

Pre-Construction Minor Works Approval Form

Minor Works are defined as any low impact activities that are undertaken prior to the commencement of ‘construction’ as defined in the project’s applicable planning approval. However, if Minor Works affect or potentially affect heritage items, threatened species, populations or endangered ecological communities, these works are defined as ‘construction’ unless otherwise determined by the applicable planning authority.

Minor Works approvals do not remove any obligation to comply with the project’s applicable planning approval conditions (including requirements prior to ‘any works’ commencing) or obtain any other applicable permits, licenses or approvals as necessary.

This application and all supporting information must be submitted to Sydney Metro/the Environmental Representative as one (1) PDF file at least 10 business days prior to the commencement of the proposed Minor Works.

Part 1: Application	
Contractor:	MTR Australia (Sydney) SMCSW Pty Limited
Project:	Sydney Metro - Trains, Systems, Operations and Maintenance (TSOM) component of the Sydney Metro City & Southwest (SMCSW) project.
Application Title: (e.g. Smith St trenching works)	Integrated Factory Acceptance Test (IFAT) SMTF-N Minor works Approval – Corner of Tallawong Road and Schofields Road, Tallawong NSW 2762.
Application Number:	1
Application Date:	23/02/2024
Planning Approval:	SSI_5931
Minor Works Categories: <ul style="list-style-type: none"> Highlight as applicable. If Item f applies, this form must be endorsed by an Environmental Representative. 	<ul style="list-style-type: none"> a) survey, acquisitions, building/ road dilapidation surveys; b) investigative drilling, excavation; c) minor clearing or translocation of native vegetation; d) establishing ancillary facilities/ construction work sites (in locations meeting the criteria identified in the Conditions of Approval); e) installation of environmental impact mitigation measures, fencing, enabling works; and f) other activities determined by the Environmental Representative to have minimal environmental impact (e.g. minor access roads, minor adjustments to services/ utilities, etc). <p>Work where heritage, threatened species, populations or endangered ecological communities would be affected, is classified as construction, unless otherwise approved by the Director General in consultation with the Heritage Council of NSW.</p>
Planning Authority Determination: Will the proposed works affect or have the potential to affect heritage items, threatened species, populations or endangered ecological communities?	<p>Impact on heritage items, threatened species, populations or endangered ecological communities is not anticipated.</p> <p>There are no heritage constraints within a 500-metre radius of the proposed construction area (refer to Appendix 5, which shows a map of the study area).</p>

Part 2: Details

Describe the proposed Minor Works:

Including work methodologies, site location(s) and site description(s) (e.g. landscape type, waterways, etc.).

Location: Tallawong Metro Trains Sydney Facility (SMTF) Corner of Tallawong and Schofields Roads, Tallawong NSW 2762

Site Activities Sequence/Equipments to be utilised:

Site Mobilisation:

- Hiab truck / Tilt Tray

Excavation Works:

- 3.5T Excavator

Steel Installation:

- 20T City Crane

Platform Shed Delivery:

- 20T City Crane

Concrete works:

- Concrete Line pump
- Concrete Agitator

Refer to Appendix 6 for the noise assessment results.

Scope of Works and Methodology

Site Mobilisation

The plan includes the establishment of a site office/lunchroom caravan equipped with a generator and water tank. Additionally, a 3x3m container for general tools, a 3x3 gazebo area with a table for sign-on and prestart. The principal contractor (Degnan) is planning to use a designated area along the roadside for parking, the idea is to minimise the number of cars in the work area and ferry individuals down from the administration building. To control access to the site, a lockable gate will be installed into the existing fence. The area in front of the gate will be filled with ballast to facilitate the movement of equipment like the 3.5 T excavator. The construction area will be delineated using plastic bollards and tiger tape, aiming to avoid temporary fencing within the corridor. The principal contractor will be utilising a small area opposite the platform as a material laydown and storage area, this will also be delineated with danger tape and bollards.

Excavation Works

Several footings on site will be dug to support the test platform and site shed. A 3.5-ton excavator will be used to dig the footings, and gravel will be spread along the test track. Excess spoil will be placed into a bag and removed offsite. The site will be restored to its original state following the completion of the excavation works.

Concrete Works

Concrete works will be poured in situ, with the footing formed above ground and subsequently poured. The plan is to pour the footings and slabs in a single operation, while the platform coping edge will be poured on a separate day. Concrete will be delivered to the site via a Concrete Agitator and poured using a line pump from the access road. The principal contractor (Degnan) will ensure that the line pump spans the existing track to prevent any damage to the metro structure.

The concrete pump, agitator, and pour area will be clearly delineated from any interface contractors. Additionally, a designated washout area will be constructed onsite for the concrete pump and agitator.

Steelwork and site Shed Installation

The structural steel for the new platform will be lifted into place via a 20t City Crane upon delivery. The 20t Crane will be placed on the access road, two outriggers will be on the road. The other two outriggers will require structural pads to be constructed, as they will be placed in the garden. An MTS/MTR isolation permit must be obtained prior to the commencement of work. Steel components and the shed will be lifted over the existing fence and over the deenergised OHW and placed into position, the structural steel components will then be stick built on site.

Planned Commencement Date:

February 2024

<p>Local Sensitivities: Describe the presence (if any) of local sensitive environmental areas and community receptors</p>	<p>The noise assessment was carried out using the simple noise assessment tool. However, there were no residences affected by noise within a 500-metre radius of the site (refer to Appendix 6 for the noise assessment results).</p>
--	---

Part 3: Environmental Risk Assessment and Management

Prepare an Environmental Risk Assessment (in accordance with the [Sydney Metro Risk Management Standard](#)) and an Environmental Control Map for the proposed Minor Works and attach as Appendix 1.

If an Environmental Risk Assessment and/or an Environmental Control Map for the proposed Minor Works is/are already contained in existing documentation, attach the relevant section(s) as Appendix 1.

<p>Documentation: List any existing documents (including those referenced above) that the proposed Minor Works will be undertaken in accordance with and attach as Appendix 2 (e.g. plans, procedures, etc.).</p>	<ul style="list-style-type: none"> • Environmental Control Map • Environmental Management Plan • Construction Methodology
--	--

Part 4: Workforce Notification

How will the environmental and community risks and associated mitigation measures of the proposed Minor Works be communicated to the contractor's workforce?

The scope of work is planned during standard working hours (i.e., Monday to Friday, 7:00AM to 6:00PM and Saturday, 8:00AM to 1PM), and minimal community impact is anticipated.

No extensive excavation work is to be undertaken. The maximum depth should not exceed 300mm, and all spoil must be reinstated into the excavations. Any excess spoil will be placed in a bag and removed offsite.

The IFAT scope of work will be undertaken without interruption of train operations.

No impact to vegetation envisaged during conduct of the works.

Part 5: Community Consultation

<p>What community consultation has been undertaken already?</p>	<p>None required as works will be contained within the SMTF site and no interference with community or train network is expected.</p> <p>No heavy equipment or dust to be generated.</p>
<p>What community consultation is planned to be undertaken?</p>	<p>None required. The scope of work is low impact and would be undertaken during standard working hours.</p>
<p>If drafted already, attach applicable Community Notification as Appendix 3.</p>	

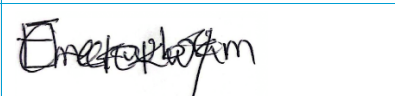
Part 6: Contact Details

Nominate contractor's project manager, environmental and communications contact(s).

<p>Name:</p>	<p>Jack Donnan</p>	<p>Position:</p>	<p>MTR Senior Project Engineer</p>	<p>Phone:</p>	<p>0483 810 322</p>
	<p>Anja Baker</p>		<p>MTR Site Supervision</p>		<p>0429 371 821</p>
	<p>Wayne Gambling</p>		<p>MTR Site Supervision</p>		<p>0459 482 806</p>
	<p>Emeka Emerokwam</p>		<p>MTR Environmental and Sustainability Lead</p>		<p>0450 730 960</p>
	<p>Melissa Mauer</p>		<p>Communication and Stakeholder Manager</p>		<p>0402 822 698</p>

Part 7: Signature

This signature acknowledges that the proposed Minor Works will be undertaken in accordance with this application, have minimal environmental impact and are not defined as 'construction' in accordance with the applicable planning approval.

<p>Name:</p>	<p>Emeka Emerokwam</p>		
<p>Signature:</p>		<p>Date:</p>	<p>28/02/2024</p>

Determination Page

(Sydney Metro/Environmental Representative Use Only)

1. Endorsement/Approval			
These signatures represent formal endorsement/approval for the proposed Minor Works to commence in accordance with this application and the applicable planning approval requirements (subject to any determination from the applicable planning authority as may be required by the planning approval conditions).			
	Director Project Communications – Endorsement (required for all applications)	Director Environment, Sustainability & Planning – Approval (required for all applications)	Environmental Representative – Endorsement (required as necessary in accordance with the applicable planning approval, optional for all other circumstances)
Signature:			
Name:	James Porter	Fil Cerone	Maulik Bapodara
Date:	29/02/24 6/3/24	15 March 2024	06/03/2024
Comments:			The ER notes that this MWA includes the full scope of works. The ER endorses this MWA for remaining works/city crane activities only as of 06/03/24.
Conditions:			Supporting letter attached as Appendix 4 if necessary.
<input checked="" type="checkbox"/>	Approved (by Sydney Metro)		
<input checked="" type="checkbox"/>	Endorsed (by Environmental Representative)		
<input type="checkbox"/>	Rejected		

OFFICIAL

Metro Body of Knowledge (MBoK)

(Uncontrolled when printed)



Appendix 1: Cover Page

Environmental Risk Assessment and Environmental Control Map.

See Degnan - Environmental Control Map

Environmental Risk Assessment

The Risk Assessment has been undertaken in accordance with the requirements of the *Sydney Metro Risk Management Standard*.

Note; **C** = Consequence & **L** = Likelihood as per *Sydney Metro Risk Management System – Appendix A Sydney Metro Risk Matrix*

Aspect	Potential Environmental Impact	Initial Risk Rating			Control Measures	Residual Risk Rating		
		C x	L =	Risk		C x	L =	Risk
SMTF- N Site – Corner of Tallawong Road and Schofields Road, Tallawong NSW 2762								
Items of heritage significance uncovered during works	Damage to heritage items or archaeological deposits.	C5	L5	Low	<ul style="list-style-type: none"> Induction to include heritage management requirements. Implement Sydney Metro Unexpected Finds Procedure V4.1 during invasive investigation works. If suspected materials are found, workers are to; <ul style="list-style-type: none"> Stop works in vicinity immediately Inform the Superintendent and Environmental Manager Delineate the area to prevent further access, where possible 	C5	L6	Low
Noise from plant and people	Noise from plant impacting on sensitive receivers. Noise impacts outside standard construction hours.	C5	L4	Low	<ul style="list-style-type: none"> Induction to include noise mitigation and “good neighbour” approach. Distance between noisy plant items and nearby noise sensitive receivers would be maximised and equipment orientated where possible to reduce noise. The use of temporary noise barriers will be investigated where shielding from existing structures is not possible. In these cases, noise barriers will be implemented where reasonable and feasible. Parking will primarily occur within the compound area and will be preference over street parking to mitigate noise impacts. Laydown of materials to be organised to minimise reversing, where possible All the scope of work will occur within standard working hours (i.e., Monday to Friday, 7:00 AM to 4:00 PM and Saturday, 8:00AM to 1PM), and minimal noise impact to community impact is anticipated. All power-driven work equipment used would have 	C5	L5	Low

OFFICIAL

Metro Body of Knowledge (MBoK)

(Uncontrolled when printed)



					<p>efficient muffler design and well maintained.</p> <ul style="list-style-type: none"> Mitigation measures to be implemented in accordance with the Sydney Metro City & Southwest Construction Noise Strategy. 			
Chemical handling and storage	Poor storage and handling of chemicals causes spills	C5	L4	Low	<ul style="list-style-type: none"> Any chemicals and fuels are to be stored within a bunded area with 110% of the capacity of the largest stored container. Any chemical storage is to be located more than 20m from a drainage line or waterway. Refuelling to occur more than 20m away from drainage lines or waterways Spill kits to be located at chemical storage locations and work fronts. Site induction includes spill response awareness. 	C5	L5	Low
Erosion and sediment controls	Sediment laden runoff from laydown areas or site compound	C4	L4	Med	<ul style="list-style-type: none"> Induction to include ERSED protection measures. Produce an ESCP for relevant sites as activities progress. 	C4	L5	Low
Water Management	Discharge of water that does not meet water quality parameters	C4	L4	Med	<ul style="list-style-type: none"> Introduction to include water discharge requirements A discharge permit is to be signed-off by the Environmental Manager (or delegate) prior to any discharge in accordance with the Sydney Metro <i>Water Discharge and Reuse Procedure SM ES-PW-309</i> 	C4	L5	Low
Waste	Incorrect disposal of waste Contamination	C3	L5	Med	<ul style="list-style-type: none"> Induction to include waste management practices. Waste to be tested in accordance with the Waste Classification Guidelines (NSW EPA, 2014) prior to disposal. The waste must be lawfully transported and disposed of to a licenced facility. Unexpected Contamination Finds procedure to be enacted where contamination is found. An occupational hygienist is to be on call to provide advice on management of any contaminated material (advice based on contamination type). 	C3	L6	Low
Air quality	Dust generation	C4	L4	Med	<ul style="list-style-type: none"> Induction to include air quality management practices. Water cart or water trailer to be present to wet down paved surfaces where dust. Monitor conditions and modify works where dusty conditions are observed. 	C4	L5	Low

OFFICIAL

Metro Body of Knowledge (MBoK)



(Uncontrolled when printed)

Vegetation	Removal or pruning of vegetation without approval	C6	L5	Low	<ul style="list-style-type: none"> Unlikely to happen as there are no trees or vegetation within the construction footprint. If tree trimming or removal is required MTR will obtain tree removal permit from 	C6	L6	Low
Traffic and Pedestrians	Disruption to road users and pedestrians	C4	L4	Med	<ul style="list-style-type: none"> Induction to include traffic control requirements Ongoing assessment of protection requirements at access gates to mitigate pedestrian, cyclist and motorist safety. Parking within rail corridor where possible Observe time restrictions for parking areas Prioritise community parking where possible Maintain pedestrian access 	C4	L5	Low
Visual Amenity	Impacts from light spill	C6	L5	Low	<ul style="list-style-type: none"> All works will be conducted during standard working hours between the hour of 7:00AM to 4:00PM, Monday – Friday as such light impact is unlikely. 	C6	L6	Low

A1 Consequence Table

Consequence Table						
Rating	C6	C5	C4	C3	C2	C1
Descriptor/ Impact Area	Insignificant	Minor	Moderate	Major	Severe	Catastrophic
Health and Safety (Injury and Disease)	Illness, first aid or injury not requiring medical treatment.	Illness or minor injuries requiring medical treatment.	Single recoverable lost time injury or illness, alternate/restricted duties injury, or short-term occupational illness.	1-10 major injuries requiring hospitalisation and numerous days lost, or medium-term occupational illness.	Single fatality and/or 10-20 major injuries/permanent disabilities/chronic diseases.	Multiple fatalities and/or >20 major injuries/permanent disabilities/chronic diseases.
Environment	No appreciable changes to environment and/or highly localised event.	Change from normal conditions within environmental regulatory limits and environmental effects are within site boundaries.	Short-term and/or well-contained environmental effects. Minor remedial actions probably required.	Impacts external ecosystem and considerable remediation is required.	Long-term environmental impairment in neighbouring or valued eco . Extensive remediation required.	Irreversible large-scale environmental impact with loss of valued eco .
Customer Experience/ Operational Reliability	Short duration disruptions affecting part of one transport mode.	Minor disruptions affecting several parts of one transport mode.	Serious disruptions affecting operation of one complete transport mode.	Major disruptions affecting operations of one transport mode with network-wide effects on one or more other modes of transport.	Short duration shutdowns or substantial disruptions affecting multiple transport modes with sector-wide cascading effects.	Extensive shutdowns or extended disruptions with economy-wide effects.
Government/ Stakeholder / Public Trust/ Confidence	Negative article in local media. No discernible reaction/apprehension. Goodwill, confidence and trust retained.	Unease – Series of negative articles in local/state media. Confidence remains with some minor loss of goodwill or trust. Recoverable with little effort or cost. Some continuing scrutiny/attention.	Disappointment – Extended negative local/state media coverage. Confidence and trust dented but are quickly recoverable at modest cost within existing budget and resources.	Concern – Short-term negative state/national media coverage. Confidence and trust are diminished but are recoverable with time, staff effort and additional funding.	Displeasure – Extended negative state/national media coverage. Confidence and trust are damaged but recoverable at considerable cost, time and staff effort.	Outrage – Material change in the public perception of the organisation. Confidence and trust are severely damaged, possibly irreparably, and full recovery both questionable and costly.
Regulatory or Legal Breach	Low-level non-compliance with legal and/or regulatory requirement or duty by individuals or TRNSW.	Minor non-compliance with legal and/or regulatory requirement or duty. Investigation and/or report to authority.	Moderate non-compliance. Subject to comment and monitoring from applicable regulator. Small fine and no disruption to services.	Major breach resulting in enforcement action and/or prohibition notices. Substantial fine and no disruption to services.	Substantial breach resulting in prosecution, fines and/or litigation. Licence or accreditation restricted or conditional affecting ability to operate.	Prosecution leading to imprisonment of TRNSW executive. Loss of operating licence.
Management Effort/ Organisational Fatigue	An event, the impact of which can be absorbed as part of normal activity.	An event, the impact of which can be absorbed but some additional management effort is required.	An event, the impact of which can be absorbed but much broader management effort is required.	Major event which can be absorbed, but substantial management effort is required.	Severe event which requires extensive management effort but can be survived.	Catastrophic event with the clear potential to lead to the collapse of the organisation.
Benefit Realisation of Initiative, Program or Project	No time delay with initiative or project but it will incur a slight decrease in the benefits realised.	Minor delay with the initiative and/or a minor decrease in the benefits realised; or minor delay on the project or another project, with no public implications.	Several delays with the initiative and/or moderate decrease in benefits realised; or completion date missed for non-critical path project.	Major delays with the initiative and/or major decrease in benefits realised; or publicly announced portion/milestone missed or final completion date missed with demonstrable mitigating external circumstances.	Severe delays with initiative, which impacts across divisions and/or significant decrease in benefits realised; or publicly announced portion/milestone missed or final completion date missed on critical path project.	Failure to realise benefits of the initiative which adversely affects the enterprise-wide operations of TRNSW; or publicly announced portion/milestone significantly missed or final completion date significantly missed on critical path project.
Budget, Costs or Revenue	< \$100k	\$100k – \$1m	\$1m – \$10m	\$10m – \$50m	\$50m – \$100m	> \$100m

A2 Likelihood Criteria

Likelihood						
Rating	L6	L5	L4	L3	L2	L1
Descriptor/ Definition	Almost Unprecedented	Very Unlikely	Unlikely	Likely	Very Likely	Almost Certain
Qualitative Expectation	Not expected to ever occur during time of activity or project	Not expected to occur during the time of activity or project	More likely not to occur than occur during time of activity or project	More likely to occur than not occur during time of activity or project	Expected to occur occasionally during time of activity or project	Expected to occur frequently during time of activity or project
Sydney Metro Probability Analysis	<10%	10-25%	25-50%	50-75%	75-90%	>90%
Quantitative Frequency	Less than once every 100 years	Once every 10 to 100 years	Once every 1 to 10 years	Once each year	1-10 times every year	10 times or more every year

A3 Risk Matrix

Risk Rating: Very High – A – 31-36 High – B – 22-30 Medium – C – 11-21 Low – D – 1-10			CONSEQUENCE					
			Insignificant	Minor	Moderate	Major	Severe	Catastrophic
			C6	C5	C4	C3	C2	C1
LIKELIHOOD	Almost certain	L1	20	22	29	32	34	36
	Very Likely	L2	14	18	23	28	31	35
	Likely	L3	9	12	16	24	27	33
	Unlikely	L4	6	7	11	17	25	30
	Very unlikely	L5	3	4	8	13	19	26
	Almost Unprecedented event	L6	1	2	5	10	15	21

Methodology:

Scope of works:

The scope of work for this ECM includes:

- Site establishment, site clearing & levelling
- Civil works including detailed excavation
- Concrete FRP works including footings and slabs
- Structural Steel, platform grating, access stairs and metal work installation
- Traffic control to manage access and egress
- Locations of environmental controls and hazards.

Works would be carried out during standard construction hours from Monday to Friday 7am to 5pm, Saturday 8AM to 1PM, No Sunday Works. Scope of the program includes:

The any OOHW on possessions would occur in accordance with MTR approval.





Legend

Symbol	Description
	Sensitive receivers
	Site compound
	Material Laydown
	Construction parking
	Works areas
	Project boundary
	Works area
	Indicative wash down area
	Indicative stockpiling area
	Stormwater flow direction
	Temporary Fencing / Water Barriers
	Concrete washout

Symbol	Description
	Vehicle access
	HV Aerial
	Traffic control
	Coir logs/sediment fence
	Construction waste skip bin
	Indicative DDA parking
	Spill kit
	Toilets
	First aid station
	Site access
	Fire extinguisher
	No parking

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

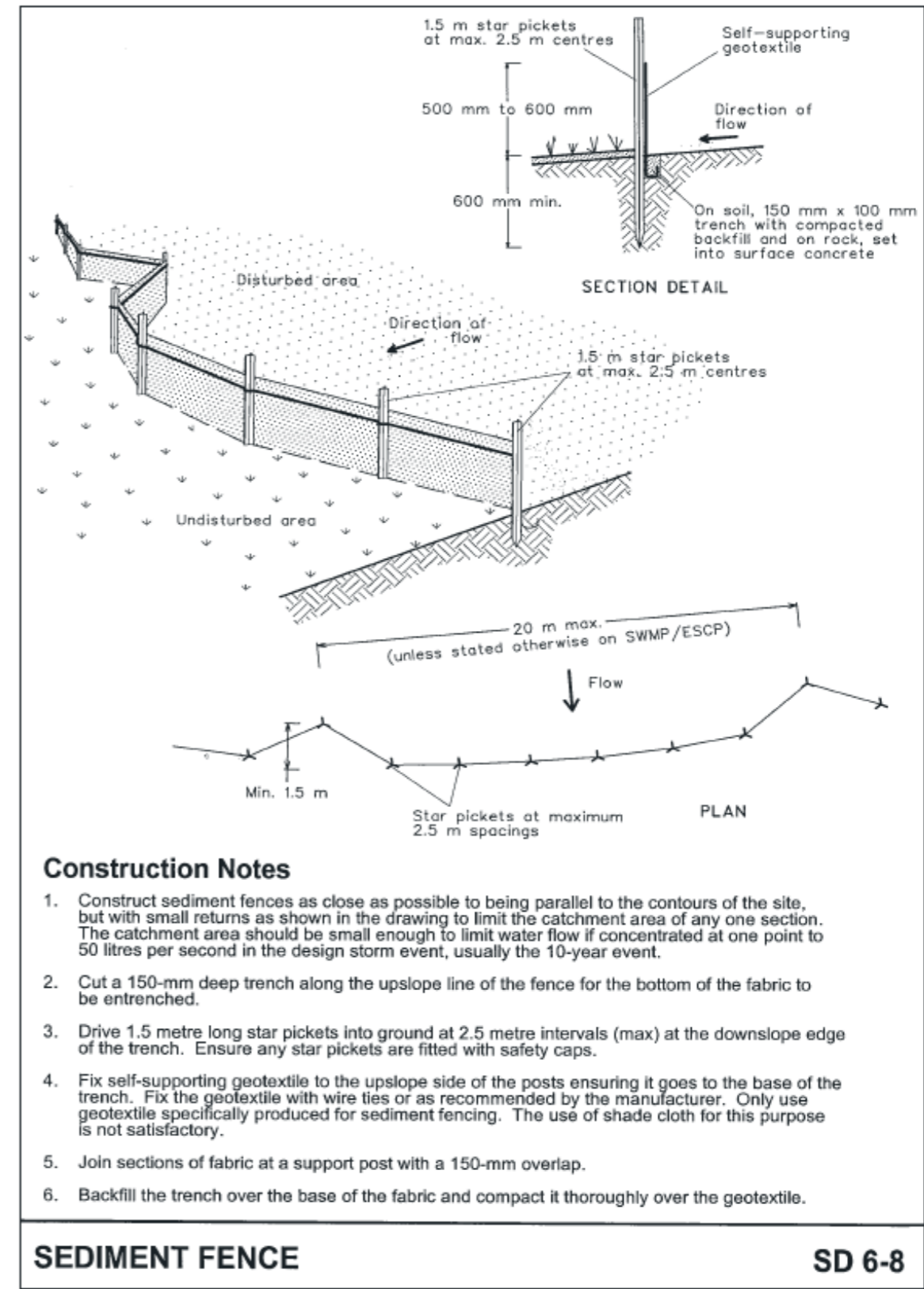
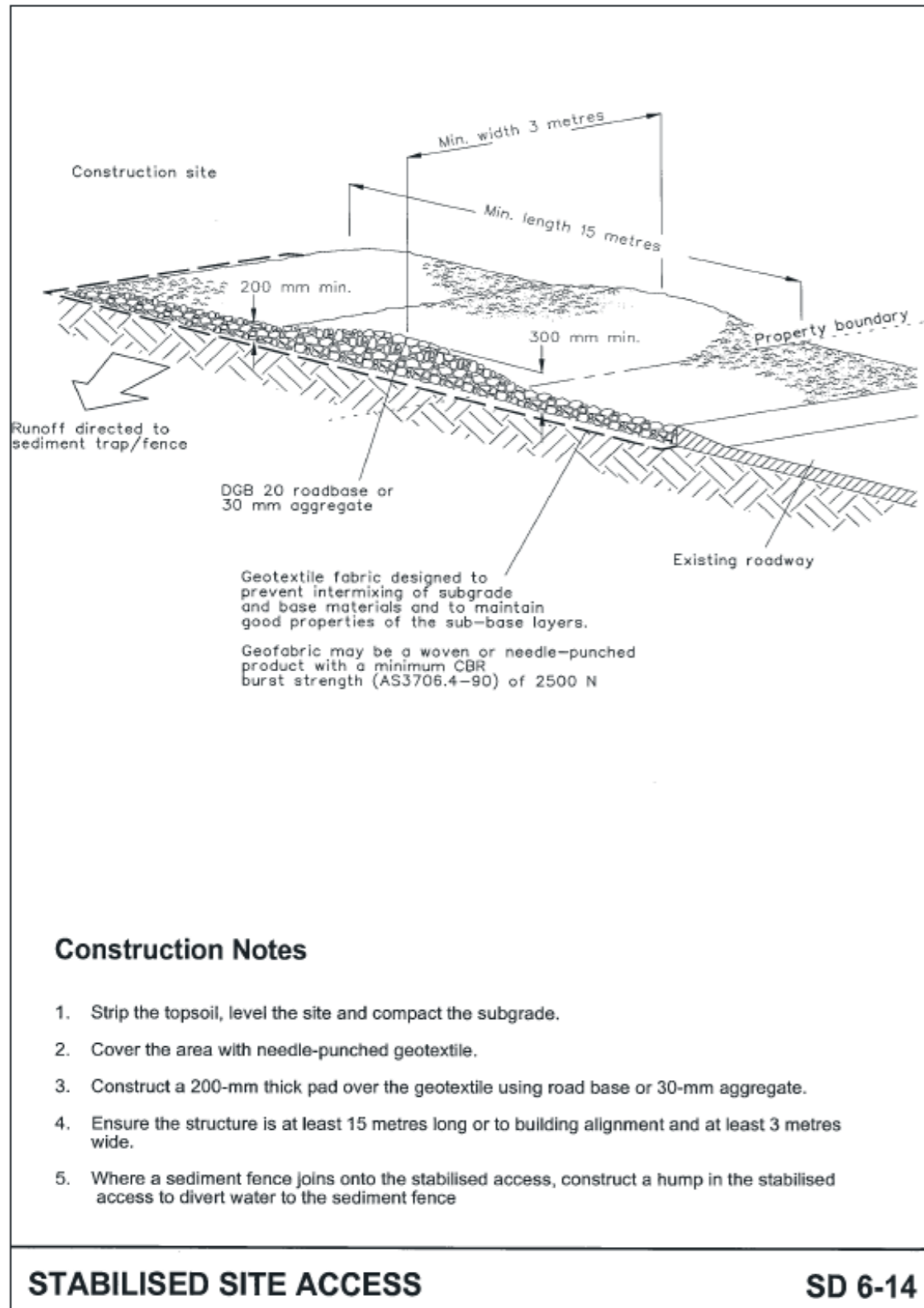
<p>1. Administration & General</p>	<p>All works to be carried out in accordance with the relevant approval. Any variations to the scope of works addressed in relevant approval may require additional environmental approvals.</p> <p>Work areas will be delineated/identified on site (bollard, flagging, etc.)</p> <p>This ECM will be available on site.</p> <p>Worker inductions, pre-starts and toolbox talks will include applicable environmental aspects, impacts and mitigation measures.</p> <p>Informal inspections of environmental controls throughout the day and at end of day work as required.</p> <p>Emergency response equipment to be accessible at all work zones.</p> <p>Environmental complaints, incidents and observations will to be recorded within the Site Diary.</p>	<p>2. Chemical and Spill Management</p>	<p>Chemicals will be stored in accordance with Australian Standards and EPA requirements (appropriate segregation, minimum clearances, bund capacity etc).</p> <p>Spill response equipment will located within plant operating zone/s. Clean up as required. Provide a suitably sized spill response kit on site and accessible to all workers.</p> <p>Plant and equipment (including deliveries) will be refueled offsite or in designated refueling areas and with access to spill response equipment.</p> <p>Plant and equipment to be checked regularly to oil and fuel leaks.</p> <p>Report all spills to Degnan Site Manager immediately.</p>
<p>3. Heritage</p>	<p>If unexpected heritage finds are discovered, the Unexpected Finds Procedure will be activated. This involves:</p> <ul style="list-style-type: none"> • Stop work immediately • Notify Degnan Environment Manager, Site Manager and Project Manager, and client • Set up appropriate barricade to protect the area • Do not recommence work until approval is granted <p>If human remains are found, work would cease, the site secured, and the NSW Police and Heritage NSW notified. Where required, further archaeological investigations and an Aboriginal Heritage Impact Permit would be obtained prior to works recommencing at the location. DO NOT recommence work without approval to do so.</p>	<p>4. Soils, geology and contamination</p>	<p>If unexpected contaminated finds (e.g. asbestos, discolouration or smelly soils) are identified within the project site during construction:</p> <ul style="list-style-type: none"> • Stop work immediately • Notify Degnan Environmental Manager, Site Manager and Project Manager • Barricade the area to prevent access and install appropriate No-Go signage <p>Asbestos removal works will be managed by a licenced asbestos removalist. Air monitoring may be required by a Licenced Asbestos Assessor.</p> <p>The Environmental Manager will instruct asbestos protocols.</p>

<p>5. Waste and Sustainability</p>	<p>Waste will be classified and managed in accordance with the NSW Environment Protection Authority (EPA) <i>Waste Classification Guidelines Part 1</i>. Waste will be disposed at a facility licenced to accept it.</p> <p>Apply waste management hierarchy (avoid, reuse, recycle and finally dispose at landfill).</p> <p>Clearance certificate will be obtained for any imported recycled material.</p> <p>Different waste streams will be separated on-site for off-site disposal where possible.</p> <p>General construction skip/waste bins are located at works areas. Skips will be protected or covered at the end of day or as required.</p> <p>Recycle packaging and waste where possible.</p> <p>Use energy efficient plant/equipment and conserve water wherever possible.</p>	<p>6. Soil and Water Management</p>	<p>Erosion and sediment controls will be installed and maintained in accordance with <i>The Blue Book</i>, this ECM and/or Erosion and Sediment Control Plan.</p> <p>Weather will be monitored daily. Where appropriate, works will be rescheduled to avoid heavy rain.</p> <p>Erosion and sediment controls will be informally inspected daily, and formally inspected weekly, and prior to and after rain events exceeding 10mm.</p> <p>Site access points will be sealed or stabilized with a maximum 75 mm aggregate, 2.4m (single lane) or 3m wide, underlain by needle-punched geotextile (refer to Drawing SD 6-14). Plant and equipment will track on approved access routes.</p> <p>Standard trenching staging and controls will be implanted (refer to Drawing).</p> <p>Stockpiles will be covered (where practical) and sediment controls installed downslope (refer to Drawing SD 4-1).</p> <p>Water will be applied to construction areas for dust suppression as required. Stormwater drains will be protected downstream of work areas.</p> <p>Construction water (including roof cleaning water) will be captured, tested and treated in as required This includes temporary seepage encountered during piling activities. Water will be discharged to land or reused onsite. No construction water to be discharged to stormwater or waterways.</p>
<p>7. Flora and Fauna</p>	<p>Flora</p> <p>No trees of vegetation will be trimmed or removed without client approval.</p> <p>Tree Protection Zones (TPZ) will be clearly demarcated and signposted. No access is permitted within a TPZ.</p> <p>Fauna</p> <p>If fauna or nest is identified on site, DO NOT touch the animal. Notify Environmental Manager and Site Manager immediately.</p>	<p>8. Traffic & Pedestrian Management</p>	<p>Local traffic laws and controls are to be observed for incoming/outgoing deliveries.</p> <p>Traffic and pedestrian management will be carried out in accordance with the approved Traffic Management Plan (TMP) and/or Traffic Guidance Scheme (TGS).</p> <p>Parking</p> <p>Parking space allocated within site for construction vehicles.</p> <p>Pedestrians</p> <p>Install temporary fencing for safe alternative pathways if access temporarily impacted.</p>
<p>9. Noise and Vibration</p>	<p>Minimise noise as much as practicable by selecting appropriate equipment and ensure in good working order.</p> <p>Use non-tonal reversing/movement alarms such as broadband alarms or ambient noise sensing alarms for all plant used regularly onsite (greater than one day), and for all Out-Of-Hours-Works (OOHW).</p>	<p>10. Air Quality</p>	<p>To minimize the generation of dust from construction activities the following control measures will be implemented:</p> <ul style="list-style-type: none"> • Access routes covered with non-dispersive aggregate (recycled concrete) if not sealed, and • Stockpiles will be covered when not in use.

	<p>Deliveries should be staged such that only one truck is on site at a time where possible.</p> <p><u>Sensitive Receivers</u></p> <p>Be mindful of residents – minimize swearing, shouting or loud radios.</p>		<p>Air quality will be periodically monitored (qualitative) for dust leaving the site. If required, additional dust controls will involve scheduling works to avoid high wind events, wetting down of works areas, covering any materials or stockpiles.</p> <p>Plant and equipment will be routinely inspected for black smoke or visual emissions.</p>
--	--	--	--

PROJECT & OTHER RELEVANT CONTACTS		SITE DETAILS		ECM CONSTRUCTION WORKING HOURS
Degnan Project Manager – John Dennes Degnan Site Manager – Tom Donnelly Degnan Project Engineer – Sean Levitt Degnan Enviro Representative – Andrew Stuart	0421 639 195 0412 544 523 0433 358 375 0416 106 939	Access to Project Site	SMTF-N Access Gate off Tallawong Road	Standard Construction Hours <ul style="list-style-type: none"> Monday – Friday: 0700- 1800 Saturday: 0800 -1300 Sunday and public holidays: No work
MTR Representative – Jack Donnan	0483 810 322			OOHW may occur in accordance with MTR approval.

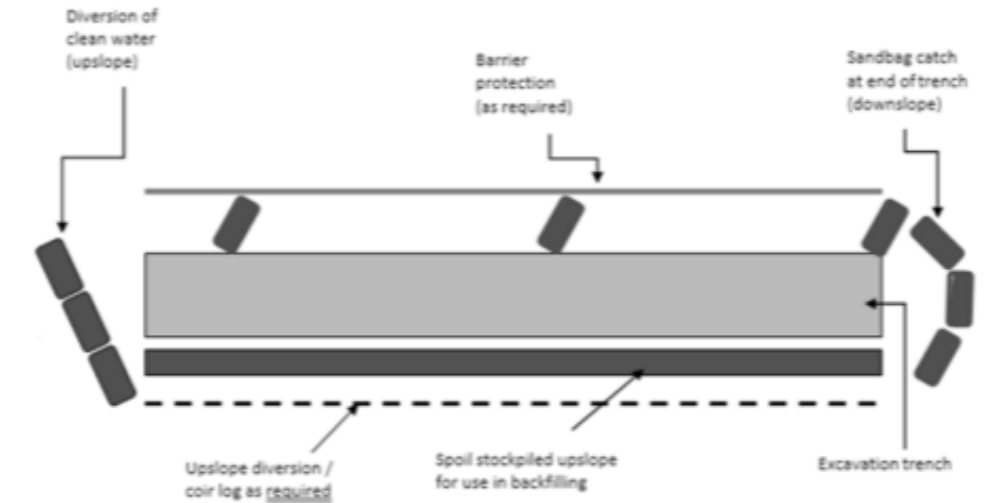
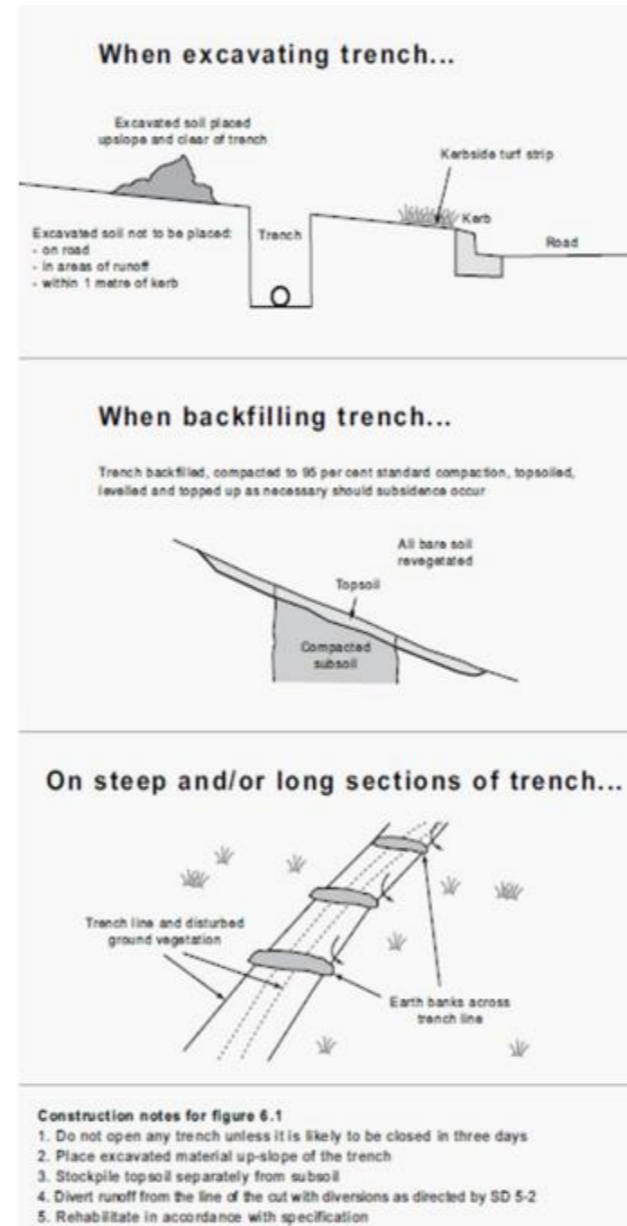
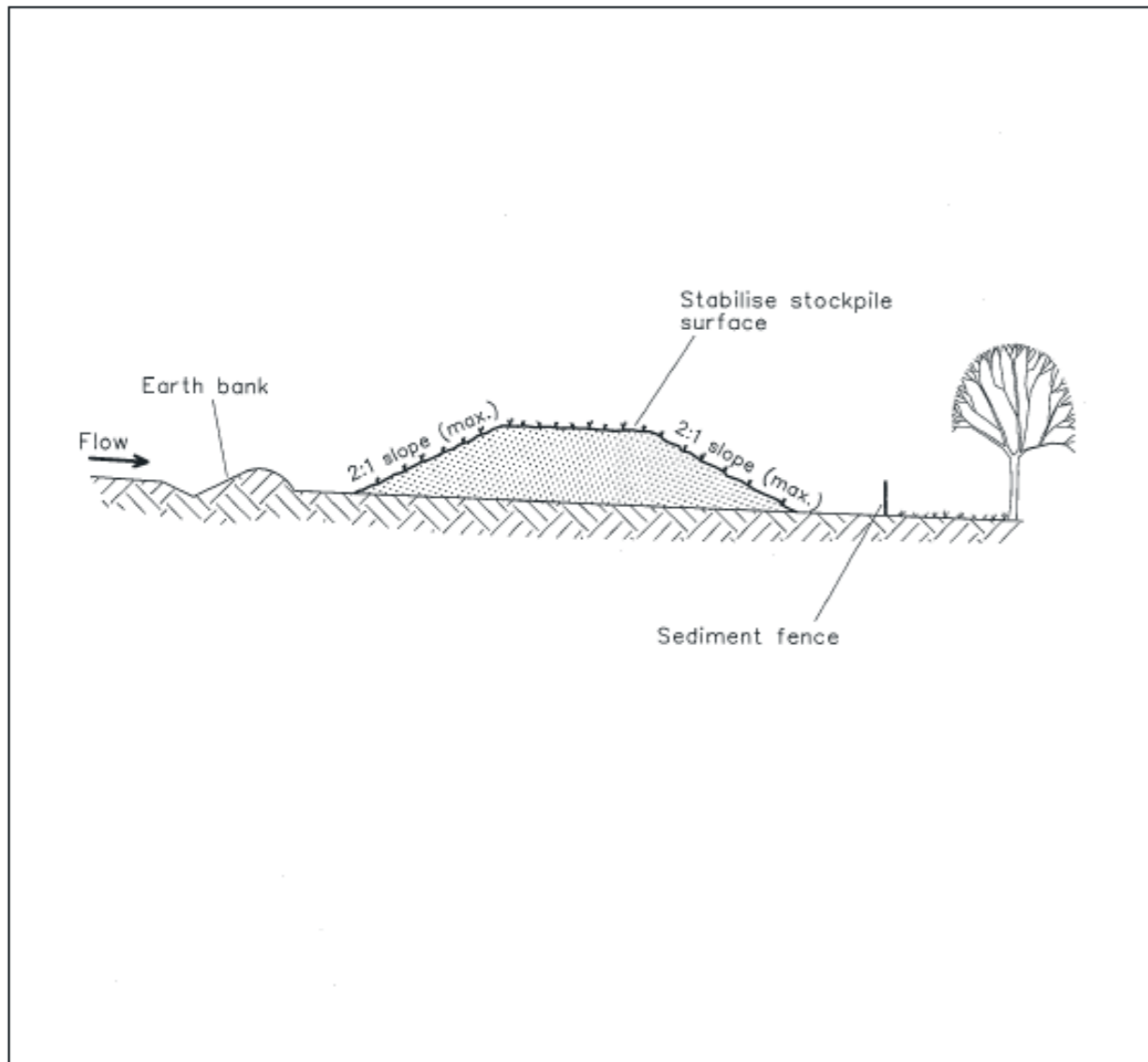
Standard Drawings (Erosion and Sediment Control)



Standard Drawings (Erosion and Sediment Control)

Standard Trenching Staging

Standard Trenching Controls



Construction notes for figure 6.1
 1. Do not open any trench unless it is likely to be closed in three days
 2. Place excavated material up-slope of the trench
 3. Stockpile topsoil separately from subsoil
 4. Divert runoff from the line of the cut with diversions as directed by SD 5-2
 5. Rehabilitate in accordance with specification

Construction Notes

1. Place stockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
2. Construct on the contour as low, flat, elongated mounds.
3. Where there is sufficient area, topsoil stockpiles shall be less than 2 metres in height.
4. Where they are to be in place for more than 10 days, stabilise following the approved ESCP or SWMP to reduce the C-factor to less than 0.10.
5. Construct earth banks (Standard Drawing 5-5) on the upslope side to divert water around stockpiles and sediment fences (Standard Drawing 6-8) 1 to 2 metres downslope.

STOCKPILES

SD 4-1

Appendix 2: Cover Page

Environmental Management Documentation.

See Degnan Environmental Management Plan and Construction Methodology.

DEGNAN

ENVIRONMENTAL MANAGEMENT PLAN

OPERATIONAL CONTROL CENTRE EXPANSION & FIT-OUT OTS2

PROJECT NUMBER: 0991

This Environmental Management Plan is to be read and implemented in conjunction with Degnan's Management System Procedures located on Degnet and if required other project related plans

Contents

1	Document Control	5
1.1	Authorisation	5
1.2	Revision Status.....	5
2	Degnan Management System	6
2.1	Scope and Purpose of the Environmental Management Plan	6
2.2	Scope of Works.....	7
2.3	Contract / Client Supplied Impact Assessments / Statements.....	7
3	Legal and Other Requirements (Refer to PRO-006)	8
4	Leadership & Commitment	8
4.1	Project Specific Roles & Accountabilities (Refer to PRO-019).....	8
4.1.1	Degnan Construction Director (Off site Resource).....	8
4.1.2	Degnan Project Manager.....	9
4.1.3	Degnan Site Manager	10
4.1.4	Environmental Representative (Degnan Environment & Sustainability Lead).....	10
4.1.5	Design / Engineering Support (Offsite Resource).....	11
4.1.6	Degnan Workforce.....	11
4.1.7	Degnan Subcontractors	11
5	Environmental Policy, Objectives and Targets	12
5.1	Environmental Policy.....	12
5.2	Environmental Objectives and Targets (Refer to PRO-008)	13
6	Training & Competency (Refer PRO-013).....	14
6.1	Training Needs.....	14
6.2	Project Induction and Training	14
6.3	Daily Pre-Start Meeting (F102).....	15
6.4	Toolbox talks (F103)	15
6.5	Environmental Alerts / Lessons Learned	15
7	Environmental Risk Management (Refer to PRO-022).....	16
7.1	Identification of Hazards	16
7.2	Assessment of Risks.....	16
7.3	Implementation of Effective Controls	17
7.4	Reviewing the Effectiveness of Controls	17
7.5	Project Risk Management	17
7.5.1	Workplace Risk Assessment (Form F100).....	17
7.5.2	Safe Work Method Statements (Form F108)	18
7.5.3	Review of HIRAC Process.....	18
8	Environmental Records	19

9	Environmental Complaints and Non-Compliance	19
9.1	Complaint Handling Procedure	19
9.2	Non-Conformance & Corrective Action (Refer to PRO-028)	20
10	Audit & Inspection (Refer to PRO-024)	20
11	Continual Improvement	21
12	Performance Monitoring & Reporting	21
12.1	Environmental and Sustainability Performance	21
12.2	Subcontractor Environmental Performance	21
12.3	Contractual and Regulatory Performance	22
13	Incident Management (Refer PRO-029)	23
13.1	Incident Reporting	23
13.2	Incident Reporting to External Parties / Statutory Reporting	23
13.3	Incident Investigation	23
13.4	Environmental Incident Response (Refer to PRO-029)	24
13.5	Duty to Notify of Pollution Incident	24
13.6	External Party Issued Notices	24
14	Managing the Identified Environmental Issues	26
14.1	Noise Impacts	27
14.2	Sensitive Receivers	27
14.3	Hours of Operation	28
14.4	Traffic Management	28
14.5	Access	28
14.6	Vehicle and Plant Storage	28
14.7	Plant and Equipment Refuelling	28
	29
14.8	Oil, Fuel & Chemical Handling, Storage or Transport	29
14.9	Spill Clean Up	29
14.10	Threatened Flora / Fauna	29
14.11	Heritage Listed Zones	30
14.12	Dust	30
14.13	Dirt / Spoil Storage	30
	Surplus spoil will be classified and disposed of in accordance with the NSW EPA Waste Classification Guidelines. Spoil will be stored in a manner to reduce dust generation.	30
14.14	Water and Sediment Control	30
14.15	Dewatering	31
14.16	Waste Management	32
14.16.1	Transporting Waste	32

14.16.2	Disposal (Reuse vs Recycle vs Landfill)	32
14.16.3	Licensing, Waste Tracking, Record Keeping and Reporting Requirements.....	32
14.17	Packaging.....	32
14.18	Paper.....	32
14.19	Housekeeping	32
14.20	Community Notification / Consultation	34
Appendix 1:	Environmental Policy.....	35
Appendix 2 –	Site Environment Control Maps (ECM)	36

1 Document Control

1.1 Authorisation

Function	Position:	Name	Date
Prepared by	Environmental Manager	Andrew Stuart	1/02/2024
Reviewed by	Project Manager	John Dennes	1/02/2024
Approved By	Contractor's Representative	Ben Daly	1/02/2024

1.2 Revision Status

When this document is revised, the following table will be updated to detail the most recent revision level and brief description of the reason for the revision.

Any changes within this document that modify either the scope or intent of the original document are highlighted in the right margin by a vertical bar (|).

Where review and revision is deemed warranted, i.e. such as:

- comments received from the Client,
- where it is necessary to reflect changes in contractual / Project requirements,
- where it is necessary reflect changes in work processes, outcomes of incident investigations and / or corrective action, or as a result of Legislative change, or
- The EMP biannual review

These revisions shall be reviewed by the respective Project Manager and approved by the Construction Director.

Revision Date	Description of amendment
21/01/2020	Initial issue
26/03/2020	Updated Environmental Management Plan issued to MTR for Approval
26/05/2020	Updated with Environmental Controls implemented on site.
12/08/2020	General updates from Bi annual review
30/01/2024	Update to include IFAT scope of works

The revised document will be forwarded to the holders of controlled copies and those recipients are responsible for destroying or marking "superseded" on the previous revision.

Copy #	Issued to	Name / Company	Date

2 Degnan Management System

Degnan Constructions operate an Integrated Management System (IMS), comprising of policies, procedures, operating processes and forms that define the minimum requirements by which the organisation functions.

It is not intended for this Environmental Management Plan (EMP) to encompass all Degnan's business processes; however, this document provides the linkage (where applicable) back to the corporate minimum requirements.

Note: Certain elements of this EMP may have equivalent MTR / Metro Trains Sydney (MTS) procedures and forms. In this case, those elements shall be reviewed in conjunction with the Degnan corporate procedure. Discrepancies in requirements shall be discussed prior to commencement of that specific activity.

2.1 Scope and Purpose of the Environmental Management Plan

This management plan has been developed to outline the Degnan Constructions approach to managing our activities for the Operations Control Centre (OCC) Expansion and Fit-Out Works project.

This plan defines:

- Degnan's Environmental policies and objectives,
- Environmental responsibilities for all team members involved in the delivery of work,
- The framework for the administration of environmental activities,
- Processes for recording / reporting of environmental performance,
- Inspection and review protocols for identification, elimination or control of potential risk,
- Compliance interfaces with our client's processes,
- Environmental responsibilities for our Sub-Contractors and their employees.

This plan will be reviewed at least annually to monitor compliance against client requirements and the revised plan submitted to the MTR when requested.

All personnel, prior to starting work on the site shall be made aware of the content of plan and where / how to access the plan via the Degnan project induction process.

2.2 Scope of Works

The Sydney Metro network will be controlled from the OCC (Operational Control Centre) at Tallawong Road at Rouse Hill. The OCC is housed within the two-storey Administration Building that provides the main reception for visitors and accommodates administrative activities, training, OCC, staff amenities and recreational functions.

The OCC ground floor east of the building entrance forms the base for overall management, centralised control and monitoring of the North West Metro operational network.

To meet the needs of Sydney Metro City & Southwest the OCC fit out to the east of the building, which is currently an empty shell, needs to be completed to accommodate the additional controllers required to manage the extended network. The fit-out works, to an area of approximate 254m² on each level (Ground Level and Level 1), comprises electrical, mechanical, fire, hydraulics, and fit-out works including some interface works to the existing OCC Facility as well as providing the external mechanical enclosure and transformer generator yard.

In 2023, Degnan was awarded a significant modification order by MTR under the same contract to design and construct a test platform to conduct an Integrated Factory Acceptance Test (IFAT) for the Platform Screen Doors (PSDs and Mechanical Gap Fillers (MGFs) at the Tallawong SMTF-N facility adjacent to the test track.

2.3 Contract / Client Supplied Impact Assessments / Statements

- Infrastructure Approval SSI – 5931
- Response to Submissions is submitted to the Department of Planning, Industry and Environment (DPIE) in support of a State Significant Infrastructure application for a Rapid Transit Rail Facility (RTRF) at Tallawong Road, Rouse Hill.
- NWRL0TS-NRT-PRD-PM-PLN-000817 - Construction Environmental Management Plan for Sydney Metro Northwest Operations, Trains and Systems PPP

The following MTS Plans will be referenced throughout the duration of works to ensure alignment and conformance to MTR / SMCSW expectations:

- [Construction Environmental Management Plan](#)
- [Construction Soil and Water Management Plan](#)
- [Construction Traffic Management Plan](#)
- [Air Quality Management Plan](#)
- [Noise and Vibration Management Plan](#)
- [Flora and Fauna Management Plan](#)
- [Heritage Management Plan](#)
- [Spoil Management Plan](#)
- [Visual Amenity Management Plan](#)
- [Waste Management and Recycling Plan](#)
- [Ancillary Facilities Management Plan](#)

3 Legal and Other Requirements *(Refer to PRO-006)*

Legal and other requirements that include relevant NSW State Acts and Regulations, EPA Codes of Practice and Australian Standards are identified and managed in a Legal and Other Requirements Compliance Register by the Degnan WHSEQ Manager or representative. The Project Manager will add applicable project specific legal requirements as necessary.

The register is maintained in Degnet (Degnan’s Intranet) and is available to the relevant project personnel to assist in the development of Safe Work Method Statements (SWMS) and other work processes.

4 Leadership & Commitment

Degnan has established and maintains an ISO14001:2015 certified Environmental Management System.

We demonstrate our commitment to developing and applying the EMS and continually improving its effectiveness and acknowledging the importance of minimising our environmental impact, compliance with legal and other requirements, establishing an Environmental Policy and objectives, conducting management reviews, and providing resources needed to execute the works.

4.1 Project Specific Roles & Accountabilities *(Refer to PRO-019)*

The following tables provide broad description of general accountabilities regarding implementation and management of the Environment Management system on this project.

Specific Environmental Management System related responsibilities for each member of the project team are determined and assigned at the initial project start up meetings and recorded on F061 - Project Roles and responsibilities matrix (F061).

Environmental responsibilities of key personnel are as set out in the following section, together with the nominated frequency of that specific responsibility.

The Degnan Project Manager shall be accountable for the implementation of this Project Environmental Management Plan and shall be assisted in daily activities by the Degnan nominated “Site Management” Environmental representative.

4.1.1 Degnan Construction Director (Off site Resource)

Accountability / Responsibility	Frequency
Visible commitment to Environmental Practices and ensure compliance to environmental legislation, associated industry Codes of Practice and advisory data	Continually
Visible commitment to Environmental Practices and ensure compliance to the any client mandated Environmental Rules and other Standards	Continually
Responsible for site occupation & project delivery conformance to the EMP including meeting all legislative requirements	Continually
Attend client Meetings (as Management Representative)	As nominated
Ensure that activities are assessed for risk prior to commencement	Continually
Selection of subcontractors, assessment of environmental plans and on-going monitoring to verify that they meet contract requirements	Continually
Conduct pre-start meetings with Subcontractors, if required	Pre-mobilisation

Accountability / Responsibility	Frequency
Participation in the investigation of serious incidents	On occurrence
Provide appropriate resources to implement the processes defined in this Environmental Plan	As required
Review and determine training requirements in conjunction with the PM	As nominated
Review injury, Incident & Environmental Statistical Reports	Monthly
Conduct Management Workplace Visits	Monthly
Ensure award conditions are implemented / adhered to	Ongoing

4.1.2 Degnan Project Manager

Accountability / Responsibility	Frequency
Visible commitment to Environmental Practices and ensure compliance to environmental legislation, associated industry Codes of Practice and advisory data	Continually
Visible commitment to Environmental Practices and ensure compliance to the any client mandated Environmental Rules and other Standards	Continually
Review & implement this Project Environmental Plan	As required
To report the Environmental status as well as any Environmental issues to the client's representative	As required
To ensure all approvals & licensing is gained prior to any construction activity	Pre-mobilisation
Ensure all employees undertake Environmental Plan defined induction & training	Continually
Ensure that foreseeable risks are identified, documented on Workplace Risk Assessments (or Aspects & Impacts Register) and controlled appropriately	Pre-mobilisation
Ensure that workforce complete SWMS / JSEA's for assigned tasks	Continually
Provide appropriate resources to implement the processes defined in this Environmental Plan	As required
Ensure appropriate amenities are provided for employees	Continually
Notification of & participation in the investigation of serious incidents	On occurrence
Selection of subcontractors, assessment of environmental plans and on-going monitoring to verify that they meet contract requirements	Continually
Conduct pre-start environmental alignment meetings with subcontractors, if required	Pre-mobilisation
Review environmental incident & statistical reports	Monthly
Collect environmental record data and distribute appropriately	As defined
Participate in scheduled audits of the environmental Plan	As per Audit Schedule

4.1.3 Degnan Site Manager

Accountability / Responsibility	Frequency
Visible commitment to Environmental Practices and ensure compliance to environmental legislation, associated industry Codes of Practice and advisory data	Continually
Visible commitment to Environmental Practices and ensure compliance to the any client mandated Environmental Rules and other Standards	Continually
Ensure that foreseeable risks are identified, documented on Workplace Risk Assessments and controlled appropriately	Pre-mobilisation
Notification of & participation in the investigation of serious incidents	On occurrence
Assist in environmental incident management	On occurrence
Review and determine training requirements in conjunction with the PM	As nominated
Ensure all plant & equipment is inspected upon arrival to site, prior to use & then re-inspected on a monthly basis	As required
Collect environmental record data and distribute appropriately	As defined
Participate in scheduled audits of the Environmental Plan	As per Audit Schedule
Co-ordinate SWMS / JSEA activities for their area of responsibility	All works
Conduct Pre-start meetings	Daily
Conduct environment / Toolbox meetings	Weekly
Conduct formal / informal environmental site Inspections	Monthly/Daily
Attend Independent Environmental Representative site inspections	As required

4.1.4 Environmental Representative (Degnan Environment & Sustainability Lead)

Accountability / Responsibility	Frequency
Ensuring the system of environmental management is planned, documented, implemented & maintained in accordance with the requirements of this Contract	Continuously
Assist with the development of the project Aspect & Impact register	Pre-mobilisation
To ensure all approvals & licensing is gained prior to any construction activity	Pre-mobilisation
Ensure all requirements of approvals & licensing are effectively implemented	Continuously
Ensuring the details of this EMP accurately reflect construction activities	As defined
Input to the formulation SWMS / JSEA's / work instruction / procedures	As required
Provide relevant content for inclusion at pre-start & toolbox meetings	As required
Maintain liaison with relevant regulatory authorities & stakeholders as required	As Required

Accountability / Responsibility	Frequency
To review & participate in environmental incident investigation & nominated corrective measures	On Occurrence
Provide staff with training on environmental / sustainability initiatives	As Required

4.1.5 Design / Engineering Support (Offsite Resource)

Accountability / Responsibility	Frequency
Review of Engineering & Design activities to ensure environmentally responsible design for the contracted work	All Design
Review of Engineering & Design activities to ensure sustainability requirements included	All Design
Contribute to the overall project goal for zero environmental incidents by making suggestions for improvement where a better or more cost-effective alternative can be identified	Where Identified
Input to the formulation SWMS / JSEA's / work instruction / procedures	All Tasks

4.1.6 Degnan Workforce

Accountability / Responsibility	Frequency
Visible commitment to Environmental procedures & instruction	Continuously
Participate in all Environmental Plan defined induction	As defined
Actively participate in hazard identification	Always
Participate in the development of task specific SWMS / JSEA	Always
Adhere to defined task specific SWMS / JSEA controls	Always
Attend Pre-start meetings	Daily
Attend Toolbox Meetings	Weekly
Wear designated PPE	Always
Notify the occurrence of all hazards & incidents to the site / Project Manager	All Incidents
Adhere to all environmental related instructions provided by supervision	Always

4.1.7 Degnan Subcontractors

Accountability / Responsibility	Frequency
Visible commitment to Environmental Practices and ensure compliance to environmental legislation, associated industry Codes of Practice and advisory data	Continuously
Visible commitment to Environmental Practices and ensure compliance to Degnan & client mandated Environmental Rules and other Standards	Continuously

Accountability / Responsibility	Frequency
Carry out risk assessments (considering environmental impacts) for their scope of works	All Works
Develop and ensure current SWMS / JSEA's are in place for their works	All Works
Conduct formal & informal workplace hazard inspections	Daily
Participate in site induction as defined by Project Environmental Plan	As defined
Conduct Pre-start meetings	Daily
Attend toolbox meetings	Weekly
Provide representation to all site meetings, when requested	As nominated
Ensure all plant & equipment is inspected upon arrival to site, prior to use & then re-inspected on a monthly basis	As required
Notify the occurrence of all hazards & incidents to Degnan Site / Project Manager	All Incidents
Immediately investigate all incidents & report back findings & close out actions	All Incidents
Adhere to all environmental related instructions provided by Degnan Management	Always

5 Environmental Policy, Objectives and Targets

5.1 Environmental Policy

The Degnan Environmental Policy details the commitment of Degnan's senior management team to deliver our services with minimal negative impact to the environment. The Environmental Policy will be communicated at the time of induction for all workers and contract personnel, will be displayed (as applicable) on all notice boards in Site Office / lunch crib areas and made available to other interested parties.

Note: The Degnan Environmental Policy Statement is attached in Appendix 1 of this document.

5.2 Environmental Objectives and Targets *(Refer to PRO-008)*

As part of the Degnan management system, there are a series of overarching corporate Environmental objectives and targets that apply to all projects. In addition to those corporate objectives and targets, project environmental objectives and performance targets have been developed based on the MTR, contractual and other stakeholder requirements.

Performance against the objectives & targets are monitored and reviewed on a monthly basis at the Project Management Review Meeting.

Objective	Indicator	Target
Improve Safety, Health and Environment incident rate performance	• Environment breaches that require reporting to a statutory authority (SafeWork NSW / ONRSR / EPA)	Zero
	• Environmental Incident Frequency Rate	Less than 1
Enhance WHSEQ Accountability and Responsibility	• Major NCRs from accreditation/certification audits	Close on time
	• Audits conducted in accordance with the audit program	>75%
Improve service offering and customer satisfaction	• Customer / Client complaints Frequency Rate	Less than 1
	• Completed Client Satisfaction Surveys	Score of Good or better
Improve Degnan's corporate sustainability program	• Reuse & recycling of construction waste	>75% of waste generated to be recycled / reused
	• Reduction of carbon emissions (Fuel usage)	>5% reduction in annual CO2 emissions
	• Reduction of carbon emissions (Appliances)	New appliances with 3 or more Star rating
	• Reduction of resource use (Paper)	>5% reduction in annual paper use
PROJECT SPECIFIC		

6 Training & Competency (*Refer [PRO-013](#)*)

Training, in addition to that achieved by the induction processes shall be provided by a combination of formal and informal process, on a continued basis, throughout the course of work.

Training shall be carried out utilising any combination of Line Management, supervisory staff, independent trainers and other personnel or Subcontractors. Training requirements may be discussed at toolbox and safety meetings and at the management meetings to prioritise training needs.

6.1 Training Needs

Specific training for Degnan staff shall be identified on [F008 - Training Matrix](#).

Additional project specific training requirements may be identified via the completed Workplace Risk Assessment by detailing the scope of work, hazards and risks associated with the tasks and determining appropriate controls where those controls may include specific skills / training to assist / permit a person to safely perform the task.

The Project Manager (with assistance of administration resources in head office) then coordinates / arranges for that training to be conducted or acquire suitably qualified / trained employees from within the business to perform that task.

6.2 Project Induction and Training

Environmental awareness training will be provided to all personnel involved with the project (including all sub-contractors engaged) through the project induction process in order to ensure awareness of project environmental requirements and commitments. The environmental component of the induction may be tailored for each group to ensure that specific components of work are adequately covered. This form of environmental awareness training will be directed at ensuring that all personnel are aware of:

- The importance of conformance with Degnan and our client's environmental policies and procedures and the requirements of the EMP,
- The significant environmental aspects of the project work in general and of specific high environmental impact works and the environmental benefits of improved work performance,
- Specific aspects such as water restrictions and savings, waste management and minimisation requirements, and dangerous goods storage/handling requirements depending on group to be inducted,
- The roles and environmental responsibilities for achieving conformance with environmental policy and procedures and with the EMP including site emergency preparedness and response requirements,
- The potential for NSW Government – Department of Planning, Industry and Environment (DPIE), EPA, Local Area Council or client site inspections, and
- The potential consequences of departure from specified operating procedures.

6.3 Daily Pre-Start Meeting (F102)

Pre-Start meetings shall be held with all workers

A pre-start is to be carried out for each individual task to be performed on that shift, by the nominated workgroup supervisor and the workers involved in the task before any work commences or when work activity changes.

The meeting shall include discussion on immediate environmental, safety and work issues for that group on that shift or task. It is recorded on [F102 – Daily Activity Pre-Start](#).

Where multiple trades / workgroups are scheduled to complete works on the same day / shift or within close proximity, the Degnan Site Manager will coordinate with those trades / workgroups to ensure each individual workgroup has knowledge / awareness of the other workgroups planned works and associated hazards / risks.

Completed Daily Pre-starts shall be displayed next to [F111 - Site Attendance Record](#) for all visitors or additional resources to view the various activities, risks and other relevant information occurring on site.

6.4 Toolbox talks (F103)

Degnan Constructions will hold a weekly Toolbox talk on site to address safety & environmental hazards in and around the site, safe work practices, coordination and responsibilities.

Toolbox talks may be used as a forum to provide training to site personnel.

The Toolbox talk will address any of the following that have arisen that week:

- WHS&E incidents,
- Corrective Actions
- Identification of hazards,
- Outcomes / actions arising from internal inspections and audits,
- Outcomes / actions arising from external inspections and audits,
- When introducing or altering risk review procedures, and
- When changes are proposed to work premises, systems of work, plant or substances.

A copy of [F103 - Toolbox Meeting Minutes](#) shall be posted on the Site Notice Board and filed in the relevant Degnet project folder.

6.5 Environmental Alerts / Lessons Learned

From time to time, alerts or lessons learned may be issued by Degnan, other site stakeholders or MTR to provide specific information regarding an incident, changes in the work environment, or other important information impacting the workgroup.

A Toolbox talk may be used to communicate the details of the issued safety alert / lesson learned advice.

Degnan issued safety alerts / lesson learned advisory alerts are retained on Degnet and posted on the site notice board.

Note: Any relevant Alerts / Lesson Learned created by Degnan will be provided to the client's representative to promote the sharing of learnings.

7 Environmental Risk Management *(Refer to [PRO-022](#))*

The successful mitigation of hazards is based on the following parameters:

- Identification of hazards,
- Assessment of risk,
- Implementation of effective controls, and the
- Continual evaluation and monitoring of the effectiveness of implemented controls.

7.1 Identification of Hazards

Prior to commencing an activity or task, the following shall be considered:

- Is the equipment / resources that are being used to perform a task suitable for the task?
- Is the equipment / resources appropriately located? If not, how can it be improved?
- Is the method for using the equipment and materials appropriate? If not, how can it be improved?
- Will activities generate noise, fumes, dust, runoff, vibration, impact on lighting etc? If so, how can this be prevented?
- Can activities have negative impact on the environment? If so, how can this be prevented?

To assist this process of identification, resources such as the following will be used: -

- NSW WorkCover and trade-based Codes of Practice and other publications, e.g. safety alerts, Industry guides / bulletins or client’s standards,
- Hazard profiles for specific trade groups,
- Past incidents,
- Workplace experience, and
- Consultation (e.g. Toolbox Talks) with workers experienced in the task to be undertaken.

7.2 Assessment of Risks

For each potential workplace hazard identified, an initial (before controls nominated) and residual (after controls nominated) Risk Rating will be determined by referring to the matrices on [F058 – Risk Matrix Master](#) (also included on [F100 – Project Risk Register](#) and [F108 – SWMS Template](#)).


The ratings are described below.

		Consequence				
		Catastrophic	Extreme	Severe	Moderate	Insignificant
Likelihood	Very Likely	25	23	20	16	11
	Likely	24	21	17	12	7
	Possible	22	18	13	8	4
	Unlikely	19	14	9	5	2
	Rarely	15	10	6	3	1

7.3 Implementation of Effective Controls

The ‘Hierarchy of Control’ shall be referenced when nominating controls to eliminate or minimise exposure to a hazard.

HIERARCHY OF CONTROLS (HOC)		
CONTROL	EXAMPLE	RANKING
Elimination	Physically remove the hazard	6
Substitution	Replace the hazard	5
Isolation	Separate the hazard from the people at risk from injury	4
Engineering controls	Physical changes, e.g. redesign machine by adding guards	3
Administrative	Changes to the way people work. (e.g. procedures, training, installing signs)	2
PPE	Protect the worker with Personal protective Equipment	1



When re-assessing the risk score after controls have been nominated, Degnan has set specific risk ranges that are to be applied to determine if the works / task can proceed (or nominated controls require further consideration to reduce the risk “So Far As Is Reasonably Practicable” (SFAIRP). The risk scores are detailed below:

Residual Risk Rating	Action taken based on residual risk
Very High (23-25)	INTOLERABLE - Activity is not to commence. Higher order Controls (eliminate, substitute, isolate or engineering) must be implemented
High (20-22)	Activity will not commence until Project Manager reviews and approves the nominated controls. The Site Manager shall oversee the activity
Medium (11-19)	Activity will not commence unless appropriate supervision is present to supervise the activity
Low (1-10)	Tolerable – Perform task in accordance with controls

7.4 Reviewing the Effectiveness of Controls

All work activities shall be continuously reviewed to confirm that nominated controls are implemented and are effective in minimising risk. The review process also ensures that new hazards / risks or those overlooked in the original assessment are identified and controlled.

The monitoring and review process may involve:

- obtaining feedback from the individuals performing the tasks,
- reviewing the outcomes / findings of workplace audits, inspections or observations,
- collecting data on any new hazards which have arisen,
- reviewing and analysing injury and incident statistics, or
- reviewing the implications of industry issued safety alerts,

7.5 Project Risk Management

Degnan utilise 2 primary processes to identify and manage hazards and risks.

7.5.1 Workplace Risk Assessment ([Form F100](#))

Note: The Project Risk Register (F100) is retained in the project files

Note: The Workplace Risk Assessment encompasses all risks identified at the Project “Start-up” meeting.

Prior to project commencement, the scope of works and the physical site where the works are to be carried out shall be reviewed to identify and document potential hazards and areas of risk.

Identified issues are then mitigated via:

- additional training,
- site specific induction training,
- Work Method Procedures (WMP),

- Safe Work Method Statements (SWMS),
- Toolbox Meetings
- Job Prestart Meetings

A copy of current Project Risk Register shall be readily available to the Site Manager and a copy issued to all Subcontractors, so they can prepare their respective SWMS accordingly.

Personnel working on the site shall be advised of the risks via toolbox talks, site induction or by task / activity specific training.

The implementation of controls identified in the Project Risk Register shall be verified via the completion of [F130 - Weekly Site Inspections](#), [F131 – Task Observations](#), [F154 – Management Commitment Inspections](#) and internal audits.

The Workplace Risk assessment will be reviewed monthly and available for review on request.

7.5.2 Safe Work Method Statements (Form F108)

[F108 – SWMS Template](#) shall be downloaded from Degnet to ensure the latest version is used and developed by a project team member for all high-risk construction work carried out by Degnan Constructions employees or labour hire supervised by Degnan Constructions on site.

SWMS shall be developed in consultation with employees. A record of who was consulted in the development of the SWMS must be recorded on the SWMS.

Once developed and approved the SWMS shall be given a SWMS No, Title, revision date and recorded on [F107 - SWMS Register](#) within the project filing system.

The Site Manager shall ensure that all Degnan Constructions personnel are trained in their SWMS before commencing work.

Note: SWMS's shall be constantly reviewed for suitability and where changes to the work scope or changes to the work environment are detected then the process shall be repeated to address and document such change.

Note: SWMS's shall be uniquely identified and registered. The SWMS / JSEA shall be completed and signed by an appropriately qualified / competent person/s for the work activity to be undertaken.

Note: SWMS's shall be made available for review on request.

7.5.3 Review of HIRAC Process

The Project Risk Register shall be reviewed at least every month at the HSEQ Project Team Review Meeting and consider the below prompts:

- Any changes that have been made to the way the construction work is done (e.g. a new system of work is introduced, or the place where the work is carried out has changed),
- If new information about the hazards involved in the construction work becomes available to the employer (e.g. SafeWork issues an Alert on a particular hazard),
- If for any other reason the risk control measures are not adequately controlling health and safety risks (e.g. if there have been injuries or illnesses connected with the work),
- After receiving a request from a Health and Safety Representative/WHS Committee Member,
- Receipt of Legal and Other Requirements Change Advice (F002).
- Where required changes shall be made to improve the HIRAC process

- Updated documents shall be re-issued, or workers trained, or tool boxed as required.
- If construction work is not carried out in accordance with the task specific SWMS, the Project Manager shall stop the work immediately or as soon as it is safe to do so. Work may only be resumed in accordance with the SWMS.
- The Project Team shall monitor worker compliance with SWMS by carrying out task observations each week, using F131 - Task Observation. If non-compliance with the SWMS is observed, the work shall cease immediately or as soon as it is safe to do so, and the unsafe condition / behaviour addressed.

8 Environmental Records

The types of records likely to be generated for our works that are to be stored and maintained include:

- Environmental monitoring results
- Complaints and enquiries received
- Notifications received by regulators
- Audit reports
- Completed inspection reports
- Waste tracking certificates/load sheets/dockets
- Training records
- Incident and non-conformance reports
- Calibration records for monitoring equipment
- Monthly reports
- Meeting minutes
- Records as required under the National Greenhouse and Energy Reporting Act 2007.

Procedure PRO-004 Records describes the requirements and timeframes for retaining of records.

9 Environmental Complaints and Non-Compliance

9.1 Complaint Handling Procedure

The phone contact of the worksite shall be publicly posted, and all complaints registered and actioned by the Project Manager / Site Manager / Environmental Representative. Significant issues shall immediately be referred to the client nominated Project Manager or Environmental officer / representative for information.

All complaints received by Degnan must be recorded on Form F005 – Improvement Request with the following details:

- Date of complaint,
- Name, address, telephone number of complainants,
- Nature of complaint, and
- Date and nature of response action.

Complaint records must be retained by Degnan for at least two years and be produced for inspection when requested by any authorised officer. Degnan must report all complaints to the MTR Project Environmental Management representatives on a daily basis.

Refer to the project Community Liaison Plan **PMP-013** for further guidance on the complaint handling procedure.

9.2 Non-Conformance & Corrective Action (Refer to PRO-028)

Non-conformances and corrective actions will be implemented as per the criteria defined in procedure PRO-028 – Non-Conformance and Continual Improvement.

Where the detection of any environmental impact exceeds specified limits, the issue will investigate the incident to determine the extent of possible non-conformance. The non-conformance will then be corrected as soon as possible with necessary action taken to prevent recurrence.

10 Audit & Inspection (Refer to PRO-024)

Degnan will conduct a formal review of this plan at intervals appropriate to the work activities to identify the effectiveness of the plan’s content and to determine the level of implementation. The plan will be revised and reissued as necessary as a result of these reviews.

Project audits shall be actioned as defined in the Degnan corporate Audit Schedule. However, in addition to these scheduled audits, project staff shall verify environmental performance per the Verification Schedule as follows:

Inspection focus	Objective	Frequency
Work site litter/housekeeping inspection	<ul style="list-style-type: none"> Tidy work site with no litter & all waste contained in appropriate containers. Containers to be emptied weekly at appropriate disposal site 	Daily and weekly
Paperwork	<ul style="list-style-type: none"> EMP documents shall be kept current and up to date 	Weekly
Work site storage of fuels, oils, chemicals & paints	<ul style="list-style-type: none"> Compliance with Occupational Health and Safety Act & Regulations 	Monthly or as required
Kitchen waste	<ul style="list-style-type: none"> All kitchen waste to be disposed of in appropriate containers and emptied regularly 	Daily (Informal)
Spills	<ul style="list-style-type: none"> Every spill to be correctly documented & reported 	Spot checks of sites & monthly review of applicable documentation
Solid wastes	<ul style="list-style-type: none"> Appropriate use of recycling facility. Appropriate use of landfill site for disposal 	Spot checks of documentation & recycling Centre records. Final audit of construction sites

11 Continual Improvement

Continual improvement of the EMP is achieved by continually evaluating environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement. The continual improvement process for the scheme will be designed to:

- Identify areas of opportunity for improvement of environmental management which leads to improved environmental performance,
- Determine the root cause or causes of non-conformance or deficiencies,
- Develop and implement a plan of corrective and preventative action to address root causes,
- Verify the effectiveness of the corrective and preventative actions,
- Document any changes in procedures resulting from process improvement; and
- Make comparisons with objectives and targets, and
- Implementation of strategies/techniques to improve the environmental performance of the environmental management system is the responsibility of the Site Environmental Management Representative. Actions and further opportunities for continual improvement will be discussed at periodic Management Review meetings.

12 Performance Monitoring & Reporting

12.1 Environmental and Sustainability Performance

Environmental and sustainability performance is to be continually monitored and submitted to MTR and to the Degnan Senior Management via the Sustainability Monthly Report. The report and progress towards targets will be internally reviewed during the Monthly Operations Meeting.

Refer to the project Sustainability Management Plan regarding targets and performance inclusive of waste, water and energy consumption.

In addition to sustainability-based performance, the Sustainability Monthly Report will capture:

- Report on any environmental incidents,
- Report on any complaints,
- Comments on performance and effectiveness of waste management measures, and
- Environmental non compliances and proposed corrective actions as well as effectiveness and adequacy of this Environmental Management Plan.

Note: External complaints as well as environmental incidents shall be notified to the Client Project Manager or Environmental officer / representative within 24 hours of receipt. Notification will include detail on any corrective measures.

12.2 Subcontractor Environmental Performance

Subcontractor performance shall be monitored via audits and in Weekly Site Inspections (F130).

Should environmental issues be identified by the Site Manager the environmental issues shall be recorded on the Weekly Site Inspection Form (F130). The Site Manager shall manage the close out of the identified issues.

12.3 Contractual and Regulatory Performance

The Environmental Management Plan shall be monitored following implementation to ensure that:

- Environmental operational controls are being effectively applied,
- Project specific environmental compliance and monitoring targets specified in documents listed within Section 2.4e are met,
- Unpredicted impacts are identified, and remedial action is taken; and
- The project objectives listed in Section 5.3 are being met.
- Compliance with contractual and regulatory requirements within documents listed in Section 2.4 will be recorded within the Construction Environmental Compliance Matrix within Appendix 3 and submitted to MTR:
- Scheduled 6 monthly updates of the CEMP,
- Submit the Pre-Construction Environmental Compliance Matrix, 3 weeks prior to construction commencement,
- As the Construction Environmental Compliance Report, 6 months after construction has commenced and after another 6 months or end of project, whichever occurs first,
- As the Pre-Operation Compliance Report, 1 month prior to handover; and
- Any additional date/timeframe listed within the Appendix 3.
- The Site Manager is to conduct a planned inspection of areas under their control weekly using the Environmental and Sustainability Inspection Form
- Where an environmental hazard has been identified the issue addressed / rectified and reviewed for effectiveness. Details of rectification actions shall be recorded on the Environmental and Sustainability Inspection Form
- Where a non-conformance to the Environmental Management Plan or legislative requirements have been identified, a non-conformance report in the form of an Improvement Request (F005), shall be issued.
- The Project Manager is responsible for initiating any actions required by the issuing of a non-conformance report and for the acknowledgement that the non-conformance has been addressed and closed out.
- Responsibilities for monitoring and compliance requirements are detailed in the Project Risk Register (F100).
- Degnan's Environmental Resource shall undertake scheduled weekly inspections on site. This has already been referenced in Degnan's 'Project Objectives and Targets' within Appendix 6.4 Project Start-Up Plan.

13 Incident Management (Refer [PRO-029](#))

13.1 Incident Reporting

Note: In accordance with NSW Environment Legislation, certain events are notifiable “if there is a risk of ‘material harm’ to the environment”). These incidents may be inclusive of spill, air / water pollution, unauthorised vegetation removal, unauthorised removal of culturally significant artefacts or as further defined in NSW Protection of the Environment Operations Act 1997

Note: In the event of any incident with significant off-site impacts on people or the bio-physical environment will be immediately notified to MTRs Environmental Representative.

All Degan personnel and subcontractors shall report all events to the Degan Project Management Team immediately following the occurrence. Details of the incident shall be recorded on [F105 - Incident Report](#) by the Project Team.

The Degan Project Manager shall notify other Degan and applicable client nominated personnel within the nominated timeframes below.

	Environmental Incident	Environmental Near Miss
Degan Project Manager	Within 1 hour	Within 8 hours
Degan Construction Director	Within 1 hour	Within 8 hours
Degan WHSEQ Manager	Within 1 hour	Within 8 hours
Client Rep (as applicable)	Within 4 hours	Within 8 hours

13.2 Incident Reporting to External Parties / Statutory Reporting

Note: In accordance with NSW Environmental Legislation, certain notifiable incidents (as defined in NSW Protection of the Environment Operations Act 1997 Section 147) shall be immediately reported to the EPA. There is a duty to notify the EPA of pollution incidents in NSW as per section 148 of the Act. Notification will be done on the authority of the WHSEQ Manager and Managing director, through the EPA’s Environment Line: 131 555

Further detail notifiable event classification is provided in Section 12.5 - Duty to Notify of Pollution Incident.

At any time when an incident is reported to a regulatory authority i.e. SafeWork NSW, NSW EPA, the Degan Project Manager shall provide a summary of the notification and copies of any such communications to the client representatives or other authorised person.

13.3 Incident Investigation

Depending on the severity of the incident, specific Degan personnel shall conduct a detailed investigation into the root cause of the incident identifying corrective / preventive action as soon as is practicable after the incident has occurred using [F162 – Investigation Report](#).

Incidents and investigation findings (inclusive of corrective actions) shall be discussed at the next Toolbox meeting for the purpose of sharing any lessons learned.

Note: Any relevant findings from incident investigations, Safety Alerts / Lesson Learned created by Degan will be provided to the client’s representative to promote the sharing of learnings.

13.4 Environmental Incident Response (Refer to PRO-029)

Degnan has established procedures to respond to any environmental incident or emergency situation. These procedures have been designed to prevent and mitigate the environmental impacts related to such events.

Emergency situations may include but are not limited to:

- Oil, fuel or other contaminants or chemical spill,
- Major equipment failure, and
- Industrial accidents.

Prior to the commencement of a task involving hazardous materials, the work group shall be instructed on the potential risk and required work methods documented in the SWMS / JSEA.

The steps defined in an incident response must encumber these defensive principles in the following order:

- Preservation of human health and safety,
- Protection of plant and property, and
- Protection of the environment.

13.5 Duty to Notify of Pollution Incident

Office of Environment & Heritage (EPA)- NSW

- The Project Manager shall assist MTR to notify the Office of Environmental & Heritage of any pollution incident causing or threatening material harm to the environment.
- Pollution incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise
- Harm to the environment is material if:
 - It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
 - It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and (loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.
 - For the purposes of this part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.

13.6 External Party Issued Notices

The Site Manager shall ensure that all safety and environmental notices or concerns raised by other parties e.g. SafeWork NSW, Unions, Client's representative, Consultants, Neighbours / community members, Councils, OEH/EPA, DPIE etc. are immediately forwarded to the Project Manager and Degnan WHSEQ Manager.

For immediate safety or environmental concerns, the Site Manager shall take appropriate action to eliminate and / or control the hazard. The issue shall be communicated to the Project Manager and Degnan WHSEQ Manager.

14 Managing the Identified Environmental Issues

Note: Degnan will use available EIA as a basis for their internal “Impact / Aspect” or SWMS / JSEA control documents. The Project Manager will ensure the task specific SWMS incorporate any significant issues as a hazard and implement the appropriate controls.

Identification of the environmental aspects is an ongoing process that assesses past, current and potential future impacts (positive and negative) of the organisation’s activities on the environment. This process also requires the identification and consideration of the actual and potential regulatory, legal and business exposures affecting the organisation.

The consideration of environmental aspects / impacts must consider the following:

- Approvals & Licences from:
 - NSW Government – Department of Planning, Industry and Environment (DPIE),
 - NSW Government - Environment, Energy and Science (EES),
 - NSW Environment Protection Authority (EPA)
- MTR / MTS / Sydney Metro processes as documented in any applicable client specification
- Wastewater discharges
- Impact on stormwater
- Air emissions
- Solid waste
- Energy usage
- Noise emissions
- Chemicals & fuel use and storage
- Housekeeping
- Soil disturbance & dust generation
- Vehicles entering public places carrying debris
- Vehicles tracking dirt / mud off site onto roadways
- Interaction between construction & public / residents / business
- Environmental complaints
- Liquid spill control
- Community impacts / Issues

Every consideration shall be given to minimising any activity that has the potential to have any impact on the environment. A full and thorough risk management process shall be undertaken, and control measures put in place before any work activities commence.

The following procedures address the management of environmental issues and methods to control identified emissions.

14.1 Noise Impacts

A Construction Noise and Vibration Management Plan has been developed to address noise and vibration impacts and mitigation measures for the project. A summary of the information provided within is detailed below.

Noise disruptions will be kept to a minimum wherever possible, however, noise generating activities will occur for the following activities:

Activity	Source	Duration / Exposure (estimated)
Excavation	Excavators (<10 tonne)	TBA as part of OHHWMP
	Tippers (import / export spoil)	
	Compactors	
Concrete Penetrations and FRP	Drilling “booker” rods (tray / equipment fixing to wall/ ceiling / floor) – Hammer Drill	
	Core Drilling – Pneumatic core drills	
	Concrete cutting – Demolition saw	
Deliveries of material / equipment	Light / Heavy vehicle (GVM <20 tonne)	
	Mobile crane (generator lifts)	
	Vehicle Loading Crane (Hiab)	
	Tippers (import / export spoil)	
	Concrete pumps – generator pads	
Crantage	20t mobile city crane for structural steel and equipment shed for the IFAT works	
General Construction	Small hand tools – circular saw	
	Small hand tools - drill	

Noise emission levels of major equipment will be assessed prior to use on site. These noise levels will be assessed against maximum levels and if equipment is found to exceed these maximum noise levels, it will be:

- treated to ensure compliance (by installation of noise suppression devices or mufflers); or
- prevented from operating onsite.

14.2 Sensitive Receivers

Pre-mobilisation assessments have identified the nearest receivers for any noise generating activities potentially being:

- The residential suburb of ‘The Ponds’ approximately 500-600 metres immediately south of the Degnan external work site in addition to the distance, the Operational Control Centre is adjacent to the work area (and in between our work area and the receiver).
- Several low-density properties approx. 200-300 metres immediately north of the Degnan external work site in addition to the distance there exists natural vegetation and contoured

land and existing substation structures. The other 'receivers' are those currently working within the contained site (covering those performing construction work, maintenance work and those entering the OCC).

- The nearest residential receivers to the IFAT site are located approximately 220 metres to the South East on Braeside Crescent across from Schofields Road.

Given the 24/7 operational requirements of the facility, Degnan has arranged to conduct certain noise generating activities within the OCC in the early hours in the morning 01:30 – 03:30. To work during these hours, Degnan via MTR / MTS will request and obtain approval for an "Out of Hours" permit.

The IFAT site location is approximately 460 metres South West of the OCC facility and located at the country end of the test track at the SMTF-N facility. Normal hours of operation will be utilised for the works from Monday to Friday with train testing being conducted over the weekends.

14.3 Hours of Operation

All works will be completed with the least amount of disruption within the mutually agreed / approved operational hours taking into consideration operational requirements of existing building occupants.

Degnan activities will only be conducted within the standard construction hours as required by the project approval -

Monday to Friday - 7am to 6pm.

Saturday - 8am to 1pm; and

No work on Sundays or Public Holidays.

Note: Emergency work is exempt from these restrictions as is any works that could not normally be conducted within normal business hours. Prior to any such works commencing, approval should be obtained from asset owner and Sydney Metro as required.

14.4 Traffic Management

Degnan has developed a separate TTMP for the IFAT works which is available on request. Local traffic control will be in place during crane lifts for 1 day on the access road adjacent to the test platform.

14.5 Access

Access to the IFAT site is via the access road which leads around the rear of the stabling yard within the SMTF-N facility.

Pedestrian access and access to nearby facilities will be maintained at all times. Where required, alternate access detours will be provided. The location of Degnan's work area is such that there is little to no impact on existing site occupant pedestrian movements. Degnan has made provision for access / egress to the construction area as well to existing infrastructure so not to impact operational requirements.

14.6 Vehicle and Plant Storage

All plant and machinery will be parked inside a site compound as appropriate.

All plant will be in good working order and comply with the Project Plant Checklist and Minimum Plant Requirements. As a precaution, spill kits will be available for use in an emergency oil or fuel leak.

14.7 Plant and Equipment Refuelling

Plant and equipment will primarily be refuelled offsite.

Refuelling of small items from jerry cans will be at designated areas with adequate spill kits.

14.8 .Oil, Fuel & Chemical Handling, Storage or Transport

All hazardous substances will be evaluated in accordance with the project Work Health & Safety Management Plan requirements, thus ensuring that all possible alternatives are reviewed, to engineer out all risk where possible.

Chemical purchase choices are based on the product being as environmentally friendly as possible. Containers should be recyclable if available, otherwise disposed of correctly.

The list of applicable chemicals stored on site will be minimised and following approval for use by Degnan and the client, all processing staff will be trained in the environmentally sound and safe usage practices for the substances.

Training will include the introduction of requirements as defined in the associated MSDS.

Oil and other liquids must be handled, stored, transported and disposed of in a way that minimises the possibility of a spill or leak to prevent soil or water contamination. Good practices include:

- Store oil & other chemicals in a contained area.
- Storage in a bund is not required if the total volume is under 1000L and is being stored for less than 24 hours and spills will not enter the environment (e.g. stormwater drains).
- The net capacity of the bund should be maintained at least 110% of the largest tank.
- Drums must be covered if stored outside.
- Emergency spill kits are maintained and readily available whenever oils, fuels or chemicals are handled, transported, processed or tested.
- All personnel involved in the storage of oil are familiar with the procedures for using the spill kit and trained if necessary.
- Ensure spills and leaks are promptly and appropriately cleaned-up, relevant people notified and contaminated material appropriately disposed.
- Oil transfer equipment should be positioned as far away as possible from drains, boundaries and concrete surfaces.
- Do not leave oil hoses and pumps unattended while in use.
- Chemicals stored correctly. Volumes do not exceed bund capacity
- Ensure all plant and equipment used in the handling and transport of oil, fuels or chemicals must be regularly checked for serviceability, and all hoses checked for deterioration, and hose ends, and fittings checked for distortion.
- Only compatible chemicals should be stored together.

14.9 Spill Clean Up

The identification of potential spills shall be captured on the associated task specific SWMS / JSEA with mitigation method of spill containment clearly detailed.

Spill kits will be provided for the clean-up of small spills within site compounds. Spill kits will be clearly marked, and all personnel will be made aware of their location.

Any spill will be cleaned up and disposed of as liquid waste or as required.

14.10 Threatened Flora / Fauna

The site is not known to contain threatened flora and/or fauna.

Activities impacting the existing vegetation consists of earth works (excavation) for 2 off 5x3m concrete pads (Electrical Generator & Air Conditioning unit), trenching for conduit installation, installation of temporary amenities (site office & ablutions shed) and cutting in access pathways. All vegetation noted to date in those areas (and immediately adjacent), consists of recently planted native shrubs not exceeding 500mm in height.

14.11 Heritage Listed Zones

The site consists of highly modified and recently developed lands. There is low risk of Aboriginal or non-Aboriginal heritage finds. Unexpected heritage finds will be managed in accordance with Degnan's Unexpected Finds Procedure.

14.12 Dust

Dust will be controlled where possible by performing dust-generating activities only where necessary.

Where possible dust collection or suppression systems on power tools shall be utilised and that dust shall be collected and disposed of immediately after the activity generating the dust is completed.

14.13 Dirt / Spoil Storage

Spoil will be:

- removed and stockpiled close to the work site,
- protected from runoff using effective erosion prevention measures as well as locating these stockpiles away from the natural flow line of the site. Refer to the following section,
- covered with tarpaulins or similar to prevent airborne dust generation.

14.14 Surplus spoil will be classified and disposed of in accordance with the NSW EPA Waste Classification Guidelines. Spoil will be stored in a manner to reduce dust generation. Water and Sediment Control

Degnan will comply with conditions stated on development approvals, permits, licenses, sediment control plans and environmental impact assessments. To this end:

- Only clean rainwater is permitted to enter waterways and drains. All other liquids and waste products shall be considered as pollutants.
- Material will not be placed in any position that leads to pollution of waterways or drains.
- Degnan will implement effective Environmental Management practices, through the following:
 - Assessment of site conditions – through the identification of work site land contour / slope, location of drainage systems, location of areas with soil disturbance or exposed surfaces.
 - Planning – the works to minimise the removal of natural vegetation and stabilisers, minimise the amount of site disturbance, minimise the duration of exposure, diversion of runoff from work site, storage of stockpiles of spoil away from areas of existing & / or concentrated runoff, coverage of stockpiles left unattended or not required for extended periods or rainfall is expected, determine the methods of transport when removing or delivering soil & material to site to prevent excessive pollution of surrounding environment.

- Installation – of erosion and sediment controls prior to works commencing to prevent erosion and divert sediment from entering drainage systems by the strategic placement of barriers and other control measures.
- Housekeeping – by ensuring that the work area is clean & tidy, unsecured spoil is protected from the elements.
- Inspection / Evaluation / Review – to ensure that the erosion and sediment control methods are adequate and effective.
- Rehabilitation – of work area to original pre excavation condition by revegetating the area, installation of temporary sedimentation control until area is fully stabilised.

Note: Depending on the complexity of the specific works and associated excavation works as well as other factors identified at the planning stage, these will be reviewed to determine the level / complexity of control methods to be implemented.

Degnan and their subcontractors shall ensure that there is no likelihood of sediment entering any waterway or drainage system as a result of the works to be carried out.

To prevent any sediment from leaving the work area and entering the drainage system, the following sediment control processes shall be implemented to prevent inadvertent pollution of the local waterways and / or storm water drain systems:

- the spoil will be returned to the excavation on a daily basis (whenever possible),
- the spoil shall be protected from runoff using tarpaulins and sausages / sandbags that shall be placed and
- spoil shall be secured around the perimeter to prevent any breakout as well as around any drainage systems located close by to minimise the potential of stormwater runoff, and
- stockpiles will be located away from the natural flow line of the site.

If the topography of the site forces the placement of the stockpile in the direct line of flow, Degnan will construct approved sediment fences to ensure no downstream pollution can occur. If it is impractical to avoid stormwater run-off being directed to a stockpile, a flow diversion bank should be constructed up-slope of the stockpile to direct run-off in a controlled manner around the stockpile. If the placement of material on a road surface is necessary to undertake work and no other reasonable options are available, the materials must be removed immediately if rainfall is imminent or occurring.

When Degnan are performing their excavation works, the Project Manager shall assess the topography (slope) of the work area and shall install sandbags around each drain to create a dam effect to minimise the possibility of the polluted water entering the drainage system.

Task specific SWMS's / JSEA's shall be developed considering the potential environmental impacts for each activity and location.

Pre-mobilisation assessments have identified the nearest receivers for any potential unplanned water discharge as being the site internal storm water system. There is a dam on an adjacent property external the site (approx. 100 metres north) however the site stormwater system and topography between the worksite and the property would prevent any water contamination.

14.15 Dewatering

In the event of runoff water from a rain event enters open excavations, that impacts the ability for Degnan to continue their works – that water will be discharged in accordance with license conditions and client requirements as directed.

14.16 Waste Management

Waste materials shall be contained in appropriate storage vessels applicable to the nature of the material or stockpiled in an approved area for subsequent disposal. Light materials and litter are likely to blow away shall be held and transported in covered containers.

14.16.1 Transporting Waste

Transportation of waste from site shall be in appropriately maintained vehicles with load safely secured and covered to prevent spillage, loss of waste and the emission of odours.

14.16.2 Disposal (Reuse vs Recycle vs Landfill)

Degnan have engaged a specialist waste contractor that provides mixed (non-hazardous) waste skips that are removed from site on request and sorted for appropriate disposal offsite. To ensure the waste is disposed correctly, waste shall be sorted or classified correctly (minimise mixing of waste).

14.16.3 Licensing, Waste Tracking, Record Keeping and Reporting Requirements

- Prior to disposal of waste ensure the waste facility is appropriately licensed to accept the waste.
- For specified types of waste, on disposal obtain consignment approval for liquid and hazardous wastes from the waste facility.
- Ensure any storage facility is appropriately licensed to store the waste.
- Ensure the transporter is appropriately licensed to transport the waste.
- Retain completed waste transport certificates and comply with record keeping requirements.
- comply with any applicable client reporting requirements.
- Disposal activities of specific waste shall be tracked and monitored via Inspection Test Plans (similar to those developed for Quality related activities). The client or EPA (or equivalent) may require or impose "Hold Points" or "Witness Points" for verification of disposal prior to progressing onto next stage of works.

14.17 Packaging

Degnan endeavours to use recyclable packaging always. Pallets and crates that can be returned to the supplier and reused is our preferred delivery option. The avoidance of non-recyclable packaging remains a condition of purchase where feasible.

14.18 Paper

Recycling of wastepaper is company policy.

14.19 Housekeeping

Weekly checks are conducted to ensure the build-up of rubbish and materials is minimised and managed. Good Housekeeping includes organised activities in the following areas:

- General cleaning
- Walking/working surfaces
- Storage
- Work area

Degnan shall maintain a clean site and free of litter not only to meet environmental requirements but also in the interests of site safety.

Solid waste must be removed regularly and taken to the Recycling Centre or disposed of in a designated disposal area. No waste is to be burnt or buried.

14.20 Community Notification / Consultation

Given the nature of the works in which Degnan are involved, there is a possibility that activities will impact the local community. Degnan will endeavour to determine (wherever possible) this potential and develop a strategy to manage any impacts in consultation with MTS and Sydney Metro.

Degnan will proactively manage community concerns by providing notification of impending works, conduct works at times that are generally considered acceptable and in accordance with any permits or development / planning approvals. Degnan will work with Systems Connect (Linewide work) to coordinate constructions notifications and avoid double notifying the community when work is taking place during the same time period.

Note: The intent of this requirement also extends to other parties who are established on the site who may be impacted by Degnan activities.

Appendix 1: Environmental Policy



Environmental Policy

Commitment

We are committed to operating in a manner that is compatible with the sustainable prevention of pollution and continual improvement in our environmental performance. We comply with ISO14001:2015 and applicable legislation and other requirements in our operations as a construction company.

Objective

Environmental stewardship is a core organisational objective and the responsibility of all employees at Degnan Construction Pty Ltd.

Obligations

We will:

- Continuously improve the effectiveness of our environmental management program.
- Manage our operations in a manner compatible with the prevention of pollution.
- Comply with all applicable environmental laws and regulations, and corporate policies.
- Identify environmental objectives and targets, which represent performance beyond strict regulatory compliance, and strive to meet or exceed them.
- Monitor our environmental performance through regular evaluations and reset targets and objectives periodically.
- Promote our superior environmental performance to maximize strategic business advantages where applicable.
- Consider environmental costs, risks, and impacts when making planning, contracting, purchasing, and operating decisions.
- Seek the commitment of all employees to environmental stewardship through communication, training, and support for employee leadership.
- Involve our employees and sub-contractors in improving our environmental performance.

Chris Degnan
Managing Director
Degnan Constructions Pty Ltd

Appendix 2 – Site Environment Control Maps (ECM)

ECMs are printed on A3 in colour, laminated and displayed prominently at the site office or compound. ECMs are identified and explained during site inductions and include, as a minimum, the following items as they apply to the site:

- Site layout, including:
 - Site boundaries and entry / exit points
 - Construction footprint
 - Site offices, containers and compounds
 - Internal and external traffic routes
- Adjoining land use, including nearest noise sensitive receivers
- Locations, types and sizing of erosion and sediment controls. *
- Protection barrier surrounding environmentally sensitive areas and structures.
- Vegetation to be removed.
- Structures to be removed.
- Stormwater drainage, fall direction and waterways.
- Waste management facilities.
- Emergency Contact numbers:
 - Project Manager
 - Site Manager
 - Relevant Environment Professional
 - Transport Info Line 131 500
- Standard hours of operation (Mon – Fri 7am – 6pm, Sat 8am – 1pm, Sundays and Public Holidays – No work).
- Services onsite that may pose an environmental risk (e.g. gas mains)

The precise type and location of controls are modified to suit site conditions, in consultation with the Environment Professional allocated to the project. Any modifications are recorded and retained in the project file and modified on the ECM.

*An ESCP is completed for detailed sites, from which erosion and sediment controls can be located for input to the ECM. Where an ESCP is not prepared, erosion and sediment controls applicable to the site are included in the ECM.

A separate ECM has been prepared for the IFAT scope of works.

PROJECT: IFAT Platform – Rouse Hill



Task: New Platform Installation

Degnan Constructions

	Name & Position	Sign	Date
Prepared by	Samuel Harvey - Cadet		13/02/2023
Reviewed by	Sean Levitt SPE		02/02/23
Approved by Client			

Proposed work start date: 07/02/2024

Rev: 0

Contents

Methodology Brief	3
1.1 Work Hours	3
Safety Considerations	3
2.1 Safety Documents	3
2.2 Site Hazards	3
2.3 Safety assurance	3
Equipment/Plant to be Used	4
Scope of Works and Methodology	5
4.1 Site Mobilisation and PC Area	5
4.2 Excavation Works	6
4.3 Concrete Works	7
4.4 Steelwork and Site Shed Installation	8
Appendices	10
Appendix A – Plant Specifications	10
Appendix B – SWMS	10
Appendix C – Methodology Sign off Sheet	11

Methodology Brief

The purpose of this methodology is to ensure the works are planned and executed with all possible HSEQ issues taken into consideration and to minimise the possibility of delays and construction issues.

1.1 Work Hours

Monday to Friday, 7:00AM to 4:00PM

Safety Considerations

2.1 Safety Documents

Degnan as the head contractor will ensure the safety requirements are implemented and supervise all works to ensure compliance to safety standards are also maintained.

2.2 Site Hazards

The **hazards** include but are not limited to:

- Rail Corridor
- Electrocution
- Aerial and underground services
- Plant and equipment
- Slips trips and falls
- Cuts and abrasions
- Equipment & Machinery injury
- Manual Handling
- Falling object/material
- Dust
- Noise
- Working around plant
- Operation of mobile plant
- Live Loads
- Snakes

2.3 Safety assurance

Prior to works commencing Degnan will have completed the following:

- Reviewed all available Project Documentation including updated AFC drawings and Project Management Plan documents.
- Created and submitted works methodology and safety documentation.
- Consulted with relevant stakeholders and subcontractors
- Held site meetings with works subcontractor and suppliers
- SWMS have been reviewed by Degnan and are project specific
- All workers have signed onto the relevant SWMS
- Workers have attended the prestart talk and relevant toolbox talks

Equipment/Plant to be Used

The following plant, equipment and tools will be used in the execution of the below works:

Site Mobilisation:

- HIAB Truck / Tilt Tray

Excavation Works:

- 3.5T Excavator

Steel Installation:

- 20t City Crane

Platform Shed Delivery:

- 20t City Crane

Concrete works:

- Concrete Line pump
- Concrete Agitator

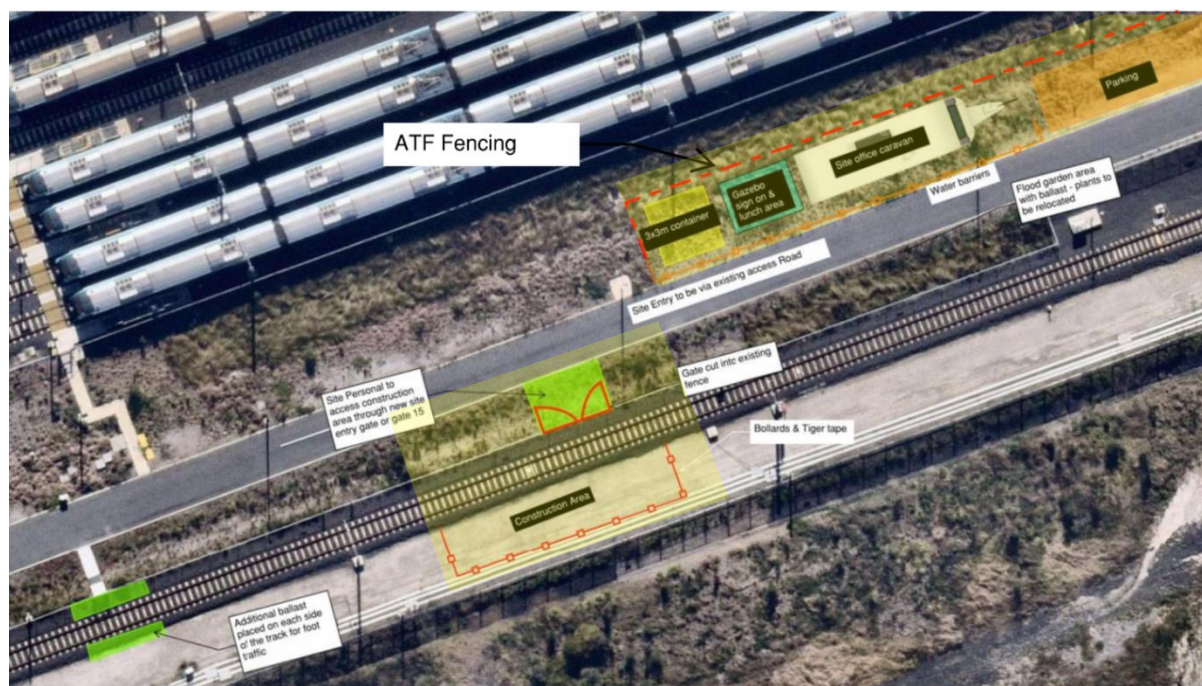
Scope of Works and Methodology

4.1 Site Mobilisation and PC Area

The plan includes the establishment of a site office/lunchroom caravan equipped with a generator and water tank. Additionally, a 3x3m container for general tools, a 3x3 gazebo area with a table for sign-on and prestart. Degnan are planning to use a designated area along the roadside for parking, the idea is to minimise the amount of cars in the work area and ferry individuals down from the administration building. To control access into the site, a lockable gate will be installed into the existing fence. The area in front of the gate will be filled with ballast to facilitate the movement of equipment like the 3.5 T excavator. The construction area will be delineated using plastic bollards and tiger tape, aiming to avoid temporary fencing within the corridor. Degnan will be utilising a small area opposite the platform as a material laydown and storage area, this will also be delineated with water barriers for people and plant separation. **Degnan is the PC for all areas on this markup highlighted in yellow. Inside the 'PC' area, Degnan permits will govern the works.**

(Refer below **Fig. 01**)

Fig. 01



4.2 Excavation Works

There are several footings on site that need to be dug out to support the test platform and site shed. To access the construction area Degnan proposes to remove a section of the existing temporary fence. Once removed a temporary gate will be installed that will be locked at the end of every shift. Using ballast Degnan will fill in either side of the test track to allow for a 3.5t excavator to access the site.

Using the 3.5T excavator the footings will be dug out and the gravel will be spread out along the test track, the clay spoil will be placed into bulka bags and removed off site. Following the completion of the excavation works the temporary gate will be removed and the original fence reinstated.

Trenching for electrical conduits will be completed with the 3.5t excavator, although hand digging must be utilised within 500mm of the GLT. Existing services must be positively identified onsite prior to excavating.

(Refer below to **Fig. 02** for further information)



Fig 02

4.3 Concrete Works

All concrete works will be poured insitu, footings will be formed up above ground and poured. Degnan plans to do the footings and slabs in one pour, and the platform coping edge in another pour on a separate day.

Care must be taken when manual handling the steel reinforcement and constructing the footing formwork. Concrete will be delivered to site via a Concrete Agitator and poured using a line pump from the access road. Degnan will ensure the line pump bridges the existing track, to ensure no damage is done to the metro structure. The concrete pump, agitator and pour area will be delineated from any interface contractors. There will be a designated wash out area constructed onsite for the concrete pump and agitator.

(See below **Fig. 03**)



Fig 03

4.4 Steelwork and Site Shed Installation

The structural steel for the new platform will be lifted into place via a 20t City Crane upon delivery. The 20t Crane will be placed on the access road, two outriggers will be on the road, the other two outriggers will require structural pads to be constructed, as they will be placed in the garden. An MTS/MTR isolation permit must be obtained prior to the commencement of works. Steel components and the shed will be lifted over the existing fence and over the deenergised OHW and placed into position, the structural steel components will then be stick built on site.

It is important the city crane and its slewing area is clearly delineated onsite, and the appropriate exclusion zone signage is displayed. The city crane must have slew restrictors in place for the metro stabling yard to the north of the construction area. **Once the slew restrictors have been engaged by the Crane Operator, the operator will be the only person with access/control of the slew restrictor isolation switch, Degnan Site Supervisor to confirm slew restrictors are engaged. Slew restrictors will only be disengaged once craneage works are complete crane has demobilised.** Degnan will also have ticketed electrical spotters to supervise all lifts. See the lift study below Fig. 04. Also see crane radius markup below Fig. 05.

(See below Fig. 04 and Fig. 05)

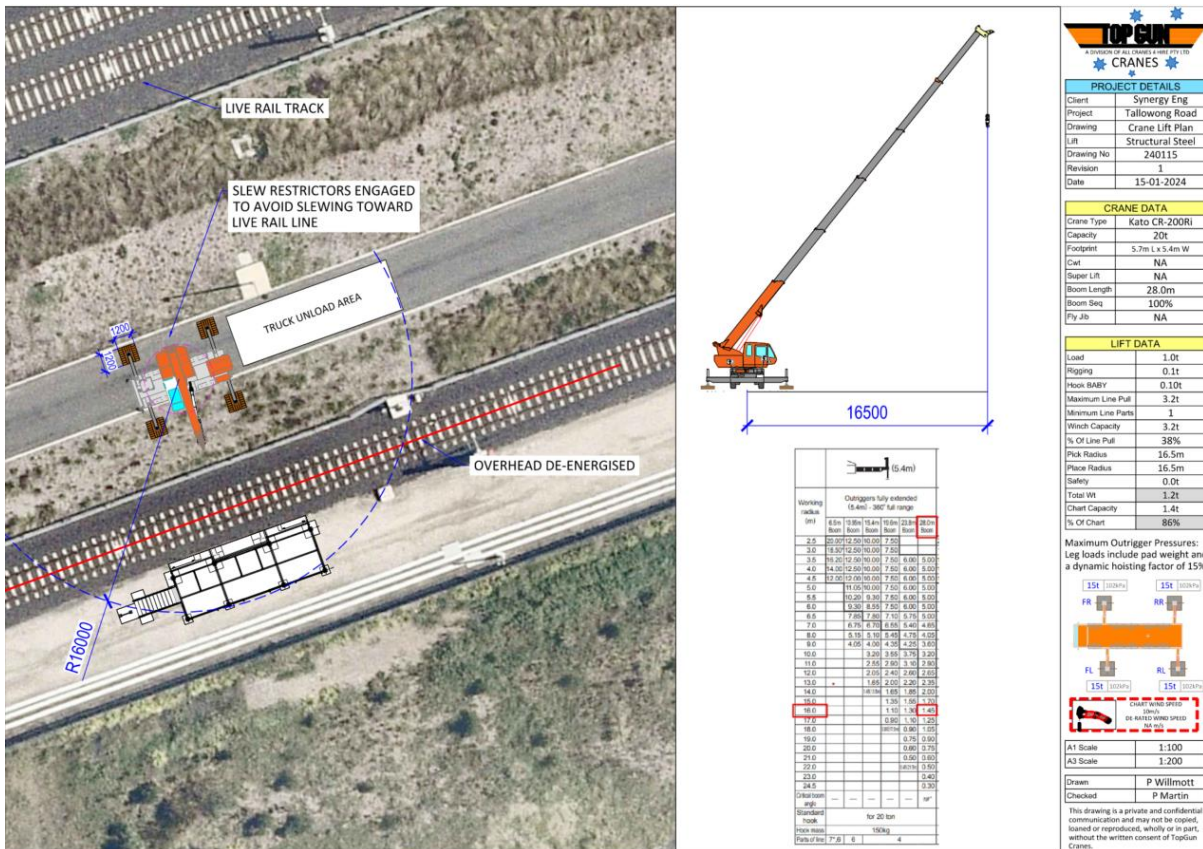
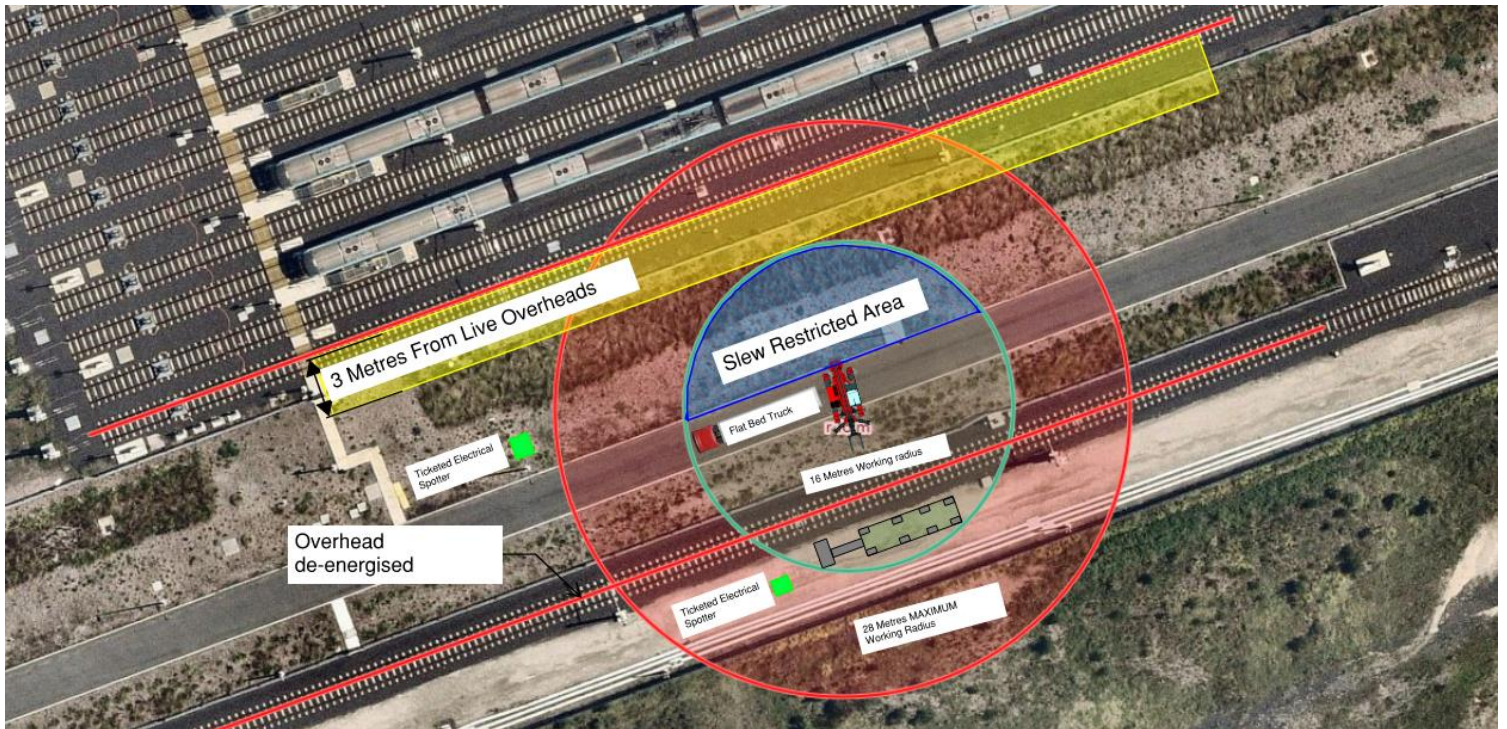


Fig 04

Fig 05



Appendices

Appendix A – Plant Specifications

- Hiab Crane Truck (Will be Provided Prior to Construction)
- Concrete Line Pump (Will be Provided Prior to Construction)
- Concrete Agiator (Will be Provided Prior to Construction)
- 20t City Crane (Will be Provided Prior to Construction)
- 3.5T Excavator (Will be Provided Prior to Construction)

Appendix B – SWMS

- Degnan - MTR IFAT Platform Project SWMS
- Coast Civil - Excavation SWMS
- Steelworks – Structural Steel Installation
- Top Gun – Cranage SWMS
- New Era – Electrical Works SWMS
- Damcon – FRP SWMS
- Northern Fencing – Fencing SWMS

Appendix C – Methodology Sign off Sheet

METHODOLOGY SIGN OFF SHEET		
Name	Company	Signature
Samuel Harvey	Degnan	SH

Appendix 3: Cover Page

Community Notification.

Not Required

Appendix 4: Cover Page

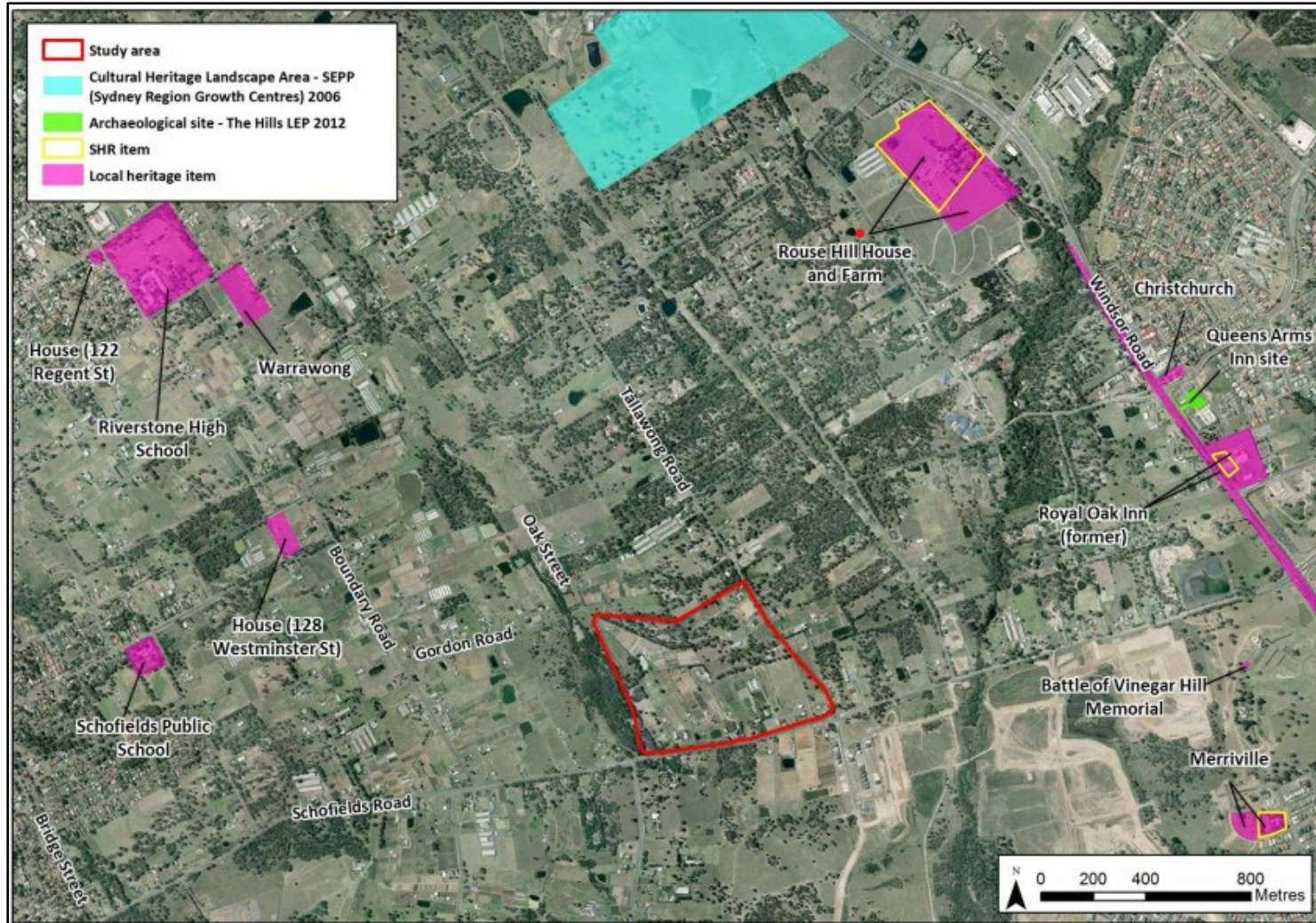
Environmental Representative Supporting Letter.

Not Required

Appendix 5: Cover Page

Map of Heritage Study Area

Extracted From the Rapid Transit Facility – Non-Indigenous Heritage Assessment and Statement of Heritage Impacts.



Appendix 6: Cover Page

Noise Assessment

NOISE RESULT SHEET						
SPL = SWL(point) - 20log (r) - 8		Quick Calculator (user inputs as outlined below)				
Noise SWL (dBA)	Distance (m)	SPL (dB(A))	Additional Air Attenuation (dBA)	Additional Attenuation (hoarding etc) (dBA)	Predicted Noise level (dBA)	
110	370	51	12	0	39	
	User defined			User defined		
Noise Management Levels		NML Exceedance Compliant				
Distance	NML					
54	User defined					

Noise reduction with increasing distance from source

Assumptions:

- Predicted day time NML = 54dB
- The additional air attenuation was calculated from Air attenuation graph base on a distance of 370M