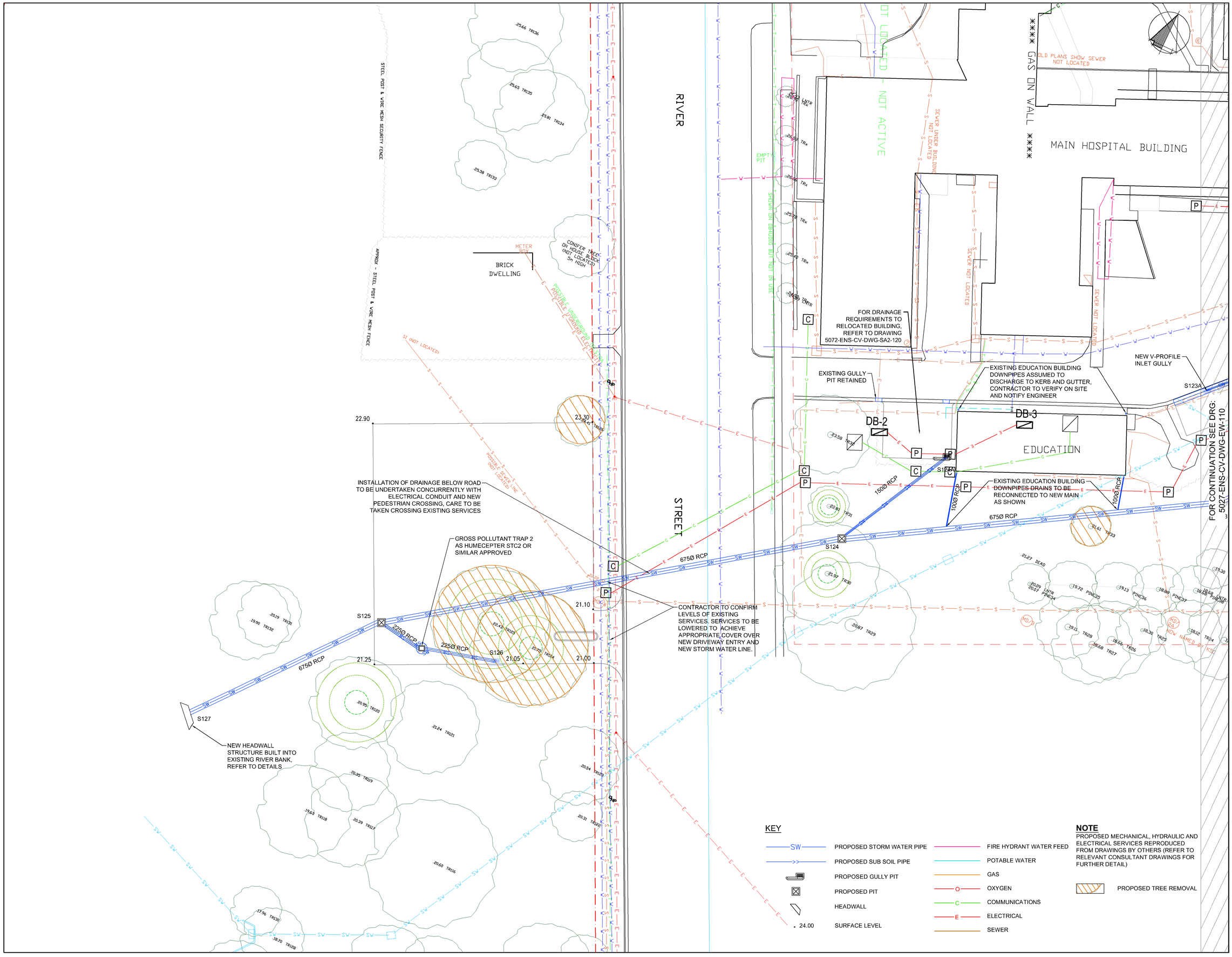

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ISSUE	DATE	FOR
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1	28/02/13	TENDER
2	20/03/13	TENDER

CLIENT
NSW Government Health Infrastructure

PROJECT MANAGER
JOHNSTAFF

PROJECT
KEMPSEY DISTRICT HOSPITAL

ENSTRUCT PROJECT NUMBER
4463

DRAWING KEY

TRUE NORTH PROJECT NORTH

GRAPHIC SCALE (mm)
SCALE 1:250
0 5 10 15 m
SCALE

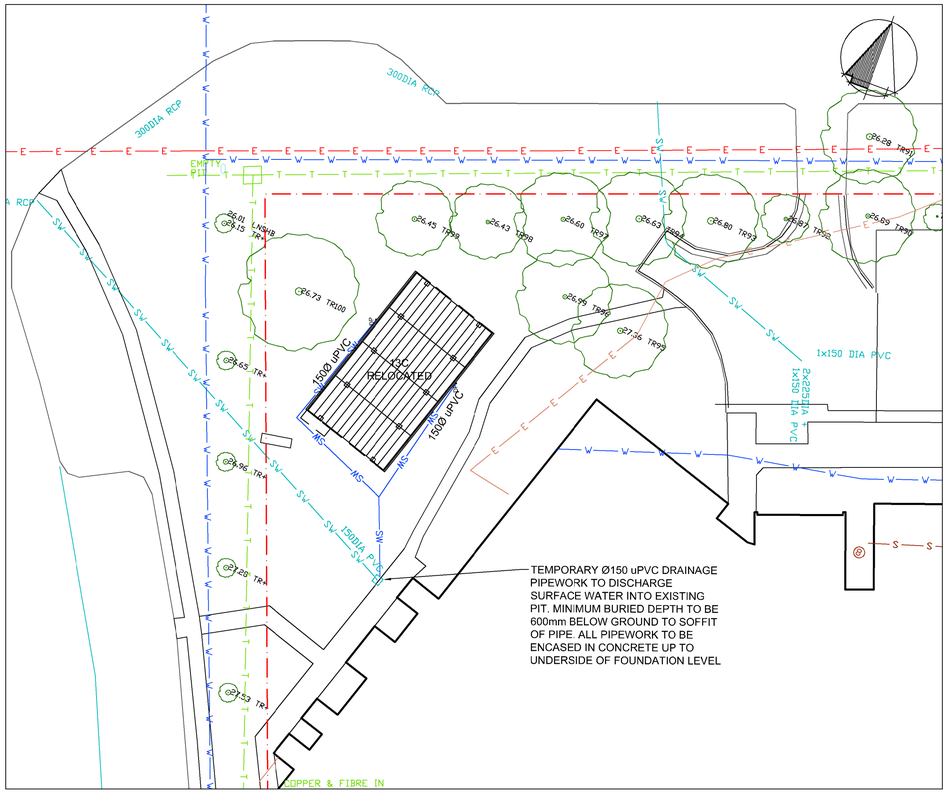
1:250 @ A1 DO NOT SCALE

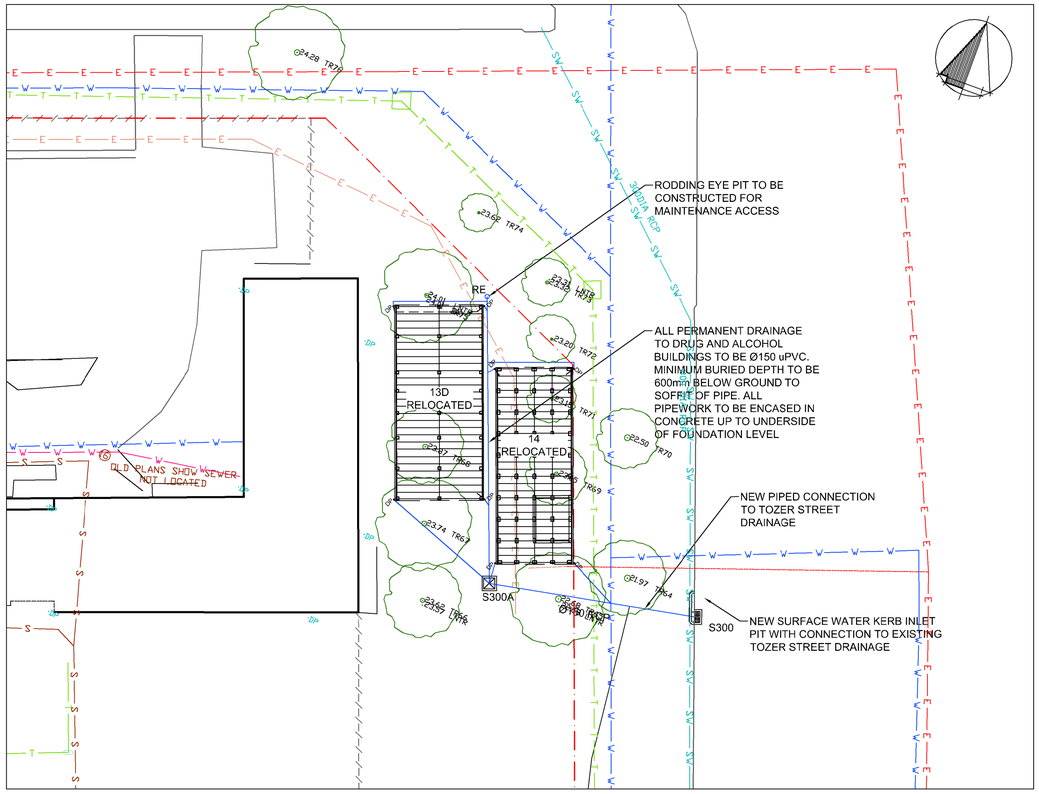
STATUS
FOR TENDER

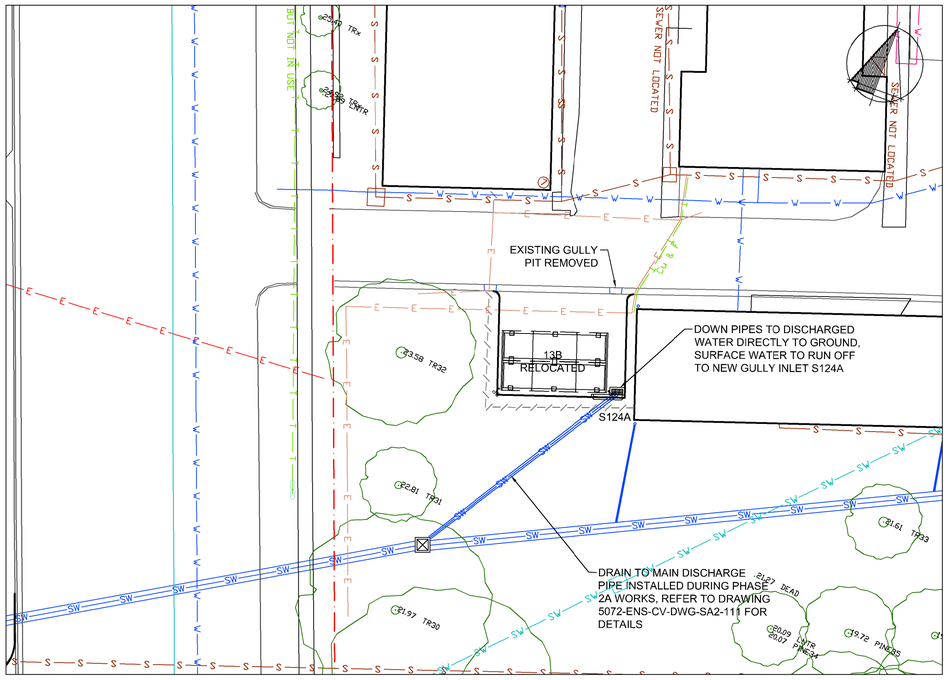
DRAWING
EARLY WORKS
PHASE 2A DRAINAGE PLAN
SHEET 2

DRAWING NUMBER
5027-ENS-CV-DWG-SA2-111

ISSUE
2

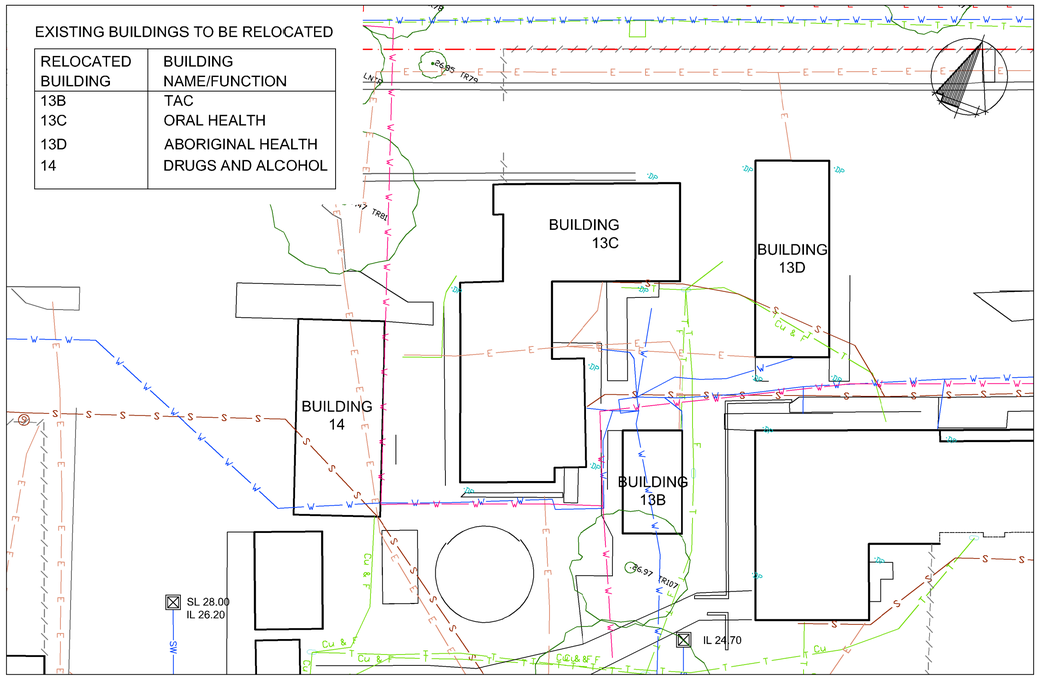






EXISTING BUILDINGS TO BE RELOCATED

RELOCATED BUILDING	BUILDING NAME/FUNCTION
13B	TAC
13C	ORAL HEALTH
13D	ABORIGINAL HEALTH
14	DRUGS AND ALCOHOL



KEY:

SW	PROPOSED STORM WATER PIPE
o DP	DOWN PIPE

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SCALE 1:250
0 5 10 15 m

SCALE
1:250 @ A1 DO NOT SCALE

STATUS
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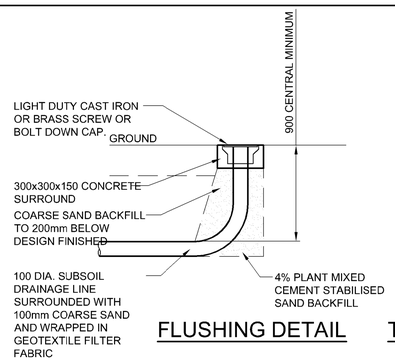
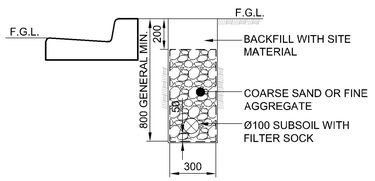
DRAWING
EARLY WORKS
PHASE 2B DRAINAGE PLAN

DRAWING NUMBER
5027-ENS-CV-DWG-SA2-120

ISSUE
2



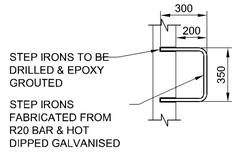
FLUSHING DETAIL



TYPICAL SUB-SOIL DRAIN DETAIL - SS

SCALE 1:10

NOTE:
1. PROVIDE AS REQUIRED BY GROUND WATER CONDITIONS



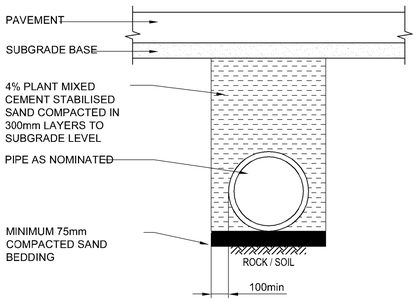
DETAIL OF STEP IRON

SCALE 1:20

NOTE:
STEP IRONS SHALL BE PROVIDED AT 350 cts. STAGGERED UNDER LID FOR PITS DEEPER THAN 1000mm

SUBSOIL DRAINAGE

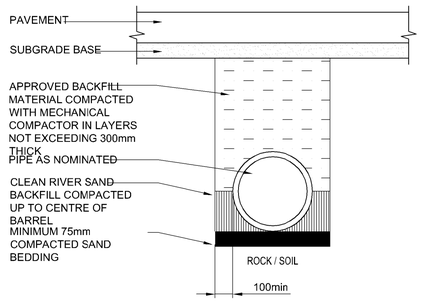
SCALE 1:20



NOTE:
IF THE PIPELINE IS WITHIN AN EXISTING PAVEMENT THE BACKFILL WITHIN THE PAVEMENT AREA SHALL BE 4% STABILISED GRAVEL, COMPACTED TO THE FINISHED

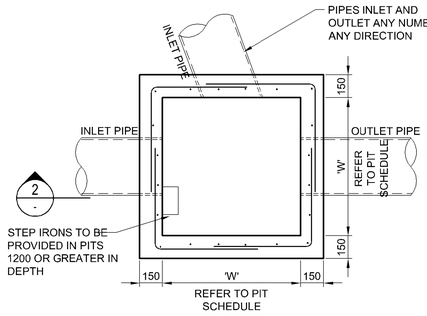
PIPELINE WITHIN ROAD PAVEMENT

SCALE 1:20

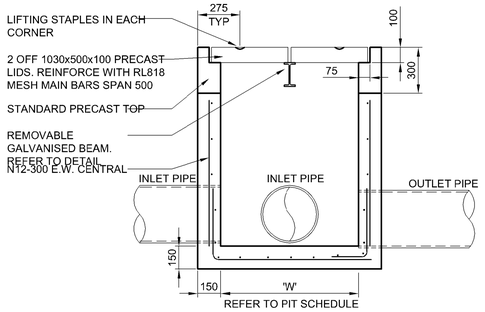


PIPELINE OTHER AREAS

SCALE 1:20



PLAN (COVER NO SHOWN



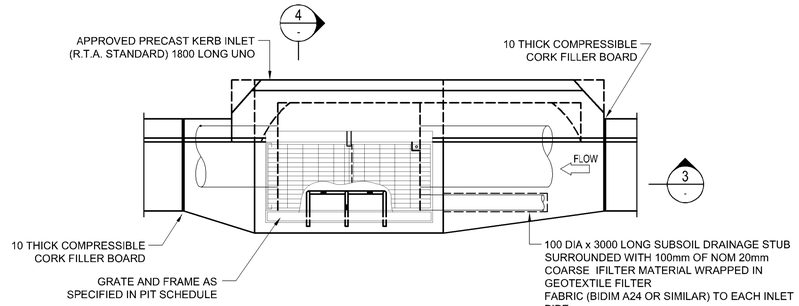
SECTION 1

SCALE = 1:20

NOTE:
PRECAST CONCRETE PITS MAYBE SUBSTITUTED FOR INSITU SUBJECT TO APPROVAL

PLAN

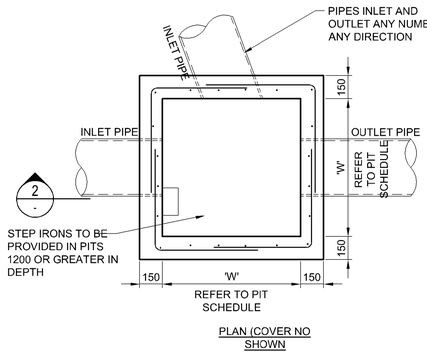
SCALE 1:20



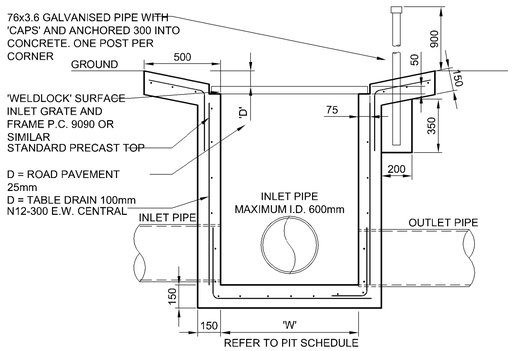
PLAN

KERB INLET PIT DETAIL

SCALE 1:20



PLAN (COVER NO SHOWN



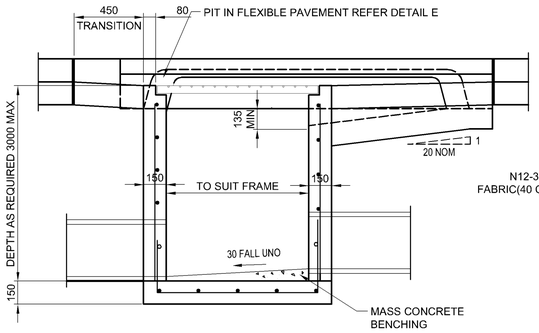
SECTION 2

SCALE = 1:20

NOTE:
PRECAST CONCRETE PITS MAYBE SUBSTITUTED FOR INSITU SUBJECT TO APPROVAL

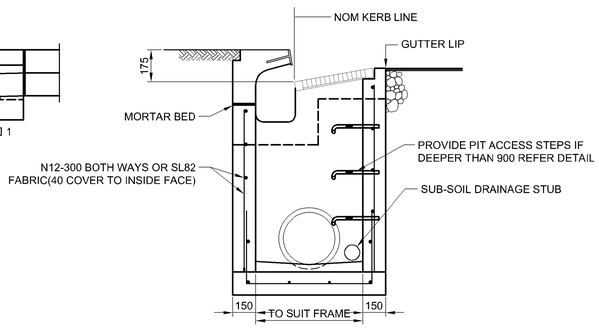
PLAN

SCALE 1:20



SECTION 5

SCALE = 1:20



SECTION 4

SCALE = 1:20

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KEMPSEY DISTRICT HOSPITAL

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DRAWING KEY

TRUE NORTH PROJECT NORTH

GRAPHIC SCALE (mm)
SCALE 1:20
0 200 400 600 800 1000mm
SCALE
1:20 @ A1 DO NOT SCALE

STATUS
FOR TENDER

DRAWING
EARLY WORKS
DRAINAGE DETAILS

DRAWING NUMBER
5027-ENS-CV-DWG-SA2-500

ISSUE
2

CHAMBER REFERENCE	EASTING (m) TBC	NORTHING (m) TBC	SURFACE LEVEL (m)	OUTGOING PIPE INVERT LEVEL (m)	PIT TYPE	GRATE CLASS	INTERNAL DIMENSION (mm)	NOTES
S109			24.50	21.40	JUNCTION	'B'	900X900	GROUND LEVEL EXISTING, ALTERED IN FUTURE
S120			22.80	20.80	JUNCTION	'B'	900 x 900	
S121			20.25	19.35	JUNCTION	'B'	900 x 900	
S122			21.50	19.00	JUNCTION	'B'	900 x 900	DOWNSTREAM GROSS POLLUTANT TRAP 1
GTP1			21.15	18.90	GPT	'B'	SEE DETAILS	HUMECEPTER STC3 OR SIMILAR BASE LEVEL=17.25
S123			21.35	18.55	JUNCTION	'B'	900 x 900	
S124			22.45	22.25	JUNCTION	'B'	900 x 900	
S125			21.45	17.80	JUNCTION	'B'	900 x 900	
S126			21.05	17.50	KIP	'D'	900 x 900	DOWNSTREAM GROSS POLLUTANT TRAP 2
GPT2			21.15	20.75	GPT	'D'	SEE DETAILS	HUMECEPTER STC2 OR SIMILAR BASE LEVEL=19.10m
S127			17.30	17.30	HEADWALL	-	-	
S122A (EX)			22.25	20.00	EXISTING	EXISTING	EXISTING	
S122B			22.30	21.50	SIP	'D'	900 x 900	
S123B			22.65	21.85	SIP	'D'	900 x 900	
S124A			23.25	22.25	KIP	'D'	900 x 900	
S200			22.30	21.35	KIP	'D'	900 x 900	
S201			20.40	19.40	KIP	'D'	900 x 900	
S202			19.00	18.00	KIP	'D'	900 x 900	
S203			17.35	UNKNOWN	KIP	'D'	900 x 900	
S300			20.64	UNKNOWN	KIP	'D'	900 x 900	
S300A			23.00	22.00	JUNCTION	'B'	900 x 900	

NOTES
- ALL LINTEL FOR KERB INLET PITS TO BE 1.2m LONG, EXCEPT S126 WHICH SHALL BE 2.4m LONG

- KIP: KERB INLET PIT
  SIP: SURFACE INLET PIT
  JUNCTION: JUNCTION PIT
  GPT GROSS POLLUTANT TRAP

CONTRACTOR TO CONFIRM BURIED DEPTH OF EXISTING PIPES WITH UNKNOWN INVERT LEVELS AND NOTIFY ENGINEER PRIOR TO CONSTRUCTION OF PIT TO VERIFY DESIGN ASSUMPTIONS

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SCALE
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FOR TENDER

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EARLY WORKS
DRAINAGE SCHEDULE

DRAWING NUMBER
5027-ENS-CV-DWG-SA2-550

ISSUE
2

SEQUENCE OF WORKS

1. PRIOR TO COMMENCEMENT OF EXCAVATION THE FOLLOWING SOIL MANAGEMENT DEVICES MUST BE INSTALLED AS PER THE EROSION AND SEDIMENT CONTROL DRAWING.
   1.1. CONSTRUCT SILT CONTROL DEVICES BELOW THE SITE AND ACROSS ALL POTENTIAL RUNOFF SITES.
   1.2. CO-ORDINATE CONSTRUCTION ENTRY/EXIT ROUTES WITH PROJECT MANAGER. ARRANGE SUITABLE LOCATION FOR THE INSPECTION OF TRUCKS PRIOR TO LEAVING SITE AND DIVERT RUNOFF TO SUITABLE CONTROL SYSTEM.
   1.3. CONSTRUCT MEASURES TO DIVERT UPSTREAM FLOWS INTO EXISTING STORMWATER SYSTEM.
   1.4. PROVIDE SANDBAG SEDIMENT TRAPS UPSTREAM OF EXISTING PITS.
   1.5. LOCATE A 1.8 METRE CHAIN WIRE FENCE AROUND THE BOUNDARIES AND ATTACH HESSIAN CLOTH TO IT ON THE WINDWARD SIDE (TIES AT THE TOP CENTER AND BOTTOM AND AT 1 METRE INTERVALS.
2. DISTURBED AREAS ARE REGULARLY WATERED TO REDUCE DUST POLLUTION.
3. CONSTRUCT GEOTEXTILE FILTER PIT SURROUND AROUND ALL PROPOSED PITS AS THEY ARE CONSTRUCTED.
4. ON COMPLETION OF PAVEMENT PROVIDE SAND BAG KERB INLET SEDIMENT TRAPS AROUND PITS.
5. PROVIDE AND MAINTAIN A STRIP OF TURF ON BOTH SIDES OF ALL ROADS AFTER THE CONSTRUCTION OF KERBS.

EROSION AND SEDIMENT CONTROL NOTES

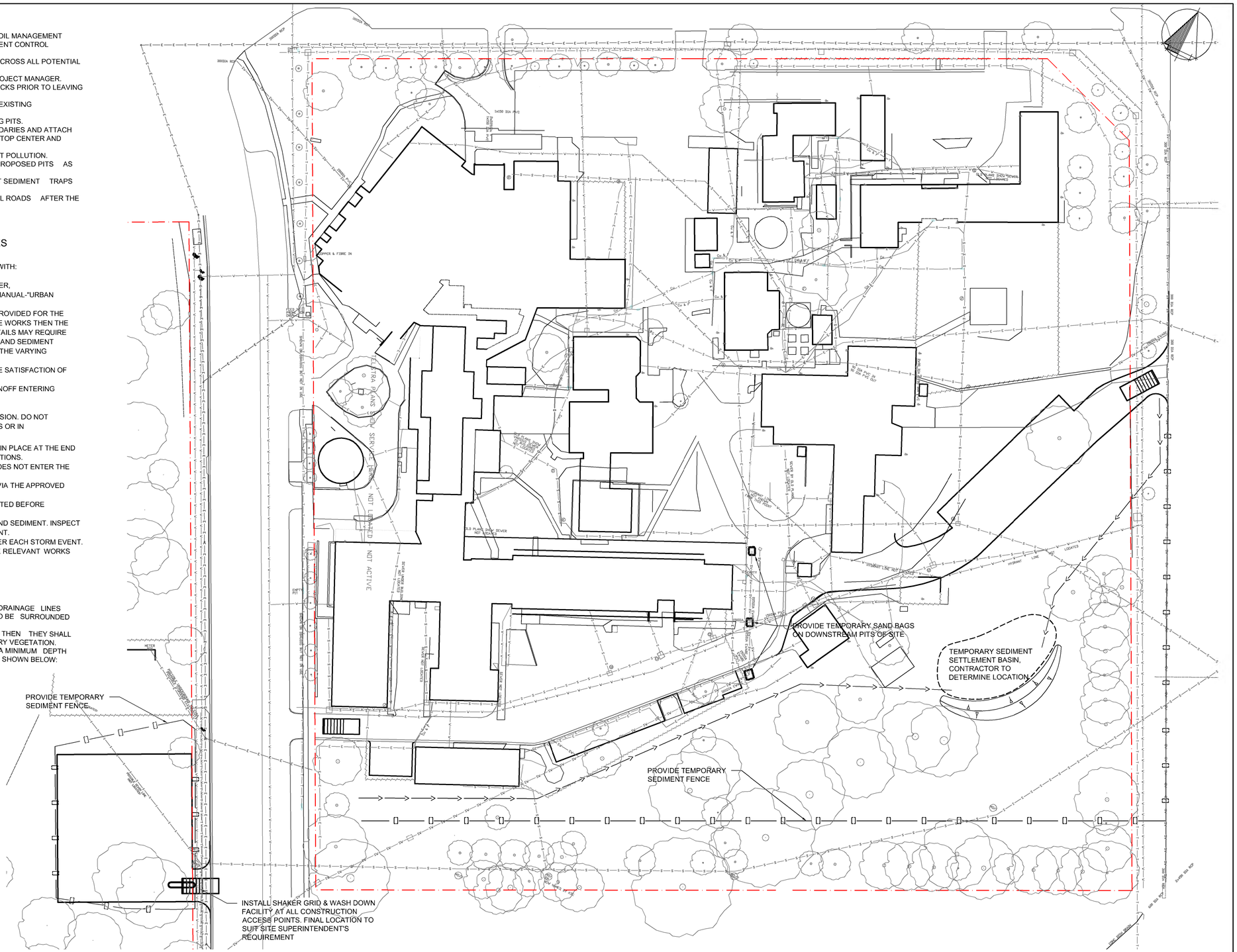
1. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH:
   (A) LOCAL AUTHORITY REQUIREMENTS,
   (B) EPA - POLLUTION CONTROL MANUAL FOR URBAN STORMWATER,
   (C) DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT MANUAL-"URBAN EROSION & SEDIMENT CONTROL".
2. EROSION AND SEDIMENT CONTROL DRAWINGS AND NOTES ARE PROVIDED FOR THE WHOLE OF THE WORKS. SHOULD THE CONTRACTOR STAGE THESE WORKS THEN THE DESIGN MAY REQUIRE TO BE MODIFIED. VARIATION TO THESE DETAILS MAY REQUIRE TO BE APPROVED BY THE RELEVANT AUTHORITIES. THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE IMPLEMENTED AND ADOPTED TO MEET THE VARYING SITUATIONS AS WORK ON SITE PROGRESSES.
3. MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
4. WHEN STORMWATER PITS ARE CONSTRUCTED PREVENT SITE RUNOFF ENTERING THE PITS UNLESS SILT FENCES ARE ERECTED AROUND PITS.
5. MINIMIZE THE AREA OF SITE BEING DISTURBED AT ANY ONE TIME.
6. PROTECT ALL STOCKPILES OF MATERIALS FROM SCOUR AND EROSION. DO NOT STOCKPILE LOOSE MATERIAL IN ROADWAYS, NEAR DRAINAGE PITS OR IN WATERCOURSES.
7. ALL SOIL AND WATER CONTROL MEASURES ARE TO BE PUT BACK IN PLACE AT THE END OF EACH WORKING DAY, AND MODIFIED TO BEST SUIT SITE CONDITIONS.
8. CONTROL WATER FROM UPSTREAM OF THE SITE SUCH THAT IT DOES NOT ENTER THE DISTURBED SITE.
9. ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE VIA THE APPROVED CONSTRUCTION ENTRY/EXIT ROUTE.
10. ALL VEHICLES LEAVING THE SITE SHALL BE CLEANED AND INSPECTED BEFORE LEAVING.
11. MAINTAIN ALL STORMWATER PIPES AND PITS CLEAR OF DEBRIS AND SEDIMENT. INSPECT STORMWATER SYSTEM AND CLEAN OUT AFTER EACH STORM EVENT.
12. CLEAN OUT ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH STORM EVENT.
13. ALL DISTURBED AREAS SHALL BE REVEGETATED AS SOON AS THE RELEVANT WORKS HAVE BEEN COMPLETED.

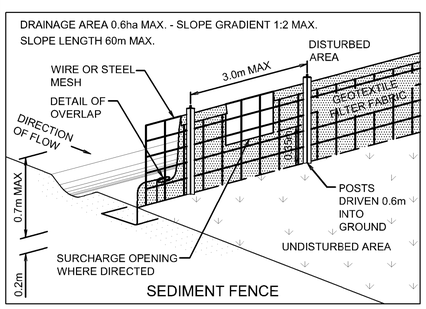
STOCKPILE NOTES

1. SPOIL & TOPSOIL STOCKPILES SHALL BE LOCATED AWAY FROM DRAINAGE LINES AND AREAS WHERE WATER MAY CONCENTRATE. STOCKPILES TO BE SURROUNDED BY FILTER FENCE TO CHECK EROSION.
2. IF STOCKPILES ARE TO BE IN PLACE FOR LONGER THAN 30 DAYS THEN THEY SHALL BE STABILIZED BY COVERING WITH MULCH OR WITH TEMPORARY VEGETATION.
3. FOLLOWING CONSTRUCTION, TOPSOIL SHALL BE RESPREAD TO A MINIMUM DEPTH OF 100mm ON THE BARE SOIL SURFACES AND REVEGETATE AS SHOWN BELOW:

LEGEND

- PROPOSED SEDIMENT FENCE
- BUNDING
- SWALE
- PROVIDE TEMPORARY SANDBAGS AROUND PITS:
  1. AFTER PAVEMENT WORKS IF CONSTRUCTION IS ONGOING UPSTREAM.
  2. TO EXISTING GRATED PITS DOWNSTREAM OF CONSTRUCTION WORKS.
- SHAKER GRID AND WASH DOWN FACILITY
- DRAINAGE PIT WITH HIGH LEVEL INLET GRATE



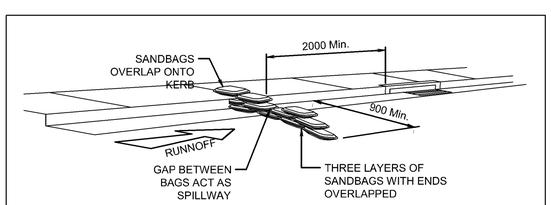


SEDIMENT FENCE

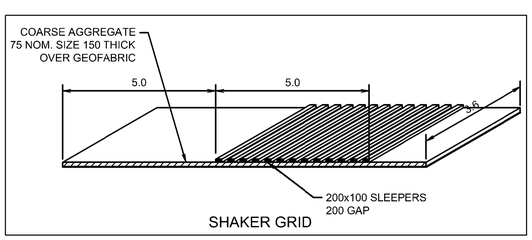
INSTALLATION

1. EXCAVATE A TRENCH 200mm DEEP.
2. DRIVE POSTS 500-700mm INTO GROUND AT A MAXIMUM SPACING OF 3.0m CENTRES.
3. PLACE AND FIX SUPPORT MESH (F52) TO POST.
4. LAY BIDIM GEOFABRIC (SF 2000) AGAINST THE SUPPORT MESH AND FIX BY TIE WIRE, STAPLES OR HOG RINGS.
5. PLACE BIDIM IN TRENCH AND BACKFILL WITH SOIL.

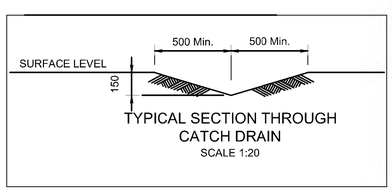
NOTE:
POSITION OF SEDIMENT FENCE AS DIRECTED BY SUPERINTENDENT. FENCE TO REMAIN IN PLACE UNTIL EXCAVATION IS BELOW FOOTPATH LEVEL. PROVIDE 2mx2m TURFED AREA ON DOWNSTREAM SIDE OF FENCE AT SURCHARGE OPENINGS.



SANDBAG KERB INLET SEDIMENT TRAP
NOT TO SCALE



SHAKER GRID



TYPICAL SECTION THROUGH CATCH DRAIN
SCALE 1:20

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0 10 20 30 m

SCALE
1:500 @ A1 DO NOT SCALE

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DRAWING
EARLY WORKS
SEDIMENT AND EROSION CONTROL

DRAWING NUMBER
5027-ENS-CV-DWG-SA2-800

ISSUE
2