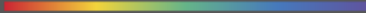


RICHARD CROOKES

CONSTRUCTIONS

**[GREATER WESTERN SCHOOLS CLUSTER - HAWKESBURY CENTRE
OF EXCELLENCE]
[SSD-15001460]**

CONSTRUCTION MANAGEMENT PLAN

6 April 2021



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1 EXECUTIVE SUMMARY

1.1 EXECUTIVE SUMMARY

This Preliminary Construction Management Plan (CMP) has been prepared for the Hawkesbury Centre of Excellence (CoE) off Londonderry Road, Richmond NSW.

Main works will be completed in one stage and includes the construction of:

- Three academic blocks (Block B, C and D).
- Short-term, accommodation with capacity for 62 patrons (Block F).
- Dining hall, recreation space and canteen (Block E).
- Administrative building (Block A).
- Support facilities for management and maintenance of site.
- External works to accommodate circulation and covered walkways between buildings.
- Pedestrian walkways.
- Student and staff amenities.
- Covered Outdoor Learning Areas.
- Staff car parking area and mini-bus drop off and pick up area.
- Short-term accommodation car parking area.
- Green House
- Various agricultural plots and associated agricultural workshop.
- Provision of waste facility area.
- Installation of all essential services including stormwater management devices where required.

This preliminary CMP has been prepared in advance of the appointment of the Contractor. The requirements of this preliminary CMP and subsequent planning approval conditions is to be incorporated into the building contract. The Contractor will be required to produce their own highly detailed CEMP in accordance with the conditions of consent and will use this preliminary CMP for reference only.

2 PROJECT DETAILS

2.1 BACKGROUND

The proposed Hawkesbury CoE will provide new agricultural / STEM teaching facilities with general learning and administration spaces. The CoE will accommodate up to 325 students and up to 25 full-time employees consisting of farm assistants, administration staff and teachers and up to five itinerant staff members. The CoE will also include short-term on-site accommodation facilities for up to 62 visiting students and teaching professionals from regional and rural NSW.

The CoE will include five science laboratories, ten general learning spaces, practical teaching areas, breakout areas, botany room, administration block and accommodation facilities. It will also include covered outdoor learning areas, dining / recreation hall, canteen and kitchen, agricultural plots, landscaping spaces, car parking and provision of necessary infrastructure.

The proposed site plan for the project is shown in Figure 1.



Figure 1. Hawkesbury Centre of Excellence Site Plan

3 PROPOSED CONSTRUCTION METHODOLOGIES (MAIN WORKS)

3.1 WHS

The general work, health and safety principles are as follows:

- Ensure a safe environment for the school students, staff and community;
- Minimal disruption to students and regular school operations;
- Ensure safe access onto the site for staff, employees, subcontractors and site visitors;
- Ensure a safe working environment for site staff, employees and subcontractors; and
- Site safety will be addressed in accordance with the NSW Work Health and Safety Act.

The appointed Contractor will be nominated as the Principal Contractor and will be required to prepare a Site Safety Plan. Contractor Management of the site will be in accordance with the NSW Work Health and Safety Act.

The Contractor will nominate a site safety/first aid representative as required by the WHS Act and the Contractor's WHS procedures. The Contractor will nominate first aid and emergency call locations as appropriate to the works and access provisions. The locations will be clearly posted, and the site personnel will be regularly informed of locations in regular site-based safety updates.

Construction workers and visitors will not be permitted to enter the site under the influence of ability depriving drugs or alcohol and will be subject to random testing as required.

The Contractor will ensure that all activities on site are the subject of Safe Work Method Statements (SWMS) and/or in accordance with the policies and procedures included in the Site Safety Plan. All sub-contractors and visitors to the site will be required to comply with the site safety rules.

The Contractor will be required to manage the conduct of all personnel on site. All construction workers and visitors to the Site will be subject to the Contractor's access management systems. All construction workers will be required to hold a Construction Industry Card as a basic safety standard. All construction workers will be inducted to the Site. The induction will cover the site policies, procedures, facilities, amenities and emergency evacuation procedures.

The Contractor will provide regular updates to site safety and logistics through regular toolbox talks. All inductions and toolbox talks will be recorded in a Register.

3.2 LEGISLATIVE REQUIREMENTS

The Head Contractor undertaking the Works will be required to submit for review an Construction Environmental Management Plan (CEMP) in accordance with all statutory requirements. The environmental performance of the Head Contractor will be monitored by the Project Manager throughout the Works. The following specific environmental management principles will be implemented on site material handling

3.3 SITE SECURITY

The Contractor will be responsible for site security and access during the works. It is envisaged that the site will be secured by way of the use of the following but not limited to:

- Australian Standards approved temporary fencing, with a designated site entry gate which will be secured by chain and padlock after hours.

All temporary fencing will comply with Australian Standards. A daily inspection of all hoardings/ fences/ gates will be undertaken. All graffiti encountered will be removed and/or painted over within 48 hours.

Gates allowing vehicular access will be clearly signposted to allow trucks to easily locate the correct gate. Only approved personnel will be allowed access into the Site.

Should any security issues arise, these will be reported to the external Project Manager, and if necessary, pursued with local police.

3.4 MINIMISING DISRUPTION AND INCONVENIENCE

The contractor is to limit disruption to the surrounding area and maintain a secure site. The site will be fully fenced with temporary steel fencing containing clearly sign posted entry and egress points, with all compound areas, sheds and lay down areas located within the site.

4 ENVIRONMENTAL PLAN

4.1 ENVIRONMENTAL MANAGEMENT

The Works will be undertaken in accordance with, but not limited to, the State Significant Development (SSD) Consent, the relevant provisions of the National Construction Code and legislations namely the Environmentally Planning and Assessment Act, the Work Health and Safety Act and any other legislation so defined or implied in the contract documentation.

4.2 VEGETATION PROTECTION

The Head Contractor will be required to prepare a detailed site-specific Construction Management Plan in accordance with the recommendations outlined in the Arborist Report. This Plan will need to demonstrate the measures that will protect trees and vegetation being retained under the development works. Vegetation protection should be in accordance with Australian Standard 4970-2009, Protection of Trees on Development Sites. Where branch pruning Works are required, Works should be carried out in accordance with Australia Standard AS 4373-2007- Pruning of Amenity Trees and the Works are to be undertaken by an experienced and qualified arborist.

4.3 NOISE AND VIBRATION

All practicable measures will be taken to reduce the noise arising from the Works. Noise from the site shall not exceed the limits set out by the Environmental Protection Authority (EPA). No machine work will occur outside approved working hours unless approval has been given by the consent authority.

The following measures are proposed to reduce noise from the construction works;

- Promote clear understanding of ways to identify and minimize noise from construction works
- Focus on applying all feasible and reasonable work practices to minimize construction noise impacts
- Provide flexibility in the selection of site-specific and reasonable work practices to minimize noise impacts;
- Encourage construction work to be undertaken within approved standard hours where reasonably practicable with noise that is audible to other premises. Approval is required for Works undertaken outside standard hours; and
- The use of noise reduction techniques including, but not limited to, barriers, enclosures and silencers shall be employed to ensure compliance with construction noise criteria.

A Construction Noise and Vibration Management Plan will detail the noise mitigation treatment proposed by the Head Contractor and will be included in the detailed Construction Environmental Management Plan.

4.4 DUST

Management of dust prevention strategy is to be developed by the Head Contractor, detailed in the Construction Environmental Management Plan, liaise with the project stakeholders and acceptable to the Project Manager.

Examples of dust management practices that may be implemented during the Works include;

- Shade cloth installed on the perimeter fence
- Haulage trucks entering and leaving site will have their loads covered appropriately
- Monitoring of weather conditions (including wind)
- Wherever practical implement a wet process for concrete sawing, coring and grinding
Where not practical to use a wet process for concrete sawing or grinding direct dust extraction to a vacuum is to be used
- Materials on site are to be stockpiled and stored appropriately
- Limit the use of soil stockpiles, when stockpiles are required they are to be watered down

4.5 ODOUR CONTROL

All plant and machinery involved in the Works will be regularly serviced and checked to ensure that it has been appropriately maintained.

4.6 STORMWATER, EROSION AND SEDIMENT CONTROL

As a minimum, the erosion and sediment controls for the Works shall be designed, installed and maintained in accordance with the requirements of Managing Urban Stormwater: Soils and Construction "The Blue Book" 2004 (4th edition) and/or details provided by project engineering consultants.

The Head Contractor will be required to prepare a detailed Stormwater Management Plan which will cover all aspects of stormwater and sediment management and control during construction.

Examples of sediment management practices that may be implemented during the works as required include;

- Storm water pits are to be covered with geotextile fabric and sand bags
- Crossovers entering / exiting the site will be regularly swept
- Shaker grid will be installed at the site exit point
- Silt fences installed where required to prevent sediment runoff from leaving the site and entering the surrounding environment

4.7 HAZARDOUS MATERIALS MANAGEMENT

Dangerous goods (such as petrol, diesel, oxy-acetylene, oils, glues etc.) will be stored in a lockable enclosure with sufficient ventilation, in accordance with relevant codes of practice and standards. Material safety data sheets on all flammable and potentially harmful liquids will be provided by the Head Contractor undertaking the Works.

4.8 WASTE MANAGEMENT / RECYCLING PRINCIPLES

The main source of waste associated with the construction works would be demolished material (bricks, concrete, steel etc.) resulting from the demolition and refurbishment of existing buildings. It is likely that some excess building materials will be produced due to the construction work such as miscellaneous waste associated with packaging and transport of plant and equipment and various other manufactured items forming part of the augmentation works. Waste generated as a result of construction will be minimised, recycled, reused or

recovered, where practical. As there is no demolition required for this project the main source of waste for the construction industry is not applicable.

The Head Contractor will be required to achieve compliance with the EPA guidelines.

The following measures are encouraged in the management and reduction of waste to minimize the loss of natural resources and landfill space;

- Emphasise the importance of recycling and waste reduction
- Reduce the amount of waste material produced on the project by ensuring that only enough materials required to perform the works are ordered
- Any excess materials from particular work areas are to be retained and incorporated into other work areas where practical
- Encourage “just in time” delivery of construction materials (minimum storage on site) to reduce the potential of loss / waste due to damage prior to usage
- Encourage the use of recycled materials where it is reasonably practical
- Minimise the use of packaging materials and recycle packaging materials where possible
- Waste concrete to be sent to a concrete recycling plant where possible
- Non-recyclable general waste will be disposed of at an approved waste disposal facility

5 TRAFFIC MANAGEMENT

As part of the Construction Environmental Management Plan (CEMP), the Head Contractor is required to submit a Construction Traffic Management Plan for approval prior to commencement of the works. The CEMP will detail site access, pedestrian protection measures and all associated vehicle movements which will be restricted to the permitted working hours of the site.

5.1 GENERAL REQUIREMENTS

In accordance with TfNSW requirements, all vehicles transporting loose materials will be required to have the entire load covered and / or secured to prevent any large items, excess dust or debris being deposited onto the roadway during travel to and from the site. The Head Contractor will induct all subcontractors and suppliers to ensure that the procedures are met for all vehicles entering and exiting the construction site. The Head Contractor will monitor the internal and immediate external roads leading to and from the site and take all necessary steps to clean any debris deposited by construction vehicles.

Vehicles in transit travelling to, from and operating within the site shall do so in a manner which does not create unreasonable or unnecessary noise or vibration.

Public roads and access points will not be obstructed by any materials, vehicles, refuse skips or the like under any circumstances.

5.2 CONSTRUCTION TRAFFIC IMPACTS

A construction traffic management plan will be prepared by the Head Contractor prior to Works commencing on site.

This overview of construction traffic impacts associated with construction activity aims to ensure the safety of all workers and road users in the vicinity of the construction site. The key vehicle management principles are outlined below;

- To restrict construction vehicle movements to designated routes to/ from the site and to prioritise these as required
- To establish a safe pedestrian environment at all times
- To inform the Head Contractor and set the ground rules for managing construction traffic
- A traffic management plan would be developed and incorporated into the Construction Environmental Management Plan (CEMP)
- Disruption to all road users during the construction period would be kept to a minimum
- Construction and delivery vehicles entering or leaving the site would use arterial roads wherever possible. Vehicle deliveries would be restricted to nominated times within the approved Construction Traffic Management Plan (CTMP)
- A detailed CTMP would be developed by the contractor

5.3 PEDESTRIAN PROTECTION

The development is expected to create minimal disruption to pedestrian movements within the area. The pedestrian footpath will be managed by an accredited traffic controller during these works.

During construction of the temporary and final crossovers, pedestrians will be directed around the construction site by the installation of temporary fencing and management of an accredited traffic controller.

The existing footpaths shall always remain open as the construction site does not interfere with pedestrians or cyclists, with efforts to minimise impacts where possible. This may include staged construction of driveway crossovers such that suitable pedestrian connection is available.

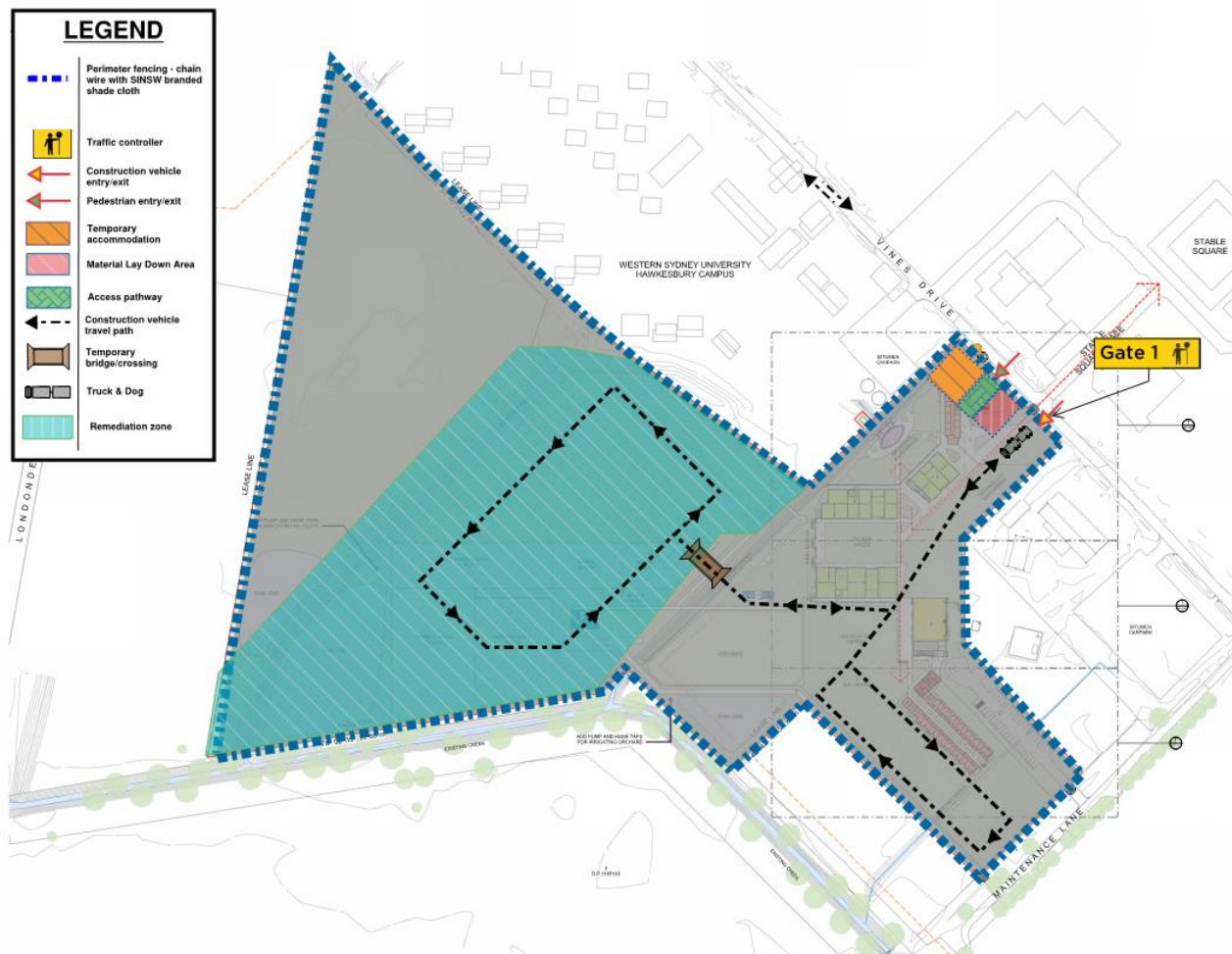


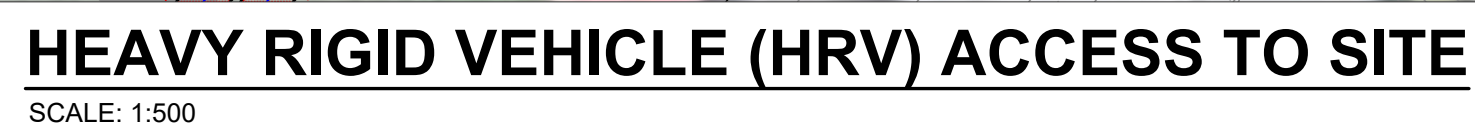
Figure 2. Hawkesbury Centre of Excellence Preliminary Site Establishment (refer Figure 3 for Swept Paths)



Figure 3 Articulating Vehicle Access, On-site and Exit Swept Paths

6 APPENDICES

6.1 APPENDIX 1 – SWEPT PATHS



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

P1	PRELIMINARY	MB	NB	01.06.21										
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Civil Engineer

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Sheet Subject	SWEPT PATH ANALYSIS
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PRELIMINARY
NOT FOR CONSTRUCTION

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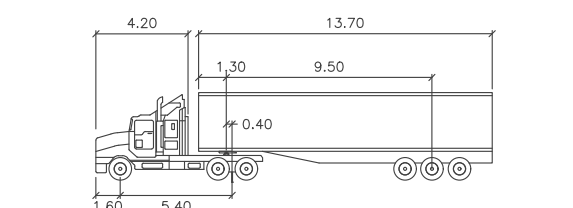
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PRELIMINARY
NOT FOR CONSTRUCTION

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