Metro Body of Knowledge

Planning Approval Consistency Assessment Form

SM-17-00000111

Sydney Metro – Metro Body of Knowledge (MBoK)

Assessment Name:	Sydney Metro West – Carlingford Rail Line for Oversized Overmass Deliveries
Prepared by:	GLC
Prepared for:	Sydney Metro
Assessment number:	GLC21
Type of assessment:	Critical SSI (Division 5.2 State significant infrastructure, *Environmental Planning and Assessment Act 1979*)
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1. Existing Approved Project

Planning approval reference details (Application/Document No. (including modifications)):

- SSI-10038 Sydney Metro West – Concept and major civil construction work for Sydney Metro West between Westmead and The Bays (Stage 1 of the planning approval process for Sydney Metro West)
- SSI-10038-Mod-1 The Sydney Metro West Westmead to The Bays and Sydney CBD - Modification 1 (Administrative Modification)
- SSI-10038-Mod-2 The Sydney Metro West Westmead to The Bays and Sydney CBD – Modification 2 (Clyde Stabling and Maintenance Facility)
- SSI-10038-Mod-3 The Sydney Metro West Westmead to The Bays and Sydney CBD - Modification 3 (Administrative Modification)
- SSI-10038-Mod-4 The Sydney Metro West Westmead to The Bays and Sydney CBD – Modification 4 (Administrative Modification)
- SSI-10038-Mod-5 The Sydney Metro West Westmead to The Bays and Sydney CBD – Modification 5 (Administrative Modification).

Date of determination:	Date of determination: • SSI 10038: 11 March 2021 • SSI-10038-Mod-1: 28 July 2021 • SSI-10038-Mod-2: 03 June 2022 • SSI-10038-Mod-3: 04 July 2022 • SSI-10038-Mod-4: 23 December 2022 • SSI-10038-Mod-5: 20 September 2023.	Type of planning approval:	Critical SSI (Division 5.2 "State significant infrastructure", *Environmental Planning and Assessment Act 1979*)

Relevant background information (including EA, REF, Submissions Report, Director General's Report, MCoA):

This Consistency Assessment has been undertaken for the Sydney Metro West Concept and major civil construction work for Sydney Metro West between Westmead and The Bays (Stage 1 of the planning approval process). This includes the following planning approval documentation:

- Sydney Metro West - Westmead to The Bays and Sydney CBD (Concept and Stage 1) Environmental Impact Statement (15 April 2020)
- Sydney Metro West - Westmead to The Bays and Sydney CBD (Concept and Stage 1) Submissions Report (20 November 2020)
- Sydney Metro West - Westmead to The Bays and Sydney CBD (Concept and Stage 1) Amendment Report (20 November 2020)
- Sydney Metro West - Westmead to The Bays and Sydney CBD (Concept and Stage 1) Modification 1 - Administrative Modification (28 July 2021)
- Sydney Metro West - Westmead to The Bays and Sydney CBD (Concept and Stage 1) Modification 2 - Clyde Stabling and Maintenance Facility Modification Report (03 June 2022)
- Sydney Metro West - Westmead to The Bays and Sydney CBD (Concept and Stage 1) Modification 2 - Clyde Stabling and Maintenance Facility Submissions Report (March 2022)

- Sydney Metro West - Westmead to The Bays and Sydney CBD (Concept and Stage 1) Modification 3 - Administrative Modification (04 July 2022)
- Sydney Metro West – Westmead to The Bays and Sydney CBD (Concept and Stage 1) Modification 4 – Administrative Modification (23 December 2022)
- Sydney Metro West – Westmead to the Bays and Sydney CBD (Concept and Stage 1) Modification 5 – Administrative Modification (20 September 2023)
- Consolidated Instrument of Approval – Sydney Metro West – Concept and Stage 1 – Conditions of Approval (20 September 2023).

All documentation has been published on the Department of Planning and Environment Major Projects website located here (Major Project Number: SSI-10038): https://www.planningportal.nsw.gov.au/major-projects/project/25631.

Other relevant documentation prepared as part of design development and construction planning include:

- Parramatta Light Rail – Stage 1 Environmental Impact Statement (29 May 2018)
- Parramatta Light Rail – Stage 1 EIS - Technical Paper 5 – Aboriginal Cultural Heritage Assessment Report – Kelleher Nightingale Consulting (15 August 2017)
- Parramatta Light Rail – Stage 1 EIS - Technical Paper 11 – Non-Aboriginal Archaeological Assessment - Artefact (18 August 2017)

All proposed works identified in this assessment would be undertaken in accordance with the mitigation measures identified in the Environmental Impact Statement, Submissions Report and Amendment Report, and the Minister's Conditions of Approval (MCoA).

Description of existing approved project you are assessing for consistency:

The approved project includes the Concept and major civil construction works between Westmead and The Bays (Stage 1 of the planning approval process). This Consistency Assessment relates to Stage 1 works, as described below.

Approved Major Civil Construction Work for Sydney Metro West between Westmead and The Bays

Approved major civil construction works for Sydney Metro West between Westmead and The Bays (Stage 1 of the planning approval process) include the following:

- Enabling works, such as demolition, utility supply to construction sites, utility adjustments and modifications to the existing transport network.
- Tunnel excavation including tunnel support activities between Westmead and The Bays.
- Station excavation for new metro stations at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock and The Bays.
- Shaft excavation for services facilities.
- Civil work for the Clyde stabling and maintenance facility.
- Excavation of a tunnel dive structure and tunnels at Rosehill.

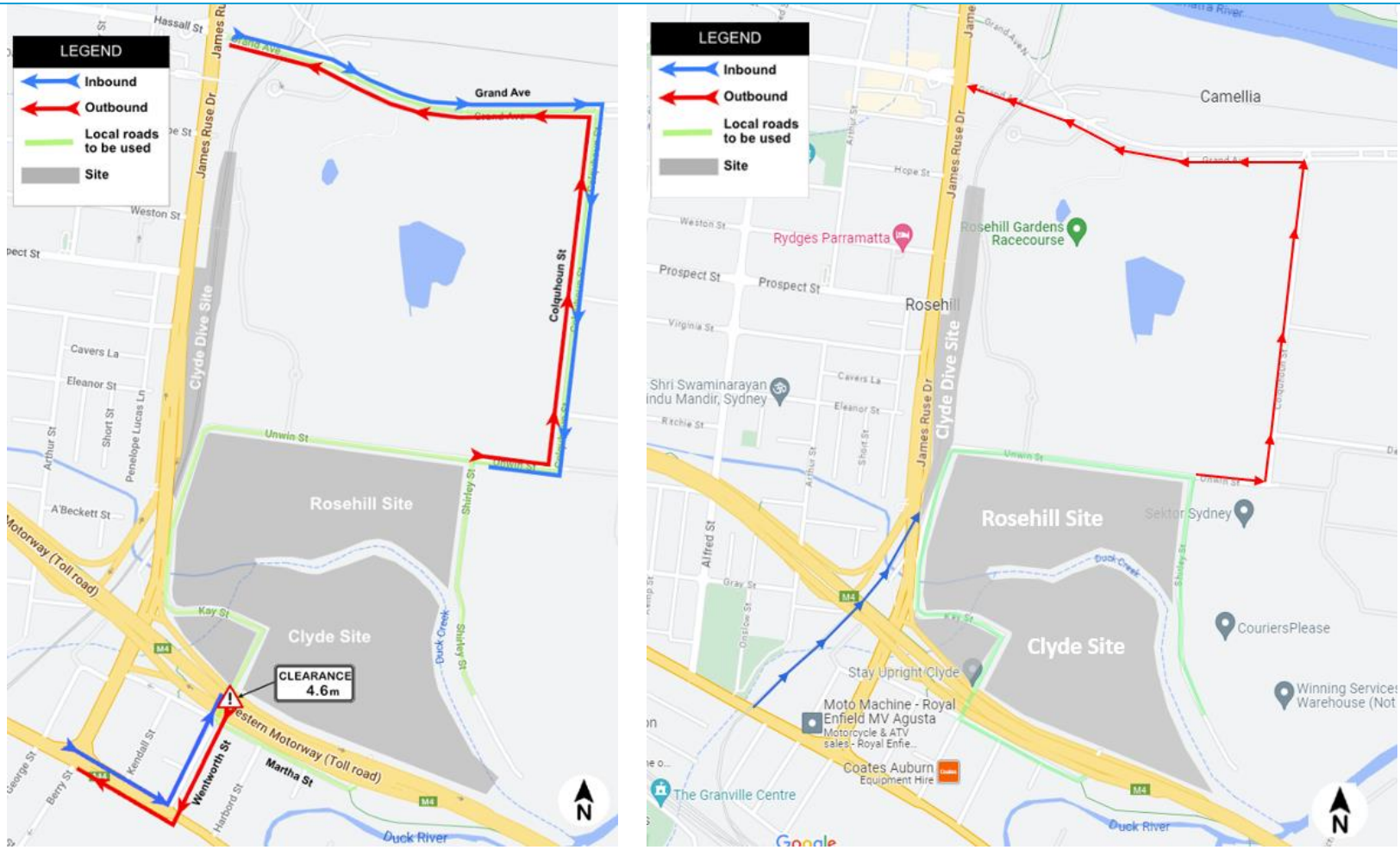
Refer to Chapter 9 of the Environmental Impact Statement (EIS) for more detail.

Chapter 9 Stage 1 of the EIS – Section 9.6.7 anticipates that road network modifications would be required to facilitate construction of Stage 1. These modifications are outlined in Table 9-11 and includes the permanent realignment of Kay Street and Unwin Street around the construction site, including the construction of a bridge over the future metro rail tracks. Section 9.6.7 however, notes that modifications to road networks would be reviewed by the construction contractor during the preparation of construction traffic management plans, with the objective of minimising disruptions to the road network.

1) Gamuda Engineering (Australia) and Laing O'Rourke Consortium (GLC) is therefore proposing to convert the redundant Carlingford Rail Line (CRL) to facilitate the transportation of goods including Over Size Over Mass (OSOM) deliveries (e.g., segment deliveries) and tunnel boring machine (TBM) components to the Rosehill Clyde Maintenance and Stabling Facility (MSF) for the next two years.

The purpose of this Consistency Assessment therefore is to demonstrate that the use of the CRL as an additional haul route for material delivery and removal is consistent with the approved project (See Figure 1 for the location of the additional haul route). Frequency of use will generally be:

- Three times a week over an eight-week block to transport the TBM parts.
- Once a week over two years to transport OSOM plant and supplies – with up to 4 deliveries per night.



Existing heavy vehicle routes and local roads from the Heavy Vehicle Local Road Report

Proposed heavy vehicle route – in addition to the existing heavy vehicle route from the HVLR

Figure 1 Existing and proposed heavy vehicle route entering the Clyde MSF site.

2. Description of proposed change which is the subject of this assessment

Proposed Methodology

In order to facilitate the OSOM deliveries through the CRL, a number of modifications would be required. The steps involved are detailed in the construction methodology below in Table 1. Work stages a detailed in Table 1 and are illustrated in Figure 2.

Table 1: Details the specific methodology for the establishment of the CRL as a delivery route:

Stage	Construction Methodology	Proposed Plant list
Detailed Site Investigation/Surveys.	• To be undertaken if there is a medium to high risk of contamination unless previous results are provided by landowner at the point of lease agreement.	• 1x Drill rig. • 1x Ute
Stage 1: Site establishment.	• A tipper truck will deliver the waste bin and construction materials for gate and traffic island installation onto the site. • Establishment of erosion controls (e.g., sandbags) for the alignment as per the site specific ESCP will be transported to site via a Ute.	• 1x Tipper truck • 1x Ute.
Stage 2: Removal of traffic island on Parramatta Road.	• Removal of the traffic island using a combination of a concrete saw, excavator with bucket attachment, jackhammer, and grinder to break up and remove the concrete.	• 1x Concrete saw • 1x Bucket excavator • 1x Jackhammer • 1x Grinder • 1x Tipper truck.
Stage 3: Installation of a temporary traffic island on Parramatta Road.	• Installation of a temporary Klemmfix traffic island via bolting to the pavement.	• 1x Hammer drill • 1x Line marking plant • 1x Light vehicle • 1x Rattle gun.
Stage 4: Removal of the old access gate (standard working hours) and installation of the new access gate.	• Rattle gun will be used to unbolt the gate, and an excavator to remove the gate and posts. • A tipper truck will remove the existing fence and gate from the site and take the waste to Clyde MSF for disposal. • A vacuum truck will be used to create a series of small ground penetrations along Parramatta Road where the existing fence once stood. The new fence may be	• 1x Rattle gun • 1x Tipper truck • 1x Vacuum truck • 1x Concrete truck.

	established further inside CRL to create a wider entrance to assist with OSOM deliveries. swing gates, new signage. • A new footpath and kerb are to be constructed to tie into the existing kerb.	
Stage 5: Grading of the existing road to improve road stability.	• An excavator will be used to spread Densely Graded road Base (DGB20) across the CRL where required. • A water cart will be used for dust suppression.	• 1x Excavator • 1x Tipper truck • 1x Water cart • 1x Plate compactor (unlikely to be used).
Stage 6: Cleanup.	• Sweeper vehicles will be running after each day or night activity to clean up Parramatta Road.	• 1x Sweeper truck.
Stage 7: Make good works – following completion of deliveries.	• Make good and re-instate to preexisting conditions or retain the newly installed fence. Outcome pending the asset owner's instructions/confirmation. • Following the completion of the approved project works, the temporary island will be reinstated. Equipment for the temporary island reinstatement will be dependent on Transport for NSW's instruction.	• 1x Excavator • 1x Tipper truck • 1x Hand drill • 1x Hand tool • 1x Sweeper truck • 1x Concrete truck.

Duration of work:

The works associated with the removal of redundant features (including gates, kerb, and fencing) as well as the delivery and installation of materials and structures is anticipated to take a total of two weeks. Once the CRL is established, it is anticipated to be used for the following indicative purposes and timeframes:

- Three times a week over an eight-week block to transport the TBM parts.
- Once a week over two years to transport OSOM plant and supplies.
    - Up to 4 deliveries per night.

Working Hours:

The proposed works will occur during standard periods and OOHW for works associated with the traffic island on Parramatta Road in accordance with the Conditions of Approval and Environmental Protection Licence (No. 21676). An ROL has been requested for OOHW on Parramatta Road.

Utilisation of the access road for HV will occur during OOHW and in accordance with the Conditions of Approval and Environmental Protection Licence (No. 21676).

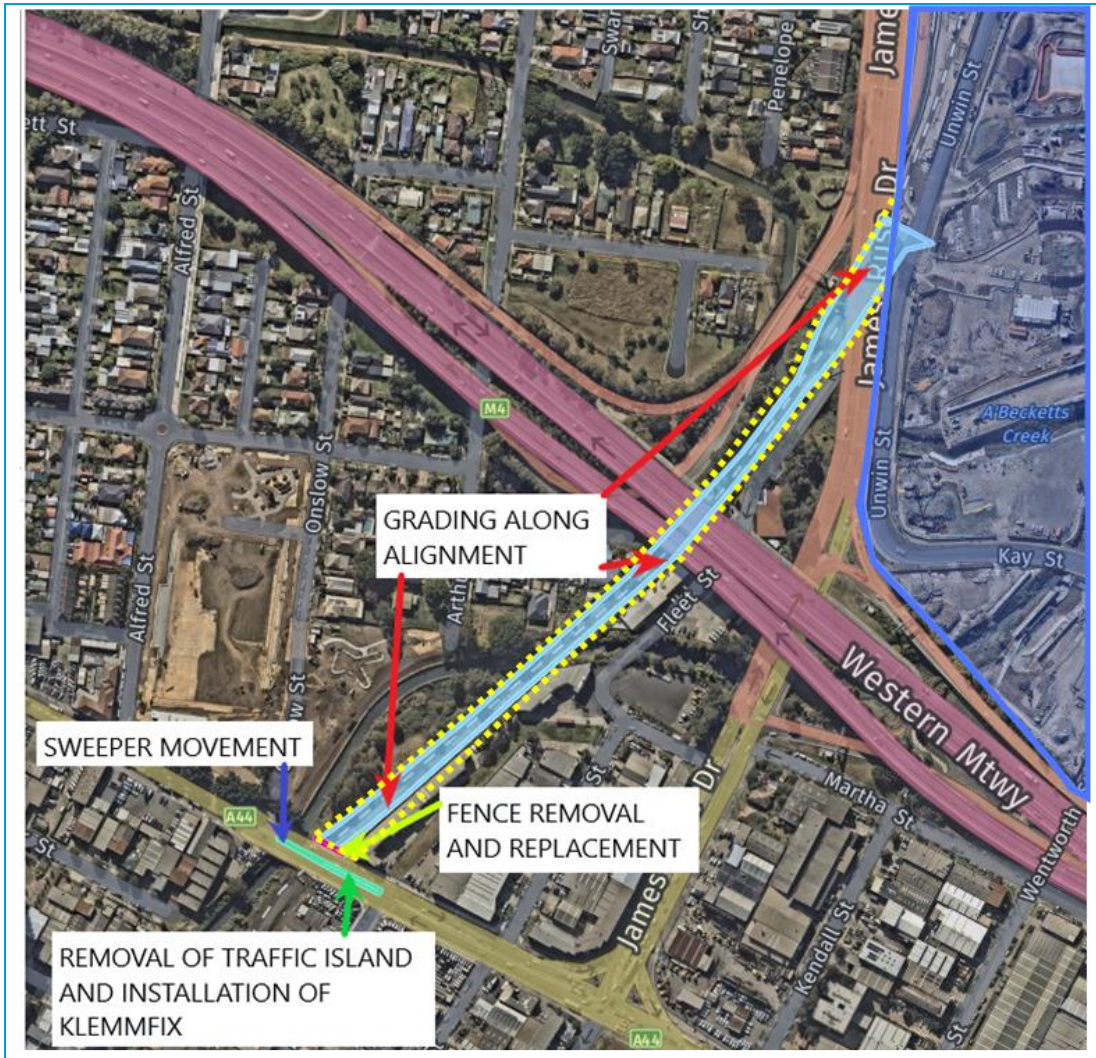
Note – the purpose of this C.A is to assess the use of CRL *for the delivery of the TBM and other OSOM components. Detailed Noise assessments will be undertaken in accordance with the conditions stipulated in the EPL and CoA, and the necessary approvals will be obtained for all OOH works associated with this Consistency Assessment.*

Staffing levels:
No additional staff beyond what is assessed in the EIS. Staff will include those working at Clyde MSF.

Impacts on utilities/authorities:
Nil impact to utilities or authorities expected.

Wastes generated:
Wastes generated will include wire fencing and small amounts of concrete, asphalt, road base, soil, and vegetation etc. The waste generated is a negligible increase from what is assessed in the EIS and is therefore consistent with the Approved project.

Hazardous substances/dangerous goods:
Refuelling of plant and equipment will be undertaken offsite and line marking paint will be stored on a bund. Hazardous substances used are consistent with the approved project.



Key	Item
	Current EIS boundary

Figure 2 Key proposed activities

3. Timeframe

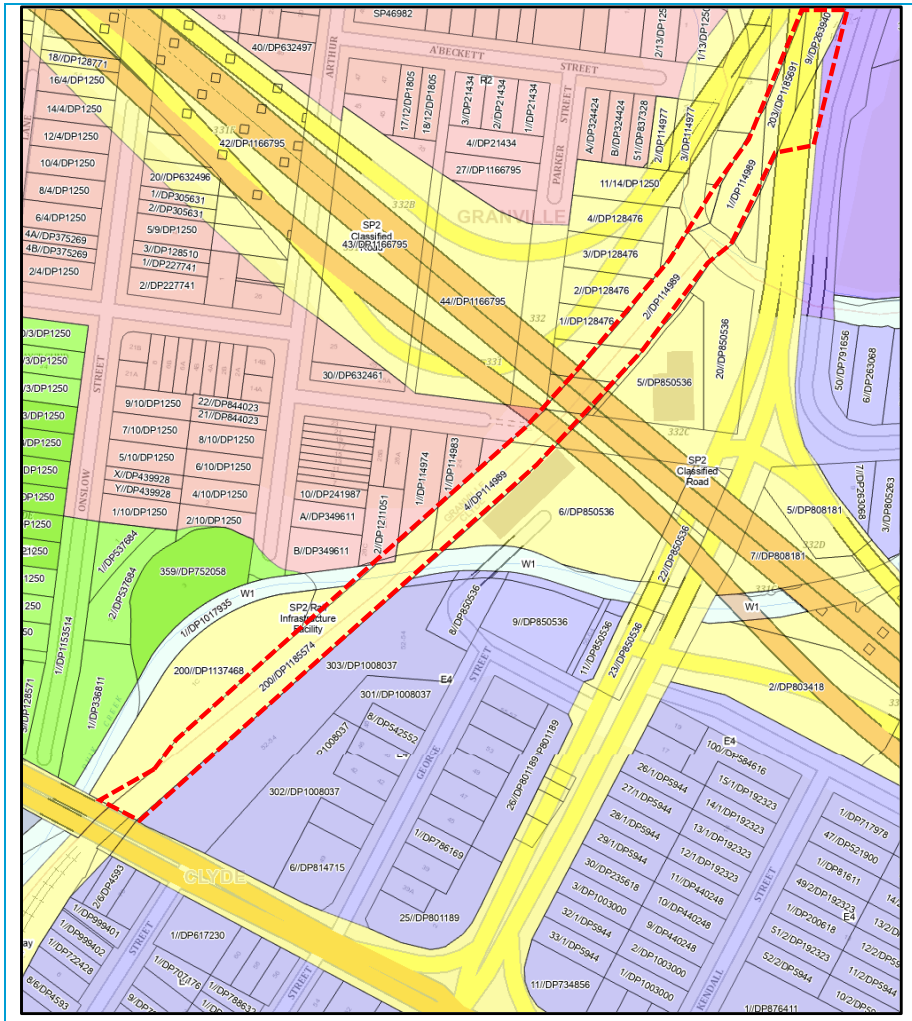
Construction works required to enable the use of the CRL for traffic access would take approximately two (2) weeks. The proposed works will occur mostly during the day with some OOHW required for activities such as, the removal of the traffic island and installation of the Klemmfix they require disruption to traffic and community via road/lane closures. All OOH works would be managed in accordance with the Project Noise and Vibration Management Plan (NVMP) and EPL 21676.

Once the CRL access route is constructed, the road will be used for a duration of approximately two (2) years.

- Three times a week over an eight-week block to transport the TBM parts.
- Once a week over two years to transport OSOM plant and supplies.
- Up to 4 deliveries per night.

4. Site description

The former CRL is owned by Transport Asset Holding Entity (TAHE) and is located adjacent to the Clyde MSF, approximately two kilometres southeast of the city of Parramatta (Figure 3). The CRL extends for 500m from Parramatta Road in the south under passing James Ruse Drive in the north, and passing over Duck Creek and A ‘Becketts Creek. It is classed as SP2 Railway Infrastructure under the Parramatta Local Environment Plan 2023 as can be seen in Figure 3. The SP2 zoning provides for infrastructure and related uses and to prevent development that is not compatible with, or that may detract from the provision of infrastructure. CRL is bordered by land zoned for Medium Density residential living (R2), Public Recreation (RE1) and General Industrial Activities (E4).



Land Zone	Key
SP2 Rail Infrastructure Facility	
R2 Medium to High Density Residential	
SP2 Classified Road	
W1 Natural Waterways	
E4 General Industrial	
E5 Heavy Industrial	
RE1 Public Recreation	
Indicative work area	

Figure 3 Proposed work location relative to Land zoning details.

5. Site Environmental Characteristics

The works proposed in this Consistency Assessment are located adjacent to the Clyde MSF. As the works are located in close proximity to the approved project, a desktop assessment as well as a site inspection in August 2023, was undertaken to ascertain the existing environment. Key documents reviewed included the Sydney Metro West – Westmead to The Bays and Sydney CBD (Concept and Stage 1) EIS, Parramatta Light Rail – Stage 1 EIS and supporting assessments.

A summary of the site's environmental characteristics for the proposed works are provided below.

Land Use

The CRL and its surrounds has experienced continuous change and uses over the course of time. Prior to the 1950's the area was predominantly used for agricultural and residential purposes, however current land use includes low-density residential development, open recreational areas, commercial and industrial premises, rail infrastructure, Rosehill Gardens Racecourse, and the former Shell Refinery (Viva Energy). A key shift in the local land use occurred from the 1970's, when agriculture and residential living was replaced with more intensified commercial and industrial development. Currently, the proposed work area functions as an access route for rail support vehicles.

Soils and Contamination

The CRL has a gently undulating landscape, with generally flat-lying areas across creek floodplains. The proposed site is located within the Port Jackson Basin soil landscape (Mitchell Landscapes – version 3.1) and is classed as having an over-cleared status with an extensive Quaternary estuary filled with muddy sand at the head of most tributary streams. Sandstone slopes and cliffs have patches of uniform or gradational sandy soil on narrow benches and within joint crevices.

The areas around Clyde stabling yard are identified as "disturbed terrain" and is typically located on reclaimed land within dredged, mine areas or on fill and or alluvium. As such, there is often a potential to encounter acid sulphate soil, however this is generally low with the proposed area being classified as Class 4 for Acid Sulphate Soils (ASS).

The CRL is a generally highly disturbed area. Desktop analyses of the Sydney Light Rail Stage 1 Technical Paper on Contamination suggests that there is potential for contamination due to residual fill material which would have been used for rail formation and the general use of the land. Any contamination if present would typically be localised and superficial in nature with Chemicals of Potential Concern (COPC), including Metals, TRH, BTEX, phenols, OCP, OPP, herbicides, and asbestos. The Technical report referenced classifies the CRL is an area of Low to medium risk and can be managed with practices such as observations during the undertaking of works.

A search of the NSW EPA records was carried out in August 2023 and identified no EPA records specifying a history of contamination in the immediate vicinity of works. The closest notice on record is located approximately 550m away at 2 Richie Street, Rosehill.

Non-Aboriginal Heritage

No heritage items were identified within or adjacent to the proposed work area. The closest item is Boundary Stone (item I576), located approximately 35 metres east of the proposed work area and is classified as local heritage. The PLR Heritage and Archaeological Technical Paper (11) notes the CRL as having low archaeological potential and resides within Archaeological Management Zone 2. Please refer to the Built Heritage Assessment for the Parramatta Light Rail Project for further information regarding non-aboriginal heritage within the proposal area. There are no potential impacts to Non-Aboriginal archaeology on account excavation works are limited to Parramatta Road for concrete curb removal, and where the existing fence resides.

Aboriginal Heritage

No new Aboriginal heritage items were identified within or adjacent to the proposed work area. This has been determined via a search of the AHIMS (January 2024) (Appendix D), PLR Aboriginal Cultural Heritage Assessment Report (Technical Paper 11) and WTP Stage 1 Cultural Heritage Assessment (Technical Paper 4). There are no potential impacts to Aboriginal archaeology on account excavation works are limited to Parramatta Road for concrete curb removal, and where the existing fence resides.

Surface Water and Groundwater

The Proposed works is located above Duck Creek in the south and A 'Becketts Creek in the north which flow into Duck River, a watercourse that flows into Parramatta River.

Noise and Vibration

Existing noise in the area surrounding the CRL is characterised by road traffic noise. The catchment surrounding the proposed work area is residential adjacent to the M4 Motorway in Granville, with some commercial use in the south-east.

Biodiversity

East Coast Ecology attended site on the 17th August 2023, and identified that the proposed work area was infested with priority and environmental weeds (refer to Appendix A). The proposed work area is located in a highly modified environment (Biodiversity Assessment Report TfNSW 2017) with most plants being non-native. However, there are some naturally established native plants including but not limited to *Casuarina spp.* and *Eucalyptus spp.* All patches of remnant eucalyptus trees growing on shale in and adjacent to the proposed work area are considered to represent small fragments of Basin Bioregion (PCT 1281) and have little ecological value as they are unlikely to reach maturity due to the growing environment (Attachment 1).

The proposed work area crosses over Duck Creek and A'Becketts Creek which are watercourses that flow into Parramatta River. Duck Creek is classified as a sensitive receiving environment on account of its proximity State Environmental Planning Policy (SEPP) (Resilience and Hazards) 2021 and because it is mapped as a Key Fish Habitat (KFH).

A'Becketts Creek is weed dominated at the proposed work area, however a few planted native species occur along the creek bank.

Parramatta River is characterised by poor water quality including but not limited to, low dissolved oxygen levels, elevated nutrient concentrations and high turbidity. Given both Duck Creek and A'Becketts Creek feed into Parramatta River, they are also considered a sensitive receiving environment and is characterised by terrestrial groundwater-dependent ecosystems associated with vegetation along the Parramatta River.

Traffic, Transport and Access

The proposed work area is bound by Parramatta Road in the south and James Ruse Drive in the north. There is a footpath on Parramatta Road where the proposed gate is to be installed and Clyde train station is located approximately 375 metres southeast of the proposed work area. There is also one bus route (route 909) that runs between 7:40am and 8:40pm on Parramatta Road near the entrance gate (Stop ID: 2142276).

6. Justification for the proposed change

GLC are proposing to repurpose the currently inactive CRL to facilitate the transportation and delivery of OSOM items for approximately two years.

Currently, the Grand Avenue bridge has a weight restriction of 65 tonnes and requires further assessment and approval from Sydney Trains for loads that are over this limit. Previously, concerns were raised from Sydney Trains (Asset Owner) about the bearings on the bridge structure lifting. The alternate route into site via Wentworth Street has a height and weight restriction of 4.6 metres and 65 tonnes respectively. Conversely, the CRL does not have the same height and weight restrictions thereby allowing greater freedom for deliveries that could be received via this access route. If the CRL is not repurposed, this has the potential to significantly impact the program schedule of WTP Stage 1 on account the TBM, road headers, and other critical items will be unable to access Clyde MSF.

7. Environmental Benefit

The proposed works would not change the overall route or construction vehicle numbers from those documented in the EIS. However, the conversion of the CRL to a one-way northbound temporary access road between Parramatta Road and Clyde MSF would minimise the potential risk of conflicts with heavy vehicle movements. This is on account the EIS currently accounts for two access points to Clyde MSF via Grand Avenue north of Rosehill Racecourse and Wentworth Street and anticipates increased traffic queue lengths. However, the addition of another access point via Parramatta Road could alleviate the stress on these intersections and minimise the need for increased traffic queue lengths.

8. Control Measures

Will a project and site specific EMP be prepared?	☐ Yes ☒ No	Are appropriate control measures already identified in an existing EMP?	☒ Yes ☐ No

9. Conditions of approval / Environmental mitigation measures

Number	Condition of Approval/ Environmental mitigation measure	Discussion on relevance and consistency for proposed change
REMMs		
TT1	The community would be notified in advance of proposed road and pedestrian network changes through appropriate forms of community liaison.	Community in the vicinity of works would be notified as per the project Community Notification requirements (including EPL notification requirements if works are OOHW) or as per the Community Communications Strategy. No change from the Approved project.

TT4	Vehicle access to and from construction sites would be managed to maintain pedestrian, cyclist and motorist safety. Depending on the location, this may require manual supervision, physical barriers, temporary traffic signals and modifications to existing signals or, on occasions, police presence.	The proposed works would have a momentary impact to pedestrian, cyclist and motorist movements; however, the impact will be managed as per this mitigation measure and Approved Management Plans. Therefore, the impact is consistent with the approved project and requires no additional mitigation measures. No change from the Approved project.
SSWQ1	Prior to ground disturbance in areas of potential acid sulfate soil occurrence, testing would be carried out to determine the presence of actual and/or potential acid sulfate soils. If acid sulfate soils are encountered, they would be managed in accordance with the Acid Sulfate Soil Manual (ASSMAC, 1998).	The proposed works are occurring on land classified as Class 4 ASS. There is therefore a low potential to uncover acid sulfate soils in the areas where the fence posts will be installed adjacent to Parramatta Road. Testing would occur in accordance with this REMM. No change from the Approved project.
C1	For sites where potential contamination risk is moderate, high or very high, a further review of data would be performed. Where the additional data review provides sufficient information to confirm that contamination is likely to have a very low or low risk, the site would then be managed in accordance with the Soil and Water Management Plan. This would typically occur where there is minor, isolated contamination that can be readily remediated through standard construction practices such as excavation and off-site disposal.	A Detailed Site Investigation is to be undertaken as there is low to medium risk of contamination unless previous results are provided by landowner at the point of lease agreement. No change from the Approved project.
C2	Where data from the additional data review (mitigation measure C1) is insufficient to understand the risk of contamination, a Detailed Site Investigation would be carried out in accordance with the National Environment Protection Measure (2013) and other guidelines made or endorsed by the NSW EPA. The sites requiring a Detailed Site Investigation would be confirmed following the additional data review (mitigation measure C1), however on the basis of the Stage 1 assessment, it is anticipated that Detailed Site Investigations would be required at the specified application locations.	Review of the PLR – Stage 1 Technical Memo on Contamination suggests the CRL to have a low to medium risk of contamination. Detailed Site Investigation is to be undertaken as there is low to medium risk of contamination unless previous results are provided by landowner at the point of lease agreement. No change from the Approved project.

CoA		
D37	Notwithstanding Conditions D35 and D36 of this schedule, work may be undertaken outside the hours specified in the following circumstances: (a) Safety and Emergencies, including: i. for the delivery of materials required by the NSW Police Force or other authority for safety reasons; or ii. where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm. On becoming aware of the need for emergency work in accordance with (a)(ii) above, the AA, the ER, the Planning Secretary and the EPA must be notified of the reasons for such work. The Proponent must use best endeavours to notify as soon as practicable all noise and/or vibration affected sensitive land user(s) of the likely impact and duration of those work. (b) …. (c) By Approval, including: i. where different construction hours are permitted or required under an EPL in force in respect of the CSSI; or ii. works which are not subject to an EPL that are approved under an Out-of-Hours Work Protocol as required by Condition D38 of this schedule; or iii. negotiated agreements with directly affected residents and sensitive land user(s). (d) By Prescribed Activity, including: i. tunnelling (excluding cut and cover tunnelling and surface works) are permitted 24 hours a day, seven days a week; or ii. concrete batching at the Clyde construction site is permitted 24 hours a day, seven days a week; or iii. delivery of material that is required to be delivered outside of standard construction hours in Condition D35 of this schedule to directly support tunnelling activities, except between the hours 10:00 pm and 7:00 am to / from the Five Dock and Westmead construction sites and to / from Burwood North construction site using any roads / streets other than directly from Parramatta Road; or iv. haulage of spoil except between the hours of 10:00 pm and 7:00 am to / from the Five Dock and Westmead construction sites and to / from Burwood North construction site using any roads / streets other than directly from Parramatta Road; or v. work within an acoustic shed where there is no exceedance of noise levels under Low Noise Impact Work circumstances identified in (b) above, unless otherwise agreed by the Planning Secretary.	Delivery of OSOM Items has been determined within the Ministers Condition of Approval and EIS as an activity that does not require additional approvals. Specifically, MCoA D37(a)(i) and (d)(iii), as well as GLCs EPL conditions (L5.4 ii). Technical Paper 2 Part 1 (Section 3.2.1.1), Technical Paper 1 (Section 4.1.2) and EIS Chapter 11 – note delivery of OSOM items are required to be undertaken outside standard construction hours, in accordance with the ICNG. Sleep disturbance impacts associated with OSOM deliveries at Clyde were also anticipated in Chapter 11 of the EIS (Section 11.3.11) which is consistent with the proposed activity in this Assessment. GLC will provide appropriate notification as per the MCoA and EPL, and Mitigation Measures as determined by the relevant DNVIS and Project NVMP. Impacts are consistent with the Approved Project. No change from the Approved Project.

D43	Detailed Noise and Vibration Impact Statements (DNVIS) must be prepared for any work that may exceed the NMLs, vibration criteria and / or ground-borne noise levels specified in Conditions D39 and D40 of this schedule at any residence outside construction hours identified in Condition D35 of this schedule, or where receivers will be highly noise affected. The DNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the works. A copy of the DNVIS must be provided to the AA and ER before the commencement of the associated works. The Planning Secretary and the EPA may request a copy(ies) of the DNVIS.	An initial Noise Impact Assessment (NIA) specific to the proposed use of the CRL has been prepared by SLR (see Appendix B). The noise modelling tool KNOWNoise was also used to model the proposed construction works associated with repurposing the CRL. As the works may exceed NMLs, a DNVIS will be prepared and provided to the AA and ER prior to the works commencing. No change from the Approved Project.
D78	The Unexpected Contaminated Land and Asbestos Finds Procedure must be implemented throughout construction.	The UCLAFP will be implemented and remains applicable to the proposed works. No change from the Approved project.
D89	If damage to roads occurs as a result of the construction of Stage 1 of the CSSI, the Proponent must either (at the Relevant Road Authority's discretion): a) compensate the Relevant Road Authority for the damage so caused; or b) rectify the damage to restore the road to at least the condition it was in pre-work as identified in the Road Dilapidation Report.	Damage to Parramatta Road is not anticipated with the delivery of the TBM and other OSOM deliveries. Where damage to Parramatta Road is incurred, repairs will follow in accordance with D89. A Road Dilapidation Report will be prepared prior to use of the road. No change from the Approved project.

Will the proposed change be consistent with the conditions of approval?	☒ Yes
	☐ No

10. Impact Assessment – Construction

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed change, relative to the relevant impact in the Approved Project	Proposed Control Measures in addition to project CoA and REMMs	Consistent Impact Y/N	Do any CoA need to be changed? Y/N	Endorsed	
					Y/N	Comments
Biodiversity	As described in the ecological memo (Appendix 1), the proposed work area is located in a highly modified environment and is infested with priority and environmental weeds. Some vegetation (including native vegetation) might require trimming/ removal along the fringes of the existing rail line to facilitate a new haul road. However, the impact on biodiversity would be minimal as native vegetation within the CRL were assessed to be of low ecological value given their unlikelihood to reach maturity due to the existing environment. No change from the approved project.	Weed control (including management and maintenance of vehicles) as well as vegetation clearing management measures will be implemented as required by the project Flora and Fauna Management Plan. No additional measures required	Y	N	Y	
Water	While works are to be undertaken in the proximity of the creek, the risk of water impact from the proposed activity is negligible. No changes from the approved project.	Erosion and sediment controls will be installed as required, No change from approved project. No additional measures required.	Y	N	Y	
Soils and contamination	Some soil excavation via Non-Destructive Digging (NDD) would be required however there will be no stockpiling or open excavation required. Based on available data, there is a low to medium risk contamination risk. The soils are classified as Class 4 Acid Sulphate Soils, however encounter is unlikely given the depth of the PASS in comparison with the depth of the NDD activities. Proposed impact to soil and contamination is negligible in the context of the approved project.	Detailed Site Investigation is to be undertaken as there is low to medium risk of contamination, unless previous assessments are provided by the landowner at the point of lease agreement. No additional measures required beyond the ones detailed in the Soil and Water Management Plan, the site Environmental Control Maps (ECM) and Erosion and Sediment Control Plan (ESCP).	Y	N	Y	
Air quality	Potential to produce a negligible increase in dust associated with removal of the Traffic Island and general activities of DGB	Negligible increase in air quality impacts associated with the	Y	N	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed change, relative to the relevant impact in the Approved Project	Proposed Control Measures in addition to project CoA and REMMs	Consistent Impact Y/N	Do any CoA need to be changed? Y/N	Endorsed	
					Y/N	Comments
	laydown and spreading. The proposed heavy vehicle movement has the potential to emit dust from utilising the unsealed road.	works in the context of the Approved Project. Therefore no additional measures required beyond the ones listed in the Project Air Quality Management Plan or Soil and Water Management Plan.				
Noise and vibration	The surrounding receivers expected to be impacted by the construction noise include residential receivers on Hamilton Street and Gray Street, Granville and some commercial businesses along the CRL. The majority of noise in the area surrounded by the CRL is characterised by road traffic noise. The Project EIS identified that the M4 Motorway, Parramatta Road, and James Ruse Drive indicated existing ambient noise levels during the night-time period range from 53 to 57 dBA and existing night-time Lamax noise events range between 70 to 80 dBA. Therefore, the existing traffic noise levels from these major roads would assist in masking noise from the construction of CRL. Noise modelling of each proposed stage of works was undertaken using the KNOWNoise noise prediction tool. Appendix C presents the maps of worst case predicted noise impacts at the closest receivers. Impacts are summarised below: - Stage 1 (Site establishment – standard hours), 4 (Removal of old gate – standard hours) and 6 (Clean up – night hours), do not have any predicted exceedances of NMLs at sensitive receivers. - Stage 2 (Road island removal) is predicted to have exceedances of up to 7dB above NMLs at night at the 63 closest residential properties at night (10pm to 7am).	An activity specific DNVIS will be prepared and endorsed by the AA prior to work commencing. The DNVIS will detail additional mitigation measures to be implemented as identified during consultation and modelling processes. Key control measures to be implemented are in accordance with the existing NVMP, EPL and CCS.	Y	N	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed change, relative to the relevant impact in the Approved Project	Proposed Control Measures in addition to project CoA and REMMs	Consistent Impact Y/N	Do any CoA need to be changed? Y/N	Endorsed	
					Y/N	Comments
	- Stage 3 (Temporary island establishment) is predicted to have exceedances of up to 2dB at two (2) residential properties at night (10pm to 7am) - Stage 5 (Grading of road – standard hours) is predicted to have exceedances of NMLs at 3 residential addresses with 1 affected below 6dB above NML, 1 with exceedance of 11dB above NML and 1 with exceedance of 20dB above NML during standard hours (7am to 6pm). A Noise Impact Assessment (NIA) for the OSOM deliveries to Clyde MSF and Dive during OOHW periods has been developed and is included in Appendix B. These works will be undertaken in accordance with the EPL and Project OOHW Approval process. In summary: • Three residential receivers are expected to experience noise levels exceeding the nighttime NML by 1-10dBA. • One residential receiver is expected to experience noise levels exceeding the nighttime NML by 11-20dBA. • Sleep disturbance impacts are also anticipated for some of the closest residential receivers in each of the Noise Catchment Areas. • Deliveries will be infrequent – three times a week for TBM components over 8 weeks, and once a week for OSOM materials over two years. Delivery of OSOM Components are specified in MCoA D37, as well as within GLC's EPL as an activity approved to occur outside standard hours. Further, the ICNG lists five categories of works required to be undertaken outside standard hours, with OSOM deliveries constituting one reason (Refer Technical Paper 1 Section 4.1.2, Technical Paper 2 Part 1 – Section 3.2.1.1 and EIS Chapter 11 Section 11.3.4 and Table 11-7).					

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed change, relative to the relevant impact in the Approved Project	Proposed Control Measures in addition to project CoA and REMMs	Consistent Impact Y/N	Do any CoA need to be changed? Y/N	Endorsed	
					Y/N	Comments
	Sleep disturbance impacts associated with the delivery of OSOM items were also expected and considered as part of the Approved Project (EIS Chapter 11 Section 11.3.11) Given that the proposed activity and sleep disturbance impacts were also assessed as part of the Approved Project, the proposed works are therefore consistent with the Approved project. The impacts of the proposed works however would be assessed in detail through a DNVIS, with appropriate notification and mitigation measures being emplaced as needed. Consultation with affected receivers has commenced and to date, no concerns have been raised.					
Aboriginal Culture and Heritage	The site is constrained to a disturbed rail corridor and has a low potential to contain Indigenous (Aboriginal) objects and sites. As the works involve very minimal ground disturbance, no additional impacts to the approved project are anticipated as a result of the proposed works.	No additional measures are required.	Y	N	Y	
Historic Heritage	The proposed works has a low potential to contain historic heritage. As the works involve very minimal ground disturbance, no additional impacts to the approved project are anticipated as a result of the proposed works.	No additional measures are required.	Y	N	Y	
Community and socio-economic	No additional Community and Socio-economic impacts anticipated beyond the noise and vibration impacts identified above. There would also be negligible impacts from a visual amenity, dust and traffic perspective, considering the existing environments characteristics and proposed scope. Refer to relevant sections within this table for further information regarding impacts. Due to some works being out of hours work (OOHW), further consultation with affected receivers will be implemented in	No additional measures are required.	Y	N	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed change, relative to the relevant impact in the Approved Project	Proposed Control Measures in addition to project CoA and REMMs	Consistent Impact Y/N	Do any CoA need to be changed? Y/N	Endorsed	
					Y/N	Comments
	accordance with the EPL, to determine the preferred mitigation measures to limit visual and noise impacts.					
Traffic and transport	Temporary traffic-related impacts are anticipated during the removal of the traffic island on Parramatta Road and during the delivery of OSOM components. The works adjacent to Parramatta Road have the potential to cause localised impacts to traffic and commuter flow on account safe working distances need to be established. As part of these works, there is potential to impact bus routes, however this would be largely mitigated by the most disruptive works occurring during Out of Hours Night periods. Delivery of OSOM materials has been identified within the Approved Project as a necessary activity for the delivery of Sydney Metro West. Technical Paper 1 (Section 4.1.2) notes OSOM deliveries are crucial for TBM delivery and removal and is an activity required to be undertaken outside standard hours as detailed within the ICNG due to the nature of the delivery requiring supervision by authorities. Minor impacts for the delivery of OSOM are anticipated, however these would not be significantly different from the Approved Project given the quantity of vehicle movements are not changing. There is potential for a better traffic and transport outcome on account the addition of a new delivery route will ease congestion on the overall traffic network by way of providing an additional delivery route to what was presented in the Approved Project. For example, Section 10.8.2 of the EIS notes that increased traffic on Parramatta Road associated with Stage 1 would result in a temporary increase in southbound queue lengths at the Parramatta Road/Wentworth Street intersection during the evening peak period. The addition of the	As per the existing CoA and REMM's, the following will be implemented for the proposed works: • Traffic Control Plan (TCP) for the duration of the works. • Construction Traffic Management Plans (CTMPs). ROL to be obtained to facilitate safe work near live traffic. • Vehicular, pedestrian and cyclist movement to be maintained or alternative access provided.	Y	N	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed change, relative to the relevant impact in the Approved Project	Proposed Control Measures in addition to project CoA and REMMs	Consistent Impact Y/N	Do any CoA need to be changed? Y/N	Endorsed	
					Y/N	Comments
	CRL as an access point used exclusively by the project, has the potential to improve local traffic conditions on Parramatta Road.					
Waste and resource management	A negligible increase in waste is anticipated from the proposed works, however this will not be significantly different to what has been assessed as part of the Approved Project. Key waste may include some soil, slurry, fencing and posts.	No additional measures required.	Y	N	Y	
Visual	There will be minor, short-term negative visual impacts during the removal of the traffic island and installation of the new fence and access gate. This may include the setup of hoarding, shade cloth, fencing and lighting towers associated with setting up the CRL for deliveries. However, the final fence and gate design should remain homogenous with the local industrial and rail infrastructure aesthetic of the region, resulting in a negligible and potentially positive visual amenity impact once constructed. The use of the CRL for deliveries would not distract from the local aesthetic of the region given its highly commercialised and industrial setting. No permanent negative visual impacts to the approved project are anticipated.	No additional measures are required.	Y	N	Y	
Land use and property	No additional impacts relative to the approved project, as the proposed works are not changing the existing land use.	No additional measures are required.	Y	N	Y	
Hazard and risk	No additional impacts to the approved project.	No additional measures are required.	Y	N	Y	
Other	No additional impacts to the approved project.	No additional measures are required.	Y	N	Y	

11. Impact Assessment – Operation

The proposed works are during construction only. There are no impacts to the Approved Project during operation.

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed change, relative to the relevant impact in the Approved Project	Proposed Control Measures in addition to project CoA and REMMs	Consistent Impact Y/N	Do any CoA need to be changed? Y/N	Endorsed	
					Y/N	Comments
Biodiversity	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	
Water	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	
Soils and contamination	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	
Air quality	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	
Noise and vibration	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	
Aboriginal Culture and Heritage	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	
Historic Heritage	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	
Community and socio-economic	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	
Traffic and transport	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	
Waste and resource management	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed change, relative to the relevant impact in the Approved Project	Proposed Control Measures in addition to project CoA and REMMs	Consistent Impact Y/N	Do any CoA need to be changed? Y/N	Endorsed	
					Y/N	Comments
Visual	The proposed works are during construction only. No change from the approved project. The final fence will be consistent with the existing fence infrastructure associated with land Zones SP2 Rail Infrastructure.	No additional measures required.	NA	N	Y	
Land use and property	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	
Hazard and risk	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	
Other *Such as geotechnical, climate change, cumulative*	The proposed works are during construction only. No change from the approved project.	No additional measures required.	NA	N	Y	

12. Consistency with the Approved Project

Question	Response
Is the project (including the proposed changes) consistent with the conditions of approval?	Yes. The proposal would be consistent with the Conditions of Approval.
Is the project (including the proposed changes) consistent with the objectives and functions of elements of the Approved Project?	Yes. The proposed works are consistent with the objectives and function of elements of the Approved Project. The site was previously disturbed, and impacts will be consistent with the existing environment of the CRL.
Are the environmental impacts of the proposed change consistent with the impacts of the approved project?	Yes. The environmental impacts of the proposed works are consistent with the impacts of the approved project.
Are there any new environmental impacts as a result of the proposed works/project changes?	There would be some additional impacts to receivers located adjacent to the CRL haulage route, however these are generally consistent with the Approved Project. Mitigation measures during the construction of the CRL haulage route, as well as during the utilisation of the CRL for deliveries will be as per the project Management Plans, SM CNVS, relevant DNVIS and Project EPL.
Are the impacts of the proposed activity/works known and understood?	Yes. The impacts of the proposed works are known and understood.
Are the impacts of the proposed activity/works able to be managed so as not to have an adverse impact?	Yes. The impacts of the proposed works can be managed so as to avoid an adverse impact.
Would any Conditions of Approval be required to be changed as a result of the proposed change (having regard to the above assessment)?	☐ Yes ☒ No
Is the proposed change/s consistent with the approval (having regard to the above assessment)?	☒ Yes ☐ No

13. Other Environmental Approvals

Identify all other approvals required for the proposed works:	• Road Occupancy License (ROL) will be obtained for all works on or adjacent to roads. • Approval for works that are required outside of approved construction hours (i.e., OOHW) will be sought in accordance with Condition D37 and/or D38 of the Instrument of Approval. • Road Opening Permit (ROP) will be obtained for works on the island on Parramatta Road. • Temporary Road Occupancy (TRO) approval will be obtained for temporary occupancy of the road and footpath along Parramatta Road. • License agreement from Parramatta Light Rail is required to use the existing CRL.

14. Recommendation

Based on the above impact assessment, and with reference to the Chapters 9 and 10 of Sydney Metro West – Concept Stage 1, including the conditions of approval, it is recommended that:

	Tick relevant box
The proposed change has negligible or more than negligible impacts on the environment or community however is consistent with the Approval, including the conditions of approval. The proposed impacts are consistent with those assessed for the Approved Project (i.e., does not trigger a change to the conditions of approval).	x
The proposed change is not consistent with the Approved Project including the conditions of approval and would be subject to a separate modification application.	
The proposed change is not substantially the same as the Approved Project and is considered a radical transformation. A new planning pathway should be considered.	

Author certification

I certify that to the best of my knowledge this Consistency Checklist: • Examines and takes into account the fullest extent possible all matters affecting or likely to affect the environment as a result of activities associated with the proposed change; and • Examines the consistency of the proposed change with the Approved Project; is accurate in all material respects and does not omit any material information.			
Name:	Hussain Nilar	Signature:	
Title:	Senior Environmental Approvals Advisor		
Company:	GLC	Date:	15/1/23

Assessment Supporting Signature

Application supported and submitted by			
Name:	Yvette Buchl	Date:	16 Jan 2024
Title:	Director Planning Approvals	Comments:	
Signature:			

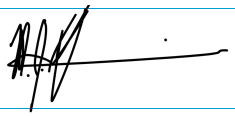
Assessment Endorsement

Based on the above assessment, are the impacts and scope of the proposed change consistent with the existing Approved Project?

Yes ☒ The proposed change is consistent with the Approved Project and no further assessment is required.

No ☐ The proposed change is not consistent with the Approved Project.

A modification or a new activity approval/ consent is required. Advise Senior Project Manager of appropriate alternative planning approvals pathway to be undertaken.

Endorsed by			
Name:	Matthew Marrinan	Date:	16/01/24
Title:	A/Director Project ESP	Comments:	Weed control measures must be documented in the Flora and Fauna Management Plan and must be sufficient to prevent vehicles acting as a dispersal vector.
Signature:			

Appendix A – East Coast Ecology Memo

Candice Somerville
Environment Approval Manager

25th August 2023

Dear Candice,

East Coast Ecology undertook an ecological site assessment on the 17th August 2023, of a section of the Carlingford Rail Line ('Subject Land') (**Figure 1**). It is understood that some vegetation would require trimming/ removal along the fringes of the existing rail line to facilitate a new haul road for the Sydney Metro West Tunnelling Package Project (**Plate 1**). The scope of the site assessment was to map the extent of native vegetation communities and exotic vegetation within, and immediately adjoining the Subject Land.

The vegetated sections of the Subject Land were infested by priority and environmental weeds (**Plate 2** & **Plate 3**). Dominant species identified during the assessment were *Lantana camara* (Lantana), *Cardiospermum halicacabum* (Balloon Vine), *Cestrum parqui* (Green Cestrum), *Bidens pilosa* (Cobblers Pegs), *Senecio madagascariensis* (Fireweed), *Chloris gayana* (Rhodes Grass), *Conyza bonariensis* (Flaxleaf Fleabane), *Verbena bonariensis* (Purpletop), *Ageratina adenophora* (Crofton Weed), *Cirsium vulgare* (Spear Thistle), *Ricinus communis* (Castor Oil Plant), *Ligustrum lucidum* (Broad-leaf Privet), *Olea europaea* subsp. *cuspidata* (African Olive) and *Cinnamomum camphora* (Camphor Laurel). There was evidence that some patches of priority weeds had been recently slashed/ cleared (**Figure 1**). There were a few small native seedlings (*Casuarina glauca* and *Eucalyptus* spp.) growing in the compacted road base. Given the growing environment (an existing track of compacted road base and ballast) it is unlikely these seedlings would survive to reach maturity. A considerable amount of rubbish was observed near the bridge and along the A'becketts Creek (**Plate 4**).

If you have any questions, please do not hesitate to contact me at any time.

Dr Jack Tatler
Principal Ecologist | Director
Accredited Assessor (BAAS21006)
0405 675 304
jack.tatler@ececology.com.au

Figure 1. Field-validated Vegetation Mapping.

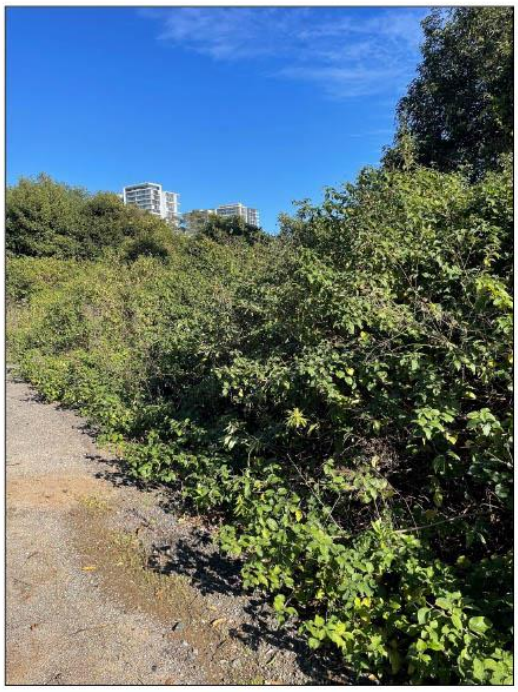


Plate 3. Weed infestation along the north boundary of the Subject Land.

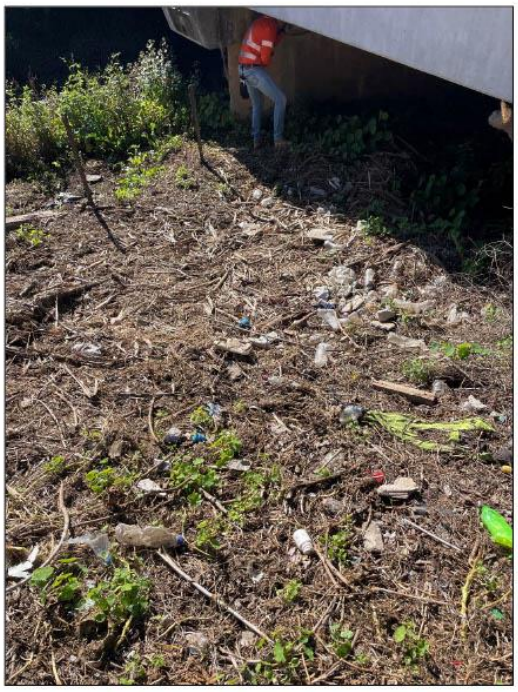


Plate 4. Rubbish accumulation along A'becketts Creek.

Plate 1. Carlingford Rail Line (the Subject Land).

Plate 2. Priority and environmental weeds within the Subject Land.

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Appendix B – SLR NIA

Memorandum

To:	Candice Somerville	**At:**	GLC
From:	Steven Luzuriaga	**At:**	SLR Consulting Australia Pty Ltd
Date:	29 August 2023	**Ref:**	610.30644-M12-v2.0-20230829.docx
Subject:	Sydney Metro West - WTP Out-of-Hours Deliveries Clyde MSF / Clyde Dive		

1 Introduction

SLR Consulting has been engaged by Gamuda & Laing O'Rourke Consortium (GLC) to provide noise and vibration advice in relation to the Sydney Metro West Western Tunnelling Package.

This Construction Noise Impact Assessment (NIA) has been prepared to assess potential construction noise impacts associated with oversized deliveries to the Clyde Maintenance and Stabling Facility (MSF) and Clyde Dive Site during out-of-hours (OOH) assessment periods. Deliveries would enter the site via the Carlingford rail line corridor from Parramatta Road. The proposed route map of the oversized deliveries is provided in **Appendix A**.

2 Overview of Proposed Works

Table 1 presents an overview of key information relevant to this NIA. **Table 2** presents the proposed construction scenarios. Maps of the predicted noise levels are shown in **Appendix A**. This construction assessment is based on information supplied by the project team, on the 9 June 2023. Further detail of existing conditions, management levels and assessment methodology are outlined in the Detailed Noise and Vibration Impact Statement (DNVIS).

Table 1 Details of proposed works

Item	Description		
CNIA Reference	M12		
Work Type	Out-of-Hours Deliveries		
Location	Clyde MSF / Clyde Dive		
Assessment Periods (refer CNVMP)	**Approved Project Hours**	**OOHW1[1] (eg Evening)**	**OOHW2[2] (eg Night)**
	Monday -Friday (7am – 6pm) Saturday (8am – 6pm) Sunday / Public Holidays (Nil)	Monday -Friday (6pm – 10pm) Saturday (6pm – 10pm) Sun. / P. Holidays (8am -6pm)	Monday -Friday (10pm – 7am) Saturday (10pm – 8am) Sun. / P. Holidays (6pm -7am)
Ambient Acoustic Environment at Nearest Receiver	General residential area with proximity to highways/freeways and existing rail lines. Road traffic noise a dominant background noise source in area.		

Note 1: Out-of-hours work (OOHW) Period 1.
Note 2: Out-of-hours work (OOHW) Period 2.

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www.slrconsulting.com ABN 29 001 584 612

Table 2 Construction Scenarios

ID	Name	Description	Duration
W.001	**Normal oversized deliveries** (eg segment deliveries)	• One night a week • Up to 4 deliveries a night (one way so 4 truck movement) • 4 per hour as a maximum • Average of 2 per hour • For 24 months • Prime mover or block truck with trailers (108 dBA)[1]	One night a week for 24 months
W.002	**Tunnel Boring Machine (TBM) deliveries**	• One time occurrence (when TBM come back from Sydney Olympic Park) • 3 times per week for 8 weeks • Prime mover or block truck with trailers (108 dBA)[1] • Police escort needed: 2 cars (96 dBA each)[2]	Three times per week for eight weeks

Note 1: Sound Power Level (Lw) has been adopted from the TfNSW *Construction Noise and Vibration Strategy*.

Note 2: Lw taken from *Road Traffic Noise Prediction Model "ASJ RTN-Model 2013" Proposed by the Acoustical Society of Japan – Part 2: Study on Sound Emission of Road Vehicles*, OKADA et al, Internoise 2014, and accounts for vehicles accelerating.

3 Construction Noise Management Levels

The noise management levels (NMLs) for residential (**Table 3**) and other sensitive receivers (**Table 4**) have been adopted from the Construction Noise and Vibration Management Plan (CNVMP). Project-specific NMLs for residential receivers were determined for each Noise Catchment Area (NCA). During out-of-hours work (OOHW) the residential NML is determined as 5 dB above the Rating Background Noise level (RBL) (ie RBL + 5dB).

NMLs for other sensitive receivers have been adopted from the Interim Construction Noise Guideline (ICNG), Sydney Metro - Construction Noise and Vibration Standard (CNVS), *AS2107:2016 Acoustics – Recommended design sound levels and reverberation times for building interiors*, and previous assessments undertaken for the Sydney Metro West Project (eg EIS and modification reports).

Table 3 Project Residential NMLs

NCA	Receiver Type	Representative Logger Location	Noise Management Level ($L_{Aeq(15minute)}$ – dBA)				Sleep Disturbance Screening Level (52 dBA or RBL +15 dB whichever is higher) (L_{Amax} dBA)
			Approved Construction Hours (RBL+10dB)	Out of Hours (RBL+5dB)			
			Day	Day[1]	Evening	Night	Night
NCA04	Residential	B.04	61	56	53	46	56
NCA05	Residential	B.05	60	55	54	50	60
NCA06	Residential	B.06	62	57	56	49	59
NCA07	Residential	B.07	56	51	49	46	56

Note 1: Daytime out of hours is 7 am to 8 am on Saturday, and 8 am to 6 pm on Sunday and public holidays

Table 4 NMLs for 'Other Sensitive' Receivers

Land Use	Assessment Period	Noise Management Level LAeq(15minute) (dBA)	
		Internal	External
ICNG 'Other Sensitive' Receivers			
Classrooms at schools and other educational institutions	When in use	45	55[1]
Hospital wards and operating theatres	When in use	45	65[2]
Places of worship	When in use	45	55[1]
Active recreation areas (characterised by sporting activities and activities which generate noise)	When in use	-	65
Passive recreation areas (characterised by contemplative activities that generate little noise)	When in use	-	60
Commercial	When in use	-	70
Industrial	When in use	-	75
Non-ICNG 'Other Sensitive' Receivers			
Hotel[3]	Day / Evening	50	70[2]
	Night-time	40	60[2]
Café / Bar / Restaurant[3]	When in use	50	70[2]
Child Care Centres – Sleeping areas[4]	When in use	40	50[1]
Public Building	When in use	50	60[1]
Recording Studio	When in use	25	45[2]
Theatre/Auditorium	When in use	30	50[2]
Rosehill Gardens Racecourse Stables[5]	When in use	-	60

Note 1: It is assumed that these receivers have windows partially open for ventilation which results in internal noise levels being around 10 dB lower than the external noise level.

Note 2: It is assumed that these receivers have fixed windows which conservatively results in internal noise levels being around 20 dB lower than the external noise level.

Note 3: Adopted from AS2107.

Note 4: Adopted from *Association of Australian Acoustical Consultants Guideline for Child Care Centre Acoustic Assessment*.

Note 5: Adopted from the ICNG – passive recreation.

4 Assessment Findings

Noise modelling was conducted in accordance with the method outlined in the DNVIS. A summary of the number of receivers with NML exceedances is shown in **Table 6** below. A map of the predicted noise levels is shown in **Appendix A**. The assessment shows the predicted impacts based on the exceedance of the management levels, as per the categories in **Table 5**.

Table 5 Exceedance Bands and Impact Colouring

Exceedance of Management Level	Impact Colouring
No exceedance	
1 to 10 dB	
11 dB to 20 dB	
21 dB to 30 dB	
>30 dB	

Note 1: Exceedance band classifications follow the approach outlined in the Sydney Metro CNVS for reporting of construction impacts in Detailed Noise and Vibration Impact Statements. The subjective response would vary and depends on the period in which the impacts occur (ie people are generally more sensitive to impacts during the evening and night-time).

Table 6 Construction Noise Assessment – Oversized Deliveries (OOHW)

Receiver Category	NCA	Total	Number of Receivers with NML Exceedance		
			Exceedance Category	W.001 OOHW2	W.002 OOHW2
Residential	NCA04	-	1-10 dB	-	-
			11-20 dB	-	-
			21-30 dB	-	-
			>30 dB	-	-
		-	HNA	-	-
			SD	-	-
	NCA05	-	1-10 dB	-	-
			11-20 dB	-	-
			21-30 dB	-	-
			>30 dB	-	-
		10	HNA	-	-
			SD	5	5
	NCA06	8	1-10 dB	3	3
			11-20 dB	1	1
			21-30 dB	-	-
			>30 dB	-	-
		24	HNA	-	-
			SD	12	12
	NCA07	-	1-10 dB	-	-
			11-20 dB	-	-
			21-30 dB	-	-
			>30 dB	-	-
		2	HNA	-	-
			SD	1	1
Other Sensitive[1]	All NCA	2	1-10 dB	1	1
			11-20 dB	-	-
			21-30 dB	-	-
			>30 dB	-	-

Note 1: Other sensitive receivers should only be considered impacted 'when in use'. The 'other sensitive' receiver identified above is the Milcom Institute at 1/47 Parramatta Rd, Granville. This is an educational receiver and only operates during the approved project hours.

The results in **Table 6** show that:

- Noise emissions from out-of-hours oversized deliveries along the Carlingford rail line are expected to exceed the NMLs at the closest residential receivers in NCA06 during the night-time period (10pm to 7am).
- There are expected to be three residential receivers exceeding the NML by '1-10 dBA' and one residential receiver exceeding the NML by '11-20 dBA'.
- The sleep disturbance screening levels have the potential to be exceeded at the closest residential receivers in NCA05, NCA06 and NCA07 during the night-time assessment period. Best-practice construction management should be implemented to reduce L_{Amax} noise events as far as practicable, refer **Section 5** below.

A review of the existing ambient noise levels from the *Sydney Metro West – Westmead to the Bays Concept and Stage 1 - Environmental Impact Statement (EIS)* in the vicinity of the M4 Motorway, Parramatta Road and James Ruse Drive indicated existing ambient noise levels during the night-time period range from 53 to 57 dBA and existing night-time L_{Amax} noise events range between 70 to 80 dBA. Therefore, the existing road traffic noise levels from these major roads will assist in masking noise from oversized deliveries along the Carlingford rail line.

5 Conclusion and Recommendations

Noise emissions from the project have been predicted at the surrounding receivers. Noise levels are expected to exceed the noise management level (NML) by '1-10 dBA' at three nearby residential receivers and by '11-20 dBA' at one residential receiver on Hamilton Street in NCA06, during the OOHW2 assessment period.

A number of mitigation and management measures have been recommended below. Where feasible and reasonable these should be applied to the project to control and minimise the impacts during construction as far as practicable.

Consider the following recommendations (where feasible and reasonable):

- Implement mitigation measures identified within the CNVMP and DNVIS.
- Implement additional mitigation measures identified within the CNVMP and DNVIS.
  - Letterbox drops would be required at the three receivers where the NML is exceeded by '1-10 dBA'.
  - Letterbox drops, monitoring, specific notification and respite offers would be required at the receiver where the NML is exceeded by '11-20 dBA'.
- Delivery vehicles should be fitted with straps rather than chains for unloading, wherever possible.
- Truck drivers should avoid compression braking as far as practicable.
- Trucks should not idle near to residential receivers.
- Air brake silencers should be used on heavy vehicles that frequently access any of the construction sites at night.

Checked/
Authorised by: DL

Appendix A – Noise Impact Maps

Figure A1 Oversized Deliveries (OOHW)

SLR

Appendix C – KNOWNoise – Worst-case Noise Impact Maps – Per Stage

Stage 1 – Site establishment – Day map

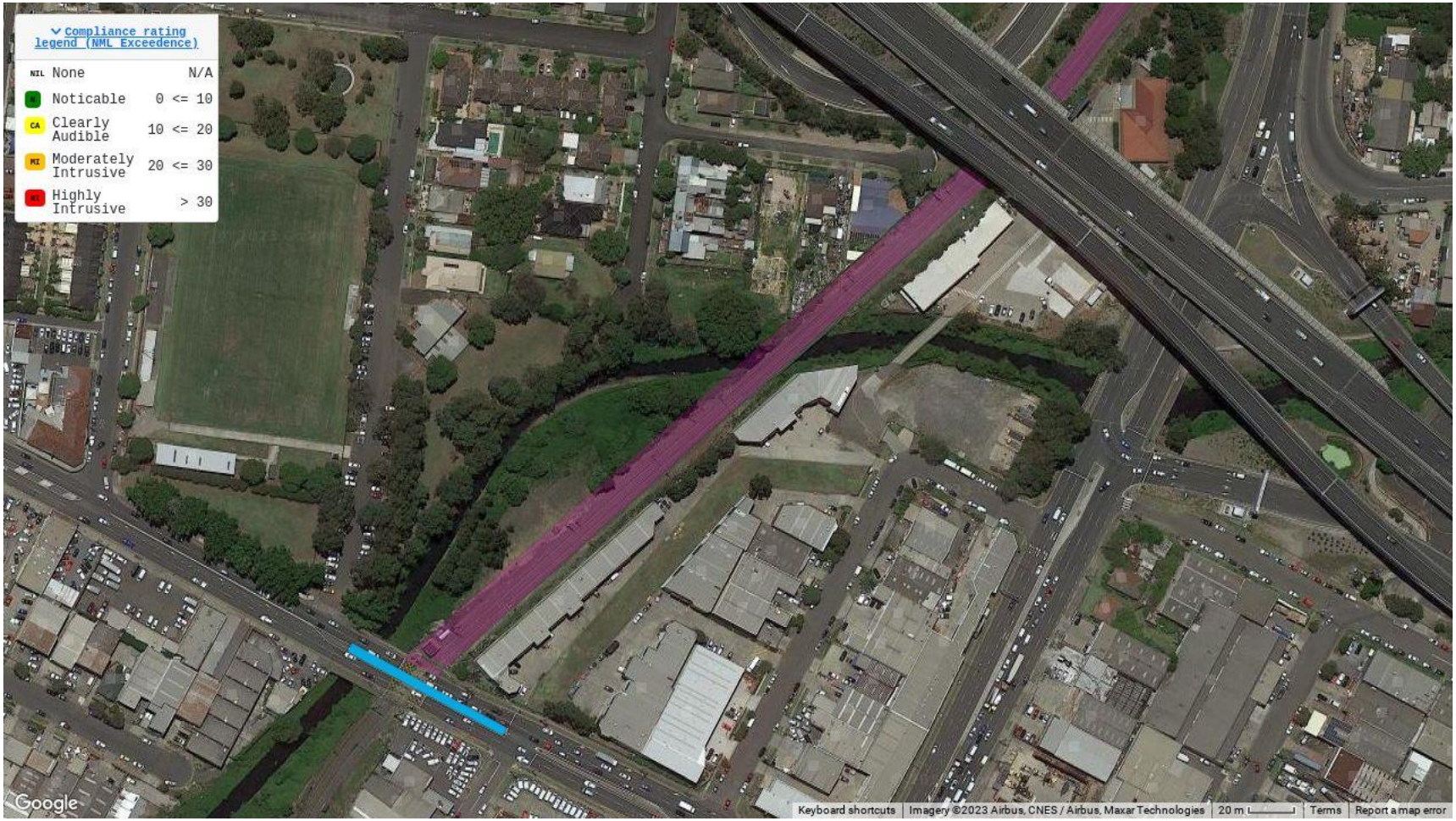
Stage 2 – Island removal – Night map

Stage 3 – Installation of temporary island – Night map

Stage 4 – Removal of gate – Day time

Stage 5 – Grading of road – Day time

Stage 6 – Clean-up – Night map



Appendix D: AHIMS Search 2024

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 01

Client Service ID : 854168

Hussain Nilar

Date: 12 January 2024

52-60 Renwick Street Redfern 31
Redfern New South Wales 2016

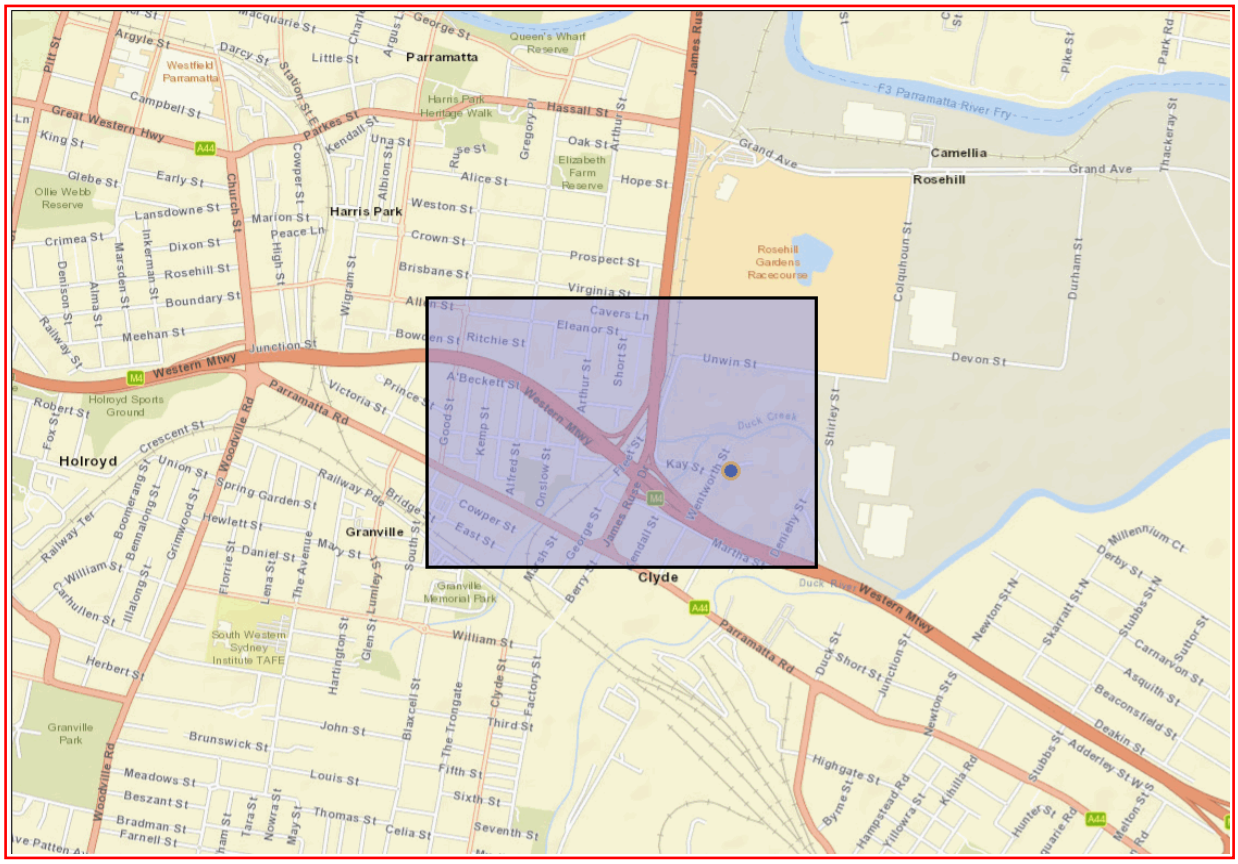
Attention: Hussain Nilar

Email: hussain.m.nilar@gmail.com

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lat, Long From : -33.834, 151.0117 - Lat, Long To : -33.825, 151.0271, conducted by Hussain Nilar on 12 January 2024.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

1	**Aboriginal sites are recorded in or near the above location.**
0	**Aboriginal places have been declared in or near the above location. ***

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

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