

Construction Soil and Water Management Plan

Alexandria Park Community School
Buckland Street, Alexandria

SCP Ref: 180168

Client Richard Crookes Constructions
Project Alexandria Park Community School
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Revision table

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1 Introduction

As part of the detailed design process for the civil works associated with the Alexandria Park Community School development, SCP Consulting have been engaged to develop management systems for soil and water issues during construction. This assessment is currently required under condition B25 of the State Significant Development Application Conditions of Consent (SSD-8373) and Landcom's "Managing Urban Stormwater".

1.1 Purpose of Report

The purpose of this report is to:

- Describe all erosion and sediment controls to be implemented during construction.
- Describe how erosion and sediment control measures will be maintained during construction works.
- Provide a plan for how all construction works will be managed in a wet-weather event.
- Detail all off-site flows.

1.2 Proposed Development

The site is located at Buckland Street, Alexandria and within the City of Sydney local government area. The site is approximately 2.73 ha and the proposed development footprint covers the majority of the site throughout the various proposed stages. The site is currently in use by the Department of Education.

The proposed development includes the construction of a new four level teaching facility, other class room buildings, sports fields, site car parking, footpaths, along with upgrades to existing site infrastructure and landscaping. Due to the size of the proposed development and maintaining operation of the school during construction, the proposed construction works will take place over two stages.

Due to the size of the proposed development and the considerable impact it will have to the landscape of the site, a sufficient site management plan must be implemented to ensure minimal impact to the environment and surrounding sites. It is pivotal that erosion, sediment and run-off are controlled throughout excavation and construction, until completion of the development.

This report details the measures to be taken on-site from the start of excavation until the completion of construction, in order to effectively manage all sediment, run-off and erosion, and to protect the surrounding properties and infrastructure.

1.3 Site Management

This Construction Soil and Water Management Plan (CSWMP) relates to the proposed public school development at Buckland Street, Alexandria and shall be read in conjunction with the drawings prepared by SCP Consulting (refer Appendix A), and the environmental and geotechnical investigations. The CSWMP is also to be read in conjunction with the architectural plans, engineering plans, and any other plans or written instructions that may be issued in relation to the development at the subject site.

This CSWMP has been prepared to outline how soil and water issues are to be identified, planned, managed and monitored during the construction period. The CSWMP addresses erosion, sedimentation and water pollution management and outlines measures to minimise adverse impact on downstream waterways and floodplains. Particular effort must be made to protect and have minimal or no disturbance on the downstream

areas. The measures should control all flow off site via sediment fencing and diversion banks during construction, which will be specified within the erosion and sediment control plan.

Contractors shall ensure that all soil and water management works are undertaken as instructed in this specification and constructed following the guidelines stated in Landcom's "Soils and Construction, Volume 1, 4th Edition (March 2004)".

The Contractor shall ensure that all subcontractors are informed of their responsibilities in minimising the potential for soil erosion and pollution to downslope and downstream areas. The plan shall be updated by the contractor during the course of the construction works such that it is in accordance with this SMP and City of Sydney's Works Specification.

2 Soil and Water Management

Soil and water management measures are to be in place to manage the impact of construction on the local environment. The following measures are to be implemented prior to the start of construction works and to remain installed until the completion of works. These measures cover both small (1 to 5 year ARI storm) and large storm events. Following the various storm events, maintenance is to occur for the implemented soil and water management controls, in accordance with maintenance procedures within Section 3 of this report.

2.1 Soil and Water Management Implementation

Soil and water management measures shall be undertaken as follows:

- a. Input drainage and storm management systems to transport stormwater and run-off through or around site safely and without contamination of waterways.
- b. Any temporary sediment basins must be constructed and in service prior to the start of bulk excavation and earthworks, where disturbed earthworks area exceeds 2,500 m² at any one time. A temporary sediment basin suitable for 149 m³ of storage and minimum 0.6m depth will be required for stage 1 construction, where more than 7,000 m² of area is anticipated to be disturbed. This basin is to remain until the disturbed area has had slab construction commence or stabilised. SCP Consulting can provide advice on most suitable location when final works schedule has been established.
- c. Install sediment fencing and cut drains to meet the requirements of the erosion sediment management drawings prepared by SCP Consulting.
- d. Waste collection bins shall be installed adjacent to site office – yet not in a position which, in the case of overflowing or a spill, compromises the safety of waterways – for collection of all construction refuse. All waste materials must be disposed of off-site in a safe and legal manner, or stored safely, well clear of streambanks and flood-prone areas.
- e. Staff facilities to be located such that all effluent and waste water is easily contained and managed within the site management area.
- f. Construct stabilised site access in the location nominated on the erosion sediment management drawings prepared by SCP Consulting.
- g. Install sediment control protection measures such as geotextile filters or sandbags, at all natural and man-made drainage structures. Maintain until all the disturbed areas are stabilised.

- h. Clear and strip the work areas. Minimise the damage to the grass and low ground cover of non-disturbed areas. At all times, minimise the area of the site being disturbed and stockpile all topsoil for reuse in rehabilitation works.
- i. Ensure that land disturbance is no further than 5 metres from the edge of construction activities, where possible.
- j. Vehicle and equipment maintenance to occur offsite, or, where appropriate, in a designated area onsite that is impervious and bunded or similarly confined to prevent contamination of waterways.
- k. Do not use invasive species in rehabilitation.
- l. Do not use herbicides or other chemicals where they might pollute waterways.
- m. Works should not cause new seepage areas.
- n. Protect all stockpiles of materials from scour and erosion.
- o. Apply permanent stabilisation to site (landscaping) within 20 days of completion.
- p. Sediment fencing is to remain until construction is complete, and the site is fully stabilised.

2.2 Erosion and Sediment Control

All erosion and sedimentation control measures, where possible, are to be installed prior to the commencement of any excavation or construction works on-site. The erosion and sediment control plan within Appendix A nominates required measures. The devices are to be maintained throughout the entire excavation and construction process and must be maintained for a minimum of 3 months after the completion of works, where necessary or approved otherwise at completion.

The erosion and sedimentation control measures shall be undertaken as follows:

- a. Clearly visible barrier fencing shall be installed on the site to assist in controlling the movement of traffic within the site and prohibit unnecessary site disturbance.
- b. Vehicular access to the site shall be stabilised and limited to only that essential for construction work and shall enter the site only through the designated stabilised access points.
- c. Proprietary silt fencing shall be installed in accordance with the erosion and sediment management drawings prepared by SCP Consulting and elsewhere at the discretion of the site superintendent to contain coarser sediment fractions as near as possible to their source.
- d. Stockpiles shall be located in accordance with the erosion and sediment management drawings prepared by SCP Consulting. Where stockpiles are to be in place longer than 10 days they shall be stabilised by covering with matting or tarps. Use sediment fences and earth banks with stockpiles as required to manage erosion.
- e. Stockpile material may be removed from site to reduce the risk of further pollution of site runoff.
- f. Soil materials shall be replaced in the same layers they are removed from the ground i.e. all subsoils are to be buried and topsoil is to be respread on the surface at the completion of works.
- g. All disturbed areas are to be stabilised within 20 working days of the completion of site works. All disturbed areas are to be protected so that the land is permanently stabilised within three months. Topsoil shall be respread over the site as required to achieve a minimum depth of 75mm of hydromulchable soil (exact

required depth to be confirmed by supplier). The site shall be stabilised and revegetated using a hydromulch mix (or equivalent) to be specified by the supplier, as appropriate for the site. Soil testing may be required to tailor the mix for the site.

If hydromulching is not suitable for site stabilisation, the below seed mix can be used for temporary stabilisation, assuming topsoil depths are sufficient.

SEASON	STABILISATION SEED MIX
Autumn/Winter	Oats at 40kg/ha and Japanese millet at 10 kg/ha
Spring/Summer	Oats at 20kg/ha and Japanese millet at 20 kg/ha

Table 1.1

The above seed mix will provide temporary protection for up to 6 months until such time as more permanent stabilisation measures can be implemented for permanent stabilisation of the site.

Any areas that remain exposed after disturbance, where no further works are to take place for a period of 12 weeks must be stabilised by the methods mentioned in this point (g) or an equivalent.

h. All vehicles shall leave the site via the stabilised site access onto Belmont Street. Vehicles shall have sediment removed from tyres and wheel guards prior to leaving the site.

2.3 Groundwater Protection

All erosion and sedimentation control measures also act as protection measures for groundwater during construction. The erosion and sediment control plan within Appendix A nominate required measures. The devices are to be maintained throughout the entire excavation and construction process and must be maintained for a minimum of 3 months after the completion of works, where necessary.

From geotechnical reporting, ground water was typically viewed approximately 3m below existing surface level on site. The majority of excavation on site for building slabs on ground and stormwater infrastructure are above this level. A number of management plans have been prepared assessing and implementing strategies that manage groundwater quality. These include:

- Detailed Site Assessment prepared by Coffey. Date: 26/10/17, Ref: SYDEN 199382.R01.
- Acid Sulfate Management Plan prepared by Coffey. Date: 26/10/17, Ref: SYDEN 199382.L03.
- Remedial Action Plan prepared by Coffey. Date: 8/12/17, Ref: SYDEN 199382.R03.

All groundwater management items raised within the above reports need to be adopted within other construction management plans and followed during construction.

2.4 Off-Site Flow Controls

Off-site flow from the site is currently managed within measures detailed in the erosion and sediment control plans (ESCP), within Appendix A. Off-site flow is anticipated to occur via the following means, with management strategy within the ESCP detailed beside:

- Through existing internal stormwater pits on site - sediment trap barriers and geotextile linings are proposed around all pits. All new pits installed during construction to have same detail upon installation.
- Leaving site along the downstream boundary - sediment fencing and impermeable fencing provided.
- Leaving site along the driveway entrance - Raised construction entry/ cattlegrid and removable sediment sock in storm events as required.
- Through existing external stormwater pits in Belmont St and Park Rd - Sediment not anticipated to reach these, but in the event it does, sediment trap barriers are placed around existing pits closest to site.

To ensure that off site runoff is controlled during all phases of the development, erosion and sediment control measures will be staged, to ensure runoff is adequately managed. The staging of measures is found within the drawings within Appendix B.

SCP has designed the soil and water management measures in accordance with Landcom's Managing Urban Stormwater publication (The Bluebook). All measures shown within the CSWMP and ESCP are designed for up to and including the 5yr ARI storm event flows. Any potential sediment basin required on site, if the area of disturbance exceeds 7,000m² (for this school development) will have its sediment and runoff volume sized on the methodology detailed within The Bluebook, which is based on a 1yr ARI storm event.

The Bluebook specified and effective control measures are difficult to achieve within the 100-year ARI storm event, due to the velocity and volume of floodwaters. It is noted that the major storm overland flow/flood path is located predominately through the Stage 2 site, from Park Road, within an existing grass depression through the site and into Belmont Street. The proposed stormwater network and existing is designed to accommodate flow up to the 20yr ARI storm. Sediment barriers and measures nominated within the ESCP are likely to be effective in larger storm events such as the 20yr ARI storm, however it cannot be guaranteed to have full control of sediment.

Erosion and sediment control measures specific to major storm events on an urban project like this are not recommended, as it has the potential to cause obstruction to overland flow paths and raise the flood levels. Localised raising of flood levels in urban areas can lead to inundation of existing properties within the area. Use of a floating silt boom with curtain could be proposed for installation along the Belmont Street entrance within the flow path to control flow containing sediment, however, this is anticipated to obstruct the flood path and raise flood levels. As City of Sydney Council has already shown sensitivity around this issue when setting Stage 2 field levels, we would not recommend installation of temporary obstructions within the flow path.

3 Maintenance During Construction

A regular site maintenance program shall be established for the site based upon:

- Daily site walk-over by site foreman/manager to ensure adequate condition of erosion control measures;
- A weekly site audit of erosion control measures during periods of dry weather; and
- A site audit of all erosion control measures following a rainfall event.

The site maintenance program shall be conducted until site stabilisation measures have been established on site, and shall ensure (as a minimum) that the following activities are routinely conducted:

- a. Waste bins are to be emptied at least weekly and refuse is to be disposed of via an approved waste facility.
- b. All potential dust and air pollutants vulnerable to wind erosion must be controlled effectively. This includes waste bins, unsealed access tracks, and stockpiles etc.
- c. Ensure that all drains are operating effectively and make any necessary repairs.
- d. Remove any spilled material from areas subject to runoff or concentrated flow.
- e. Remove trapped sediment where the capacity of the trapping device falls below 60%. Sediment removed from any trapping device shall be relocated where further pollution to downslope lands and waterways cannot occur.
- f. Construct additional erosion or sediment control works as may be appropriate to ensure the protection of downslope lands and waterways.
- g. Maintain erosion and sediment control measures in a fully functioning condition at all times until the site is rehabilitated, making repairs to measures as necessary; always keeping all potential hazards of soil erosion and any potential pollutants to downslope areas to a minimum.
- h. A chemical flocculent (such as gypsum) may be dosed to aid settling within 24 hours of the conclusion of each rainfall event. The applied dosing rates should achieve the target quality within 36 to 72 hours of the conclusion of the rainfall event.
- i. Ensure rehabilitated lands have effectively reduced the erosion hazard and initiate upgrading or repair as appropriate.
- j. Ensure that the revegetation scheme is adhered to and that the all grass covers are kept healthy, including watering and mowing. Excessive growth should be controlled as necessary.
- k. Remove temporary soil conservation structures as the last activity in the rehabilitation program.

For further and more detailed maintenance measures, refer to Chapter 8 of Landcom's *Soils & Construction - Managing Urban Stormwater*.

Reports covering a variety of anticipated environmental issues were prepared during the planning and design phase of this project. Contractors are to make themselves aware of these reports and the objectives and outcomes identified. The following reports should be read in conjunction with this Construction Soil and Water Management Plan:

- Geotechnical Report prepared by JK Geotechnics. Date: 1/12/17, Ref: 309072.rpt.
- Detailed Site Assessment prepared by Coffey. Date: 26/10/17, Ref: SYDEN 199382.R01.
- Asbestos and Hazardous Materials Survey prepared by Coffey. Date: 10/2/17, Ref: SYDEN 200566.
- Acid Sulfate Soil Assessment prepared by EIS. Date: 23/10/17, Ref: E30907Klet-ASS.
- Acid Sulfate Management Plan prepared by Coffey. Date: 26/10/17, Ref: SYDEN 199382.L03.
- Geotechnical Report prepared by GeoEnviro Consultancy. Date: 5/9/17. Ref: JG16980A-r1.
- Environmental Impact Statement prepared by Urbis. Date: Dec 17, Ref: SA6700.
- Arborist Report and Tree Management Plan prepared by Redgum. Date: 1/9/17, Ref: 2781.
- Pedestrian Wind Environment Statement prepared by Windtech. Date: 11/12/17, Ref: WD711-03F03.
- Outline Construction Management Report prepared by ARUP. Date: 1/12/17, Ref: 256193.
- Preliminary Construction Management Report prepared by Savills. Date: 1/12/17, Ref: 171201.
- Construction and Demolition Waste Management prepared by Foresight Environmental. Date: 11/9/17.
- Operational Waste Management Plan prepared by Foresight Environmental. Date: 4/12/17.
- Remedial Action Plan prepared by Coffey. Date: 8/12/17, Ref: SYDEN 199382.R03.
- Sydney Water Letter of Conditions. Date: 24/9/19, Ref: 170412.

4 Unexpected Finds Protocol

All stockpiles and materials on-site must be controlled and managed using the advice provided in Section 2 and 3. For uncontrolled fill identified by the Contractor, geotechnical engineer or civil engineer, the material should be assessed and if not suitable for reuse, stockpiled in the relevant locations. At the conclusion of construction, all unused materials must be removed from site and disposed of off-site in an approved manner. Unused fill material must either be integrated into the landscaping of the site or disposed of off-site in an approved manner. This is to prevent contamination of the site and surrounding areas, and to maintain the aesthetics of the development.

Should fly tipping be found on site during construction, Council recommends that you should not attempt to remove or touch any dumped rubbish as it may be harmful and/or hazardous. A site representative should report this to Council immediately, by calling 02 9265 9333

If during excavation and construction, any potentially hazardous materials are found within the site, all work on the site should be halted immediately. A relevant expert (geotechnical engineer, environmental consultant, civil engineer, asbestos consultant) should be contacted. Work should remain halted until the relevant expert can assure that all hazard to workers has been removed/neutralised, and that there will be no negative long-term effects to future residents or their assets due to the hazard.

A demolition/refurbishment hazardous material risk assessment for the site has been completed by Foresight Environmental (Date: 4/12/17) and Coffey (Date: 10/12/17, Ref: SYDEN 200566) and should be referenced throughout the construction process to ensure demolition and construction is completed as safely as possible.

A similar protocol is to be undertaken if any unexpected or unmapped services are encountered during excavation and construction, such as heritage or Aboriginal artefacts. Construction should be halted until the relevant service provider can be contacted, and the service properly located and mapped. An engineer should be consulted if this effects construction works or excavation significantly.

Below are the details of potentially relevant contacts in the case of finding various materials or services on-site:

- **Dial Before You Dig:** **1100**
- **City of Sydney Council** **02 9265 9333**
- **Jemena:** **131 909**
- **Telstra:** **13 22 03**
- **All About Asbestos:** **0411 650 980**
- **Endeavour Energy:** **13 10 81**
- **Sydney Water:** **13 20 90**

5 Conclusion

The following strategies have been documented and require implementation to ensure that the requirements of the SSD Condition of Consent is achieved:

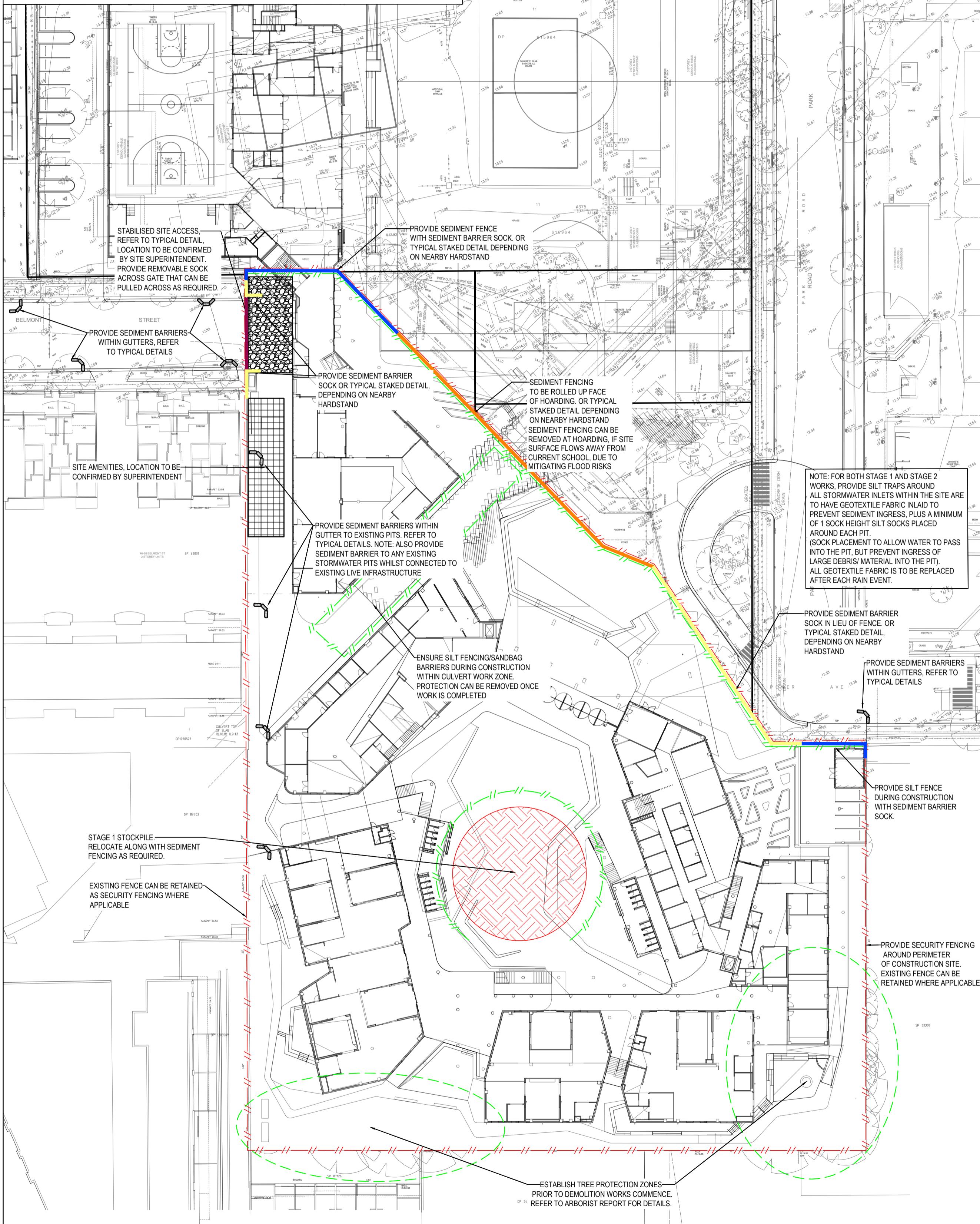
- Erosion and Sediment Control measures, as per the details with Appendix A.
- Monitoring and maintaining the installed measures, as per details in Section 3.
- Following recommendations within the various reports listed within Section 3 is achieved.
- Ensure hazardous materials and unexpected finds are managed in accordance with the prepared by Foresight Environmental and Coffey and Section 4.

Throughout construction site conditions and construction methodologies can change. Therefore, it is recommended that soil and water management measures are reviewed and amended if necessary, to ensure that the development has minimal to no impact on the local environment.

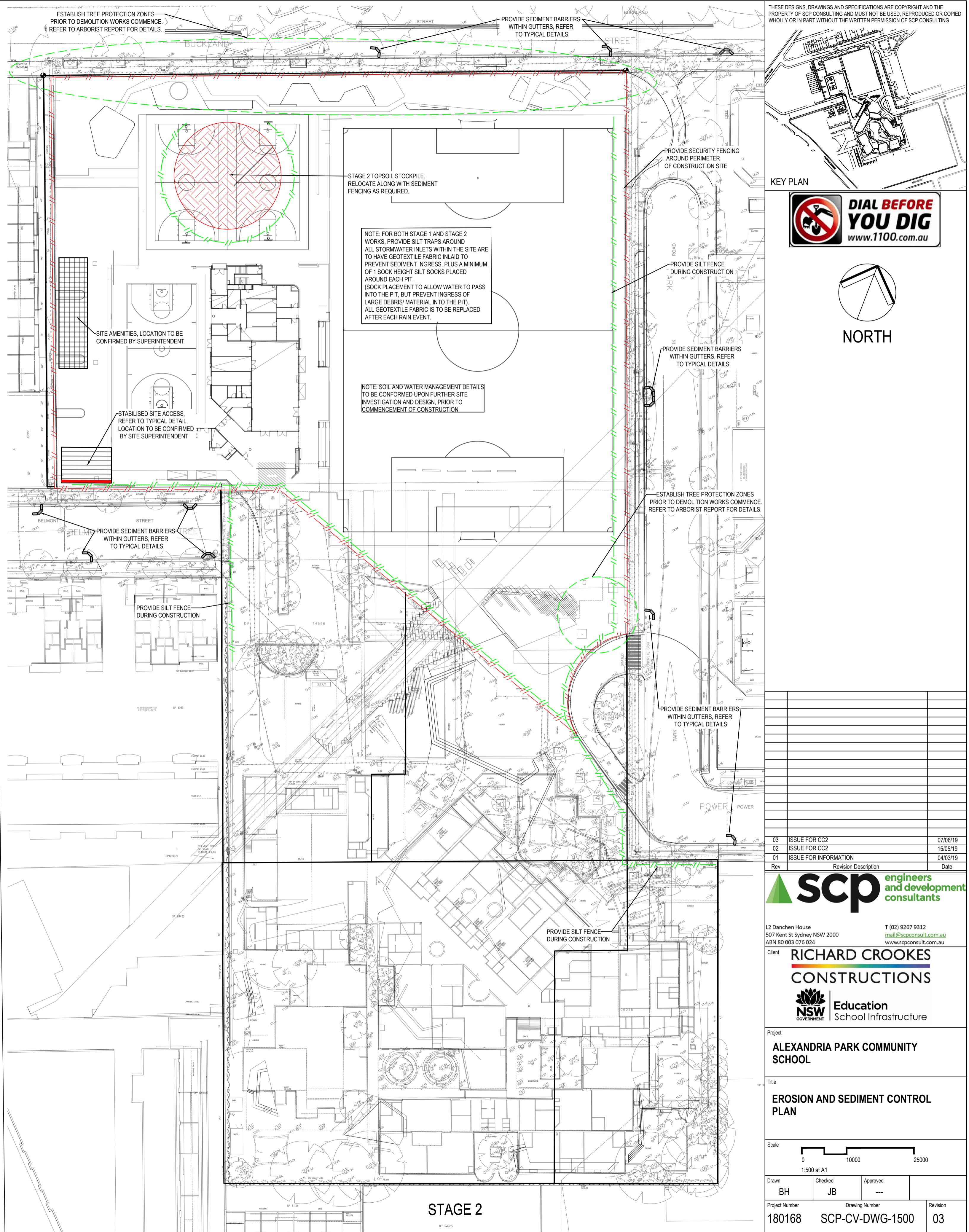
Appendix A Erosion and Sediment Control Plans

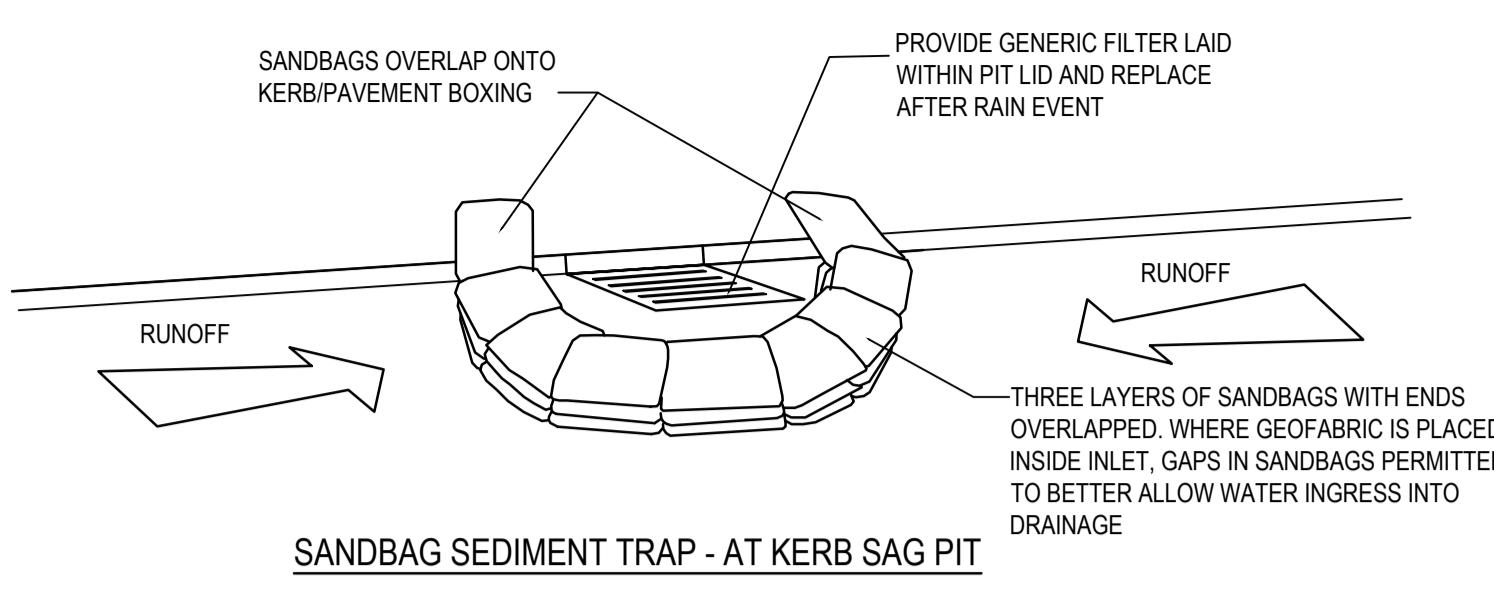
EROSION AND SEDIMENT CONTROL LEGEND

- //—//— SEDIMENT FENCE
- //—//— SECURITY FENCE
-  KERB INLET PROTECTION. PROVIDE AT ALL EXISTING ROAD STORMWATER PITS.
-  OVERLAND FLOW PATHS (MIN 1% SLOPE)
-  TEMPORARY CONSTRUCTION ENTRY/WASHDOWN

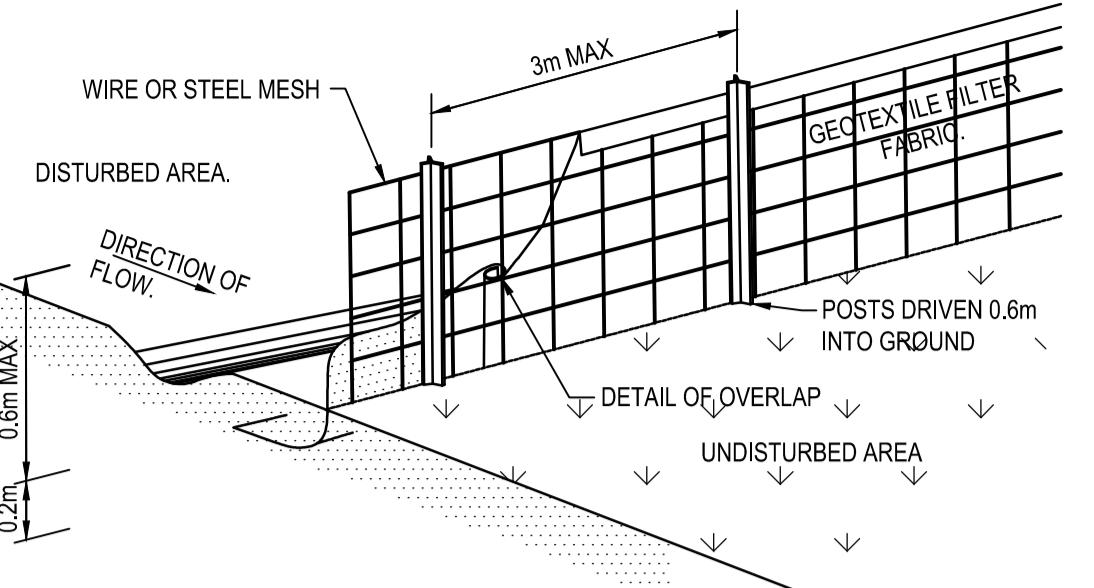


STAGE 1

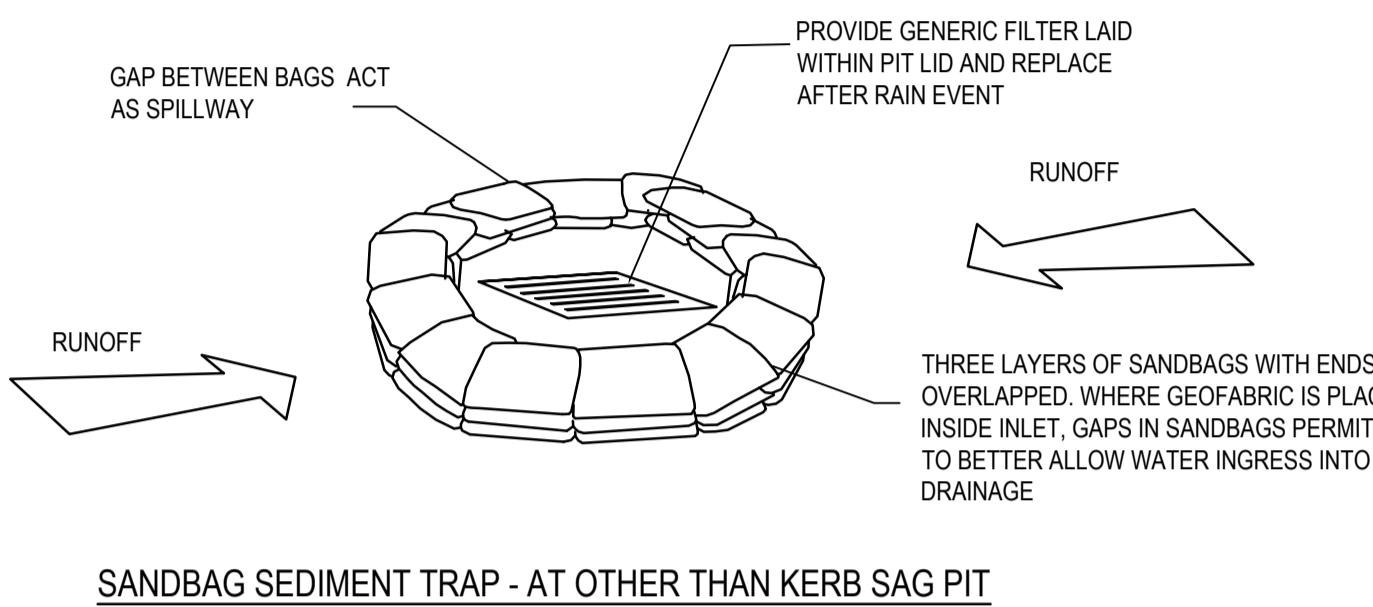




SANDBAG SEDIMENT TRAP - AT KERB SAG PIT



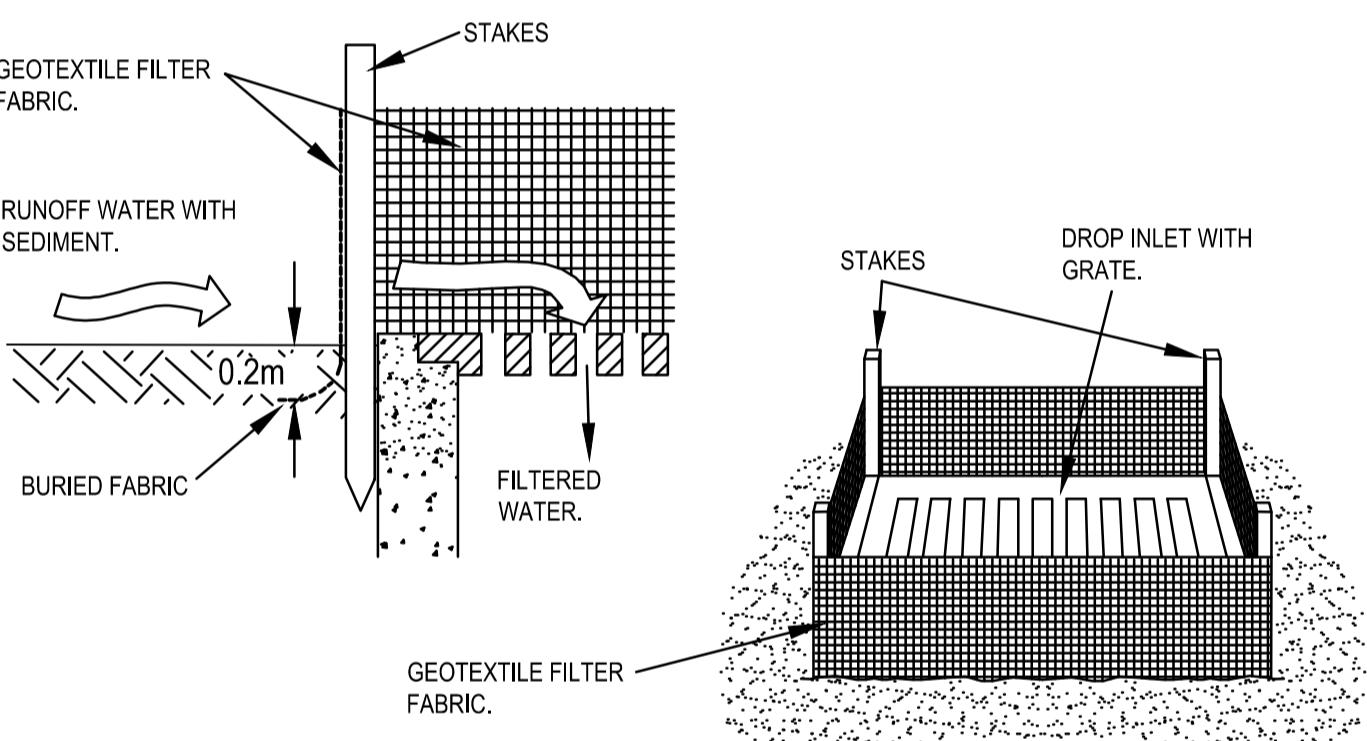
SEDIMENT CONTROL FENCE



SANDBAG SEDIMENT TRAP - AT OTHER THAN KERB SAG PIT

SANDBAG SEDIMENT TRAP DETAILS

NTS



GEOTEXTILE FILTER FABRIC DROP INLET
SEDIMENT TRAP.

NTS

NOTE:
ENSURE THAT ALL COUNCIL AND PUBLIC UTILITY ASSETS ARE MAINTAINED AND PROTECTED AT ALL TIMES IN THE VICINITY OF THE TEMPORARY CONSTRUCTION EXIT

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

CONSTRUCTION NOTES

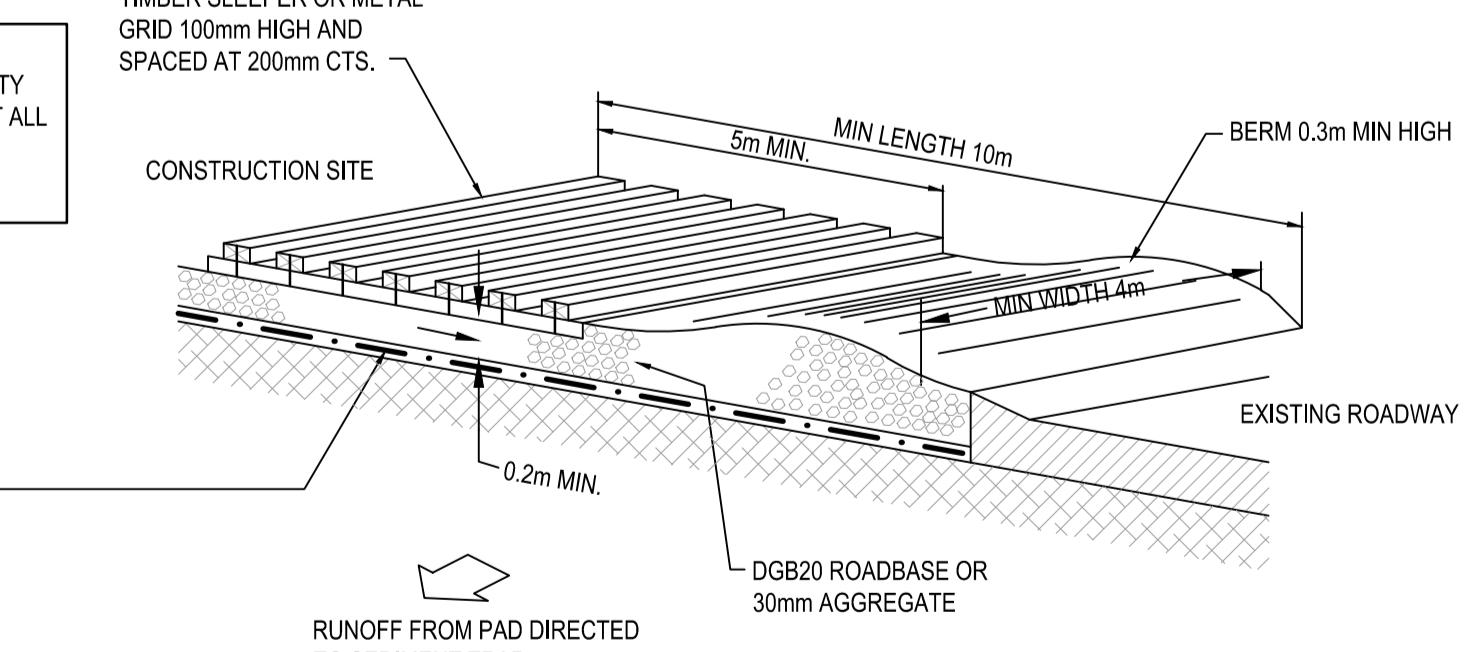
- STRIP TOPSOIL AND LEVEL SITE.
- COMPACT SUBGRADE.
- COVER AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
- CONSTRUCT 200MM THICK PAD OVER GEOTEXTILE USING ROADBASE OR 30MM AGGREGATE.
- CONSTRUCT HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT FENCE OR OTHER SEDIMENT TRAP WHERE THE SEDIMENT IS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

MAINTENANCE NOTES

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.

TEMPORARY STABILISED CONSTRUCTION EXIT

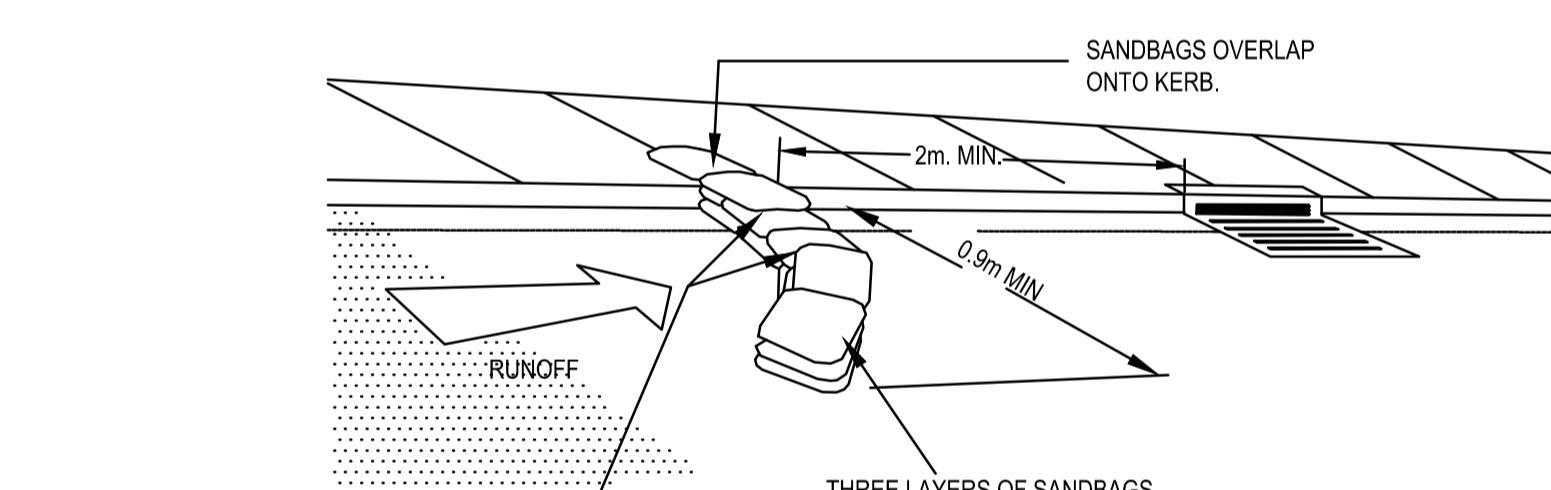
NOTE: ALTERNATE SITE STABILISED ENTRY DETAIL PERMITTED UPON APPROVAL FROM CIVIL ENGINEER



CONSTRUCTION NOTES

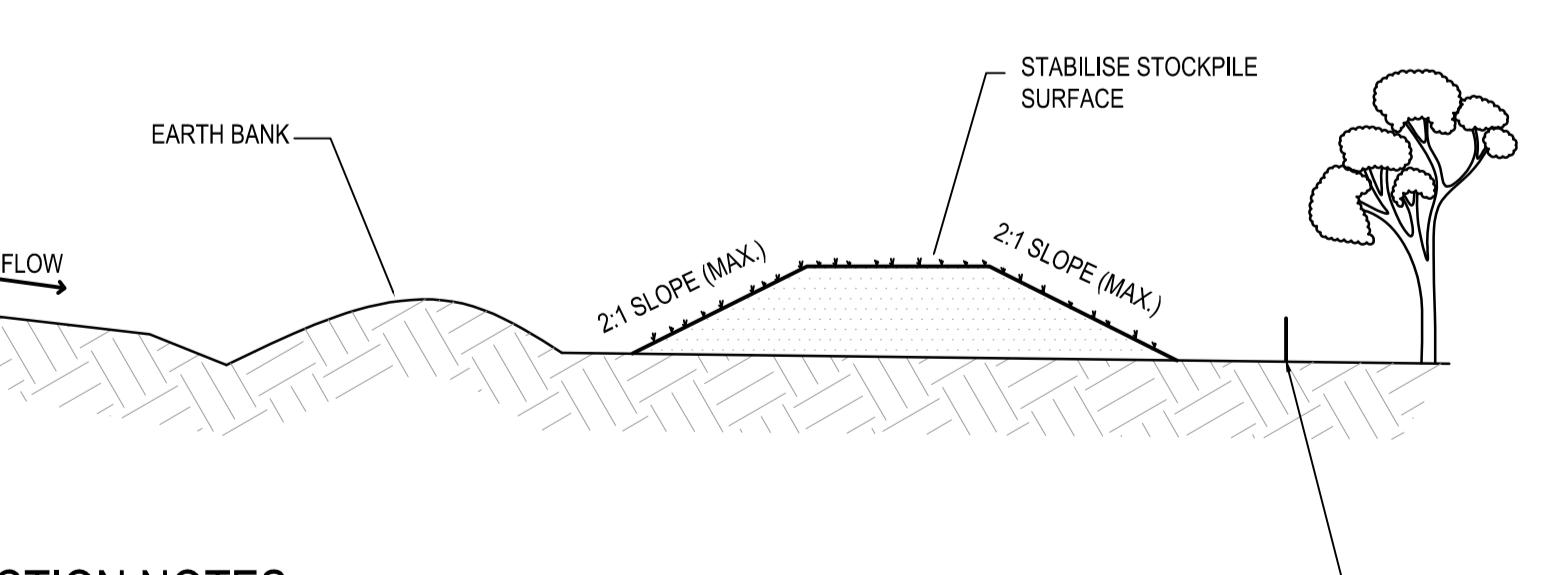
- LOCATE STOCKPILE AT LEAST 5 METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOWS, ROADS AND HAZARD AREAS.
- CONSTRUCT ON THE CONTOUR AS A LOW, FLAT, ELONGATED MOUND.
- WHERE THERE IS INSUFFICIENT AREA TOPSOIL, STOCKPILES SHALL BE LESS THAN 2 METERS IN HEIGHT.
- REHABILITATE IN ACCORDANCE WITH THE SWMP/ESCP.
- CONSTRUCT EARTH BANK (STANDARD DRAWING 5-2) ON THE UPSLOPE SIDE TO DIVERT RUN OFF AROUND THE STOCKPILE AND A SEDIMENT FENCE (STANDARD DRAWING 6-7) 1 TO 2 METRES DOWNSLOPE OF STOCKPILE.

STOCKPILES



SANDBAG KERB INLET SEDIMENT TRAP.

NTS



EROSION AND SEDIMENT CONTROL

GENERAL INSTRUCTIONS

- 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.
- THE SITE SUPERINTENDENT WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS INSTRUCTED IN THIS SPECIFICATION.
- 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.

CONSTRUCTION SEQUENCE

- THE SOIL EROSION POTENTIAL ON THIS SITE SHALL BE MINIMISED. HENCE WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
 - INSTALL SEDIMENT FENCES, TEMPORARY CONSTRUCTION EXIT AND SANDBAG KERB INLET SEDIMENT TRAP.
 - CONSTRUCT SEDIMENT CONTROL BASINS
 - UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

EROSION CONTROL

- DURING WINDY CONDITIONS, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

FENCING

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

OTHER MATTERS

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

SITE INSPECTION & MAINTENANCE

- 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.

TEMPORARY WORKS

- THE BUILDER/CONTRACTOR SHALL ALLOW FOR THE DESIGN, SUPPLY, INSTALLATION AND REMOVAL OF ALL TEMPORARY BACK PROPPING, SAFETY SCREENS, SCAFFOLDING AND OTHER REQUIREMENTS OF THE CONSTRUCTION PROCESS. THE BUILDER/CONTRACTOR SHALL ENGAGE A SUITABLE QUALIFIED ENGINEER REFERRED TO AS "BUILDER/CONTRACTORS ENGINEER". TO DESIGN INSPECT AND CERTIFY ALL TEMPORARY WORKS, AND DEMOLITION WORKS ARE FIT FOR PURPOSE.
- THE BUILDER/CONTRACTOR WILL BE RESPONSIBLE FOR THE PREPARATION AND CERTIFICATION OF ENGINEERING DESIGN FOR TEMPORARY WORKS.
- IT IS THE BUILDER/CONTRACTOR'S RESPONSIBILITY TO ENSURE THE OVERALL STABILITY OF ALL STRUCTURES AT ALL TIMES WHILST UNDER CONSTRUCTION.
- THE BUILDER/CONTRACTOR IS TO HAVE CONSTRUCTION METHODOLOGY STATEMENTS PREPARED AND SUBMITTED FOR REVIEW BY THE PRINCIPAL THE BUILDER/CONTRACTOR WILL AT ALL TIMES BE RESPONSIBLE FOR CONSTRUCTION METHODOLOGY.

EXISTING SERVICES AND FEATURES

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02 ISSUE FOR CC2 15/05/19
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L2 Danden House 507 Kent St Sydney NSW 2000 ABN 80 003 076 024
T (02) 9267 9312 mail@scpconsult.com.au www.scpconsult.com.au

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RICHARD CROOKES CONSTRUCTIONS

Education NSW School Infrastructure

ALEXANDRIA PARK COMMUNITY SCHOOL

EROSION AND SEDIMENT CONTROL DETAILS SHEET

Scale AS SHOWN AT A1

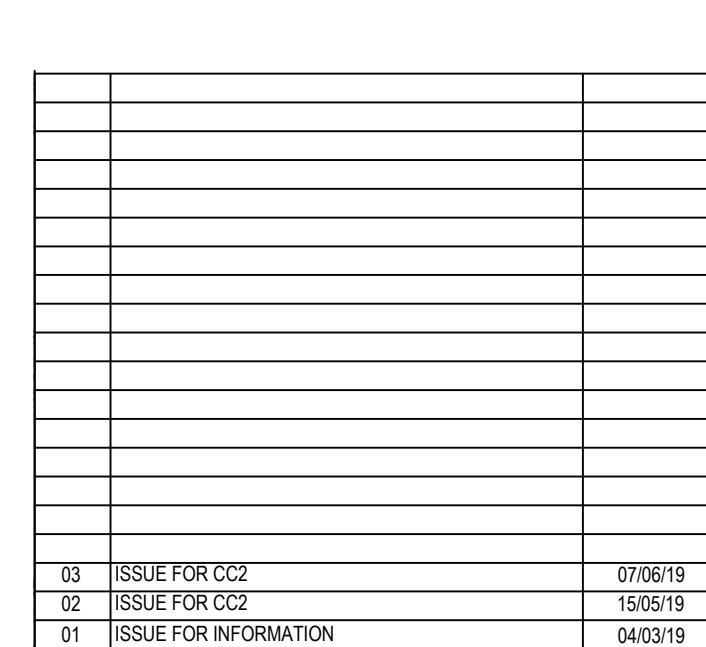

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Appendix B Staging Plans

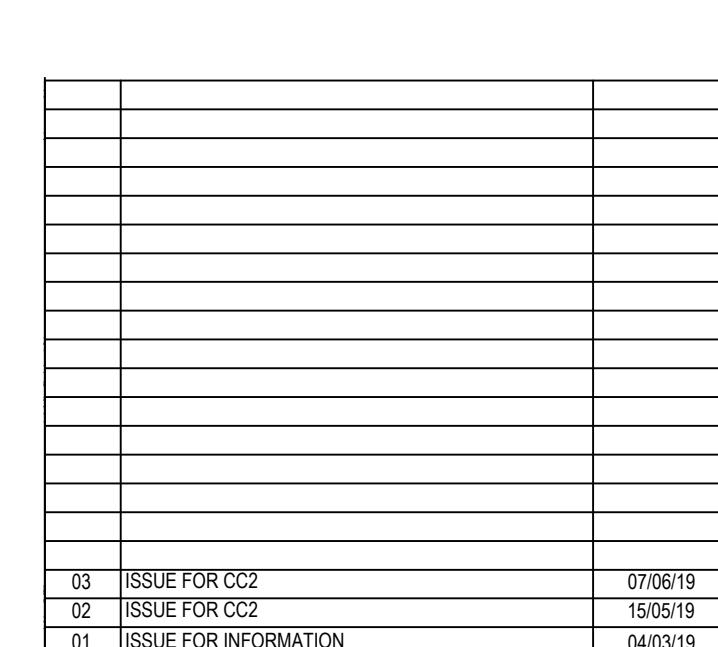

Phase 1 Erosion & Sediment Control Plan

During Demolition Works



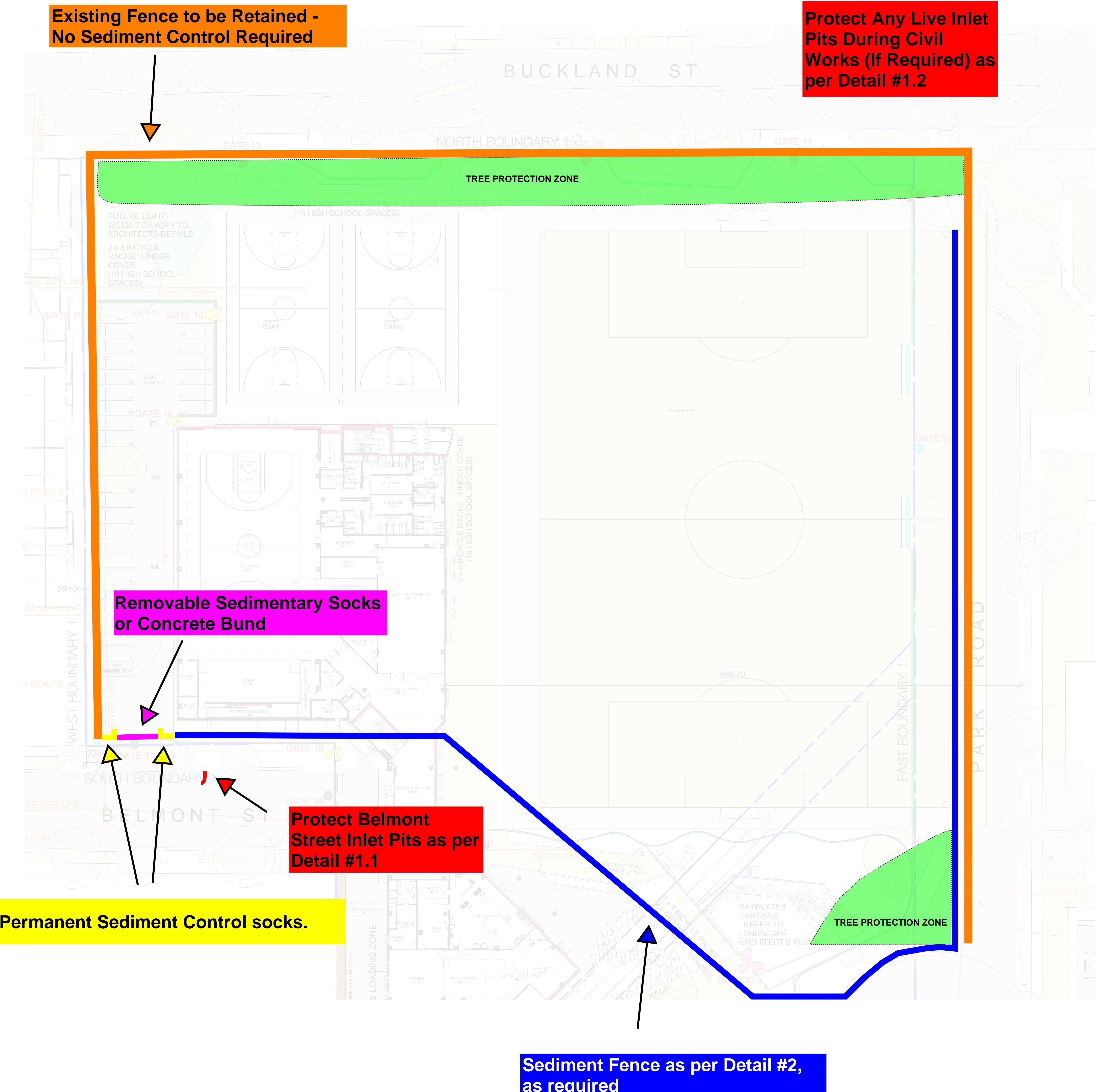
Phase 1 Erosion & Sediment Control Plan

During Excavation & Civil Works



Phase 2 Erosion & Sediment Control Plan

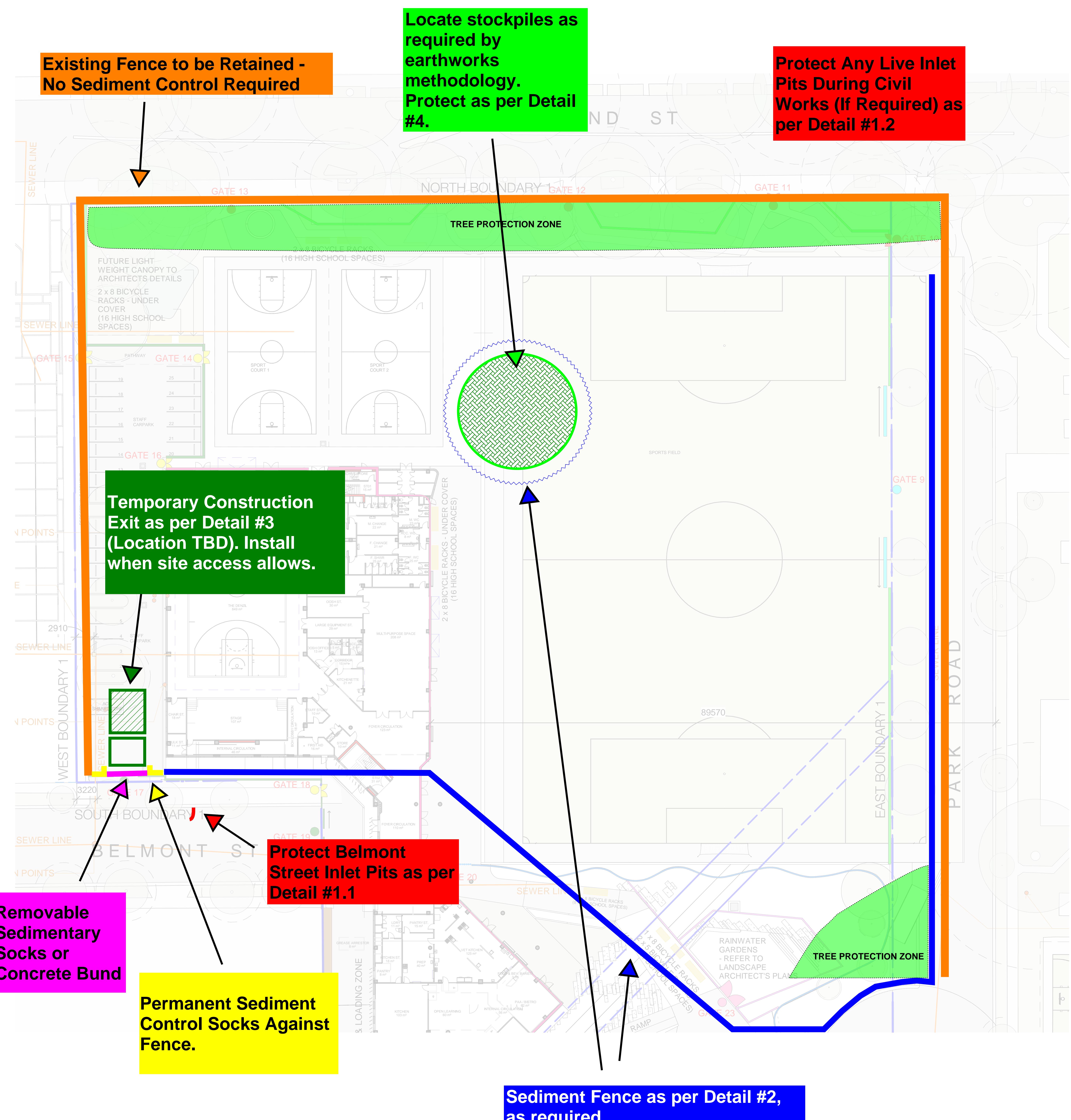
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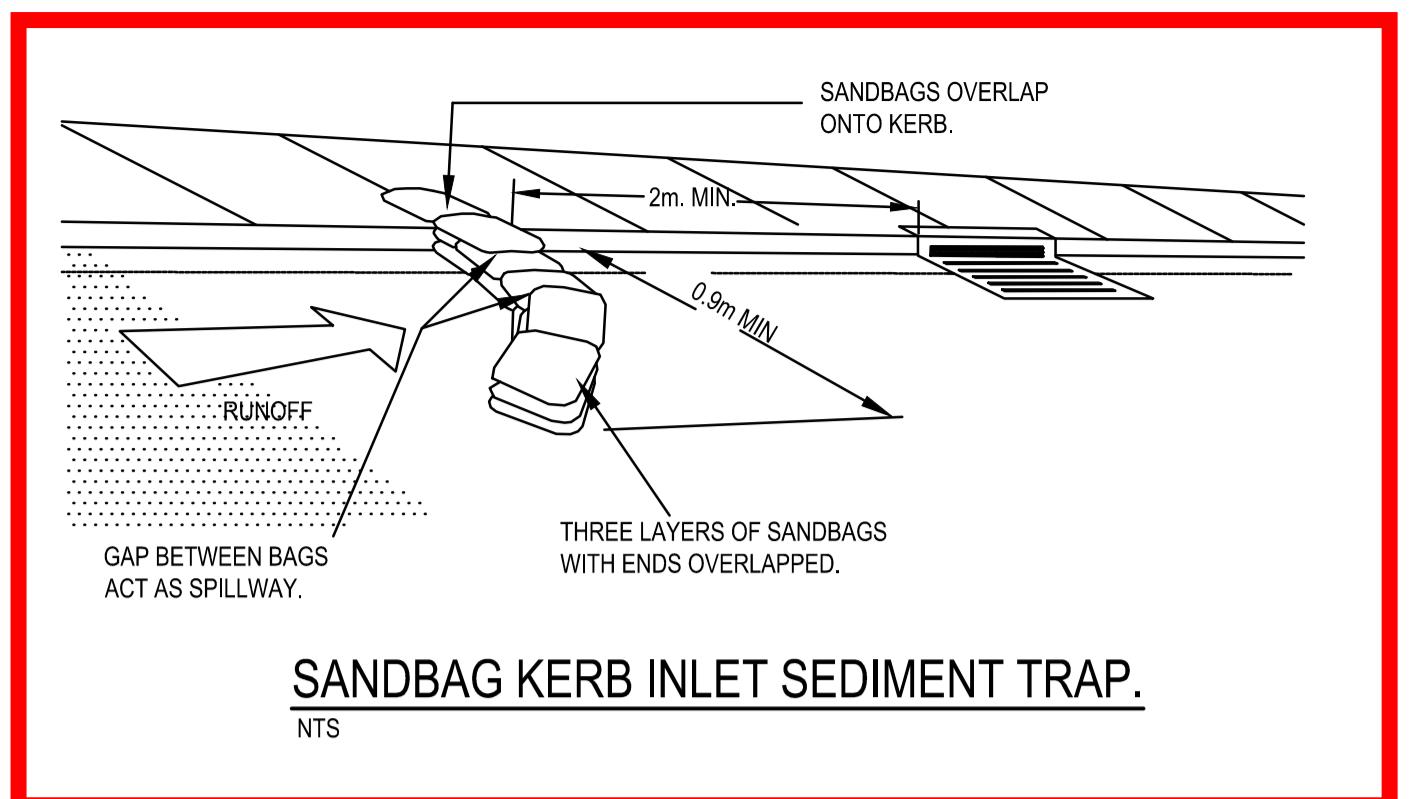
Project Details	
Issue Date	07/06/19
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Revision Description	Date

Phase 2 Erosion & Sediment Control Plan

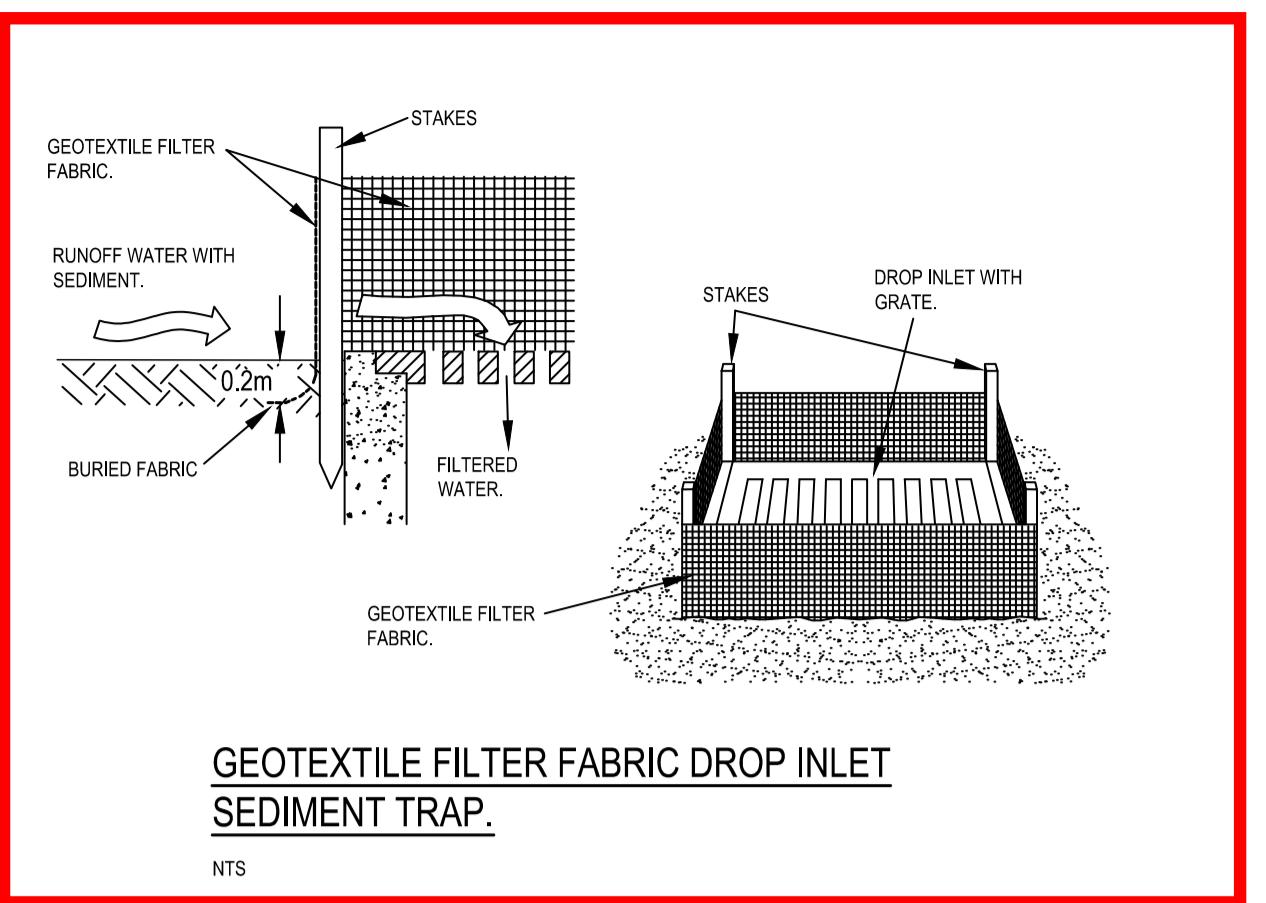
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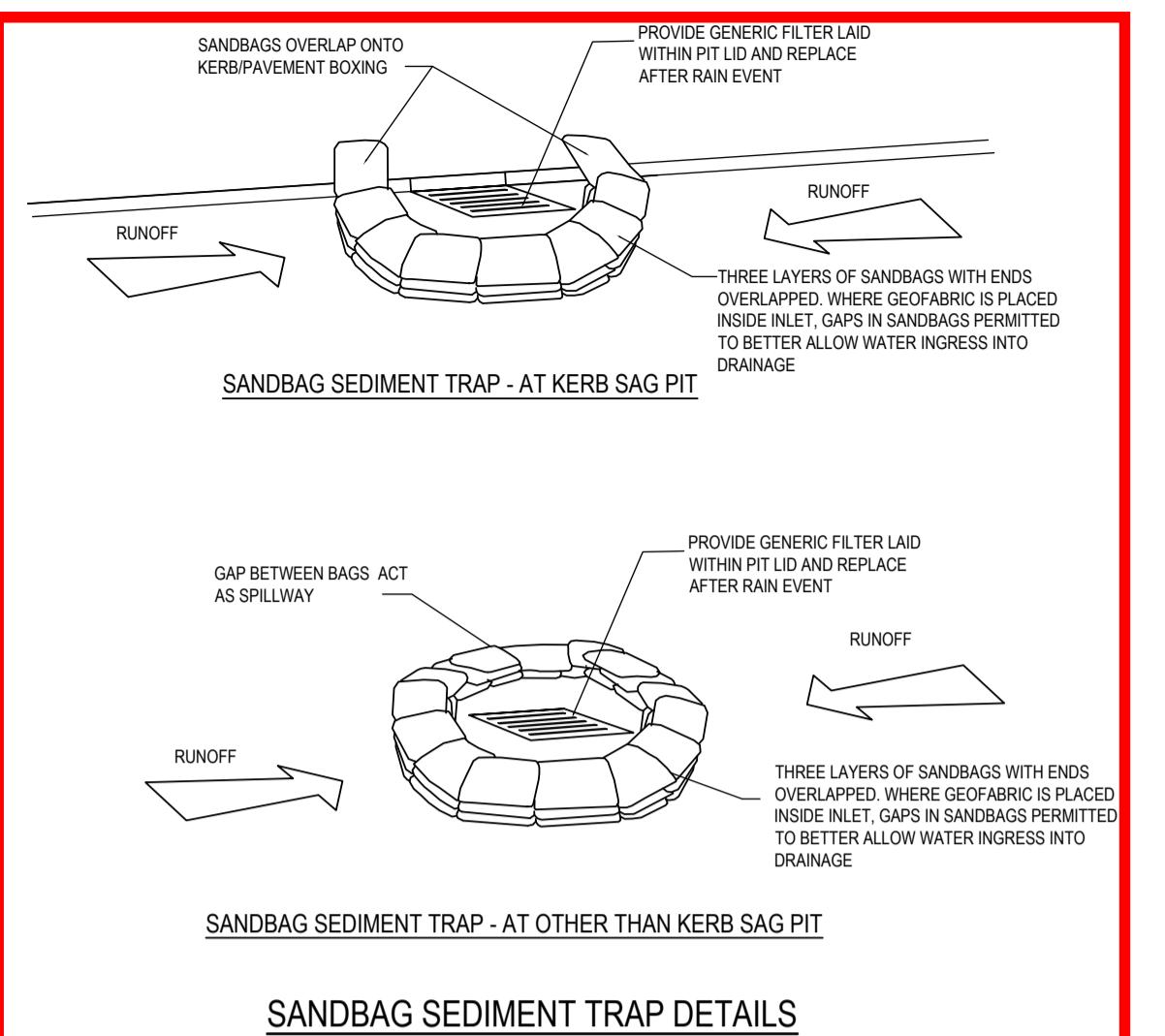
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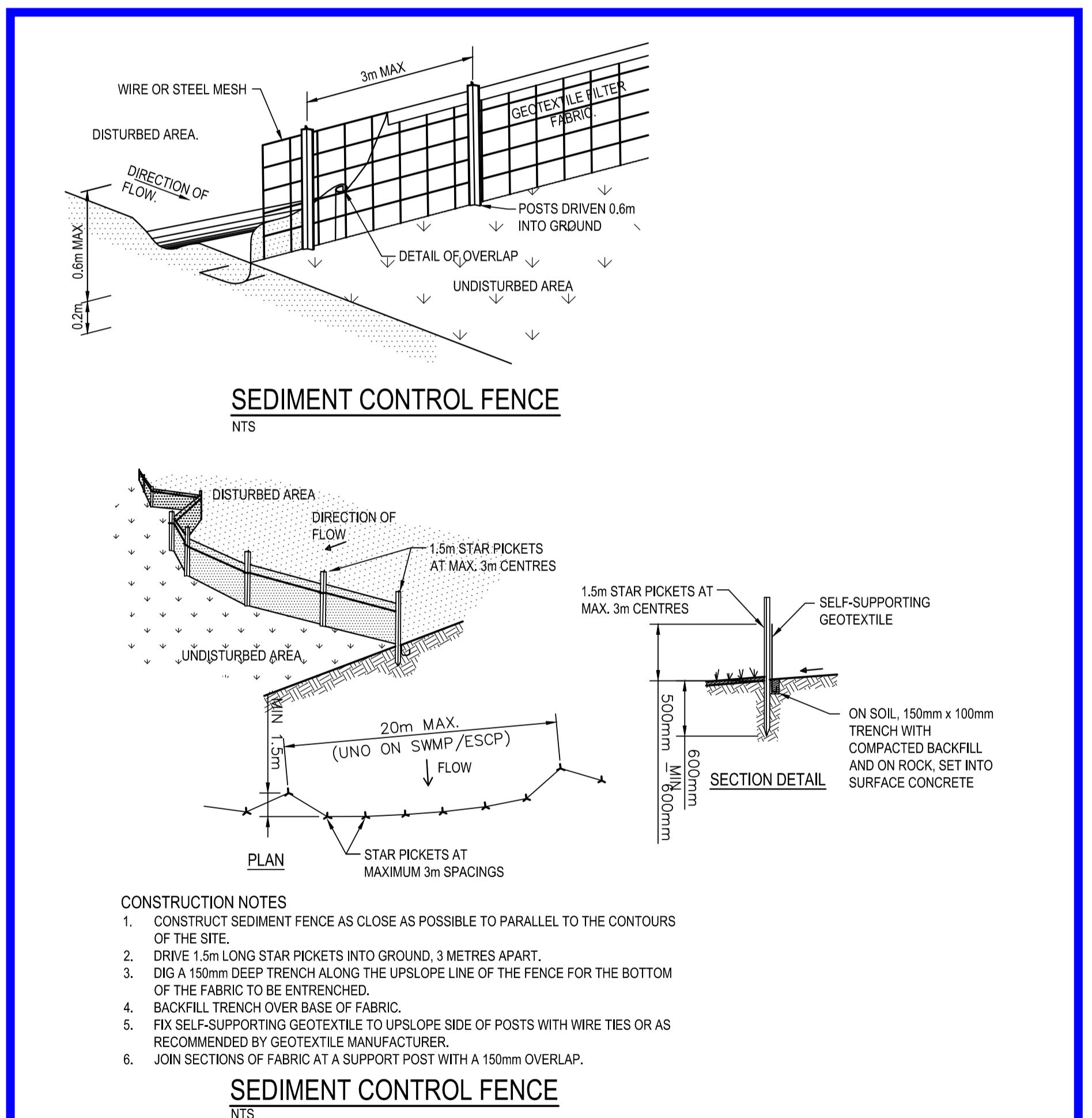
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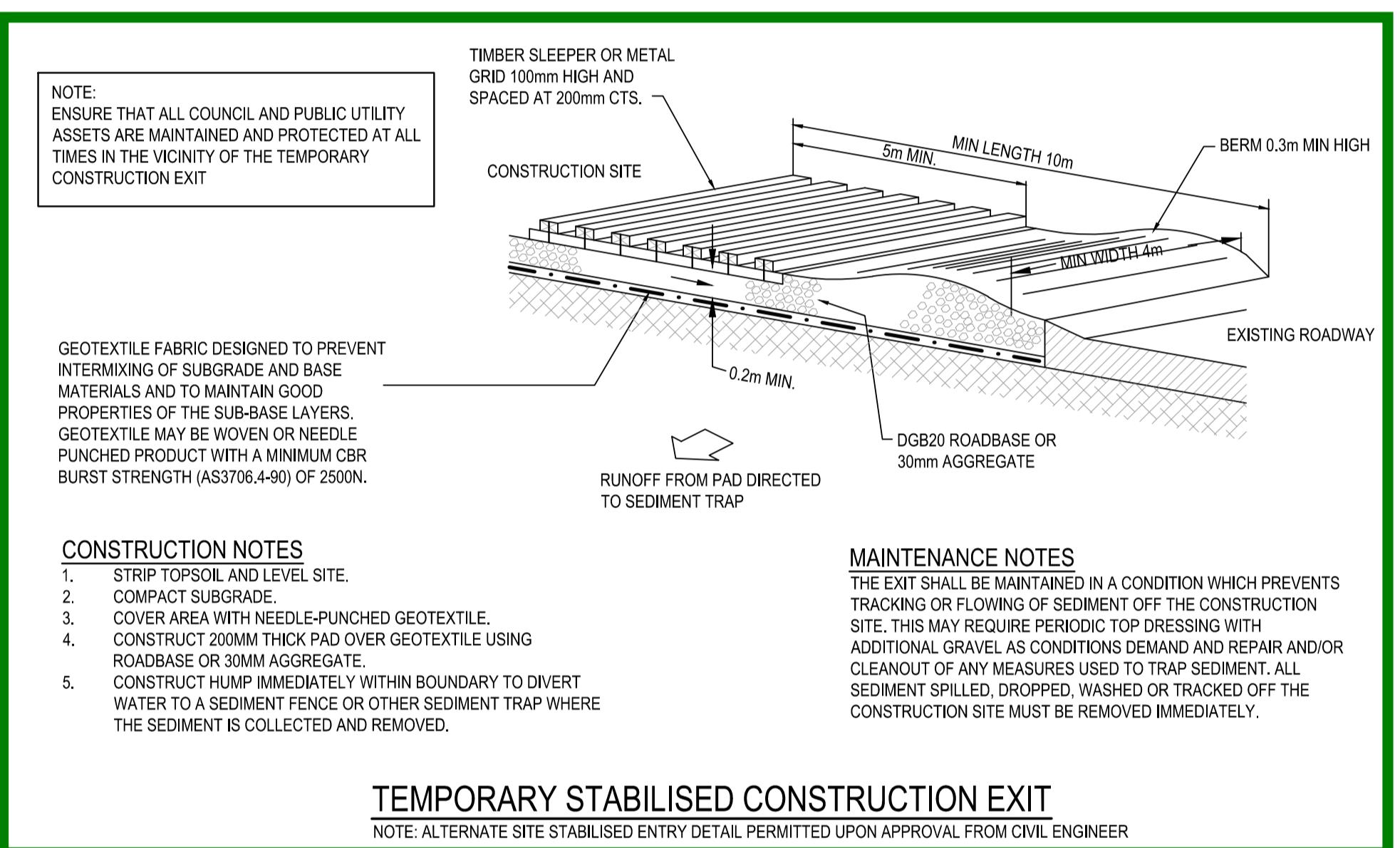
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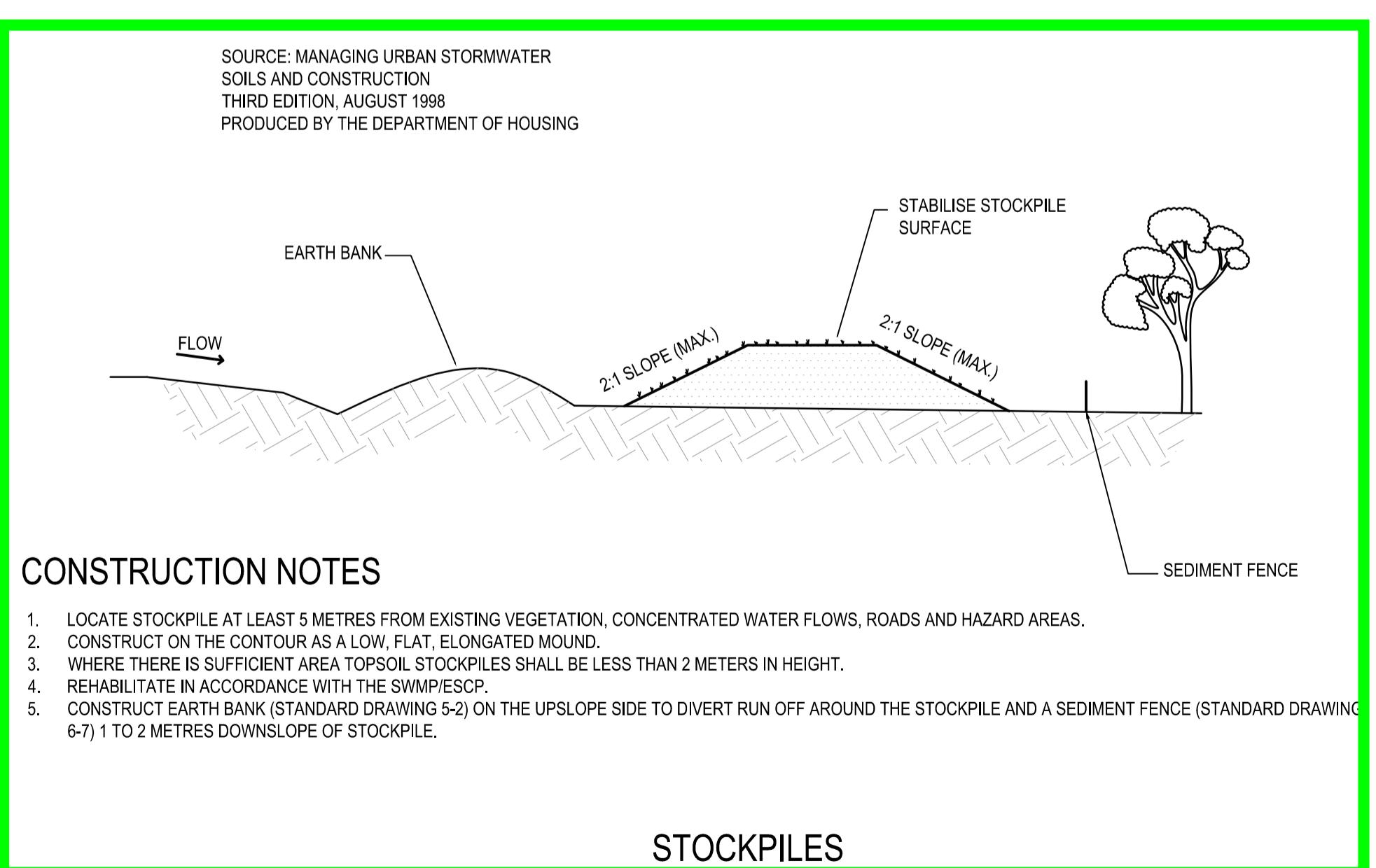
Detail #1.3



Detail #2



Detail #3



Detail #4

EROSION AND SEDIMENT CONTROL

GENERAL INSTRUCTIONS

1. 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.
2. THE SITE SUPERINTENDENT WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS INSTRUCTED IN THIS SPECIFICATION.
3. 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.

CONSTRUCTION SEQUENCE

4. 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. CONSTRUCT SEDIMENT CONTROL BASINS
 - c. UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

EROSION CONTROL

5. DURING WINDY CONDITIONS, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
6. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

FENCING

7. 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.
8. 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.
9. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

OTHER MATTERS

10. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
11. 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.
12. 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.

TEMPORARY WORKS

1. THE BUILDER/CONTRACTOR SHALL ALLOW FOR THE DESIGN, SUPPLY, INSTALLATION AND REMOVAL OF ALL TEMPORARY BACK PROPPING, SAFETY SCREENS, SCAFFOLDING AND OTHER REQUIREMENTS OF THE CONSTRUCTION PROCESS. THE BUILDER/CONTRACTOR SHALL ENGAGE A SUITABLE QUALIFIED ENGINEER REFERRED TO AS "BUILDER/CONTRACTORS ENGINEER" TO DESIGN INSPECT AND CERTIFY ALL TEMPORARY WORKS, AND DEMOLITION WORKS ARE FIT FOR PURPOSE.
2. THE BUILDER/CONTRACTOR WILL BE RESPONSIBLE FOR THE PREPARATION AND CERTIFICATION OF ENGINEERING DESIGN FOR TEMPORARY WORKS.
3. IT IS THE BUILDER/CONTRACTOR'S RESPONSIBILITY TO ENSURE THE OVERALL STABILITY OF ALL STRUCTURES AT ALL TIMES WHILST UNDER CONSTRUCTION.
4. THE BUILDER/CONTRACTOR IS TO HAVE CONSTRUCTION METHODOLOGY STATEMENTS PREPARED AND SUBMITTED FOR REVIEW BY THE PRINCIPAL THE BUILDER/CONTRACTOR WILL AT ALL TIMES BE RESPONSIBLE FOR CONSTRUCTION METHODOLOGY.

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