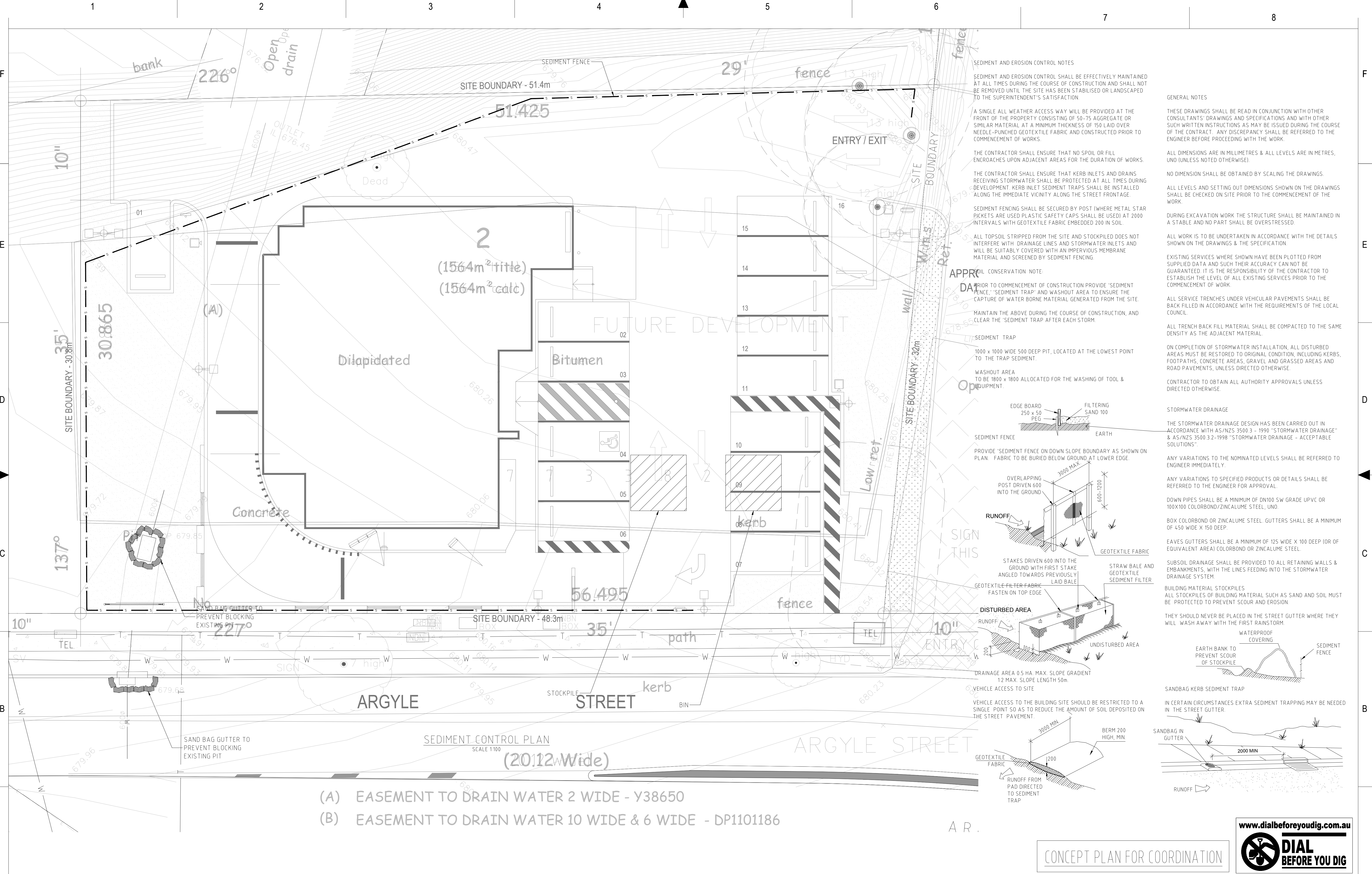


REFERENCE COORDINATION DRAWING					GENERAL NOTES : </				
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CONCEPT PLAN FOR COORDINATION

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SEDIMENT AND EROSION CONTROL NOTES

SEDIMENT AND EROSION CONTROL SHALL BE EFFECTIVELY MAINTAINED AT ALL TIMES DURING THE COURSE OF CONSTRUCTION AND SHALL NOT BE REMOVED UNTIL THE SITE HAS BEEN STABILISED OR LANDSCAPED TO THE SUPERINTENDENT'S SATISFACTION.

A SINGLE ALL WEATHER ACCESS WAY WILL BE PROVIDED AT THE FRONT OF THE PROPERTY CONSISTING OF 50-75 AGGREGATE OR SIMILAR MATERIAL AT A MINIMUM THICKNESS OF 150 LAID OVER NEEDLE-PUNCHED GEOTEXTILE FABRIC AND CONSTRUCTED PRIOR TO COMMENCEMENT OF WORKS.

THE CONTRACTOR SHALL ENSURE THAT NO SPOIL OR FILL ENCROACHES UPON ADJACENT AREAS FOR THE DURATION OF WORKS.

THE CONTRACTOR SHALL ENSURE THAT KERB INLETS AND DRAINS RECEIVING STORMWATER SHALL BE PROTECTED AT ALL TIMES DURING DEVELOPMENT. KERB INLET SEDIMENT TRAPS SHALL BE INSTALLED ALONG THE IMMEDIATE VICINITY ALONG THE STREET FRONTAGE.

SEDIMENT FENCING SHALL BE SECURED BY POST (WHERE METAL STAR PICKETS ARE USED PLASTIC SAFETY CAPS SHALL BE USED) AT 2000 INTERVALS WITH GEOTEXTILE FABRIC EMBEDDED 200 IN SOIL.

ALL TOPSOIL STRIPPED FROM THE SITE AND STOCKPILED DOES NOT INTERFERE WITH DRAINAGE LINES AND STORMWATER INLETS AND WILL BE SUITABLY COVERED WITH AN IMPERVIOUS MEMBRANE MATERIAL AND SCREENED BY SEDIMENT FENCING.

GENERAL NOTES

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH OTHER SUCH WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

ALL DIMENSIONS ARE IN MILLIMETRES & ALL LEVELS ARE IN METRES, UNO (UNLESS NOTED OTHERWISE).

NO DIMENSION SHALL BE OBTAINED BY SCALING THE DRAWINGS.

ALL LEVELS AND SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORK.

DURING EXCAVATION WORK THE STRUCTURE SHALL BE MAINTAINED IN A STABLE AND NO PART SHALL BE OVERSTRESSED.

ALL WORK IS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS & THE SPECIFICATION.

EXISTING SERVICES WHERE SHOWN HAVE BEEN PLOTTED FROM SUPPLIED DATA AND SUCH THEIR ACCURACY CAN NOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORK.

ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACK FILLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL COUNCIL.

ALL TRENCH BACK FILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.

ON COMPLETION OF STORMWATER INSTALLATION, ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL CONDITION, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSSED AREAS AND ROAD PAVEMENTS, UNLESS DIRECTED OTHERWISE.

CONTRACTOR TO OBTAIN ALL AUTHORITY APPROVALS UNLESS DIRECTED OTHERWISE.

STORMWATER DRAINAGE

THE STORMWATER DRAINAGE DESIGN HAS BEEN CARRIED OUT IN ACCORDANCE WITH AS/NZS 3500.3 - 1990 "STORMWATER DRAINAGE" & AS/NZS 3500.3.2-1998 "STORMWATER DRAINAGE - ACCEPTABLE SOLUTIONS".

ANY VARIATIONS TO THE NOMINATED LEVELS SHALL BE REFERRED TO ENGINEER IMMEDIATELY.

ANY VARIATIONS TO SPECIFIED PRODUCTS OR DETAILS SHALL BE REFERRED TO THE ENGINEER FOR APPROVAL.

DOWN PIPES SHALL BE A MINIMUM OF DN100 SW GRADE UPVC OR 100X100 COLORBOND/ZINCALUME STEEL, UNO.

BOX COLORBOND OR ZINCALUME STEEL. GUTTERS SHALL BE A MINIMUM OF 450 WIDE X 150 DEEP.

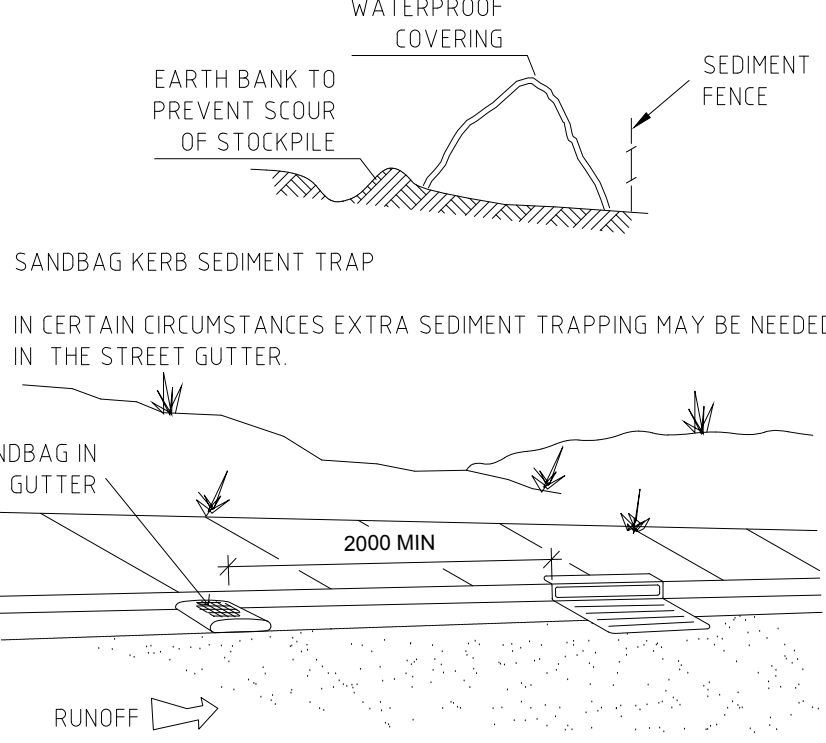
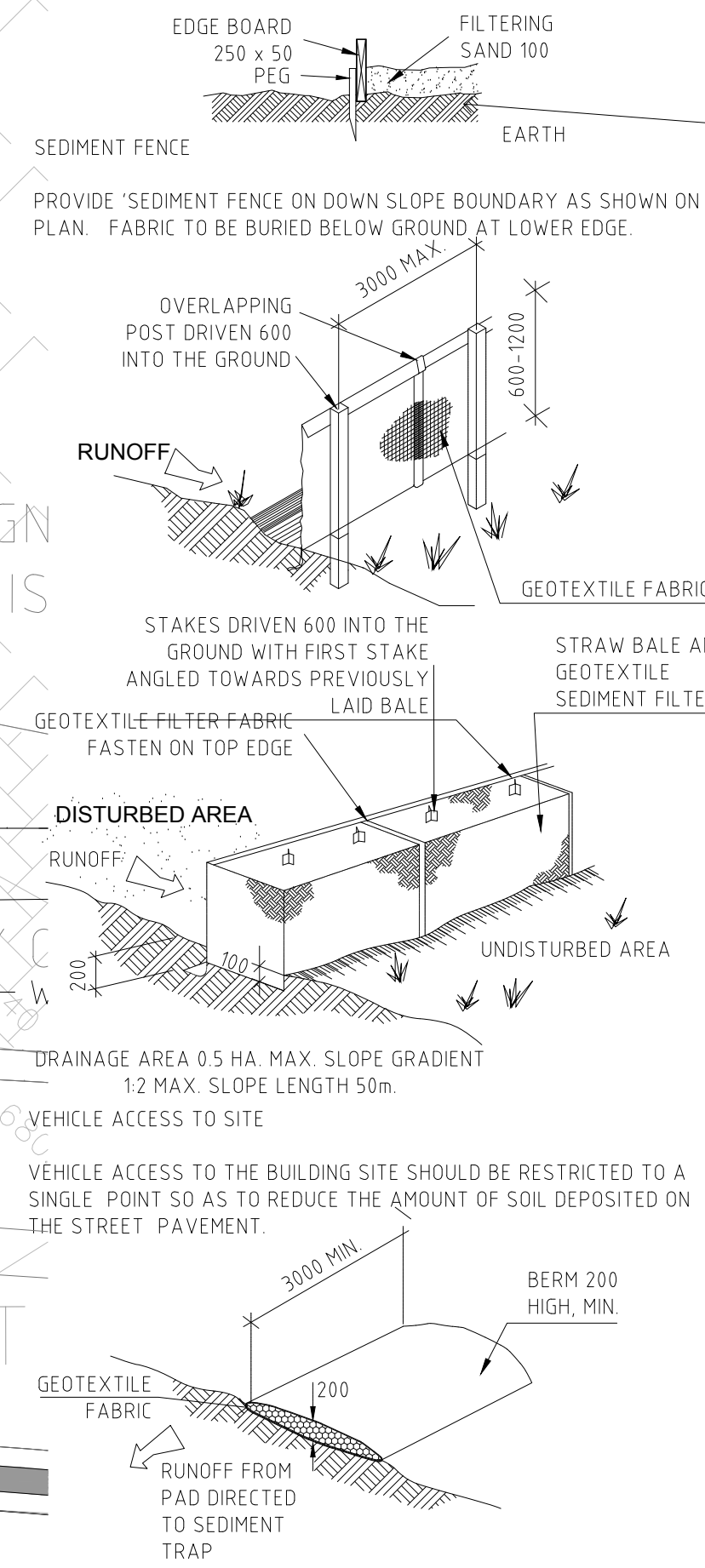
EAVES GUTTERS SHALL BE A MINIMUM OF 125 WIDE X 100 DEEP IOR OF EQUIVALENT AREA) COLORBOND OR ZINCALUME STEEL.

SUBSOIL DRAINAGE SHALL BE PROVIDED TO ALL RETAINING WALLS & EMBANKMENTS, WITH THE LINES FEEDING INTO THE STORMWATER DRAINAGE SYSTEM.

BUILDING MATERIAL STOCKPILES

ALL STOCKPILES OF BUILDING MATERIAL SUCH AS SAND AND SOIL MUST BE PROTECTED TO PREVENT SCOUR AND EROSION.

THEY SHOULD NEVER BE PLACED IN THE STREET GUTTER WHERE THEY WILL WASH AWAY WITH THE FIRST RAINSTORM.



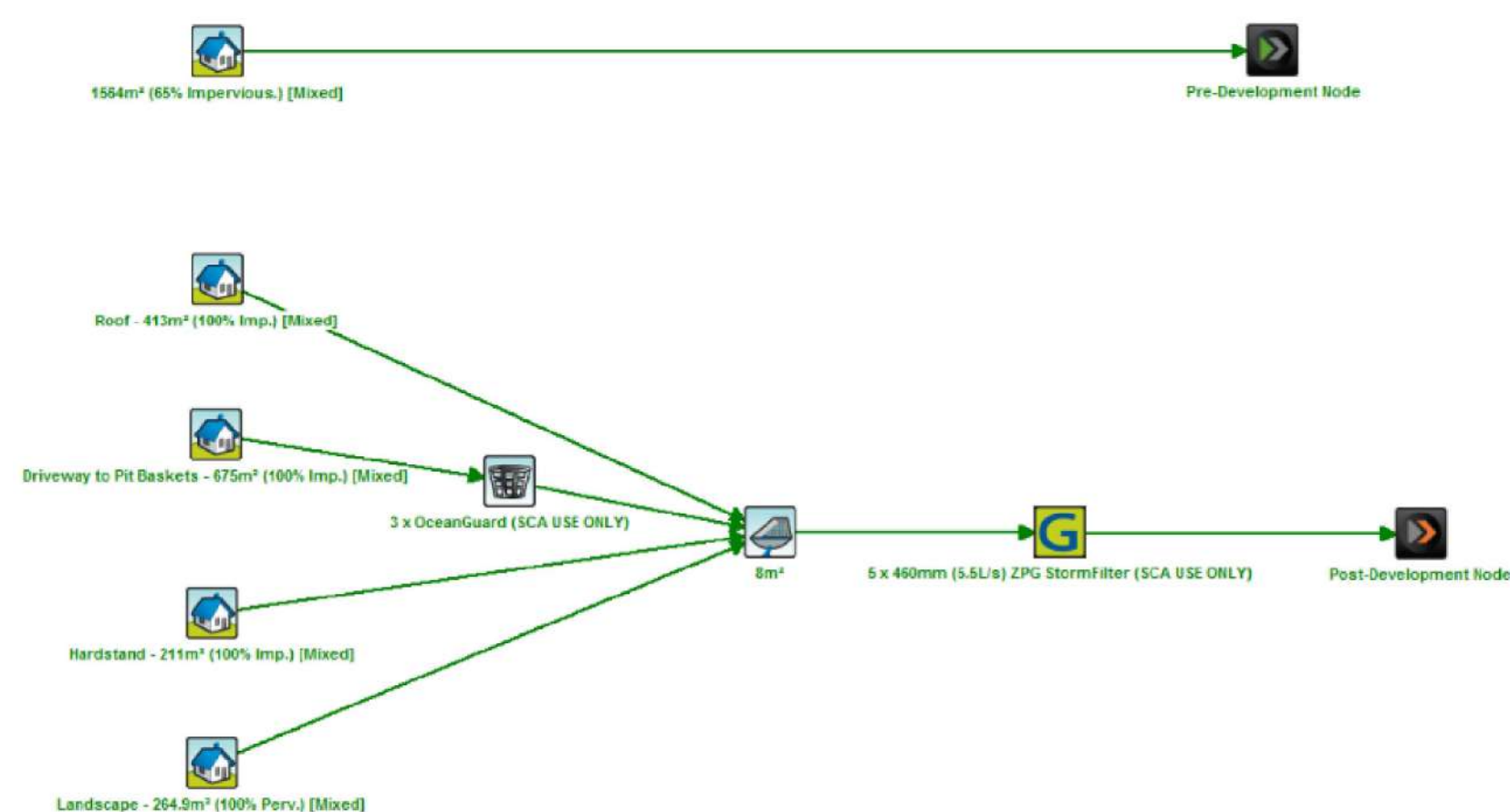
(A) EASEMENT TO DRAIN WATER 2 WIDE - Y38650

(B) EASEMENT TO DRAIN WATER 10 WIDE & 6 WIDE - DP1101186

REFERENCE COORDINATION DRAWING		GENERAL NOTES:		NASTASI & ASSOCIATES		QUALITY CONTROL		APPROVED:		CLIENT:		TITLE:		DRAWING STATUS	
DISCIPLINE		DRAWING TITLE AND NUMBER		DATE		REV.		DRAWING TITLE AND NUMBER		DATE		REV.		SCALE (AT ORIGINAL SIZE)	
ARCH.		FIRE		LANDS		CIVIL		SURVEY						AS NOTED	
MECH.															
ELEC.															
HYD.															
ISSUE		REVISION		DATE										PROJECT NO.	
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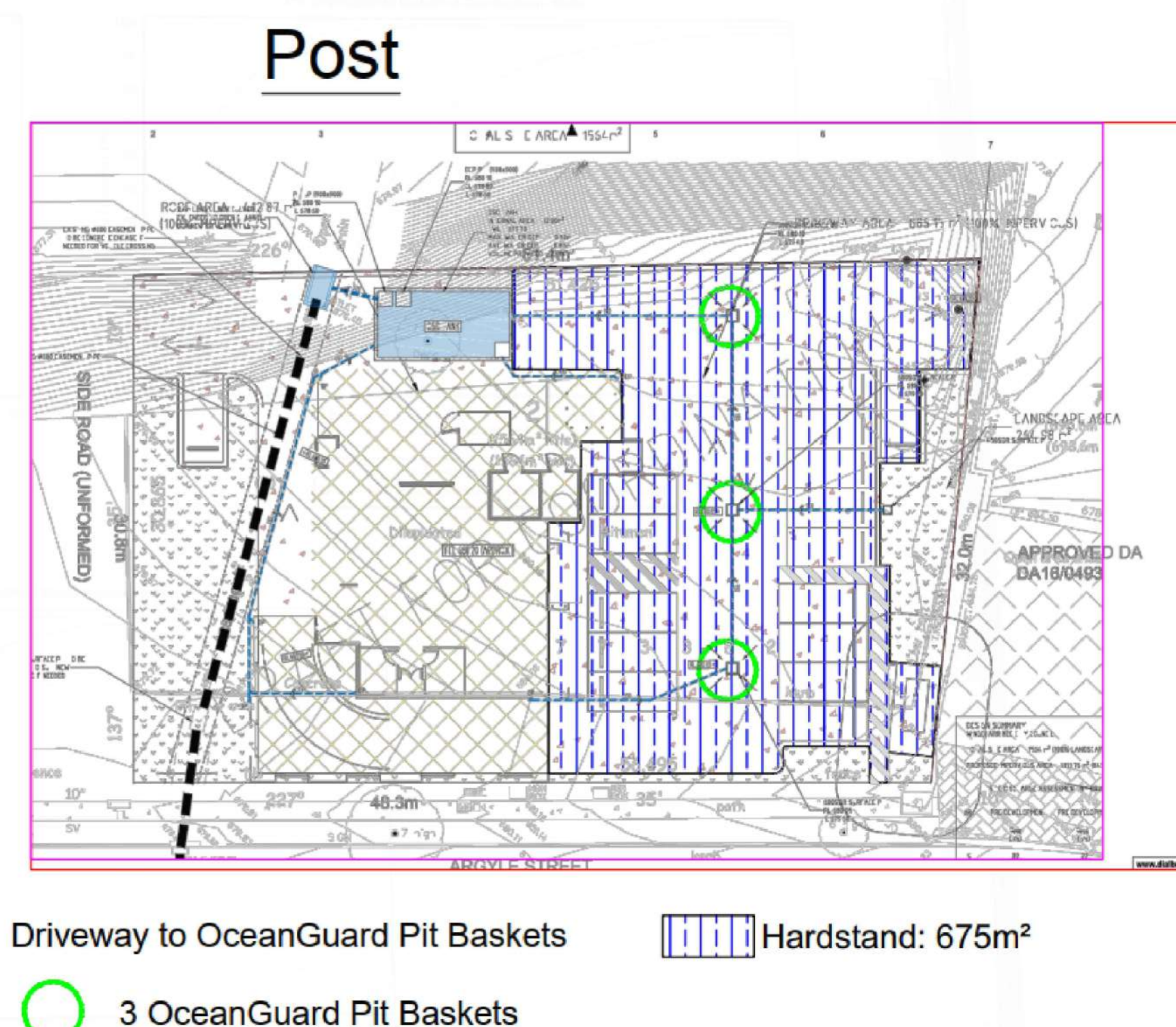
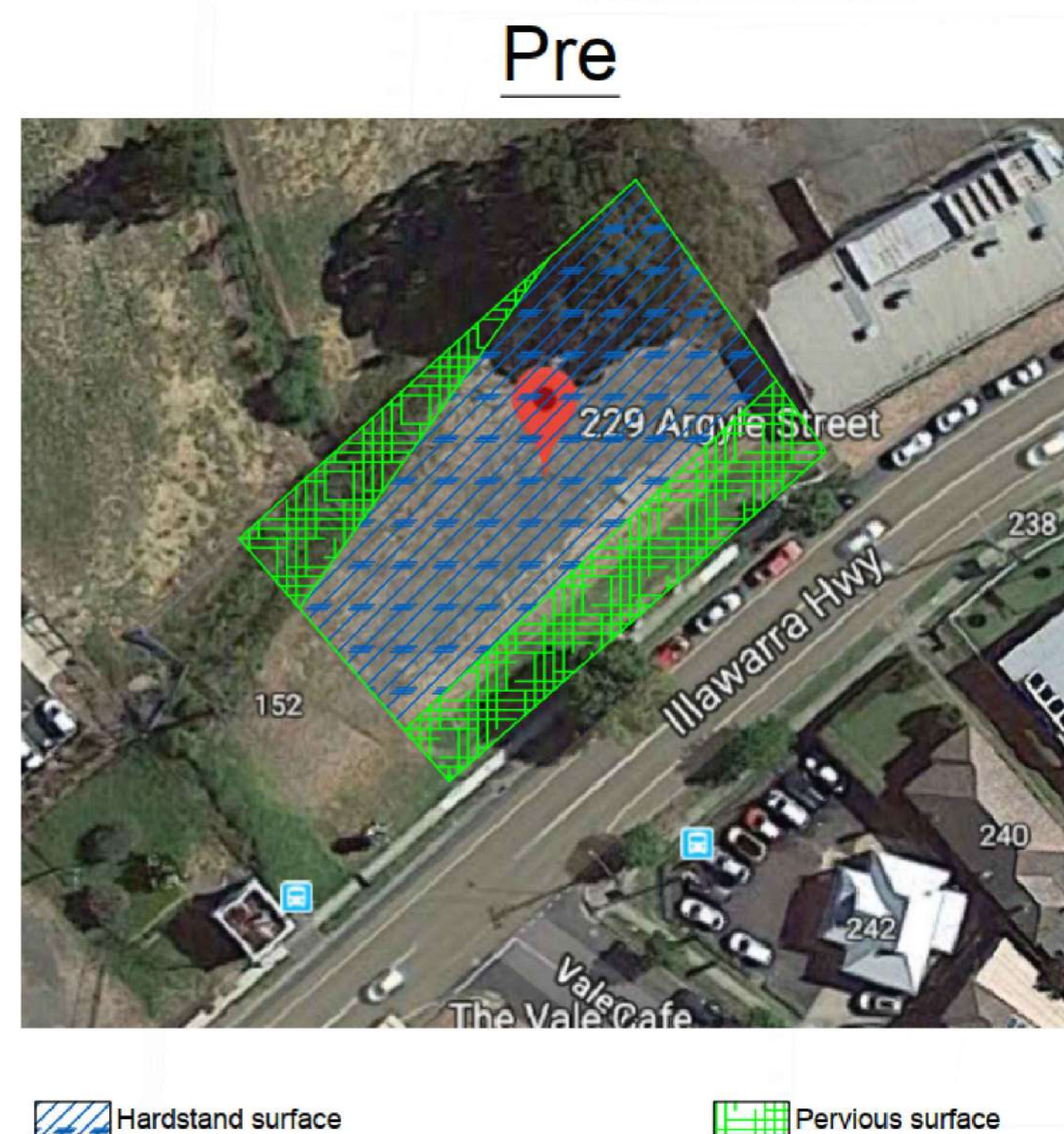
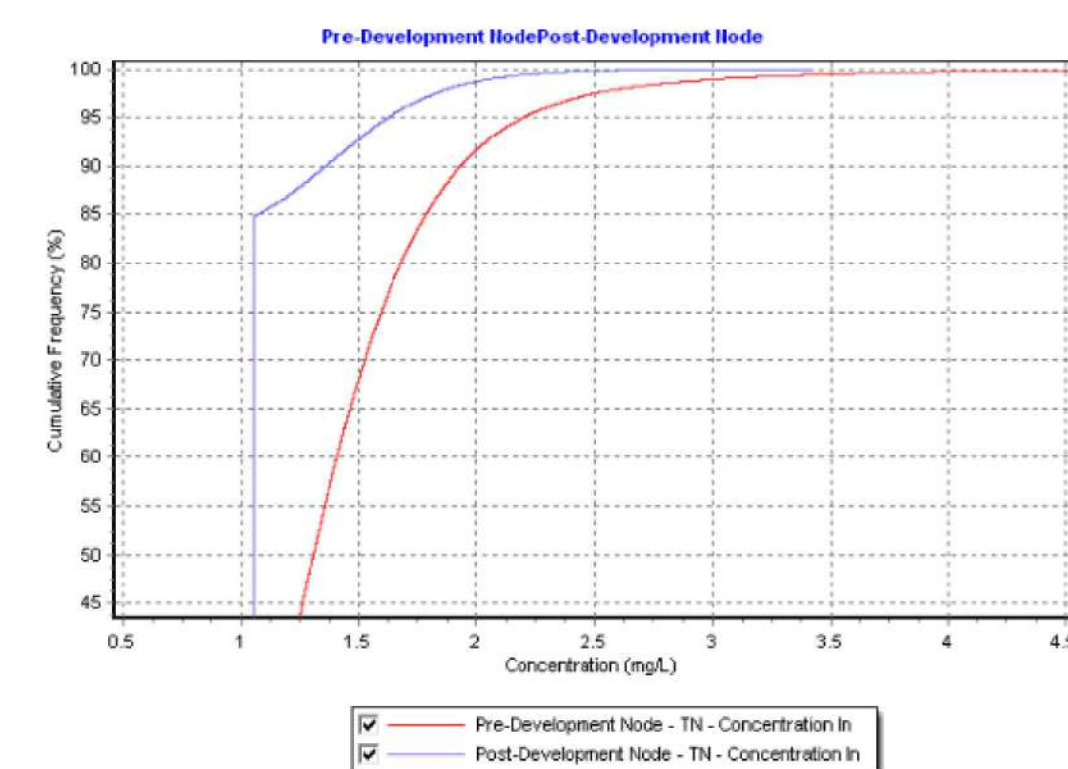
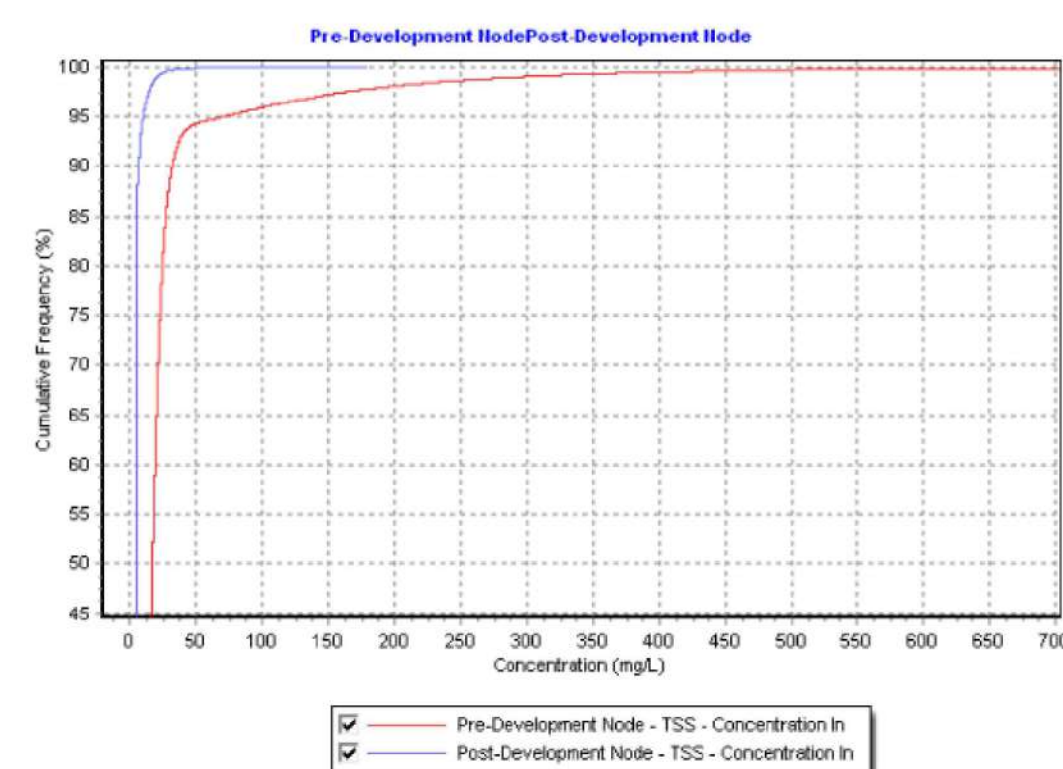
CONCEPT PLAN FOR COORDINATION



Pre-Development		Source (kg/yr)	Residual Load (kg/yr)	% Reduction
Flow (ML/yr)		0.892	0.892	0
Total Suspended Solids (kg/yr)		1.60E+02	1.60E+02	0
Total Phosphorus (kg/yr)		2.63E-01	2.63E-01	0
Total Nitrogen (kg/yr)		1.94	1.94	0
Gross Pollutants (kg/yr)		24.7	24.7	0
Post-Development		Source (kg/yr)	Residual Load (kg/yr)	% Reduction
Flow (ML/yr)		1.05	1.05	0
Total Suspended Solids (kg/yr)		2.43E+02	3.99E+01	91.8
Total Phosphorus (kg/yr)		4.53E-01	1.50E-01	67.1
Total Nitrogen (kg/yr)		2.42	1.64	32.2
Gross Pollutants (kg/yr)		2.55E+01	0	100.0
NorBE		Pre-Development Load (kg/yr)	Post Development Load (kg/yr)	% Pre- Vs Post Reduction
Flow (ML/yr)		0.892	0.892	-17.7%
Total suspended solids (kg/yr)		1.60E+02	19.9	87.6%
Total Phosphorus (kg/yr)		0.263	0.13	45.0%
Total Nitrogen (kg/yr)		1.94	1.64	15.5%
Gross Pollutants (kg/yr)		24.7	0	100.0%

	Sources	Residual Load	% Reduction
Flow (ML/yr)	0.892	0.892	0
Total Suspended Solids (kg/yr)	160	160	0
Total Phosphorus (kg/yr)	0.263	0.263	0
Total Nitrogen (kg/yr)	1.94	1.94	0
Gross Pollutants (kg/yr)	24.7	24.7	0

	Sources	Residual Load	% Reduction
Flow (ML/yr)	1.05	1.35	0
Total Suspended Solids (kg/yr)	243	15.9	91.8
Total Phosphorus (kg/yr)	0.453	0.15	67
Total Nitrogen (kg/yr)	2.42	1.64	32.2
Gross Pollutants (kg/yr)	25.5	0	100



Driveway to OceanGuard Pit Baskets

 Hardstand: 675m²

3 OceanGuard Pit Baskets

CONCEPT PLAN FOR COORDINATION

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