

PROPOSED AMSA LOGISTICS HUB

April 2025

Final

Traffic Impact Assessment



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SYNOPSIS

Preparation of a Traffic Impact Assessment (TIA) for the proposed AMSA Logistics Hub, located on Farm 1132 on the border of the Port of Saldanha, within the Saldanha Bay Local Municipality, Western Cape Province.

KEY WORDS:

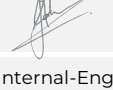
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Proposed AMSA Logistics Hub Traffic Impact Assessment

1. INTRODUCTION

1.1. Scope and Objectives

ArcelorMittal South Africa (Pty)Ltd (hereafter referred to as AMSA) is planning to develop a Logistics Hub at the AMSA Saldanha Works facility currently under 'Care and Maintenance'. The AMSA Saldanha Works facility is situated on the remainder of Farm 1132 on the border of the Port of Saldanha, within the Saldanha Bay Local Municipality, Western Cape Province (see **Figure 1-1**).

AMSA is a steelworks focused on the export market, with the ironmaking operations ceasing 15 January 2020 and the remaining operations ceasing 26 March 2020 due to challenges in the global steel market. Given this, there are currently no active operations occurring on the steelworks site. While steel production remains unlikely due to continued global market challenges, AMSA have been investigating alternatives to enable Saldanha Steel to return a portion of the facility back to economic productivity along with job regeneration at the site.

The site's location and installed infrastructure lends itself to receiving bulk cargo for stockpiling and export, given its optimal proximity to the Port of Saldanha.

It is proposed to construct a new warehouse to house environmentally and weather sensitive cargos, which will be linked to the existing handling and conveyancing systems. The size of the warehouse will be 14,000m² excluding associated infrastructure, i.e., tipplers, rail siding, conveyance systems and transfer stations. The proposed operation at the AMSA Logistics Hub entails the receiving, distributing, and handling of various bulk commodities for local and export purposes. The proposed Hub aims to handle a maximum of 5 million tonnes of various bulk commodities per annum. Commodities to be handled at the AMSA Logistics Hub includes Manganese Ore, Phosphate Concentrate, Garnet sand, Zircon sand, Lead Concentrate, Copper concentrate and Zinc Concentrate. The AMSA Logistics Hub will operate independently of the AMSA Saldanha Works.

Given the fit-for-purpose rail and raw materials handling infrastructure already available on site, it is envisaged that the operation will serve to debottleneck the Port of Saldanha and increase the productivity and efficiency of export operations at the Transnet National Ports Authority (TNPA) Multi-Purpose Terminal in Saldanha.

The AMSA Logistics Hub shall operate independently of the operations of AMSA Saldanha Works, such that re-commissioning of AMSA Saldanha Works is not impeded.



Figure 1-1: Project Locality Map

As part of the environmental impact processes, the services of a Transportation Specialist are required to conduct a Transport Impact Assessment (TIA) for the proposed facility.

The following three main transportation activities will be investigated:

- Possible transportation of abnormal load vehicles to the site;
- The transportation of construction materials, equipment and people to and from the site/facility; and
- The transport of commodities during the operational phase.

The transport study will aim to provide the following objectives:

- Assess activities related to traffic movement for the construction and operation (maintenance) phases of the facility;
- Recommend a preliminary route for the transportation of the components to the proposed site;
- Recommend a preliminary transportation route for the transportation of materials, equipment and people to site; and
- Recommend alternative or secondary routes where possible.



1.2. Terms of Reference

The Terms of Reference for this Transport Impact Assessment include the following:

General:

- A description of the environment that may be affected by the activity and the manner in which the environment may be affected by the proposed project;
- A description and evaluation of environmental issues and potential impacts (including direct, indirect, cumulative impacts and residual risks) that have been identified;
- Direct, indirect, cumulative impacts and residual risks of the identified issues must be evaluated within the EIA Report in terms of the following criteria:
 - the nature, which shall include a description of what causes the effect, what will be affected and how it will be affected.
- A statement regarding the potential significance of the identified issues based on the evaluation of the issues/impacts;
- A comparative evaluation of the identified feasible alternatives and nomination of a preferred alternative;
- Any aspects conditional to the findings of the assessment which are to be included as conditions of the Environmental Authorisation;
- This must also include any gaps in knowledge at this point of the study. Consideration of areas that would constitute “acceptable and defensible loss” should be included in this discussion;
- A reasoned opinion as to whether the proposed project should be authorized;
- Summary of the positive and negative impacts and risks of the proposed project and identified alternatives; and
- Mitigation measures and management recommendations to be included in the Environmental Management Programme to be submitted with the FEIR.

Specific:

- Description of surrounding road network and future transport planning proposals.
- Estimation of development generated trips.
- Discussion of access location(s) in terms of access spacing sight distance and operational requirements.
- Discussion of transport requirements for the delivery and transport of facility components and materials.
- Recommendations of mitigating measures, if required.
- Preparation of Traffic Impact Assessment (TIA).

1.3. Approach and Methodology

The TIA will assess the traffic impact on the surrounding road network in the vicinity of the site during the:

- construction of the facility and the associated infrastructure;
- operation and maintenance of the facility at the operational phase; and
- decommissioning phase.

The traffic impact assessment will be informed by the following:

- project assessment;
- client inputs and feedback;
- overview of project background information which will include location maps, component specifications and any resulting abnormal loads to be transported; and
- research of all available documentation and information relevant to the proposed facility.

The traffic impact assessment will consider and assess the following:

- estimation of trip generation;
- discussion on potential traffic impacts;
- construction, operational (maintenance) and decommissioning vehicle trips;



- site layout, access points and internal roads assessment;
- description of the surrounding road network;
- description of site layout;
- assessment of the possible access points onto the site; and
- assessment of the proposed internal roads.

The findings of the transport assessment are detailed in this report, prepared as part of the environmental impact assessment process for the proposed facility.

1.4. Source of Information

Information used in a transport study includes:

- Project Information provided by the Client.
- Google Earth.kmz provided by the Client.
- Google Earth Satellite Imagery.
- Project research of all available information.



2. DESCRIPTION OF PROJECT ASPECTS RELEVANT TO THE STUDY

2.1. Port of Entry

During the operational phase ore housed at the facility will be exported via the Port of Saldanha.

The Port of Saldanha is the largest and deepest natural port in the Southern Hemisphere, capable of accommodating vessels with a draft of up to 21.5m. It spans a land and sea area of over 19,300 hectares within a circumference of 91km, with maximum water depths reaching 23.7m. Saldanha is unique due to its purpose-built rail link, which is directly connected to a jetty bulk loading facility for shipping iron ore.

2.2. Abnormal Load Considerations

No abnormal loads are anticipated during the operations phase and taking consideration the size of the AMSA Logistics Hub warehouse, no abnormal loads are anticipated during the construction phase either.

Should the contractor opt to utilise large machinery for the construction of the warehouse, the machinery may be defined as abnormal loads in terms of the Road Traffic Act (No. 29 of 1989). In such cases a permit may be required for the transportation of these loads on public roads.

Abnormal permits are required for vehicles exceeding the following permissible maximum dimensions on road freight transport in terms of the Road Traffic Act (Act No. 93 of 1996) and the National Road Traffic Regulations, 2000:

- Length of 22m for an interlink, 18.5m for truck and trailer and 13.5m for a single unit truck;
- Width of 2.6m;
- Height of 4.3m measured from the ground;
- Possible height of load being 2.7m;
- Weight of gross vehicle mass of 56t resulting in a payload of approximately 30t;
- Axle unit limitations are 18t for dual and 24t for triple-axle units; and
- Axle load limitations are 7.7t on the front axle and 9t on the single or rear axles.

Any dimension / mass outside the above will be classified as an abnormal load and will necessitate an application to the Department of Transport and Public Works for a permit that will give authorisation for the conveyance of said load. A permit is required for each province that the haulage route traverses.

2.3. Further Guideline Documentation

The Technical Recommendations for Highways (TRH 11): “Draft Guidelines for Granting of Exemption Permits for the Conveyance of Abnormal Loads and for other Events on Public Roads” outlines the rules and conditions that apply to the transport of abnormal loads and vehicles on public roads. Within the guidelines, the detailed procedures to be followed in applying for exemption permits are described and discussed. Legal axle load limits and the restrictions imposed on abnormally heavy loads are discussed in relation to the damaging effect on road pavements, bridges and culverts.

The general conditions, limitations and escort requirements for abnormally dimensioned loads and vehicles are also discussed and reference is made to speed restrictions, power / mass ratio, mass distribution and general operating conditions for abnormal loads and vehicles. Provision is also made for the granting of permits for all other exemptions from the requirements of the Road Traffic Act and the relevant regulations.

2.4. Dimensional Limitations

A load of abnormal dimensions may cause an obstruction and danger to other traffic. For this reason, all loads must, as far as possible, conform to the legal dimensions. Permits will only be considered for indivisible loads, i.e. loads that cannot, without disproportionate effort, expense or



risk of damage, be divided into two or more loads for the purpose of transport on public roads. For each of the characteristics below there is a legally permissible limit and what is allowed under permit:

- Width;
- Height;
- Length;
- Front Overhang;
- Rear Overhang;
- Front Load Projection;
- Rear Load Projection;
- Wheelbase;
- Turning Radius; and
- Stability of Loaded Vehicles.

2.5. Transporting Other Plant, Material and Equipment

In addition to transporting the specialised equipment, the normal civil engineering construction materials, plant and equipment will need to be transported to the site (e.g. sand, stone, cement, gravel, water, compaction equipment, concrete mixers, etc.). The transport of these items will generally be conducted with normal heavy loads vehicles; however, certain items might require an abnormal load vehicle due to the load or size limitations.



3. DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.1. Description of the Site

It is proposed to establish the AMSA Logistics Hub on the remainder of Farm 1132 on the border of the Port of Saldanha, within the Saldanha Bay Local Municipality, Western Cape Province. The AMSA Saldanha Works facility is located on Farm 1132, which is approximately 2km north of the Port of Saldanha (see **Figure 3-1**).

The existing rail and rotary tippler infrastructure will be utilized for receiving cargo via rail, with provisions also made for road receipts. The rotary tippler connects to various stockpiling areas through conveyor networks and stacker/reclaimers. This infrastructure will be integrated with the proposed bulk commodity receiving, handling, stockpiling, and storage facilities of the Hub.

The warehouse will cover approximately 14,000m², excluding associated infrastructure such as tipplers, rail sidings, conveyance systems, and transfer stations. Commodities will be received at the AMSA Logistics Hub via both rail and road. Transnet Freight Rail (TFR) will shunt rail wagons from the Northern Cape to the AMSA Logistics Hub rail siding. Wagons loaded with commodities will be tipped at the Rotary Tippler and transported via the existing infrastructure and new conveyance systems (including transfer stations, conveyor belts, and tripper cars) to be stockpiled in the newly proposed enclosed warehouse. This warehouse will feature concrete floors, a roof structure, side wall sheeting, lighting, and access doors for yellow equipment/trucks used during dispatching.

Road deliveries directly from the mine to the warehouse will also be undertaken, utilising existing access roads to the proposed warehouse. The AMSA Logistics Hub will operate independently of the AMSA Saldanha Works operations, ensuring that the re-commissioning of AMSA Saldanha Works is not impeded.

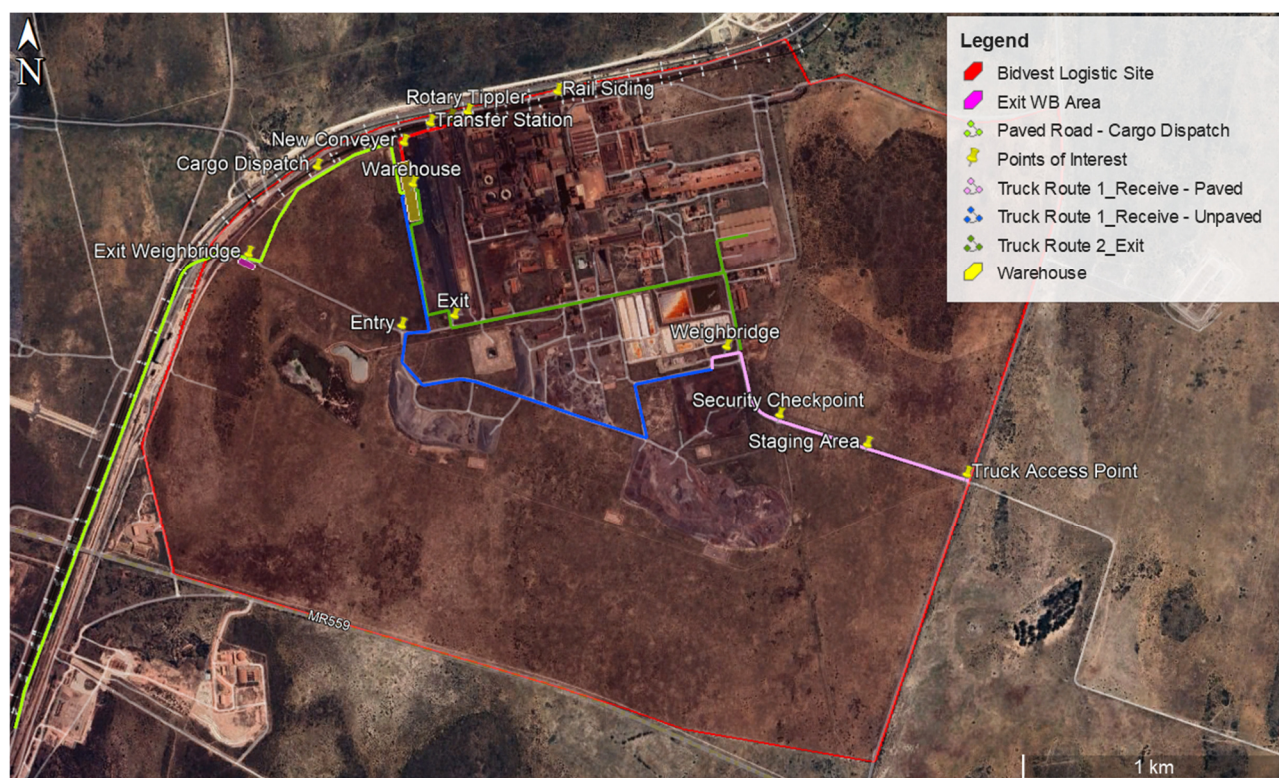


Figure 3-1: The Proposed Site



3.2. Transportation of Bulk Commodities

3.2.1. Commodities export

During the operational phase all ore housed at the facility will be exported via the Port of Saldanha. The ore export will be delivered to the Port via existing paved haul roads that were established for terminal access. It must be noted that the trucks transporting commodities to the terminal will not make use of public roads.

3.2.2. Commodities deliveries to site

The ore transported to site for warehousing and distribution will be transported via rail and road transport. It is anticipated that of the 5 Mtpa expected to be handled on site, 2 Mtpa will be transported via rail transport while 3 Mtpa is transported by road. After the planned rail infrastructure upgrades in 2026, it is anticipated that more ore will be transported via the rail network thereby reducing the impact on the road network.

It is estimated that approximately 11 trucks per hour can be expected for the delivery of commodities. A 34t payload was used to calculate the 11 trucks per hour. This was aligned with the AIR methodology that calculated vehicles per hour that will enter the site to determine emissions and dust generation from vehicles. Calculation provided below.

$2\,988\,500 \text{ tpa from commodities} / 34\text{-ton payload} / 365 \text{ days} = 241 \text{ truck trips per day}$

$241 \text{ trucks per day} / 24 \text{ hrs workday} = 10.04 \text{ trips/hour}$. This was rounded up to 11 trips per hour. (A 24hr workday was used in the calculation).

Furthermore, a 4-phased approach for transport of commodities will be used based on the export of commodities through the AMSA Logistics Hub. A breakdown of the 4-phased approach for monthly trips are provided below. The Environmental Authorisation and Atmospheric Emissions Licence will allow for a maximum of 2 988 500 tpa of commodities to be transported via road. However, with planned maintenance of the existing railway line to be implemented and completed during 2026, the maximum truck trips to site will decrease. A similar calculation as above was used for different annual tonnes of commodities to site to determine the vehicle trucks per hour to access the site.

- a) 100kt pm or 1.2mts pa with expected 5 truck trips per hour,
- b) 150kt or 1.8mts pa, with expected 7 truck trips
- c) 200kt or 2.4mts pa with expected 9 truck trips, then finally
- d) 250kt or 3mts pa with amount of 11 truck trips per hour.

3.3. Surrounding Road Network

The surrounding road network in the vicinity of the site is described below. The road classification is based on information obtained from the *Western Cape Province Road Network Information System*. **Figure 3-2** shows the classification of the roads in the vicinity of the site.



Figure 3-2: Surrounding Road Network



TR08501

The TR08501 is a Class 2 Major Arterial Road located to the north of the site. The road is a surfaced single carriageway with one lane in each direction and surfaced shoulders.

OP07644

OP07644 is a Class 3 Minor Arterial Road located to the east of the site. The road is a surfaced single carriageway with one lane in each direction and surfaced shoulders.

MR00559

MR00559 is a Class 2 Major Arterial Road located to the south of the site. The road is a surfaced single carriageway with one lane in each direction and surfaced shoulders.

MR00560

MR00560 is a Class 3 Minor Arterial Road located to the west of the site. The road is a surfaced single carriageway with one lane in each direction and surfaced shoulders.

Private Service Roads

There are private haul roads connecting the surrounding facilities to the Port of Saldanha. The roads can be classified as Class 5 Local roads. The roads are surfaced single carriageway roads with one lane per direction.

3.4. Preferred Route to Site for Deliveries

Commodities delivered to site via road transport are expected to travel to site via the R27 onto TR08501. Access to the site will occur via OP07644 located to the east of the site. Because of the existing and historical land uses in the project area (i.e., industrial area), and the fact the road network in the vicinity of the site also services vehicles access the Port of Saldanha, it can be expected that the R27, TR08501 and OP07644 can accommodate freight trucks.

Alternatively, commodities can be delivered to the site via the R399, which passes Velddrif. However, given the limited accessibility (only access to Velddrif from Saldanha is via the R27), it is recommended that this option only be used if the preferred route (via the R27 onto TR08501) is not accessible.



Figure 3-3: Possible Routes to the Site

Below is a map of the haul roads within the vicinity of the site as provided by the Saldanha Municipality.

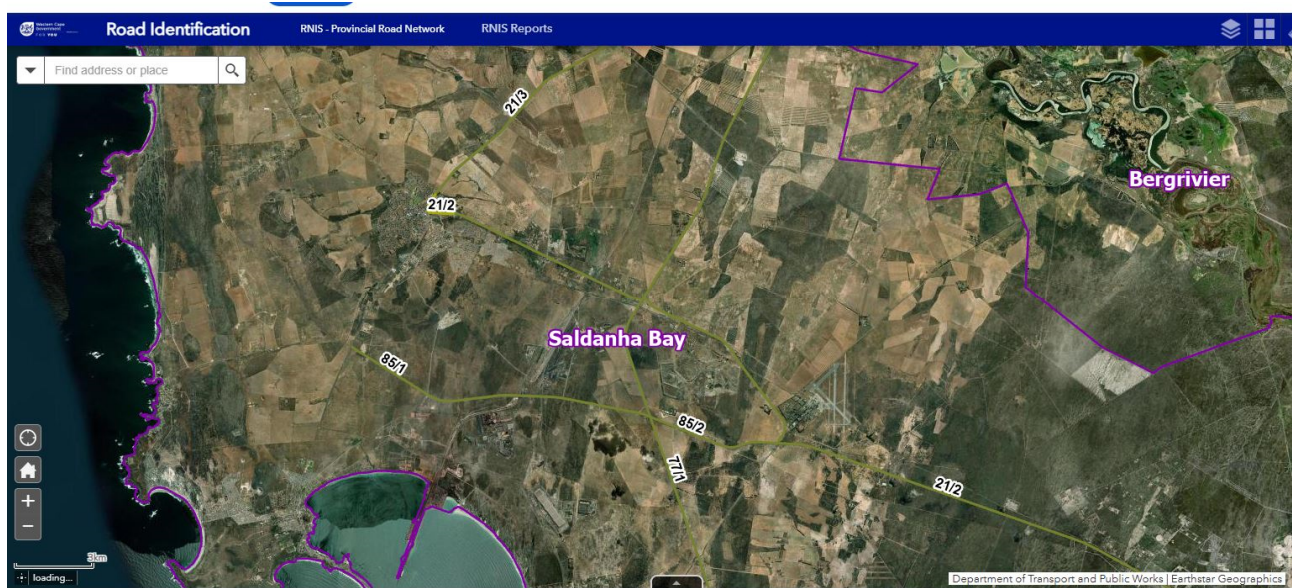


Figure 3-4: Haulage Routes as Provided by the Saldanha Bay Municipality



3.5. Proposed Access Roads to the Proposed Development

3.5.1. Access location

The truck access road to the AMSA Saldanha Works facility is located to the east of the site, connecting off OP07644. Secondary access points are located to the north of the site, currently used for personnel access, and to the west of the site, an existing private haul road which link to the Port of Saldanha. It is proposed to utilise the existing access points at the AMSA Saldanha Works facility to access the proposed AMSA Logistics Hub.

The proposed truck access road has an average width of 10m, and a wide bellmouth area. Generally, the road width at the access point needs to be a minimum of 8m and the access roads on site a minimum of 4.5m (preferably 5m). The radius at the access point needs to be large enough to allow for all construction vehicles to turn safely. The proposed truck access road is deemed feasible from a traffic engineering perspective.

The majority of the internal road network consist of paved roads. However, a ± 1 km section of the proposed truck access road is unpaved. There are plans to surface this unpaved section as part of the AMSA Logistics Hub project. It is recommended that any geometric design and stormwater drainage constraints be taken into consideration by the geometric designer.

3.5.2. Stacking Distance at Access Point

The type of access control will determine the required stacking distance. The stacking distance is measured between the access control point (e.g., boom control and gatehouse) and the kerb/road edge of the external road (OP07644 in this case). For example, for a boom-controlled access, the boom will need to be moved into the site to allow for at least one abnormal vehicle to stack in front of the boom without impeding on external traffic. It is recommended that a minimum stacking distance of 25m be provided between the road edge of the external road and the access control point.

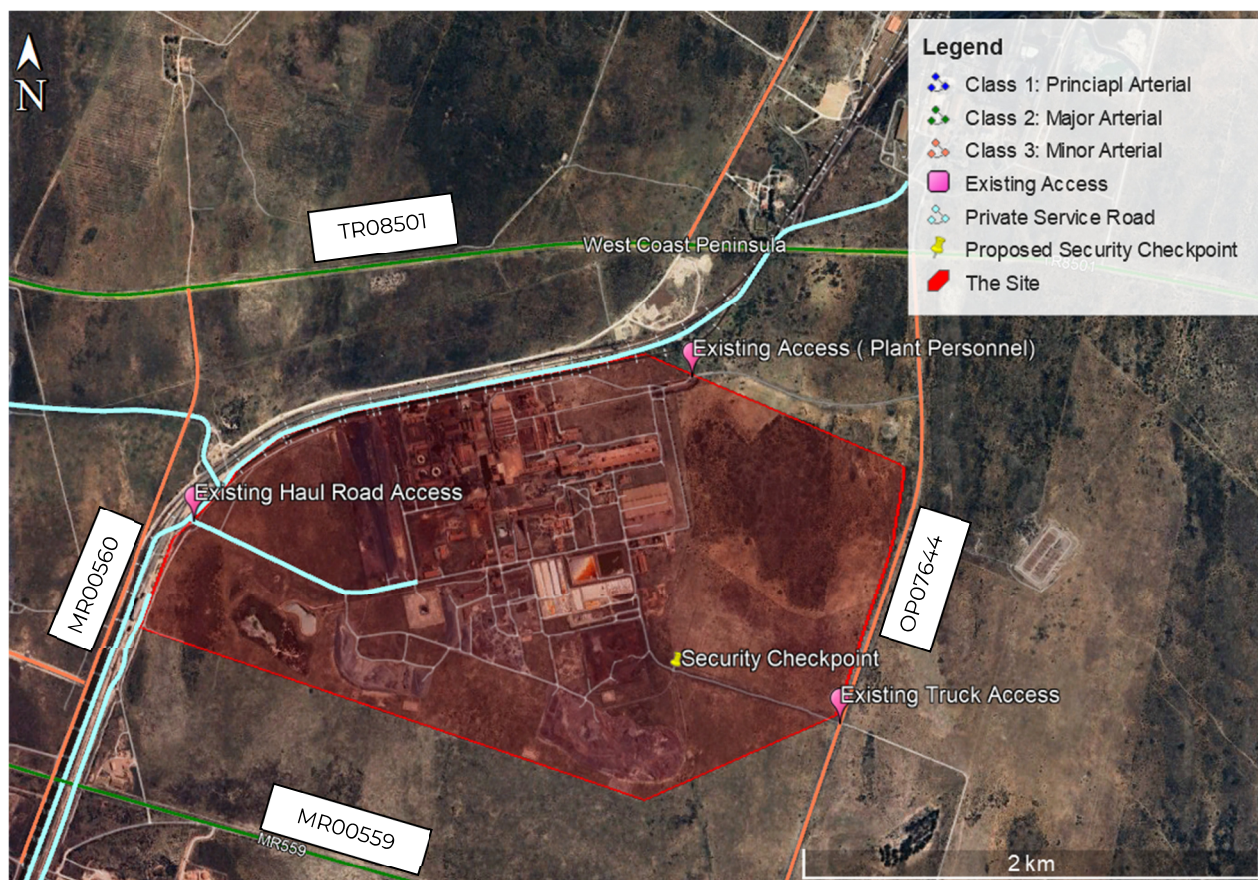


Figure 3-5: Site Access Locations

3.5.3. Main Route for the Transportation of Materials, Plant and People to the proposed site

It is expected that the majority of materials, plant and labour will be sourced from towns within a 50km radius of the proposed site and transported to the site via the TR08501, R27, R399, and R45.

Workers will be sourced within the Saldanha Bay Municipality which includes the towns of Hopefield, Langebaan, Saldanha Bay, Jacobs Bay, Vredenburg, Paternoster and St Helena Bay.

Should concrete batch plants (if required) or quarries not be available in the surrounding areas, mobile concrete batch plants and temporary construction material stockpile yards could be commissioned on vacant land near the proposed site. Delivery of materials to the mobile batch plant and the stockpile yard could be staggered to minimise traffic disruptions.



Figure 3-6: Surrounding Towns for Plant, Personnel and Material Sources



4. APPLICABLE LEGISLATION AND PERMIT REQUIREMENTS

Key legal requirements pertaining to the transport requirements for the proposed development are:

- Abnormal load permits, (Section 81 of the National Road Traffic Act 93 of 1996 and National Road Traffic Regulations, 2000).
- Port permit (Guidelines for Agreements, Licenses and Permits in terms of the National Ports Act No. 12 of 2005), and Authorisation from Road Authorities to modify the road reserve to accommodate turning movements of abnormal loads at intersections.



5. IDENTIFICATION OF KEY ISSUES

5.1. Identification of Potential Impacts

The potential transport related impacts are described below.

5.1.1. Construction Phase

Potential impact

- Construction related traffic
- The construction traffic would also lead to noise, dust and exhaust pollution.
- This phase also includes the construction of roads, excavations, and ancillary construction works that will temporarily generate the most traffic.

5.1.2. Operational Phase

Potential impact

- Operational related traffic
- The operational phase traffic would also lead to noise, dust and exhaust pollution.

During operation, it is expected that operations staff trips, and commodities deliveries trips will be generated by the site. The traffic generated during this phase is however anticipated to be minimal (i.e. <50 trips). It is therefore anticipated that the operational phase trips will have a negligible impact on the surrounding road network.

5.1.3. Decommissioning Phase

This phase will result in the same impact as the construction phase as similar trips are expected.

5.1.4. Cumulative Impacts

Potential impact

- Traffic congestion/delays on the surrounding road network.
- The construction and operational traffic would also lead to noise, dust and exhaust pollution.



6. ASSESSMENT OF IMPACTS AND IDENTIFICATION OF MANAGEMENT ACTIONS

6.1. Potential Impact (Construction Phase)

Nature of the impact

- Potential traffic congestion and delays on the surrounding road network and associated noise, dust and exhaust pollution.

6.1.1. Estimated peak hour traffic

Material and component delivery: Vehicle trips from material and component delivery vary depending on the construction task/program, fuel supply arrangements, as well as distance from the material source to the site. Not enough detail about the warehouse is known at this stage to provide an estimated trip generation volume for material and component traffic.

The materials and components to be used for the warehouse construction can generally be transported by normal heavy load vehicles. Project planning can be used to reduce delivery trips during peak hours. If required, using a mobile batch plant as well as temporary construction material stockpile yards near the proposed site can also reduce peak hour trips.

Construction machinery: heavy vehicles required for earthworks etc. These vehicles are expected to have negligible traffic impact as they will arrive on site in preparation for construction. Once on site, these vehicles will produce internal site traffic with minimal effect on the external road network.

Site personnel and workers: Based on the economic modelling conducted for the project, it is estimated that 89 direct employment opportunities will be created during construction.

Due to the lack of public transport in the area it is anticipated that a portion of the staff will travel via contracted transport. As a worst-case scenario, it is assumed that 45 construction workers will travel via contracted taxis (i.e. 50% of construction staff), while the remaining 44 workers will use private vehicles. This results in a total of 47 staff trips, comprising three (3) taxis and 44 private vehicles. It must be noted that this is a conservative approach as it is anticipated that a certain level of ride sharing will occur amongst private vehicle users.

Assuming 40% of the trips will occur during the peak hour, a maximum of **19 trips/hour of site personnel trips** are estimated during the peak hour peak hour.

6.2. Potential Impact (Operation Phase)

Nature of the impact

- Potential traffic congestion and delays on the surrounding road network and associated noise, dust and exhaust pollution.

6.2.1. Estimated peak hour traffic

Delivery of Commodities

It is estimated that up to 11 trucks per hour will access the AMSA Logistics Hub via the external road network.

Staff generated trips

It is estimated that 139 direct employment opportunities will be created during operations. Shift workers will account for 80% (approximately 111 staff members) of the direct employment opportunities, working 12-hour shifts across three (3) shifts per day, with 37 shift workers per shift. The remaining 20% of the staff will work a full workday (non-shift workers).

Due to the lack of public transport in the area it is anticipated that a portion of the staff will travel via contracted transport. It is assumed that 30 shift workers will travel via contracted taxis, seven (7) shift workers will use private vehicles, and the 28 non-shift workers will also travel by private



vehicles. This results in a total of 37 staff trips, comprising two (2) taxis and 35 private vehicles. It must be noted that this is a conservative approach as it is anticipated that a certain level of ride sharing will occur amongst private vehicle users.

In rural environments, it is estimated that 40% of the total trips will occur during peak hours, leading to an estimated 15 peak hour trips generated by staff.

A total of **26 trips/hour** is therefore estimated to be generated by the development during the peak hour (11 trips for commodity deliveries and 15 trips for staff). The commodity deliveries trucks will access the site via the existing truck access to the east of the site while the staff will access the site via the existing staff access to the north.

With fewer than 50 peak hour trips expected, the traffic impact of the proposed AMSA Logistics Hub is considered negligible.

Based on *TMH17*, warehousing and distribution developments are expected to have a 60:40 (in: out) split during the AM peak and a 45:55 (in: out) split during the PM peak. The estimated development traffic distribution at the access located at the existing truck access is summarised in **Figure 6-1** and **Figure 6-2**.

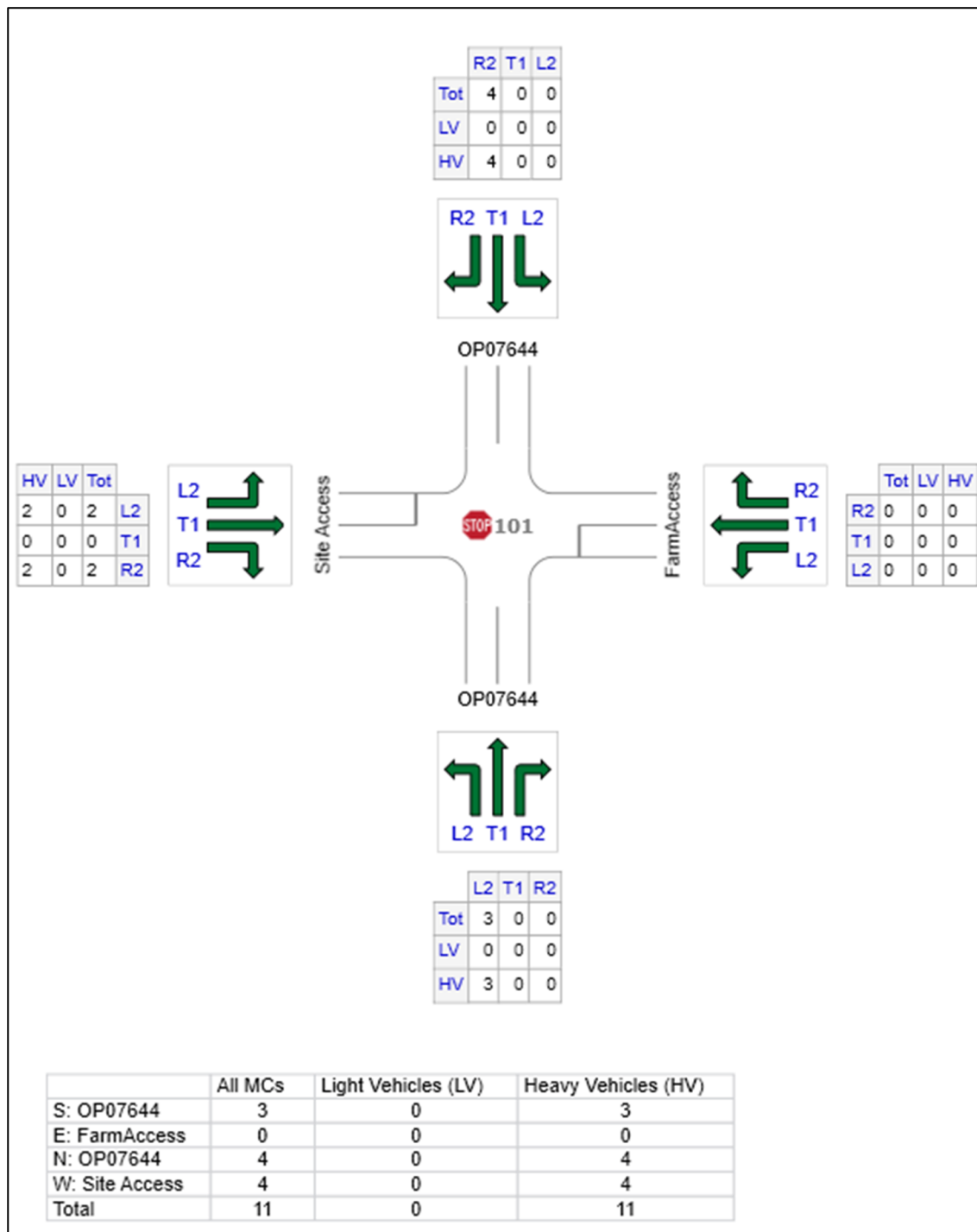


Figure 6-1: Development Trip Distribution - AM Peak

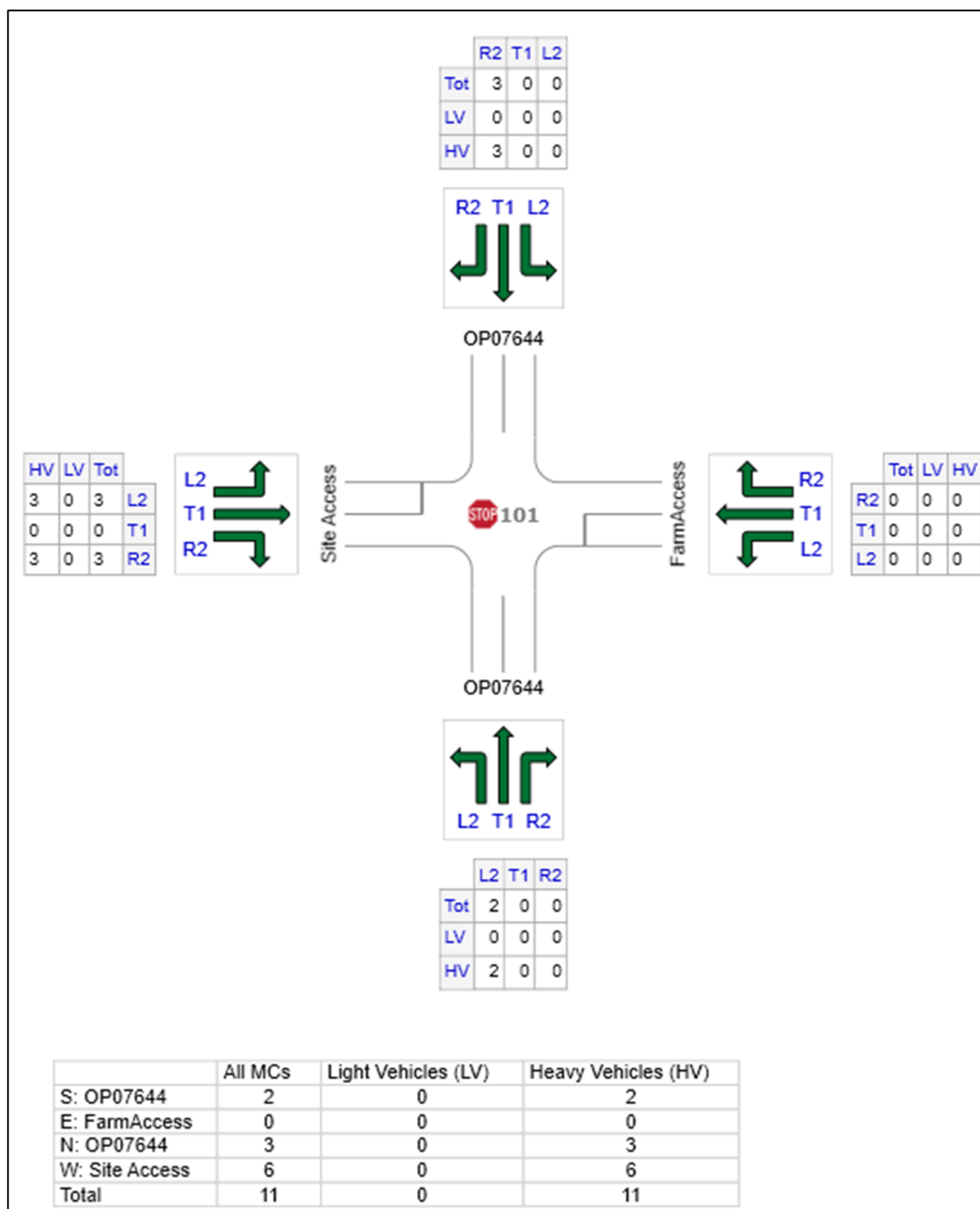


Figure 6-2: Development Trip Distribution - PM Peak

However, it should be noted that the proposed AMSA Logistics Hub is located within the existing AMSA Saldanha Works facility site. Currently, the AMSA Saldanha Works facility is not operational. If the facility resumes operations in the future, it is recommended that a TIA be conducted to address any potential traffic impacts from the additional traffic generated.

6.3. Potential Impact (Decommissioning Phase)

The decommissioning phase will result in the same impact as the construction phase as similar trips are expected.



7. INTERSECTION CAPACITY ANALYSIS

7.1. Analysis Scenarios

The traffic impacts of the proposed development will be evaluated for both the current year and the design horizon year. The design horizon year represents the future year analysed to determine the necessary mitigation measures for the development. For these scenarios, intersection capacity analysis will be conducted for both "with" and "without" development conditions.

Typically, transportation improvements are assessed over a 5-year horizon. Therefore, this Traffic Impact Assessment will include the following analysis scenarios:

- i. Year 2025 background traffic scenario (i.e. **2025 "without development" scenario**). This analysis is conducted to determine the capacity of the current road network with only the current traffic demand taken into consideration.
- ii. Year 2030 future background traffic scenario (i.e. **2030 "without development" scenario**). This analysis is conducted to determine the capacity of the road network with only the estimated projected background traffic taken into consideration.
- iii. Year 2030 future traffic scenario with latent development (i.e. **2030 "with development" scenario**). This analysis is conducted to determine the capacity of the road network with both the estimated projected background traffic and the proposed development traffic.

7.2. Traffic Growth Rate

A growth rate of 2% was used to analyse the future traffic scenarios. This growth rate is based on the TMH 17 recommended growth rates. Based on the *Western Cape Government 2024 Socio-Economic Profile of the Saldanha Bay Municipality*, a 1.6% population growth is estimated for the municipality with a forecasted Gross Domestic Product (GDPR) growth rate of 0.9% in year 2025. Considering that moderate growth in population (i.e. 1.6%) and low GDPR growth rate in the area, a 2% annual traffic growth is considered an appropriate assumption.

7.3. Existing Traffic

To understand the background traffic volumes and distributions during the AM and PM peak periods, classified traffic count surveys were conducted at the existing truck site access on 26 February 2025 between the hours of 16:00-18:00 and 27 February 2025 between the hours of 06:00-08:00. The peak hours were observed to occur between 07:00-08:00 during the AM peak period and 16:45-17:45 during the PM peak period.

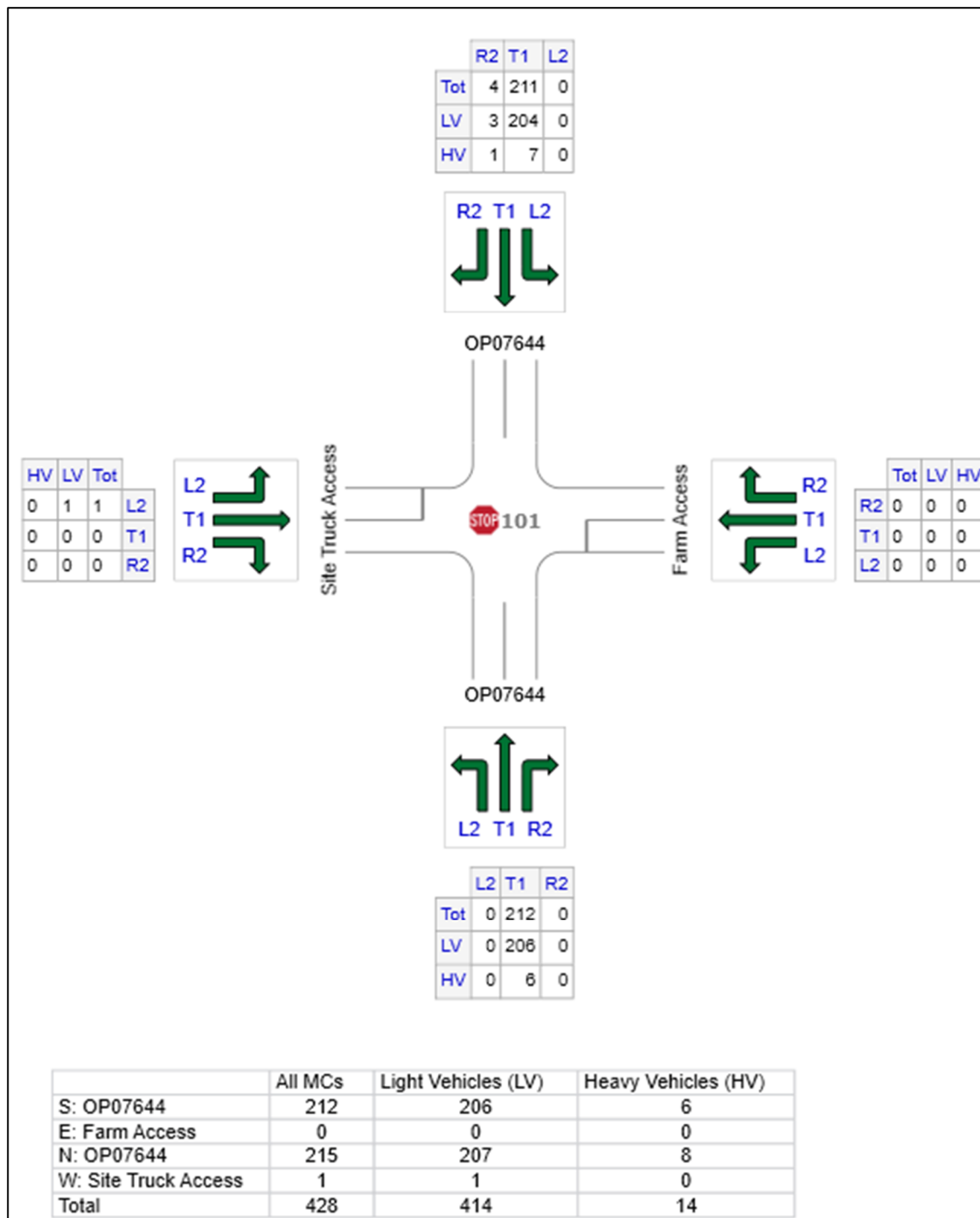


Figure 7-1: AM Peak Year 2025 Traffic

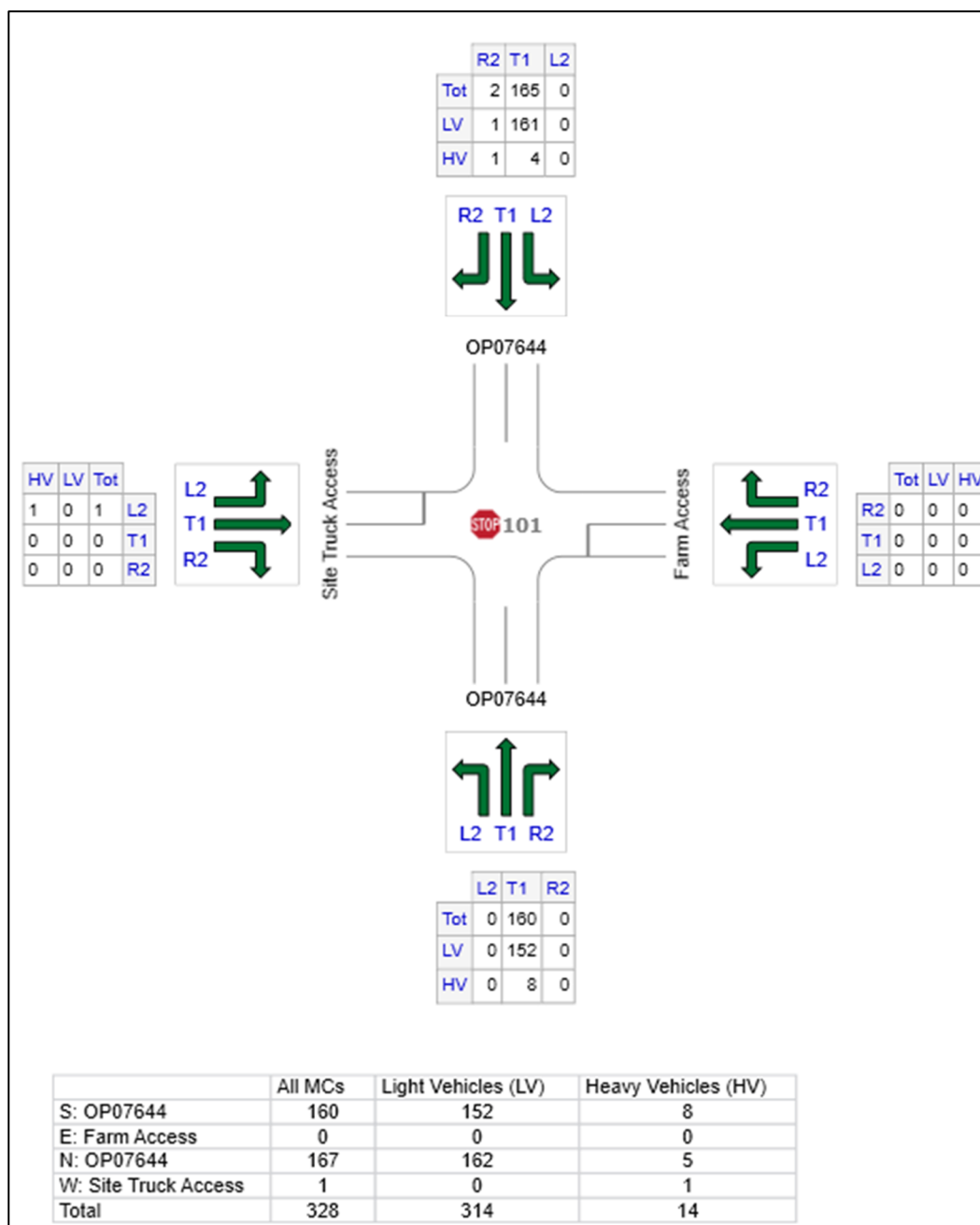


Figure 7-2: PM Peak Year 2025 Traffic

7.4. Results of Capacity Analysis

To assess the impact of the proposed development on the road network, the results of the capacity analyses “with” and “without” the proposed development are compared. The results table in section 7.5 summarises the level of service (LOS) (see definitions in **Table 7-1**), volume/capacity ratio (v/c) and average delay (in seconds) for each intersection approach as well as for the overall intersection. The analysis results are based on a capacity analysis conducted using the **Auto J** analysis toolkit.

The **v/c ratio** compares the number of vehicles (volume) using the intersection to the maximum number of vehicles the intersection can handle (capacity). A low v/c ratio means the intersection can easily manage the traffic, while a high v/c ratio indicates congestion and potential delays.



The **Delay** is the average time vehicles spend waiting at the intersection. Short delays mean traffic flows smoothly, while long delays suggest congestion and inefficiency. The average delay is calculated from the time a vehicle comes to a stop to driving over stop line at a respective approach. In a research project, it was found that drivers accept a maximum delay or waiting time of around 55 seconds at a signalised intersection, but only 35 seconds at a stop-controlled intersection. Thereafter the driver will become impatient, and the intersection is deemed to not operate well anymore. Another factor that plays a role when calculating the level of service at an intersection is the queuing distance, which is the number of vehicles waiting at an intersection.

These two factors are crucial in determining the level of service (LOS) for an intersection. The LOS is a measure of how well the intersection operates, ranging from A (excellent, free-flowing traffic) to F (failing, highly congested). A good LOS typically features a low v/c ratio and minimal delays, ensuring efficient traffic movement.

Table 7-1: Level of Service Definition

Level of Service (LOS)	Delay (d) in seconds		Volume / Capacity (v/c)	Degree of Performance
	Signals and Traffic Circles	Stop and Yield Controlled		
A	$d \leq 10$	$d \leq 10$	<0.5	Excellent intersection performance
B	$10 < d \leq 20$	$10 < d \leq 15$	<0.8	Good intersection performance
C	$20 < d \leq 35$	$15 < d \leq 25$	<0.9	Adequate intersection performance
D	$35 < d \leq 55$	$25 < d \leq 35$	<0.95	Fair intersection performance
E	$55 < d \leq 80$	$35 < d \leq 50$	<0.99	
F	$d > 80$	$d > 50$	<1	



7.5. Results Summary

Table 7-2: Intersection Capacity Results Summary

Intersection		"2025 Without Development"						"2030 Without Development"						"2030 with Development "					
		AM Peak			PM Peak			AM Peak			PM Peak			AM Peak			PM Peak		
		v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS	v/c	Delay (sec)	LOS
South:	OP07644	0.11	0.5	LOS A	0.08	0.4	LOS A	0.12	0.5	LOS A	0.09	0.4	LOS A	0.12	0.6	LOS A	0.10	0.4	LOS A
East:	Property Access	N/A (No trips observed)						N/A (No trips observed)						N/A (No trips observed)					
North:	OP07644	0.12	0.5	LOS A	0.09	0.4	LOS A	0.13	0.6	LOS A	0.10	0.4	LOS A	0.14	0.6	LOS A	0.10	0.5	LOS A
West:	Site Access	0.00	8.3	LOS A	0.00	8.3	LOS A	0.00	8.3	LOS A	0.00	8.3	LOS A	0.01	8.3	LOS A	0.01	8.4	LOS A
Intersection		0.11	0.5	LOS A	0.09	0.4	LOS A	0.13	0.6	LOS A	0.10	0.4	LOS A	0.13	0.7	LOS A	0.10	0.6	LOS A



7.6. Discussion Of Analysis Results

The OP07644/Site access intersection operates at free flow (i.e. LOS A) across all approaches for the 2025 “without development scenario”, 2030 “without development scenario”, and 2030 “with development scenario”.

The results indicate that proposed development will have an insignificant impact on the surrounding road network capacity.

8. NO-GO ALTERNATIVE

The no-go alternative implies that the proposed development does not proceed. This would mean that there will be no negative environmental impacts and no traffic impact on the surrounding network. However, this would also mean that there would be no socio-economic benefits to the surrounding communities, and it will not assist the government in meeting energy demands. **Hence, the no-go alternative is not a preferred alternative.**



9. IMPACT ASSESSMENT SUMMARY

The assessment of impacts and recommendation of mitigation measures are collated in the tables below.

The assessment methodology is attached as **Annexure A**.

9.1. Construction Phase

Table 9-1: Impact Rating - Construction Phase

Impact number	Receptor	Mitigation Measure Description	Stage	Character	Ease of Mitigation	Pre-Mitigation							Post-Mitigation						
						(M+	E+	R+	D)x	P=	S	Rating	(M+	E+	R+	D)x	P=	S	Rating
Impact 1:	Traffic congestion and associated noise, dust and exhaust pollution	- Stagger component delivery to site. - Reduce the construction period, if feasible. - If required, the use of mobile batching plants and quarries near the site would decrease the impact on the surrounding road network by reducing the construction trips and the distance travelled to transport the materials to the site. - Staff and general trips should occur outside of peak traffic periods. - Regular maintenance of gravel roads (if applicable) by the Contractor. - Dust suppression of gravel roads during the construction phase, as required.	Construction	Negative		3	2	3	2	4	40	N2	2	1	3	2	3	24	N1
Significance						N2 - Medium							N1 - Low						

9.2. Operational Phase

Table 9-2: Operational Phase

Impact number	Receptor	Mitigation Measure Description	Stage	Character	Ease of Mitigation	Pre-Mitigation							Post-Mitigation						
						(M+	E+	R+	D)x	P=	S	Rating	(M+	E+	R+	D)x	P=	S	Rating
Impact 1:	Traffic congestion and associated noise, dust and exhaust pollution	- Stagger deliveries to site. - Staff and general trips should occur outside of peak traffic periods where possible. - Stagger shift changes to occur outside of peak traffic periods where possible. - Regular maintenance of gravel roads by Client/Facility Manager. - Dust suppression of gravel roads.	Operation	Negative		2	2	3	4	4	44	N2	1	1	3	4	3	27	N1
						Significance						N2 - Medium						N1 - Low	



9.3. Decommissioning Phase

Table 9-3: Impact Rating- Decommissioning Phase

IMPACT TABLE – DECOMMISSIONING PHASE
This phase will have a similar impact as the Construction Phase i.e., traffic congestion and associated noise, dust and exhaust pollution as similar trips/movements are expected.



10. CUMULATIVE IMPACTS

To assess the cumulative impact, future development in the vicinity of the site is considered. The Transnet National Ports Authority (TNPA) has plans to enhance the efficiency and capacity of South Africa's port system. In addition to the proposed future planning at the port, the Department of Forestry, Fisheries, and the Environment (DFFE) has a Renewable Energy EIA Application Database (REEAD) which indicates to several renewable energy applications within a 5km radius of the site (see **Annexure B**).

For the construction phase it is assumed that all proposed developments within the vicinity of the site will be constructed at the same time.

It must however be noted that this is a conservative approach due to the following:

- authorities will consider all applications, and construction is likely to be staggered depending on timelines and project-specific issues.
- should abnormal loads need to be transported for the proposed renewable energy projects within the vicinity of the site, abnormal load permits will need to be obtained. The approving authority considers all applications for abnormal loads and work with all project companies to ensure that abnormal vehicle trips are staggered to ensure that the impact on the surrounding road network will be acceptable.
- It is unclear when the proposed developments in the vicinity of the site will be constructed as construction is affected by project funding, programmes, application and approvals, availability of material etc.

A high-level assessment of the cumulative impacts anticipated during the construction phase as well as the recommendation of mitigation measures is provided in the table below.

Table 10-1: Impact Rating-Cumulative Impact (construction phase)

Impact number	Receptor	Mitigation Measure Description	Stage	Character	Ease of Mitigation	Pre-Mitigation							Post-Mitigation						
						(M+)	E+	R+	D)x	P=	S		(M+)	E+	R+	D)x	P=	S	
Impact 1:	Traffic congestion and associated noise, dust and exhaust pollution.	▪ Stagger component delivery to site. ▪ Dust suppression. ▪ Reduce the construction period, is feasible. ▪ The use of mobile batching plants and quarries near the site would decrease the impact on the surrounding road network by reducing the construction trips and the distance travelled to transport the materials to the site. ▪ Staff and general trips should occur outside of peak traffic periods. ▪ Regular maintenance of gravel roads (if applicable) by the Contractor during the construction phase and by Client/Facility Manager during operation phase. ▪ Dust suppression of gravel roads during the construction phase, as required.	Construction	Negative		3	3	3	2	2	22	N1	2	2	3	2	2	18	N1
Significance						N1 - Low							N1 - Low						

For the operational phase, it is assumed that all proposed developments within the vicinity of the site will be operational when the proposed AMSA Logistic Hub is operational. This will provide the long-term impact as the construction and decommissioning phases have short term periods when compared to the operational phase.

It must however be noted that:

- After the planned rail infrastructure upgrades in 2026, it is anticipated that more ore will be transported via the rail network thereby reducing the impact on the road network.
- The proposed renewable energy projects in the vicinity of the site are expected to have low development traffic due to fact that renewable energy projects typically have a low operational staff requirement. It should be noted that Authorities will provide approval for these facilities, with certain conditions. These include upgrading of intersection should the implementation of the facility result in capacity constraints at a certain intersection.
- The timeline for the Port upgrades remains uncertain, as there is no publicly available information regarding their implementation."

A high-level assessment of cumulative impacts during the operational phase as well as the recommendation of mitigation measures is provided in the table below.



Table 10-2: Impact Rating-Cumulative Impact (operational phase)

Impact number	Receptor	Mitigation Measure Description	Stage	Character	Ease of Mitigation	Pre-Mitigation							Post-Mitigation						
						(M+	E+	R+	D)x	P=	S		(M+	E+	R+	D)x	P=	S	
Impact 1:	Traffic congestion and associated noise, dust and exhaust pollution.	- Stagger deliveries to site. - Staff and general trips should occur outside of peak traffic periods where possible. - Stagger shift changes to occur outside of peak traffic periods where possible. - Regular maintenance of gravel roads by Client/Facility Manager. - Dust suppression of gravel roads	Operation	Negative		3	3	3	4	2	26	N1	2	2	3	4	2	22	N1
Significance						N1 - Low							N1 - Low						



11. CONCLUSION AND RECOMMENDATIONS

The potential traffic and transport related impacts for the construction, operation and decommissioning phases of the proposed AMSA Logistics Hub were identified and assessed.

- It is proposed to develop the AMSA Logistics Hub on the remainder of Farm 1132 on the border of the Port of Saldanha, within the Saldanha Bay Local Municipality, Western Cape Province. The proposed operation at the AMSA Logistics Hub entails the receiving, distributing, and handling of various bulk commodities for local and export purposes.
- The AMSA Saldanha Works facility has an access point for trucks to the east of the site and a plant personnel access to the north of the site. These access points link to the external road network via road OP07644. Additionally, there is a secondary access to the west of the site, linking to existing private haul roads that connect to the Port of Saldanha.

The proposed truck access road has an average width of 10m, and a wide bellmouth area. Generally, the road width at the access point needs to be a minimum of 8m and the access roads on site a minimum of 4.5m (preferably 5m). The radius at the access point needs to be large enough to allow for all construction vehicles to turn safely.

The proposed truck access road is deemed feasible from a traffic engineering perspective.

A majority of the road network on site consist of paved roads. However approximately 1km of the truck access road is unpaved. There are plans to surface this unpaved section of the road as part of the AMSA Logistics Hub project.

- Stacking distance refers to the access road length measured from an access control device (e.g., boom gate, ticket dispenser etc.) to the back of kerb of the intersecting external road network. The stacking distance is aimed at accommodating vehicles waiting to access an access-controlled site.

It is recommended that a minimum stacking distance of 25m be provided between the road edge of the external road and the access control point.

- Based on the intersection capacity analysis conducted for the OP07644/Site access intersection (i.e. at the existing truck access point), the intersection operates at free flow across all approaches for all analysed scenarios “with” and “without” development traffic included.

The analysis indicates that the development traffic will have an insignificant impact on the surrounding road network.

- The main impact on the external road network will be during the operational phase as the long-term trip generator.
- The anticipated impacts generated by the site are traffic congestion caused by the traffic generated by the proposed development and the associated noise, dust and exhaust pollution.
- The peak hour traffic generated during the construction phase will be temporary. The impacts are considered to be **negative** and of **medium significance** before mitigation measures and of **low significance** after mitigation.



- During the operation phase, it is expected that traffic will be generated by staff commuting to work and the commodities being delivered via road transport. The total traffic generated during this phase is estimated to be 26 vehicles during the peak hour.

Of the total estimated development traffic, 11 of the trips will be truck traffic which will access the site via the existing truck access point to the east of the site and the remaining 15 trips will be staff trips which will access the site via an existing site personnel access to the north of the site.

With less than 50 peak hour trips, the operational phase traffic will have an insignificant impact on the surrounding road network.

- During the operational phase, the impacts are considered to be **negative** and of **medium significance** before mitigation measures and of **low significance** after mitigation.
- The traffic generated during the decommissioning phase will be similar to the construction phase traffic and the impact on the surrounding road network will also be considered **negative** and of **medium significance** before and of **low significance** after mitigation.
- There are future proposed upgrades to the Port of Saldanha to enhance the port efficiency and capacity. Additionally, the Department of Forestry, Fisheries, and the Environment (DFFE) indicates to several renewable energy applications within a 5km radius of the site. It must however be noted that approving authorities will consider all applications, and construction is likely to be staggered depending on project-specific issues.
- For the cumulative impact during the construction phase, it is assumed that all proposed developments within the vicinity of the site will be constructed at the same time. It must however be noted that this is a conservative approach as:
 - authorities will consider all applications, and construction is likely to be staggered depending on timelines and project-specific issues.
 - Should abnormal loads need to be transported for the proposed renewable energy projects within the vicinity of the site, abnormal load permits will need to be obtained.
 - The approving authority considers all applications for abnormal loads and work with all project companies to ensure that loads on the public roads are staggered and staged to ensure that the impact will be acceptable.
 - It is unclear when the proposed developments in the vicinity of the site will be constructed as construction is affected by project funding, programmes, construction related permits and approvals, availability of material etc.

A **low** significance rating before and after mitigation measures is estimated for the cumulative impact during the construction phase

- For the cumulative impact during the operational phase, it is assumed that all proposed developments within the vicinity of the site will be operational when the proposed AMSA logistic Hub is operational. It must however be noted that:
 - After the planned rail infrastructure upgrades in 2026, it is anticipated that more ore will be transported via the rail network thereby reducing the impact on the road network.
 - The proposed renewable energy projects proposed in the vicinity of the site are expected to have low development traffic because the operations of renewable energy projects typically have a low operational staff complement.
 - There are no detailed plans or project phasing available regarding the proposed port upgrades proposed by the TNPA.
 - It is therefore unclear when the upgrades will be fully operational.



A **low** significance rating before and after mitigation measures is estimated for the cumulative impact during the operational phase.

The potential mitigation measures mentioned in the construction and decommissioning phases are summarised below:

- Stagger component delivery to site.
- Reduce the construction period, if feasible.
- If required, the use of mobile batching plants and quarries near the site would decrease the impact on the surrounding road network by reducing the construction trips and the distance travelled to transport the materials to the site.
- Staff and general trips should occur outside of peak traffic periods.
- Regular maintenance of gravel roads (if applicable) by the Contractor.
- Dust suppression of gravel roads during the construction phase, as required.

The potential mitigation measures mentioned in the operation phases are summarised below:

- Stagger deliveries to site.
- Staff and general trips should occur outside of peak traffic periods where possible.
- Stagger shift changes to occur outside of peak traffic periods where possible.
- Regular maintenance of gravel roads by Client/Facility Manager.
- Dust suppression of gravel roads.

12. FINAL SPECIALIST STATEMENT

The main impact on the external road network is expected to occur during the operational phase as the long-term trip generator. With less than 50 peak hour trips anticipated to be generated by the site during operations, the proposed development will not add any significant traffic to the surrounding road network.

The development is supported from a transport perspective provided that the recommendations made in this study are adhered to.

13. REFERENCES

- Google Earth Pro
- Transnet National Ports Authority website:
<https://www.transnetnationalportsauthority.net/Infrastructure%20and%20Port%20Planning/Pages/default.aspx>
- Road Traffic Act, 1996 (Act No. 93 of 1996)
- National Road Traffic Regulations, 2000
- SANS 10280/NRS 041-1:2008 - Overhead Power Lines for Conditions Prevailing in South Africa
- The Technical Recommendations for Highways (TRH 11): "Draft Guidelines for Granting of Exemption Permits for the Conveyance of Abnormal Loads and for other Events on Public Roads"
- Department of Forestry, Fisheries, and the Environment (DFFE) website:
https://egis.environment.gov.za/data_egis/data_download/current
- Western Cape Government 2024 Socio-Economic Profile of the Saldanha Bay Municipality
<https://sbm.gov.za/wp-content/uploads/Pages/Statistics/Saldanha-Bay-Municipality-SEP-LG-2024.pdf>

Annexure A: Assessment Methodology

IMPACT ASSESSMENT METHODOLOGY

The assessment of impacts and mitigation evaluates the likely extent and significance of the potential impacts on identified receptors and resources against defined assessment criteria, to develop and describe measures that will be taken to avoid, minimise or compensate for any adverse environmental impacts, to enhance positive impacts, and to report the significance of residual impacts that occur following mitigation.

The key objectives of the risk assessment methodology are to identify any additional potential environmental issues and associated impacts likely to arise from the proposed project, and to propose a significance ranking. Issues / aspects will be reviewed and ranked against a series of significance criteria to identify and record interactions between activities and aspects, and resources and receptors to provide a detailed discussion of impacts. The assessment considers direct, indirect, secondary, as well as cumulative impacts.

A standard risk assessment methodology is used for the ranking of the identified environmental impacts pre-and post-mitigation (i.e., residual impact). The significance of environmental aspects is determined and ranked by considering the criteria presented in Table A.

Table A: Impact Assessment Criterion and Scoring System

CRITERIA	SCORE 1	SCORE 2	SCORE 3	SCORE 4	SCORE 5
Impact Magnitude (M) The degree of alteration of the affected environmental receptor	Very low: No impact on processes	Low: Slight impact on processes	Medium: Processes continue but in a modified way	High: Processes temporarily cease	Very High: Permanent cessation of processes
Impact Extent (E) The geographical extent of the impact on a given environmental receptor	Site: Site only	Local: Inside activity area	Regional: Outside activity area	National: National scope or level	International: Across borders or boundaries
Impact Reversibility (R) The ability of the environmental receptor to rehabilitate or restore after the activity has caused environmental change	Reversible: Recovery without rehabilitation		Recoverable: Recovery with rehabilitation		Irreversible: Not possible despite action
Impact Duration (D) The length of permanence of the impact on the environmental receptor	Immediate: On impact	Short term: 0-5 years	Medium term: 5-15 years	Long term: Project life	Permanent: Indefinite
Probability of Occurrence (P) The likelihood of an impact occurring in the absence of pertinent environmental management measures or mitigation	Improbable	Low Probability	Probable	Highly Probability	Definite
Significance (S) is determined by combining the above criteria in the following formula:	$[S = (E + D + R + M) \times P]$ <i>Significance = (Extent + Duration + Reversibility + Magnitude) × Probability.</i>				
IMPACT SIGNIFICANCE RATING					
Total Score	0 – 30		31 to 60		61 – 100
Significance Rating (Negative (-))	Low (-)		Medium (-)		High (-)
Significance Rating (Positive (+))	Low (+)		Medium (+)		High (+)

Annexure B: Surrounding Proposed Developments

Table B: Surrounding Renewable Energy Project Applications Summary (DFFE, FEB 2025)

Project No#	EIA_PROCES	PROJ_TITLE	TECHNOLOGY	MEGAW ATT	PROJ_STA TU	DECISION_D
1	Scoping EIA	Proposed renewable energy generation project on the remainder of portion 4, remainder of portion 9 and portion 11 of the farm langeberg 187 malmesbury rd, and remainder of portion 1 of the farm uyekraal 189 malmesbury rd, Saldanha Bay Local Municipality	Solar PV	400	Approved	19/12/2019
2	BAR	Proposed Construction of A Co-Generation Plant At The Namakwa Sands Smelting Plant On Portion 129/9 Of The Farm Yzersvarkensburg, Saldanha Bay, Western Cape Province	Petroleum	18.7	Approved	19/12/2019
3	Scoping EIA	Proposed Establishment of Two 75mw Commercial Solar Electricity Generating Facilities and Its Associated Infrastructures On Farms 183 (Soventix Sa Saldanha 1) And 190/0 (Soventix Sa Saldanha 2), Saldanha Bay District, Western Cape Province	Solar PV	75	Approved	19/12/2019
	Amendment	Proposed Establishment of Two 75mw Commercial Solar Electricity Generating Facilities and Its Associated Infrastructures On Farms 183 (Soventix Sa Saldanha 1) And 190/0 (Soventix Sa Saldanha 2), Saldanha Bay District, Western Cape Province	Solar PV	-	Approved	19/12/2019
	Amendment	Proposed Establishment of Two 75mw Commercial Solar Electricity Generating Facilities and Its Associated Infrastructures On Farms 183 (Soventix Sa Saldanha 1)	Solar PV	-	Approved	19/12/2019
	Amendment	The establishment of 100mw Commercial Solar Electricity Generating Facilities and Its Associated Infrastructures On Farms 190 (Soventix Sa Saldanha 2) And 190/0 (Soventix Sa Saldanha 2), Saldanha Bay District, Western Cape Province	Solar PV	-	Approved	19/12/2019
	Amendment	Proposed Establishment of Two 75mw Commercial Solar Electricity Generating Facilities and Its Associated Infrastructures On Farms 183 (Soventix Sa Saldanha 1) And 190/0 (Soventix Sa Saldanha 2), Saldanha Bay District, Western Cape Province	Solar PV	-	Approved	19/12/2019
	Amendment	The establishment of 100mw Commercial Solar Electricity Generating Facilities and Its Associated Infrastructures On Farms 183 (Soventix Sa Saldanha 1) And 190/0 (Soventix Sa Saldanha 2), Saldanha Bay District, Western Cape Province	Solar PV	-	Approved	19/12/2019
	Amendment	The establishment of a 100MW commercial solar electricity generation facility and its infrastructure, including containerised Lithium-ion battery Storage, dual-fuel backup generators with associated fuel storage, Western Cape Province	Solar PV	-	Approved	19/12/2019
	Amendment	The establishment of a 100MW commercial solar electricity generation facility and its infrastructure, including containerised Lithium-ion battery Storage, dual-fuel backup generators with associated fuel storage, Western Cape Province	Solar PV	-	Approved	19/12/2019
4	Scoping EIA	Proposed 30MW St Helena Community Wind Energy Facility and Its Associated Infrastructure On The Farm Langeklip (Erf 47) Near St Helena Bay In The Saldanha Bay Municipality, Western Cape Province	Wind	30	Approved	19/12/2019
5	BAR	The Isivunguvungu Wind Energy Facility Arcelormittal South Africa: Saldanha Works (Amsa) Steel Manufacturing Plant), Near Saldanha Bay, Saldanha Bay Local Municipality In The Western Cape Province	Wind	12.5	Approved	19/12/2019
6	BAR	Mystic solar energy generation development project on a portion of portion 4 of the farm Yzervarkensrug No. 127, Western Cape Province	Solar PV	12.55	Approved	19/12/2019
7	BAR	Dunes solar energy generation development project on a portion of portion 2 of the farm Ongegund No. 132, Western Cape Province	Solar PV	13.07	Approved	19/12/2019
8	Scoping EIA	The proposed construction of a Gas to Power Facility, Saldanha, Western Cape	Petroleum	315	Approved	19/12/2019
9	Scoping EIA	1507 MW Saldanha Steel Gas-Fired Power Facility and its associated Infrastructere in Saldanha Bay within the Saldanha Bay Local Municipality	Biomass_Biofuels	1507	Approved	19/12/2019

Source: Department of Forestry, Fisheries, and the Environment (DFFE)

Release date: 2025-02-28

NB: Please note that some projects have numerous applications due to amendments to the original application however the project is still the same project.

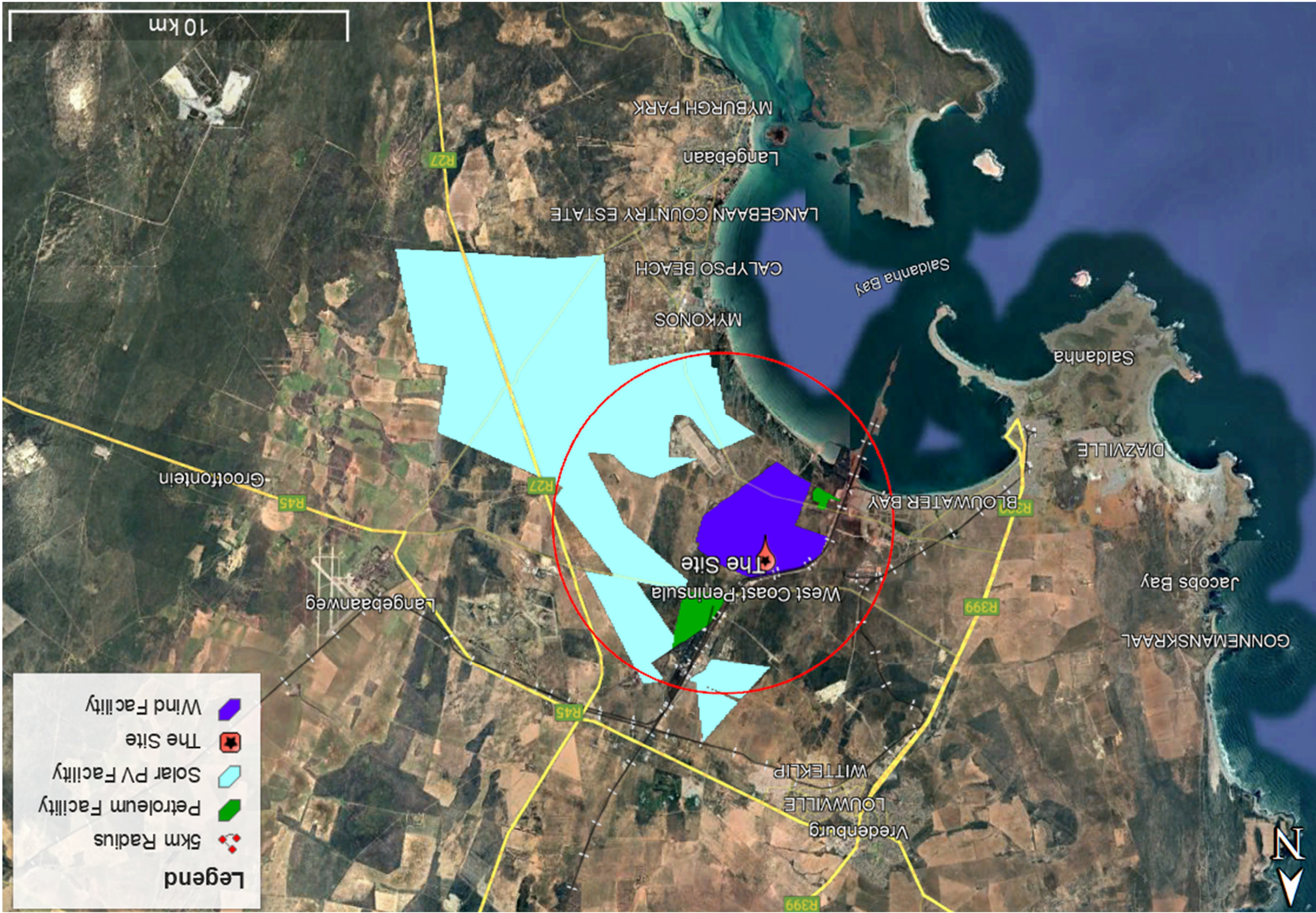


Figure B: Surrounding Renewable Energy Project Applications Map (DFFE, FEB 2025)