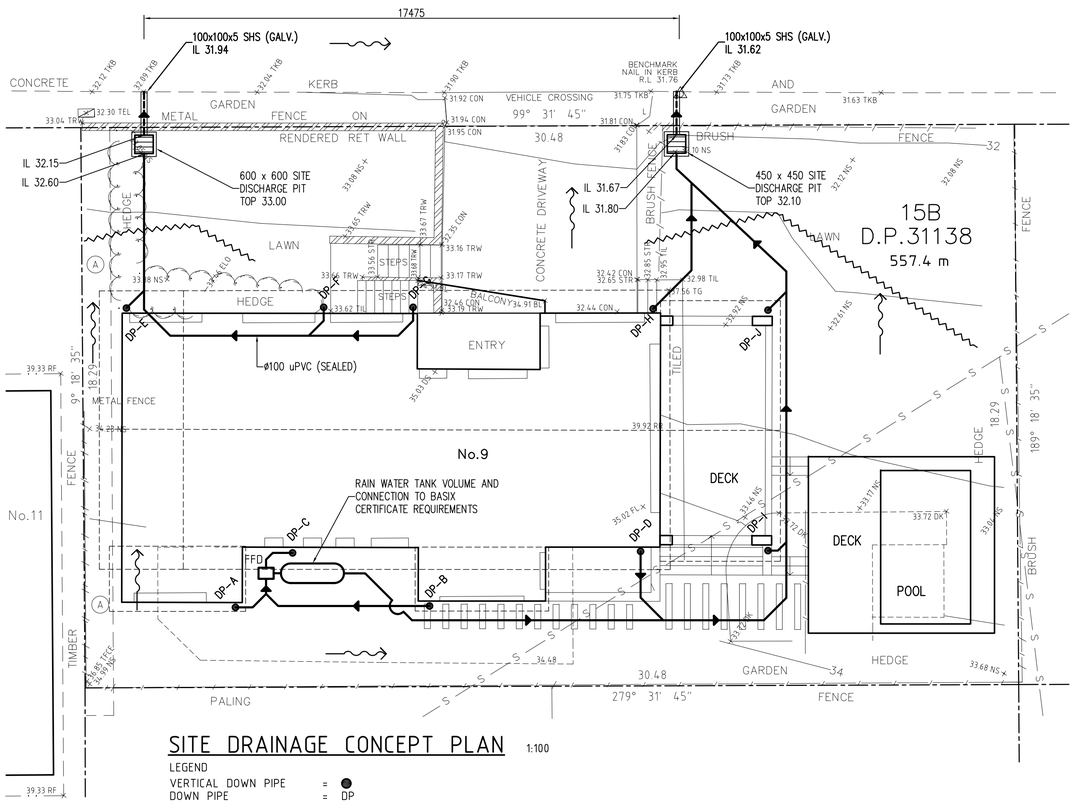


SITE DRAINAGE CONCEPT PLAN 1:100

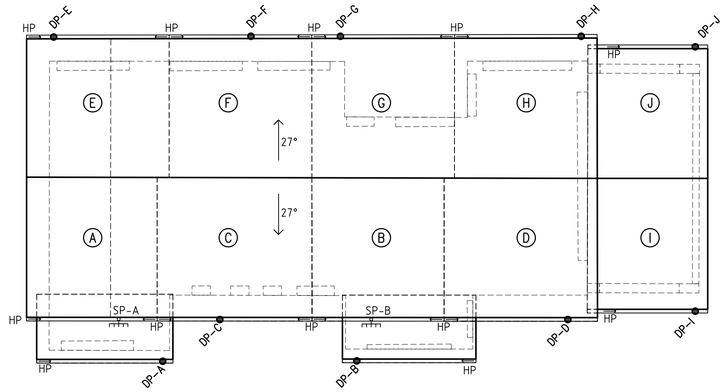
LEGEND

VERTICAL DOWN PIPE	=	●
DOWN PIPE	=	DP
SURFACE RUN OFF		
SEALED SCREW OFF LID	=	SSL
FIRST FLASH DEVICE	=	FFD
SEDIMENT CONTROL FENCE		

SUBCATCHMENT AREAS FOR GUTTERS & DOWNPIPES (ARI 20 YEARS)				
VERTICAL DOWNPIPE	SUB-CATCHMENT			
	PLAN AREA (m2)	CATCHMENT AREA (m2)	min. EFFECTIVE GUTTER CROSS-SECT. AREA (mm2)	min. DP CROSS-SECT. AREA (mm2)
A-B	26.1	33.1	6600	ø90
C-D	23.7	30.1	6600	ø90
E-F-G-H	21.7	29.4	6600	ø90
I-J	18.0	22.5	6600	ø90

EAVES GUTTER SPECIFICATION

EAVES GUTTER GRADIENTS TO BE 1:500 OR GREATER.
EAVES GUTTER TO HAVE AN EFFECTIVE CROSS SECTIONAL AREA AS PER TABLE ABOVE.
DOWNPIPES CROSS-SECTION TO BE AS PER TABLE ABOVE.
FASCIA TO BE A MINIMUM OF 14mm ABOVE GUTTER OVERFLOW.



ROOF PLAN 1:100

LEGEND

VERTICAL DOWN PIPE	=	● DP
HIGH POINT	=	HP
SPREADER	=	SP

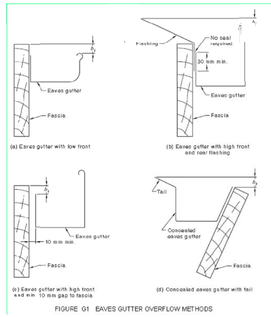


FIGURE G1 EAVES GUTTER OVERFLOW METHODS

UNDERGROUND SERVICES
DIAL 1100 BEFORE YOU DIG FOR LOCATION OF UNDERGROUND SERVICES PRIOR TO ANY CONSTRUCTION WORKS.

CONTACT TELSTRA FOR WRITTEN PERMISSION TO MAINTAIN OR RELOCATE ANY EXISTING SERVICE PIT.

ALL SERVICES ARE TO MATCH INTO THE NEW FOOTPATH LEVELS CONTACT THE RELEVANT AUTHORITY FOR ADJUSTMENT TO SERVICES.

THIS STORMWATER MANAGEMENT PLAN IS SUBJECT TO NORTHERN BEACHES COUNCIL APPROVAL

PROVIDE INSPECTION OPENING TO EACH LOW POINT OF THE STORMWATER SYSTEM

EXISTING STORMWATER SYSTEM TO BE CHECKED AND UPGRADED AS REQUIRED

DRAINAGE LINES LOCATIONS ARE INDICATIVE ONLY AND MAY VARY DUE TO SITE CONSTRAINTS. FINAL PIPES LOCATIONS TO BE COORDINATED ON SITE WITH OTHER SERVICES & BUILDERS.

LEAF GUARD
TO BE INSTALED TO EACH DOWN PIPE OR/AND GUTTERS

GENERAL NOTES
ALL PLUMBING WITHIN THE SITE MUST BE CARRIED OUT IN ACCORDANCE WITH RELEVANT PROVISIONS OF AUSTRALIAN STANDARD AS/NZS 3500.3-2003 PLUMBING AND DRAINAGE - STORMWATER DRAINAGE.

ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM. (AHD)

DO NOT SCALE FROM THE DRAWINGS.

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORKS, REPORT ANY DISCREPANCIES TO THE SUPERINTENDENT OR DESIGN ENGINEER.

ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS AND SPECIFICATION.

READ THESE PLANS IN CONJUNCTION WITH APPROVED ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATION.

WHERE NEW WORK ABUTS EXISTING, THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES, IS OBTAINED.

DESIGN LEVELS GIVEN ARE TO FINISHED SURFACE LEVEL AND INCLUSIVE OF TOPSOIL. (TOPSOIL DEPTH VARIES).

THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.

CARE IS TO BE TAKEN WHEN EXCAVTING NEAR EXISTING SERVICES.
NO MECHANICAL EXCAVATIONS ARE TO BE UNDERTAKEN OVER TELECOM OR ELECTRICAL SERVICES. HAND EXCAVTE IN THESE AREAS.

ALL BUILDING SURROUND SHOULD BE GRADED TO ENSURE OVERLAND FLOW FROM UPSTRAM AREAS CAN DRAIN AROUND THE FOUNDATIONS, WALLS OF BUILDING.

ALL EXCAVTION SHORING OF EXCAVATION ANS STABILITY OF ADJACENT STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.

WORKMANSHIP AND MATERIALS SHALL CONFORM WITH THE REQUIREMENTS OF THE RELEVANT SAA CODES, BCA REQUIREMENTS AND THE SPECIFICATION, BY-LAWS AND ORDINANCIES OF THE RELEVANT AUTHORITIES.

PROPRIETARY PRODUCTS USED SHALL BE INSTALLED TO MANUFACTURERS SPECIFICATION AND TO THE SATISFACTION OF THE SUPERINTENDENT.

EXTERNAL WORKS
ALL ACTIVITIES AND WORKS EXTERNAL TO THE SITE, OR THAT AFFECT PUBLIC ROADS, ARE TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S CODES AND STANDARDS.

PUBLIC FOOTPATHS SHALL BE RECONSTRUCTED TO THE SATISFACTION OF COUNCIL'S DIRECTOR OF ENGINEERING SERVICES. A ROAD OPENING PERMIT SHALL BE OBTAINED FOR ALL WORKS CARRIED OUT IN A PUBLIC OR COUNCIL CONTROLLED LAND. RESTORATION OF LANDSCAPING, ROADS AND PATHS SHALL BE TO COUNCIL'S REQUIREMENTS. ALL OTHER RESTORATION SHALL BE TOTHE SATISFACTION OF THE AFFECTED PARTIES.

WHERE WORKS ARE UNDERTAKEN ON PUBLIC ROADS, ADEQUATE TRAFFIC CONTROL AND DIRECTIONS TO MOTORISTS SHALL BE PROVIDED.

DRAINAGE PITS
PITS DEEPER THAN 1200mm TO BE FITTED WITH STEP IRONS AT 300mm CENTRES AND STAGGERED.

APPROVED PRECAST PITS MAY BE USED.

DIAMETER 100mm HOLE FOR SUBSOIL DRAINAGE OUTLET TO BE LOCATED 100mm ABOVE INVERT OF ALL INLET PIPES. DIAMETER 100mm SUBSOIL DRAINAGE TO EXTEND FOR A DISTANCE OF 3.0m UPSTREAM OF PIT (AT EACH INLET PIT) WITH THE UPSTREAM END SEALED.

ALL CONNECTIONS TO THE EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN LIKE MANNER AND THE INTERNAL WALLL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH.

PIT GRATES AND SOLID COVERS SHALL BE CLASS 'B' IN NON TRAFFIC AREAS AND CLASS 'D' IN TRAFFIC AREAS IN ACCORDANCE WITH AS 3996.

DRAINAGE PIPES
EXISTING PIPES WHICH FORM NO PART OF THE DRAINAGE SYSTEM SHALL BE REMOVED OR SANDFILLED AS INDICATED ON THE PLANS.

PIPE LENGTHS MEASURED ARE BETWEEN PIT CENTRES.

ALL DRAINAGE PIPES LESS THAN 300mm DIAMETER SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS (U.N.O.). ALL PIPE JUNCTIONS AND TAPERS SHALL BE VIA. PURPOSE MADE FITTINGS.

MINIMUM GRADE TO DRAINAGE PIPES TO BE 1.5% U.N.O.

MINIMUM PIPE SIZE TO BE 100mm DIAMETER U.N.O.

THE CONTRACTOR IS TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.

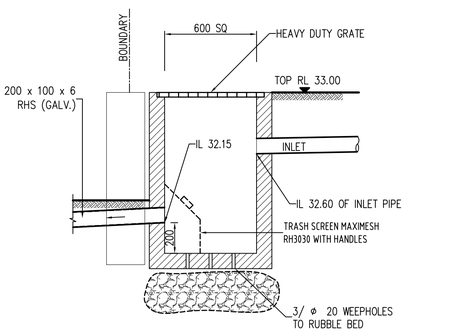
BOX GUTTERS SPECIFICATION

THE MINIMUM WIDTH OF BOX GUTTERS USED FOR COMMERCIAL CONSTRUCTION IS 300 MM. BOX GUTTERS 200 MM WIDE MAY BE USED FOR DOMESTIC CONSTRUCTION, BUT THEY ARE MORE PRONE TO BLOCKAGES AND SHOULD BE SUBJECT TO FREQUENT INSPECTIONS AND MAINTENANCE. ADDITIONAL HEIGHT IS RECOMMENDED WHERE POSSIBLE.

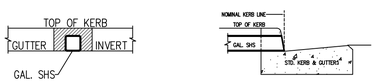
BOX GUTTERS SHALL:
(I) BE STRAIGHT (WITHOUT CHANGE IN DIRECTION);
(II) IN A CROSS-SECTION HAVE A HORIZONTAL CONSTANT WIDTH BASE (SOLE) WITH VERTICAL SIDES;
(III) HAVE A CONSTANT LONGITUDINAL SLOPE BETWEEN 1:200 AND 1:40;
(IV) DISCHARGE AT THE DOWNSTREAM END WITHOUT CHANGE OF DIRECTION (I.E., NOT TO THE SIDE); AND
(V) BE SEALED TO THE RAINHEADS AND SUMPS.

3.7.6 DOWNPIPES
DOWNPIPES SHALL BE FITTED VERTICALLY TO THE BASE OF A RAINHEAD OR SUMP

MINIMAL INTERNAL DIMENSIONS FOR STORMWATER PITS (mm)		
DEPTH TO INVERT OF OUTLET	WIDTH	LENGTH
<600	450	450
>600 <900	600	600
>900 <1200	600	900
>1200	900	900

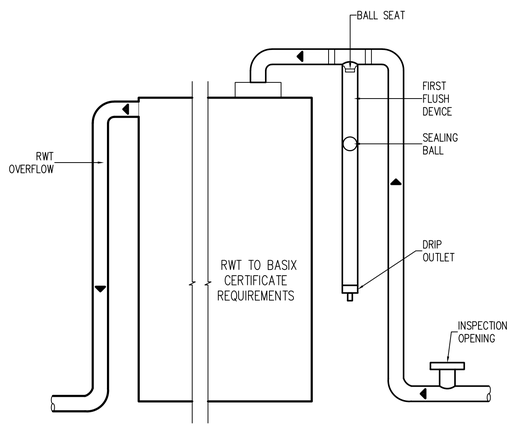


SITE DISCHARGE PIT (TYP) 1:20



CONNECTION WITH 150mm CONCRETE KERB 1:20

NOTES
1. INTERNAL HEIGHT OF RECTANGULAR SECTION ACROSS THE FOOTPATH SHALL BE 100mm MAXIMUM.
2. RECTANGULAR SECTION ACROSS FOOTPATH SHALL BE HOT DIP GALVANISED RHS.
3. CONVERT STORMWATER PIPES WITHIN PROPERTY TO SHS ACROSS FOOTPATH USING STORMWATER PIT.



RWT TANK SECTION (TYPICAL) 1:20

SOIL CONSERVATION NOTES

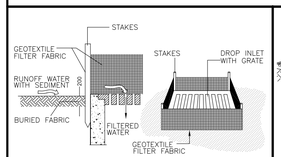
A. PRIOR TO ANY CLEARING OR EXCAVATION AT THE PROJECT SITE, A TEMPORARY SEDIMENT TRAP ARRANGEMENT SHALL BE MADE TO ENSURE THE CAPTURE OF ANY WATER BORNE MATERIAL GENERATED FROM THE SITE.

PROVIDE SEDIMENT FENCE AS SHOWN ON PLAN.

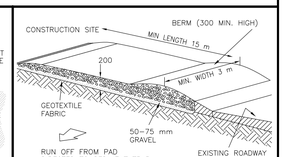
CONSTRUCT STEEL SHAKER GRID SIMILAR TO CATTLE FROM STEEL BEDDED ON 50 – 75mm GRAVEL AND AND GEOTEXTILE ACROSS MAIN ACCESS TO SITE AND MAINTAIN UNTIL ALL SURFACES HAVE BEEN REVEGETATED AND PAVED

B. DURING CONSTRUCTION

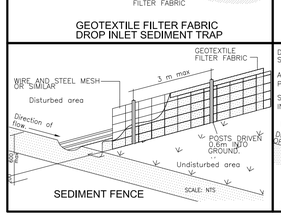
1) SILTATION PROTECTION DESCRIBED ABOVE SHALL BE MAINTAINED DURING THE COURSE OF CONSTRUCTION.
2) NEWLY CONSTRUCTED PITS SHALL BE PROTECTED FROM ANY SEDIMENT ENTRY.
3) ONCE IN PLACE, NO SILTATION PROTECTION SHALL BE REMOVED WITHOUT COUNCIL APPROVAL.
4) AFTER EACH STORM, ALL SEDIMENT TRAPS SHALL BE CLEANED AND REPLACED (IF REQUIRED) TO COUNCIL'S SATISFACTION.
5) OTHER METHODS OF SEDIMENT CONTROL AS MAY BE REQ'D BY THE COUNCIL SHALL BE COMPLIED WITH.



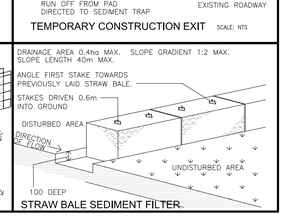
GEOTEXTILE FILTER FABRIC DROP INLET SEDIMENT TRAP



TEMPORARY CONSTRUCTION EXIT SCALE: NTS



SEDIMENT FENCE SCALE: NTS



STRAW BALE SEDIMENT FILTER

2	06/08/2021	AMENDED ISSUED FOR DA APPROVAL ONLY	
1	22/03/2021	ISSUED FOR APPROVAL	
No.	Date	Details	
Amendments			

AHSCA CORPORATE MEMBER

APPROVED COMPANY ISO 9001 Quality Management Systems QMS Certification Services

THIS DRAWING HAS BEEN PREPARED IN CONJUNCTION WITH THE FOLLOWING DRAWINGS:

Discipline	Dwg. No.	Date	Revisions
ARCHITECTURAL			
STRUCTURAL			
MECHANICAL			
ELECTRICAL			
CIVIL			
LANDSCAPE			

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Drawing
SERVICE
STORMWATER MANAGEMENT PLAN

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Drawn: MK	Date: 06/08/2021
Design: MK	Scale: AS NOTED
Verified: MG	No in set: 1