

ENVIRONMENT & APPROVALS MANAGEMENT PLAN

Garvan St Vincent's Campus Cancer Centre

CUT/FILL AND RETAINING STRUCTURES SUB-PLAN

Scope	Garvan St Vincent's Campus Cancer Centre
Locations	Victoria St, Darlinghurst
Timing	
DPDA	
S of C	
Other Ref	

Issue	Date	Prepared By	Approved By	Remarks
1	14.04.09			

1 OBJECTIVES

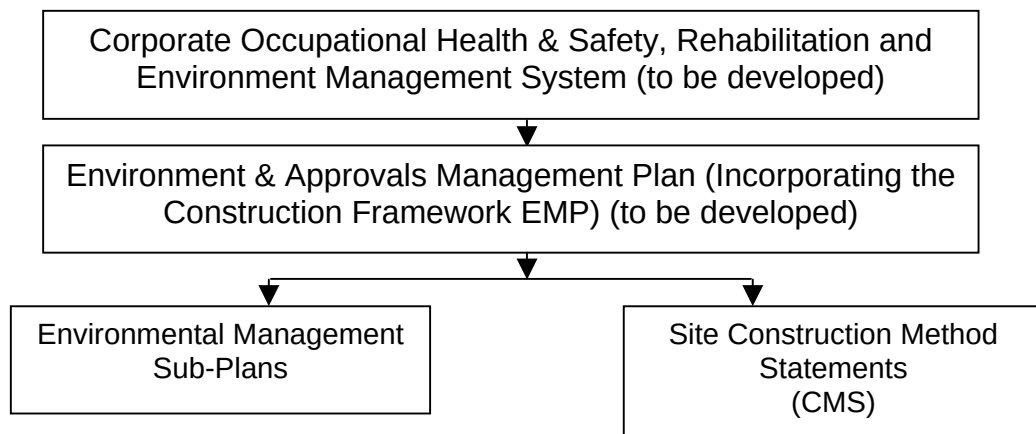
A W Edwards is committed to ensuring that no works significantly impact on the local environment and neighbouring properties.

The objective of the Cut/Fill & Retaining Structures Sub-Plan is to:

- Ensure that construction works do not impact the surrounding ground and associated surcharges;
- Soil erosion, air quality, vibration and stormwater management relating to the cut/fill are covered elsewhere.
- Ensure the integrity of adjacent structures and assets are not compromised.

2 SCOPE

This Sub-Plan has been developed as part of the Garvan St Vincent's Campus Cancer Centre (GSVCCC) Environment and Approval Management Plan (to be developed). The relationship between environmental management documentation can be summarised in the flow chart below:



The scope of this Sub-Plan is to provide Project information regarding cut/fill and retaining structures. It is to be applied at the following site:

- Garvan St Vincent's Campus Cancer Centre

Further information will be required at site, detailing specific site requirements and mitigation measures. This information will be attached to the CMS for the site.

3 STATUTORY REQUIREMENTS

Documents and references relevant to the implementation of the Cut/Fill and Retaining Structures Management Sub-Plan include:

- GSVCCC Works Construction Documentation;
- AS 1726 Geotechnical Site Investigations;
- AS 3798 Guidelines on Earthworks for Commercial and Residential Developments

4 RISK ASSESSMENT

A site specific risk assessment is to be developed, that will determine the sources and risks associated with cut/fill and retaining structure activities. Details of this risk assessment, including mitigation measures, are to be included in the For Construction version of the Environment and Approvals Management Plan for the project.

The risk assessment process will be reviewed for this aspect at the following times:

- Every six months during a site audit, and including comments from personnel and sub-contractors on site;
- Following changes observed during visual inspections;
- Following a complaint;
- If new work processes that have not been previously addressed start on site;
&
- Should new requirements for the project or new legislation take effect.

5 MANAGEMENT AND TRAINING

5.1 Dilapidation Report

Prior to the commencement of construction a Dilapidation Report shall be prepared of the surrounding structures, assets (public and private), ground and associated surcharges. The services of an experienced specialist shall be engaged to assist in this task. The Dilapidation Report will include the following information:

- Descriptions and photos of surrounding structures detailing their condition with regards to structural integrity and architectural finishes.
- Descriptions and photos of surrounding footpaths, kerbs and roads detailing their condition with regards to structural integrity and architectural finishes.

Upon completion of Dilapidation Report a copy shall be submitted to the Principal's Representative for comment and approval. Other parties may be involved in this process, as determined by the Principal's Representative. Community consultation shall be sought as required.

5.2 Control Measures

The cut/fill and retaining structure type and methodologies will be designed and approved by a certified engineer with experience on similar projects. The measures shall include, but not be limited to, the following:

- Following the methodology described by the engineer;
- Implementation of hold points during excavation and retaining structure construction for inspection and signoff by the engineer;
- Pre-investigative works as required by the engineer;
- Use of subcontractors experienced with this type of work.

5.3 Training

AW Edwards Site Manager shall be trained to ensure that they meet the requirements of this procedure. Other personnel shall be trained from time to time to ensure that the requirements of this procedure are met.

6 MONITORING

6.1 Surrounding Properties Monitoring

Regular visual inspections of the surrounding properties, roads, footpaths and kerbs will be made with reference to the Dilapidation Report. A geotechnical engineer will be engaged to determine whether the level, if any, of monitoring at sensitive receptors.

This may include vibration monitoring or similar in accordance with;

- (1) German Standard DIN 4150 Part 3 Structural Vibration in Buildings. Effects on structures; and (2) For human exposure to vibration, the evaluation criteria presented in British Standard BS 6841-Guide to Evaluate Human Exposure to Vibration in Buildings (1Hz to 80 Hz) for low probability of adverse comment.

These limits will apply unless otherwise approved in CMP's yet to be developed.

6.1.1 Records

Records for this Sub-Plan, as under the EMP, shall be maintained in accordance with detailed procedures in the AW Edwards Management System.

All documents requiring sign-off shall be forwarded to the Principal's Representative one month prior to the sign-off being required.

Particular documents required to be maintained in this Sub-Plan include, but are not limited to:

- Pre and post construction surveys and dilapidation reports;
- Records of hold points and inspection/signoff by engineer;
- Records of regular visual inspections;
- Movement monitoring results and reports (if required);
- Correspondence with the Principal's Representative and other interested parties regarding cut/fill and retaining structures;
- Records of damage to structures and reparation documents.

6.1.2 Auditing

Auditing of this procedure shall be conducted in accordance with the following audits;

- Six monthly system audits of this EMP, including approvals compliance procedures;
- Monthly on-site and EMP audits;
- Weekly Site environmental management audits.

7 NON-COMPLIANCE AND COMPLAINTS

The protocol for the handling, recording and reporting of cut/fill and retaining structures related complaints will be in accordance with of the A W Edwards GSVCCC Works Environment & Approvals Management Plan (to be developed).

Should it be found that inspections and monitoring results are showing evidence that activities are having an impact on neighbouring properties reactive measures will be taken to modify cut/fill and retaining structure operations and minimise the potential for damage to occur. These measures shall include the following:

(1) An assessment shall be made of the activities during the inspection and monitoring period that are likely to be contributing to the impact on the surrounding properties.

(2) Controls and/or operational modifications shall be determined that will decrease the potential for any impact from those specific sources. Should the activity have ceased once results are obtained, measures shall be put in place to ensure that similar results are not obtained from the same process at different sites.

(3) Inspection and monitoring results following to the reactive measures shall be checked to ensure that actions taken have reduced the impact on the surrounding properties. Should results still be outside the acceptable limits an assessment shall be made as to the appropriateness of the process. If the process cannot be avoided, and further modifications cannot be implemented, the Principal's Representative shall be consulted to determine the most appropriate course of action.

(4) An incident form shall be completed if the impact on a neighbouring property significantly exceeds the acceptable limit. All incidents shall be notified to the Principal's Representative as soon as practicable.

8 SUB-CONTRACTOR MANAGEMENT

Subcontractors shall be appropriately managed by A W Edwards to ensure that the requirements of this procedure extend to subcontractor works.

Sub-contractors will be audited at periodic intervals to ensure their compliance with AW Edwards' requirements. Auditing shall be random and based on the length of the time sub-contractors are situated on site. Audits may also be the result of non-compliance of the sub-contractor to AW Edwards' requirements.