



Metropolitan

DEMOLITIONS GROUP

Construction Environmental Management Plan (CEMP)

Sydney Metro City & Southwest
Demolition Works – Package B Martin Place

Project/Plan No 1968/08
for Transport NSW

Controlled Document Number:

01

Details	Title	Name	Signature	Date
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CEMP - Revision Control Contents

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008	5/9/17	P26 Table 13 and P 33 Sect 10.6	Amended to reflect ER comments of the 28/8/17	Bert Musch

CEMP - Review

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CEMP - Controlled Document Distribution

Copy	Issued To	Organisation	Date	Authority
001				
002				
003				
004				

1. Introduction

1.1 Project Background

The New South Wales (NSW) Government through Transport for NSW (TfNSW) is implementing *Sydney's Rail Future*, a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of commuters and customers in the future.

Sydney Metro is a new standalone rail network identified in *Sydney's Rail Future*. The Sydney Metro network consists of Sydney Metro Northwest (previously known as the North West Rail Link) and Sydney Metro City & Southwest.

The proposed Sydney Metro City & Southwest (SMC&SW) comprises of two core components:

- The Chatswood to Sydenham project involves the construction and operation of an underground rail line approximately 15.5 kilometres long inclusive of new stations between Chatswood and Sydenham.
- The second core component will involve upgrading the 13.5 kilometre rail line and existing stations from Sydenham to Bankstown.

1.2 City & Southwest Demolition Works Package B

The Sydney City Metro & Southwest Demolition Works Package 'B' (the Project) consists of the demolition and removal of four buildings located at:

- 55 Hunter Street;
- 5 Elizabeth Street;
- 7 Elizabeth Street; and
- 8 to 12 Castlereagh Street.

Staging of the Demolition Works is available in the MD 1968/03 Demolition Management Plan. This will interface with TfNSW Staging Report with a Project commencement date of the 1st June 2017 and completion date is the 4th April 2018.

The demolition Projects scope of works includes:

Removal and storage of heritage items 7 Elizabeth Street Building is the only identified area within the scope of works that requires the removal of heritage items. This work is fully detailed in the Heritage Management Plan MD1968/10.

Installing A and B class hoarding

B Class Hoardings will be installed to the perimeter of the site on Elizabeth, Hunter and Castlereagh Streets. On completion of the demolition works the B class hoarding will be removed and replaced with an A Class Hoarding to the perimeter of the site at street level. These works are detailed in the Demolition Management Plan MD 1968/03

Erecting scaffolding

Heavy duty scaffolding with shade cloth and mesh will be installed to all perimeter faces for all four buildings prior to commencement of main demolition works. These works are detailed in the Demolition Management Plan MD 1968/03

The removal of hazardous materials

Hazardous material surveys have been completed for all four buildings. Hazardous materials including friable and non-friable asbestos, PCB's, Lead Paint, Ozone Depleting gases will be removed by licenced contractors prior to the demolition of the buildings. These works are detailed in the Demolition Management Plan 1968/03

Decommissioning of plant

All four buildings have dedicated plant rooms at the roof level. These plant rooms will be decommissioned and where applicable some items will be salvaged for reuse. These works are detailed in the Demolition Management Plan 1968/03

Soft Strip Out

The removal of furniture, fitting, fixtures and non-load bearing walls ceilings and the like will be removed separated and taken off site for reuse and recycling where applicable. The soft strip of each floor will progress ahead of the structural demolition of the buildings to better manage segregation of materials. These works are detailed in the Demolition Management Plan MD 1968/03

Demolition of structure

Addressed in Section 2 of this plan and These works are detailed in the Demolition Management Plan MD 1968/03

Noise and Vibration Management

Noise and Vibration management is detailed in the Construction Noise and Vibration Management Plan MD 1968/09. Both attended and unattended noise and vibration monitoring will be carried out at adjoining owners and nearby stakeholders throughout the main demolition works. **Waste recycling, salvage and removal of demolition materials**

These works are detailed in the Waste management and Recycling Plan MD 1968/11. Throughout the works materials will be segregated into reuse/recyclable/disposal.

Air Quality Management

Throughout the demolition works the principle method of dust control will be wetting down. These works are detailed in the Demolition Management Plan MD 1968/03

Traffic Management

These works are detailed in the Traffic Management Plan MD 1968/14. The Traffic management Plan for the project has been approved by all relevant authorities including the City of Sydney, RMS, and The Traffic Co-ordination Office

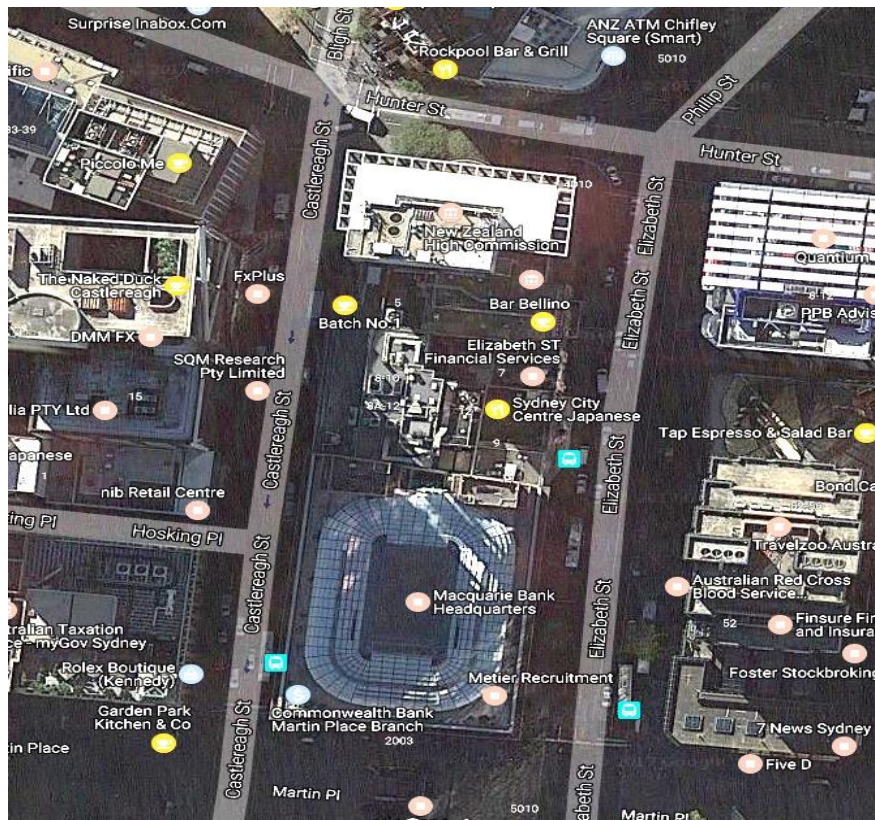


Figure 1 - Site Location Ref Google Maps

1.3 Purpose

The Construction Environmental Management Plan (CEMP) has been developed for the Project and is for demolition only. The CEMP is compliant with the requirements of the Sydney City Metro Construction Environmental Management Framework (CEMF) and the Sydney Metro Requirement – Environment – Demolition (SMR E). The CEMP has been prepared in accordance with the Construction Environmental Management Framework (CEMF) included in the PIR and the Department's Guideline for the Preparation of Environmental Management Plans and details how the performance outcomes, commitments and mitigation measures specified in Chapter 11 of the PIR that will be implemented during demolition.

The purpose of this (CEMP) is to outline how the Metropolitan Demolition Group (MDG) will manage environmental aspects and potential impacts associated with the demolition works. The CEMP will address how MDG will meet relevant contract, planning approvals and other statutory requirements. This CEMP complies to ISO 14,001 and is a standalone document which incorporates the relevant elements of MDGs, QSE Management System.

In summary, the main purpose of the CEMP is to meet the requirements of ISO 14,001 and the Transport for New South Wales (TfNSW) CEMF, Conditions of Approval CSSI 15_7400 and Department of Planning and Environment Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004). In addition the CEMP:

- Describes the Project and relevant demolition activities;

- Identifies the aspects of the works that may potentially impact on the environment and how these will be managed;
- Allocates roles and responsibilities for employees and sub-contractors who will be working on the Project;
- Ensures that the Project meets contractual obligations, planning approval, legal, environmental, stakeholder and other related requirements;
- Minimises negative environmental impacts of the works;
- Provides all personnel and sub-contractors with information, systems, procedures and documentation necessary to undertake the demolition of the project in accordance with environmental requirements; and
- Describes the Project environmental management system;

1.4 Scope

This CEMP relates only to the demolition related works to be undertaken and under the control of MDG that are summarised in Section 1.2 above.

This CEMP is a standalone document that sits under the umbrella of the MDG Accredited to ISO 14,001 :2015 Environmental Management System and is supported by a suite of aspect-specific Sub-plans, which provide Project specific environmental management controls and mitigation measures. Details of the relevant Sub-plans are provided in Section 0 and the Project Aspects and Impacts are detailed in Section 4.8. The CEMP and Sub-plans have been developed to meet the following requirements

- The TfNSW / MDG Contract requirements;
- The Minister's Conditions of Approval specifically MCoA C1 and C2;
- Relevant Guidelines including the *Guideline for the Preparation of Environmental Management Plans* (DIPNR, 2004), *NSW Government Environmental Management Systems Guidelines 3rd Edition, August 2013* (updated 16 September 2013) (NSWGEMSG) and *AS/NZS ISO 14001:2004*;
- Environmental assessment documentation requirements (e.g. Environmental Impact Statement (EIS)/Submissions Report); and
- All other relevant legislative and licensing requirements.

Relevant Conditions of Consent are addressed in Table 1.

Table 1 - Conditions of Consent

Conditions	Requirement	Reference in the CEMP
C1	The CEMP to be prepared in accordance with the Construction Environmental Management Framework (CEMF) included in the PIR and the Department's <i>Guideline for the Preparation of Environmental Management Plans</i> to detail how the performance outcomes, commitments and mitigation measures specified in Chapter 11 of the PIR will be implemented and achieved during construction;	1.3
C2 (a)	The CEMP must provide a description of activities to be undertaken during construction (including the scheduling of construction);	1.2
C2 (b)	Details of environmental policies, guidelines and principles to be followed in the construction of the CSSI;	Table 5,7,8,9,10
C2 (c)	A schedule for compliance auditing;	Table 13
C2(d)	A program for ongoing analysis of the key environmental risks arising from the activities described in subsection (a) of this condition, including an initial risk assessment undertaken before the commencement of construction of the CSSI;	Appendix C
C2(e)	Details of how the activities described in subsection (a) of this condition will be carried out to: <ol style="list-style-type: none"> meet the performance outcomes stated in the EIS as amended by the PIR; and manage the risks identified in the risk analysis undertaken in subsection (d) of this condition; 	Appendix C
C2(f)	An inspection program detailing the activities to be inspected and frequency of inspections;	9.1.1
C2(g)	A protocol for managing and reporting any: i. incidents; and ii. non-compliances with this approval and with statutory requirements;	Section 8
C2(h)	Procedures for rectifying any non-compliance with this approval identified during compliance auditing, incident management or at any time during construction;	Section 10.1

C2(i)	A list of all the CEMP sub-plans required in respect of construction, as set out in Condition C3. Where staged construction of the CSSI is proposed, the CEMP must also identify which CEMP sub-plan applies to each of the proposed stages of construction;	4.10												
C2(j)	ER; a description of the roles and environmental responsibilities for relevant employees and their relationship with the project;	Section 5												
C2(k)	For training and induction for employees, including contractors and sub-contractors, in relation to environmental and compliance obligations under the terms of this approval;	Section 6												
C2(l)	For periodic review and update of the CEMP and all associated plans and programs;	Section10												
C3	<p>The following CEMP sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP sub-plan and be consistent with the CEMF and CEMP referred to in Condition.</p> <table border="1" data-bbox="343 795 1197 1131"> <thead> <tr> <th></th> <th>Required CEMP sub-plan</th> <th>Relevant government agencies to be consulted for each CEMP sub-plan</th> </tr> </thead> <tbody> <tr> <td>(a)</td> <td>Noise and Vibration</td> <td>Relevant Council(s)</td> </tr> <tr> <td>(g)</td> <td>Heritage</td> <td>Heritage Council (or its delegate) and Relevant Council(s)</td> </tr> <tr> <td>(h)</td> <td>Construction Traffic</td> <td>Relevant Road Authorities, RMS, Sydney Coordination Office</td> </tr> </tbody> </table>		Required CEMP sub-plan	Relevant government agencies to be consulted for each CEMP sub-plan	(a)	Noise and Vibration	Relevant Council(s)	(g)	Heritage	Heritage Council (or its delegate) and Relevant Council(s)	(h)	Construction Traffic	Relevant Road Authorities, RMS, Sydney Coordination Office	
	Required CEMP sub-plan	Relevant government agencies to be consulted for each CEMP sub-plan												
(a)	Noise and Vibration	Relevant Council(s)												
(g)	Heritage	Heritage Council (or its delegate) and Relevant Council(s)												
(h)	Construction Traffic	Relevant Road Authorities, RMS, Sydney Coordination Office												
C4	<p>The CEMP sub-plans must state how:</p> <ul style="list-style-type: none"> the environmental performance outcomes identified in the EIS as amended by the PIR as modified by these conditions will be achieved; the mitigation measures identified in the EIS as amended by the PIR as modified by these conditions will be implemented; the relevant terms of this approval will be complied with; and Issues requiring management during construction, as identified through ongoing environmental risk analysis, will be managed. 	Sub Plans at Section 4.10												
C5	The CEMP sub-plans must be developed in consultation with relevant government agencies. Where an agency (ies) request(s) is not included, the Proponent must provide the Secretary justification as to why. Details of all information requested by an agency to be included in a CEMP sub-plan as a result of consultation and copies of all correspondence from those agencies, must be provided with the relevant CEMP sub-plan .	Sub Plans at Section 4.10												
C6	Any of the CEMP sub-plans may be submitted to the Secretary along with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before commencement of construction.	Sub Plans at Section 4.10												
C7	The CEMP must be endorsed by the ER and then submitted to the Secretary for approval no later than one (1) month before the commencement of construction or within another timeframe agreed with the Secretary.;	5.1												
C8	Construction must not commence until the CEMP and all CEMP sub-plans have been approved by the Secretary. The CEMP and CEMP sub-plans , as approved by the Secretary, including any minor amendments approved by the ER, must be implemented for the duration of construction. Where the CSSI is being staged, construction of that stage is not to commence until the relevant CEMP and sub-plans have been approved by the Secretary.	4.12												

1.5 Plan Preparation and Availability

This CEMP has been developed in consultation with TfNSW and the Environmental Representative (ER). The Sub-plans have been prepared in consultation (where required by CoA C3), the City of Sydney Council, The Heritage Council of Australia and the Environmental Protection Authority (EPA) and records have been kept and maintained.

This CEMP will be reviewed and revised as per the requirements of CoA C2(1). This includes:

- In response to internal Environmental Audits as per the requirements of AS/NZS 19011:2014 Guidelines for Auditing Management Systems;
- Comments from relevant stakeholders;
- Any new or changed environmental risks identified during the project;
- Changes to regulatory requirements;
- Results of corrective or preventive actions;
- Opportunities for improvements identified; and
- Requests by the NSW Department of Planning and Environment (NSWDPE).

This CEMP and the associated Sub-plans will be available to the relevant bodies for consultation and approval. A copy of the latest approved version of this CEMP will also be available to all MDG personnel, sub-contractors, other community and stakeholders on request. The CEMP will be posted on Sydney Metro web site as required by CoA B15.

2. Demolition Works

2.1 Pre-Demolition Activities (Early Works)

Pre-demolition activities that are proposed to be undertaken are listed in some early works activities and may need to be undertaken out of approved work hours. In each case an activity specific approval for the out of hours work will be sought from the ER in accordance with TfNSW Out of Hours Works Approval Procedure (OOHW). Endorsement of noise and vibration impacts by the Acoustic Advisor will be included in the OOHW application. This will then be reviewed and endorsed by the ER for final approval by TfNSW, SM and will include the communication notification.

Approval for each element of the proposed early works will be sought from the ER. MDG will provide the following information to the ER in support of early works approval:

- Justification for classification of the activity as early works;
- Environmental risk associated with the proposed activities determined in accordance with the Environmental Risk Assessment process described in Section 4.7 and Appendix B; and
- Details of proposed environmental management controls and mitigation measures.

Some early works activities may need to be undertaken out of approved work hours. In each case an activity specific approval for the out of hours work will be sought from the ER in accordance with the OOHW.

Table 2 - Proposed Early Works Activities

Activity	Description
Building condition surveys	Condition surveys will be undertaken on all structures adjacent to the demolition site that are identified as having the potential to be impacted by the works;
Site establishment (including amenities and environmental controls)	Site amenities are planned to be located within 55 Hunter St. These facilities will be used during early works before moving onto the hoarding or basement level of a demolished building. Amenities will include the site office, lunch & change rooms, showers, toilets and first aid room;
Utility investigations / relocation / disconnection	Underground services location will be undertaken to confirm were all building services enter the site and to identify if services that are not associated with the buildings to be demolished have the potential to be impacted by the works;
Removal of awnings and erection of hoardings	Awnings along Elizabeth, Hunter and Castlereagh St will be removed ahead of the hoarding installation;
Archival recording and removal of heritage items	Heritage items identified by Sydney Metro (SM) will be removed, packed and transported off site before demolition starts. A specialist heritage subcontractor will undertake these works in Heritage Management Sub-plan Ref MDG 1968/10. Note that the Heritage Management Sub-plan that specifies the scope of heritage related works will be prepared in consultation with TfNSW and the Heritage Council of Australia. Approval for removal of heritage items as early works will be sought from DPE;
Site access - truck entry/exits	The load-out zones are within the buildings and as such areas of the building façade on Castlereagh St will be removed in order to create access and egress for the trucks used to remove materials from the demolition. These works are required to be completed before commencement of the main demolition activities;
Temporary steel works	Installation of temporary structural steel works required to create the load out zones;
Scaffold erection to building facades	Heavy duty scaffold with shade cloth and mesh will be installed on external facades where it is required for environmental protection purposes;
Soft strip of building fitout	Small teams will work their way down the buildings removing furniture, fittings, and fixtures, ceiling tiles, lights, air-conditioning and non-load bearing walls. These works are required in preparation for the main demolition works;
Hazardous Materials Survey and Removal	Early access to buildings will be required to complete a destructive hazmat survey in areas where previously unidentified hazmat materials may be found. Licenced hazmat removal contractors will be engaged to remove, PCB's asbestos, ozone depleting gases and lead paint;
Geotechnical investigations in building basements	It is anticipated that shoring and anchors to basement walls will be required in some areas. A geotechnical consultant will be engaged to undertake investigations of the ground behind the basement walls in order to design the required scope of works;
Install personnel & materials hoist	A personnel and materials hoist is required for access to the higher levels prior to the decommissioning of lifts. Small sections of the façade will be removed after the scaffold is in place to create hoist access to the floors. The hoist is currently planned to create access area in the rear of 55 Hunter St on the Elizabeth St side. Penetrations into the ground and B1 slabs will be made to facilitate the installation of the hoist mast and car into the basement of 55 Hunter St;
Traffic management/controls associated with the above	Pedestrian / Traffic Controls will be installed prior to the commencement of physical works on the site;

2.2 Demolition Works

Staging of the Demolition Works is available in the MD 1968-03A Demolition Work Plan this will interface with TfNSW Staging Report.

Key demolition works activities and described in Table 3 - Demolition Works

Table 3 - Demolition Works

Activity	Description
Removal of existing plant and equipment	Commencing at 55 Hunter Street all plant room equipment will be disassembled and removed for reuse and recycling.
Demolition	Demolition will commence from the top of the building using an excavator(s) and will go progressively from top to bottom (Ref Demolition Work Plan MD1968/03)
Demolition	Demolition materials will be transferred to the load out zones through penetrations within the buildings using controlled methods.
Resource Separation	Demolition materials (brick, metals concrete and general waste) will be separated for recycling by a combination of on and off-site processes.
Removal of materials	Demolition materials will be removed in bulk by trucks for transportation to an appropriately licensed facility.

2.3 Demolition Equipment

Key demolition equipment to be used on the Project are listed in Table 4 - Demolition Equipment. The number of any category of equipment used at any particular time will vary during the life of the project.

Table 4 - Demolition Equipment

Plant	Size
Excavators with attachments eg hydraulic hammer/shears/pulveriser/grapple	Various from 1.5t to 30t with attachment
Skid Steer Loaders (eg Bobcats)	Various sizes ranging from 2t to 5t
Jack Hammers	Hand held various size's
Trucks	Rigid 13t and 20 m3 bin trucks
Fork lifts	Up to 5t
Light vehicles	Up to 5t
Mobile Crane	Various up to 350t

2.4 Site Layout

MDG will incorporate the following in the layout of the demolition site:

- The location of noise intensive works in relation to noise sensitive receivers;
- The location of site access and egress points in relation to traffic and pedestrian movement;
- The load out zones will be contained within the buildings; and
- The sequencing of the demolition of buildings to assist in shielding noisy activities from sensitive receivers.
- Site Facilities including lunch room, change rooms, site office will be located on Level 2 of 55 Hunter Street until such time as they will be moved either onto the B Class Hoardings or to the basement level of one of the demolished buildings. There will be no external work compound required under MDG scope of works.

2.5 Visual Amenity

The hoardings, scaffolding and footpaths will be regularly inspected and kept clean and tidy. Graffiti on the hoardings and scaffolding will be removed or painted over promptly.

2.6 Project Duration

A detailed program has been approved by TfNSW and shows the Project commencement date to be the 1 June 2017 with a completion date of the 4 April 2018.

2.7 Demolition Work Hours

Approved working hours for the Project are between 7am – 6pm on weekdays and 8am – 1pm on Saturdays. Works, undertaken outside standard demolition hours without any further approval, include:

- The delivery of materials required for safety or related reasons by the Police or other civic authorities;
- Where it is required in an emergency to avoid the loss of lives, property and or to prevent environmental harm; and
- Any other necessary out of hours works required will go through the approval process.

2.8 Site Condition at Completion

All working areas will be clear and clean including site access points at project completion. All plant and temporary buildings will be removed from site and the site will be secured clean and tidy.

3. Environmental and Sustainability Management Systems

3.1 Construction Environmental Management Plan

MDG, its employees and Sub-contractors will implement this CEMP.

3.2 Environmental Policy

MDG will implement its corporate Environmental Policy on the project (refer Appendix A).

4. Planning

4.1 Key Legislative Requirements

This CEMP incorporates applicable Environmental Legislation, Codes of Practice, Australian Standards and other Guidelines for the Project. MDG workers (including Sub-contractors) must comply with relevant Environmental, WHS legislation, Codes of Practice, Industry Standards and Regulatory Approvals as applicable to their work activities.

The QSE Manager will identify legislative and other obligation changes for the project and communicate these changes to the Project Manager. Where changes are identified, a review will be conducted to determine whether an amendment of the CEMP or associated documents is required.

As per the requirements of CoA C7- Major Modification to CEMP would be endorsed by ER and require the approval of DPE. Minor amendments and administrative changes would be approved by the ER.

A corporate legal register is maintained by MDG and a copy can be made available on request. The register is maintained in accordance with Legal & Other Requirements Procedure P-QSE-004, as they apply to MDG operations and activities.

Key Legislation is represented in Table 5 - Key Legislation

Table 5 - Key Legislation

Legislation Title	Application/Relevance to Sydney Metro	Administering Authority
NSW Legislation		
Environmentally Hazardous Chemicals Act 1985 as amended and Regulation 2008	Use of environmentally hazardous chemicals on site (if required)	NSW Environment Protection Authority (EPA)
Dangerous Goods (Road and Rail Transport) Act 2008 and Regulation 2009	Transport of dangerous goods / and transport of contaminated materials	EPA WorkCover
Protection of the Environment Operations Act 1997 (POEO)	Environmental protection and prevention of pollution.	NSW Environment Protection Authority(EPA)
POEO (Noise Control) Regulation 2008	Noise control	NSW Environment Protection Authority
Dangerous Goods (Road and Rail Transport) ACT 2006	A licence may be required for the storage of prescribed quantities of dangerous goods	Work Cover NSW
POEO (Penalty Notices) Regulation 2004	Penalty Notices	EPA
POEO (Clean Air) Regulation 2010	Atmospheric pollutants including dust and odour	EPA
POEO (Waste) Regulation 2005 and Waste Management amendment 2008	Waste management and recycling	EPA
Waste Avoidance and Resource Recovery Act 2001	Waste management and recycling	EPA
Protection of the Environment Administration Act 1991 and Regulation 2012	Environment Protection	EPA
Environmental Planning and Assessment Act 1979	Planning and Assessment	Department of Planning and Environment (DP&E)
Heritage Act 1977	Management of Heritage listed structures on site	NSW Office of Environment and Heritage (OEH)
Local Government Act 1993	Planning and Assessment	City of Sydney Council
Work Health and Safety Act 2011	Workplace safety	SafeWork NSW (WorkCover)
Work Health and Safety Regulations 2011	Workplace safety and asbestos handling	SafeWork NSW (WorkCover)
NSW Contaminated Land Management Act 1997 and Regulation 2013	Land Contamination	EPA
Roads Act 1993 Roads and Maritime Service	Act to regulate the carrying out of various activities on public roads. Sydney Metro Principle contractors must obtain consent	NSW Roads and Maritime Services (RMS)

	under section 138 for carrying out work in a public road	
Sydney Water Act 1994	Trade Waste Agreement	Sydney Water
Commonwealth Legislation		
National Greenhouse and Energy Reporting Act 2007	Sydney Metro Principal Contractors must report on greenhouse gas and energy usage data as required by the Act.	Department of the Environment and Energy

4.2 Licencing and approvals

Sydney Metro City and Southwest are classified as Critical State Significant Infrastructure (CSSI) and requires approval from consent authorities under the requirements of the Environmental Protection and Assessment Act 1997 (Section 115W).

Table 6 - Licensing and Approvals represents the project specific Approvals, Licenses, Permits and TfNSW requirements:

Table 6 - Licensing and Approvals

Regulatory Authority / Legislation	License/Permit/Approval	Purpose Triggers	Person Responsible Approval Holder
Department of the Environment and Planning Environmental Planning and Assessment Act 1979	Planning Approval	CSSI infrastructure Approval Trigger Pre-Commencement	Peter O'Leary – Principals Representative for TfNSW
SafeWork NSW (WorkCover) Work Health and Safety Act 2011 Work Health and Safety Regulations 2011	Demolition Permit	Demolition to be undertaken by SafeWork Licensed Contractor Trigger Pre-Commencement	Bert Musch – Project Director - MDG
SafeWork NSW (WorkCover) Work Health and Safety Act 2011 Work Health and Safety Regulations 2011	Asbestos Removal Permit AS1 or AS2	Removal of Asbestos Trigger Asbestos discovery Hazmat Report	Bert Musch – Project Director - MDG Asbestos Removal Sub-Contractor -
SafeWork NSW (WorkCover) Work Health and Safety Act 2011 Work Health and Safety Regulations 2011	Lead Removal Notification	Removal of Lead Trigger Lead discovery Hazmat Report	Lead Removal Sub-Contractor
Sydney Water Corporation Sydney Water Act 1994	Trade Waste Permit (where required)	Permit to pump to sewer Trigger Dewatering	Bert Musch – Project Director - MDG
City of Sydney Environmental Planning and Assessment Act 1979	Temporary Anchor Approval (where required)	Place temporary anchors in adjoining Council land Trigger if required	Peter O'Leary – Principals Representative for TfNSW
Neighbour	Air Space Approval (where required)	Install equipment or other equipment above adjoining neighbour's property	Peter O'Leary – Principals Representative for TfNSW
Neighbour	Ground Space Approval (where required)	Install anchors, infrastructure or other equipment under adjoining neighbour's property	Peter O'Leary – Principals Representative for TfNSW
City of Sydney – Sydney Traffic Control Committee (STC) RMS	Traffic Control Plan Approval & Temporary Road Closure Permit (where required)	To manage traffic and pedestrians requiring access to site or other road operations	MDG/Sub Contractor
RMS	Wide Load Permit (where required)	Transport of wide/long loads such as Float Vehicle for plant	MDG/ Sub contractor
EPA Environmentally Hazardous Chemicals Act 1985 as amended and Regulation 2008 Dangerous Goods (Road and Rail Transport) Act 2008 and Regulation 2009	Licensed to transport hazardous waste (where required)	Transport hazardous liquid waste within NSW to recycling facility or landfill Trigger if hazardous materials are located	Hazardous Waste Removal Sub-Contractor

4.3 Standards and Guidelines

The following Standards and guidelines listed in the Table 7 - Codes of Practices, Standards and Guidelines apply to this project.

Table 7 - Codes of Practices, Standards and Guidelines

Policy / Standards / Guidelines	Application/Relevance to Sydney Metro
Construction Environmental Management Framework (CEMF)	Sydney Metro Project Construction Environmental Framework
AS 2601 Demolition of structures	Specific demolition guidelines
Code of Practice – Demolition work, SafeWork NSW	Specific demolition guidelines
ISO 14,001 Environmental Management System – Requirements with Guidelines for Use	Principal Contractors are required to have a corporate Environmental Management System
Code of Practice - How to safely remove asbestos, WorkCover NSW	Asbestos removal
EPA Asbestos & Waste Tyre Guidelines 2014	Asbestos Transport
AS 1940 The storage and handling of flammable and combustible liquids	Dangerous Goods and Hazardous Chemicals
Storing and handling liquids – Environmental Protection Participants Manual (DEEC 2007)	Dangerous Goods and Hazardous Chemicals
Environmental Compliance Report Liquid Chemical Storage, Handling and Spill Management, Part B – Review of best practice and regulations (DECC 2005)	Dangerous Goods and Hazardous Chemicals
Code of Practice – Managing noise and preventing hearing loss at work, SafeWork NSW	Noise/Vibration
AS 2670.2 Annex A Evaluation of human exposure to whole body vibration	Noise/Vibration
EPA Guidance Statement #8 – Environmental Noise (Draft)	Noise/Vibration
EPA Interim Construction Noise Guideline	Noise/Vibration
Code of Practice: Construction Hours/Noise within the Central Business District 1992 (City of Sydney)	Noise/Vibration
AS 2436-Guide to noise control on construction, maintenance and demolition sites	Noise/Vibration
AS4282:1997 Control of the Obtrusive Effect of Outdoor Lighting	Outdoor Lighting
EPA Guidance Statement #18 – Prevention of air quality impacts from development sites	Dust, Odour & Fumes
National Environmental Protection Measure – (NEPM) Ambient Air Quality	Dust, Odour & Fumes
Urban erosion and sediment control field guide – BLUE BOOK (Department of Land and Water Conservation)	Erosion and Sediment Control
NSW Guidelines for construction sites 1998	Erosion and Sediment Control
Code of Practice – Excavation Work (WorkCover NSW)	Erosion and Sediment Control
Manual Managing Urban Stormwater – Soils and Construction 2008 (Department of Housing)	Stormwater Management
Planning Guidelines SEPP 55 – remediation of land	Land Contamination
NSW Government Resource Efficiency Policy 2014	Energy/Water /Waste Management
NSW Waste Classification Guidelines, 2014 (EPA)	Waste Management
Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-Liquid Wastes 1999 DEC	Liquid waste
Sydney Metro Requirement – Environment – Demolition (SMR E)	Management Plans

4.4 Transport NSW Specific Procedures

The CEMP has been developed taking into consideration the procedures and strategies referred to in Table 8.

Table 8 - Transport NSW Specific Procedures

Procedures	Application/Relevance to Sydney Metro
Sydney Metro Requirement -Environmental _Demolition (SMR E)	Requirement of the Principal Contractor
City and Southwest Construction Noise and Vibration Strategy(SM-ST-210)	Requirements of Principal Contractor
Environmental Incident Classification and Reporting Procedure (SM ES-PW-303)	Requirements of Principal Contractor
Water Discharge and Reuse Procedure (SM ES-PW-309)	Requirements of Principal Contractor
Planning Approval Consistency Procedure (SM ES –PW-314)	Requirements of Principal Contractor
Environmental and Sustainability Policy (SM SE MM 102)	Requirements of Principal Contractor
Pre-Construction Minor Works Approval -9TP-FT-202	Requirement of Principal Contractor
Construction Environmental Management Framework Appendix D	Requirements of Principal Contractor
Sydney Metro City and Southwest Sustainability Reporting Template (SME ES-FT-420)	Requirements of Principal Contractor

4.5 Compliance Tracking

MDG has implemented a Compliance Management Program that details the compliance obligations, tasks, roles and responsibilities for managing Statutory Compliance obligations for the Project. The Compliance Tracking Program is in accordance with CoA A30 and adheres to Construction Compliance Reporting as per A31 to A34.

The Compliance Matrix is included in Appendix B of this CEMP, this identifies where applicable conditions have been met through the preparation and implementation of this CEMP.

4.6 Project Modifications

Works, which are outside the scope of the approved project, are not permitted to be undertaken, unless otherwise approved by the relevant authority as summarised below. Where changes are minor and the works and associated impacts have been assessed as being consistent with the approved project, these works may be undertaken once approved by TfNSW and the ER. In this case, the following applies:

- Undertake necessary studies, scoping and confirm compliance with MCoAs;
- Prepare application form "TfNSW's Pre-Construction Minor Works Approval -9TP-FT-202;
- Submit the request to TfNSW (and ER) at least 10 Business Days prior to the proposed works; and
- Works are not to commence prior to written approval by TfNSW.

If the proposed changes are deemed to be not consistent with the approved project, TfNSW will not permit the works to go ahead and may apply for a modification to the project where appropriate. The modification would be prepared and submitted to Department of Planning and Environment (DPE) for approval prior to these works commencing.

4.7 Environmental Risk Assessment

An Environmental Risk Assessment (ERA) has been completed for the Project and documented. A copy of the ERA is provided in Appendix C.

The ERA for the Project is based on AS/NZS ISO 31000:2009 the Australian Standard for Risk Assessments. A risk management approach is used to determine the severity and likelihood of each activity's impact on the environment and to prioritise its significance. This process considers potential regulatory and legal risks as well as taking into consideration the concerns of community and other key stakeholders.

4.8 Environmental Aspects and Impacts

The Project following environmental aspects and impacts have been assessed as part of this CEMP and included in the Project's ERA and incorporated into the aspect-specific Sub-plans where required by the MCoA.

- Demolition *noise and vibration* (MCoA reference E32, A27(b) A27(f) A26(g));
- Demolition *traffic* (MCoA reference E 81);
- *Heritage management* (MCoA E 13);
- *Air quality and dust* management (MCoA reference C6);
- *Waste management*, demonstrating the maximisation of resource recovery and the recycling of construction waste materials (MCoA reference E106);
- *Pollution Incident Response and Management* CEMF (Section 3.10).

4.9 Objectives and Targets

Table 9 - MDG project site specific objectives and targets (O&T) are represented in Table 8 these provide details of the MDG's corporate environmental targets and objectives that will apply to the Project.

Table 9 - MDG project site specific objectives and targets (O&T)

Objective	Targets
To comply with applicable legal and other requirements (environmental laws, regulations, statutory requirements and instruments of approval)	Nil instances of non-compliance with environmental statutory requirements (e.g. infringement notices, clean-up notices, etc.)
To implement a rigorous and comprehensive CEMP that meets the requirements of AS/NZS ISO 14001, and continuously monitor and improve environmental performance	<ul style="list-style-type: none"> • Weekly Environmental Inspections completed; • All of Environmental Audits completed; • 6 monthly CEMP reviews completed; and • All Non-Conformances closed out.
To minimise waste to land fill, maximise the recycling of waste and ensure traceability	<ul style="list-style-type: none"> • Under 5% of waste transported to landfill against 2015 levels; • Over 95% of waste produced from the project to be recycled; and

	<ul style="list-style-type: none"> All waste generated and transported off site to be sent to EPA licensed landfills or recycling facilities and disposal dockets to be retained on file.
Encourage all workers to report all environmental incidents and complete incident reports	All identified incidents are reported and documented
To provide training and information on environmental aspects/impacts and controls for the project to workers	All workers are inducted into CEMP prior to commencement of works on site
To ensure that all received complaints are promptly and appropriately responded to	<ul style="list-style-type: none"> All complaints are logged and responded to within 24 hours Nil instances of authority intervention (e.g. council) from complaints not responded to
To meet all other objectives detailed in the Environmental Control Sub-Plans of this CEMP	All indicators met as described in the Environmental Control Sub-plans of this CEMP

Table 10 - Sydney Metro TfNSW objectives and targets and provides details of the Project specific objectives and targets as required by TfNSW and where these O&Ts exceed the corporate objectives the Project specific targets apply.

Table 10 - Sydney Metro TfNSW objectives and targets

Objective	Targets
The Project will meet Legislative and other requirements including: Environmental Approvals, Environmental Protection Licences and Standards and Guidelines.	All Legislative Objectives, Approvals, Licences, Standards and Guidelines will be met and complied with.
That a CEMP and Sub-plans will be developed and implemented on the project in accordance with Sections: 3.3 (a-f) and 3.4 (a-b) of the CEMF	The CEMP and CEMP Sub-plans upon implementation meet the intention of the CEMF Sections: 3.3 (a-f) and 3.4 (a-b) of the Framework
As a minimum training, will include Induction, regular toolbox talks and topic specific environmental training i.e. emergency incident response (EIR)	100% of MDG personal and Sub contractors will receive training including, pre-starts, toolbox talks and training in the emergency incident response
That Environmental Roles and Responsibilities are assigned to competent and experienced personnel on and off-site	MDG environmental Roles and Responsibilities will be assigned to competent personnel
That regular and timely Environmental Inspections, Monitoring and Auditing is routinely undertaken and corrective actions undertaken and recorded	All Environmental Inspections, Monitoring and Auditing will be routinely undertaken and there will be zero incidents or impacts
Minimise unreasonable noise and vibration impacts on residents and businesses. Avoid structural damage to buildings or heritage items as a result of construction vibration.	MDG will ensure that on-site they will: Minimise unreasonable noise and vibration impacts on residents and businesses. Avoid structural damage to buildings or heritage items as a result of demolition vibration
Minimise impacts on items or places of heritage value. Avoid accidental impacts on heritage items. Maximise worker's awareness of indigenous and non-indigenous heritage.	MDG will ensure that they will minimise impacts on items or places of heritage value and avoid accidental impacts on heritage items while maximizing worker's awareness of indigenous and non-indigenous heritage
Minimise impacts on flora fauna.	MDG will minimise impacts on flora & fauna.
Minimise pollution of surface water through appropriate erosion and sediment control.	MDG will minimise pollution of surface water through appropriate sediment controls
Minimise gaseous and particulate pollutant emissions from demolition activities as far as feasible and reasonable. Identify and control potential dust and air pollutant sources.	MDG will minimise gaseous and particulate pollutant emissions from demolition activities as far as feasible and reasonable. MDG will identify and control potential dust and air pollutant sources.
Waste management strategies will be implemented in accordance with the Waste Avoidance and Resource Recovery Act 2001	MDG will ensure waste management strategies will be implemented in accordance with the Waste Avoidance and Resource Recovery Act 2001 and the site Waste Management and Recycling Plan (WMRP)

4.10 Environmental Management Sub-plans

MDG has prepared specific environmental Sub-plans to the CEMP, as per the conditions of approval C3 and C5. Consultation with relevant agencies has included the DPE, EPA, Sydney City Council and the Heritage Council of Australia and records have been kept.

The purpose of each Sub-Plan is to document how specific environmental risks, identified in accordance with Section 4.7 will be managed, and the relevant (specifically related to the demolition works) performance outcomes specified in the EIS and PIR will be met.

Issue specific Sub-plans are:

1. ***Demolition Noise and Vibration Management Plan MD1968/09*** (Sub-plan to the CEMP developed in consultation with City of Sydney Council).
2. ***Heritage Management Plan MD1968/10*** (Sub-plan to the CEMP, developed in consultation with the Heritage Council of Australia and the City of Sydney Council).
3. ***Waste Management & Recycling Plan MD1968/11*** (Sub-plan to CEMP).
4. ***Sustainability Management Plan MD1968/12*** (Sub-plan to the CEMP).
5. ***Pollution Incident Response Management Plan MD1968/13*** (Sub-plan to the CEMP).

The Demolition Traffic Management Plan MD1968/14 (has been developed in consultation with the City of Sydney Council) and is prepared in accordance with condition E82

4.11 Environmental Procedures and Control Maps

Environmental Control Maps (ECMs) will be developed in accordance with TfNSW Guide to Environmental Control Map for the Project and will include environmentally sensitive features such as:

- Noise sensitive receivers e.g. commercial or residential dwellings, local businesses, educational institutions;
- Vegetation management requirements;
- Heritage artefacts
- Drainage systems.
- Spill kits.
- Access and Egress points.
- Waste Management
- Erosion and Sediment Control
- Fencing and Hoardings

The ECM at Appendix D is an example only.

4.12 Register of Hold Points

Table 11 - Register of Hold Points below provides a preliminary list of hold points which will be used when approval is required by TfNSW ER Endorsement

Table 11 - Register of Hold Points

Hold Point	Release of Hold Point	By Whom
CEMP and Sub Plans approval by DPE	Approval of CEMP and Sub Plans	DPE and TfNSW
Minor amendments to CEMP and Sub plans	Approval of minor amendments	ER
Removal of Heritage Items (as early works)	Approval from DP&E	DPE
Commencement of early works	Approval from ER, AA and TfNSW for Early Works	ER, AA and TfNSW
Commencement of demolition works	Approval from TfNSW (contingent on DPE approval of CEMP and Sub plans)	TfNSW
Commencement of demolition work	Safe Work notification of works approval received	Safe Work NSW
Discharge of water Water Discharge and Reuse Procedure (SM ES _PW-309)	Water tested to verify compliance and approval to discharge	MDG
Asbestos/Lead based paints	Safe Work notification of works approval received	Safe Work NSW
Approval of Traffic Management Plan	Traffic Management Plan	TTLG
Out Hours Works (TfNSW and the ER)	Out of Hours Works Approved	Acoustic Advisor review and approve ,ER endorsement and final approval TfNSW
Trimming or removal of trees outside the site boundary	Permit to trim trees obtained	City of Sydney
Works or impacts outside of property boundaries	Third party agreement received	Relevant property owner

5. Roles and Responsibilities

The key project roles and responsibilities of MDG are summarised in Table 12 - Project Roles and Responsibilities

Table 12 - Project Roles and Responsibilities

Roles / Position	Responsibilities
Project Director Bert Musch	<ul style="list-style-type: none"> Ensure that sufficient resources are available on site to ensure successful management of environmental matters. Approve and ensure implementation of CEMP by the Project Manager and Site Supervisor. Ensure environmental issues are appropriately addressed. Liaise with TfNSW and other stakeholders, as required. Attend ERA Reviews, as required.
Project Manager Tom Mahon	<ul style="list-style-type: none"> Implement the CEMP. Have overall responsibility for environmental matters on site. Ensure that works are undertaken in accordance with MDGs Environmental Policy and Objectives and other requirements of this CEMP. Ensure workers are aware of MDGs environmental requirements and undertake appropriate training as required. Liaise with TfNSW and other stakeholders as required. Arrange and provide resources for the Project. Ensure CEMP objectives and targets are being met. Ensure the CEMP is maintained for the duration of the project. Report to TfNSW as per the requirements of the MCoA including incident reporting, compliance reporting Liaise with the ER.
Site Supervisor Redmond Pollicarpio	<ul style="list-style-type: none"> Implement the CEMP on site. Conduct works in accordance with MDGs Environmental and Sustainability Policy O&T and other requirements of this CEMP. Ensure effective environmental controls are implemented for the life of the project. Identify, recommend and implement solutions to environmental issues where required. Attend Environmental Risk Reviews. Ensure that all workers are properly inducted as per the requirements of this CEMP. Provide sufficient resources for the successful management of environmental matters. Communicate site environmental issues, incidents and environmental performance to management. Provide leadership in addressing environmental issues. Ensure relevant environmental records are maintained.
Environmental Manager Jo Drummond	<ul style="list-style-type: none"> Assist the Site Supervisor and Project Manager with implementation and controlled distribution of this CEMP. Liaise with the ER. Ensure the ERA document is maintained and current for the duration of the project. Maintain the ERA in consultation with the Project Manager and Site Supervisor as required. Prepare & compile CEMP documents for the implementation of environmental controls. Distribute and communicate environmental procedures for the works to relevant parties. Undertake environmental monitoring, testing and inspections where required. Provide inductions to workers and subcontractors on the requirements of this CEMP. Review subcontractor environmental documentation as required, prior to commencement of works. Document all environmental complaints and incidents. Undertake a further detailed investigation where appropriate. Recommend and initiate solutions to environmental issues and verify implementation where required. Conduct periodic Environmental Risk Reviews to identify new environmental risks. Ensure relevant environmental records are maintained in collaboration with the Site Supervisor. Outline resources to be made available for the management of environmental matters. Take prompt and effective action to address environmental incidents and provide appropriate corrective actions. Complete incident reports and submit to the ER and TfNSW. Complete compliance reports and submit to the ER TfNSW.
Worker	<ul style="list-style-type: none"> Carry out their work in accordance with MDGs Environmental Policy, Objectives and the requirements of this CEMP. Take immediate steps to control identified environmental hazards in the workplace where appropriate. Work in a manner without risk to themselves, others or the environment. Participate in pre-start and toolbox meetings, training programs, risks reviews, inspections and audits as required by MDG. Report all incidents to the Site Supervisor. Follow instructions as required by the Site Supervisor / Environmental Manager.
Sub-Contractor / Consultants / Specialists	<ul style="list-style-type: none"> Conduct their work activities in an environmentally sensitive manner in accordance with this CEMP relevant environmental legislation and other requirements. Ensure all plant and equipment is fit for use and appropriately tested and maintained. Adequately instruct their workers in correct methods and environmental safe working practices. Report all incidents to the Site Supervisor. Follow instructions as required by the Site Supervisor / Environmental Manager.
Visitor	<ul style="list-style-type: none"> Register their attendance and departure to and from site. Abide by all work site instructions provided by MDG management and work site signage. Unless a full project site specific induction is completed, ensure they are accompanied by MDG representative at all times. Report all incidents to the Site Supervisor.

Roles / Position	Responsibilities
<i>QSE Manager</i>	<ul style="list-style-type: none"> • Establish and maintain MDGs Integrated QSE Management System. • Represent MDG on environmental matters including liaison with the regulator. • Support the project team in development and implementation of this CEMP. • Monitor the effectiveness of MDGs QSE Management System. • Undertake and coordinate QSE audits. • Monitor and communicate QSE Alerts and changes to legislation.

Accountability

- a) Managers are accountable for:
 - Monitoring performance against established O&T;
 - Monitoring corrective actions to ensure implementation and continuous improvement and performance of individuals; and
 - Promoting awareness and taking action to correct situations of inadequate environmental control or instances of poor behaviour;
- b) Their Site Supervisor and/or Foreman will hold workers accountable through day-to-day supervision and monitoring of performance.
- c) Subcontractors will be held accountable through application of the *Purchasing & Subcontractors Procedure P-QSE-009*.

5.1 Environmental Representative

The ER who is engaged by TfNSW, as required by MCoA A24(1) of SSI 15-7400 for the Project will:

- Be the principal point of advice in relation to the environmental performance and interpretations of the MCoA;
 - Oversee the implementation of all environmental management plans and monitoring programs required under this approval, and advise the MDG upon the achievement of these plans / programs;
 - Consider and advise on compliance obligations against all matters specified in the Conditions of Approval and the Statement of Commitments as referred to under condition A1 of the approval and all other licences and approvals related to the environmental performance and impacts of the Project;
 - Ensure that environmental auditing is undertaken in accordance with all relevant Environmental Management Systems;
 - Be given the authority and independence to recommend to MDG reasonable and feasible steps to be taken to avoid or minimise unintended or adverse environmental impacts and
 - Complete weekly site inspections and confirm close out any issues raised.
-
- Additionally, the ER will review/endorse: Other document/plans as required (e.g. Environmental Controls Map ECMs);
 - Low and medium risk out of hours works applications in accordance with the out of hours works protocol; and
 - Compliance reporting.

5.2 Acoustic Advisor

TfNSW have engaged a suitably qualified and experienced Acoustics Advisor (AA). The AA has been engaged for the duration of the demolition works and for six (6) months following operation of the CSSI. The AA is independent of the design and construction personnel and will work with the MDG appointed Noise and Vibration Management Consultant who will implement the Noise and Vibration Management Sub-plan. The MDG appointed consultant will:

- Provide access to noise and vibration monitoring activities as they take place;
- Provide for review noise and vibration plans, assessments, monitoring reports, data and analyses undertaken; and
- Consider any recommendations to improve practice to the satisfaction of the AA.

5.3 Community Complaints Commissioner

MDG will work with TfNSW and the appointed Community Complaints Commissioner (CCC) as per the CoA B11 to B14 to ensure all complaints are registered. MDG will maintain a Complaints Register (CR) that records the:

- Number of complaints received;
- Number of people affected in relation to a complaint; and
- Nature of the complaint and means by which the complaint was addressed and whether resolution was reached, with or without mediation.

The CR will be made available to the Secretary on request.

5.4 TfNSW

TfNSW is the “Proponent” under the MCoA with ultimate responsibility to DPE for compliance with the Approval. Some specific responsibilities include:

- Engaging and seeking approval of the Secretary of DPE for the appointment of the Environmental Representative (ER);
- Reviewing any plan or strategy required by the MCoA, and seeking approval of the Secretary of DPE;
- Community and stakeholder consultation;
- Establishment and implementation of a complaints and enquires system;
- Determine consistency assessments undertaken by the MDG where applicable;
- Issue a stop work order in the event of an incident, or the imminent risk of any incident where any actual damage or a significant risk of harm to the Environment; and
- Participate in ER or stakeholder inspections or meetings as required.

5.5 Sub-contractor Management

MDG will ensure that appropriate resources are scheduled including budget allocation to the Project to ensure adequate supply of environmental plant and equipment. The Project Manager, Site Supervisor and Site Engineer/EM will establish, implement, maintain and continually improve this CEMP in consultation with stakeholders and the QSE Manager (where required).

Other MDG personnel include office administration, accounts, human resources, QSE, transport, workshop and stores will assist and provide support during the Project.

MDG will ensure appropriate supplies and stocks of plant and equipment are available for the Project when required.

The timely supply of requested items (e.g. spill kits, geo-tech socks, geo-tech material, pads and other equipment) is to be coordinated by a responsible person to ensure that objectives are achieved, there is to be no delay in project performance and the environment is not compromised due to insufficient supplies or unavailability of requested plant and equipment.

MDG will undertake a review of Sub-contractors' documentation to verify compliance with the requirements of the Contractor's activities to be Sub-contracted. MDG will ensure that the documentation complies with the CEMP and undertake appropriate monitoring of each Sub-contractor's environmental protection measures ensuring the specified environmental protection requirements are effectively implemented and maintained.

All Sub-contractors will be advised of the relevant DA/Planning Approval conditions and will be required to operate within the requirements of the MDG CEMP and associated documents. They will also be required to develop a project specific ERA, which will include Aspects/Impacts and identified environmental risks before commencing, works to confirm that their process and procedures are identified.

General

All Sub-contractors engaged by MDG for works shall undertake works in accordance with:

- Relevant Environmental Legislation, Codes of Practice and Australian Standards;
- MDGs QSE Management System policies and procedures and CEMP requirements;
- Submitted ERA's; and
- CEMP Appendices

The selection, evaluation, monitoring, performance management and review of subcontractors shall be undertaken in accordance with MDGs *Purchasing & Subcontractor Procedure P-QSE-009*.

Assessment

Sub-contractors are to submit documentation e.g. (ERA) to the EM for review and assessment before attending site.

All Sub-contractors are to be assessed in line with their ability to perform the task efficiently and at a satisfactory cost including:

- Past performance, demonstrated capability and quality of work;
- The nature and scope and scale of the subcontractor's activities;

- Safe work practices, use of ERAs and documented systems;
- The Sub-contractor's capacity to manage its own environmental performance effectively;
- The environmental sensitivity of the area(s) in which the Sub-contractors will be working;
- The potential environmental impacts of the Sub-contractor's activities;
- The qualifications and experience of staff;
- The Sub-contractor's previous environmental performance; and
- Review **Project Environmental Controls Map Appendix D** with Sub-contractors.

Only Sub-contractors with adequate qualifications and environmental systems will be engaged to provide services. The Sub-contractors will provide relevant information relating to Public Liability, Professional Indemnity, Workers' Compensation insurances, licenses or certificates of competency, details on any environmental management systems or ERAs, Work Instructions or SOPs required as part of the evaluation process.

Environmental documents will be reviewed using the following applicable documents:

- **Subcontractor EMP Checklist**

Where Sub-contractor provided documents are deemed not suitable following review by MDG, the Sub-contractor will need to revise documents to the satisfaction of MDG. Works will not commence for the specific work activity until documents have undergone review and are accepted by MDG.

Monitoring

Sub-contractors are expected to provide a high-level of supervision of their workers on site and implement appropriate monitoring practices such as: work area inspections, task observations and ERA review.

MDG will monitor Sub-contractor's environmental compliance through mechanisms such work area inspections, observations, audits and reviews.

Non-conformance

Where an environmental non-conformance is identified and is substantiated, a **Corrective Action Report F-QSE-012.E** will be issued to the subcontractor following consultation with concerned parties. The Corrective Action Report will document the agreed actions and timeframes for addressing the environmental non-compliance. Works in the affected area are to cease until corrective actions are made and the non-conformance is closed out. Environmental non-conformances of a serious nature are to be closed out immediately.

The Site Supervisor will record all environmental non-conformances on the **Action Tracking Register F-QSE-012.FJ** monitor closely non-conformances and track close out. Re-inspection of the work or item is to be conducted before close out.

In instances where Sub-contractor performance does not improve after formal notification (issue of Corrective Action Report or performance meeting) the Project Manager will consider appropriate action such as:

- Suspension of work;
- Counselling of Sub-contractor personnel;
- Removal of Sub-contractor from the project; or
- Termination of a Sub-contractor/contract.

Note: where removal or termination of subcontractor is conducted, the Sub-contractor is to be removed from MDGs **Approved Supplier List F-QSE-009.B**.

Review of Sub-contractor Performance

A meeting will be held with the Site Supervisor and MDG Project Manager at the completion of works to review the Sub-contractor's performance and assess their ability to efficiently perform on the contract.

Records of review are to be documented and the information is then to be sent to the MDG QSE Manager for collation and further reference.

6. Competency, Training and Awareness

All workers and Sub-contractors attending site will receive a site-specific induction that includes details of environmental and compliance obligations as required under CoA C2(k). This training also includes environmental management and mitigation requirements for noise, air pollution, water pollution, waste management, contamination, hours of work, incident and complaint response, sensitive receivers and location of critical services. Any worker not inducted will be unable to commence works on site.

All workers shall attend environmental training based on ERA conducted for the Project or activity – refer [Project Environmental Risk Assessment Appendix C](#).

Evidence of training and competency is to be provided prior to commencement of works. Some key competency environmental standards for this project may include:

- ARC License to remove refrigerants;
- Specific hazardous liquid removal license
- Environmental Risk Assessment
- Environmental Manager
- Environmental Co-ordinator
- Traffic Management qualifications;
- Asbestos Removal Supervisor
- Asbestos Awareness (removal)

The Project Manager is responsible for identifying and assessing the training needs for the Project, developing a training program, training management/workers and evaluating the training process. The Site Supervisor is responsible for monitoring the skills required by workers to effectively implement the CEMP, Sub Plans and associated procedures on site. Records of induction and other training will be maintained in the site office. The training needs identified for the project will be documented using the [Project Skills Register F-QSE-008.B](#).

The Environmental Manager will provide documentation and curriculum Vita before work commences onsite.

Records of licenses, training and verification of competencies (VOCs) will be documented in [Project Induction Form F-QSE-008.J](#) as part of the site induction process. Site inductions are to be recorded using the [Project Induction Form F-QSE-008.J](#).

MDG maintain a [License & VOC Register F-QSE-008.F](#) that includes licences for MDG employees and is available on request.

All training is to be conducted in accordance with the [Training Procedure P-QSE-008](#).

Pre-starts and toolbox talks will be held on a regular basis in order to provide the Project with an update, including any key or recurring environmental issues.

MDG is committed to maintain training records to include who was trained, when the person was trained, the name of the trainer, and a general description of the training content.

Workers will be made aware of this CEMP and Sub Plans including MDGs QSE Management System policies, procedures, site rules and other requirements through the site-specific induction, consultation and communication processes. Further awareness may be achieved by:

- Continuous improvement feedback;
- Pre-start, toolbox & Meetings;
- Job Statements/descriptions;
- Memorandums and incident reports;
- Environmental Controls Map;
- Purchasing & Subcontractor Procedure;
- Adhoc discussions;
- Environmental Risk Assessments
- QSE Alerts

7. Stakeholder and Community Involvement

Throughout Project MDG will work with Sydney Metro and meet the requirements of the Community Consultation Strategy that has been prepared by TfNSW in accordance with CoA B1 and B2. Note that TfNSW are responsible for community consultation and that MDG role is to support TfNSW.

TfNSW will notify Stakeholders of any significant events or changes that affect or may affect individual properties, residences and businesses. This will include but is not limited to noisy works, interruptions to utility services or demolition work outside of normal hours. MDG will manage and report complaints as per the Sydney Metro Construction Complaints Management System.

8. Emergency and Incident Response

The Pollution Incident Response Management Plan is available. (PIRMP) and has been developed in accordance with the requirements of the POEO Act and relevant TfNSW procedures.

The plan includes:

- Categories for environmental emergencies and incidents;
- Notification protocols for each category of environmental emergency or incident, including notification of TfNSW and notification to owners / occupiers in the vicinity of the incident. This is to include relevant contact details;
- Identification of personnel who have the authority to take immediate action to shut down any activity, or to affect any environmental control measure (including as directed by an authorised officer of the EPA);
- A process for undertaking appropriate levels of investigation for all incidents and the identification, implementation and assessment of corrective and preventative actions; and
- Notification requirements depending on the nature of the incident (i.e. the EPA, Department of Planning and Environment or OEH will be notified by the MDG or TfNSW as appropriate).

Table 13 nominates contact personal for emergencies including 24 hour contacts. MDG's Project Manager is the nominated contact 24 hours per day 7 days per week.

Table 13 - Emergency Contacts

Site Address:	Level 4, 55 Hunter Street Sydney	
Police		000
Fire Brigade		000
Local Fire Brigade (Sydney CBD Castlereagh St)		02 9265 2799
Ambulance		000
Hazchem		000
24 HR Emergency Spills Response (Transpacific)		1800 774 557
State Emergency Service (SES)		132 500
NSW Fire and Rescue		02 9319 7000
Transport for New South Wales (Sydney Metro)		1800 684 490
Gas – AGL		13 10 03
Electricity - Energy Australia		13 13 88
Electricity - Integral Energy		13 19 09
Water - Sydney Water		13 20 90
Dial Before You Dig		1100
Poisons Information Centre		13 11 26
Lifeline		13 11 14
SafeWork NSW		131 050
EPA		131 555
WIRES (NSW Wildlife, Information, Rescue and Education Service)		1300 094 737
Sydney City Council		02 92659333
Chief Warden:	Adam Dowling (ANRA)	0432 483 256
Deputy Warden:	Brett Foster (ANRA)	0432 611 462
Warden:	Redmond Policarpio (ANRA)	0413 730 998
Warden:	Kate Rixon (ANRA)	0411 892 989
MDG Project Manager	Tom Mahon (ANRA)	0418 273 884
Safety Manager	Shane Morris (ANRA)	0402 669 351
Safety Coordinator	Kate Rixon	0411 892 989
Environmental Manager	Jo Drummond	0412 214 233
TSE Environmental Representative	Kelvin Ritchie	0429 780 328
Environmental Manager TfNSW	Craig Tucker	0458 680 969
Nearest Hospital / Medical Centres:		
Sydney Hospital - 8 Macquarie St, Sydney NSW 2000 – Open 24/7		(02) 9382 7111
Macquarie Street Medical Centre - 1/183 Macquarie St Open until 6:00 pm M to Fr		(02) 9232 3323
Macquarie Street Medical Practice - Ground Floor, 195 Macquarie St Open until 6:00 pm M to Fr		(02) 9238 0800
Emergency Assembly Area Location(s)		
Primary 1 (P1) – Elizabeth Street		Primary 2 (P2) – Castlereagh Street

9. Environmental Inspections , Monitoring and Reporting

9.1 Environmental Inspections, Monitoring ,Auditing and Reporting

9.1.1 Inspections and reports

As per CoA C2(f) an inspection program has been developed by MDG and will be undertaken by the EM weekly. Inspection reports will be documented using internal processes and closed out in a timely manner. All reports including construction monitoring, non-compliance, corrective action, complaints management auditing, pre-construction and pre-operative compliance and any report to government agencies will be provided to the MDG Quality Manager by the Environmental Manager. All MDG workers and Sub-contractors working on behalf of MDG are required to monitor work activities in accordance with their site-specific environmental documentation and the requirements of this CEMP and Sub Plans.

All inspection and monitoring activities will be conducted in accordance with the *Inspection, Testing and Calibration Procedure P-QSE-011*.

Table 14– Environmental Monitoring, Inspections, Auditing activities that will be undertaken on site.

Table 14– Environmental Monitoring, Inspections, Auditing and Reports

Site/Activity Inspections	Frequency	By Whom	Form
<i>ER /TfNSW environmental site inspections</i>	Weekly	ER/TfNSW	ER Inspections Report Form
<i>Management Visit Report</i>	One per month	Senior Management	F-QSE-011.A
<i>Project Site Inspection Checklist</i>	Weekly	Site Supervisor / Environmental Manager	F-QSE-011.B
<i>Water Discharge Permit</i>	As Required	Environmental Manager	F-QSE-006.C
<i>Inspection Test Plans (ITPs)</i>	As Required	Site Supervisor	F-QSE-011.D
<i>Plant Inspection Checklist</i>	Daily	Operators	F-QSE-011.E
<i>Emergency Preparedness Inspections</i>	At Project Start then TBA At least 12 monthly	QSE Manager	Specific Report
<i>Monitoring Equipment</i>	Manufacturers requirements	Specialist / Environmental Manager	Calibration Certificate
<i>Sustainability Report</i>	Monthly	MDG Environmental Manager	TfNSW template SM ES-FT-420 MD1968/12
<i>SM ES –FT-421 Sydney Metro City and Southwest Environmental Reporting Template</i>	Monthly	MDG Environmental Manager	TfNSW template SM ES-FT-421
<i>Environmental Compliance Requirement (ECR's)</i>	Quarterly	MDG Environmental Manager	TfNSW ECR
<i>Air Emission Data Collection Workbook</i>	Within one month of the date of the contract	MDG Environmental Manager	TfNSW's Air Emission Data Collection Workbook 9TP-FT-439
<i>Greenhouse Gas Inventory Report</i>	Completion	MDG Environmental Manager	TfNSW Carbon Estimation and Reporting Tool(CERT)
<i>Environmental Incident and Reporting</i>	When required	MDG Environmental Manager	TfNSW incident report
<i>Community Complaints Register</i>	On going	Site Supervisor MDG Environmental Manager	TfNSW complaints register
<i>Conditions of Approval (Compliance)</i>	When Required	ER	ER Inspection Reports

Sub-contractors are responsible for inspection of their own areas of control and equipment used. This will be monitored and checked by MDG Supervisors. Sub-contractors will also be requested to attend and participate in Weekly Site Inspections.

9.1.2 Demolition Monitoring Program

Compliance auditing is required under CoA A37 to A40 and the audit schedule in Table 14 will be submitted to the secretary before demolition work commences. Work environments requiring monitoring on this project are included in Table 15. Specific environmental monitoring programs are provided in the relevant Sub-plans.

Table 15 - Environmental monitoring

Type of Monitoring Minimum Performance Criteria	Applicable (Yes / No)	Situation / Trade or Stage of Works	Comment
Waste Tracking 90% Recycling of Demolition Waste	Yes	During Demolition	In accordance with monitoring program detailed in the Waste Management and Recycling Sub-plan.
Noise / Vibration Noise: Internal noise level of 55dBa for 25% of time with more than 60dBa for 50% of the time. Vibration: 7.5mm for 50 Martin place.	Yes	During Demolition	In accordance with monitoring program detailed in the Noise and Vibration Management Sub-plan MD1968/09.
Blasting	No	No blasting	
Ground water	No	Demolition to ground slab no groundwater	
Spoil	No	No excavation	
Heritage	Yes	Heritage items in 7 Elizabeth Street, Sydney	In accordance with the Heritage Management Sub Plan
Carbon and Energy management 25% of electricity offset or obtained from a renewable energy provider	Yes	During Demolition	In accordance with the Sustainability Management Plan

9.1.3 Performance Measurement and Reporting

MDG will monitor environmental compliance and performance against the established objectives and targets and requirements of each Sub-plan. Performance monitoring and reporting will also include:

- Complaints;
- Pollution Incidents;
- Compliance events;
- Sustainability outcomes; and
- Waste reuse and recycling.

A Project specific statistical report shall be completed monthly and communicated to MDG for analysis and review.

The details will be recorded using the **Monthly Statistics Report F-QDE-002.A** which:

- Monitor performance against objectives and targets;
- Be reviewed by senior management at Management Review Meetings; and
- Be communicated to site personnel.

9.1.4 Audits

An internal environmental auditing programme will be established by MDG for the Project and consist of systems audits focusing on:

- Compliance with Approval, Permit and Licence sections that are relevant to current operations;
- Compliance with the CEMP, sub-plans and procedures;
- Community consultation and complaint response;
- Sub-contractor compliance audits;
- Environmental Training Records; and
- Environmental records, monitoring and inspection results.

The ER will undertake weekly environmental inspections during demolition operations, or less frequent at the discretion of the ER. The ER will oversee that the Audits defined in this CEMP and as defined in MCoA A37 to A40 are Environmental Monitoring

An internal environmental monitoring checklist will be developed by MDG to be used on a weekly basis. This will be developed from the Environmental Risk Assessment and will include Environmental Management Activities and controls. This will be undertaken and documented weekly by the Environmental Manager.

9.1.5 Audit Schedule

As a requirement of MCoAA37 to A 40 an audit scheduled has been developed in Table 16 - Audit Schedule

Table 16 - Audit Schedule

Audit	Auditor	Timing
External Six Monthly Compliance Audit	KMH Environmental	October 2017 / End of Project
Compliance Audit	ER / TfNSW	As directed by TfNSW

Internal Audit Reports/actions will be communicated to the site management, QSE Manager, TfNSW, Project Manager, the ER, MDG senior management and other relevant parties as required.

Refer to **Internal Auditing Procedure P-QSE-015**.

Periodic assessments and reviews of this CEMP will be conducted by the Project management personnel where identified or biannually (6 monthly). Reviews may include the Project Manager, QSE Manager, Operations Manager or Director and other nominated persons with consideration of the following:

- Changing TfNSW needs;
- Changes in internal/external issues (e.g. Legislation, risks, aspects etc.);
- Results of Internal/external/compliance audit results;
- Interested party feedback;
- Status of corrective and preventative actions;
- Results of site inspection, task observations etc.;
- Outcomes of incident and near miss investigations;
- Project performance data (Monthly Statistical Reports);
- Performance indicators; and
- Any concerns which have been expressed by relevant parties.

The Project Manager will identify and analyse trends from collected data and implement required corrective and preventative actions to rectify any issues / adverse trends on site.

9.2 Incident Reporting and Investigation

9.2.1 Incident Reporting

The following summary of MDG's Incident Management and Reporting process covers all potential incidents (safety, compliance and environmental) The **Pollution Incident Response Management Plan (PIRMP)** MDG 1968 /11 is a Sub Plan to the CEMP and details the specific environmental incident management processes and procedures that will be implemented on this project. Environmental incidents covered by the PIRMP include.

Table 17- Incident reporting requirements under the CEMP or the PIRMP

Environmental Incident	Report with CEMP	Report within the PIRMP
Emissions to Air; Contained on site	x	
Released off site	x	x
Discharge to Land or Water;		x
Damage to protected Flora and Fauna;		x
Damage to adjoining property due to environmental impacts		x
Complaint from public/TfNSW;	x	
Release of asbestos		x
Wastes untracked;	x	
Chemical incidents; Clean up over \$10,000 Contained on site	x	x

All significant environmental incidents are to be documented and reported immediately to the Site Supervisor MDG EM, and within 24 hours to the ER and TfNSW. This is a requirements of CoA A41 to A44. For reporting of notifiable environmental incidents refer to **Pollution Incident Response Management Plan (PIRMP)** MDG 1968 /11 including the definition of a pollution incident. Note: The Environmental Representative (ER) is responsible for reporting to the Department of Planning and Environment (DPE) of significant environmental incidents. MDG has MDG has the primary responsibility for incident reporting (including non-compliances) to TfNSW, EPA and any other relevant Authorities.

The Site Supervisor is responsible for addressing initial actions to prevent possible reoccurrence. Records of incidents shall be retained on site and will form the basis of the Incident Register. A copy of the incident report is to be sent to the Project Manager/QSE Manager.

All incidents & investigations will be conducted in accordance with the **Incidents & Non-conformance Procedure P-QSE-012** and complete **TfNSW Environmental Incident/Non-compliance Report found in the PIRMP**.

9.2.2 Incident Investigation

A formal documented investigation using the **Investigation Report Form F-QSE-012.C** will be required for:

- Any notifiable incident resulting in a significant release to land, air, and water or that had the potential to incur a penalty from the relevant authority;
- Environmental incidents that have the potential to incur a penalty from the relevant authority;
- Requested by the Project Manager or QSE Manager; and
- Requested by the TfNSW, ER.

The Investigators for the project site may include the EM, ER, TfNSW, Site Supervisors, Project Manager, Senior Management or QSE Manager who have received appropriate training.

The Project Manager will review all Incident and Investigation Reports to verify that corrective and preventive actions resulting from incident investigations (documented process within the related forms include actions, responsibilities, and timeframes), are appropriate, track closure and are signed-off.

Information about on-site incidents, lessons learnt and similar operations to prevent reoccurrence is to be provided to the workers during pre-start/toolbox meetings.

The investigation will be recorded using the **Investigation Report Form F-QSE-012.C**, and TfNSW incident report and shall be retained on site and distributed to the QSE Manager for review and filing. Incident and investigation reports will be retained for a period of 7 years.

9.2.3 Incidents to be notified to the TfNSW

As per the requirements of CoA A41 to A44 the Project Manager and the Environmental Manager in consultation with the QSE Manager is responsible for notifying TfNSW, the ER and the relevant Regulators including the Sydney City Council and the EPA if a Notifiable Incident occurs. The Project Manager is responsible for ensuring that all appropriate steps are taken including following the EPA protocol for pollution incidents and other authority requirements.

Any occurrence involving a Notifiable Incident is to be cordoned off with the area not disturbed until an investigation is undertaken or otherwise determined by the Director/Operations Manager/QSE Manager or regulator authority. Incidents of this nature are to be documented using the **Pollution Incident Response Management Plan (PIRMP)** MDG 1968 /11

10. Review and Improvement

10.1 Non-Conformances & Corrective Action

The need for investigation, corrective and preventive action may be initiated following:

- Audit(s);
- A site inspection, e.g. plant, worksite;
- An Incident Report or an Investigation Report;
- An Inspection, testing, repair and maintenance reports;
- Task Observation/monitoring;
- Issues raised at Pre-start/Toolbox meetings, project meetings or by the ER;
- Complaints;
- Changes to procedures, processes, systems or documentation;
- Legislative change;
- Adverse trends;
- Regulator enforcement activities such as Improvement Notice, Prohibition Notice or Infringement Notice; or
- Management reviews.

Generally, corrective action (non-conformances) will be dealt with, in the case of inspection, audit or investigation at that time and by using the documents associated with each of these processes. However, where a corrective and preventative action is identified, is substantiated and relates to a system or systemic issue or an issue that cannot be immediately rectified a **Corrective Action Report F-QSE-012.E** is to be raised. The Corrective Action Report (CAR) will document the agreed actions, responsibilities and timeframes for addressing the non-compliance. For example, CARs may be issued (where relevant) for the following where the relates to a system or systemic issue or an issue that cannot be immediately rectified:

- Calibration certificate expired
- Dewatering without a permit
- Generation of dust
- Working out of hours
- Asbestos Removal Notice expiry
- CEMP or sub-plan deficiency
- Waste docket not available
- Legal Non-Compliance

Completing Corrective Action Report (CAR) form will be completed by the QSE Manager and forwarding it to the Project Manager who will ensure it is registered in the **Action Tracking Register F-QSE-012.F** and tracked to ensure close out. All CARs are to be followed up to ensure 'close out' this may include re-inspection of the work, area or item before close out.

The Project Manager will initiate corrective action of any non-conformance found by the inspections and audits and ensure CARs are signed-off and closed out as soon as practicable.

Non-conformances of a serious nature are to be closed out immediately – where actions cannot be closed they are to be monitored closely.

All corrective and preventative actions will be conducted in accordance with MDG **Incidents & Non-conformances Procedure P-QSE-012**.

10.2 Outcomes of an Investigation

10.2.1 Fixing the Hazard

The employee, subcontractor, Supervisor / Foreman or Responsible Person must minimise the effect of the hazard if they are capable and it is within their authority to do so.

Where the problem cannot be permanently rectified it is to be reported to the Supervisor / Foreman who will rectify the problem or allocate someone to action. The hazard is to be assessed (low, moderate, significant or high) and a priority / timeframe for rectification should be nominated, based on the assessment and resources.

10.2.2 Fixing the Non-conformance

Non-conforming services shall be immediately rectified by the Supervisor providing direction to the worker on what is expected to be provided.

Non-conforming products shall be isolated or segregated to prevent inadvertent use.

Corrective and Preventive Actions

The Supervisor or Investigator is responsible for identifying corrective and preventive actions if required, to eliminate or minimise the potential for a recurrence. As part of the process, the Investigator must review the causes and contributing factors, and review existing Environmental Risk Assessment. Any newly identified risks must be treated as per procedure **QSE Risk Management P-QSE-005**. QSE documentation (e.g. Procedures, Work Instructions and Forms) must be amended accordingly, if required. Implementation may be delegated as appropriate.

10.3 Action Tracking

The QSE Manager maintains an **Action Tracking Register** for the results from Audits, both internal and external. Audit reports generally have the findings documented and may not need a separate CAR to be raised.

With regard to projects, on a daily basis the Supervisor / Foreman is to inform the Responsible Person of reported incidents or non-conformance(s).

The Responsible Person will monitor the effectiveness of 'quick fix' items which do not require corrective and preventative actions. In addition, they shall monitor the progress of corrective and preventative actions to ensure that sufficient resources have been allocated to the task to be completed within the specified timeframe.

To assist with the tracking and monitoring of 'long term' actions (more than 1 week) arising from, incident, non-conformances, investigations, inspections and other sources, the Responsible Person shall establish an **Action Tracking Register** to ensure actions arising are allocated to individuals, timeframes are nominated and verification activities are undertaken.

As employees and subcontractors are consulted on a daily basis via Pre-start Meetings or Toolbox Meetings on incidents, they are able to monitor progress in rectifying issues. It would not be unusual for a workgroup to be told about an injury or hazard, then be told material had been purchased to fix the hazard and then be directed to manufacture or install the material to fix the hazard.

10.4 Actions Related to CARs

The CAR shall define the action required to fix the problem and one of the two following actions:

- Corrective Action – to avoid having a problem happen again; and
- Preventive Action – to prevent a problem from occurring the first time.

10.4.1 The Action Categories

The Action needed to fix the non-conforming product issue shall be categorised into one of the following Product Action Categories:

- Use as is / regrade – a defect has been found but the functionality of the product / non-conformity is not compromised, so that the product may be useable somewhere else; or
- Repair / rework – a defect has been identified that can be repaired so that the product / non-conformity meets specification; or
- Reject / replace – the defect cannot be repaired adequately to bring the product / non-conformity to specification.

Where the non-conforming product is caused by non-conforming services (human error) or procedural errors, then the details required to fix the problem shall be documented.

Follow-up Action

The Responsible Person will review all Reports and Investigations to verify that corrective and preventive actions and their timeframe are appropriate and take steps to manage the company's approach to the event. When deemed necessary, the Responsible Person will nominate Follow-up Action to ensure that the Corrective /Preventative Action is effective.

Normally Follow-up Action will be assigned to the Supervisor / Foreman or Investigator.

The QSE Manager will review the Investigations and make recommendations if necessary. A summary of investigations will include the information in the reporting process to Senior Management for a review of systems, procedures, training requirements, safety promotion, etc.

10.5 Continual Improvement

MDG will continually improve its suitability, adequacy and effectiveness of the CEMP and Sub Plans. This review will include:

- Ensuring corrective actions implemented are effective;
- Corrective actions can be extended to other operational activities (where relative);
- Lessons learnt from root causes are extended to other operational activities (where relative);
- Implement additional corrective and preventative actions as required for improvement.

Corrective actions will be undertaken in the event of a complaint or incident and based on the results of monitoring and auditing.

10.6 Management Review

Periodic assessments and reviews of this CEMP and sub-plans will be conducted by the project management personnel where identified or biannually (6 monthly). The EM will record decisions and the reasons for them, including subsequent changes, how the site/project team will be informed of the changes and when the reviewed CEMP will be submitted to the ER for approval

Reviews may include the EM, Project Manager, QSE Manager, Operations Manager or Director and other nominated persons with consideration of the following:

- Changing TfNSW needs;
- Changes in internal/external issues (e.g. Legislation, risks, aspects etc.);
- Results of Internal/external/compliance audit results;
- Interested party feedback;
- Status of corrective and preventative actions;
- Results of site inspection, task observations etc.;
- Outcomes of incident and near miss investigations;
- Project performance data (Monthly Statistical Reports);
- Performance indicators; and
- Any concerns which have been expressed by relevant parties.

The Project Manager will identify and analyse trends from collected data and implement required corrective and preventative actions to rectify any issues / adverse trends on site.

10.7 Environmental Records and Compliance Reporting

MDG will establish a uniform system of document management and record keeping that maintains currency of information and is able to demonstrate compliance to the CEMP and regulatory requirements. This will include:

- Site inspections, audits, monitoring, reviews or remedial actions.
- Documentation as required by performance Conditions, Approvals, Licenses and Legislation.
- Modifications to site environmental documentation (e.g. CEMP, sub-plans and procedures).
- Other records as required including:
 - Details of qualifications of personnel;
 - Design review records (where applicable);
 - Monitoring and inspection reports;
 - Induction and training records;
 - Reports of environmental issues, incidents and complaints and action taken to rectify these;
 - Internal and external audit reports;
 - Evidence of action taken as a result of a recommendation from such meetings;
 - Records of Sub-contractors monitoring their own activities;
 - Records of the Contractor monitoring the Sub-contracted activities;
 - Non-conformance and corrective action records; and
 - Risk management records

Records will be retained onsite for the duration of works. Additionally, records will be retained by the Principal Contractor for a period of no less than 7 years in total. Records will be made available in a timely manner to TfNSW (or their representative) upon request.

Compliance reports detailing the outcome of any environmental surveillance activity including internal and external audits will be produced by the MDG, EM or delegate. These reports will be submitted to TfNSW at an agreed frequency.

10.8 Review and Improvement

MDG will ensure the continual review and improvement of the CEMP and Sub Plans. This will generally occur in response to:

- The Issues raised during environmental monitoring, inspections and audits.
- Significant environmental incidents.
- Environmental non-conformances.

A formal review of the CEMP and Sub Plans by the MDG's Senior Management Team a formal review of the CEMP and Sub Plans by the MDG's Senior Management Team will occur 6 months after the commencement of demolition. This will also apply to all sub-plans and programs associated with the CEMP

This review will generate actions for the continual improvement of the CEMP and supporting management

10.9 Documentation Control

10.9.1 Document Control

Revision Control

The Project Manager is responsible for ensuring the initial developed CEMP (draft) is reviewed and given a starting version number (i.e. 001) at CEMP approval. Any amendments or revisions to the CEMP to be given with the next version number series (e.g.002, 003 etc.) for the life of the project.

Construction Environmental Management Plan (CEMP) Review

The CEMP will be reviewed biannually (6 monthly) or upon change to the site environment or legislation and will need to be endorsed by the ER and approval by the DPE as per condition C8. The Project Manager in consultation with Site Supervisor(s) and QSE Manager/Senior Management (where required) is responsible to develop and review the CEMP. This CEMP may be amended where deficiencies are identified, changes occur in MDGs QSE Management System or project works change and such that the information contained in the CEMP no longer accurate or valid. Those parties affected by any alterations or revisions shall be notified.

Distribution Control

Where controlled copies are used, controlled copies will be distributed to key workers prior to commencement of works, so that they are aware of the CEMP contents and for retention purposes. Amendments to this CEMP will be communicated to persons issued with controlled copies. Awareness of the contents of the CEMP will be communicated during site inductions. The Project Manager or delegate is responsible for the distribution of revised versions or sections thereof to project site management.

Uncontrolled Copies

In the majority of occasions uncontrolled copies (latest version) will be distributed to key workers (or internal or external stakeholders) prior to commencement of works, so that they are aware of the CEMP contents. Such copies will not be numbered nor kept up to date. Awareness of the contents of the CEMP and amendments will be communicated during site inductions, Daily Pre-start/Toolbox Meetings. Uncontrolled copies will only be distributed on the authority of the Project Manager.

Construction Environmental Management Plan CEMP, Approval

The CEMP to be reviewed by each person nominated on the covering page of this CEMP and necessary amendments / revisions made prior to approval by the Project Manager. As per the requirement of CoA C8 the CEMP and major amendment's will be endorsed by ER and approved by DPE. Minor amendments can be endorsed and approved by ER.

For further information refer to MDGs *Document Control & Records Management Procedure P-QSE-001*.

Construction Environmental Management Plan TFNSW Approval documents

10.9.2 Records Management

All relevant environmental records shall be maintained in a secure and orderly manner such that they remain legible, identifiable and traceable to the activity, product or services for which they were generated until the period for retention expires (as required by specific Australian Standards, WHS & Environmental legislation or MDGs QSE Management System requirements).

During the Project, the Project environmental records including all subsequent versions of the CEMP and Sub Plans are to be kept on site with the latest version, a copy is to be made available to workers carrying out work in connection with the CEMP and Sub Plans, be maintained and located in the Site Office until project completion.

At the end of the project records including this CEMP will be archived for a period (minimum 7 years) in accordance with the *Document Control & Records Management Procedure P-QSE-001*. Records will be retained in the English language.

Example of environmental records include (where generated):

- CEMP and all revisions
- Contractors ERA
- Records of management reviews
- Induction and training records
- Project Environmental Controls Map's
- Records of work environmental controls
- Minutes of tender/contract reviews
- Register of Calibration and certificates
- Work Method Statements
- Environmental Checklist
- Waste disposal docketts
- Community Consultation
- Risk assessments
- Monitoring of subcontractor records
- Audit Reports
- Schedule of Inspection/Test Plans (where used)
- Records of any testing/analysis
- EPA Disposal receipts for Hazardous Materials
- Site Inspection Records
- Non-conformance and Corrective Action
- Complaint and Incident Reports
- Permits
- Contract information
- SM ES FT 420 CSW Demolition Sustainability Reporting Template

10.10 Communication, Consultation, Cooperation & Reporting

MDG will ensure meaningful and effective consultation and communication processes are established and maintained throughout the life of the project in accordance with the Project environmental requirements. The following planned methods will be considered as part of the site consultation arrangements on environmental matters:

- Working within the SM Construction Complaints Management System

- Management meetings/coordination meetings monthly with stakeholders;
- Site inductions, training, information and promotional sessions;
- Environmental Alerts (QSE);
- Circulation/display of environmental information and other relevant documents;
- Informal workplace interface meetings;
- Environmental meetings – held as needed to discuss specific environmental issues and implications;
- Site Environmental Inspection; Appendix E
- Project Start-Up, TfNSW and Subcontractor meetings;
- Daily Pre-Start & Toolbox meetings addressing relevant environmental risks;
- Records and attendance records will be kept by the OSE Manager;
- Incident drills/spill response;
- Inductions and Toolbox meetings if incident occurs;
- Notices and signage; and
- ERA's

The MDG workplace monitoring program represented in Table 18- Reporting and Communication.

Table 18- Reporting and Communication

Reporting & Communication	Frequency	Responsibility	Report To
<i>Daily Prestart Meeting</i>	Daily	Site Supervisor	N/A - Place on Noticeboard or sign-in area
<i>Toolbox Meeting</i>	Weekly	Project Manager	NA – File on site – Recent to be placed on Noticeboard or sign-in area
<i>HSE Meeting</i>	Quarterly (minimum) where established or required)	Project Manager	QSE Manager & Place on Noticeboard or sign-in area
<i>Monthly Statistics Report</i>	Monthly (on 9 th)	Site Supervisor	Project Mgr. / QSE Mgr.
<i>Notifiable Incidents</i>	As occurs	Project Manager / QSE Mgr.	ER Relevant authority / Project Director / TfNSW
<i>Recovery Report</i>	Monthly (or as requested)	Site Engineer	TfNSW / QSE Mgr.
<i>Sustainability Reporting</i>	Monthly	Environmental Manager	ER
<i>Environmental Reporting</i>	Monthly	Environmental Manager	ER

11. Terms and Definitions

Table 19 - Terms and Definitions represents terms and conditions

Table 19 - Terms and Definitions

CEMP	Construction Environmental Management Plan
CSSI	Critical State Significant Infrastructure
Department	NSW Department of Planning
EIS	Environmental Impact Statement
CNVMP	Construction Noise and Vibration Management Plan
DP&E	Department of Planning and Environmental
EIS	Environmental Impact Statement
EMS	Environmental management System
EP&A Act	Environmental Planning and Assessment Act 1979
EPA	Environmental Protection Authority
ER	Environmental Representative
Heritage Item	Listed on the State Heritage Register
ICNG	Interim Construction Noise Guideline
Incident	An occurrence that causes or threatens to cause material harm to the environment
Minister	NSW Minister of Planning
NSW Heritage Council	Heritage Council of NSW
OEH	NSW Office of Environment and Heritage
POEO Act	Protection of the Environment Operations Act
RMS	Roads and Maritime Services
SR	Sensitive receivers
MDG	Metropolitan Demolition
PIRMP	Pollution Incident Response Management Plan
ERA	Environmental Risk Assessment
EM	Environmental Manager

Appendix A – MDG Environmental Policy



Environmental and Sustainability Policy

Metropolitan Demolitions Pty Ltd and Metropolitan Demolitions & Recycling Pty Ltd known as Metropolitan Demolitions Group (MDG) is a well-recognised provider of demolition and civil services and provides, recycled and reusable products to various industry sectors and the general public. In addition MDG operate an EPA licensed recycling facility in St Peters, NSW accepting brick and concrete for processing to various recycled products.

At MDG, we believe that the environment must be protected throughout the delivery of all services provided with particular attention to waste minimisation, recycling of natural resources and the prevention of pollution.

In order to develop and measure our environmental performance we shall as required:

- Comply with the spirit and word of applicable environmental legislation;
- Establish and review measurable environmental objectives and targets;
- Implement, maintain and regularly review the environmental management system for continual improvement and comply with the requirements of AS/NZS ISO 14001;
- Maintain compliance to Green Star reporting criteria as a Waste Contractor and Waste Processing Facility
- Ensure all workers, contractors and visitors are aware of their environmental responsibilities;
- Implement and maintain environmental risk management processes to ensure environmental aspects and impacts are properly identified, assessed (where appropriate), controlled and regularly reviewed;
- Provide relevant information, training and resources to our workers to meet the commitments of this policy;
- Consider cost effective new and improved technologies to minimise environmental impact;
- Encourage an open reporting culture to ensure that all environmental incidents that may occur in the workplace are appropriately reported and assessed to minimise potential future occurrences;
- Actively communicate and engage with workers, regulators and external stakeholders to recognise and respond to environmental concerns; and
- Prominently display this policy in the workplace and make available to interested parties as required.
- The TfNSW required recycling rate for the demolition phase is 95% of demolition material

It is a requirement that all workers, contractors and visitors comply with this policy and the MDG environmental management system requirements at all times.

This policy will be reviewed to ensure it remains relevant and appropriate to MDG and its activities.

Authorised by:

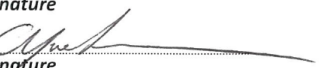
Nick Giannikouris (Director)
 Metropolitan Demolitions Pty Ltd


 Signature

27th October 2016

Dated

Chris Giannikouris (Director)
 Metropolitan Demolitions & Recycling Pty Ltd


 Signature

27th October 2016

Dated

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Appendix B – Compliance Matrix

Schedule 2 Part A Administrative Conditions General

Item No	Condition Number	Reference	Timing	Purpose	CEMP/CEMP Sub Plan
1	A9	Consultation	As required by Condition of Approval	As Required	CEMP MD 1868/08
2	A22	Approval of Environmental Representative.	No later than one month before the commencement of works or another timeframe agreed with the Secretary.	A suitably qualified and experienced Environmental Representative (ER) who is independent of the design and construction personnel must be nominated by the Proponent, approved by the Secretary and engaged for the duration of construction of the CSSI.	CEMP MD 1868/08 Section 5.1
3	A24(f) A24(h)	ER Notified of Incident.	As required by Condition of Approval 41.	Notify the Secretary of an incident in accordance with Condition A41 of this approval.	Pollution Incident Response Management Plan (PIRMP) MD 1968 /11.
4	A24(l)	Environmental Representative Report.	Within seven days following the end of each month for the duration of works and construction or as otherwise agreed with the Secretary.	A monthly Environmental Representative Report detailing the ER's actions and decisions on matters for which the ER was responsible in the preceding month (or other timeframe agreed with the Secretary).	CEMP MD 1868/08 Section 5.1
5	A25	Approval of Acoustic Advisor.	Two months before commencement of works or within another timeframe agreed with the Secretary.	A suitably qualified and experienced Acoustics Advisor (AA), who is independent of the design and construction personnel, must be nominated by the Proponent and engaged for the duration of construction and for no less than six (6) months following operation of the CSSI.	CEMP MD 1868/08 Section 5.2
6	A27(b) A27(f) A26(g)(iii) A26(g)(vi)	Noise and Vibration Reports	Monthly and within seven days following the end of each month for the duration of construction or as otherwise agreed with the Secretary	In conjunction with the ER, the AA must: consider requests for out of hours construction activities and determine whether to endorse the proposed activities in accordance with Condition.	MD1968/09Construction Noise and Vibration Management Sub Plan to the CEMP
7	A29	Compliance Tracking Program	Before commencement of works or within another timeframe agreed with the Secretary	The Compliance Tracking Program must be endorsed by the ER then submitted to the Secretary for information before the commencement of works or within another timeframe agreed with the Secretary.	CEMP MD 1868/08 Section 4.5

8	A 37	Environmental Audit Program	Submitted to the Secretary for information no later than one month before the commencement of construction or within another timeframe agreed with the Secretary.	An Environmental Audit Program for independent annual environmental auditing against the terms of this approval must be prepared in accordance with AS/NZS ISO 19011:2014 - Guidelines for Auditing Management Systems.	CEMP MD 1868/08 Section 9
9	A35 A36	Environmental Audit Program	Submitted to the Secretary, must be implemented for the duration of construction and operation.	All independent environmental audits of the CSSI conducted under Conditions A35 and A36 must be conducted by a suitably qualified, experienced and independent team of experts in auditing and be documented in an Environmental Audit Report which:	CEMP MD 1868/08 Section 9
10	A 40	Environmental Audit Report	Submitted within six (6) weeks of completing the audit, or within another timeframe agreed with the Secretary.	The Proponent must submit a copy of the Environmental Audit Report to the Secretary.	CEMP MD 1868/08 Section 9 Audit Schedule Table 14
11	A41 A42	Incident Notification	The Secretary must be notified as soon as possible and in any event within 24 hours of any incident.	Notification of an incident under Condition A41 of the approval must include the time and date of the incident, details of the incident and must identify any non-compliance with this approval.	Pollution Incident Response Management Plan (PIRMP) MD 1968 /11.
12	A44	Notification of incident notified to the EPA under the POEO Act	Within 24 hours of notifying the Environment Protection Authority (EPA)	If statutory notification is given to the EPA as required under the POEO Act in relation to the CSSI, such notification must also be provided to the Secretary for information within 24 hours after the notification was given to the EPA.	Pollution Incident Response Management Plan (PIRMP) MD 1968 /11.
13	E34(e)	Noise and vibration	Pre Commencement	Details of how environmental performance would be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts (including any impacts arising from the staging of the construction of the SSI)	MD1968/09Construction Noise and Vibration Management Sub Plan to the CEMP

Part B - Communication Information and Reporting

Item No	Condition Number	Report Notification	Timing	Purpose	CEMP/CEMP Sub Plan
14	B3	Community Communication Strategy	No later than three months from the date of this approval or one month before commencement of any work, whichever is the latter	Identify people or organisations to be consulted during the design and construction phases; set out procedures and mechanisms for the regular distribution of accessible information about or relevant to the CSSI	TfNSW
15	B8	Complaints Register	On request within the timeframe stated in the request	A Complaints Management System must be prepared before the commencement of any works in respect of the CSSI and be implemented and maintained for the duration of works and for a minimum for 12 months following completion of construction of the CSSI	CEMP MD 1868/08 Section 7

Part C - Construction Environmental Management

Item No	Condition Number	Report Notification	Timing	Purpose	CEMP/CEMP Sub Plan
16	C1	Construction Environmental Management Plan	Before commencement and during construction.	Construction Environmental Management Plan (CEMP) must be prepared in accordance with the Construction Environmental Management Framework (CEMF) included in the PIR and the Department's Guideline for the Preparation of Environmental Management Plans to detail how the performance outcomes, commitments and mitigation measures specified in Chapter 11 of the PIR will be implemented and achieved during construction a description of activities to be undertaken during construction (including the scheduling of construction).	CEMP MD 1868/08 Section 1.3
17	C2(a) C2(b) C2© C2(e)	Construction Environmental Management Plan	Before commencement.	Must provide a description of activities, details of policy guidelines schedule of compliance auditing ,analysis of key environmental risks, inspection program, protocol for managing incidents ,roles and responsibilities, training etc.	CEMP MD 1868/08 Section 1.2 Appendix B

18	C3	CEMP sub plans	Must be prepared in consultation with relevant government agencies.	Must be prepared in consultation with relevant government agencies <table border="1" data-bbox="1256 284 1859 738"> <thead> <tr> <th></th> <th>Required CEMP sub-plan</th> <th>Relevant government agencies to be consulted for each CEMP sub-plan</th> </tr> </thead> <tbody> <tr> <td>(a)</td> <td>Noise and vibration</td> <td>Relevant Council(s)</td> </tr> <tr> <td>(g)</td> <td>Heritage</td> <td>Heritage Council (or its delegate) and Relevant Council(s)</td> </tr> <tr> <td>(h)</td> <td>Construction Traffic</td> <td>Relevant Road Authorities, RMS, Sydney Coordination Office</td> </tr> </tbody> </table>		Required CEMP sub-plan	Relevant government agencies to be consulted for each CEMP sub-plan	(a)	Noise and vibration	Relevant Council(s)	(g)	Heritage	Heritage Council (or its delegate) and Relevant Council(s)	(h)	Construction Traffic	Relevant Road Authorities, RMS, Sydney Coordination Office	CEMP MD 1868/08
	Required CEMP sub-plan	Relevant government agencies to be consulted for each CEMP sub-plan															
(a)	Noise and vibration	Relevant Council(s)															
(g)	Heritage	Heritage Council (or its delegate) and Relevant Council(s)															
(h)	Construction Traffic	Relevant Road Authorities, RMS, Sydney Coordination Office															
19	C4	CEMP Sub Plans	CEMP sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP sub-plan and be consistent with the CEMF.	The CEMP sub-plans must state how: <ul style="list-style-type: none"> a) the environmental performance outcomes identified in the EIS as amended by the PIR as modified by these conditions will be achieved; b) the mitigation measures identified in the EIS as amended by the PIR as modified by these conditions will be implemented; c) the relevant terms of this approval will be complied with; and Issues requiring management during construction, as identified through on-going environmental risk analysis, will be managed.	CEMP MD 1868/08 Section 4.10												
20	C5	Agency requests for CEMP	The CEMP sub-plans must be developed in consultation with relevant government agencies.	Where an agency (ies) request(s) is not included, the Proponent must provide the Secretary justification as to why. Details of all information requested by an agency to be included in a CEMP sub-plan as a result of consultation and copies of all correspondence from those agencies, must be provided with the relevant CEMP sub-plan.	CEMP MD 1868/08												
21	C6	CEMP sub-plans	Submission of the CEMP but in any event, no later than one (1) month before commencement of construction.	Any of the CEMP sub-plans may be submitted to the Secretary along with, or subsequent to.	CEMP MD 1868/08												

22	C7	Endorsement by the ER	No later than one (1) month before the commencement of construction or within another timeframe agreed with the Secretary.	The CEMP must be endorsed by the ER and then submitted to the Secretary for approval.	CEMP MD 1868/08 Section 5.1
23	C8	CEMP Approval	Where the CSSI is being staged, construction of that stage is not to commence until the relevant CEMP and sub-plans have been approved by the Secretary.	Construction must not commence until the CEMP and all CEMP sub-plans have been approved by the Secretary. The CEMP and CEMP sub-plans, as approved by the Secretary, including any minor amendments approved by the ER, must be implemented for the duration of construction.	CEMP MD 1868/08 Section 5.1
24	C9	Construction Monitoring Programs	Identified for each Construction Monitoring Program	Construction Monitoring Programs must be prepared in consultation with the relevant government agencies identified for each Construction Monitoring Program to compare actual performance of construction of the CSSI against predicted performance.	CEMP MD 1868/08
25	C12	Construction Monitoring Program	Include information requested by agencies during consultation to the written satisfaction of the Secretary with Construction Monitoring Program	The Construction Monitoring Programs must be developed in consultation with relevant government agencies of this approval and must include, to the written satisfaction of the Secretary, information requested by an agency to be included in a Construction Monitoring Programs during such consultation. Details of all information requested by an agency including copies of all correspondence from those agencies, must be provided with the relevant Construction Monitoring Program.	MD Construction Monitoring Template

Part E – Key Issues Conditions

Item No	Condition Number	Report Notification	Timing	Purpose	CEMP/CEMP Sub Plan
26	E4	Materials Storage	Commencement of demolition	Dangerous goods, as defined by the Australian Dangerous Goods Code, must be stored and handled strictly in accordance with: <ul style="list-style-type: none"> a) all relevant Australian Standards; b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and c) The Environment Protection Manual for Authorised Officers: Bunding and Spill Management technical bulletin (EPA, 1997). 	CEMP Appendix B Environmental Risk Assessment Appendix D Environmental Controls Map
27	E5	Air Quality	Commencement of demolition	In addition to the performance outcomes, commitments and mitigation measures specified in PIR, all reasonably practicable measures must be implemented to minimise the emission of dust and other air pollutants during the construction and operation of the CSSI.	CEMP Appendix B Environmental Risk Assessment Appendix D Environmental Controls Map
28	E6	Trees	Commencement of demolition	Measures to avoid tree removal, minimise damage to, and ensure the health and stability of those trees to be retained and protected. This includes details of any proposed canopy or root pruning, root protection zone.	CEMP Appendix B Environmental Risk Assessment Appendix D Environmental Controls Map
29	E10	Non Aboriginal Heritage	Early works	The Proponent must not destroy, modify or otherwise physically affect any Heritage item not identified in documents referred to in Condition	Heritage Management Plan MD1968/10
30	E13	Heritage Archival and Salvage	Martin Place, between Elizabeth and Castlereagh Streets, Sydney;	The Proponent must prepare a Heritage Archival Recording Report, including photographic recording of the heritage items identified in documents.	Heritage Management Plan MD1968/10 (Sub-plan to the CEMP, developed in consultation with the Heritage Council of Australia and the City of Sydney Council).

31	E 15	Heritage Archival and Salvage	Within two years of completing the archival recording	The Proponent must salvage items of heritage value from heritage listed buildings and structures to be demolished before demolition, and assess options for its sympathetic reuse (including integrated heritage displays) on the project or other options for repository, reuse and display.	Heritage Management Plan MD1968/
32	E16	Salvage Report	The Salvage Report must include the interior, exterior and setting of the 'Flat Building' at 7 Elizabeth Street, Sydney;	The Proponent must prepare a Salvage Report, including photographic recording of the heritage items identified for salvage.	Heritage Management Plan MD1968/10
33	E19	Unexpected find procedure	Prior to demolition	TfNSW to employ a suitably qualified and experienced heritage specialist to manage unexpected heritage finds in accordance with any guidelines and standards prepared by the Heritage Council of NSW or OEH;	Heritage Management Plan MD1968/10
34	E21	Heritage Interpretation Plan	Before commencement of construction	The Heritage Interpretation Plan must be prepared in consultation with the Heritage Council of NSW (or its delegate), Relevant Councils and Registered Aboriginal Parties, and must be submitted to the Secretary before commencement of construction.	Heritage Management Plan MD1968/10

Noise and Vibration

Item No	Condition Number	Report Notification	Timing	Purpose	CEMP/CEMP Sub Plan
35	E32	Construction Noise and Vibration Strategy	At least one month before construction commences	The Proponent must review the Sydney Metro City and Southwest Construction Noise and Vibration Strategy in the PIR during detailed construction planning to consider scale and duration of impacts, the requirements of this approval and all measures to limit construction noise impacts to sensitive receivers including:	MD1968/09Construction Noise and Vibration Management Sub Plan to the CEMP
36	E33	Construction Noise and Vibration Impact Statement s	Before construction noise and vibration impacts commence	Construction Noise and Vibration Impact Statements must be prepared for each construction site before construction noise and vibration impacts commence and include specific mitigation measures identified through consultation with affected sensitive receivers.	MD1968/09Construction Noise and Vibration Management Sub Plan to the CEMP
37	E34	Noise sensitive receivers	Demolition works must not be timetabled within sensitive periods	Noise generating works in the vicinity of potentially-affected community, religious, educational institutions and noise and vibration-sensitive businesses and critical working areas (such as theatres, laboratories and operating theatres) must not be timetabled within sensitive periods, unless other reasonable arrangements to the affected institutions are made at no cost to the affected institution or as otherwise approved by the Secretary.	MD1968/09Construction Noise and Vibration Management Sub Plan to the CEMP Appendix D Environmental Controls Map
38	E 36	Standard Construction Hour's	Construction, except as allowed must only be undertaken during the following standard construction hours:	7:00am to 6:00pm Mondays to Fridays, inclusive; 8:00am to 1:00pm Saturdays; and at no time on Sundays or public holidays.	MD1968/09Construction Noise and Vibration Management Sub Plan to the CEMP
39	E37	Respite for Receivers	Respite	The Proponent must identify all receivers at Martin Place, Pitt Street likely to experience internal noise levels greater than Leq (15 minute) 60 dB(A) inclusive of a 5 dB penalty.	MD1968/09Construction Noise and Vibration Management Sub Plan to the CEMP

40	E47	Out of Hours Work Protocol	Must be prepared in consultation with the EPA and submitted to the Secretary for approval before construction commences	An Out of Hours Work Protocol for the assessment, management and approval of work outside of standard construction hours, as defined in Condition E36.	MD1968/09 Construction Noise and Vibration Management Sub Plan to the CEMP
41	E65	Erosion and Sediment Control	Site establishment	All reasonably practicable erosion and sediment controls must be installed and appropriately maintained to minimise any water pollution. When implementing such controls, any relevant guidance in the Managing Urban Stormwater Series must be considered.	MD1968/09 Construction Noise and Vibration Management Sub Plan to the CEMP

Sustainability

Item No	Condition Number	Report Notification	Timing	Purpose	CEMP/CEMP Sub Plan
42	E72	Sustainability Strategy	The Proponent must prepare a Sustainability Strategy to be submitted to the Secretary within six (6) months of the date of this approval, or within another timeframe agreed with the Secretary, which must be implemented throughout design, construction and operation of the CSSI	The Sustainability Strategy must include: <ul style="list-style-type: none"> a) details of the sustainability objectives and targets for the design, delivery and operation of the CSSI; b) details of the sustainability initiatives which will be investigated and / or implemented; and c) a description of how the strategy will be implemented for the CSSI. 	Sustainability Management Plan MD1968/12 (Sub-plan to the CEMP)

Visual Amenity

Item No	Condition Number	Report Notification	Timing	Purpose	CEMP/CEMP Sub Plan
43	E99	Visual Amenity	Commencement of demolition	The CSSI must be constructed in a manner that minimises visual impacts of construction sites, including, providing temporary landscaping where appropriate to soften views of the construction sites, minimising light spill, and incorporating architectural treatment and finishes within key elements of temporary structures that reflect the context within which the construction sites are located	CEMP MD 1868/08 Section 2.5

Waste

Item No	Condition Number	Report Notification	Timing	Purpose	CEMP/CEMP Sub Plan
44	E106	Waste Management	Commencement of demolition	Waste generated during construction and operation is to be dealt with in accordance with the following priorities: <ul style="list-style-type: none"> a) waste generation is to be avoided and where avoidance is not reasonably practicable, waste generation is to be reduced; b) where avoiding or reducing waste is not possible, waste is to be re-used, recycled, or recovered; and where re-using, recycling or recovering waste is not possible, waste is to be treated or disposed of.	Waste Management & Recycling Plan MD1968/11 (Sub-plan to CEMP).

Construction Environmental Management Framework				
Item Number	REF CEMF	Ref	Requirement	CEMP
1	1.3	Environment and Sustainability Policy	Principle Contractors will be required to undertake their works in accordance with the Environmental Sustainability Policy	CEMP Appendix A
2	2	Legislative and other requirements	Key legislation to be addressed	CEMP MD 1868/08 Section 4.1,4.2,4.3
3	2.4	Standards and guidelines	Numerous environmental publications, standards, codes of practice and guidelines are relevant to the SM	CEMP MD 1868/08 Section 4.3
4	3.1(a)	Accreditation	All SM Principal Contractors will be required to have a corporate environmental management system certified under ISO 14001.	MD
5	3.1(b)	Sustainability Management Plan	<p>All SM Principal Contractors will be required to develop an environmental and sustainability management system for the project. The E&SMS must:</p> <ol style="list-style-type: none"> 1) be consistent with the principles of ISO 14001 Environmental Management Systems – Requirements with Guidelines for Use; 2) be consistent with the SM Sustainability Strategy and SM Environment and Sustainability Policy; 3) include specific procedures to address the following: <ol style="list-style-type: none"> a) Identification of and compliance with legal and regulatory obligations, environmental provisions of the contract documentation, relevant approval documentation, their own corporate requirements and this Construction Environmental Management Framework. b) Identification and assessment of environmental aspects. c) Identification of environmental risks and development of appropriate control measures to be implemented to provide environmental protection. d) Tracking and monitoring of design and construction sustainability targets. 2) Assurance frameworks to audit the sustainability program 3) include provision to produce monthly reports. 	Sustainability Management Plan MD1968/12 (Sub-plan to the CEMP)
6	3.1(c)	Principles EMS	All sub-contractors engaged by the Contractor will be required to work under the Principal Contractor's E&SMS	CEMP MD 1868/08

7	3.3	CEMP	All SM Principal Contractors will be required to prepare and implement a Construction Environmental Management Plan (CEMP) relevant to the scale and nature of their scope of works.	CEMP MD 1868/08
8	3.3 d	Planning approval	The CEMP will cover the requirements of the relevant planning approval documentation, the project approval conditions, the conditions of all other permits and licences, the Contractor's corporate EMS, the environmental provisions of the contract documentation and this Construction Environmental Management Framework.	CEMP MD 1868/08
9	3.3 e	Purpose of CEMP	The purpose of the CEMP will be to detail how the project will deliver the environmental requirements and how issues that arise are handled.	CEMP MD 1868/08
10	3.3 F	Approval	The CEMP and associated sub-plans will require the approval of TfNSW prior to any construction works commencing. Depending on the conditions of approval the CEMP and certain sub-plans may also require the approval of Department of Planning and Infrastructure (DP&I), and other government agencies	Plans will be submitted to TfNSW
11	3.4	Sub Plans	Where required, the Principal Contractor will prepare issue-specific environmental sub-plans to address each of the relevant environmental impacts at a particular site or stage of the project. Issue specific sub-plans will include: <ul style="list-style-type: none"> a) Traffic and transport management b) Noise and vibration management c) Heritage management d) Flora and fauna management e) Visual amenity management f) Carbon and energy management g) Air quality management h) Waste management 	CEMP MD 1868/08 Section 4.10
12	3.5	Environmental Controls Map	The Principal Contractor will prepare and implement site and / or activity specific environmental procedures. These procedures may include method statements, control maps or other documents as required by the Principal Contractor. Commencing works on the specific site and / or activity.	Appendix D
13	3.7	Condition Surveys	Principal Contractors will offer condition surveys, in writing, to all relevant land and infrastructure owners (those where the works have potential to cause cosmetic or structural damage). If accepted, the Principal Contractor must produce a comprehensive written and photographic condition report prior to relevant works commencing.	CEMP MD 1868/08 Section 4.10
14	3.8	Register of Hold Points	TfNSW and SM Principal Contractors will identify hold points, beyond which approval is required to proceed with a certain activity. Examples activities include vegetation removal and water discharge. Hold points will be documented in relevant CEMPs	CEMP MD 1868/08 Section 4.12

15	3.9	Training	<p>SM Principal Contractors will be responsible for determining the training needs of their personnel. As a minimum this will include site induction, regular toolbox talks and topic specific environmental training as follows:</p> <ul style="list-style-type: none"> i. The site induction will be provided to all site personnel and will include, as a minimum: <ul style="list-style-type: none"> • Training purpose, objectives and key issues. • Contractor’s environmental policy and key performance indicators. • Due diligence, duty of care and responsibilities. • Relevant conditions of any environmental licence and the relevant conditions of approval. • Site specific issues and controls including those described in the environmental procedures. • Reporting procedure for environmental hazards and incidents. • Communication protocols. iii) Toolbox talks will be held on a regular basis in order to provide a project or site wide update, including any key or recurring environmental issues 	CEMP MD 1868/08 Section 6
16	3.10	Pollution Incident Response Management Plan	<p>SM Principal Contractors will develop and implement a Pollution Incident Response Management Plan, in accordance with the requirements of the POEO Act. Contractors’ emergency and incident response procedures will be in accordance with any TfNSW procedures and will include:</p> <ul style="list-style-type: none"> i. Categories for environmental emergencies and incidents. ii. Notification protocols for each category of environmental emergency or incident, including notification of TfNSW and notification to owners / occupiers in the vicinity of the incident. This is to include relevant contact details. iii. Procedures for the immediate notification of each relevant authority when the incident results in material harm to the environment. iv. Identification of personnel who have the authority to take immediate action to shut down any activity, or to affect any environmental control measure (including as directed by an authorised officer of the EPA). 	Pollution Incident Response Management Plan (PIRMP) MD 1968 /11.
17	3.11	Independent Environmental Representative	<p>Additionally TfNSW will engage independent Environmental Representatives (ERs) to undertake the following, along with any additional roles as required by the project approval conditions:</p> <ul style="list-style-type: none"> i. Review, provide comment on and endorse (where required) any relevant environmental documentation to verify it is prepared in accordance with relevant environmental legislation, planning approval conditions and relevant standards. ii. Monitor and report on the implementation and performance of the above mentioned documentation and other relevant documentation. iii. Provide independent guidance and advice to TfNSW and the Contractors in relation to environmental compliance issues and the interpretation of planning approval conditions. iv. Be the principal point of advice for the DP&I in relation to all questions and complaints concerning the environmental 	CEMP MD 1868/08 Section 5.1

			<p>performance of the project.</p> <ul style="list-style-type: none"> v. Ensure that environmental auditing is undertaken in accordance with all relevant project requirements. vi. Recommend reasonable steps, including 'stop works', to be taken to avoid or minimise adverse environmental impacts. 	
18	3.11(d)	Environmental Inspections	<p>Environmental inspections will include:</p> <ul style="list-style-type: none"> i. Surveillance of environmental mitigation measures by the Site Foreman. This will be documented in the Foreman's Site Diary. ii. Periodic inspections by the Principal Contractor's Environmental Manager (or delegate) to verify the adequacy of all environmental mitigation measures. This will be documented in a formal inspection record. iii. Regular site inspections by the ERs at a frequency to be agreed with the Principal Contractor. 	CEMP MD 1868/08 Section 9
19	3.11(e)	Internal Audits	<p>SM Principal Contractors will be required to undertake internal environmental audits of their EMS. Internal audits will include:</p> <ul style="list-style-type: none"> i. Compliance with approval, permit and licence conditions. ii. Compliance with the Contractor's EMS, CEMP, sub-plans and procedures. iii. Community consultation and complaint response. iv. Environmental training records. v. Environmental monitoring and inspection results. 	CEMP MD 1868/08 Section 9.1
20	3.11(f)	EMS audits	<p>TfNSW (or its representative) will also undertake periodic audits of the Principal Contractors' EMS and compliance with the environmental aspects of contract documentation, including this Construction Environmental Management Framework. As a minimum this will occur annually.</p>	CEMP MD 1868/08 Section 9.1
21	3.12(a)	Non Conformance	<p>SM Principal Contractors will document and detail any non-conformances arising out of the above monitoring, inspections and audits. TfNSW will be made aware of all non-conformances in a timely manner</p>	CEMP MD 1868/08 Section 10.1
22	3.12(b)	Preventive action	<p>Principal Contractors will develop and implement corrective actions to rectify the non-conformance and preventative actions in order to prevent the re-occurrence of the non-conformance. Contractors will also maintain a register non-conformances, corrective actions and preventative actions</p>	CEMP MD 1868/08 Section 10.2
23	3.15	Maintain records	<p>SM Principal Contractors will maintain appropriate records of the following:</p> <ul style="list-style-type: none"> i. Site inspections, audits, monitoring, reviews or remedial actions. ii. Documentation as required by performance conditions, approvals, licences and legislation. iii. Modifications to site environmental documentation (eg CEMP, sub-plans and procedures). iv. Other records as required by this Construction Environmental Management Framework. 	CEMP MD 1868/08 Section 10.4

24	3.15 b	Records retained	Records will be retained onsite for the duration of works.	CEMP MD 1868/08 Section 10.4
25	3.15(c)	Store records for seven years	Additionally records will be retained by the Principal Contractor for a period of no less than 7 years in total. Records will be made available in a timely manner to TfNSW (or their representative) upon request.	CEMP MD 1868/08 Section 10.4
26	3.15(d)	Compliance reports	Compliance reports regarding each internal and external audit will be undertaken. Compliance reports will be produced by the Principal Contractor's Environmental Manager or delegate and submitted to TfNSW.	CEMP MD 1868/08 Section 10.4
27	3.16	Continual review	SM Contractors will ensure the continual review and improvement of the CEMP, sub-plans and procedures. This will generally occur in response to: Issues raised during environmental monitoring, inspections and audits; Significant environmental incidents; Environmental non-conformances	CEMP MD 1868/08 Section 10.7
28	3.16(b)	Formal Review	A formal review of the CEMP and sub-plans by the Principal Contractor's management team will also occur on a six monthly basis, as a minimum.	CEMP MD 1868/08 Section 10.5

Guideline for the Preparation of Environmental Management Plans Department of Planning and the Environment

1	4.3.1.1	Introduction	Describes the background of the project	Section 1 CEMP
2	4.3.1.2	Project Description	City and Southwest Demolition Works Package B,55 Hunter Street,5Elizabeth Street,7 Elizabeth Street and 8 to 12 Castlereagh Street.	Section1.1 and 1.2 CEMP
3	4.3.1.3	EMP Context	The CEMP has been developed for the project	Section 1.3 CEMP
4	4.3.1.4	EMP Objectives	Objectives and targets include MDG site specific and Sydney Metro/TfNSW objectives and targets	Section 4.9 CEMP
5	4.3.1.5	Environmental Policy	Environmental and Sustainability Policy	Appendix A CEMP
6	4.3.2.1	Environmental Management Structure and Responsibility	As per the requirements of Guideline for the Preparation of Environmental Management Plans	Section 5 CEMP
7	4.3.2.2	Approval and licensing Requirements	Inclusive of key legislation, Licensing and approvals, Standards and Guidelines and TfNSW Specific Procedures	Section 4.1,4.2,4.3 CEMP
8	4.3.2.3	Reporting	As per the requirements of Guideline for the Preparation of Environmental Management Plans	Section 10.4 CEMP
9	4.3.2.4	Environmental training	Inclusive of competency, training and awareness Response	Section 6 CEMP

10	4.3.2.5	Emergency Contacts and Response	A Pollution Incident Response Management Plan has been prepared for the project in accordance with the POEO Act 1997	Pollution Incident Response Management Plan Section 8 CEMP
11	4.3.3.1	Risk Assessment	Risk Assessment is inclusive of environmental control measures	Appendix C CEMP
12	4.3.3.2	Environmental Management Activities and controls	Included in the Environmental Risk Assessment	Appendix C CEMP
13	4.3.3.3	Environmental Control or Maps	ECM identifies the site environmental control measures	Appendix D CEMP
14	4.3.3.4	Environmental Schedules	Environmental Audit Schedule for implementation of CEMP	Section 9.1.5 CEMP
15	4.3.4.1	Environmental Monitoring	Environmental Inspections, monitoring auditing and reporting	Section 9 CEMP
16	4.3.4.2	Environmental Auditing	Internal auditing program and audit schedule	Section 9.1.4 CEMP
17	4.3.4.3	Corrective Action	Review and improvement	Section 10 CEMP
18	4.3.4.4	EMP Review	Management Review	Section 10.3

Appendix C - Environmental Risk Assessment

Environmental Risk Assessment Workshop conducted on the 2/2/2017

Environmental Risk Assessment to be updated six months after commencement of Demolition

Legislation

TfNSW Sydney Metro Risk Management Standard
Environmentally Hazardous Chemicals Act 1985
Planning Approval Consistency Procedure SM ES –PW 314
Environment & Sustainability Policy SM SE MM 102
Protection of the Environment Operations Act and Regulations 1997 (POEO)
Heritage Act 1977
Local Government Act 1993
Work Health and Safety Act 2011
Fisheries Management Act 1994 under legislation in response to Part 7 of the Act
Environmental Planning and Assessment Act 1979
POEO (Noise control) Regulation 2008
POEO (Waste) Regulation 2005 and amendment 2008
Waste Avoidance and Resource and Recovery Act 2001
Catchment Management Authorities Act 2003
Waste Classification Guidelines (OEH 2008)
City and Southwest Construction Noise and Vibration Strategy SM ES ST 210
NSW Government Environmental Management System Guidelines September 2004

Guidelines

TfNSW Application for Removal or Trimming Vegetation (not identified in the Environmental Approval) - 9TP-FT-078
Sydney Metro Construction Environmental Management Framework SM ES ST 204
NSW Guidelines for Construction Sites 2004
ISO 31000 Risk Management Guidelines and Principles
TfNSW Guide to Environmental Control Map - 3TP-SD-015
TfNSW Out-of-Hours Assessment - 3TP-PR-065
TfNSW Out-of-Hours Work Application Form (EPL Variation NOT Required) 9TP-FT-079
TfNSW Out-of-Hours Work Application Form (EPL Requirements) - 9TP-FT-080
TfNSW Safety and Environmental Incident Report 90-FT-002
TfNSW Sustainable Design Guidelines - 7TP-ST-114
AS 4282:Control of the Obtrusive effect of outdoor lighting
AS/NZS ISO 14001:2004 – Environmental Management Systems – Requirements with Guidance for Use
TfNSW Carbon Estimation and Reporting Tool (CERT)
TfNSW Air Emission Data Collection Workbook 9TP-FT-349
TfNSW Chemical Storage and Spill Response Guidelines - 9TP-SD-066
TfNSW Water discharge and reuse procedure SM ES-PW-309

Risk Assessment Matrix						Risk Rating			
		CONSEQUENCE							
	PROBABILITY	1 Insignificant	2 Minor	3 Moderate	4 Serious	5 Disaster			
1 Rare		1	3	6	10	15	High Risk (18 - 25)	Long Term damage, catastrophe, and toxic release off-site with detrimental effect and huge financial loss, environmental disaster.	
2 Unlikely		2	5	9	14	19			Significant Risk (10 - 17)
3 Could Occur		4	8	13	18	22	Moderate Risk (6 - 9)	Soil, water air adversely affected in short term	
4 Likely		7	12	17	21	24			Low Risk (1 - 5)
5 Almost certain		11	16	20	23	25			

Consequence Table						Probability/Likelihood Table		
		Risk Context / Description				Level	Descriptor	Description
Level	Descriptor	Personal	Assets	Operational Delay	Environmental Impact			
1	Insignificant	No injury	No equipment damage	No disruption to operational agenda	No environmental effects, harm or contamination	1	Rare	The event may occur only in exceptional circumstances (practically impossible)
2	Minor	First Aid treatment	On-site repair	24 hours or less	Could affect environment but release contained and managed on site	2	Unlikely	The event is not likely to occur
3	Moderate	Medical treatment required	Components repaired/replaced	> 1 day - 1 weeks	Soil, water or air adversely affected in short term	3	Could Occur	The event could occur at some stage (could occur or heard of it happening)
4	Serious	Extensive injuries	Major damage - off site repair	2 weeks - 4 weeks	Soil, water or air adversely affected in long term, economic and financial loss	4	Likely	Event will probably occur in most circumstances (known to occur or has happened)
						5	Almost Certain	Event expected to occur in most circumstances (common or repeating occurrence)

5	Disaster	Death	Major item of equipment replaced	> 1 months	Long term damage,	
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No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
ENVIRONMENTAL										
01	Site Establishment									
1.1	Installation of the hoardings	Generation of noise Damage to trees	<ul style="list-style-type: none"> Noise Pollution Loss of biodiversity 	12	<ul style="list-style-type: none"> Obtain relevant approvals Reuse hording from other projects If trimming trees seek approval from TFNSW Environmental Representative Contract to experienced operators Respond to community complaints Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> Application for removal or trimming vegetation 979-FT-078 ECM CEMP 	3	Project Manager All Personal Environmental Manager	Start Up Ongoing	<ul style="list-style-type: none"> Protection of the Environment Operations (POEO) Act 1997 Application for removal or trimming vegetation 979-FT-078
1.2	Installation of site sheds	Generation of dust/noise/waste	<ul style="list-style-type: none"> Air Pollution Noise Pollution 	13	<ul style="list-style-type: none"> Noise monitoring if required by Development Application Work within the Construction Noise and Vibration Management Plan (CNVMP) Dust suppression Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> CEMP CNVMP Project Site Inspection Checklist ECM 	4	<ul style="list-style-type: none"> Project Manager All Personal Environmental Manager 	Start Up Ongoing	<ul style="list-style-type: none"> Protection of the Environment Operations (POEO) Act 1997 Work Health & Safety (WHS) Act 2011 COP Demolition work 2016 COP Construction work 2014 POEO(Noise Control Regulation2008
1.3	Installation of portable toilet	Potential water run off	<ul style="list-style-type: none"> Water pollution 	8	<ul style="list-style-type: none"> Use existing amenities while available Use service contractor to establish, maintain and monitor portable toilet Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> CEMP Project Site Inspection Checklist ECM 	1	<ul style="list-style-type: none"> Project Manager Service Contractor All Personal Environmental manager 	Start Up Ongoing	<ul style="list-style-type: none"> POEO Act 1997 WHS Act 2011 COP Demolition work 2016 COP Construction work 2014

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
1.4	Movement of machinery	Generation of noise	<ul style="list-style-type: none"> Noise Pollution 	12	<ul style="list-style-type: none"> Work within the CNVMP Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> Project Site Inspection Checklist ECM Communication Register 	4	<ul style="list-style-type: none"> Drivers/worker Environmental manager 	Start Up Ongoing	<ul style="list-style-type: none"> Protection of the Environment Operations (POEO) Act 1997 POEO(Noise Control Regulation2008
1.5	Installation of scaffolding	Generation of noise	<ul style="list-style-type: none"> Noise pollution 	8	<ul style="list-style-type: none"> Obtain relevant approvals Work within the Construction Noise and Vibration Management Plan CNVMP Determine sensitive receivers Maintain a complaints register Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> CNVMP ECM Complaints register 	1	<ul style="list-style-type: none"> Scaffolding Company 	Start Up	<ul style="list-style-type: none"> Protection of the Environment Operations (POEO) Act 1997
02	Water Quality Management									
2.1	Removal of infrastructure (Roof)	Uncontrolled water entering site, from removal of roof	<ul style="list-style-type: none"> Water pollution Program delay 	8	<ul style="list-style-type: none"> Water containment areas to have capacity to capture rain water Pumps to be readily available for dewatering Discharge permit obtained from the Environmental Representative TfNSW Site to be monitored and inspected during and after periods of heavy deluge Site personnel directly involved in dewatering to be given training Pre Starts, Toolbox re Environmental Controls Map 	<ul style="list-style-type: none"> CEMP Demolition Plan Project Site Environmental Inspection Checklist Dewatering permit ECM 	3	<ul style="list-style-type: none"> Site Supervisor Environmental Manager All Personnel 	Start Up / Ongoing	<ul style="list-style-type: none"> POEO Act 1997 TfNSW Water discharge and reuse procedure SM ES-PW

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
2.2	Blocked operational inlets	Drain inlets blocked with rubble causing flooding	<ul style="list-style-type: none"> Water pollution Flooding during deluge 	9	<ul style="list-style-type: none"> Cover all internal and external perimeter storm water drains with permeable material Conduct regular inspection of drains and replace protections where required Remove rubble from drain inlets Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> Contract Conditions CEMP Project Site Inspection Checklist ECM 	4	<ul style="list-style-type: none"> Site Supervisor Environmental Manager All Personnel 	Start Up / Ongoing	<ul style="list-style-type: none"> Protection of the Environment Operations (POEO) Act 1997 TfNSW Water discharge and reuse procedure SM ES-PW
2.3	Water use for dust suppression	Excessive water use Potable water becoming turbid with concrete and brick sediment	<ul style="list-style-type: none"> Water pollution 	9	<ul style="list-style-type: none"> Fine spraying to reduce water use ensuring dust suppression Use misters as an alternative to hosing Check taps for leaking Check hoses for leaks Turn water off overnight Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> CEMP Project Site Inspection Checklist ECM 	5	<ul style="list-style-type: none"> Site Supervisor Environmental Manager All personnel 	Start Up / Ongoing	<ul style="list-style-type: none"> Protection of the Environment Operations (POEO) Act 1997
03	Sediment Control									
3.1	Demolition of buildings	Sediment entering storm water or waterways	<ul style="list-style-type: none"> Water pollution 	6	<ul style="list-style-type: none"> Install sediment filter fabric / sediment fences / bales / Geo-tech sausages inside the site perimeter as required Use wet vac during works if there is excessive slurry generated Site personnel directly involved in sediment control will be given training in the operation and maintenance of Sediment Control Measures Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> CEMP Project Site Induction Relevant SWMS Site Inspection Checklist ECM 	4	<ul style="list-style-type: none"> Site Supervisor Environmental Manager All personnel 	Start-up / ongoing	<ul style="list-style-type: none"> POEO Act 1997 Catchment Management Authorities Act 2003 Water Management Act 2000 Blue Book (Landcom)

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
3.2	Use of plant and equipment	Sedimentation entering storm water systems or tracked on roadways	<ul style="list-style-type: none"> Pollution to storm water or waterways 	8	<ul style="list-style-type: none"> Prevent sediment entering roadways associated with vehicles/plant movement Check vehicles wheels before leaving site for mud and debris Loads are to be covered and trays swept before leaving site Maintain a hard stand for truck access / egress and loading Hard stand will be swept and kept clean of demolition rubble , sediment and material Hand sweep roads when necessary Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> CEMP Traffic Management Plan (TMP) Project Site Inspection Checklist ECM 	5	<ul style="list-style-type: none"> Site Supervisor Environmental Manager All personnel 	Start Up / Ongoing	<ul style="list-style-type: none"> POEO Act 1997 COP Demolition work 2016 COP Construction work 2014 COP Demolition work 2015 Blue Book (Landcom)
3.3	Demolition works	Water and sediment run-off outside site	<ul style="list-style-type: none"> Water Pollution 	9	<ul style="list-style-type: none"> Install sediment filter fabric / sediment fences alongside site boundary Install Geo-tech fabric and Geo-tech sausages to hoardings (where required) Seal gaps under hoarding where water may runoff to areas outside demolition works zone / site (e.g. internal works in shopping centres) Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> CEMP Project Site Inspection Checklist ECM 	4	<ul style="list-style-type: none"> Site Supervisor / Environmental Manager All personnel 	Ongoing	<ul style="list-style-type: none"> POEO Act 1997 WHS Act 2011 Blue Book (Landcom)
3.4	Stockpiling rubble	<ul style="list-style-type: none"> Incorrect placement of stock pile Disturbance to stock pile Heavy rain on stock pile 	<ul style="list-style-type: none"> Water Pollution Erosion of stockpile Air pollution 	8	<ul style="list-style-type: none"> Install sediment filter fabric / sediment fences / bales to down slope areas (as required) Stock piling of material to cease in rainy conditions. Minimise material on site. Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> CEMP DWP Project Site Inspection Checklist ECM 	4	<ul style="list-style-type: none"> Site Supervisor / Environmental Manager All personnel 	Ongoing	<ul style="list-style-type: none"> POEO Act 1997 Blue Book (Landcom)

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
04	Air Quality									
4.1	Demolition Drop Zone	Generation of dust	<ul style="list-style-type: none"> Air pollution Dust nuisance to nearby property 	13	<ul style="list-style-type: none"> Install water hose or hand held hoses or sprinklers to suppress dust at source point Loads will be wet down prior to dropping Cease loading in windy conditions Pre Starts, Toolbox ref Enviro Controls Map 	<ul style="list-style-type: none"> CEMP / DWP Project Site Inspection Checklist Daily visual site inspection ECM 	5	<ul style="list-style-type: none"> Site Supervisor Environmental Manager All personnel 	Ongoing	<ul style="list-style-type: none"> POEO Act 1997 POEO (Clean Air) Regulation 2010 COP Demolition work 2016
4.2	Load Out / Loading vehicles	Generation of dust	<ul style="list-style-type: none"> Air pollution Dust nuisance to nearby property 	13	<ul style="list-style-type: none"> All vehicle loads will be covered after filling Loads will be wet down prior to leaving site Dust suppression will be applied to areas of works/plant/equipment that may lead to the creation of airborne dust Good housekeeping Wet down before sweeping Pre Starts, Toolbox ref Enviro Controls Map 	<ul style="list-style-type: none"> CEMP DWP Project Site Inspection Checklist Daily visual site inspection ECM 	5	<ul style="list-style-type: none"> Site Supervisor Environmental Manager All personnel 	Ongoing	<ul style="list-style-type: none"> POEO Act 1997 POEO (Clean Air) Regulation 2010 COP Demolition work 2016 COP Construction work 2014
4.3	Demolition of existing buildings	Generation of dust	<ul style="list-style-type: none"> Air pollution Dust nuisance to nearby property 	13	<ul style="list-style-type: none"> Install water hose or hand held hoses or sprinklers to suppress dust at source point. Stage Works such as demolishing perimeter walls last to minimise dust Shade cloth (Metromesh) will be installed to encapsulate perimeter scaffolding as required Fine water mist to be sprayed periodically onto shade cloth to prevent dust exposure beyond site boundaries (where required) Where excessive dust is generated work to stop immediately, dust control methods modified and extended to meet impact Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> CEMP DWP Demolition Plan Project Site Inspection Checklist Daily visual site inspection ECM 	4	<ul style="list-style-type: none"> Site Supervisor Environmental Manager All personnel 	Ongoing	<ul style="list-style-type: none"> POEO Act 1997 POEO (Clean Air) Regulation 2010 COP Demolition work 2016 COP Construction work 2014

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
4.4	Vehicle / plant movement	<ul style="list-style-type: none"> • Generation of dust • Vehicles/plant emitting excessive smoke 	<ul style="list-style-type: none"> • Dust causing air pollution • Nuisance to nearby property • Excessive vehicle/plant emissions 	13	<ul style="list-style-type: none"> • Vehicle/plant to be fitted with anti-pollution devices in accordance with manufacturers requirements • Vehicles/Plant to be turned off when not used • Limit vehicle speed to 10 km/hr • Smoky vehicles/plant to be stopped until repair works completed • Plant inspections to be conducted • Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> • CEMP • TMP • Project Site Inspection Checklist • Plant Inspection Checklist • Air emission data collection workbook • ECM 	5	<ul style="list-style-type: none"> • Site Supervisor / Environmental Manager • All personnel • Drivers 	Start Up / Ongoing	<ul style="list-style-type: none"> • POEO Act 1997 • POEO Clean Air (Clean Air) Regulation 2010 • Clean Air (plant and Equipment) Regulation 1997 • TfNSW Air Emission Data Collection Workbook 9TP-FT-349
4.5	Asbestos removal	<ul style="list-style-type: none"> • Asbestos released to air 	<ul style="list-style-type: none"> • Air pollution • Workplace contamination • Soil contamination 	20	<ul style="list-style-type: none"> • Complete a Haz-Mat Report on Asbestos • Isolate the affected areas • Only licensed contractors to perform works • Works to be undertaken in accordance with supplied plans/SWMS • Notification to authority 5 days prior to works • Controls to be implemented in accordance with supplied plans • Unexpected finds to be reported and process followed • Pre Starts, Toolbox ref Environmental Controls Map 	<ul style="list-style-type: none"> • CEMP • SMP • DWP • AMP • Asbestos Removal Control Plan • Asbestos Notification • Project Site Inspection Checklist • ECM 	13	<ul style="list-style-type: none"> • Site Supervisor • Asbestos Removal Contractor • All personnel 	Start Up / Ongoing	<ul style="list-style-type: none"> • POEO Act 1997 • POEO (Clean Air) Regulation 2010 • WHS Act 2011 • COP How to safely remove asbestos 2016 • COP Demolition work 2015 • COP Construction work 2014
4.6	Demolition causing odours	Exposed demolition material generating odours	<ul style="list-style-type: none"> • Odours causing air pollution • Complaints from neighbours 	9	<ul style="list-style-type: none"> • Odour generating materials will be identified and masked or suppressed using suitable agents • Extent of works to be limited so that odours are kept to a minimum • Seek advice from environmental specialist 	<ul style="list-style-type: none"> • CEMP • SMP • Project Site Inspection Checklist • ECM 	5	<ul style="list-style-type: none"> • Site Supervisor • Environmental Manager • All personnel 	Start Up / Ongoing	<ul style="list-style-type: none"> • POEO Act 1997 • POEO (Clean Air) Regulation 2010 • COP Construction work 2014 • COP Demolition work 2015

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
4.7	Working in adverse weather conditions	Generation of dust	<ul style="list-style-type: none"> Air pollution Nuisance to nearby property 	20	<ul style="list-style-type: none"> All demolition material will be wet down Demolition methods to be modified or ceased during high winds or deluge Weather forecast is to be monitored Install additional dust control measures where strong winds are present Secure loose items on site Pre Starts, Toolbox ref ECM 	<ul style="list-style-type: none"> CEMP SMP DWP ERP Project Site Inspection Checklist ECM 	13	<ul style="list-style-type: none"> Site Supervisor Environmental Manager All personnel 	Start Up / Ongoing	<ul style="list-style-type: none"> POEO Act 1997 WHS Act 2011 POEO (Clean Air) Regulation 2010 COP Demolition work 2016 COP Construction work 2014
05 Noise and Vibration										
5.1	Demolition /	Noise & vibration generated during works	<ul style="list-style-type: none"> Noise pollution Breach of DA and council requirements Complaints from neighbours Potential delays in program Potential noise injury to workers 	21	<ul style="list-style-type: none"> Noisy works only to be conducted during approved work hours and specified days Comply with all site emission, Development Application, Council and contractual requirements Noise/vibration indicator/receivers to be monitored as per the CNVMP The existing structure will be used where possible to screen noise Carpet installed to scaffolding on working decks (where required) Methods to be modified/reviewed to ensure noise emissions during demolition work and vibration mitigation measures meet DA requirements (as required) Cease works immediately where a noise or vibration complaint is received and investigate cause Complaints to be logged (Refer Section 11) PPE to be worn in accordance with safe procedures Identify sensitive receivers Pre Starts, Tool Box talks and ref ECM 	<ul style="list-style-type: none"> DA SMP CEMP DWP Project Site Inspection Checklist Relevant SWMS/SOP CNVMP ECM 	13	<ul style="list-style-type: none"> Site Supervisor Environmental Manager Contractors All Personnel Acoustic Consultant 	Start Up / Ongoing	<ul style="list-style-type: none"> POEO Act 1997 POEO (Noise Control) Regulation 2008 WHS Act 2011 COP Managing noise and preventing hearing loss at work 2011 COP Demolition work 2016 COP Construction work 2014 COP Demolition work 2015 COP Construction Hours / Noise within the CBD City of Sydney AS 2436 Guide to Noise & Vibration Control on construction, demolition & maintenance sites

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
5.2	Vehicle / plant / equipment movement and use	Plant and vehicles causing excessive noise	Noise pollution	20	<ul style="list-style-type: none"> Major vehicles/plant/equipment to be fitted with noise reduction equipment/devices in accordance with manufacturers requirements Major vehicles/plant to have 'quackers' installed and volume reduced Vehicle/plant horns only used in matters relating to safety Vehicle/plant engine braking to be minimised on site Radio communication sets to be set with volume low No early deliveries to site Situate generators and plant away from sensitive receivers Turn off machinery when not in use (no long periods of idling) Maintain vehicles/plant/equipment and stop noisy plant until repaired Plants inspections to be conducted Pre Starts, Tool Box talks and ref ECM 	<ul style="list-style-type: none"> CEMP CNVMP DWP TMP Project Site Inspection Checklist Plant Inspection Checklist ECM 	13	<ul style="list-style-type: none"> Site Supervisor Environmental Manager Driver/ Operator Acoustic Consultant 	Start Up / Ongoing	<ul style="list-style-type: none"> POEO Act 1997 POEO (Noise Control) Regulation 2008 WHS Act 2011 COP Managing the risks of plant in the workplace 2014 COP Demolition work 2016 COP Construction work 2014 COP Demolition work 2015 COP Managing noise and preventing hearing loss at work 2016 COP Construction Hours / Noise within the CBD City of Sydney AS 2436 Guide to Noise & Vibration Control on construction, demolition & maintenance sites
5.3	Demolition	Potential damage caused to adjacent structures from works	<ul style="list-style-type: none"> No record of condition of property 	20	<ul style="list-style-type: none"> Dilapidation surveys will be conducted prior to and post works for sensitive receivers (where required) Site Manager will walk the site with the Dilap Report from time to time Any damage to adjacent buildings that becomes apparent will be reported and work stopped and checked against the Dilap Report 	<ul style="list-style-type: none"> DA CEMP DWP Dilapidation Survey 	13	<ul style="list-style-type: none"> Client/Principal Contractor* Project Manager / Site Supervisor 	Start Up / Ongoing	<ul style="list-style-type: none"> Environmental Planning and Assessment Act 1979 Heritage Act 1977 DA Requirements Contract requirement

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
06 Hazardous Chemicals & Dangerous Goods										
6.1	Use of oils, chemicals, fuel and diesel	Potential oils, chemicals, fuel and diesel spills	<ul style="list-style-type: none"> Water pollution Site contamination 	13	<ul style="list-style-type: none"> Chemicals to be stored in bunded areas away from stormwater drains/pits and waterways Dedicated chemical storage/bund areas established Dangerous goods transported not to exceed placard quantities Safety Data Sheets (SDS) provided to the Site Supervisor by subcontractor prior to a chemical being received/used on site Chemical Register to be maintained and SDS available for all chemicals Spills kits accessible and available on site. Pre Starts, Tool Box talks and ref ECM 	<ul style="list-style-type: none"> CEMP Site Inspection Checklist ECM PIRMP 	4	<ul style="list-style-type: none"> Site Supervisor Environmental Manager Specialist Contractor All personnel 	Start-up / ongoing	<ul style="list-style-type: none"> Contract requirement
6.2	Storage, handling and use of chemical	Paints, oils, solvents and fuels incorrectly stored without bunding	Water Pollution	13	<ul style="list-style-type: none"> Chemicals to be stored in bunded areas away from stormwater drains/pits and waterways Dedicated chemical storage/bund areas established Install Geo-tech fabric and Geo-tech sausages at all storm water inlets, pits and drains or to work area before works commence Chemicals stored on site not to exceed placard quantities and requirements detailed in Hazardous Chemical Risk Assessment Dangerous goods transported not to exceed placard quantities Safety Data Sheets (SDS) provided to the Site Supervisor by subcontractor prior to a chemical being received/used on site Spills kits accessible and available on site. Chemical Register to be maintained and SDS available for all chemicals Pre Starts, Tool Box talks and ref ECM 	<ul style="list-style-type: none"> CEMP SMP DWP SDS Register SDS Site Inspection Checklist ECM PIRMP 	4	<ul style="list-style-type: none"> Site Supervisor Specialist Contractor All personnel Environmental Manager 	Start-up / ongoing	<ul style="list-style-type: none"> POEO Act 1997 WHS Act 2011 Environmentally Hazardous Chemicals Act 1985 Dangerous Goods (Road and Rail Transport) Act 2008 ADG Code COP Managing risks of hazardous chemicals in the workplace 2014 COP Demolition work 2016 COP Construction work 2014 AS 1940 – 2004 The Storage and Handling of Flammable and Combustible Liquids

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
6.3	Managing chemical spills	<ul style="list-style-type: none"> Chemical spills as a result of vehicles, plant or equipment on site Inappropriate storage of chemicals 	<ul style="list-style-type: none"> Water Pollution 	13	<ul style="list-style-type: none"> Check all vehicles, plant, equipment and cranes for any leaks Chemical, fuel, oil leaks and other spills to be cleaned up immediately and the area around the spill will be isolated Spill kits to be installed on site and workers trained in use Spill kits to be available on major plant (e.g. cranes) No major servicing of plant on site Report any leakages & chemical spills Waste to be properly disposed of and disposal docket retained Pre Starts tool box talks and ref to ECM 	<ul style="list-style-type: none"> CEMP Chemical Risk Assessment SDS Register SDS Site Inspection Checklist Relevant SWMS/SOP Waste disposal dockets ECM 	4	<ul style="list-style-type: none"> Site Supervisor Specialist Contractor All personnel Environmental manager 	Start-up / ongoing	<ul style="list-style-type: none"> POEO Act 1997 WHS Act 2011 Environmentally Hazardous Chemicals Act 1985 COP Managing risks of hazardous chemicals in the workplace 2014 COP Demolition work 2016 COP Construction work 2014 COP Managing the risks of plant in the workplace 2014
07	Waste Management									
7.1	Demolition of building	Not meeting 95% target	Contamination of recycling stream	13	<ul style="list-style-type: none"> All demolition materials will be separated on site for recycling and where possible salvaged for re-sale or reuse Waste dockets and clearance certificates will be retained as evidence of appropriate waste disposal and or clearance Maintain an updated waste data archive file for the project Pre Starts tool box talk 	<ul style="list-style-type: none"> CEMP Waste & Resource Recovery Report Waste dockets Clearance Certificates Site Inspection Checklist WMRP 	5	<ul style="list-style-type: none"> Site Supervisor Environmental Manager Drivers Subcontractor 	Start-up / ongoing	<ul style="list-style-type: none"> POEO Act 1997 POEO (Waste) Regulation 2014 Waste Avoidance and Resource Recovery Act 2001 NSW Waste Classification Guidelines Contract requirement

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
7.2	Waste Disposal	<ul style="list-style-type: none"> Waste not disposed at licensed facility Records not available of waste disposal Waste not classified Waste not separated Poor management of waste 	<ul style="list-style-type: none"> Infringement Notices Clean Up Notices Loss of traceability of loads/waste Increased loads and transport costs Potential recyclable waste going to landfill 	8	<ul style="list-style-type: none"> Materials which cannot be salvaged or recycled will be disposed of at a licensed landfill Quantity of waste disposed to land is minimised by recycling All contaminated waste will be disposed of at licensed landfill for hazardous materials Contaminated waste will be correctly classified by an Environmental Consultant prior to transport Waste dockets and clearance certificates will be retained as evidence of appropriate waste disposal and or clearance Pre Starts tool box talks 	<ul style="list-style-type: none"> CEMP SMP DWP Hazardous Materials Management Plan/AMP Waste & Resource Recovery Report Waste dockets Clearance Certificates Trade Waste Certificate Site Inspection Checklist WMRP 	5	<ul style="list-style-type: none"> Client/Principal Contractor* Site Supervisor / Environmental Manager Specialist Contractor Drivers Subcontractors 	Start-up / ongoing	<ul style="list-style-type: none"> POEO Act 1997 POEO (Waste) Regulation 2014 Waste Avoidance and Resource Recovery Act 2001 WHS Act 2011 COP Demolition work 2016 COP Construction work 2014 COP Demolition work 2015 NSW Waste Classification Guidelines
7.3	Managing litter	Dropped litter on site and entering storm water systems	<ul style="list-style-type: none"> Water pollution Air Pollution 	9	<ul style="list-style-type: none"> Maintain site in tidy manner and pick up all rubbish during works Boundary fencing to have screening installed and cleared of trapped litter Vehicles to have loads covered Do not overfill skip bins. Provide plenty for use. Cover where potential for windblown litter Bins to be provided in amenities for workers. Site monitoring Pre Starts tool box talks 	<ul style="list-style-type: none"> CEMP SMP DWP Site Inspection Checklist Relevant SWMS/SOP WMRP 	5	<ul style="list-style-type: none"> Site Supervisor Environmental Manager All personnel 	Start-up / ongoing	<ul style="list-style-type: none"> POEO Act 1997 POEO (Waste) Regulation 2014

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
08 Heritage & Artefacts										
8.1	Demolition causing damage to identified artefacts and art works	Disturbance of heritage, , artefacts on site	<ul style="list-style-type: none"> Loss of heritage, and artefacts Project delay 	20	<ul style="list-style-type: none"> All heritage, historical significance, artefacts are to be identified, legislative and client requirements understood for the project Processes to be established for the management of such items/areas including protection measures Any heritage relics or sites discovered during construction shall be reported to the NSW Heritage Office. Work in the subject area to cease until specialist advice is obtained. Engagement of a specialist consultant/contractor to manage works (where required) Pre start Tools Box talks and ref ECM 	<ul style="list-style-type: none"> CEMP Heritage Management Plan Heritage Management Plan Site Inspection Checklist ECM 	5	<ul style="list-style-type: none"> Site Supervisor Environmental Manager Specialist Contractor 	Start-u Ongoing	<ul style="list-style-type: none"> Heritage Act 1977
09 Flora & Fauna										
9.1	Demolition causing damage to existing trees	Damage to trees on Hunter, Elizabeth and Castlereagh Street	<ul style="list-style-type: none"> Loss of bio diversity, 	9	<ul style="list-style-type: none"> Review planning documentation to determine the presence of any protected, threatened or significant fauna. Obtain approvals Engage arborist (where required) Ensure protective measures are applied to trees on Hunter, Elizabeth and Castlereagh Street before work commences Contact WIRES in event that fauna is injured or to relocate Pre start Tools Box talks and ref to ECM 	<ul style="list-style-type: none"> CEMP ECM Project Site Induction Specialist Consultant Report Site Inspection Checklist 	5	<ul style="list-style-type: none"> Site Supervisor /Environmental Manager Specialist Contractor/Arborist 	Start-up Ongoing	<ul style="list-style-type: none"> POEO Act 1997 Threatened Species Conservation Act 1995 Native Vegetation Act 2003 TfNSW Application for Removal or Trimming Vegetation (not identified in the Environmental Approval) - 9TP-FT-078

No	Activity / Task	Aspects	Inherent Risk or Impact	Initial Risk Rating	Control Measures	Document / Record	Residual Risk Rating	Action By	Status & Completed Date	Compliance Requirements
10	Visual Amenity									
10.1	Disturbed Visual Impacts	Light pollution from temporary hording	• Light Pollution	5	• Work to cease immediately where a significant impact has occurred or has potential to occur	• CEMP • ERP • Relevant SWMS	1	• Site Supervisor / Environmental Manager	Start-up Ongoing	• POEO Act 1997 • WHS Act 2011
11	Greenhouse Gas & Climate Change									
11.1	Increased use of energy	Generation of Greenhouse Gas Increased Air Emissions	Greenhouse Gas Generation Air pollution	5	• Use local suppliers • Alternative fuel use	• Sustainability Management Plan	2	• Site Supervisor • Environmental Manager • All personal	Start-up Ongoing	• POEO Act • Threatened Species Act 1995

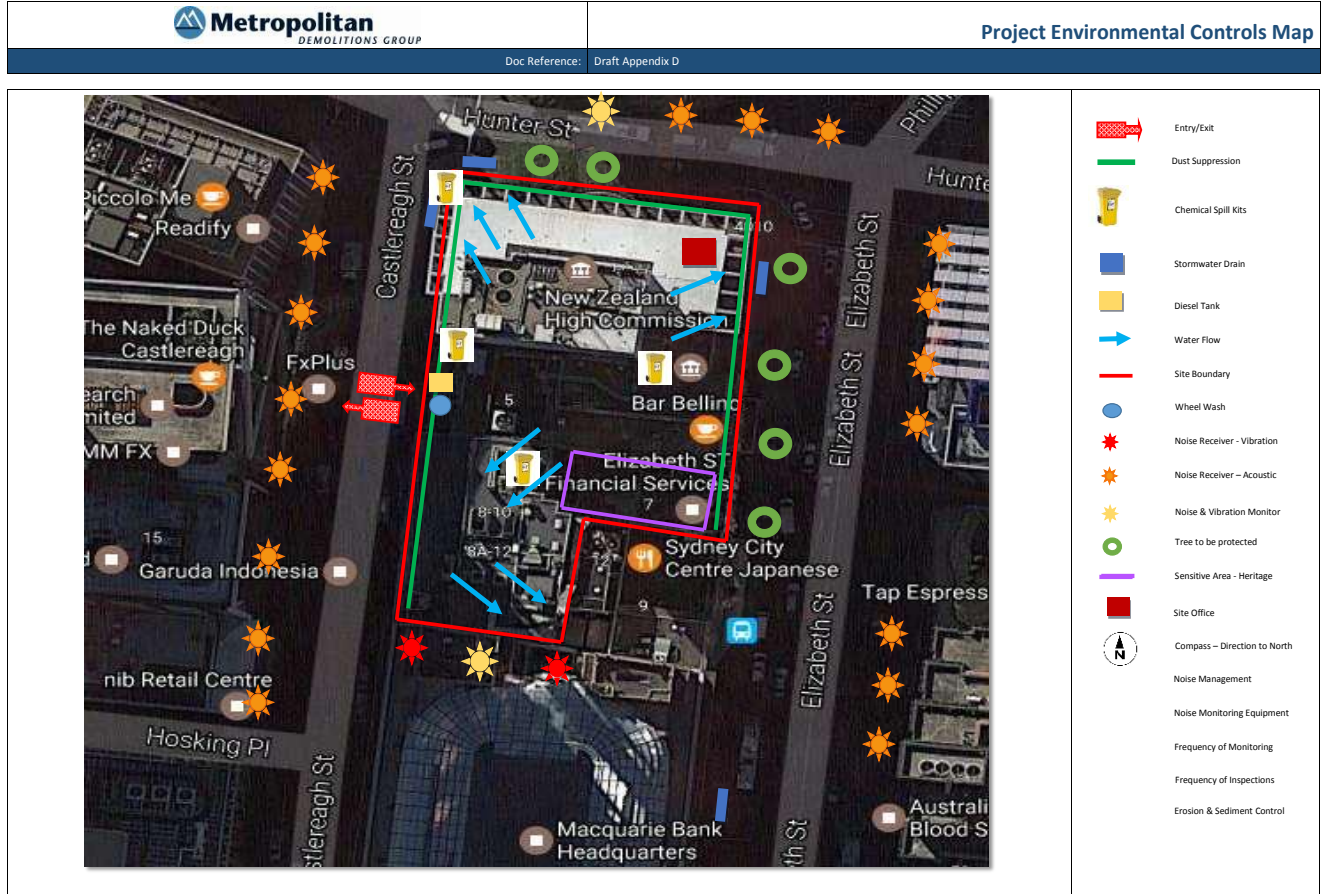
RECORD OF RISK ASSESSMENT REVIEW - Quarterly

Persons involved in review (include workers)				
Review Date:				
Comments				

RECORD OF RISK ASSESSMENT REVIEW - Quarterly

Persons involved in review (include workers)				
Review Date:				
Comments				

Appendix D – Project Environmental Control Map



IMS Doc Reference and Name: F-QSE-003.G	IMS Issue Date: 20.10.2016	IMS Version Number: 001	IMS Scheduled Review Date: 20.10.2018	Document Owner: QSE Manager	Page: 1 of 1
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Printed versions of this document are considered UNCONTROLLED.  Please consider the environment before printing this document

Appendix E – Daily Forms and Reports Used

1.1 Site Daily Checklist

Project / Location:		Project No:	
Subcontractor Name and Trade Description:			
Submitted By:		MDG Review By:	
Date Submitted		Date Reviewed:	

Items to be addressed	MDG Accepted?	Page No.	Comments
1. Introduction – contractors details and scope of works			
Company name, address, phone number & ABN	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Trade / activity to be carried out including brief description of scope.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Includes details of any work to be subcontracted	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2. Policies			
Is the Environmental policy included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is the policy signed and dated by a Senior Manager?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3. Legislative & Other Requirements			
Does the Plan define the Environmental Legislation requirements to be adopted?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Does the Plan define approvals and licensing requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Are performance reporting requirements adequately defined?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4. Commitment			
Are Environmental Objectives and Targets included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5. Roles and Responsibilities			
Shows management structure (e.g. org chart)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Name of key persons responsible for Environmental management	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Lists specific responsibilities for supervisors, managers and Environmental personnel?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5. Risk Management			
Does the plan identify the risks associated with the activities to be undertaken on site?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Includes the hazard identification and risk assessment (aspects and Impacts) process to be followed?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Does the Plan clearly define the control measures to be implemented to manage all identified risks?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
6. Audit and Review			

Items to be addressed	MDG Accepted?	Page No.	Comments
Is the process for Environment Audits adequately defined?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Environment monitoring adequately defined?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is there a process for review of the EMP?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
7. Training			
Is Environmental Training included at Induction?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is other Environmental Training defined?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Are Training records kept??	<input type="checkbox"/> Yes <input type="checkbox"/> No		
8. Environmental Management			
Is Traffic management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Air quality management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Soil management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Flora and Fauna management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Water/sediment management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Waste management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Noise management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Vibration management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Indigenous and Non-indigenous Heritage management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Are Control Plans (i.e. sediment) and Maps included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
9. Complaints			
Is the process for encouraging, recording and responding to Environmental Complaints?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
10. Hazardous Materials & Substances			
Are there details on Hazardous Substances and Dangerous Goods?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is there a description of what to do if a spill occurs?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is there a process for managing hazardous material found on site?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
11. Emergency Situation			
Are there details for Emergency Contacts and Response?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is there a process for reporting Environmental Incidents?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
General Comments			

1.2 Task Observation Checklist

Project / Site Name:		Date:	
Sub-Contractor Business Name:			
Task Being Observed:			
Name of Relevant Document for Task/Method:			
MDG Person(s) Observing Task:			

Workers Observed Undertaking Task	
Name	Position / Role

Task Compliance / Checklist		
No.	Information	Compliance (Y/N/NA)
1	Is the document task specific?	
2	Have the workers been inducted into & signed the Environmental Risk Assessment and Relevant Document's?	
3	Does the relevant document adequately describe the sequence of basic job steps?	
4	Are the controls in the Environmental Risk Assessment being followed?	
5	Were any additional hazards identified?	
6	Are the Environmental Controls on site adequate?	
7	If appropriate are licenses in the possession of the worker?	
8	If appropriate are permits on display in the work area?	
9	Are plant and equipment used for the task adequate?	
10	Is the behaviour and conduct of workers in line with MDG Policies?	
11	Other Comments:	

No.	Action / Recommendation	Date Closed

Signatures	
MDG Person Conducting Task Observation	

Representative of Involved Contractor			
Project / Location:		Project No:	
Subcontractor Name and Trade Description:			
Submitted By:		MDG Review By:	
Date Submitted		Date Reviewed:	

1.3 Environmental Site Checklist

Items to be addressed	MDG Accepted?	Page No.	Comments
1. Introduction – contractors details and scope of works			
Company name, address, phone number & ABN	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Trade / activity to be carried out including brief description of scope.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Includes details of any work to be subcontracted	<input type="checkbox"/> Yes <input type="checkbox"/> No		
2. Policies			
Is the Environmental policy included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is the policy signed and dated by a Senior Manager?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3. Legislative & Other Requirements			
Does the Plan define the Environmental Legislation requirements to be adopted?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Does the Plan define approvals and licensing requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Are performance reporting requirements adequately defined?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4. Commitment			
Are Environmental Objectives and Targets included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5. Roles and Responsibilities			
Shows management structure (e.g. org chart)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Name of key persons responsible for Environmental management	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Lists specific responsibilities for supervisors, managers and Environmental personnel?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5. Risk Management			
Does the plan identify the risks associated with the activities to be undertaken on site?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Includes the hazard identification and risk assessment (aspects and Impacts) process to be followed?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Does the Plan clearly define the control measures to be implemented to manage all identified risks?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
6. Audit and Review			
Is the process for Environment Audits adequately defined?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Environment monitoring adequately defined?	<input type="checkbox"/> Yes <input type="checkbox"/> No		

Items to be addressed	MDG Accepted?	Page No.	Comments
Is there a process for review of the EMP?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
7. Training			
Is Environmental Training included at Induction?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is other Environmental Training defined?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Are Training records kept??	<input type="checkbox"/> Yes <input type="checkbox"/> No		
8. Environmental Management			
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Is Water/sediment management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Waste management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Noise management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Vibration management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is Indigenous and Non-indigenous Heritage management included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Are Control Plans (i.e. sediment) and Maps included?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
9. Complaints			
Is the process for encouraging, recording and responding to Environmental Complaints?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
10. Hazardous Materials & Substances			
Are there details on Hazardous Substances and Dangerous Goods?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is there a description of what to do if a spill occurs?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is there a process for managing hazardous material found on site?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
11. Emergency Situation			
Are there details for Emergency Contacts and Response?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is there a process for reporting Environmental Incidents?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
General Comments			

1.4 Action Tracking Sheet

Action No.	Origin	Date Raised	N C - A O C - O FI	Location eg Project, Workshop, Office, MDR etc	Issue requiring action	Action required to rectify	Person responsible	Target Date	Completed Date	Open/Closed	Verifier	Verification Evidence

Mr Stuart Hodgson
Principal Manager,
Program Sustainability Environment & Planning
Sydney Metro
Transport for NSW
PO Box 588
NORTH RYDE BC NSW 1670

15 September 2017

Ref: 170108_CEMP-Metro

Dear Stuart

RE: Endorsement of Metropolitan Construction Environment Management Plan (CEMP) and Construction Heritage Plan for Demolition Package B - Sydney Metro City & Southwest

Thank you for providing the following documents for Environmental Representative (ER) review and endorsement as required by the Condition of Approval C7 of the Sydney Metro City & Southwest project (SSI – 15_7400 January 9 2017).

- Metropolitan Construction Environmental Management Plan (CEMP) Sydney Metro City & Southwest (Revision 8 dated 5 September 2017); and
- Metropolitan Heritage Management Plan (Revision 8 dated 14 August 2017).

The documents have been updated to address Attachment A – requirements of approval as included in the DPE Approval for the documents dated 12 July 2017.

As an approved ER for the Sydney Metro City & Southwest project, I have reviewed updates in these document as required by DPE Approval for these documents and consider the referenced versions address the requirements of DPE.

Yours sincerely



Michael Woolley
Environmental Representative – Sydney Metro – City and South West