EROSION AND SEDIMENT CONTROL PLAN

GENERAL NOTES

1. ALL EROSION & SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH “THE BLUE BOOK” - SOILS AND CONSTRUCTION, MANAGING URBAN STORMWATER, VOLUME 1, 4TH EDITION.
2. EFFECTIVE EROSION AND SILTATION CONTROL DEVICES ARE TO BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY WORKS AND MAINTAINED FOR THE DURATION OF ALL WORKS UNTIL THE SITE HAS BEEN SUFFICIENTLY STABLISED/REVEGETATED TO PREVENT DISCHARGE OF SEDIMENT AND SEDIMENT LADEN WATERS OFFSITE OR INTO THE STORMWATER SYSTEM.
3. INSTALL STABILISED ACCESS AT THE ENTRY/EXIT MARKED ON THE SITE PLANS AND ENSURE ALL VEHICLES USE THE DESIGNATED STABILISED ACCESS WHEN ENTERING AND LEAVING THE SITE.
4. ANY MATERIAL THAT IS TRACKED ONTO THE ROADWAY WILL BE REMOVED. A STREET CLEANING SERVICE WILL BE UTILISED DURING ALL STAGES OF WORK UNTIL GROUND SURFACES HAVE BEEN STABILISED.
5. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE (REFER TO THE BLUE BOOK FOR SEDIMENT FENCE CONSTRUCTION NOTES). WHERE POSSIBLE, INSTALL A SECONDARY SEDIMENT FENCE 2,000MM BEHIND THE FIRST FENCE.
6. SEDIMENT FENCES REQUIRE REGULAR INSPECTON & MAINTENANCE TO REMOVE SEDIMENT TRAPPED BEHIND FENCES, REINSTATE PICKETS, SECURE AND TIGHTEN FILTER CLOTH.
7. INSTALL TEMPORARY SEDIMENT BARRIERS TO ALL STORMWATER INLET PITS LIKELY TO COLLECT SEDIMENT LADEN WATER.
8. MESH AND GRAVEL INLET FILTER SEDIMENT TRAPS ARE REQUIRED TO BE PROVIDED SURROUNDING ANY STORMWATER DRAINAGE GUTTER INLET PITS.
9. DIVERT UPSLOPE WATER AROUND WORK SITE AND STABILISE CHANNELS.
10. SOIL, EARTH, SAND AND GRAVEL ARE NOT TO BE STOCKPILED ON THE ROADWAY OR IN DRAINAGE AREAS.
11. SECURELY COVER AND PLACE SEDIMENT FENCING AROUND STOCKPILES TO PREVENT AIRBORNE MOVEMENT, MATERIALS ERODING OR MIGRATING OFFISTE.
12. A DESIGNATED WASH AREA MUST BE PROVIDED AND DESIGNED TO BE SLIGHTLY DEPRESSED TO COLLECT WASTE MATERIAL AND PREVENT OFFSITE DISCHARGES OF WASTE WATER.
13. THERE SHALL BE NO DISCHARGE OF ANY SEDIMENT LADEN WATER FROM THE SITE WITHOUT PRIOR CONSULTATION AND APPROVAL FROM COUNCIL. REFER TO ANZECC GUIDELINES AND COUNCIL ENVIRONMENTAL HEALTH TRIGGER VALUES FOR WATER QUALITY PARAMETERS.
14. STABILISE/REVEGETATE ALL DISTURBED AREAS PROGRESSIVELY WHERE PRACTICAL.
15. ALL CONTROLS ARE TO BE MONITORED AND ADJUSTED AS REQUIRED TO REMAIN EFFECTIVE THROUGHOUT THE WORKS.

NOTE RE. SERVICES

APPROXIMATE LOCATIONS OF EXISTING SERVICES SHOWN

EXACT LOCATIONS & DEPTHS TO BE ACURATELY LOCATED BY BUILDER CONTRACTOR BY CONTACTING THE RELEVANT AUTHORTIES BEFORE COMMENCEMENT OF ANY WORKS

DIAL 1100 BEFORE YOU DIG

LEGEND

- EXISTING CONTOURS
- SILT FENCE
- WIRE MESH FENCE
- STABILISED SITE ACCESS
- Ø50 PUMP LINE
- STORMWATER DRAINAGE PIPE
- DOWNPIPE TO RAINWATER TANK
- SERVICE TRENCHES
- RUNOFF FLOW DIRECTION
- SAND BAGS
- HAY BALES
- MESH AND GRAVEL INLET FILTER
- TEMPORARY DOWNPIPE RUNOFF DIRECTION
- SSD SUBSOIL DRAINAGE PIPE (Ø100mm U.N.O)
- DP DOWN PIPE (Ø100 U.N.O)
- VD VERTICAL DROP PIPE (Ø100 U.N.O)
- VR VERTICAL RISER
- IO INSPECTION OPENING
- CE CLEANING EYE
- MASONRY/BLOCK RETAINING WALL
- FP FLUSHING POINT (Ø100 U.N.O)
- FW FLOOR WASTE (Ø100 U.N.O)
- RWO RAINWATER OUTLET (Ø300 U.N.O)
- DDO DISH DRAIN OUTLET (Ø100 U.N.O)
- OF OVERFLOW FLOOR WASTE (Ø100 U.N.O)
- SEALED PIT
- GRATED INLET PIT
- GRATED DRAIN
- OVERLAND FLOW PATH
- SP SPREADER TEE CONFIGURATION
- SP SPREADER L CONFIGURATION
- ES EMERGENCY SPITTER (Ø65 U.N.O)
- EXISTING LEVEL
- HP HIGH POINT

DRAWING SCHEDULE

DRAWING No.	DRAWING TITLE	REV
D00	COVER SHEET, LEGEND, DRAWING SCHEDULE & SPECIFICATIONS	A
D01	EROSION AND SEDIMENT CONTROL PLAN DURING DEMOLITION STAGE	A
D02	EROSION AND SEDIMENT CONTROL PLAN DURING EXCAVATION STAGE	A
D03	EROSION AND SEDIMENT CONTROL PLAN DURING CONSTRUCTION STAGE	A
D04	EROSION AND SEDIMENT CONTROL DETAILS	A

ABBREVIATIONS

CL	CENTRELINE LEVEL	OSD	ON-SITE DETENTION
CONV.	PIPE CONVERTER	PROP.	PROPOSED
D/S	DOWNSTREAM	PVC	POLYVINYLCHLORIDE
DDO	DISH DRAIN OUTLET	RL	REDUCED LEVEL
DN	DIAMETER	RW	RETAINING WALL
DP	DOWNPIPE	RWT	RAINWATER TANK
EX.	EXISTING	S/S	STAINLESS STEEL
FFL	FINISHED FLOOR LEVEL	SL	SURFACE LEVEL
GL	GROUND LEVEL	SSL	STRUCTURAL SLAB LEVEL
GMS	GALVANISED MILD STEEL	STW	STORMWATER
GSIP	GROUND SURFACE INLET PIT	TK	TOP OF KERB
GTD	GRATED TRENCH DRAIN	U/S	UPSTREAM
H.H	HEADHEIGHT		
HL	HIGH LEVEL		
HP	HIGH POINT		
IL	INVERT LEVEL		
IO	INSPECTING OPENING		
JP	JUNCTION PIT		
KIP	KERB INLET PIT		
LL	LOW LEVEL		
O/F	OVERFLOW		
OB	OBVERT LEVEL		

SITE OF WORK

1:150@A1 0 1 2 3 4 5 6 7

1:200@A1 0 1 2 3 4 5 6 7 8 9 10

1:100@A1 0 1 2 3 4 5

NOT FOR CONSTRUCTION

LOCALITY SKETCH
NOT TO SCALE

N

No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE

ARCHITECT

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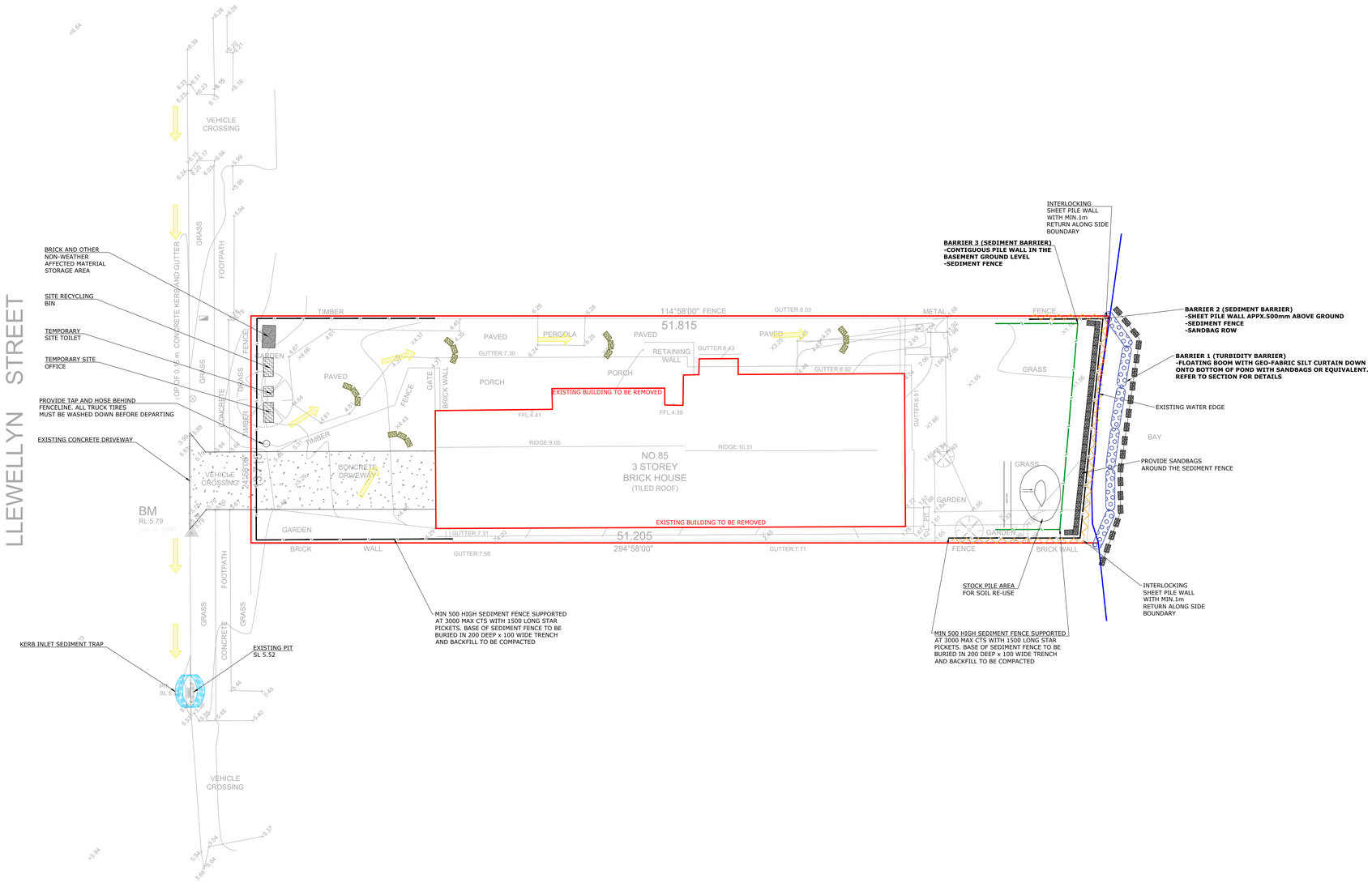
PROJECT

SHEET SUBJECT: COVER SHEET, LEGEND AND DRAWING SCHEDULE

PROJECT			
DATE	DRAWN	DESIGNED	CHECKED
SCALE @ A1: N.T.S.		JOB No	
AUTHORISED		DWG No: D00	REV: A



LEGEND

- EXISTING CONTOURS
- SILT FENCE
- WIRE MESH FENCE
- STABILISED SITE ACCESS
- Ø50 PUMP LINE
- STORMWATER DRAINAGE PIPE
- DOWNPIPE TO RAINWATER TANK
- SERVICE TRENCHES
- RUNOFF FLOW DIRECTION
- SAND BAGS
- HAY BALES
- MESH AND GRAVEL INLET FILTER
- TEMPORARY DOWNPIPE RUNOFF DIRECTION
- SSD — SUBSOIL DRAINAGE PIPE (Ø100mm U.N.O)
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- OVERLAND FLOW PATH
- SP — SPREADER TEE CONFIGURATION
- SP — SPREADER L CONFIGURATION
- ES — EMERGENCY SPITTER (Ø65 U.N.O)
- EXISTING LEVEL
- HP — HIGH POINT

EROSION AND SEDIMENT CONTROL PLAN DURING DEMOLITION STAGE

SCALE 1:150

1:100 AT A1 0 1 2 3 4 5

NOT FOR CONSTRUCTION

No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE

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PROJECT

SHEET SUBJECT: EROSION AND SEDIMENT CONTROL PLAN DURING DEMOLITION STAGE

PROJECT			
DATE	DRAWN	DESIGNED	CHECKED
SCALE AT A1: AS SHOWN		JOB No	
AUTHORISED		DWG No: D01	REV

LEGEND

- EXISTING CONTOURS
- SILT FENCE
- WIRE MESH FENCE
- STABILISED SITE ACCESS
- Ø50 PUMP LINE
- STORMWATER DRAINAGE PIPE
- DOWNPIPE TO RAINWATER TANK
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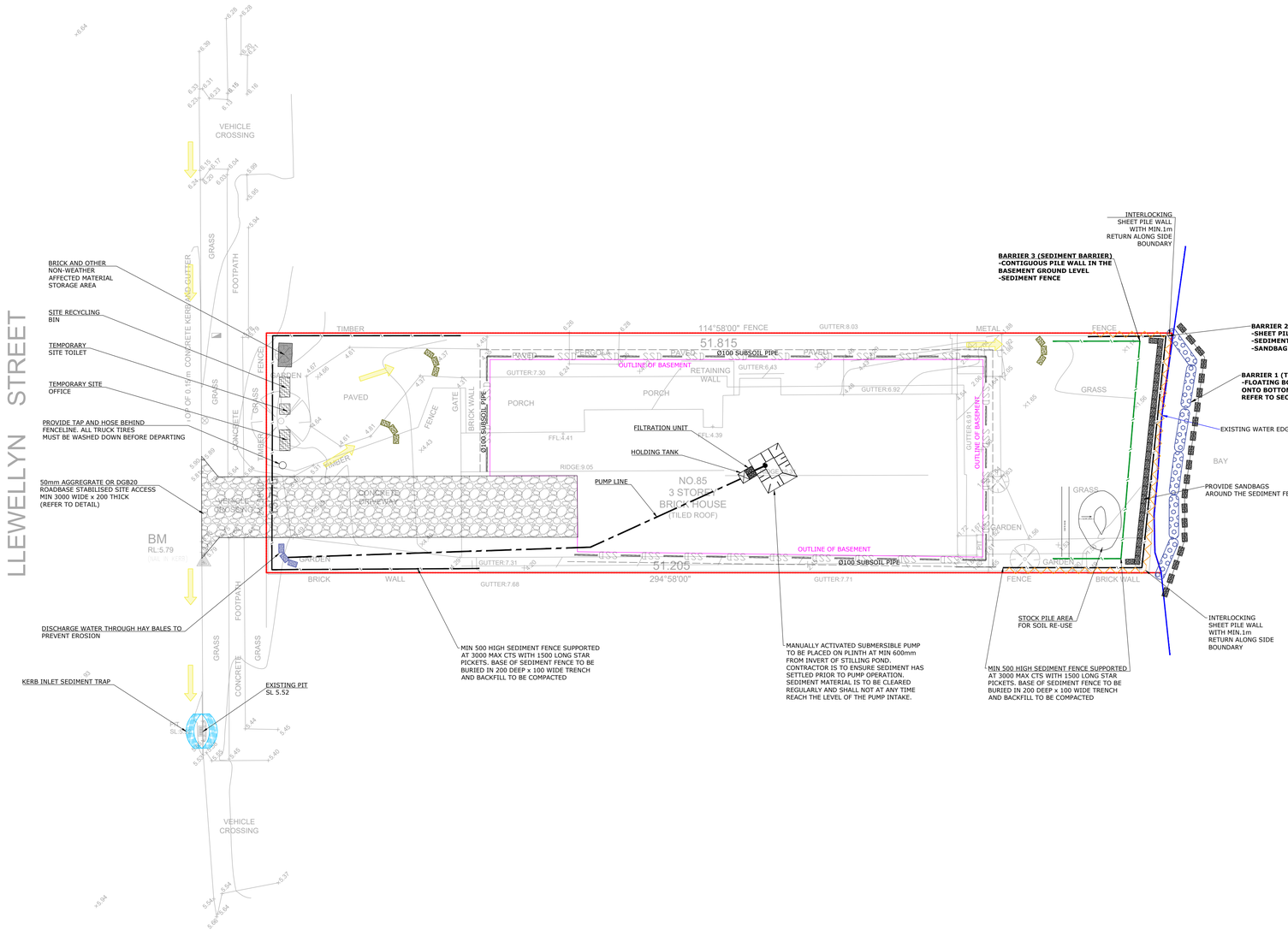

EROSION AND SEDIMENT CONTROL PLAN DURING EXCAVATION STAGE

SCALE 1:150

1:100 AT A1 0 1 2 3 4 5

NOT FOR CONSTRUCTION

No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE

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PROJECT

SHEET SUBJECT: EROSION AND SEDIMENT CONTROL PLAN DURING EXCAVATION STAGE

PROJECT			
DATE	DRAWN	DESIGNED	CHECKED
SCALE AT A1: AS SHOWN		JOB No	
AUTHORISED		DWG No: D02	REV

LEGEND

- EXISTING CONTOURS
- SILT FENCE
- WIRE MESH FENCE
- STABILISED SITE ACCESS
- Ø50 PUMP LINE
- STORMWATER DRAINAGE PIPE
- DOWNPIPE TO RAINWATER TANK
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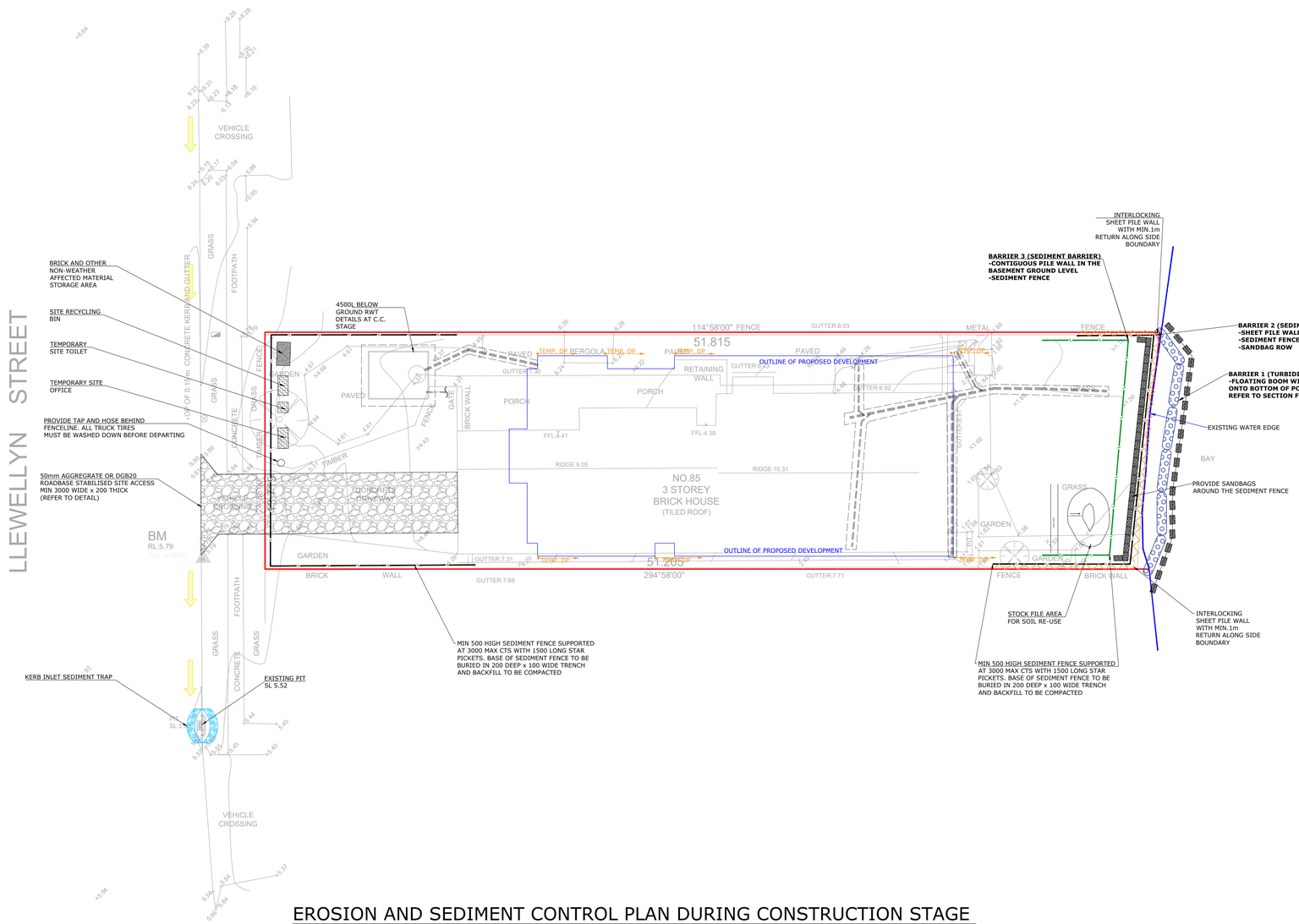

EROSION AND SEDIMENT CONTROL PLAN DURING CONSTRUCTION STAGE

SCALE 1:150

1:100 AT A1 0 1 2 3 4 5

NOT FOR CONSTRUCTION

No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE

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PROJECT

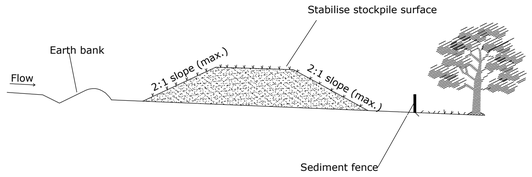
N

SHEET SUBJECT

EROSION AND SEDIMENT CONTROL PLAN DURING CONSTRUCTION STAGE

PROJECT			
DATE	DRAWN	DESIGNED	CHECKED
SCALE AT A1: AS SHOWN		JOB No	
AUTHORISED		DWG No: D03	REV

EROSION AND SEDIMENT CONTROL DETAILS



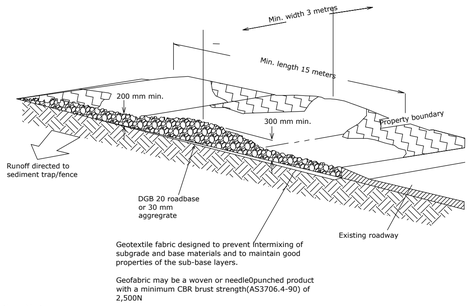
Stockpiles

Construction Notes

1. **Place tockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.**
2. **construct on the contour as low, flat, elongated mounds.**
3. **where they are to be in place for more than 10 days, stabilise following the approved ESCP or SWMPto reducethe C-factor to less than 0.10.**
4. **Construct earth banks (standard Drawing 5-5) on the upslope side to divert water around stockpiles and sediment fences (standard drawings 6-8) 1 to 2 meters downslope**

STOCKPILES

NTS



Geotextile fabric designed to prevent intermixing of subgrade and base materials and to maintain good properties of the sub-base layers.

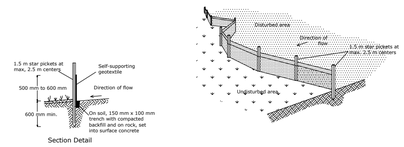
Geofabric may be a woven or needle0punched product with a minimum CBR brust strength(AS3706.4-90) of 2,500N

Construction Notes

1. **Strip the topsoil, level the site and compact the subgrade.**
2. **cover the area with needle-punched gertextile.**
3. **construct a 200-mm thick pad over the geotextile using road base or 30-mm aggregate.**
4. **Ensure the structure is at least 15 meters long or to building alignment and at least 3 meters wide.**
5. **where a sediment fence joins onto the stabilised access, construct a hump in the stabilised access to divert water to the sediment fence.**

STABILISED SITE ACCESS

NTS



Sediment Fence

NTS

Construction Notes

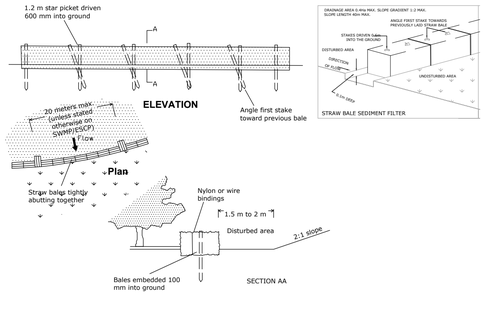
1. **construct sediment fences as close as possible to being parallel to the contours of the site but with small returns as shown in the drawing to limit the catchments area of any one section. the catchments area should be small enough to limit water flow if concentrated at one point to 50 liters per second in the design storm event, usually the 10-year event.**
2. **cut a 150-mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.**
3. **drive 1.5 metre long star pickets into ground at 2.5 meters intervals (max) at the downslope edge of the trench. Ensure any star pickets are fitted with safety caps.**
4. **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.**
5. **Join sections of fabric at a support post with a 150-mm overlap.**
6. **Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.**

SEDIMENT FENCE

NTS

Construction Notes

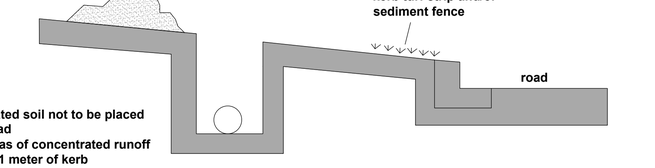
1. **Construct the straw bale filter as close as possible to being parallel to the contours of the site,**
2. **Place bales lengthwise in a a row with ends tightly abutting. Use straw to fill gaps between bales. Straw are to be placed parallel to ground.**
3. **ensure that the maximum height of the filter is one bale.**
4. **embed each bale in the ground 75 mm to 100 mm and anchor with 1.2 meter star pickets or stakes. Angle the first star picket or stake in each bale towards the previously load bale. Drive them 600 mm into the ground and protrude above the bales , ensure they are fitted with safety caps.**
5. **where a straw bale filter is constructed downslope from a disturbed batter, ensure bales are placed 1 to 2 meters downslope from the toe.**
6. **Establish a maintenance program that ensures the integrity of the bales is retained - they could require replacement each two to four months.**



Straw bale filter

STRAW BALE FILTER

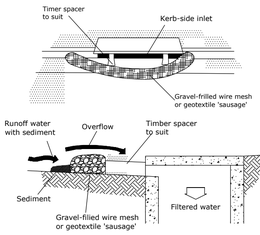
NTS



Excavated soil not to be placed
- on road
- in areas of concentrated runoff within 1 meter of kerb

SERVICE TRENCHES

NTS



NOTE: This practice only to be used where specified in an approved SWMP/ESCP

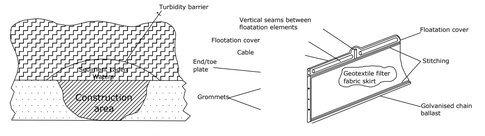
Mesh and Gravel Inlet Filter

Construction Notes

1. **Insert filters to kerb inlets only at sag points.**
2. **Fabricate a sleeve made from geotextile or wire mesh longer than the length of the inlet pit and fill it with 25 mm to 50 mm gravel.**
3. **Form an elliptical cross-section about 150 mm high x 40 mm wide**
4. **place the filter at the opening leaving at least a 100-mm space between it and the kerb inlet. Maintain the opening with spaces blocks.**
5. **Form a seal with the kerb to prevent sediment bypassing the filter.**
6. **sand bags filled with gravel can substitute for the mesh or geotextile providing they are placed so that they firmly about each other and sediment-laden waters cannot pass between.**

MESH AND GRAVEL INLET FILTER

NTS



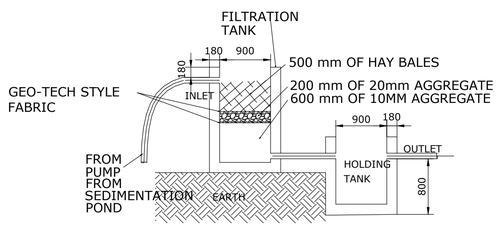
Turbidity barrier

Construction Notes

1. **Use turbidity barriers only where high flows area unlikely to remove accumulated sediment and/or move the curtain significantly.**
2. **where the barrier is to remain in place for more the one month, ensure the floatation cover is a UV-resistant, durable material.**
3. **Use only closed well foam-filled PVC piping as floatation elements, do not use unfilled pipes.**
4. **Use only woven or heat-set non woven geotextiles . Needle-punched, non woven geotextiles can become fouled with debris that fray and delaminate them as they move with the waves or currents.**
5. **remove captured sediment before the barrier is decommissioned.**
6. **in tidal areas, ensure the barrier can rise and fall without being moved from its position.**

TURBIDITY BARRIER

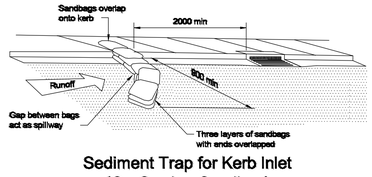
NTS



TYPICAL DETAIL OF FILTRATION UNIT

NTS

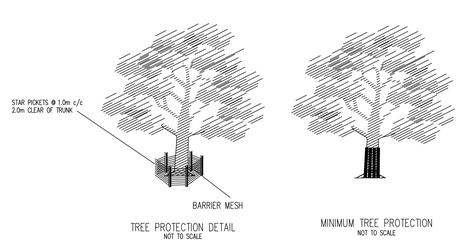
NOTE: HAY TO BE CHANGED EVERY DAY
GEO-TECH, SAND, AND BLUE METAL, TO BE CHANGED WEEKLY



Sediment Trap for Kerb Inlet
(On Grade - Sandbag)

SEDIMENT TRAP FOR KERB INLET

NTS



TREE PROTECTION

NTS

1:100 AT A1 0 1 2 3 4 5

NOT FOR CONSTRUCTION

No	AMENDMENT	ENG	DRAFT	DATE	No	AMENDMENT	ENG	DRAFT	DATE
A									

ARCHITECT

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PROJECT

N

SHEET SUBJECT

EROSION AND SEDIMENT CONTROL DETAILS

PROJECT			
DATE	DRAWN	DESIGNED	CHECKED
SCALE AT A1 AS SHOWN		JOB No	
AUTHORISED		DWG No D04	REV