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Your Reference: HI21429

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33 Herbert Street
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26 May 2023

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Health Infrastructure
C/- Turner & Townsend
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Sydney NSW 2000

ENGINEERS
MANAGERS
INFRASTRUCTURE
PLANNERS
DEVELOPMENT
CONSULTANTS

Attention: Adam Mardini

Dear Adam

**Re: Nepean Hospital, Child and Adolescent Mental Health
Redevelopment – Review of Environmental Factors – Civil Works – R02**

The REF works associated with the Civil works include:

- In-ground stormwater network including water quality treatment devices to service the new building and external areas
- Site regrading and pavement works external to the building envelope, including proposed parking bays and access pathways at the eastern end of the building
- Demolition of the existing building slabs and minor regrading below the building envelope to level the undercroft area and generally tie in with existing surrounding levels.

The attached plan shows the proposed stormwater and civil works.

The civil engineering components of the works will be designed in accordance with the following Australian Standards and guidelines:

- Australian Rainfall & Runoff 2019
- AS/NZS 3500.3:2018 Plumbing and Drainage: Stormwater Drainage
- Managing Urban Stormwater, Soils and Construction, Volume 1, 4th Edition, Landcom, March 2004
- Penrith City Council Development Control Plan 2014

Should you require any additional information please do not hesitate to contact the undersigned.

Yours faithfully,

ACOR Consultants Pty Ltd



Caitlin Russell
Civil Engineer

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PROPOSED STORMWATER PIPE

OVERLAND FLOW PATH

EXISTING STORMWATER PIT

EXISTING STORMWATER PIPE

PROPOSED CARPARK PAVEMENT

PROPOSED FOOTPATH PAVEMENT

EXISTING PEDESTRIAN PAVEMENT TO BE RETAINED

EAST BLOCK

ORAL HEALTH

ADULT MENTAL HEALTH

NEPEAN HOSPITAL EXECUTIVE

COURT BUILDING

SHORT TERM EQUIPMENT SERVICE

EX. STAFF PARKING

EX. LOADING ZONE

EX. SUBSTATION

BOUNDARY LINE

CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

PEDESTRIAN PATH

RAMP ENTRY

ENTRY

PEDESTRIAN WALKWAY

PROPOSED CARPARK PAVEMENT

EXISTING MDOP DRIVEWAY ENTRY TO BE RETAINED

EXISTING GRATED DRAIN AT MULTIDECK CARPARK ENTRY TO BE REMOVED AND REPLACED WITH KERB INLET PIT

STORMWATER SYSTEM TO DISCHARGE INTO TRUNK MAIN THROUGH EXISTING SITE AND CONNECT TO EXISTING PIT ADJACENT TO DERBY STREET

DRIVEWAY ACCESS TO CAMHS THROUGH EXISTING SITE TO BE FORMALISED

EXISTING ASPHALT TO BE RETAINED

BOUNDARY LINE

OVERLAND FLOW PATH TO GENERALLY FOLLOW THE EXISTING OVERLAND FLOW AT THE SITE

FOR NEW CONSTRUCTION, CARE MUST BE TAKEN NOT TO HARM ROOTS IN THE TREE PROTECTION ZONE

MAKE GOOD EXTERNAL WALL AFTER CONSTRUCTION OF LINK CORRIDOR

MAKE GOOD EXTERNAL WALL AFTER DEMOLITION OF LINK CORRIDOR WALL

PIT AND PIPE NETWORK TO COLLECT ROOF AND SURFACE DRAINAGE AND CONVEY IT TO THE STORMWATER TREATMENT DEVICE

HARDSCAPE SURFACE FOR PEDESTRIAN AND TUGS

HOST

ASPHALT CARPARK

GPT

EXISTING FOOTPATH AND GARDENS TO REMAIN

CONSTRUCT NEW DRIVEWAY
— LAYBACK AND CROSSOVER
TO DERBY STREET

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ERS | MANAGERS | INFRASTRUCTURE PLANNERS | DEVELOPMENT CONSULTANTS

TRACTOR TO CHECK AND VERIFY ALL DIMENSIONS
BEFORE COMMENCEMENT OF WORK OR
PREPARATION OF SHOP DRAWINGS. DO NOT SCALE THIS
DRAWING

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DRAWINGS TO BE READ IN
CONJUNCTION WITH THE TRADE
PACKAGE COVER SHEET AND NOTES

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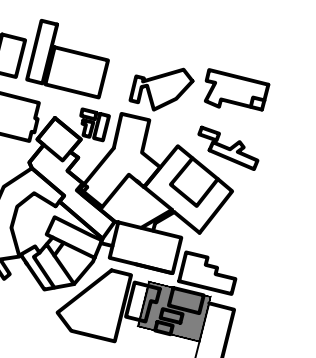
Health
Infrastructure

ALTH INFRASTRUCTURE

AGING CONTRACTOR

ECT MANAGERS
RE
02 9333 3333
HTECT
N ARCHITECTURE
02 8297 7200
TURE / CIVIL
OR
02 9438 5098
ANICAL
JP
02 9320 9320
TRICAL / COMMS
02 9437 1000
SALE/IC
JP
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ENGINEERING
JP
02 9320 9320
CADIA
02 8571 2900
DDA
CKEETT MAGUIRE + GOLDSMITH
02 9211 7777

PROJECT
PEAN HOSPITAL - STAGE 2
RBY ST
GSWOOD NSW 2747
PEAN
PROJECT NUMBER
W211526
DRAWING KEY



PROJECT NORTH

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Qmm

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WIT: - CR CHECKED BY: - GL
 DATED BY: - CR APPROVED BY: - GL

 US
 FOR APPROVAL

 SAVING

GENERAL ARRANGEMENT NETWORKS AND GRADING

ISSUING NUMBER	ISSUE
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GENERAL INSTRUCTIONS

- E1. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND ANY OTHER PLANS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED AND RELATING TO DEVELOPMENT AT THE SUBJECT SITE.
- E2. CONTRACTORS TO ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS INSTRUCTED IN THIS SPECIFICATION AND CONSTRUCTED FOLLOWING THE GUIDELINES OF "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION", DEPT OF HOUSING, 2004 (BLUE BOOK).
- E3. ALL BUILDERS AND SUB-CONTRACTORS WILL BE INFORMED OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.

E4. THE SOIL EROSION POTENTIAL ON THIS SITE SHALL BE MINIMISED. HENCE WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE :

- a. INSTALL SEDIMENT FENCES, TEMPORARY CONSTRUCTION EXIT AND SANDBAG KERB INLET SEDIMENT TRAP.
- b. UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

E5. DURING WINDY CONDITIONS, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.

- E6. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

E7. STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.

- E8. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.

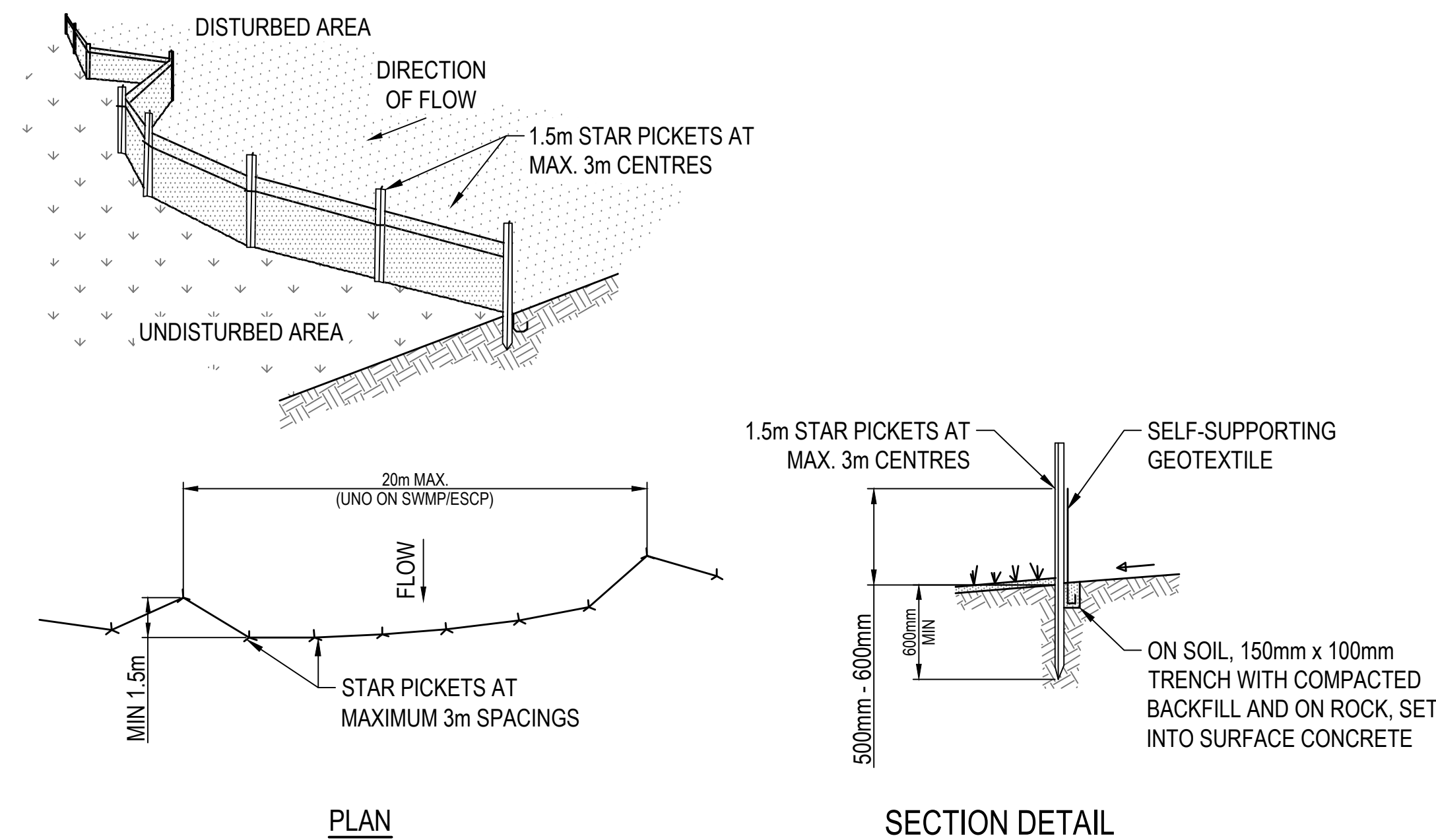
E9. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.

E10. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

- OTHER MATTERS
- E11. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER

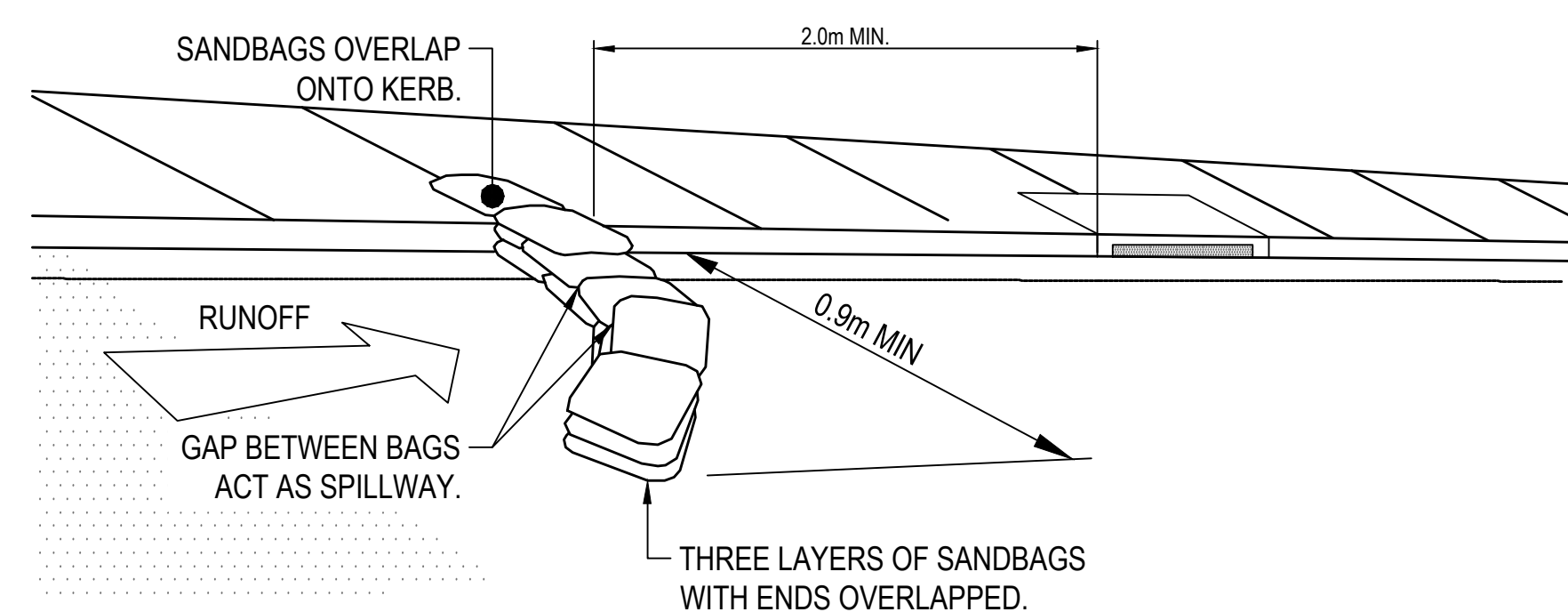
E12. RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER ARE TO BE EMPTIED AS NECESSARY. DISPOSAL OF WASTE SHALL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT.

E13. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AFTER RAINFALL EVENTS TO ENSURE THAT THEY OPERATE EFFECTIVELY REPAIR AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED.

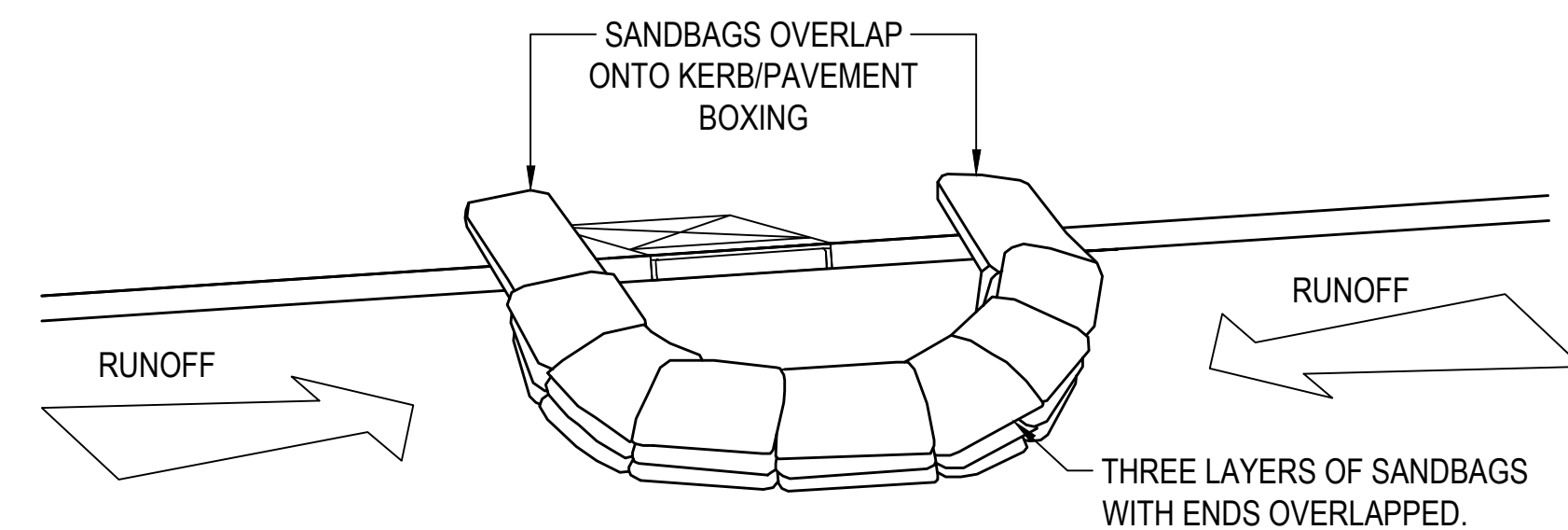


1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE.
2. DRIVE 1.5m LONG STARK PICKETS INTO GROUNDE, 3 METRES APART.
3. DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
4. BACKFILL TRENCH OVER BASE OF FABRIC.
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

N.T.S

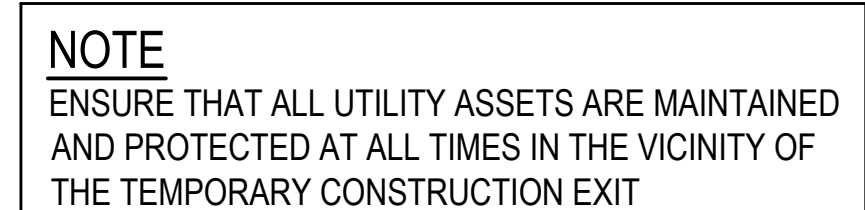


SANDBAG SEDIMENT TRAP - AT ON GRADE PIT

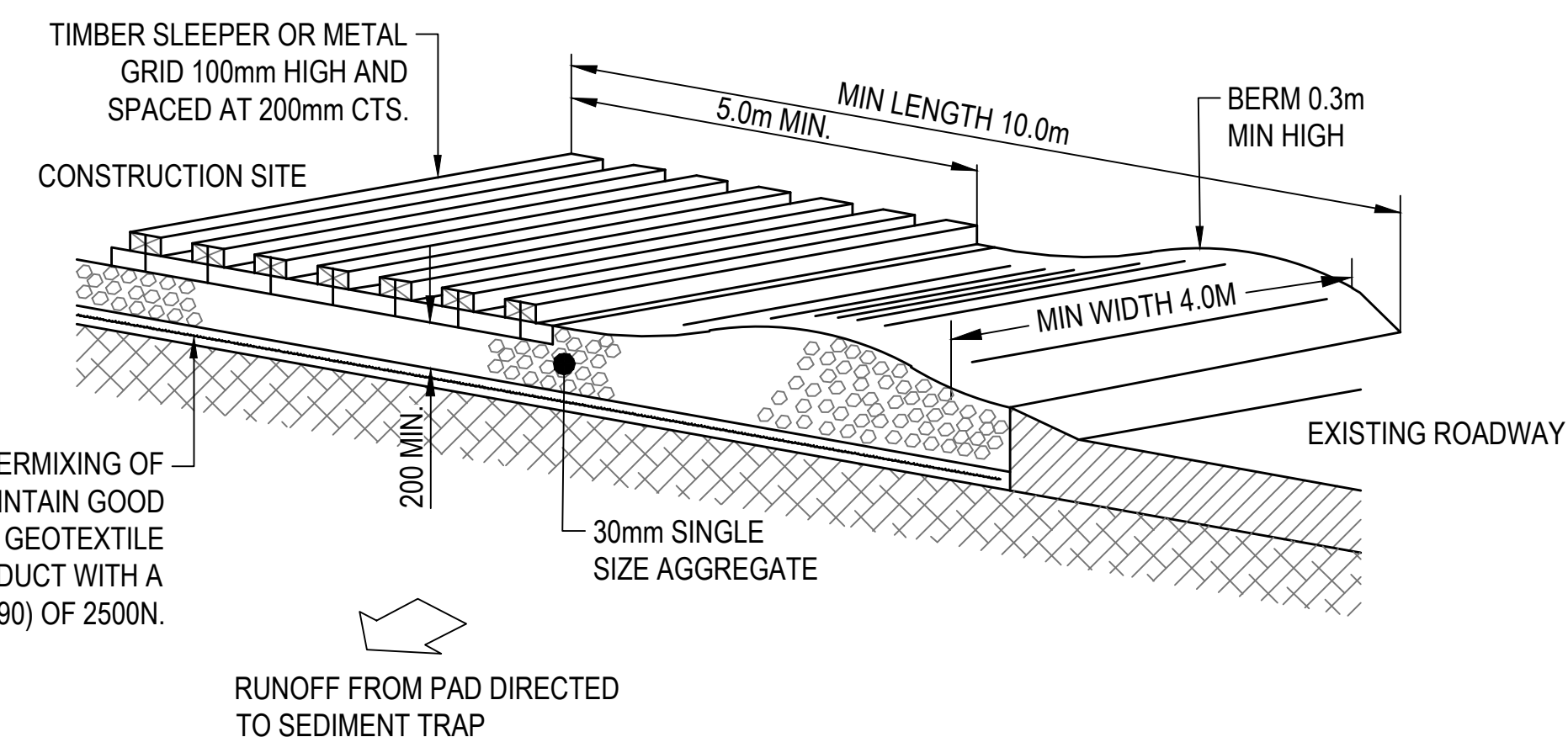


SANDBAG SEDIMENT TRAP - AT KERB SAG PIT

N.T.S



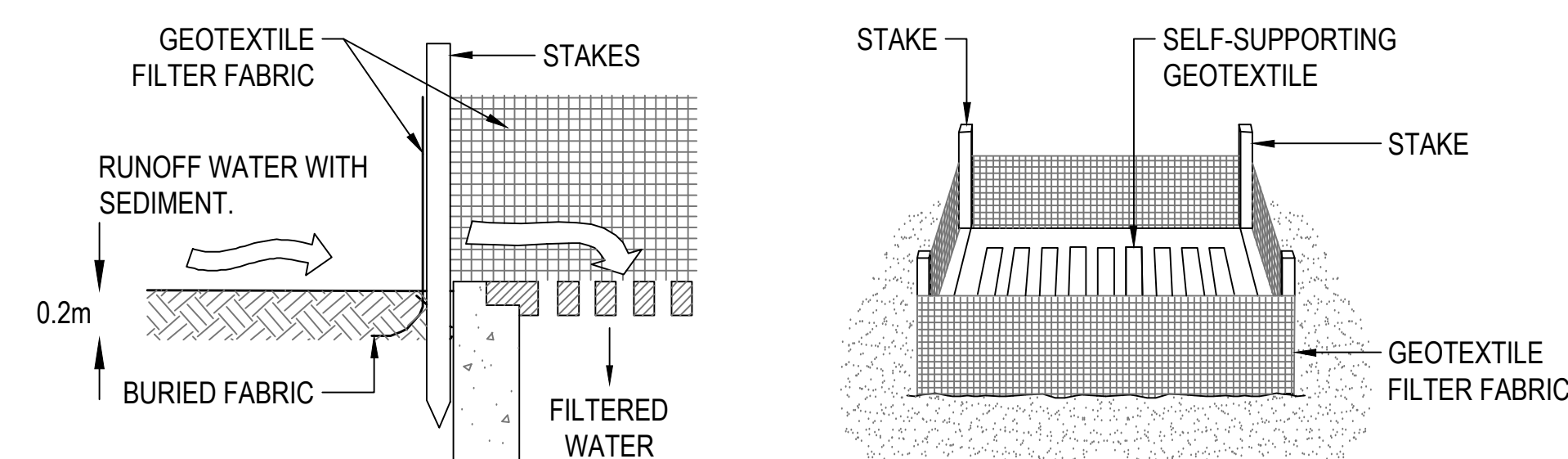
GEOTEXTILE FABRIC DESIGNED TO PREVENT INTERMIXING OF SUBGRADE AND BASE MATERIALS AND TO MAINTAIN GOOD PROPERTIES OF THE SUB-BASE LAYERS. THE GEOTEXTILE MAY BE WOVEN OR NEEDLE PUNCHED PRODUCT WITH A MINIMUM CBR BURST STRENGTH (AS3706 4-90) OF 2500N.



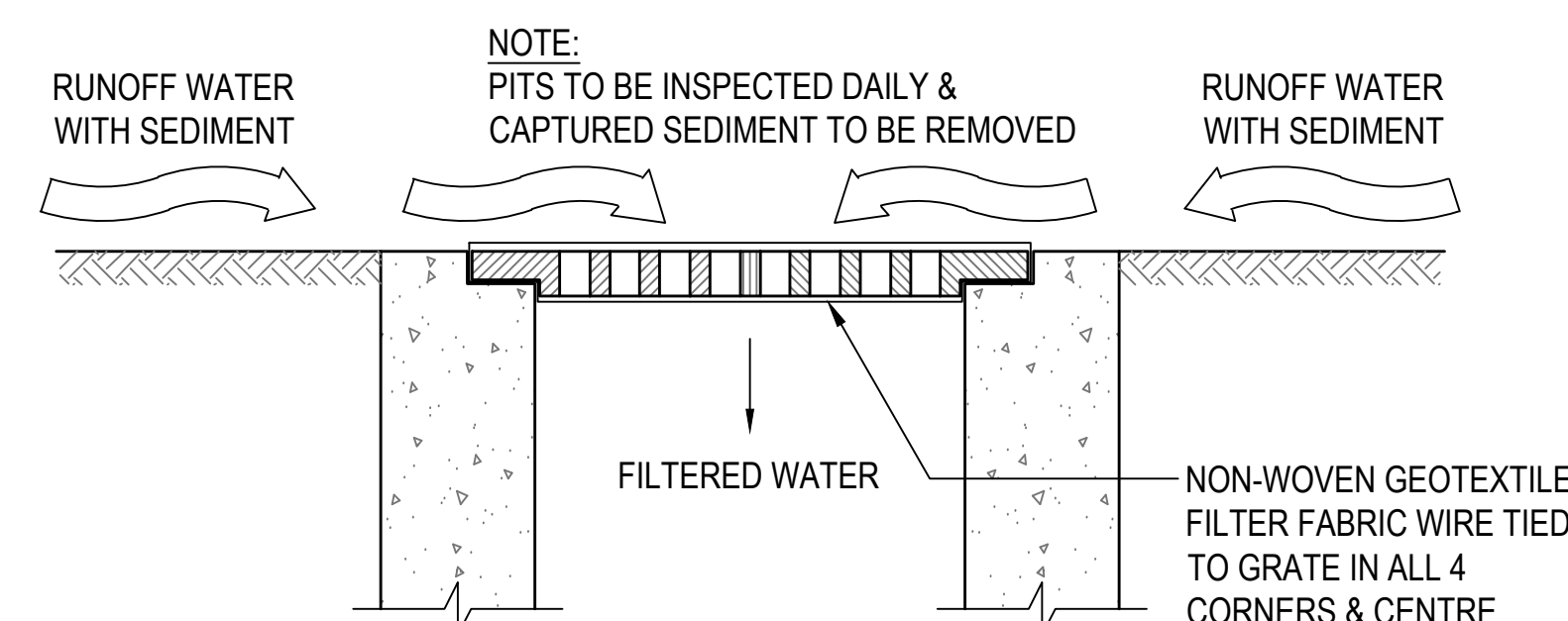
1. STRIP TOPSOIL AND LEVEL SITE.
2. COMPACT SUBGRADE.
3. COVER AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
4. CONSTRUCT 200mm THICK PAD OVER GEOTEXTILE USING 30mm SINGLE SIZE AGGREGATE.
5. CONSTRUCT HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT FENCE OR OTHER SEDIMENT TRAP WHERE THE SEDIMENT IS COLLECTED AND REMOVED.

THE EXIT SHALL BE MAINTAINED IN A CONDITION WHICH PREVENTS TRACKING OR FLOWING OF SEDIMENT OFF THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL GRAVEL AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED OFF THE CONSTRUCTION SITE MUST BE REMOVED IMMEDIATELY.

N.T.S



N.T.S



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NOTE
TO BE USED IN PAVED AREAS WHERE TRAFFIC
ACCESS IS REQUIRED