



henry&hymas

**SEDIMENT AND EROSION CONTROL
LETTER**

**Alspec Industrial Business Park
Orchard Hills 2748**

**June 2026
Revision 01**

**HENRY & HYMAS
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GORDON NSW 2072
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Appendix A: Sediment and Erosion Control Plans

1. INTRODUCTION

This Sediment and Erosion Control Report has been prepared to supplement the sediment and erosion control drawings included in the civil engineering works drawing set for the Storage and Distribution Warehouse project located on Luddenham Road, Orchard Hills, NSW.

Refer to the civil engineering plans which illustrate the proposed civil works, including the proposed sediment and erosion control works.

Refer to Figure 1.1 below showing the sediment and erosion control works prior to commencement of construction.

Refer to Figure 1.2 below showing the proposed sediment and erosion control works for the later construction stages.

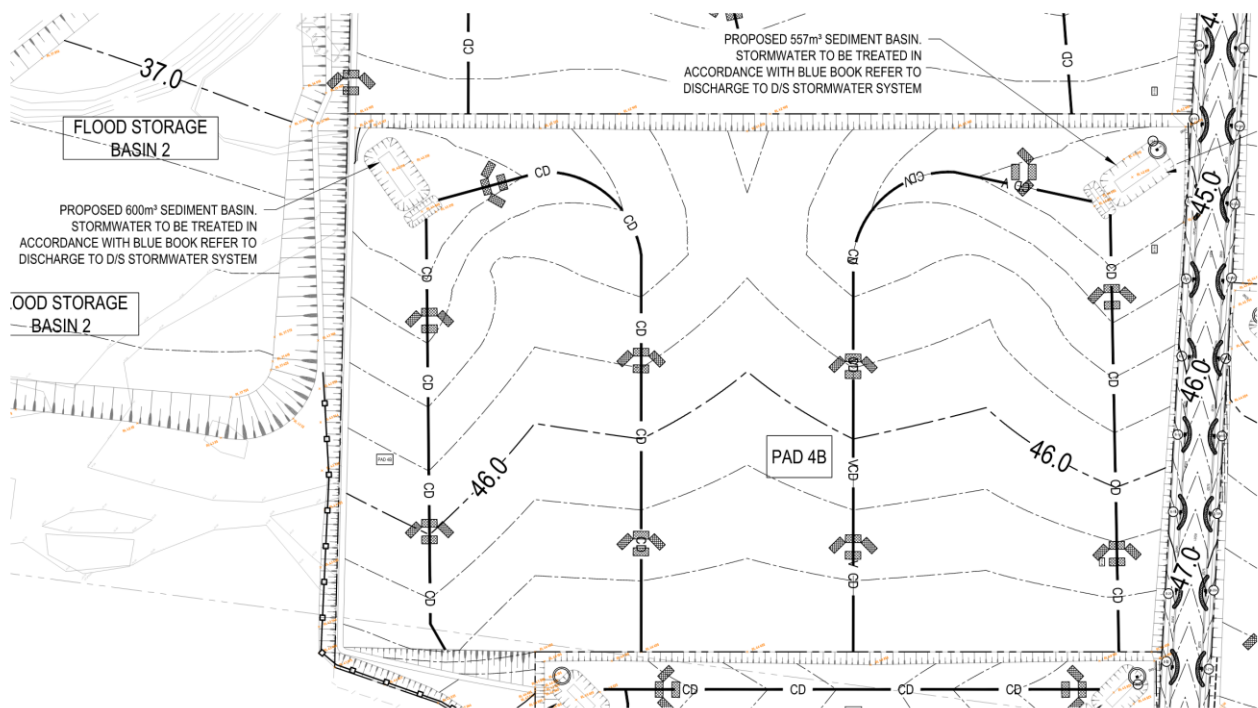


Figure 1.1 Pre-construction sediment and erosion control works

3. SEDIMENT AND EROSION PARAMETERS

Refer to the below table which summarises the various factors used in calculating the sediment basins proposed on site. It should be noted that the catchment area and length/slop gradient varies for each pad/catchment.

Constraint	Western Sediment Basin	Eastern Sediment Basin	(Source)*
Rainfall Erosivity (R-factor)	2000	2000	Appendix B - Map 10
Length/Slope Gradient Factor, LS	0.13	0.13	Appendix A - Table A1
Soil Erodibility (K-factor)	0.038	0.038	Appendix C – Table 19
Erosion Control Practice Factor (P-Factor)	1.3	1.3	Appendix A - Table A2
Cover Factor (C-Factor)	1.0 (During earthworks)	1.0 (During earthworks)	Appendix A - Figure A5
Calculated Soil Loss, A (RUSLE equation)	12 tonnes/ha/yr	12 tonnes/ha/yr	A = R K L S P C
Soil Hydrologic Group	D	D	Appendix C Table 19
Total Soil Loss per year	10m ³ /yr	10m ³ /yr	
Catchment Area, A	6.095 ha	6.130 ha	

Table 3.1: Sediment Basin Design Parameters

Settling Zone volumes and Sediment Zone volumes were calculated based on the above parameters, the catchment area for the site, 50% of the 1yr ARI flow rate and a sediment settlement co-efficient K_s of 12000s/m. A type B high efficiency sediment basin is proposed in accordance with Council's requirements.

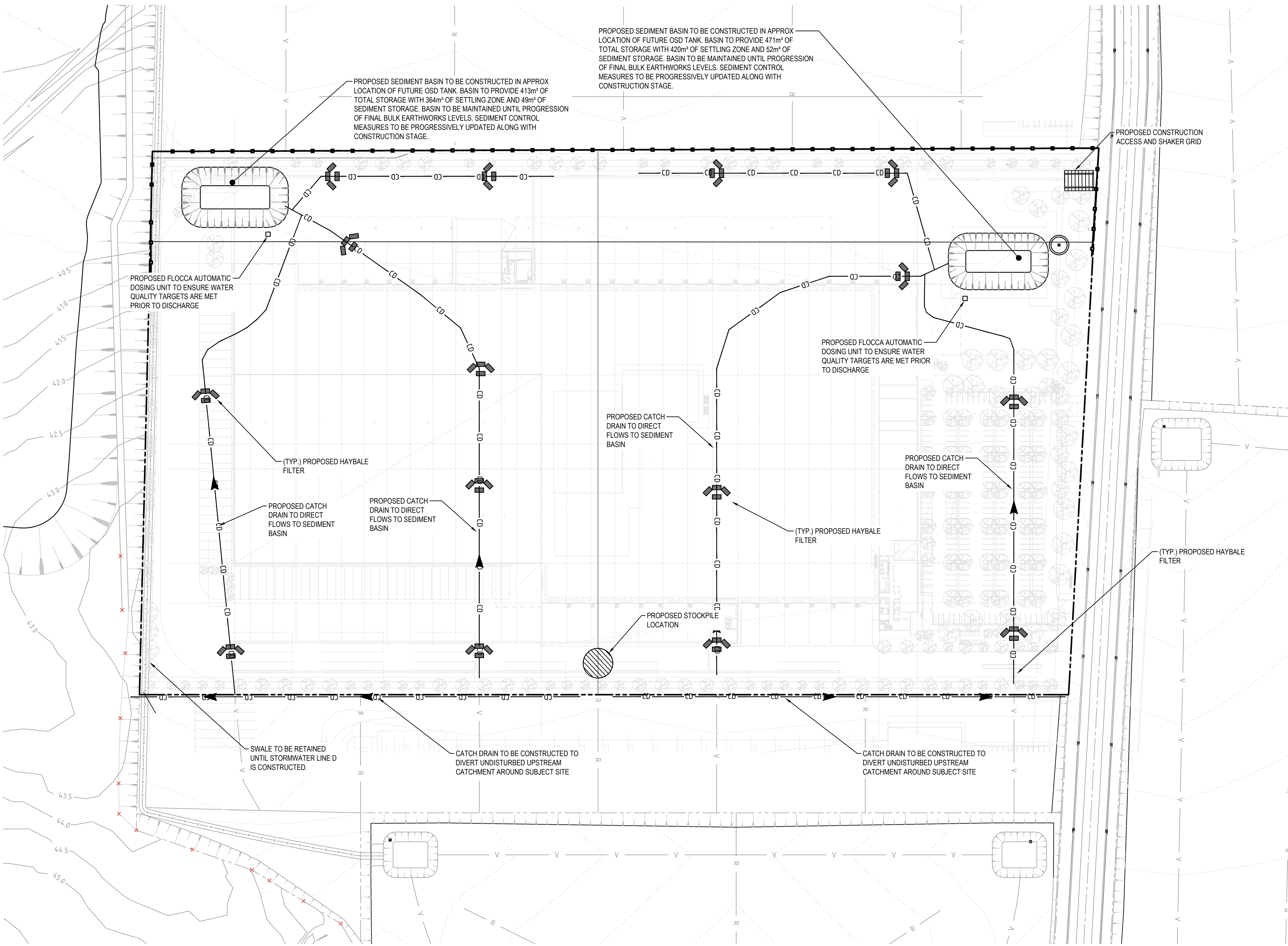
Basin	Area (ha)	Settling Zone (m ³)	Sediment Storage Zone (m ³)	Total Basin Sediment Volume (m ³)
Western Basin	6.095	364	49	413
Eastern Basin	6.01	420	52	471

Table 3.2: Sediment Basin Volume

REFERENCES

- Penrith City Council Development Control Plan 2014 – E18 Luddenham Road Industrial Business Park
- Penrith City Council Development Control Plan 2014
- Penrith City Council Stormwater Drainage Specifications for Building Developments 2018
- Penrith City Council WSUD Technical Guidelines 2015
- Technical Guidance for achieving Wianamatta South Creek Stormwater Management Targets guidelines 2022
- Managing Urban Stormwater: Soils and Construction Volume 1
- IECA 2018 – Sediment Basin Design and Operation

Appendix A – Sediment And Erosion Control Plans

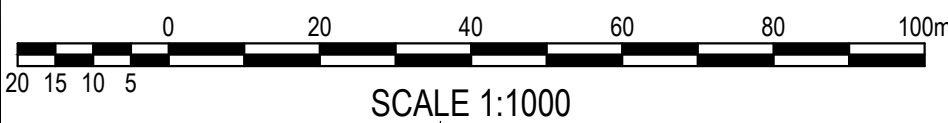


LEGEND

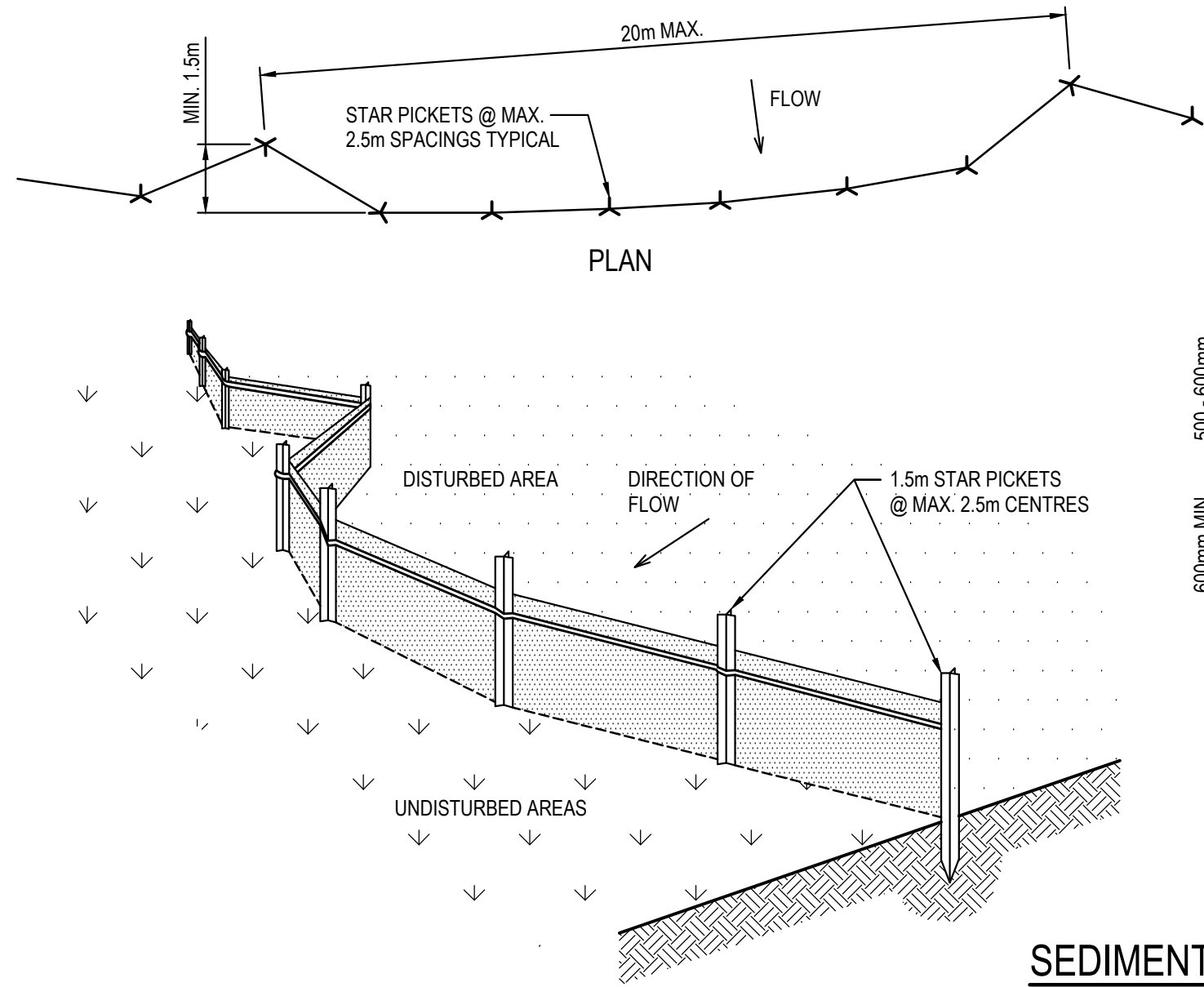
- SITE BOUNDARY
- PROPOSED SEDIMENTATION FENCE
- TM --> TM PROPOSED TRAFFIC MANOEUVRING
- CD --> CD PROPOSED CATCH DIVERSION DRAIN
- PROPOSED STOCKPILE LOCATION
- PROPOSED VEHICLE SHAKER GRID AND STABILISED SITE ACCESS
- PROPOSED SEDIMENT BASIN
- PROPOSED HAYBALE FILTER

SEDIMENT & EROSION CONTROL NOTES

- ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH PENRITH CITY COUNCIL'S SPECIFICATIONS AND LANDCOM'S "SOIL AND CONSTRUCTION" MANUAL.
- ALL PERIMETER & SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN EARTH WORKS AND/OR CLEARING.
- THE SEDIMENT & EROSION CONTROL PLAN MAY REQUIRE FUTURE ADJUSTMENT TO REFLECT CONSTRUCTION STAGING. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO PREPARE THEIR OWN SEDIMENT AND EROSION CONTROL PLAN WHICH SUITS THE DESIGNED CONSTRUCTION STAGING.
- FILTRATION BUFFER ZONES ARE TO BE FENCED OFF AND ACCESS PROHIBITED TO ALL PLANT AND MACHINERY.
- ALL TEMPORARY EARTH BERMS, DIVERSIONS & SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDED & MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
- ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING. TRAPPED MATERIAL IS TO BE REMOVED TO A SAFE LOCATION.
- ALL TOPSOIL IS TO BE STOCKPILED ON SITE FOR REUSE (AWAY FROM TREES AND DRAINAGE LINES). MEASURES SHALL BE APPLIED TO PREVENT EROSION OF THE STOCKPILES.
- ALL EARTHWORK AREAS SHALL BE ROLLED EACH EVENING TO SEAL THE EARTHWORKS.
- ALL FILLS ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE END. ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND STRAW MULCHED WITHIN 14 DAYS OF COMPLETION OF FORMATION U.N.O. BY LANDSCAPE ARCHITECTS.
- UPON COMPLETION OF ALL EARTHWORKS OR AS DIRECTED BY COUNCIL SOIL CONSERVATION TREATMENTS SHALL BE APPLIED SO AS TO RENDER AREAS THAT HAVE BEEN DISTURBED, EROSION PROOF WITHIN 14 DAYS.
- EROSION AND SILT PROTECTION MEASURES ARE TO BE MAINTAINED AT ALL TIMES.



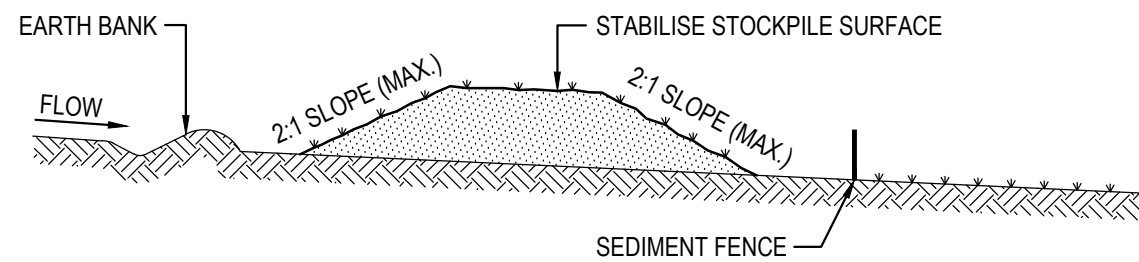
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SEDIMENT FENCE
SCALE N.T.S.

SEDIMENT FENCE CONSTRUCTION NOTES:

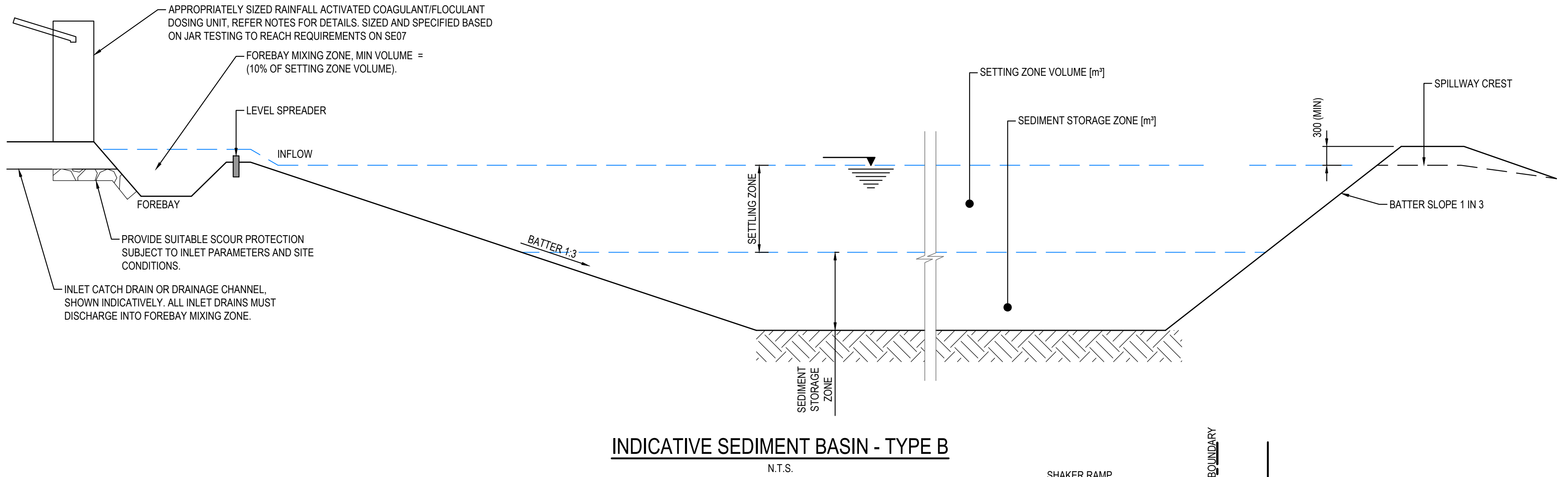
- CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
- CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
- DRIVE 1.5m LONG STAR PICKETS INTO GROUND @ 2.5m INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
- FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
- JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
- BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



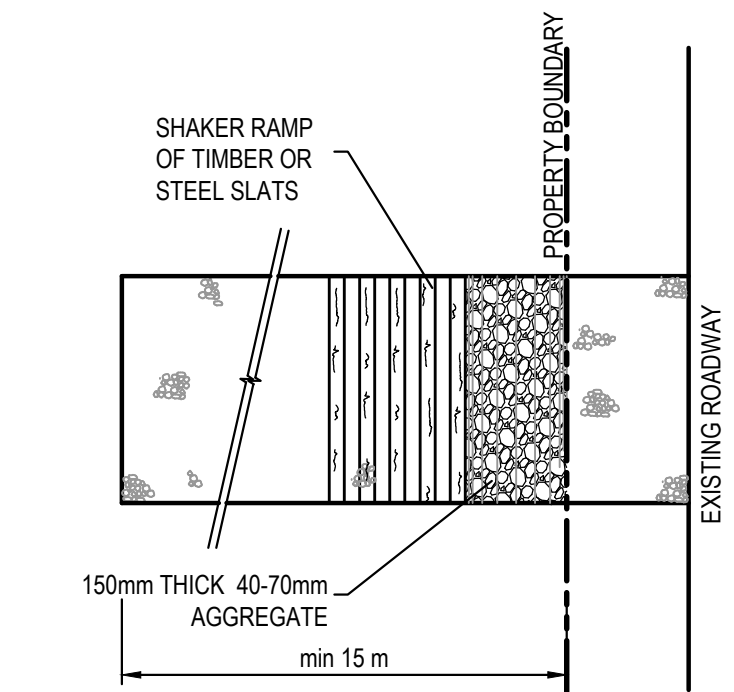
STOCKPILE CONSTRUCTION NOTES:

- PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
- CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
- WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
- WHERE THEY ARE TO BE PLACED FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED E.S.C.P. OR S.W.M.P. TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
- CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

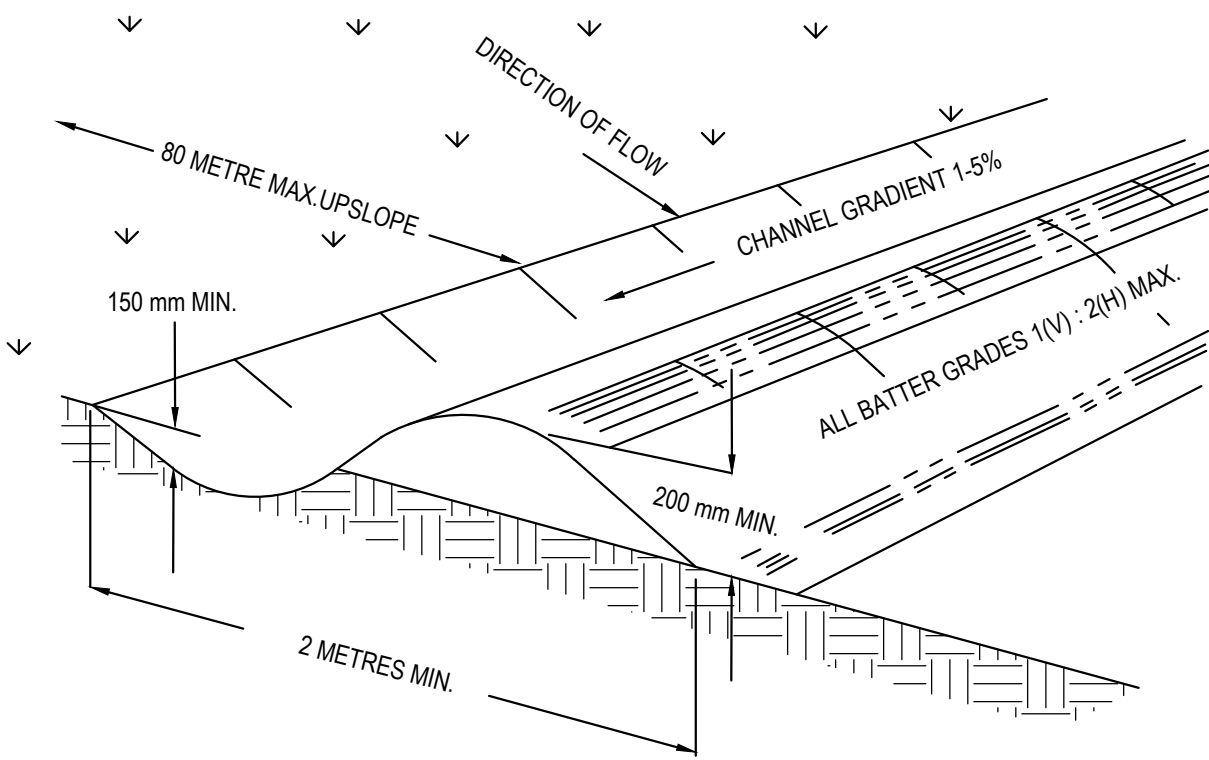
STOCKPILES
SCALE N.T.S.



INDICATIVE SEDIMENT BASIN - TYPE B
N.T.S.



STABILISED SITE ACCESS WITH SHAKER RAMP
N.T.S.



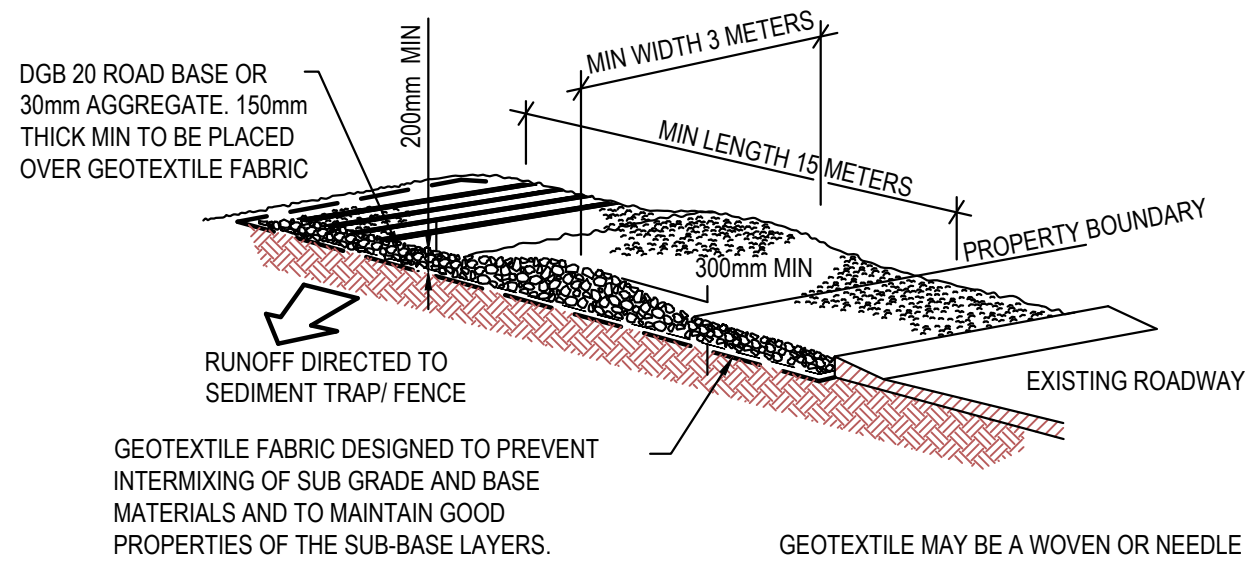
NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAX. UPSLOPE LENGTH IS 80 METERS.

CATCH DRAIN CONSTRUCTION NOTES:

- CONSTRUCT ALONG GRADIENT AS SPECIFIED.
- MAXIMUM SPACING BETWEEN BANKS SHALL BE 80 METRES.
- DRAINS TO BE OF PARABOLIC OR TRAPEZOIDAL CROSS SECTION NOT V-SHAPED.
- EARTH BANKS TO BE ADEQUATELY COMPACTED IN ORDER TO PREVENT FAILURE.
- CONSTRUCTION IS OF A TEMPORARY NATURE AND SHALL BE COMPACTED AT THE END A DAYS WORK OR IMMEDIATELY PRIOR RAIN.
- ALL OUTLETS FROM DISTURBED LANDS ARE TO FEED INTO SEDIMENT BASIN OR SIMILAR.
- DISCHARGE RUNOFF COLLECTED FROM UNDISTURBED LANDS ONTO EITHER A STABILISED OR AN UNDISTURBED DISPOSAL AISTE WITHIN THE SAME SUBCATCHMENT AREA FROM WHICH THE WATER ORIGINATED.
- COMPACT WITH A SUITABLE IMPLEMENT IN SITUATIONS WHERE THEY ARE REQUIRED TO FUNCTION FOR MORE THAN FIVE DAYS.
- EARTH BANKS TO BE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT WILL IMPEDE NORMAL FLOW.

CATCH DRAINS SD 5-8
SCALE N.T.S.

CONSTRUCTION SITE



STABILISED SITE ACCESS WITH SHAKER RAMP
N.T.S.

NOTES:

- THIS DEVICE IS TO BE LOCATED AT ALL EXITS FROM CONSTRUCTION SITE.
- THIS DEVICE IS TO BE REGULARLY CLEANED OF DEPOSITED MATERIAL SO AS TO MAINTAIN A 50mm DEEP SPACE BETWEEN PLANKS.
- ANY UNSEALED ROAD BETWEEN THIS DEVICE AND NEAREST ROADWAY IS TO BE TOPPED WITH 100mm THICK 40-70mm SIZE AGGREGATE.
- ALTERNATIVELY, THREE(3) PRECAST CONCRETE CATTLE GRIDS (AS MANUFACTURED BY *HUMES CONCRETE MAY BE USED. 1, 2 & 3 ABOVE ALSO APPLY.

FOR DA ONLY

SURVEY INFORMATION										Client				Suite 2.01 828 Pacific Highway Gordon NSW 2072		Telephone +61 2 9417 8400 Facsimile +61 2 9417 8337 Email email@hiconsult.com.au Web www.henryandhymas.com.au			Project			Drawn	Designed	Original issue date
SURVEYED BY: WATSDON BUCHAN										HB&B PROPERTY PTY LTD									STORAGE AND DISTRIBUTION WAREHOUSE LUDDENHAM ROAD, ORCHARD HILLS, NSW			E. Formadero	S. Chen	Feb 2025
DATUM: A.H.D.										Architect				NETTLETONTRIBE							Checked	Approved	Scale @A1	
ORIGIN OF LEVELS: SSM 22740 RL+1.10																					N. Heazlewood	T. Rozehnal	NTS	
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