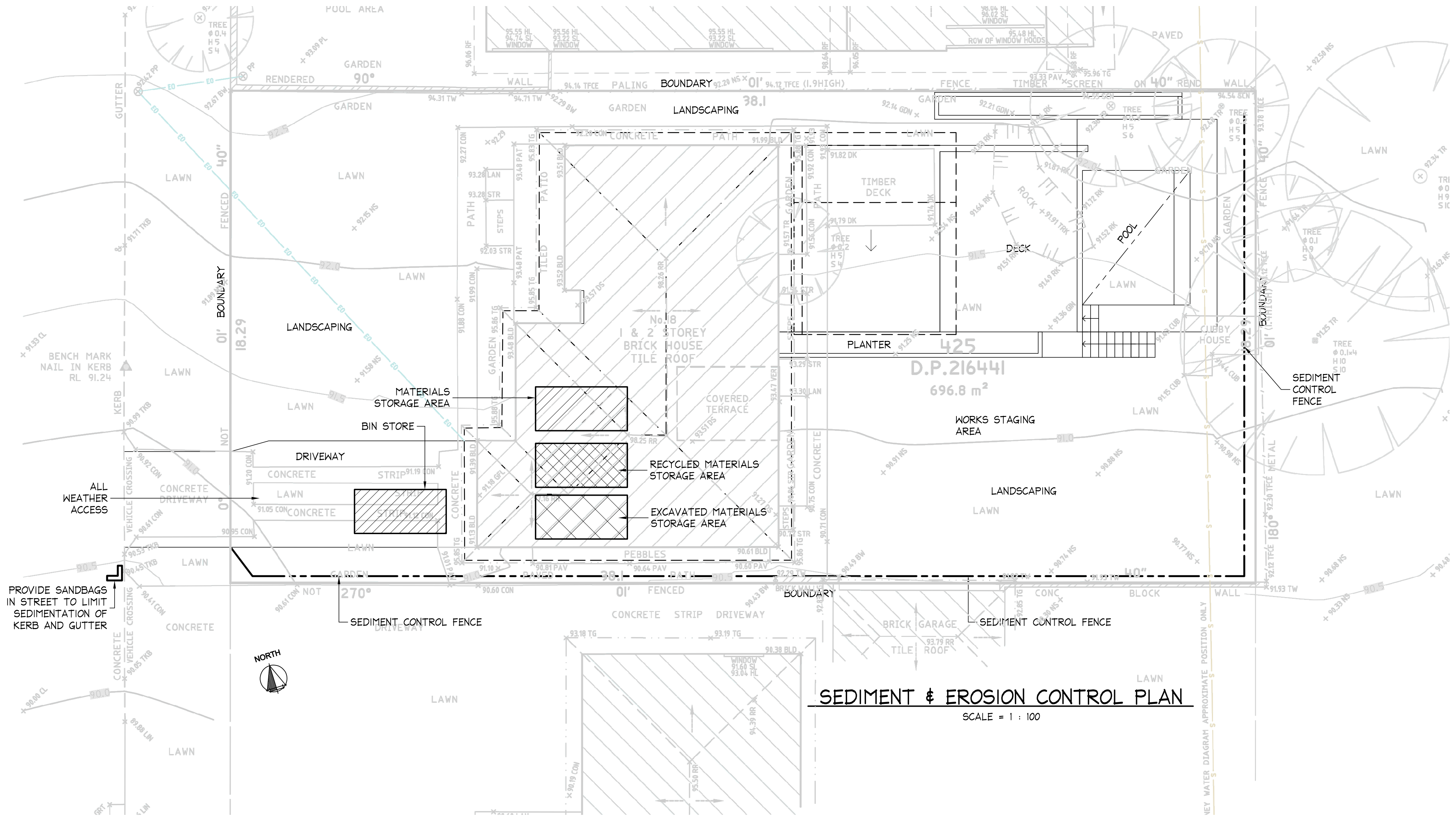


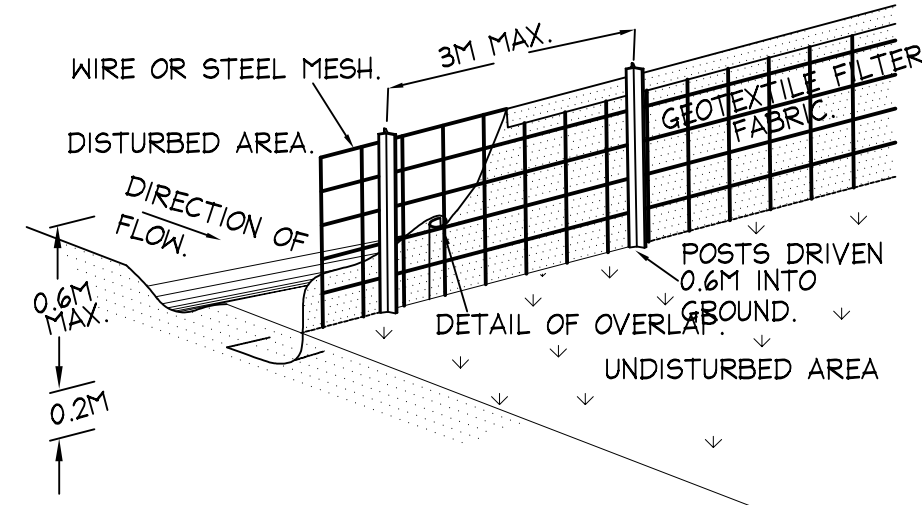
AVENUE

(BITUMEN FORMATION)

WESTMEATH



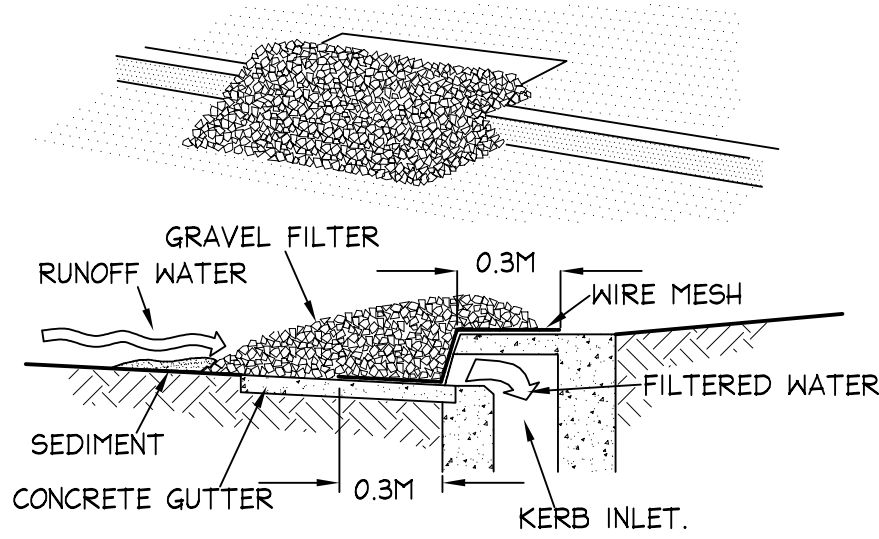
DRAINAGE AREA 0.6HA. MAX. SLOPE GRADIENT 1:2 MAX.
SLOPE LENGTH 60M MAX.



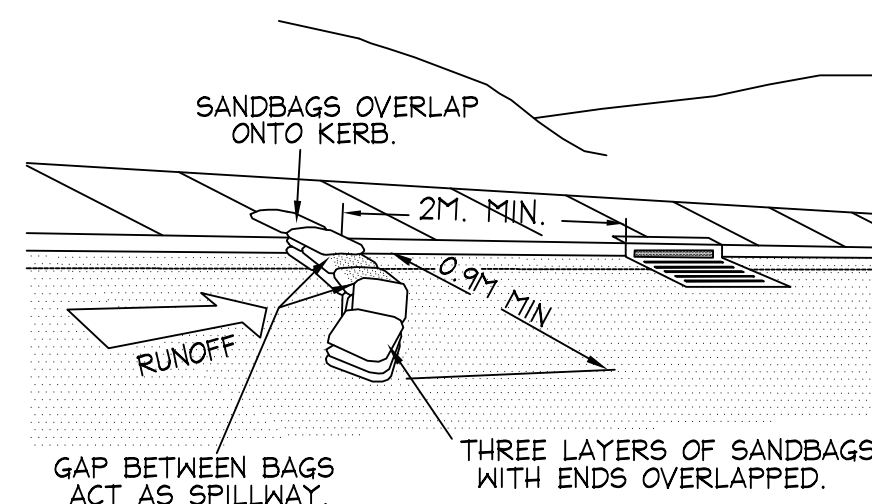
SEDIMENT FENCE

CONSTRUCTION NOTES:

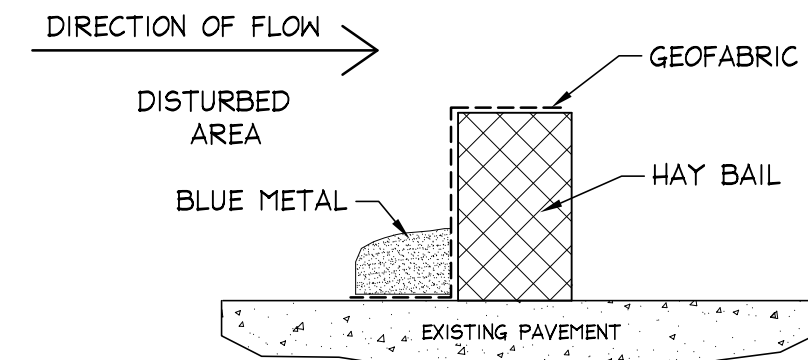
1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE.
2. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND, 3 METRES APART.
3. DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
4. BACKFILL TRENCH OVER BASE OF FABRIC.
5. FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES or AS RECOMMENDED BY GEOTEXTILE MANUFACTURER.
6. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.



GRAVEL KERB INLET SEDIMENT TRAP

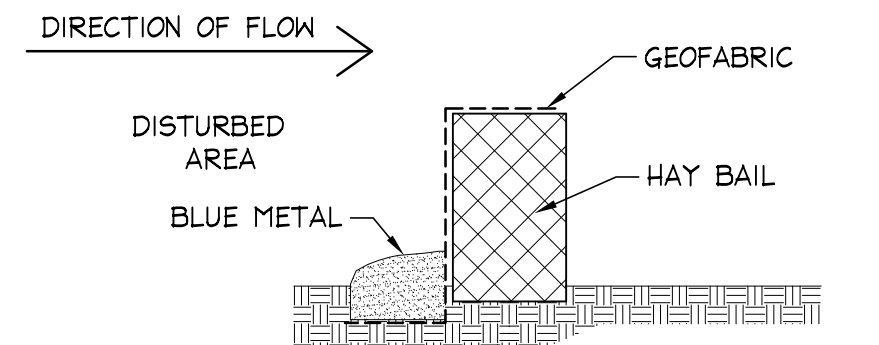


SANDBAG KERB INLET SEDIMENT TRAP



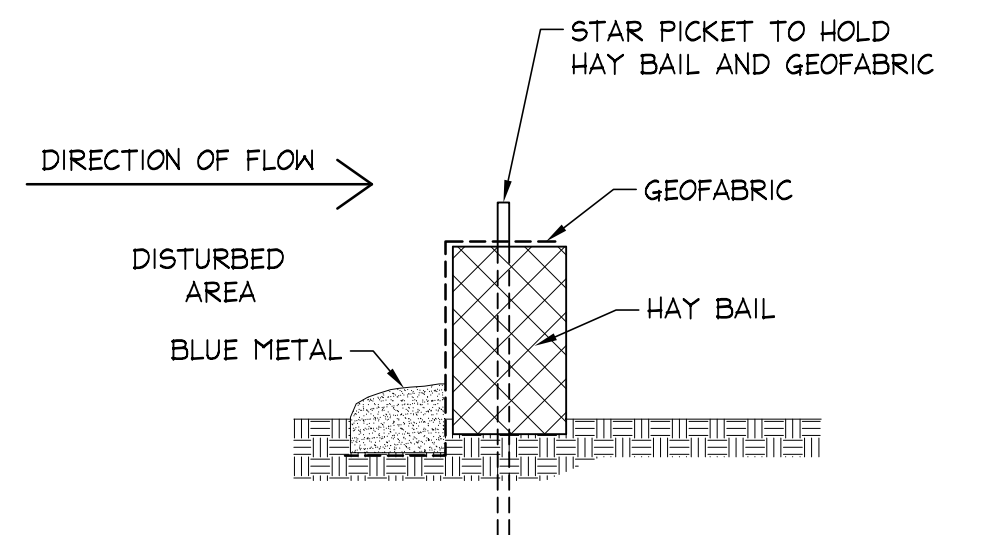
REMOVABLE HAY BAIL DETAIL

SCALE = N.T.S.



REMOVABLE HAY BAIL DETAIL

SCALE = N.T.S.



SILT FENCE DETAIL - OPTION 2

SCALE = N.T.S.

AI

NOTES:

1. ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES AND DRAWING SCHEDULE REFER TO DRAWING NUMBER: SOI.



DOCUMENT CERTIFICATION

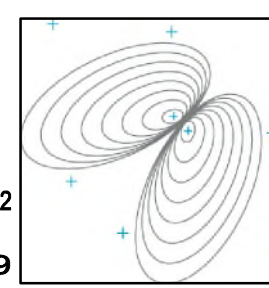
Date : DEC 18

Bruce Lewis
(Principal : Peninsula Consulting Engineers)
BE(Civil), CPEng, MIEAust., NPER.
Institute of Engineers Membership No. 879131

20-12-2018	A	FOR COUNCIL SUBMISSION
18-12-2018	PI	DRAFT
Date:	Rev:	Amendment:

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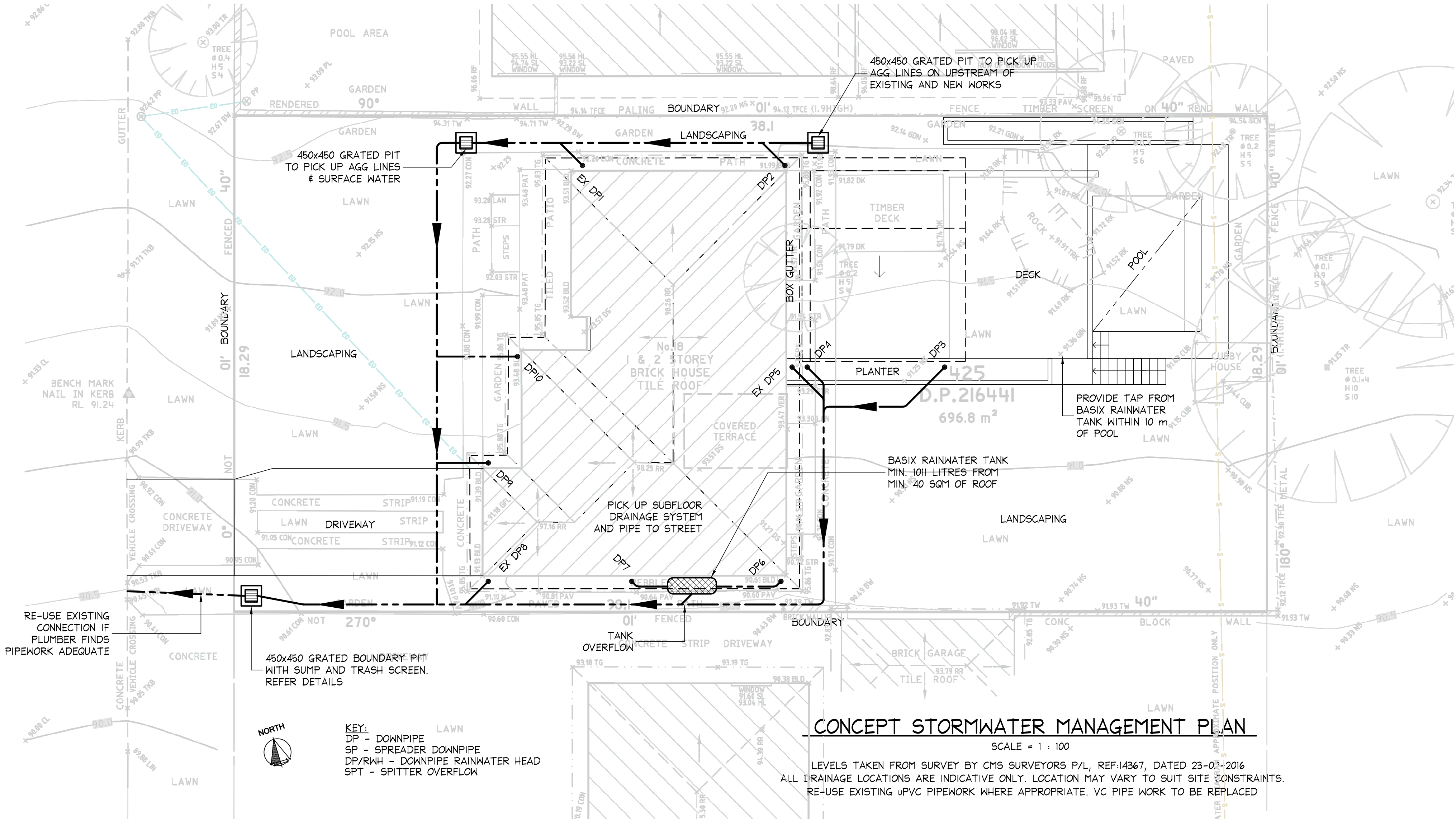


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Project:
**PROPOSED WORKS
at: 18 WESTMEATH AVENUE,
KILLARNEY HEIGHTS
for: MR & MRS MONTESIN**

Drawing Title:
**SEDIMENT & EROSION
CONTROL PLAN & DETAILS**

Job No: **18-1111**
Drawing No: **H02**
Rev: **A**

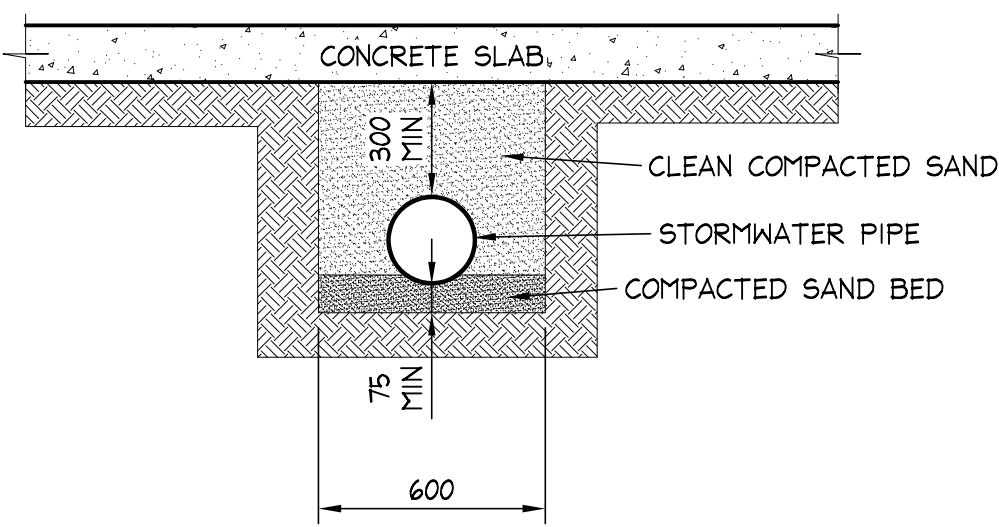


STORMWATER NOTES:

- ALL PIPES TO BE 100mm Ø SEWER GRADE uPVC UNLESS NOTED OTHERWISE.
- ALL PIPES TO BE uPVC TO AS 1254-2002 UNLESS NOTED OTHERWISE.
- ALL PIPES TO BE LAID AT 1 % MINIMUM GRADE UNLESS NOTED OTHERWISE.
- ALL PIPES SHALL BE LAID ON A 75mm SAND BED, COMPACTED TO 100% S.M.D.D. BELOW PAVEMENTS.
(NO COMPACTION REQUIRED BELOW LANDSCAPING)
COVER TO SURFACE FROM TOP OF PIPE TO BE AS PER AS3500.
BACKFILL TO BE ADEQUATELY CONSOLIDATED AROUND PIPES BY METHOD OF RAMMING AND WATERING IN. TRENCHES TO BE FILLED WITH GRANULAR MATERIAL AS SPECIFIED.
- DOWN PIPE LOCATIONS ARE INDICATIVE ONLY. LOCATIONS TO BE CONFIRMED WITH ARCHITECT PRIOR TO COMMENCEMENT WITH WORK.
- PROVIDE CLEANING EYES AT ALL DOWNPIPES.
- ALL PITS TO BE PRECAST, PREFORMED OR HDPE, IN ACCORDANCE WITH LOCAL COUNCIL SPECIFICATIONS.
- ALL PITS GREATER THAN 1000mm DEEP SHALL HAVE STEP IRONS AS PER COUNCIL STANDARDS.
- ALL WORK TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARDS AND SPECIFICATIONS.
- PRIOR TO COMMENCING ANY SITE WORKS THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES TO EPA GUIDELINES AND COUNCIL SPECIFICATIONS. ALL MEASURES TO REMAIN IN PLACE UNTIL COMPLETION AND STABILIZATION OF THE SITE TO COUNCIL SATISFACTION.
- ALL LEVELS SHOWN ARE TO AHD
- ENSURE THAT ALL PITS AND STORMWATER PIPES ARE LOCATED CLEAR FROM TREE ROOT SYSTEMS.
- ALL EXISTING EARTHENWARE PIPES TO BE UPGRADED TO uPVC.
- ALL WORKS TO BE IN ACCORDANCE WITH AS 3500-2003 NATIONAL PLUMBING DRAINAGE CODE PART 3 - STORMWATER DRAINAGE.

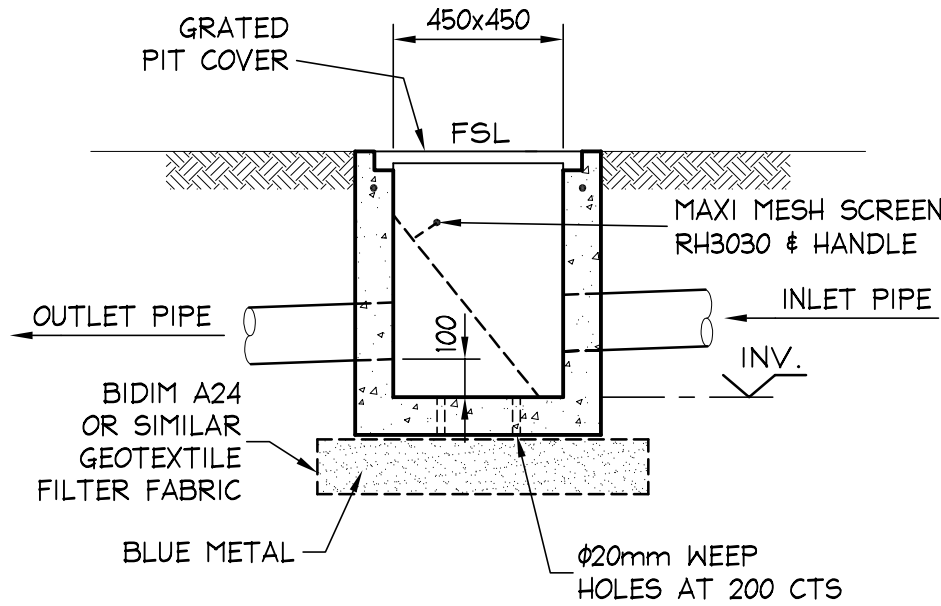
RAINWATER RE-USE TANKS:

- CONSIDERING THE ROOF CATCHMENT AREA, LOCATION OF PROPERTY, INTENDED USE OF RAINWATER AND GARDEN SIZE WE RECOMMEND PROVIDING A 1011 L CAPACITY RAINWATER TANK (BASIX) FOR THE FOLLOWING USES:
a) TO WATER GARDEN AREAS b) PROVIDE POOL TOP UP WITHIN 10 m OF POOL.
- THE TANKS PROVIDED WILL REDUCE PRESSURE ON COUNCIL'S STORMWATER INFRASTRUCTURE.
- REFERENCES:
COOMBS P.J. & KUCZERA G. (2001), "RAINWATER TANK DESIGN FOR WATER SUPPLY & STORMWATER MANAGEMENT." STORMWATER INDUSTRY ASSOCIATION REGIONAL CONFERENCE.
PATRICK DUPONT & STEVE SHACKEL, "RAINWATER" AUSTRALIAN GOVERNMENT (2004), "GUIDANCE ON USE OF RAINWATER TANKS" AVAILABLE AT www.sydneywater.com.au
- ALL CONNECTIONS TO PLUMBING AND RAINWATER TANKS TO BE IN ACCORDANCE WITH SYDNEY WATERS' GUIDE "INSTALLING A RAINWATER TANK"
- PROVIDE A DUAL SUPPLY SYSTEM AND BACKFLOW PREVENTION SYSTEM IN ACCORDANCE WITH 'BASIX-DESIGN GUIDE FOR SINGLE DWELLINGS' BY NSW DEPARTMENT OF INFRASTRUCTURE, PLANNING AND NATURAL RESOURCES.
- PROVIDE A PROPRIETARY FIRST FLUSH DIVERTER UPSTREAM OF THE RAINWATER TANK.



TYPICAL TRENCHING DETAIL

SCALE = 1 : 20



PRECAST OR HDPE PIT
REFER STORMWATER NOTES
450x450 PIT DETAIL

SCALE = 1 : 20

ONSITE DETENTION JUSTIFICATION SUMMARY NOTES NORTHERN BEACHES [WARRINGAH] COUNCIL	
OSD CHECKLIST	
TOTAL SITE AREA	696.8 m ²
DRAINS NATURALLY AWAY FROM STREET	NO
SITE AREA LESS THAN 450 SQUARE METRES	NO
DIRECT DISCHARGE TO OCEAN	NO
EXEMPTION FOR FLOOD AFFECTED AREA	NO
PART 5 SECTION 3.1	
TOTAL SITE AREA X 0.4 IS	278.7 m ²
PROPOSED & REMAINING IMPERVIOUS AREA (EXCL POOL WATER)	335.0 m ²
ALTERATIONS & ADDITIONS - THEREFORE NO OSD REQUIRED	

ON SITE DETENTION JUSTIFICATION

Northern Beaches [Warringah] Council Gutter Calculations - 20 yr ARI Storm Alterations & Additions - alterations and additions 18 Westmeath Avenue, Killarney Heights to AS 3500 - 2015 & AS 3500.5 2012 & BCA2016									
Eaves Gutters	Horizontal Area A _h	Slope Factor from Table	Slope Area A _s	Gutter Slope steeper than	²⁰ I _s from DRAIN/5	From Figure 5.6.4.1.a gutter size reqd	Downpipe From Table		
	m ²		m ²	1 in	mm/hr	mm ²			
EX DP1	22	1.3	28.6	500	207	6000	90 dia or 100x50		
DP2	20.85	1.3	27.1	500	207	5000	90 dia or 100x50		
DP3	22.6	1.3	29.4	500	207	6000	90 dia or 100x50		
DP4	22.6	1.3	29.4	500	207	6000	90 dia or 100x50		
EX DP5	27	1.3	35.1	500	207	7000	100 dia or 100x75		
DP6	22.2	1.3	28.9	500	207	6200	90 dia or 100x50		
DP7	19.5	1.3	25.4	500	207	5500	90 dia or 100x50		
EX DP8	8.54	1.3	11.1	500	207	3500	90 dia or 100x50		
DP9	20.85	1.3	27.1	500	207	6000	90 dia or 100x50		
DP10	27.8	1.3	36.1	500	207	7000	100 dia or 100x75		
total	213.94								

New Eaves Gutters required - Similar to Existing
115mm Quad Gutter -area 6000 mm²
Downpipes to be sealed up to level of Gutter - where running to Rain Water Tank
Existing Gutters to be graded to new Downpipes at one in 500

GUTTER CALCULATIONS

NOTES:

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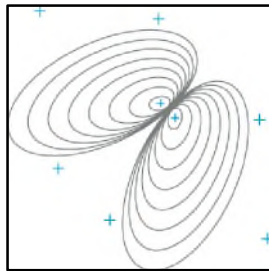
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Project: PROPOSED WORKS at: 18 WESTMEATH AVENUE, KILLARNEY HEIGHTS for: MR & MRS MONTESIN		Job No: 18-1111		Drawing No: H01	Rev: A