Amber

Traffic & Transportation Direction

BlueScope Steel - ASMAP Project

Port Kembla Steelworks

Construction Traffic Management Plan - Stage 1

September 2024

Reference: 634 tmp st1 240906 final

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Construction Traffic Management Plan - Stage 1

Prepared for: Environmental Resources Management Australia Pty Ltd

Status: Final report

Date: 6 September 2024

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Revision	Date	Description	Author	Reviewed	Approved
A	18/07/24	Preliminary Draft For Comment	Tom Dwyer	-	-
B	24/07/24	Amended traffic volumes	Tom Dwyer	Mike Willson	Mike Willson
C	01/08/24	Updated Draft	Tom Dwyer	Mike Willson	Mike Willson
D	02/08/24	Final	Tom Dwyer	Mike Willson	Mike Willson
E	06/09/24	Final – Minor Amendments	Tom Dwyer	Mike Willson	Mike Willson

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1. Introduction

1.1 Project Background

Amber Organisation Pty Ltd was engaged by Environmental Resources Management Australia Pty Ltd (ERM) to conduct a Traffic Impact Assessment (TIA) of the Advanced Steel Manufacturing Precinct (ASMAP) (the 'Project') for BlueScope Steel (AIS) Pty Ltd ('BlueScope') (the 'Proponent').

The Project Area is located within BlueScope's Port Kembla Steelworks (PKSW), which is situated approximately 3 kilometres (km) (direct-line) south of the Wollongong central business district (CBD) and 80 km (direct-line) south of Sydney CBD. It is located within the Wollongong Local Government Area (LGA) in the Illawarra Region of NSW. The Project Area covers the area within the PKSW site where the proposed works are to be undertaken. Figure 1 shows the Project Area within PKSW and in relation to the broader regional context and road network.

The project involves upgrades and modernisation of steel manufacturing equipment. Specifically, the project comprises:

- Installation of a new walking beam furnace for the Plate Mill;
- Installation of a new plate mill processing equipment and infrastructure, including cutters, turnover table, transfer system, cranes and the rail extension referred to as Fourth Route Processing;
- Upgrades to the existing electrical infrastructure, including a 11 kilovolt (kV) sub-system, switch rooms, distribution boards and transformers;
- Installation of a new refractory lined structure in the slab yard;
- Construction of associated infrastructure, including, hardstands, construction compounds and laydown areas; and
- Modification of existing structures to enable the integration of new equipment.

The existing Plate Mill has previously produced up to 430,000 tonnes of plates per year. The Project proposes to increase the throughput to up to 600,000 tonnes of plate per year.

The project was granted consent to the development application on 9 May 2024 by Director, Industry Assessments, under delegation from the Minister for Planning and Public Spaces and section 4.38 of the Environmental Planning and Assessment Act 1979 (the Act).

BlueScope is the project owner and will manage the construction activities to deliver the project with multiple subcontractor engaged for specialised services. BlueScope is the Proponent and ultimately takes responsibility for compliance with SSD-50268731. This responsibility is reflected in the management plans, programs and strategies developed for the project.

The Development Consent (DC) - Application Number: SSD–50268731 requires the preparation of a Traffic Management Plan (TMP). Commitments relevant to traffic management were also made by ERM in the Environmental Impact Statement (EIS) for inclusion in the management plans.

It is proposed to construct the project in a number of stages, as follows:

- Enabling works: Site establishment, demolition, excavation to 3 metres depth to remove concrete slab and underground services.
- Stage 1: Construction of the Furnace Building (civils and structure) including cranes,

- adjoining footings/foundations (building columns and stack) and associated infrastructure / services. Establish 4th route construction compound and installation of Crane #2 electrical infrastructure.
- Stage 2: Major civil work.
- Stage 3: Mechanical, electrical installation works.
- Stage 4: Building Fit out and Auxiliary building works.

This management plan is for Stage 1.

Vehicular access is to be provided via the existing internal roads which connect to the existing main entrance (Northgate) to Springhill Road which connects to the broader arterial road network via Masters Road and Five Islands Road.

The construction workforce is expected to primarily be located in Wollongong, Shellharbour, and the surrounding area.

The primary traffic impacts relate to the traffic generation associated with the transport of materials and the workforce to and from the site, with these effects able to be managed with minimal impact to the road network.

This TMP has been prepared based on the available construction information at this time.

Figure 1: Project Site, Area and Regional Context

Source: ERM

1.2 Objectives

The key objective of this TMP is to ensure safe and efficient movement of vehicles to/from the site, whilst minimising disruptions and impacts to the local community and other road users, and maintaining a safe environment for vehicular traffic external to the site. More specifically, the objectives of the TMP are to:

- Provide a safe environment for the travelling public and construction personnel;
- Cater for the needs of all traffic;
- Communicate the purpose of the proposed traffic management measures; and
- Communicate the arrangements for and impacts of any management measures affecting traffic.

To assist in meeting these objectives the TMP provides information on:

- The Scope of Works;
- Site conditions;
- Permissible working times; and
- Procedures and responsibilities.

BlueScope, as the Principal Contractor, shall ensure that the requirements of the document and other relevant information will be monitored and the TMP adjusted to meet changing requirements where necessary. The Applicant must implement and comply with the TMP at all times to the satisfaction of the Responsible Authority and the Planning Secretary.

1.3 TMP Staging

The TMP is to be staged as follows:

- Enabling works: Site establishment, demolition, excavation to 3 metres depth to remove concrete slab and underground services.
- Stage 1: Construction of the Furnace Building (civils and structure) including cranes, adjoining footings/foundations (building columns and stack) and associated infrastructure / services. Establish 4th route construction compound and installation of Crane #2 electrical infrastructure.
- Stage 2: Major civil work.
- Stage 3: Mechanical, electrical installation works.
- Stage 4: Building Fit out and Auxiliary building works.

This TMP applies to Stage 1, with separate TMPs to be prepared for future stages.

At the time of writing, the Enabling Works are being undertaken. A separate TMP was prepared and approved for this stage.

1.4 Statutory Requirements

This document fulfills the requirements of Environmental Condition B19 of the Development Consent (Application Number: SSD-50268731) which requires the provision of a Construction Traffic Management Plan (TMP). The TMP forms part of the Construction Environmental Management Plan (CEMP) required under C3 (b) of the Development Consent.

The TMP has been prepared with consideration to the other transport conditions outlined within the Development Consent, with the matters relevant to transport outlined within Table 1.

Table 1: Relevant Development Consent Requirements

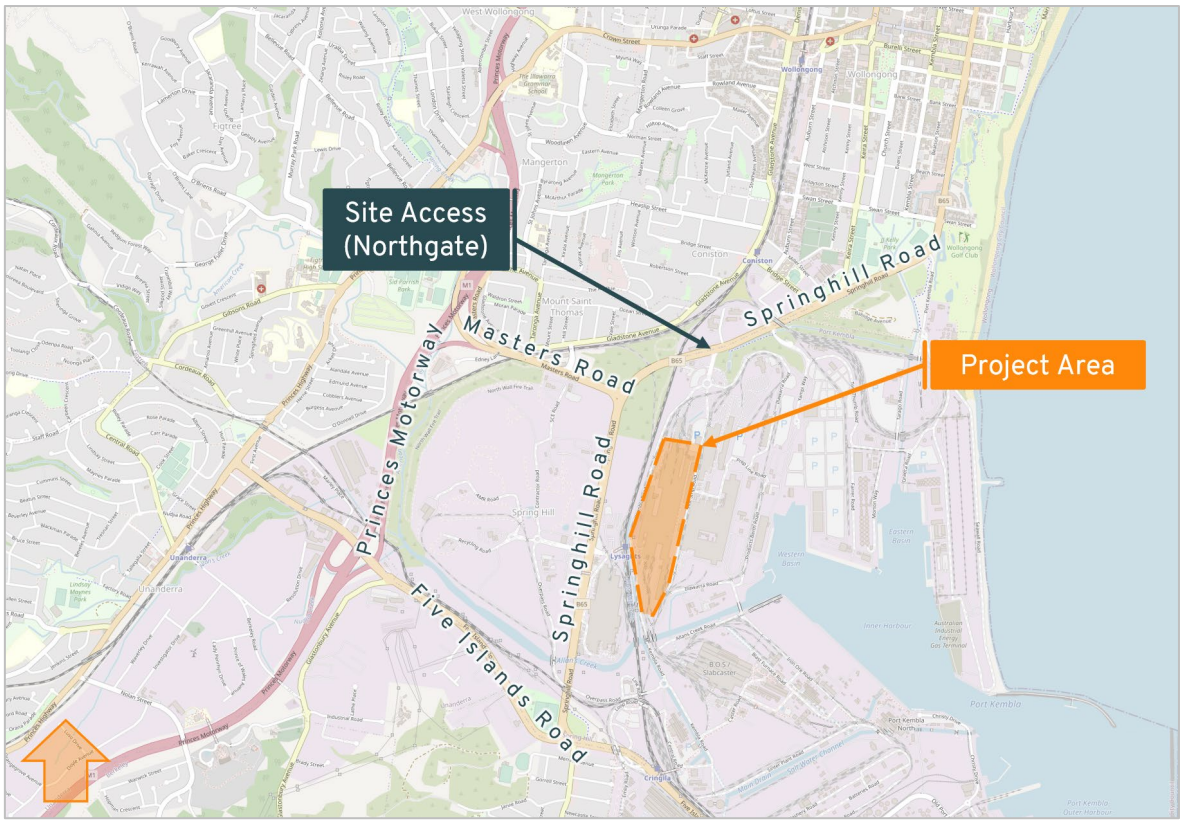
CONDITION B19	REFERENCE LOCATION
Prior to the commencement of construction of the development, the Applicant must prepare a Construction Traffic Management Plan for the development to the satisfaction of the Planning Secretary. The plan must form part of the CEMP required by condition C2 and must: a) be prepared by a suitably qualified and experienced person(s);	**Complies:** This document
b) detail the measures that are to be implemented to ensure road safety and network efficiency during construction;	**Complies:** The traffic impacts for the Stage 1 are anticipated to be relatively low (refer Section 3.5, Table 3) so the impact to the surrounding road network is expected to be modest Measures to ensure safety are outlined through this document, specifically Section 4.
c) include details of: i. vehicle types, heavy and OSOM vehicle routes, access and parking arrangements for construction and operational staff associated with the existing Plate Mill; ii. the strategies that would be implemented to manage access to the existing operations at the site; iii. the strategies that would be implemented to minimise conflict between existing operations at the site and construction vehicles;	**Complies:** Vehicle types are outlined in Section 3.5.1, Table 3 and Section 3.5.3. OSOM vehicle routes are shown in Section 3.5.4. Access and safety strategies are listed in Section 4.4.
d) include a Driver Code of Conduct to: iv. minimise the impacts of earthworks and construction on the local and regional road network; v. minimise conflicts with other road users; vi. minimise road traffic noise; and vii. ensure truck drivers use specified routes;	**Complies:** Driver Code of Conduct included Appendix A
e) include a program to monitor the effectiveness of these measures; and	**Complies:** Section 8, 9 and Table 4
f) if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.	**Not Applicable:** Given the expected traffic and impacts (refer Section 3.5, Table 3) no routes or disruptions are expected on the road network.

2. Existing Road Environment

2.1 Project Area

The Project Area is located within BlueScope's Port Kembla Steelworks site which is situated approximately 3.0 kilometres south of Wollongong. The Project Area occupies a total of 14.7 hectares, with its relationship with the surrounding transport network shown in Figure 2. The figure also shows the location of the PKSW site access (Northgate) which is a signalised intersection with Springhill Road.

Figure 2: Site Location



Source: Open Street Map

The figure shows the Project Area has direct access to the broader State road network via Springhill Road, Masters Road and Five Islands Road which provide access to the Princes Motorway, which is located approximately 1.9 kilometres west of the Project Area via Masters Road.

The site and the surrounding area are zoned IN3 – Heavy Industrial (under *Transport and Infrastructure SEPP 2021*) and are primarily occupied by industrial land uses. Figure 3 provides an aerial photograph of the site and the surrounding area.

Figure 3: Aerial Photograph of Site and Surrounds

Source: Nearmaps

The aerial imagery confirms the surrounding area reflects the land use zoning, and also shows associated rail and port facilities, internal access roads and parking areas at the PKSW. The figure also shows the Project Area which contains the current Plate Mill facility.

2.2 Road Network

Springhill Road is a State Road under the care and management of TfNSW. It runs in a north-south to northeast-southwest alignment between Five Islands Road in Cringila to Swan Street in Wollongong, where it continues as Corrimal Street. Near the PKSW, it has a sealed carriageway with a concrete central median and three traffic lanes in each direction, with additional turning lanes provided at intersections. It has a posted speed limit of 80km/hr and on-street parking is prohibited.

Masters Road is a State Road that runs in an east-west alignment between Springhill Road and The Avenue with a total length of approximately 1.2 kilometres. It has a sealed road surface with a concrete central median and three traffic lanes in each direction with additional lanes at intersections. On-street parking is prohibited.

Five Islands Road is a State Road that operates in a northwest to southeast alignment between the Princes Highway and Old Port Road in Port Kembla, where it continues as Military Road. Near the PKSW it has a configuration consistent with Springhill Road and Masters Road, operating with three traffic lanes in each direction and a concrete central median.

The **Princes Motorway** is the key road link between Sydney and Wollongong which is managed by TfNSW. It is generally configured with a dual carriageway with two through lanes in each direction. Access to the motorway is available from Masters Road and Five Islands Road.

The primary PKSW site access is known as **Northgate**. It forms a t-intersection with Springhill Road and provides access to internal roads and parking areas in the Port Kembla Steelworks. The access is signalised and additional turning lanes are provided on all approaches.

2.3 Traffic Volumes

Amber commissioned turning movement count surveys at the following intersections:

- Springhill Road and Northgate (site access),
- Springhill Road and Masters Road, and
- Springhill Road and Five Islands Road.

The surveys were undertaken on Tuesday 27 June 2023 from 6:00am to 10:00am and from 3:00pm to 7:00pm by way of on-site video observations.

The full survey results along with analysis are presented in the Traffic Impact Assessment prepared by Amber included as part of the EIS (Revision E dated 22 October 2023).

In summary, the survey results indicate that:

- The peak hour recorded across the intersections occurred between 8:00am and 9:00am in the morning and between 3:00pm and 5:30pm in the evening.
- The highest volumes were recorded in the morning peak hours.
- During the morning, traffic volumes were highest in the north and northeast direction on Springhill Road, with the reverse occurring in the evening. This reflects the function of Springhill Road as a key arterial road link to Wollongong for commuters.
- A high proportion of traffic recorded was heavy vehicles (between 7 and 8%) which would be expected given the nature of the surrounding industrial land uses.

A review was also undertaken of the video surveys which showed that the whilst the intersections were busy, movements through the intersection were generally observed to operate without significant compounding delays or queues.

2.4 Public Transport Services

The Project has access to a range of public transport services located in the area, as follows:

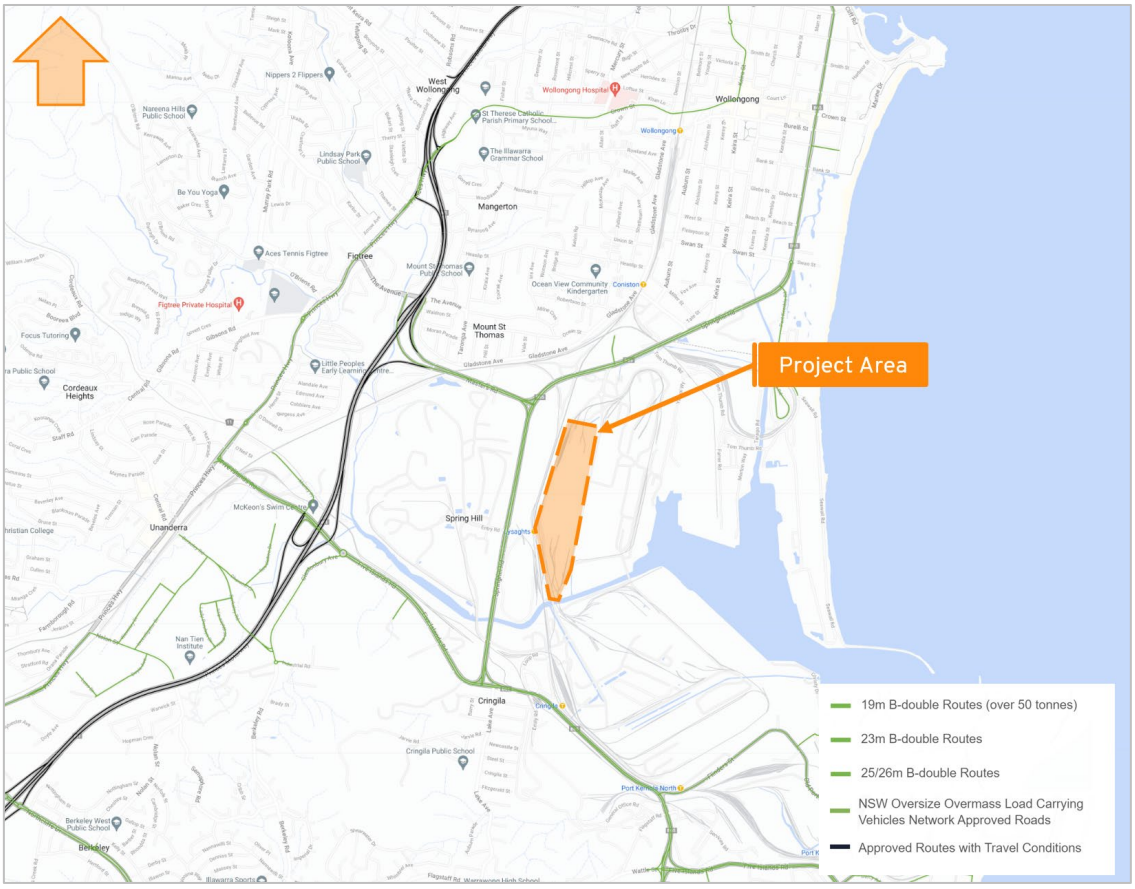
- Cringila Train Station (South Coast Line) is located approximately 2.5 kilometres south of the Project Area. The South Coast Line provides access between Kiama and Sydney along with connections to other lines.
- Bus Routes 51 (Oak Flats to Wollongong via Stockland Shellharbour), 53 (Shellharbour to Wollongong via Shell Cove and Warrawong), 57 (Wollongong to Shellharbour via Warrawong) and 65 (North Wollongong to Port Kembla) operate along Springhill Road with stops located within 100 metres of the project access point (Northgate). All four of these services typically operate with hourly services during business hours Monday to Friday with limited services on weekends.

The public transport services provide an alternative for transport to and from the Project Area, with access available via the footpaths along Springhill Road, Five Islands Road and pedestrian paths within the PKSW.

2.5 Heavy Vehicle Access

The TfNSW Restricted Vehicle Access Map for the surrounding area is provided within Figure 4. The green lines indicate approved B-Double and OSOM routes while the black lines represent approved routes with travel conditions.

Figure 4: TfNSW Restricted Access Vehicle Map



Source: TfNSW Restricted Vehicle Access Map

The figure shows that the adjacent arterial road network is approved for B-Double and OSOM vehicle use which would be expected given the industrial land uses in the area, with conditions applying on the Princes Motorway. These conditions limit access for OSOM vehicles during peak times on the motorway, including commuter periods.

2.6 Rail Infrastructure and Operation

Materials are delivered from and to the PKSW via the existing rail freight network which serves Port Kembla. The freight network connects to the broader rail freight network via the Moss Vale – Unanderra Line and the Illawara Line.

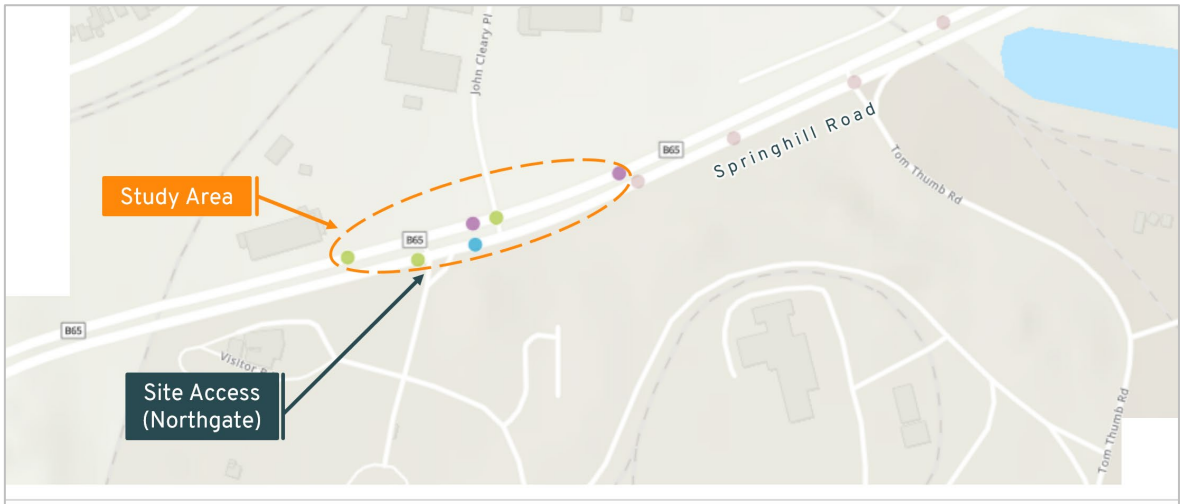
Transport via rail freight provides an alternative to road transport and a significant proportion of the materials currently produced at the PKSW utilises rail freight for transport.

2.7 Crash History

TfNSW along with the police and emergency services collect data related to road crashes on public roads in NSW. Data is available for a five-year reporting period (2016 – 2020) on the TfNSW Centre for Road Safety website.

A review was undertaken for road crashes in a study area near the site access at the intersection of Springhill Road and Northgate as shown in Figure 5. There was a total of six crashes recorded with the most common crash type being rear end.

Figure 5: TfNSW Crash Statistics



Reporting year	Crash Id	Degree of crash	RUM - code	RUM - description	Type of location	Natural lighting	Longitude	Latitude	Number killed	Number injured
2017	1133368	Serious Injury	60	Parked	Divided road	Daylight	150.881408	-34.443503		2
2018	1162978	Minor/Other Injury	30	Rear end	Divided road	Daylight	150.882565	-34.443248		1
2018	1176369	Serious Injury	13	Right near	T-junction	Daylight	150.882775	-34.443201		1
2020	1224938	Moderate Injury	30	Rear end	Divided road	Daylight	150.882586	-34.443405		1
2020	1240173	Minor/Other Injury	30	Rear end	Divided road	Daylight	150.883904	-34.442864		1
2020	1248281	Serious Injury	30	Rear end	Divided road	Daylight	150.882058	-34.443518		2

Source: TfNSW Centre for Road Safety: Interactive Crash Statistics

The results of the road safety review are indicative of the high traffic volumes carried on the arterial road network.

3. Construction Overview

3.1 Overall Project Description

The Project will involve the construction and installation of a new walking beam furnace and upgrades and installation of associated equipment at the Plate Mill. The upgrade of the furnace will allow the facility to increase the throughput of steel plate from 430,000 to 600,000 tonnes per year depending on the product grades produced.

Construction is anticipated to begin in the second quarter of 2024, with a total estimated construction period of 39 months.

Construction activities will generally be as per the standard daytime construction hours outlined in the Interim Construction Noise Guideline (Department of Energy and Climate Change, EPA). Construction activities will be 24 hours per day 7 days per week during the plant shutdown (one week in July). Otherwise, construction activities will be as the standard construction hours, being 8am to 6pm Monday to Friday and 8am to 1pm Saturday.

The key construction activities are broken into three stages as outlined below:

- Enabling works: Site establishment, demolition, excavation to 3 metres depth to remove concrete slab and underground services.
- Stage 1: Construction of the Furnace Building (civils and structure) including cranes, adjoining footings/foundations (building columns and stack) and associated infrastructure / services. Establish 4th route construction compound and installation of Crane #2 electrical infrastructure.
- Stage 2: Major civil work.
- Stage 3: Mechanical, electrical installation works.
- Stage 4: Building Fit out and Auxiliary building works.

This TMP applies to the Stage 1 only, with future TMPs to prepared for other construction stages.

3.2 Duration of Construction Works and Schedule

Stage 1 is anticipated to commence July 2024 and be completed in January 2025. The key construction activities are summarised in Table 2.

Table 2: Construction Activities – Stage 1

No.	Construction Activity	Commencement (Month, Year)	Completion (Month, Year)	Staffing Requirements
1	Establish 4th route construction compound and installation of Crane #2 electrical infrastructure	September 2024	December 2024	Up to 15 on-site
2	Construction of the Furnace Building (civils and structure) including cranes, adjoining footings/foundations (building columns and stack) and associated infrastructure / services	September 2024	December 2024	30 to 60 on-site

As shown in Table 2, a total of up to 75 staff would be expected on-site at any one time when the construction activities are undertaken.

3.3 Workforce Transport

The construction workforce for Stage 1 are expected to primarily be located in Wollongong, Shellharbour, and other nearby towns.

3.4 Construction Vehicles and Equipment

The expected traffic generated for Stage 1 can broadly be separated into the following categories:

- Light vehicles associated with transporting staff to/from the site;
- 8 to 13 metre long rigid trucks to deliver materials (including concrete) and smaller plant;
- Truck and Dog vehicles will be used to transport some materials; and
- 19.0 metre long Articulated Vehicles will be used to transport larger plant and for waste removal.

Oversized and overmass (OSOM) vehicles will be required for the delivery of larger plant during Stage 1, comprising excavators and mobile cranes.

Other vehicles and equipment used during Stage 1 comprises:

- Forklifts/telehandlers
- Boom lift elevated work platforms (2)
- Mobile cranes
- 25-30T Excavators
- Concrete pumps
- Dump Trucks
- Piling Rig

These vehicles will be transported to site and left for use over the Stage 1 construction activities.

3.5 Traffic Movements

3.5.1 Traffic Generation

The overall construction traffic volumes for the project have been provided by the Applicant and are also provided within the *BlueScope Steel ASMAP Project – Traffic Impact Assessment.*

The peak daily traffic associated with construction activities during Stage 1 is summarised in Table 3. Expected Oversize/Overmass vehicles which will be one-off trips for the delivery of plant and equipment are discussed in Section 3.5.3.

Table 3: Traffic Generation During Stage 1 Works

Construction Activity / Time	Vehicle Type	Vehicle Size	Expected Peak Vehicle Movements to and from the site per Day
Stage 1 September 2024 to December 2024	Light Vehicle	Light Vehicle (car / 4WD)	102
		Shuttle Buses	4
	Heavy Vehicle	8 to 13 metre long rigid trucks	10
		Truck & Dog	4
		AV	2
Total			**122**

Table 3 shows that Stage 1 would generate up to 122 movements to and from the site per day. This level of traffic is similar to the traffic volumes considered in the Traffic Impact Assessment (TIA) prepared by Amber which concluded the following:

> *The project construction and cumulative impacts are therefore considered to be within acceptable levels and would not be expected to have adverse impacts in terms of intersection performance. The results are expected given that the generated traffic represents a minimal proportional increase carried through the adjoining intersections which have been designed and configured to cater for high traffic volume.*
>
> *Given the expected negligible impacts to the operation of the surrounding road network, no road upgrades are warranted as a result of the project.*

3.5.2 Light and Heavy Vehicle Access Routes

The construction workforce is to be primarily located in Wollongong, Shellharbour, and other nearby towns. All light vehicles will enter the site via the Northgate main access to Springhill Road.

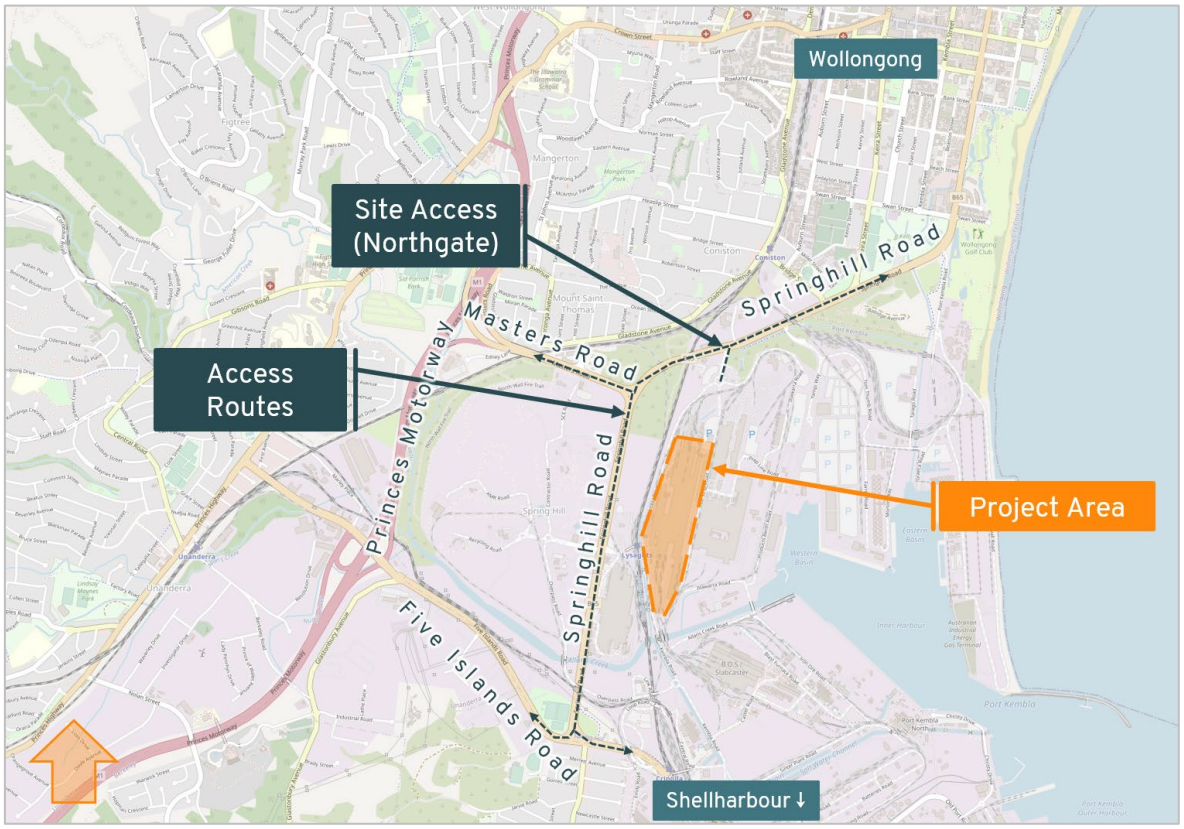
Materials required for the Stage 1 will be transported directly from locations in Port Kembla, Wollongong and nearby towns.

All heavy vehicles will enter and exit the site via the Northgate main access to Springhill Road.

The heavy and light vehicle access route between the site and the nearby arterial road network is via the Princes Motorway, Masters Road, Springhill Road and the Northgate main entry as shown in Figure 6.

This access route is clear of nearby schools and does not involve the use of any roads along the direct frontage. or adjacent to, a school. It is also noted that there is no sign posted school zones along Princes Motorway, Masters Road, Springhill Road, Five Islands Road and Northgate.

Figure 6: Light and Heavy Vehicle Access Route



Source: Open Street Maps

3.5.3 OSOM Vehicles

Mobile cranes and excavators are required for the Stage 1 Works which will be transported by OSOM vehicles (likely low loader vehicle combinations).

There will be a total of up to four OSOM movements a day to and from the site when the plant is delivered at the start of construction, and then again at the completion of construction activities when the plant is collected.

The OSOM vehicle combinations will not require pilots or escort vehicles and will comply with the following documents and the associated Heavy Vehicle National Law:

- *National Heavy Vehicle Regulator (NHVR) Multi-State Class 1 Load Carrying Vehicle Mass Exemption Notice 2020 Information Sheet*; and
- *NHVR Multi-State Class 1 Load Carrying Vehicle Dimension Exemption Notice Information Sheet.*

Regular movements by OSOM vehicles will not be required for the Stage 1 Works.

3.5.4 OSOM Access Route

The mobile cranes and excavators required for Stage 1 will be transported by OSOM vehicle combinations to and from a construction contractor located in Smeaton Grange[1].

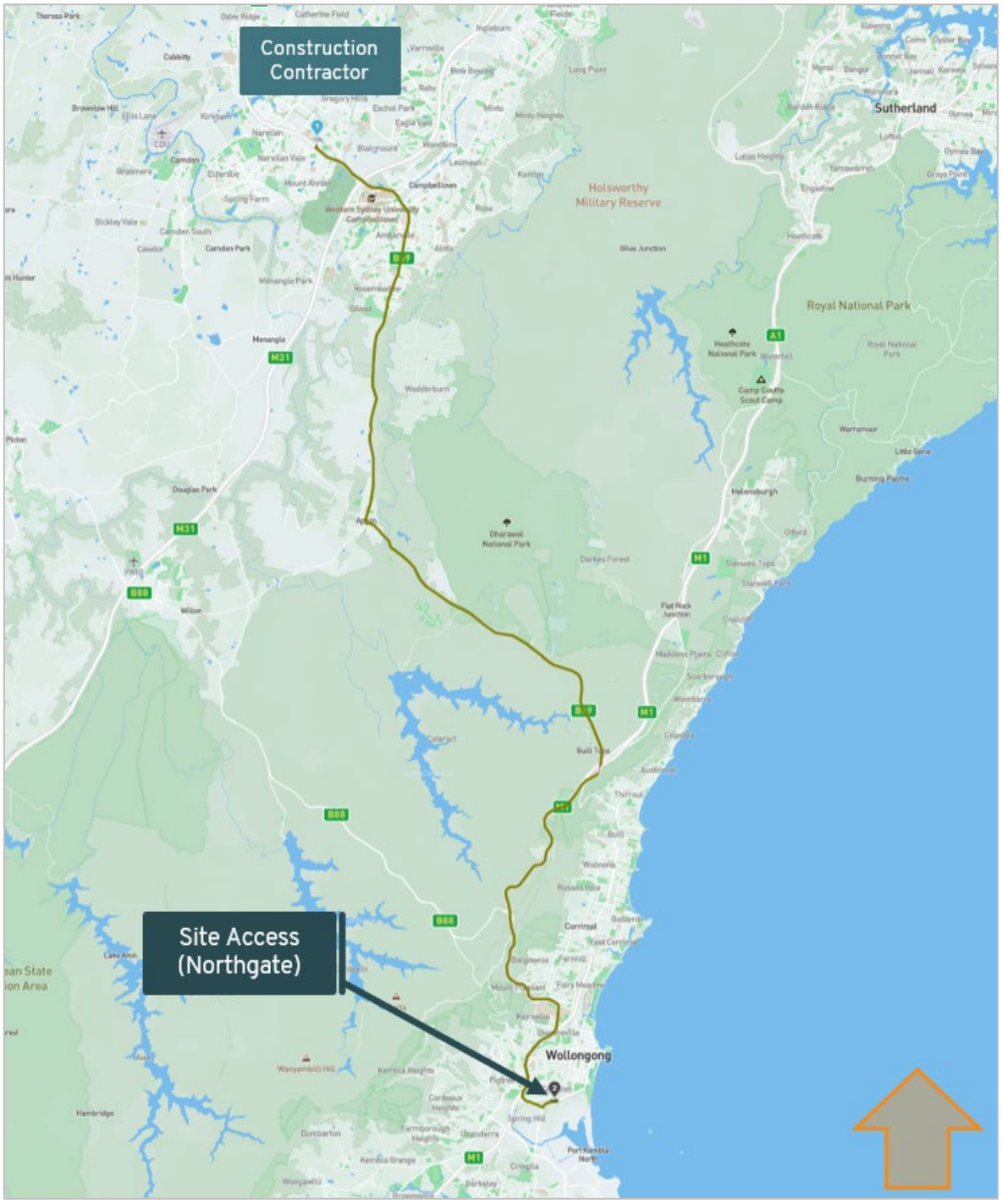
[1] Brefni, Unit 5/11 McPherson Road, Smeaton Grange

The OSOM route to site is shown in Figure 7, and involves the following:

- Hartley Road, Narellan Road, Appin Road, Bulli Appin Road, Princes Motorway, Masters Road, Springhill Road and Northgate main access.

All roads on this route are pre-approved for OSOM use where they comply with the information sheets described in Section 3.5.3 per the *NSW Oversize Overmass Load Carrying Vehicles Network map.*

Figure 7: OSOM Vehicle Access Route



Source: NHVR Route Planner

3.6 Car Parking

Construction staff with light vehicles will park in the existing on-site car parking facilities at the steelworks, as indicated in Figure 8 along with additional parking near the construction area shown in Figure 9 below.

A total of approximately 200 car parking spaces area available in the main car parking area. There is capacity in this car parking area to fully accommodate the parking demand during construction periods. Nevertheless, in the unlikely event that the car parking capacity is exceeded during construction, overflow parking will be accommodated within adjacent hardstand areas.

Construction and operational staff are to be safely transferred from the main car parking areas to the appropriate work site with a mini-bus or other suitable vehicles via the internal road network.

Figure 8: On-Site Car Park

Source: Nearmaps

4. Traffic Management Strategy

4.1 Driver Protocols

Management of vehicular access to and from the site is essential to maintain the safety of the general public as well as the labour force. Exemplar driver protocols are to be implemented and a driver code of conduct established. The Driver Code of Conduct is provided within Appendix A.

The following measures will be implemented by the BlueScope Project Manager and the Construction Site Manager:

- Mandatory site induction given to all workers on the site which clearly sets out the TMP requirements including on-site speed restrictions and the Driver Code of Conduct.
- Monitoring complaint and safety incident registers (including near miss and hazard observation) are also tracked to address any incidences of non-compliance and improvement opportunities in relation to routes and driving behaviour.

4.2 Delivery Logistics

The Construction Site Manager will be responsible for managing the heavy vehicle movements to and from the site.

The Construction Site Manager is to liaise with transport companies to ensure they are aware of the access route to site and that schedule major deliveries so that deliveries during the following periods are avoided :

- during peak hours and to avoid conflict with local traffic; and
- any school zones during peak school times, and

Furthermore, the varying origins of the haulage movements and limited number of deliveries to site each day will limit the potential for haulage vehicles to form convoys or platoons.

4.3 Information and Communications

The Construction Site Manager is required to provide weekly reports to the BlueScope Project Manager. The BlueScope Project Manager will be the main point of contact for non-emergency ongoing communication with the community, Council, TfNSW, local residents and other key stakeholders.

For emergency issues the Project/Site Managers will be the first points of contact to resolve issues. Details and contact information of each of these positions will be provided to Council, local residents and other relevant stakeholders.

4.4 On-Site Measures

Measures to be implemented to manage access to the existing operations of the plate mill and to minimise conflict with construction vehicles are as follows:

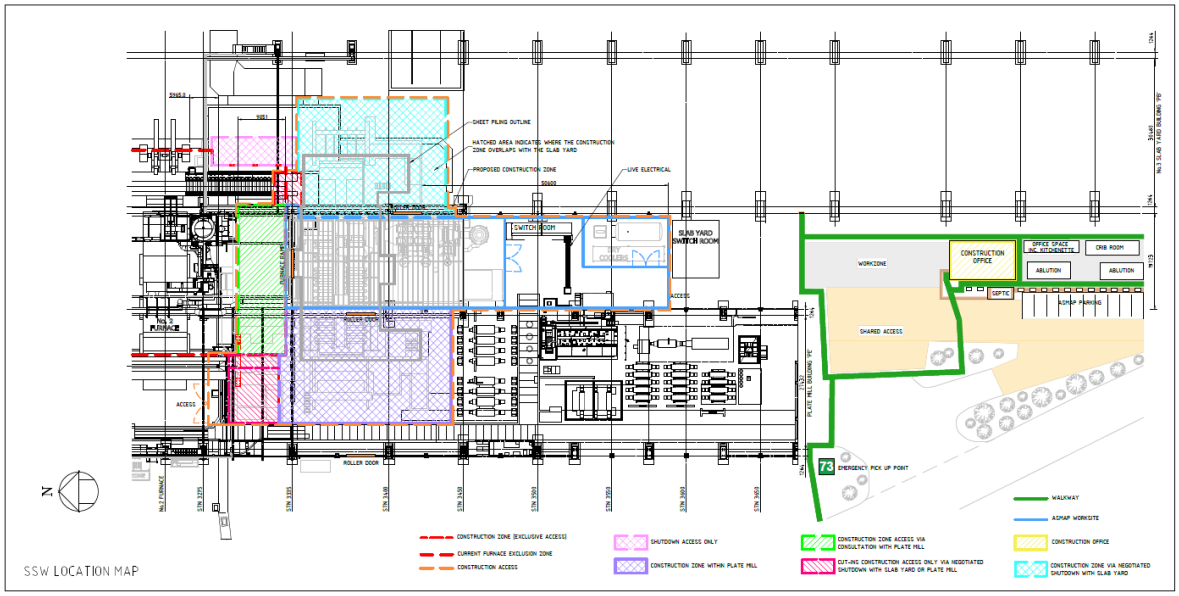
- On-site speed limits (40 km/h) are to be adhered to at all times.
- Figure 9 shows the site offices, work zone, parking areas and clear pedestrian access paths for staff. These paths are to be used for access for construction and operations are to be clearly marked by signs and line marking.

Figure 9: Pedestrian Access Plan

Source: BlueScope

- Construction and operational staff that are to be transferred from the main car parking areas to the work site with a mini-bus or other suitable vehicles via the internal road network.
- Due to the nature of the works at the Plate Mill, the impacted locations will change over the course of the Stage 1 works. To ensure clear separation of construction and operation activities, an 'Ownership of Area' map is to be clearly displayed and run through at daily pre-start meetings by the Construction Site Manager. The map is to be updated daily or when construction conditions change by the Construction Site Manager.
- The map will clearly indicate which areas are used for construction and operational activities and the paths of access between. An example is shown in Figure 10.
- The key construction areas to be fenced and separated from existing operations with control points for access.
- The internal haulage route between the site and on-site stockpile to be clearly delineated by way of clear and prominent signs.

Figure 10: Example Ownership of Area Map



Source: BlueScope

5. Traffic Management Responsibilities

5.1 BlueScope Project Manager

The BlueScope Project Manager as the Applicant representative has ultimate responsibility for the project and shall:

- Ensure all traffic control measures are implemented and maintained in accordance with this plan and the relevant Acts, Codes, Standards and Guidelines;
- Ensure suitable communication and consultation with any affected stakeholders is maintained;
- Ensure inspections of the Traffic Controls are undertaken in accordance with the TMP, and results recorded. Any variations shall be actioned and documented; and
- Arrange and/or undertake any necessary audits and incident investigations.

5.2 Construction Site Manager

The Construction Site Manager is responsible for overseeing the day-to-day activities, and is therefore responsible for the practical application of the TMP, and shall:

- Instruct workers on the relevant safety standards, including the correct use of Personal Protective Equipment (PPE);
- Ensure traffic control measures are implemented and maintained in accordance with the TMP;
- Undertake and submit the required inspection and evaluation reports to the Project Site Manager;
- Render assistance to road users and stakeholders when incidents arising out of the works affect the network performance or the safety of road users and workers; and
- Take appropriate action to correct unsafe conditions, including any necessary modifications to the TMP.

5.3 Workers and Subcontractors

Workers and Subcontractors shall:

- Correctly wear high visibility vests, in addition to other protective equipment required (e.g. footwear, eye protection, helmet, sun protection, etc) at all times whilst on the worksite;
- Comply with the requirements of the TMP and ensure no activity is undertaken that will endanger the safety of other workers or the general public; and
- Enter and leave the site by approved routes and in accordance with safe work practice.

6. Implementation

6.1 Hazard Identification, Risk Assessment and Control

In establishing adequate controls for the hazards, a structured approach shall be adopted via the use of the hierarchy of control as outlined below:

- Elimination
- Substitution
- Engineering
- Administration
- Personal Protection Equipment

Traffic management practices require that the Construction Site Manager evaluate all traffic arrangements before they are open to use by construction and operation staff and immediately following the opening. Adjustments are to be made as required and recorded, including reasons for the changes. The Construction Site Manager is also required to evaluate the traffic arrangements when site conditions change, and new hazards that arise throughout the works will be subject to a risk assessment and incorporated onto a Risk Register.

7. Communicating TMP Requirements

Clear lines of communication through all levels and functions (e.g. management, staff and sub-contractors), is key to minimise impacts and achieving continual improvements in performance.

The methods of communication on-site will include site inductions, pre-start and toolbox meetings, and through Safe Work Method Statements (SWMS).

7.1 Site Inductions

All construction personnel entering the site are to go through a Site Induction that details the requirements of the TMP, Personal Protective Equipment (PPE), Occupational Health and Safety (OFS), and risk management procedures. All personnel wishing to enter the works zone are to be properly inducted before access is allowed.

The requirements of the TMP will be communicated to all personnel entering the site through the online induction prior to workers and visitors coming to the site, including delivery drivers' online induction.

7.2 Pre-Start and Toolbox Meetings

A prestart meeting is to be conducted at the start of works, on a daily basis, and if unforeseen changes are required. Progress, hazard assessment and any new issues, information or changes are to be discussed. Safe Work Method Statements (SWMS) documentation is to be read and signed during prestart meetings.

7.3 Safe Work Method Statements

A site-specific SWMS is to be produced for the set up and shutdown of control of traffic on-site and is to be read through, discussed, and signed by all personnel working on site.

8. Monitoring and Measurement

8.1 Site Inspections and Record Keeping

The BlueScope Project Manager will ensure that the TMP is implemented and evaluated for effectiveness. The Construction Site Manager shall inspect and monitor traffic movements around the site in conjunction with the personnel who have erected the control measures. The outcomes of the inspection will be recorded.

A record of the inspections should be kept indicating:

- When traffic controls were erected;
- When changes to controls occurred and why the changes were undertaken;
- Any significant incidents or observations associated with the traffic controls and their impacts on road users or adjacent properties.

Where significant changes to the work or traffic environment or adverse impacts are observed, the controls should be reviewed as a matter of urgency. Inspection Sheets shall be completed by the person undertaking the inspections and reviewed by the Construction Site Manager.

8.2 Incident Reporting

All workers are responsible for ensuring timely and effective initial internal reporting of Incidents that they are involved with or witness.

BlueScope are to be informed of any environmental incidents immediately verbally and within 24 hours in writing. Incident reports will include lessons learnt from each environmental incident occurring. Including lessons learnt from each environmental incident and proposed measures to prevent the occurrence of a similar incident. All efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be closed out as quickly as possible, taking all required action to resolve each environmental incident.

8.3 Management and Monitoring Summary

A summary of the management and monitoring measures is provided within Table 4.

Table 4: Management and Monitoring Summary

Aspect	Potential Problems	Performance Criteria	Mitigation and Control Measures	Monitoring Requirements	Responsibility	Timing	Frequency
Driver behaviour	Poor driver behaviour leads to incidents, accidents or near misses	No accidents or incidents, including incidents on-site.	Encouraging good driver practice and reinforcing those messages during project meetings	Count and record number of incidents, accidents and near misses Ensure that all drivers have received and acknowledge a copy of the Driver Code of Conduct and are following the requirements.	BlueScope and Construction Contractor	Duration of construction	Daily
Driver behaviour	The approved route not being followed by staff and deliveries	No use of roads other than those on the approved access by staff and delivery drivers	Checking driver routes and reinforcing the approved routes to staff and delivery drivers during project meetings	Spot check of routes taken at site entry and adjoining local roads and monitoring any feedback from the Community, Council and TfNSW	BlueScope and Construction Contractor	Duration of construction	Daily
Condition of road	Vehicles have excessive mud or dirt	Dirt transferred from the site onto the external road network to be minimised	Vehicles exiting the site are to be cleaned so that excessive mud and dirt is not transferred to external roads.	Vehicles exiting the site are to be inspected and cleaned as required	Vehicle driver	Duration of construction	Daily

9. Management Review

9.1 TMP Review and Improvement

A review of the effectiveness of the TMP will be undertaken by the Construction Site Manager and BlueScope Project Manager on a fortnightly basis. Any updates to the TMP that are required to improve the effectiveness of the TMP as identified in the reviews will be undertaken by the BlueScope Project Manager.

Appendix A

Driver Code of Conduct

Driver Code of Conduct

This code of conduct applies to all vehicle drivers that visit the construction site. It is in addition to courses and training that applies to all drivers to the site as part of existing site inductions.

It is the responsibility of all contractors to distribute the driver code of conduct to their workforce and subcontractors.

Primary Driver Code

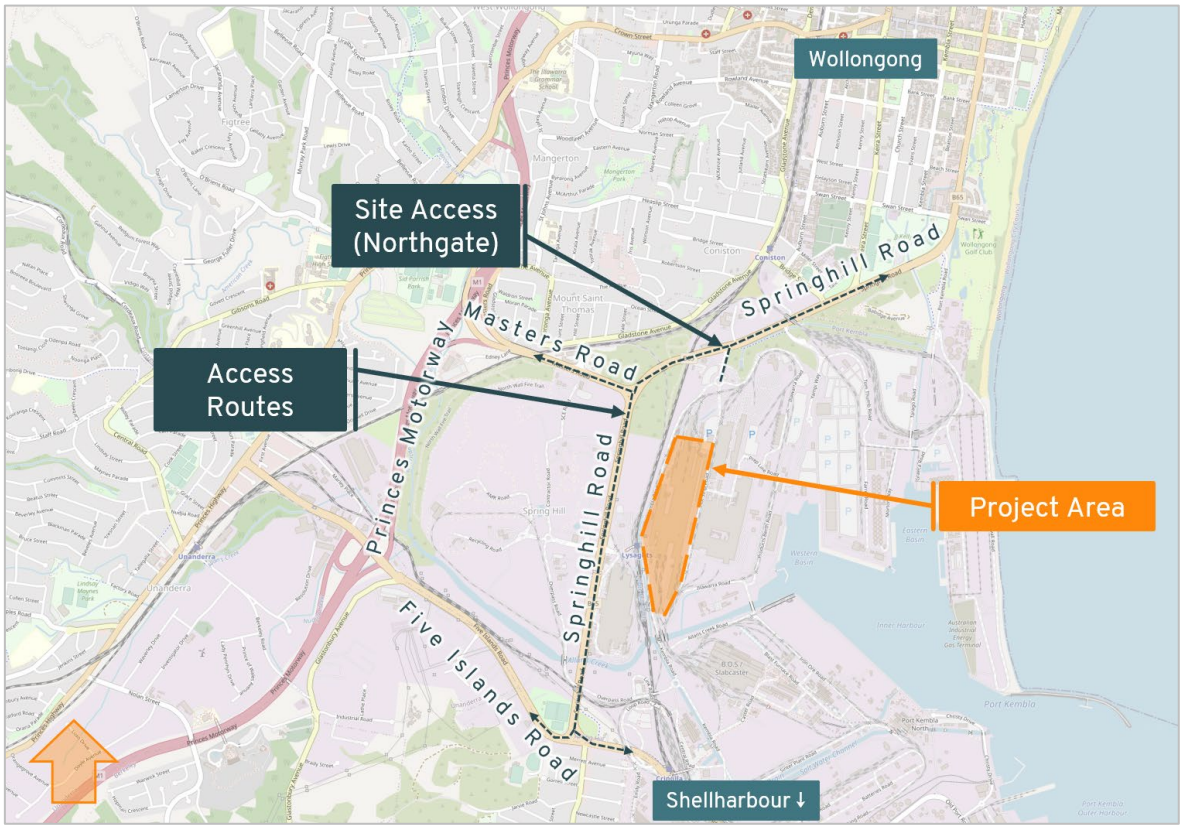
The following requirements shall be adhered to at all times:

- Obey all laws and regulations.
- Drive in a considerate manner and respect the rights of others to use and share the road space.
- Any vehicle incident resulting in injury or significant damage to property must be reported to the police.
- Always adhere to the site working hours.
- Securely fasten and cover load with the appropriate use of ratchets straps, tarpaulins or covers (loose material), chains and load binders, for example. Relevant vehicular load limits are not to be exceeded and all loads are to be suitably balanced. The maximum rear overhang shall not exceed limits under by relevant road rules for respective vehicle types.
- Keep their vehicle clean and in good mechanical condition to reduce the environmental impact.
- Truck drivers must not use engine brakes in built up areas, except where the load being carried and the grade of the road make use of such braking absolutely necessary for safe driving.

Access Routes

All drivers to and from the site must adhere strictly to the specified routes outlined in the Traffic Management Plan as provided in Figure 11 below for reference.

Figure 11: Light and Heavy Vehicle Access Route



Source: Open Street Maps

The access route will be provided to all drivers to the site during regular toolbox meetings with reminders that it is to be adhered to at all times.

The appropriate use of the access route will be monitored by way of spot checks undertaken by the BlueScope Project Manager.

Chain of Responsibility

Corporate entities, directors, partners, and managers are accountable for the actions of individuals under their supervision, even if not directly involved in driving or operating a heavy vehicle under the Heavy Vehicle National Law (HVNL). This is referred to as the "chain of responsibility" (COR).

Driver Fatigue

Journey Management Plans

If a worker travels more than 100 kilometres because of construction activities in a single trip, then a Journey Management Plan will be required. The worker that the Journey Management Plan is for will be required to have breaks at least every two hours and contact a nominated person and once they have reached their destination contact the nominated person to let them know they have reached their destination.

The Applicant will identify areas where there is a higher risk of workers becoming fatigued (such as long shifts or physically onerous tasks) and implement control measures to mitigate the risk. This includes ensuring sufficient breaks and rotating staff shifts.

Heavy Vehicle Fatigue Management

In addition to the measure outlines above, there are regulations that apply to heavy vehicles that come from the HVNL which is maintained and improved by the National Transport Commission (NTC) and administered and enforced by the National Heavy Vehicle Regulator (NHVR). The HVNL applies in all states and territories except Western Australia and the Northern Territory and commenced in 2014.

One of the five regulations is the Heavy Vehicle (Fatigue Management) National Regulation, which recognises that fatigue is a key risk and one of the biggest causes of crashes for heavy vehicle drivers.

The fatigue management regulations have four key requirements that apply not just to drivers and all other parties in the Chain of Responsibility (CoR):

- Drivers must not drive a fatigue regulated heavy vehicle on a road while impaired by fatigue. Other parties in the CoR must ensure they prevent a driver from doing this.
- Drivers must work within set limits and have minimum rest requirements. Other parties must not ask or allow drivers to exceed these limits.
- Drivers (or in some cases a driver's record keeper) must make an accurate and complete record of their work and rest time in either a National Driver Work Diary or, if driving within an area with a radius of 100km of the driver's base, alternative work records.
- Drivers must provide their work and rest records to their record keeper within set time frames. A record keeper must retain these records for three years.

Failure to comply with these requirements can result in enforcement action from the NHVR.

A copy of NHVR's Heavy vehicle driver fatigue requirements bulletin is attached in Appendix B. This document outlines the relevant requirements and includes links to further information related to work diaries, CoR, accreditation, trip plans, and safety management systems. This information is to be used and followed when applicable.

Maintenance Requirements

The operators of all vehicles associated with the site shall maintain a high level of maintenance. The following requirements shall be adhered to at all times:

- Ensure their vehicle complies with relevant State legislation in relation to roadworthiness and modifications;
- Undergo regular vehicle checks and maintenance; and
- Ensure their vehicles have correctly fitted mufflers to minimise noise disturbance.

Appendix B

NHVR Heavy Vehicle Driver Fatigue Requirements Bulletin

Heavy vehicle driver fatigue requirements

Compliance and Enforcement bulletin 7

This bulletin provides practical advice to help heavy vehicle drivers and other parties to comply with the requirements of the Heavy Vehicle National Law (HVNL) as they relate to heavy vehicle driver fatigue.

What are my obligations under the HVNL?

Amendments to the HVNL in 2018 will introduce 'safety duties' that must be met by all parties in the Chain of Responsibility (CoR). This requirement means that all parties have a duty to ensure the safety of their transport activities, so far as is reasonably practicable.

Responsible parties in the chain include: employers, prime contractors, operators, schedulers, consignors, consignees, packers, loading managers, loaders, and unloaders.

In addition, the executive officers of each party in the chain must exercise 'due diligence' to ensure the safety of their business's transport activities. The law will require executive officers to:

- keep up-to-date with the safe conduct of transport activities in their business
- fully understand the hazards and risks associated with their transport activities and how these are being managed
- provide appropriate resources–including people, systems and equipment–to manage their safety hazards and risks effectively.

In terms of heavy vehicle driver fatigue, the safety duties provision of the HVNL places a requirement on responsible parties to prevent a driver from driving any heavy vehicle whilst fatigued, not just fatigue-regulated heavy vehicles.

These safety duties extend to identifying any fatigue risks to prevent or reduce potential harm or loss, to yourself and others.

What are the HVNL fatigue requirements?

Driver fatigue is a leading contributor to heavy vehicle crashes in Australia, with some studies showing fatigue involved in one eighth of Australian heavy vehicle crashes.

To assist drivers and operators of heavy vehicles to avoid driver fatigue, the HVNL sets four key requirements.

Four key HVNL requirements to avoid driver fatigue

Requirement	Description
1. Don't drive a heavy vehicle while fatigued	Drivers must not drive a fatigue-regulated heavy vehicle on a road while impaired by fatigue. Other parties in the CoR must ensure they prevent a driver from doing this.
2. Work within set limits	Drivers must work within set limits and have minimum rest requirements. Other parties must not ask or allow drivers to exceed these limits.
3. Keep work and rest records	Drivers (or in some cases a driver's record keeper) must make an accurate and complete record of their work and rest time in either a National Driver Work Diary or, if driving within an area with a radius of 100 km of the driver's base, alternative work records.
4. Provide records to record keeper	Drivers must provide their work and rest records to their record keeper within set time frames. A record keeper must retain these records for three years.

Understanding the HVNL fatigue requirements

1. Don't drive a heavy vehicle while fatigued

Under the HVNL, the safety duty for all heavy vehicle drivers is to not drive a fatigue-related heavy vehicle on a road while impaired by fatigue. A driver is impaired by fatigue when their ability to drive a heavy vehicle safely is affected by fatigue.

The HVNL defines fatigue as including (but not limited to) the following feelings and behaviours:

- feeling sleepy
- feeling physically or mentally tired, weary or drowsy
- feeling exhausted or lacking energy
- behaving in a way consistent with the above.

If a heavy vehicle driver is driving and experiences any of these symptoms, they must stop work immediately (as soon as it is safe to do so). The driver must not work again until they are no longer affected by fatigue.

Tip: Getting plenty of good quality rest and/or sleep are the most effective ways to prevent and recover from fatigue.

A driver can be impaired by fatigue at any time, even when they comply with work and rest hour limits. Regardless of how many hours they may have worked or rested, they must never drive if they are impaired by fatigue.

2. Work within set limits

The scientific evidence shows that fatigue increases the longer a person is awake and or the less sleep they have. To assist heavy vehicle drivers get enough time to sleep and to not work too long, the HVNL requires all heavy vehicle drivers to comply with set work and rest limits.

What is work and rest?

While driving is the most common type of work, it is important to note that any other task relating to the operation of a fatigue-regulated heavy vehicle is regarded as work, including for example:

- instructing/supervising another person driving a fatigue-regulated heavy vehicle
- loading or unloading a fatigue-regulated heavy vehicle
- inspecting, repairing or servicing a fatigue-regulated heavy vehicle
- inspecting or attending to a load (adjusting/securing load) of a fatigue-regulated heavy vehicle (a load includes passengers)
- cleaning and refuelling a fatigue-regulated heavy vehicle
- completing paperwork in relation to a fatigue-regulated heavy vehicle (organising loads/work)
- recording information or completing a document that is required under the HVNL
- helping another person or supervising any of the above
- occupying the driver seat of a fatigue-regulated heavy vehicle while its engine is running
  Note: Exemptions may apply.

These tasks have been limited because they extend the time a person is awake, increasing the risk of being fatigued.

Rest in relation to the operation of a fatigue-regulated heavy vehicle is not doing any of the above.

What work and rest options are available?

The HVNL provides heavy vehicle drivers and operators with various work and rest hours options, each with their own work and rest limits. There are four options available:

1. Standard hours
2. Basic Fatigue Management (BFM) hours
3. Advanced Fatigue Management (AFM) hours
4. Exemption hours.

Note: The following link to the NHVR website provides the work and rest requirements for each of the work and rest hours options.
www.nhvr.gov.au/safety-accreditation-compliance/fatigue-management/work-and-rest-requirements

BFM and AFM provide increased levels of flexibility by managing fatigue risks through the National Heavy Vehicle Accreditation Scheme (NHVAS). Heavy vehicle drivers can only work under these hours if they have been inducted into an accredited operators system.

Exemptions enable operators and drivers to apply for work and rest hours not possible under any of the other work and rest options. Strict constraints apply.

3. Keep work and rest records

When does a driver need to carry a Work Diary?

A driver of a fatigue-regulated heavy vehicle is required to carry a Work Diary when they are, or if they have in the last 28 days, been:

- driving outside a radius of 100km from their driver base (100+km work)
- working under BFM or AFM
- working under an exemption.

At the request of an Authorised Officer, drivers must produce their Work Diary records for the previous 28 days. An Authorised Officer is a police officer, state or territory road agency officer or an NHVR officer.

Note: Some specific state and territory exemptions exist.

Completing a Work Diary (100+km work)

Drivers of a fatigue-regulated vehicle undertaking or planning to undertake a 100+km journey in a day must complete their Work Diary (including all work and rest) for that day. Detailed instructions on how to complete your Work Diary, including examples, are located at the beginning of your Work Diary.

Counting time

There are detailed instructions on pages 21–25 of the Work Diary explaining how to count time. It is important to remember when counting time that:

- each 24-hour period starts at the end of a major rest break relevant to the work/rest hours arrangement under which the driver is working (e.g. standard hours solo (at least) seven hours continuous rest).
- each 24-hour period ends exactly 24 hours after commencement.
- it is possible that you could have more than one 24-hour period running at the same time. This can occur when there are two major rest breaks within a 24-hour period.

Tip: A major rest break does not reset your 24-hour period; it commences another 24-hour period.

Recording work/rest in non-participating jurisdictions

If you are the driver of a fatigue-regulated heavy vehicle travelling into WA or NT for a period of seven days or less, you are required to comply with both the HVNL fatigue requirements and any relevant local laws. To demonstrate your compliance, you should complete your Work Diary as you would if you were working in a participating jurisdiction.

For periods of work longer than seven days carried out in a non-participating jurisdiction, the driver will need to comply with the local heavy vehicle driver fatigue, work rest and record keeping requirements. When driving a fatigue-regulated heavy vehicle and returning from a non-participating jurisdiction to a participating jurisdiction, the driver must complete their Work Diary from the beginning of the last major rest break taken prior to re-entering the participating jurisdiction.

Further information can be found on page 9 of the Work Diary instructions.

4. Provide records to record keeper within set time frames

Record keepers must keep a record of specific information for drivers of fatigue regulated heavy vehicles. A record keeper may be the:

- employer, if the driver is employed
- accredited operator, if the driver is working under BFM or AFM accreditation
- driver (as a self-employed or owner driver).

Drivers must provide their record keeper with their relevant work and rest hours totals and any other relevant vehicle information the record keeper may not reasonably have access to (registration numbers, dates the driver worked, etc.).

The record keeper determines the record location and notifies the driver. The record location is usually the driver's base.

All records must be:

- kept for three years after they are created
- kept at a location accessible to an Authorised Officer for audit or investigation purposes
- in a format that is readable and reasonably assumed it will be readable in at least three years from the date of its creation.

When do HVNL fatigue requirements apply?

The heavy vehicle driver fatigue requirements found in chapter 6 of the HVNL apply to drivers and other parties operating a fatigue-regulated heavy vehicle.

A fatigue-regulated heavy vehicle is defined as a:

- motor vehicle with a Gross Vehicle Mass (GVM) of more than 12t
- combination with a GVM of more than 12t
- fatigue-regulated bus (GVM greater than 4.5t and built or fitted to carry more than 12 adults including the driver).

Some vehicles have been specifically excluded from this definition, these include motor vehicles that are:

- built to operate primarily as a machine or implement off-road and are not capable of carrying goods or passengers by road

or

- motorhomes.

For example, a truck with a GVM of 8.7t towing a trailer with a GVM of 3.4t (8.7t + 3.4t = 12.1t) would be classed as a fatigue-regulated heavy vehicle.

Tip: The manufacturer specifies the GVM and it can be located on the vehicle identification plate, registration label or papers.

What can I do to manage fatigue?

The implementation of a safety management system (SMS) that addresses the risks associated with fatigue will assist in satisfying the requirements of the HVNL as they relate to heavy vehicle driver fatigue.

While this bulletin is not intended to provide an exhaustive list, here are some examples of systems that can be established as part of an effective SMS:

- Reviewing driving or work schedules and work records of relevant drivers
- Regularly assessing fitness for duty of relevant drivers
- Reviewing contractual arrangements and documentation relating to the consignment and delivery of goods
- Reviewing loading and unloading times and delays at loading and unloading places
- Developing and adhering to trip plans
- Implementing formalised processes to engage and consult with other parties in the chain.

What actions can Authorised Officer's take?

Authorised Officers have powers relating to heavy vehicle driver fatigue requirements, including inspecting heavy vehicle driver's work and rest records.

Enforcement action for any breach of fatigue, work/rest hours or Work Diary requirements will depend on the nature and severity of the breach. Options available to Authorised Officers include (but are not limited to) formal warnings, infringement notices and court imposed penalties.

Drivers of fatigue-regulated heavy vehicles that are deemed to be driving while impaired by fatigue may face penalties and be prevented from working, even if they are complying with work and rest requirements.

Drivers of fatigue-regulated heavy vehicles may be directed to immediately stop work and not work again for a stated period if:

- the driver is impaired by fatigue
- the driver has committed a severe or critical work/rest hours breach
- the driver is unable to produce a Work Diary without a reasonable excuse
- the Work Diary produced cannot be relied on as an accurate record of the time the driver recently spent working or resting.

Where can I get more information?

Heavy vehicle driver fatigue or Work Diary requirements

This bulletin summarises the key obligations set out in the HVNL and is not exhaustive. Visit our website for more information about heavy vehicle driver fatigue or Work Diary requirements or contact us on 1300 MYNHVR (1300 696 487). www.nhvr.gov.au/safety-accreditation-compliance/fatigue-management

Chain of Responsibility (CoR)

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/chain-of-responsibility

NHVAS

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/national-heavy-vehicle-accreditation-scheme

Fatigue management exemptions

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/fatigue-management/fatigue-management-exemptions

Safety Management Systems (SMS)

More information is available on the NHVR website at: www.nhvr.gov.au/safety-accreditation-compliance/safety-management-systems

For more information

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