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GLNG Environmental Impact Statement – Traffic Report

Prepared for GLNG

March 2009

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GLNG Project –Traffic Report

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EXECUTIVE SUMMARY

Project Description

Santos proposes to develop an LNG liquefaction and export facility (LNG facility) at Gladstone in Central Queensland, Australia. The LNG facility will allow Santos to commercialise its Queensland coal seam gas (CSG) resources and export the processed gas (in the form of LNG) to overseas markets. The facility will initially be constructed to produce 3 to 4 million tonnes per annum (Mtpa) of LNG, with the potential for future expansion to a nominal 10 Mtpa.

The LNG facility will be developed on Curtis Island (in the China Bay area) in close proximity to the industrial deepwater port at Gladstone. The GLNG Project will source gas from Santos' CSG fields at Fairview, Arcadia Valley and Roma, with gas being transported to the Gladstone LNG facility via a subsurface 435km gas transmission pipeline.

The project will consist of the following key components:

- CSG field development: Approximately 850 development wells are expected to be drilled prior to 2015 with another 1500 beyond 2015;
- Gas transmission pipeline construction: Initially a single pipeline will be provided with compression facilities;
- LNG liquefaction and export facility: The proposed LNG facility on Curtis Island, with marine facilities proposed to include a LNG tanker loading jetty and marine off loading facility.

The delivery of the project will occur in stages. The construction and operations of the CSG fields is proposed to commence on project approval and continue throughout the life of the project. Construction of the gas transmission pipeline is expected to start in 2011 and last for up to 2 years after which it will be available for operations. The LNG facility is expected to be constructed in 3 stages (production trains), with Train 1 beginning in 2010 with operations beginning in 2014. Trains 2 and 3 are subject to gas availability and market conditions but for the purposes of this traffic impact assessment they are assumed to follow in immediate succession to Train 1.

Scope of the Traffic Report

This report considers the traffic impacts of the construction and operation of the CSG field development, gas transmission pipeline and LNG liquefaction and export facility. This has included the determination of trips associated with the project including the heavy vehicle component. The cumulative impact of trips associated with other regionally significant projects has also been considered.

GLNG Project –Traffic Report

The impact of the GLNG Project has been determined against the operation of key intersections in Gladstone, the traffic carrying capacity of the mid-block links in the road network and the ability of the road pavements to withstand heavy vehicle loads. Analysis has been undertaken for “background” (without development) and “with development” traffic scenarios through the peak stages of construction and operation of the project components as well as the 10-year design horizon. A broad assessment of the impact of the development on the safe operation of the road network has also been undertaken. Impact mitigation actions and strategies are proposed.

Two options have also been assessed including:

- “No Bridge” Option: Assumes the proposed access road and bridge to Curtis Island will not be constructed. All personnel, materials and equipment for the construction and operations of the LNG facility will be transported to Curtis Island by barge or ferry for the life of the project;
- “Material by Rail” Option: Assumes that pipe and other materials and personnel will be transported by rail to the fullest extent possible in order to reduce vehicle trips on the road network, especially within Gladstone. The assumption made is that pipe will be transported by rail from Gladstone Port as far as Moura. Personnel travelling to accommodation facilities will be transported by rail as far as Moura.

Road Network

The GLNG Project works will extend from the area around Roma, Injune and Rolleston in the west to Gladstone in the east. Primary access to the CSG fields and gas transmission pipeline will be from the state controlled road network with the Warrego Highway, Carnarvon Highway and Dawson Highway key access routes. Local government roads such as Fairview Road, Injune-Taroom Road, Arcadia Valley Road and Mulcahys Road will be used to access the individual gas field well sites. Access to the LNG facility will occur via a number of state controlled and local government roads with Landing Road providing the potential link to a bridge that may be used to access Curtis Island.

The Roads Implementation Program (RIP) proposes \$224M of capital works on roads that may be used by development traffic over the 5-year period to 2012/13 and beyond.

Development Traffic

Traffic generation for the CSG fields, gas transmission pipeline and LNG facility has been estimated for both the construction and operation phases. An allowance has been made for the construction of an access road and bridge connecting Landing Road to Curtis Island as well as a dredge material placement facility at Laird Point on Curtis Island.

GLNG Project –Traffic Report

Traffic generation has been based on estimated material quantities for construction works and assumptions about delivery frequency. Trips associated with construction and operations equipment and workforce have also been estimated. Assumptions about the origin and destination of trips have been made including allowances for the establishment of workers accommodation. All assumptions are documented in Section 4 of the report. A summary of the total road trips associated with each component over the life of the project is shown in Table 1.

Table 1 **Total GLNG Trips**

Component	Estimated Total Trips (life of project)
CSG fields	6,681,150
Gas Transmission Pipeline	572,350
LNG liquefaction and export facility	2,477,200
Total	9,730,700

Intersection Capacity Impact Assessment

Intersection impact assessment has been undertaken in accordance with the following methodology:

- identify intersections that could be impacted significantly by the proposed development;
- identify intersections that would come close to practical capacity with the addition of the proposed development;
- obtain and analyse the background traffic at the identified intersections;
- determine background road network traffic peaks and development traffic peaks;
- add the cumulative project impact traffic to the existing background traffic volumes to determine the total background traffic to be used in the analysis of the identified intersections;
- identify the various components of the proposed development that will impact the road network;
- determine the traffic generated from the various components of the proposed development and combine with the background traffic. These volumes are to be used in the analysis of the identified intersections.

Using the above methodology, 13 intersections around Gladstone and one intersection at Biloela have been analysed. Several intersections have been identified as needing to be upgraded to specifically accommodate GLNG development traffic.

GLNG Project –Traffic Report

The following works are recommended to mitigate development impacts on capacity constraints at the intersections:

Hanson Road/Red Rover Road

- addition of a right-turn lane on the western approach of Hanson Road and additional circulating lane to accommodate the movement;
- short right-turn lane on southern leg of Red Rover Road and additional circulating width.

Duplication of Hanson Road is being planned by Department of Main Roads (DMR). In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 4.8% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.

Hanson Road/Blain Drive/Alf O'Rourke Drive

- continuous left-turn lane from the south approach;
- right-turn lane on the western approach and additional circulating lane to accommodate the movement.

Duplication of Hanson Road is being planned by DMR. In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 3.7% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.

Dawson Highway/Blain Drive/Herbertson Street

- short left slip lane on southern leg of Dawson Highway;
- pavement marking of left lane on western leg to allow all turn movements.

The improvements ensure the operation of the intersection is no worse compared to the background traffic scenario as it relates to the existing intersection form.

GLNG Project –Traffic Report

Dawson Highway/Philip Street

The intersection exceeds practical capacity with background traffic and development traffic makes the situation worse. DMR are planning upgrade works and the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 6.1% of the combined background and development traffic in 2012.

Figure 1 illustrates the locations of intersection upgrades required by the GLNG Project for the base case scenario assessment.

Roadway Link Capacity Impact Assessment

Roadway link analysis has been undertaken based on daily road link volumes with and without the proposed development. The adopted capacity thresholds for this assessment include:

Rural Locations

- two lanes: < 7,500 vehicles/day;
- two lanes with overtaking lanes: < 15,000 vehicles/day;
- four lanes: > 15,000 vehicles/day.

Urban Locations

- two lanes: <18,000 vehicles/day;
- four lanes: 18,000 – 36,000 vehicles/day;
- six lanes: >36,000 vehicles/day.

Assessment of roadway segment capacity was undertaken for each year of the expected GLNG Project life (2010 to 2034). Bring forward cost contributions are recommended on any link where the development creates the need to bring forward the timing of upgrades by one year or more.

To mitigate the impact of the development on mid-block capacity, it is recommended that the developer pay an appropriate portion of the bring forward cost of the upgrading from two to four lanes of the following sections of road:

- Gladstone-Mount Larcom Road from Red Rover Road to Power Station (approximately 1.0km) – bring forward 1.4 years from 2020 to 2019;
- Gladstone-Mount Larcom Road from Power Station to Reid Road (approximately 5.0km) – bring forward 1.4 years from 2020 to 2019.

GLNG Project –Traffic Report

This cost of the upgrade works is unknown, but if the construction costs were to be discounted back to 2009 at a rate of 7%, the developer could expect to pay 4.7% of the cost. DMR has started the planning work to duplicate Gladstone-Mount Larcom Road to four lanes and negotiation with DMR regarding the timing of the planned upgrade (not currently in the RIP) and the developers contribution is recommended.

Pavement Impact Assessment

This analysis relates only to heavy vehicle movements of the GLNG Project and includes both the construction and operation phases from 2010 to 2034. The GLNG Project is estimated to generate approximately 3,277,684 heavy vehicle trips over the life of all project components. The pavement assessment comprises two components; the timing of pavement rehabilitation and whether there is a need to bring forward the works, and the increased need for regular pavement maintenance.

Pavement Rehabilitation

The project impact on pavement rehabilitation considers the existing road roughness and the year at which a pavement reaches its terminal roughness and pavement rehabilitation works are required. The cumulative number of Equivalent Standard Axles (ESA) loaded onto the link to that year is calculated based on the ESA loading along the haulage routes. Development ESAs are then superimposed and the difference in time for reaching terminal roughness between the “background” and “with development” scenarios established. Contributions toward pavement rehabilitation would only be made where the development would bring forward the timing of the need for rehabilitation by one year or more.

Two road segments on the Carnarvon Highway, one segment of the Dawson Highway and one road segment on the Warrego Highway have been identified as requiring pavement rehabilitation works one or more years earlier with the GLNG Project than with background traffic. The bring forward cost of these works is approximately \$3.1M based on pavement rehabilitation rates supplied by DMR.

Road Maintenance

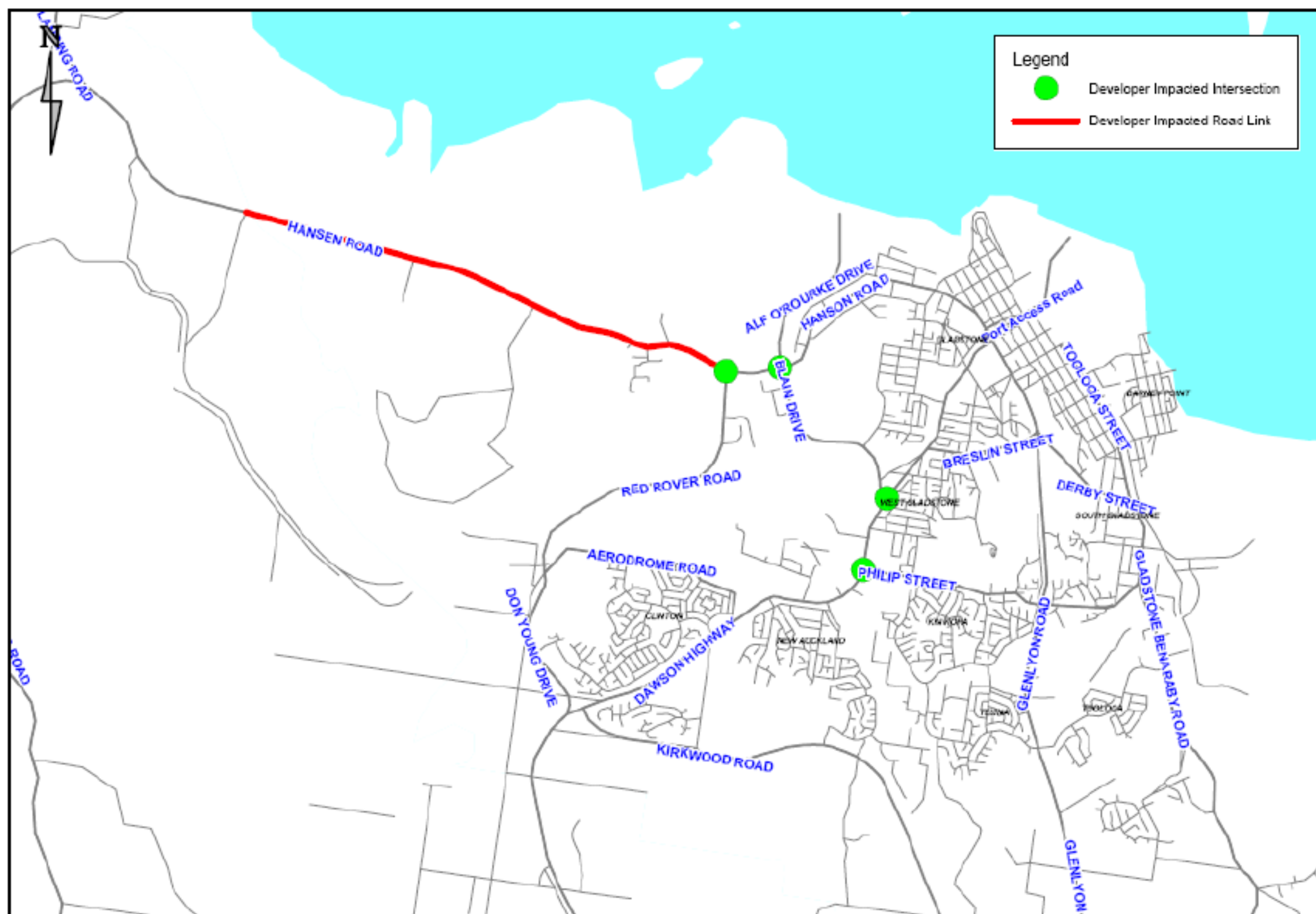
The obligations for the maintenance of the state controlled road network impacted upon by the development have been calculated by dividing the number of development ESAs loaded onto a particular link by the background ESAs for an analysis year. This has been reported as a percentage for each link and each year of the development.

GLNG Project –Traffic Report

A five percent (5%) significance criterion has been adopted for the assessment based on DMR guidelines. This warrant is triggered in the assessment period for a number of the links and the additional cost of maintaining the roads impacted by the proposed development is \$16,241,400 at a 2009 dollar value. Negotiation of the developer's contribution towards these works will be required.

Figure 1

Base Case Intersection and midblock improvements recommended in Gladstone



Other Development Impacts***Rural Road Seal Widths***

A preliminary assessment has been made of seal widths on rural state controlled roads to determine whether existing seal widths are sufficient to accommodate the expected additional traffic due to the development. Four sections of road have been identified that have existing width deficiency which the proposed GLNG Project adds traffic to. However, only one link was identified where development traffic increases traffic volume beyond the standard required with the existing traffic volume, thus triggering a higher (wider) standard of pavement. This is on the Carnarvon Highway from Injune north to Ch 86 where the addition of development traffic increases traffic volumes from below 700vpd to between 700 and 1700vpd. The RIP indicates widening and pavement rehabilitation works on Carnarvon Highway from Injune to Rolleston to the value of over \$30 million from 2008 and beyond, hence no mitigation works are required.

Access Roads to the CSG fields

Equipment and personnel require access to the CSG fields and work sites during field development activities. Approximately 6,800km of new access roads will be required generally built to a low traffic volume unpaved rural road standard. Fairview Road, Arcadia Valley Road and Mulcahy Road need to be upgraded to local government standards and this could include intersection widening, pavement rehabilitation and widening and providing a sealed surface.

GLNG Project –Traffic Report

To mitigate the impact of development on the roads providing access to the CSG fields, the following is proposed at the developers cost:

- provide appropriate turn lane treatments at CSG field access locations with state controlled roads based on standards in the DMR RPDM – Chapter 13;
- ensure appropriate seal width is provided on access roads to the CSG fields, based on expected daily traffic volumes;
- upgrade the Carnarvon Highway/Mulcahy Road intersection to provide the minimum BAR/BAL turn treatments;
- upgrade Mulcahy Road to a carriageway width of 9.2m and a seal width of 7.2m including 0.5m sealed shoulders. Flood immunity standards will need to be agreed with the local Council;
- upgrade Arcadia Valley Road to a carriageway width of 9.2m and a seal width of 7.2m including 0.5m sealed shoulders. Flood immunity standards will need to be agreed with the local Council;
- Injune-Taroom Road should be improved to a standard able to accommodate the increased development traffic expected, as summarised in Table 9.2 above. It is recommended that the developer complete any necessary road upgrades to the recommended Austroads standards. Flood immunity standards will need to be agreed with the local Council.

Access to the Gas Transmission Pipeline

The location of access roads to pipeline workers accommodation and construction depots are still to be determined. However where these intersect with the state controlled road network, a minimum standard of treatment will be required to maintain safety and efficiency. The minimum standard is a Basic Right Turn treatment (BAR) and Basic Left Turn Treatment (BAL) standards contained in Chapter 13 of the DMR Road Planning and Design Manual (RPDM). Standards for access roads have been defined and a road use management plan will need to be prepared by the contractor appointed to undertake the pipeline works recognising the intersection upgrade requirements.

LNG Facility Access

Access to Curtis Island during construction of Train 1 of the proposed LNG Facility will take place via ferries and barges from port facilities within Gladstone. The proposed bridge linking Curtis Island to the mainland would not be complete until Train 1 of the LNG Facility is complete. The transfer of goods and equipment to Curtis Island has been assumed to be via Auckland Point wharves in Gladstone. Some oversize or pre-assembled construction items are expected to arrive by ship and would be transported directly to the Material Offloading Facility (MOF) for the LNG Facility on Curtis Island.

Personnel movements via ferry to Curtis Island are recommended to occur from Auckland Point wharves. After the completion of Train 1 of the LNG facility, access to Curtis Island may be via the proposed bridge crossing Port Curtis between Friend Point and Laird Point, accessed from Gladstone-Mt Larcom Road at Landing Road.

Provision of buses for workers transport and workers accommodation on Curtis Island will significantly reduce the amount of personnel travel to/from the construction site on a daily basis and this is a way of mitigating the development impacts.

Options Assessment

“No Bridge” Option

Investigation of the impact of the “No Bridge” option shows a reduction of 294,650 trips primarily due to no bridge construction traffic being added to the road network.

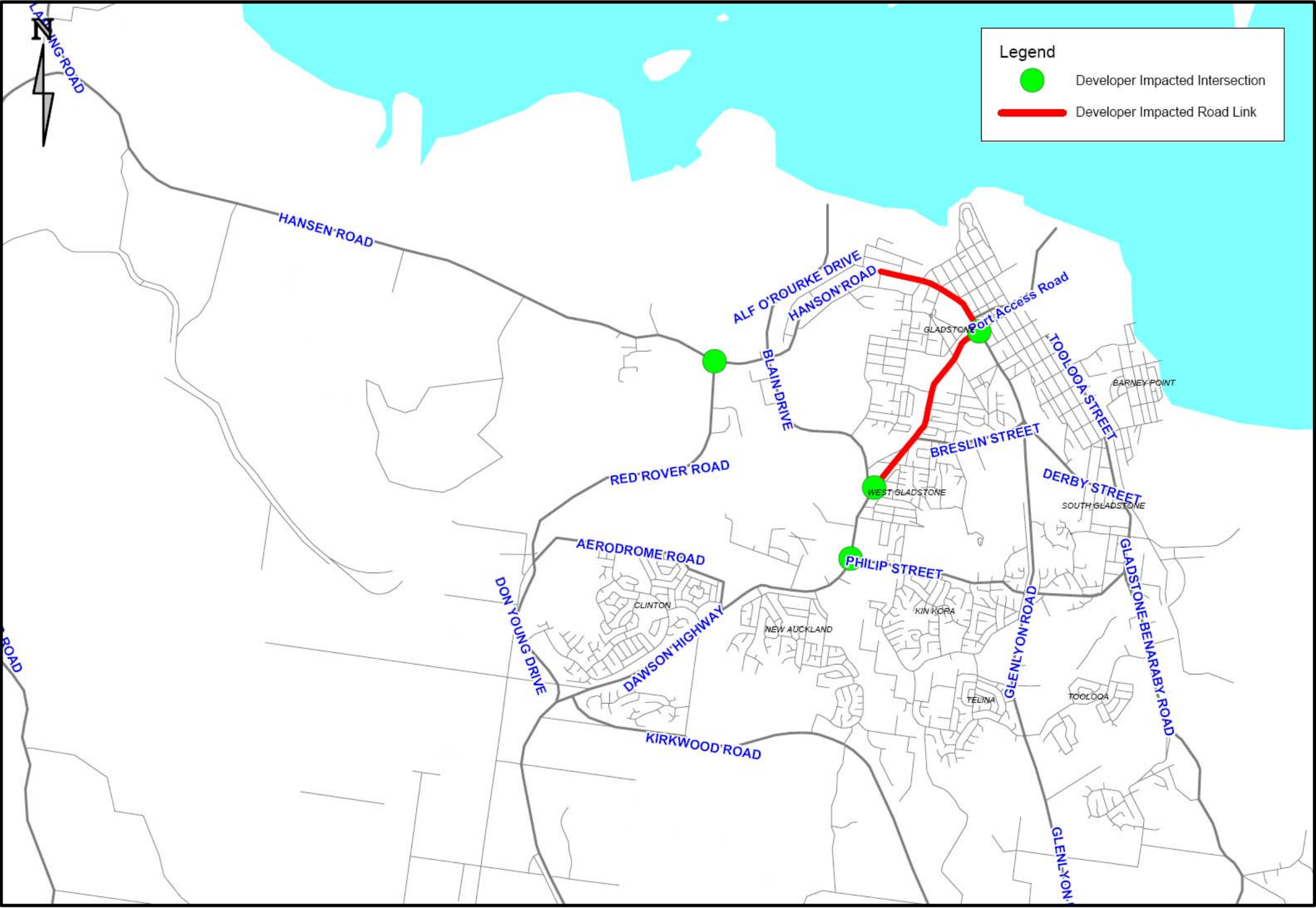
The quantitative impacts of the “No Bridge” option for the GLNG Project have been found to be comparable to those found for the base case assessment of the GLNG Project, with the following notable differences:

- intersection impacts within Gladstone result in intersections closer to the central city needing to be upgraded. This is understandable given that Auckland Point is the origin of trips to Curtis Island;
- roadway segment capacity improvements for the “No Bridge” option are required in the urbanised central city streets in Gladstone rather than on the urban fringe (as in base case). Upgrading constraints are likely to be more significant in the city centre resulting in higher cost and more delay during construction;
- pavement impacts for pavement rehabilitation are the same as for the base case. Road maintenance costs are approximately \$22,000 less for the “No Bridge” option because of the removal of bridge construction traffic.

The impacts of all options are summarised in Table 3 and Figure 2 identifies the location of intersection upgrades and mid-block capacity improvements required in the Gladstone area for the “No Bridge” option. The “No Bridge” option creates less impact on the Gladstone-Mount Larcom Road compared to the base case scenario with less works required at Hanson/Red Rover Road and no works required on Hanson Road/Blain Drive/Alf O'Rourke Drive. However, as more traffic is directed to Auckland Point, an upgrade of the Dawson Highway/Glenlyon Road/Bramston Street is required.

Figure 2

“No Bridge” Option Intersection and midblock improvements recommended in Gladstone



GLNG Project –Traffic Report

Travel Time Impacts

The CEO Marine Transport Study prepared as a supplement for the base case scenario estimates that during Train 1 construction of the LNG facility (when the bridge is not yet in place), the travel time to the accommodation facilities on Curtis Island from the mainland would be approximately 84 minutes. This is an approximation of the travel time that can be expected for personnel for the life of the LNG project under the “No Bridge” option.

Under the base case scenario in which the bridge is available for operations of the LNG facility and construction of Trains 2 and 3, travel from Gladstone would be by road only and would take approximately 27 minutes, assuming a trip of approximately 32km at an average speed of 70km/h. Factoring in some intersection delays, total travel time could be between 30 to 40 minutes. Though these are rough approximations of personnel travel times, it is apparent that the provision of the bridge to Curtis Island makes transport for personnel more efficient. It is expected that the total travel time with the bridge in place would be almost twice as fast as travel using the ferry without the bridge.

Additional Marine Traffic Movements

The “No Bridge” option was found to generate considerably more marine traffic during the construction of the LNG facility, especially during construction of Trains 2 and 3. A summary comparison of the estimated barge and ferry movements is provided in Table 2.

Table 2

LNG Facility Shipping Movements

Construction Stage	Base case			“No Bridge” Option		
	Barge	Ferry	Total	Barge	Ferry	Total
Train 1	2,500	1,500	4,000	2,500	1,500	4,000
Train 2	0	0		1,200	900	2,100
Train 3	0	0		1,200	900	2,100

“Material by Rail” Option

The quantitative impacts of the “Material by Rail” option for the gas transmission pipeline construction have been found to be comparable to those found for the base case assessment of the GLNG Project.

- intersection impacts are identical to the base case. The reduction of truck trips does not occur during the peak year of development traffic generation;
- roadway segment capacity impacts are the same as the base case. The reduction in trips for the “Material by Rail” option occurs early in the project whereas mid-block capacity upgrades are required in the later years of the project;
- pavement impacts for pavement rehabilitation are identical to the base case, though the developer contribution required for road maintenance is approximately \$400,000 less for the “Material by Rail” option.

The benefits of the “Material by Rail” option are the reduction in heavy vehicle traffic using the roadway network, especially within Gladstone and along Dawson Highway. Also, whereas not all deliveries of pipe by road can be eliminated, the distance travelled by road is significantly reduced by transporting pipe by rail from Gladstone as far as Moura. It is estimated that a reduction in 14,500 trips and approximately 3,671,600 vehicle-km travelled will occur with the “Material by Rail” option, the majority of which will occur between 2010 and 2011.

The reduction in vehicle movement has operational benefits in that less heavy vehicle movement will occur along the Dawson Highway and side road delivery routes. This has the potential to make the Dawson Highway marginally safer from a road safety perspective due to less conflict between trucks and other vehicles. An additional advantage is that heavy vehicle movement will not occur across the Calliope Range where major deviation works are proposed during the pipe delivery period.

The impacts of all options are summarised in Table 3 and Figure 1 identifies the location of intersection upgrades and mid-block capacity improvements required in the Gladstone area, which are the same as for the base case assessment.

GLNG Project –Traffic Report
Table 3
Options Assessment Comparison Summary

CATEGORY		BASE OPTION		NO BRIDGE OPTION		MATERIAL BY RAIL OPTION	
TOTAL DEVELOPMENT VEHICLES	Vehicles Type	Vehicle Trips		Vehicle Trips		Vehicle Trips	
Coal Seam Gas Fields	Light Vehicles	3,778,913		3,778,913		3,778,913	
	Heavy Vehicles	2,902,229		2,902,229		2,902,229	
	Total Vehicles	6,681,142		6,681,142		6,681,142	
Gas Transmission Pipeline Corridor	Light Vehicles	431,000		431,000		431,000	
	Heavy Vehicles	141,355		141,355		126,724	
	Total Vehicles	572,355		572,355		557,724	
LNG Liquefaction and Export Facility	Light Vehicles	2,243,091		2,041,671		2,243,091	
	Heavy Vehicles	234,099		140,857		234,099	
	Total Vehicles	2,477,190		2,182,528		2,477,190	
TOTAL	Light Vehicles	6,453,004		6,251,584		6,453,004	
	Heavy Vehicles	3,277,683		3,184,441		3,263,052	
	Total Vehicles	9,730,687		9,436,025		9,716,056	
TOTAL VEHICLE KILOMETRES TRAVELLED	Vehicles Type	Vehicle Km		Vehicle Km		Vehicle Km	
Coal Seam Gas Fields	Heavy Vehicles	216,273,390 km		216,272,490 km		216,272,490 km	
Gas Transmission Pipeline Corridor	Heavy Vehicles	8,908,076 km		8,908,076 km		5,237,387 km	
LNG Liquefaction and Export Facility	Heavy Vehicles	3,267,132 km		2,353,517 km		3,267,132 km	
TOTAL		228,448,598 km		227,534,083 km		224,777,009 km	
INTERSECTION ANALYSIS		Developer Impacted		Developer Impacted		Developer Impacted	
Hanson Road/Red Rover Road intersection		✓		✓		✓	
Hanson Road/Blain Drive/Alf O'Rourke Drive intersection		✓				✓	
Dawson Highway/Glenlyon Road/Bramston Street intersection				✓			
Dawson Highway/Blain Drive/Herbertson Street intersection		✓		✓		✓	
Dawson Highway/Philip Street intersection		✓		✓		✓	
MIDBLOCK CAPACITY IMPACT ANALYSIS	Section Length	Impacted	Contribution	Impacted	Contribution	Impacted	Contribution
Gladstone-Mount Larcom Road from Red Rover Road to Power Station	1.0 km	✓	4.7%			✓	4.7%
Gladstone-Mount Larcom Road from Power Station to Reid Road	5.0 km	✓	4.7%			✓	4.7%
Dawson Highway from Gladstone-Mt Larcom Road to Breslin Street	1.5 km			✓	1.8%		
Dawson Highway from Breslin Street to Blain Drive	0.7 km			✓	2.0%		
Gladstone-Mount Larcom Road from Dawson Highway to Hilderbrand Street	1.4 km			✓	1.9%		
PAVEMENT IMPACT ANALYSIS		Developer Costs		Developer Costs		Developer Costs	
Maintenance Cost		\$16,241,400		\$16,219,150		\$15,829,575	
Rehabilitation Cost		\$3,094,300		\$3,094,300		\$3,094,300	
TOTAL		\$19,335,700		\$19,313,450		\$18,923,875	

Conclusion

The total amount of traffic generated by the GLNG Project has a peak during the construction phase at 2012. The highest volumes of traffic are generated through construction of the LNG Facility (Train 1) and the bridge to Curtis Island. However, there is still a significant amount of construction traffic associated with the CSG fields and gas transmission pipeline construction.

A number of mitigation measures are proposed, including:

- intersection upgrades;
- road construction;
- payment of contributions for maintenance of the state road network;
- payment of bring forward costs for an intersection upgrade;
- provision of workers accommodation on Curtis Island to minimise traffic movements; and
- provision of buses for the transport of LNG facility and bridge construction workers.

Together, these measures are considered sufficient to mitigate the traffic and transport impacts of the GLNG Project.

1.0 INTRODUCTION

1.1 Options Documentation

This report presents the impacts of the proposed Santos Gladstone Liquefied Natural Gas (GLNG) project on the transport network. Assumptions and inputs for each project component contained within the report are considered to be the “base case” for the GLNG Project, and the determination of development impacts is the baseline for which mitigation measures should be considered.

As the GLNG Project is still evolving and not all inputs to each of the project components are fully defined, reasonable assumptions and estimations have been made based on industry practice and engineering judgement. In addition, options for provision of infrastructure associated with the GLNG Project and transport modes for movement of materials and equipment to the various project sites are still being assessed for feasibility.

Two options related to transport have been assessed to supplement the base case scenario, the results of which have been incorporated for comparison to the base case in this report. The options assessed are:

- “No Bridge” Option: Assumes the proposed access road and bridge to Curtis Island will not be constructed. All personnel, materials and equipment for the construction and operations of the LNG facility will be transported to Curtis Island by barge or ferry for the life of the project;
- “Material by Rail” Option: Assumes that pipe and other materials and personnel will be transported by rail to the fullest extent possible in order to reduce vehicle trips on the road network, especially within Gladstone. The assumption made is that pipe will be transported by rail from Gladstone Port as far as Moura. Personnel travelling to accommodation facilities will be transported by rail as far as Moura.

The two options have each been assessed in combination with all other GLNG Project components to determine the transport impacts of the project under each respective option. This provides a direct comparison of the quantitative impacts to the base case scenario assessed in this report. Each option has been documented in supplement reports provided as attachments to this report.

The “No Bridge” option is provided at Appendix A and the “Material by Rail” option is provided at Appendix B.

1.2 Project Background

Cardno Eppell Olsen (CEO) has been commissioned by URS Australia Pty Ltd (URS) on behalf of Santos Limited (Santos) to undertake a traffic and transport study for the GLNG Project. This report has considered the traffic impacts of the construction and operations of the proposed Coal Seam Gas (CSG) field expansions in the Surat and Bowen Basins (Roma and surrounds), a proposed LNG liquefaction and export facility (LNG facility) on Curtis Island approximately 5km northwest of Gladstone, and a proposed 435km gas transmission pipeline linking the CSG fields to the LNG facility.

On 16 July 2007, the Queensland Coordinator-General (CG) declared the Project to be a 'significant project', requiring an Environmental Impact Statement (EIS), under the *State Development Public Works Organisation Act 1971* (SDPWO Act). In August 2008, a Terms of Reference (ToR) for the preparation of such was issued.

1.3 Project Description

Santos proposes to develop an LNG liquefaction and export facility at Gladstone in Central Queensland, Australia. The facility will allow Santos to commercialise its Queensland coal seam gas resources and export the processed gas (in the form of LNG) to overseas markets. The facility will initially be constructed to produce 3 to 4 million tonnes per annum (Mtpa) of LNG, with the potential for future expansion to a nominal 10 Mtpa.

The LNG facility will be developed on Curtis Island (in the China Bay area) in close proximity to the industrial deepwater port at Gladstone. The project will source gas from Santos' CSG fields at Fairview, Arcadia Valley and Roma, with gas being transported to the Gladstone LNG facility via a subsurface 435km gas transmission pipeline.

The project will consist of the following key components:

- CSG field development;
- gas transmission pipeline construction;
- LNG liquefaction and export facility development.

1.3.1 Coal Seam Gas Field Development

Santos outright as well as in joint venture owns and operates a number of existing CSG fields in the Fairview, Arcadia Valley and Roma project areas. These fields will be developed and expanded to provide sufficient gas supply to the LNG facility. Santos proposes to drill approximately 850 development wells prior to 2015 and possibly 1,500 or more wells after 2015 (excluding exploration wells). In addition, installation of other operationally related infrastructure will be required including access roads, temporary and permanent workforce accommodations, water gathering networks, water management facilities, in-field gas gathering networks (to transport gas from the wells to field compression stations), and field gas compression stations.

1.3.2 Gas Transmission Corridor

A 435km long underground gas transmission pipeline corridor will accommodate one pipeline for the delivery of the gas from the CSG fields to the proposed LNG facility on Curtis Island.

Initial capacity of the pipeline will ensure 3-4 Mtpa of LNG production at the LNG facility, with staged expansions achieved by intermediate boost compression and/or pipeline duplication to achieve the final configuration for 10 Mtpa LNG production.

1.3.3 LNG Liquefaction and Export Facility

The proposed LNG facility will be located on Curtis Island in the China Bay area (called Hamilton Point West), which is situated approximately 5km northwest of the City of Gladstone. The LNG facility components may include, but are not limited to:

- inlet separation/filtration/treatment to remove pipeline debris and liquids;
- gas treatment to remove major components within the gas stream that are detrimental to the process of liquefaction of natural gas, including carbon dioxide, water and other contaminants;
- refrigeration and liquefaction;
- LNG storage tank(s) with vapour recovery;
- marine facilities including an LNG tanker loading jetty and marine off-loading facility (MOF);
- utilities including water, fuel systems, control systems and power generation;
- flares including a plant flare, tank flare, and/or marine flare;
- supporting facilities (e.g. construction accommodation, roads and bridge); and
- dredge material placement facility.

Access to the site may ultimately be via a potential bridge across Port Curtis, linking Curtis Island (Laird Point area) with the mainland (Friend Point area). The potential bridge and accompanying road is being designed to provide vehicular access to the LNG facility from the existing regional road network. At time of report production (March 2009) the need for such a bridge was still being assessed in consultation with stakeholder agencies, however for the purposes of this assessment the construction of a bridge is being treated as the base case.

The option for barging of materials and equipment and ferrying of personnel to Curtis Island from the mainland for the life of the project (2010-2034) has also been assessed as an option and is presented in the supplement report by CEO, “GLNG Traffic Report – No Bridge Option Assessment,” included at Appendix A.

1.4 Staging

The delivery of the overall proposed project will occur in stages according to each project component. The proposed staging of the project is illustrated in Table 1.1. The construction and operation of the gas fields is proposed to commence on project approval and will continue throughout the life of the project. Pipe delivery for the pipeline will begin in the fourth quarter of 2010 and last for six months. The construction of the proposed gas transmission pipeline is anticipated to begin in the second quarter of 2011 and last for 18-24 months, after which it would be available for operations.

GLNG Project –Traffic Report

Table 1.1

Proposed Project Staging

Stage	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
LNG FACILITY													
TRAIN 1 Construction													
TRAIN 1 Operation													
TRAIN 2 Construction													
TRAIN 2 Operation													
TRAIN 3 Construction													
TRAIN 3 Operation													
Dredge Material Facility													
CURTIS ISLAND BRIDGE													
Bridge/Road Construction													
GAS TRANSMISSION PIPELINE													
Pipe Delivery													
Pipeline Construction													
Pipeline Operation													
CSG FIELDS													
Field Construction													
Field Operation													

*Operations of all project components to continue past Year 2022

The LNG facility proposed for Curtis Island is expected to be constructed in three stages (production trains). Train 1 construction is anticipated to begin in 2010 and last approximately four years, with operations of Train 1 beginning in 2014. The timing of Trains 2 and 3 will be subject to gas availability and market conditions, and as such, no definitive schedule is available. For purposes of this assessment, the construction and operations of Trains 2 and 3 have been assumed to follow in immediate succession of Train 1, as shown in Table 1.1. This provides a robust scenario wherein multiple aspects of the GLNG Project generate traffic on the external road network simultaneously.

The potential access road and bridge linking Curtis Island to the mainland would begin construction in the third quarter of 2011 and take approximately two years to complete, finishing only a few months ahead of completion of Train 1 construction of the LNG facility. For this base case option, access to Curtis Island during Train 1 construction of the LNG facility would be via barge and ferry. If the bridge is not constructed, access to Curtis Island during the construction of all production trains and the operational life of the LNG facility would be via barge and ferry.

GLNG Project –Traffic Report

The construction of a dredge spoil placement facility on Curtis Island at Laird Point has been included in the assessment. The construction of bund walls for the facility would begin in the fourth quarter of 2010 and last for approximately 18 months. Delivery of material to the site would only be for the first 3-6 months.

1.5 References

- Santos Gladstone LNG Project – Terms of Reference, Queensland Government, August 2008;
- GLNG Project Description, URS, 8 January 2009;
- Gladstone LNG Gas Pipeline Pre-FEED Pipeline Route Selection, GHD, October 2008;
- Curtis Island Access Bridge and Road Construction Traffic Generation, URS, November 2008;
- Response to GLNG Terms of Reference Requirements, Foster Wheeler;
- Gladstone LNG Environmental Impact Statement – Marine Transport Strategy, Cardno Eppell Olsen, March 2009;
- Guidelines for Assessment of Road Impacts of Development, DMR, April 2006;
- Road Planning and Design Manual – Chapter 13, DMR, October 2006;
- Roads Implementation Program 2008-09 to 2012-13, Department of Main Roads;
- Gladstone Integrated Regional Transport Plan 2001–2030, Queensland Department of Transport, 2001;
- Walk-Cycle Network Improvement Plan, Gladstone City Council, June 2006;
- Blackwater System Information Pack – Issue 2.1, Queensland Rail, February 2007;
- Moura System Information Pack – Issue 3.1, Queensland Rail, March 2007; and
- North Coast Line System (South) Information Pack – Issue 2, Queensland Rail, June 2007.

2.0 DEVELOPMENT SITES

2.1 Site 1 – Coal Seam Gas Fields

2.1.1 Site Locations

The CSG field expansion will include further development of the existing CSG fields at Fairview and Roma as well as development of Santos' exploration field at Arcadia Valley. These three fields are planned to be developed in the reasonably foreseeable future. In addition, the GLNG Project may require the future development of the Mahalo, Denison, Comet Ridge, Scotia, Roma (other) and Eastern Surat Basin appraisal fields. The locations of these fields (collectively called the CSG fields) are shown on Figure 2.1. Also refer to Section 3 of the EIS document (Project Description).

2.1.2 Worker Accommodation

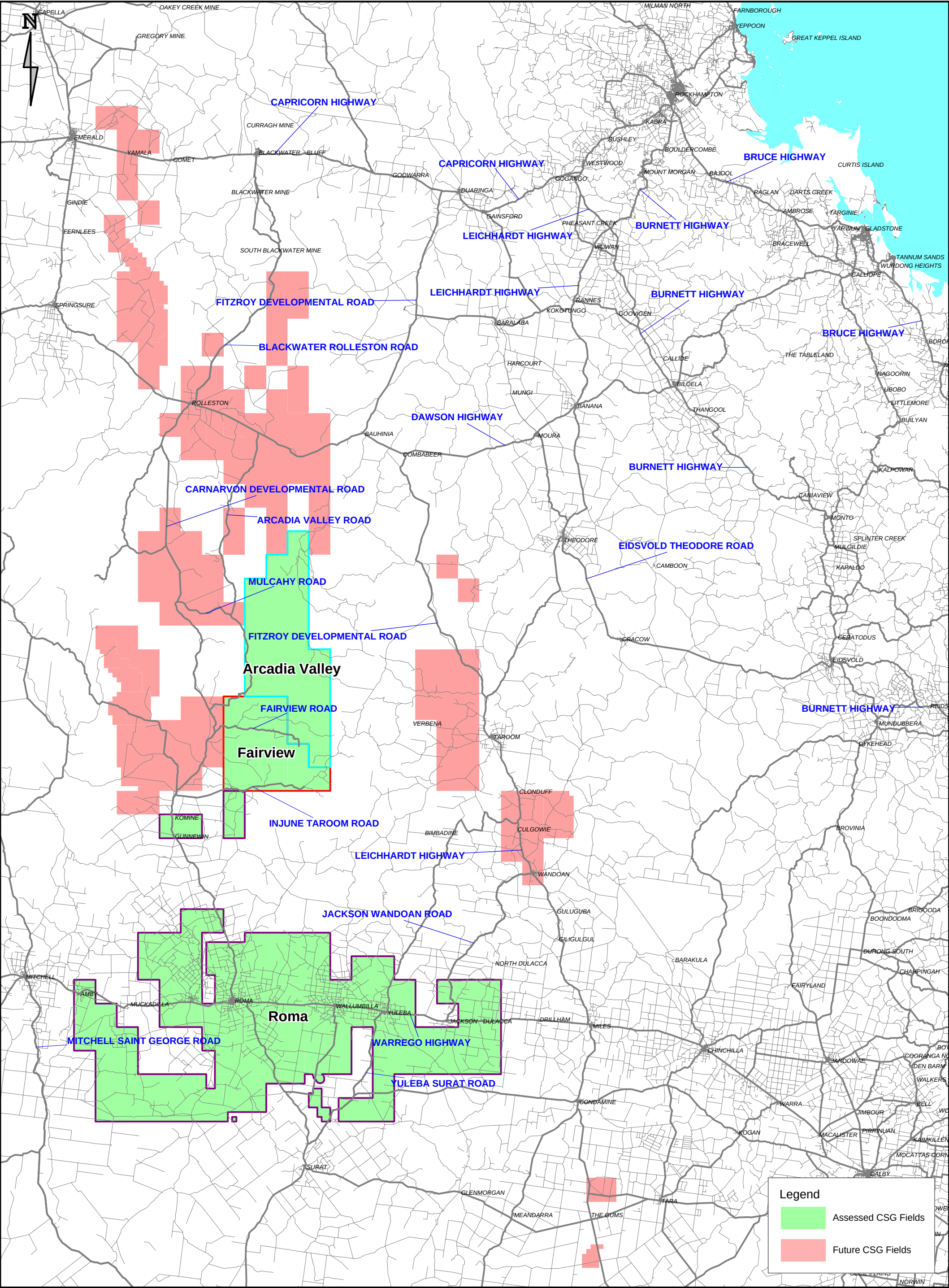
Due to the mainly rural nature of the region and the limited townships within the coal seam gas field areas, accommodation is not readily available and dedicated workers' accommodation facilities will be required. It is expected that the Fairview, Roma and Arcadia field workforce will be accommodated in the worker accommodation facilities, and personnel working in the Roma Centre will live in the town of Roma.

It is anticipated that the main worker accommodations will be located in central locations within the CSG field development areas. Worker accommodation may be co-located with construction depots. In addition, smaller crews are likely to be accommodated at the immediate gas well sites during the exploration phase of well development. It is likely that one or more worker accommodation facilities will be used for each of the Roma, Fairview and Arcadia gas fields.

The exact locations of worker accommodation facilities will be determined during the early construction phase and will be subject to separate approvals (e.g. development applications and any relevant approvals and permits).

2.1.3 Site Access

Primary access to the CSG fields will be via the existing state controlled road (SCR) network and existing commercial flight services from Brisbane to Roma. Primary access to the Roma gas fields will be from the Carnarvon Highway and the Warrego Highway. Access to the Fairview gas fields will be from the Carnarvon Highway at Fairview Road and Injune-Taroom Road, and primary access to the Arcadia gas fields will be from the Carnarvon Highway at Mulcahys Road and Arcadia Valley Road. Locations of likely access routes to the CSG fields are shown on Figure 2.1.



2.2 Site 2 – Gas Transmission Pipeline Corridor

2.2.1 Site Locations

In general, the proposed route for the gas transmission pipeline is closely aligned with the existing Queensland Gas Pipeline with the exception of the section north of Injune where the preferred pipeline route will run up the Arcadia Valley. The gas transmission pipeline will approach Gladstone from the southwest and will pass through the Gladstone State Development Area (GSDA) before crossing Port Curtis to Curtis Island. An alternative corridor alignment through the GSDA is being investigated, but there is no discernable difference in impact of this alignment of traffic generation and distribution for the gas transmission pipeline.

The preferred option for the pipeline crossing to Curtis Island is for the pipeline to be trenched into the seabed and overlain with protective rock cover. The proposed alignment is shown on Figure 2.2. The length of the pipeline route is approximately 435 km.

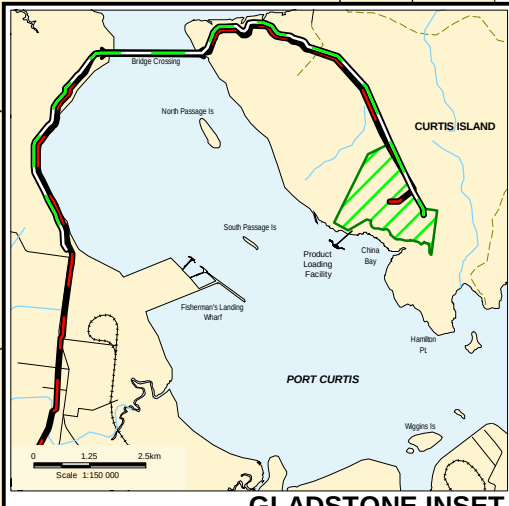
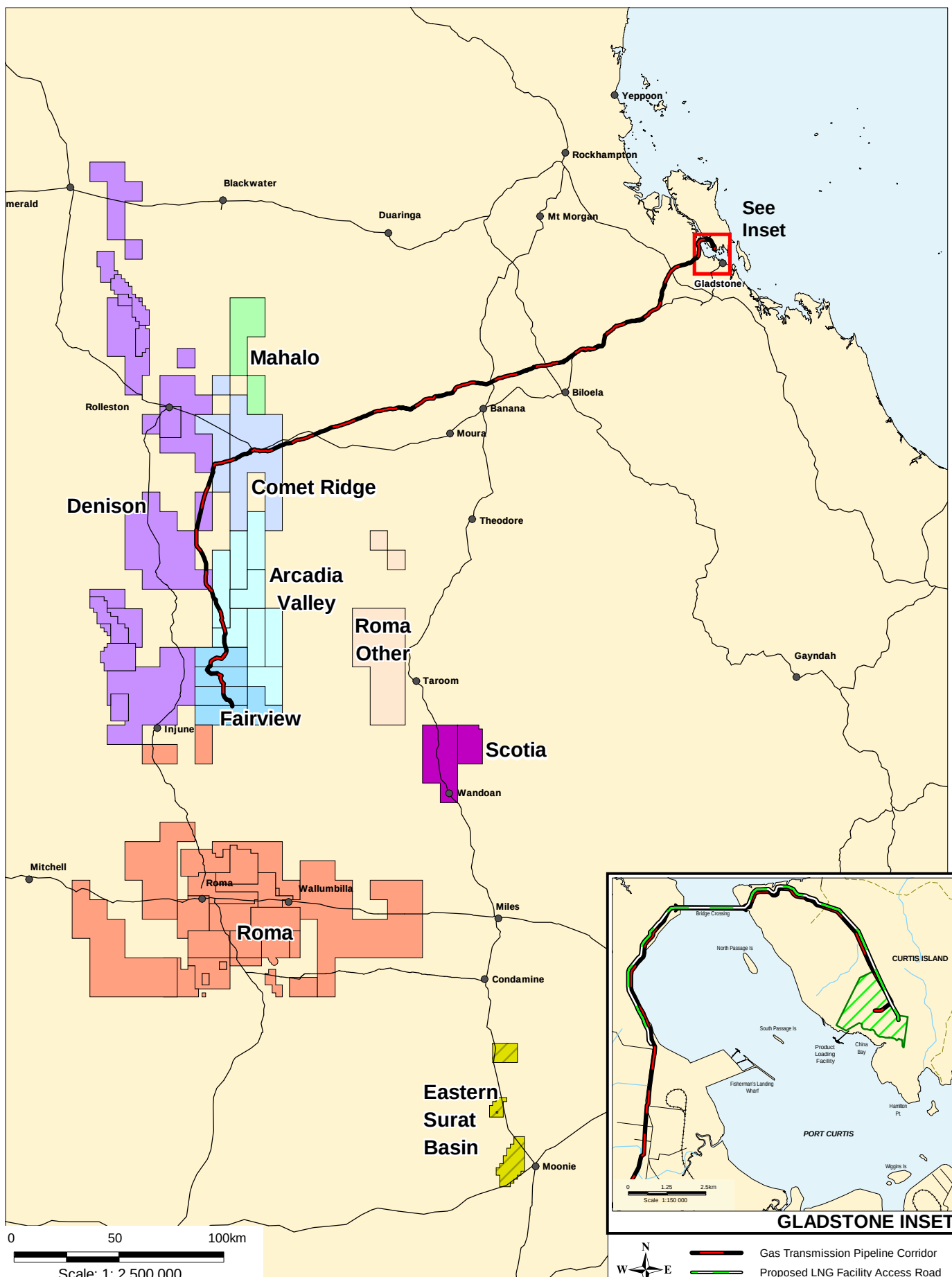
Field compression stations will pressurise the gas prior to it entering the gas transmission pipeline. Approximately 9 mainline valve stations will be located equidistant along the pipeline, contained within fenced compounds. Further design work will determine where the mainline valve stations are required and the equipment needed at each location.

The location of construction depots will be selected by the contractor prior to the commencement of construction activities. The sites may be co-located with construction workers accommodations and will be relocated as the gas transmission pipeline construction progresses. The construction contractor will select the ultimate location of depots. Due to the length of the gas transmission pipeline, it is likely that 3-4 main accommodation facility sites and 4-5 smaller satellite accommodation facilities spaced between the main facilities will be required. This is based on the normal practice of locating accommodation facilities and depots within an hour's drive from the active construction site, with the facilities moved when driving time increases beyond this time.

The construction depots will be primarily used for equipment storage, vehicle lay-down, site office, administration facilities and meeting points for crews prior to commencing work on the gas transmission pipeline corridor. Equipment stored at a construction depot may include construction and maintenance equipment and workers accommodation facilities.

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Pipe and associated materials for the gas transmission pipeline will be transported to the Port of Gladstone via sea from offshore mills, and trucked by road to strategically placed laydown areas along the corridor. It is presently anticipated that 6-10 pipe laydown and laydown areas will be spaced along the pipeline corridor. The base case assessed in this report is that pipe will be shipped to Gladstone at Auckland Point Wharves and trucked to seven laydown area locations. An alternative option has also been assessed to transport pipe by rail from Gladstone to the laydown area locations, and is presented in the supplement report by CEO “GLNG Traffic Report – Materials by Rail Option Assessment” included at Appendix B.



- Gas Transmission Pipeline Corridor
- Proposed LNG Facility Access Road
- LNG Facility Site



Source: This map may contain data which is sourced and Copyright. Refer to Section 18.2 of the EIS for Ownership and Copyright.

Client  	Project GLNG ENVIRONMENTAL IMPACT STATEMENT TRAFFIC ASSESSMENT Drawn: LL Approved: JB Date: 22-12-2008 Job No: 4262 6220 File No: 42626220-g-717.wor	Title GAS TRANSMISSION PIPELINE CORRIDOR Figure: 2.2 Rev:A A4
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2.2.2 Worker Accommodation

Due to the mainly rural nature of the region and the limited townships along the proposed gas transmission pipeline route, accommodation is not readily available for the construction workforce and dedicated workers' accommodation facilities will be required. The limited number of operational workforce will likely be based at various local towns along the pipeline or based in Gladstone.

It is anticipated that workers accommodation facilities will be located central to the construction section and will move along the gas transmission pipeline as construction progresses. Worker accommodation facilities may be co-located with construction depots, as discussed above. Three or four main workers accommodation locations are anticipated along the pipeline route through the duration of construction, and 4-5 smaller "satellite" accommodation facilities are anticipated to be spaced between the main facilities and at either end of the pipeline corridor.

It is also anticipated that a smaller "fly" workers accommodation facility will proceed ahead (approximately 50km) of the main accommodation facility, undertaking clearing and grading and other site preparation tasks ahead of the main construction crew. The fly workers accommodations will continue to move ahead of the main accommodation facility as they move along the pipeline corridor. The exact locations of workers accommodations will be determined during the early construction phase and will be subject to separate approvals (e.g. development applications and any relevant approvals and permits).

Approximate locations of pipe laydown area locations and worker accommodation facilities along the pipeline corridor are tabulated in Table 2.1. These locations are subject to further refinement and consultation with contractors and relevant stakeholders, but have been assumed in assessment of the pipeline traffic impacts.

Table 2.1
Assumed Pipeline Facility Locations

Facility Type	Site Number	Distance from Gladstone along pipeline corridor	Location Description
Pipe Laydown Area	0	25 km	Along Gladstone-Mt Larcom Road near pipeline corridor crossing
	1	60 km	Along the Dawson Highway at Maxwellton Creek
	2	120 km	North of Biloela along Burnett Highway
	3	180 km	Along Dawson Highway at Moura
	4	250 km	Near intersection of Dawson Highway and Fitzroy Development Road (north)
	5	320 km	South of intersection of Arcadia Valley Road and Dawson Highway
	6	390 km	South of intersection of Arcadia Valley Road and Mulcahys Road
Main Accommodation Facility	1	75 km	Near intersection of Dawson Highway and Inverness Road
	2	225 km	Near Intersection of Dawson Highway and Oombabeer Road
	3	375 km	Near intersection of Arcadia Valley Road and Mulcahys Road
Satellite Accommodation Facility	1	30 km	Near intersection of Bruce Highway and Mount Alma Road
	2	150 km	Near intersection of Leichhardt Highway and Proposed Pipeline
	3	300 km	Near intersection of Dawson Highway and Arcadia Valley Road
	4	410 km	Along Fairview Road, west of Carnarvon Highway

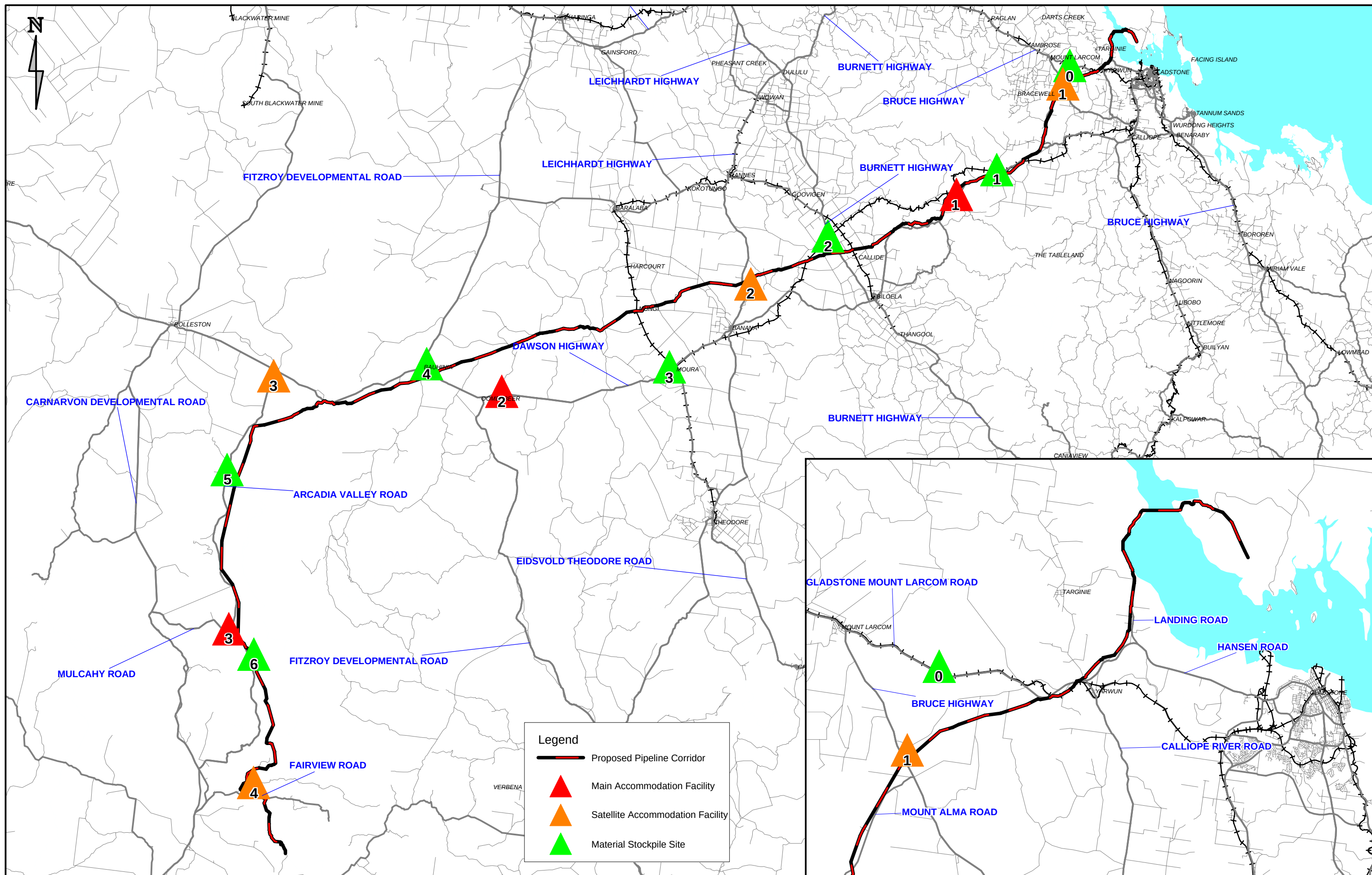
2.2.3 Site Access

Equipment and personnel require regular access to the pipeline corridor and work sites during construction. Access will generally be via existing roads and tracks as well as along the corridor. The proposed corridor has a network of existing public roads and farm or forestry tracks which may reduce the amount of site disturbance required. Existing access roads and tracks will be used wherever practicable and all project-related movements will be restricted to approved access tracks and the corridor.

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Primary access to the gas transmission pipeline corridor will be gained from the major roads in close proximity to the pipeline for the majority of its length, which include the Carnarvon Highway, the Dawson Highway, Leichhardt Highway, Burnett Highway and the Bruce Highway. The existing local road network will be accessed from these roads to provide immediate access to the pipeline corridor.

Access to the centralised accommodation facility locations and pipe laydown area locations are assumed to be as shown on Figure 2.3. These locations are assumed to be similar regardless of whether pipe is selected to be transported by truck or by rail.



2.3 Site 3 – LNG Facility

2.3.1 Site Location

The LNG facility is proposed to be located on Curtis Island at the Hamilton Point West site on Curtis Island adjacent to China Bay, which is situated approximately 5 km north of Gladstone. The location of the LNG facility in relation to the Gladstone region is shown on Figure 2.2. The area of the LNG facility site is approximately 190ha. The LNG facility is located within the GSDA in a dedicated “industrial precinct.” A dredge material placement facility is being planned for the Laird Point area on Curtis Island.

2.3.2 Site Access

The base case assessed in this report is that access to the LNG facility site would be provided by an access road and bridge constructed to Curtis Island. The proposed access road to the bridge would connect to the northern end of Landing Road and follow the shoreline north to the Narrows. The bridge would cross Port Curtis between Friend Point and Laird Point and the access road would travel south from the bridge to the eastern boundary of the LNG facility site. The potential bridge and route of the access road are shown on Figure 2.2.

It is expected that the potential bridge and access road would not be available for construction of Train 1 of the LNG facility. During this period the transfer of construction workers to their accommodation facilities on Curtis Island will be by barge/ferry operations from Auckland Point Wharves. If the Curtis Island access road and bridge are not constructed, barge/ferry service would continue to transport personnel to Curtis Island during operations of Train 1 and construction of Trains 2 and 3 of the LNG facility. This scenario has been assessed in the supplement report by CEO “GLNG Traffic Report – No Bridge Option Assessment” included at Appendix A.

Based on the “GLNG Environmental Impact Assessment – Marine Transport Study” prepared by Cardno Eppell Olsen (CEO) in March 2009, several options for goods and personnel transport to the site exist. This assessment has assumed that equipment and materials destined for Curtis Island would be trucked or shipped to Gladstone and offloaded at Auckland Point wharves and transferred to Curtis Island via barge. Some oversize or pre-assembled construction items are expected to arrive by ship and would be transported directly to the MOF for the LNG Facility on Curtis Island. This option has been adopted for assessment of the traffic impacts of the LNG facility. The CEO Marine Transport Strategy is included at Appendix C.

As noted, access for workforce and plant/materials to Curtis Island for the construction of the dredge placement facility will be similar to that for the LNG facility, though barges and ferries will be required to extend their route to Laird Point from the LNG facility location at Hamilton Point.

2.3.3 Worker Accommodation

It is anticipated that all construction workers for the LNG facility will be accommodated on Curtis Island during their shifts and transported by ferry from Auckland Point wharves. This option has been adopted for assessment of the traffic impacts of the LNG facility. Three other options for worker accommodation were evaluated, but accommodations on Curtis Island were found to be a more efficient option for traffic operations and overall worker travel times to the site. The worker accommodations on Curtis Island will be self-sufficient and will likely be within walking distance of the construction site.

3.0 EXISTING ROAD NETWORK

3.1 Key Roads

The following provides a description of each of the key roadways in the area of influence of the proposed GLNG Project.

Gladstone and Surrounds

The following roads within Gladstone and surrounds are expected to be primarily utilised for the construction and operations of the LNG facility and proposed access road and bridge construction. However, it is expected that some overlap in road usage will occur between project components, especially on the Bruce Highway and the Dawson Highway. These roads are illustrated on Figure 3.1.

3.1.1 Gladstone-Mount Larcom Road

Between the Bruce Highway and Landing Road, Gladstone-Mount Larcom Road is a two-lane, undivided road with narrow, sealed shoulders (approximately 0.5m). Overtaking lanes are provided in the eastbound direction east of the Bruce Highway and west of Mylrea Road and in the westbound direction between Landing Road and Calliope River Road.

The posted speed limit is 100km/h except in the immediate vicinity of Landing Road and the Bruce Highway, where an 80km/h speed limit applies. Gladstone-Mount Larcom Road is a state controlled road. At-grade give-way or stop sign controlled intersections provide access to adjacent properties and roads.

Gladstone-Mount Larcom Road is a designated haulage route for 23m and 25m B-Doubles.

3.1.2 Hanson Road/Glenlyon Road

Hanson Road, between Landing Road and the Gladstone urban area, consists of a two lane formation with one metre sealed shoulders. This section is a state controlled road. The posted speed limit is generally 100km/h in the section east of the Calliope River to the Rio Tinto Aluminium roundabout access, where a speed limit of 60km/h applies. The speed limit is 80km/h between the Rio Tinto Aluminium access and Landing Road.

Access intersections to adjacent industrial sites are generally provided in either unsignalised or roundabout configurations. A grade separated intersection form is provided at the Gladstone Power Station access.

Hanson Road is a designated haulage route for 23m and 25m B-Doubles.

Hanson Road becomes Glenlyon Road in the Gladstone urban area and changes to Council control. An urban four-lane form is provided through the Gladstone urban area and industrial area. On-street parking is available within the industrial area. The speed limit varies between 60km/h and 70km/h between Dawson Highway and the Calliope River bridge.

3.1.3 Bruce Highway

The Bruce Highway extends north from Brisbane to Cairns and forms part of the Australian National Highway network. The Bruce Highway is an inter-regional link under the control of the Department of Main Roads (DMR). There will be three sections of this highway used for the construction of the GLNG Project, including the section from Brisbane to the Dawson Highway, the section from the Dawson Highway to Gladstone-Mount Larcom Road and the section from Gladstone-Mount Larcom Road to Rockhampton. The three sections described below serve varying functions for the road network, as well as carrying varying volumes and forms of traffic related to the GLNG Project.

The section from Brisbane to the Dawson Highway predominantly has a speed limit of 100km/h varying to 110km/h for some sections. It is a high standard, high-speed rural highway with a main function to carry long distance trips and freight movements. The link generally has a two-lane, two-way cross section with regular provision of auxiliary overtaking lanes north of Cooroy with a four-lane to eight-lane freeway form south of this.

The section of Bruce Highway between the Dawson Highway and Gladstone-Mount Larcom Road is a high standard, high-speed highway with a main function to carry long distance trips and freight movements. The link generally has a two-lane, two-way cross section with regular provision of auxiliary overtaking lanes. In general it has a posted speed limit of 100km/h.

The section from Gladstone-Mount Larcom Road to Rockhampton is very similar to that between Dawson Highway and Gladstone-Mount Larcom Road. In general it has a posted speed limit of 100km/h and the same road hierarchy and conditions.

3.1.4 Dawson Highway

The Dawson Highway serves as part of a connection between the Central Highlands and Queensland central coast. It provides a freight route for the mining, agricultural and grazing industries, and also carries some tourist traffic.

The section of the Dawson Highway between Rolleston and Gladstone is a rural two-lane highway with a speed limit of 100km/h reducing to 80 and 60km/h through Rolleston, to 80km/h through Bauhinia and 60km/h through Calliope. The section is currently an approved type 1 road train route, though there are a number of locations along it that do not allow long/oversized vehicles to currently use this road as a route.

The Dawson Highway between Bruce Highway and Chapman Drive in Gladstone provides an 80 – 100km/h speed environment and is a state controlled road. The link is generally a two-lane undivided road. Overtaking lanes are provided in sections along the link.

In Gladstone north of Chapman Drive, Dawson Highway takes an urban form with a four-lane median-divided cross section. Through the central Gladstone area, the link provides parallel (kerbside) and central parking opportunities. Intersections within this area are generally controlled by either roundabouts with two circulating lanes or signal control. A 60km/h speed limit applies.

Partially paved pedestrian paths (approximately 1.5m width) are provided in the central Gladstone area. No special provision is made for bicycles either on or off-road, though wide paved shoulders are generally provided.

3.1.5 Calliope River Road

Calliope River Road is a recently sealed two-lane, 100km/h posted road, that provides connection between Gladstone-Mount Larcom Road and the Bruce Highway. Council planning for the link allows for increasing use by vehicles associated with the Gladstone State Development Area (GSDA).

The northern section of Calliope River Road extends through the township of Yarwun. Through this section, the adjacent land use is mainly residential and the speed limit is reduced to 60km/h.

Calliope River Road is a designated haulage route for 23m and 25m B-Doubles.

3.1.6 Landing Road

Landing Road consists of a two-lane formation with sealed shoulders and is a Council road. The posted speed limit is generally 100km/h. Access intersections to adjacent industrial sites are provided in unsignalised configurations.

Landing Road is a designated haulage route for 23m and 25m B-Doubles. High mass limit access on Landing Road terminates at the Cement Australia access road.

3.1.7 Blain Drive

Blain Drive is a two-lane undivided road. It performs a through traffic function from Dawson Highway to Hanson Road/Gladstone-Mount Larcom Road as well as an access role to the adjacent industrial and residential areas. The posted speed limit is 60km/h at the northern and southern ends and 70km/h in the central section.

3.1.8 Kirkwood Road

The extension of Kirkwood Road between the Dawson Highway and Glenlyon Road has recently been constructed. The link is a two-lane, two-way 80km/hr road in the vicinity of the Dawson Highway. Funding has been obtained for the completion of the link through to Gladstone-Benaraby Road by 2009–2010. Ultimately Kirkwood Road will connect directly with Don Young Drive forming a grade separated interchange with the Dawson Highway. Kirkwood Road is intended to act as a ring road to direct traffic south of the central city area.

3.1.9 Gladstone-Benaraby Road

Between the Bruce Highway and Toolooa Street, Gladstone-Benaraby Road is a two-lane undivided road with sealed shoulders (approximately 1m). Overtaking lanes are provided in both directions along its length. It becomes a four-lane, two-way road north of Philip Street.

The posted speed limit on Gladstone-Benaraby Road from the Bruce Highway is generally 100km/h until Glen Eden Drive where an 80km/h speed limit applies. Gladstone-Benaraby Road is a state controlled road. At-grade give-way or stop sign controlled intersections provide access to adjacent properties and roads. A roundabout has recently been constructed at the Boyne Island Road intersection. At its northern end the road becomes an urban road and has a number of roundabout intersections with more major connecting roads.

3.1.10 Gladstone Port Access Road

Gladstone Port Access Road is a state controlled road recently constructed to provide a connection to the port facilities at Barney Point. It is predominantly a grade separated two-way, two-lane road with no connections along its lengths. Gladstone Port Access Road is a designated haulage route for 23m and 25m B-Doubles. The road has a posted speed limit of 60km/h for its length.

On the southern section of Glenlyon Road at the western end of Gladstone Port Access Road there is a rail underpass with a clearance of 4.7m.

3.1.11 Red Rover Road/Don Young Drive

Red Rover Road/Don Young Drive is generally a two-lane undivided road. The northern section, Red Rover Road, has frequent access to abutting industrial uses. The southern section, Don Young Drive, provides a high quality connection between the Dawson Highway and Hanson Road with grade separation of the rail crossings. A 60km/h speed limit applies in the northern section (approximately 2km) with 80km/h in the southern section (approximately 4km).

3.1.12 Glenlyon Road

Glenlyon Road starts as a two-lane formation south of Kirkwood Road and runs north into Gladstone as a two-lane undivided road with wide sealed shoulder on the west side. It has a speed limit of 80km/h. Glenlyon Road has grade separation over the rail tracks. A bicycle lane starts on the west side of Glenlyon Road just north of the rail tracks. North of Tank Street has a four-lane median-divided cross-section with kerb parking and a speed limit of 60km/h.

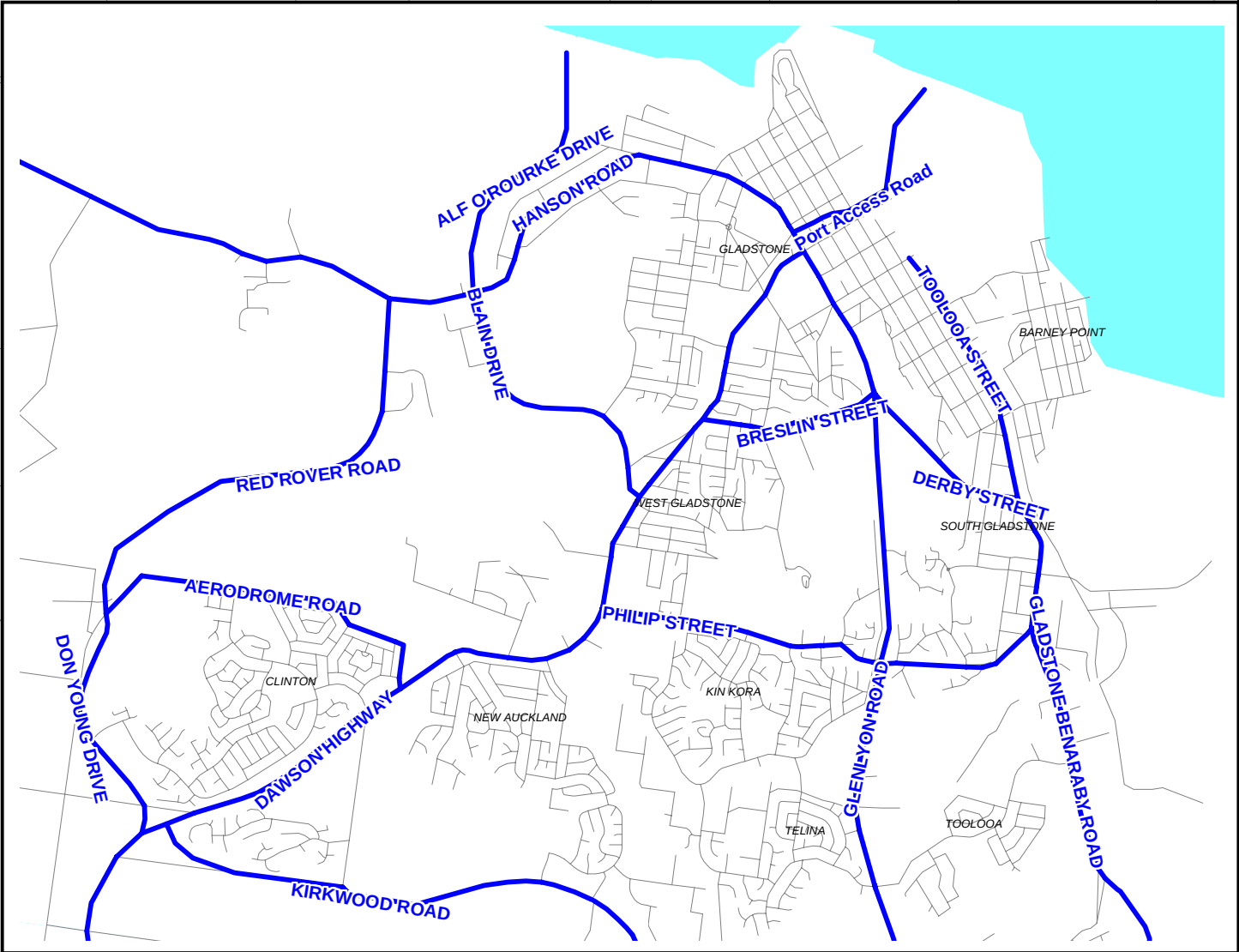
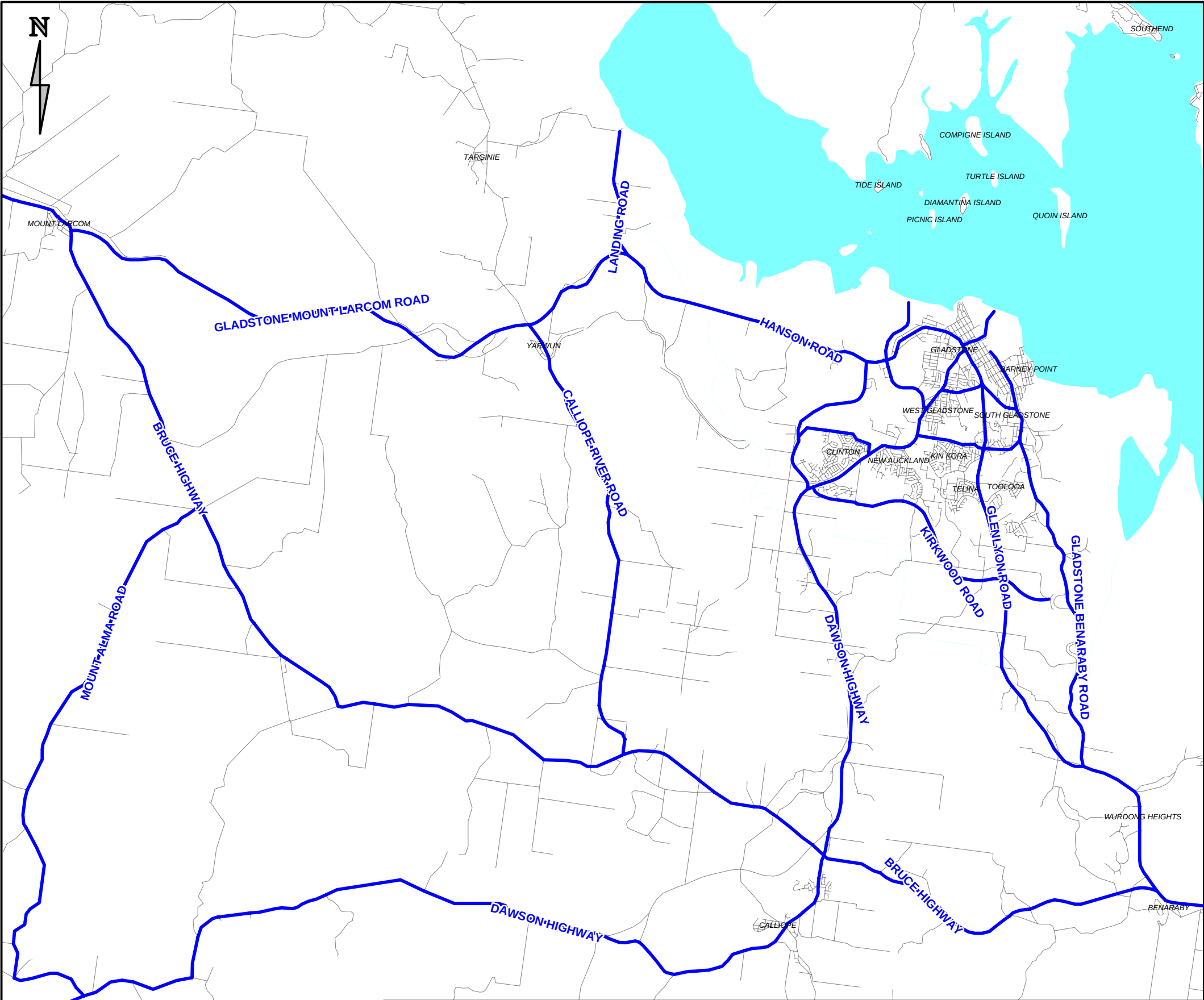
3.1.13 Dawson Highway/Breslin Street

Dawson Highway/Breslin Street runs east-west as Dawson Highway turns to Dawson Road in Gladstone and runs east to Toolooa Street. It has a posted speed limit of 60km/h. From Dawson Road to Boles Street it has a four-lane divided cross section with median breaks and turn-lanes, and kerb parking on the south side. Dawson Highway/Breslin Street has a two-lane undivided cross-section from Boles Street to Glenlyon Road, with a pedestrian footpath and wide paved shoulder along the north side. From Glenlyon Road to Lyons Street, it has a four-lane undivided cross-section. East of Lyons Street it generally has two lanes westbound and one lane eastbound to Toolooa Street.

A bus service is provided along Dawson Highway/Breslin Street, with kerb indents at some bus stop locations.

3.1.14 Toolooa Street

Toolooa Street is a Council controlled, four-lane paved roadway that generally runs north-south between Gladstone-Benaraby Road and Derby Street before becoming a two-lane road north through to Tank Street. Between Gladstone-Benaraby Road and Derby Street Toolooa Street is median divided with parking permitted along its western side between Roberts Street and Derby Street. It has a 60km/h posted speed limit.



Regional Roads

The following roads are expected to be primarily utilised by the CSG field development activities and the gas transmission pipeline construction components of the GLNG Project. These roads are illustrated on Figure 3.2.

3.1.15 Burnett Highway

Burnett Highway is a state controlled two-lane paved roadway that runs generally north-south from Dawson Highway at Biloela, meeting Leichhardt Highway at Dululu, and continuing north to meet the Bruce Highway near Rockhampton. It also continues south of Biloela into the South Burnett region. Burnett Highway has centre line marking and no shoulder lane marking or formed shoulder from Dawson Highway to Jambin. North of Jambin, it has shoulder lane markings and generally has a paved shoulder of varying width (up to 1m).

The speed limit on Burnett Highway is generally 100km/h, with a posted speed limit of 80km/h through Jambin and 60km/h through Dululu as it meets the Leichhardt Highway.

Burnett Highway is a designated haulage route for 23m and 25m B-Doubles.

3.1.16 Leichhardt Highway

Leichhardt Highway is a designated haulage route for Type 1 road trains, and 23m and 25m B-Doubles. It is a state controlled, paved, two-lane roadway with a posted speed limit of 100km/h. It runs between Goondiwindi on the Queensland/New South Wales border through to the Capricorn Highway west of Rockhampton.

3.1.17 Warrego Highway

Warrego Highway runs generally east-west beginning in Ipswich and running west through Toowoomba, Dalby, Miles and Roma and terminating at the Mitchell Highway in Charleville. It has a four-lane freeway cross section from Ipswich to Toowoomba with wide median separation and wide paved outside shoulders. All major crossroad and rail crossings are grade-separated. Further to the west, some crossroads intersect at-grade, but acceleration/deceleration lanes and wide median refuge areas are provided for turning vehicles.

West of Toowoomba, the Warrego Highway has a two-lane undivided cross section with periodic climbing/overtaking lanes. Paved shoulders and lane marking are provided.

The posted speed limit on the Warrego Highway is generally 100-110km/h west of Toowoomba. It is generally 60-70km/h through towns and cities where frontage access is allowed. The posted speed through Roma is 60km/h.

The Warrego Highway is a designated haulage route for Type 1 road trains, and 23m and 25m B-Doubles.

3.1.18 Fitzroy Developmental Road

The southern section of Fitzroy Development Road runs from the Leichhardt Highway, approximately 16km north of Taroom, through to the Dawson Highway, approximately 20km to the east of Bauhinia. The southern section runs in a north-south direction and is predominantly unsealed for its length. The northern section of the road runs from the Dawson Highway at Bauhinia through to the Capricorn Highway, to the west of Duaringa. Over half of this section of road is sealed with only the middle section unsealed.

3.1.19 Carnarvon Highway

Carnarvon Highway is a generally north-south highway running from Warrego Highway at Roma north to Dawson Highway at Rolleston. Carnarvon Highway is a two-lane roadway with wide shoulders and kerb parking through Roma. It continues south as a two-lane highway down to the New South Wales border at Mungindi before heading east to Garah.

3.1.20 Fairview Road

Fairview Road is a Roma Regional Council road that runs east-west from the Carnarvon Highway east into the Fairview CSG Fields. The first approximately 14km east of the Carnarvon Highway is unsealed, after which Fairview Road is sealed.

3.1.21 Arcadia Valley Road

Arcadia Valley Road is a Central Highlands Regional Council controlled road that runs between Dawson Highway east of Rolleston and Carnarvon Highway approximately 40km north of Injune. It is a local road of regional significance. For the majority of its length the road is a gravel formation with sealed sections (4-7m seal width) at its northern and southern ends only. It is signed that heavy vehicles should not use this road in wet weather. Arcadia Valley Road will likely be a primary local access route to serve traffic to the pipeline corridor, as it runs parallel with the proposed gas transmission pipeline right-of-way for approximately 100km.

3.1.22 Mulcahys Road

Mulcahys Road is a Central Highlands Regional Council controlled road that provides a connection between Arcadia Valley Road and Carnarvon Highway. It is a local road of regional significance. Mulcahys Road will serve as the primary access from Carnarvon Highway to the Arcadia gas fields as well as the first centralised worker accommodation and construction depot for the gas transmission pipeline. The road is a mixture of gravel and narrow seal (4m) construction.

3.1.23 Injune-Taroom Road

Injune-Taroom Road is a Council (Roma Regional Council and Banana Shire Council) controlled road that provides a connection between Injune and Taroom and provides access to existing and proposed CSG fields. It is a local road of regional significance. The road is sealed for approximately 30km from Injune, after which is unsealed.

3.2 Traffic Volumes

Baseline traffic count data was predominantly sourced from the Department of Main Roads (DMR), supplemented with data from previous traffic surveys undertaken by Austraffic in 2006. Traffic volumes were also obtained from the following local regional councils:

- Gladstone Regional Council;
- Banana Regional Council;
- Roma Regional Council;
- Central Highlands Regional Council.

Data provided by these Councils were predominantly AADT volumes, including heavy vehicle classification information. Existing daily traffic volumes are illustrated on Figure 3.3 below. Existing peak hour turning movement counts and daily roadway link volumes can be found at Appendix D.

Background traffic growth rates were discussed with DMR on 17 July 2008 and subsequently agreed that generally high growth rates would be applied to the traffic network to account for committed developments in the area. A linear growth rate of 6% per annum has been applied to the majority of the traffic network except in higher volume urban areas where a background growth rate of 4% per annum was adopted due to the higher existing levels of background traffic. These growth rates are consistent with those adopted in the Moura Link-Aldoga Rail Project and are higher than those adopted for the Gladstone Pacific Nickel Refinery and Wiggins Island Coal Terminal Projects.

3.3 Crash History

The latest five years of crash history data was obtained from Queensland Transport in the form of a map showing the crash locations. No information about type of crash or severity has been provided. Vehicle crash rates have been calculated for each state road section and are illustrated in ranges on Figure 3.4. Vehicle crash rates on road sections are reported in crashes per million vehicle-kilometres travelled per year.

The crash data could not be differentiated on the basis of mid-block and intersection crashes. Generally, crashes are more likely to occur at intersections due to the higher number of conflict points that occur. Therefore, the vehicle crash analysis undertaken may be biased towards sections of road that have a high number of intersecting roads. This is more likely to be the case in urban areas.

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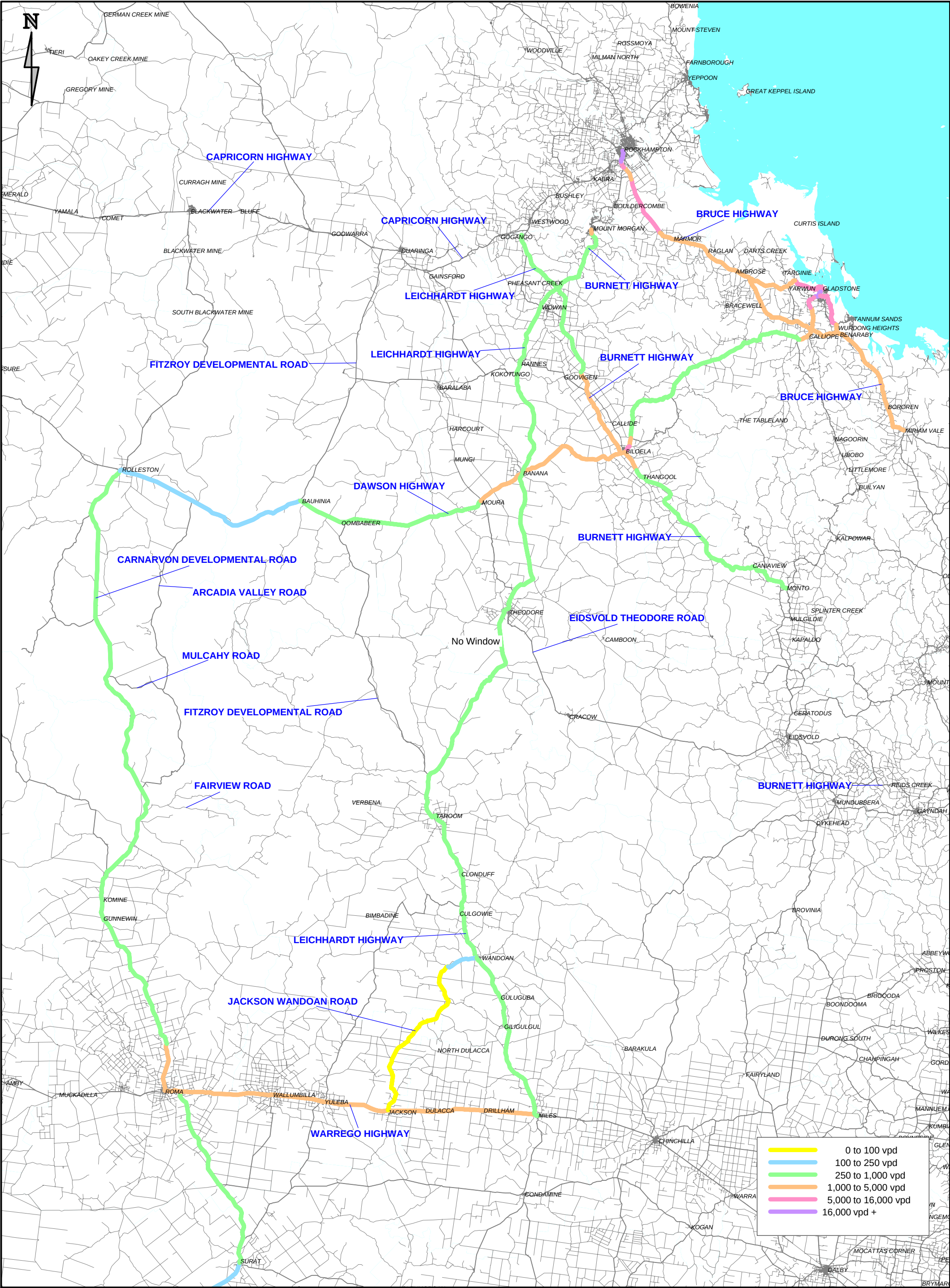
Nevertheless, there are some sections of rural road west of the Bruce Highway that appear to have a higher crash risk than others. These include:

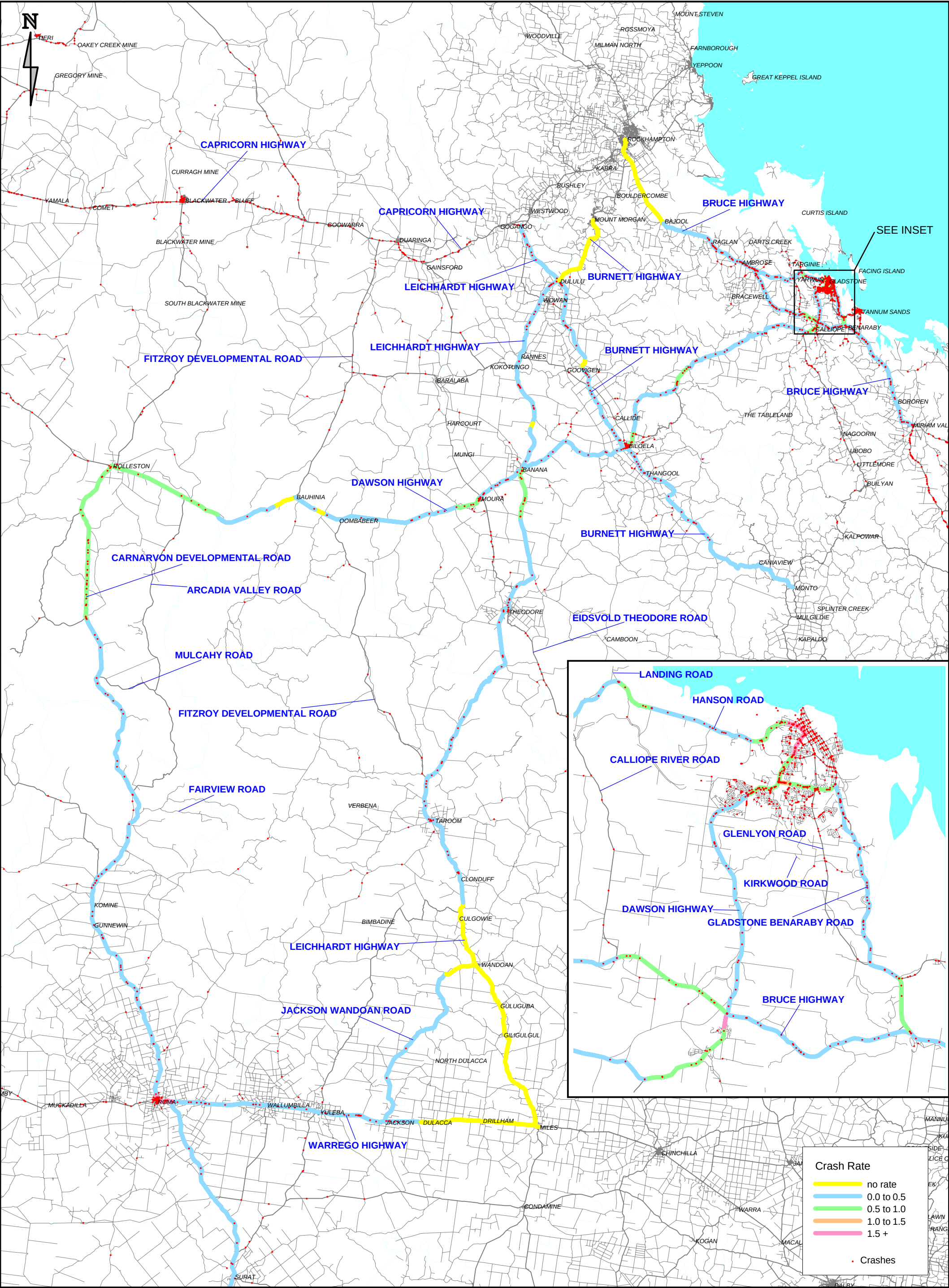
- Carnarvon Highway south of Rolleston;
- Dawson Highway east of Rolleston;
- Dawson Highway west of Moura;
- Leichardt Highway south of Banana;
- Dawson Highway between Biloela and Calliope (Calliope Range)

The information provided by Queensland Transport does not contain sufficient detail so crash types and possible crash causes can be determined. The above sections of road should be investigated further by DMR to determine possible crash trends and whether there are any road improvements that could be implemented to reduce the likelihood of crashes occurring. If any deficiencies are noted, then these are existing deficiencies and not attributed to development traffic.

For the purposes of traffic impact assessment within this report, all trips generated by the GLNG Project are conservatively assumed to be new trips. However, this does not necessarily mean the likelihood of crashes on the road network will increase in direct proportion, because in practice many of the development trips may divert from other parts of the road network.

A number of factors can contribute to a crash, including road environmental factors (e.g. road conditions), driver factors (e.g. fatigue) and vehicle factors (e.g. worn tyres). Thus it is important the road environment is made as safe as possible within the bounds of financial resource, but also that the developer has in place measures to check the safety of vehicles used on the contract works and train staff and contractors on safe driving practices.





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3.4 Future Traffic Network Planning

In order to determine future road related projects for the Gladstone area the following documents were reviewed:

- “Roads Implementation Program 2008-09 to 2012-13” produced by the Department of Main Roads;
- “Gladstone Integrated Regional Transport Plan: 2001 – 2030” produced by Queensland Transport; and
- DMR Statements of Intent for Link Development.

Key information from these documents is summarised herein.

3.4.1 Roads Implementation Program 2007-08 to 2011-12

The Roads Implementation Program 2008-09 to 2012-13 (RIP) details projects that have had funds allocated to them and the expected timing of these works. There are a number of projects detailed in the RIP that fall within the study road network, provided in Table 3.1 below.

Table 3.1

RIP Planned Works

Roadway	From	To	Planned Roadworks	Funding \$'000	Year(s)
Dawson Highway (Banana-Rolleston)	Maloneys Gully	Roundstone Creek	Rehabilitation and overlay work	12,800	2010/11 – 2012/13 & beyond
	Basalt Creek	Sunlight Road	Widened and sealed	7,209	2012/13
Dawson Highway (Gladstone-Biloela)	Calliope Range		Construction deviation	70,000	2008/09 – 2012/13
			Accelerated Road Rehabilitation Project	78,912	2007/08 – 2008/09
Gladstone-Mt Larcom Road			Delineation and line markings	1,300	2008/09 – 2009/10
	Glenlyon Street/Dawson Highway/Bramston Street		Intersection Improvements	100	2009/10
	Calliope River Road	Reid Road	Overtaking lanes constructed	2,324	2010/11 – 2012/13
	Wiggins Island Intersection	Reid Road	Rehabilitate pavement	1,227	2009/10 – 2010/11 to 2012/13
	Gibson Street	Blain Drive	Seal shoulders	600	2008/09
Glenlyon Road	Ferris Street	Derby Street	Asphalt resurfacing	240	2008/09
Don Young Drive	Dawson Highway north		Asphalt resurfacing	300	2009/10

Table 3.1 continued...
RIP Planned Works

Roadway	From	To	Planned Roadworks	Funding \$'000	Year(s)
Mulcahys Road	6.0km	10.7km	Pave and seal	407	2008/09
Carnarvon Highway (Injune-Rolleston)	At deep channel		Culvert installed	1,080	2008/09
	Bullaroo Creek section		Roadway formed and improved drainage	100	2008/09
	68.50km	77.10km	Reconstruct pavement	5,596	2008/09 – 2012/13
	60.20km	68.50km	Widen pavement	5,461	2010/11 – 2012/13 & beyond
	0.60km	21.10km	Widen pavement	9,493	2007/08 - 2008/09
	21.10km	42.20km	Widen and seal	11,068	2008/09 – 2012/13
Carnarvon Highway (Roma-Injune)	0.00km	90.35km	Roadside signing	50	2008/09
	0.00km	90.35km	Hazards close to road	1,600	2008/09 - 2009/10
	Quentin Street/Bowen Street		Intersection improvements	150	2007/08 – 2008/09
	McDowall Street		Install traffic signals	300	2007/08 – 2008/09
Arcadia Valley Road			Rehabilitation	220	2010/11
Roma-Taroom Road	0.00km	64.90km	Pave and seal	12,163	2008/09 – 2009/10
Roma-Taroom Road	42.37km	64.75km	Pave and seal	562	2008/09
Injune-Taroom Road	5km	15km	Rehabilitate Pavement	430	2012/13

Significant funding has been allocated for the Carnarvon Highway (pavement and drainage works totalling \$34,898,000) and the Dawson Highway (Calliope Range deviation totalling \$70,000,000).

3.4.2 Gladstone Integrated Regional Transport Plan: 2001 – 2030

The Gladstone Integrated Regional Transport Plan (GIRTP) was developed in 2001 in conjunction with a number of government bodies and private organisations that have an interest in the greater Gladstone area. The GIRTP includes four components which are the vision, guiding principles, planning assumptions and action plans and covers a range of transport related areas including rail network, road network, passenger and public transport and walking and cycling.

The GIRTP Road Study was undertaken in 2001/02 to assist DMR, Gladstone City and Calliope Shire Councils to respond to future growth and the resulting impact upon the road network. A planning model was used to identify areas in the road network where future development could adversely impact upon traffic operations and to also identify where new links may be required. Road infrastructure requirements for increases in population as a result of development were also assessed and identified.

Major findings of the GIRTP Road Study included:

- provide the required road connection/s into the Aldoga precinct from Gladstone-Mount Larcom Road;
- provide supporting Port infrastructure (i.e. dredging, wharf development, reclamation) and infrastructure for corridor development to Aldoga and Yarwun precincts;
- extension of Landing Road on strategic port land to serve Fisherman's Landing Wharf;
- provide capital works, including wharves, stockpiles, dredging, conveyors etc, at Gladstone Port in accordance with the Gladstone Ports Corporation Strategic Plan including at Fisherman's Landing Wharf;
- duplication of Hanson Road *Stage Two*:
 - Power station access to Gladstone-Mount Larcom Road intersection;
 - Gladstone- Mount Larcom Road/Landing Road intersection to Aldoga precinct;
- upgrade of Landing Road *Stage One*:
 - widen and strengthen Gladstone-Mount Larcom Road to QCL
- upgrade of Landing Road *Stage Two*:
 - widen and strengthen QCL to Forest Road;
- upgrade of Calliope-Targinie Road *Stage One*:
 - upgrade to two-lane bitumen standard;
- upgrade of Calliope-Targinie Road *Stage Two*:
 - upgrade and overlay strengthening to meet industrial traffic demand;
- Gladstone–Mount Larcom Road overtaking lanes;
- development proposed for the Gladstone State Development Area will result in significant upgrades to the network based upon threshold criteria;
- the Dawson Highway south-west of Philip Street requires upgrading in the near future;

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- sections of the Dawson Highway, Blain Drive and Hanson Road will require upgrading as a result of the proposed development of the Gladstone State Development Area;
- the upgrading of Gladstone–Mount Larcom Road will need to be in stages;
- the existing Gladstone–Benaraby Road between Kirkwood Road and Ten Mile Creek will require upgrading from two to four lanes in the long-term.

Other proposed road upgrades for the greater Gladstone area include:

- construction of a new access road between the Bruce Highway (south of the intersection with Gladstone–Mount Larcom Road) and the Aldoga Industrial Estate;
- Calliope River Road may be designated as a Hazardous Goods Route between the Bruce Highway and Gladstone–Mount Larcom Road;
- Philip Street to be widened to four lanes between the Dawson Highway and Glenlyon Road.

The Recommended Capital Road Program (Road Network) included in the GIRTP identifies a need to duplicate Hanson Road in medium term. It is noted that the timing of these works is dependent on future industrial development in the area and funding has not been allocated.

The GIRTP also considers upgrading Dawson Highway between Chapman Drive and Kirkwood Road to four lanes in the long term.

3.4.3 DMR Statements of Intent for Link Development

Statements of Intent (SOI) were provided for some sub-links of the SCR network within the GLNG Project area, including sections of Carnarvon Highway, Dawson Highway, Burnett Highway, Gladstone–Mount Larcom Road and Bruce Highway. These SOI's were used to inform assessment of GLNG impacts on them as well as determine acceptable solutions based on existing planning pressures and DMR vision for the roadways.

3.5 Existing Rail Network

The following rail lines currently exist through the proposed project area, with information sourced from Queensland Rail (QR).

3.5.1 North Coast Line (south)

The North Coast Line System (South) incorporates two other systems, the Blackwater System (between Rocklands and Gladstone) and the Brisbane Metropolitan System (between Roma Street and Nambour). The Maryborough System straddles the North Coast System and picks all branch lines in that vicinity.

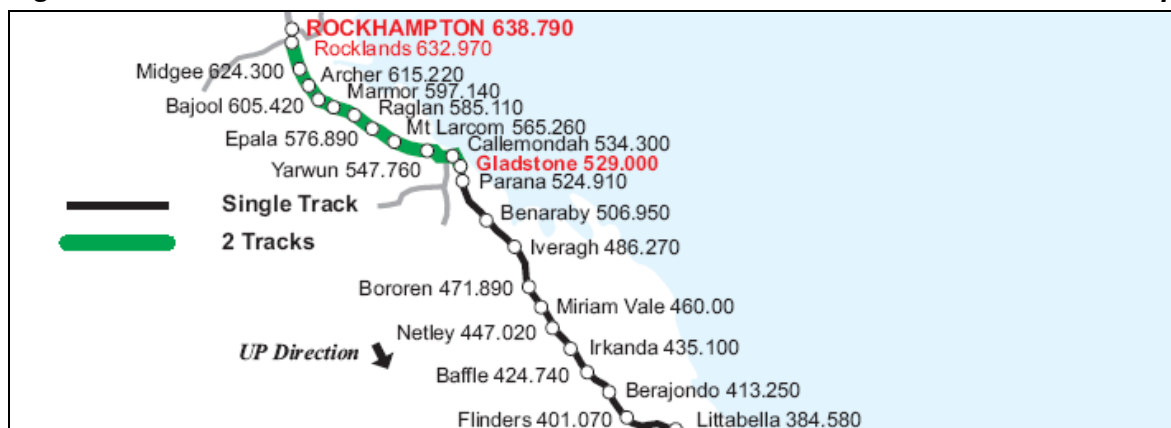
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The system, overall, caters for all traffic tasks from heavy haul block trains to high speed tilt train and commuter services. Figure 3.5 illustrates the North Coast System.

This single line section of track (425km in length) provides the strategic link between North and South and sees an annual tonnage in excess of 8 million tonnes hauled over the corridor. The entire length between Roma Street in Brisbane and Rockhampton is electrified with the section Caboolture to Rocklands electrified by an autotransformer system.

Figure 3.5

North Coast Rail Line Map



Source: Queensland Rail

3.5.2 Moura Line

The Moura System services the industrial and rural communities of the Dawson and Callide Valleys in Central Queensland with all trains being hauled by diesel electric locomotives. Product is hauled to the export facilities at Golding (RG Tanna Terminal), Auckland Point and Barney Point or to intrastate destinations via the North Coast Line.

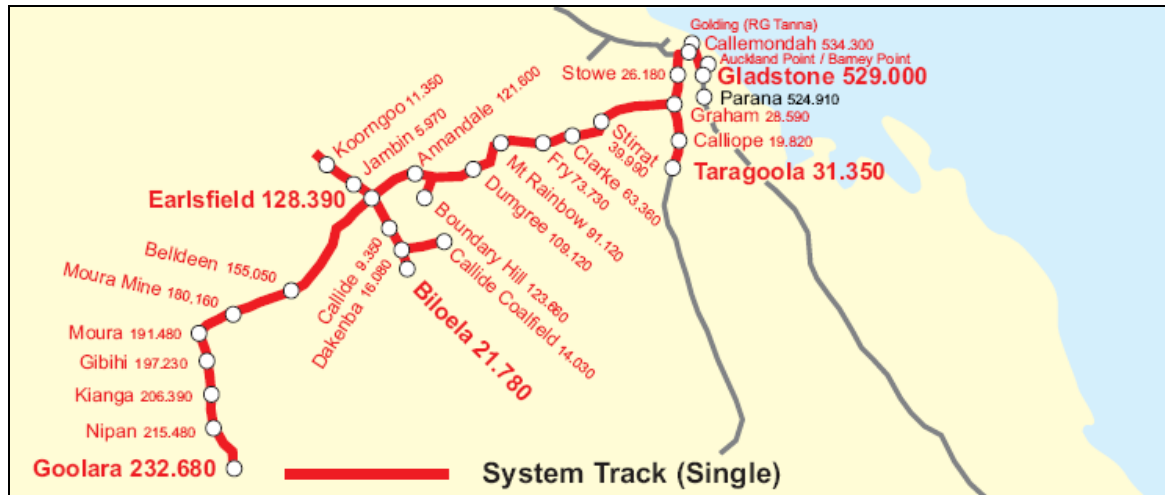
The Moura System is single line with passing loops. There are balloon loops at Boundary Hill, Callide Coalfields and Moura Mine. Figure 3.6 illustrates the Moura rail system.

Trains destined for Golding or the Powerhouse travel via the Byellee flyover, through Callemondah Yard which is part of the Blackwater System and therefore under live overhead wires. Trains destined for Barney Point and Auckland Point travel via the Moura Short Line which is electrified as are Barney Point and Auckland Point.

The port facilities at Golding, Auckland Point and Barney Point are under the control of the Central Queensland Ports Corporation.

Figure 3.6

Moura Rail System Map



Source: Queensland Rail

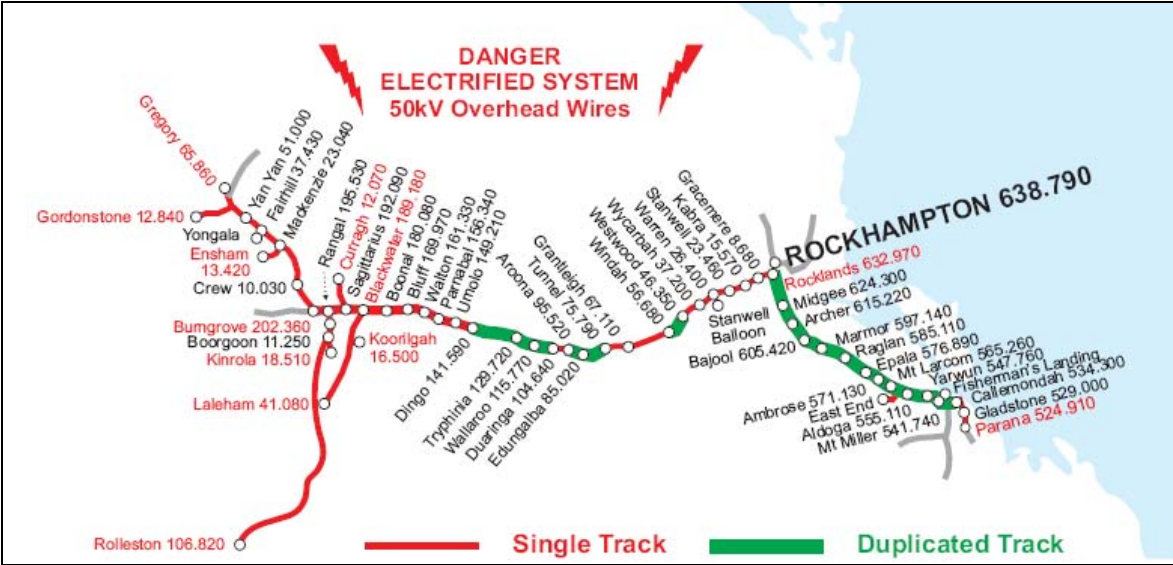
3.5.3 Blackwater System

The system primarily services coal mines off the Central rail line and carries the product through to Stanwell Power Station, Gladstone Power Station and the Port of Gladstone via the North Coast Line.

The Blackwater System is bi-directional duplicated track with crossovers between Callemondah and Rocklands, between Westwood and Windah, between Tunnel and Aroona and between Duaringa and Wallaroo, with the remainder being single line.

Loading balloon loops are located at East End, Boonal, Koorilgah, Laleham, Curragh, Boorgoon, Kinrola, Ensham, Gordonstone and Gregory with a spur line at Fairhill for Yongala. Dual unloading balloons are located at Golding, with unloading balloons at Stanwell Powerhouse, Fishermans Landing, Gladstone Powerhouse, Auckland Point and Barney Point. The Blackwater System is illustrated on Figure 3.7.

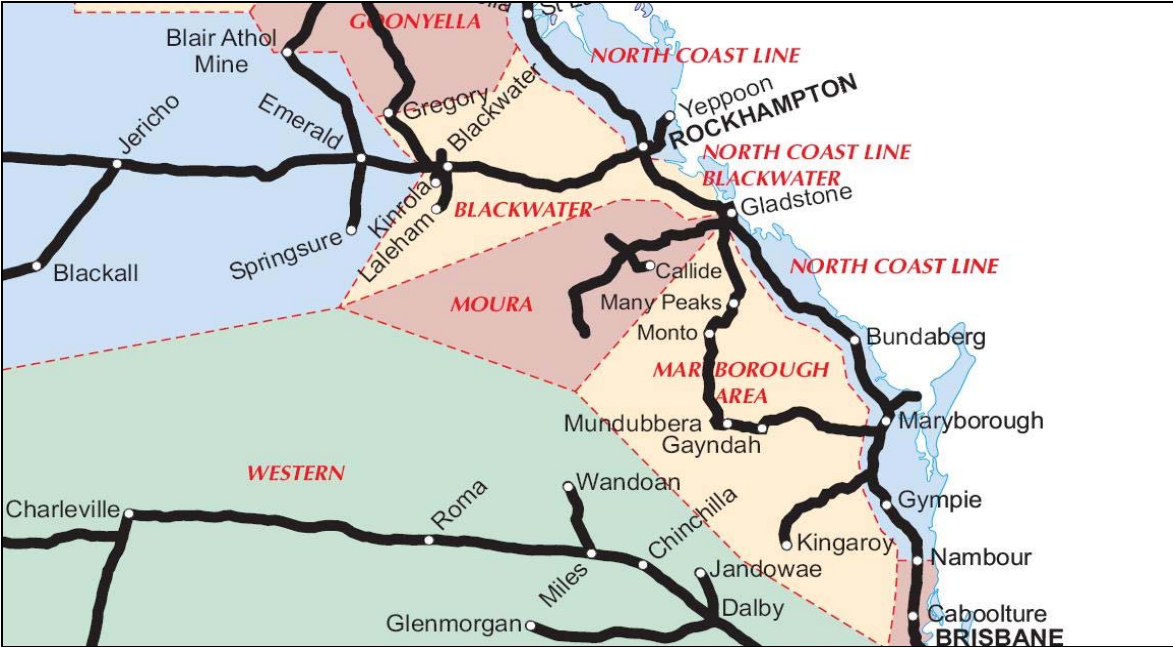
Figure 3.7 **Blackwater Rail System Map**



Source: Queensland Rail

Figure 3.8 illustrates the rail network in the overall GLNG study area and Figure 3.9 illustrates the interaction of the Blackwater, Moura and North Coast Lines within Gladstone.

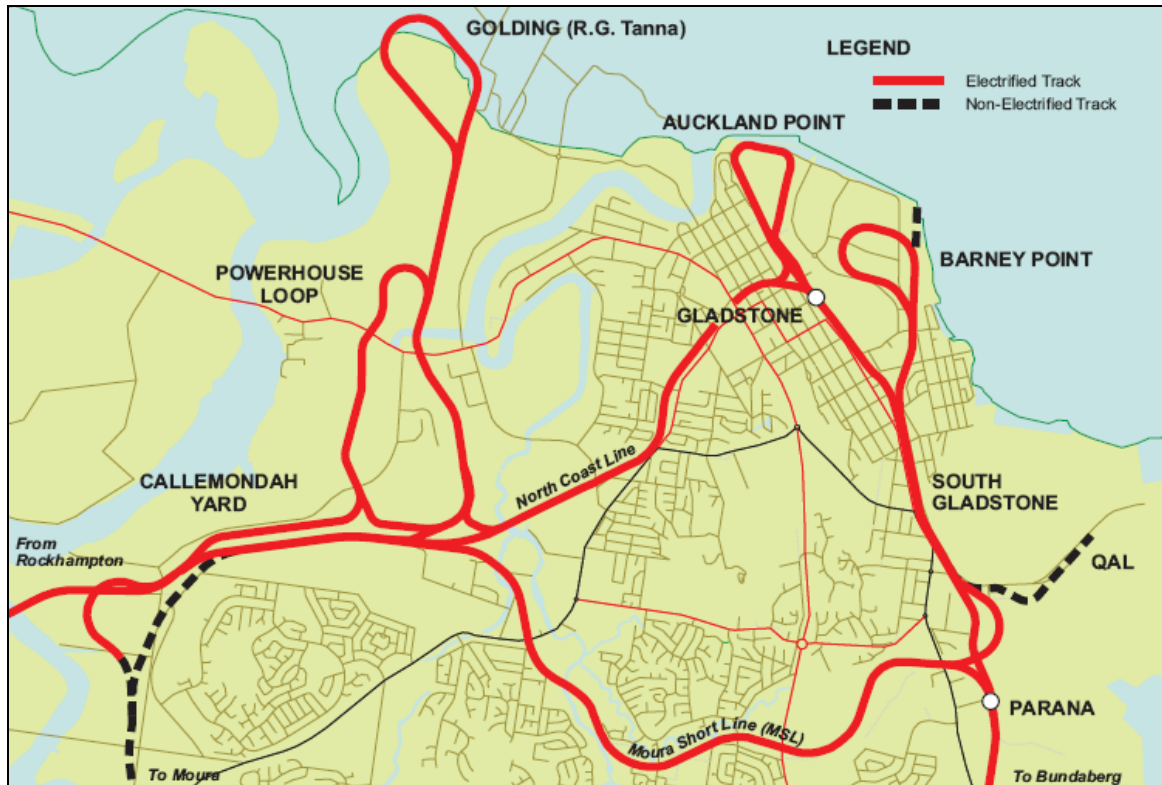
Figure 3.8 **Study Area Rail System Map**



Source: Queensland Rail

Figure 3.9

Gladstone Rail Network Map



3.6 Future Rail Network Planning

Rail network planning items identified in the GIRTP include:

- provide the required rail connection/s into the Aldoga precinct from the North Coast Rail Line, as required as industry develops;
- investigate a future rail fork line connection from the Moura Line to the North Coast Line;
- investigate future rail access from the existing QCL line to Fishermans Landing Wharf;
- consider the impact of any future standard gauge/high speed rail link to Gladstone on rail corridor planning in the region (i.e. the impact on existing rail corridors or the need for a new rail corridor);
- investigate the potential for an additional future rail connection from the North Coast line to the proposed spur line into Aldoga precinct.

3.7 Pedestrian/Cycle Network Planning

The Gladstone City Council *Walk-Cycle Network Improvement Plan*, dated June 2006, has been reviewed and provides the following recommendations:

- update the current network plan;
- prioritise and cost future network improvements and expansion suggestions;
- establish an annual budget of a minimum of \$50,000 to undertake priority improvements and support the development of relevant partnerships, promotional and awareness raising strategies.

The *Walk-Cycle Network Improvement Plan* recommends that network expansion focus on:

- completing the missing gaps along high use and major connector routes;
- linking of non-connected communities;
- improving safe connections to major places of employment;
- linking key destination points and trip generators (e.g. schools and major parks);
- addressing the needs of various user groups (e.g. road cyclists, runners, recreational riders);
- includes recommendations for specific improvements to existing pedestrian and cycle facilities around Gladstone.

3.8 Cumulative Impacts of Regionally Significant Projects

A review of the Department of Infrastructure and Planning website was undertaken to determine if any other regionally significant projects within the GLNG Project may contribute to the future levels of background traffic to be added to the road network. The following projects being planned in the vicinity of the proposed GLNG Project were identified (as of 2 December 2008):

- Gladstone LNG Project – Fisherman's Landing (LNG Limited/Arrow Energy project);
- Yarwun Alumina Refinery Expansion;
- Aldoga Aluminium Smelter Project;
- Central Queensland Gas Pipeline;
- Fisherman's Landing Port Expansion;
- Gladstone Pacific Nickel Refinery Project;
- Gladstone-Fitzroy Pipeline Project;
- Moura Link-Aldoga Rail Project;
- Queensland Curtis LNG Project;
- Wiggins Island Coal Terminal Project.

3.8.1 Quantitative Review of Projects

A review of the available information and planning stage for each project as well as the useability of the information for this study was undertaken. Only the following projects had information publicly available that was in a form to be readily included in the quantitative assessment of the GLNG Project:

- Gladstone Pacific Nickel Refinery Project;
- Moura Link-Aldoga Rail Project;
- Wiggins Island Coal Terminal Project.

Traffic added by the other projects is accounted for in the background growth rates presented above.

Key information from the Gladstone Pacific Nickel Refinery Project, Moura Link-Aldoga Rail Project and Wiggins Island Coal Terminal Project is included at Appendix E.

3.8.2 Qualitative Review of Projects

A qualitative review of the recommendations for each project was undertaken to provide context and maintain consistency with the recommendations of this assessment. The relevant findings and recommendations available for each project are summarised below.

Gladstone LNG Project - LNG Limited/Arrow Energy

A Traffic Assessment Report, dated 16 September 2008, for the LNG Limited/Arrow Energy Project became available during the preparation of this assessment, though the information included in the report was inadequate to include in the traffic modelling for this assessment.

No recommendations for mitigation measures were proposed in the Traffic Assessment Report for the project.

Yarwun Alumina Refinery Expansion

No information was publically available at the time of the review.

Aldoga Aluminium Smelter Project

The Coordinator-General's EIS Evaluation Report, published February 2003, recommended that the Aldoga Aluminium Smelter Project proponent enter into infrastructure arrangements covering the supply, funding and use of the infrastructure listed below insofar as, and to the extent that there is a demonstrated impact of the Project on that infrastructure or a requirement for the infrastructure is generated by the Project:

- Roads:
 - upgrade of Calliope River Road and intersections

GLNG Project –Traffic Report

- construction of Don Young Drive Rail overpass
- upgrade of Hansen Road/Port Curtis Way intersection
- upgrade of Landing Road
- Rail:
 - design and construction of Aldoga Rail Loop (including signalling)
 - design and construction of AAS Rail Siding
 - design and construction of Fishermans Landing Loading Spur
 - design and construction of Comalco Alumina Refinery Alumina Loading Facility
 - design and construction of Queensland Alumina Limited Alumina Loading Facility
 - design and construction of Auckland Point Rail System (including signalling)
 - New Rolling Stock

Central Queensland Gas Pipeline

No assessment of traffic impacts had been undertaken at the time of publication of the Coordinator-General's Report, dated October 2007.

Fisherman's Landing Port Expansion

At the time of review no traffic impact assessment had been undertaken, as the project is still active in the EIS process.

Gladstone Pacific Nickel Refinery Project

The trip generation for the Gladstone Pacific Nickel Refinery Project (GPNL) was available for inclusion as background traffic in the GLNG traffic impact assessment. The Coordinator-General's Report, dated January 2009, became available during the preparation of this assessment. Relevant conditions of the GPNL project for road impacts are summarised below:

- GPNL must provide DMR a contribution equivalent to 26% of the cost of upgrading the Hanson Rd/Reid Rd intersection to a single-circulating lane roundabout standard, in accordance with DMR's 'Road Planning and Design Manual' before commencement of construction of the GNP;
- GPNL must provide DMR a contribution equivalent to 42% of the cost of upgrading the Hanson Road/Blain Drive/Alf O'Rourke Drive intersection to a dual circulating lane roundabout standard, in accordance with DMR's 'Road Planning and Design Manual' before commencement of construction of the GNP;
- GPNL must provide DMR a contribution equivalent to a maximum of 18% of the cost of upgrading the Dawson Highway/Blain Drive/Herberton Street intersection to a signalised dual-circulating lane roundabout standard, in accordance with DMR's 'Road Planning and Design Manual' before commencement of construction of the GNP. The exact contribution will be negotiated between GPNL and DMR prior to the commencement of any construction.

Gladstone-Fitzroy Pipeline Project

The EIS document was publically available for the Gladstone-Fitzroy Pipeline Project at the time of review. The transport chapter of the EIS proposes road/intersection improvements at the following locations:

- Laurel Banks Road – The first 2.3 km section is proposed to be widened to a similar standard as the remaining wider section to Ski Gardens Road. This would allow opposing vehicles to pass each other without pulling over onto the gravel shoulder;
- Laurel Banks Road / Rockhampton Ridgeland Road intersection – upgrading to a BAR (Basic Right Turn) treatment is proposed. During this phase a traffic management plan will need to be implemented, which would require a reduction in the speed limit to 80 km/h, advanced heavy vehicle turning warning signs, and general access construction warning signs;
- Rockhampton Ridgeland Road – The newly formed direct access for the Alton Downs WTP which is proposed to be constructed will require a BAR treatment to be implemented.

None of these proposed mitigations are relevant to the GLNG Project outcomes.

Moura Link-Aldoga Rail Project

The trip generation for the Moura Link-Aldoga Rail Project was available for inclusion as background traffic in the GLNG traffic impact assessment. The EIS document was also publically available for the Moura Link-Aldoga Rail Project at the time of review. The transport chapter of the EIS proposes road/intersection improvements at the following locations:

- Gladstone-Mount Larcom Road/Calliope River Road/Targinie Road intersection – requires lane upgrades due to development.

Queensland Curtis LNG Project

At the time of review no traffic impact assessment had been undertaken, as the project is still active in the EIS process.

Wiggins Island Coal Terminal Project

The trip generation for the Wiggins Island Coal Terminal Project (WICT) was available for inclusion as background traffic in the GLNG traffic impact assessment. The Coordinator-General's Report, dated January 2008, was also available during the preparation of this assessment. Relevant conditions of the GPNL project for road impacts are summarised below:

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- provide at no cost to the Department of Main Roads an 'at grade' T-intersection - Seagull type with Hanson Road for access to/from the development site;
- Hanson Road/Red Rover Road intersection – Contribute to upgrade to two-lane roundabout, with two-lane entries on Hanson Road;
- Hanson Road/Blain Drive/Alf O'Rourke Drive – Contribute to upgrade to two-lane roundabout, with two-lane entries on all approaches;
- Hanson Road/Reid Road – Contribute to potential intersection upgrades, depending on level of adjacent development.

4.0 PROPOSED DEVELOPMENT

4.1 Site 1 – Coal Seam Gas Fields

To meet the additional demand that will be created by the GLNG Project, the existing coal seam gas field development will need to be expanded. It is this expanded field development that is the subject of this traffic impact assessment.

The expansion will include further development of the existing CSG fields at Fairview and Roma as well as development of Santos' exploration field at Arcadia Valley. These three fields are planned to be developed in the reasonably foreseeable future. In addition, the GLNG Project may require the future development of the Mahalo, Denison, Comet Ridge, Scotia, Roma (other) and Eastern Surat Basin appraisal fields. The locations of these fields (collectively called the CSG fields) are shown above on Figure 2.1 (also refer to Section 3 of the EIS document (Project Description)).

The expansion of the CSG fields will occur at a steady rate over the next 25+ years. It will consist of an ongoing program of well development and associated infrastructure. This will cause the ongoing addition of project traffic throughout the 23,000sq.m CSG field. While the nature and location of the development required in the next few years (the reasonable foreseeable future) has been planned, details of the location and nature of the development required further into the future will not be known until further exploration work is undertaken.

Due to the gradual developing nature of the CSG fields, the nature and location of all of the facilities and associated infrastructure required for the GLNG Project are not currently known and will be developed over time. Table 4.1 summarises the currently expected CSG well development activity within the Roma, Fairview and Arcadia Valley fields over the life of the project. However, this is subject to change as more detailed exploration and planning is undertaken.

This traffic impact assessment only takes into consideration the currently planned CSG fields in the Roma, Fairview and Arcadia Valley areas as presented in Table 4.1. Furthermore, it does not include any information about the future development of the Mahalo, Denison, Comet Ridge, Scotia, Roma (other) and Eastern Surat Basin fields as this work is yet to be undertaken. However, in accordance with Santos' proposed two-phased approach to CSG field impact assessment (refer to the EIS section on CSG field "Overview of Assessment Methodology" for further details) more targeted traffic impact assessment studies will be undertaken for these fields when the extent of development is more accurately defined.

Table 4.1 Coal Seam Gas Field Development Summary

Activity	Location	Years				
		2010-2014	2015-2019	2020-2024	2025-2029	2030-2034
Wells Drilled (number)	Roma	386	336	336	206	36
	Fairview	325	198	121	0	0
	Arcadia Valley	137	121	133	0	0
Total		848	655	590	206	36

The three key CSG field development phases are described below:

- exploration: The exploration phase involves drilling vertical core-holes to collect solid coal and rock cores for testing;
- pilot testing: If the exploration phase indicates sufficient gas may be available, pilot testing will be carried out. This would typically comprise drilling a pattern of up to five wells, spaced at up to 1km apart. Water is pumped from the coal seams and both the water and gas are extracted and tested;
- production: If exploration and testing leads to a commercial operation, additional wells are drilled to extract water and gas. The distance between wells varies depending on the project, but they are typically 1-2km apart. The wells are connected by underground gas and water pipelines to a central compressor station.

Once the gas reaches the surface, water is separated at the wells and the gas is pumped to a central compressor station through a network of buried pipes. Approximately 4,000km of gathering pipes will be required for the 2,600 proposed production wells. Similar to the gas gathering pipes, a network of water gathering pipelines will be used to convey the associated water to the appropriate water management facility.

The compressor station support infrastructure may include, but is not limited to: petroleum fuel tanks, electricity generators, satellite stations, administration buildings, workshops, workers accommodation and storage. The size and number of compressor facilities will depend on the nature of the reservoir, the volume and nature of produced fluids, and the export option selected.

Gas will then be pressurised by the compressor station facilities to the GLNG facility via the proposed gas transmission pipeline.

Refer to Chapter 3 (Project Description) of the EIS for further details on the CSG field development program.

4.1.1 Construction Staff

A summary of the approximate number of construction workforce required for the CSG field area over the life of the project has been provided by Santos and is presented in Table 4.2 below. The construction workforce has been divided into the three main construction activities as follows:

- compressor station construction;
- drilling and completions; and
- other construction: includes construction of temporary accommodation facilities, water management facilities, in-field pipelines, and other associated infrastructure.

It is expected the construction workforce will work 11 hours per day, 7 days per week with construction activities occurring 52 weeks per year. Construction personnel are expected to be on a fly-in/fly-out basis with a 14-day on, 14-day off work schedule and will stay in field accommodation facilities while on site. At the beginning and end of the two week roster, the field employees will fly in/out of Roma to/from their place of origin. Based on this, only approximately half the total workforce shown in Table 4.2 will be on site at any given time.

Table 4.2 Coal Seam Gas Field Construction Workforce

Area	2010	2011	2012	2013	2014	Beyond 2014
Compressor Construction	20	50	60	20	15	0
Drilling	266	180	200	80	130	153
Other Field Construction	500	700	700	700	600	31

4.1.2 Operation Staff

Table 4.3 summarises the approximate number of operational workforce required for the CSG field over the life of the project. Estimates every five years are provided beyond 2014 due to the uncertainty of development plans and the associated workforce numbers.

It is expected the operations workforce will work 11 hours per day, 7 days per week with operations activities occurring 52 weeks per year. Field operations personnel will be on a fly-in/fly-out basis with a 14-day on, 14-day off work schedule. The field operational workers will live in a number of on-site accommodation facilities, generally the same accommodation facilities that will be used by the exploration, drilling and construction workforce. At the end of their two-week rosters the field employees will fly-out to their places of origin (unless locally based).

Based on the above only approximately half the total workforce will be on site at any given time. Operations personnel working in the Roma Centre are expected to live in the town of Roma and work Monday through Friday, 48 weeks per year.

Table 4.3 Coal Seam Gas Field Operations Workforce

Year	Roma Centre Office	Roma CSG Field	Fairview CSG Field	Arcadia Valley CSG Field	Total
2010 to 2014					
2010	29	62	137	20	248
2011	39	123	198	27	387
2012	45	185	258	19	507
2013	53	245	320	62	680
2014	57	245	320	62	684
Beyond 2014					
2019	59	252	335	82	728
2024	60	260	344	99	763
2029	62	266	339	99	766
2034	62	270	339	99	770

4.1.3 Construction Deliveries

In addition to personnel movements, traffic movements associated with the CSG field construction phase will include deliveries of construction equipment and materials and drilling rig movements. Deliveries associated with construction will include equipment and materials for construction of access roads, fencing, well drilling sites, pipelines, and compressor stations, water management facilities and accommodation facilities. Material and equipment delivered to the CSG fields is expected to be sourced from Brisbane. The total traffic movements estimated for the construction of each proposed well site are presented in Table 4.4.

It is expected that almost all movements for construction deliveries and setup will be heavy vehicles, with the exception that half the miscellaneous trips are estimated to be light vehicles.

Table 4.4 CSG Well Construction Traffic Movements

Activity/Material	Deliveries per well
Potable Water	2
Waste	1
Fuel	2
Well Water	3
Equipment	5
Pipe	10
Miscellaneous (50% heavy, 50% light vehicles)	3
Total	26

4.1.4 Operation Deliveries

It is not anticipated that a significant amount of goods will be transported to the CSG fields after the completion of construction of well sites, unless required for more significant repair or maintenance work. A nominal number of operations traffic movements per year not related to personnel transport have been included in the assessment. It is expected that approximately half of these movements will be heavy vehicle, and half light vehicles.

4.1.5 Traffic Movement Patterns

Personnel

As described above, construction and operational activities associated with the CSG fields are expected to take place seven days a week for 52 weeks of the year. CSG field construction and operations personnel are expected to work a 14-day on, 14-day off work cycle on a fly-in/fly-out basis. Each worker is assumed to fly into Roma once, travel to the worker accommodations by bus (assumed 20 passengers per bus) and work in the CSG fields for 14 days before flying out of Roma for 14 days off. This assessment estimates that rolling shift changes will occur once every two weeks, with half occurring during the combined peak hours (morning and afternoon) of project traffic generation.

Once on site, field personnel will travel by four-wheel-drive vehicle from the accommodations through the CSG field area. Most of the movements of personnel on a daily basis are expected to occur within the field access tracks and local roads. Since personnel working in the Roma Centre will also be living in Roma, it is expected that these personnel will be travelling to and from the Roma Centre once a day, Monday through Friday in private vehicles.

The traffic movement patterns described above have been adopted for personnel working in both the construction and operational phases of the CSG field development. These assumptions create a robust assessment scenario by assuming that personnel travel will be concentrated on specific days, with the assessment considering these days and their peak travel periods.

Deliveries

Deliveries of supplies, equipment, and materials to the CSG field construction areas have been assumed to occur twice a week. Thus, by concentrating deliveries to two days per week instead of splitting evenly across the week, a more robust assessment scenario has been assessed. Because deliveries are likely to be spread throughout the day, this assessment estimates that approximately 10% of construction deliveries will occur during each of the morning and afternoon peak hours.

4.1.6 Traffic Generation

The overall traffic generation has been estimated for the CSG field construction and operational phase activities based on the information presented above for the construction and operations workforce, traffic movements and movement patterns.

Annual, daily and peak hour trip generation has been estimated, to be used in the subsequent analysis of intersections, roadway segments and pavement impacts contained in this report. Summary tables of the expected traffic generation of each project component for each year of the project are contained at Appendix F.

4.1.7 Traffic Distribution

The distribution and assignment of traffic generated by the CSG fields to the roadway network has been determined from the traffic movement patterns above as well as likely sources and destinations for materials and equipment. The general origin and route for traffic associated with the CSG fields is presented in Table 4.5 below. Figure 2.1 above provides illustration of locations and access routes of the fields.

Table 4.5

CSG Field Traffic Distribution

Traffic Component	Origin	Route
Material/Equipment Delivery	Brisbane	Along Warrego Highway to field accesses along Warrego Highway and Carnarvon Highway
Personnel – Roma Centre	Live in Roma	Distributed around Roma to Centre at 39 Curry Street
Personnel – Roma Fields	Roma	To field accesses along Warrego Highway and Carnarvon Highway
Personnel – Fairview Fields	Roma	Carnarvon Highway to field accesses at Injune-Taroom Road and Fairview Road
Personnel – Arcadia Valley Fields	Roma	Carnarvon Highway to field access at Arcadia Valley Road and Mulcahys Road

4.2 Site 2 – Gas Transmission Pipeline Corridor

A gas transmission pipeline is proposed to carry gas from the CSG development fields to the LNG liquefaction and export facility on Curtis Island. The pipeline route is shown above in Figure 2.2. The proposed route for the gas transmission pipeline is closely aligned with the existing Queensland Gas Pipeline with the exception of the section north of Injune where the preferred route is aligned along the eastern side of the Arcadia Valley. The length of the gas transmission pipeline route is approximately 435km.

A summary of the typical pipeline construction procedures and activities is provided below.

- survey of the pipeline route;
- provision of access tracks and temporary facilities;
- clear and grade;
- trenching;
- pipe stringing and bending;
- pipe welding;
- placement of pipe bedding material;
- pipe placement in the trench (lowering in and laying);
- hydro-testing for strength and leaks;
- rehabilitation of construction areas.

The gas transmission pipeline will most likely be operated from the LNG facility on Curtis Island. Minimal operator supervision will be required once pumping commences. Pipeline systems will be designed to operate with a minimum of operator attention using programmable logic control devices for system sequencing, alarm monitoring and analogue control.

A routine operation and maintenance program will be implemented, which will include:

- leak detection surveys;
- ground and/or aerial patrols;
- repair or replacement of faulty pipe or other equipment;
- pigging and cleaning of the pipeline;
- corrosion monitoring and remediation;
- easement maintenance.

More significant maintenance activities, such as dig-ups to address coating defects, are less likely to be required. These activities will be undertaken by contractors as needed.

Refer to Chapter 3 (Project Description) of the EIS for further details on the gas transmission pipeline development program.

4.2.1 Construction Staff

An on-site construction workforce of approximately 1,500 personnel is anticipated during the peak of construction of the pipeline. Construction workforce will work four weeks on with four weeks off and rostered in such a way that only approximately half the total workforce (1,500) will be on site at any given time. This is considered to be a very conservative estimate of on-site workforce employed by the pipeline component of the GLNG Project at the peak of pipeline construction.

Due to the mainly rural nature of the region and the limited townships along the proposed gas transmission pipeline route, accommodation is not readily available and dedicated workers accommodation facilities will be required. It is anticipated that there will be 3-4 main workers accommodation facility locations, with only two operating at any given time (approximately 500 personnel each). This assessment has assumed and assessed three locations for main workers accommodations.

Three to four “satellite” workers accommodation facility locations will also be utilised, spaced between the main facilities and at either end of the pipeline corridor. Only one of these satellite accommodation facilities will be utilised at any given time (approximately 400 personnel). The workforce is expected to move between the accommodation facilities, starting at the Gladstone end, as construction progresses along the pipeline route through the duration of construction. This assessment assumes four locations will be utilised, and approximate locations of the accommodation facilities are illustrated on Figure 2.3.

It is also anticipated that one or two smaller “fly” workers accommodation facilities (approximately 50 personnel each) will proceed ahead of the main accommodation facilities, undertaking clearing and grading and other site preparation tasks ahead of the main construction crew. The fly workers accommodation facility will continue to move ahead of the main accommodation facilities as they move along the pipeline corridor.

4.2.2 Operation Staff

The operations workforce for the gas transmission pipeline is likely to be between 15 and 20. It is expected that there will be up to eight personnel regularly travelling along the pipeline in light vehicles for inspection and programmed maintenance work. To ensure adequate response times, it is likely that these eight personnel will be based at various local towns along the gas transmission pipeline corridor. The remainder of operations personnel are gas controllers (panel operators), managers and engineers and are likely to be based in Gladstone.

4.2.3 Construction Deliveries

Pipe Transport

The major transport issue associated with the construction of the pipelines is the transport of pipe to the construction corridor. It is presently anticipated that pipes will be transported to the Port of Gladstone via sea from offshore mills, and transported to strategically placed laydown areas along the corridor.

The base case assessed in this report is for the transport of pipe by truck from Gladstone to laydown areas along the pipeline corridor. The option to transport pipe from Gladstone by train to the pipeline corridor has also been investigated to reduce heavy vehicle impact on the road network, and is presented in the included supplement report for the “Material by Rail” option included at Appendix B. Initial discussions have commenced with the relevant stakeholder agencies on this option, and the outcomes are still being assessed.

Approximately 37,000 pipe sections (pipe joints) will be required for the 435km pipeline. Trucks used for pipeline delivery will most likely be extendable semi-trailers and the pipes are likely to be transported in lengths of 12-15 metres. Trucks are estimated to have a load capacity of three pipes, equating to approximately 12,300 truck loads, or 25,000 truck trips added to the road network. Ships are estimated to carry approximately 6,000 pipe joints, at an estimated delivery rate of one ship per month. This equates to approximately 67 truck loads (134 trips) per day for pipe haulage.

State-controlled roads will be used for the delivery of pipe from Gladstone to the laydown areas. Seven pipe laydown sites approximately equidistant along the pipeline have been assumed for this traffic assessment.. The approximate locations of proposed pipe laydown areas are described in Table 2.1 and illustrated on Figure 2.3 above.

Equipment Transport

Other heavy vehicle movements associated with the pipeline construction will include the transport of the construction equipment to the corridor and mobilisation and demobilisation of the workers accommodations. At the beginning of the construction period it is estimated that approximately 1,000 vehicles will be mobilised to the accommodation facilities and construction depots from Gladstone. It is estimated that the majority will be heavy vehicles (approximately half Class 9 and half Class 3).

Equipment and materials will be moved on a daily basis from the construction depots to the pipeline corridor for construction activities. Many of these trips may occur on local roads and access tracks and the pipeline corridor.

Santos has estimated 50 truck movements per day, with the following distribution:

- fuel tankers and lubrication trucks: 8 trucks;
- garbage and cesspit trucks: 5 trucks;
- water tankers: 3 trucks;
- hiab, tipper and general purpose trucks: 15 trucks;
- mobile cranes: 8 trucks;
- irregular movement of heavy plant and equipment: 10 trucks.

4.2.4 Operation Deliveries

It is not anticipated that goods will be transported along the gas transmission pipeline corridor after the completion of construction, unless required for more significant repair or maintenance work. Thus, no traffic due to goods transport for the gas transmission pipeline has been assumed for the operations stage.

4.2.5 Pipeline Construction Sequence

As presented in Figure 2.1, delivery of pipe to the gas transmission pipeline corridor will precede construction and is expected to last approximately six months from beginning of the fourth quarter of 2010 to the end of the first quarter of 2011.

Pipeline construction will begin at the Gladstone end, and is anticipated to last 18-24 months. Construction is anticipated to begin in the second quarter of 2011 with an approximately 3-month period of mobilisation of workforce and equipment and construction ramp-up. During this time, approximately 750 personnel are anticipated to be on site, split between a main accommodation facility and a satellite accommodation facility.

After construction ramp-up, the majority of gas transmission pipeline construction activities are expected to last approximately 15 months, with two main accommodation facilities, one satellite accommodation facility and 1-2 smaller “fly accommodations” operational at any given time. Utilisation of the specified facility sites on Figure 2.3 will progress along the pipeline corridor as construction progresses. During this time, the full workforce of approximately 1,500 personnel will be on site.

Similar to above, a three-month period at the end of construction is anticipated for construction ramp-down and demobilisation, during which time approximately 750 personnel will be on site, split between a main accommodation facility and a satellite accommodation facility at the Fairview end of the gas transmission pipeline.

Gas transmission pipeline construction is anticipated to be completed by the end of 2012, with commissioning at the beginning of 2013.

4.2.6 Traffic Movement Patterns

Personnel Movements

Construction of the proposed gas transmission pipeline is expected to occur over an 18-24 month period. Personnel will work 12 hours per day, seven days per week, working four weeks on with one week off. All construction personnel are assumed to be non-resident on a fly-in/fly-out basis to be housed in accommodation facilities as described above.

Workers are expected to fly in to either Roma or Gladstone, depending on which is closer to the location of construction on the pipeline at the time. Workers will be transported by bus (approximately 20 passenger capacity) to the accommodation facilities. These transfers will occur once every four weeks per person. This assessment assumes that rolling shift changes will occur approximately once per week to utilise buses for both the directions of travel to and from the airport. This approach also concentrates personnel travel on specific days, providing a more robust approximation of daily traffic for assessing road capacity impacts. Approximately 10% of daily bus trips are assumed to occur in the project peak hours.

Daily movements of personnel will also include the transport of workers from accommodation facilities to the gas transmission pipeline corridor for construction activities. Approximately 20% of total personnel is anticipated to be support staff for the accommodation facilities and construction depots and will not travel to the pipeline construction sites. Of the workers travelling to the gas transmission pipeline construction sites on a daily basis, approximately 15% are expected to travel by 4WD (2 people per vehicle) and 85% will travel by bus (20 passenger capacity). Daily traffic movements are expected to be evenly split between the morning and afternoon, as workers leave the accommodations in the morning and return from shift in the late afternoon.

Material/Equipment Movements

As described above, approximately 67 pipe truck loads per day will be delivered from the Port of Gladstone (assumed from Auckland Point Wharves) to the pipe laydown areas along the gas transmission pipeline corridor. These deliveries are anticipated to be spread throughout the day, with approximately 10% of the daily trips estimated to occur in the peak hours.

Of the 50 daily truck trips for movement of equipment and materials as described above, deliveries are anticipated to be spread throughout the day, with approximately 10% of the daily trips estimated to occur in the peak hours. These trips will mostly be from the construction depots to the pipeline corridor.

Site Mobilisation/Demobilisation

Traffic movements associated with construction accommodation facilities mobilisation and demobilisation and construction depot setup are anticipated to occur several times as construction moves along the pipeline corridor. These activities will only be affecting the road network in these brief periods when equipment is moved from one accommodation facility to another or demobilised during the rainy season.

These periods of site setup and equipment movement are each expected to occur over one week. The mobilisation/demobilisation trips are anticipated to be spread throughout the day, with approximately 10% of the daily trips estimated to occur in the peak hours.

4.2.7 Traffic Generation

Table 4.6 below presents the estimated traffic generated by the construction of the gas transmission pipeline to use the external roadway network during each year of construction as well as during a typical weekday and weekday peak hour.

As shown in Table 4.6, approximately 450 daily trips are expected during the peak of construction of the gas transmission pipeline in 2011 and 2012. These daily trips are based on the full workforce being on site during the approximately 15 months of peak construction activities. In this period, approximately 165 peak hour trips are expected, which is mostly made up of personnel movements from the accommodation facilities to the gas transmission pipeline construction sites along the corridor.

Traffic generated by operations of the gas transmission pipeline is expected to be minimal, as described above. Approximately 40 daily trips are expected, most of which will be light vehicles (4WD). Of these, a conservative estimate of 10 of the daily trips will occur in the peak hours. These equate to approximately 14,600 annual trips for the gas transmission pipeline operations.

Table 4.6 Construction Traffic Generation – Gas Transmission Pipeline

Year	2010	2011	2012
Peak Hour			
Heavy Vehicles	13	64	64
Light Vehicles	0	100	100
Total Vehicles	13	165	165
Daily Traffic			
Heavy Vehicles	135	243	241
Light Vehicles	0	204	202
Total Vehicles	135	447	443
Annual Traffic			
Heavy Vehicles	12,260	61,545	67,550
Light Vehicles	0	46,100	63,700
Total Vehicles	12,260	107,645	131,250

4.2.8 Traffic Distribution

The distribution and assignment of traffic generated by the gas transmission pipeline to the roadway network has been determined from the traffic movement patterns described above as well as likely sources and destinations for materials and equipment. The general origin and route for traffic associated with the gas transmission pipeline is presented in Table 4.7 below. Figure 2.3 above provides illustration of locations and access routes of the accommodation facilities and pipe laydown areas for the pipeline.

Table 4.7 Gas Transmission Pipeline Traffic Distribution

Traffic Component	Origin	Route
Pipe	Port of Gladstone (Auckland Point)	Port Access Road to Dawson Highway to pipe laydown locations
Plant/Materials – Mobilisation	Gladstone	Along Dawson Highway to accommodation/construction depots – move along Dawson Highway as construction progresses
Plant/Materials – Daily Movements	Accommodation/ Construction Depot Locations	Along construction corridor and public roads in the vicinity of accommodation/construction depots
Personnel – Fly-in/Fly-out transport	Roma and Gladstone	From Roma Airport – along Carnarvon Highway to Arcadia Valley Road to accommodation facilities From Gladstone Airport – along Dawson Highway to accommodation facilities
Personnel – Daily Movements	Accommodation facilities	Along construction corridor and public roads in the vicinity of accommodation facilities

4.3 Site 3 – LNG Liquefaction and Export Facility

An LNG liquefaction and export facility (LNG facility) of up to approximately 10 million tonne per annum (Mtpa) capacity is proposed to be constructed on Curtis Island. The LNG facility is proposed to be developed in three stages (trains), with the first stage (Train 1) having a capacity of 3 to 4 Mtpa.

The LNG facility is proposed to be located on Curtis Island at the Hamilton Point West site adjacent to China Bay, which is situated approximately 5km north of Gladstone. The location of the LNG facility in relation to the Gladstone region is shown in Figure 2.2 above. The area of the LNG facility site is approximately 190ha.

The LNG facility on Curtis Island will likely also include the following associated infrastructure components:

- a potential access road and bridge from the mainland crossing Port Curtis between Friend Point (on the mainland) and Laird Point (on Curtis island) to provide road access to the LNG facility from Gladstone;
- marine facilities including a jetty for LNG ship loading (Product Loading Facility) and marine off-loading facility (MOF);
- dredge material placement facility at Laird Point;
- workforce accommodation on Curtis Island to house the entire construction workforce.

Note that the need for the bridge is still being assessed in consultation with stakeholder agencies, however for the purposes of this assessment the construction of a bridge is being treated as the base case. The option for barging of materials and equipment and ferrying of personnel to Curtis Island from the mainland for the life of the project as an alternative to the bridge has also been assessed and is presented in the supplement report by CEO “GLNG Traffic Report – No Bridge Option Assessment” included at Appendix A.

Refer to Chapter 3 (Project Description) of the EIS for further details on the LNG facility.

4.3.1 Construction Staff

Due to the high construction activity across Australia there are currently significant shortages of construction labour in this country, with skilled manpower limitations in the Gladstone area in particular. As the situation is uncertain regarding GLNG Project’s ability to access sufficient skilled manpower to construct its Train 1 LNG facility in the 2010 to 2014 timeframe, in addition to considering construction via the traditional “stick-built” method, the use of modular (pre-assembled) construction is being evaluated as one way to reduce the construction labour manpower requirement in Gladstone.

At this stage it is uncertain as to which construction method (modular or stick-built) will be utilised for GLNG, so in terms of manpower numbers, material quantities and project schedule data, the use of stick-built construction has been included in this document as a “worst case” in terms of road impacts on the Gladstone area.

If labour were available without limitation to enable stick-building of GLNG Train 1, construction of this initial train would take approximately 48 months to complete with labour peaking at approximately 3,000 personnel. While the timing of Trains 2 and 3 is uncertain (as described in Section 1.4), these subsequent production trains would be constructed using fewer construction workers and in shorter durations than Train 1, as many of the facilities built for Train 1 would be common to and utilised by Trains 2 and 3.

Estimated construction workforce numbers over the Train 1 construction period are detailed in Figure 4.1. Estimated construction workforce numbers for Trains 2 and 3 of the LNG facility are provided in Figure 4.2. The CEO Marine Transport Strategy estimates that rostering of personnel will occur such that approximately two-third of the total workforce will be on site at any given time.

Figure 4.1 *LNG Facility Train 1 Construction Workforce*

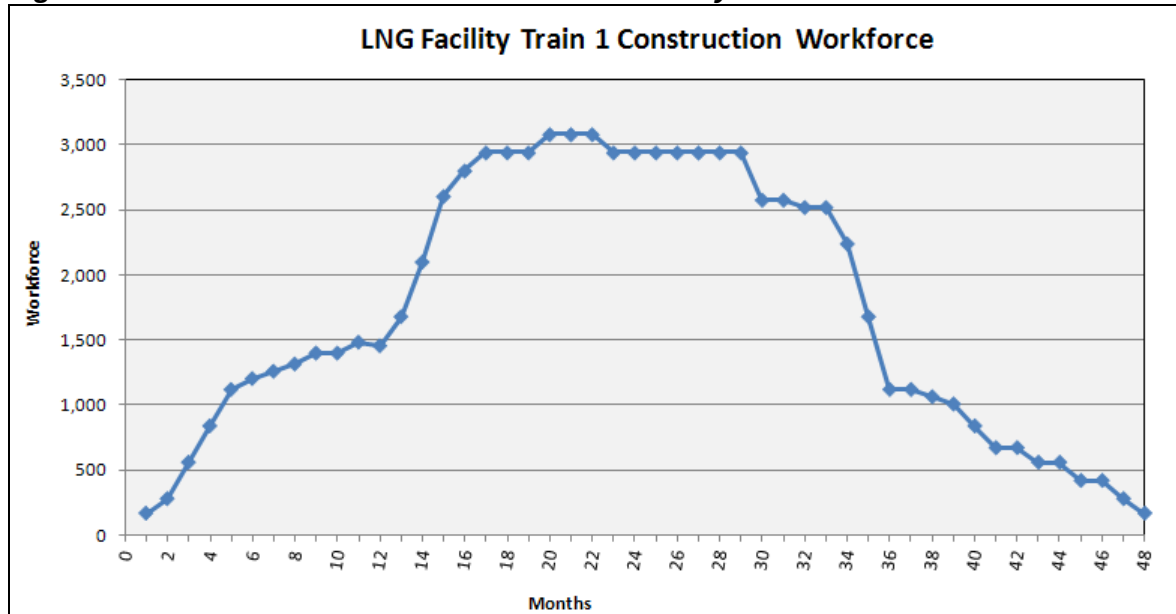
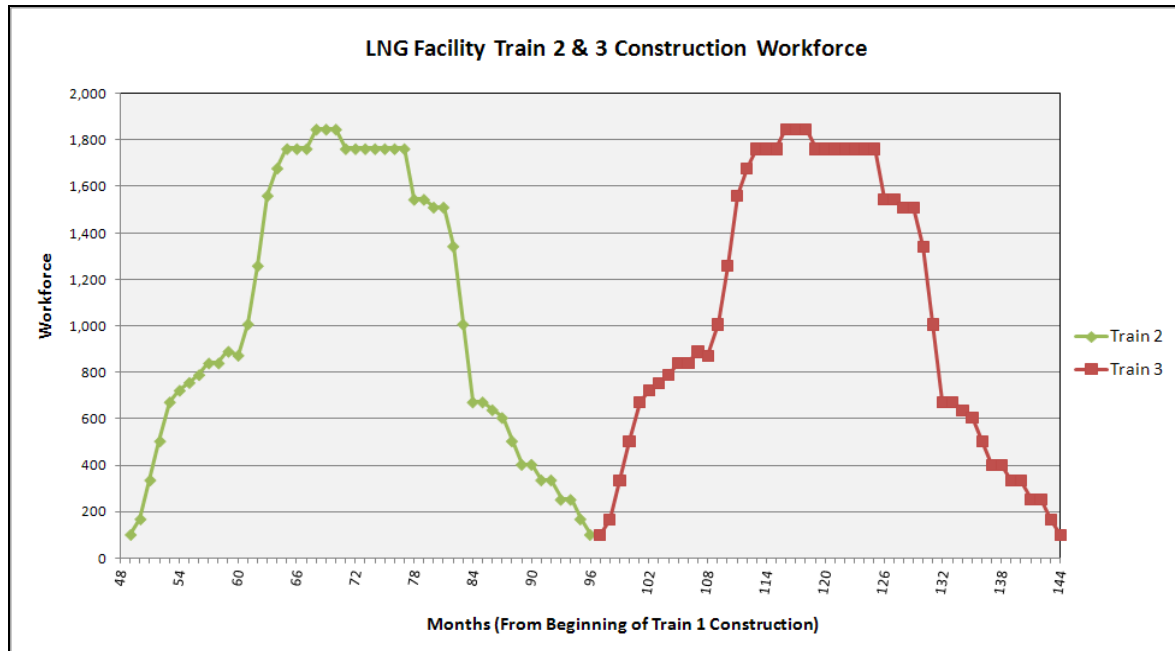


Figure 4.2

LNG Facility Train 2 and 3 Construction Workforce



During LNG facility construction activities it is assumed worker accommodations will be provided on Curtis Island for all workers on their shifts. Construction personnel are anticipated to work 10 days on and 4 days off in a fortnightly work cycle. Approximately 65% of the construction workforce has been assumed to be sourced as non-residents (fly-in/fly-out) and approximately 35% resident workforce (live in Gladstone and surrounds).

4.3.2 Operation Staff

Mobilisation of operations personnel to Curtis Island for the start of commissioning of the LNG facility would begin around month 40 of construction. The operations workforce for Train 1 is expected to be approximately 80, as shown in Table 4.8 below. With both Train 1 and Train 2 online, the operations workforce will increase to approximately 105. With the completion and operation of Train 3 of the LNG facility, the total workforce needed for full operating capacity is approximately 130 personnel.

Table 4.8

LNG Facility Operations Workforce

Staff Type	Work hours	No. Shifts	Train 1 (3 Mtpa)	Train 1 & 2 (7 Mtpa)	Train 1, 2 & 3 (10 Mtpa)
Maintenance staff	Mon - Fri: 0700 - 1600	1	30	40	50
Operations staff	7day 24hr (0600-1800, 1800-0600)	2	20	30	40
Admin staff	Mon - Fri: 0700 - 1600	1	30	35	40
Total Onsite			80	105	130

The base case assessment assumes that the potential access road and bridge connecting the mainland and Curtis Island will be constructed by the beginning of the operation of the LNG facility. Thus, all operations personnel are assumed to live in Gladstone and surrounds and travel by bus or private vehicle to Curtis Island via the potential bridge. This base case assessment assumes that all LNG facility operations personnel will travel to the LNG facility by private vehicle.

The possibility of no bridge being constructed to Curtis Island has been assessed in the CEO supplement report “GLNG Traffic Report – No Bridge Option Assessment” included at Appendix A. In this case, all operations personnel would be transported daily to the LNG facility on Curtis Island by ferry.

4.3.3 Construction Deliveries

Estimates for delivery of construction equipment and materials to the LNG facility site on Curtis Island have been sourced from the Propane Pre-cooled Mixed Refrigerant (C3MR) document “Response to GLNG Draft Terms of Reference Requirements.” Although the C3MR design has not been selected as the final design by Santos (the Optimised Cascade Process having been selected in December 2008) the estimates are considered comparable. Table 4.9 below provides estimates for the total equipment and materials expected to be transported to the LNG facility construction site over the four year period of the construction of Train 1 of the LNG facility. Deliveries for Train 2 and Train 3 construction have been proportioned according to the estimated construction personnel for these phases.

It should be noted that these construction estimates have been based on a “stick-built” method of construction as described in Section 4.3.1 above. Thus if modular construction method is chosen the number of loads delivered to the LNG facility construction site would be greatly reduced as modules would be pre-constructed elsewhere.

Cardno Eppell Olson (CEO) has made additional assumptions for the vehicle types and load carrying capacities in order to relate the quantities provided into actual vehicle trips. These assumptions are provided in Table 4.9. All items except large pre-assembled items have been assessed as coming from the mainland by truck, and thus will need to be barged to Curtis Island during at least Train 1 construction (and possibly during Train 2 and 3 construction if the potential bridge to Curtis Island is not built).

Table 4.9
LNG Facility Construction Deliveries

Item	Quantity	Transport Assumptions
Potable Water	125,000 litres/day	By 20,000 litre tanker
Raw water	93,750 litres/day	By 20,000 litre tanker
Equipment	3,180 loads	By truck
Pipe	123,560m	By truck (200m per load)
Electrical	377,000m	By truck (2,000m per load)
Insulation	125,000sq.m	By truck (250sq.m per load)
Fuel	2 tankers/month (assumed)	By 20cu.m tanker
Concrete (1)	37,328cu.m	By truck (20cu.m per load)
Grout	73cu.m	By Truck (6cu.m per load)
Steel	42,223 tonnes	By truck (10 tonnes per load)
Pavement	1,737cu.m	By truck (20cu.m per load)
Paint	14 loads (assumed)	By truck (5cu.m per load)
Miscellaneous Deliveries (assumed)	5 loads/day	50% truck, 50% light vehicles
Large indivisible pre-assemblies	77 items	To be shipped in – delivered to Curtis Island via barge

Note 1: Individual components will be delivered to site with batching on Curtis Island

4.3.4 Operation Deliveries

Deliveries during operation of the LNG facility are likely to be minimal, and include fuel and other materials and equipment. An indicative distribution of likely deliveries to the LNG facility has been provided by Santos as tabulated in Table 4.10. All of these deliveries are likely to be from the mainland, with barge transport required to Curtis Island if the potential bridge is not built.

Table 4.10
Indicative Deliveries – LNG Facility Operations

Delivery Type	Vehicle Type	Number Trips	
		Train 1	Trains 1, 2 & 3
Refrigerants	Truck	2 per month	6 per month
Diesel	Truck	1 per month	3 per month
Chemicals	Truck	1 per month	3 per month
Other	Light Vehicle	10 per week	15 per week

4.3.5 Dredge Material Placement Facility

In addition to the main LNG facility construction workforce, approximately 50 personnel are expected to work on the construction of the dredge material placement facility at Laird Point on Curtis Island for the 18-month duration of construction. These workers are expected to travel by ferry from the mainland to the construction site daily, and are assumed to be 100% local workforce (living in Gladstone and surrounds).

All materials for the dredge placement facility are expected to be sourced locally from Curtis Island if possible. Detailed studies have not been performed in this regard, though for the purposes of this report no road transport of materials from the mainland has been assessed.

4.3.6 Traffic Movement Patterns

Construction Deliveries

The total deliveries to the construction site presented in Table 4.9 above have been estimated to be divided over the four year construction period, with 10% of deliveries occurring in the first year (2010), 35% occurring in each of the second and third years (2011 and 2012), and 20% occurring in the fourth year of construction (2013). This is representative of the proportion of the work force employed for construction during these periods.

During the construction of Train 1, the potential bridge to Curtis Island will be under construction and all equipment and materials delivered by truck will be required to be barged to Curtis Island from the mainland. The wharf facilities at Auckland Point have been identified as a potential site for transfer of equipment and material and have been assumed in the preparation of this assessment. Equipment and materials would arrive at Auckland Point by road and will be either offloaded to a barge or transported via roll-on/roll-off ferry to Curtis Island.

The base case assessment assumes that the proposed bridge is to be constructed. In this case, construction traffic for Trains 2 and 3 of the LNG facility will utilise the bridge to Curtis Island. In the option assessed with no bridge, construction materials and equipment will continue to be transported by barge.

Some oversize or pre-assembled items are expected to arrive to Port of Gladstone by ship and would be transported directly to the MOF on Curtis Island. These items are included in the construction delivery estimates in Table 4.9.

Approximately 10% of the daily traffic movements associated with delivery of materials and equipment to the LNG facility construction site is estimated to occur during each of the AM and PM peak hours.

Construction Personnel Movements

Construction personnel are anticipated to work 10 days on and 4 days off in a fortnightly work cycle. All construction personnel are expected to be housed in workforce accommodation on Curtis Island during their shifts. Each worker will travel to/from Curtis Island once per fortnight as they rotate onto or off their shift.

During the construction of Train 1 of the LNG facility, most workers are expected to fly into Gladstone or drive from surrounding cities such as Rockhampton and will then be transported by bus to the ferry terminal in Gladstone, where they will be transported by ferry to Curtis Island. Auckland Point is the likely takeoff point for ferry operations and has been assumed in this assessment. It is estimated that 80% of personnel will be transported by bus (20 passenger capacity) and 20% will be via light vehicle, with parking provided near the ferry terminal. These personnel movement patterns for Train 1 of the LNG facility are consistent for the base case and “no bridge” option.

During the construction of Trains 2 and 3, the base case assessment assumes that the proposed bridge to Curtis Island will be available. Similar to above, personnel would be transferred to Curtis Island once every two weeks to stay in the accommodation facilities regardless of place of residence. Approximately 80% of personnel would be transported by bus and 20% by private vehicle.

Rolling shift changes should be scheduled such that buses are an effective means of transport to and from the Gladstone airport and centralised pickup points within Gladstone to shuttle personnel on and off their shifts. This assessment estimates that rolling shift changes will occur twice a week, with 25% of the daily personnel trips occurring during the development AM early and PM late peak hours. During the AM late peak it is estimated that 10% of the daily vehicle trips will occur. These estimates conservatively concentrate personnel movements in the daily and peak hour periods, creating a more robust assessment.

Operations Personnel Movements

In the base case assessment all operations personnel are assumed to live in Gladstone and surrounds and travel daily by private vehicle to Curtis Island via the potential bridge. Shifts are such that all onsite workforce shown in Table 4.8 will likely be travelling during the project peak hours in the morning and afternoon.

Dredge Material Facility Movements

The workforce for the construction of the dredge material placement facility will all live on the mainland and travel to Curtis Island by ferry daily. Similar to the other LNG facility workforce, transfer is assumed to take place from Auckland Point Wharf in Gladstone, with workers travelling to/from the ferry landing via private vehicle in the peak hours.

Because Laird Point is separated from the main LNG facility construction activities at Hamilton Point, the MOF at Hamilton Point will not be used for transport of personnel and equipment to the dredge material placement facility. Barges and ferries to Laird Point should be scheduled in coordination with other LNG facility activities to include a triangular route between Gladstone Point, Hamilton Point and Laird Point to minimise the number of vessels travelling in the Port of Gladstone.

4.3.7 Traffic Generation

Table 4.12 below presents the estimated traffic generated by the construction of the proposed LNG facility to use the external roadway network during each year of construction as well as during a typical weekday and peak hour. The workforce traffic movements for the construction of the dredge material placement facility have been incorporated into the table, as they have similar travel patterns and trip types as the other LNG facility trips.

Table 4.13 presents the estimated traffic generated by the operations of the proposed LNG facility during each year of operations as well as during a typical weekday and peak hour. It should be noted that these estimates are based on the assumption that the construction of Train 2 and 3 of the LNG facility will follow in immediate succession to Train 1 construction.

4.3.8 Traffic Distribution

The distribution and assignment of traffic generated by the LNG facility to the roadway network has been determined from the traffic movement patterns described above as well as likely sources and destinations for materials and equipment. The general origin and route for traffic associated with the LNG facility is presented in Table 4.11 below.

The distribution of personnel trips generated by the construction of the dredge material placement facility has been assigned to the road network in the same manner as LNG facility construction personnel during Train 1 construction.

Table 4.11
LNG Facility Traffic Distribution

Traffic Component	Origin	Route
Train 1 Construction		
Construction Personnel	Local residents Fly-in/Fly-out	Residents – distributed throughout Gladstone, to Auckland Point by Port Access Road Fly-in/Fly-out – From Gladstone Airport along Dawson Highway to Auckland Point by Port Access Road
Plant/Materials	Local Products Freighted Material Shipped Material	Local Products - distributed from throughout Gladstone to Auckland Point by Port Access Road Freighted Material – distributed from outside of the immediate Gladstone Area depending on source location. From the north – along Gladstone-Mt Larcom Road to Auckland Point via Port Access Road. From the south – along Dawson Highway, Red Rover Road and Gladstone-Mt Larcom Road to Auckland Point via Port Access Road Shipped Material – shipped directly to the MOF at Curtis Island
Train 2 & 3 Construction		
Construction Personnel	Local residents Fly-in/Fly-out	Residents – distributed throughout Gladstone, to Curtis Island via Landing Road Fly-in/Fly-out – From Gladstone Airport along Dawson Highway, Blain Drive, Gladstone-Mt Larcom Road, to Curtis Island via Landing Road
Plant/Materials	Local Products Freighted Material Shipped Material	Local Products - distributed from throughout Gladstone to Curtis Island via Landing Road Freighted Material – distributed from outside of the immediate Gladstone Area. From the north – along the Bruce Highway then along Gladstone- Mt Larcom Road to Curtis Island via Landing Road. From the south – along the Bruce Highway then along Calliope River Road and Gladstone-Mt Larcom Road to Curtis Island via Landing Road Shipped Material – shipped directly to the MOF at Curtis island
LNG Facility Operations		
Operations Personnel	Local residents	Residents – distributed throughout Gladstone, to Curtis Island via Landing Road
Deliveries	Sourced from Gladstone and surrounds	Local Products - distributed from throughout Gladstone to Curtis Island via Landing Road

GLNG Project –Traffic Report

Table 4.12

LNG Facility Traffic Generation – Construction

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Construction	Train 1				Train 2				Train 3			
PEAK HOUR VOLUMES												
Light Vehicles (Delivery and Personnel)	51	95	88	17	17	42	38	11	17	42	38	11
Bus - Personnel	5	14	13	3	3	8	8	2	3	8	8	2
Heavy Vehicles	3	3	3	3	2	3	3	2	2	3	2	2
Total Vehicles	59	112	104	23	21	53	49	15	21	53	48	15
DAILY VOLUMES												
Light Vehicles (Delivery and Personnel)	210	386	359	75	72	176	160	49	72	176	160	49
Bus - Personnel	20	55	50	13	13	33	30	8	13	33	30	8
Heavy Vehicles	28	34	34	28	17	26	26	23	17	26	24	19
Total Vehicles	258	475	443	116	102	235	216	80	102	235	214	76
ANNUAL VOLUMES												
Light Vehicles (Delivery and Personnel)	18,611	50,544	34,128	10,390	10,130	20,862	19,209	7,686	10,130	20,862	19,209	7,686
Bus - Personnel	2,080	5,720	5,200	1,352	1,300	3,432	3,120	832	1,300	3,432	3,120	832
Heavy Vehicles	8,680	11,523	11,523	8,346	5,249	8,370	8,370	6,464	5,249	8,370	7,654	5,275
Total Vehicles	29,371	67,787	50,851	20,088	16,678	32,664	30,699	14,981	16,678	32,664	29,983	13,792

GLNG Project –Traffic Report

Table 4.13

LNG Facility Traffic Generation - Operations

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Operation	Train 1				Train 2				Train 3			
PEAK HOUR DELIVERY VOLUMES												
Light Vehicles (Staff and Deliveries)	100	100	100	100	135	135	135	135	170	170	170	170
Trucks (Fuel and Deliveries)	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicles	100	100	100	100	135	135	135	135	170	170	170	170
DAILY VOLUMES												
Light Vehicles (Staff and Deliveries)	203	203	203	203	273	273	273	274	344	344	344	344
Trucks (Fuel and Deliveries)	3	3	3	3	3	3	3	3	3	3	3	3
Total Vehicles	206	206	206	206	276	276	276	277	347	347	347	347
ANNUAL VOLUMES												
Light Vehicles (Staff and Deliveries)	56,437	56,437	56,437	56,712	77,352	77,352	77,352	77,559	98,199	98,199	98,199	98,199
Trucks (Fuel and Deliveries)	483	483	483	621	621	621	621	724	724	724	724	724
Total Vehicles	56,920	56,920	56,920	57,333	77,973	77,973	77,973	78,283	98,923	98,923	98,923	98,923

4.4 Curtis Island Access Road and Bridge Construction

One option currently being investigated for long-term access to Curtis Island is the construction of an access road and bridge to cross Port Curtis between Friend Point and Laird Point, linking Curtis Island with the mainland. The need for such a bridge and road is still being assessed by relevant stakeholder agencies, however for the purpose of this assessment the construction of the road and bridge has been considered as the base case.

The construction of these works are anticipated to generate a significant amount of traffic over the approximately 18-24 months of construction. Thus, the traffic associated with the potential access road and bridge has been considered in conjunction with construction traffic generated by the LNG facility. As shown in Table 1.1 above, the construction of the Curtis Island access road and bridge (if undertaken) is likely to begin in the third quarter of 2011.

Traffic generation estimates for the bridge construction have been sourced from the "Curtis Island Access Bridge and Road Construction Traffic Generation Report" prepared by URS in November 2008. A summary breakdown of total construction deliveries needed for the bridge construction is provided in Table 4.14 below.

Table 4.14 *Bridge Construction Delivery Movements*

Activity	Estimated Total Movements (one-way trips)	Vehicle Classification	Estimated Weekly Movements (one-way trips)
Site Mobilisation	28	Heavy Vehicle/Truck	28 / week
Foundation – Piles	2,293	Heavy Vehicle/Truck	100 / week
Abutments	56	Heavy Vehicle/Truck	14 / week
Pile Caps	575	Heavy Vehicle/Truck	60 / week
Piers	771	Heavy Vehicle/Truck	78 / week
Superstructure	443	Heavy Vehicle/Truck	36 / week
Bridge Asphaltting and Finishes	180	Heavy Vehicle/Truck	141 / week
Ground Improvement -	11,515	Heavy Vehicle/Truck	397 / week
Ground Improvement -	11,515	Heavy Vehicle/Truck	768 / week
Road Earthworks	11,916	Heavy Vehicle/Truck	476 / week
Road Asphaltting/Sealing	1,252	Heavy Vehicle/Truck	360 / week
Site Demobilisation	28	Heavy Vehicle/Truck	28 / week
Subtotal	40,573		
Personnel Movements		Light Vehicle	1500 / week

4.4.1 Construction Personnel

It is anticipated that approximately 250 construction personnel will be required during the peak of construction. Similar to the construction workforce for the LNG facility, approximately 35% of the workforce are anticipated be sourced locally from Gladstone and surrounds, and approximately 65% will be sourced from interstate or abroad and will be on a fly-in/fly-out basis.

Personnel will need to commute to the site, casting yards and concrete plants from the closest urban centre (Gladstone). Two options for worker travel were put forward in the URS report referenced above. Option one is for all staff to commute by private vehicle while the second option is for 88% of staff to commute by bus with the remaining 12% commuting by private vehicle.

To provide a conservative traffic generation estimate for the construction of the bridge, the assessment assumes that personnel will be responsible for their own transport to site where parking facilities will be provided. Though this arrangement was assessed, the option for providing bus service to the construction site would provide a more efficient and sustainable means of personnel transport and would reduce traffic impacts within Gladstone.

Those personnel working on the Curtis Island side of the potential bridge will be transported by barge or ferry with rolling start and finishing times of working shifts so that fewer vessels will be required while still transporting all personnel between shorelines where necessary.

4.4.2 Construction Sequencing and Timelines

Not all construction activities provided in Table 4.14 above will occur at the same time, and construction sequencing and timelines will have a direct impact on the traffic generation volumes associated with the bridge construction. Without a full construction program, but taking into account the sequence of construction tasks, the worst case scenario for traffic generation can be identified. A logical potential peak weekly volume of traffic movements is as follows:

- foundations – Piling (100 trucks/week);
- pile Caps (60 trucks/week);
- piers (78 trucks/week);
- road Earthworks (476 trucks/week);
- personnel Movements (1500 light vehicles/week).

If all of these tasks are to occur at once, approximately 714 trucks and 1500 light vehicles would be entering and exiting the site each week.

4.4.3 Trip Generation

Table 4.15 presents the expected traffic to be generated by the construction of the bridge linking Curtis Island with the mainland for each year of construction as well as for a weekday and peak hour. Similar to the other project components, it has been assumed that deliveries will be spread throughout the day, with approximately 10% of deliveries occurring during each of the peak hours. Approximately 25% of daily personnel trips (light vehicles) to the bridge construction site are estimated to occur during the project AM early and PM late peak hours. During the AM late peak it is assumed that 10% of the daily vehicles trips will occur.

Table 4.15 *Bridge Construction Traffic Generation*

Year	2011	2012	2013
PEAK HOUR VOLUMES			
Light vehicle trips	45	109	63
Heavy vehicle trips	40	50	34
Total Trips	85	159	97
DAILY VOLUMES			
Light vehicle trips	192	448	263
Heavy vehicle trips	400	504	337
Total Trips	592	952	600
ANNUAL VOLUMES			
Light vehicle trips	25,344	139,716	36,360
Heavy vehicle trips	19,373	56,546	17,324
Total Trips	44,717	196,262	53,684

4.4.4 Traffic Distribution

The distribution of traffic generated by the proposed bridge on the roadway network has been determined from the traffic movement patterns above as well as likely sources and destinations for materials and equipment. The general origin and route for traffic associated with the bridge construction is presented in Table 4.16 below.

Table 4.16

Bridge Construction Traffic Distribution

Traffic Component	Origin	Route
Construction Personnel	Local residents Fly-in/Fly-out	Residents – distributed throughout Gladstone, to bridge site via Landing Road
		Fly-in/Fly-out – From Gladstone Airport along Dawson Highway, Blain Drive, Gladstone-Mt Larcom Road to bridge site via Landing Road
Plant/Materials	Local Products Freighted Material	Local Products - distributed from throughout Gladstone to bridge site via Landing Road
		Freighted Material – distributed from outside of the immediate Gladstone Area depending on source location. From the north – along Gladstone-Mt Larcom Road to bridge site via Landing Road. From the south – along Dawson Highway, Red Rover Road and Gladstone-Mt Larcom Road to bridge site via Landing Road

5.0 IMPACT ASSESSMENT METHODOLOGY

The traffic impact assessment has been divided into three key components. The three components and corresponding report section are outlined below:

- Intersection Capacity Impact Assessment Section 6.0;
- Roadway Link Capacity Impact Assessment Section 7.0;
- Pavement Impact Assessment Section 8.0.

Analysis has been undertaken for “background” and “background plus development” traffic scenarios through the peak stages of construction and operation of the project components as well as for the 10-year design horizon.

Intersection analysis considers the capacity of relevant intersections based on the Degree of Saturation (DOS) identified using the SIDRA computer analysis package. The assessment also considers turn lane requirements in accordance with the DMR warrants for priority intersections as outlined in the DMR “Road Planning and Design Manual.” Intersection queuing has been considered to identify whether intersection turn lane lengths are adequate to accommodate the expected queue lengths.

Link capacity of roadway sections was assessed using the daily two-way traffic demand to identify if the current road cross-sections would be sufficient for future year and development demands.

Pavement impacts have been assessed to determine if the proposed project necessitates bringing forward of pavement rehabilitation works or increases the need for regular road maintenance.

5.1 Assessment Scenarios

Because of the varied timing and phasing associated with the construction and operations of the three components of the proposed project, a scoping exercise was undertaken to determine the assessment scenarios that would provide a conservative yet representative reflection of the traffic impacts of the project. The factors considered in this exercise were the overlap in timing between traffic generation of each of the project components, the locations of each project component in relation to the others, and the duration of activity associated with the project components.

GLNG Project –Traffic Report

Table 5.1 shows the total peak hour traffic generation of the construction and operations of all proposed project components for each year. As shown, year 2012 was identified to have the highest total peak hour trip generation, with the following project activities occurring during this time:

- LNG Facility Train 1 construction;
- Curtis Island access road and bridge construction;
- Gas Transmission Pipeline construction;
- Construction and operations of all three CSG field areas.

Year 2012 was subsequently selected as the year of assessment for the intersection capacity impact assessment. Road network elements were analysed in 2012 with expected background growth only (4% in Gladstone and surrounds, and 6% on rural roadways plus cumulative project traffic), as well as with background growth plus GLNG project traffic.

Table 5.1 Overall Project Peak Traffic Generation – Peak Hour

Year	Light Vehicles	Heavy Vehicles	Total
2010	91	64	155
2011	297	190	487
2012	365	212	577
2013	172	137	310
2014	214	99	312
2015	240	104	344
2016	237	114	351
2017	210	103	313
2018	251	104	355
2019	278	108	386
2020	275	115	390
2021	247	102	349
2022	272	99	371
2023	273	59	332
2024	273	53	326
2025	273	55	329
2026	274	51	325
2027	274	51	325
2028	274	51	325
2029	275	49	324
2030	275	50	326

GLNG Project –Traffic Report

Year 2014 was selected for analysis as it is the opening year of Train 1 production of the LNG facility and gas transmission pipeline construction activities are finished. The 2014 assessment scenario includes traffic generated by construction and operations of the CSG fields and construction of Train 2 of the LNG facility which has been assumed to be built in immediate succession to Train 1. This assessment scenario provides a more realistic reflection of the near-term impacts of the proposed GLNG Project, since the gas transmission pipeline construction activities only generate traffic for a finite period of time and the other project activities continue for more sustained periods.

The project activities occurring in 2014 include the following:

- Train 2 LNG facility construction;
- Train 1 LNG facility operations;
- Gas Transmission Pipeline operations;
- Construction and operations of all three CSG field areas.

Year 2024 was also assessed as a 10-year design horizon from the opening year of operations of Train 1 of the LNG facility. This scenario assesses the long-term impacts of the proposed GLNG Project. As shown in Table 5.1 above, peak hour traffic is generally consistent from 2024 onward with the following project components contributing traffic to the road network:

- LNG facility Trains 1, 2 and 3 operations;
- Gas Transmission Pipeline operations;
- Construction and operations of all three CSG field areas.

Based on the above, the following scenarios were assessed for intersection capacity impacts:

- 2012 background;
- 2012 background plus development;
- 2014 background;
- 2014 background plus development;
- 2024 background;
- 2024 background plus development.

Midblock capacity and pavement impacts were assessed for each year of the project life under both “background” and “background plus development” scenarios.

GLNG Project –Traffic Report

The 2024 assessment scenario will help to determine if the capacity improvements identified due to the proposed GLNG Project in 2012 or 2014, if any, are justified. If an improvement is identified due to the short-term construction traffic in 2012, but background traffic growth does not trigger future road upgrades, then the development improvements may be over-designed and may not be justified.

6.0 INTERSECTION IMPACT ASSESSMENT

The key intersections have been analysed for each of the scenarios outlined above using the SIDRA Intersection 3.2 analysis program. This program calculates the operation of intersections based on input parameters, including geometry and traffic volumes. As an output SIDRA Intersection 3.2 provides values for the degree of saturation (DOS), queues and delays. The DOS is a commonly used value, which is essentially a volume to capacity ratio. The typically adopted upper limits for the DOS, where it is considered that the operation of the intersection is constrained, are:

- unsignalised priority intersections: 0.80;
- roundabouts: 0.85;
- signalised intersections: 0.90.

These DOS rates have been adopted in accordance with AUSTROADS guidelines. A DOS exceeding these values indicates that the intersection is nearing its operational capacity. Above these values, users of the intersection are likely to experience unsatisfactory queuing and delays.

The following sections summarise the intersection analysis. Further detail (e.g. SIDRA outputs) can be made available upon request.

6.1 Intersection Impact Assessment Methodology

The process used to undertake the intersection impact assessment for the development involved a number of steps. These were:

- identify intersections that could be impacted significantly by the proposed development;
- identify intersections that would come close to practical capacity with the addition of the proposed development;
- obtain and analyse the background traffic at the identified intersections;
- determine background road network traffic peaks and development traffic peaks;
- add the cumulative impact traffic to the existing background traffic volumes to come up with the background traffic to be used in the analysis of the identified intersections;
- identify the various components of the proposed development that will impact the road network;
- determine the traffic generated from the various components of the proposed development and combine with the background traffic. These volumes are to be used in the analysis of the identified intersections.

6.2 Background Traffic

Background traffic was acquired predominantly from DMR intersection turning movement counts with some intersection counts undertaken by Austraffic. These counts were obtained for the intersections identified as being significantly impacted by the proposed development, as listed in Section 7.5. These counts were undertaken throughout 2005, 2006, 2007 and 2008 and were all increased using background growth rates (4% within Gladstone and 6% outside of Gladstone) to 2008 volumes.

Information for all the intersections that were assessed, including their count year, source and growth rate applied, are listed below in Table 6.1.

Table 6.1 *Background Intersection Count Data*

Intersection	Count Year	Source	Background Growth Rate
Gladstone-Mount Larcom Road/Calliope River Road/Targinie Road	2006	DMR	6%
Gladstone-Mount Larcom Road/Hanson Road/Landing Road	2007	DMR	6%
Hanson Road/Red Rover Road	2006	DMR	4%
Hanson Road/Blain Drive/Alf O'Rourke Drive	2006	DMR	4%
Bruce Highway/Gladstone - Mount Larcom Road	2008	DMR	6%
Glenlyon Road/Port Access Road/Railway Street	2005	DMR	4%
Dawson Highway/Glenlyon Road/Bramston Street	2007	DMR	4%
Dawson Highway/Don Young Drive	2007	DMR	4%
Dawson Highway/Blain Drive/Herbertson Street	2006	Austraffic	4%
Dawson Highway/Philip Street	2006	DMR	4%
Dawson Highway/Aerodrome Road	2007	DMR	4%
Bruce Highway/Dawson Highway	2007	DMR	6%
Bruce Highway/Calliope River Road	2007	DMR	6%
Dawson Highway/Kariboe Street/Callide Street	2006	DMR	6%

6.3 Traffic Peak Hour Periods

The overall road network peak hour periods were determined by summing the 15-minute count data for all intersections in the study area. This identified that the AM road network peak occurred from 7:45-8:45am with the PM road network peak occurring from 4:30-5:30pm.

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It was recognised that the morning peak travel periods associated with construction and operations of the LNG facility, dredge material placement site and potential Curtis Island access road and bridge will not likely coincide with the overall road network peaks identified above. This is reinforced by the fact that during construction of Train 1 of the LNG facility all personnel will be required to travel by ferry to Curtis Island, with total travel taking up to one and a half hours.

Because LNG facility construction workers will be transferred to Curtis Island for 10 days at a time, arrival on the island is not necessarily confined by shift times. Similarly, it is assumed that personnel travelling to the potential Curtis Island access road and bridge construction site and dredge material facility will travel to the site early in the morning before the roadway network peak hour, but will likely travel home in the afternoon during the roadway network peak period of 4:30-5:30pm.

As shown above in Table 4.8, the shift patterns for operations personnel at the LNG facility will also correspond to this early morning commute times, though the afternoon commute will likely be during the 4:30-5:30 roadway network peak.

Considering the above, the peak hours assumed for the GLNG development activity are from 6:00-7:00am for the AM development peak and from 4:30-5:30pm for the PM development peak. Projects included as cumulative background traffic in this assessment were reviewed and were found to utilise similar project peak hours as those described above.

For simplicity, the AM peak periods in this report are referred to as the “early” and “late” peak periods. The “early peak” periods refer to the development peak periods (6:00-7:00am). The “late peak” period refers to the road network peak period (7:45-8:45am). As above, the PM peak hour is estimated to occur at the same time for the road network and the GLNG Project. The following three peak hour periods were assessed for the intersection capacity impact analysis:

- AM early peak hour: 6:00 – 7:00am;
- AM late peak hour: 7:45-8:45am;
- PM peak hour: 4:30-5:30pm.

As outlined in Section 4.0, up to 25% of daily personnel movements were assumed to occur in each of the development peak hours (AM early peak and PM peak), reflecting a typical morning/afternoon shift pattern. It was assumed that delivery trips would be spread throughout the day, with 10% of daily trips occurring in each of the development peak hours. 10% of the daily movements were estimated to occur in the road network AM peak (AM late peak).

6.3.1 Traffic Distribution

Traffic generated by the GLNG Project during the peak hours was assigned to the roadway network based on the distributions of trip types and movement patterns described in Section 4.0. The most likely or logical routes for traffic from origin to destination was assumed and used to apply traffic to the roadway segments and intersections in the project study area.

For each peak hour period assessed, a likely inbound/outbound distribution for each trip type was applied to account for movement patterns to and from the GLNG Project sites throughout the day (i.e. most personnel will travel inbound to the construction site in the morning and return in the afternoon). The in/out distribution of traffic for the various trip types is shown below in Table 6.2. It identifies the in/out splits for the three peak hour analysis periods identified.

Table 6.2
Peak Hour In/Out Distribution

Trip Type		AM Early		AM Late		PM	
		In	Out	In	Out	In	Out
Light Vehicle Trips	Construction Staff - Camp	90%	10%	70%	30%	10%	90%
	Construction Staff - Non Camp	90%	10%	70%	30%	10%	90%
	Deliveries	50%	50%	50%	50%	50%	50%
Bus Trips	Buses	90%	10%	70%	30%	10%	90%
Heavy Vehicle Trips	Drink water	50%	50%	50%	50%	50%	50%
	Waste	50%	50%	50%	50%	50%	50%
	Fuel	50%	50%	50%	50%	50%	50%
	Raw water	50%	50%	50%	50%	50%	50%
	Equipment	50%	50%	50%	50%	50%	50%
	Pipe	50%	50%	50%	50%	50%	50%
	Concrete - Precast	50%	50%	50%	50%	50%	50%
	Concrete Insitu	50%	50%	50%	50%	50%	50%
	Prefab. Steelwork	50%	50%	50%	50%	50%	50%
	Steel	50%	50%	50%	50%	50%	50%
	Pavement	50%	50%	50%	50%	50%	50%
	Earthwork	50%	50%	50%	50%	50%	50%
	Rig. Movement	50%	50%	50%	50%	50%	50%
	Miscellaneous Class 9	50%	50%	50%	50%	50%	50%
	Miscellaneous Deliveries - Class 3	50%	50%	50%	50%	50%	50%

Intersection peak hour traffic volumes for each peak hour of analysis and assessment year are provided at Appendix G.

6.4 Cumulative Impacts of Other Projects

As indicated in Section 3.8, only the Moura Link-Aldoga Rail Project, Wiggins Island Coal Terminal Project and Gladstone Pacific Nickel Refinery Project had suitable information available for inclusion in this assessment. The other projects identified as potentially having a cumulative impact on the development did not have traffic data that could be used in the assessment and were not included in the cumulative impacts. Traffic from the projects not included has been accounted for in the background traffic growth rates applied.

The cumulative traffic from each development was reviewed and combined for each assessment year. This involved identifying the development traffic at the various scenario years and combining them to identify the total additional trips that were to be generated by the cumulative projects. The cumulative number of trips was then combined to the background volumes for the scenario years to give the total background traffic volumes in each assessment year.

6.5 Intersection Analysis

The following intersections were identified for analysis based on the potential for the proposed development to impact on their operations:

- Gladstone - Mount Larcom Road/Calliope River Road/Targinie Road intersection;
- Gladstone - Mount Larcom Road/Hanson Road/Landing Road intersection;
- Hanson Road/Red Rover Road intersection;
- Hanson Road/Blain Drive/Alf O'Rourke Drive intersection;
- Bruce Highway/Gladstone - Mount Larcom Road intersection;
- Glenlyon Road/Port Access Road/Railway Street intersection;
- Dawson Highway/Glenlyon Road/Bramston Street intersection;
- Dawson Highway/Don Young Drive intersection;
- Dawson Highway/Blain Drive/Herbertson Street intersection;
- Dawson Highway/Philip Street intersection;
- Dawson Highway/Aerodrome Road intersection;
- Bruce Highway/Dawson Highway intersection;
- Bruce Highway/Calliope River Road intersection.

6.5.1 Gladstone - Mount Larcom Road/Calliope River Road/Targinie Road Intersection

The Gladstone-Mount Larcom Road/Calliope River Road/Targinie Road intersection is an existing four-way priority intersection with the major movement east-west along Gladstone-Mount Larcom Road, as shown on Figure 6.1. The results of the SIDRA analysis for this intersection are shown below in Table 6.3. DMR count data from 2006 was utilised in the assessment.

Figure 6.1

Gladstone-Mt Larcom Rd/Calliope River Rd/Targinie Rd – Existing Layout

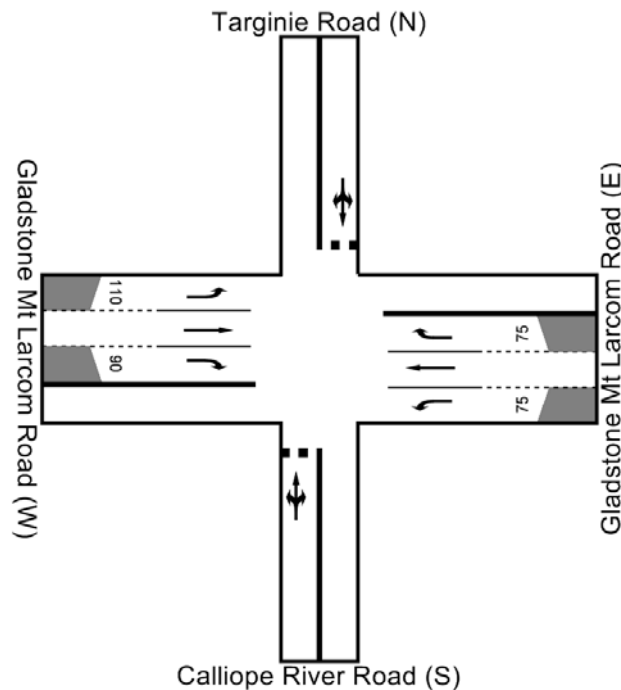


Table 6.3 Gladstone-Mt Larcom Rd/Calliope River Rd/Targinie Rd – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.42	6 sec	20 m	0.47	7 sec	24 m	-
	AM Late	0.18	5 sec	6 m	0.20	5 sec	7 m	-
	PM	0.19	5 sec	7 m	0.22	5 sec	8 m	-
2014	AM Early	0.51	8 sec	28 m	0.53	8 sec	29 m	-
	AM Late	0.20	5 sec	7 m	0.20	5 sec	7 m	-
	PM	0.22	6 sec	8 m	0.23	6 sec	9 m	-
2024	AM Early	0.58	10 sec	36 m	0.79	11 sec	60 m	-
	AM Late	0.32	5 sec	13 m	0.33	5 sec	13 m	-
	PM	0.26	5 sec	10 m	0.27	5 sec	10 m	-

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The analysis of the Gladstone-Mount Larcom Road/Calliope River Road/Targinie Road intersection indicates that the intersection will operate adequately in its current form in all assessment years with the addition of development traffic.

6.5.2 Gladstone - Mount Larcom Road/Hanson Road/Landing Road Intersection

The Gladstone-Mount Larcom Road/Hanson Road/Landing Road intersection is currently a three-way priority intersection. DMR traffic count data from 2007 was utilised in the assessment of the intersection.

The analysis results for this intersection are summarised in Table 6.4 with the existing intersection form shown on Figure 6.2.

Figure 6.2 Gladstone-Mt Larcom Rd/Hanson Rd/Landing Rd - Existing Layout

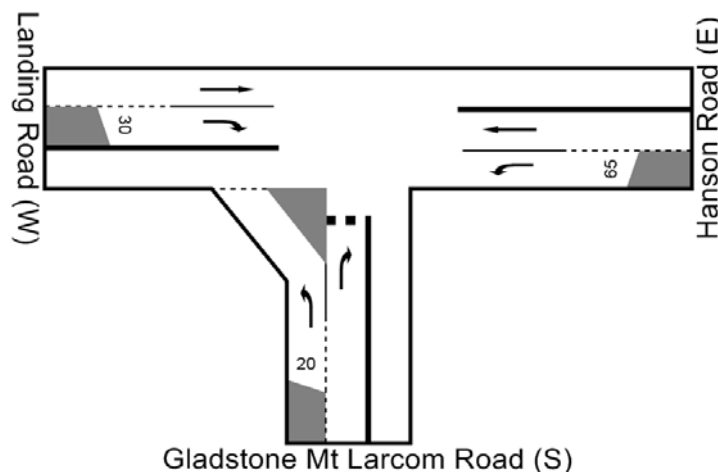


Table 6.4 Gladstone-Mt Larcom Rd/Hanson Rd/Landing Rd – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.34	8 sec	15 m	0.40	8 sec	22 m	-
	AM Late	0.29	9 sec	13 m	0.33	9 sec	16 m	-
	PM	0.32	9 sec	16 m	0.39	9 sec	22 m	-
2014	AM Early	0.40	8 sec	22 m	0.45	8 sec	27 m	-
	AM Late	0.33	9 sec	15 m	0.34	9 sec	17 m	-
	PM	0.34	9 sec	18 m	0.40	9 sec	23 m	-
2024	AM Early	0.58	10 sec	46 m	0.69	10 sec	60 m	-
	AM Late	0.52	10 sec	39 m	0.56	10 sec	44 m	-
	PM	0.47	10 sec	31 m	0.60	10 sec	41 m	-

Table 6.4 indicates that this intersection will operate adequately in its current form with the expected background and development traffic.

6.5.3 Hanson Road/Red Rover Road intersection

The Hanson Road/Red Rover Road intersection is an existing three-leg single-lane roundabout, with two approach lanes on the eastern approach and one lane on the other approaches. The circulating roadway of the roundabout accommodates two circulation lanes between Hanson Road east and Red Rover Road (south) to allow improved capacity for the left turn movement. This intersection was analysed for both the background traffic scenario and background plus development scenario.

The existing intersection form is shown on Figure 6.3 with assessment results provided in Table 6.5.

The SIDRA analysis indicates that the intersection will exceed its practical capacity in the 2012 AM early peak period under the background traffic scenario. The GLNG Project traffic increases intersection DOS to above the practical capacity in the 2012 PM peak period, but for all other years and peak periods the intersection operations are almost identical with GLNG Project traffic as with background traffic. Thus it can be inferred that project impacts on the intersection will be for a short time, due to construction traffic.

Figure 6.3

Hanson Road/Red Rover Road – Existing Layout

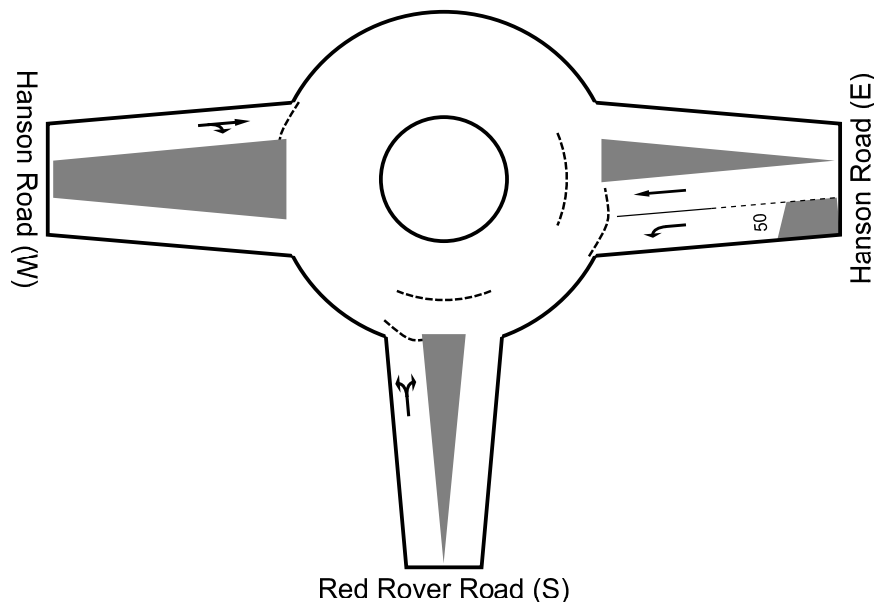


Table 6.5 Hanson Road/Red Rover Road – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	1.21	105 sec	996 m	1.45	201 sec	1693 m	-
	AM Late	0.29	7 sec	15 m	0.31	7 sec	16 m	-
	PM	0.52	5 sec	41 m	0.92	7 sec	189 m	-
2014	AM Early	1.85	390 sec	2764 m	2.27	585 sec	3526 m	-
	AM Late	0.32	7 sec	16 m	0.33	7 sec	17 m	-
	PM	0.97	10 sec	300 m	1.02	38 sec	715 m	-
2024	AM Early	2.54	762 sec	4427 m	3.48	1231 sec	5546 m	-
	AM Late	0.44	7 sec	25 m	0.46	7 sec	27 m	-
	PM	0.96	12 sec	306 m	1.05	60 sec	954 m	-

In order to mitigate the GLNG Project impacts in 2012, the roundabout requires the addition of right-turn lanes on the south and west approaches and additional circulating width to accommodate the movements as shown in Figure 6.4.

The SIDRA results shown in Table 6.6 indicate that with the proposed intersection upgrades, the intersection will operate better with the addition of development traffic than at the levels achieved with the background traffic with the existing intersection form.

Figure 6.4 Hanson Road/Red Rover Road – Upgraded Layout

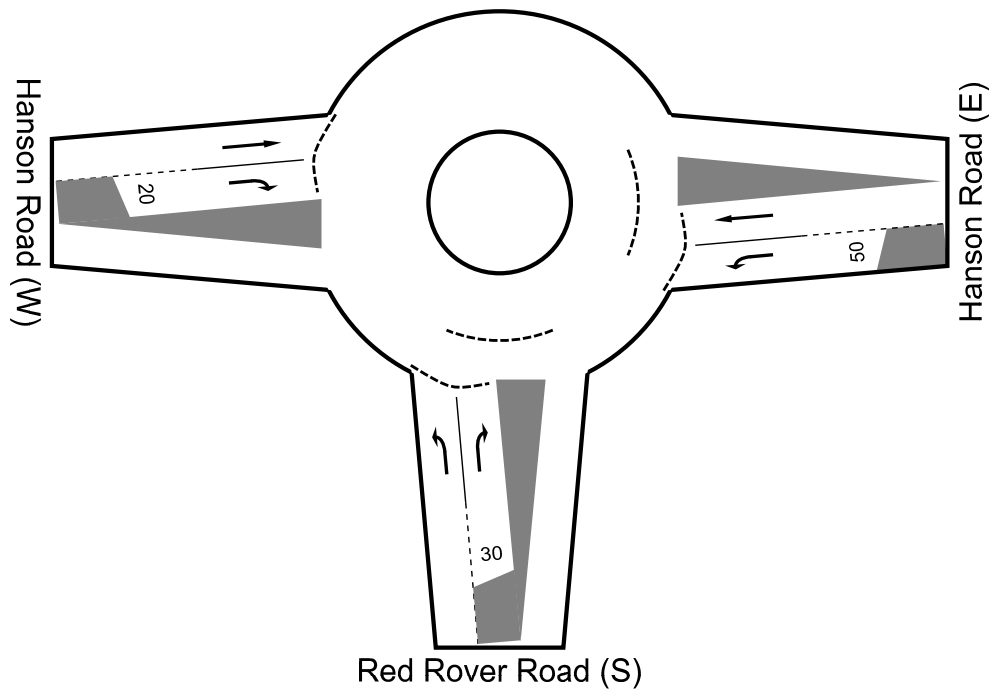


Table 6.6 Hanson Road/Red Rover Road – Upgraded SIDRA Results

Upgraded Roundabout Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.73	9 sec	73 m	0.77	12 sec	89 m	-
	AM Late	0.21	6 sec	11 m	0.23	6 sec	11 m	-
	PM	0.37	5 sec	26 m	0.68	5 sec	69 m	-
2014	AM Early	0.58	6 sec	44 m	1.15	73 sec	718 m	-
	AM Late	0.22	6 sec	12 m	0.25	6 sec	12 m	-
	PM	0.69	6 sec	71 m	0.72	6 sec	79 m	-
2024	AM Early	0.62	7 sec	49 m	1.97	374 sec	2886 m	-
	AM Late	0.29	7 sec	18 m	0.32	7 sec	18 m	-
	PM	0.66	6 sec	64 m	0.71	6 sec	73 m	-

The Department of Main Roads has undertaken corridor planning for the duplication of Hanson Road to four lanes to accommodate background traffic volumes, which is also a recommendation within the GIRTP. If the four-lane cross-section is to be built, the Hanson Road/Red Rover Road intersection would likely become a two-lane roundabout or traffic signals. The roundabout concept for the corridor planning is generally consistent with the upgrades identified above and would create adequate spare capacity to accommodate the proposed GLNG Project traffic.

In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 4.8% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.

6.5.4 Hanson Road/Blain Drive/Alf O'Rourke Drive intersection

The Hanson Road/Blain Drive/Alf O'Rourke Drive intersection is an existing four-way single-lane roundabout, as shown on Figure 6.5. The SIDRA results of this intersection analysis are shown in Table 6.7 below.

Figure 6.5 *Hanson Road/Blain Drive/Alf O'Rourke Drive – Existing Layout*

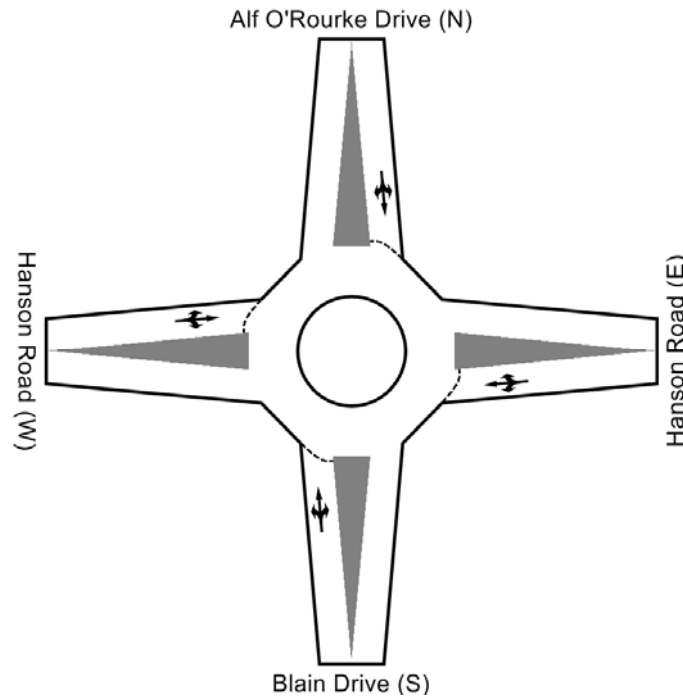


Table 6.7 *Hanson Road/Blain Drive/Alf O'Rourke Drive – SIDRA Results*

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	1.27	230 sec	2,484 m	1.38	307 sec	3,206 m	-
	AM Late	0.47	8 sec	35 m	0.49	8 sec	37 m	-
	PM	0.73	12 sec	79 m	0.78	15 sec	97 m	-
2014	AM Early	1.50	383 sec	3,872 m	1.53	447 sec	4,395 m	-
	AM Late	0.51	8 sec	40 m	0.52	8 sec	41 m	-
	PM	0.79	18 sec	110 m	0.90	26 sec	165 m	-
2024	AM Early	1.88	642 sec	5,846 m	1.97	756 sec	6,579 m	-
	AM Late	0.73	12 sec	89 m	0.74	13 sec	92 m	-
	PM	0.92	26 sec	187 m	1.09	63 sec	542 m	-

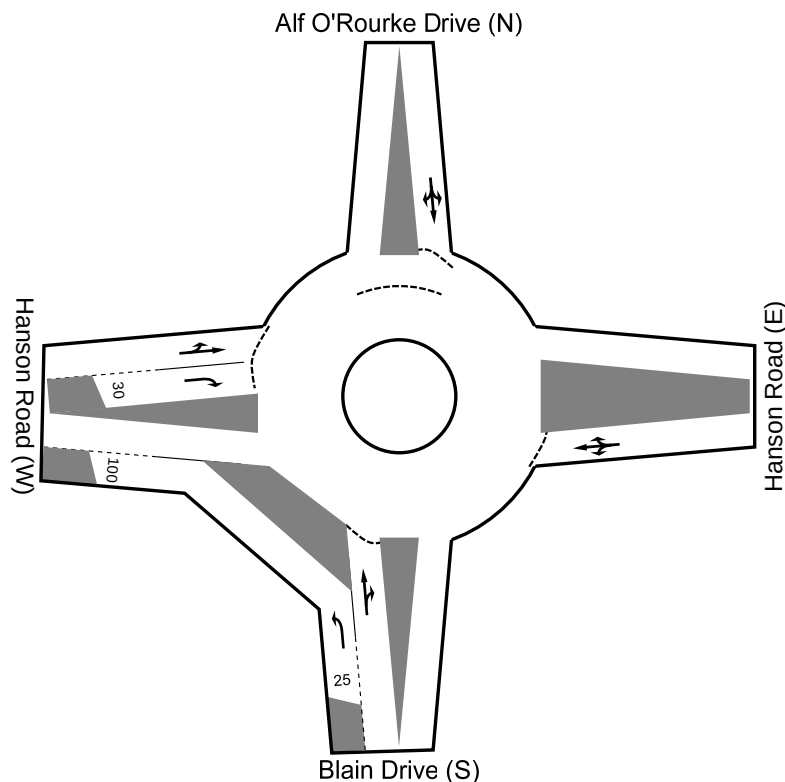
The analysis undertaken indicates that in its current form the intersection will operate above its practical capacity in all assessment years in the AM early peak period under the background traffic scenario. The development traffic pushes intersection operations above the practical capacity during the 2014 PM peak hour.

To mitigate the development impact back to background operating conditions through 2024, a continuous left-turn lane is required on the south leg with a downstream receiving lane on the west leg of the intersection. Additionally, a right-turn lane is required on the west leg with additional circulating width to accommodate the added lane. The upgraded intersection layout is shown on Figure 6.6, with the SIDRA results for the upgraded intersection analysis shown in Table 6.8.

Table 6.8 Hanson Road/Blain Drive/Alf O'Rourke Drive – Upgraded SIDRA Results

Upgraded Roundabout Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.55	7 sec	47 m	0.57	7 sec	49 m	-
	AM Late	0.44	7 sec	32 m	0.45	7 sec	33 m	-
	PM	0.63	9 sec	66 m	0.70	11 sec	85 m	-
2014	AM Early	0.61	7 sec	58 m	0.62	7 sec	61 m	-
	AM Late	0.48	8 sec	36 m	0.48	8 sec	37 m	-
	PM	0.72	11 sec	92 m	0.77	12 sec	111 m	-
2024	AM Early	0.75	9 sec	97 m	0.77	9 sec	105 m	-
	AM Late	0.68	9 sec	78 m	0.69	9 sec	80 m	-
	PM	0.84	13 sec	145 m	0.89	16 sec	189 m	-

Figure 6.6 Hanson Road/Blain Drive/Alf O'Rourke Drive – Upgraded Layout



Both the Gladstone Pacific Nickel Refinery Project and the Wiggins Island Coal Terminal Project have identified impacts and recommend mitigation measures to provide a two-lane roundabout at this location. Additionally, the Department of Main Roads has undertaken corridor planning for the duplication of Hanson Road to four lanes to accommodate background traffic volumes, which is also recommended in the GIRTP.

The roundabout upgrade not only mitigates the impact of the development but provides additional capacity for other road users. In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 3.7% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four-lane upgrading works.

6.5.5 Bruce Highway/Gladstone - Mount Larcom Road Intersection

The Bruce Highway/Gladstone-Mount Larcom Road intersection is an existing three-way priority intersection with the major movement north-south along the Bruce Highway, as shown on Figure 6.7. The SIDRA analysis results for this intersection are shown in Table 6.9 below. The analysis indicates the intersection will operate adequately in all assessment scenarios with background traffic and with the addition of GLNG Project traffic.

Figure 6.7 Bruce Highway/Gladstone - Mount Larcom Road – Existing Layout

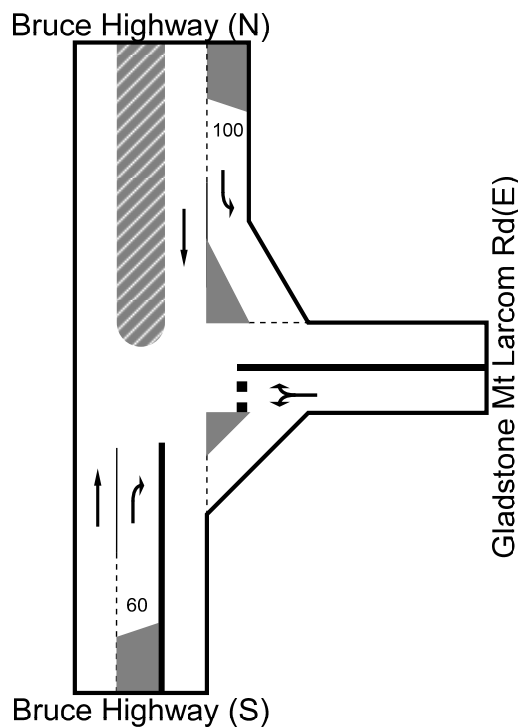


Table 6.9 *Bruce Highway/Gladstone-Mount Larcom Road – SIDRA Results*

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.17	7 sec	8 m	0.18	7 sec	8 m	-
	AM Late	0.22	6 sec	9 m	0.22	6 sec	9 m	-
	PM	0.25	6 sec	10 m	0.26	6 sec	11 m	-
2014	AM Early	0.19	7 sec	9 m	0.20	7 sec	9 m	-
	AM Late	0.26	6 sec	11 m	0.26	6 sec	11 m	-
	PM	0.29	7 sec	12 m	0.30	7 sec	13 m	-
2024	AM Early	0.32	7 sec	17 m	0.32	7 sec	17 m	-
	AM Late	0.48	8 sec	27 m	0.48	8 sec	28 m	-
	PM	0.44	7 sec	25 m	0.46	8 sec	27 m	-

6.5.6 Glenlyon Road/Port Access Road/Railway Street Intersection

The Glenlyon Road/Port Access Road/Railway Street intersection is an existing four-way signalised intersection, as shown on Figure 6.8. The SIDRA analysis results for the intersection are shown in Table 6.10. It is shown that this intersection operates adequately in its current form in all assessment years.

Figure 6.8 *Glenlyon Road/Port Access Road/Railway Street – Existing Layout*

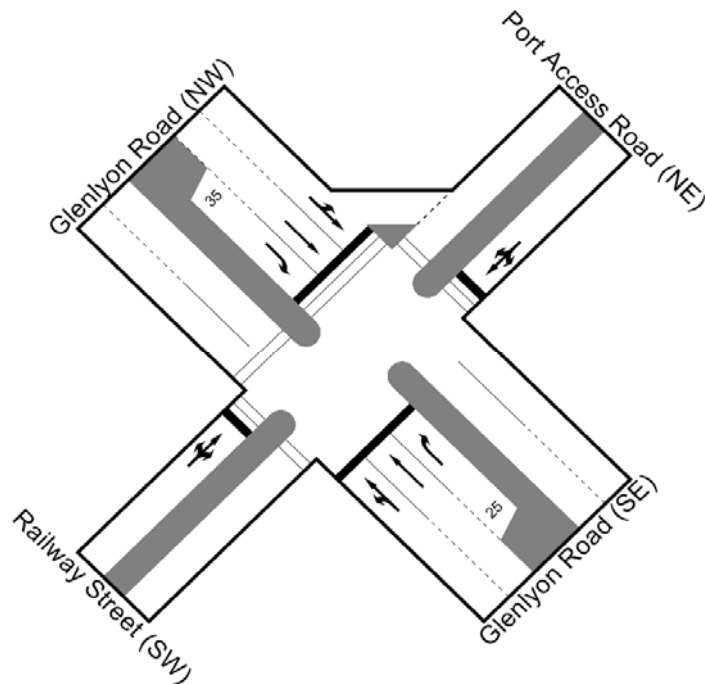


Table 6.10 Glenlyon Road/Port Access Road/Railway Street – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.38	24 sec	81 m	0.53	24 sec	93 m	100 sec
	AM Late	0.63	22 sec	165 m	0.64	22 sec	168 m	100 sec
	PM	0.59	16 sec	145 m	0.59	18 sec	146 m	100 sec
2014	AM Early	0.45	26 sec	89 m	0.45	26 sec	90 m	100 sec
	AM Late	0.67	22 sec	179 m	0.67	22 sec	179 m	100 sec
	PM	0.62	17 sec	156 m	0.63	17 sec	158 m	100 sec
2024	AM Early	0.51	26 sec	103 m	0.51	26 sec	103 m	100 sec
	AM Late	0.86	33 sec	312 m	0.89	33 sec	315 m	100 sec
	PM	0.75	18 sec	205 m	0.76	18 sec	208 m	100 sec

6.5.7 Dawson Highway/Glenlyon Road/Bramston Street Intersection

The Dawson Highway/Glenlyon Road/Bramston Street intersection is an existing four-way signalised intersection, as shown on Figure 6.9. Analysis of this intersection was undertaken with the results shown below in Table 6.11.

Figure 6.9 Dawson Highway/Glenlyon Road/Bramston Street – Existing Layout

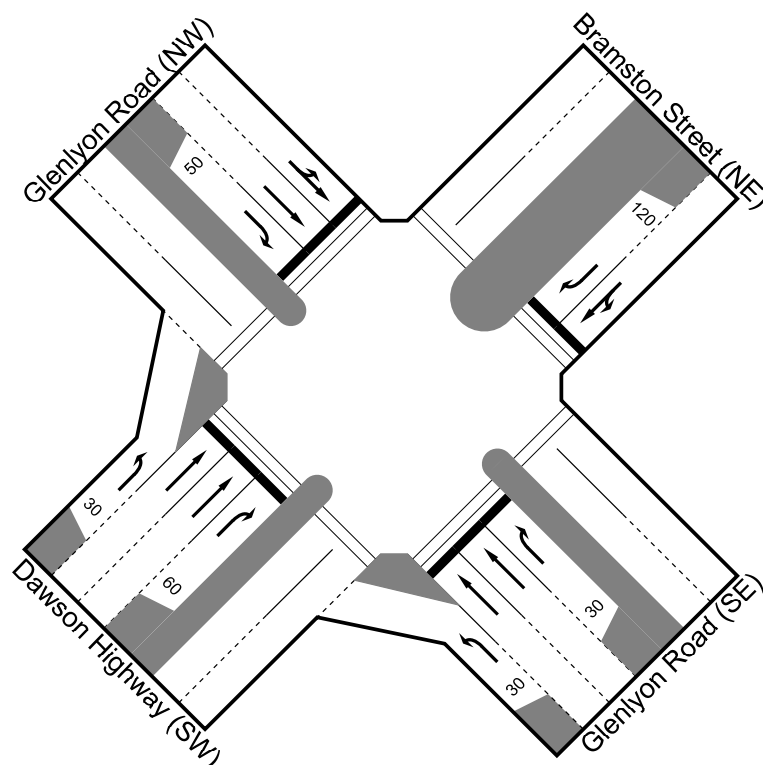


Table 6.11 Dawson Highway/Glenlyon Road/Bramston Street – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.67	24 sec	87 m	0.86	25 sec	87 m	90 sec
	AM Late	1.02	63 sec	333 m	1.00	66 sec	318 m	90 sec
	PM	0.70	27 sec	128 m	0.71	28 sec	130 m	90 sec
2014	AM Early	0.72	25 sec	92 m	0.74	25 sec	92 m	90 sec
	AM Late	1.00	63 sec	334 m	1.00	63 sec	334 m	90 sec
	PM	0.74	28 sec	140 m	0.75	28 sec	142 m	90 sec
2024	AM Early	1.00	42 sec	156 m	1.00	43 sec	156 m	140 sec
	AM Late	1.20	278 sec	1423 m	1.20	278 sec	1423 m	140 sec
	PM	0.93	39 sec	233 m	0.94	39 sec	222 m	90 sec

Table 6.11 above indicates that this intersection will exceed its practical capacity in 2012 due to background traffic. Further review of the table shows that the intersection operations with GLNG development traffic are almost identical to those for background traffic conditions and the development is not making the capacity constraints significantly worse.

Figure 6.10 below shows the short lane extensions required to mitigate the development impact back to background operating conditions, with the results shown in Table 6.12. Because the development traffic has minimal impact on the intersection, no mitigation works are recommended.

Programmed improvements at this intersection have been identified in the RIP for 2009/2010 (\$100,000). DMR advise that these works will include phasing changes and lane marking changes to improve operation of the traffic signals. The works also include an asphalt overlay.

Figure 6.10 Dawson Highway/Glenlyon Road/Bramston Street – Upgraded Layout

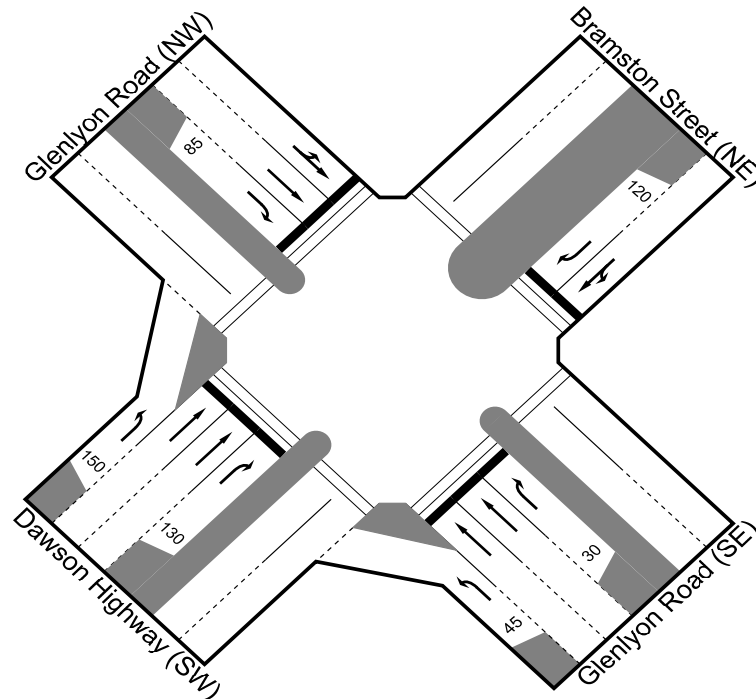


Table 6.12 Dawson Highway/Glenlyon Road/Bramston Street – SIDRA Results

Upgraded Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.36	22 sec	82 m	0.38	22 sec	84 m	100 sec
	AM Late	0.83	34 sec	182 m	0.85	35 sec	190 m	100 sec
	PM	0.65	28 sec	134 m	0.65	28 sec	135 m	100 sec
2014	AM Early	0.38	23 sec	86 m	0.38	23 sec	86 m	100 sec
	AM Late	0.89	39 sec	211 m	0.89	39 sec	211 m	100 sec
	PM	0.71	29 sec	145 m	0.69	28 sec	145 m	100 sec
2024	AM Early	0.49	25 sec	103 m	0.50	25 sec	105 m	100 sec
	AM Late	1.09	140 sec	659 m	1.10	141 sec	659 m	100 sec
	PM	0.87	34 sec	206 m	0.87	35 sec	214 m	100 sec

6.5.8 Dawson Highway/Don Young Drive Intersection

The Dawson Highway/Don Young Drive intersection is an existing T-junction priority intersection, as shown on Figure 6.11. The SIDRA analysis results for this intersection are shown in Table 6.13. The analysis indicates the intersection will exceed practical capacity in the 2024 PM peak period under the background traffic scenario, however Gladstone Regional Council planning for the Kirkwood Road project indicates Kirkwood Road will align with Don Young Drive and form a grade separated intersection providing far superior intersection performance. There is no timing proposed for this work.

Because GLNG Project traffic added to this intersection creates negligible impact on operations, no upgrades are proposed by the project.

Figure 6.11

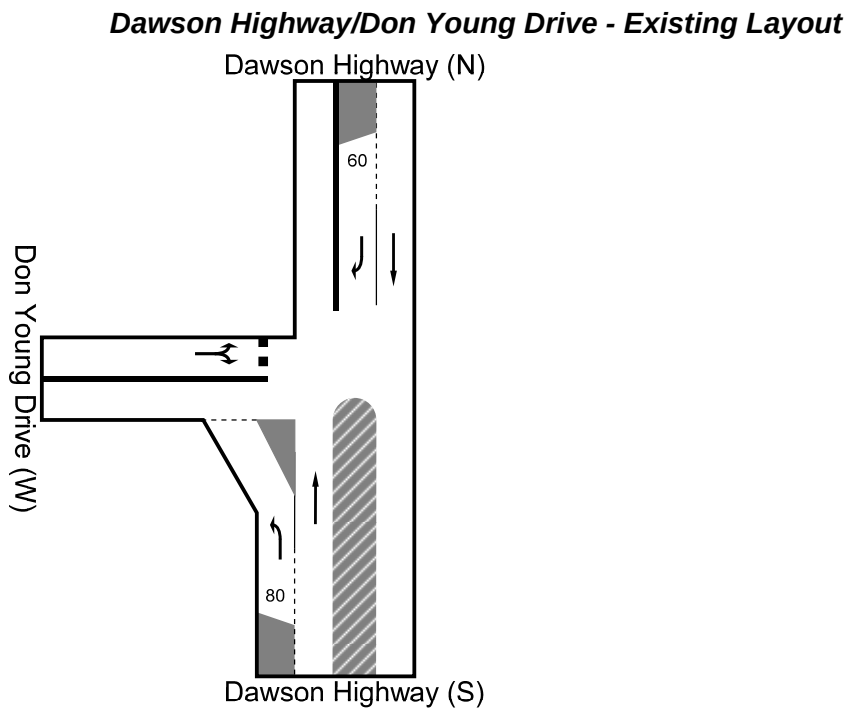


Table 6.13 *Dawson Highway/Don Young Drive– SIDRA Results*

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.21	5 sec	7 m	0.22	5 sec	8 m	-
	AM Late	0.31	3 sec	12 m	0.33	4 sec	13 m	-
	PM	0.43	5 sec	21 m	0.45	5 sec	22 m	-
2014	AM Early	0.26	5 sec	9 m	0.26	5 sec	9 m	-
	AM Late	0.36	4 sec	14 m	0.36	4 sec	14 m	-
	PM	0.54	6 sec	30 m	0.54	6 sec	30 m	-
2024	AM Early	0.44	6 sec	17 m	0.44	6 sec	17 m	-
	AM Late	0.78	7 sec	41 m	0.78	7 sec	41 m	-
	PM	0.88	12 sec	90 m	0.88	12 sec	90 m	-

6.5.9 Dawson Highway/Blain Drive/Herbertson Street Intersection

The Dawson Highway/Blain Drive/Herbertson Street intersection is an existing four-way, two-lane roundabout, as shown on Figure 6.12. The SIDRA analysis results for this intersection are shown in Table 6.14.

Figure 6.12 *Dawson Highway/Blain Drive/Herbertson Street – Existing Layout*

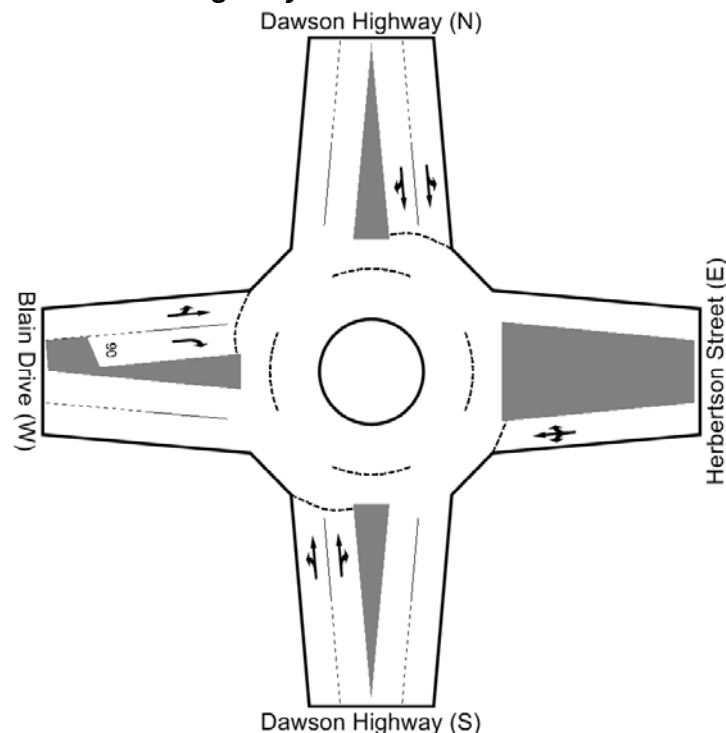


Table 6.14 Dawson Highway/Blain Drive/Herbertson Street – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.68	6 sec	51 m	0.73	7 sec	64 m	-
	AM Late	0.35	5 sec	18 m	0.36	5 sec	19 m	-
	PM	0.76	13 sec	81 m	0.90	21 sec	141 m	-
2014	AM Early	0.74	7 sec	69 m	0.77	7 sec	79 m	-
	AM Late	0.37	5 sec	20 m	0.38	5 sec	21 m	-
	PM	0.89	21 sec	138 m	0.93	28 sec	177 m	-
2024	AM Early	0.83	8 sec	103 m	0.87	9 sec	128 m	-
	PM Early	0.50	5 sec	32 m	0.51	6 sec	33 m	-
	PM	1.24	203 sec	1,651 m	1.32	257 sec	2,033 m	-

The SIDRA analysis indicates that under background traffic volumes, this intersection operates adequately for all scenarios tested except for the PM peak period in 2014 and 2024. The development traffic also results in practical capacity being exceeded in the 2012 PM peak and the 2024 AM peak.

The intersection was tested with an upgraded roundabout form, including the addition of a left-turn slip lane on the southern leg of the Dawson Highway and the left and through lane on Blain Drive becoming an all movement lane. Figure 6.13 below shows the intersection form needed to mitigate the development impact back to background traffic conditions. The analysis results are shown below in Table 6.15. The improvements ensure the operation of the intersection is no worse compared to the background traffic scenario as it relates to the existing intersection form.

Figure 6.13 Dawson Highway/Blain Drive/Herbertson Street – Upgraded Layout

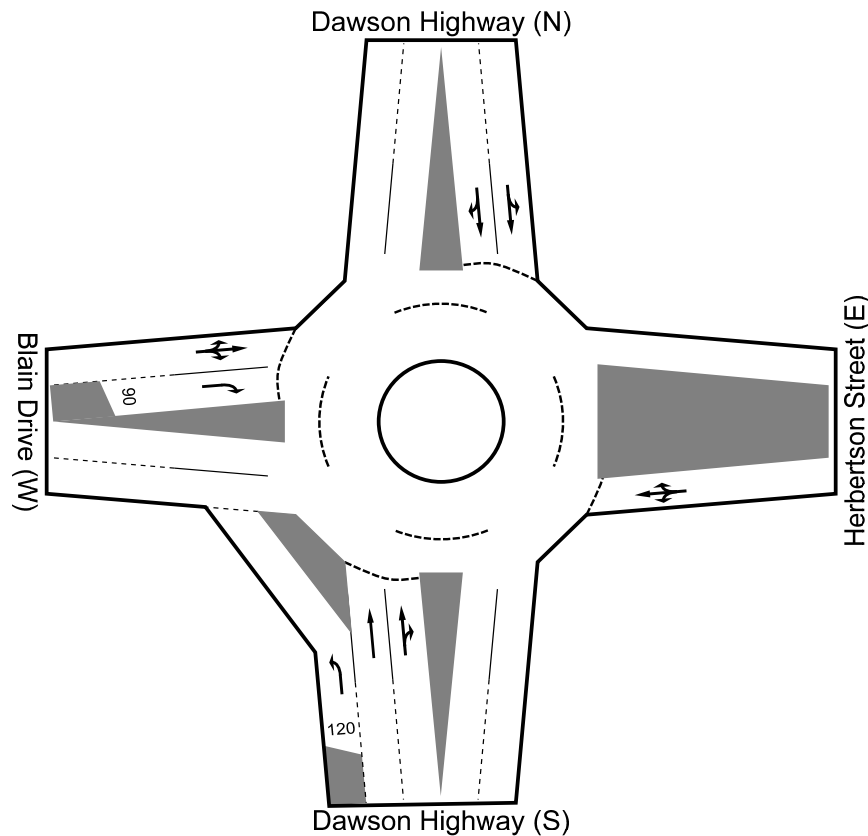


Table 6.15 Dawson Highway/Blain Drive/Herbertson Street – SIDRA Results

Upgraded Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2014	AM Early	0.73	6 sec	62 m	0.76	6 sec	71 m	-
	AM Late	0.30	5 sec	15 m	0.30	5 sec	15 m	-
	PM	0.70	9 sec	51 m	0.72	9 sec	54 m	-
2024	AM Early	0.80	7 sec	87 m	0.84	7 sec	107 m	-
	PM Early	0.40	5 sec	23 m	0.41	5 sec	23 m	-
	PM	0.98	19 sec	192 m	1.03	33 sec	342 m	-

6.5.10 Dawson Highway/Philip Street Intersection

The Dawson Highway/Philip Street intersection is an existing four-leg, two-lane roundabout with signals on the eastern and western legs that are triggered if there are long queues on the Dawson Highway. The intersection was tested as a roundabout as shown on Figure 6.14. The SIDRA analysis results for this intersection are shown in Table 6.16 below.

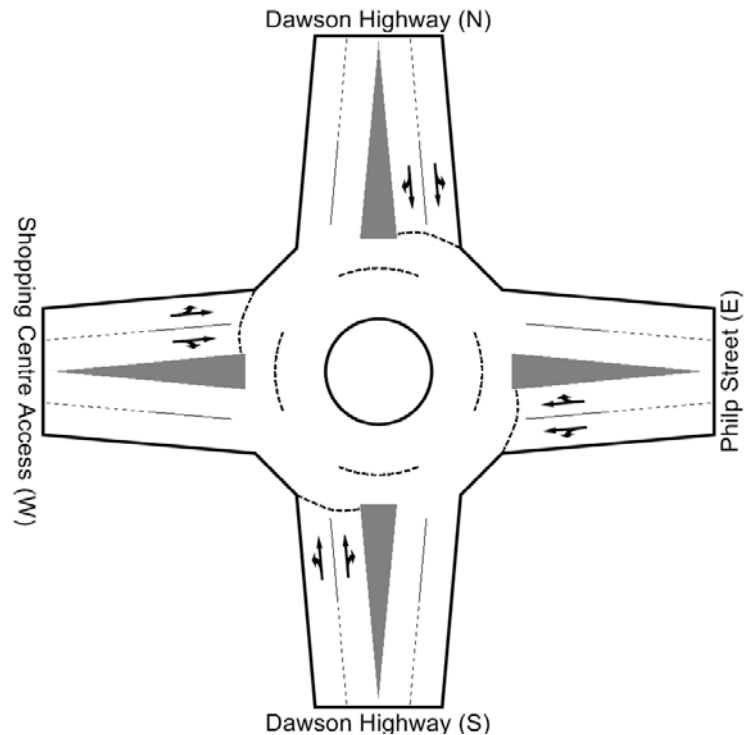


Figure 6.14 Dawson Highway/Philip Street – Existing Layout

Table 6.16 Dawson Highway/Philip Street – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.66	11 sec	59 m	0.74	12 sec	79 m	-
	AM Late	0.92	14 sec	164 m	0.94	16 sec	194 m	-
	PM	1.16	125 sec	1,097 m	1.17	192 sec	1,389 m	-
2014	AM Early	0.74	13 sec	80 m	0.76	13 sec	86 m	-
	AM Late	0.99	28 sec	354 m	1.00	30 sec	377 m	-
	PM	1.20	213 sec	1,674 m	1.22	226 sec	1,847 m	-
2024	AM Early	0.97	27 sec	250 m	1.00	41 sec	361 m	-
	AM Late	1.44	434 sec	4,487 m	1.45	441 sec	4,550 m	-
	PM	1.68	616 sec	4,588 m	1.69	633 sec	4,753 m	-

The SIDRA analysis shows that in its current form this intersection will operate above practical capacity in 2012 under the background traffic scenario. Discussions with DMR indicate that resolution of background capacity issues is currently underway, with options such as full signalization of the intersection and a bypass road parallel to Dawson Highway being considered.

Because the planned upgrades to the intersection are not known, further testing of the intersection was not undertaken. Based on Table 6.16 above, the GLNG Project traffic increases the DOS of the intersection by a maximum of 12%, which is in 2012. During the subsequent analysis years (2014 and 2024), the expected development traffic increases intersection DOS by only approximately 1–3%. The option of making a contribution to the intersection upgrade could be considered. The development traffic forms 6.1% of the combined background and development traffic in 2012.

6.5.11 Dawson Highway/Aerodrome Road Intersection

The Dawson Highway/Aerodrome Road intersection is an existing four-way signalised intersection, as shown on Figure 6.15. The results of SIDRA analysis for this intersection are shown in Table 6.17.

Figure 6.15

Dawson Highway/Aerodrome Road – Existing Layout

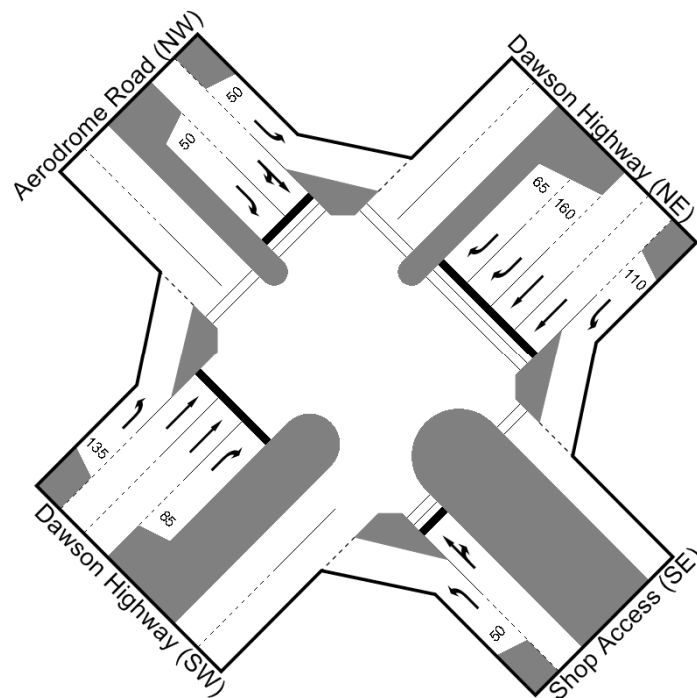


Table 6.17 Dawson Highway/Aerodrome Road – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.49	33 sec	95 m	0.69	34 sec	102 m	120 sec
	AM Late	1.00	52 sec	307 m	1.00	63 sec	579 m	120 sec
	PM	0.91	49 sec	214 m	0.93	51 sec	231 m	120 sec
2014	AM Early	0.54	33 sec	100 m	0.56	33 sec	100 m	120 sec
	AM Late	1.00	50 sec	325 m	1.00	50 sec	325 m	120 sec
	PM	1.00	68 sec	310 m	1.00	67 sec	310 m	120 sec
2024	AM Early	0.82	41 sec	142 m	0.82	41 sec	142 m	120 sec
	AM Late	1.10	101 sec	704 m	1.10	101 sec	704 m	120 sec
	PM	1.11	143 sec	858 m	1.11	143 sec	858 m	120 sec

The analysis shows that in its current form the Dawson Highway/Aerodrome Road intersection will operate above practical capacity in the 2012 AM late peak and PM peak periods under the background traffic scenario. Further review of Table 6.17 shows that the intersection operations with GLNG development traffic are almost identical to those for background traffic conditions. Therefore, no intersection upgrades will be required by the GLNG Project.

For the intersection to operate adequately with background traffic through 2024, the two right turn lanes from the Dawson Highway turning into Aerodrome Road will need to be extended and the left slip lane from Aerodrome Road will need to be turned into a continuous left turn lane. This upgraded layout and the SIDRA analysis of this upgraded intersection are shown below on Figure 6.16 and Table 6.18.

Figure 6.16

Dawson Highway/Aerodrome Road – Existing Layout

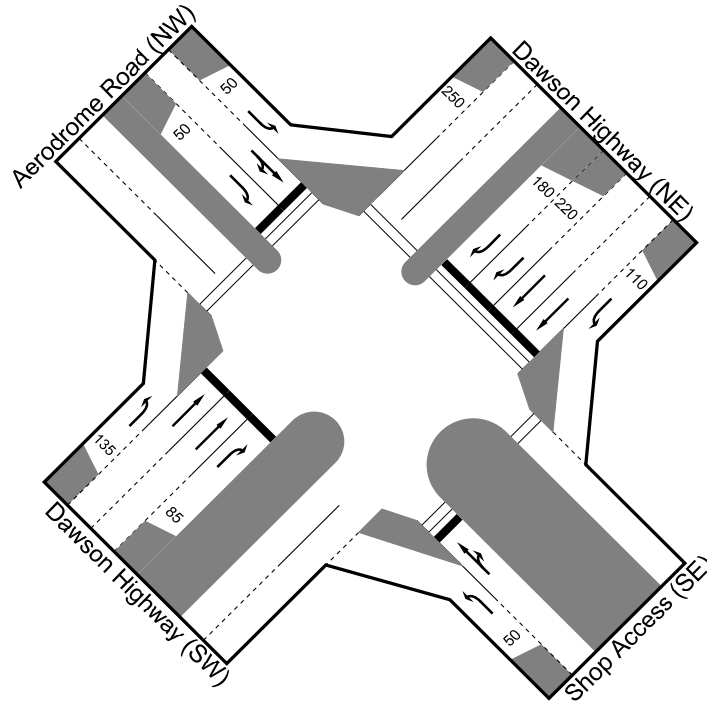


Table 6.18

Dawson Highway/Aerodrome Road – Upgraded SIDRA Results

Upgraded Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.27	22 sec	73 m	0.28	21 sec	76 m	120 sec
	AM Late	0.56	22 sec	160 m	0.59	22 sec	164 m	120 sec
	PM	0.62	31 sec	155 m	0.68	33 sec	164 m	120 sec
2014	AM Early	0.29	22 sec	78 m	0.29	22 sec	78 m	120 sec
	AM Late	0.60	22 sec	174 m	0.60	22 sec	174 m	120 sec
	PM	0.66	32 sec	167 m	0.67	32 sec	167 m	120 sec
2024	AM Early	0.38	23 sec	101 m	0.38	23 sec	101 m	120 sec
	AM Late	0.78	24 sec	259 m	0.78	24 sec	259 m	120 sec
	PM	0.87	41 sec	267 m	0.87	38 sec	267 m	120 sec

6.5.12 Bruce Highway/Dawson Highway Intersection

The Bruce Highway/Dawson Highway intersection is an existing four-way priority intersection, as shown on Figure 6.17. The SIDRA analysis results for this intersection are shown in Table 6.19 below.

Figure 6.17

Bruce Highway/Dawson Highway – Existing Layout

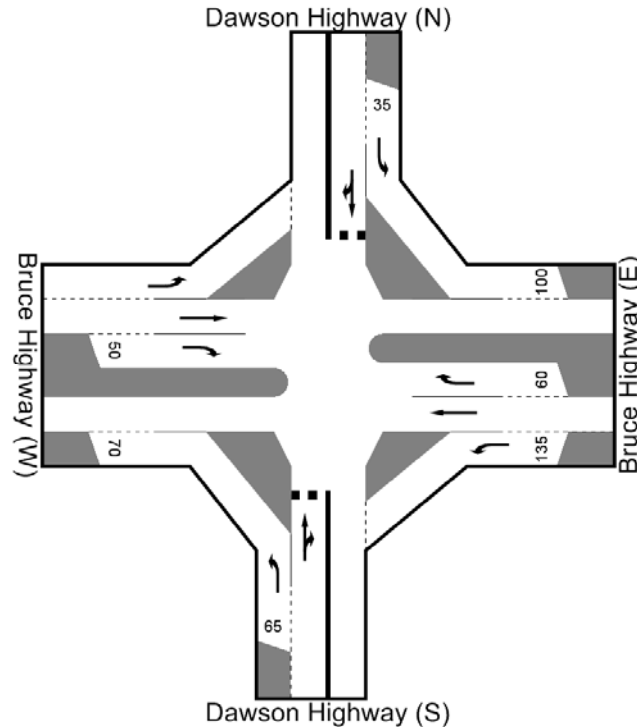


Table 6.19

Bruce Highway/Dawson Highway – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.88	14 sec	104 m	0.91	16 sec	127 m	-
	AM Late	1.79	644 sec	3,005 m	1.85	683 sec	3,149 m	-
	PM	0.53	9 sec	32 m	0.55	10 sec	35 m	-
2014	AM Early	1.01	36 sec	277 m	1.02	38 sec	286 m	-
	AM Late	2.13	906 sec	3,900 m	2.13	910 sec	3,910 m	-
	PM	0.62	10 sec	42 m	0.62	10 sec	43 m	-
2024	AM Early	1.95	654 sec	3,087 m	1.95	651 sec	3,087 m	-
	AM Late	4.74	3,104 sec	8,233 m	4.74	3,105 sec	8,237 m	-
	PM	1.02	38 sec	305 m	1.02	43 sec	336 m	-

The analysis shows that in its current form the Bruce Highway/Dawson Highway intersection will operate above practical capacity in 2012 and all subsequent analysis years in the late AM peak hour. The intersection is expected to operate over its practical capacity in all peak hours in 2024.

The capacity constraint at the Bruce Highway/Dawson Highway intersection is due to the anticipated levels of background traffic. Further review of Table 6.19 shows that operations with the proposed GLNG Project traffic are almost identical to background conditions in 2014 and 2024.

DMR has developed a grade-separated layout for the Bruce Highway/Dawson Highway intersection to mitigate the existing capacity constraints. The grade separation is expected to create adequate spare capacity for future operations, including the addition of the proposed GLNG Project trips. The analysis shows that the need for the works is driven by background growth with no impact discernable for the GLNG Project.

6.5.13 Bruce Highway/Calliope River Road Intersection

The Bruce Highway/Calliope River Road intersection is an existing three-way priority intersection, as shown on Figure 6.18. The SIDRA analysis results for this intersection are shown in Table 6.20. This intersection was found to operate adequately in its current form.

Figure 6.18

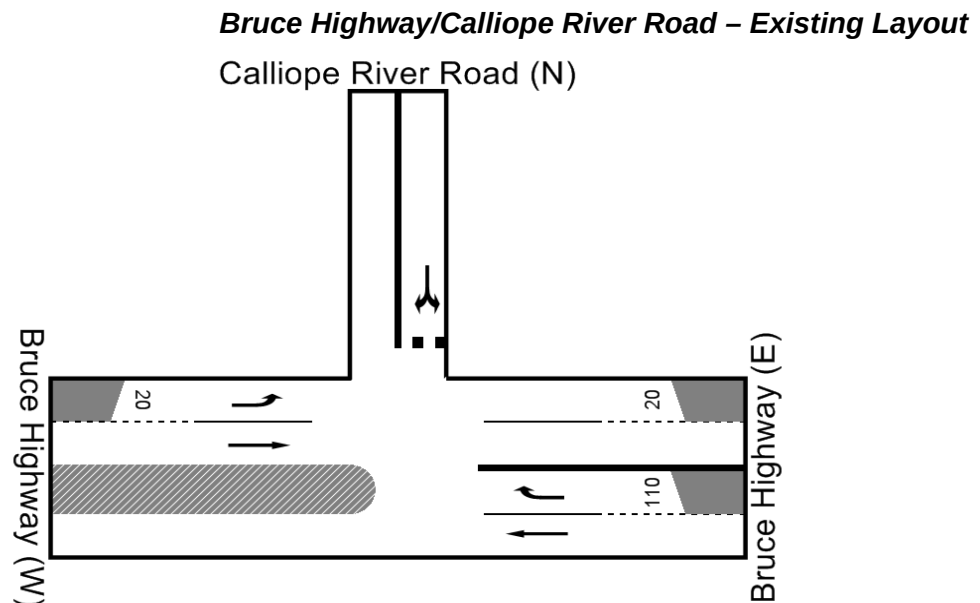


Table 6.20 Bruce Highway/Calliope River Road Intersection – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.06	4 sec	2 m	0.06	4 sec	2 m	-
	AM Late	0.07	2 sec	1 m	0.07	2 sec	1 m	-
	PM	0.07	3 sec	2 m	0.07	3 sec	2 m	-
2014	AM Early	0.06	4 sec	2 m	0.06	4 sec	2 m	-
	AM Late	0.08	2 sec	1 m	0.08	2 sec	1 m	-
	PM	0.08	3 sec	3 m	0.08	3 sec	3 m	-
2024	AM Early	0.09	4 sec	3 m	0.09	4 sec	3 m	-
	AM Late	0.11	2 sec	2 m	0.11	2 sec	2 m	-
	PM	0.11	2 sec	3 m	0.11	3 sec	4 m	-

6.6 Rural Roads Intersection Analysis

Additional intersection analysis has been performed at a single location on the road network west of the Bruce Highway. This was done along the Dawson Highway to assess if the development traffic could impact on the intersection performance.

Due to the low volumes of traffic along these rural roads and the comparatively large increase in traffic due to development, all intersections will have a large percentage increase in traffic flowing through them. However, despite the significant percentage increase in traffic volume all the intersections are predicted to operate well within capacity. Except for access intersections for construction depots and worker accommodations, all development traffic added to intersections will be through movements, which add far less delay than other turning movements at intersections.

The intersection that was identified as a critical intersection was the intersection of the Dawson Highway, Kariboe Street and Callide Street, located in the town of Biloela. This intersection has approximately 7,250vpd passing along Dawson Highway. This is in comparison to most other roads west of Calliope that carry less than 2,000 vpd.

Intersection analysis was performed at this intersection during the peak hours for all assessment years.

6.6.1 Dawson Highway/Kariboe Street/Callide Street Intersection

The Dawson Highway/Kariboe Street/Callide Street Intersection is a four-way priority intersection and the major movement is southwest to northeast along the Dawson Highway, locally named Gladstone Road. The Dawson Highway at this location is a median-separated four-lane road, with two lanes in each direction. A pedestrian crossing exists on the south-western leg of the Dawson Highway.

The north-western leg of the intersection, Kariboe Street is a two-way two-lane road. It has a pedestrian crossing across it at the intersection and also provides a left turn slip lane. The south eastern leg of Callide Street is a two-way two-lane road.

Due to the wide median on the Dawson Highway, analysis can be performed taking into account a two-stage right-turn onto the Dawson Highway from Kariboe Street. This allows a vehicle to turn from Kariboe Street and queue in the median, only needing to give way to one direction of traffic at a time.

The existing intersection form as well as the modified SIDRA form to allow for two-stage right-turns is provided in Figure 6.19. Intersection analysis results reflecting this are shown below in Table 6.21. The intersection was found to operate above its practical capacity in the 2012 AM late peak under the background traffic scenario. Further review of the SIDRA analysis results show that the GLNG Project traffic only makes intersection operations marginally worse in 2012, during the peak of gas transmission pipeline construction. For all other assessment years, the “with development” intersection operations are almost identical to “background” intersection operations.

Figure 6.19 Dawson Highway/Kariboe Street/Callide Street – Existing Layout

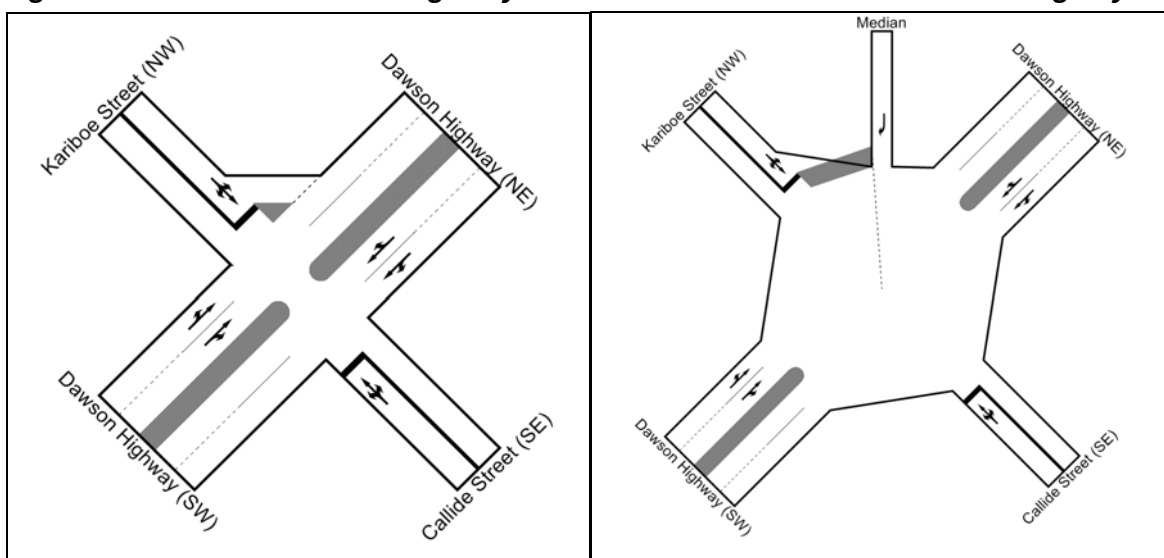


Table 6.21 Dawson Highway/Kariboe Street/Callide Street – SIDRA Results

Existing Layout - Showing Median Protection								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.08	4 sec	4 m	0.08	4 sec	4 m	-
	AM Late	0.88	18 sec	75 m	0.88	18 sec	75 m	-
	PM Late	0.36	7 sec	13 m	0.38	8 sec	14 m	-
2014	AM Early	0.09	4 sec	4 m	0.09	4 sec	4 m	-
	AM Late	1.10	43 sec	208 m	1.10	43 sec	208 m	-
	PM Late	0.43	8 sec	17 m	0.44	8 sec	18 m	-
2024	AM Early	0.13	4 sec	6 m	0.13	4 sec	6 m	-
	AM Late	1.53	173 sec	583 m	1.53	173 sec	584 m	-
	PM Late	1.00	22 sec	116 m	1.04	27 sec	148 m	-

Based on the analysis undertaken at the Dawson Highway/Kariboe Street/Callide Street in Biloela in the critical year of construction traffic for the gas transmission pipeline, it can be seen that the GLNG Project traffic will not have a significant impact on intersection operations. Additionally, it is not expected that the operating capacity of any other intersections to the west will be significantly impacted by the proposed project. Development traffic movements at the intersection do not result in more than a 5% increase for any directional movement therefore the developer is not responsible for any upgrade works required for this intersection.

6.7 Intersection Analysis Summary

Table 6.22 summarises the intersection analysis and any works required to mitigate development impacts.

6.8 Project Mitigation Summary

To mitigate the impact of the development on intersections within Gladstone, it is recommended that the following mitigation works be implemented.

Hanson Road/Red Rover Road intersection

The following works are recommended to mitigate background capacity constraints of the intersection through 2024:

- addition of a right-turn lane on the western approach of Hanson Road and additional circulating lane to accommodate the movement;
- a continuous left turn lane on the southern leg (Blain Drive).

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Duplication of Hanson Road is being planned by DMR. In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 4.8% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.

Hanson Road/Blain Drive/Alf O'Rourke Drive intersection

The following works are recommended:

- continuous left-turn lane from the south approach;
- right-turn lane on the western approach and additional circulating lane to accommodate the movement.

Duplication of Hanson Road is being planned by DMR. In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 3.7% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.

Dawson Highway/Blain Drive/Herbertson Street

The following works are recommended:

- short left slip lane on southern leg of Dawson Highway;
- pavement marking of left lane on western leg to allow all turn movements.

The improvements ensure the operation of the intersection is no worse compared to the background traffic scenario as it relates to the existing intersection form.

Dawson Highway/Philip Street

The intersection exceeds practical capacity with background traffic and development traffic creates further impact worse. DMR are planning upgrade works and the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 6.1% of the combined background and development traffic in 2012.

Table 6.22

Intersection Analysis Summary

Intersection	Existing Layout	Upgrade Year – Background Traffic	Upgrade Year – Development Traffic	Upgrade Treatment
Gladstone - Mount Larcom Road/Calliope River Road/Targinie Road	Four -way channelised priority intersection	-	-	No GLNG contribution is anticipated. The existing form has sufficient capacity for all scenarios.
Gladstone - Mount Larcom Road/Hanson Road/Landing Road	Three-way channelised priority intersection	-	-	No GLNG contribution is anticipated. The existing form has sufficient capacity for all scenarios.
Hanson Road/Red Rover Road	Two-lane roundabout	By 2012	By 2012	GLNG upgrades: • Short right turn lane on west leg of Gladstone – Mt Larcom Road and additional circulating width • Short right turn lane on south leg of Red Rover Road and additional circulating width Note: Duplication of Hanson Road is being planned by DMR. In lieu of the GLNG Project implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. Development traffic forms 4.8% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.
Hanson Road/Blain Drive/Alf O'Rourke Drive	Single-lane roundabout	By 2012	By 2012	GLNG upgrades: • Short right-turn lane on west leg of Hanson Road and additional circulating width • Continuous left-turn lane from south leg of Blain Drive Note: Duplication of Hanson Road is being planned by DMR. In lieu of the GLNG Project implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 3.7% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.
Bruce Highway/Gladstone - Mount Larcom Road	Three-way channelised priority intersection	-	-	No GLNG contribution is anticipated. The existing form has sufficient capacity for all scenarios.
Glenlyon Road/Railway Street/Port Access Road	Four-way signalised intersection	-	-	No GLNG contribution is anticipated. The existing form has sufficient capacity for all scenarios.
Dawson Highway/Glenlyon Road/Bramston Street	Four-way signalised intersection	By 2012	By 2012	No GLNG contribution is anticipated. The intersection exceeds practical capacity with background traffic but the development does not make the intersection operation any worse. Programmed improvements at this intersection have been identified in the RIP for 2009/2010 (\$100,000). DMR advise that these works will include phasing changes and lane marking changes to improve operation of the traffic signals.
Dawson Highway/Don Young Drive	Three-way channelised priority intersection	By 2024	By 2024	No GLNG contribution is anticipated. The intersection exceeds practical capacity with background traffic but the development does not make the intersection operation any worse. Gladstone Regional Council planning for the Kirkwood Road project indicates Kirkwood Road will align with Don Young Drive and form a grade separated intersection providing far superior intersection performance. There is no timing proposed for this work.
Dawson Highway/Blain Drive/Herbertson Street	Two-lane roundabout	By 2014	By 2012	GLNG upgrades: • Short left slip lane on southern leg of Dawson Highway • Pavement marking of left lane on western leg to allow all turn movements The improvements ensure the operation of the intersection is no worse compared to the background traffic scenario with the existing intersection form.
Dawson Highway/Philip Street	Two-lane roundabout	By 2012	By 2012	GLNG contribution to intersection upgrade based on use by development traffic. Intersection exceeds practical capacity with background traffic and development traffic creates further impact. DMR are planning upgrade works and the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 6.1% of the combined background and development traffic in 2012.
Dawson Highway/Aerodrome Road	Four-way signalised intersection	By 2012	By 2012	No GLNG contribution is anticipated. The intersection exceeds practical capacity with background traffic but the development does not make the intersection operation any worse
Bruce Highway/Dawson Highway	Four-way channelised priority intersection	By 2012	By 2012	No GLNG contribution is anticipated. Grade separation of intersection planned by DMR
Bruce Highway/Calliope River Road	Three-way channelised priority intersection	-	-	No GLNG contribution is anticipated. The existing form has sufficient capacity for all scenarios.
Dawson Highway/Kariboe Street/Callide Street	Four-way priority intersection	-	-	No GLNG contribution is anticipated. The intersection exceeds practical capacity with background traffic but the development does not make the intersection operation any worse

7.0 ROADWAY LINK CAPACITY IMPACT ASSESSMENT

This section considers the roadway link requirements based on assessment of the daily road link volumes with and without the proposed development.

The adopted maximum capacity thresholds are based upon the cross-section form of the segment and the road environment. These thresholds have been adopted based upon the AUSTROADS Guide to Traffic Engineering Practice and previous work. The thresholds adopted for this assessment are as follows:

Rural Locations

- two lanes: < 7,500 vehicles/day;
- two lanes with overtaking lanes: < 15,000 vehicles/day;
- four lanes: > 15,000 vehicles/day.

Urban Locations

- two lanes: <18,000 vehicles/day;
- four lanes: 18,000 – 36,000 vehicles/day;
- six lanes: >36,000 vehicles/day.

The key roads considered in this assessment include:

- Dawson Highway;
- Gladstone-Mount Larcom Road;
- Hanson Road;
- Carnarvon Highway;
- Leichhardt Highway;
- Bruce Highway;
- Gladstone - Benaraby Road;
- Burnett Highway; and
- Warrego Highway.

Assessment of roadway segment capacity was undertaken for each year of the expected GLNG Project life (2010 to 2034).

7.1 Background Traffic Volumes

The background daily two-way traffic volumes on each of the road sections were determined based upon existing AADT volumes and intersection counts provided by DMR and Council. Growth rates of 4%p.a. and 6%p.a. have been applied to urban and rural road segments, respectively, to establish future background traffic volumes.

The projected “background” and “background plus development” traffic volumes are included in Appendix H. Volumes that surpass the critical thresholds for the roadway cross-sections indicated above have been highlighted in the tables.

In reviewing the background traffic volumes, the roadway sections presented in Table 7.1 were found to require upgrading.

7.2 Development Traffic Impacts

A review of the background plus development volumes revealed that no additional roadway segments reach the capacity threshold because of the GLNG Project traffic. Further detailed examination of the critical road sections was carried out to determine if the capacity breakpoint was reached earlier due to addition of GLNG development traffic. This exercise serves to determine the “bring forward” cost responsibility of the proposed development on segments it significantly impacts.

Table 7.1 below indicates, for the road segments that reach capacity, the years when the capacity threshold is reached under “background” as well as “background plus development” traffic. The volumes at the years of failure are also included along with the number of years the proposed development brings forward the need for road upgrades compared to background traffic.

Bring forward cost contributions are recommended on any section where the development creates the need to bring forward upgrades by one year or more, as outlined in the DMR Guidelines for Assessment of Road Impacts of Development. Based on Table 7.1, the GLNG Project is responsible for a contribution to the bring forward cost of two sections (approximately 6km) of Gladstone-Mount Larcom Road.

7.3 Project Mitigation Summary

To mitigate the impact of the GLNG Project on mid-block capacity, it is recommended that the GLNG Project pay an appropriate portion of the bring forward cost of the upgrading from two to four lanes of the following sections of road:

- Gladstone-Mount Larcom Road from Red Rover Road to Power Station (approximately 1.0km) – bring forward 1.4 years from 2020 to 2019;
- Gladstone-Mount Larcom Road from Power Station to Reid Road (approximately 5.0km) – bring forward 1.4 years from 2020 to 2019.

This cost of the upgrade works is unknown but if the construction costs were to be discounted back from 2020 and 2019 at an inflation rate of 7% (specified by DMR), the GLNG Project could expect to pay the cost difference of approximately 4.7% of the total cost. DMR has started the planning work to duplicate Gladstone-Mount Larcom Road to four lanes and negotiation with DMR regarding the timing of the planned upgrade (not currently in the RIP) and the GLNG Project contribution is recommended.

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Table 7.1

Midblock Capacity Breakpoints

Road	Section	Background Traffic		Background + Development Traffic		Bring Forward Amount (years)
		Volume	Year	Volume	Year	
Dawson Highway (46A)	Breslin Street to Blain Drive	36,687	2032	36,687	2032	0.0
Dawson Highway (46A)	Blain Drive to Philip Street	37,226	2024	36,277	2023	0.3
Dawson Highway (46A)	Philip Street to Penda Avenue	37,154	2016	37,286	2016	0.1
Dawson Highway (46A)	Penda Avenue to Chapman Drive	36,801	2021	36,801	2021	0.0
Dawson Highway (46A)	Chapman Drive to Don Young Drive	18,430	2016	18,430	2016	0.0
Dawson Highway (46A)	Don Young Drive to Harvey Road	18,175	2034	18,175	2034	0.0
Dawson Highway (46A)	Tognalini - Baldwin Road to Biloela	15,074	2026	15,077	2026	0.0
Gladstone - Mt Larcom Road	Dawson Highway to Hilderbrand Street	36,178	2033	36,319	2033	0.0
Gladstone - Mt Larcom Road	Hilderbrand Street to Blain Drive	18,462	2027	18,021	2026	0.2
Gladstone - Mt Larcom Road	Blain Drive to Red Rover Road	18,666	2019	18,409	2018	0.7
Gladstone - Mt Larcom Road	Red Rover Road to Power Station	15,247	2020	15,467	2019	1.4
Gladstone - Mt Larcom Road	Power Station to Reid Road	15,247	2020	15,467	2019	1.4
Gladstone – Bernaraby Road	Dawson Highway to Sun Valley Road	36,504	2022	36,504	2022	0.0
Gladstone – Bernaraby Road	French Street to Gen Eden Drive	15,5431	2019	15,431	2019	0.0
Gladstone – Bernaraby Road	Glen Eden Drive to South Trees Drive	15,431	2019	15,431	2019	0.0
Gladstone – Bernaraby Road	South Trees Drive to Boyne Island Road	15,431	2019	15,431	2019	0.0

8.0 PAVEMENT IMPACT ASSESSMENT

Analysis has been conducted to identify the pavement impacts of the heavy vehicle movements to and from the development. This assessment includes both the construction and operational stages of the development and is undertaken from the start of construction in 2010 through to 2034.

The pavement assessment comprises two components, the impact on the timing of pavement rehabilitation and the increased need for regular maintenance. Both assessments are based on a comparison of the cumulative Equivalent Standard Axle (ESA) load with and without the development. Analysis was only undertaken on state controlled roads as no road data was available from local Councils for local roads. The methodology for the pavement impact assessment has been based on guidelines provided in DMR Guidelines for Assessment of Road Impacts of Development (GARID). The Pavement Impact Assessment output tables are attached at Appendix I.

8.1 Traffic Distribution

The distribution of GLNG Project traffic for the pavement impact assessment considers the origins and destinations of heavy vehicle movements only. Similar to the distributions of heavy vehicles for the intersection analysis, each project component was broken down into the trip types (cement, equipment, aggregate, pipe, etc.), and origins and destinations for these movements were assumed along with likely travel routes.

The same distribution assumptions were used in performing the midblock capacity assessment as were used in the pavement impact assessment, and light vehicles were attributed the same distributions as buses. Similarly, the miscellaneous light vehicle trips were attributed the same distributions as miscellaneous-class 3 vehicles.

8.2 Pavement Rehabilitation Requirements

The impact on pavement rehabilitation considers the existing and terminal roughness deficiency. Utilising an existing pavement roughness count, the year at which a pavement reaches its terminal roughness is then calculated. A pavement roughness increase of three counts per annum has also been adopted, with a terminal roughness of 110 counts for the Bruce Highway and 120 counts utilised for other state controlled roads.

The cumulative number of ESAs loaded onto the roadway segment to the terminal year is then calculated based on the ESA loading along the haulage routes. The background volumes are based on classified AADT volumes with a cumulative heavy vehicle growth rate of 3% per annum. For the Bruce Highway a value of 2.9 ESAs for each heavy vehicle is applied. For all other state controlled roads 3.2 ESAs for each heavy vehicle are used. These ESAs are as specified by DMR.

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The classified GLNG heavy vehicle traffic volume is then used to determine additional annual ESA loadings produced along the haulage routes as a result of development traffic added to the network. The annual background and development ESA loading is combined and the cumulative number of ESAs on a given link is then calculated for successive years.

The year when cumulative ESA loading reaches terminal roughness is compared between without development and with development scenarios and the difference in time between the two scenarios is then established.

Detailed results for the pavement impact analysis are provided at Appendix I.

Contributions towards pavement rehabilitation would only be made where the development would bring forward the need for rehabilitation by more than one year. The road sections that meet this criterion are shown in Table 8.2 below.

Of the road sections found to warrant bring forward cost contributions by the GLNG Project, one was identified in the RIP to have scheduled rehabilitation prior to the GLNG bring forward date, negating the need for GLNG contributions. Thus the following road section was not included in Table 8.2:

- Carnarvon Highway – Injune to Fairview Field access (25km): Widening and reconstruction scheduled in RIP for 2007-2013 (currently underway)

Two road segments on the Carnarvon Highway, one road segment on the Warrego Highway and one road segment on the Dawson Highway have been identified as requiring pavement rehabilitation works one or more years earlier with the GLNG project than with background traffic.

The “% of total cost” column shown in the table below represents the percentage of the construction cost in 2009 dollars of the total rehabilitation work costs that the GLNG Project is responsible for. Cost input data for rehabilitation of roads has been provided by DMR Central Region and includes costs of rehabilitation based on road seal width and cost inflation and discount rate of 7% per annum. Based on these inputs, the bring forward cost contribution of the required works is approximately \$3.1M (2009 dollars).

8.3 Road Maintenance Requirements

The obligations for the maintenance of the state controlled road network impacted upon by the proposed development have been calculated by dividing the number of development ESAs loaded onto a particular roadway segment by the background ESAs for an analysis year. This has been reported as a percentage for each link and each year of the development from 2010 until 2034 in the detailed assessment.

A five percent (5%) significance criterion has been adopted for the assessment based on DMR guidelines. This warrant is triggered in the assessment period for a number of the links. Based on these triggered criteria and using the DMR given information for annual maintenance costs and inflation (7% per annum) in calculating the net present value, the cost of maintaining the roads impacted by the proposed development comes to \$16,241,400 at a 2009 dollar value.

In terms of a cost per heavy vehicle trip generated by the various components of the GLNG Project, based on the estimated 3,277,684 heavy vehicle trips generated over the life of the project, the cost will be approximately \$4.96 per vehicle trip. As a cost per heavy vehicle kilometre travelled, the cost will be \$0.071 per vehicle-kilometre travelled.

8.4 Project Mitigation Summary

The analysis of the pavement impact of the development on the state controlled road network indicates that the GLNG Project will increase the maintenance costs for a number of sections of road for a number of scenario years tested. Table 8.1 shows the additional maintenance and rehabilitation costs. Negotiation of the developer's contributions towards these works will be required.

Table 8.1

GLNG Pavement Impact Costs

Component Cost	Amount (\$2009)
Pavement Rehabilitation Cost	\$3,094,300
Pavement Maintenance Cost	\$16,241,400
Total GLNG Pavement Impact Cost	\$19,335,700

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Table 8.2 Road Rehabilitation Impacts – GLNG Project Contribution Estimates

Road	Section	Direction	Length (km)	Rehabilitation Year		Bring Forward Amount (years)	% of Total Cost	Bring Forward Cost Contribution
				Without Development	With Development			
Carnarvon Highway 24D	CH. 3m to CH. 18 Roma - Taroom Road	Northbound	15	2016.7	2015.1	1.6	6.8%	\$171,276
		Southbound	15	2016.7	2015.3	1.4	5.9%	\$148,839
Carnarvon Highway 24D	Roma - Taroom Road to Injune	Northbound	72	2018.7	2015.7	3.0	11.7%	\$1,413,423
		Southbound	72	2018.7	2016.0	2.7	10.4%	\$1,258,826
Dawson Highway 46 C	Fitzroy Dev. 85A Intersection to Duaringa/Woorabinda Intersection	Westbound	6.6	2019.3	2017.9	1.4	4.9%	\$54,925
Warrego Highway	KM135.5 to Roma	Westbound	6.2	2018.3	2017.1	1.2	4.5%	\$46,997
Total								\$3,094,300

9.0 OVERALL DEVELOPMENT IMPACTS

9.1 Traffic Management

Construction works will impact on public roads and the rail network in some locations, generally where the pipeline crosses a public road or the railway track. Under these circumstances the developer will need to ensure traffic management plans are prepared consistent with the DMR Specification MRS11.02 Provision for Traffic and the Manual of Uniform Traffic Control Devices (MUTCD). It is expected the principles applied when controlling traffic on public roads will also apply to the numerous access drives and tracks crossed along the pipeline corridor.

9.2 Heavy and Oversized Loads

Vehicles carrying plant and material over state-controlled roads and surface streets shall comply with the vehicle mass limit requirements set out in the Transport Infrastructure Act 1994. Heavy vehicle routes in the project area have been identified by Queensland Transport and have been used to identify the appropriate routes for haulage of equipment and materials to the various project sites. The approved heavy vehicle routes are included in Appendix J.

It should be noted that the Dawson Highway through the Calliope Range should not be used for oversize loads because of steep grades and winding roads. Road upgrade works on this section of the Dawson Highway are programmed to occur from 2008/09 through to 2012/13 and delays may occur at times due to construction works. After this time, the road is expected to be constructed to a standard to allow use by oversize loads.

9.3 Road Width in Rural Areas

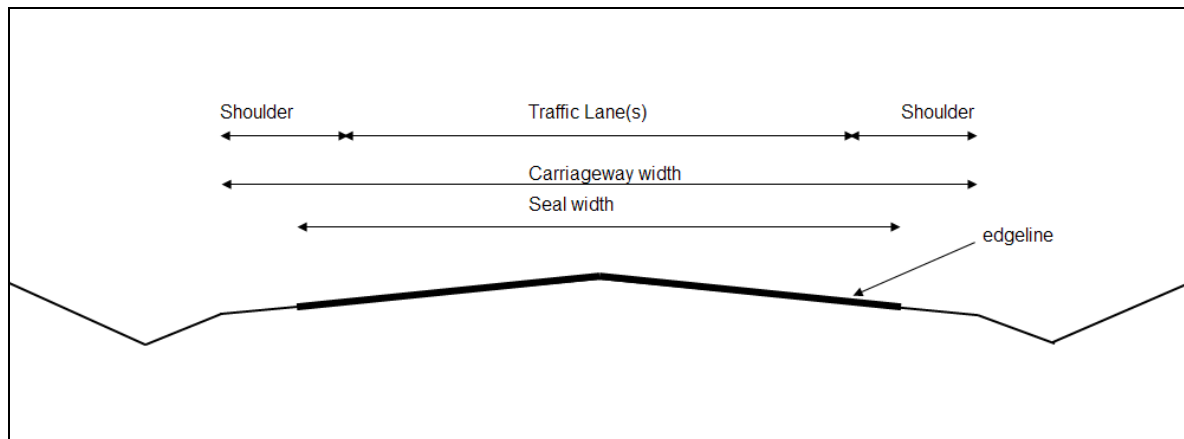
Construction traffic associated with construction and operation of the CSG field and gas transmission pipeline components can increase traffic volumes considerably when compared to background traffic, because of relatively low background traffic west of the Bruce Highway. This is illustrated in Table 9.1.

Table 9.1 *Development Traffic in Rural Areas*

Road Section	Background (vpd)	Development (vpd)	Year	Increase
Dawson Highway west of Gladstone-Monto Road	1152	297	2012	26%
Carnarvon Highway-south of Rolleston	506	50	2012	10%
Carnarvon Highway – north of Roma	1307	335	2012	26%

Given that a significant portion of the construction traffic for the CSG fields and gas transmission pipeline will be heavy vehicles, a preliminary assessment has been made of seal widths on the state-controlled network and whether they are to appropriate standards to accommodate the expected increase in traffic.

In making this assessment, sealed road rural highway standards have been determined. The *DMR Road Planning and Design Manual - Chapter 7: Cross Section* has been used to determine appropriate seal and carriageway widths. Definition of these terms is shown on Figure 9.1 and recommended widths are shown in Table 9.2.

Figure 9.1
Cross Section Terminology

Table 9.2
Cross Section of Rural Roads

Feature	Traffic volumes on two way rural roads (vpd)			
	<700	700-1700	>1700	>1700 higher traffic
Number of traffic lanes	2	2	2	2
Traffic Lane width (m)	3.0	3.25	3.5	3.5
Sealed shoulder width (m)	0.5	0.5	1	1
Total shoulder width (m)	1.5	1.5	1.5	2
Total seal width (m)	7.0	7.5	9.0	9.0
Carriageway width (m)	9.0	9.5	10.0	11.0

The existing seal widths on the state-controlled road network have been compared with the recommended seal widths outlined in Table 9.2. Figure 9.2 illustrates the relationship of the average seal width of the study area roads with that required to comply with the standard.

Four sections of road have been identified that have existing width deficiency which the proposed GLNG project adds traffic to. However, only one link was identified where development traffic increases traffic volume beyond the standard required with the existing traffic volume, thus triggering a higher (wider) standard of pavement. This is on the Carnarvon Highway from Injune north to Ch 86 where the addition of development traffic increases traffic volumes from below 700vpd to between 700 and 1700vpd. The RIP indicates widening and pavement rehabilitation works on Carnarvon Highway from Injune to Rolleston to the value of over \$30 million from 2008 and beyond, hence no mitigation works are required.

9.4 Environmental Impacts

For construction of new access roads to the various project sites, the developer will need to comply with the requirements of the *Environmental Protection Act 1994* and other relevant statutory approvals. The developer shall implement and maintain measures to preserve and protect the natural environment on and adjacent to the site. Environmental issues relating to transport include weed management, vegetation clearing in road/rail reserves, dust control, erosion control, sediment protection, etc.

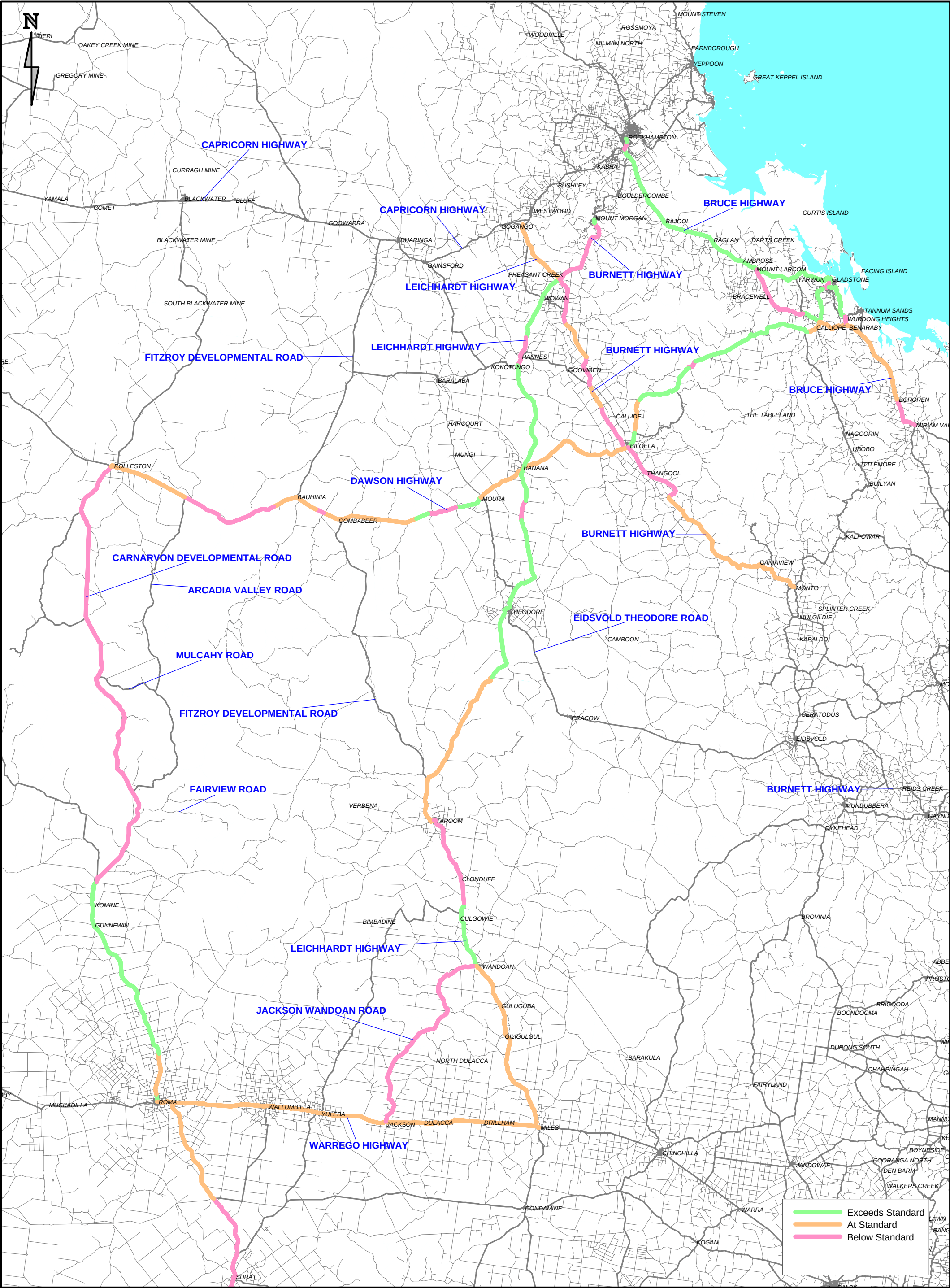
9.4.1 Dust Control

The developer should take adequate precautions to effectively minimise the generation of dust during project construction activities as this may affect the safety and general comfort of the travelling public, employees and/or occupants of adjacent buildings.

In this respect, the developer shall carry out regular application of water or other palliative measures along the sections of the work traversed by the travelling public, as required, to minimise dust in accordance with DMR specification MRS11.02 – Provision for Traffic.

9.4.2 Weed, Pest and Disease Control

The developer is responsible for maintaining all landscape and revegetation works in a weed, pest and disease free condition. All declared plants shall be managed to the level of control required by the *Land Protection (Pest and Stock Route Management) Act 2002* and the *Land Protection (Pest and Stock Route Management) Regulation 2003*. All works shall be undertaken in accordance with DMR specification MRS11.16E – Establishment and Monitoring Works.



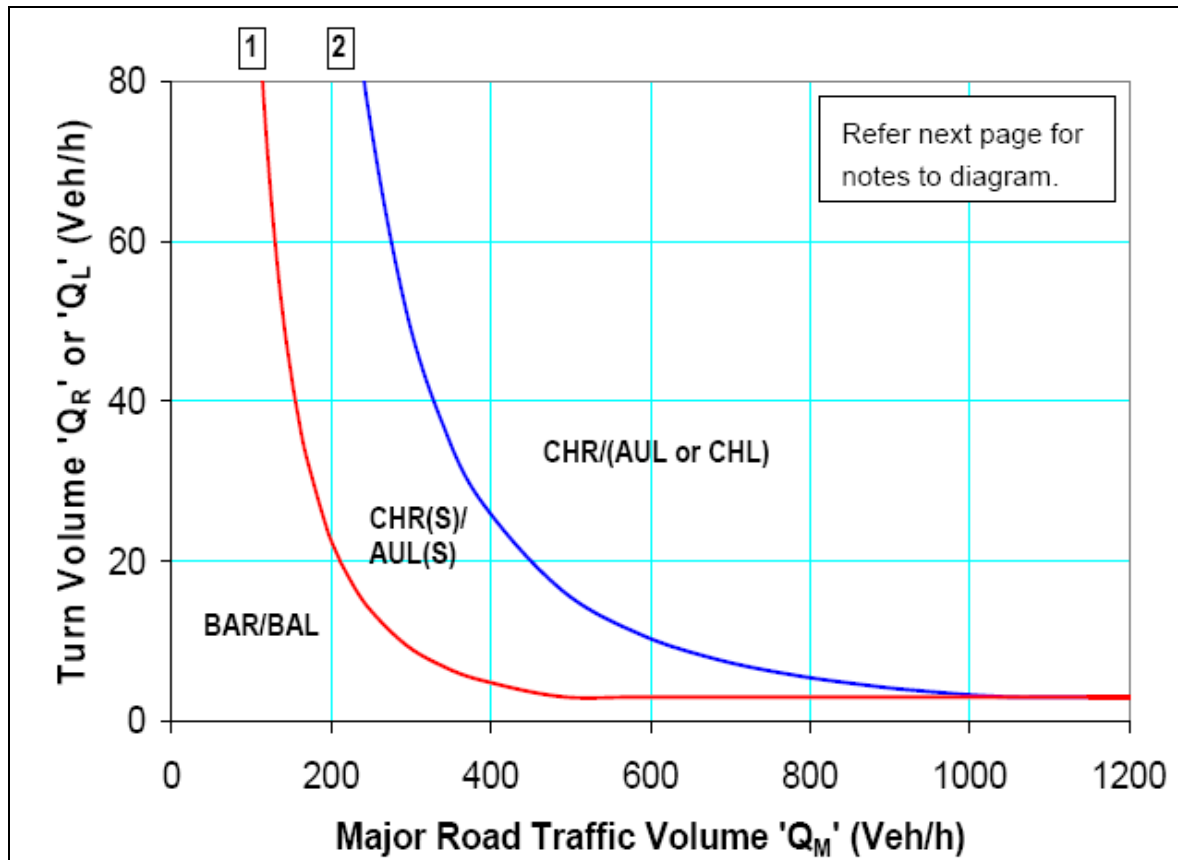
9.5 Access Intersection Standards

Access locations to the CSG fields and gas transmission pipeline from the state-controlled road network have been assumed based on logistics of transport and locations of construction activities for each component. These locations will be refined as contractors finalise plans, and appropriate access standards should be sought in order to maintain a safe and efficient road network.

Chapter 13 of the DMR Road Planning and Design Manual (RPDM) provides guidelines on the required intersection form for minor roads with the state-controlled road network, based on traffic volumes expected on both roads. Figure 9.3 provides the DMR warrants for the turn treatments needed at basic priority T-intersections. It is anticipated that based on the volumes of traffic currently on the roads in the project study area and the volumes of traffic generated by the GLNG Project, Basic Right Turn treatment (BAR) and Basic Left Turn Treatment (BAL) treatments is the minimum standard required. A general intersection concept for turn treatments at basic priority T-intersections is included at Appendix K.

Figure 9.3

DMR Turn Treatment Warrants



Source: DMR Road Planning and Design Manual – Chapter 13

9.6 Pedestrian and Bicycle Network Impacts

In order to determine any potential impact on the existing or proposed pedestrian and cycle network, the recommendations and strategies of the Gladstone City Council *Walk-Cycle Network Improvement Plan* was reviewed.

The plan includes recommendations for specific improvements to existing pedestrian and cycle facilities around Gladstone. These network improvements were cross-referenced with the road network impacts of the GLNG Project identified in Sections 6.0 through 8.0 of this report. Hanson Road (Gladstone-Mount Larcom Road) is the only road network element identified in the plan which is also expected to require upgrades due to GLNG Project activities.

Cycle and pedestrian improvements have been identified in the plan for Hanson Road, where some cycle/footpath facilities exist from Bassett Street (west of Blain Drive) to the Power Station. Recommended improvements include provision of wide shoulders and footpaths along the entire road. The GLNG Project is expected to require bring forward cost contributions to the duplication of Hanson Road (Gladstone-Mount Larcom Road) from Red Rover Road to Reid Road (identified in Section 7.0). Implementation of the recommendations for pedestrian and cycle improvements to this section of road should be recognised by DMR when the design of the upgrades occur.

The intersection improvements recommended at Hanson Road/Blain Drive/Alf O'Rourke Drive and Hanson Road/Red Rover Road (identified in Section 6.0) should seek to also incorporate pedestrian and cycle facilities into the design in order to achieve the planning goals along Hanson Road. This should be incorporated into the ultimate design of intersection upgrades, which are mostly necessitated by background traffic growth.

The GLNG Project is not expected to significantly impact on existing or proposed pedestrian and cycle networks outlined in the Gladstone City Council *Walk-Cycle Network Improvement Plan*.

9.7 Project Mitigation Summary

To mitigate the general impacts of construction works the GLNG Project is recommended to undertake the following:

- management of traffic through the preparation and implementation of traffic management plans in accordance with DMR specification MRS11.02 Provision for Traffic and the Manual of Uniform Traffic Control Devices (MUTCD);
- ensuring heavy and oversize loads use the haulage routes defined by Queensland Transport. Permits will be required for such loads;
- control of dust as specified in MRS11.02 Provision for Traffic;
- control of weeds, pest and disease in accordance with DMR specification MRS11.16E – Establishment and Monitoring Works.

10.0 GAS FIELD ANALYSIS

10.1 Access Arrangements

Equipment and personnel require regular access to the CSG fields and work sites during field development activities. The project area has a network of existing public roads, private roads and tracks. Existing access roads and tracks will be used wherever practicable and all project related movements will be restricted to approved access tracks. Access planning will include consultation with all relevant landholders and regulatory authorities.

Approximately 6,800km of new access roads within the gas field development area are expected to be needed which generally will be built to a low volume, unpaved, rural road standard in accordance with relevant local government requirements. New access tracks should avoid environmentally sensitive areas and will be scheduled to minimise disturbance to landholders. All access tracks will be rehabilitated in accordance with statutory and landowner requirements.

10.1.1 Roma Gas Field Access

The construction depot for the Roma gas fields (called Roma centre) is expected to be located at the existing facilities in Roma, at the southwest quadrant of the Dargal Road/Curry Street intersection. Three driveway accesses to the precinct are currently provided from Curry Street. These accesses are expected to be adequate to serve the precinct for future operations of the site.

Accesses to the Roma CSG fields are anticipated to be primarily from the Warrego Highway to the east and west of Roma and the Carnarvon Highway north and south of Roma. Because the Roma Fields encompass such a large area of land and stretch for a long distance along both the Warrego Highway and the Carnarvon Highway, it is not known exactly where access roads will be required.

As field development activities progress and construction depot and worker accommodation facility locations are determined, appropriate access to the state-controlled road system should be provided based on the information provided in Section 9.5. This is to ensure both safe and efficient access to the CSG fields. Intersection turning treatments will be determined based the size of worker accommodations and construction depots accessed via the roads chosen.

In addition to intersection treatments, road width standards should also be investigated on any roads used for access to the CSG fields. Table 9.2 above provides appropriate seal widths based on expected daily volumes on these roads.

10.1.2 Fairview Gas Field Access

The primary access to the proposed Fairview CSG fields and worker accommodations is anticipated to be from the Carnarvon Highway via Fairview Road and Injune-Taroom Road. These roads currently provide access to the existing gas fields in the area.

Injune-Taroom Road

The intersection form of Injune-Taroom Road with the Carnarvon Highway in Injune is a four-leg give-way intersection. Wide shoulders are provided on Carnarvon Highway for passing at the intersection. Injune-Taroom Road is sealed for approximately 30km from Injune to the existing CSG fields at Pony Hills.

Approximately 10km of Injune-Taroom Road is scheduled for pavement rehabilitation in 2012/13. This road should be improved to a standard able to accommodate the increased development traffic expected, as summarised in Table 9.2 above. It is recommended that the developer complete any necessary road upgrades to the recommended Austroads standards. Flood immunity standards will need to be agreed with the local Council.

Fairview Road

The intersection form of Fairview Road with the Carnarvon Highway is a T-intersection, and is situated in such a way that Fairview Road is skewed to the northeast, which limits the sight distance and turning angle of traffic from Fairview Road to see oncoming traffic from the north and make the right turn north onto Carnarvon Highway. Fairview Road is unsealed from the intersection for approximately 14km to the east.

Fairview Road is contracted to be upgraded by Roma Regional Council in 2009 to include sealing from the Carnarvon Highway to the existing seal on Fairview Road (approximately 14km). Upgrades also include a realignment of approximately 1.5km of Fairview Road to create a standard right-angle T-intersection. These planned upgrades should fully address the existing deficiencies found on Fairview Road.

10.1.3 Arcadia Gas Field Access

The primary access to the proposed Arcadia gas fields and construction depot will be from the Carnarvon Highway via Mulcahys Road and Arcadia Valley Road.

Mulcahys Road

The existing intersection of Carnarvon Highway/Mulcahys Road is a basic priority T-intersection with shoulder lane markings. As a large number of right-turns from the Carnarvon Highway are expected to be generated by the proposed development the intersection should be upgraded to the Basic Right Turn treatment (BAR) and Basic Left Turn Treatment (BAL) standards as discussed above.

Mulcahys Road includes both narrow seal and gravel sections of road. The RIP identifies \$407,000 worth of pave and seal works for 2008/09 from ch6.0km to ch10.7km. This road should be improved to a standard able to accommodate the increased development traffic expected. The recommended Austroads standard is a carriageway width of 9.2m and a seal width of 7.2m including 0.5m sealed shoulders for roads carrying 150-500vpd. It is recommended that the developer complete the road upgrade to the recommended Austroads standards. Flood immunity standards will need to be agreed with the local Council.

Arcadia Valley Road

Secondary access to the Arcadia gas fields will be provided via Arcadia Valley Road from Carnarvon Highway and Dawson Highway. The intersection of Dawson Highway/Arcadia Valley Road is a priority T-intersection with approximately 50m westbound left-turn lane and widened shoulder in the eastbound direction to allow passing at the intersection. This intersection is considered adequate to serve additional turning traffic from the proposed project.

Arcadia Valley Road includes a mixture of gravel and sealed road construction. In 2010/11 the RIP identifies \$220,000 of pavement rehabilitation work. This road should be improved to a standard able to accommodate the increased development traffic expected. The recommended Austroads standard is a carriageway width of 9.2m and a seal width of 7.2m including 0.5m sealed shoulders for roads carrying 150-500vpd. It is recommended that the developer complete the road upgrade to the recommended Austroads standards. Flood immunity standards will need to be agreed with the local Council.

10.2 Impacts on Network

Traffic capacity impacts to the road network by the proposed CSG fields are not expected to be significant because of the relatively low levels of traffic generated over a relatively large area. Additionally, the existing traffic volumes on most roads in the vicinity of the CSG fields are at such low levels that the roads operate with significant spare capacity and the proposed field development traffic will not trigger capacity upgrades.

In combination with the traffic generated by the construction of the gas transmission pipeline, the CSG field development traffic triggers the bringing forward of pavement rehabilitation on two road segments on the Carnarvon Highway, one road segment on the Dawson Highway and one segment of the Warrego Highway. These road sections been identified as requiring pavement rehabilitation works one or more years earlier with the GLNG project than with background traffic. The bring forward cost of these works is approximately \$3.1M (2009 dollars) based on pavement rehabilitation rates supplied by DMR.

10.3 Seasonal Considerations

A field review of access routes to the proposed gas fields identified locations where road flooding warnings are currently signed and where poor road conditions may occur during the wet season.

Arcadia Valley Road will serve a large portion of project traffic associated with CSG field development activities for the Arcadia gas fields. The road is primarily a gravel road, and is signed for no heavy vehicle access during wet weather. Additionally, a location approximately 0.5km southwest of Glenidol Road is signed for seasonal flooding. Gas field development activities may need to shut down in the wet season should there be problems gaining access to site.

10.4 Project Mitigations Summary

To mitigate the impact of development on the roads providing access to the CSG fields the following is proposed to be implemented by the GLNG Project:

- provide appropriate turn lane treatments at CSG field access locations with state-controlled roads based on standards in the DMR RPDM – Chapter 13;
- ensure appropriate seal width is provided on access roads to the CSG fields, based on expected daily traffic volumes;
- upgrade the Carnarvon Highway/Mulcahy Road intersection to provide the minimum BAR/BAL turn treatments;
- upgrade Mulcahy Road (approximately 25km) to a carriageway width of 9.2m and a seal width of 7.2m including 0.5m sealed shoulders. Flood immunity standards will need to be agreed with the local Council;
- upgrade Arcadia Valley Road to a carriageway width of 9.2m and a seal width of 7.2m including 0.5m sealed shoulders. Flood immunity standards will need to be agreed with the local Council;
- Injune-Taroom Road should be improved to a standard able to accommodate the increased development traffic expected, as summarised in Table 9.2 above. It is recommended that any necessary road upgrades are completed to the recommended Austroads standards. Flood immunity standards will need to be agreed with the local Council.

11.0 GAS TRANSMISSION PIPELINE ANALYSIS

11.1 Access Arrangements

Equipment and personnel require regular access to the gas transmission pipeline corridor and work sites during construction of the pipeline. Access will generally be via existing roads and tracks as well as the construction construction corridor. The project area has a network of existing public roads, private roads and tracks. Existing access roads and tracks will be used wherever practicable and all project related movements will be restricted to approved access tracks and the pipeline construction corridor.

Access track design and planning will include consultation with relevant landowners and regulatory authorities to determine the exact location of the access, and if the access points are to be permanent or temporary. New access tracks will avoid environmentally sensitive areas and will be sited to minimise disturbance to landowners. All temporary access tracks will be rehabilitated in accordance with the statutory approvals and landowner requirements.

Existing fences transecting the corridor will be severed and replaced with temporary construction gates for the duration of construction activities, then reinstated. Upon completion, fences and gates may be left if requested by the landholder.

For this analysis, the locations and associated access points to the accommodation facilities and construction depots and pipe laydown areas along the pipeline corridor were presented in Figure 2.3 above. These locations have been assumed for purposes of assessing the road impacts of the gas transmission pipeline and are subject to change as planning of the project progresses. For any proposed access from the state-controlled road network, appropriate intersection turn treatments and road width standards should be provided as discussed in Sections 9.3 and 9.5 above.

11.2 Impacts on Network

The impacts of the proposed gas transmission pipeline construction will only be seen on the road network for an approximately two year period during late 2010 through late 2012, with construction traffic concentrated in the vicinity of the main worker accommodation facilities and construction depots for only approximately 15 months. During this time, traffic will be split between two main accommodation facilities and one “satellite” accommodation facility. The road impacts will be seen in the form of additional construction related traffic and minor disruptions to roads due to the construction of the pipeline across or under roads.

As described above in Sections 6.0 through 8.0, roadway capacity and pavement impacts specifically attributed to the construction and operation of the proposed gas transmission pipeline are expected to be very low.

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The construction of the western sections of the pipeline will add heavy vehicle traffic to the road network that partially contributes to the need to bring forward the pavement rehabilitation on the Carnarvon Highway and Dawson Highway as described in Section 8.0. The majority of the GLNG Project traffic creating the impact is related to the cumulative effect of traffic generated by the Santos CSG field development activities described above.

11.3 Road and Rail Crossings

Detailed pipeline route planning has been undertaken and was documented in “GLNG Project Pre-FEED - Pipeline Route Selection” by GHD in October 2008. Maps detailing the route and all potential locations that the gas transmission pipeline crosses roads and railroad corridors are provided in Appendix L.

11.3.1 Road Crossings

A review of the proposed gas transmission pipeline corridor was undertaken to identify key locations where the corridor will cross roads. The pipeline corridor is proposed to cross the roads listed in Table 11.1.

Table 11.1 *Roads Crossed by Pipeline Corridor*

State Roads	Local Roads – Sealed	Unsealed Roads
Dawson Highway (5 locations)	Fairfield Road	Fairview Road
Leichhardt Highway	Moura Bindaree Road	Beilba Road
Burnett Highway	Banana Mungi Road	Glenidol Road
Gladstone-Mount Larcom Road	Theodore Baralaba Road	Oombabeer Road
Bruce Highway	Baralaba Banana Road	Bears Lagoon Road
	Baldine Defence Road	Blacks Road
	Johnson Parrys Road	Rockford Road
	Belldeen Greycliffe Road	Mount Alma Road (3 locations)
	Prospect Creek Road	Wycheproof Road
	Jambin Dakenba Road	Targinie Road
	Mallinsons Road	
	Callide Kilburnie Road	
	Kilburnie Road	
	Inverness Road	

The gas transmission pipeline will also cross numerous other local farm and gas field development tracks in rural areas.

Road crossings are typically categorised based on the road formation type, which generally relates to the construction method. Crossing design and construction methods cater for the size and quantity of vehicles that frequent the road.

The types of road crossing methods expected are summarised below, along with the road types associated with the construction method:

- Open cut: unformed & formed tracks, gravel roads and bitumen roads;
- Bored (cased or uncased): bitumen roads and major highways;
- HDD - Horizontal Direction Drill (cased or uncased): major highways.

Regardless of the crossing method, the pipeline will be built to standards contained in *AS 2885: Pipelines – Gas and Liquid Petroleum* and will have thicker walled sections under road and rail crossings and may be reinforced with concrete slabs. Schematic diagrams of the various crossing techniques have been provided by GHD and are included in Appendix M.

Open Cut Crossings

The proposed pipeline will be constructed across unformed and gravel tracks, gravel roads and lower order bitumen roads. These roads are mostly in rural locations and carry low volumes of traffic to local properties or small population catchments. Many of the unformed tracks and gravel roads are used only for farm, mine or other industrial activity and carry little to no traffic on daily basis.

Most roads proposed to be crossed by the pipeline via open cut construction can be bypassed via other access tracks. The developer will need to consult with any affected residents or landowners and prepare a traffic management plan in accordance with Main Roads Standard Specification MRS11.02 prior to temporarily cutting off access on these roads.

Boring or HDD

Where the gas transmission pipeline is proposed to cross under the major state highways shown in Table 11.1, the pipe will be placed under the road surface by boring or HDD to avoid significant disruption to traffic on these roads.

11.3.2 Rail Crossings

A review of the proposed gas transmission pipeline corridor was undertaken to identify the location where the pipeline will cross existing railroads. The pipeline corridor crosses the rail lines in the following locations:

- Moura Short Railway north of the Davis Road crossing;
- Dawson Valley Branch Railway between Argoon and Dakenba (adjacent to Jambin Dakenba Road);
- Moura Short Railway along Dawson Highway; and
- North Coast Line in Aldoga adjacent to Gladstone-Mount Larcom Road.

Railway crossings will be either bored or HDD crossings and should be installed according to specifications within *AS 4799-2000: Installation of Underground Utility Services and Pipelines within Railway Boundaries*. Boring or HDD will allow trains to operate during construction with negligible impact to rail operations and safety.

11.3.3 Pipeline Crossing Impacts to Existing Infrastructure

A review of existing utilities and other infrastructure was undertaken at the pipeline road crossing locations to identify potential construction impacts. This was done in the form of a 'dial before you dig' request. This exercise identified that the following services will likely be impacted in some way along the length of the pipeline at the rail and road crossing locations:

- Queensland Gas Pipeline (QGP);
- Jemena gas pipeline;
- Ergon services;
- Gladstone Regional Council water facilities;
- Envestra gas pipeline;
- Gladstone Area Water Board water pipeline;
- Telstra services;
- Vision Stream fibre optic cable.

A further detailed analysis of impacts to these services will need to be undertaken at the design stage and again prior to construction of the pipeline when the exact pipeline corridor location is set.

11.4 Traffic Management

Construction traffic will access the corridor by existing local roads and private tracks wherever possible. Prior to construction, an inspection of the access roads will be made in consultation with the relevant local authority representatives to determine the state of the road, whether any upgrade is required, and to record the pre-construction condition of the road (e.g. written record, photographs). Santos will work with the relevant local authorities to make any necessary road upgrades and to agree the reinstatement condition necessary for each road. Santos will also work with landholders to develop agreements on any upgrades or reinstatement to private access tracks.

Transport to and from the construction corridor will utilise local roads where possible, to minimise access via private tracks or extensive travel along the construction corridor.

Once the pipeline contractor has been appointed and details of the pipeline delivery and workers' accommodations locations determined, a road use management plan will be prepared for the pipeline construction. This plan will address all relevant issues including the standard of the roads proposed to be used, traffic volumes, access conditions, hours of operation, safety provisions, traffic impacts, dust control etc. This plan will be developed in consultation with the Department of Main Roads and the local Councils as appropriate.

11.5 Seasonal Considerations

It is likely that construction will continue through the wet season unless prolonged periods of rain or flooding occur. Construction of the pipeline may need to shut down and/or demobilise during periods of prolonged rain or seasonal flooding should these prevent ongoing construction or access to the work sites.

11.6 Pipe Transport by Rail

The option of transporting pipe and personnel by rail to the gas transmission pipeline corridor has been assessed, with results presented in the CEO supplement report "GLNG Traffic Report – Materials by Rail Option Assessment" included in Appendix B. Santos' primary reason for investigating this option is to reduce traffic in and around Gladstone to improve the overall road safety of the GLNG Project.

11.6.1 Road Traffic Reductions

By transporting pipe and materials and personnel by rail, the total road traffic generation for the gas transmission pipeline has been reduced by approximately 14,500 trips under the “Material by Rail” option. It should be noted that while this is not a significant reduction in total road traffic for the gas transmission pipeline, the length of truck trips will be much shorter as pipes are transported by rail as far as Moura and transported the remainder of the distance to the pipe laydown areas by truck. It is estimated that a reduction in vehicle-km travelled of approximately 3,671,600 vehicle-km will occur with the “Material by Rail” option, the majority of which will occur between 2010 and 2012.

11.6.2 Rail Traffic

Train trips for the “Materials by Rail” option are based on the expected rate of delivery of pipe by ship into Port of Gladstone at one ship per month with a capacity of 6,000 pipe joints. Assuming train lengths of 50 cars, it is estimated that approximately 24 trains will be needed each month to clear the stock out of the Port of Gladstone. A conservative estimate of trains added to the rail network during the six months of pipe delivery is one per day. These additional train trips are expected to be on the Moura Line from Auckland Point in Gladstone to the west as far as Moura.

If personnel are transported to accommodation facilities by rail, it is expected that all personnel being transported will fit on one passenger train, and shift changes will be such that both directions of train travel will be utilised. Based on this, approximately one passenger train per week is expected to be added to the Moura rail system.

Further discussion on the traffic impacts of the “Materials by Rail” option compared to the base case assessment is provided in Section 13.0.

11.7 Project Mitigations Summary

To mitigate the impact of the construction of the gas transmission pipeline a number of mitigation measures are proposed to be implemented by the GLNG Project:

- the location of access roads to pipeline workers accommodation and construction depots have still to be determined however where these intersect with the state-controlled road network a minimum standard of treatment will be required. This will depend on the amount of existing and development traffic and should be determined using Chapter 13 of the RPDM (summarised in Section 9.5 above);
- the recommended minimum standard for access roads used to access the workers accommodations and construction depots is a carriageway width of 7.5m and a seal width of 4.5m for roads carrying 1-150vpd. Due to the temporary nature of the access a lesser standard than this may be suitable;

- to minimise disruption to the existing road and rail networks the following treatments are recommended for traversing road or rail facilities:
 - Open cut: unformed & formed tracks, gravel roads and bitumen roads;
 - Bored (cased or uncased): bitumen roads and major highways;
 - HDD - Horizontal Direction Drill (cased or uncased): major highways and rail crossings.

A number of service authorities have services in the vicinity of the pipeline and further investigation of services is required at the pipeline design and construction phases, and;

- once the pipeline contractor has been appointed and details of the pipeline delivery and workers' accommodations locations determined, a road use management plan will need to be prepared for the pipeline construction. This plan will address all relevant issues including the standard of the roads proposed to be used, traffic volumes, access conditions, hours of operation, safety provisions, traffic impacts, dust control etc. This plan will be developed in consultation with the Department of Main Roads and the local Councils. Individual landowners will need to be consulted over reinstatement standards on private property;
- transport of pipe by rail from Gladstone to the pipeline construction depots is currently being investigated as a mitigation measure. It would reduce the number of trucks on the road network by approximately 14,500 trips in the Gladstone urban area. Queensland Rail is currently being engaged to determine the feasibility of offloading pipe to train at Auckland Point wharves, to be transported as far as Moura. Pipe would then be transported the remainder of the distance to the construction depots by truck.

12.0 LNG FACILITY ANALYSIS

12.1 Access Arrangements

Access to Curtis Island during construction of Train 1 of the proposed LNG Facility will take place via ferries and barges from port facilities within Gladstone. The potential bridge linking Curtis Island to the mainland (if selected) is not expected to be complete until Train 1 of the LNG Facility is complete. The transfer of goods and equipment to Curtis Island has been assumed to be via Auckland Point wharves in Gladstone. Some oversize or pre-assembled construction items are expected to arrive by ship and would be transported directly to the MOF for the LNG Facility on Curtis Island. Personnel movements via ferry to Curtis Island have been assumed to occur from Auckland Point wharves. After the completion of Train 1 of the LNG facility, access to Curtis Island may be via the potential bridge crossing Port Curtis between Friend Point and Laird Point, accessed from Gladstone-Mount Larcom Road at Landing Road.

The following sections detail the access arrangements to the LNG Facility during Train 1 construction.

12.1.1 Freight Access – Auckland Point

Access to Auckland Point wharves will be gained through Gladstone. Traffic coming from Dawson Highway is proposed to bypass Gladstone urban area by routing along Don Young Drive to Hanson Road to Port Access Road. Other freight trips coming from the north and west will travel along Gladstone-Mount Larcom Road to Port Access Road to Auckland Point wharves. Trucks should stay on dedicated freight routes as identified by Queensland Transport.

The critical intersections and road sections along these routes have been analysed as part of the intersection impact and roadway link impact assessments and appropriate mitigation strategies and upgrades have been identified.

12.1.2 Personnel Access – Auckland Point

During Train 1 construction of the proposed LNG Facility, all construction personnel will be required to be transported to Curtis Island via ferry from Auckland Point. Strategies for worker accommodations and transport options have been discussed in the “GLNG Environmental Impact Statement – Marine Transport Strategy” prepared by Cardno Eppell Olsen (CEO) in March 2009 (refer Appendix C). In order to provide efficient personnel transport to Curtis Island, worker accommodations were recommended to be provided on Curtis Island, as detailed above in this report.

As discussed in the CEO Marine Transport Strategy, personnel should be transported by bus to the ferry landing to reduce the number of trips through Gladstone and to provide more efficient operations of ferry service to Curtis Island. In addition, providing bus service for personnel transport significantly reduces the need for car parking at or near the ferry terminal.

This assessment assumes that 80% of personnel will arrive at the ferry terminal by bus, and 20% will arrive by private vehicle and will require car parking near the ferry terminal. Parcels of port land adjacent to the Auckland Wharf area are being investigated with the GPC to provide car parking and other areas to assist with project logistics.

12.1.3 Access to Curtis Island Bridge

Access to the potential bridge to Curtis Island will be from a new proposed access road extending northwest from the end of Landing Road. This road would likely be constructed prior to construction of the bridge and will provide access for all vehicles to the bridge construction site. Barges used for construction of bridge components in the channel will utilise Fisherman's Landing port facilities for loading of materials and personnel. Should the bridge not be built, all personnel, plant and materials will need to be transferred via ferry and barge from Auckland Point.

12.2 Heavy and Oversized Loads

Heavy vehicle traffic generated by the LNG Facility and bridge construction should avoid travelling through Gladstone urban area whenever possible and should utilise the heavy vehicle routes specified by Queensland Transport. Vehicles carrying plant and material over state-controlled roads and surface streets shall comply with the vehicle mass limit requirements set out in the *Transport Infrastructure Act 1994*. The approved heavy vehicle routes through and around Gladstone are included in Appendix J.

Heavy vehicles will be delivering equipment and materials to both Auckland Point (to be transferred to Curtis Island) as well as to the Fisherman's Landing area (for the potential road and bridge construction). The haulage route to Fisherman's Landing crosses underneath the rail line at one point, which may present a vertical clearance issue for some items. Visual inspections of vertical clearance signs was undertaken at the following locations:

- Mount Larcom-Gladstone Road under conveyor at Comalco: 7m;
- Mount Larcom-Gladstone Road under rail east of Comalco: 6.75m;
- Calliope River Road under rail south of Mount Larcom-Gladstone Road: not signed – though appears to be approximately 7m.

Additionally, freight items delivered via Port Access Road must pass under Goondoon Street overbridge in Gladstone, which is posted with 5.1m vertical clearance. It is likely that most large or high clearance items for the bridge and LNG facility will arrive by ship and transferred directly to Curtis Island via the Material Offloading Facility (MOF) or directly to the bridge site.

12.3 Marine Transport Movements

12.3.1 Construction Deliveries

Estimates for the amount of materials and equipment delivered by truck for each phase of construction for the LNG facility have been provided by Santos. Deliveries will include aggregate, cement, piping, structural steel, electrical materials and instrumentation. Table 12.1 summarises the number of truck movements into Gladstone that will be required to be transferred to the LNG facility site on Curtis Island.

The number of barges needed to transport the LNG facility materials to Curtis Island from the mainland has been based on an estimate of approximately 4 trucks per barge trip, with some trucks being carried on personnel ferry trips at 2 trucks per ferry. For the base case, all materials for the construction of Train 1 of the LNG facility will be required to be barged to Curtis Island, since the bridge would not yet be operational. For the “No Bridge” option, materials for all construction of the LNG facility (Trains 1, 2 and 3) would be required to be barged to Curtis Island.

Table 12.1 provides a comparison of barge round trip movements for the base case and the “No Bridge” option. As shown, approximately 2,400 more barge movements are needed for the “No Bridge” option than for the base case. These movements are expected to be spread over several years during the construction of Trains 2 and 3 of the LNG facility.

Table 12.1 **LNG Facility Barge Movements**

Construction Stage	Truck Deliveries	Barge Movements (Round Trip)	
		Base Case	“No Bridge” Option
Train 1	8,400	2,500	2,500
Train 2	4,400	0	1,200
Train 3	4,400	0	1,200

12.3.2 Personnel Ferry Movements

Total ferry movements for the transport of personnel to the accommodation facilities on Curtis Island have been estimated for the construction of the LNG facility. These estimates are based on the shift patterns described above for personnel and an assumed ferry capacity of 150 passengers, consistent with the CEO Marine Transport Strategy in Appendix C. A summary of the ferry trips required to transport construction personnel to Curtis Island for each year of construction is provided in Table 12.2.

Table 12.2 **LNG Facility Construction Ferry Movements**

Construction Stage	Year	Yearly Peak Personnel	Ferry Trips Per Year	Ferry Trips per Train
Train 1	2010	1484	258	1,500
	2011	3080	535	
	2012	2940	511	
	2013	1120	195	
Train 2	2014	890	155	900
	2015	1848	321	
	2016	1764	307	
	2017	672	117	
Train 3	2018	890	155	900
	2019	1848	321	
	2020	1764	307	
	2021	672	117	

As shown in the table, approximately 1,500 ferry trips would be needed for Train 1 construction. This is consistent between the base case and the “No Bridge” option since the bridge would not be operational during Train 1 construction. During Trains 2 and 3 however, no ferry movements would be needed for personnel in the base case assessment, and approximately 900 would be needed for each of Train 2 and 3 under the “No Bridge” option.

Operations personnel for the LNG facility is significantly lower than construction personnel, but would be required to travel to Curtis Island every day. Based on the number of personnel and shifts for LNG facility operations, it is estimated that approximately 2 ferry round trips movements per day are needed, equating to approximately 730 trips per year.

12.4 Impacts on Network

Because of the long term nature and scale of construction and operational activities at the proposed LNG Facility, some traffic impacts are anticipated due to addition of development traffic. Additionally, the roadways within Gladstone carry much more volume of traffic in relation to the rest of the project area.

The intersection capacity assessment identified several intersections which needed upgrading or monetary contributions to upgrades in order to mitigate the impacts of development traffic.. The following intersections require upgrades due to the GLNG Project:

- Hanson Road/Red Rover Road intersection;
- Hanson Road/Blain Drive/Alf O'Rourke Drive intersection;
- Dawson Highway/Blain Drive/Herbertson Street; and
- Dawson Highway/Philip Street

Two sections of Gladstone-Mount Larcom Road between Blain Drive to Reid Road (approximately 6km) have been identified for earlier upgrades from 2 to 4 lanes due specifically to the addition of traffic by the LNG Facility and bridge construction.

12.5 “No Bridge” Option

The “No Bridge” option results in a reduction of 294,650 trips compared to the base case scenario due to no bridge construction traffic being added to the road network. This equates to a reduction of approximately 915,000 total vehicle-kilometres travelled on the road network.

The total travel time for personnel to reach Curtis Island after the construction of the proposed bridge could be between 30 to 40 minutes in the base case scenario. Without the bridge, total travel time could be in the order of 80 to 85 minutes because of the need to transfer to Curtis Island via ferry. Though these are rough approximations of personnel travel times, it is apparent that the provision of the bridge to Curtis Island makes transport for personnel much more efficient. It is expected that the total travel time with the bridge in place (base case) would be almost twice as fast as travel using the ferry without the bridge (“no Bridge” option).

12.6 Required Infrastructure

A new road may be constructed from the end of Landing Road to the potential bridge site at Friend Point. This new road would be constructed as part of the overall bridge project.

12.7 Project Mitigations Summary

To mitigate the impact of the LNG Facility and potential bridge construction on the Gladstone road network the following is recommended:

- provide workers accommodations on Curtis Island to reduce the amount of personnel travel to/from the construction site on a daily basis;
- provide workers transport to the construction site. CEO's assessment assumes that 80% of personnel will arrive at the ferry terminal by bus, and 20% will arrive by private vehicle and will require car parking near the ferry terminal. Parcels of port land adjacent to the Auckland Wharf area are being investigated with the GPC to provide car parking and other areas to assist with project logistics;
- upgrade or contribute to the upgrade of the following intersections:
 - Hanson Road/Red Rover Road;
 - Hanson Road/Blain Drive/Alf O'Rourke Drive;
 - Dawson Highway/Blain Drive/Herbertson Street; and
 - Dawson Highway/Philip Street.

The cost of intersection upgrades is unknown, though contributions should be based on the operational impacts or the traffic volumes added at the intersections.
- contribute an appropriate portion of the bring forward cost of the upgrading works of the following sections of road. The developer will be responsible for approximately 4.7% of the upgrade costs:
 - Gladstone-Mount Larcom Road from Red Rover Road to Power Station (approximately 1.0km) – bring forward 1.4 years from 2020 to 2019; and
 - Gladstone-Mount Larcom Road from Power Station to Reid Road (approximately 5.0km) – bring forward 1.4 years from 2020 to 2019.

13.0 SUMMARY AND CONCLUSIONS

13.1 Development Proposal

Cardno Eppell Olsen (CEO) has been commissioned by URS Australia Pty Ltd (URS) on behalf of Santos Limited (Santos) to undertake a traffic and transport study for the Santos Gladstone Liquefied Natural Gas (GLNG) project. This report has considered the road traffic impacts of the construction and operations of the proposed Coal Seam Gas (CSG) field expansions in the Surat and Bowen Basins (Roma and surrounds), a proposed LNG liquefaction and export facility (LNG facility) on Curtis Island approximately 5km northwest of Gladstone, and a proposed 435km gas transmission pipeline linking the CSG fields to the LNG facility.

The delivery of the overall proposed project will occur in stages according to each project component. The construction and operation of the CSG fields is proposed to commence on project approval and will continue to occur throughout the project life. Construction activities for the proposed gas transmission pipeline is anticipated to begin in the fourth quarter of 2010 and last for approximately 18-24 months, after which it would be available for operations.

The LNG facility proposed for Curtis Island is expected to be constructed in three stages (production trains) of increasing LNG producing capacity. Train 1 construction is anticipated to begin in 2010 and last approximately four years, with operations of Train 1 beginning in 2014. Construction of Trains 2 and 3 would then follow, with timing subject to gas availability and LNG market conditions (though successive construction has been assumed).

The potential access road and bridge linking Curtis Island to the mainland (if approved) is proposed to begin construction in the third quarter of 2012 and last approximately two years, finishing around the same time as Train 1 construction of the LNG facility. Thus, access to Curtis Island during at least Train 1 construction will be via barge and ferry. The construction of a dredge material placement facility is also being planned at Laird Point on Curtis Island as part of the overall LNG facility activities.

Primary access to the CSG fields will be from the state-controlled road network and flights from Brisbane to Roma.

Primary access to the gas transmission pipeline corridor will be gained from the major roads in close proximity to the pipeline for the majority of its length, which include the Carnarvon Highway, the Dawson Highway, Leichhardt Highway, Burnett Highway and the Bruce Highway. The existing local road network will be accessed from these roads to provide immediate access to the pipeline corridor. Construction of the gas transmission pipeline is expected to be based around centralised worker accommodations and construction depots, moving between multiple locations as construction proceeds along the proposed corridor.

Access to the LNG facility may ultimately be provided by an access road and bridge that would be constructed to provide access to Curtis Island. The access road to the bridge would connect to the northern end of Landing Road and follow the shoreline north to the Narrows. The potential bridge would cross Port Curtis between Friend Point (on the mainland) and Laird Point (on Curtis Island) and the access road will travel south from the bridge to the eastern boundary of the LNG facility site. If the bridge is not built, ferry and barge transport will need to operate from Auckland Point for the duration of the project. The traffic impacts of the option of “No Bridge” have been assessed and are provided in Appendix A. Worker accommodations for the construction of the LNG facility are proposed to be provided on Curtis Island.

13.2 Development Traffic

Traffic generation has been based on estimated material quantities for construction works and assumptions about delivery frequency. Trips associated with construction and operations equipment and workforce have also been estimated. Assumptions about the origin and destination of trips have been made including allowances for the establishment of workers accommodation. All assumptions are documented in Section 4.0 of the report. A summary of the total road trips associated with each component over the life of the project is shown in Table 13.1.

Table 13.1

Total GLNG Trips

Component	Estimated Total Trips (all years)
CSG fields	6,681,150
Gas Transmission Pipeline	572,350
LNG liquefaction and export facility (including bridge and dredge material site)	2,477,200
Total	9,730,700

Tables 13.2 to 13.4 summarise development traffic associated with construction of each project component by development year. Trip generation tables associated with CSG field construction are provided at Appendix F.

Operations traffic is anticipated to be significantly less for all project components except the CSG fields. Operations traffic for the gas transmission pipeline is expected to be in the order of 40 daily trips spread along the pipeline corridor. Traffic generated during operations of the LNG facility is expected to be approximately 200 trips per day during operations of Train 1, with traffic increasing to approximately 350 daily trips during operations of Train 3. Operations traffic for the CSG fields is provided at Appendix F, and is expected to reach approximately 750-800 trips per day in the peak of field development activities (2015 – 2035).

Table 13.2 Construction Traffic Generation – Gas Transmission Pipeline

Year	2010	2011	2012
Peak Hour			
Heavy Vehicles	13	64	64
Light Vehicles	0	100	100
Total Vehicles	13	165	165
Daily Traffic			
Heavy Vehicles	135	243	241
Light Vehicles	0	204	202
Total Vehicles	135	447	443
Annual Traffic			
Heavy Vehicles	12,260	61,545	67,550
Light Vehicles	0	46,100	63,700
Total Vehicles	12,260	107,645	131,250

Table 13.3 Bridge Construction Traffic Generation

Year	2011	2012	2013
PEAK HOUR VOLUMES			
Light vehicle trips	45	109	63
Heavy vehicle trips	40	50	34
Total Trips	85	159	97
DAILY VOLUMES			
Light vehicle trips	192	448	263
Heavy vehicle trips	400	504	337
Total Trips	592	952	600
ANNUAL VOLUMES			
Light vehicle trips	25,344	139,716	36,360
Heavy vehicle trips	19,373	56,546	17,324
Total Trips	44,717	196,262	53,684

GLNG Project –Traffic Report

Table 13.4 LNG Facility Traffic Generation – Construction

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Construction	Train 1				Train 2				Train 3			
PEAK HOUR VOLUMES												
Light Vehicles (Delivery and Personnel)	51	95	88	17	17	42	38	11	17	42	38	11
Bus - Personnel	5	14	13	3	3	8	8	2	3	8	8	2
Heavy Vehicles	3	3	3	3	2	3	3	2	2	3	2	2
Total Vehicles	59	112	104	23	21	53	49	15	21	53	48	15
DAILY VOLUMES												
Light Vehicles (Delivery and Personnel)	210	386	359	75	72	176	160	49	72	176	160	49
Bus - Personnel	20	55	50	13	13	33	30	8	13	33	30	8
Heavy Vehicles	28	34	34	28	17	26	26	23	17	26	24	19
Total Vehicles	258	475	443	116	102	235	216	80	102	235	214	76
ANNUAL VOLUMES												
Light Vehicles (Delivery and Personnel)	18,611	50,544	34,128	10,390	10,130	20,862	19,209	7,686	10,130	20,862	19,209	7,686
Bus - Personnel	2,080	5,720	5,200	1,352	1,300	3,432	3,120	832	1,300	3,432	3,120	832
Heavy Vehicles	8,680	11,523	11,523	8,346	5,249	8,370	8,370	6,464	5,249	8,370	7,654	5,275
Total Vehicles	29,371	67,787	50,851	20,088	16,678	32,664	30,699	14,981	16,678	32,664	29,983	13,792

13.3 Impact Mitigation – All Components

To mitigate the impact of the GLNG Project on the state-controlled and local government road networks the following is recommended.

13.3.1 Intersection Capacity Impacts

Several intersections have been identified as needing to be upgraded to specifically accommodate GLNG development traffic. The following works are recommended to mitigate background capacity constraints of the intersections:

- Hanson Road/Red Rover Road intersection:
 - addition of a right-turn lane on the western approach of Hanson Road and additional circulating lane to accommodate the movement; and
 - short right-turn lane on southern leg of Red Rover Road and additional circulating width.

Duplication of Hanson Road is being planned by DMR. In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 4.8% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.

- Hanson Road/Blain Drive/Alf O'Rourke Drive intersection:
 - continuous left-turn lane from the south approach; and
 - right-turn lane on the western approach and additional circulating lane to accommodate the movement.

Duplication of Hanson Road is being planned by DMR. In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 3.7% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.

- Dawson Highway/Blain Drive/Herbertson Street
 - Short left slip lane on southern leg of Dawson Highway; and
 - Pavement marking of left lane on western leg to allow all turn movements

The improvements ensure the operation of the intersection is no worse compared to the background traffic scenario as it relates to the existing intersection form.

- Dawson Highway/Philip Street: The intersection exceeds practical capacity with background traffic and development traffic creates further impact worse. DMR are planning upgrade works and the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 6.1% of the combined background and development traffic in 2012.

Figure 13.1 illustrates the locations of intersection upgrades required by the GLNG Project for the base case scenario assessment.

13.3.2 Mid-block Capacity

To mitigate the impact of the development on mid-block capacity, it is recommended that the developer pay an appropriate portion of the bring forward cost of the upgrading from two to four lanes of the following sections of road:

- Gladstone-Mount Larcom Road from Red Rover Road to Power Station (approximately 1.0km) – bring forward 1.4 years from 2020 to 2019; and
- Gladstone-Mount Larcom Road from Power Station to Reid Road (approximately 5.0km) – bring forward 1.4 years from 2020 to 2019.

This cost of the upgrade works is unknown but if the construction costs were to be discounted from 2020 and 2019 at a rate of 7%, the developer could expect to pay the cost difference of approximately 4.7% of the total cost. DMR has started the planning work to duplicate Gladstone-Mount Larcom Road to four lanes and negotiation with DMR regarding the timing of the planned upgrade (not currently in the RIP) and the developer's contribution is recommended.

13.3.3 Pavement Impacts

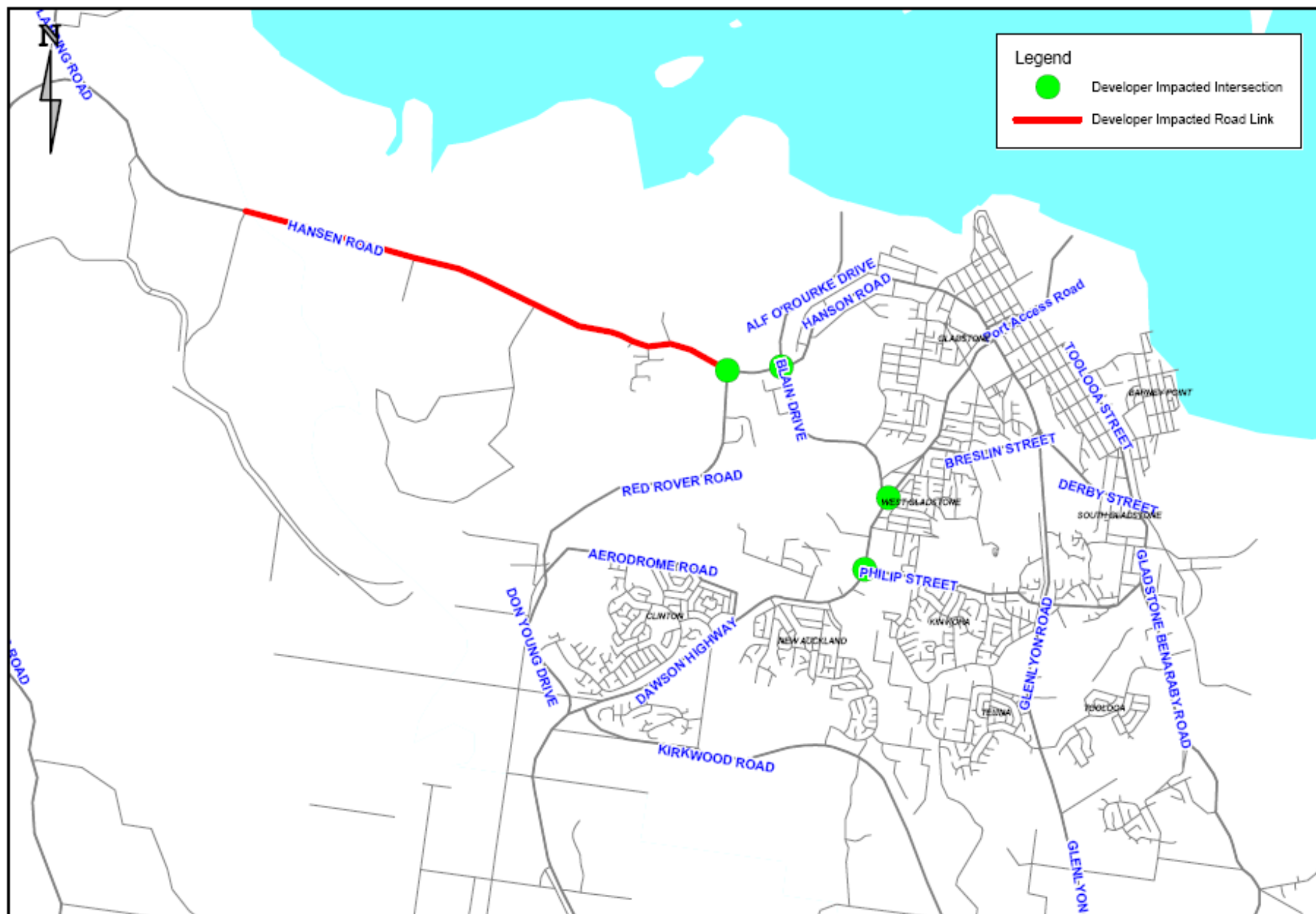
Pavement Rehabilitation

Two road segments on the Carnarvon Highway, one segment of the Dawson Highway and one road segment on the Warrego Highway have been identified as requiring pavement rehabilitation works one or more years earlier with the GLNG project than with background traffic. The bring forward cost of these works is approximately \$3.1M based on pavement rehabilitation rates supplied by DMR.

Road Maintenance

The obligations for the maintenance of the state-controlled road network impacted upon by the development have been calculated by dividing the number of development ESAs loaded onto a particular link by the background ESAs for an analysis year. The additional cost of maintaining the roads impacted by the proposed development comes to \$16,241,400 at a 2009 dollar value. Negotiation of the developers contribution towards these works will be required.

Base Case Intersection and midblock improvements recommended in Gladstone



13.3.4 Construction Works – General

To mitigate the general impacts of construction works the developer is recommended to undertake the following:

- management of traffic through the preparation and implementation of traffic management plans in accordance with DMR specification MRS11.02 Provision for Traffic and the Manual of Uniform Traffic Control Devices (MUTCD);
- ensuring heavy and oversize loads use the haulage routes defined by Queensland Transport. Permits will be required for such loads;
- control of dust as specified in MRS11.02 Provision for Traffic, and;
- control of weeds, pest and disease in accordance with DMR specification MRS11.16E – Establishment and Monitoring Works.

13.4 Impact Mitigation – Specific Project Components

The following impact mitigation measures can be more specifically contributed to a specific component:

13.4.1 Road Access to the CSG Fields

To mitigate the impact of development on the roads providing access to the CSG fields the following is proposed at the developers cost:

- provide appropriate turn lane treatments at CSG field access locations with state-controlled roads based on standards in the DMR RPDM – Chapter 13;
- ensure appropriate seal width is provided on access roads to the CSG fields, based on expected daily traffic volumes;
- upgrade the Carnarvon Highway/Mulcahy Road intersection to provide the minimum BAR/BAL turn treatments;
- upgrade Mulcahy Road to a carriageway width of 9.2m and a seal width of 7.2m including 0.5m sealed shoulders. Flood immunity standards will need to be agreed with the local Council;
- upgrade Arcadia Valley Road to a carriageway width of 9.2m and a seal width of 7.2m including 0.5m sealed shoulders. Flood immunity standards will need to be agreed with the local Council;
- Injune-Taroom Road should be improved to a standard able to accommodate the increased development traffic expected, as summarised in Table 9.2 above. It is recommended that the developer complete any necessary road upgrades to the recommended Austroads standards. Flood immunity standards will need to be agreed with the local Council.

13.4.2 Gas Transmission Pipeline Construction

To mitigate the impact of the construction of the gas transmission pipeline a number of mitigation measures are proposed at the cost of the developer:

- the location of access roads to pipeline workers accommodation and construction depots have still to be determined however where these intersect with the state-controlled road network a minimum standard of treatment will be required. This will depend on the amount of existing and development traffic and should be determined using Chapter 13 of the RPDM (summarised in Section 9.5 above);
- the recommended minimum standard for access roads used to access the workers accommodation and construction depots is a carriageway width of 7.5m and a seal width of 4.5m for roads carrying 1-150vpd. Due to the temporary nature of the access a lesser standard than this may be suitable.
- to minimise disruption to the existing road and rail networks the following treatments are recommended for traversing road or rail facilities:
 - Open cut: unformed & formed tracks, gravel roads and bitumen roads;
 - Bored (cased or uncased): bitumen roads and major highways;
 - HDD - Horizontal Direction Drill (cased or uncased): major highways and rail crossings.

A number of service authorities have services in the vicinity of the pipeline and further investigation of services is required at the pipeline design and construction phases, and;

- once the pipeline contractor has been appointed and details of the pipeline delivery and workers' accommodations locations determined, a road use management plan will need to be prepared for the pipeline construction. This plan will address all relevant issues including the standard of the roads proposed to be used, traffic volumes, access conditions, hours of operation, safety provisions, traffic impacts, dust control etc. This plan will be developed in consultation with the Department of Main Roads and the local Councils. Individual landowners will need to be consulted over reinstatement standards on private property.
- transport of pipe by rail from Gladstone to the pipeline construction depots has been investigated as a mitigation measure. It would reduce the number of trucks on the road network by 14,500 trips in the Gladstone urban area. Queensland Rail is currently being engaged to determine the feasibility of offloading pipe to train at Auckland Point wharves, to be transported as far as Moura. Pipe would then be transported the remainder of the distance to the construction depots by truck. See the "Materials by Rail" option assessment at Appendix B for more details.

13.4.3 LNG Facility and Bridge Construction

To mitigate the impact of the LNG Facility and potential road and bridge construction on the Gladstone road network the following is recommended:

- provide workers transport to the Curtis Island construction site and workers accommodation. Our assessment assumes that 80% of personnel will arrive at the ferry terminal by bus, and 20% will arrive by private vehicle and will require car parking near the ferry terminal. Parcels of industrial land exist west of Gladstone Marina and should be investigated to provide parking facilities;
- contribute to the necessary intersection upgrade at Hanson Road/Blain Drive/Alf O'Rourke Drive intersection to a dual lane roundabout with additional approach lanes. The cost of the intersection upgrade is unknown, and cost contributions will need to be coordinated with DMR.
- it is recommended that the developer pay an appropriate portion of the bring forward cost of the upgrading works of the following sections of road. The developer will be responsible for approximately 4.7% of the upgrade costs:
 - Gladstone-Mount Larcom Road from Red Rover Road to Power Station (approximately 1.0km) – bring forward 1.4 years from 2020 to 2019; and
 - Gladstone-Mount Larcom Road from Power Station to Reid Road (approximately 5.0km) – bring forward 1.4 years from 2020 to 2019.

13.5 Options Assessment

13.5.1 “No Bridge” Option

Investigation of the impact of the “No Bridge” option shows a reduction of 294,650 trips primarily due to no bridge construction traffic being added to the road network. The quantitative impacts of the “No Bridge” option for the GLNG Project have been found to be comparable to those found for the base case assessment of the GLNG Project, with the following notable differences:

- intersection impacts within Gladstone result in intersections closer to the central city needing to be upgraded. This is understandable given that Auckland Point is the origin of trips to Curtis Island;
- roadway segment capacity improvements for the “No Bridge” option are required in the urbanised central city streets in Gladstone rather than on the urban fringe (as in base case). Upgrading constraints are likely to be more significant in the city centre resulting in higher cost and more delay during construction;
- pavement impacts for pavement rehabilitation are the same as for the base case. Road maintenance costs are approximately \$22,000 less for the “No Bridge” option because of the removal of bridge construction traffic.

The impacts of all options are summarised in Table 13.6 and Figure 13.2 identifies the location of intersection upgrades and mid block capacity improvements required in the Gladstone area.

Travel Time Impacts

The CEO Marine Transport Study prepared as a supplement for the base case scenario estimates that during Train 1 construction of the LNG facility (when the bridge is not yet in place), the travel time to the accommodation facilities on Curtis Island from the mainland would be approximately 84 minutes. This is an approximation of the travel time that can be expected for personnel for the life of the LNG project under the “No Bridge” option.

Under the base case scenario in which the bridge is available for operations of the LNG facility and construction of Trains 2 and 3, travel from Gladstone would be by road only and would only take approximately 27 minutes, assuming a trip of approximately 32km at an average speed of 70km/h. Factoring in some intersection delays, total travel time could be between 30 to 40 minutes. Though these are rough approximations of personnel travel times, it is apparent that the provision of the bridge to Curtis Island makes transport for personnel much more efficient. It is expected that the total travel time with the bridge in place would be almost twice as fast as travel using the ferry without the bridge.

Additional Marine Traffic Movements

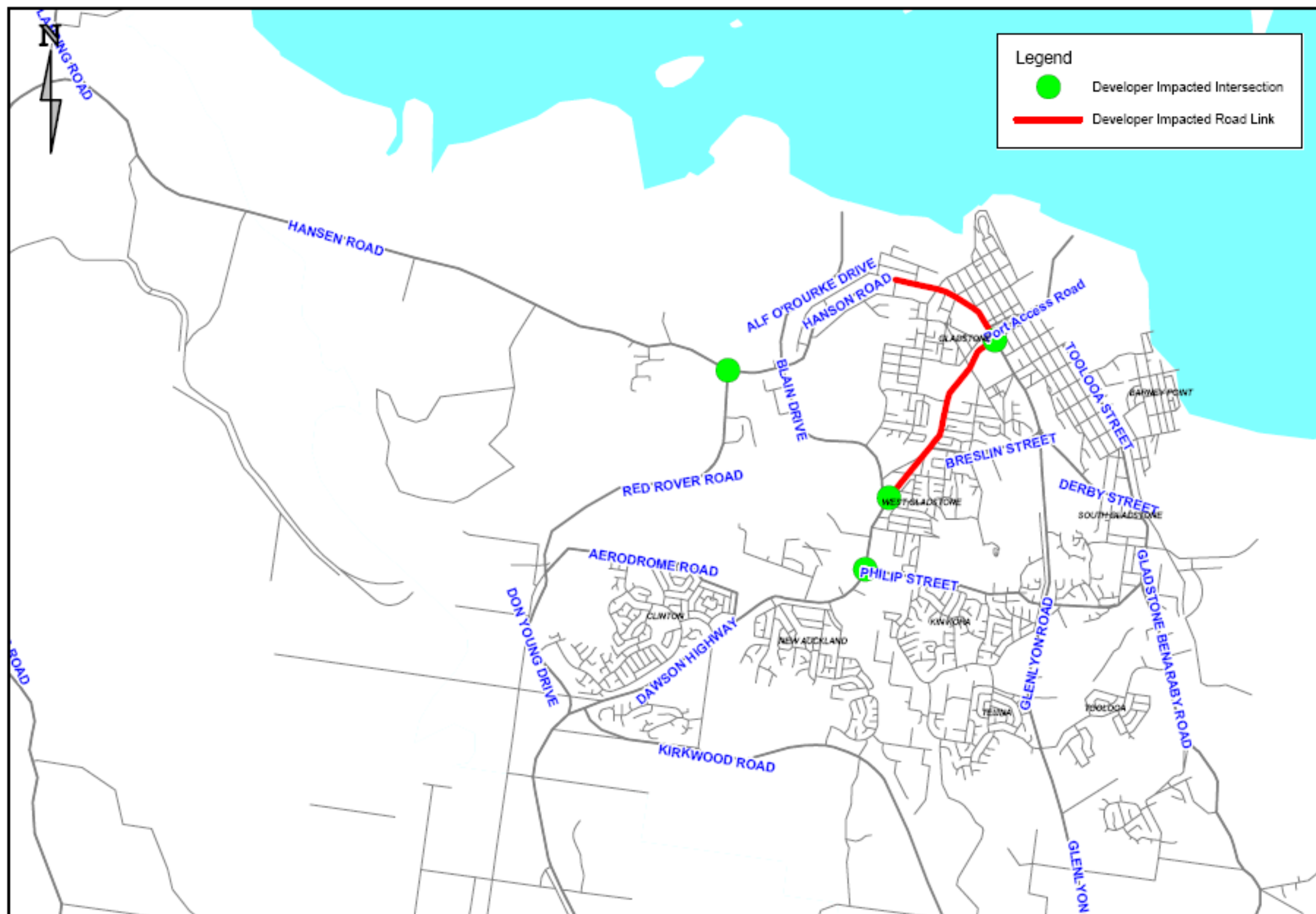
The “No Bridge” option was found to generate considerably more marine traffic during the construction of the LNG facility, especially during construction of Trains 2 and 3. A summary comparison of the estimated barge and ferry movements is provided in Table 13.5.

Table 13.5

LNG Facility Shipping Movements

Construction Stage	Base case			“No Bridge” Option		
	Barge	Ferry	Total	Barge	Ferry	Total
Train 1	2,500	1,500	4,000	2,500	1,500	4,000
Train 2	0	0	0	1,200	900	2,100
Train 3	0	0	0	1,200	900	2,100

“No Bridge” Option Intersection and midblock improvements recommended in Gladstone



13.5.2 “Material by Rail” Option

The quantitative impacts of the “Material by Rail” option for the gas transmission pipeline construction have been found to be comparable to those found for the base case assessment of the GLNG Project.

- intersection impacts are identical to the base case. The reduction of truck trips does not occur during the peak year of development traffic generation;
- roadway segment capacity impacts are the same as the base case. The reduction in trips for the “Material by Rail” option occurs early in the project whereas mid-block capacity upgrades are required in the later years of the project;
- pavement impacts for pavement rehabilitation are identical to the base case, though the developer contribution required for road maintenance is approximately \$400,000 less for the “Material by Rail” option.

The benefits of the “Material by Rail” option are the reduction in heavy vehicle traffic using the roadway network, especially within Gladstone and along the Dawson Highway. Also, whereas not all deliveries of pipe by road can be eliminated, the distance travelled by road is significantly reduced by transporting pipe by rail from Gladstone as far as Moura. It is estimated that a reduction in 14,500 trips and approximately 3,671,600 vehicle-km travelled will occur with the “Material by Rail” option, the majority of which will occur between 2010 and 2011.

The reduction in vehicle movement has operational benefits in that less heavy vehicle movement will occur along the Dawson Highway and side road delivery routes. This has the potential to make the Dawson Highway marginally safer from a road safety perspective due to less conflict between trucks and other vehicles. An additional advantage is that heavy vehicle movement will not occur across the Calliope Range where major deviation works are proposed during the pipe delivery period.

Figure 13.1 identifies the location of intersection upgrades and mid block capacity improvements required in the Gladstone area for the “Material by Rail” option. These impacts are the same as assessed for the base case scenario.

The comparison of impacts of all options are summarised in Table 13.6.

GLNG Project –Traffic Report
Table 13.6
Options Assessment Comparison Summary

CATEGORY		BASE OPTION		NO BRIDGE OPTION		MATERIAL BY RAIL OPTION	
TOTAL DEVELOPMENT VEHICLES	Vehicles Type	Vehicle Trips		Vehicle Trips		Vehicle Trips	
Coal Seam Gas Fields	Light Vehicles	3,778,913		3,778,913		3,778,913	
	Heavy Vehicles	2,902,229		2,902,229		2,902,229	
	Total Vehicles	6,681,142		6,681,142		6,681,142	
Gas Transmission Pipeline Corridor	Light Vehicles	431,000		431,000		431,000	
	Heavy Vehicles	141,355		141,355		126,724	
	Total Vehicles	572,355		572,355		557,724	
LNG Liquefaction and Export Facility	Light Vehicles	2,243,091		2,041,671		2,243,091	
	Heavy Vehicles	234,099		140,857		234,099	
	Total Vehicles	2,477,190		2,182,528		2,477,190	
TOTAL	Light Vehicles	6,453,004		6,251,584		6,453,004	
	Heavy Vehicles	3,277,683		3,184,441		3,263,052	
	Total Vehicles	9,730,687		9,436,025		9,716,056	
TOTAL VEHICLE KILOMETRES TRAVELLED	Vehicles Type	Vehicle Km		Vehicle Km		Vehicle Km	
Coal Seam Gas Fields	Heavy Vehicles	216,273,390 km		216,272,490 km		216,272,490 km	
Gas Transmission Pipeline Corridor	Heavy Vehicles	8,908,076 km		8,908,076 km		5,237,387 km	
LNG Liquefaction and Export Facility	Heavy Vehicles	3,267,132 km		2,353,517 km		3,267,132 km	
TOTAL		228,448,598 km		227,534,083 km		224,777,009 km	
INTERSECTION ANALYSIS		Developer Impacted		Developer Impacted		Developer Impacted	
Hanson Road/Red Rover Road intersection		✓		✓		✓	
Hanson Road/Blain Drive/Alf O'Rourke Drive intersection		✓				✓	
Dawson Highway/Glenlyon Road/Bramston Street intersection				✓			
Dawson Highway/Blain Drive/Herbertson Street intersection		✓		✓		✓	
Dawson Highway/Philip Street intersection		✓		✓		✓	
MIDBLOCK CAPACITY IMPACT ANALYSIS	Section Length	Impacted	Contribution	Impacted	Contribution	Impacted	Contribution
Gladstone-Mount Larcom Road from Red Rover Road to Power Station	1.0 km	✓	4.7%			✓	4.7%
Gladstone-Mount Larcom Road from Power Station to Reid Road	5.0 km	✓	4.7%			✓	4.7%
Dawson Highway from Gladstone-Mt Larcom Road to Breslin Street	1.5 km			✓	1.8%		
Dawson Highway from Breslin Street to Blain Drive	0.7 km			✓	2.0%		
Gladstone-Mount Larcom Road from Dawson Highway to Hilderbrand Street	1.4 km			✓	1.9%		
PAVEMENT IMPACT ANALYSIS		Developer Costs		Developer Costs		Developer Costs	
Maintenance Cost		\$16,241,400		\$16,219,150		\$15,829,575	
Rehabilitation Cost		\$3,094,300		\$3,094,300		\$3,094,300	
TOTAL		\$19,335,700		\$19,313,450		\$18,923,875	

13.6 Final Conclusion

The total amount of traffic generated by the GLNG Project has a peak during the construction phase at 2012. The highest volumes of traffic are generated through construction of the LNG Facility (Train 1) and the potential bridge to Curtis Island. However, there is still a significant amount of construction traffic associated with the CSG fields and gas transmission pipeline construction.

A number of mitigation measures are proposed, including:

- intersection upgrades;
- road construction;
- payment of contributions for rehabilitation and maintenance of the state road network;
- payment of bring forward costs for an intersection upgrade;
- provision of workers accommodation on Curtis Island to minimise traffic movements; and
- provision of buses for the transport of LNG facility and bridge construction workers.

Together, these measures are considered sufficient to mitigate the traffic and transport impacts of the proposed GLNG Project.

Appendix A

GLNG Project Traffic Report – “No Bridge” Option

Assessment

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GLNG Project Traffic Report – "No Bridge" Option Assessment

Prepared for GLNG

March 2009



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GLNG Traffic Report – “No Bridge” Option

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GLNG Traffic Report – “No Bridge” Option

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Document Control GLNG EIS – Traffic Report					
Version	Date	Author		Reviewer	
		Name	Initials	Name	Initials
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EXECUTIVE SUMMARY

Scope of the Report

This document is a supplementary report to the “GLNG Environmental Impact Statement – Traffic Report,” submitted by Cardno Eppell Olsen (CEO) in March 2009, which is presented as the “base case” assessment for the traffic impacts of the GLNG Project.

This supplement provides the assessment of an alternative to the base case assumption that an access road and bridge to Curtis Island from the mainland will be built to provide access to the proposed LNG facility. The alternative assessed assumes that no bridge to Curtis Island will be built and transport of workers and plant/materials to Curtis Island will be required by ferry and barge for the life of the project. This alternative is known in this document as the “No Bridge” option.

This document presents only the information relevant to changes in methodology and analysis inputs necessary to determine the traffic impacts of the option of not providing a bridge to Curtis Island. Traffic generation estimates are only provided for the LNG facility, as it is the only GLNG Project component affected by the option assessment. All other information for the trip generation of the CSG fields and gas transmission pipeline are presented in the base case Traffic Report. Thus, this report is not intended as a stand-alone document and should be used and interpreted in combination with the CEO base case report “GLNG Environmental Impact Statement – Traffic Report.”

Development Proposal

Santos proposes to develop a LNG liquefaction and export facility (LNG facility) at Gladstone in Central Queensland, Australia. The LNG facility will allow Santos to commercialise its Queensland coal seam gas (CSG) resources and export the processed gas (in the form of LNG) to overseas markets. The facility will initially be constructed to produce 3 to 4 million tonnes per annum (Mtpa) of LNG, with the potential for future expansion to a nominal 10 Mtpa.

The LNG facility will be developed on Curtis Island (in the China Bay area) in close proximity to the industrial deepwater port at Gladstone. The GLNG Project will source gas from Santos’ CSG fields at Fairview, Arcadia Valley and Roma, with gas being transported to the Gladstone LNG facility via a subsurface 435km gas transmission pipeline.

GLNG Traffic Report – “No Bridge” Option

The project will consist of the following key components:

- CSG field development: Approximately 850 development wells are expected to be drilled prior to 2015 with another 1500 beyond 2015;
- Gas transmission pipeline construction: Initially a single pipeline will be provided with compression facilities;
- LNG liquefaction and export facility: The proposed LNG facility on Curtis Island, with marine facilities proposed to include a LNG tanker loading jetty and marine off loading facility.

All aspects of the development proposal and project staging remain unchanged from the base case scenario in this “No Bridge” option assessment, except for the following:

- removal of the Curtis Island access road and bridge component;
- rerouting of traffic during construction of Trains 2 and 3 of the LNG facility to be transported to Curtis Island by barge/ferry;
- rerouting of LNG facility operations traffic to be transported to Curtis Island by barge/ferry.

Development Traffic

Traffic generation has been based on estimated material quantities for construction works and assumptions about delivery frequency. Trips associated with construction and operations equipment and workforce have also been estimated. Assumptions about the origin and destination of trips have been made including allowances for the establishment of workers accommodation. All assumptions for the traffic generation of the LNG facility under the “No Bridge” option are documented in Section 2 of this report, and all other project components remain unchanged from the base case scenario. A summary of the total road trips associated with each component over the life of the project (2010 through 2034) is shown in Table 1. The “No Bridge” option results in a reduction of 294,650 trips compared to the base case scenario due to no bridge construction traffic.

Table 1 **Total GLNG Trips**

Component	Estimated Total Trips (life of project)
CSG fields	6,681,150
Gas Transmission Pipeline	572,350
LNG liquefaction and export facility	2,182,550
Total	9,436,050

Intersection Capacity Impact Assessment

Intersection impact assessment has been undertaken in accordance with the following methodology:

- identify intersections that could be impacted significantly by the proposed development;
- identify intersections that would come close to practical capacity with the addition of the proposed development;
- obtain and analyse the background traffic at the identified intersections;
- determine background road network traffic peaks and development traffic peaks;
- add the cumulative project impact traffic to the existing background traffic volumes to determine the total background traffic to be used in the analysis of the identified intersections;
- identify the various components of the proposed development that will impact the road network;
- determine the traffic generated from the various components of the proposed development and combine with the background traffic. These volumes are to be used in the analysis of the identified intersections.

Using the above methodology, 13 intersections around Gladstone and one intersection at Biloela have been analysed. To mitigate the impact of the development on intersections within Gladstone for the “No Bridge” option, it is recommended that the following intersections be upgraded with upgrading contributions recommended under some circumstances.

Hanson Road/Red Rover Road intersection

The following works are recommended to mitigate background capacity constraints of the intersection through 2024:

- addition of a right-turn lane on the western approach of Hanson Road and additional circulating lane to accommodate the movement.

Duplication of Hanson Road is being planned by DMR. In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 0.3% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.

GLNG Traffic Report – “No Bridge” Option

Dawson Highway/Glenlyon Road/Bramston Street intersection

The following works are recommended:

- lengthen the turn lanes on three legs.

The improvements ensure the operation of the intersection is no worse compared to the background traffic scenario as it relates to the existing intersection form.

Dawson Highway/Blain Drive/Herbertson Street

The following works are recommended:

- short left slip lane on southern leg of Dawson Highway;
- pavement marking of left lane on western leg to allow all turn movements.

The improvements ensure the operation of the intersection is no worse compared to the background traffic scenario as it relates to the existing intersection form.

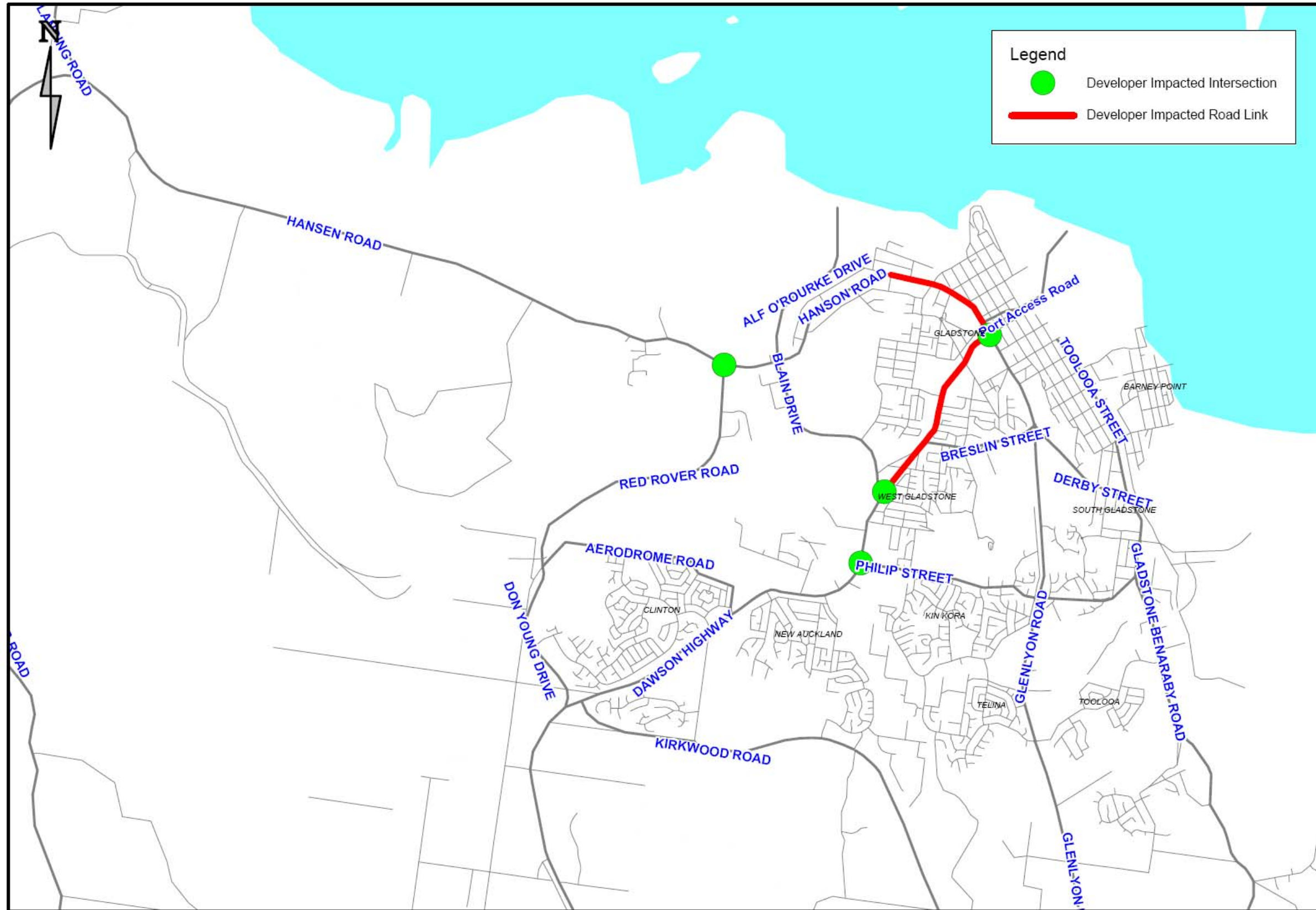
Dawson Highway/Philip Street

The intersection exceeds practical capacity with background traffic and development traffic makes the situation worse. DMR are planning upgrade works and the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 3.4% of the combined background and development traffic in 2012.

Figure 1 illustrates the locations of intersection upgrades required by the GLNG Project for the “No Bridge” Option. The “No Bridge” option creates less impact on the Gladstone-Mount Larcom Road compared to the base case scenario with less works required at Hanson/Red Rover Road and no works required on Hanson Road/Blain Drive/Alf O'Rourke Drive. However, as more traffic is directed to Auckland Point an upgrade of the Dawson Highway/Glenlyon Road/Bramston Street is required.

Figure 1

Intersection and midblock improvements recommended in Gladstone



Roadway Link Capacity Impact Assessment

Roadway link analysis has been undertaken based on daily road link volumes with and without the proposed development. The adopted capacity thresholds for this assessment include:

Rural Locations

- two lanes: < 7,500 vehicles/day;
- two lanes with overtaking lanes: < 15,000 vehicles/day;
- four lanes: > 15,000 vehicles/day.

Urban Locations

- two lanes: <18,000 vehicles/day;
- four lanes: 18,000 – 36,000 vehicles/day;
- six lanes: >36,000 vehicles/day.

Assessment of roadway segment capacity was undertaken for each year of the expected GLNG Project life (2010 to 2034). Brought forward cost contributions are recommended on any link where the development creates the need to bring forward the timing of upgrades by one year or more.

To mitigate the impact of the development on mid-block capacity, it is recommended that the developer pay an appropriate portion of the bring forward cost of upgrading the sections of road summarised in Table 2. The location of these upgrade works is shown on Figure 1.

Table 2 **GLNG Required Roadway Link Upgrades**

Road	Section	Upgrade	Bring Forward (years)	% Developer Contribution (% 2009 Cost)
Dawson Highway	Gladstone-Mt Larcom Road to Breslin Street (1.5 km)	4 to 6 lanes	1.4 yrs	1.8%
	Breslin Street to Blain Drive (0.7 km)	4 to 6 lanes	1.3 yrs	2.0%
Gladstone-Mt Larcom Road	Dawson Highway to Hilderbrand Street (1.4 km)	2 to 4 lanes	1.4 yrs	1.9%

This cost of the upgrade works is unknown, but if the construction costs were to be discounted back from the required upgrade year to 2009 at a rate of 7%, the developer could expect to pay the percentage shown in Table 2 as a percent of the construction cost (2009 \$) of the upgrade.

Pavement Impact Assessment

This analysis relates only to heavy vehicle movements of the GLNG Project and includes both the construction and operation phases from 2010 to 2034. The GLNG Project is estimated to generate approximately 3,184,450 heavy vehicle trips over the life of all project components. The pavement assessment comprises two components; the timing of pavement rehabilitation and whether there is a need to bring forward the works, and the increased need for regular pavement maintenance.

Pavement Rehabilitation

The project impact on pavement rehabilitation considers the existing road roughness and the year at which a pavement reaches its terminal roughness and pavement rehabilitation works are required. The cumulative number of Equivalent Standard Axles (ESA) loaded onto the link to that year is calculated based on the ESA loading along the haulage routes. Development ESAs are then superimposed and the difference in time for reaching terminal roughness between the “background” and “with development” scenarios established. Contributions toward pavement rehabilitation would only be made where the development would bring forward the timing of the need for rehabilitation by one year or more.

Two road segments on the Carnarvon Highway, one road segment on the Warrego Highway and one road segment on the Dawson Highway have been identified as requiring pavement rehabilitation works one or more years earlier with the GLNG project than with background traffic. The bring forward cost of the required works is approximately \$3.1M based on pavement rehabilitation rates supplied by DMR.

Road Maintenance

The obligations for the maintenance of the state controlled road network impacted upon by the development have been calculated by dividing the number of development ESAs loaded onto a particular link by the background ESAs for an analysis year. This has been reported as a percentage for each link and each year of the development.

A five percent (5%) significance criterion has been adopted for the assessment based on DMR guidelines. This warrant is triggered in the assessment period for a number of the links and the additional cost of maintaining the roads impacted by the proposed development is \$16,219,150 at a 2009 dollar value. Negotiation of the developer's contribution towards these works will be required.

GLNG Traffic Report – “No Bridge” Option

Impact Mitigation – Specific Project Components

The impact mitigations for the gas transmission pipeline and CSG fields are expected to be identical to those proposed for the base case scenario because all aspects of these components have remained unchanged under the “No Bridge” option.

Travel Time Impacts

The CEO Marine Transport Study prepared as a supplement for the base case scenario estimates that during Train 1 construction of the LNG facility (when the bridge is not yet in place), the travel time to the accommodation facilities on Curtis Island from the mainland would be approximately 84 minutes. This is an approximation of the travel time that can be expected for personnel for the life of the LNG project under the “No Bridge” option.

Under the base case scenario in which the bridge is available for operations of the LNG facility and construction of Trains 2 and 3, travel from Gladstone would be by road only and would take approximately 27 minutes, assuming a trip of approximately 32km at an average speed of 70km/h. Factoring in some intersection delays, total travel time could be between 30 to 40 minutes. Though these are rough approximations of personnel travel times, it is apparent that the provision of the bridge to Curtis Island makes transport for personnel more efficient. It is expected that the total travel time with the bridge in place would be almost twice as fast as travel using the ferry without the bridge.

Additional Marine Traffic Movements

The “No Bridge” option was found to generate considerably more marine traffic during the construction of the LNG facility, especially during construction of Trains 2 and 3. A summary comparison of the estimated barge and ferry movements is provided in Table 3.

Table 3 *LNG Facility Shipping Movements*

Construction Stage	Base case			“No Bridge” Option		
	Barge	Ferry	Total	Barge	Ferry	Total
Train 1	2,500	1,500	4,000	2,500	1,500	4,000
Train 2	0	0	0	1,200	900	2,100
Train 3	0	0	0	1,200	900	2,100

Conclusion

The “No Bridge” option results in a reduction of 294,650 trips primarily due to no bridge construction traffic. The quantitative impacts of the “No Bridge” option for the GLNG Project have been found to be comparable to those found for the base case assessment of the GLNG Project, with the following notable differences:

- intersection impacts within Gladstone result in intersections closer to the central city needing to be upgraded. This is understandable given that Auckland Point is the origin of trips to Curtis Island;
- roadway segment capacity improvements for the “No Bridge” option are required in the urbanised central city streets in Gladstone rather than on the urban fringe (as in base case). Upgrading constraints are likely to be more significant in the city centre resulting in higher cost and more delay during construction;
- pavement impacts for pavement rehabilitation are the same as for the base case. Road maintenance costs are approximately \$22,000 less for the “No Bridge” option because of the removal of bridge construction traffic.

1.0 INTRODUCTION

1.1 Document Intent

This document is a supplementary report to the “GLNG Environmental Impact Statement – Traffic Report,” submitted by Cardno Eppell Olsen (CEO) in March 2009, which has been presented as the “base case” assessment for the traffic impacts of the GLNG Project.

This supplement provides the assessment of an alternative to the base case assumption that an access road and bridge to Curtis Island from the mainland will be built to provide access to the proposed LNG facility. The alternative assessed assumes that no bridge to Curtis Island will be built and transport of workers and plant/materials to Curtis Island will be required by ferry and barge for the life of the project. This alternative is known in this document as the “No Bridge” option.

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1.2 Project Description

Santos proposes to develop a LNG liquefaction and export facility at Gladstone in Central Queensland, Australia. The facility will allow Santos to commercialise its Queensland coal seam gas resources and export the processed gas (in the form of LNG) to overseas markets. The facility will initially be constructed to produce 3 to 4 million tonnes per annum (Mtpa) of LNG, with the potential for future expansion to a nominal 10 Mtpa.

The LNG facility will be developed on Curtis Island (in the China Bay area) in close proximity to the industrial deepwater port at Gladstone. The project will source gas from Santos’ CSG fields at Fairview, Arcadia Valley and Roma, with gas being transported to the Gladstone LNG facility via a subsurface 435km gas transmission pipeline.

The project will consist of the following key components:

- CSG field development;
- gas transmission pipeline construction;
- LNG liquefaction and export facility development.

1.2.1 LNG Liquefaction and Export Facility

The proposed LNG facility will be located on Curtis Island in the China Bay area (called Hamilton Point West), which is situated approximately 5km northwest of the City of Gladstone. The LNG facility components may include, but are not limited to:

- inlet separation/filtration/treatment to remove pipeline debris and liquids;
- gas treatment to remove major components within the gas stream that are detrimental to the process of liquefaction of natural gas, including carbon dioxide, water and other contaminants;
- refrigeration and liquefaction;
- LNG storage tank(s) with vapour recovery;
- marine facilities including an LNG tanker loading jetty and marine off-loading facility (MOF);
- utilities including water, fuel systems, control systems and power generation;
- flares including a plant flare, tank flare, and/or marine flare;
- supporting facilities (e.g. construction accommodation, roads and bridge);
- dredge material placement facility.

The base case assessment assumes access to the site will ultimately be via a potential bridge across Port Curtis, linking Curtis Island (Laird Point area) with the mainland (Friend Point area). The potential bridge and accompanying road will be designed to provide vehicular access to the LNG facility from the existing regional road network.

As the need and feasibility for such a bridge is still unclear, the traffic impacts of not providing a bridge to Curtis Island must be assessed to provide a basis of comparison to the base case. With no bridge in place, personnel and plant/material transport to Curtis Island would continue to be via ferry and barge for Trains 2 and 3 construction of the LNG facility. Similarly, personnel transport for LNG facility operations would be by ferry instead of by the bridge.

1.3 Staging

The delivery of the overall proposed project will occur in stages according to each project component. The proposed staging of the project is illustrated in Table 1.1. Note that this is identical to that presented for the base case assessment, though construction of the access road and bridge to Curtis Island has been removed.

The construction and operation of the gas fields is proposed to commence on project approval and will continue throughout the life of the project. Pipe delivery for the pipeline will begin in the fourth quarter of 2010 and last for six months. The construction of the proposed gas transmission pipeline is anticipated to begin in the second quarter of 2011 and last for 18-24 months, after which it would be available for operations.

Table 1.1

Proposed Project Staging

Stage	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
LNG FACILITY													
TRAIN 1 Construction	■	■	■	■									
TRAIN 1 Operation					■	■	■	■					
TRAIN 2 Construction					■	■	■	■					
TRAIN 2 Operation									■	■	■	■	■
TRAIN 3 Construction									■	■	■	■	■
TRAIN 3 Operation													■
Dredge Material Facility		■	■	■									
GAS TRANSMISSION PIPELINE													
Pipe Delivery		■	■										
Pipeline Construction		■	■	■									
Pipeline Operation				■	■	■	■	■	■	■	■	■	■
CSG FIELDS													
Field Construction	■	■	■	■	■	■	■	■	■	■	■	■	■
Field Operation	■	■	■	■	■	■	■	■	■	■	■	■	■

*Operations of all project components to continue past Year 2022

The LNG facility proposed for Curtis Island is expected to be constructed in three stages (production trains). Train 1 construction is anticipated to begin in 2010 and last approximately four years, with operations of Train 1 beginning in 2014. The timing of Trains 2 and 3 will be subject to gas availability and market conditions, and as such no definitive schedule is available. For purposes of this assessment, the construction and operations of Trains 2 and 3 have been assumed to follow in immediate succession of Train 1, as shown in Table 1.1. This provides a robust scenario wherein multiple aspects of the GLNG Project generate traffic on the external road network simultaneously.

For the base case as well as this option, access to Curtis Island during Train 1 construction of the LNG facility would be via barge and ferry. Assuming the bridge is not constructed, access to Curtis Island during the construction of all production trains and the operational life of the LNG facility would be via barge and ferry.

The construction of a dredge material placement facility on Curtis Island at Laird Point has been included in the assessment. The construction of bund walls for the facility would begin in the fourth quarter of 2010 and last for approximately 18 months. Delivery of material to the site would only be for the first 3-6 months.

1.4 References

- Santos Gladstone LNG Project – Terms of Reference, Queensland Government, August 2008;
- GLNG Project Description, URS, 8 January 2009;
- Response to GLNG Terms of Reference Requirements, Foster Wheeler;
- Gladstone LNG Environmental Impact Statement – Marine Transport Strategy, Cardno Eppell Olsen, November 2008;
- Guidelines for Assessment of Road Impacts of Development, DMR, April 2006;
- Road Planning and Design Manual – Chapter 13, DMR, October 2006.

2.0 PROPOSED DEVELOPMENT

The following section presents the inputs and assumptions used in estimating the traffic generation of the LNG facility under the option that no bridge will be built to Curtis Island from the mainland. All inputs for workforce numbers and quantities of plant/materials being transferred to Curtis Island are identical to the base case. The primary differences seen in this option assessment are the traffic movement patterns (Section 2.1.6) and distribution of traffic to the road network (Section 2.1.8).

2.1 LNG Liquefaction and Export Facility

A LNG liquefaction and export facility (LNG facility) of up to approximately 10 million tonne per annum (Mtpa) capacity is proposed to be constructed on Curtis Island. The LNG facility is proposed to be developed in three stages (trains), with the first stage (Train 1) having a capacity of 3 to 4 Mtpa.

The LNG facility is proposed to be located on Curtis Island at the Hamilton Point West site adjacent to China Bay, which is situated approximately 5km north of Gladstone. The area of the LNG facility site is approximately 190ha.

The LNG facility on Curtis Island will likely also include the following associated infrastructure components:

- marine facilities including a jetty for LNG ship loading (Product Loading Facility) and marine off-loading facility (MOF);
- dredge material placement facility at Laird Point;
- workforce accommodation on Curtis Island to house the entire construction workforce.

2.1.1 Construction Staff

Due to the high construction activity across Australia there are currently significant shortages of construction labour in this country, with skilled manpower limitations in the Gladstone area in particular. As the situation is uncertain regarding GLNG Project's ability to access sufficient skilled manpower to construct its Train 1 LNG facility in the 2010 to 2014 timeframe, in addition to considering construction via the traditional “stick-built” method, the use of modular (pre-assembled) construction is being evaluated as one way to reduce the construction labour manpower requirement in Gladstone.

At this stage it is uncertain as to which construction method (modular or stick-built) will be utilised for the GLNG Project, so in terms of manpower numbers, material quantities and project schedule data, the use of stick-built construction has been included in this document as a “worst case” in terms of road impacts on the Gladstone area.

If labour were available without limitation to enable stick-building of GLNG Train 1, construction of this initial train would take approximately 48 months to complete with labour peaking at approximately 3,000 personnel. While the timing of Trains 2 and 3 is uncertain (as described in Section 1.3), these subsequent production trains would be constructed using fewer construction workers and in shorter durations than Train 1, as many of the facilities built for Train 1 would be common to and utilised by Trains 2 and 3.

Estimated construction workforce numbers over the Train 1 construction period are detailed in Figure 2.1. Estimated construction workforce numbers for Trains 2 and 3 of the LNG facility are provided in Figure 2.2.

During LNG facility construction activities it is assumed worker accommodations will be provided on Curtis Island for all workers on their shifts. Construction personnel are anticipated to work 10 days on and 4 days off in a fortnightly work cycle. Approximately 65% of the construction workforce has been assumed to be sourced as non-residents (fly-in/fly-out) and approximately 35% resident workforce (live in Gladstone and surrounds).

Figure 2.1 *LNG Facility Train 1 Construction Workforce*

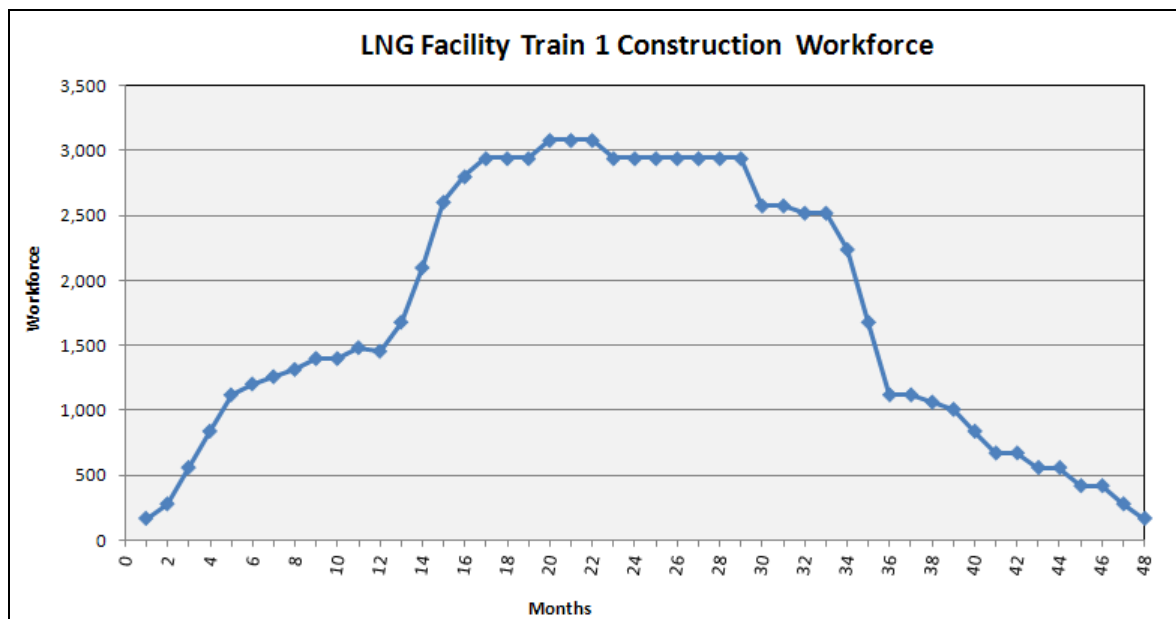
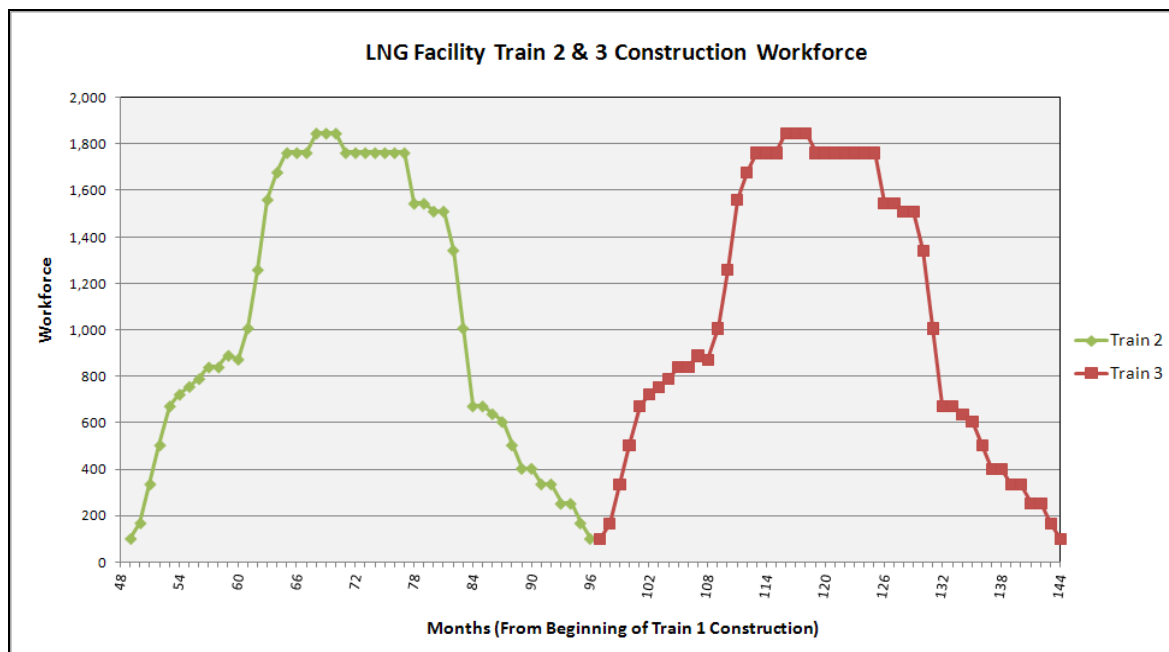


Figure 2.2

LNG Facility Train 2 and 3 Construction Workforce



2.1.2 Operation Staff

Mobilisation of operations personnel to Curtis Island for the start of commissioning of the LNG facility would begin around month 40 of construction. The operations workforce for Train 1 is expected to be approximately 80, as shown in Table 2.1 below. With both Train 1 and Train 2 online, the operations workforce will increase to approximately 105. With the completion and operation of Train 3 of the LNG facility, the total workforce needed for full operating capacity is approximately 130 personnel.

Table 2.1

LNG Facility Operations Workforce

Staff Type	Work hours	No. Shifts	Train 1 (3 Mtpa)	Train 1 & 2 (7 Mtpa)	Train 1, 2 & 3 (10 Mtpa)
Maintenance staff	Mon - Fri: 0700 - 1600	1	30	40	50
Operations staff	7day 24hr (0600-1800, 1800-0600)	2	20	30	40
Admin staff	Mon - Fri: 0700 - 1600	1	30	35	40
Total Onsite			80	105	130

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The base case assessment assumes that the potential access road and bridge connecting the mainland and Curtis Island will be constructed by the beginning of operation of the LNG facility. Thus, all operations personnel are assumed to live in Gladstone and surrounds and travel by bus or private vehicle to Curtis Island via the potential bridge. This base case assessment assumes that all LNG facility operations personnel will travel to the LNG facility by private vehicle.

The possibility of no bridge being constructed to Curtis Island has been assessed in this report. In this case, all operations personnel would be transported daily to the LNG facility on Curtis Island by ferry.

2.1.3 Construction Deliveries

Estimates for delivery of construction equipment and materials to the LNG facility site on Curtis Island have been sourced from the Propane Pre-cooled Mixed Refrigerant (C3MR) document “Response to GLNG Draft Terms of Reference Requirements.” Although the C3MR design has not been selected as the final design by Santos (the Optimised Cascade Process having been selected in December 2008) the estimates are considered comparable. Table 2.2 provides estimates for the total equipment and materials expected to be transported to the LNG facility construction site over the four year period of the construction of Train 1 of the LNG facility. Deliveries for Train 2 and Train 3 construction have been proportioned according to the estimated construction personnel for these phases.

It should be noted that these construction estimates have been based on a “stick-built” method of construction as described in Section 2.1.1. Therefore, if modular construction method is chosen the number of loads delivered to the LNG facility construction site would be greatly reduced as modules would be pre-constructed elsewhere.

Cardno Eppell Olsen (CEO) has made additional assumptions for the vehicle types and load carrying capacities in order to relate the quantities provided into actual vehicle trips. These assumptions are provided in Table 2.2.

Table 2.2
LNG Facility Construction Deliveries

Item	Quantity	Transport Assumptions
Potable Water	125,000 litres/day	By 20,000 litre tanker
Raw water	93,750 litres/day	By 20,000 litre tanker
Equipment	3,180 loads	By truck
Pipe	123,560 m	By truck (200 m per load)
Electrical	377,000 m	By truck (2,000 m per load)
Insulation	125,000 m ²	By truck (250 m ² per load)
Fuel	2 tankers/month (assumed)	By 20m ³ tanker
Concrete	37,328 m ³	By truck (20 m ³ per load)
Grout	73 m ³	By Truck (6 m ³ per load)
Steel	42,223 tonnes	By truck (10 tonnes per load)
Pavement	1,737 m ³	By truck (20 m ³ per load)
Paint	14 loads (assumed)	By truck (5 m ³ per load)
Miscellaneous Deliveries (assumed)	5 loads/day	50% truck, 50% light vehicles
Large indivisible pre-assemblies	77 items	To be shipped in – delivered to Curtis Island via barge

2.1.4 Operation Deliveries

Deliveries during operation of the LNG facility are likely to be minimal, and include fuel and other materials and equipment. An indicative distribution of likely deliveries to the LNG facility has been provided by Santos as tabulated in Table 2.3.

Table 2.3
Indicative Deliveries – LNG Facility Operations

Delivery Type	Vehicle Type	Number Trips	
		Train 1	Trains 1, 2 & 3
Refrigerants	Truck	2 per month	6 per month
Diesel	Truck	1 per month	3 per month
Chemicals	Truck	1 per month	3 per month
Other	Light Vehicle	10 per week	15 per week

2.1.5 Dredge Material Placement Facility

In addition to the main LNG facility construction workforce, approximately 50 personnel are expected to work on the construction of the dredge material placement facility at Laird Point on Curtis Island for the 18 month duration of construction. These workers are expected to travel by ferry from the mainland to the construction site daily and are assumed to be 100% local workforce (living in Gladstone and surrounds).

All materials for the dredge placement facility are expected to be sourced locally from Curtis Island if possible. Detailed studies have not been performed in this regard, though for the purposes of this report no road transport of materials on the mainland has been assessed.

2.1.6 Traffic Movement Patterns

Construction Deliveries

The total deliveries to the construction site presented in Table 2.2 above have been estimated to be divided over the four year construction period, with 10% of deliveries occurring in the first year (2010), 35% occurring in each of the second and third years (2011 and 2012), and 20% occurring in the fourth year of construction (2013). This is representative of the proportion of the workforce employed for construction during these periods.

Under the option of not providing a bridge to Curtis Island all equipment and materials delivered by truck will be required to be barged to Curtis Island from the mainland during the construction of the LNG facility. The wharf facilities at Auckland Point have been identified as a potential site for transfer of equipment and material and have been assumed in the preparation of this assessment. Equipment and materials would arrive at Auckland Point by road and will be either offloaded to a barge or transported via roll-on/roll-off ferry to Curtis Island.

Some oversize or pre-assembled items are expected to arrive to Port of Gladstone by ship and would be transported directly to the MOF on Curtis Island. These items are included in the construction delivery estimates in Table 2.2.

Approximately 10% of the daily traffic movements associated with delivery of materials and equipment to the LNG facility construction site is estimated to occur during each of the AM and PM peak hours.

Construction Personnel Movements

Construction personnel are anticipated to work 10 days on and 4 days off in a fortnightly work cycle. All construction personnel are expected to be housed in workforce accommodation on Curtis Island during their shifts. Each worker will travel to/from Curtis Island once per fortnight as they rotate onto or off their shift.

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During the construction of the LNG facility, workers that fly into Gladstone will be transported by bus from Gladstone Airport and residents will be picked up at specified collection points to be transported by bus to the ferry terminal in Gladstone. Auckland Point is the likely takeoff point for ferry operations and has been assumed in this assessment. It is estimated that 80% of personnel will be transported by bus (20 passenger capacity) and 20% will be via light vehicle, with parking provided near the ferry terminal.

Rolling shift changes should be scheduled so that buses are an effective means of transport to and from the Gladstone airport and centralised collection points within Gladstone to shuttle personnel on and off their shifts. This assessment estimates that rolling shift changes will occur twice a week, with 25% of the daily personnel trips occurring during the development AM early and PM late peak hours. During the AM late peak it is estimated that 10% of the daily vehicle trips will occur. These estimates conservatively concentrate personnel movements in the daily and peak hour periods, creating a more robust assessment.

Operations Personnel Movements

In this option assessment all operations personnel are assumed to live in Gladstone and surrounds and travel daily by private vehicle to the ferry terminal at Auckland Point to be transferred to Curtis Island. Shifts are such that all onsite workforce shown in Table 2.1 will likely be travelling during the project peak hours in the morning and afternoon.

Dredge Material Facility Movements

The workforce for the construction of the dredge material placement facility will all live on the mainland and travel to Curtis Island by ferry daily. Similar to the other LNG facility workforce, transfer is assumed to take place from Auckland Point Wharf in Gladstone, with workers travelling to/from the ferry landing via private vehicle in the peak hours.

Because Laird Point is separated from the main LNG facility construction activities at Hamilton Point, the MOF at Hamilton Point will not be used for transport of personnel and equipment to the dredge material placement facility. Barges and ferries to Laird Point should be scheduled in coordination with other LNG facility activities to include a triangular route between Gladstone Point, Hamilton Point and Laird Point to minimise the number of vessels travelling in the Port of Gladstone.

2.1.7 Traffic Generation

Table 2.5 presents the estimated traffic generated by the construction of the proposed LNG facility to use the external road network under the “No Bridge” option during each year of construction as well as during a typical weekday and peak hour. The workforce traffic movements for the construction of the dredge material placement facility have been incorporated into the table, as they have similar travel patterns and trip types as the other LNG facility trips.

Table 2.6 presents the estimated traffic generated by the operations of the proposed LNG facility during each year of operations as well as during a typical weekday and peak hour. It should be noted that these estimates are based on the assumption that the construction of Train 2 and 3 of the LNG facility will follow in immediate succession to Train 1 construction.

It should be noted that these traffic generation estimates are identical to those presented in the base case assessment, though trips during construction of Trains 2 and 3 will travel on different routes than in the base case.

2.1.8 Traffic Distribution

The distribution and assignment of traffic generated by the LNG facility to the roadway network has been determined from the traffic movement patterns described above, as well as likely sources and destinations for materials and equipment. The general origin and route for traffic associated with the LNG facility is presented in Table 2.4 below.

The distribution of personnel trips generated by the construction of the dredge material placement facility has been assigned to the road network in the same manner as LNG facility construction personnel.

Table 2.4 **LNG Facility Traffic Distribution**

Traffic Component	Origin	Route
Construction Personnel	Local residents & Fly-in/Fly-out	Residents – distributed throughout Gladstone, to Auckland Point by Port Access Road Fly-in/Fly-out – From Gladstone Airport along Dawson Highway to Auckland Point by Port Access Road
Plant/Materials	Local Products Freighted Material Shipped Material	Local Products - distributed from throughout Gladstone to Auckland Point by Port Access Road Freighted Material – distributed from outside of the immediate Gladstone Area depending on source location. From the north – along Gladstone-Mt Larcom Road to Auckland Point via Port Access Road. From the south – along Dawson Highway, Red Rover Road and Gladstone-Mt Larcom Road to Auckland Point via Port Access Road Shipped Material – shipped directly to the MOF at Curtis island
Operations Personnel	Local residents	Residents – distributed throughout Gladstone, to Auckland Point via Port Access Road
Operations Deliveries	Sourced from Gladstone and surrounds	Local Products - distributed from throughout Gladstone to Auckland Point via Port Access Road

GLNG Traffic Report – “No Bridge” Option

Table 2.5 **LNG Facility Traffic Generation – Construction**

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Construction	Train 1				Train 2				Train 3			
PEAK HOUR VOLUMES												
Light Vehicles (Delivery and Personnel)	51	95	88	17	17	42	38	11	17	42	38	11
Bus - Personnel	5	14	13	3	3	8	8	2	3	8	8	2
Heavy Vehicles	3	3	3	3	2	3	3	2	2	3	2	2
Total Vehicles	59	112	104	23	21	53	49	15	21	53	48	15
DAILY VOLUMES												
Light Vehicles (Delivery and Personnel)	210	386	359	75	72	176	160	49	72	176	160	49
Bus - Personnel	20	55	50	13	13	33	30	8	13	33	30	8
Heavy Vehicles	28	34	34	28	17	26	26	23	17	26	24	19
Total Vehicles	258	475	443	116	102	235	216	80	102	235	214	76
ANNUAL VOLUMES												
Light Vehicles (Delivery and Personnel)	18,611	50,544	34,128	10,390	10,130	20,862	19,209	7,686	10,130	20,862	19,209	7,686
Bus - Personnel	2,080	5,720	5,200	1,352	1,300	3,432	3,120	832	1,300	3,432	3,120	832
Heavy Vehicles	8,680	11,523	11,523	8,346	5,249	8,370	8,370	6,464	5,249	8,370	7,654	5,275
Total Vehicles	29,371	67,787	50,851	20,088	16,678	32,664	30,699	14,981	16,678	32,664	29,983	13,792

GLNG Traffic Report – “No Bridge” Option

Table 2.6

LNG Facility Traffic Generation - Operations

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Operation	Train 1				Train 2				Train 3			
PEAK HOUR DELIVERY VOLUMES												
Light Vehicles (Staff and Deliveries)	100	100	100	100	135	135	135	135	170	170	170	170
Trucks (Fuel and Deliveries)	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicles	100	100	100	100	135	135	135	135	170	170	170	170
DAILY VOLUMES												
Light Vehicles (Staff and Deliveries)	203	203	203	203	273	273	273	274	344	344	344	344
Trucks (Fuel and Deliveries)	3	3	3	3	3	3	3	3	3	3	3	3
Total Vehicles	206	206	206	206	276	276	276	277	347	347	347	347
ANNUAL VOLUMES												
Light Vehicles (Staff and Deliveries)	56,437	56,437	56,437	56,712	77,352	77,352	77,352	77,559	98,199	98,199	98,199	98,199
Trucks (Fuel and Deliveries)	483	483	483	621	621	621	621	724	724	724	724	724
Total Vehicles	56,920	56,920	56,920	57,333	77,973	77,973	77,973	78,283	98,923	98,923	98,923	98,923

3.0 IMPACT ASSESSMENT METHODOLOGY

The traffic impact assessment has been undertaken for the “No Bridge” option, the results of which will provide a basis of comparison to the base case traffic impacts. The three analysis components are the following:

- Intersection Capacity Impact Assessment;
- Roadway Link Capacity Impact Assessment; and
- Pavement Impact Assessment.

Analysis has been undertaken for “background” and “background plus development” traffic scenarios through each stage of construction and operation of the project components to determine the relative impact of traffic added by the GLNG Project.

Intersection analysis considers the capacity of relevant intersections based on the Degree of Saturation (DOS) identified using the SIDRA computer analysis package. The assessment also considers turn lane requirements in accordance with the DMR warrants for priority intersections as outlined in the DMR “Road Planning and Design Manual.” Intersection queuing has been considered to identify whether intersection turn lane lengths are adequate to accommodate the expected queue lengths.

Link capacity of roadway sections was assessed using the daily two-way traffic demand to identify if the current road cross-sections would be sufficient for future year and development demands.

Pavement impacts have been assessed to determine if the proposed project necessitates bringing forward pavement rehabilitation works or increases the need for regular road maintenance.

3.1 Assessment Scenarios

Intersection analysis was undertaken for the base case assessment for years 2012, 2014 and 2024. A review of the peak hour traffic generated by all components of the GLNG Project was undertaken to ensure these years are consistent for the “No Bridge” option assessment. Table 3.1 compares the total peak hour trips generated by the GLNG Project under the base case as well as for the option without the proposed bridge.

Table 3.1 shows a significant decrease in traffic from the base case to the “No Bridge” option. The “No Bridge” option results in a reduction of 294,650 trips due to the removal of traffic associated with the bridge construction in 2011-2013. For all other years the total peak hour traffic generation is identical. Table 3.1 shows that the peak of GLNG Project traffic for the “No Bridge” option is in 2012, consistent with the base case.

Table 3.1 Overall Project Peak Traffic Generation – Peak Hour

Year	Total Peak Hour Trips		% Difference
	Base Case	No Bridge Option	
2010	155	155	0%
2011	487	402	-17%
2012	577	417	-28%
2013	310	213	-31%
2014	312	312	0%
2015	344	344	0%
2016	351	351	0%
2017	313	313	0%
2018	355	355	0%
2019	386	386	0%
2020	390	390	0%
2021	349	349	0%
2022	371	371	0%
2023	332	332	0%
2024	326	326	0%
2025	329	329	0%
2026	325	325	0%
2027	325	325	0%
2028	325	325	0%
2029	324	324	0%
2030	326	326	0%

For consistency with the base case assessment, the following scenarios were assessed for intersection capacity impacts for the “No Bridge” option:

- 2012 background;
- 2012 background plus development;
- 2014 background;
- 2014 background plus development;
- 2024 background;
- 2024 background plus development.

Midblock capacity and pavement impacts were assessed for each year of the project life under both “background” and “background plus development” scenarios.

3.2 Travel Time Impacts

The “No Bridge” option is anticipated to have affects on the travel times of personnel reaching Curtis Island. Instead of using the bridge, workers will be required to be transported by bus or private vehicle to a ferry landing and transported across the Port of Gladstone to Curtis Island. This changes total travel time by re-routing vehicle trips, changing mode of transport twice, as well as adding a second (slower) mode of transport to reach Curtis Island.

The CEO Marine Transport Study prepared as a supplement for the base case scenario estimates that during Train 1 construction of the LNG facility (when the bridge is not yet in place), the travel time to the accommodation facilities on Curtis Island from the mainland would be approximately 84 minutes. This is based on fairly conservative estimates of 20 minutes by road to the ferry landing on the mainland, 44 minutes total ferry trip with boarding and disembarking, and 20 minutes on Curtis Island to the accommodation facility. This is an approximation of the travel time that can be expected for personnel for the life of the LNG project under the “No Bridge” option.

Under the base case scenario in which the bridge is available for operations of the LNG facility and construction of Trains 2 and 3, travel from Gladstone would be by road only and would take approximately 27 minutes, assuming a trip of approximately 32km at an average speed of 70km/h. Factoring in some intersection delays, total travel time could be between 30 to 40 minutes. Though these are rough approximations of personnel travel times, it is apparent that the provision of the bridge to Curtis Island makes transport for personnel more efficient. It is expected that the total travel time with the bridge in place would be almost twice as fast as travel using the ferry without the bridge.

3.3 Additional Shipping Movements

3.3.1 Construction Deliveries

Estimates for the amount of materials and equipment delivered by truck for each phase of construction for the LNG facility have been provided by Santos. Deliveries will include aggregate, cement, piping, structural steel, electrical materials and instrumentation. Table 3.2 summarises the number of truck movements into Gladstone that will be required to be transferred to the LNG facility site on Curtis Island.

The number of barges needed to transport the LNG facility materials to Curtis Island from the mainland has been based on an estimate of approximately four trucks per barge trip, with some trucks being carried on personnel ferry trips at two trucks per ferry. For the base case, all materials for the construction of Train 1 of the LNG facility will be required to be barged to Curtis Island, since the bridge would not yet be operational. For the “No Bridge” option, materials for all construction of the LNG facility (Trains 1. 2 and 3) would be required to be barged to Curtis Island.

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Table 3.2 provides a comparison of barge round trip movements for the base case and the “No Bridge” option. As shown, approximately 2,400 more barge movements are needed for the “No Bridge” option than for the base case. These movements are expected to be spread over several years during the construction of Trains 2 and 3 of the LNG facility.

Table 3.2 *LNG Facility Barge Movements*

Construction Stage	Truck Deliveries	Barge Movements (Round Trip)	
		Base Case	“No Bridge” Option
Train 1	8,400	2,500	2,500
Train 2	4,400	0	1,200
Train 3	4,400	0	1,200

3.3.2 Personnel Ferry Movements

Total ferry movements for the transport of personnel to the accommodation facilities on Curtis Island have been estimated for the construction of the LNG facility. These estimates are based on the shift patterns described above for personnel and an assumed ferry capacity of 150, consistent with the CEO Marine Transport Strategy. A summary of the ferry trips required to transport construction personnel to Curtis Island for each year of construction is provided in Table 3.3.

Table 3.3 *LNG Facility Construction Ferry Movements*

Construction Stage	Year	Yearly Peak Personnel	Ferry Trips Per Year	Ferry Trips per Train
Train 1	2010	1484	258	1,500
	2011	3080	535	
	2012	2940	511	
	2013	1120	195	
Train 2	2014	890	155	900
	2015	1848	321	
	2016	1764	307	
	2017	672	117	
Train 3	2018	890	155	900
	2019	1848	321	
	2020	1764	307	
	2021	672	117	

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As shown in the table, approximately 1,500 ferry trips would be needed for Train 1 construction. This is consistent between the base case and the “No Bridge” option since the bridge would not be operational during Train 1 construction. During Trains 2 and 3 however, no ferry movements would be needed for personnel in the base case assessment, and approximately 900 would be needed for each of Train 2 and 3 under the “No Bridge” option.

Operations personnel for the LNG facility is significantly lower than construction personnel, but would be required to travel to Curtis Island every day. Based on the number of personnel and shifts for LNG facility operations, it is estimated that approximately 2 ferry round trips movements per day are needed, equating to approximately 730 per year.

4.0 INTERSECTION IMPACT ASSESSMENT

Intersection analysis has been undertaken for the “No Bridge” option to provide a basis of comparison to the intersection impacts of the base case scenario. The analysis for the “No Bridge” option is necessary because of changes in traffic volumes added at study area intersections by the GLNG Project due to the removal of bridge construction traffic, and the rerouting of trips from the bridge crossing at Landing Road to the ferry landing in Gladstone.

The key intersections have been analysed for each of the scenarios outlined above using the SIDRA Intersection 3.2 analysis program. This program calculates the operation of intersections based on input parameters, including geometry and traffic volumes. As an output, SIDRA Intersection 3.2 provides values for the degree of saturation (DOS), queues and delays. The DOS is a commonly used value, which is essentially a volume to capacity ratio. The typically adopted upper limits for the DOS, where it is considered that the operation of the intersection is constrained, are:

- unsignalised priority intersections: 0.80;
- roundabouts: 0.85;
- signalised intersections: 0.90.

These DOS rates have been adopted in accordance with AUSTROADS guidelines. A DOS exceeding these values indicates that the intersection is nearing its operational capacity. Above these values, users of the intersection are likely to experience unsatisfactory queuing and delays.

The following sections summarise the intersection analysis. Further detail (e.g. SIDRA outputs) can be made available upon request.

4.1 Intersection Impact Assessment Methodology

The process used to undertake the intersection impact assessment for the development involved a number of steps. These were:

- identify intersections that could be impacted significantly by the proposed development;
- identify intersections that would come close to practical capacity with the addition of the proposed development;
- obtain and analyse the background traffic at the identified intersections;
- determine background road network traffic peaks and development traffic peaks;
- add the cumulative impact traffic to the existing background traffic volumes to come up with the background traffic to be used in the analysis of the identified intersections;
- identify the various components of the proposed development that will impact the road network;
- determine the traffic generated from the various components of the proposed development and combine with the background traffic. These volumes are to be used in the analysis of the identified intersections.

4.2 Background Traffic

Background traffic was acquired predominantly from DMR intersection turning movement counts with some intersection counts undertaken by Austraffic. These counts were obtained for the intersections identified as being significantly impacted by the proposed development, as listed in Section 4.5. These counts were undertaken throughout 2005, 2006, 2007 and 2008 and were all increased using background growth rates (4% within Gladstone and 6% outside of Gladstone) to 2008 volumes.

Information for all the intersections that were assessed, including their count year, source and growth rate applied, are listed below in Table 4.1.

Table 4.1
Background Intersection Count Data

Intersection	Count Year	Source	Background Growth Rate
Gladstone-Mount Larcom Road/Calliope River Road/Targinie Road	2006	DMR	6%
Gladstone-Mount Larcom Road/Hanson Road/Landing Road	2007	DMR	6%
Hanson Road/Red Rover Road	2006	DMR	4%
Hanson Road/Blain Drive/Alf O'Rourke Drive	2006	DMR	4%
Bruce Highway/Gladstone - Mount Larcom Road	2008	DMR	6%
Glenlyon Road/Port Access Road/Railway Street	2005	DMR	4%
Dawson Highway/Glenlyon Road/Bramston Street	2007	DMR	4%
Dawson Highway/Don Young Drive/Kirkwood Road	2007	DMR	4%
Dawson Highway/Blain Drive/Herbertson Street	2006	Austraffic	4%
Dawson Highway/Philip Street	2006	DMR	4%
Dawson Highway/Aerodrome Road	2007	DMR	4%
Bruce Highway/Dawson Highway	2007	DMR	6%
Bruce Highway/Calliope Rive Road	2007	DMR	6%
Dawson Highway/Kariboe Street/Callide Street	2006	DMR	6%

4.3 Traffic Peak Hour Periods

The overall road network peak hour periods were determined by summing the 15-minute count data for all intersections in the study area. This identified that the AM road network peak occurred from 7:45-8:45am and the PM road network peak occurred from 4:30-5:30pm.

It was recognised that the morning peak travel periods associated with construction and operations of the LNG facility and dredge material placement site will not likely coincide with the overall road network peaks identified above. This is reinforced by the fact that during construction of the LNG facility all personnel will be required to travel by ferry to Curtis Island, with total travel taking up to one and a half hours. As LNG facility construction workers will be transferred to Curtis Island for 10 days at a time, arrival on the island is not necessarily confined by shift times. Similarly, it is assumed that personnel travelling to the dredge material facility will travel to the site early in the morning before the roadway network peak hour, but will likely travel home in the afternoon during the roadway network peak period of 4:30-5:30pm.

As shown in Table 4.1, the shift patterns for operations personnel at the LNG facility will also generally correspond to the early morning commute times, though the afternoon commute will likely be during the 4:30-5:30 roadway network peak. This is considered to be a conservative assumption for the PM peak hour because the commute from Curtis Island via ferry may extend actual road traffic from operations personnel outside of the road network peak hour.

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Considering the above, the peak hours assumed for the GLNG development activity are from 6:00-7:00am for the AM development peak and from 4:30-5:30pm for the PM development peak. Projects included as cumulative background traffic in this assessment were reviewed and were found to utilise similar project peak hours as those described above.

For simplicity, the AM peak periods in this report are referred to as the “early” and “late” peak periods. The “early peak” periods refer to the development peak periods (6:00-7:00am). The “late peak” period refers to the road network peak period (7:45-8:45am). As above, the PM peak hour is estimated to occur at the same time for the road network and the GLNG Project. The following three peak hour periods were assessed for the intersection capacity impact analysis:

- AM early peak hour: 6:00 – 7:00am;
- AM late peak hour: 7:45 – 8:45am;
- PM peak hour: 4:30 – 5:30pm.

As outlined in Section 2, up to 50% of daily personnel movements were assumed to occur in each of the development peak hours (AM early peak and PM peak), reflecting a typical morning/afternoon shift pattern. It was assumed that delivery trips would be spread throughout the day, with 10% of daily trips occurring in each of the development peak hours. 10% of the daily movements were estimated to occur in the road network AM peak (AM late peak).

4.3.1 Traffic Distribution

Traffic generated by the GLNG Project during the peak hours was assigned to the roadway network based on the distributions of trip types and movement patterns described in Section 2. The most likely or logical routes for traffic from origin to destination was assumed and used to apply traffic to the roadway segments and intersections in the project study area.

For each peak hour period assessed, a likely inbound/outbound distribution for each trip type was applied to account for movement patterns to and from the GLNG Project sites throughout the day (i.e. most personnel will travel inbound to the construction site in the morning and return in the afternoon). The in/out distribution of traffic for the various trip types is shown in Table 4.2.

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Table 4.2

Peak Hour In/Out Distribution

Trip Type		AM Early		AM Late		PM	
		In	Out	In	Out	In	Out
Light Vehicle Trips	Construction Staff - Camp	90%	10%	28%	12%	10%	90%
	Construction Staff - Non Camp	90%	10%	28%	12%	10%	90%
	Deliveries	50%	50%	20%	20%	50%	50%
Bus Trips	Buses	90%	10%	28%	12%	10%	90%
Heavy Vehicle Trips	Drink water	50%	50%	50%	50%	50%	50%
	Waste	50%	50%	50%	50%	50%	50%
	Fuel	50%	50%	50%	50%	50%	50%
	Raw water	50%	50%	50%	50%	50%	50%
	Equipment	50%	50%	50%	50%	50%	50%
	Pipe	50%	50%	50%	50%	50%	50%
	Concrete - Precast	50%	50%	50%	50%	50%	50%
	Concrete Insitu	50%	50%	50%	50%	50%	50%
	Prefab. Steelwork	50%	50%	50%	50%	50%	50%
	Steel	50%	50%	50%	50%	50%	50%
	Pavement	50%	50%	50%	50%	50%	50%
	Earthwork	50%	50%	50%	50%	50%	50%
	Rig. Movement	50%	50%	50%	50%	50%	50%
	Miscellaneous Class 9	50%	50%	50%	50%	50%	50%
	Miscellaneous Deliveries - Class 3	50%	50%	50%	50%	50%	50%

Intersection peak hour traffic volumes for each peak hour of analysis and assessment year are provided at Appendix B.

4.4 Cumulative Impacts of Other Projects

Traffic from other planned or approved projects of regional significance were added to the background traffic to account for the cumulative effect of these projects on the existing traffic in the study area. As discussed for the base case in the GLNG Traffic Report, traffic for the following projects was added to background traffic volumes to give the total background traffic in each assessment year:

- Moura Link-Aldoga Rail Project;
- Wiggins Island Coal Terminal Project;
- Gladstone Pacific Nickel Refinery Project.

4.5 Intersection Analysis

The following intersections were identified for analysis based on the potential for the proposed development to impact on their operations:

- Gladstone - Mount Larcom Road/Calliope River Road/Targinie Road intersection;
- Gladstone - Mount Larcom Road/Hanson Road/Landing Road intersection;
- Hanson Road/Red Rover Road intersection;
- Hanson Road/Blain Drive/Alf O'Rourke Drive intersection;
- Bruce Highway/Gladstone - Mount Larcom Road intersection;
- Glenlyon Road/Port Access Road/Railway Street intersection;
- Dawson Highway/Glenlyon Road/Bramston Street intersection;
- Dawson Highway/Don Young Drive intersection;
- Dawson Highway/Blain Drive/Herbertson Street intersection;
- Dawson Highway/Philip Street intersection;
- Dawson Highway/Aerodrome Road intersection;
- Bruce Highway/Dawson Highway intersection;
- Bruce Highway/Calliope Rive Road intersection.

4.5.1 Gladstone - Mount Larcom Road/Calliope River Road/Targinie Road Intersection

The Gladstone-Mount Larcom Road/Calliope River Road/Targinie Road intersection is an existing four-way priority intersection with the major movement east west along Gladstone-Mount Larcom Road, as shown on Figure 4.1. The results of the SIDRA analysis for this intersection are shown in Table 4.3. DMR count data from 2006 was utilised in the assessment.

Figure 4.1

Gladstone-Mt Larcom Rd/Calliope River Rd/Targinie Rd – Existing Layout

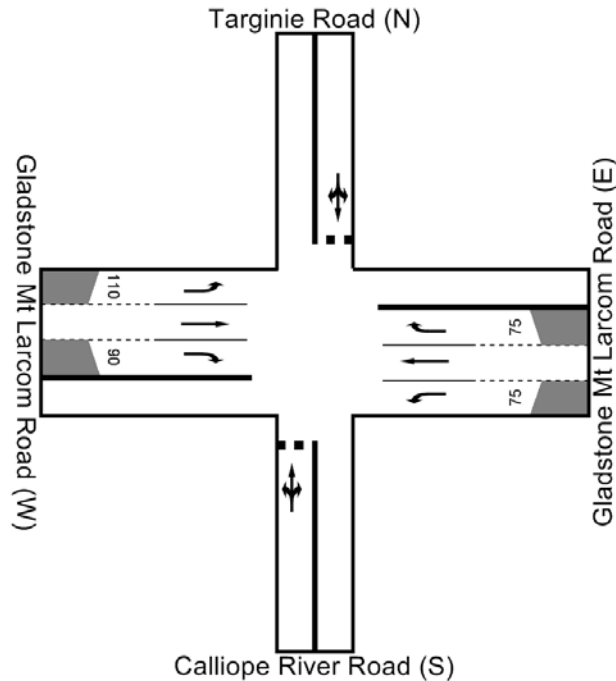


Table 4.3 Gladstone-Mt Larcom Rd/Calliope River Rd/Targinie Rd – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.42	6 sec	20 m	0.42	6 sec	20 m	-
	AM Late	0.18	5 sec	6 m	0.18	5 sec	6 m	-
	PM	0.19	5 sec	7 m	0.19	5 sec	7 m	-
2014	AM Early	0.51	8 sec	28 m	0.51	8 sec	28 m	-
	AM Late	0.20	5 sec	7 m	0.20	5 sec	7 m	-
	PM	0.22	6 sec	8 m	0.22	6 sec	8 m	-
2024	AM Early	0.58	10 sec	36 m	0.75	11 sec	55 m	-
	AM Late	0.32	5 sec	13 m	0.32	5 sec	13 m	-
	PM	0.26	5 sec	10 m	0.26	5 sec	10 m	-

The analysis of the Gladstone-Mount Larcom Road/Calliope River Road/Targinie Road intersection indicates that the intersection will operate adequately in its current form in all assessment years with the addition of development traffic.

4.5.2 Gladstone - Mount Larcom Road/Hanson Road/Landing Road Intersection

The Gladstone-Mount Larcom Road/Hanson Road/Landing Road intersection is currently a three-way priority intersection. DMR traffic count data from 2007 was utilised in the assessment of the intersection.

The analysis results for this intersection are summarised in Table 4.4 with the existing intersection form shown on Figure 4.2.

Figure 4.2 Gladstone-Mt Larcom Rd/Hanson Rd/Landing Rd - Existing Layout

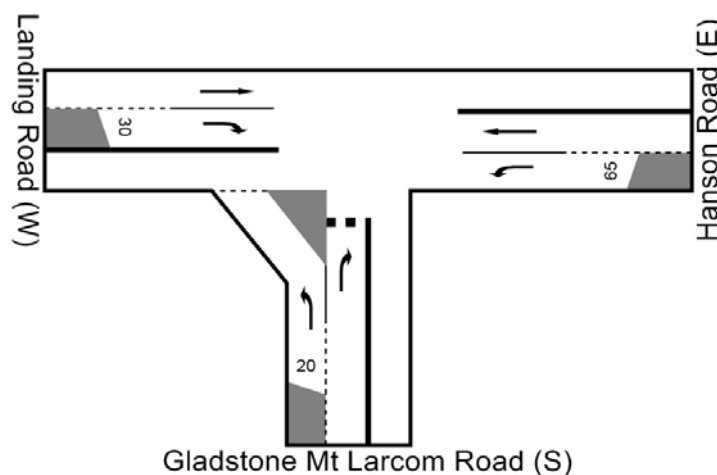


Table 4.4 Gladstone-Mt Larcom Rd/Hanson Rd/Landing Rd – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.34	8 sec	15 m	0.34	8 sec	16 m	-
	AM Late	0.29	9 sec	13 m	0.30	9 sec	14 m	-
	PM	0.32	9 sec	16 m	0.32	9 sec	16 m	-
2014	AM Early	0.40	8 sec	22 m	0.41	8 sec	23 m	-
	AM Late	0.33	9 sec	15 m	0.33	9 sec	16 m	-
	PM	0.34	9 sec	18 m	0.35	9 sec	19 m	-
2024	AM Early	0.58	10 sec	46 m	0.60	10 sec	49 m	-
	AM Late	0.52	10 sec	39 m	0.53	10 sec	40 m	-
	PM	0.47	10 sec	31 m	0.48	10 sec	31 m	-

Table 4.4 indicates that this intersection will operate adequately in its current form with the expected background and development traffic.

4.5.3 Hanson Road/Red Rover Road intersection

The Hanson Road/Red Rover Road intersection is an existing three-leg single-lane roundabout, with two approach lanes on the eastern approach and one lane on the other approaches. The circulating roadway of the roundabout accommodates two circulation lanes between Hanson Road (east) and Red Rover Road (south) to allow improved capacity for the left turn movement. This intersection was analysed for both the background traffic scenario and background plus development scenario.

The existing intersection form is shown on Figure 4.3 with assessment results provided in Table 4.5.

Figure 4.3 *Hanson Road/Red Rover Road – Existing Layout*

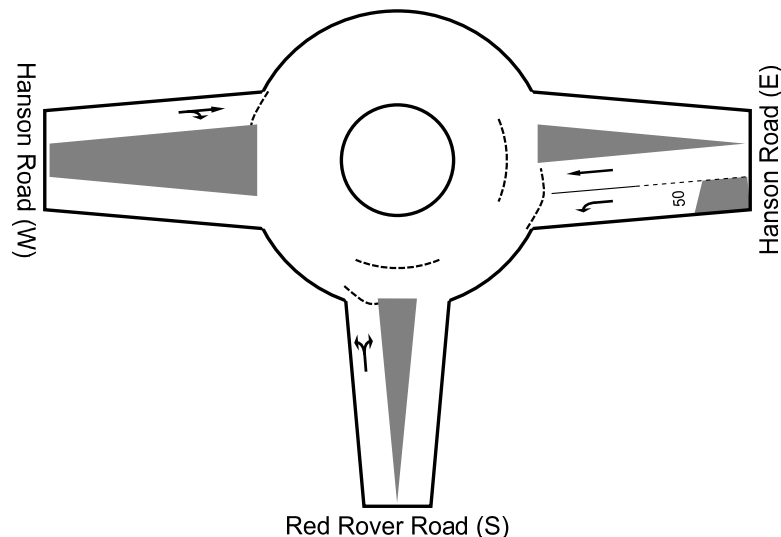


Table 4.5 *Hanson Road/Red Rover Road – SIDRA Results*

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	1.21	105 sec	996 m	1.21	108 sec	1022 m	-
	AM Late	0.29	7 sec	15 m	0.30	7 sec	15 m	-
	PM	0.52	5 sec	41 m	0.87	6 sec	135 m	-
2014	AM Early	1.85	390 sec	2764 m	1.87	384 sec	2790 m	-
	AM Late	0.32	7 sec	16 m	0.32	7 sec	16 m	-
	PM	0.97	10 sec	300 m	0.97	10 sec	305 m	-
2024	AM Early	2.54	762 sec	4427 m	2.56	764 sec	4444 m	-
	AM Late	0.44	7 sec	25 m	0.44	7 sec	25 m	-
	PM	0.96	12 sec	306 m	0.97	12 sec	313 m	-

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The SIDRA analysis indicates that the intersection will exceed its practical capacity in the 2012 AM early peak period and in the 2014 PM peak period under the background traffic scenario. The GLNG Project traffic increases intersection DOS to above the practical capacity in the 2012 PM peak period, but for all other years and peak periods the intersection operations are almost identical with GLNG Project traffic as with background traffic. Thus it can be inferred that project impacts on the intersection will be for only a short time, due to construction traffic.

Additional analysis was undertaken to determine the upgrades necessary to mitigate the 2012 PM peak hour operations for the “with development” scenario. It was determined that the following upgrades will be sufficient to bring intersection operations below background conditions in 2012:

- addition of a right-turn pocket on the western approach; and
- widening of the circulatory roadway to accommodate the additional lane.

The results of the SIDRA analysis with the above upgrades are presented in Table 4.6 and the upgraded intersection form is shown on Figure 4.4.

Figure 4.4

Hanson Road/Red Rover Road – Upgraded Layout

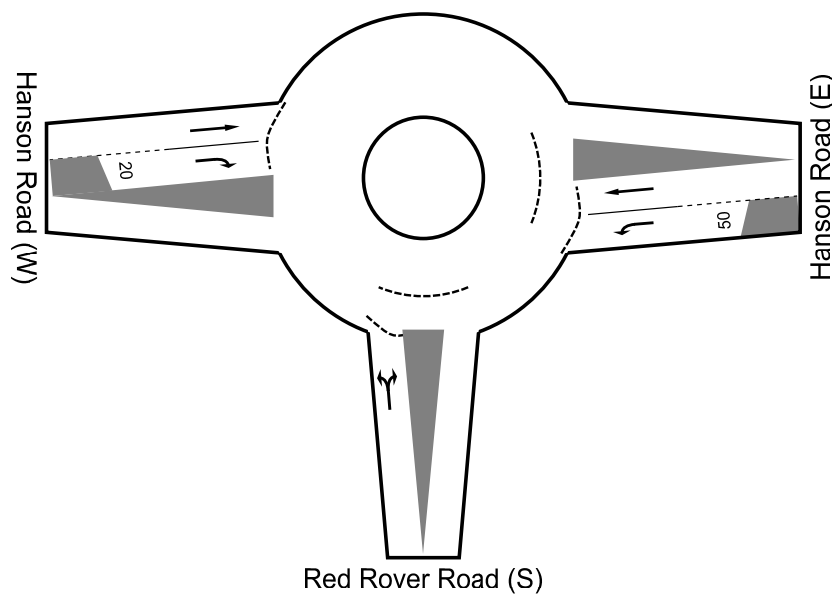


Table 4.6 Hanson Road/Red Rover Road – Upgraded SIDRA Results

Upgraded Roundabout Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	1.20	101 sec	968 m	1.21	104 sec	988 m	-
	AM Late	0.29	7 sec	15 m	0.30	7 sec	15 m	-
	PM	0.37	5 sec	26 m	0.63	5 sec	61 m	-
2014	AM Early	1.84	383 sec	2738 m	1.85	387 sec	2763 m	-
	AM Late	0.32	7 sec	16 m	0.32	7 sec	16 m	-
	PM	0.69	6 sec	72 m	0.69	6 sec	72 m	-
2024	AM Early	2.52	748 sec	4395 m	2.53	750 sec	4411 m	-
	AM Late	0.43	7 sec	25 m	0.44	7 sec	25 m	-
	PM	0.66	6 sec	65 m	0.67	6 sec	66 m	-

The SIDRA results shown in Table 4.6 indicate that the proposed intersection upgrades will mitigate “with development” traffic operations to below those found for the “background” scenario with the existing intersection form for all assessment years and peak hours (as shown in Table 4.5). Though the GLNG Project traffic impacts are mitigated, the intersection was still found to have additional capacity constraints due to background traffic.

It is important to note that the Department of Main Roads has undertaken corridor planning for the duplication of Hanson Road to four lanes to accommodate background traffic volumes, which is also a recommendation within the GIRTP. If the four-lane cross-section is to be built, the Hanson Road/Red Rover Road intersection would likely become a two-lane roundabout or traffic signals. The roundabout concept for the corridor planning would create adequate spare capacity to accommodate the proposed GLNG Project traffic.

In lieu of the developer implementing the upgrade works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 0.3% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.

4.5.4 Hanson Road/Blain Drive/Alf O’Rourke Drive intersection

The Hanson Road/Blain Drive/Alf O’Rourke Drive intersection is an existing four-way single-lane roundabout, as shown on Figure 4.5. The SIDRA results of this intersection analysis are shown in Table 4.7 below.

Figure 4.5 *Hanson Road/Blain Drive/Alf O'Rourke Drive – Existing Layout*

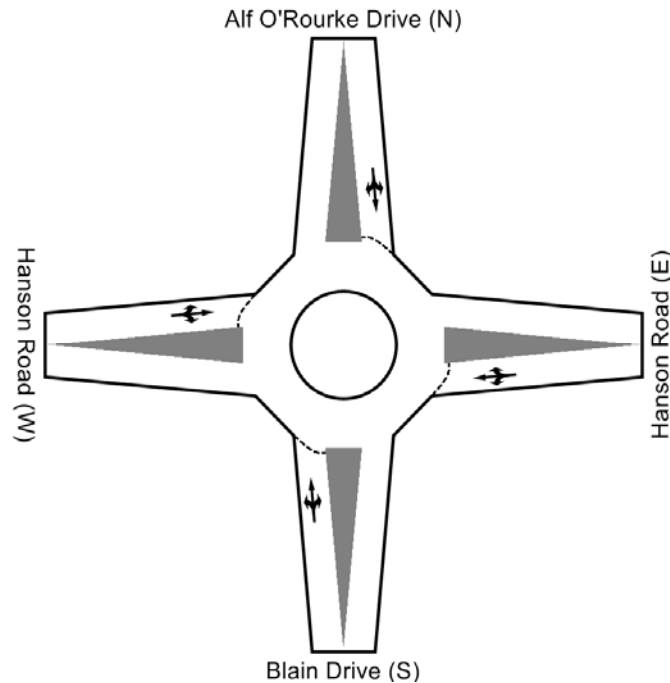


Table 4.7 *Hanson Road/Blain Drive/Alf O'Rourke Drive – SIDRA Results*

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	1.27	230 sec	2484 m	1.28	234 sec	2525 m	-
	AM Late	0.47	8 sec	35 m	0.48	8 sec	36 m	-
	PM	0.73	12 sec	79 m	0.73	12 sec	79 m	-
2014	AM Early	1.50	383 sec	3872 m	1.50	385 sec	3895 m	-
	AM Late	0.51	8 sec	40 m	0.52	8 sec	40 m	-
	PM	0.79	18 sec	110 m	0.80	18 sec	116 m	-
2024	AM Early	1.88	642 sec	5846 m	1.88	646 sec	5883 m	-
	AM Late	0.73	12 sec	89 m	0.73	12 sec	90 m	-
	PM	0.92	26 sec	187 m	0.92	28 sec	197 m	-

The analysis undertaken indicates that in its current form the intersection will operate above its practical capacity in all assessment years in the AM early peak and in the 2024 PM peak period under the background traffic scenario. A review of Table 4.7 shows that operations with the GLNG Project traffic are almost identical to that of background traffic operations.

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To mitigate the background capacity constraints through 2024, a left-turn bypass lane is required on the south leg with a short downstream receiving lane on the west leg of the intersection. Additionally, a right-turn pocket is required on the west leg with additional circulating width to accommodate the added lane. The upgraded intersection layout is shown on Figure 4.6 with the SIDRA results for the upgraded intersection analysis shown in Table 4.8.

Figure 4.6 *Hanson Road/Blain Drive/Alf O’Rourke Drive – Upgraded Layout*

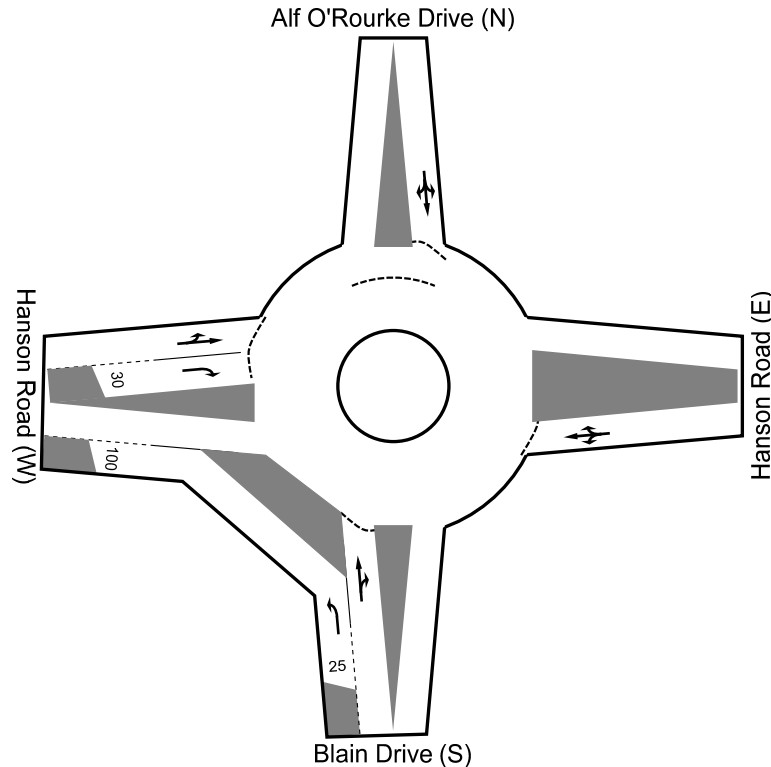


Table 4.8 *Hanson Road/Blain Drive/Alf O’Rourke Drive – Upgraded SIDRA Results*

Upgraded Roundabout Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.55	7 sec	47 m	0.55	7 sec	47 m	-
	AM Late	0.44	7 sec	32 m	0.44	7 sec	33 m	-
	PM	0.63	9 sec	66 m	0.64	9 sec	68 m	-
2014	AM Early	0.61	7 sec	58 m	0.61	7 sec	59 m	-
	AM Late	0.48	8 sec	36 m	0.48	8 sec	36 m	-
	PM	0.72	11 sec	92 m	0.74	11 sec	97 m	-
2024	AM Early	0.75	9 sec	97 m	0.75	9 sec	98 m	-
	AM Late	0.68	9 sec	78 m	0.68	9 sec	78 m	-
	PM	0.84	13 sec	145 m	0.85	13 sec	156 m	-

This upgraded roundabout layout is shown to accommodate the anticipated GLNG development traffic in all the scenarios tested. As the addition of GLNG Project traffic does not noticeably worsen intersection operations, no upgrades are proposed by the GLNG Project.

It is important to note that both the Gladstone Pacific Nickel Refinery Project and the Wiggins Island Coal Terminal Project have identified impacts and recommend mitigation measures to provide a two-lane roundabout at this location. Additionally, the Department of Main Roads has undertaken corridor planning for the duplication of Hanson Road to four lanes to accommodate background traffic volumes, which is also recommended in the GIRTP. If the four-lane cross-section is to be built (and subsequent two-lane roundabout at Blain Drive/Alf O’Rourke Drive), these upgrades to Hanson Road and the intersection would create adequate spare capacity to accommodate background traffic and the proposed GLNG Project traffic.

4.5.5 Bruce Highway/Gladstone - Mount Larcom Road Intersection

The Bruce Highway/Gladstone-Mount Larcom Road intersection is an existing three-way priority intersection with the major movement north-south along the Bruce Highway, as shown on Figure 4.7. The SIDRA analysis results for this intersection are shown in Table 4.9 below. The analysis indicates the intersection will operate adequately in all assessment scenarios with background traffic and with the addition of GLNG Project traffic.

Figure 4.7 Bruce Highway/Gladstone - Mount Larcom Road – Existing Layout

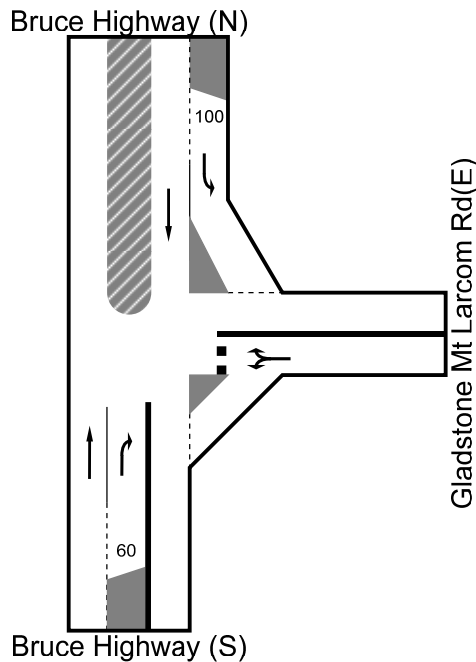


Table 4.9 *Bruce Highway/Gladstone-Mount Larcom Road – SIDRA Results*

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.17	7 sec	8 m	0.18	7 sec	8 m	-
	AM Late	0.22	6 sec	9 m	0.22	6 sec	9 m	-
	PM	0.25	6 sec	10 m	0.26	6 sec	11 m	-
2014	AM Early	0.19	7 sec	9 m	0.20	7 sec	9 m	-
	AM Late	0.26	6 sec	11 m	0.26	6 sec	11 m	-
	PM	0.29	7 sec	12 m	0.3	7 sec	13 m	-
2024	AM Early	0.32	7 sec	17 m	0.32	7 sec	17 m	-
	AM Late	0.48	8 sec	27 m	0.48	8 sec	28 m	-
	PM	0.44	7 sec	25 m	0.46	8 sec	27 m	-

4.5.6 Glenlyon Road/Gladstone Port Access Road/Railway Street Intersection

The Glenlyon Road/Gladstone Port Access Road/Railway Street intersection is an existing four-way signalised intersection, as shown on Figure 4.8. The SIDRA analysis results for the intersection are shown in Table 4.10.

Figure 4.8 *Glenlyon Rd/Gladstone Port Access Rd/Railway St – Existing Layout*

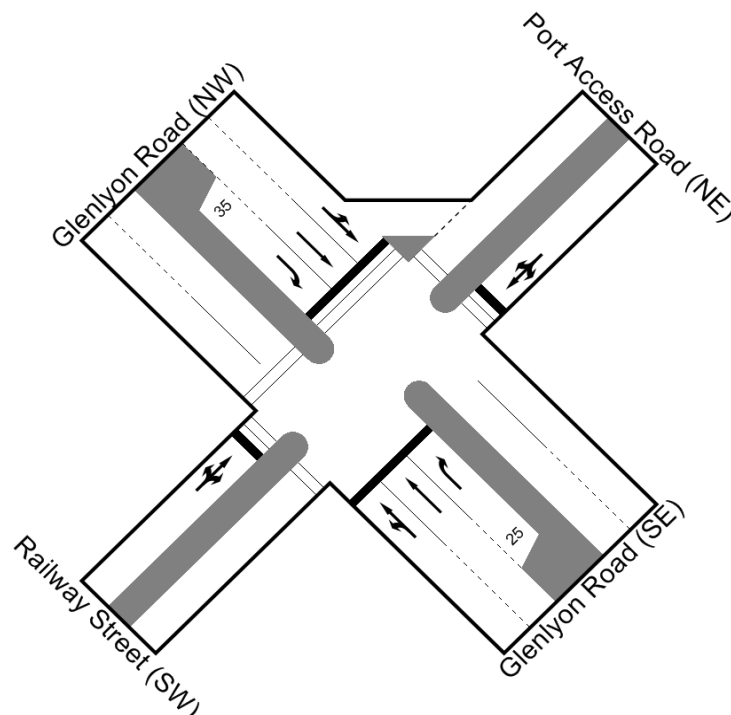


Table 4.10 Glenlyon Road/Port Access Road/Railway Street – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.38	24 sec	81 m	0.53	24 sec	93 m	100 sec
	AM Late	0.63	22 sec	165 m	0.64	22 sec	167 m	100 sec
	PM Late	0.59	16 sec	145 m	0.59	18 sec	145 m	100 sec
2014	AM Early	0.45	26 sec	89 m	0.63	27 sec	99 m	100 sec
	AM Late	0.67	22 sec	179 m	0.68	22 sec	182 m	100 sec
	PM Late	0.62	17 sec	156 m	0.63	19 sec	159 m	100 sec
2024	AM Early	0.51	26 sec	103 m	0.80	30 sec	140 m	100 sec
	AM Late	0.86	33 sec	312 m	0.88	35 sec	331 m	100 sec
	PM Late	0.75	18 sec	205 m	0.80	23 sec	225 m	100 sec

Table 4.10 above indicates that this intersection will operate adequately in all assessment scenarios with background traffic and with the addition of GLNG Project traffic.

4.5.7 Dawson Highway/Glenlyon Road/Bramston Street Intersection

The Dawson Highway/Glenlyon Road/Bramston Street intersection is an existing four-way signalised intersection, as shown on Figure 4.9. Analysis of this intersection was undertaken with the results shown in Table 4.11.

Figure 4.9 Dawson Highway/Glenlyon Road/Bramston Street – Existing Layout

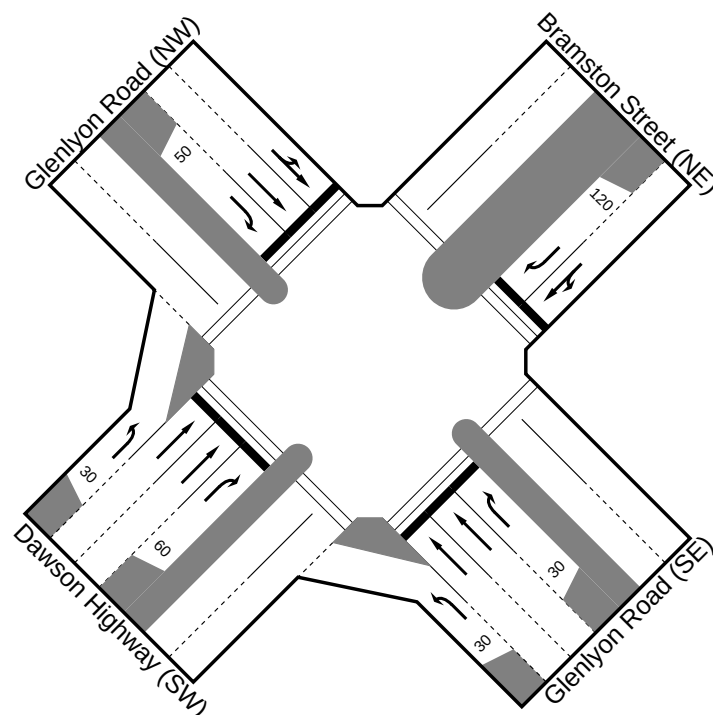


Table 4.11 Dawson Highway/Glenlyon Road/Bramston Street – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.67	24 sec	87 m	0.86	25 sec	87 m	90 sec
	AM Late	1.02	63 sec	333 m	1.00	65 sec	316 m	90 sec
	PM	0.70	27 sec	128 m	0.71	28 sec	129 m	90 sec
2014	AM Early	0.72	25 sec	92 m	0.92	25 sec	92 m	90 sec
	AM Late	1.00	63 sec	334 m	1.01	67 sec	323 m	90 sec
	PM	0.74	28 sec	140 m	0.75	29 sec	142 m	90 sec
2024	AM Early	1.00	42 sec	156 m	1.01	60 sec	209 m	140 sec
	AM Late	1.20	278 sec	1423 m	1.20	293 sec	1539 m	140 sec
	PM	0.93	39 sec	233 m	1.00	52 sec	306 m	90 sec

Table 4.11 indicates this intersection will exceed its practical capacity in the 2012 AM late peak hour due to background traffic. The GLNG Project traffic results in practical capacity being exceeded in the 2014 AM early peak hour.

Intersection upgrade measures were investigated to mitigate the impact of development traffic on the intersection operations. It was found that the extension of turn lanes on the northwest, southeast and southwest legs of the intersection are required to bring intersection operations back to the DOS found for background conditions (shown in Table 4.11). These works are the responsibility of the developer.

The upgraded intersection form is shown in Figure 4.10 and intersection operations with the upgrades summarized in Table 4.12. The intersection was found to operate within practical capacity with the proposed upgrades in all years except the 2024 AM late peak, though it operates better than the background traffic scenario with the existing intersection form.

Figure 4.10 Dawson Highway/Glenlyon Road/Bramston Street – Upgraded Layout

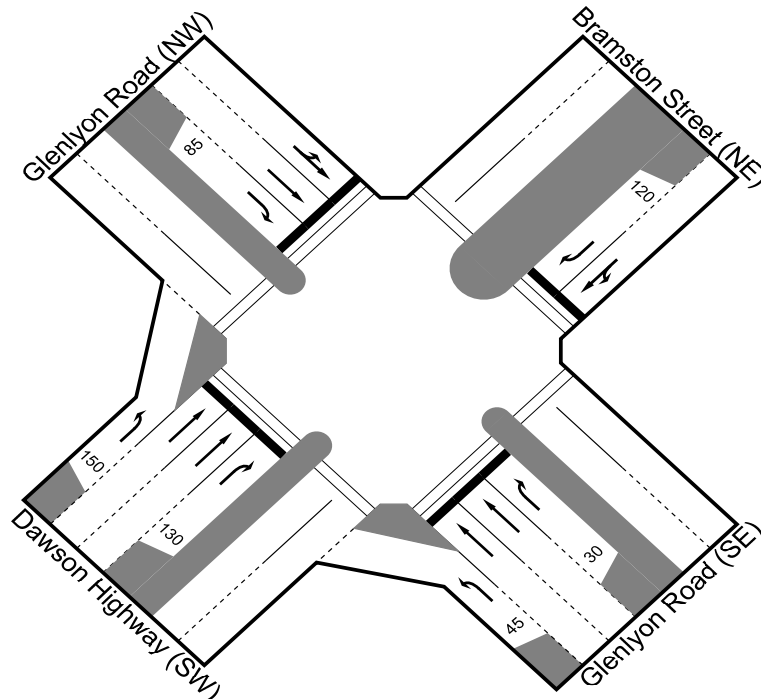


Table 4.12 Dawson Highway/Glenlyon Road/Bramston Street – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.36	22 sec	82 m	0.38	22 sec	84 m	100 sec
	AM Late	0.83	34 sec	182 m	0.85	35 sec	190 m	100 sec
	PM	0.65	28 sec	134 m	0.65	28 sec	135 m	100 sec
2014	AM Early	0.38	23 sec	86 m	0.41	23 sec	90 m	100 sec
	AM Late	0.89	39 sec	211 m	0.89	39 sec	211 m	100 sec
	PM	0.71	29 sec	145 m	0.69	29 sec	145 m	100 sec
2024	AM Early	0.49	25 sec	103 m	0.55	26 sec	111 m	100 sec
	AM Late	1.09	140 sec	659 m	1.11	149 sec	753 m	100 sec
	PM	0.87	34 sec	206 m	0.90	40 sec	227 m	100 sec

Programmed improvements at this intersection have been identified in the RIP for 2009/2010 (\$100,000). DMR advised that these works will include phasing changes and lane marking changes to improve operation of the traffic signals. The works also include an asphalt overlay.

4.5.8 Dawson Highway/Don Young Drive Intersection

The Dawson Highway/Don Young Drive intersection is an existing three-way priority intersection, as shown on Figure 4.11. The SIDRA analysis results for this intersection are shown in Table 4.13. Further review of Table 4.13 shows that the intersection operations with GLNG development traffic are almost identical to those for background traffic condition therefore no upgrade works are required of the developer. The analysis indicates the intersection will exceed practical capacity in the 2024 AM late peak under the with development scenario and the 2024 PM peak period under the background traffic scenario, however Gladstone Regional Council planning for the Kirkwood Road project indicates Kirkwood Road will align with Don Young Drive and form a grade separated intersection providing far superior intersection performance. There is no timing proposed for this work.

Figure 4.11

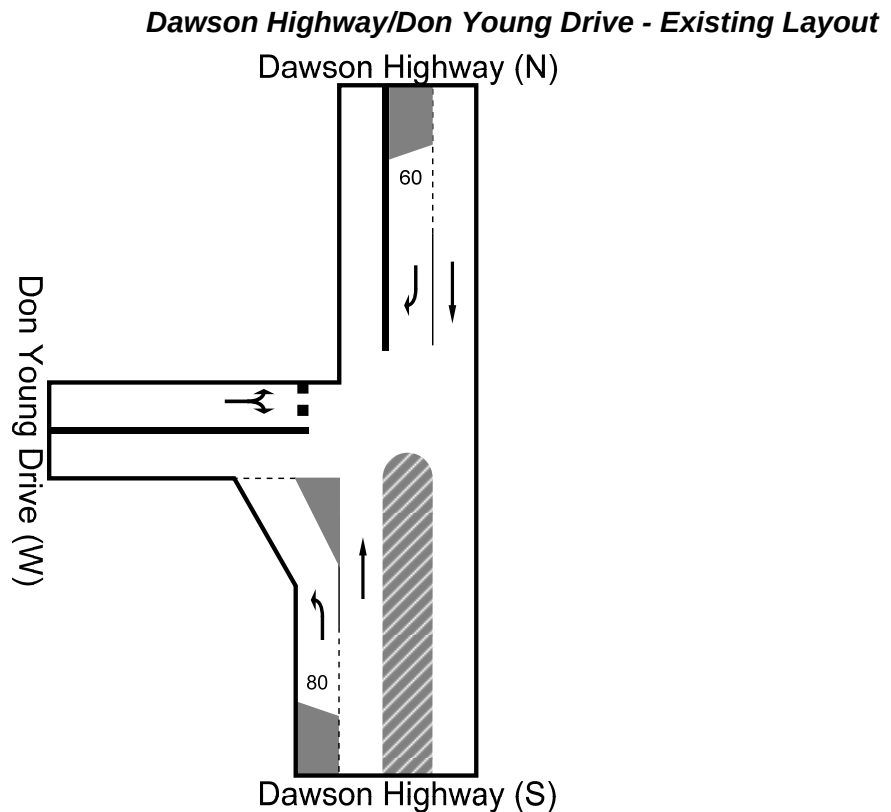


Table 4.13 *Dawson Highway/Don Young Drive– SIDRA Results*

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.21	5 sec	7 m	0.22	5 sec	8 m	-
	AM Late	0.31	3 sec	12 m	0.32	4 sec	12 m	-
	PM	0.43	5 sec	21 m	0.45	5 sec	22 m	-
2014	AM Early	0.26	5 sec	9 m	0.27	5 sec	10 m	-
	AM Late	0.36	4 sec	14 m	0.38	4 sec	15 m	-
	PM	0.54	6 sec	30 m	0.55	6 sec	31 m	-
2024	AM Early	0.44	6 sec	17 m	0.45	6 sec	18 m	-
	AM Late	0.78	7 sec	41 m	0.81	7 sec	44 m	-
	PM	0.88	12 sec	90 m	0.88	13 sec	99 m	-

4.5.9 Dawson Highway/Blain Drive/Herbertson Street Intersection

The Dawson Highway/Blain Drive/Herbertson Street intersection is an existing four-way, two-lane roundabout, as shown on Figure 4.12. The SIDRA analysis results for this intersection are shown in Table 4.14.

Figure 4.12 *Dawson Highway/Blain Drive/Herbertson Street – Existing Layout*

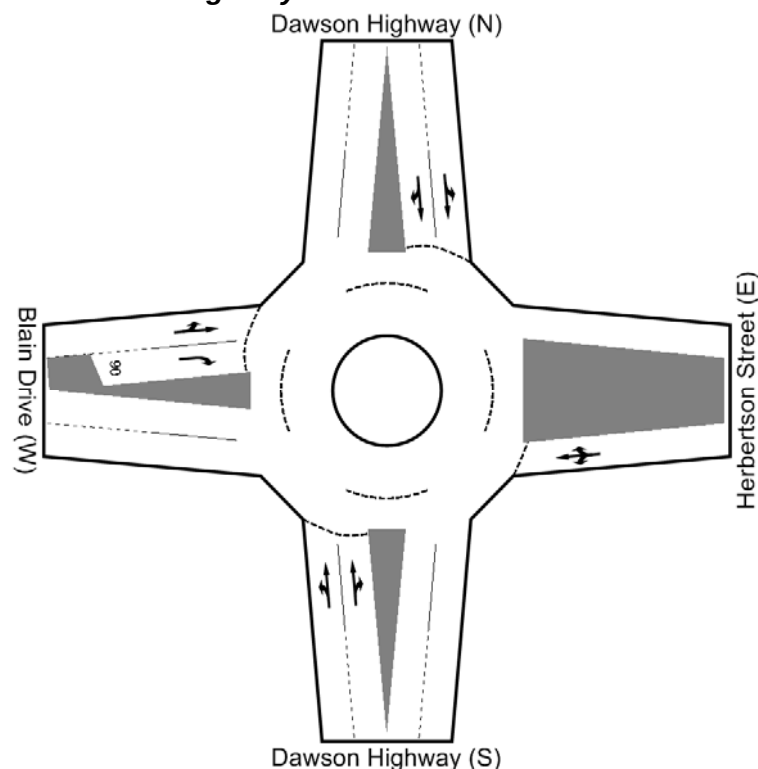


Table 4.14 Dawson Highway/Blain Drive/Herbertson Street – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.68	6 sec	51 m	0.68	6 sec	51 m	-
	AM Late	0.35	5 sec	18 m	0.36	5 sec	19 m	-
	PM	0.76	13 sec	81 m	0.82	15 sec	100 m	-
2014	AM Early	0.74	7 sec	69 m	0.75	7 sec	72 m	-
	AM Late	0.37	5 sec	20 m	0.39	5 sec	21 m	-
	PM	0.89	21 sec	138 m	0.97	33 sec	236 m	-
2024	AM Early	0.83	8 sec	103 m	0.84	9 sec	111 m	-
	PM Early	0.50	5 sec	32 m	0.53	6 sec	33 m	-
	PM	1.24	203 sec	1651 m	1.34	280 sec	2278 m	-

The SIDRA analysis indicates that under background traffic volumes, this intersection operates adequately for all scenarios tested except for the PM peak period in 2014 and 2024. The development traffic also results in practical capacity being exceeded in the 2012 PM Peak.

The intersection was tested with an upgraded roundabout form, including the addition of a left slip lane on the southern leg of the Dawson Highway and the conversion of the shared left/through lane on Blain Drive to accommodate all movements. Figure 4.13 below shows the intersection form needed to mitigate background traffic conditions. The analysis results are shown in Table 4.15. The improvements ensure the operation of the intersection is no worse compared to the background traffic scenario as it relates to the existing intersection form.

Figure 4.13 Dawson Highway/Blain Drive/Herbertson Street – Upgraded Layout

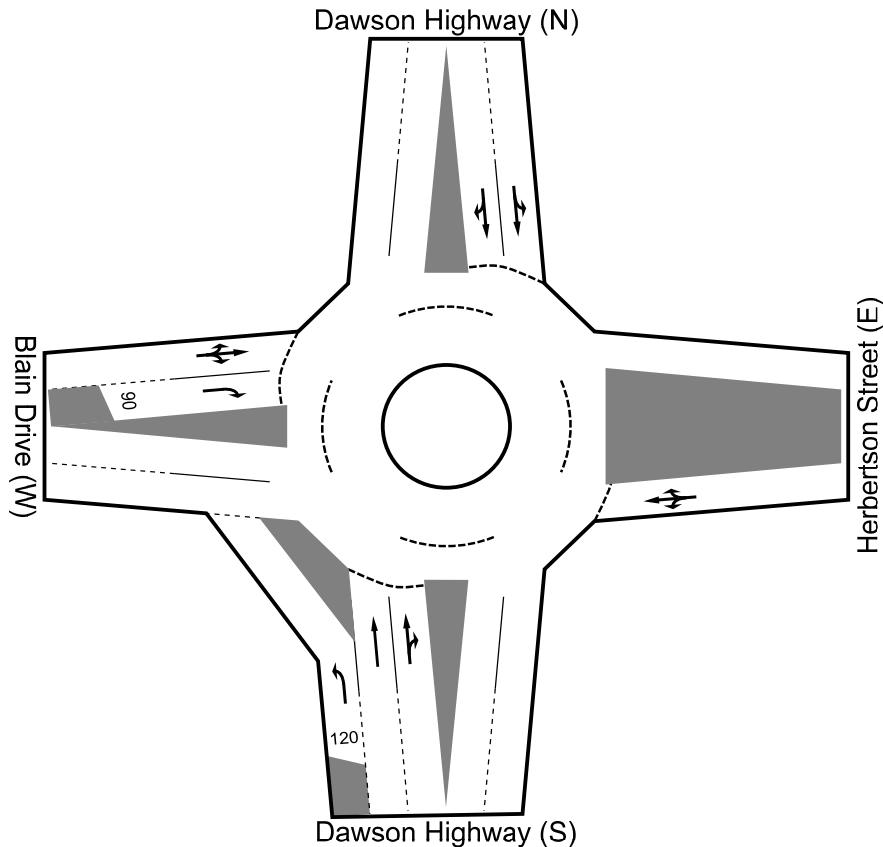


Table 4.15 Dawson Highway/Blain Drive/Herbertson Street – SIDRA Results

Upgraded Layout – Signalised								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2014	AM Early	0.73	6 sec	62 m	0.73	6 sec	61 m	-
	AM Late	0.30	5 sec	15 m	0.31	5 sec	16 m	-
	PM	0.70	9 sec	51 m	0.75	9 sec	60 m	-
2024	AM Early	0.80	7 sec	87 m	0.80	7 sec	86 m	-
	PM Early	0.40	5 sec	23 m	0.42	5 sec	24 m	-
	PM	0.98	19 sec	192 m	1.05	53 sec	572 m	-

4.5.10 Dawson Highway/Philip Street Intersection

The Dawson Highway/Philip Street intersection is an existing four-leg, two-lane roundabout with signals on the eastern and western legs that are triggered if there are long queues on the Dawson Highway. The intersection was tested as a roundabout as shown on Figure 4.14. The SIDRA analysis results for this intersection are shown in Table 4.16.

Figure 4.14

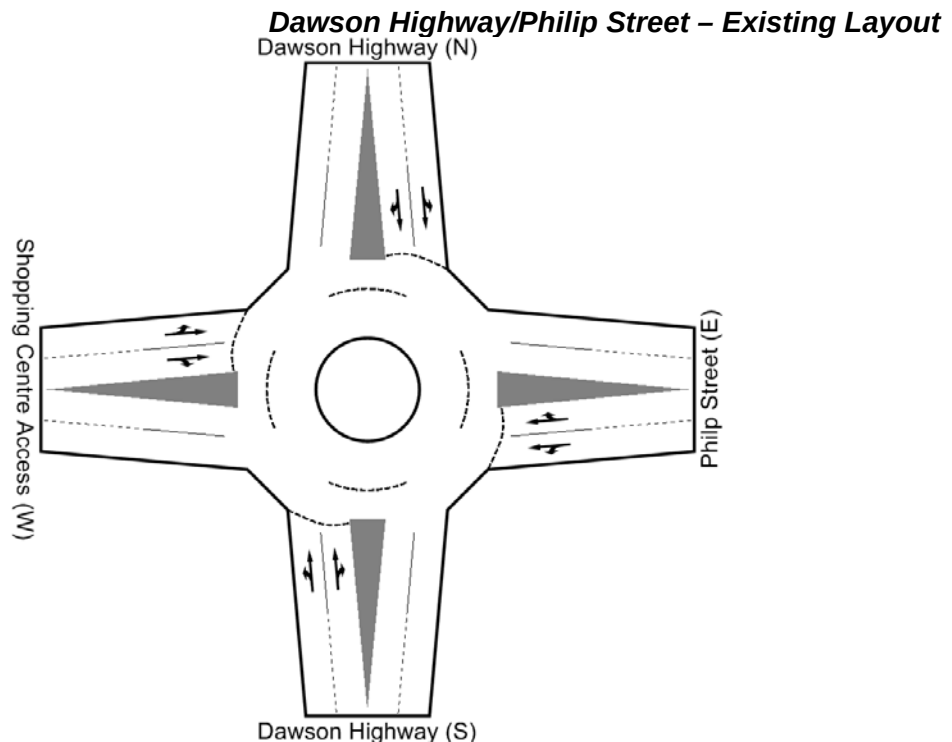


Table 4.16

Dawson Highway/Philip Street – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.66	11 sec	59 m	0.71	12 sec	69 m	-
	AM Late	0.92	14 sec	164 m	0.93	15 sec	179 m	-
	PM	1.16	125 sec	1097 m	1.16	161 sec	1149 m	-
2014	AM Early	0.74	13 sec	80 m	0.79	14 sec	94 m	-
	AM Late	0.99	28 sec	354 m	1.00	33 sec	410 m	-
	PM	1.20	213 sec	1674 m	1.24	246 sec	2044 m	-
2024	AM Early	0.97	27 sec	250 m	1.03	61 sec	549 m	-
	AM Late	1.44	434 sec	4487 m	1.47	451 sec	4647 m	-
	PM	1.68	616 sec	4588 m	1.74	672 sec	5068 m	-

The SIDRA analysis shows in its current form, this intersection will operate above its practical capacity in 2012 under the background traffic scenario. Discussions with DMR indicate that resolution of background capacity issues is currently underway, with options such as full signalization of the intersection and a bypass road parallel to Dawson Highway being considered.

As the planned upgrades to the intersection are not known, further testing of the intersection was not undertaken. Based on Table 4.16, the GLNG Project traffic increases the DOS of the intersection by a maximum of 6%, which is in 2012. During the subsequent analysis years (2014 and 2024), the expected development traffic increases intersection DOS by only approximately 1–3%. The option of making a contribution to the intersection upgrade could be considered. The development traffic forms 3.4% of the combined background and development traffic in 2012 and this could be the basis of a cost sharing arrangement.

4.5.11 Dawson Highway/Aerodrome Road Intersection

The Dawson Highway/Aerodrome Road intersection is an existing four-way signalised intersection, as shown on Figure 4.15. The results of SIDRA analysis for this intersection are shown in Table 4.17.

Figure 4.15

Dawson Highway/Aerodrome Road – Existing Layout

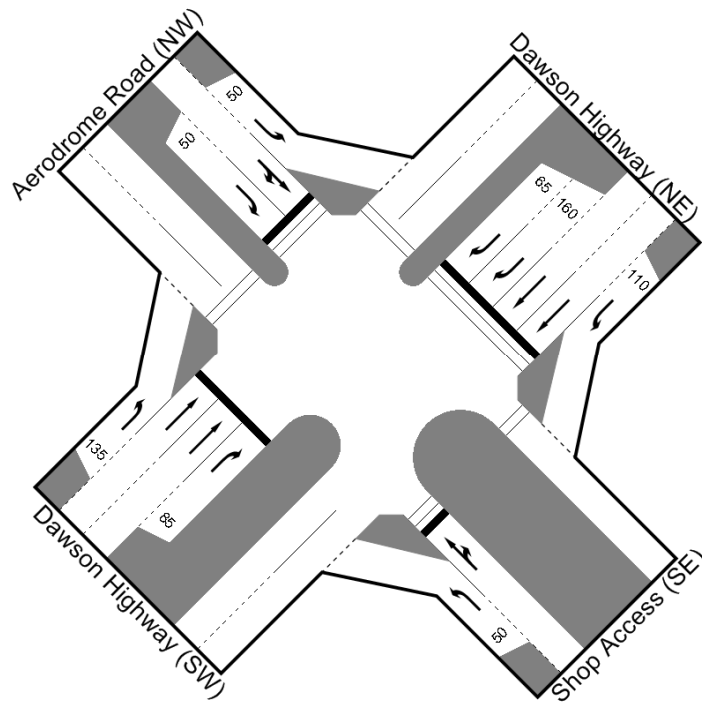


Table 4.17 Dawson Highway/Aerodrome Road – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.49	33 sec	95 m	0.58	32 sec	97 m	120 sec
	AM Late	1.00	52 sec	307 m	1.00	69 sec	379 m	120 sec
	PM	0.91	49 sec	214 m	0.92	51 sec	226 m	120 sec
2014	AM Early	0.54	33 sec	100 m	0.58	32 sec	105 m	120 sec
	AM Late	1.00	50 sec	325 m	1.00	53 sec	341 m	120 sec
	PM	1.00	68 sec	310 m	1.00	69 sec	333 m	120 sec
2024	AM Early	0.82	41 sec	142 m	0.85	43 sec	161 m	120 sec
	AM Late	1.10	101 sec	704 m	1.10	109 sec	756 m	120 sec
	PM	1.11	143 sec	858 m	1.14	166 sec	999 m	120 sec

The analysis shows in its current form, the Dawson Highway/Aerodrome Road intersection will operate above practical capacity in the 2012, 2014 and 2024 AM late peak and PM peak periods under the background traffic scenario. Further review of Table 4.17 shows that the intersection operations with GLNG development traffic are almost identical to those for background traffic conditions. Therefore, no intersection upgrades will be required by the GLNG Project.

For the intersection to operate adequately with background traffic through to 2024, the two right turn lanes from Dawson Highway turning into Aerodrome Road will need to be extended and the left slip lane from Aerodrome Road will need to be changed to a continuous left turn lane. This upgraded layout and the SIDRA analysis of this upgraded intersection are shown on Figure 4.16 and Table 4.18. In addition to the physical upgrades to the intersection, in the 2024 PM peak scenario the signal cycle length for the intersection should be optimized (increased from 120 seconds to 130 seconds).

Figure 4.16

Dawson Highway/Aerodrome Road – Upgraded Layout

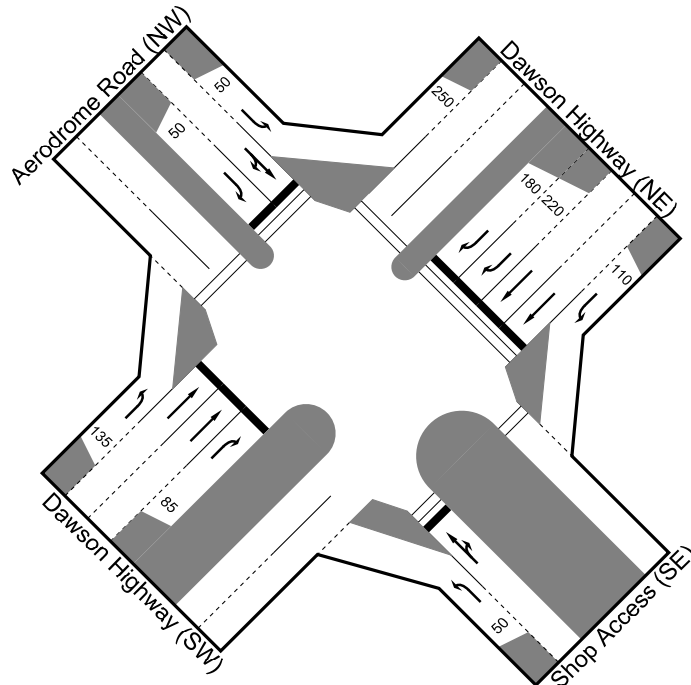


Table 4.18

Dawson Highway/Aerodrome Road – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.27	22 sec	73 m	0.28	22 sec	75 m	120 sec
	AM Late	0.56	22 sec	160 m	0.57	22 sec	162 m	120 sec
	PM	0.62	31 sec	155 m	0.65	32 sec	160 m	120 sec
2014	AM Early	0.29	22 sec	78 m	0.30	22 sec	82 m	120 sec
	AM Late	0.60	22 sec	174 m	0.60	22 sec	176 m	120 sec
	PM	0.66	32 sec	167 m	0.69	32 sec	176 m	120 sec
2024	AM Early	0.38	23 sec	101 m	0.40	23 sec	108 m	120 sec
	AM Late	0.78	24 sec	259 m	0.79	24 sec	264 m	120 sec
	PM	0.83	40 sec	263 m	0.85	39 sec	286 m	130 sec

4.5.12 Bruce Highway/Dawson Highway Intersection

The Bruce Highway/Dawson Highway intersection is an existing four-way priority intersection, as shown on Figure 4.17. The SIDRA analysis results for this intersection are shown in Table 4.19.

Figure 4.17

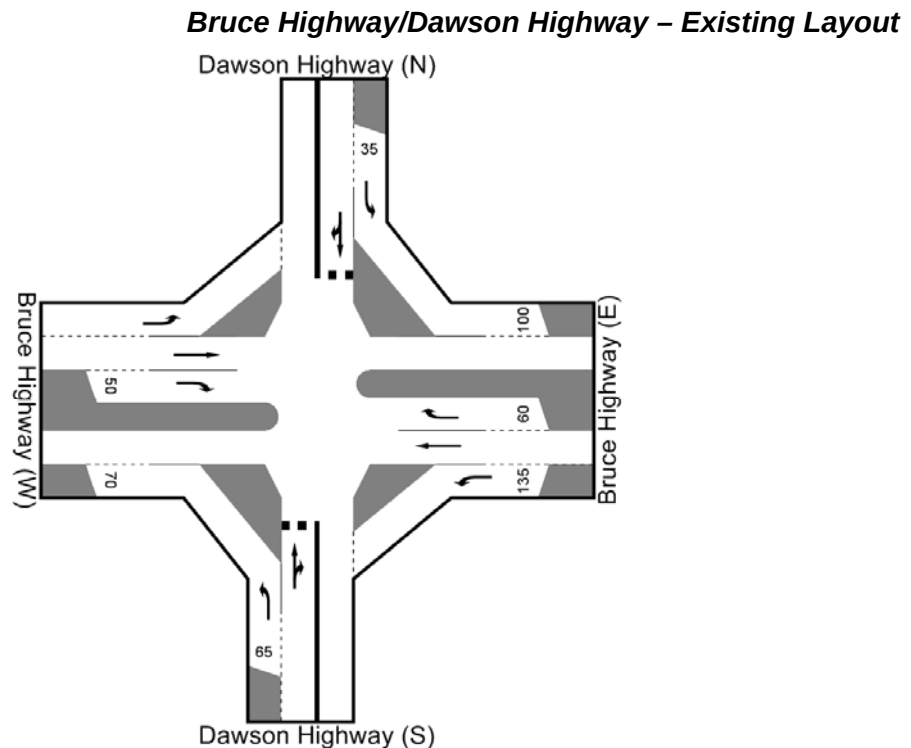


Table 4.19

Bruce Highway/Dawson Highway – SIDRA Results

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.88	14 sec	104 m	0.91	16 sec	127 m	-
	AM Late	1.79	644 sec	3005 m	1.85	683 sec	3149 m	-
	PM	0.53	9 sec	32 m	0.55	10 sec	35 m	-
2014	AM Early	1.01	36 sec	277 m	1.02	38 sec	287 m	-
	AM Late	2.13	906 sec	3900 m	2.13	912 sec	3923 m	-
	PM	0.62	10 sec	42 m	0.62	10 sec	43 m	-
2024	AM Early	1.95	654 sec	3087 m	1.96	661 sec	3113 m	-
	AM Late	4.74	3104 sec	8233 m	4.75	3113 sec	8251 m	-
	PM	1.02	38 sec	305 m	1.02	40 sec	321 m	-

The analysis shows that in its current form the Bruce Highway/Dawson Highway intersection will operate above its practical capacity in 2012 in both AM peak hours. The intersection is expected to operate over its practical capacity in all peak hours in 2024.

The capacity constraint at the Bruce Highway/Dawson Highway intersection is due to the anticipated levels of background traffic. Further review of Table 4.19 shows operations with the proposed GLNG Project traffic are almost identical to background conditions in 2014 and 2024.

GLNG Traffic Report – “No Bridge” Option

DMR has developed a grade-separated layout for the Bruce Highway/Dawson Highway intersection to mitigate the existing capacity constraints. The grade separation is expected to create adequate spare capacity for future operations, including the addition of the proposed GLNG Project trips. The analysis shows that the need for the works is driven by background growth with no impact discernable for the GLNG Project.

4.5.13 Bruce Highway/Calliope River Road Intersection

The Bruce Highway/Calliope River Road intersection is an existing three-way priority intersection, as shown on Figure 4.18. The SIDRA analysis results for this intersection are shown in Table 4.20. This intersection was found to operate adequately in its current form.

Figure 4.18 *Bruce Highway/Calliope River Road – Existing Layout*

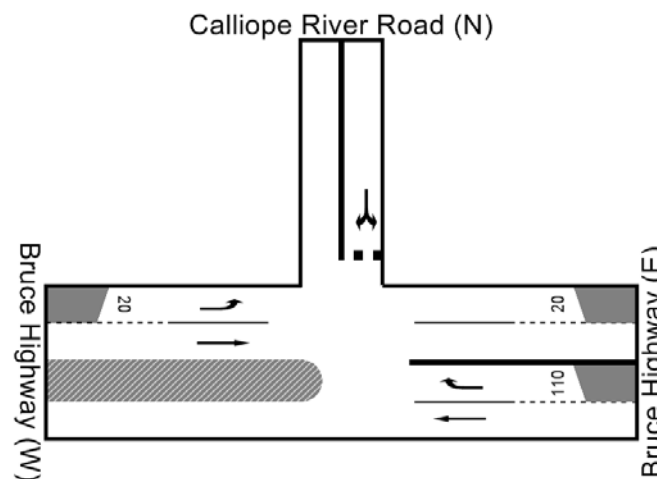


Table 4.20 *Bruce Highway/Calliope River Road Intersection – SIDRA Results*

Existing Layout								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.06	4 sec	2 m	0.06	4 sec	2 m	-
	AM Late	0.07	2 sec	1 m	0.07	2 sec	1 m	-
	PM	0.07	3 sec	2 m	0.07	3 sec	2 m	-
2014	AM Early	0.06	4 sec	2 m	0.06	4 sec	2 m	-
	AM Late	0.08	2 sec	1 m	0.08	2 sec	1 m	-
	PM	0.08	3 sec	3 m	0.08	3 sec	3 m	-
2024	AM Early	0.09	4 sec	3 m	0.09	4 sec	3 m	-
	AM Late	0.11	2 sec	2 m	0.11	2 sec	2 m	-
	PM	0.11	2 sec	3 m	0.11	2 sec	3 m	-

4.6 Additional Intersection Analysis

Additional intersection analysis has been performed at a single location on the road network west of the Bruce Highway. This was done along Dawson Highway to assess if the development traffic could impact on the intersection performance.

Due to the low volumes of traffic along these rural roads and the comparatively large increase in traffic due to development, all intersections will have a large percentage increase in traffic flowing through them. However, despite the significant percentage increase in traffic volume, all the intersections are predicted to operate well within capacity. Except for access intersections for construction depots and worker accommodations, all development traffic added to intersections will be through movements, which add far less delay than other turning movements at intersections.

The intersection that was identified as a critical intersection was the intersection of the Dawson Highway, Kariboe Street and Callide Street, located in the town of Biloela. This intersection has approximately 7,250vpd passing along Dawson Highway. This is in comparison to most other roads west of Calliope that carry less than 2,000vpd.

Intersection analysis was performed at this intersection during the peak hours for all assessment years.

4.6.1 Dawson Highway/Kariboe Street/Callide Street Intersection

The Dawson Highway/Kariboe Street/Callide Street Intersection is a four-way priority intersection and the major movement is southwest to northeast along the Dawson Highway, locally named Gladstone Road. The Dawson Highway at this location is a median-separated four-lane road, with two lanes in each direction. A pedestrian crossing exists on the south-western leg of the Dawson Highway.

The north-western leg of the intersection, Kariboe Street is a two-way two-lane road. It has a pedestrian crossing across it at the intersection and also provides a left turn slip lane. The south eastern leg of Callide Street is a two-way two-lane road.

Due to the wide median on Dawson Highway, analysis can be performed taking into account a two-stage right-turn onto the Dawson Highway from Kariboe Street. This allows a vehicle to turn from Kariboe Street and queue in the median, only needing to give way to one direction of traffic at a time.

GLNG Traffic Report – “No Bridge” Option

The existing intersection form as well as the modified SIDRA form to allow for two-stage right-turns is provided in Figure 4.19. Intersection analysis results reflecting this are shown in Table 4.21. The intersection was found to operate above its practical capacity in the 2012 AM late peak under the background traffic scenario. Further review of the SIDRA analysis results show that the GLNG Project traffic only makes intersection operations marginally worse in 2024. For all other assessment years, the “with development” intersection operations are almost identical to “background” intersection operations.

Figure 4.19 Dawson Highway/Kariboe Street/Callide Street – Existing Layout

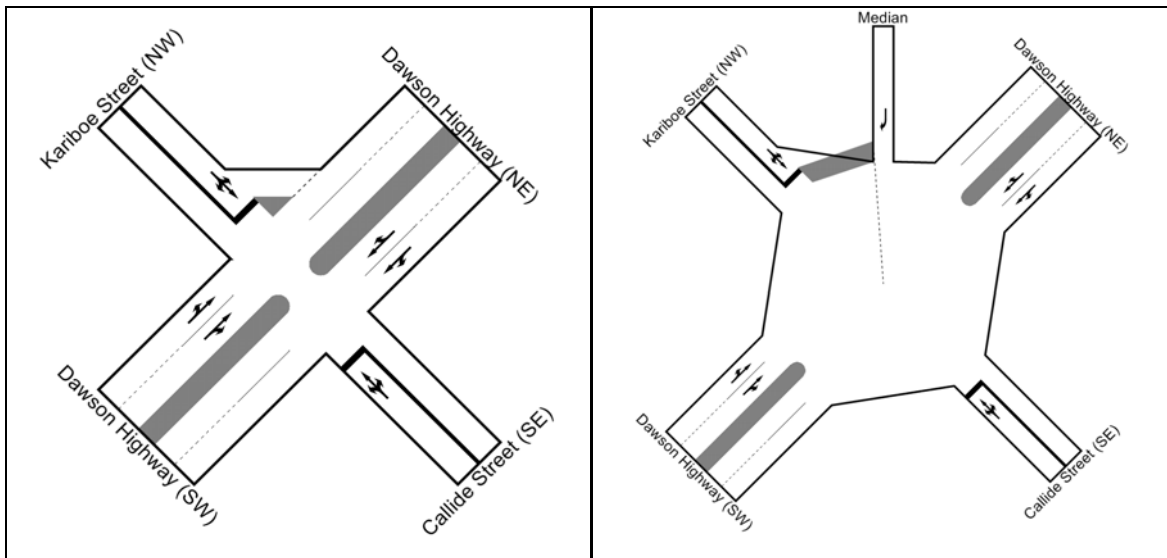


Table 4.21 Dawson Highway/Kariboe Street/Callide Street – SIDRA Results

Existing Layout - Showing Median Protection								
Year	Period	Background			With Development			Cycle Time
		DOS	Delay	Queue	DOS	Delay	Queue	
2012	AM Early	0.08	4 sec	4 m	0.08	4 sec	4 m	-
	AM Late	0.88	18 sec	75 m	0.88	18 sec	75 m	-
	PM Late	0.36	7 sec	13 m	0.38	8 sec	14 m	-
2014	AM Early	0.09	4 sec	4 m	0.09	4 sec	4 m	-
	AM Late	1.10	43 sec	208 m	1.10	43 sec	208 m	-
	PM Late	0.43	8 sec	17 m	0.44	8 sec	18 m	-
2024	AM Early	0.13	4 sec	6 m	0.13	4 sec	6 m	-
	AM Late	1.53	173 sec	583 m	1.53	173 sec	584 m	-
	PM Late	1.00	22 sec	116 m	1.04	27 sec	148 m	-

GLNG Traffic Report – “No Bridge” Option

Based on the analysis undertaken at the Dawson Highway/Kariboe Street/Callide Street at Biloela in the critical year of construction traffic for the gas transmission pipeline, it is concluded that GLNG Project traffic will not have a significant impact on intersection operations. Additionally, it is not expected that the operating capacity of any other intersections to the west will be significantly impacted by the proposed project. Development traffic movements at the intersection do not result in more than a 5% increase for any directional movement therefore the developer is not responsible for any upgrade works required for this intersection.

4.7 Intersection Analysis Summary

Table 4.22 summarises the intersection analysis and any works required to mitigate development impacts for the “No Bridge” option.

4.8 Project Mitigation Summary

To mitigate the impact of the development on intersections within Gladstone, it is recommended that the following mitigation works be implemented.

Hanson Road/Red Rover Road intersection

The following works are recommended to mitigate background capacity constraints of the intersection through 2024:

- addition of a right-turn lane on the western approach of Hanson Road and additional circulating lane to accommodate the movement.

Duplication of Hanson Road is being planned by DMR. In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 0.3% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.

Dawson Highway/Glenlyon Road/Bramston Street intersection

The following works are recommended:

- lengthen the turn lanes on three legs.

The improvements ensure the operation of the intersection is no worse compared to the background traffic scenario as it relates to the existing intersection form.

GLNG Traffic Report – “No Bridge” Option

Dawson Highway/Blain Drive/Herbertson Street

The following works are recommended:

- short left slip lane on southern leg of Dawson Highway;
- pavement marking of left lane on western leg to allow all turn movements.

The improvements ensure the operation of the intersection is no worse compared to the background traffic scenario as it relates to the existing intersection form.

Dawson Highway/Philip Street

The intersection exceeds practical capacity with background traffic and development traffic makes the situation worse. DMR are planning upgrade works and the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 3.4% of the combined background and development traffic in 2012.

The “No Bridge” option creates less impact on the Gladstone-Mount Larcom Road with less works required at Hanson/Red Rover Road and no works required on Hanson Road/Blain Drive/Alf O'Rourke Drive. However, as more traffic is directed to Auckland Point an upgrade of the Dawson Highway/Glenlyon Road/Bramston Street is required.

Table 4.22

Intersection Analysis Summary

Intersection	Existing Layout	Upgrade Year – Background Traffic	Upgrade Year – Development Traffic	Upgrade Treatment
Gladstone - Mount Larcom Road/Calliope River Road/Targinie Road	Four -way channelised priority intersection	-	-	No GLNG contribution is anticipated. The existing form has sufficient capacity for all scenarios.
Gladstone - Mount Larcom Road/Hanson Road/Landing Road	Three-way channelised priority intersection	-	-	No GLNG contribution is anticipated. The existing form has sufficient capacity for all scenarios.
Hanson Road/Red Rover Road	Two-lane roundabout	By 2012	By 2012	GLNG upgrades: • Short right turn lane on west leg of Gladstone – Mt Larcom Road and additional circulating width • Short right turn lane on south leg of Red Rover Road and additional circulating width <u>Note:</u> Duplication of Hanson Road is being planned by DMR. In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 0.3% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.
Hanson Road/Blain Drive/Alf O'Rourke Drive	Single-lane roundabout	By 2012	By 2012	No GLNG contribution is anticipated. The intersection exceeds practical capacity with background traffic but the development does not make the intersection operation any worse
Bruce Highway/Gladstone - Mount Larcom Road	Three-way channelised priority intersection	-	-	No GLNG contribution is anticipated. The existing form has sufficient capacity for all scenarios.
Glenlyon Road/Railway Street/Port Access Road	Four-way signalised intersection	-	-	No GLNG contribution is anticipated. The existing form has sufficient capacity for all scenarios.
Dawson Highway/Glenlyon Road/Bramston Street	Four-way signalised intersection	By 2012	By 2012	GLNG upgrades: • Extension of turn lanes on the northwest, southeast and southwest legs Programmed improvements at this intersection have been identified in the RIP for 2009/2010 (\$100,000). DMR advise that these works will include phasing changes and lane marking changes to improve operation of the traffic signals.
Dawson Highway/Don Young Road	Three-way priority intersection	By 2024	By 2024	No GLNG contribution is anticipated. The intersection exceeds practical capacity with background traffic but the development does not make the intersection operation any worse. Gladstone Regional Council planning for the Kirkwood Road project indicates Kirkwood Road will align with Don Young Drive and form a grade separated intersection providing far superior intersection performance. There is no timing proposed for this work.
Dawson Highway/Blain Drive/Herbertson Street	Two-lane roundabout	By 2014	By 2014	GLNG upgrades: • Add left-turn slip lane from south leg of Dawson Highway • Pavement marking of left lane on western leg to accommodate all movements The improvements ensure the operation of the intersection is no worse compared to the background traffic scenario as it relates to the existing intersection form.
Dawson Highway/Philip Street	Two-lane roundabout	By 2012	By 2012	GLNG contribution to intersection upgrade based on use by development traffic. The intersection exceeds practical capacity with background traffic and development traffic creates further impact worse. DMR are planning upgrade works and the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 3.4% of the combined background and development traffic in 2012..
Dawson Highway/Aerodrome Road	Four-way signalised intersection	By 2012	By 2012	No GLNG contribution is anticipated. The intersection exceeds practical capacity with background traffic but the development does not make the intersection operation any worse
Bruce Highway/Dawson Highway	Four-way channelised priority intersection	By 2012	By 2012	No GLNG contribution is anticipated. Grade separation of intersection planned by DMR to be completed in next 5 years.
Bruce Highway/Calliope River Road	Three-way channelised priority intersection	-	-	No GLNG contribution is anticipated. The existing form has sufficient capacity for all scenarios.
Dawson Highway/Kariboe Street/Callide Street	Four-way priority intersection	-	-	No GLNG contribution is anticipated. The intersection exceeds practical capacity with background traffic but the development does not make the intersection operation any worse.

5.0 ROADWAY LINK CAPACITY IMPACT ASSESSMENT

Roadway link capacity analysis has been undertaken for the “No Bridge” option to provide a basis of comparison to the roadway link capacity impacts of the base case scenario. The analysis for the “No Bridge” option is necessary to determine the difference from the base case of the road impacts with no bridge construction traffic and the re-routing of personnel and delivery trips destined to Curtis Island.

The adopted maximum capacity thresholds are based upon the cross section form of the segment and the road environment. These thresholds have been adopted based upon the AUSTROADS Guide to Traffic Engineering Practice and previous work. The thresholds adopted for this assessment are as follows:

Rural Locations

- two lanes: < 7,500 vehicles/day;
- two lanes with overtaking lanes: < 15,000 vehicles/day;
- four lanes: > 15,000 vehicles/day.

Urban Locations

- two lanes: <18,000 vehicles/day;
- four lanes: 18,000 – 36,000 vehicles/day;
- six lanes: >36,000 vehicles/day.

The key roads considered in this assessment include:

- Dawson Highway;
- Gladstone-Mount Larcom Road;
- Hanson Road;
- Carnarvon Highway;
- Leichhardt Highway;
- Bruce Highway;
- Gladstone - Benaraby Road;
- Burnett Highway;
- Warrego Highway.

Assessment of roadway segment capacity was undertaken for each year of the expected GLNG Project life (2010 to 2034).

5.1 Background Traffic Volumes

The background daily two-way traffic volumes on each of the road sections were determined based upon existing AADT volumes and intersection counts provided by DMR and Council. Growth rates of 4%p.a. and 6%p.a. have been applied to urban and rural road segments respectively, to establish future background traffic volumes.

The projected “background” and “background plus development” traffic volumes are included at Appendix C. Volumes that surpass the critical thresholds for the roadway cross-sections indicated above have been highlighted in the tables.

In reviewing the background traffic volumes, the roadway sections presented in Table 5.1 were found to require upgrading.

5.2 Development Traffic Impacts

A review of the background plus development volumes revealed that no additional roadway segments fail because of the GLNG Project traffic. Further detailed examination of the critical road sections was carried out to determine if the capacity breakpoint was reached earlier due to addition of GLNG development traffic. This exercise serves to determine the “bring forward” cost responsibility of the proposed development on segments it significantly impacts.

Table 5.1 below indicates, for the road segments that reach capacity, the years when failure is reached under “background” as well as “background plus development” traffic. The volumes at the years of failure are also included along with the number of years the proposed development brings forward the need for road upgrades compared to background traffic.

Bring forward cost contributions are recommended on any section where the development creates the need to bring forward upgrades by one year or more, as outlined in the DMR Guidelines for Assessment of Road Impacts of Development. Based on Table 5.1, the development is responsible for a contribution to the bring forward cost of upgrades on two sections of the Dawson Highway within Gladstone (approximately 2.2km) and one section of Gladstone-Mount Larcom Road (approximately 1.4km).

GLNG Traffic Report – “No Bridge” Option

Table 5.1

Midblock Capacity Breakpoints

Road	Section	Background Traffic		Background + Development Traffic		Bring Forward Amount (years)
		Volume	Year	Volume	Year	
Dawson Highway (46A)	Gladstone-Mt Larcom Road to Breslin Street	36,000	2035	36,377	2034	1.4
Dawson Highway (46A)	Breslin Street to Blain Drive	36,687	2032	36,993	2031	1.3
Dawson Highway (46A)	Blain Drive to Philip Street	37,226	2024	37,171	2023	1.0
Dawson Highway (46A)	Philip Street to Penda Avenue	37,154	2016	36,167	2015	0.5
Dawson Highway (46A)	Penda Avenue to Chapman Drive	36,801	2021	36,492	2020	0.8
Dawson Highway (46A)	Chapman Drive to Don Young Drive	18,430	2016	18,583	2016	0.2
Dawson Highway (46A)	Don Young Drive to Harvey Road	18,175	2034	18,204	2034	0.1
Dawson Highway (46A)	Tognalini - Baldwin Road to Biloela	15,074	2026	15,077	2026	0.0
Gladstone - Mt Larcom Road	Dawson Highway to Hilderbrand Street	36,178	2033	36,553	2032	1.4
Gladstone - Mt Larcom Road	Hilderbrand Street to Blain Drive	18,462	2027	18,526	2027	0.1
Gladstone - Mt Larcom Road	Blain Drive to Red Rover Road	18,666	2019	18,714	2019	0.1
Gladstone - Mt Larcom Road	Red Rover Road to Power Station	15,247	2020	15,310	2020	0.1
Gladstone - Mt Larcom Road	Power Station to Reid Road	15,247	2020	15,310	2020	0.1
Gladstone – Bernaraby Road	Dawson Highway to Sun Valley Road	36,504	2022	36,504	2022	0.0
Gladstone – Bernaraby Road	French Street to Gen Eden Drive	15,431	2019	15,431	2019	0.0
Gladstone – Bernaraby Road	Glen Eden Drive to South Trees Drive	15,431	2019	15,431	2019	0.0
Gladstone – Bernaraby Road	South Trees Drive to Boyne Island Road	15,431	2019	15,431	2019	0.0

5.3 Project Mitigation Summary

To mitigate the impact of the development on mid-block capacity under the “No Bridge” option, it is recommended that the developer pay an appropriate portion of the brought forward cost of the upgrading from two to four lanes of the sections of road summarised in Table 5.2.

Table 5.2 *GLNG Roadway Link Upgrades – “No Bridge” Option*

Road	Section	Upgrade	Bring Forward (years)	% Developer Contribution (% 2009 Cost)
Dawson Highway	Gladstone-Mt Larcom Road to Breslin Street (1.5 km)	4 to 6 lanes	1.4 yrs	1.8%
	Breslin Street to Blain Drive (0.7 km)	4 to 6 lanes	1.3 yrs	2.0%
Gladstone-Mt Larcom Road	Dawson Highway to Hilderbrand Street (1.4 km)	2 to 4 lanes	1.4 yrs	1.9%

This cost of the upgrade works is unknown but if the construction costs were to be discounted back from the upgrade year to 2009 at an inflation rate of 7% (specified by DMR), the developer could expect to contribute the percentage shown in Table 5.2 as a percent of the cost of the upgrade.

The roadway link capacity impacts of the “No Bridge” option presented above are on different road sections than found in the base case assessment. Approximately 3.6km of road upgrades are required to be contributed to for the “No Bridge” option, compared to approximately 6km of road upgrades for the base case scenario. Though the “No Bridge” option requires a shorter length of upgrades, two of the road sections (approximately 2.2km) are from 4 to 6 lanes, which may have higher associated costs than widening from 2 to 4 lanes.

Additionally, the capacity improvements for the “No Bridge” option are required in the heavily urbanised central city streets rather than on the urban fringe (as in base case). The upgrading constraints in the urbanised city streets are likely to be more substantial compared to the urban fringe and this is likely to result in increased cost of upgrading works and considerable traffic delay during construction.

6.0 PAVEMENT IMPACT ASSESSMENT

Analysis has been conducted to identify the pavement impacts of the heavy vehicle movements to and from the development. This assessment includes both the construction and operational stages of the development and is undertaken from the start of construction in 2010 through to 2034.

The pavement assessment comprises two components, the impact on the timing of pavement rehabilitation and the increased need for regular maintenance. Both assessments are based on a comparison of the cumulative Equivalent Standard Axle (ESA) load with and without the development. Analysis was only undertaken on state controlled roads as no road data was available from local Councils for local roads. The methodology for the pavement impact assessment has been based on guidelines provided in DMR Guidelines for Assessment of Road Impacts of Development (GARID). The Pavement Impact Assessment output tables are attached at Appendix D.

6.1 Pavement Rehabilitation Requirements

The impact on pavement rehabilitation considers the existing and terminal roughness deficiency. Utilising an existing pavement roughness count, the year at which a pavement reaches its terminal roughness is then calculated. A pavement roughness increase of three counts per annum has also been adopted, with a terminal roughness of 110 counts for the Bruce Highway and 120 counts utilised for other State Controlled roads.

The cumulative number of ESAs loaded onto the roadway segment to the terminal year is then calculated based on the ESA loading along the haulage routes. The background volumes are based on classified AADT volumes with a cumulative heavy vehicle growth rate of 3% per annum. For the Bruce Highway a value of 2.9 ESAs for each heavy vehicle is applied. For all other state controlled roads 3.2 ESAs for each heavy vehicle are used. These ESAs are as specified by DMR.

The classified development heavy vehicle volume is then used to determine additional annual ESA loadings produced along the haulage routes as a result of development traffic added to the network. The annual background and development ESA loading is combined and the cumulative number of ESAs on a given link is then calculated for successive years.

The year when cumulative ESA loading reaches terminal roughness is compared between without development and with development scenarios and the difference in time between the two scenarios is then established.

Detailed results for the pavement impact analysis are provided at Appendix D.

GLNG Traffic Report – “No Bridge” Option

Contributions towards pavement rehabilitation would only be made where the development would bring forward the need for rehabilitation by more than one year. The road sections that meet this criterion are shown in Table 6.2 below.

Of the road sections found to warrant bring forward cost contributions by the GLNG Project, one was identified in the RIP to have scheduled rehabilitation prior to the planned development bring forward date, negating the need for GLNG contributions. Thus the following road section was not included in Table 6.2:

- Carnarvon Highway – Injune to Fairview Field access (25km): Widening and reconstruction scheduled in RIP for 2007-2013 (currently underway).

Two road segments on the Carnarvon Highway, one road segment on the Warrego Highway and one road segment on the Dawson Highway have been identified as requiring pavement rehabilitation works one or more years earlier with the GLNG Project than with background traffic.

The “% of total cost” column shown in the table below represents the percentage of the total rehabilitation work costs (in 2009 \$) that the developer is responsible for. Cost input data for rehabilitation of roads has been provided by DMR Central Region and includes costs of rehabilitation based on road seal width and cost inflation and discount rate of 7% per annum. Based on these inputs, the brought forward cost of the required works is approximately \$3.1M (2009 \$).

6.2 Road Maintenance Requirements

The obligations for the maintenance of the state controlled road network impacted upon by the proposed development have been calculated by dividing the number of development ESAs loaded onto a particular roadway segment by the background ESAs for an analysis year. This has been reported as a percentage for each link and each year of the development from 2010 until 2034 in the detailed assessment.

A five percent (5%) significance criterion has been adopted for the assessment based on DMR guidelines. This warrant is triggered in the assessment period for a number of the links. Based on these triggered criteria and using the DMR given information for annual maintenance costs and inflation (7% per annum) in calculating the net present value, the cost of maintaining the roads impacted by the proposed development is \$16,219,150 at a 2009 dollar value.

In terms of a cost per heavy vehicle trip generated by the various components of the GLNG Project, based on the estimated 3,184,450 heavy vehicle trips generated over the life of the project, the cost will be approximately \$5.09 per vehicle trip. As a cost per heavy vehicle kilometre travelled, the cost will be \$0.071 per vehicle kilometre travelled.

6.3 Project Mitigation Summary

The analysis of the pavement impact of the development on the state controlled road network indicates that the GLNG Project will increase the maintenance costs for a number of sections of road for a number of scenario years tested. Table 6.1 below shows the additional maintenance and rehabilitation costs. Negotiation of the developer’s contribution towards these works will be required.

Table 6.1 **Pavement Impact Costs**

Component Cost	Amount (2009 \$)
Pavement Rehabilitation Cost	\$3,094,300
Pavement Maintenance Cost	\$16,219,150
Total Developer Pavement Impact Cost	\$19,313,450

The pavement rehabilitation impacts and developer contributions for the “No Bridge” option is identical to that found for the base case scenario. This is because the road segments found to need rehabilitation are in the western portions of the project study area, where only the gas transmission pipeline and CSG fields contribute to the development traffic added to the roads. These two components do not change for the “No Bridge” option.

The pavement maintenance costs for the “No Bridge” option are approximately \$22,000 lower for the “No Bridge” option than for the base case scenario. This reduction is mostly due to the reduction in heavy vehicle trips associated with the bridge construction assumed for the base case.

GLNG Traffic Report – “No Bridge” Option

Table 6.2 Road Rehabilitation Impacts – GLNG Project Contribution Estimates

Road	Section	Direction	Length (km)	Rehabilitation Year		Bring Forward Amount (years)	% of Total Cost (% 2009 Cost)	Bring Forward Cost Contribution (2009 \$)
				Without Development	With Development			
Carnarvon Highway 24D	CH. 3m to CH. 18 Roma - Taroom Road	Northbound	15	2016.7	2015.1	1.6	6.8%	\$171,276
		Southbound	15	2016.7	2015.3	1.4	5.9%	\$148,839
Carnarvon Highway 24D	Roma - Taroom Road to Injune	Northbound	72	2018.7	2015.7	3.0	11.7%	\$1,413,423
		Southbound	72	2018.7	2016.0	2.7	10.4%	\$1,258,826
Dawson Highway 46 C	Fitzroy Dev. 85A Intersection to Duaringa/Woorabinda Intersection	Westbound	6.6	2019.3	2017.9	1.4	4.9%	\$54,925
Warrego Highway	KM135.5 to Roma	Westbound	6.2	2018.3	2017.1	1.2	4.5%	\$46,997
Total								\$3,094,300

7.0 SUMMARY AND CONCLUSIONS

This document is a supplementary report to the “GLNG Environmental Impact Statement – Traffic Report,” submitted by Cardno Eppell Olsen (CEO) in March 2009, which is presented as the “base case” assessment for the traffic impacts of the GLNG Project.

This supplement provides the assessment of an alternative to the base case assumption that an access road and bridge to Curtis Island from the mainland will be built to provide access to the proposed LNG facility. The alternative assessed assumes that no bridge to Curtis Island will be built and transport of workers and plant/materials to Curtis Island will be required by ferry and barge for the life of the project. This alternative is known in this document as the “No Bridge” option.

This document presents only the information relevant to changes in methodology and analysis inputs necessary to determine the traffic impacts of the option of not providing a bridge to Curtis Island. Traffic generation estimates are only provided for the LNG facility, as it is the only GLNG Project component affected by the option assessment. All other information for the trip generation of the CSG fields and gas transmission pipeline are presented in the base case Traffic Report. Thus, this report is not intended as a stand-alone document and should be used and interpreted in combination with the CEO base case report “GLNG Environmental Impact Statement – Traffic Report.”

7.1 Development Proposal

The GLNG Project includes construction and operations of the proposed Coal Seam Gas (CSG) field expansions in the Surat and Bowen Basins (Roma and surrounds), a proposed LNG liquefaction and export facility (LNG facility) on Curtis Island approximately 5km northwest of Gladstone, and a proposed 435km gas transmission pipeline linking the CSG fields to the LNG facility.

All aspects of the development proposal and project staging remain unchanged from the base case scenario in this “No Bridge” option assessment, except for the following:

- removal of the access road and bridge component;
- rerouting of traffic during construction of Trains 2 and 3 of the LNG facility to be transported to Curtis Island by barge/ferry;
- rerouting of LNG facility operations traffic to be transported to Curtis Island by barge/ferry.

7.2 Development Traffic

Traffic generation has been based on estimated material quantities for construction works and assumptions about delivery frequency. Trips associated with construction and operations equipment and workforce have also been estimated. Assumptions about the origin and destination of trips have been made including allowances for the establishment of workers accommodation.

All assumptions for the traffic generation of the LNG facility under the “No Bridge” option are documented in Section 2 of this report, and all other project components remain unchanged from the base case scenario. A summary of the total road trips associated with each component over the life of the project is shown in Table 7.1. The “No Bridge” option results in a reduction of 294,650 trips due to the removal of traffic associated with the bridge construction in 2011-2013.

Table 7.1 **Total GLNG Trips**

Component	Estimated Total Trips (all years)
CSG fields	6,681,150
Gas Transmission Pipeline	572,350
LNG liquefaction and export facility (including bridge and dredge material site)	2,182,550
Total	9,436,050

Table 7.2 summarises traffic associated with construction of the LNG facility under the “No Bridge” option. Trip generation for all other project components remains unchanged from the base case scenario.

Traffic generated during operations of the LNG facility is expected to be approximately 200 trips per day during operations of Train 1, with traffic increasing to approximately 350 daily trips during operations of Train 3. This is the same as estimated for the base case assessment.

GLNG Traffic Report – “No Bridge” Option

Table 7.2

LNG Facility Traffic Generation – Construction

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Construction	Train 1				Train 2				Train 3			
PEAK HOUR VOLUMES												
Light Vehicles (Delivery and Personnel)	51	95	88	17	17	42	38	11	17	42	38	11
Bus - Personnel	5	14	13	3	3	8	8	2	3	8	8	2
Heavy Vehicles	3	3	3	3	2	3	3	2	2	3	2	2
Total Vehicles	59	112	104	23	21	53	49	15	21	53	48	15
DAILY VOLUMES												
Light Vehicles (Delivery and Personnel)	210	386	359	75	72	176	160	49	72	176	160	49
Bus - Personnel	20	55	50	13	13	33	30	8	13	33	30	8
Heavy Vehicles	28	34	34	28	17	26	26	23	17	26	24	19
Total Vehicles	258	475	443	116	102	235	216	80	102	235	214	76
ANNUAL VOLUMES												
Light Vehicles (Delivery and Personnel)	18,611	50,544	34,128	10,390	10,130	20,862	19,209	7,686	10,130	20,862	19,209	7,686
Bus - Personnel	2,080	5,720	5,200	1,352	1,300	3,432	3,120	832	1,300	3,432	3,120	832
Heavy Vehicles	8,680	11,523	11,523	8,346	5,249	8,370	8,370	6,464	5,249	8,370	7,654	5,275
Total Vehicles	29,371	67,787	50,851	20,088	16,678	32,664	30,699	14,981	16,678	32,664	29,983	13,792

7.3 Impact Mitigation – All Components

To mitigate the impact of the GLNG Project on the state controlled and local government road networks under the “No Bridge” option a number works and upgrading contributions are recommended. These requirements are summarised below and intersection and midblock capacity upgrades for the Gladstone area are summarised on Figure 7.1.

7.3.1 Gladstone Intersections

To mitigate the impact of the development on intersections within Gladstone, it is recommended that the developer contribute to upgrades at the following intersections:

Hanson Road/Red Rover Road intersection

- addition of a right-turn lane on the western approach of Hanson Road and additional circulating lane to accommodate the movement.

Duplication of Hanson Road is being planned by DMR. In lieu of the developer implementing the upgrading works identified above, the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 0.3% of the combined background and development traffic in 2012. This would allow intersection improvements to be incorporated into the four lane upgrading works.

Dawson Highway/Glenlyon Road/Bramston Street intersection

- lengthen the turn lanes on three legs.

Dawson Highway/Blain Drive/Herbertson Street

The following works are recommended:

- short left slip lane on southern leg of Dawson Highway;
- pavement marking of left lane on western leg to allow all turn movements.

Dawson Highway/Philip Street

The intersection exceeds practical capacity with background traffic and development traffic creates further impact worse. DMR are planning upgrade works and the option of making a contribution to the intersection upgrade could be considered. The development traffic forms 3.4% of the combined background and development traffic in 2012.

GLNG Traffic Report – “No Bridge” Option

The “No Bridge” option creates less impact on the Gladstone-Mount Larcom Road with less works required at Hanson/Red Rover Road and no works required on Hanson Road/Blain Drive/Alf O'Rourke Drive. However, as more traffic is directed to Auckland Point an upgrade of the Dawson Highway/Glenlyon Road/Bramston Street is required.

7.3.2 Mid-block Capacity

To mitigate the impact of the development on mid-block capacity under the “No Bridge” option, it is recommended that the developer pay an appropriate portion of the brought forward cost of the upgrading from two to four lanes of the sections of road summarised in Table 7.3.

Table 7.3 *GLNG Roadway Link Upgrades – “No Bridge” Option*

Road	Section	Upgrade	Bring Forward (years)	% Developer Contribution (% 2009 Cost)
Dawson Highway	Gladstone-Mt Larcom Road to Breslin Street (1.5 km)	4 to 6 lanes	1.4 yrs	1.8%
	Breslin Street to Blain Drive (0.7 km)	4 to 6 lanes	1.3 yrs	2.0%
Gladstone-Mt Larcom Road	Dawson Highway to Hilderbrand Street (1.4 km)	2 to 4 lanes	1.4 yrs	1.9%

The cost of the upgrade works is unknown but if the construction costs were to be discounted back from the upgrade year to 2009 at an inflation rate of 7% (specified by DMR), the developer could expect to contribute the percentage shown in Table 7.3 as a percent of the net present construction cost (2009 \$) of the upgrade.

7.3.3 Pavement Impacts

Pavement Rehabilitation

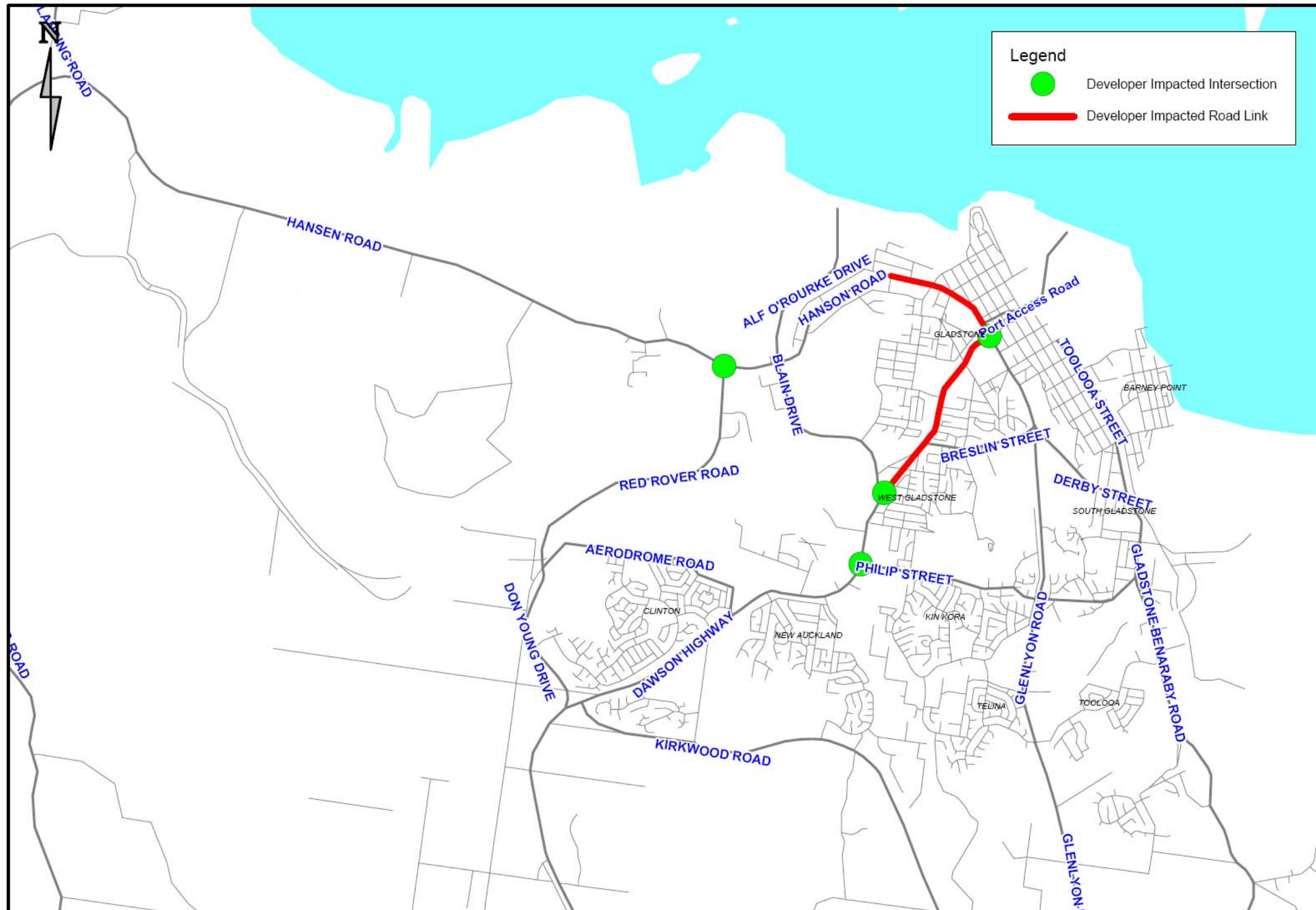
Two road segments on the Carnarvon Highway, one road segment on the Warrego Highway and one road segment on the Dawson Highway have been identified as requiring pavement rehabilitation works one or more years earlier with the GLNG Project than with background traffic. The brought forward cost of the required works is approximately \$3.1M based on pavement rehabilitation rates supplied by DMR.

Road Maintenance

The obligations for the maintenance of the state controlled road network impacted upon by the development have been calculated by dividing the number of development ESAs loaded onto a particular link by the background ESAs for an analysis year. The additional cost of maintaining the roads impacted by the proposed development is \$16,219,150 at a 2009 dollar value. Negotiation of the developer's contribution towards these works will be required.

Figure 7.1

Intersection and midblock improvements recommended in Gladstone



7.4 Impact Mitigation – Specific Project Components

The impact mitigations for the gas transmission pipeline and CSG fields are expected to be identical to those proposed for the base case scenario because all aspects of these components have remained unchanged under the “No Bridge” option.

7.4.1 Travel Time Impacts

The CEO Marine Transport Study prepared as a supplement for the base case scenario estimates that during Train 1 construction of the LNG facility (when the bridge is not yet in place), the travel time to the accommodation facilities on Curtis Island from the mainland would be approximately 84 minutes. This is an approximation of the travel time that can be expected for personnel for the life of the LNG project under the “No Bridge” option.

Under the base case scenario in which the bridge is available for operations of the LNG facility and construction of Trains 2 and 3, travel from Gladstone would be by road only and would only take approximately 27 minutes, assuming a trip of approximately 32km at an average speed of 70km/h. Factoring in some intersection delays, total travel time could be between 30 to 40 minutes. Though these are rough approximations of personnel travel times, it is apparent that the provision of the bridge to Curtis Island makes transport for personnel more efficient. It is expected that the total travel time with the bridge in place would be almost twice as fast as travel using the ferry without the bridge.

7.4.2 Additional Marine Traffic Movements

The “No Bridge” option was found to generate considerably more marine traffic during the construction of the LNG facility, especially during construction of Trains 2 and 3. A summary comparison of the estimated barge and ferry movements is provided in Table 7.4.

Table 7.4 *LNG Facility Shipping Movements*

Construction Stage	Base case			“No Bridge” Option		
	Barge	Ferry	Total	Barge	Ferry	Total
Train 1	2,500	1,500	4,000	2,500	1,500	4,000
Train 2	0	0		1,200	900	2,100
Train 3	0	0		1,200	900	2,100

7.5 Final Conclusion

The “No Bridge” option results in a reduction of 294,650 trips compared to the base case scenario due to the removal of traffic associated with the bridge construction. The quantitative impacts of the “No Bridge” option for the GLNG Project have been found to be comparable to those found for the base case assessment of the GLNG Project, with the following notable differences:

- intersection impacts within Gladstone result in intersections closer to the central city needing to be upgraded. This is understandable given that Auckland Point is the origin of trips to Curtis Island;
- roadway segment capacity improvements for the “No Bridge” option are required in the urbanised central city streets in Gladstone rather than on the urban fringe (as in base case). Upgrading constraints are likely to be more significant in the city centre resulting in higher cost and more delay during construction; and
- pavement impacts for pavement rehabilitation are the same as for the base case. Road maintenance costs are approximately \$22,000 less for the “No Bridge” option because of the removal of bridge construction traffic.

Appendix A

Project Trip Generation and Distribution Summary

0
0
0

75
75
0

49
87
62

65
58
07

65
58
07

41
41
0097
88
8821
642
0174
6938206436623874

0

300	
0	
4,090	
3,470	
620	
5,260	
2,583	
2,677	
6,933	
3,407	
3,526	
1,797	
877	
920	
880	
0	
TOTAL	
1,816	
62	
1,754	
TOTAL	
1,024	
406	
619	
TOTAL	
2,551	
1,944	
607	
TOTAL	
5,391	
2,411	
2,980	
TOTAL	
18,080	
10,337	
7,743	
TOTAL	
880	
880	
0	
TOTAL	
6,440	
6,377	
63	
TOTAL	
25,400	
17,594	
7,806	
TOTAL	
19,896	
10,399	
9,497	
TOTAL	
1,904	
1,286	
619	
TOTAL	
8,991	
8,321	
670	
TOTAL	
30,791	
20,005	
10,786	

0
0
0

321,200
321,200
0

154,470
5,908
148,563

251,155
109,800
141,355

356,239
229,445
126,794

761,863
345,152
416,711

526,672
773,005
753,667

321,200
321,200
0

AL
5,826,289
5,812,226
14,063

AL
674,161
906,431
767,730

AL
681,142
778,913
902,229

572,355
431,000
141,355

AL
182,527
041,671
140,857

AL
436,024
251,583
184,441

Appendix B

Peak Hour Volumes for Intersection Assessment Scenarios

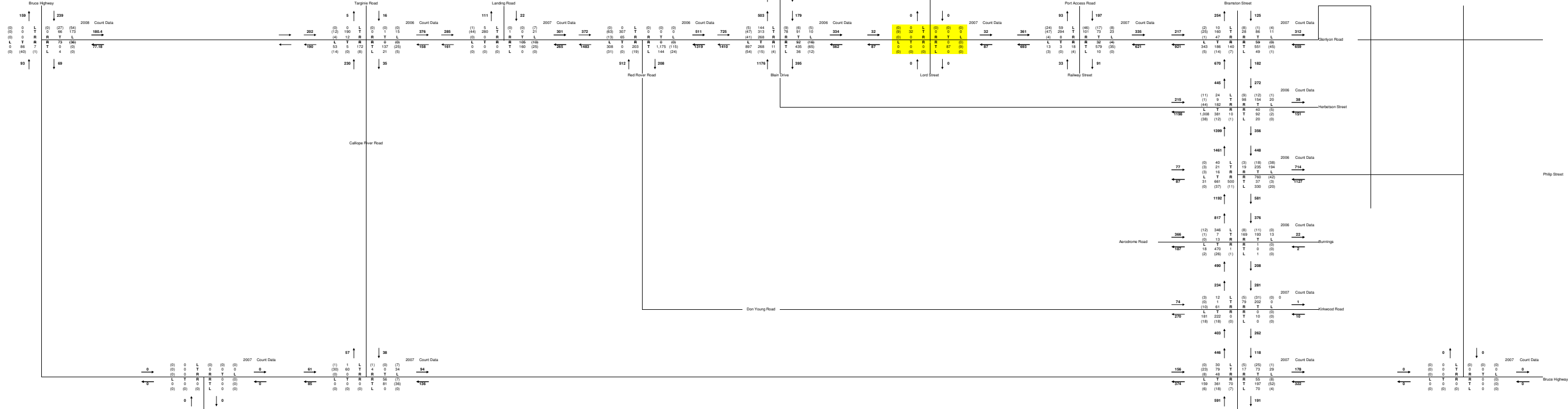
2012 Background + Cumulative Impact Traffic

AME 17736
AME 21177
PME 23414
PME 62027

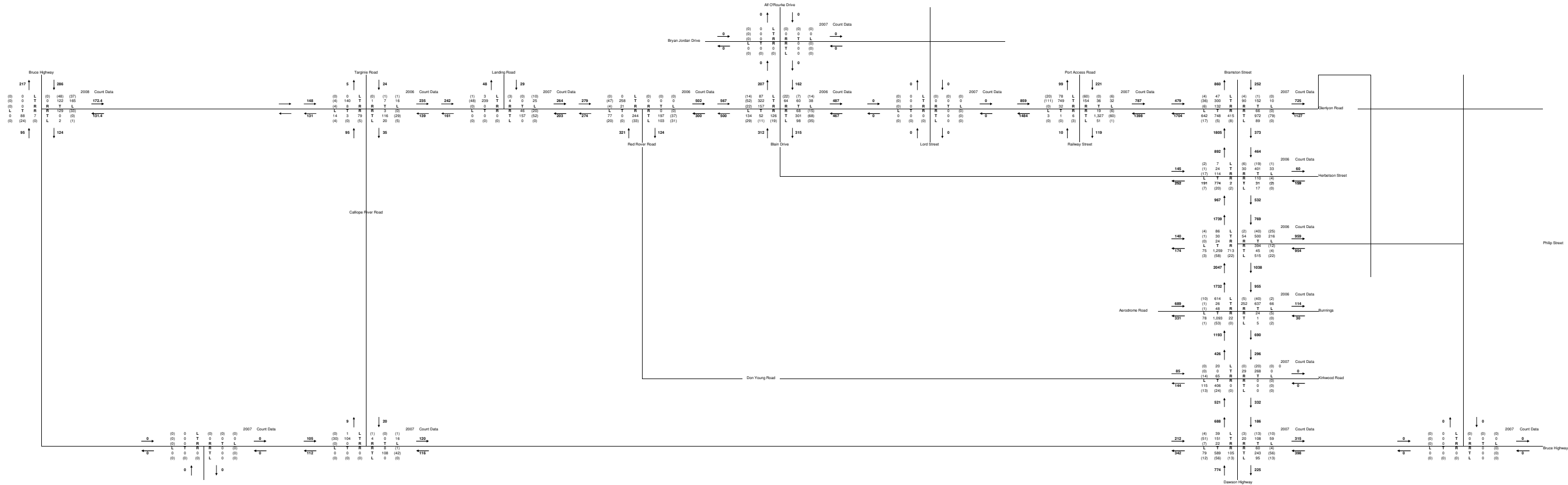
Mid Block Assessment		Year				
Link	Section	2006	2007	2008	2009	2010
Bruce Highway	129	17165	17165	17165	17165	17165
Bruce Highway	239	17165	17165	17165	17165	17165
Targetine Road	5	17165	17165	17165	17165	17165
Targetine Road	16	17165	17165	17165	17165	17165
Landing Road	111	17165	17165	17165	17165	17165
Landing Road	22	17165	17165	17165	17165	17165
Port Access Road	93	17165	17165	17165	17165	17165
Port Access Road	187	17165	17165	17165	17165	17165
Brampton Street	254	17165	17165	17165	17165	17165
Brampton Street	125	17165	17165	17165	17165	17165
Sturlyon Road	312	17165	17165	17165	17165	17165
Harbortown Street	181	17165	17165	17165	17165	17165
Philip Street	1127	17165	17165	17165	17165	17165
Burnings	2	17165	17165	17165	17165	17165
Kirwood Road	10	17165	17165	17165	17165	17165
Bruce Highway	0	17165	17165	17165	17165	17165

LEGEND	
100	Total Volume
105	Heavy Vehicle Volume

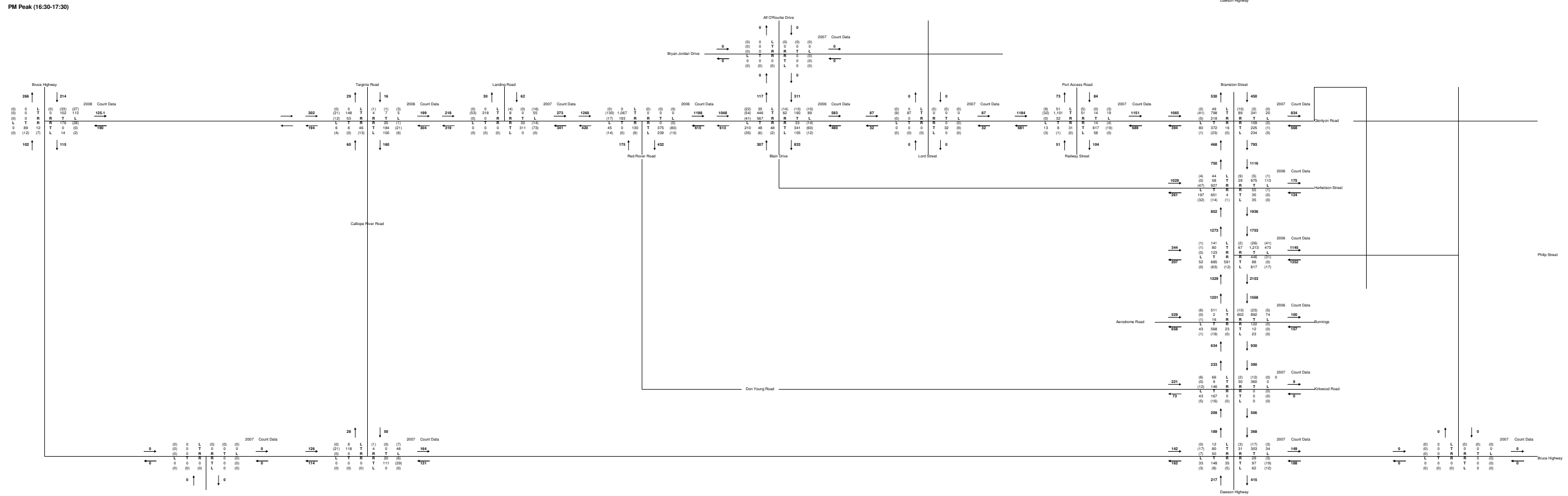
AM Peak (6:00-7:00)



AM Peak (7:45-8:45)



PM Peak (16:30-17:30)

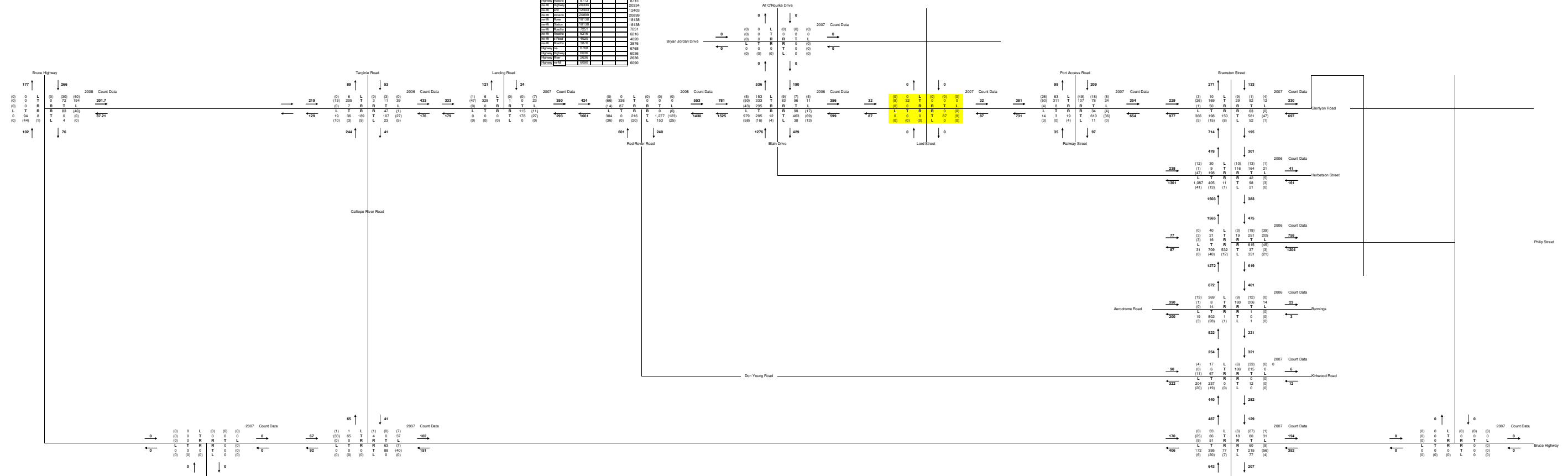


AM Peak (6:00-7:00)

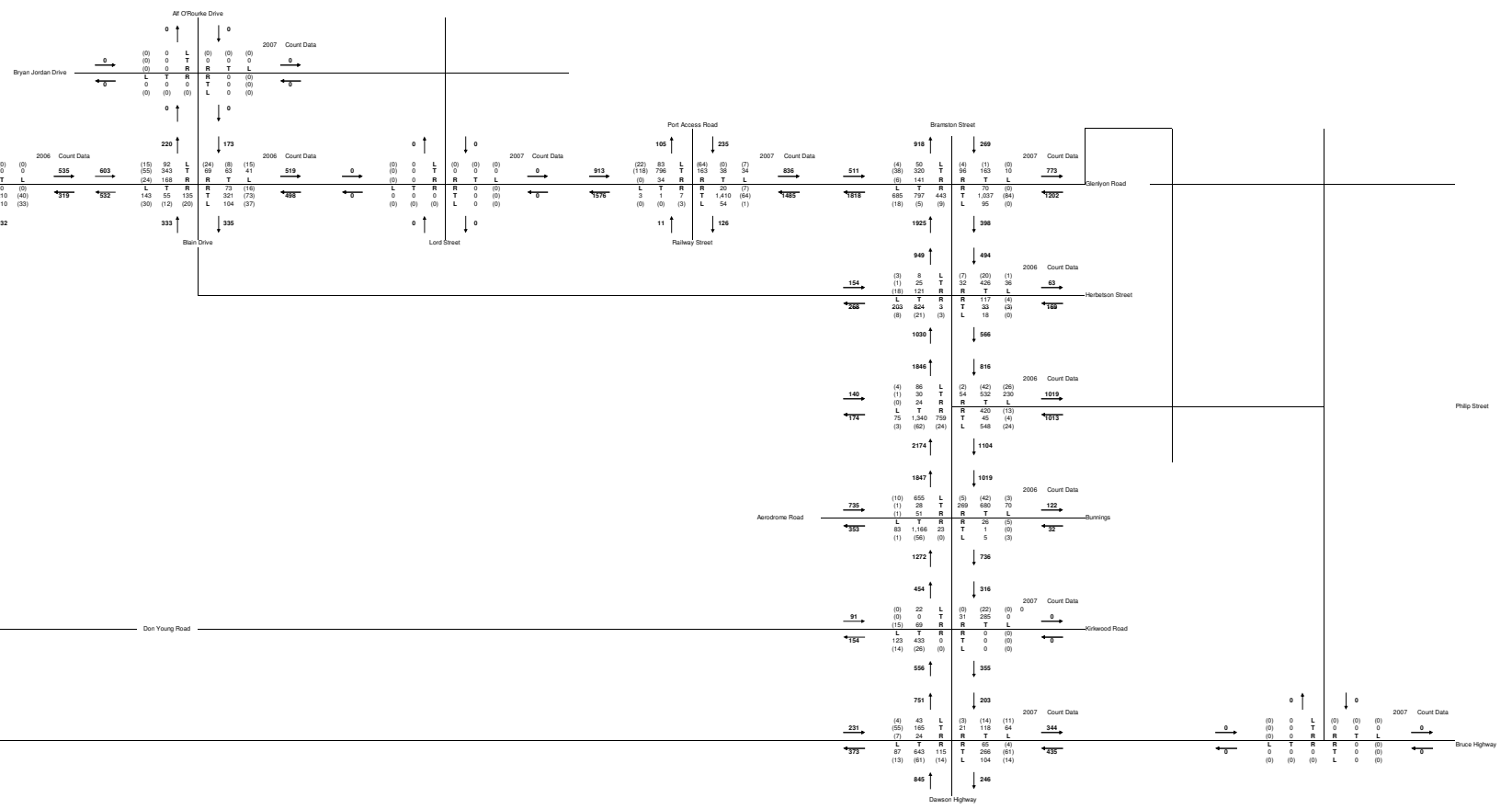
[illegible]

LEGEND

100 Total Volume
(10) Heavy Vehicle Volume



Sensitivity 5780 Peak Traffic_Nbop.xls:14BG+Cu



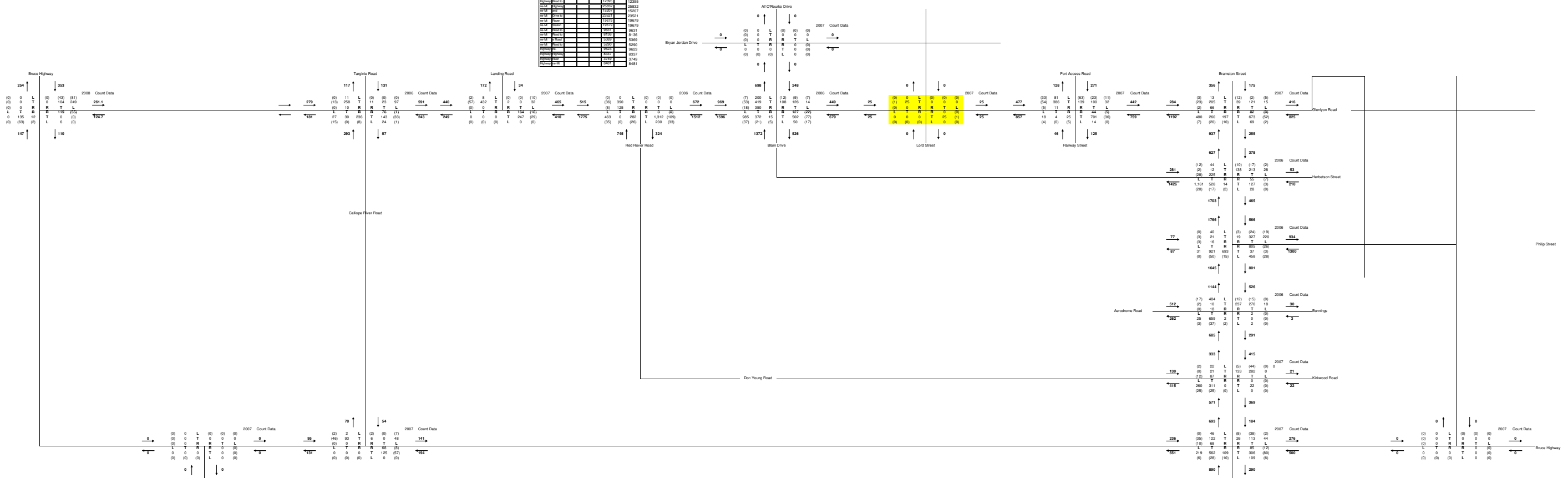
The diagram illustrates a complex network of horizontal and vertical lines, likely representing a system of paths or a flow network. The network is composed of several interconnected horizontal segments and vertical connectors. Arrows are placed along these lines to indicate the direction of flow or movement. The flow is generally directed from left to right, with some vertical segments showing up-down or down-up movement. The network is divided into several rectangular regions by vertical lines, suggesting different zones or stages in the process. The overall structure is a series of horizontal paths connected by vertical lines, with arrows indicating the direction of flow at each junction and along each segment.

[illegible]

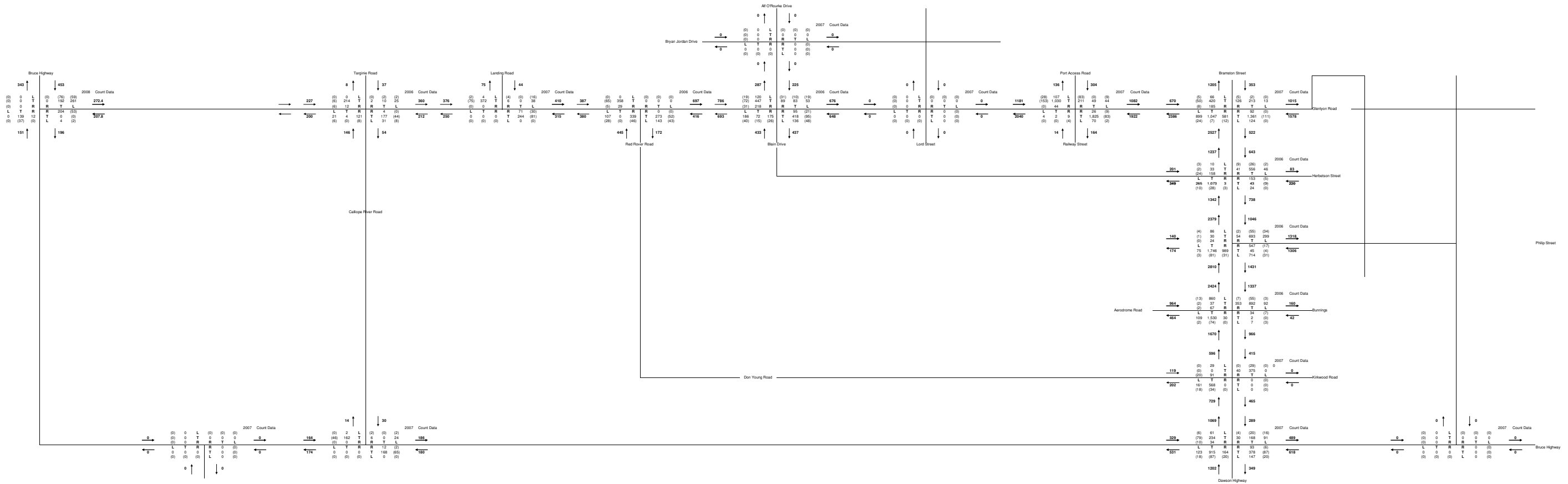
2024 Background + Cumulative Impact Traffic

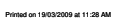
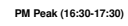
AME 23407
AME 23408
AME 23409
AME 23410

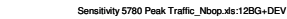
AM Peak (6:00-7:00)



AM Peak (7:45-8:45)







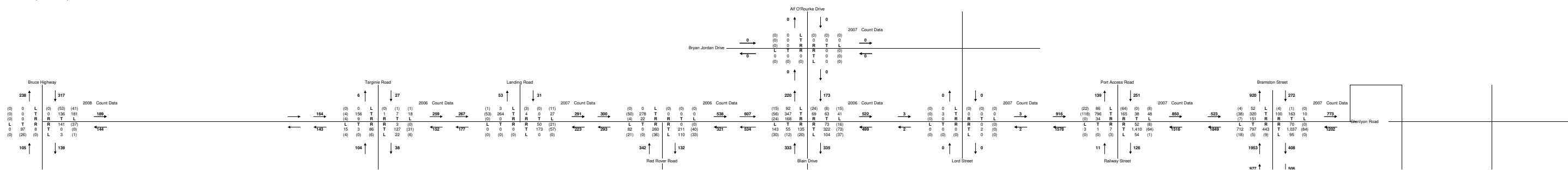
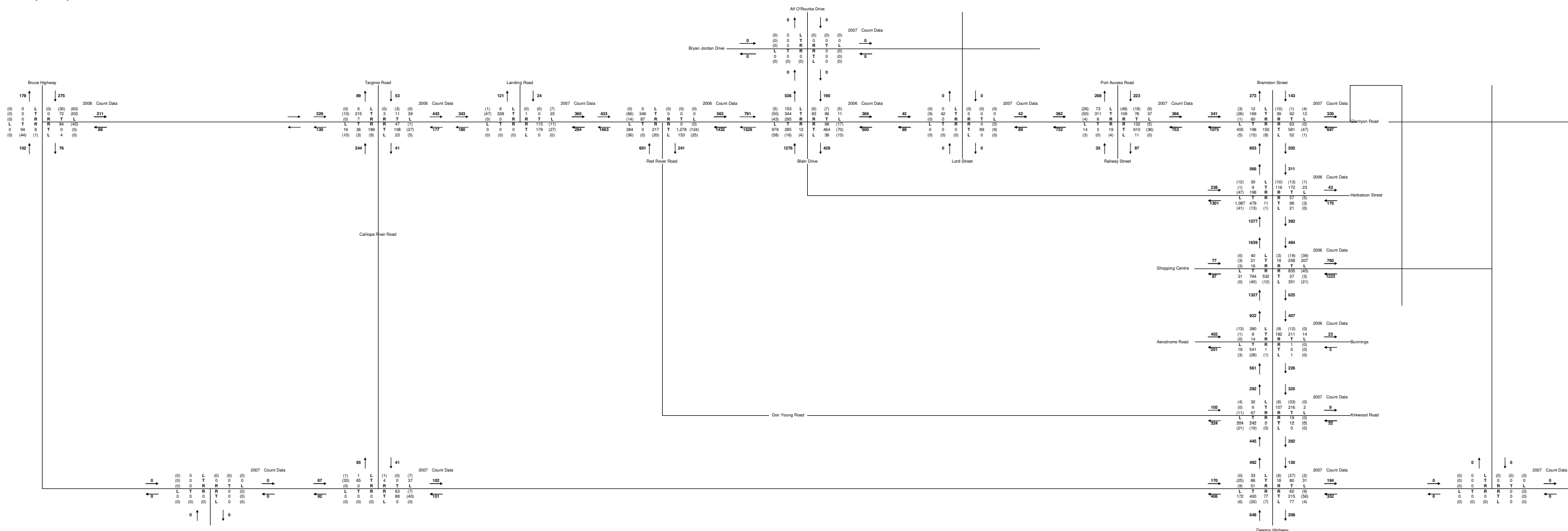
100 Total Volume
(10) Heavy Vehicle Volume

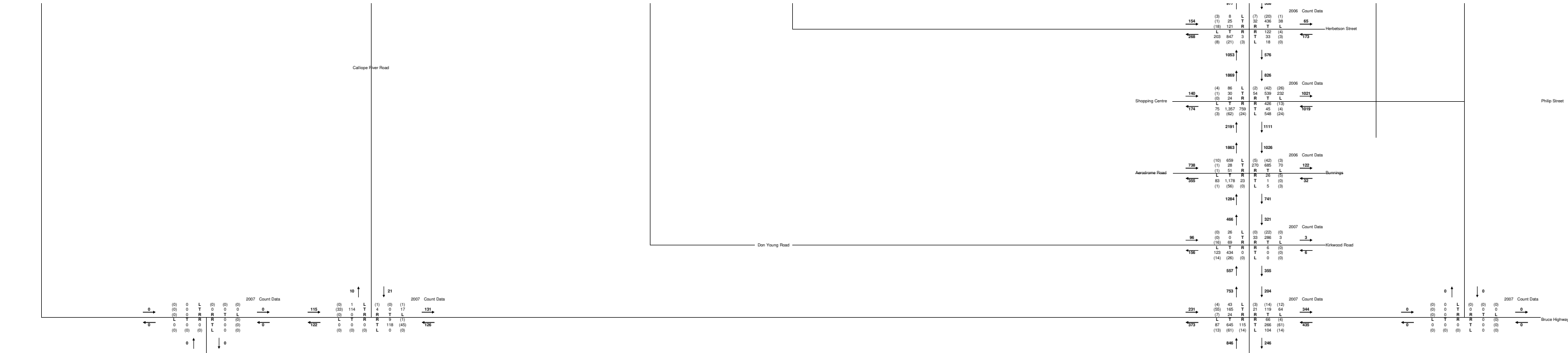
[illegible]

Heavy Vehicle Distribution			
Heavy Vehicle	15 Hours	16 Hours	17 Hours
Drink	100%	100%	100%
Waste	100%	100%	100%
Fuel	100%	100%	100%
Raise	100%	100%	100%
Equip	100%	100%	100%
Pipe	100%	100%	100%
Concor	100%	100%	100%
Concor	100%	100%	100%
Prefab	100%	100%	100%
Steel	100%	100%	100%
Paver	100%	100%	100%
Earthm	100%	100%	100%
Rig	100%	100%	100%
Miscal	100%	100%	100%
Miscal	100%	100%	100%

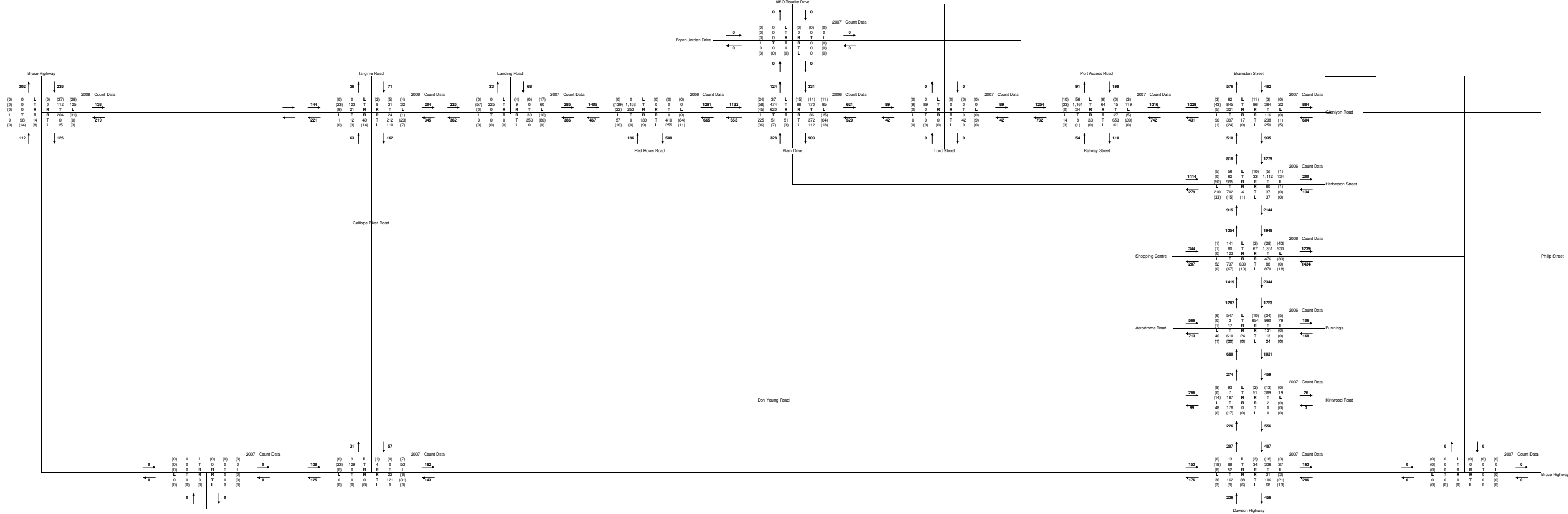
Link	Section	2008	2012	2014	2024	2030
1	no-NA				2222	
2	Closest				2222	
3	Close to				2222	
4	Station				2222	
5	Personal				2222	
6	no				2222	
7	Close				2222	
8	no-NA			5770		
9	Station			2222		
10	no-NA			2222		
11	Close to			2222		
12	no-NA			2222		
13	Station			2222		
14	no-NA			7057		
15	no-NA			6322		
16	no-NA			4120		
17	no-NA			3063		
18	no-NA			6773		
19	no-NA			6016		
20	no-NA			2626		
21	no-NA			6189		

AM Peak (7:45-8:45)





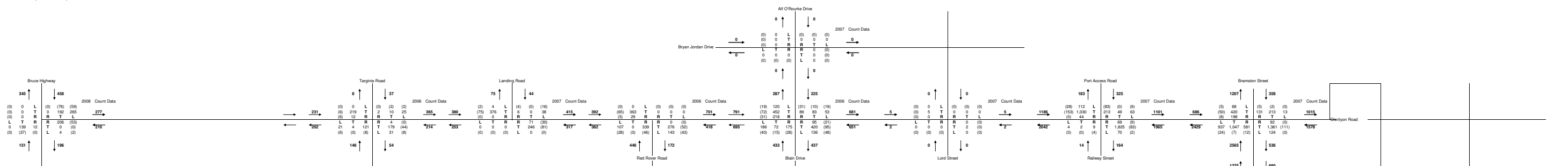
PM Peak (16:30-17:30)

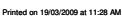
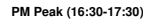


100 Total Volume
(10) Heavy Vehicle Volume

Link	Year	2008	2012	2014	2024	2030
a. Street					####	
a. Drive In					####	
a. Street					####	
a. Automobile					####	
a. Air					####	
a. Utility					####	
a. Road					####	
see DR 1					####	
see DR 2					####	
see DR 3					####	
see DR 4					####	
see DR 5					####	
see DR 6					####	
see DR 7					####	
see DR 8					####	
see DR 9					####	
see DR 10					####	
see DR 11					####	
see DR 12					####	
see DR 13					####	
see DR 14					####	
see DR 15					####	
see DR 16					####	
see DR 17					####	
see DR 18					####	
see DR 19					####	
see DR 20					####	
see DR 21					####	
see DR 22					####	
see DR 23					####	
see DR 24					####	
see DR 25					####	
see DR 26					####	
see DR 27					####	
see DR 28					####	
see DR 29					####	
see DR 30					####	
see DR 31					####	
see DR 32					####	
see DR 33					####	
see DR 34					####	
see DR 35					####	
see DR 36					####	
see DR 37					####	
see DR 38					####	
see DR 39					####	
see DR 40					####	
see DR 41					####	
see DR 42					####	
see DR 43					####	
see DR 44					####	
see DR 45					####	
see DR 46					####	
see DR 47					####	
see DR 48					####	
see DR 49					####	
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see DR 58					####	
see DR 59					####	
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see DR 62					####	
see DR 63					####	
see DR 64					####	
see DR 65					####	
see DR 66					####	
see DR 67					####	
see DR 68					####	
see DR 69					####	
see DR 70					####	
see DR 71					####	
see DR 72					####	
see DR 73					####	
see DR 74					####	

AM Peak (7:45-8:45)





Appendix C

Midblock Assessment Volumes

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)			120	226	210	49	148	210	201	134	183	245	236	169	171	171	171	171	171	171	171	171	171	171	171	171	171
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)			120	226	210	49	148	210	201	134	183	245	236	169	171	171	171	171	171	171	171	171	171	171	171	171	171
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	West																											

G:\CE005780\5780 Calculations\No Bridge Option Calculations\MIA\5780 MIA Volumes_Revised_NBop.xlsTotal Plant+Bridge+Bund Vol

Aussmed 50% Class 3 loaded

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G:\CE005780\5780 Calculations\No Bridge Option Calculations\MIA\5780 MIA Volumes Revised_NBop.xlsTotal Plant+Bridge+Bund Vol

G:\CE005780\5780 Calculations\No Bridge Option Calculations\MIA\5780 MIA Volumes_Revised_NBop.xlsTotal Plant+Bridge+Bund Vol

Aussmed 100% Class 9 loaded

[illegible]

G:\CE005780\5780 Calculations\No Bridge Option Calculations\MIA\5780 MIA Volumes_Revised_NBop.xlsTotal Plant+Bridge+Bund Vol

G:\CE005780\5780 Calculations\No Bridge Option Calculations\MIA\5780 MIA Volumes_Revised_NBop.xlsTotal Plant+Bridge+Bund Vol

[illegible]

[illegible]

G:\CE005780\5780 Calculations\No Bridge Option Calculations\MIA\5780 MIA Volumes_Revised_NBop.xlsTotal Field Volume

G:\CE005780\5780 Calculations\No Bridge Option Calculations\MIA\5780 MIA Volumes_Revised_NBop.xlsTotal Field Volume

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G:\CE005780\5780 Calculations\No Bridge Option Calculations\MIA\5780 MIA Volumes_Revised_NBop.xlsTotal Field Volume

220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)	0	22	39	58	28	15	10	14	38	27	22	14	38	14	14	20	14	24	8	8	7	0	4	4	2	0	0
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Interse	Westbound (G)	0	0	0	0	12	10	8	8	9	3	6	6	7	8	8	9	0	0	0	0	0	0	0	0	0	0	0
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Interse	Eastbound (A)	0	22	39	58	28	15	10	14	38	27	22	14	38	14	14	20	14	24	8	8	7	0	4	4	2	0	0
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)	0	0	0	0	12	10	8	8	9	3	6	6	7	8	8	9	0	0	0	0	0	0	0	0	0	0	0
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)	0	22	39	58	28	15	10	14	38	27	22	14	38	14	14	20	14	24	8	8	7	0	4	4	2	0	0
225	Warrego Highway	KM135.5 to Roma	Westbound (G)	0	0	0	0	12	10	8	8	9	3	6	6	7	8	8	9	0	0	0	0	0	0	0	0	0	0	0
226	Warrego Highway	Roma to KM135.5	Eastbound (A)	0	22	39	58	28	15	10	14	38	27	22	14	38	14	14	20	14	24	8	8	7	0	4	4	2	0	0
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)	0	0	0	0	12	10	8	8	9	3	6	6	7	8	8	9	0	0	0	0	0	0	0	0	0	0	0
228	Jackson-Wandoan Road	Grid to18D/Dulacca North Intersection	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234	Bruce Highway (10D)	Benaraby CH. 147.1 o CH. 112	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Based on 0% Class 9 loaded

Total16,06616,39117,34517,84617,90818,29218,09218,14118,60718,36618,37618,26918,70718,37418,42218,60518,31518,40018,26318,27118,26718,21318,26918,27918,27718,25318,259456,408

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			0	39	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	39	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)			0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)			0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)			0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
59	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Westbound (G)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
60	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Eastbound (A)			0	3																							

[illegible]

201	Dawson Highway 46C	46C/85B Intersection to Prospect Creek Culvert	Westbound (G)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
202	Dawson Highway 46C	Prospect Creek Culvert to 46C/85B Intersection	Eastbound (A)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
203	Dawson Highway 46C	Prospect Creek Culvert to Duaringa/Bauhinia Inters	Westbound (G)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204	Dawson Highway 46C	Duaringa/Bauhinia Intersection to Prospect Creek C	Eastbound (A)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205	Dawson Highway 46C	Duaringa/Bauhinia Intersection to KM 137.5	Westbound (G)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
206	Dawson Highway 46C	KM 137.5 to Duaringa/Bauhinia Intersection	Eastbound (A)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207	Dawson Highway 46C	KM 137.5 to Rolleston	Westbound (G)			0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208	Dawson Highway 46C	Rolleston to KM 137.5	Eastbound (A)			0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209	Leichhardt Highway 26A	District Boundary to 26A/85A intersection	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210	Leichhardt Highway 26A	26A/84A intersection to District Boundary	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211	Leichhardt Highway 26A	26A/85A intersection to Taroom	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
212	Leichhardt Highway 26A	Taroom to 26A/84A intersection	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213	Leichhardt Highway 26B	Taroom to KM35.00	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
214	Leichhardt Highway 26B	KM35.00 to Taroom	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
215	Leichhardt Highway 26B	KM35.00 to Jackson-Wandoan Road	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216	Leichhardt Highway 26B	Jackson-Wandoan Road to KM35.00	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
217	Leichhardt Highway 26B	Jackson-Wandoan Road to Miles	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218	Leichhardt Highway 26B	Miles to Jackson-Wandoan Road	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
219	Warrego Highway	Miles to 18D/Dulacca North Intersectio	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Interse	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Interse	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225	Warrego Highway	KM135.5 to Roma	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
226	Warrego Highway	Roma to KM135.5	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228	Jackson-Wandoan Road	Grid to18D/Dulacca North Intersection	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234	Bruce Highway (10D)	Benaraby CH. 147.1 o CH. 112	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Assumed 50% Class 3 loaded

Total Class 9 Vehicle Trips - 100% Loaded

ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0																					
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0																					
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0																					
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0																					
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0																					
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0																					
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0																					
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0																					
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0																					
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0																					
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0																					
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0																					
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			57	59	0	0																					
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	52	78	0																					
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			57	59	0	0																					
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	52	78	0																					
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			57	58	0	0																					
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	39	78	0																					
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			57	58	0	0																					
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	39	78	0																					
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			57	58	0	0																					
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	39	78	0																					
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			57	58	0	0																					
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	39	78	0																					
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			57	58	0	0																					
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	39	78	0																					
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			48	48	0	0																					
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	39	78	0																					
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			48	48	0	0																					
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	26	65	0																					
31	Dawson Highway 46A	Agoon Road to Callide Dam Road	Westbound (G)			48	48	0	0																					
32	Dawson Highway 46A	Agoon Road to Callide Dam Road	Eastbound (A)			0	26	65	0																					
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			48	48	0	0																					
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	26	65	0																					
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			48	48	0	0																					
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	26	65	0																					
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			38	39	0	0																					
38	Dawson Highway 46B	Crowsdale Camboon Road to Biloela	Eastbound (A)			0	26	65	0																					
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			38	39	0	0																					
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	26	65	0																					
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			38	39	0	0																					
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	26	65	0																					
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)			38	39	0	0																					
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	26	65	0																					
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			38	39	0	0																					
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	13	52	0																					
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			38	39	0	0																					
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	13	52	0																					
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			29	30	0	0																					
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	13	52	0																					
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			29	30	0	0																					

[illegible]

Aussmed 100% Class 9 loaded

Total Class 9 Vehicle Trips - 0% Loaded

[illegible]

[illegible]

[illegible]

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)		0	0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)		0	0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)		0	0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)		0	0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)		0	0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)		0	0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)		0	0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)		0	0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)		0	0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)		0	0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)		0	0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)		0	0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
38	Dawson Highway 46B	Crowsdale Camboon Road to Biloela	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)		0	0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)		0	0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)		0	0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)		0	0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)		0	0	39	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)		0	0	39	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)		0	0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)		0	0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)		0	0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)		0	0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)		0	120	263	252	51	150	212	203	136	185	247	238	171	173	173	173	173	173	173	173	173	173	173	173	173	173
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)		0	120	263	252	51	150	212	203	136	185	247	238	171	173	173	173	173	173								

[illegible]

Aussmed 50% Class 3 loaded

Total Class 9 Vehicle Trips - 100% Loaded

G:\CE005780\5780 Calculations\No Bridge Option Calculations\MIA\5780 MIA Volumes_Revised_NBop.xlsTotal Development Volume

[illegible]

Aussmed 100% Class 9 loaded

[illegible]

G:\CE005780\5780 Calculations\No Bridge Option Calculations\MIA\5780 MIA Volumes_Revised_NBop.xlsTotal Development Volume

[illegible]

Based on 0% Class 9 loaded

TOTAL DAILY TRAFFIC VOLUMES

[illegible]

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[illegible]

Background

Link	Section	2,008	2,009	2,010	2,011	2,012	2,013	2,014	2,015	2,016	2,017	2,018	2,019	2,020	2,021	2,022	2,023	2,024	2,025	2,026	2,027	2,028	2,029	2,030	2,031	2,032	2,033	2,034
Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	11,489	12,396	13,303	14,210	15,117	16,024	16,931	17,838	18,745	19,652	20,559	21,466	22,373	23,280	24,187	25,094	26,001	26,908	27,815	28,722	29,629	30,536	31,443	32,350	33,257	34,164	35,071
	Breslin Street to Blain Drive	12,674	13,674	14,675	15,675	16,676	17,677	18,677	19,678	20,678	21,679	22,679	23,680	24,680	25,681	26,682	27,682	28,683	29,683	30,684	31,684	32,685	33,686	34,686	35,687	36,687	37,688	38,688
	Blain Drive to Philp Street	16,449	17,747	19,046	20,344	21,643	22,942	24,240	25,539	26,837	28,136	29,434	30,733	32,032	33,330	34,629	35,927	37,226	38,525	39,823	41,122	42,420	43,719	45,017	46,316	47,615	48,913	50,212
	Philp Street to Penda Avenue	22,772	24,570	26,367	28,165	29,963	31,761	33,559	35,356	37,154	38,952	40,750	42,547	44,345	46,143	47,941	49,739	51,536	53,334	55,132	56,930	58,727	60,525	62,323	64,121	65,919	67,716	69,514
	Penda Avenue to Chapman Drive	18,162	19,596	21,029	22,463	23,897	25,331	26,765	28,198	29,632	31,066	32,500	33,934	35,368	36,801	38,235	39,669	41,103	42,537	43,970	45,404	46,838	48,272	49,706	51,140	52,573	54,007	55,441
	Chapman Drive to Don Young Drive	11,296	12,188	13,079	13,971	14,863	15,755	16,647	17,538	18,430	19,322	20,214	21,105	21,997	22,889	23,781	24,673	25,564	26,456	27,348	28,240	29,131	30,023	30,915	31,807	32,699	33,590	34,482
	Don Young Drive to Harvey Road	5,954	6,424	6,894	7,364	7,834	8,304	8,774	9,244	9,714	10,184	10,654	11,124	11,594	12,064	12,534	13,004	13,474	13,945	14,415	14,885	15,355	15,825	16,295	16,765	17,235	17,705	18,175
	Harvey Road to Bruce Highway	4,962	5,354	5,746	6,137	6,529	6,921	7,312	7,704	8,096	8,488	8,879	9,271	9,663	10,055	10,446	10,838	11,230	11,622	12,013	12,405	12,797	13,189	13,580	13,972	14,364	14,756	15,147
	Bruce Highway to Drynan Drive	4,707	4,989	5,272	5,554	5,837	6,119	6,402	6,684	6,966	7,249	7,531	7,814	8,096	8,378	8,661	8,943	9,226	9,508	9,791	10,073	10,355	10,638	10,920	11,203	11,485	11,768	12,050
	Drynan Drive to Gladstone-Monto Road	1,654	1,753	1,852	1,952	2,051	2,150	2,249	2,349	2,448	2,547	2,646	2,746	2,845	2,944	3,043	3,143	3,242	3,341	3,440	3,540	3,639	3,738	3,837	3,937	4,036	4,135	4,234
	Gladstone-Monto Road to Access to Pipeline Camp 4	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	Access to Pipeline Camp 4 to New point 1	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	New to CSC/BSC Border	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	CSC/BSC Border to New point 2	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	New point 2 to Argoon Road	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	Argoon Road to Calilde Dam Road	866	918	970	1,022	1,074	1,126	1,178	1,230	1,282	1,334	1,386	1,438	1,490	1,541	1,593	1,645	1,697	1,749	1,801	1,853	1,905	1,957	2,009	2,061	2,113	2,165	2,217
	Calilde Dam Road to Tognalini - Baldwin Road	1,285	1,362	1,439	1,516	1,593	1,671	1,748	1,825	1,902	1,979	2,056	2,133	2,210	2,287	2,364	2,442	2,519	2,596	2,673	2,750	2,827	2,904	2,981	3,058	3,135	3,213	3,290
	Tognalini - Baldwin Road to Biobela	7,247	7,682	8,117	8,551	8,986	9,421	9,856	10,291	10,726	11,160	11,595	12,030	12,465	12,900	13,334	13,769	14,204	14,639	15,074	15,509	15,943	16,378	16,813	17,248	17,683	18,118	18,552
Dawson Highway 46B	Biobela to Crowdsdale Camboon Road	1,756	1,861	1,967	2,072	2,177	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
	Crowdsdale Camboon Road to Point 1	1,756	1,861	1,967	2,072	2,177	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
	Point 1 to Greycliffe Road	1,756	1,861	1,967	2,072	2,177	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
	Greycliffe Road to Banana	1,238	1,312	1,387	1,461	1,535	1,609	1,684	1,758	1,832	1,907	1,981	2,055	2,129	2,204	2,278	2,352	2,426	2,501	2,575	2,649	2,724	2,798	2,872	2,946	3,021	3,095	3,169
	Banana to Moura Mine	1,306	1,384	1,463	1,541	1,619	1,698	1,776	1,855	1,933	2,011	2,090	2,168	2,246	2,325	2,403	2,481	2,560	2,638	2,716	2,795	2,873	2,952	3,030	3,108	3,187	3,265	3,343
Dawson Highway 46C	Moura Mine to Moura Township	1,660	1,760	1,859	1,959	2,058	2,158	2,258	2,357	2,457	2,556	2,656	2,756	2,855	2,955	3,054	3,154	3,254	3,353	3,453	3,552	3,652	3,752	3,851	3,951	4,050	4,150	4,250
	Moura Township to CH. 30	374	396	419	441	464	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957
	CH. 30 to CH. 41	374	396	419	441	464	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957
	CH. 41 to District Boundary	374	396	419	441	464	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957
	Dawson Highway to Hilderbrand Street	12,166	13,127	14,087	15,048	16,008	16,968	17,929	18,889	19,850	20,810	21,771	22,731	23,692	24,652	25,613	26,573	27,534	28,494	29,455	30,415	31,376	32,336	33,297	34,257	35,218	36,178	37,139
Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	7,385	7,968	8,551	9,134	9,717	10,300	10,883	11,466	12,049	12,632	13,215	13,798	14,381	14,964	15,547	16,130	16,713	17,296	17,879	18,462	19,045	19,628	20,211	20,794	21,377	21,960	22,543
	Blain Drive to Red Rover Road	9,990	10,779	11,568	12,356	13,145	13,																					

TOTAL

Link	Section	2,008	2,009	2,010	2,011	2,012	2,013	2,014	2,015	2,016	2,017	2,018	2,019	2,020	2,021	2,022	2,023	2,024	2,025	2,026	2,027	2,028	2,029	2,030	2,031	2,032	2,033	2,034	
Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	11,489	12,396	14,101	15,008	15,915	16,822	17,853	18,760	19,667	20,574	21,481	22,388	23,279	24,586	25,493	26,400	27,307	28,214	29,121	30,028	30,935	31,842	32,749	33,656	34,563	35,470	36,377	
	Breslin Street to Blain Drive	12,674	13,674	15,473	16,473	17,474	18,474	19,599	20,600	21,600	22,601	23,601	24,602	25,987	26,987	27,988	28,989	29,989	30,990	31,990	32,991	33,991	34,992	35,993	36,993	37,994	38,994	39,995	
	Blain Drive to Philip Street	16,449	17,747	19,806	21,105	22,404	23,702	25,118	26,416	27,715	29,013	30,312	31,611	33,275	34,574	35,872	37,171	38,470	39,768	41,067	42,365	43,664	44,962	46,261	47,560	48,858	50,157	51,455	
	Philip Street to Penda Avenue	22,772	24,570	27,150	28,948	30,746	32,544	34,371	36,168	37,966	39,764	41,562	43,359	45,498	47,296	49,094	50,891	52,689	54,487	56,285	58,082	59,880	61,678	63,476	65,274	67,071	68,869	70,667	
	Penda Avenue to Chapman Drive	18,162	19,596	21,746	23,179	24,613	26,047	27,557	28,991	30,425	31,858	33,292	34,726	36,492	37,926	39,360	40,794	42,228	43,661	45,095	46,529	47,963	49,397	50,831	52,264	53,698	55,132	56,566	
	Chapman Drive to Don Young Drive	11,296	12,188	13,260	14,151	15,043	15,935	16,799	17,691	18,583	19,474	20,366	21,258	22,214	23,106	23,997	24,889	25,781	26,673	27,564	28,456	29,348	30,240	31,132	32,023	32,915	33,807	34,699	
	Don Young Drive to Harvey Road	5,954	6,424	6,971	7,441	7,911	8,382	8,797	9,267	9,737	10,207	10,677	11,147	11,623	12,093	12,563	13,033	13,503	13,973	14,443	14,913	15,383	15,853	16,323	16,794	17,264	17,734	18,204	
	Harvey Road to Bruce Highway	4,962	5,354	5,823	6,215	6,606	6,998	7,335	7,727	8,119	8,511	8,902	9,294	9,692	10,083	10,475	10,867	11,259	11,650	12,042	12,434	12,826	13,217	13,609	14,001	14,393	14,784	15,176	
	Bruce Highway to Drynan Drive	4,707	4,989	5,387	5,809	6,078	6,123	6,405	6,687	6,970	7,252	7,535	7,817	8,100	8,382	8,664	8,947	9,229	9,512	9,794	10,077	10,359	10,641	10,924	11,206	11,489	11,771	12,053	
	Drynan Drive to Gladstone-Monto Road	1,654	1,753	1,967	2,207	2,292	2,154	2,253	2,352	2,451	2,551	2,650	2,749	2,848	2,948	3,047	3,146	3,245	3,345	3,444	3,543	3,642	3,742	3,841	3,940	4,039	4,139	4,238	
	Gladstone-Monto Road to Access to Pipeline Camp 4	929	985	1,155	1,407	1,448	1,211	1,267	1,323	1,378	1,434	1,490	1,546	1,601	1,657	1,713	1,769	1,824	1,880	1,936	1,992	2,047	2,103	2,159	2,215	2,270	2,326	2,382	
	Access to Pipeline Camp 4 to New point 1	929	985	1,155	1,407	1,448	1,211	1,267	1,323	1,378	1,434	1,490	1,546	1,601	1,657	1,713	1,769	1,824	1,880	1,936	1,992	2,047	2,103	2,159	2,215	2,270	2,326	2,382	
	New to CSC/BSC Border	929	985	1,155	1,407	1,448	1,211	1,267	1,323	1,378	1,434	1,490	1,546	1,601	1,657	1,713	1,769	1,824	1,880	1,936	1,992	2,047	2,103	2,159	2,215	2,270	2,326	2,382	
	CSC/BSC Border to New point 2	929	985	1,136	1,388	1,448	1,211	1,267	1,323	1,378	1,434	1,490	1,546	1,601	1,657	1,713	1,769	1,824	1,880	1,936	1,992	2,047	2,103	2,159	2,215	2,270	2,326	2,382	
	New point 2 to Argoon Road	929	985	1,136	1,340	1,401	1,211	1,267	1,323	1,378	1,434	1,490	1,546	1,601	1,657	1,713	1,769	1,824	1,880	1,936	1,992	2,047	2,103	2,159	2,215	2,270	2,326	2,382	
	Argoon Road to Calilde Dam Road	866	918	1,066	1,265	1,323	1,129	1,181	1,233	1,285	1,337	1,389	1,441	1,493	1,545	1,597	1,649	1,701	1,753	1,805	1,857	1,909	1,961	2,013	2,065	2,117	2,169	2,221	
	Calilde Dam Road to Tognalini - Baldwin Road	1,285	1,362	1,535	1,704	1,787	1,674	1,751	1,828	1,905	1,982	2,060	2,137	2,214	2,291	2,368	2,445	2,522	2,599	2,676	2,753	2,831	2,908	2,985	3,062	3,139	3,216	3,293	
	Tognalini - Baldwin Road to Bilola	7,247	7,682	8,212	8,739	9,180	9,425	9,859	10,294	10,729	11,164	11,599	12,034	12,468	12,903	13,338	13,773	14,208	14,642	15,077	15,512	15,947	16,382	16,817	17,251	17,686	18,121	18,556	
	Dawson Highway 46B	Bilola to Crowdsale Camboon Road	1,756	1,861	2,043	2,241	2,371	2,286	2,392	2,497	2,602	2,708	2,813	2,919	3,024	3,129	3,235	3,340	3,445	3,551	3,656	3,761	3,867	3,972	4,077	4,183	4,288	4,394	4,499
		Crowdsale Camboon Road to Point 1	1,756	1,861	2,043	2,241	2,371	2,286	2,392	2,497	2,602	2,708	2,813	2,919	3,024	3,129	3,235	3,340	3,445	3,551	3,656	3,761	3,867	3,972	4,077	4,183	4,288	4,394	4,499
Point 1 to Greycliffe Road		1,756	1,861	2,043	2,241	2,371	2,286	2,392	2,497	2,602	2,708	2,813	2,919	3,024	3,129	3,235	3,340	3,445	3,551	3,656	3,761	3,867	3,972	4,077	4,183	4,288	4,394	4,499	
Greycliffe Road to Banana		1,238	1,312	1,463	1,630	1,729	1,613	1,687	1,762	1,836	1,910	1,984	2,059	2,133	2,207	2,281	2,356	2,430	2,504	2,579	2,653	2,727	2,801	2,876	2,950	3,024	3,099	3,173	
Banana to Moura Mine		1,306	1,384	1,539	1,666	1,769	1,698	1,776	1,855	1,933	2,011	2,090	2,168	2,246	2,325	2,403	2,481	2,560	2,638	2,716	2,795	2,873	2,952	3,030	3,108	3,187	3,265	3,343	
Dawson Highway 46C	Moura Mine to Moura Township	1,660	1,760	1,936	2,084	2,208	2,158	2,258	2,357	2,457	2,556	2,656	2,756	2,855	2,955	3,054	3,154	3,254	3,353	3,453	3,552	3,652	3,752	3,851	3,951	4,050	4,150	4,250	
	Moura Township to CH. 30	374	396	476	603	669	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957	
	CH. 30 to CH. 41	374	396	476	539	606	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957	
	CH. 41 to District Boundary	374	396	476	539	606	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957	
	Dawson Highway to Hilderbrand Street	12,166	13,127	14,890	15,850	16,811	17,771	18,880	19,841	20,801	21,761	22,722	23,682	25,027	25,988	26,948	27,909	28,869	29,830	30,790	31,751	32,711	33,672	34,632	35,593	36,553	37,514	38,474	
Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	7,385	7,968	8,600	9,183	9,767	10,350	10,931	11,514	12,097	12,680	13,264	13,847	14,445	15,028	15,611	16,194	16,777	17,360	17,943	18,526	19,109	19,692	20,275	20,858	21,441	22,024	22,607	
	Blain Drive to Red Rover Road	9,990	10,779	11,617	12,406	13,195	13,983	14,771	15,559	16,348	17,137	17,926	18,714	19,518	20,307	21,096	21,884	22,673	23,462,										

Appendix D

Pavement Impact Assessment Summary

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)			2,340	3,250	3,120	2,158	2,334	2,867	2,789	2,286	2,403	2,936	2,858	2,338	310	310	310	310	310	310	310	310	310	310	310	310	310
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)			2,340																								

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Total Plant+Bridge+Bund Vol

Aussmed 50% Class 3 loaded

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Total Plant+Bridge+Bund Vol

Aussmed 100% Class 9 loaded

[illegible]

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Total Plant+Bridge+Bund Vol

[illegible]

Total

[illegible]

Total Class 3 Vehicle Trips - 50% Loaded																																			
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034					
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0</																	

Aussmed 50% Class 3 loaded

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Total Field Volume

Aussmed 100% Class 9 loaded

Total Class 9 Vehicle Trips - 0% Loaded

[illegible]

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Total Field Volume

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Total Field Volume

220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Inters	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Inters	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
225	Warrego Highway	KM135.5 to Roma	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
226	Warrego Highway	Roma to KM135.5	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228	Jackson-Wandoan Road	Grid to18D/Dulacca North Intersection	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234	Bruce Highway (10D)	Benaraby CH. 147.1 o CH. 112	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Based on 0% Class 9 loaded

Total029,548162,801231,501251,072327,087308,393313,107356,891336,038340,921332,145373,409345,975353,152369,653347,448354,140339,367339,368339,002334,308337,773338,069336,120334,570334,5228,136,831

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Total Pipeline Volume

ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0																					
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0																					
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0																					
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0																					
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0																					
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0																					
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0																					
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0																					
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0																					
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0																					
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0																					
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0																					
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			5,255	5,555	0	0																					
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	0	0	0																					
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			5,255	5,555	0	0																					
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	0	0	0																					
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			5,255	5,555	0	0																					
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	0	0	0																					
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			5,255	5,555	0	0																					
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	0	0	0																					
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			5,255	5,555	0	0																					
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	0	0	0																					
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			5,255	5,555	0	0																					
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	0	0	0																					
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			5,255	5,555	0	0																					
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	0	0	0																					
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			4,379	4,679	0	0																					
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	0	0	0																					
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			4,379	4,579	0	0																					
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	0	0	0																					
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			4,379	4,579	0	0																					
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	0	0	0																					
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			4,379	4,579	0	0																					
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	0	0	0																					
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			4,379	4,579	0	0																					
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	0	0	0																					
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			3,503	3,703	0	0																					
38	Dawson Highway 46B	Crowsdale Camboon Road to Biloela	Eastbound (A)			0	0	0	0																					
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			3,503	3,703	0	0																					
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	0	0	0																					
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			3,503	3,703	0	0																					
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	0	0	0																					
43	Dawson Highway 46B	Grecliffe Road to Banana	Westbound (G)			3,503	3,703	0	0																					
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	0	0	0																					
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			3,503	3,803	0	0																					
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	0	0	0																					
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			3,503	3,803	0	0																					
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	0	0	0																					
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			2,627	2,927	0	0																					
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	0	0	0																					
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			2,627	2,927	0	0																					

Aussmed 100% Class 9 loaded

Total Class 9 Vehicle Trips - 0% Loaded

[illegible]

[illegible]

Total Class 3 Vehicle Trips - 50% Loaded																															
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)		0	0	3,483	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)		0	0	3,483	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)		0	0	3,483	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)		0	0	3,483	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)		0	0	3,091	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)		0	0	3,091	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)		0	0	3,091	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)		0	0	3,091	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)		0	0	4,220	4,490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)		0	0	4,220	4,490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)		0	0	4,220	4,490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)		0	0	4,220	4,490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biela	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biela	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	Dawson Highway 46B	Biela to Crowsdale Camboon Road	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
38	Dawson Highway 46B	Crowsdale Camboon Road to Biela	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)		0	0	897	3,865	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)		0	0	897	3,865	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)		0	0	897	3,865	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)		0	0	897	3,865	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)		0	0	2,547	6,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)		0	0	2,547	6,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)		0	0	177	2,785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)		0	0	177	2,785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)		0	0	177	2,785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)		0	0	177	2,785	0	0	0	0	0																		

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Total Development Volume

G:\CE005780\5780 Calculations\No Bridge Option Calculations\PIA\5780 PIA Volumes_Revised_NBop
Total Development Volume

[illegible]

ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)	0	0	1,666	1,089	1,089	622	292	653	653	373	292	653	554	216	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)	0	0	1,666	1,089	1,089	622	292	653	653	373	292	653	554	216	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)	0	0	1,666	1,089	1,089	622	292	653	653	373	292	653	554	216	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)	0	0	536	1,739	1,739	993	373	1,095	1,095	648	373	1,095	937	397	52	52	52	52	52	52	52	52	52	52	52	52	52
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)	0	0	5,255	5,255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)	0	0	536	1,739	1,739	993	373	1,095	1,095	648	373	1,095	937	397	52	52	52	52	52	52	52	52	52	52	52	52	52
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)	0	0	5,255	5,255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)	0	0	5,255	5,255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)	0	0	5,255	5,255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)	0	0	5,255	5,255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)	0	0	5,255	5,255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)	0	0	5,255	5,255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)	0	0	4,379	4,379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)	0	0	4,379	4,379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)	0	0	4,379	4,379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)	0	0	4,379	4,379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)	0	0	4,379	4,379	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	Dawson Highway 46B	Crowsdale Camboon Road to Biloela	Eastbound (A)	0	0	3,503	3,503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)	0	0	3,503	3,503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)	0	0	3,503	3,503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)	0	0	3,503	3,503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)	0	0	3,503	3,503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)	0	0	3,503	3,503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	Dawson Highway 46C	Moura Township to CH_30	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	Dawson Highway 46C	CH_30 to Moura Township	Eastbound (A)	0	0	2,627	2,627	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
51	Dawson Highway 46C	CH_30 to CH_41	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	Dawson Highway 46C	CH_41 to CH_30	Eastbound (A)	0	0	2,627	2,627	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	Dawson Highway 46C	CH_41 to District Boundary	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	Dawson Highway 46C	Boundary to CH_41	Eastbound (A)	0	0	2,627	2,627	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)	0	0	724	2,396	2,396	1,369	486	1,490	1,490	874	486	1,490	1,272	528	52	52	52	52	52	52	52	52	52	52	52	52	52
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)	0	0	7,797	7,219	1,089	622	292	653	653	373	292	653	554	216	0	0	0	0	0	0	0	0	0	0	0	0	0
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)	0	0	724	2,396	2,396	1,369	486	1,4																			

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Total Development Volume

Based on 0% Class 9 loaded

G:\CE005780\5780 Calculations\No Bridge Option Calculations\PIA\5780 PIA Volumes_Revised_NBop
Total Development Volume

Road	Section	Direction	Roughness Count*	Count Year	Roughness Count Deficiency	Roughness Deterioration Rate	Background				With Development				Bring Forward Time Period (Years)	Bring Forward Responsibility
							Rehabilitation Year	ESA Load at Rehabilitation Year (rounded)	EAS Load 1 Year After Rehabilitation Year	ESA Load at Breakpoint	Rehabilitation Year (rounded)	ESA Load at Rehabilitation Year (rounded)	EAS Load 1 Year After Rehabilitation Year	Rehabilitation Year		
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)	79.0	2006	120.0	3.0	2019.7	4,434,635	4,913,919	4,770,134	2019	4,488,272	4,972,996	2019.6	No
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)	79.0	2006	120.0	3.0	2019.7	2,198,339	2,435,930	2,364,653	2019	2,285,823	2,531,395	2019.3	No
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)	59.0	2006	120.0	3.0	2026.3	8,289,859	8,892,604	8,470,683	2026	8,353,067	8,955,812	2026.2	No
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)	59.0	2006	120.0	3.0	2026.3	10,278,482	11,025,817	10,502,682	2026	10,379,068	11,126,403	2026.2	No
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)	66.0	2006	120.0	3.0	2024.0	11,268,218	12,165,290	11,268,218	2023	10,460,482	11,331,426	2023.9	No
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)	66.0	2006	120.0	3.0	2024.0	24,868,978	26,848,818	24,868,978	2023	23,047,389	24,969,564	2023.9	No
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)	76.0	2006	120.0	3.0	2020.7	7,850,598	8,639,286	8,402,680	2020	7,905,590	8,698,298	2020.6	No
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)	76.0	2006	120.0	3.0	2020.7	9,400,015	10,344,360	10,061,057	2020	9,455,007	10,403,372	2020.6	No
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)	54.0	2006	120.0	3.0	2028.0	8,421,190	8,987,227	8,421,190	2027	7,930,652	8,480,202	2027.9	No
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)	54.0	2006	120.0	3.0	2028.0	12,341,950	13,171,523	12,341,950	2027	11,595,551	12,400,961	2027.9	No
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)	51.0	2006	120.0	3.0	2029.0	4,361,982	4,644,951	4,361,982	2029	4,361,982	4,644,951	2029.0	No
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)	51.0	2006	120.0	3.0	2029.0	6,274,208	6,681,227	6,274,208	2029	6,274,208	6,681,227	2029.0	No
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)	54.0	2006	120.0	3.0	2028.0	5,705,968	6,089,499	5,705,968	2027	5,410,001	5,782,388	2027.8	No
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)	54.0	2006	120.0	3.0	2028.0	5,879,044	6,274,208	5,879,044	2027	5,574,035	5,957,955	2027.8	No
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)	79.0	2006	120.0	3.0	2019.7	2,780,651	3,081,177	2,991,019	2019	2,856,196	3,157,204	2019.4	No
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)	79.0	2006	120.0	3.0	2019.7	2,737,764	3,033,655	2,944,887	2019	2,808,008	3,108,679	2019.5	No
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)	48.0	2006	120.0	3.0	2030.0	8,238,735	8,755,695	8,238,735	2029	7,806,614	8,308,516	2029.9	No
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)	48.0	2006	120.0	3.0	2030.0	8,565,379	9,102,834	8,565,379	2029	8,063,640	8,585,441	2030.0	No
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)	60.0	2006	120.0	3.0	2026.0	3,052,184	3,274,104	3,052,184	2025	2,906,508	3,121,965	2025.7	No
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	3,324,038	3,565,725	3,324,038	2025	3,109,453	3,344,101	2025.9	No
21	Dawson Highway 46A	Gladstone-Monto Road to Access to Pipeline Camp 4	Westbound (G)	60.0	2006	120.0	3.0	2026.0	2,633,184	2,824,639	2,633,184	2025	2,522,809	2,708,688	2025.6	No
22	Dawson Highway 46A	Access to Pipeline Camp 4 to Gladstone-Monto Road	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	2,540,197	2,724,891	2,540,197	2025	2,386,668	2,565,983	2025.9	No
23	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Westbound (G)	60.0	2006	120.0	3.0	2026.0	2,633,184	2,824,639	2,633,184	2025	2,522,809	2,708,688	2025.6	No
24	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	2,540,197	2,724,891	2,540,197	2025	2,386,668	2,565,983	2025.9	No
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)	118.0	2006	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)	118.0	2006	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)	60.0	2006	120.0	3.0	2026.0	2,633,184	2,824,639	2,633,184	2025	2,513,876	2,699,755	2025.6	No
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	2,540,197	2,724,891	2,540,197	2025	2,385,766	2,565,081	2025.9	No
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)	71.0	2006	120.0	3.0	2022.3	1,921,525	2,091,631	1,972,557	2021	1,819,325	1,984,476	2021.9	No
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)	71.0	2006	120.0	3.0	2022.3	1,853,669	2,017,768	1,902,899	2022	1,875,443	2,039,542	2022.2	No
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)	80.0	2006	120.0	3.0	2019.3	1,280,151	1,418,506	1,321,657	2018	1,208,776	1,343,102	2018.8	No
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)	80.0	2006	120.0	3.0	2019.3	1,241,545	1,375,728	1,281,800	2019	1,263,318	1,397,501	2019.1	No
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)	80.0	2006	120.0	3.0	2019.3	1,654,059	1,832,826	1,707,689	2018	1,537,727	1,711,286	2019.0	No
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)	80.0	2006	120.0	3.0	2019.3	1,577,096	1,747,544	1,628,230	2019	1,593,146	1,763,594	2019.2	No
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)	106.0	2006	120.0	3.0	2010.7	536,897	817,485	733,308	2010	559,229	866,630	2010.6	No
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)	106.0	2006	120.0	3.0	2010.7	528,390	804,532	721,690	2010	530,644	812,500	2010.7	No
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,764,774	1,985,228	2017.5	No
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,731,628	1,952,083	2017.6	No
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,764,774	1,985,228	2017.5	No
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,731,628	1,952,083	2017.6	No
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)	60.0	2007	120.0	3.0	2027.0	4,243,740	4,540,012	4,243,740	2026	4,004,391	4,292,034	2026.8	No
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	4,243,740	4,540,012	4,243,740	2026	3,971,246	4,258,888	2026.9	No
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)	60.0	2007	120.0	3.0	2027.0	3,253,892	3,481,058	3,253,892	2026	3,081,635	3,302,186	2026.8	No
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	3,253,892	3,481,058	3,253,892	2026	3,048,490	3,269,040	2026.9	No
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)	79.0	2007	120.0	3.0	2020.7	1,998,897	2,199,711	2,139,467	2020	2,045,599	2,246,412	2020.5	No
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)	79.0	2007	120.0	3.0	2020.7	1,998,897	2,199,711	2,139,467	2020	2,011,943	2,212,756	2020.6	No
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)	76.0	2007	120.0	3.0	2021.7	2,280,885	2,495,355	2,431,014	2021	2,327,586	2,542,057	2021.5	No
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)	76.0	2007	120.0	3.0	2021.7	2,280,885	2,495,355	2,431,014	2021	2,293,930	2,508,401	2021.6	No
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)	81.0	2007	120.0	3.0	2020.0	712,034	783,566	712,034	2019	688,530	757,979	2019.3	No
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)	81.0	2007	120.0	3.0	2020.0	712,034	783,566	712,034	2019	662,906	732,355	2019.7	No
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)	117.0	2007	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)	117.0	2007	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)	85.0	2007	120.0	3.0	2018.7	575,159	642,585	622,357	2018	609,359	676,785	2018.2	No
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)	85.0	2007	120.0	3.0	2018.7	575,159	642,585	622,357	2018	583,735	651,161	2018.6	No
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)	105.0	2006	120.0	3.0	2011.0	2,001,344	2,708,880	2,001,344	2010	1,359,189	2,099,043	2010.9	No
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)	105.0	2006	120.0	3.0	2011.0	2,061,148	2,789,826	2,061,148	2010	1,366,035	2,102,771	2010.9	No

57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)	62.0	2006	120.0	3.0	2025.3	13,544,341	14,573,068	13,852,959	2025	13,631,660	14,660,414	2025.2	0.1	No
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)	62.0	2006	120.0	3.0	2025.3	13,231,070	14,236,003	13,532,550	2025	13,330,373	14,335,573	2025.2	0.1	No
59	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Westbound (G)	92.0	2006	120.0	3.0	2015.3	5,499,416	6,382,107	5,764,224	2015	5,583,468	6,466,926	2015.2	0.1	No
60	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Eastbound (A)	92.0	2006	120.0	3.0	2015.3	6,009,749	6,974,352	6,299,130	2015	6,076,679	7,048,880	2015.2	0.1	No
61	Gladstone-Mt Larcom Rd	Red Rover Road to Power Station	Westbound (G)	64.0	2006	120.0	3.0	2024.7	14,466,770	15,618,482	15,272,968	2024	14,477,751	15,629,463	2024.7	0.0	No
62	Gladstone-Mt Larcom Rd	Red Rover Road to Power Station	Eastbound (A)	64.0	2006	120.0	3.0	2024.7	15,809,252	17,067,840	16,690,264	2024	15,830,442	17,089,030	2024.7	0.0	No
63	Gladstone-Mt Larcom Rd	Power Station to Reid Road	Westbound (G)	76.0	2006	120.0	3.0	2020.7	7,975,718	8,776,976	8,536,598	2020	7,986,632	8,787,956	2020.7	0.0	No
64	Gladstone-Mt Larcom Rd	Power Station to Reid Road	Eastbound (A)	76.0	2006	120.0	3.0	2020.7	8,282,819	9,114,929	8,865,296	2020	8,303,344	9,136,119	2020.7	0.0	No
65	Gladstone-Mt Larcom Rd	Reid Road to Landing Road	Westbound (G)	51.0	2006	120.0	3.0	2029.0	16,115,776	17,161,235	16,115,776	2028	15,111,748	16,126,757	2029.0	0.0	No
66	Gladstone-Mt Larcom Rd	Reid Road to Landing Road	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	16,736,306	17,822,020	16,736,306	2028	15,703,405	16,757,496	2029.0	0.0	No
67	Gladstone-Mt Larcom Rd	Landing Road to Targinnie Road	Westbound (G)	51.0	2006	120.0	3.0	2029.0	9,818,221	10,455,146	9,818,221	2028	9,210,827	9,829,202	2029.0	0.0	No
68	Gladstone-Mt Larcom Rd	Landing Road to Targinnie Road	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	11,106,495	11,826,993	11,106,495	2028	10,428,172	11,127,685	2029.0	0.0	No
69	Gladstone-Mt Larcom Rd	Targinnie Road to Quarry Road	Westbound (G)	51.0	2006	120.0	3.0	2029.0	9,818,221	10,455,146	9,818,221	2028	9,208,780	9,827,154	2029.0	0.0	No
70	Gladstone-Mt Larcom Rd	Targinnie Road to Quarry Road	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	11,106,495	11,826,993	11,106,495	2028	10,407,884	11,107,397	2029.0	0.0	No
71	Gladstone-Mt Larcom Rd	Quarry Road to Bruce Highway	Westbound (G)	51.0	2006	120.0	3.0	2029.0	9,818,221	10,455,146	9,818,221	2028	9,208,780	9,827,154	2029.0	0.0	No
72	Gladstone-Mt Larcom Rd	Quarry Road to Bruce Highway	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	11,106,495	11,826,993	11,106,495	2028	10,407,884	11,107,397	2029.0	0.0	No
73	Carnarvon Highway 24A	CH. 0.00 (NSW border) to CH. 10	Northbound (G)	66.0	2007	120.0	3.0	2025.0	794,585	854,935	794,585	2025	794,585	854,935	2025.0	0.0	No
74	Carnarvon Highway 24A	CH. 10 to CH. 0.0 (NSW border)	Southbound (A)	66.0	2007	120.0	3.0	2025.0	794,585	854,935	794,585	2025	794,585	854,935	2025.0	0.0	No
75	Carnarvon Highway 24A	CH. 10m to CH. 40 (Thallon)	Northbound (G)	96.0	2007	120.0	3.0	2015.0	280,030	324,977	280,030	2015	280,030	324,977	2015.0	0.0	No
76	Carnarvon Highway 24A	CH. 40 (Thallon) to CH. 10	Southbound (A)	96.0	2007	120.0	3.0	2015.0	280,030	324,977	280,030	2015	280,030	324,977	2015.0	0.0	No
77	Carnarvon Highway 24A	CH. 40 (Thallon) to CH. 74 (Ningdigully)	Northbound (G)	82.0	2007	120.0	3.0	2019.7	440,936	488,591	474,295	2019	440,936	488,591	2019.7	0.0	No
78	Carnarvon Highway 24A	CH. 74 (Nindigully) to CH. 40 (Thallon)	Southbound (A)	82.0	2007	120.0	3.0	2019.7	440,936	488,591	474,295	2019	440,936	488,591	2019.7	0.0	No
79	Carnarvon Highway 24A	CH. 74 (Nindigully) to CH. 111	Northbound (G)	83.0	2007	120.0	3.0	2019.3	672,398	745,069	694,200	2019	672,398	745,069	2019.3	0.0	No
80	Carnarvon Highway 24A	CH. 111 to CH.74 (Nindigully)	Southbound (A)	83.0	2007	120.0	3.0	2019.3	672,398	745,069	694,200	2019	672,398	745,069	2019.3	0.0	No
81	Carnarvon Highway 24A	CH. 111 to St George	Northbound (G)	83.0	2007	120.0	3.0	2019.3	1,415,741	1,568,751	1,461,644	2019	1,415,741	1,568,751	2019.3	0.0	No
82	Carnarvon Highway 24A	St George to CH. 111	Southbound (A)	83.0	2007	120.0	3.0	2019.3	1,415,741	1,568,751	1,461,644	2019	1,415,741	1,568,751	2019.3	0.0	No
83	Carnarvon Highway 24B	CH. 0.00 (St George) to CH. 4	Northbound (G)	79.0	2007	120.0	3.0	2020.7	1,461,105	1,607,890	1,563,854	2020	1,461,105	1,607,890	2020.7	0.0	No
84	Carnarvon Highway 24B	CH. 4 to CH. 0.0 (St George)	Southbound (A)	79.0	2007	120.0	3.0	2020.7	1,461,105	1,607,890	1,563,854	2020	1,461,105	1,607,890	2020.7	0.0	No
85	Carnarvon Highway 24B	CH. 4m to CH. 9	Northbound (G)	55.0	2007	120.0	3.0	2028.7	2,590,889	2,765,037	2,712,793	2028	2,590,889	2,765,037	2028.7	0.0	No
86	Carnarvon Highway 24B	CH. 9 to CH. 56	Southbound (A)	55.0	2007	120.0	3.0	2028.7	2,590,889	2,765,037	2,712,793	2028	2,590,889	2,765,037	2028.7	0.0	No
87	Carnarvon Highway 24B	CH. 9 to CH. 4	Northbound (G)	76.0	2007	120.0	3.0	2021.7	725,231	793,424	772,966	2021	725,231	793,424	2021.7	0.0	No
88	Carnarvon Highway 24B	CH. 56 to CH. 9	Southbound (A)	76.0	2007	120.0	3.0	2021.7	725,231	793,424	772,966	2021	725,231	793,424	2021.7	0.0	No
89	Carnarvon Highway 24B	CH. 56 to CH. 116 (Surat)	Northbound (G)	82.0	2007	120.0	3.0	2019.7	545,401	604,346	586,662	2019	545,401	604,346	2019.7	0.0	No
90	Carnarvon Highway 24B	CH. 116 (Surat) to CH. 56	Southbound (A)	82.0	2007	120.0	3.0	2019.7	545,401	604,346	586,662	2019	545,401	604,346	2019.7	0.0	No
91	Carnarvon Highway 24C	CH. 0.00 (Surat) to CH. 33	Northbound (G)	96.0	2007	120.0	3.0	2015.0	441,128	511,932	441,128	2015	441,128	511,932	2015.0	0.0	No
92	Carnarvon Highway 24C	CH. 33 to CH. 0.0 (Surat)	Southbound (A)	96.0	2007	120.0	3.0	2015.0	441,128	511,932	441,128	2015	441,128	511,932	2015.0	0.0	No
93	Carnarvon Highway 24C	CH. 33m to CH. 73 (Roma)	Northbound (G)	90.0	2007	120.0	3.0	2017.0	629,439	710,280	629,439	2017	629,439	710,280	2017.0	0.0	No
94	Carnarvon Highway 24C	CH. 73 (Roma) to CH. 33	Southbound (A)	90.0	2007	120.0	3.0	2017.0	629,439	710,280	629,439	2017	629,439	710,280	2017.0	0.0	No
95	Carnarvon Highway 24D	CH. 0.00 (Roma) to CH. 3	Northbound (G)	111.0	2007	120.0	3.0	2010.0	397,545	605,306	397,545	2009	203,494	452,273	2009.8	0.2	No
96	Carnarvon Highway 24D	CH. 3 to CH. 0.0 (Roma)	Southbound (A)	111.0	2007	120.0	3.0	2010.0	397,545	605,306	397,545	2009	197,653	437,405	2009.8	0.2	No
97	Carnarvon Highway 24D	CH. 3m to CH. 18 Roma - Taroom Road	Northbound (G)	91.0	2007	120.0	3.0	2016.7	1,659,196	1,895,559	1,824,650	2015	1,781,620	2,088,813	2015.1	1.6	Yes
98	Carnarvon Highway 24D	CH. 18 Roma - Taroom Road to CH. 3	Southbound (A)	91.0	2007	120.0	3.0	2016.7	1,659,196	1,895,559	1,824,650	2015	1,732,328	2,027,131	2015.3	1.4	Yes
99	Carnarvon Highway 24D	Roma - Taroom Road to Injune	Northbound (G)	85.0	2007	120.0	3.0	2018.7	1,192,531	1,332,332	1,290,391	2015	1,148,992	1,354,643	2015.7	3.0	Yes
100	Carnarvon Highway 24D	Injune to Roma - Taroom Road	Southbound (A)	85.0	2007	120.0	3.0	2018.7	1,192,531	1,332,332	1,290,391	2015	1,099,699	1,292,961	2016.0	2.7	Yes
101	Carnarvon Highway 24E	CH. 0.00 (Injune) to Fairview Field Access CH25.00	Northbound (G)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2014	656,625	785,064	2014.4	1.9	Yes
102	Carnarvon Highway 24E	Fairview Field Access CH. 25.00 to CH. 0.0 (Injune)	Southbound (A)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2014	628,420	755,310	2014.6	1.7	Yes
103	Carnarvon Highway 24E	Fairview Field Access to CH. 69 Boundary with Emerald	Northbound (G)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2015	624,141	728,352	2015.7	0.6	No
104	Carnarvon Highway 24E	CH. 69 to Fairview Field Access	Southbound (A)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2015	624,141	728,352	2015.7	0.6	No
105	Carnarvon Highway 24E	CH. 69 to CH. 86 Access to Camp 1	Northbound (G)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,260,984	1,381,350	2021.1	0.6	No
106	Carnarvon Highway 24E	CH. 86 Access to Camp 1 to CH. 69	Southbound (A)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,260,984	1,381,350	2021.1	0.6	No
107	Carnarvon Highway 24E	CH. 86 Access to Camp 1 to CH. 111	Northbound (G)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,230,694	1,347,296	2021.4	0.3	No
108	Carnarvon Highway 24E	CH. 111 to CH. 86 Access to Camp 1	Southbound (A)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,230,694	1,347,296	2021.4	0.3	No
109	Carnarvon Highway 24E	CH. 111 to CH.172 (Rollestone)	Northbound (G)	75.0	2007	120.0	3.0	2022.0	1,498,080	1,630,700	1,498,080	2021	1,399,969	1,532,489	2021.7	0.3	No
110	Carnarvon Highway 24E	CH. 172 (Rollestone) to CH.111	Southbound (A)	75.0	2007	120.0	3.0	2022.0	1,498,080	1,630,700	1,498,080	2021	1,399,969	1,532,489	2021.7	0.3	No
111	Leichhardt Highway 26A	CH. 00 Capicorn Highway to Burnett Highway	Southbound (G)	59.0	2007	120.0	3.0	2027.3	3,734,373	3,995,084	3,812,586	2027	3,734,373	3,995,084	2027.3	0.0	No
112	Leichhardt Highway 26A	Burnett Highway to Capicorn Highway	Northbound (A)	59.0	2007	120.0	3.0	2027.3	3,734,373	3,995,084	3,812,586	2027	3,734,373	3,995,084	2027.3	0.0	No
113	Leichhardt Highway 26A	Burnett Highway to CH. 51.1	Southbound (G)	59.0	2007	120.0	3.0	2027.3	2,441,523	2,611,975	2,492,658	2027	2,441,523	2,611,975	2027.3	0.0	No
114	Leichhardt Highway 26A	CH. 51.1 to Burnett Highway	Northbound (A)	59.0	2007	120.0	3.0	2027.3	2,441,523	2,611,975	2,492,658	2027	2,441,523	2,611,975	2027.3	0.0	No
115	Leichhardt Highway 26A	CH. 51.1 to CH. 62.6	Southbound (G)	82.0	2007	120.0	3.0	2019.7	1,245,001	1,379,557	1,339,191	2019	1,245,001	1,379,557	2019.7	0.0	No
116	Leichhardt Highway 26A	CH. 62.6 to CH. 51.1	Northbound (A)	82.0	2007	120.0	3.0	2019.7	1,245,001	1,379,557	1,339,191	2019	1,245,001	1,379,557	2019.7	0.0	No
117	Leichhardt Highway 26A	CH. 62.6 to CH. 86.0 Fairview Road	Southbound (G)	62.0	2007	120.0	3.0	2026.3	2,397,811	2,572,153	2,450,113	2026	2,397,811	2,572,153	2026.3	0.0	No
118	Leichhardt Highway 26A	CH. 86.0 Fairview Road to CH. 62.6	Northbound (A)	62.0	2007	120.0	3.0	2026.3	2,397,811	2,572,153	2,450,113	2026	2,397,811	2,572,153	2026.3	0.0	

126	Leichhardt Highway 26A	CH. 117.0 to Banana CH. 105.2	Northbound (A)	84.0	2007	120.0	3.0	2019.0	1,550,672	1,718,265	1,550,672	2018	1,390,934	1,553,646	2019.0	0.0	No
127	Leichhardt Highway 26A	CH. 117.0 to CH. 124.0	Southbound (G)	104.0	2007	120.0	3.0	2012.3	506,522	642,791	547,403	2012	506,522	642,791	2012.3	0.0	No
128	Leichhardt Highway 26A	CH. 124.0 to CH. 117.0	Northbound (A)	104.0	2007	120.0	3.0	2012.3	506,522	642,791	547,403	2012	506,522	642,791	2012.3	0.0	No
129	Leichhardt Highway 26A	Theodore CH. 162.3 to CH.124.0	Westbound (G)	100.0	2007	120.0	3.0	2013.7	642,791	783,147	741,040	2013	642,791	783,147	2013.7	0.0	No
130	Leichhardt Highway 26A	CH.124.0 to Theodore CH. 162.4	Eastbound (A)	100.0	2007	120.0	3.0	2013.7	642,791	783,147	741,040	2013	642,791	783,147	2013.7	0.0	No
131	Leichhardt Highway 26A	Theodore CH. 162.3 to CH. 124.0	Westbound (G)	60.0	2007	120.0	3.0	2027.0	2,386,071	2,552,652	2,386,071	2027	2,386,071	2,552,652	2027.0	0.0	No
132	Leichhardt Highway 26A	Theodore CH. 162.3 to Glenmoral Roundstone Road	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	2,386,071	2,552,652	2,386,071	2027	2,386,071	2,552,652	2027.0	0.0	No
133	Leichhardt Highway 26A	Glenmoral Roundstone Road to Isla Delusion Road	Westbound (G)	60.0	2007	120.0	3.0	2027.0	2,205,775	2,359,768	2,205,775	2027	2,205,775	2,359,768	2027.0	0.0	No
134	Leichhardt Highway 26A	Isla Delusion Road to Glenmoral Roundstone Road	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	2,205,775	2,359,768	2,205,775	2027	2,205,775	2,359,768	2027.0	0.0	No
135	Leichhardt Highway 26A	Isla Delusion Road to District Boundary	Westbound (G)	97.0	2007	110.0	3.0	2011.3	271,444	367,408	300,233	2011	271,444	367,408	2011.3	0.0	No
136	Leichhardt Highway 26A	District Boundary to Isla Delusion Road	Eastbound (A)	97.0	2007	110.0	3.0	2011.3	271,444	367,408	300,233	2011	271,444	367,408	2011.3	0.0	No
137	Bruce Highway	Gladstone-Beraraby Road to Dawson Highway	Westbound (G)	62.0	2006	110.0	3.0	2022.0	7,945,298	8,648,666	7,945,298	2021	7,318,626	8,001,774	2021.9	0.1	No
138	Bruce Highway	Gladstone-Beraraby Road to Dawson Highway	Eastbound (A)	62.0	2006	110.0	3.0	2022.0	8,633,571	9,397,870	8,633,571	2021	7,897,207	8,639,271	2022.0	0.0	No
139	Bruce Highway	Dawson Highway to Calliope River Road	Westbound (G)	72.0	2006	110.0	3.0	2018.7	4,924,137	5,501,396	5,328,218	2018	4,926,444	5,503,703	2018.7	0.0	No
140	Bruce Highway	Dawson Highway to Calliope River Road	Eastbound (A)	72.0	2006	110.0	3.0	2018.7	5,164,876	5,770,357	5,588,713	2018	5,167,183	5,772,664	2018.7	0.0	No
141	Bruce Highway	Calliope River Road to Gladstone Mt-Larcom Road	Westbound (G)	70.0	2006	110.0	3.0	2019.3	5,501,396	6,095,972	5,679,769	2019	5,503,703	6,098,280	2019.3	0.0	No
142	Bruce Highway	Calliope River Road to Gladstone Mt-Larcom Road	Eastbound (A)	70.0	2006	110.0	3.0	2019.3	5,770,357	6,394,002	5,957,451	2019	5,772,664	6,396,310	2019.3	0.0	No
143	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Road	Westbound (G)	62.0	2006	110.0	3.0	2022.0	10,655,093	11,598,349	10,655,093	2022	10,655,093	11,598,349	2022.0	0.0	No
144	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Road	Eastbound (A)	62.0	2006	110.0	3.0	2022.0	11,496,258	12,513,980	11,496,258	2022	11,496,258	12,513,980	2022.0	0.0	No
145	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Westbound (G)	66.0	2006	110.0	3.0	2020.7	9,857,580	10,847,893	10,550,799	2020	9,857,580	10,847,893	2020.7	0.0	No
146	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Eastbound (A)	66.0	2006	120.0	3.0	2024.0	14,030,481	15,147,460	14,030,481	2024	14,030,481	15,147,460	2024.0	0.0	No
147	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Westbound (G)	64.0	2006	120.0	3.0	2024.7	15,749,612	17,003,453	16,627,301	2024	15,749,612	17,003,453	2024.7	0.0	No
148	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Eastbound (A)	64.0	2006	120.0	3.0	2024.7	15,802,450	17,060,497	16,683,083	2024	15,802,450	17,060,497	2024.7	0.0	No
149	Bruce Highway	Burnett Highway to Capricorn Highway	Westbound (G)	71.0	2006	120.0	3.0	2022.3	13,798,572	15,020,109	14,165,033	2022	13,798,572	15,020,109	2022.3	0.0	No
150	Bruce Highway	Burnett Highway to Capricorn Highway	Eastbound (A)	71.0	2006	120.0	3.0	2022.3	14,188,561	15,444,623	14,565,380	2022	14,188,561	15,444,623	2022.3	0.0	No
151	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	79.0	2006	120.0	3.0	2019.7	15,476,127	17,148,747	16,646,961	2019	15,476,127	17,148,747	2019.7	0.0	No
152	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	79.0	2006	120.0	3.0	2019.7	15,005,991	16,627,800	16,141,257	2019	15,005,991	16,627,800	2019.7	0.0	No
153	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	79.0	2006	120.0	3.0	2019.7	9,981,730	11,060,530	10,736,890	2019	9,981,730	11,060,530	2019.7	0.0	No
154	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	79.0	2006	120.0	3.0	2019.7	9,703,320	10,752,030	10,437,417	2019	9,703,320	10,752,030	2019.7	0.0	No
155	Gladstone - Benaraby Road	CH.0.0 Dawson Highway CH. 0.00 to Sun valley Road CH. 0.645	Southbound (G)	66.0	2007	120.0	3.0	2025.0	10,400,066	11,189,978	10,400,066	2025	10,400,066	11,189,978	2025.0	0.0	No
156	Gladstone - Benaraby Road	Sun Valley Road CH. 0.645 to Dawson Highway CH.0.00	Northbound (A)	66.0	2007	120.0	3.0	2025.0	9,167,211	9,863,484	9,167,211	2025	9,167,211	9,863,484	2025.0	0.0	No
157	Gladstone - Benaraby Road	CH. 0.645 to Glenlyon Road CH. 2.159	Southbound (G)	66.0	2007	120.0	3.0	2025.0	7,353,935	7,912,485	7,353,935	2025	7,353,935	7,912,485	2025.0	0.0	No
158	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to CH. 0.645	Northbound (A)	66.0	2007	120.0	3.0	2025.0	7,595,669	8,172,579	7,595,669	2025	7,595,669	8,172,579	2025.0	0.0	No
159	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to French Street CH. 3.40	Southbound (G)	93.0	2007	120.0	3.0	2016.0	3,391,457	3,874,591	3,391,457	2016	3,391,457	3,874,591	2016.0	0.0	No
160	Gladstone - Benaraby Road	French Street CH. 3.40 to Glenlyon Road CH. 2.159	Northbound (A)	93.0	2007	120.0	3.0	2016.0	3,776,138	4,314,073	3,776,138	2016	3,776,138	4,314,073	2016.0	0.0	No
161	Gladstone - Benaraby Road	French Street CH. 3.40 to Glen Eden Drive CH. 5.70	Southbound (G)	68.0	2007	120.0	3.0	2024.3	7,687,652	8,299,673	7,871,258	2024	7,687,652	8,299,673	2024.3	0.0	No
162	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to French Street CH. 3.40	Northbound (A)	68.0	2007	120.0	3.0	2024.3	8,559,637	9,241,077	8,764,069	2024	8,559,637	9,241,077	2024.3	0.0	No
163	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to South Trees Drive CH. 7.30	Southbound (G)	68.0	2007	120.0	3.0	2024.3	7,687,652	8,299,673	7,871,258	2024	7,687,652	8,299,673	2024.3	0.0	No
164	Gladstone - Benaraby Road	South Trees Drive CH. 5.70 to Glen Eden Drive CH. 3.40	Northbound (A)	68.0	2007	120.0	3.0	2024.3	8,559,637	9,241,077	8,764,069	2024	8,559,637	9,241,077	2024.3	0.0	No
165	Gladstone - Benaraby Road	South Trees Drive CH. 7.30 to Boyne Island Road CH. 16.039	Southbound (G)	68.0	2007	120.0	3.0	2024.3	7,687,652	8,299,673	7,871,258	2024	7,687,652	8,299,673	2024.3	0.0	No
166	Gladstone - Benaraby Road	Boyne Island Drive CH. 16.039 to South Trees Drive CH. 5.70	Northbound (A)	68.0	2007	120.0	3.0	2024.3	8,559,637	9,241,077	8,764,069	2024	8,559,637	9,241,077	2024.3	0.0	No
167	Gladstone - Benaraby Road	Boyne Island Road CH. 16.039 to Bruce Highway CH. 19.21	Southbound (G)	70.0	2007	120.0	3.0	2023.7	5,665,091	6,139,636	5,997,273	2023	5,665,091	6,139,636	2023.7	0.0	No
168	Gladstone - Benaraby Road	Bruce Highway CH. 19.21 to Boyne Island Road CH. 16.039	Northbound (A)	70.0	2007	120.0	3.0	2023.7	5,659,018	6,133,055	5,990,844	2023	5,659,018	6,133,055	2023.7	0.0	No
169	Burnett Highway 41D	CH.0.0 District Boundary to CH.65.0	Southbound (G)	73.0	2007	120.0	3.0	2022.7	1,250,699	1,361,419	1,328,203	2022	1,250,699	1,361,419	2022.7	0.0	No
170	Burnett Highway 41D	CH.65.0 to District Boundary CH.0.0	Northbound (A)	73.0	2007	120.0	3.0	2022.7	1,250,699	1,361,419	1,328,203	2022	1,250,699	1,361,419	2022.7	0.0	No
171	Burnett Highway 41D	CH.65.0 to Hinton's Lane CH.85.5	Southbound (G)	102.0	2007	120.0	3.0	2013.0	388,623	473,480	388,623	2013	388,623	473,480	2013.0	0.0	No
172	Burnett Highway 41D	Hinton's Lane CH.85.5 to CH.65.0	Northbound (A)	102.0	2007	120.0	3.0	2013.0	388,623	473,480	388,623	2013	388,623	473,480	2013.0	0.0	No
173	Burnett Highway 41D	Hinton's Lane CH.85.5 to Sara Lane CH.92.0	Southbound (G)	67.0	2007	120.0	3.0	2024.7	2,421,729	2,614,525	2,556,687	2024	2,421,729	2,614,525	2024.7	0.0	No
174	Burnett Highway 41D	Sara Lane CH.92.0 to Hinton's Lane CH.85.5	Northbound (A)	67.0	2007	120.0	3.0	2024.7	2,421,729	2,614,525	2,556,687	2024	2,421,729	2,614,525	2024.7	0.0	No
175	Burnett Highway 41D	Sara Lane CH.92.0 to Dawson Highway CH.93.8	Southbound (G)	142.0	2007	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
176	Burnett Highway 41D	Dawson Highway CH.93.8 to Sara Lane CH.92.0	Northbound (A)	142.0	2007	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
177	Burnett Highway 41E	Dawson Highway CH.93.8 to CH.18.5	Southbound (G)	97.0	2007	120.0	3.0	2014.7	651,003	771,177	735,125	2014	660,838	781,011	2014.6	0.1	No
178	Burnett Highway 41E	CH.18.5 to Dawson Highway CH.93.8	Northbound (A)	97.0	2007	120.0	3.0	2014.7	651,003	771,177	735,125	2014	651,003	771,177	2014.7	0.0	No
179	Burnett Highway 41E	CH.18.5 to Jambin Rail Crossing CH.27.2	Southbound (G)	60.0	2007	120.0	3.0	2027.0	2,527,849	2,704,328	2,527,849	2027	2,527,849	2,704,328	2027.0	0.0	No
180	Burnett Highway 41E	Jambin Rail Crossing CH.27.2 to CH.18.5	Northbound (A)	60.0	2007	120.0	3.0	2027.0	2,527,849	2,704,328	2,527,849	2027	2,527,849	2,704,328	2027.0	0.0	No
181	Burnett Highway 41E	Jambin Rail Crossing CH.27.2 to Goovigen Connection Road CH.35.5	Southbound (G)	80.0	2007	120.0	3.0	2020.3	1,428,335	1,571,829	1,471,383	2020	1,428,335	1,571,829	2020.3	0.0	No
182	Burnett Highway 41E	Goovigen Connection Road CH.35.5 to Jambin Rail Crossing CH.27.2	Northbound (A)	80.0	2007	120.0	3.0	2020.3	1,428,335	1,571,829	1,471,383	2020	1,428,335	1,571,829	2020.3	0.0	No
183	Burnett Highway 41E	Goovigen Connection Road CH.35.5 to Tohlinn Road (South) CH.38.9	Southbound (G)	106.0	2007	120.0	3.0	2011.7	270,069	365,546	336,903	2011	270,069	365,546	2011.7	0.0	No
184	Burnett Highway 41E	Tohlinn Road (South) CH.38.9 to Goovigen Connection Road CH.35.5	Northbound (A)	106.0	2007	120.0	3.0	2011.7	270,069	365,546	336,903	2011	270,069	365,546	2011.7	0.0	No
185	Burnett Highway 41E	Tomlin Road (South) CH.38.9 to Tomlin Rd (North) CH.53.4	Southbound (G)	57.0	2007	120.0	3.0	2028.0	2,347,810	2,505,620	2,347,810	2028	2,347,810	2,505,620	2028.0	0.0	No
186	Burnett Highway 41E	Tomlin Rd (North) CH.53.4 to Tomlin Road (South) CH.38.9	Northbound (A)	57.0	2007	120.0	3.0	2028.0	2,347,810	2,505,620	2,347,810	2028	2,347,810	2,505,620	2028.0	0.0	

195	Dawson Highway 46C	Fitzroy Dev. 85A Intersection to Duaringa/Woorabinda Intersection	Westbound (G)	83.0	2007	120.0	3.0	2019.3	280,575	310,899	289,672	2017	262,523	291,106	2017.9	1.4	Yes
196	Dawson Highway 46C	Duaringa/Woorabinda Intersection to Fitzroy Dev. 85A Intersection	Eastbound (A)	83.0	2007	120.0	3.0	2019.3	280,575	310,899	289,672	2018	267,011	296,452	2018.8	0.5	No
197	Dawson Highway 46C	Duaringa/Woorabinda Intersection to Woorabinda/Duaringa Intersection	Westbound (G)	76.0	2007	120.0	3.0	2021.7	687,157	751,770	732,386	2021	727,128	791,741	2021.1	0.6	No
198	Dawson Highway 46C	Woorabinda/Duaringa to Duaringa/Woorabinda Intersection	Eastbound (A)	76.0	2007	120.0	3.0	2021.7	687,157	751,770	732,386	2021	703,033	767,646	2021.5	0.2	No
199	Dawson Highway 46C	Woorabinda/Duaringa to 46C/85B Intersection	Westbound (G)	80.0	2007	120.0	3.0	2020.3	624,426	687,157	643,245	2019	595,316	656,220	2019.8	0.5	No
200	Dawson Highway 46C	46C/85B Intersection to Woorabinda/Duaringa	Eastbound (A)	80.0	2007	120.0	3.0	2020.3	624,426	687,157	643,245	2020	631,224	693,955	2020.2	0.1	No
201	Dawson Highway 46C	46C/85B Intersection to Prospect Creek Culvert	Westbound (G)	64.0	2007	120.0	3.0	2025.7	831,696	894,865	875,914	2025	854,557	917,726	2025.3	0.4	No
202	Dawson Highway 46C	Prospect Creek Culvert to 46C/85B Intersection	Eastbound (A)	64.0	2007	120.0	3.0	2025.7	831,696	894,865	875,914	2025	838,494	901,664	2025.6	0.1	No
203	Dawson Highway 46C	Prospect Creek Culvert to Duaringa/Bauhinia Intersection	Westbound (G)	54.3	2007	120.0	3.0	2028.9	1,026,946	1,095,973	1,089,070	2028	1,049,807	1,118,834	2028.6	0.3	No
204	Dawson Highway 46C	Duaringa/Bauhinia Intersection to Prospect Creek Culvert	Eastbound (A)	54.3	2007	120.0	3.0	2028.9	1,026,946	1,095,973	1,089,070	2028	1,033,744	1,102,771	2028.8	0.1	No
205	Dawson Highway 46C	Duaringa/Bauhinia Intersection to KM 137.5	Westbound (G)	79.4	2007	120.0	3.0	2020.5	542,398	596,889	569,644	2020	565,260	619,750	2020.1	0.4	No
206	Dawson Highway 46C	KM 137.5 to Duaringa/Bauhinia Intersection	Eastbound (A)	79.4	2007	120.0	3.0	2020.5	542,398	596,889	569,644	2020	549,197	603,687	2020.4	0.1	No
207	Dawson Highway 46C	KM 137.5 to Rolleston	Westbound (G)	93.1	2007	120.0	3.0	2016.0	339,852	388,266	339,852	2015	293,880	340,884	2016.0	0.0	No
208	Dawson Highway 46C	Rollston to KM 137.5	Eastbound (A)	93.1	2007	120.0	3.0	2016.0	339,852	388,266	339,852	2015	293,880	340,884	2016.0	0.0	No
209	Leichhardt Highway 26A	District Boundary to 26A/85A intersection	Westbound (G)	70.0	2008	120.0	3.0	2024.7	1,944,901	2,099,736	2,053,286	2024	1,944,901	2,099,736	2024.7	0.0	No
210	Leichhardt Highway 26A	26A/84A intersection to District Boundary	Eastbound (A)	70.0	2008	120.0	3.0	2024.7	1,944,901	2,099,736	2,053,286	2024	1,944,901	2,099,736	2024.7	0.0	No
211	Leichhardt Highway 26A	26A/85A intersection to Taroom	Westbound (G)	68.0	2008	120.0	3.0	2025.3	2,418,339	2,602,018	2,473,442	2025	2,418,339	2,602,018	2025.3	0.0	No
212	Leichhardt Highway 26A	Taroom to 26A/84A intersection	Eastbound (A)	68.0	2008	120.0	3.0	2025.3	2,418,339	2,602,018	2,473,442	2025	2,418,339	2,602,018	2025.3	0.0	No
213	Leichhardt Highway 26B	Taroom to KM35.00	Westbound (G)	104.0	2008	120.0	3.0	2013.3	603,392	735,145	642,918	2013	603,392	735,145	2013.3	0.0	No
214	Leichhardt Highway 26B	KM35.00 to Taroom	Eastbound (A)	104.0	2008	120.0	3.0	2013.3	603,392	735,145	642,918	2013	603,392	735,145	2013.3	0.0	No
215	Leichhardt Highway 26B	KM35.00 to Jackson-Wandoan Road	Westbound (G)	81.0	2008	120.0	3.0	2021.0	1,774,986	1,941,887	1,774,986	2021	1,774,986	1,941,887	2021.0	0.0	No
216	Leichhardt Highway 26B	Jackson-Wandoan Road to KM35.00	Eastbound (A)	81.0	2008	120.0	3.0	2021.0	1,774,986	1,941,887	1,774,986	2021	1,774,986	1,941,887	2021.0	0.0	No
217	Leichhardt Highway 26B	Jackson-Wandoan Road to Miles	Westbound (G)	81.0	2008	120.0	3.0	2021.0	1,909,572	2,089,129	1,909,572	2021	1,909,572	2,089,129	2021.0	0.0	No
218	Leichhardt Highway 26B	Miles to Jackson-Wandoan Road	Eastbound (A)	81.0	2008	120.0	3.0	2021.0	1,909,572	2,089,129	1,909,572	2021	1,909,572	2,089,129	2021.0	0.0	No
219	Warrego Highway	Miles to 18D/Dulacca North Intersection	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,660,381	2,972,258	2,753,944	2017	2,514,083	2,831,605	2017.8	0.5	No
220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,660,381	2,972,258	2,753,944	2018	2,697,002	3,011,469	2018.2	0.1	No
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Intersection\	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,376,828	2,655,465	2,460,419	2017	2,262,803	2,548,052	2017.7	0.6	No
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Intersection	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,376,828	2,655,465	2,460,419	2018	2,413,450	2,694,675	2018.2	0.1	No
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,758,496	3,081,875	2,855,509	2017	2,601,031	2,929,719	2017.8	0.5	No
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,758,496	3,081,875	2,855,509	2018	2,795,117	3,121,086	2018.2	0.1	No
225	Warrego Highway	KM135.5 to Roma	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,043,290	2,282,826	2,115,151	2017	2,096,286	2,363,321	2017.1	1.2	Yes
226	Warrego Highway	Roma to KM135.5	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,043,290	2,282,826	2,115,151	2017	1,972,835	2,228,719	2017.6	0.7	No
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)	87.3	2008	120.0	3.0	2018.9	97,623	109,068	107,923	2018	97,623	109,068	2018.9	0.0	No
228	Jackson-Wandoan Road	Grid to 18D/Dulacca North Intersection	Southbound (G)	87.3	2008	120.0	3.0	2018.9	97,623	109,068	107,923	2018	97,623	109,068	2018.9	0.0	No
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)	128.3	2008	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)	128.3	2008	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)	70.0	2007	110.0	3.0	2020.3	9,216,041	10,141,903	9,493,800	2020	9,268,552	10,196,201	2020.2	0.1	No
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)	70.0	2007	110.0	3.0	2020.3	9,216,041	10,141,903	9,493,800	2020	9,223,183	10,149,489	2020.3	0.0	No
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)	64.0	2007	110.0	3.0	2022.3	11,095,542	12,077,790	11,390,216	2022	11,149,866	12,132,141	2022.2	0.1	No
234	Bruce Highway (10D)	Benaraby CH. 147.1 to CH. 112	Southbound (G)	64.0	2007	110.0	3.0	2022.3	11,095,542	12,077,790	11,390,216	2022	11,103,394	12,085,907	2022.3	0.0	No

Annual Maintenance Cost																													
Road	Section	Direction	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)	\$11,077	\$11,852	\$12,682	\$13,570	\$14,520	\$15,536	\$16,623	\$17,787	\$19,032	\$20,364	\$21,790	\$23,315	\$24,947	\$26,694	\$28,562	\$30,562	\$32,701	\$34,990	\$37,439	\$40,060	\$42,864	\$45,865	\$49,075	\$52,510	\$56,186	\$60,119
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)	\$11,077	\$11,852	\$12,682	\$13,570	\$14,520	\$15,536	\$16,624	\$17,787	\$19,032	\$20,364	\$21,790	\$23,315	\$24,947	\$26,694	\$28,562	\$30,562	\$32,701	\$34,990	\$37,439	\$40,060	\$42,864	\$45,865	\$49,075	\$52,510	\$56,186	\$60,119
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)	\$5,169	\$5,531	\$5,918	\$6,333	\$6,776	\$7,250	\$7,758	\$8,301	\$8,882	\$9,503	\$10,169	\$10,880	\$11,642	\$12,457	\$13,329	\$14,262	\$15,260	\$16,329	\$17,472	\$18,695	\$20,003	\$21,403	\$22,902	\$24,505	\$26,220	\$28,056
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)	\$5,169	\$5,531	\$5,918	\$6,333	\$6,776	\$7,250	\$7,758	\$8,301	\$8,882	\$9,503	\$10,169	\$10,880	\$11,642	\$12,457	\$13,329	\$14,262	\$15,260	\$16,329	\$17,472	\$18,695	\$20,003	\$21,403	\$22,902	\$24,505	\$26,220	\$28,056
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)	\$6,646	\$7,111	\$7,609	\$8,142	\$8,712	\$9,322	\$9,974	\$10,672	\$11,419	\$12,219	\$13,074	\$13,989	\$14,968	\$16,016	\$17,137	\$18,337	\$19,621	\$20,994	\$22,464	\$24,036	\$25,719	\$29,445	\$31,506	\$33,712	\$36,072	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)	\$6,646	\$7,111	\$7,609	\$8,142	\$8,712	\$9,322	\$9,974	\$10,672	\$11,419	\$12,219	\$13,074	\$13,989	\$14,968	\$16,016	\$17,137	\$18,337	\$19,621	\$20,994	\$22,464	\$24,036	\$25,719	\$29,445	\$31,506	\$33,712	\$36,072	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)	\$9,590	\$10,272	\$10,991	\$11,760	\$12,584	\$13,464	\$14,407	\$15,415	\$16,495	\$17,649	\$18,885	\$20,207	\$21,621	\$23,134	\$24,754	\$26,487	\$28,341	\$30,325	\$32,447	\$34,719	\$37,149	\$39,749	\$42,532	\$45,509	\$48,695	\$52,103
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)	\$9,590	\$10,272	\$10,991	\$11,760	\$12,584	\$13,464	\$14,407	\$15,415	\$16,495	\$17,649	\$18,885	\$20,207	\$21,621	\$23,134	\$24,754	\$26,487	\$28,341	\$30,325	\$32,447	\$34,719	\$37,149	\$39,749	\$42,532	\$45,509	\$48,695	\$52,103
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)	\$5,908	\$6,321	\$6,764	\$7,237	\$7,744	\$8,286	\$8,866	\$9,486	\$10,151	\$10,861	\$11,621	\$12,435	\$13,305	\$14,237	\$15,233	\$16,299	\$17,440	\$18,661	\$19,968	\$21,365	\$22,861	\$24,461	\$26,173	\$28,006	\$29,966	\$32,064
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)	\$5,908	\$6,321	\$6,764	\$7,237	\$7,744	\$8,286	\$8,866	\$9,486	\$10,151	\$10,861	\$11,621	\$12,435	\$13,305	\$14,237	\$15,233	\$16,299	\$17,440	\$18,661	\$19,968	\$21,365	\$22,861	\$24,461	\$26,173	\$28,006	\$29,966	\$32,064
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)	\$23,631	\$25,285	\$27,055	\$28,949	\$30,975	\$33,143	\$35,463	\$37,946	\$40,602	\$43,444	\$46,485	\$49,739	\$53,221	\$56,946	\$60,933	\$65,198	\$69,762	\$74,645	\$79,870	\$85,461	\$91,443	\$97,845	\$104,694	\$112,022	\$119,864	\$128,254
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)	\$23,631	\$25,285	\$27,055	\$28,949	\$30,975	\$33,143	\$35,463	\$37,946	\$40,602	\$43,444	\$46,485	\$49,739	\$53,221	\$56,946	\$60,933	\$65,198	\$69,762	\$74,645	\$79,870	\$85,461	\$91,443	\$97,845	\$104,694	\$112,022	\$119,864	\$128,254
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)	\$14,031	\$15,013	\$16,064	\$17,188	\$18,391	\$19,679	\$21,056	\$22,530	\$24,107	\$25,795	\$27,601	\$29,533	\$31,600	\$33,812	\$36,179	\$38,711	\$41,421	\$44,321	\$47,423	\$50,743	\$54,295	\$58,095	\$62,162	\$66,513	\$71,169	\$76,151
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)	\$14,031	\$15,013	\$16,064	\$17,188	\$18,391	\$19,679	\$21,056	\$22,530	\$24,107	\$25,795	\$27,601	\$29,533	\$31,600	\$33,812	\$36,179	\$38,711	\$41,421	\$44,321	\$47,423	\$50,743	\$54,295	\$58,095	\$62,162	\$66,513	\$71,169	\$76,151
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)	\$94,249	\$98,743	\$103,555	\$108,704	\$114,213	\$119,108	\$124,356	\$129,961	\$135,928	\$142,267	\$148,989	\$156,103	\$162,720	\$169,743	\$177,177	\$185,029	\$192,799	\$200,586	\$208,399	\$216,237	\$224,109	\$232,015	\$240,055	\$248,330	\$256,841	\$348,691
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)	\$94,249	\$98,743	\$103,555	\$108,704	\$114,213	\$119,108	\$124,356	\$129,961	\$135,928	\$142,267	\$148,989	\$156,103	\$162,720	\$169,743	\$177,177	\$185,029	\$192,799	\$200,586	\$208,399	\$216,237	\$224,109	\$232,015	\$240,055	\$248,330	\$256,841	\$348,691
17	Dawson Highway 46A	Bruce Highway to Dryan Drive	Southbound (G)	\$20,308	\$21,729	\$23,250	\$24,878	\$26,619	\$28,483	\$30,476	\$32,610	\$34,892	\$37,335	\$39,948	\$42,745	\$45,737	\$48,938	\$52,364	\$56,029	\$59,952	\$64,148	\$68,639	\$73,443	\$78,584	\$84,085	\$89,971	\$96,269	\$103,008	\$110,218
18	Dawson Highway 46A	Bruce Highway to Dryan Drive	Northbound (A)	\$20,308	\$21,729	\$23,250	\$24,878	\$26,619	\$28,483	\$30,476	\$32,610	\$34,892	\$37,335	\$39,948	\$42,745	\$45,737	\$48,938	\$52,364	\$56,029	\$59,952	\$64,148	\$68,639	\$73,443	\$78,584	\$84,085	\$89,971	\$96,269	\$103,008	\$110,218
19	Dawson Highway 46A	Dryan Drive to Gladstone-Monto Road	Westbound (G)	\$24,810	\$26,547	\$28,405	\$30,393	\$32,521	\$34,797	\$37,233	\$39,839	\$42,628	\$45,612	\$48,805	\$52,221	\$55,877	\$59,788	\$63,973	\$68,452	\$73,243	\$78,370	\$83,856	\$89,726	\$96,007	\$102,727	\$109,918	\$117,612	\$125,845	\$134,655
20	Dawson Highway 46A	Dryan Drive to Gladstone-Monto Road	Eastbound (A)	\$24,810	\$26,547	\$28,405	\$30,393	\$32,521	\$34,797	\$37,233	\$39,839	\$42,628	\$45,612	\$48,805	\$52,221	\$55,877	\$59,788	\$63,973	\$68,452	\$73,243	\$78,370	\$83,856	\$89,726	\$96,007	\$102,727	\$109,918	\$117,612	\$125,845	\$134,655
21	Dawson Highway 46A	Gladstone-Monto Road to Access to Pipeline Camp 4	Westbound (G)	\$146,782	\$157,057	\$168,051	\$179,814	\$192,401	\$205,869	\$220,280	\$235,700	\$252,199	\$269,853	\$288,742	\$308,954	\$330,581	\$353,722	\$378,482	\$404,976	\$433,324	\$463,657	\$496,113	\$530,841	\$568,000	\$607,760	\$650,303	\$695,824	\$744,532	\$796,649
22	Dawson Highway 46A	Access to Pipeline Camp 4 to Gladstone-Monto Road	Eastbound (A)	\$146,782	\$157,057	\$168,051	\$179,814	\$192,401	\$205,869	\$220,280	\$235,700	\$252,199	\$269,853	\$288,742	\$308,954	\$330,581	\$353,722	\$378,482	\$404,976	\$433,324	\$463,657	\$496,113	\$530,841	\$568,000	\$607,760	\$650,303	\$695,824	\$744,532	\$796,649
23	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Westbound (G)	\$147,978	\$158,337	\$169,420	\$181,280	\$193,969	\$207,547	\$222,076	\$237,621	\$254,254	\$272,052	\$291,096	\$311,472	\$333,276	\$356,005	\$381,567	\$408,277	\$436,856	\$467,436	\$500,157	\$535,168	\$572,629	\$612,713	\$655,603	\$701,496	\$750,600	\$803,142
24	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Eastbound (A)	\$147,																									

119	Leichhardt Highway 26A	CH. 86.0 Fairview Road to CH. 88.0	Southbound (G)	\$12,594	\$13,475	\$14,419	\$15,428	\$16,508	\$17,664	\$18,900	\$20,223	\$21,639	\$23,153	\$24,774	\$26,508	\$28,364	\$30,349	\$32,474	\$34,747	\$37,179	\$39,782	\$42,567	\$45,546	\$48,734	\$52,146	\$55,796	\$59,702	\$63,881	\$68,353	
120	Leichhardt Highway 26A	CH. 88.0 to CH. 88.0	Northbound (A)	\$12,594	\$13,475	\$14,419	\$15,428	\$16,508	\$17,664	\$18,900	\$20,223	\$21,639	\$23,153	\$24,774	\$26,508	\$28,364	\$30,349	\$32,474	\$34,747	\$37,179	\$39,782	\$42,567	\$45,546	\$48,734	\$52,146	\$55,796	\$59,702	\$63,881	\$68,353	
121	Leichhardt Highway 26A	CH. 88.0 to CH. 99.0 (Camp 3)	Southbound (G)	\$69,256	\$84,854	\$97,303	\$112,458	\$130,794	\$150,741	\$172,800	\$197,150	\$224,344	\$254,113	\$287,006	\$323,596	\$363,541	\$407,400	\$455,113	\$507,100	\$563,393	\$623,522	\$688,125	\$757,750	\$831,919	\$911,582	\$997,296	\$1,089,215	\$1,187,000	\$1,291,219	
122	Leichhardt Highway 26A	CH. 99.0 (Camp 3) to CH. 88.0	Northbound (A)	\$99,266	\$74,115	\$79,303	\$84,854	\$90,794	\$97,150	\$103,950	\$111,227	\$119,013	\$127,344	\$136,258	\$145,796	\$156,001	\$166,921	\$178,606	\$191,108	\$204,486	\$218,800	\$234,116	\$250,504	\$268,039	\$286,802	\$306,878	\$329,360	\$351,345	\$375,939	
123	Leichhardt Highway 26A	CH. 99.0 to Banana CH. 105.2	Northbound (A)	\$39,041	\$41,774	\$44,698	\$47,827	\$51,175	\$54,757	\$58,590	\$62,691	\$67,080	\$71,775	\$76,800	\$82,176	\$87,928	\$94,083	\$100,669	\$107,716	\$115,256	\$123,324	\$131,956	\$141,193	\$151,077	\$161,652	\$172,968	\$185,075	\$198,031	\$211,893	
124	Leichhardt Highway 26A	Banana CH. 105.2 to CH. 99.0	Northbound (A)	\$39,041	\$41,774	\$44,698	\$47,827	\$51,175	\$54,757	\$58,590	\$62,691	\$67,080	\$71,775	\$76,800	\$82,176	\$87,928	\$94,083	\$100,669	\$107,716	\$115,256	\$123,324	\$131,956	\$141,193	\$151,077	\$161,652	\$172,968	\$185,075	\$198,031	\$211,893	
125	Leichhardt Highway 26A	Banana CH. 105.2 to CH. 117.0	Southbound (G)	\$14,304	\$19,505	\$25,071	\$31,028	\$37,360	\$44,115	\$51,310	\$58,916	\$67,000	\$75,540	\$84,580	\$94,060	\$104,020	\$114,500	\$125,540	\$137,180	\$149,460	\$162,420	\$176,000	\$190,240	\$205,180	\$220,860	\$237,320	\$254,600	\$272,760	\$291,840	
126	Leichhardt Highway 26A	CH. 117.0 to Banana CH. 105.2	Northbound (A)	\$74,304	\$79,505	\$85,071	\$91,028	\$97,360	\$104,115	\$111,310	\$118,916	\$127,000	\$135,540	\$144,580	\$154,060	\$164,020	\$174,500	\$185,540	\$197,180	\$209,460	\$222,420	\$236,000	\$250,240	\$265,180	\$280,860	\$297,320	\$314,600	\$332,760	\$351,840	
127	Leichhardt Highway 26A	CH. 117.0 to CH. 124.0	Southbound (G)	\$39,270	\$42,019	\$44,960	\$48,108	\$51,475	\$55,078	\$58,934	\$63,059	\$67,473	\$72,196	\$77,250	\$82,658	\$88,444	\$94,635	\$101,259	\$108,347	\$115,932	\$124,047	\$132,730	\$142,021	\$151,963	\$162,600	\$173,982	\$186,161	\$199,192	\$213,136	
128	Leichhardt Highway 26A	CH. 124.0 to CH. 117.0	Northbound (A)	\$39,270	\$42,019	\$44,960	\$48,108	\$51,475	\$55,078	\$58,934	\$63,059	\$67,473	\$72,196	\$77,250	\$82,658	\$88,444	\$94,635	\$101,259	\$108,347	\$115,932	\$124,047	\$132,730	\$142,021	\$151,963	\$162,600	\$173,982	\$186,161	\$199,192	\$213,136	
129	Leichhardt Highway 26A	Theodore CH. 162.3 to CH. 124.0	Westbound (G)	\$241,173	\$258,055	\$276,119	\$295,448	\$316,129	\$338,258	\$361,936	\$387,271	\$414,380	\$443,387	\$474,424	\$507,634	\$543,168	\$581,190	\$621,873	\$665,404	\$711,983	\$761,822	\$815,149	\$872,209	\$933,264	\$996,593	\$1,068,494	\$1,143,289	\$1,223,319	\$1,308,951	
130	Leichhardt Highway 26A	CH. 124.0 to Theodore CH. 162.4	Eastbound (A)	\$241,173	\$258,055	\$276,119	\$295,448	\$316,129	\$338,258	\$361,936	\$387,271	\$414,380	\$443,387	\$474,424	\$507,634	\$543,168	\$581,190	\$621,873	\$665,404	\$711,983	\$761,822	\$815,149	\$872,209	\$933,264	\$996,593	\$1,068,494	\$1,143,289	\$1,223,319	\$1,308,951	
131	Leichhardt Highway 26A	Theodore CH. 162.3 to CH. 124.0	Westbound (G)	\$50,376	\$53,902	\$57,675	\$61,712	\$66,032	\$70,654	\$75,600	\$80,892	\$86,555	\$92,613	\$99,096	\$106,033	\$113,456	\$121,397	\$129,895	\$138,988	\$148,717	\$159,127	\$170,266	\$182,185	\$194,938	\$208,583	\$223,184	\$238,807	\$255,524	\$273,410	
132	Leichhardt Highway 26A	Theodore CH. 162.3 to Glenmorral Roundstone Road	Eastbound (A)	\$50,376	\$53,902	\$57,675	\$61,712	\$66,032	\$70,654	\$75,600	\$80,892	\$86,555	\$92,613	\$99,096	\$106,033	\$113,456	\$121,397	\$129,895	\$138,988	\$148,717	\$159,127	\$170,266	\$182,185	\$194,938	\$208,583	\$223,184	\$238,807	\$255,524	\$273,410	
133	Leichhardt Highway 26A	Glenmorral Roundstone Road to Isla Delusion Road	Westbound (G)	\$96,268	\$92,307	\$88,768	\$105,682	\$113,080	\$120,996	\$129,465	\$138,528	\$148,225	\$158,601	\$169,703	\$181,582	\$194,293	\$207,893	\$222,446	\$238,017	\$254,678	\$272,505	\$291,581	\$311,991	\$333,831	\$357,199	\$382,203	\$408,957	\$437,584	\$468,215	
134	Leichhardt Highway 26A	Isla Delusion Road to Glenmorral Roundstone Road	Eastbound (A)	\$96,268	\$92,307	\$88,768	\$105,682	\$113,080	\$120,996	\$129,465	\$138,528	\$148,225	\$158,601	\$169,703	\$181,582	\$194,293	\$207,893	\$222,446	\$238,017	\$254,678	\$272,505	\$291,581	\$311,991	\$333,831	\$357,199	\$382,203	\$408,957	\$437,584	\$468,215	
135	Leichhardt Highway 26A	Sun Valley Road CH. 0.645 to Dawson Highway CH. 0.00	Northbound (A)	\$15,537	\$15,249	\$15,117	\$15,025	\$14,963	\$14,920	\$14,893	\$14,878	\$14,870	\$14,865	\$14,860	\$14,855	\$14,850	\$14,845	\$14,840	\$14,835	\$14,830	\$14,825	\$14,820	\$14,815	\$14,810	\$14,805	\$14,800	\$14,795	\$14,790	\$14,785	
136	Leichhardt Highway 26A	District Boundary to Isla Delusion Road	Eastbound (A)	\$31,635	\$55,249	\$59,117	\$63,255	\$67,683	\$72,421	\$77,490	\$82,915	\$88,719	\$94,929	\$101,574	\$108,684	\$116,292	\$124,432	\$133,143	\$142,463	\$152,435	\$163,105	\$174,523	\$186,739	\$199,811	\$213,798	\$229,764	\$244,777	\$261,912	\$280,245	
137	Bruce Highway	Gladstone-Bareraby Road to Dawson Highway	Westbound (G)	\$91,013	\$86,684	\$82,752	\$99,245	\$106,192	\$113,625	\$121,579	\$130,089	\$139,196	\$148,939	\$159,365	\$170,521	\$182,457	\$195,229	\$208,895	\$223,518	\$239,164	\$255,905	\$273,819	\$292,986	\$313,495	\$335,421	\$358,921	\$384,045	\$410,928	\$439,693	
138	Bruce Highway	Dawson Highway to Callopie River Road	Eastbound (A)	\$91,013	\$86,684	\$82,752	\$99,245	\$106,192	\$113,625	\$121,579	\$130,089	\$139,196	\$148,939	\$159,365	\$170,521	\$182,457	\$195,229	\$208,895	\$223,518	\$239,164	\$255,905	\$273,819	\$292,986	\$313,495	\$335,421	\$358,921	\$384,045	\$410,928	\$439,693	
139	Bruce Highway	Dawson Highway to Callopie River Road	Eastbound (A)	\$57,508	\$61,320	\$65,612	\$70,205	\$75,119	\$80,377	\$86,004	\$92,024	\$98,466	\$105,358	\$112,733	\$120,625	\$129,069	\$138,103	\$147,771	\$158,114	\$169,183	\$181,025	\$193,697	\$207,256	\$221,764	\$237,287	\$253,897	\$271,670	\$290,687	\$311,035	
140	Bruce Highway	Callopie River Road to Gladstone Mt-Larcom Road	Westbound (G)	\$168,129	\$171,898	\$192,490	\$205,965	\$220,382	\$235,690	\$252,316	\$269,978	\$288,876	\$309,098	\$330,734	\$353,886	\$378,658	\$405,164	\$433,525	\$463,872	\$496,343	\$531,087	\$568,263	\$608,402	\$650,604	\$696,147	\$744,877	\$797,018	\$852,810	\$912,506	
141	Bruce Highway	Callopie River Road to Gladstone Mt-Larcom Road	Eastbound (A)	\$168,129	\$171,898	\$192,490	\$205,965	\$220,382	\$235,690	\$252,316	\$269,978	\$288,876	\$309,098	\$330,734	\$353,886	\$378,658	\$405,164	\$433,525	\$463,872	\$496,343	\$531,087	\$568,263	\$608,402	\$650,604	\$696,147	\$744,877	\$797,018	\$852,810	\$912,506	
142	Bruce Highway	Gladstone Mt Larcom Road to Bajool Port Alma Road	Westbound (G)	\$294,646	\$315,271	\$337,340	\$360,954	\$386,220	\$413,256	\$442,184	\$473,137	\$506,256	\$541,694	\$579,613	\$620,186	\$663,599	\$710,051	\$759,754	\$812,937	\$869,842	\$930,731	\$995,883	\$1,065,594	\$1,140,186	\$1,219,999	\$1,305,399	\$1,396,777	\$1,494,551	\$1,599,170	
143	Bruce Highway	Gladstone Mt Larcom Road to Bajool Port Alma Road	Eastbound (A)	\$294,646	\$315,271	\$337,340	\$360,954	\$386,220	\$413,256	\$442,184	\$473,137	\$506,256	\$541,694	\$579,613	\$620,186	\$663,599	\$710,051	\$759,754	\$812,937	\$869,842	\$930,731	\$995,883	\$1,065,594	\$1,140,186	\$1,219,999	\$1,305,399	\$1,396,777	\$1,494,551	\$1,599,170	
144	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Westbound (G)	\$175,015	\$187,266	\$200,375	\$214,401	\$229,409	\$245,468	\$262,651	\$281,036	\$300,709	\$321,758	\$344,281	\$368,381	\$394,188	\$421,759	\$451,283	\$482,872	\$516,673	\$552,840	\$591,539	\$632,947	\$677,251	\$724,661	\$773,387	\$829,664	\$887,741	\$949,883	
145	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Eastbound (A)	\$175,015	\$187,266	\$200,375	\$214,401	\$229,409	\$245,468	\$262,651	\$281,036	\$300,709	\$321,758	\$344,281	\$368,381	\$394,188	\$421,759	\$451,283	\$482,872	\$516,673	\$552,840	\$591,539	\$632,947	\$677,251	\$724,661	\$773,387	\$829,664	\$887,741	\$949,883	
146	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Westbound (G)	\$39,677	\$42,668	\$45,655	\$48,851	\$52,270	\$55,929	\$59,844	\$64,034	\$68,516	\$73,312	\$78,444	\$83,935	\$89,810	\$96,097	\$102,824	\$110,022	\$117,723	\$125,964	\$134,781	\$144,216	\$154,311	\$165,113	\$176,671	\$189,037	\$202,270	\$216,429	
147	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Eastbound (A)	\$39,677	\$42,668	\$45,655	\$48,851	\$52,270	\$55,929	\$59,844	\$64,034	\$68,516	\$73,312	\$78,444	\$83,935	\$89,810	\$96,097	\$102,824	\$110,022	\$117,723	\$125,964	\$134,781	\$144,216	\$154,311	\$165,113	\$176,671	\$189,037	\$202,270	\$216,429	
148	Bruce Highway	Burnett Highway to Capricorn Highway	Westbound (G)	\$20,586	\$22,455	\$24,027	\$25,709	\$27,508	\$29,434	\$31,494	\$33,699	\$36,058	\$38,582	\$41,283	\$44,172	\$47,265	\$50,573	\$54,113	\$57,901	\$61,954	\$66,291	\$70,931	\$75,897	\$81,209	\$86,894	\$92,976	\$99,485	\$106,449	\$113,900	
149	Bruce Highway	Burnett Highway to Capricorn Highway	Eastbound (A)	\$20,586	\$22,455	\$24,027	\$25,709	\$27,508	\$29,434	\$31,494	\$33,699	\$36,058	\$38,582	\$41,283	\$44,172	\$47,265	\$50,573	\$54,113	\$57,901	\$61,954	\$66,291	\$70,931	\$75,897	\$81,209	\$86,894	\$92,976	\$99,485	\$106,449	\$113,900	
150	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	\$32,084	\$33,630	\$35,284	\$37,054	\$38,947	\$40,974	\$43,142	\$45,462	\$47,944	\$50,590	\$53,422	\$56,443	\$59,663	\$63,090	\$66,725	\$70,569	\$74,642	\$78,966	\$83,547	\$88,409	\$93,549	\$98,981	\$104,689	\$110,717	\$116,558	\$122,149	
151	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	\$32,084	\$33,630	\$35,284	\$37,054	\$38,947	\$40,974	\$43,142	\$45,462	\$47,944	\$50,590	\$53,422	\$56,443	\$59,663	\$63,090	\$66,725	\$70,569	\$74,642	\$78,966	\$83,547	\$88,409	\$93,549	\$98,981	\$104,689	\$110,717	\$116,558	\$122,149	
152	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	\$10,806	\$11,348	\$11,943	\$12,593	\$13,302	\$14,075	\$14,917	\$15,831	\$16,823	\$17,899	\$19,061	\$20,310	\$21,647	\$23,074	\$24,592	\$26,202	\$27,906	\$29,716	\$31,634	\$33,662	\$35,809	\$38,076	\$40,464	\$42,983	\$45,634	\$48,417	\$51,332
153	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	\$10,806	\$11,348	\$11,943	\$12,593	\$13,302	\$14,075	\$14,917	\$15,831	\$16,823	\$17,899	\$19,061	\$20,310	\$21,647	\$23,074	\$24,592	\$26,202	\$27,906	\$29,716	\$31,63								

Maintenance 7 G:\CE005780\5780 Calculations\No Bridge Option Calculations\PIA\5780 PIA Revised_NBop.xls

Appendix B

GLNG Project Traffic Report – “Material by Rail” Option

Assessment

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GLNG Project Traffic Report – "Materials by Rail" Option Assessment

Prepared for GLNG

March 2009



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Document Control GLNG EIS – Traffic Report					
Version	Date	Author		Reviewer	
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EXECUTIVE SUMMARY

Scope of the Report

This document is a supplementary report to the “GLNG Environmental Impact Statement – Traffic Report,” submitted by Cardno Eppell Olsen (CEO) in March 2009, which has been presented as the “base case” assessment for the traffic impacts of the GLNG Project. This report is not intended as a stand-alone document and should be used and interpreted in combination with the CEO base case report.

The base case scenario assumes pipe and materials for construction of the gas transmission pipeline will be delivered from Gladstone Port by truck. The alternative assessed within this report assumes that pipe and personnel will be transported by rail to the fullest extent possible in order to reduce vehicle trips on the road network, especially within Gladstone. This alternative is known in this document as the “Material by Rail” option.

Development Proposal

Santos proposes to develop a LNG liquefaction and export facility (LNG facility) at Gladstone in Central Queensland, Australia. The LNG facility will allow Santos to commercialise its Queensland coal seam gas (CSG) resources and export the processed gas (in the form of LNG) to overseas markets. The facility will initially be constructed to produce 3 to 4 million tonnes per annum (Mtpa) of LNG, with the potential for future expansion to a nominal 10 Mtpa.

The LNG facility will be developed on Curtis Island (in the China Bay area) in close proximity to the industrial deepwater port at Gladstone. The GLNG Project will source gas from Santos’ CSG fields at Fairview, Arcadia Valley and Roma, with gas being transported to the Gladstone LNG facility via a subsurface 435km gas transmission pipeline.

The project will consist of the following key components:

- CSG field development: Approximately 850 development wells are expected to be drilled prior to 2015 with another 1500 beyond 2015;
- Gas transmission pipeline construction: Initially a single pipeline will be provided with compression facilities; and
- LNG liquefaction and export facility: The proposed LNG facility on Curtis Island, with marine facilities proposed to include a LNG tanker loading jetty and marine off loading facility.

All aspects of the development proposal and project staging remain unchanged from the base case scenario in this “Material by Rail” option assessment, except for the mode of transport of pipe and personnel during the construction of the gas transmission pipeline.

Development Traffic

Traffic generation has been based on estimated material quantities for construction works and assumptions about delivery frequency. Trips associated with construction and operations equipment and workforce have also been estimated. Assumptions about the origin and destination of trips have been made including allowances for the establishment of workers accommodation. All assumptions for the traffic generation of the gas transmission pipeline under the “Material by Rail” option are documented in Section 4 of this report and all other project components remain unchanged from the base case scenario. A summary of the total road trips associated with each component over the life of the project (2010 to 2034) is shown in Table 1.

Table 1

Total GLNG Trips

Component	Estimated Total Trips (all years)
CSG fields	6,681,150
Gas Transmission Pipeline	557,725
LNG liquefaction and export facility (including bridge and dredge material site)	2,477,200
Total	9,716,075

The total road traffic generation for the gas transmission pipeline has been reduced by approximately 14,500 trips under the “Material by Rail” option. Trip generation for all other project components remains unchanged from the base case scenario.

Operations traffic for all GLNG Project components will remain unchanged from the base case scenario.

It is estimated that based on the rate of pipe delivery to the Port of Gladstone at one ship per month, approximately one train per day is needed to transport pipe to the gas transmission pipeline corridor in order to clear all pipe stock before the next ship arrives for delivery. Additionally, approximately one passenger train per week is estimated to be needed to transport workers flying into Gladstone to the worker accommodation facilities during construction of the gas transmission pipeline.

Intersection Capacity Impact Assessment

A comparison of peak hour traffic generated by the GLNG Project under the “Material by Rail” option and the base case scenario was undertaken to determine the need for additional intersection analysis. As the peak years of traffic generation for the “Material by Rail” option are the same as for the base case and traffic volumes are identical during these peaks, there is no need to undertake additional intersection analysis for the option assessment. Intersection impacts are expected to be the same for the option as for the base case.

Roadway Link Capacity Impact Assessment

Roadway link analysis has been undertaken based on daily road link volumes with and without the proposed development. The adopted capacity thresholds for this assessment include:

Rural Locations

- two lanes: < 7,500 vehicles/day;
- two lanes with overtaking lanes: < 15,000 vehicles/day;
- four lanes: > 15,000 vehicles/day.

Urban Locations

- two lanes: <18,000 vehicles/day;
- four lanes: 18,000 – 36,000 vehicles/day;
- six lanes: >36,000 vehicles/day.

Assessment of roadway segment capacity was undertaken for each year of the expected GLNG project life (2010 to 2034). Bring forward cost contributions are recommended on any link where the development creates the need to bring forward the timing of upgrades by one year or more.

To mitigate the impact of the development on mid-block capacity, it is recommended that the developer pay an appropriate portion of the bring forward cost of the upgrading from two to four lanes of the following sections of road:

- Gladstone-Mount Larcom Road from Red Rover Road to Power Station (approximately 1.0km) – bring forward 1.4 years from 2020 to 2019; and
- Gladstone-Mount Larcom Road from Power Station to Reid Road (approximately 5.0km) – bring forward 1.4 years from 2020 to 2019.

This cost of the upgrade works is unknown but if the construction costs were to be discounted back to 2009 at a rate of 7%, the developer could expect to pay 4.7% of the cost. Department of Main Roads (DMR) has started the planning work to duplicate Gladstone-Mount Larcom Road to four lanes and negotiation with DMR regarding the timing of the planned upgrade (not currently in the RIP) and a developers contribution is recommended.

Pavement Impact Assessment

This analysis relates only to heavy vehicle movements of the GLNG Project and includes both the construction and operation phases from 2010 to 2034. The GLNG Project is estimated to generate approximately 3,263,050 heavy vehicle trips over the life of all project components. The pavement assessment comprises two components; the timing of pavement rehabilitation and whether there is a need to bring forward the works, and the increased need for regular pavement maintenance.

Pavement Rehabilitation

The project impact on pavement rehabilitation considers the existing road roughness and the year at which a pavement reaches its terminal roughness and pavement rehabilitation works are required. The cumulative number of Equivalent Standard Axles (ESA) loaded onto the link to that year is calculated based on the ESA loading along the haulage routes. Development ESAs are then superimposed and the difference in time for reaching terminal roughness between the “background” and “with development” scenarios established. Contributions toward pavement rehabilitation would only be made when the development would bring forward the timing of the need for rehabilitation by one year or more.

Two road segments on the Carnarvon Highway, one segment of the Dawson Highway and one road segment on the Warrego Highway have been identified as requiring pavement rehabilitation works one or more years earlier with the GLNG project than with background traffic. The brought forward cost of these works is approximately \$3.1M based on pavement rehabilitation rates supplied by DMR.

Road Maintenance

The obligations for the maintenance of the state controlled road network impacted upon by the development have been calculated by dividing the number of development ESAs loaded onto a particular link by the background ESAs for an analysis year. This has been reported as a percentage for each link and each year of the development.

A five percent (5%) significance criterion has been adopted for the assessment based on DMR guidelines. This warrant is triggered in the assessment period for a number of the links and the additional cost of maintaining the roads impacted by the proposed development is \$15,829,575 at a 2009 dollar value. Negotiation of the developer's contribution towards these works will be required.

Impact Mitigation – Specific Project Components

The impact mitigations for the LNG facility and CSG fields are expected to be identical to those proposed for the base case scenario because all aspects of these components have remained unchanged under the “Material by Rail” option.

Final Conclusion

The quantitative impacts of the “Material by Rail” option for the gas transmission pipeline construction have been found to be comparable to those found for the base case assessment of the GLNG Project.

- intersection impacts are identical to the base case. The reduction of truck trips does not occur during the peak year of development traffic generation;
- roadway segment capacity impacts are the same as the base case. The reduction in trips for the “Material by Rail” option occurs early in the project whereas mid-block capacity upgrades are required in the later years of the project;
- pavement impacts for pavement rehabilitation are identical to the base case, though the developer contribution required for road maintenance is approximately \$400,000 less for the “Material by Rail” option.

The benefits of the “Material by Rail” option are the reduction in heavy vehicle traffic using the roadway network, especially within Gladstone and along the Dawson Highway. Also, not all deliveries of pipe by road can be eliminated, the distance travelled by road is significantly reduced by transporting pipe by rail from Gladstone as far as Moura. It is estimated that a reduction in 14,500 trips and approximately 3,671,600 vehicle-km travelled will occur with the “Material by Rail” option, the majority of which will occur between 2010 and 2011.

The reduction in vehicle movement has operational benefits in that less heavy vehicle movement will occur along Dawson Highway and side road delivery routes. This has the potential to make Dawson Highway marginally safer from a road safety perspective due to less conflict between trucks and other vehicles. An additional advantage is that heavy vehicle movement will not occur across the Calliope Range where major deviation works are proposed during the pipe delivery period.

1.0 INTRODUCTION

1.1 Document Intent

This document is a supplementary report to the “GLNG Environmental Impact Statement – Traffic Report,” submitted by Cardno Eppell Olsen (CEO) in March 2009, which has been presented as the “base case” assessment for the traffic impacts of the GLNG Project.

This supplement provides the assessment of an alternative to the base case scenario, which assumes pipe for construction of the gas transmission pipeline will be delivered by truck. The alternative assessed assumes that pipe, other materials and personnel will be transported by rail to the fullest extent possible in order to reduce vehicle trips on the road network, especially within Gladstone. The assumption made is that pipe will be transported by rail from Gladstone Port as far as Moura. This alternative is known in this document as the “Material by Rail” option.

This document presents only the information relevant to changes in methodology and analysis inputs necessary to determine the traffic impacts of using rail for transport of materials and personnel for the gas transmission pipeline. Traffic generation estimates are only provided for the gas transmission pipeline, as it is the only GLNG Project component affected by the option assessment. All other information for the trip generation of the CSG fields, LNG facility and access road, and bridge to Curtis Island are presented in the base case traffic report. Thus, this report is not intended as a stand-alone document and should be used and interpreted in combination with the CEO base case report “GLNG Environmental Impact Statement – Traffic Report.”

1.2 Project Description

Santos proposes to develop a LNG liquefaction and export facility at Gladstone in Central Queensland, Australia. The facility will allow Santos to commercialise its Queensland coal seam gas resources and export the processed gas (in the form of LNG) to overseas markets. The facility will initially be constructed to produce 3 to 4 million tonnes per annum (Mtpa) of LNG, with the potential for future expansion to a nominal 10 Mtpa.

The LNG facility will be developed on Curtis Island (in the China Bay area) in close proximity to the industrial deepwater port at Gladstone. The Project will source gas from Santos’ CSG fields at Fairview, Arcadia Valley and Roma, with gas being transported to the Gladstone LNG facility via a subsurface 435km gas transmission pipeline.

GLNG Traffic Report – “Material by Rail” Option

The project will consist of the following key components:

- CSG field development;
- Gas transmission pipeline construction; and
- LNG liquefaction and export facility development.

1.3 Staging

The delivery of the overall proposed project will occur in stages according to each project component. The proposed staging of the project is illustrated in Table 1.1 below. Note that this is identical to that presented for the base case assessment.

The construction and operation of the gas fields is proposed to commence on project approval and will continue throughout the life of the project. Pipe delivery for the pipeline will begin in the fourth quarter of 2010 and last for six months. The construction of the proposed gas transmission pipeline is anticipated to begin in the second quarter of 2011 and last for 18-24 months, after which it would be available for operations.

Table 1.1

Proposed Project Staging

Stage	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
LNG FACILITY													
TRAIN 1 Construction													
TRAIN 1 Operation													
TRAIN 2 Construction													
TRAIN 2 Operation													
TRAIN 3 Construction													
TRAIN 3 Operation													
Dredge Material Facility													
GLNG BRIDGE													
Bridge/Road Construction													
GAS TRANSMISSION PIPELINE													
Pipe Delivery													
Pipeline Construction													
Pipeline Operation													
CSG FIELDS													
Field Construction													
Field Operation													

*Operations of all project components to continue past Year 2022

The LNG facility proposed for Curtis Island is expected to be constructed in three stages (production trains). Train 1 construction is anticipated to begin in 2010 and last approximately four years, with operations of Train 1 beginning in 2014. The timing of Trains 2 and 3 will be subject to gas availability and market conditions, and as such no definitive schedule is available. For purposes of this assessment, the construction and operations of Trains 2 and 3 have been assumed to follow in immediate succession of Train 1, as shown in Table 1.1. This provides a robust scenario wherein multiple aspects of the GLNG Project generate traffic on the external road network simultaneously.

The option for potential access road and bridge linking Curtis Island to the mainland would begin construction in the third quarter of 2011 and take approximately two years to complete, finishing only a few months ahead of completion of Train 1 construction of the LNG facility. For this base case option, access to Curtis Island during Train 1 construction of the LNG facility would be via barge and ferry. If the bridge is not constructed, access to Curtis Island during the construction of all production trains and the operational life of the LNG facility would be via barge and ferry.

The construction of a dredge spoil placement facility on Curtis Island at Laird Point has been included in the assessment. The construction of bund walls for the facility would begin in the fourth quarter of 2010 and last for approximately 18 months. Delivery of material to the site would only be for the first 3-6 months.

1.4 References

- Santos GLNG Fact Sheet 4, Santos, June 2008;
- Santos GLNG Fact Sheet 12 v2, Santos, November 2008;
- Santos Gladstone LNG Project – Terms of Reference, Queensland Government, August 2008;
- GLNG Project Description, URS, 8 January 2009;
- Gladstone LNG Gas Pipeline Pre-FEED Pipeline Route Selection, GHD, October 2008;
- Guidelines for Assessment of Road Impacts of Development, DMR, April 2006;
- Road Planning and Design Manual – Chapter 13, DMR, October 2006;
- Blackwater System Information Pack – Issue 2.1, Queensland Rail, February 2007;
- Moura System Information Pack – Issue 3.1, Queensland Rail, March 2007; and
- North Coast Line System (South) Information Pack – Issue 2, Queensland Rail, June 2007.

2.0 RAIL NETWORK DESCRIPTION

The following section describes the existing rail network and planned upgrades in the GLNG Project study area. This discussion is also provided in Section 3 of the base case traffic report.

2.1 Existing Rail Network

The following rail lines currently exist through the proposed project area, with information sourced from Queensland Rail (QR).

2.1.1 North Coast Line (south)

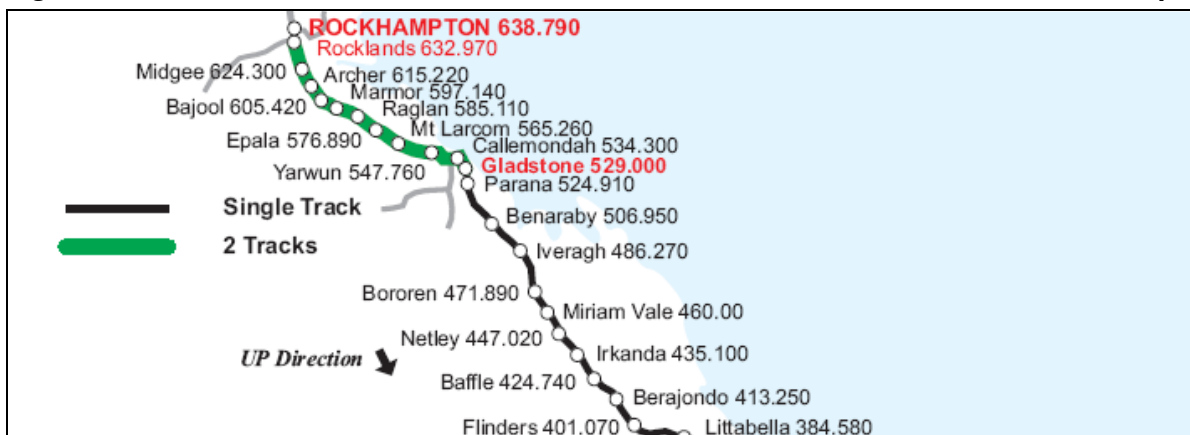
The North Coast Line System (South) incorporates two other systems, the Blackwater System (between Rocklands and Gladstone) and the Brisbane Metropolitan System (between Roma Street and Nambour). The Maryborough System straddles the North Coast System and picks all branch lines in that vicinity.

The system, overall, caters for all traffic tasks from heavy haul block trains to high speed tilt train and commuter services. Figure 2.1 illustrates the North Coast System.

This single line section of track (425 km in length) provides the strategic link between North and South and sees an annual tonnage in excess of 8 million tonnes hauled over the corridor. The entire length between Roma Street in Brisbane and Rockhampton is electrified with the section Caboolture to Rocklands electrified by an autotransformer system.

Figure 2.1

North Coast Rail Line Map



Source: Queensland Rail

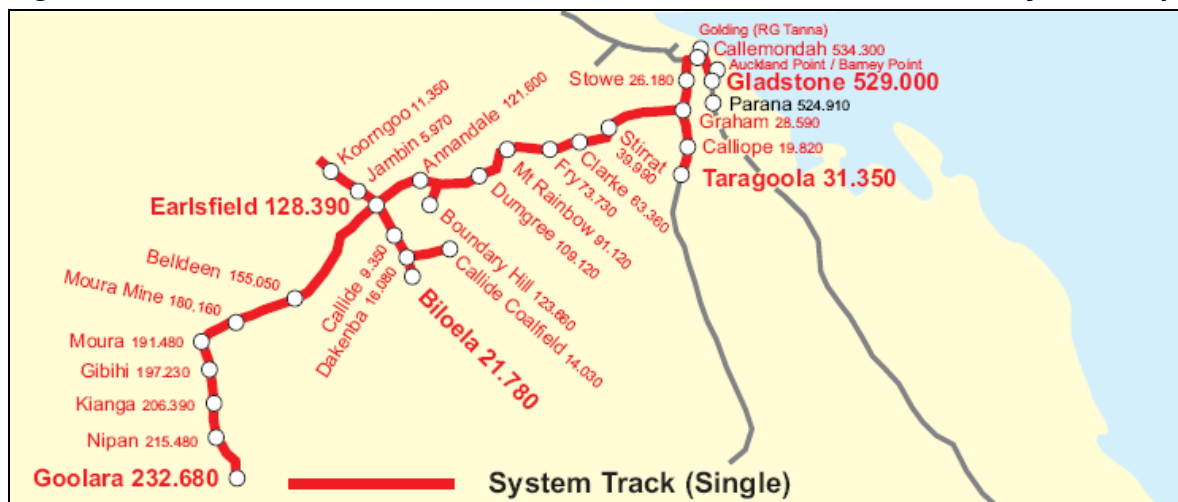
2.1.2 Moura Line

The Moura System services the industrial and rural communities of the Dawson and Callide Valleys in Central Queensland with all trains being hauled by diesel electric locomotives. Product is hauled to the export facilities at Golding (RG Tanna Terminal), Auckland Point and Barney Point or to intrastate destinations via the North Coast Line.

The Moura System is a single line with passing loops. There are balloon loops at Boundary Hill, Callide Coalfields and Moura Mine. Figure 2.2 illustrates the Moura rail system.

Figure 2.2

Moura Rail System Map



Source: Queensland Rail

Trains destined for Golding or the Powerhouse travel via the Byellee flyover, through Callemondah Yard which is part of the Blackwater System and therefore under live over-head wires. Trains destined for Barney Point and Auckland Point travel via the Moura Short Line which is electrified as are Barney Point and Auckland Point.

The port facilities at Golding, Auckland Point and Barney Point are under the control of the Central Queensland Ports Corporation.

2.1.3 Blackwater System

The system primarily services coal mines off the Central Line and carries the product through to Stanwell Power Station, Gladstone Power Station and the Port of Gladstone via the North Coast Line.

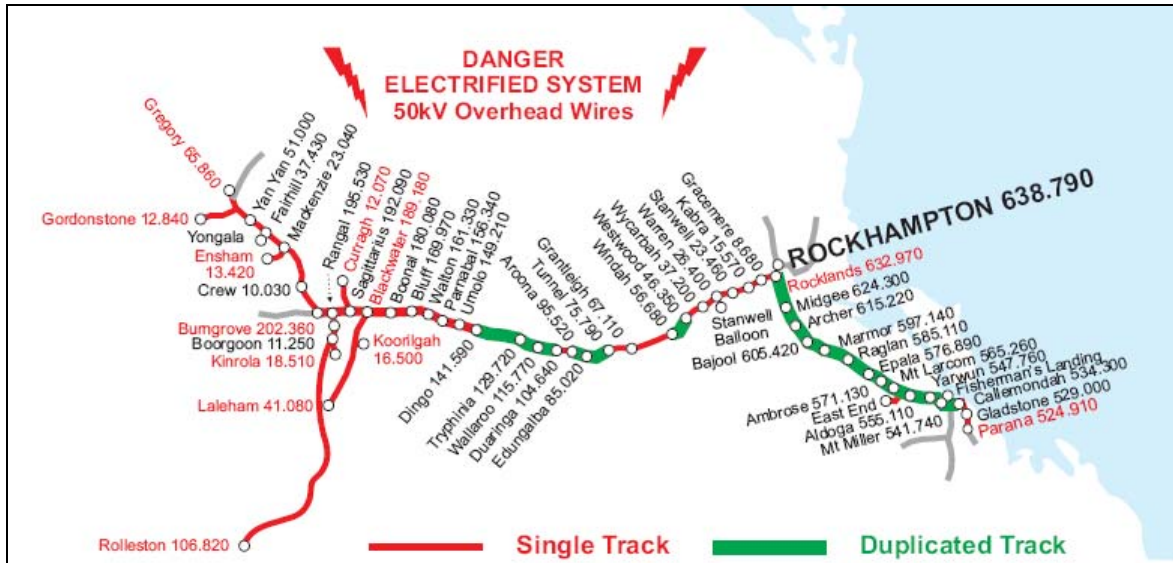
The Blackwater System is bi-directional duplicated track with crossovers between Callemondah and Rocklands, between Westwood and Windah, between Tunnel and Aroona and between Duaringa and Wallaroo, with the remainder being single line.

GLNG Traffic Report – “Material by Rail” Option

Loading balloon loops are located at East End, Boonal, Koorilgah, Laleham, Curragh, Boorgoon, Kinrola, Ensham, Gordonstone and Gregory with a spur line at Fairhill for Yongala. Dual unloading balloons are located at Golding, with unloading balloons at Stanwell Powerhouse, Fishermans Landing, Gladstone Powerhouse, Auckland Point and Barney Point. Figure 2.3 illustrates the Blackwater rail system.

Figure 2.3

Blackwater Rail System Map



Source: Queensland Rail

Figure 2.4 illustrates the rail network in the overall GLNG study area and Figure 2.5 illustrates the interaction of the Blackwater, Moura and North Coast Lines within Gladstone.

Figure 2.4

Study Area Rail System Map

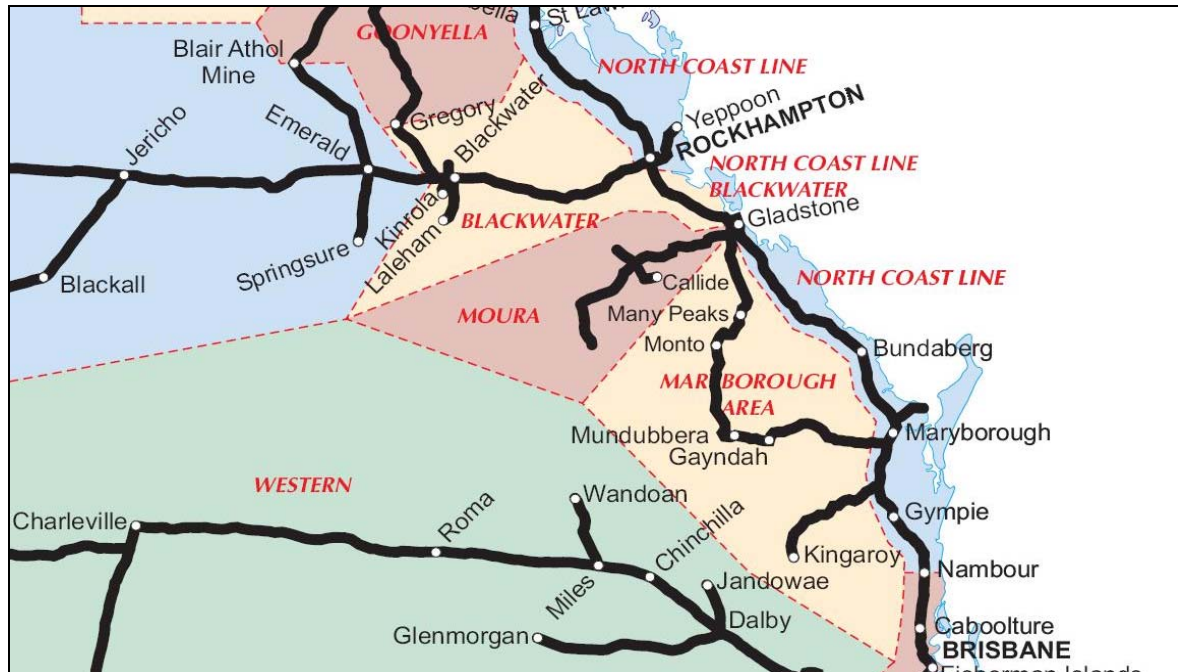


Figure 2.5

Gladstone Rail Network Map



Source: Queensland Rail

2.2 Future Rail Network Planning

Rail network planning items identified in the GIRTP include:

- provide the required rail connection/s into the Aldoga precinct from the North Coast Rail Line as required as industry develops;
- investigate a future rail fork line connection from the Moura Line to the North Coast Line;
- investigate future rail access from the existing QCL line to Fishermans Landing Wharf;
- consider the impact of any future standard gauge/high speed rail link to Gladstone on rail corridor planning in the region (i.e. the impact on existing rail corridors or the need for a new rail corridor);
- investigate the potential for an additional future rail connection from the North Coast line to the proposed spur line into the Aldoga precinct.

3.0 PROPOSED DEVELOPMENT

The following section presents the inputs and assumptions used in estimating the traffic generation of the gas transmission pipeline under the option of transporting pipe and personnel by rail for the construction of the gas transmission pipeline. All inputs for workforce numbers and quantities of plant/materials being transported to the pipeline right-of-way (ROW) are identical to the base case. The primary differences seen in this option assessment are the methods of moving pipe and personnel and the traffic movement patterns associated with this.

3.1 Site Locations

In general, the proposed route for the gas transmission pipeline is closely aligned with the existing Queensland Gas Pipeline, except for the section north of Injune where the preferred pipeline route will run up the Arcadia Valley. The gas transmission pipeline will approach Gladstone from the southwest and will pass through the Gladstone State Development Area (GSDA) before crossing Port Curtis to Curtis Island. An alternative north-south corridor for the pipeline within the GSDA is being investigated, but this alternate alignment is not significant enough to change any of the traffic assumptions or impacts. The preferred option for the pipeline crossing to Curtis Island is for the pipeline to be trenched into the seabed and overlain with protective rock cover. The length of the pipeline route is approximately 435 km.

Field compression stations will pressurise the gas prior to it entering the gas transmission pipeline. Approximately 9 mainline valve stations will be located equidistant along the pipeline, contained within fenced compounds. Further design work will determine where the mainline valve stations are required and the equipment needed at each location.

3.1.1 Construction Depots

The location of construction depots will be selected by the contractor prior to the commencement of construction activities. The sites have been assumed to be co-located with construction workers accommodations and will be relocated as the gas transmission pipeline construction progresses. The construction contractor will select the ultimate location of depots. Due to the length of the gas transmission pipeline, it is likely that 3-4 main accommodation facility sites and 4-5 smaller satellite accommodation facilities spaced between the main facilities will be required. This is based on the normal practice of locating accommodation facilities and depots within an hour's drive from the active construction site, with the facilities moved when driving time increases beyond this time.

The construction depots will be primarily used for equipment storage, vehicle lay-down, site office, administration facilities and meeting points for crews prior to commencing work on the gas transmission pipeline right-of-way. Equipment stored at a construction depot may include construction and maintenance equipment and workers accommodation facilities.

3.1.2 Worker Accommodation

Due to the mainly rural nature of the region and the limited townships along the proposed gas transmission pipeline route, accommodation is not readily available and dedicated workers accommodation facilities will be required. It is anticipated there will be 3-4 main workers accommodation facility locations located central to the construction section and will move along the gas transmission pipeline as construction progresses. This assessment has assumed and assessed three total locations for main workers accommodations, of which only two are expected to be operating at any given time (approximately 500 personnel each).

Three to four “satellite” workers accommodation facility locations will also be utilised, spaced between the main facilities and at either end of the pipeline corridor. Only one of these satellite accommodation facilities will be utilised at any given time (approximately 400 personnel). The workforce is expected to move between the accommodation facilities, starting at the Gladstone end, as construction progresses along the pipeline route through the duration of construction.

It is also anticipated that one or two smaller “fly” workers accommodation facilities (approximately 50 personnel each) will proceed ahead of the main accommodation facilities, undertaking clearing and grading and other site preparation tasks ahead of the main construction crew. The fly workers accommodation facility will continue to move ahead of the main accommodation facilities as they move along the pipeline corridor.

Approximate locations of workers accommodations are described in Table 3.1 and shown on Figure 3.1. They are subject to further refinement and consultation with contractors and relevant stakeholders, but have been assumed in assessment of the pipeline traffic impacts. This assessment assumes that construction depots and accommodation facilities will be co-located within reasonable distance from each other to minimise road travel between facilities and to simplify assumptions for assigning traffic to the sites. The exact locations of workers accommodations will be determined during the early construction phase and will be subject to separate approvals (e.g. development applications and any relevant approvals and permits).

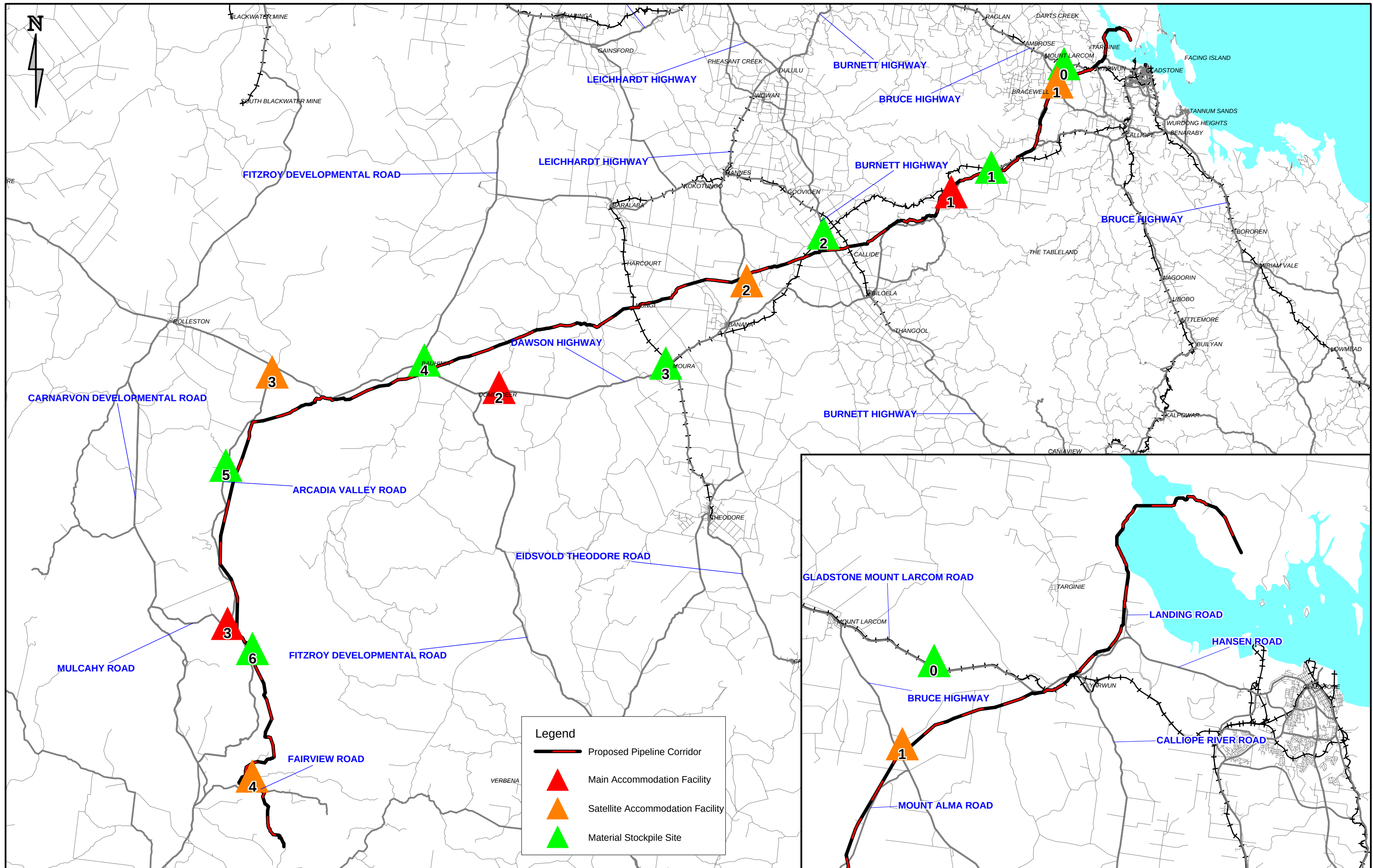


Table 3.1
Assumed Pipeline Facility Locations

Facility Type	Site Number	Chainage (from Gladstone along pipeline ROW)	Location Description
Material Stockpile	0	25 km	On Blackwater rail line near pipeline crossing location
	1	60 km	On Moura rail line along the Dawson Highway near Maxwellton Creek
	2	120 km	On Moura rail line near Burnett Highway
	3	180 km	On Moura rail line at Moura
	4	250 km	Near intersection of Dawson Highway and Fitzroy Development Road (north)
	5	320 km	South of intersection of Arcadia Valley Road and Dawson Highway
	6	390 km	South of intersection of Arcadia Valley Road and Mulcahys Road
Main Accommodation Facility	1	75 km	On Moura rail line near intersection of Dawson Highway and Inverness Road
	2	225 km	Near Intersection of Dawson Highway and Oombabeer Road
	3	375 km	Near intersection of Arcadia Valley Road and Mulcahys Road
Satellite Accommodation Facility	1	30 km	Near intersection of Bruce Highway and Mount Alma Road
	2	150 km	Near intersection of Leichhardt Highway and Proposed Pipeline
	3	300 km	Near intersection of Dawson Highway and Arcadia Valley Road
	4	410 km	Along Fairview Road, west of Carnarvon Highway

3.1.3 Material Stockpiles

Pipe joints for the gas transmission pipeline will be transported to the Port of Gladstone via sea from offshore mills. This option assessment assumes that pipe will be offloaded to train and transported by rail to strategically placed stockpiles along the gas transmission pipeline ROW. Other materials may also be transported by rail. It is presently anticipated that 6-10 pipe laydown and stockpile areas will be spaced along the pipeline ROW. Seven locations have been identified and assumed for distribution of transport of pipe for this assessment.

The material stockpiles were located so they are close to both rail lines and major regional roads, to provide the option for either truck or rail transport of pipe to these locations. Approximate locations are described in Table 3.1 above and shown on Figure 3.1, though they are subject to further refinement and consultation with contractors and relevant stakeholders, but have been assumed in assessment of the pipeline traffic impacts.

As the existing rail network only covers approximately one-half of the gas transmission pipeline (Gladstone to Moura), only pipe transported to stockpile sites 0 through 3 will be by rail only. For the other three sites, it is necessary to offload pipe from trains to trucks at Moura and transport the remainder of the distance by road.

3.2 Construction Staff

An on-site construction workforce of approximately 1,500 personnel is anticipated during the peak of construction of the pipeline. Construction workforce will work four weeks on with four weeks off and rostered in such a way that only approximately half the total workforce (1,500) will be on site at any given time. This is considered to be a very conservative estimate of on-site workforce employed by the pipeline component of the GLNG project at the peak of pipeline construction.

3.3 Operation Staff

The operations workforce for the gas transmission pipeline is likely to be between 15 and 20. It is expected there will be up to eight personnel regularly travelling along the pipeline in light vehicles for inspection and programmed maintenance work. To ensure adequate response times, it is likely these eight personnel will be based at various local towns along the gas transmission pipeline corridor. The remainder of operations personnel are gas controllers (panel operators), managers and engineers and are likely to be based in Gladstone.

3.4 Construction Deliveries

3.4.1 Pipe Transport

The major transport issue associated with the construction of the pipelines is the transport of pipe to the construction ROW. It is presently anticipated that pipes will be transported to the Port of Gladstone via sea from offshore mills, and transported to strategically placed stockpiles along the ROW as described above.

This report assesses the option to transport pipe and other materials from Gladstone by train to the pipeline ROW to reduce heavy vehicle impact on the road network. The base case is for the transport of pipe by truck from Gladstone to stockpile sites along the pipeline ROW. Initial discussions have commenced with the relevant stakeholder agencies on this rail option and the outcomes are still to be determined.

Approximately 37,000 pipe joints will be required for the 435km pipeline. Ships are estimated to carry approximately 6,000 pipe joints, at an estimated delivery rate of one ship per month. It is estimated that trains used for transporting pipe will be approximately 50 cars long, with each rail car having a capacity of 5 pipe joints. Based on this, approximately 24 trains would be required per ship load of pipe, or approximately one train trip per day.

As pipe will only be transported by rail as far as Moura, approximately half the pipe will be required to be transported from Moura by truck to the three assumed stockpile locations along the western end of the pipeline corridor, as previously discussed. Similar to the base case assessment, trucks are assumed to have a capacity of 3 pipe joints. Based on the rate of delivery described above, this equates to approximately 67 truck loads per day for pipe destined from the assumed rail laydown area at Moura to the pipe stockpile locations at the western end of the gas transmission pipeline corridor.

3.4.2 Equipment Transport

Other heavy vehicle movements associated with the pipeline construction will include the transport of the construction equipment to the ROW and mobilisation and demobilisation of the workers accommodations. At the beginning of the construction period it is estimated that approximately 1,000 vehicles will be mobilised to the accommodation facilities and construction depots from Gladstone. It is estimated that the majority will be heavy vehicles (approximately half Class 9 and half Class 3).

Equipment and materials will be moved on a daily basis from the construction depots to the pipeline ROW for construction activities. Many of these trips may occur on local roads and access tracks and the pipeline ROW. Santos has estimated 49 truck movements per day, with the following distribution:

- fuel tankers and lubrication trucks: 8 trucks;
- garbage and cesspit trucks: 5 trucks;
- water tankers: 3 trucks;
- hiab, tipper and general purpose trucks: 15 trucks;
- mobile cranes: 8 trucks;
- irregular movement of heavy plant and equipment: 10 trucks.

3.5 Operation Deliveries

It is not anticipated that goods will be transported along the gas transmission pipeline corridor after the completion of construction unless required for more significant repair or maintenance work. Thus, no traffic due to goods transport for the gas transmission pipeline has been assumed for the operations stage.

3.6 Pipeline Construction Sequence

As presented in Figure 1, delivery of pipe to the gas transmission pipeline ROW will precede construction and is expected to last approximately six months from beginning of the fourth quarter 2010 to the end of the first quarter 2011.

Pipeline construction will begin at the Gladstone end, and is anticipated to last 18-24 months. Construction is anticipated to begin in the second quarter 2011 with an approximately 3-month period of mobilisation of workforce and equipment and construction ramp-up. During this time, approximately 750 personnel are anticipated to be on site, split between a main accommodation facility and a satellite accommodation facility.

After construction ramp-up, the majority of gas transmission pipeline construction activities are expected to last approximately 15 months, with two main accommodation facilities, one satellite accommodation facility and 1-2 smaller “fly accommodations” operational at any given time. Utilisation of the specified facility sites on Figure 3.3 will progress along the pipeline corridor as construction progresses. During this time, the full workforce of approximately 1,500 personnel will be on site.

Similar to above, a three-month period at the end of construction is anticipated for construction ramp-down and demobilisation, during which time approximately 750 personnel will be on site, split between a main accommodation facility and a satellite accommodation facility at the Fairview end of the gas transmission pipeline.

Gas transmission pipeline construction is anticipated to be completed by the end of 2012, with commissioning at the beginning of 2013.

3.7 Traffic Movement Patterns

3.7.1 Personnel Movements

Construction of the proposed gas transmission pipeline is expected to occur over a 18-24 month period. Personnel will work 12 hours per day, seven days per week, working four weeks on with one week off. All construction personnel are assumed to be non-resident on a fly-in/fly-out basis to be housed in accommodation facilities as described above.

Under the “Material by Rail” option, workers will be transported to the accommodation facilities as much as practical, while still ensuring the shortest total travel time and distance. For the accommodation facilities on the Gladstone end of the pipeline corridor, workers will fly into Gladstone and will take a passenger train to the accommodation facility to begin their four week shift. For accommodation facilities on the Fairview end of the pipeline corridor, it is more efficient for workers to fly into Roma and be transported to the accommodation facility by bus.

GLNG Traffic Report – “Material by Rail” Option

Table 3.2 provides a summary of the mode of personnel transport for each accommodation facility, based on location along the gas transmission pipeline ROW.

Table 3.2 Pipeline Facility Transport Modes – “Material by Rail” Option

Facility	Site	Mode of Transport and Route
Pipe Stockpile Site	0	Blackwater rail line to stockpile site
	1	Moura rail line to stockpile site
	2	Moura rail line to stockpile site
	3	Moura rail line to Moura laydown area. Stockpiled on site.
	4	Rail to Moura laydown area. By truck along the Dawson Highway to Fitzroy Development Road (north)
	5	Rail to Moura laydown area. By truck along the Dawson Highway then along Arcadia Valley Road
	6	Rail to Moura laydown area. By truck along the Dawson Highway then along Arcadia Valley Road
Main Accommodation Facility	1	Fly to Gladstone. By rail to Main Accommodation Facility 1
	2	Fly to Gladstone. By rail to Moura, then by bus along the Dawson Highway to site access
	3	Fly to Roma. By bus along the Carnarvon Highway then along Arcadia Valley Road
Satellite Accommodation Facility	1	Fly to Gladstone. By bus along the Dawson Highway then along Bruce Highway to facility at Mount Alma Road
	2	Rail to Banana, then by bus along Leichhardt Highway
	3	Rail to Moura, then by bus along the Dawson Highway to Arcadia Valley Road
	4	Fly to Roma. By bus along the Carnarvon Highway then along Fairview Road

Transfers for fly-in/fly-out workers will occur once every four weeks per person. This assessment assumes that rolling shift changes will occur approximately once per week to utilise buses and trains for both the directions of travel to and from the airport. This approach also concentrates personnel travel on specific days, providing a more robust approximation of daily traffic for assessing road capacity impacts. Approximately 10% of daily bus trips are assumed to occur in the project peak hours.

Daily movements of personnel will also include the transport of workers from accommodation facilities to the gas transmission pipeline ROW for construction activities. Approximately 20% of total personnel is anticipated to be support staff for the accommodation facilities and construction depots, and will not travel to the ROW. Of the workers travelling to the gas transmission pipeline ROW on a daily basis, approximately 15% are expected to travel by 4WD (2 people per vehicle) and 85% will travel by bus (20 passenger capacity). Daily traffic movements are expected to be evenly split between the morning and afternoon, as workers leave the accommodations in the morning and return from shift in the late afternoon.

3.7.2 Material/Equipment Movements

As described previously, all pipe and some associated materials will be transported by rail from the Port of Gladstone at Auckland Point to pipe stockpile locations along the gas transmission pipeline corridor. As the rail network does not extend to the western end of the pipeline, some pipe will be required to be offloaded from train to truck at Moura (end of line) and trucked to the stockpile locations.

Table 3.2 above provides a summary of the mode of transport for each pipe stockpile site, based on location along the gas transmission pipeline ROW. Of the pipe required to be moved by truck, it is estimated that the trips will be spread throughout the day, with approximately 10% of the daily trips estimated to occur in the peak hours.

Of the 50 daily truck trips for movement of equipment and materials, deliveries are anticipated to be spread throughout the day, with approximately 10% of the daily trips estimated to occur in the peak hours. These trips will mostly be from the construction depots to the pipeline ROW.

3.7.3 Site Mobilisation/Demobilisation

Traffic movements associated with construction accommodation facilities mobilisation and demobilisation and construction depot setup are anticipated to occur several times as construction moves along the pipeline ROW. These activities will only affect the road network in brief periods when equipment is moved from one accommodation facility to another or demobilised during the rainy season.

These periods of site setup and equipment movement are each expected to occur over one week. The mobilisation/demobilisation trips are anticipated to be spread throughout the day, with approximately 10% of the daily trips estimated to occur in the peak hours.

3.8 Traffic Generation

Table 3.3 presents the estimated traffic generated by the construction of the gas transmission pipeline under the “Material by Rail” option. The numbers presented are for vehicle trips on the external road network, and do not account for various construction traffic movements that will stay on local access roads and the gas transmission pipeline ROW.

As shown in Table 3.3, approximately 450 daily trips are expected during the peak of construction of the gas transmission pipeline in 2011 and 2012. These daily trips are based on the full workforce being on site during approximately 15 months of peak construction activities. In this period, approximately 165 peak hour trips are expected. These volumes of traffic generated by the gas transmission pipeline in 2011 and 2012 are consistent with the base case assessment with only a slight reduction in the 2011 trips.

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The delivery of pipe occurs in 2010 and the total trip reduction from 2010 to 2013 is estimated to be 14,500 trips. It should be noted that while total number of trips is fairly consistent, the length of truck trips will be much shorter as pipes are transported by rail as far as Moura and transported the remainder of the distance to the pipe stockpiles by truck. It is estimated that a reduction in vehicle-km travelled of approximately 3,671,600 vehicle-km will occur with the “Material by Rail” option, the majority of which will occur between 2010 and 2012.

No traffic for the gas transmission pipeline will be generated in 2010 under this option assessment, as it is expected that pipe will be delivered to pipe stockpile locations on the Gladstone end of the pipeline corridor first. Deliveries to the first four stockpile locations will all be by rail and will not likely require any additional movement by road. This is estimated to be more than half the total pipe transported, constituting over half the six months needed for pipe transport. Thus, no truck transport of pipe is anticipated in 2010.

Traffic generated by operations of the gas transmission pipeline is expected to be minimal. Approximately 40 daily trips are expected, most of which will be light vehicles (4WD). Of these, a conservative estimate of 10 of the daily trips will occur in the peak hours. This is consistent with the base case assessment.

Table 3.3 Construction Traffic Generation – Gas Transmission Pipeline

Year	2011	2012
Peak Hour		
Heavy Vehicles	64	64
Light Vehicles	100	100
Total Vehicles	165	165
Daily Traffic		
Heavy Vehicles	230	241
Light Vehicles	204	202
Total Vehicles	434	443
Annual Traffic		
Heavy Vehicles	59,264	67,459
Light Vehicles	46,100	63,700
Total Vehicles	105,365	131,160

Summary tables of traffic generation for all project components used in the “Material by Rail” option assessment are provided at Appendix A.

3.8.1 Train Traffic Generation

As discussed, the rate of delivery of pipe by ship into Port of Gladstone is expected to be one ship per month with a capacity of 6,000 pipe joints. Assuming train lengths of 50 cars, it is estimated that approximately 24 trains will be needed each month to clear the stock out of the Port of Gladstone. A conservative estimate of trains added to the rail network during the six months of pipe delivery is one per day.

If personnel are transported to accommodation facilities by rail, it is expected that all personnel being transported will fit on one passenger train, and shift changes will be so that both directions of train travel will be utilised. Based on this, approximately one passenger train per week is expected to be added to the Moura rail system.

3.9 Traffic Distribution

The distribution and assignment of traffic generated by the gas transmission pipeline to the roadway network has been determined from the traffic movement patterns described above as well as likely sources and destinations for materials and equipment. The general origin and route for traffic associated with the gas transmission pipeline is presented in Table 3.4 below. Figure 3.1 illustrates locations of the accommodation facilities and pipe stockpiles for the pipeline.

Table 3.4 *Gas Transmission Pipeline Traffic Distribution*

Traffic Component	Origin	Route
Pipe	Port of Gladstone (Auckland Point)	See Table 3.2 above
Plant/Materials – Mobilisation	Gladstone	Along Dawson Highway to accommodation/construction depots – move along Dawson Highway as construction progresses
Plant/Materials – Daily Movements	Accommodation/Construction Depot Locations	Along ROW and public roads in the vicinity of accommodation/construction depots
Personnel – Fly-in/Fly-out transport	Roma and Gladstone	See Table 3.2 above
Personnel – Daily Movements	Accommodation facilities	Along ROW and public roads in the vicinity of accommodation facilities

4.0 IMPACT ASSESSMENT METHODOLOGY

A traffic impact assessment has been undertaken for the “Material by Rail” option, the results of which will provide a basis for comparison to the base case traffic impacts. The two analysis components are the following:

- Roadway Link Capacity Impact Assessment; and
- Pavement Impact Assessment.

Intersection capacity has not been assessed for the “Material by Rail” option due to the reasons outlined in Section 4.1.

Analysis has been undertaken for “background” and “background plus development” traffic scenarios through each stage of construction and operation of the project components to determine the relative impact of traffic added by the GLNG Project.

Link capacity of roadway sections was assessed using the daily two-way traffic demand to identify if the current road cross-sections would be sufficient for future years and development demands.

Pavement impacts have been assessed to determine if the proposed project necessitates bringing forward pavement rehabilitation works or increases the need for regular road maintenance.

4.1 Assessment Scenarios

Intersection analysis was undertaken for the base case assessment for years 2012, 2014 and 2024. A review of the peak hour traffic generated by all components of the GLNG Project was undertaken to determine the need to undertake intersection analysis for the “Material by Rail” option. Table 4.1 compares the total peak hour trips generated by the GLNG Project under the base case as well as for the “Material by Rail” option.

Table 4.1 shows a slight decrease in peak hour traffic from the base case to the “Material by Rail” option in 2010 and 2011. This is due to the reduction of pipe delivery by road, with most of the reduction occurring in 2010 because of construction sequencing. For all other years the total peak hour traffic generation is identical. Table 4.1 shows that the peak of GLNG Project traffic for the “No Bridge” option is in 2012, consistent with the base case.

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As the peaks of traffic generation for the “Material by Rail” option are the same as for the base case and traffic volumes are identical during these peaks, there is no need to undertake additional intersection analysis for the option assessment. Intersection impacts will be the same for the option as for the base case. This is also reinforced by the fact that the majority of peak hour traffic is generated by the proposed LNG facility and access road and bridge to Curtis Island, both of which have the same traffic generation for this option assessment.

Table 4.1 Overall Project Peak Traffic Generation – Peak Hour

Year	Total Peak Hour Trips		% Difference
	Base Case	Pipe by Rail Option	
2010	155	142	-8.4%
2011	487	485	-0.4%
2012	577	577	0%
2013	310	310	0%
2014	312	312	0%
2015	344	344	0%
2016	351	351	0%
2017	313	313	0%
2018	355	355	0%
2019	386	386	0%
2020	390	390	0%
2021	349	349	0%
2022	371	371	0%
2023	332	332	0%
2024	326	326	0%
2025	329	329	0%
2026	325	325	0%
2027	325	325	0%
2028	325	325	0%
2029	324	324	0%
2030	326	326	0%

The reduction in vehicle movement on roads as a result of the “Materials by Rail” option has operational benefits in that less heavy vehicle movement will occur along the Dawson Highway and side road delivery routes. This has the potential to make Dawson Highway marginally safer from a road safety perspective due to less conflict between trucks and other vehicles. An additional advantage is that heavy vehicle movement will not occur across the Calliope Range where major deviation works are proposed during the pipe delivery period.

5.0 ROADWAY LINK CAPACITY IMPACT ASSESSMENT

Roadway link capacity analysis has been undertaken for the “Material by Rail” option to provide a basis for comparison to the roadway link capacity impacts of the base case scenario. The analysis for the “Material by Rail” option is necessary because of reductions in traffic volumes added to study area roadways during construction of the gas transmission pipeline.

The adopted maximum capacity thresholds for roadway sections are based upon the cross-section form of the segment and the road environment. These thresholds have been adopted based upon the “AUSTROADS Guide to Traffic Engineering Practice” and previous work. The thresholds adopted for this assessment are as follows:

Rural Locations

- two lanes: < 7,500 vehicles/day;
- two lanes with overtaking lanes: < 15,000 vehicles/day;
- four lanes: > 15,000 vehicles/day.

Urban Locations

- two lanes: <18,000 vehicles/day;
- four lanes: 18,000 – 36,000 vehicles/day;
- six lanes: >36,000 vehicles/day.

The key roads considered in this assessment include:

- Dawson Highway;
- Gladstone-Mount Larcom Road;
- Hanson Road;
- Carnarvon Highway;
- Leichhardt Highway;
- Bruce Highway;
- Gladstone - Benaraby Road;
- Burnett Highway; and
- Warrego Highway.

Assessment of roadway segment capacity was undertaken for each year of the expected GLNG Project life (2010 to 2034).

5.1 Background Traffic Volumes

The background daily two-way traffic volumes on each of the road sections were determined based upon existing AADT volumes and intersection counts provided by DMR and Council. Growth rates of 4%p.a. and 6%p.a. have been applied to urban and rural road segments respectively, to establish future background traffic volumes.

The projected “background” and “background plus development” traffic volumes are included at Appendix B. Volumes that surpass the critical thresholds for the roadway cross-sections indicated above have been highlighted in the tables.

In reviewing the background traffic volumes, the roadway sections presented in Table 5.1 were found to require upgrading.

5.2 Development Traffic Impacts

A review of the background plus development volumes revealed that no additional roadway segments fail due to the GLNG Project traffic. Further detailed examination of the critical road sections was carried out to determine if the capacity breakpoint was reached earlier due to addition the of GLNG Project development traffic. This exercise serves to determine the “bring forward” cost responsibility of the proposed development on segments it significantly impacts.

Table 5.1 indicates the road segments that reach capacity and the years when failure is reached under “background” as well as “background plus development” traffic. The volumes at the years of failure are also included along with the number of years the proposed development brings forward the need for road upgrades compared to background traffic.

Bring forward cost contributions are recommended on any section where the development creates the need to bring forward upgrades by one year or more, as outlined in the DMR Guidelines for Assessment of Road Impacts of Development. Based on Table 5.1, the development is responsible for a contribution to the bring forward cost of two sections (approximately 6km) of Gladstone-Mount Larcom Road.

5.3 Project Mitigation Summary

To mitigate the impact of the development on mid-block capacity, it is recommended that the developer pay an appropriate portion of the brought forward cost of upgrading from two to four lanes of the following sections of road:

- Gladstone-Mount Larcom Road from Red Rover Road to Power Station (approximately 1.0km) – bring forward 1.4 years from 2020 to 2019; and
- Gladstone-Mount Larcom Road from Power Station to Reid Road (approximately 5.0km) – bring forward 1.4 years from 2020 to 2019.

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The cost of the upgrade works is unknown but if the construction costs were to be discounted back from 2019 to 2009 at an inflation rate of 7% (specified by DMR), the developer could expect to pay approximately 4.7% of the cost. DMR has started the planning work to duplicate Gladstone-Mount Larcom Road to four lanes and negotiation with DMR regarding the timing of the planned upgrade (not currently in the RIP) and the GLNG Project contribution is recommended.

The roadway link capacity impacts of the “Material by Rail” option presented are the same as those found for the base case assessment. The reduction in trips for the “Material by Rail” option occurs early in the project whereas mid-block capacity upgrades are required in the later years of the project.

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Table 5.1

Midblock Capacity Breakpoints

Road	Section	Background Traffic		Background + Development Traffic		Bring Forward Amount (years)
		Volume	Year	Volume	Year	
Dawson Highway (46A)	Breslin Street to Blain Drive	36,687	2032	36,687	2032	0.0
Dawson Highway (46A)	Blain Drive to Philip Street	37,226	2024	36,277	2023	0.3
Dawson Highway (46A)	Philip Street to Penda Avenue	37,154	2016	37,286	2016	0.1
Dawson Highway (46A)	Penda Avenue to Chapman Drive	36,801	2021	36,801	2021	0.0
Dawson Highway (46A)	Chapman Drive to Don Young Drive	18,430	2016	18,430	2016	0.0
Dawson Highway (46A)	Don Young Drive to Harvey Road	18,175	2034	18,175	2034	0.0
Dawson Highway (46A)	Tognalini - Baldwin Road to Biloela	15,074	2026	15,074	2026	0.0
Gladstone - Mt Larcom Road	Dawson Highway to Hilderbrand Street	36,178	2033	36,319	2033	0.0
Gladstone - Mt Larcom Road	Hilderbrand Street to Blain Drive	18,462	2027	18,021	2026	0.2
Gladstone - Mt Larcom Road	Blain Drive to Red Rover Road	18,666	2019	18,409	2018	0.7
Gladstone - Mt Larcom Road	Red Rover Road to Power Station	15,247	2020	15,467	2019	1.4
Gladstone - Mt Larcom Road	Power Station to Reid Road	15,247	2020	15,467	2019	1.4
Gladstone – Bernaraby Road	Dawson Highway to Sun Valley Road	36,504	2022	36,504	2022	0.0
Gladstone – Bernaraby Road	French Street to Gen Eden Drive	15,431	2019	15,431	2019	0.0
Gladstone – Bernaraby Road	Glen Eden Drive to South Trees Drive	15,431	2019	15,431	2019	0.0
Gladstone – Bernaraby Road	South Trees Drive to Boyne Island Road	15,431	2019	15,431	2019	0.0

6.0 PAVEMENT IMPACT ASSESSMENT

Analysis has been conducted to identify the pavement impacts of the heavy vehicle movements for the “Material by Rail” option providing a basis for comparison to the pavement impacts of the base case scenario. The analysis for the “Material by Rail” option is necessary because of reductions in traffic volumes added to study area roads due to rail transport during construction of the gas transmission pipeline.

The pavement impact assessment includes both the construction and operational stages of the development and is undertaken from the start of construction in 2010 through to 2034.

The pavement assessment comprises two components, the impact on the timing of pavement rehabilitation and the increased need for regular maintenance. Both assessments are based on a comparison of the cumulative Equivalent Standard Axle (ESA) load with and without the development. Analysis was only undertaken on state controlled roads as no road data was available from local Councils for local roads. The methodology for the pavement impact assessment has been based on guidelines provided in DMR Guidelines for Assessment of Road Impacts of Development (GARID). The Pavement Impact Assessment output tables are attached at Appendix C.

6.1 Pavement Rehabilitation Requirements

The impact on pavement rehabilitation considers the existing and terminal roughness deficiency. Utilising an existing pavement roughness count, the year at which a pavement reaches its terminal roughness is then calculated. A pavement roughness increase of three counts per annum has also been adopted, with a terminal roughness of 110 counts for the Bruce Highway and 120 counts utilised for other state controlled roads.

The cumulative number of ESAs loaded onto the roadway segment to the terminal year is then calculated based on the ESA loading along the haulage routes. The background volumes are based on classified AADT volumes with a cumulative heavy vehicle growth rate of 3% per annum. For the Bruce Highway a value of 2.9 ESAs for each heavy vehicle is applied. For all other state controlled roads 3.2 ESAs for each heavy vehicle is used. These ESAs are as specified by DMR.

The classified development heavy vehicle volume is then used to determine additional annual ESA loadings produced along the haulage routes as a result of development traffic added to the network. The annual background and development ESA loading is combined and the cumulative number of ESAs on a given link is then calculated for successive years.

The year when cumulative ESA loading reaches terminal roughness is compared between without development and with development scenarios and the difference in time between the two scenarios is then established.

Contributions towards pavement rehabilitation would only be made when the development would bring forward the need for rehabilitation by more than one year. The road sections that meet this criterion are shown in Table 6.2 below.

Of the road sections found to warrant bring forward cost contributions by the GLNG Project, one was identified in the RIP to have scheduled rehabilitation prior to the planned development bring forward date, negating the need for GLNG contributions. Therefore, the following road section was not included in Table 6.2:

- Carnarvon Highway – Injune to Fairview Field access (25km): Widening and reconstruction scheduled in RIP for 2007-2013 (currently underway).

Two road segments on the Carnarvon Highway, one road segment on the Warrego Highway and one road segment on the Dawson Highway have been identified as requiring pavement rehabilitation works one or more years earlier with the GLNG Project than with background traffic.

The “% of total cost” column shown in Table 6.2 below represents the percentage of construction cost in 2009 dollars, of the total rehabilitation work costs the developer is responsible for. Cost input data for rehabilitation of roads has been provided by DMR Central Region and includes costs of rehabilitation based on road seal width and cost inflation and discount rate of 7% per annum. Based on these inputs, the bring forward cost of the required works is approximately \$3.1M (2009 dollars).

6.2 Road Maintenance Requirements

The obligations for the maintenance of the state controlled road network impacted upon by the proposed development have been calculated by dividing the number of development ESAs loaded onto a particular roadway segment by the background ESAs for an analysis year. This has been reported as a percentage for each link and each year of the development from 2010 until 2034 in the detailed assessment.

A five percent (5%) significance criterion has been adopted for the assessment based on DMR guidelines. This warrant is triggered in the assessment period for a number of the links. Based on these triggered criteria and using the DMR given information for annual maintenance costs and inflation (7% per annum) in calculating the net present value, the cost of maintaining the roads impacted by the proposed development is \$15,829,575 at a 2009 dollar value.

In terms of a cost per heavy vehicle trip generated by the various components of the GLNG Project, based on the estimated 3,263,050 heavy vehicle trips generated over the life of the project, the cost will be approximately \$4.85 per vehicle trip. As a cost per heavy vehicle kilometre travelled, the cost will be \$0.07 per vehicle-kilometre travelled.

Detailed results for the pavement impact analysis are provided at Appendix C.

6.3 Project Mitigation Summary

The analysis of the pavement impact of the development on the state controlled road network indicates the GLNG Project will increase the maintenance costs for a number of sections of road for a number of scenario years tested. Table 6.1 below, shows the additional maintenance and rehabilitation costs. Negotiation of the developer's contribution towards these works will be required.

Table 6.1 **Pavement Impact Costs**

Component Cost	Amount (\$2009)
Pavement Rehabilitation Cost	\$3,094,300
Pavement Maintenance Cost	\$15,829,575 (one-time cost)
Total Developer Pavement Impact Cost	\$18,923,875

It is noted that the pavement rehabilitation impacts and developer contributions for the “Material by Rail” option is identical to that found for the base case scenario. This is because the road segments found to need rehabilitation are in the western portions of the project study area, where delivery of pipe must continue to be by road due to the lack of existing rail infrastructure in that region.

The pavement maintenance costs for the “Material by Rail” option are approximately \$400,000 less than those of the base case scenario because of the reduction in heavy vehicle trips on the overall road network due to transport of pipe and personnel by rail.

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Table 6.2 *Road Rehabilitation Impacts – GLNG Project Contribution Estimates*

Road	Section	Direction	Length (km)	Rehabilitation Year		Bring Forward Amount (years)	% of Total Cost	Bring Forward Cost Contribution
				Without Development	With Development			
Carnarvon Highway 24D	CH. 3m to CH. 18 Roma - Taroom Road	Northbound	15	2016.7	2015.1	1.6	6.8%	\$171,276
		Southbound	15	2016.7	2015.3	1.4	5.9%	\$148,839
Carnarvon Highway 24D	Roma - Taroom Road to Injune	Northbound	72	2018.7	2015.7	3.0	11.7%	\$1,413,423
		Southbound	72	2018.7	2016.0	2.7	10.4%	\$1,258,826
Dawson Highway 46 C	Fitzroy Dev. 85A Intersection to Duaringa/Woorabinda Intersection	Westbound	6.6	2019.3	2017.9	1.4	4.9%	\$54,925
Warrego Highway	KM135.5 to Roma	Westbound	6.2	2018.3	2017.1	1.2	4.5%	\$46,997
Total								\$3,094,300

7.0 SUMMARY AND CONCLUSIONS

This document is a supplementary report to the “GLNG Environmental Impact Statement – Traffic Report,” submitted by Cardno Eppell Olsen (CEO) in March 2009, which has been presented as the “base case” assessment for the traffic impacts of the GLNG Project.

This supplement provides an assessment of an alternative to the base case scenario, which assumes pipe for construction of the gas transmission pipeline will be delivered by truck. The alternative assessed assumes that pipe, other materials and personnel will be transported by rail to the fullest extent possible in order to reduce vehicle trips on the road network, especially within Gladstone. This alternative is known in this document as the “Material by Rail” option.

This document presents only the information relevant to changes in methodology and analysis inputs necessary to determine the traffic impacts of using rail for transport of materials and personnel for the gas transmission pipeline. Traffic generation estimates are only provided for the gas transmission pipeline, as it is the only GLNG Project component affected by the option assessment. All other information for the trip generation of the CSG fields, LNG facility and access road and bridge to Curtis Island are presented in the base case traffic report. Thus, this report is not intended as a stand-alone document and should be used and interpreted in combination with the CEO base case report “GLNG Environmental Impact Statement – Traffic Report.”

7.1 Development Proposal

The GLNG Project includes construction and operations of the proposed Coal Seam Gas (CSG) field expansions in the Surat and Bowen Basins (Roma and surrounds), a proposed LNG liquefaction and export facility (LNG facility) on Curtis Island approximately 5km northwest of Gladstone, and a proposed 435km gas transmission pipeline linking the CSG fields to the LNG facility.

All aspects of the development proposal and project staging remain unchanged from the base case scenario in this “Material by Rail” option assessment, except for the mode of transport of pipe and personnel during the construction of the gas transmission pipeline.

7.2 Development Traffic

Traffic generation has been based on estimated material quantities for construction works and assumptions about delivery frequency. Trips associated with construction and operations equipment and workforce have also been estimated. Assumptions about the origin and destination of trips have been made including allowances for the establishment of workers accommodation. All assumptions for the traffic generation of the gas transmission pipeline under the “Material by Rail” option are documented in Section 4 of this report, and all other project components remain unchanged from the base case scenario. A summary of the total road trips associated with each component over the life of the project (2010 to 2034) is shown in Table 7.1.

Table 7.1

Total GLNG Trips

Component	Estimated Total Trips (all years)
CSG fields	6,681,150
Gas Transmission Pipeline	557,725
LNG liquefaction and export facility (including bridge and dredge material site)	2,477,200
Total	9,716,075

Table 7.2 summarises traffic associated with construction of the gas transmission pipeline under the “Material by Rail” option. The reduction in trips over the period 2010 to 2013 compared to the base case scenario is estimated at 14,500 trips. Trip generation for all other project components remains unchanged from the base case scenario.

Operations traffic for all GLNG Project components will remain unchanged from the base case scenario.

It is estimated that based on the rate of pipe delivery to the Port of Gladstone at one ship per month, approximately one train per day is needed to transport pipe to the gas transmission pipeline corridor in order to clear all pipe stock before the next ship arrives for delivery. Additionally, approximately one passenger train per week is estimated to be needed to transport workers flying into Gladstone to the worker accommodation facilities during construction of the gas transmission pipeline.

Table 7.2 Construction Traffic Generation – Gas Transmission Pipeline

Year	2011	2012
Peak Hour		
Heavy Vehicles	64	64
Light Vehicles	100	100
Total Vehicles	165	165
Daily Traffic		
Heavy Vehicles	230	241
Light Vehicles	204	202
Total Vehicles	434	443
Annual Traffic		
Heavy Vehicles	59,264	67,459
Light Vehicles	46,100	63,700
Total Vehicles	105,365	131,160

7.3 Impact Mitigation – All Components

To mitigate the impact of the GLNG Project on the state controlled and local government road networks under the “Material by Rail” option the following is recommended.

7.3.1 Gladstone Intersections

A comparison of peak hour traffic generated by the GLNG Project under the “Material by Rail” option and the base case scenario was undertaken to determine the need for additional intersection analysis. As the peak years of traffic generation for the “Material by Rail” option are the same as for the base case and traffic volumes are identical during these peaks, there is no need to undertake additional intersection analysis for the option assessment. Intersection impacts are expected to be the same for the option as for the base case.

7.3.2 Roadway Link Capacity

To mitigate the impact of the development on mid-block capacity, it is recommended that the developer pay an appropriate portion of the brought forward cost of upgrading from two to four lanes of the following sections of road:

- Gladstone-Mount Larcom Road from Red Rover Road to Power Station (approximately 1.0km) – bring forward 1.4 years from 2020 to 2019; and
- Gladstone-Mount Larcom Road from Power Station to Reid Road (approximately 5.0km) – bring forward 1.4 years from 2020 to 2019.

This cost of the upgrade works is unknown but if the construction costs were to be discounted back to 2009 at a rate of 7%, the developer could expect to pay 4.7% of the cost. DMR has started the planning work to duplicate Gladstone-Mount Larcom Road to four lanes and negotiation with DMR regarding the timing of the planned upgrade (not currently in the RIP) and the developer's contribution is recommended.

7.3.3 Pavement Impacts

Pavement Rehabilitation

Two road segments on the Carnarvon Highway, one segment of the Dawson Highway and one road segment on the Warrego Highway have been identified as requiring pavement rehabilitation works one or more years earlier with the GLNG Project than with background traffic. The brought forward cost of these works is approximately \$3.1M based on pavement rehabilitation rates supplied by DMR.

Road Maintenance

The obligations for the maintenance of the state controlled road network impacted upon by the development have been calculated by dividing the number of development ESAs loaded onto a particular link by the background ESAs for an analysis year. The additional cost of maintaining the roads impacted by the proposed development is \$15,829,575 at a 2009 dollar value. Negotiation of the developer's contribution towards these works will be required.

7.4 Impact Mitigation – Specific Project Components

The impact mitigations for the LNG facility and CSG fields are expected to be identical to those proposed for the base case scenario because all aspects of these components have remained unchanged under the “Material by Rail” option. It is estimated that a reduction in vehicle-km travelled of approximately 3,671,600 vehicle-km will occur with the “Material by Rail” option, the majority of which will occur between 2010 and 2012.

7.5 Final Conclusion

The quantitative impacts of the “Material by Rail” option for the gas transmission pipeline construction are found to be comparable to those found for the base case assessment of the GLNG Project such as:

- intersection impacts are identical to the base case. The reduction of truck trips does not occur during the peak year of development traffic generation;
- roadway segment capacity impacts the same as the base case. The reduction in trips for the “Material by Rail” option occurs early in the project whereas mid-block capacity upgrades are required in the later years of the project;
- pavement impacts for pavement rehabilitation are identical to the base case, though the developer contribution required for road maintenance is approximately \$400,000 less for the “Material by Rail” option.

The benefits of the “Material by Rail” option are the reduction in heavy vehicle traffic using the roadway network, especially the Dawson Highway and within Gladstone. Also, not all deliveries of pipe by road can be eliminated, the distance travelled by road is significantly reduced by transporting pipe by rail from Gladstone as far as Moura. This is expected to result in marginally safer roads due to less conflict between trucks and other vehicles and less disruption to road works on the Calliope Range, programmed to occur during pipe joint delivery.

Appendix A

Project Trip Generation and Distribution Summary

GLNG Plant Construction Traffic

Year		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Construction				Train 1				Train 2				Train 3				Plant Operation												
Light Vehicle Trips				25	69	62	16	16	41	37	10	16	41	37	10	0	0	0	0	0	0	0	0	0	0	0	0	0
	Construction Staff - Camp																											
	Construction Staff - Non Camp			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles				1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Miscellaneous Deliveries																											
	Construction Staff - Camp			5	14	13	3	3	8	8	2	3	8	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	Construction Staff - Non Camp			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Drink water			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Waste			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Fuel			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Raw water			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Equipment			0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pipe			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Concrete - Precast			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Concrete Insitu			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Prefab. Steelwork			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Steel			0	1	1	1	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pavement			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Earthwork			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rig. Movement			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Miscellaneous Class 9			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Miscellaneous Deliveries - Class 3			1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL				34	87	79	23	21	53	49	15	21	53	48	15	0	0	0	0	0	0	0	0	0	0	0	0	0

GLNG Plant Operation Traffic

LV	26	70	63	17	17	42	38	11	17	42	38	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HV	8	17	16	6	5	11	10	4	5	11	10	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																												
Staff - Cars	0	0	0	0	0	0	0	100	100	100	100	135	135	135	170	170	170	170	170	170	170	170	170	170	170	170	170	170
Staff - Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel Deliveries - Class 9 vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Deliveries - Class 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Deliveries - Light Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	101	101	101	101	136	136	136	171	171	171	171	171	171	171	171	171	171	171	171	171	171

GLNG Roma Field Construction

LV	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction																												
Light Vehicle Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buses from to and from Camp	1	1	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Drink Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Well water	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Equipment	0	0	1	2	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pipe	0	0	1	2	4	2	0	1	1	2	1	1	2	1	1	1	1	2	1	1	1	0	0	0	0	0	0	0
Miscellaneous - class 9	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rig movement - Class 9	0	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Miscellaneous Deliveries - Class 3	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	3	8	14	9	3	5	5	6	5	5	5	7	6	6	6	5	8	3	3	3	1	2	2	3	2	1	0

GLNG Fairview Field Construction

Construction		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle Trips	Buses from to and from Camp	0	1	2	2	1	1	0	0	2	1	1	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	Drink Water	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Waste	0	0	1	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Well water	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Equipment	0	1	1	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pipe	0	1	1	1	1	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Miscellaneous - class 9	0	1	2	2	1	2	0	0	2	1	1	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	Rig movement - Class 9	0	0	1	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Miscellaneous Deliveries - Class 3	0	1	1	1	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	6	8	9	5	6	1	0	8	5	4	0	8	0	0	3	0	0	0	0	0	0	0	0	0	0	0

	75	
	75	0
	1,549	
	1,487	62
	1,265	
	1,007	
	741	
	341	
	400	
	197	
	88	
	109	
	220	
	220	0
TOTAL	221	6
	215	
TOTAL	328	
	201	
	127	
TOTAL	915	
	685	
	231	
TOTAL	1,464	
	892	
	572	
TOTAL	3,752	
	2,174	
	1,578	
TOTAL	220	
	220	0
TOTAL	3,164	
	3,158	
	6	
TOTAL	7,136	
	5,551	
	1,585	
TOTAL	3,973	
	2,180	
	1,793	
TOTAL	548	
	421	
	127	
TOTAL	4,079	
	3,842	
	237	
TOTAL	8,600	
	6,443	
	2,157	

GLNG Plant Construction Traffic

Year		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Construction				Train 1				Train 2				Train 3				Plant Operation													
Light Vehicle Trips	Construction Staff - Camp			100	276	249	65	62	166	150	39	62	166	150	39	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Construction Staff - Non Camp			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Heavy Vehicles	Miscellaneous Deliveries			10	10	10	10	10	10	10	10	10	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0
		Construction Staff - Camp			20	55	50	13	13	33	30	8	13	33	30	8	0	0	0	0	0	0	0	0	0	0	0	0	0
		Construction Staff - Non Camp			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Drink water			4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Waste			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Fuel			1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		Raw water			4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Equipment			3	6	6	4	2	4	4	3	2	4	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0
		Pipe			1	3	3	2	1	2	2	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		Concrete - Precast			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Concrete Insitu			2	4	4	3	1	3	3	2	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		Prefab. Steelwork			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Steel			3	10	10	6	2	6	6	4	2	6	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0
		Pavement			0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		Earthwork			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Rig. Movement			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Miscellaneous Class 9			0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		Miscellaneous Deliveries - Class 3			10	10	10	10	10	10	10	10	10	10	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL			158	375	343	116	102	235	216	80	102	235	214	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

GLNG Plant Operation Traffic		HV		48	89	84	41	30	59	56	31	30	59	54	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Staff - Cars		0	0	0	0	0	0	200	200	200	200	270	270	270	270	340	340	340	340	340	340	340	340	340	340	340	340	340	
Staff - Bus		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fuel Deliveries - Class 9 vehicles		0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Miscellaneous Deliveries - Class 3		0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Miscellaneous Deliveries - Light Vehicles		0	0	0	0	0	0	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	
TOTAL		0	0	0	0	0	0	206	206	206	206	276	276	276	277	347	347	347	347	347	347	347	347	347	347	347	347	347	

GLNG Roma Field Construction		HV																											
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Construction																													
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Deliveries	0	1	3	5	3	0	2	2	3	2	2	2	3	2	2	2	2	4	1	1	1	0	1	1	1	0	0	
Heavy Vehicle Trips	Buses from to and from Camp	2	1	5	6	6	5	4	1	1	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	3	3	2	
	Drink Water	0	2	4	8	4	0	2	3	4	3	3	3	4	3	3	3	3	5	2	2	2	0	1	1	1	0	0	
	Waste	0	1	2	4	2	0	1	2	2	2	2	2	2	2	2	2	2	3	1	1	1	0	1	1	1	0	0	
	Fuel	0	2	4	8	4	0	2	3	4	3	3	3	4	3	3	3	3	5	2	2	2	0	1	1	1	0	0	
	Well water	0	3	6	11	6	0	3	4	5	4	4	4	5	4	4	4	4	8	2	2	2	0	1	1	1	0	0	
	Equipment	0	4	9	18	9	0	5	7	9	7	7	7	9	7	7	7	7	12	4	4	3	0	2	2	1	0	0	
	Pipe	0	8	18	36	18	0	10	14	17	14	14	14	17	14	14	14	14	24	7	7	6	0	4	4	1	0	0	
	Miscellaneous - class 9	0	2	4	9	5	0	3	4	4	4	4	4	4	4	4	4	4	6	2	2	2	0	1	1	1	0	0	
	Rig movement - Class 9	0	3	5	8	5	0	3	5	5	5	5	5	5	5	5	5	5	5	3	3	3	0	3	3	3	0	0	
	Miscellaneous Deliveries - Class 3	0	1	3	5	3	0	2	2	3	2	2	2	3	2	2	2	2	4	1	1	1	0	1	1	1	0	0	
	Total		2	28	63	118	65	5	37	47	57	47	47	47	58	48	48	48	47	77	26	26	24	1	17	17	15	3	2

GLNG Fairview Field Construct		LV	3	5	3	0	35	2	3	2	45	54	45	2	45	2	46	2	45	4	1	25	23	0	16	16	14	0	0
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Construction																													
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Heavy Vehicle Trips	Buses from to and from Camp	0	2	3	3	2	2	0	0	3	2	2	0	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	
	Drink Water	3	3	6	5	6	5	6	2	2	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1		
	Waste	0	3	5	5	2	3	0	0	5	3	2	0	5	0	0	1	0	0	0	0	0	0	0	0	0	0		
	Fuel	0	2	3	3	1	2	0	0	3	2	1	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0		
	Well water	0	3	5	5	2	3	0	0	5	3	2	0	5	0	0	1	0	0	0	0	0	0	0	0	0	0		
	Equipment	0	5	7	7	3	5	0	0	7	4	3	0	7	0	0	2	0	0	0	0	0	0	0	0	0	0		
	Pipe	0	7	11	12	5	8	0	0	11	7	4	0	11	0	0	3	0	0	0	0	0	0	0	0	0	0		
	Miscellaneous - class 9	0	14	22	23	10	15	0	0	21	13	8	0	21	0	0	5	0	0	0	0	0	0	0	0	0	0		
	Rig movement - Class 9	0	4	5	6	3	4	0	0	5	3	2	0	5	0	0	2	0	0	0	0	0	0	0	0	0	0		
	Miscellaneous Deliveries - Class 3	0	5	5	5	3	5	0	0	5	3	3	0	5	0	0	3	0	0	0	0	0	0	0	0	0	0		
	Total		3	48	72	74	37	52	6	2	67	41	28	1	66	1	1	21	2	2	2	2	2	2	2	2	1	1	

GLNG Arcadia Field Constructiv		LV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HV		72	74	37	52	6	2	67	41	28	1	66	1	1	21	2	2	2	2	2	2	2	2	2	2	2	2	2	
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Construction																													
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Deliveries	0	0	0	0	2	1	1	2	1	1	1	1	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	
Heavy Vehicle Trips	Buses from to and from Camp	1	1	1	2	2	2	1	1	1	1	2	2	0	1	0	1	0	0	1	1	0	0	0	0	1	1	1	
	Drink Water	0	0	0	0	3	2	2	2	2	1	1	1	1	2	2	2	0	0	0	0	0	0	0	0	0	0	0	
	Waste	0	0	0	0	2	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0		
	Fuel	0	0	0	0	3	2	2	2	2	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0	0	0		
	Well water	0	0	0	0	4	3	3	2	5	1	2	2	2	2	3	3	0	0	0	0	0	0	0	0	0	0		
	Equipment	0	0	0	0	6	5	4	4	5	1	3	3	3	3	4	5	0	0	0	0	0	0	0	0	0	0		
	Pipe	11	10	0	0	7	9	8	7	9	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0		
	Miscellaneous - class 9	0	0	0	0	3	3	3	2	2	1	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0		
	Rig movement - Class 9	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0		
	Miscellaneous Deliveries - Class 3	0	0	0	0	2	2	1	1	2	1	1	1	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	
Total		1	1	1	2	41	35	28	26	32	14	22	22	23	26	29	32	0	0	1	1	0	0	0	0	1	1	1	

	300
	300
	0
	4,090
	620
	5,260
	2,583
	2,677
	6,933
	3,407
	3,526
	1,797
	877
	920
	880
	880
	0
TOTAL	1,816
	62
	1,754
TOTAL	877
	406
	471
TOTAL	4,695
	2,847
	1,848
TOTAL	7,387
	3,315
	4,073
TOTAL	18,080
	10,337
	7,743
TOTAL	880
	880
	0
TOTAL	6,440
	6,377
	63
TOTAL	25,400
	17,594
	7,806
TOTAL	19,896
	10,399
	9,497
TOTAL	1,757
	1,286
	471
TOTAL	11,135
	9,224
	1,911
TOTAL	32,787
	20,909
	11,878

GLNG Plant Construction Traffic

Year			2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034		
Construction					Train 1				Train 2				Train 3				Plant Operation														
Light Vehicle Trips Heavy Vehicles	Car & Light Deliveries Bus Trips Drink water Waste Fuel Raw water Equipment Pipe Concrete - Precast Concrete Insitu Prefab. Steelwork Steel Pavement Earthwork Rig. Movement Miscellaneous Class 9 Miscellaneous Deliveries - Class 3				14,061	32,344	29,578	10,390	10,130	20,862	19,209	7,686	10,130	20,862	19,209	7,686	0	0	0	0	0	0	0	0	0	0	0	0	0		
					2,080	5,720	5,200	1,352	1,300	3,432	3,120	832	1,300	3,432	3,120	832	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					1,188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					91	46	46	26	55	28	28	16	55	28	24	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					1,170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					974	2,177	2,177	1,244	584	1,306	1,306	746	584	1,306	1,108	432	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					261	914	914	523	157	549	549	314	157	549	466	181	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					376	1,315	1,315	751	225	789	789	451	225	789	670	261	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					980	3,431	3,431	1,960	588	2,059	2,059	1,176	588	2,059	1,747	681	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					0	0	0	174	0	0	0	104	0	0	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					0	0	0	28	0	0	0	17	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
					3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	0	0	0	0	0	0	0	0	0	0	0	0	0
			TOTAL				24,821	49,587	46,301	20,088	16,678	32,664	30,699	14,981	16,678	32,664	29,983	13,792	0	0	0	0	0	0	0	0	0	0	0	0	0
GLNG Plant Operation Traffic		LV		14,061	32,344	29,578	10,390	10,130	20,862	19,209	7,686	10,130	20,862	19,209	7,686	0	0	0	0	0	0	0	0	0	0	0	0	0			
	HV		10,760	17,243	16,723	9,698	6,549	11,802	11,490	7,296	11,802	10,774	6,107	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

328,939
202,145
126,794

GLNG Plant Operation Traffic

Operation	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Staff - Cars	0	0	0	0	0	0	55,680	55,680	55,680	55,680	76,320	76,320	76,320	76,320	96,960	96,960	96,960	96,960	96,960	96,960	96,960	96,960	96,960	96,960	96,960	96,960	96,960
Miscellaneous Deliveries - Light Vehicle	0	0	0	0	0	0	757	757	757	1,032	1,032	1,032	1,032	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239
Staff - Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel Deliveries	0	0	0	0	0	0	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
Miscellaneous Deliveries - Class 3	0	0	0	0	0	0	379	379	379	516	516	516	516	619	619	619	619	619	619	619	619	619	619	619	619	619	619
TOTAL	0	0	0	0	0	0	56,920	56,920	56,920	57,333	77,973	77,973	77,973	78,283	98,923	98,923	98,923	98,923	98,923	98,923	98,923	98,923	98,923	98,923	98,923	98,923	98,923

1,826,289
1,812,226
14,063

GLNG Roma Field Construction

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Construction																													
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Deliveries	0	94	207	435	213	0	121	162	202	162	162	162	202	162	162	162	162	288	81	81	71	0	40	40	10	0	0	
Heavy Vehicle Trips	Buses from to and from Camp	168	96	408	528	552	408	384	72	72	48	72	96	192	144	168	120	48	48	48	48	72	48	48	96	216	216	192	
	Drink Water	0	148	328	688	336	0	192	256	320	256	256	256	320	256	256	256	256	456	128	128	112	0	64	64	16	0	0	
	Waste	0	74	164	344	168	0	96	128	160	128	128	128	160	128	128	128	228	64	64	56	0	32	32	8	0	0		
	Fuel	0	148	328	688	336	0	192	256	320	256	256	256	320	256	256	256	456	128	128	112	0	64	64	16	0	0		
	Well water	0	222	492	1,032	504	0	288	384	480	384	384	384	480	384	384	384	684	192	192	168	0	96	96	24	0	0		
	Equipment	0	370	820	1,720	840	0	480	640	800	640	640	640	800	640	640	640	640	1,140	320	320	280	0	160	160	40	0	0	
	Pipe	0	740	1,640	3,440	1,680	0	960	1,280	1,600	1,280	1,280	1,280	1,600	1,280	1,280	1,280	1,280	2,280	640	640	560	0	320	320	80	0	0	
	Miscellaneous - class 9	0	170	377	791	386	0	221	294	368	294	294	294	368	294	294	294	294	524	147	147	129	0	74	74	18	0	0	
	Rig movement - Class 9	0	228	456	684	456	0	228	456	456	456	456	456	456	456	456	456	456	456	228	228	228	0	228	228	228	0	0	
	Miscellaneous Deliveries - Class 3	0	94	207	435	213	0	121	162	202	162	162	162	202	162	162	162	162	288	81	81	71	0	40	40	10	0	0	
Total		168	2,383	5,428	10,786	5,683	408	3,284	4,090	4,981	4,066	4,090	4,114	5,101	4,162	4,162	4,186	4,138	4,066	6,849	2,057	2,057	1,858	48	1,167	1,215	667	216	192

84,910
3,289
81,621

GLNG Fairview Field Constructi

Construction		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Deliveries	0	167	258	271	121	172	0	0	253	152	96	0	248	0	0	58	0	0	0	0	0	0	0	0	0	0	0	
Heavy Vehicle Trips	Buses from to and from Camp	216	216	552	456	504	480	528	144	168	96	24	24	72	96	96	120	192	192	192	192	192	192	192	144	24	24	24	
	Drink Water	0	264	408	428	192	272	0	0	400	240	152	0	392	0	0	92	0	0	0	0	0	0	0	0	0	0	0	
	Waste	0	132	204	214	96	136	0	0	200	120	76	0	196	0	0	46	0	0	0	0	0	0	0	0	0	0	0	
	Fuel	0	364	408	428	192	272	0	0	400	240	152	0	392	0	0	92	0	0	0	0	0	0	0	0	0	0	0	
	Well water	0	396	612	642	288	408	0	0	600	360	228	0	588	0	0	138	0	0	0	0	0	0	0	0	0	0	0	
	Equipment	0	660	1,020	1,070	480	680	0	0	1,000	600	380	0	980	0	0	230	0	0	0	0	0	0	0	0	0	0	0	0
	Pipe	0	1,320	2,040	2,140	960	1,360	0	0	2,000	1,200	760	0	1,960	0	0	460	0	0	0	0	0	0	0	0	0	0	0	
	Miscellaneous - class 9	0	304	469	492	221	313	0	0	460	276	175	0	451	0	0	106	0	0	0	0	0	0	0	0	0	0	0	0
	Rig movement - Class 9	0	456	456	456	228	456	0	0	456	228	228	0	456	0	0	228	0	0	0	0	0	0	0	0	0	0	0	0
	Miscellaneous Deliveries - Class 3	0	167	258	271	121	172	0	0	253	152	96	0	248	0	0	58	0	0	0	0	0	0	0	0	0	0	0	0
	Total		216	4,346	6,685	6,868	3,404	4,721	528	144	6,190	3,664	2,367	24	5,983	96	96	1,628	192	192	192	192	192	192	192	144	24	24	24

Appendix B

Midblock Assessment Volumes

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)			120	257	280	91	101	101	101	101	136	136	136	136	171	171	171	171	171	171	171	171	171	171	171	171	
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)			120	257	280	91	101	101	101	101	136	136	136	136	171	171	171	171	171	171	171	171	171	171	171	171	
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)			0	32	70	43	101	101	101	101	136	136	136	136	171	171	171	171	171	171	171	171	171	171	171	171	
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)			0	32	70	43	101	101	101	101	136	136	136	136	171	171	171	171	171	1							

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Aussmed 50% Class 3 loaded

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Aussmed 100% Class 9 loaded

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[illegible]

Total

60,470

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[illegible]

Aussmed 50% Class 3 loaded

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220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)	0	22	39	58	39	25	18	22	47	30	28	20	45	22	22	29	14	24	8	8	7	0	4	4	2	0	0
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Interse	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Interse	Eastbound (A)	0	22	39	58	39	25	18	22	47	30	28	20	45	22	22	29	14	24	8	8	7	0	4	4	2	0	0
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)	0	22	39	58	39	25	18	22	47	30	28	20	45	22	22	29	14	24	8	8	7	0	4	4	2	0	0
225	Warrego Highway	KM135.5 to Roma	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
226	Warrego Highway	Roma to KM135.5	Eastbound (A)	0	22	39	58	39	25	18	22	47	30	28	20	45	22	22	29	14	24	8	8	7	0	4	4	2	0	0
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228	Jackson-Wandoan Road	Grid to18D/Dulacca North Intersection	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234	Bruce Highway (10D)	Benaraby CH. 147.1 o CH. 112	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Based on 0% Class 9 loaded

Total23191,2651,7581,8122,1881,9802,0212,4792,2302,2322,1172,5472,2062,2462,4212,1232,2002,0552,0552,0431,9812,0292,0312,0211,9891,98752,008

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	12	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	12	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	12	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	12	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	36	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	36	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	36	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	36	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			0	9	21	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	9	21	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			0	9	21	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	9	21	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			0	39	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	39	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			0	7	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)			0	7	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)			0	7	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)			0	7	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)			0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)			0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)			0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)			0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
59	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Westbound (G)			0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
60	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Eastbound (A)			0	19	24	0	0																				

[illegible]

201	Dawson Highway 46C	46C/85B Intersection to Prospect Creek Culvert	Westbound (G)			0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
202	Dawson Highway 46C	Prospect Creek Culvert to 46C/85B Intersection	Eastbound (A)			0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
203	Dawson Highway 46C	Prospect Creek Culvert to Duaringa/Bauhinia Inters	Westbound (G)			0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204	Dawson Highway 46C	Duaringa/Bauhinia Intersection to Prospect Creek C	Eastbound (A)			0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205	Dawson Highway 46C	Duaringa/Bauhinia Intersection to KM 137.5	Westbound (G)			0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
206	Dawson Highway 46C	KM 137.5 to Duaringa/Bauhinia Intersection	Eastbound (A)			0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207	Dawson Highway 46C	KM 137.5 to Rolleston	Westbound (G)			0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208	Dawson Highway 46C	Rolleston to KM 137.5	Eastbound (A)			0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209	Leichhardt Highway 26A	District Boundary to 26A/85A intersection	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210	Leichhardt Highway 26A	26A/84A intersection to District Boundary	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211	Leichhardt Highway 26A	26A/85A intersection to Taroom	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
212	Leichhardt Highway 26A	Taroom to 26A/84A intersection	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213	Leichhardt Highway 26B	Taroom to KM35.00	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
214	Leichhardt Highway 26B	KM35.00 to Taroom	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
215	Leichhardt Highway 26B	KM35.00 to Jackson-Wandoan Road	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216	Leichhardt Highway 26B	Jackson-Wandoan Road to KM35.00	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
217	Leichhardt Highway 26B	Jackson-Wandoan Road to Miles	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218	Leichhardt Highway 26B	Miles to Jackson-Wandoan Road	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
219	Warrego Highway	Miles to 18D/Dulacca North Intersectio	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Interse	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Interse	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225	Warrego Highway	KM135.5 to Roma	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
226	Warrego Highway	Roma to KM135.5	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228	Jackson-Wandoan Road	Grid to18D/Dulacca North Intersection	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234	Bruce Highway (10D)	Benaraby CH. 147.1 o CH. 112	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ausmed 50% Class 3 loaded

Total Class 9 Vehicle Trips - 100% Loaded

ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0																					
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0																					
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0																					
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0																					
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0																					
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0																					
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0																					
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0																					
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0																					
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0																					
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0																					
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0																					
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	2	0	0																					
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	52	78	0																					
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	2	0	0																					
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	52	78	0																					
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	1	0	0																					
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	39	78	0																					
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	1	0	0																					
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	39	78	0																					
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	1	0	0																					
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	39	78	0																					
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	1	0	0																					
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	39	78	0																					
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	1	0	0																					
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	39	78	0																					
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	1	0	0																					
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	39	78	0																					
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	1	0	0																					
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	26	65	0																					
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	1	0	0																					
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	26	65	0																					
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	1	0	0																					
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	26	65	0																					
35	Dawson Highway 46A	Tognalini - Baldwin Road to Bloela	Westbound (G)			0	1	0	0																					
36	Dawson Highway 46A	Tognalini - Baldwin Road to Bloela	Eastbound (A)			0	26	65	0																					
37	Dawson Highway 46B	Bloela to Crowsdale Camboon Road	Westbound (G)			0	1	0	0																					
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)			0	26	65	0																					
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			0	1	0	0																					
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	26	65	0																					
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			0	1	0	0																					
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	26	65	0																					
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)			0	1	0	0																					
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	26	65	0																					
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			0	1	0	0																					
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	13	52	0																					
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			0	1	0	0																					
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	13	52	0																					
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			0	68	0	0																					
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	13	52	0																					
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			0	68	0	0																					

[illegible]

Aussmed 100% Class 9 loaded

Total Class 9 Vehicle Trips - 0% Loaded

[illegible]

G:\CE005780\5780 Calculations\Rail Option Calculations\MIA\5780 MIA Volumes_Revised_Rop.xlsTotal Pipeline Volume

220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)			0	0	0	0																				
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Interse	Westbound (G)			0	0	0	0																				
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Interse	Eastbound (A)			0	0	0	0																				
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)			0	0	0	0																				
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)			0	0	0	0																				
225	Warrego Highway	KM135.5 to Roma	Westbound (G)			0	0	0	0																				
226	Warrego Highway	Roma to KM135.5	Eastbound (A)			0	0	0	0																				
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)			0	0	0	0																				
228	Jackson-Wandoan Road	Grid to18D/Dulacca North Intersection	Southbound (G)			0	0	0	0																				
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)			0	0	0	0																				
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)			0	0	0	0																				
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)			0	0	0	0																				
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)			0	0	0	0																				
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)			0	0	0	0																				
234	Bruce Highway (10D)	Benaraby CH. 147.1 o CH. 112	Southbound (G)			0	0	0	0																				

Based on 0% Class 9 loaded

Total004,1326,18614

10,631

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)		0	120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)		0	120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)		0	120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)		0	120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)		0	0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)		0	0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)		0	0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)		0	0	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)		0	0	12	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)		0	0	12	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)		0	0	12	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)		0	0	12	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)		0	0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)		0	0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)		0	0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)		0	0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)		0	0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)		0	0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)		0	0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)		0	0	40	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)		0	0	36	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)		0	0	36	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)		0	0	36	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)		0	0	36	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
38	Dawson Highway 46B	Crowsdale Camboon Road to Biloela	Eastbound (A)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)		0	0	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)		0	0	9	21	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)		0	0	9	21	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)		0	0	9	21	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)		0	0	9	21	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)		0	0	39	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)		0	0	39	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)		0	0	7	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)		0	0	7	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)		0	0	7	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)		0	0	7	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)		0	120	276	304	91	101	101	101	101	136	136	136	136	171	171	171	171	171	171	171	171	171	171	171	171	
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)		0	120	276	304	91	101	101	101	101	136	136	136	136	171	171	171	171	171	171	171	171	171	171	171	171	
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)		0	0	50	94	43	101	101	101	101	136	136	136	136	171	171	171	171	171	171	171	171	171	171	171	171	
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)		0	0	50	94	43	101</																				

[illegible]

[illegible]

Aussmed 50% Class 3 loaded

Total Class 9 Vehicle Trips - 100% Loaded

[illegible]

G:\CE005780\5780 Calculations\Rail Option Calculations\MIA\5780 MIA Volumes_Revised_Rop.xlsTotal Development Volume

Aussmed 100% Class 9 loaded

Total Class 9 Vehicle Trips - 0% Loaded

Based on 0% Class 9 loaded

TOTAL DAILY TRAFFIC VOLUMES

[illegible]

[illegible]

G:\CE005780\5780 Calculations\Rail Option Calculations\MIA\5780 MIA Volumes_Revised_Rop.xlsTotal Development Volume

[illegible]

Background

Link	Section	2,008	2,009	2,010	2,011	2,012	2,013	2,014	2,015	2,016	2,017	2,018	2,019	2,020	2,021	2,022	2,023	2,024	2,025	2,026	2,027	2,028	2,029	2,030	2,031	2,032	2,033	2,034
Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	11,489	12,396	13,303	14,210	15,117	16,024	16,931	17,838	18,745	19,652	20,559	21,466	22,373	23,280	24,187	25,094	26,001	26,908	27,815	28,722	29,629	30,536	31,443	32,350	33,257	34,164	35,071
	Breslin Street to Blain Drive	12,674	13,674	14,675	15,675	16,676	17,677	18,677	19,678	20,678	21,679	22,679	23,680	24,680	25,681	26,682	27,682	28,683	29,683	30,684	31,684	32,685	33,686	34,686	35,687	36,687	37,688	38,688
	Blain Drive to Philp Street	16,449	17,747	19,046	20,344	21,643	22,942	24,240	25,539	26,837	28,136	29,434	30,733	32,032	33,330	34,629	35,927	37,226	38,525	39,823	41,122	42,420	43,719	45,017	46,316	47,615	48,913	50,212
	Philp Street to Penda Avenue	22,772	24,570	26,367	28,165	29,963	31,761	33,559	35,356	37,154	38,952	40,750	42,547	44,345	46,143	47,941	49,739	51,536	53,334	55,132	56,930	58,727	60,525	62,323	64,121	65,919	67,716	69,514
	Penda Avenue to Chapman Drive	18,162	19,596	21,029	22,463	23,897	25,331	26,765	28,198	29,632	31,066	32,500	33,934	35,368	36,801	38,235	39,669	41,103	42,537	43,970	45,404	46,838	48,272	49,706	51,140	52,573	54,007	55,441
	Chapman Drive to Don Young Drive	11,296	12,188	13,079	13,971	14,863	15,755	16,647	17,538	18,430	19,322	20,214	21,105	21,997	22,889	23,781	24,673	25,564	26,456	27,348	28,240	29,131	30,023	30,915	31,807	32,699	33,590	34,482
	Don Young Drive to Harvey Road	5,954	6,424	6,894	7,364	7,834	8,304	8,774	9,244	9,714	10,184	10,654	11,124	11,594	12,064	12,534	13,004	13,474	13,945	14,415	14,885	15,355	15,825	16,295	16,765	17,235	17,705	18,175
	Harvey Road to Bruce Highway	4,962	5,354	5,746	6,137	6,529	6,921	7,312	7,704	8,096	8,488	8,879	9,271	9,663	10,055	10,446	10,838	11,230	11,622	12,013	12,405	12,797	13,189	13,580	13,972	14,364	14,756	15,147
	Bruce Highway to Drynan Drive	4,707	4,989	5,272	5,554	5,837	6,119	6,402	6,684	6,966	7,249	7,531	7,814	8,096	8,378	8,661	8,943	9,226	9,508	9,791	10,073	10,355	10,638	10,920	11,203	11,485	11,768	12,050
	Drynan Drive to Gladstone-Monto Road	1,654	1,753	1,852	1,952	2,051	2,150	2,249	2,349	2,448	2,547	2,646	2,746	2,845	2,944	3,043	3,143	3,242	3,341	3,440	3,540	3,639	3,738	3,837	3,937	4,036	4,135	4,234
	Gladstone-Monto Road to Access to Pipeline Camp 4	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	Access to Pipeline Camp 4 to New point 1	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	New to CSC/BSC Border	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	CSC/BSC Border to New point 2	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	New point 2 to Argoon Road	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	Argoon Road to Calilde Dam Road	866	918	970	1,022	1,074	1,126	1,178	1,230	1,282	1,334	1,386	1,438	1,490	1,541	1,593	1,645	1,697	1,749	1,801	1,853	1,905	1,957	2,009	2,061	2,113	2,165	2,217
	Calilde Dam Road to Tognalini - Baldwin Road	1,285	1,362	1,439	1,516	1,593	1,671	1,748	1,825	1,902	1,979	2,056	2,133	2,210	2,287	2,364	2,442	2,519	2,596	2,673	2,750	2,827	2,904	2,981	3,058	3,135	3,213	3,290
	Tognalini - Baldwin Road to Biobela	7,247	7,682	8,117	8,551	8,986	9,421	9,856	10,291	10,726	11,160	11,595	12,030	12,465	12,900	13,334	13,769	14,204	14,639	15,074	15,509	15,943	16,378	16,813	17,248	17,683	18,118	18,552
Dawson Highway 46B	Biobela to Crowdsdale Camboon Road	1,756	1,861	1,967	2,072	2,177	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
	Crowdsdale Camboon Road to Point 1	1,756	1,861	1,967	2,072	2,177	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
	Point 1 to Greycliffe Road	1,756	1,861	1,967	2,072	2,177	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
	Greycliffe Road to Banana	1,238	1,312	1,387	1,461	1,535	1,609	1,684	1,758	1,832	1,907	1,981	2,055	2,129	2,204	2,278	2,352	2,426	2,501	2,575	2,649	2,724	2,798	2,872	2,946	3,021	3,095	3,169
	Banana to Moura Mine	1,306	1,384	1,463	1,541	1,619	1,698	1,776	1,855	1,933	2,011	2,090	2,168	2,246	2,325	2,403	2,481	2,560	2,638	2,716	2,795	2,873	2,952	3,030	3,108	3,187	3,265	3,343
Dawson Highway 46C	Moura Mine to Moura Township	1,660	1,760	1,859	1,959	2,058	2,158	2,258	2,357	2,457	2,556	2,656	2,756	2,855	2,955	3,054	3,154	3,254	3,353	3,453	3,552	3,652	3,752	3,851	3,951	4,050	4,150	4,250
	Moura Township to CH. 30	374	396	419	441	464	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957
	CH. 30 to CH. 41	374	396	419	441	464	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957
	CH. 41 to District Boundary	374	396	419	441	464	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957
	Dawson Highway to Hilderbrand Street	12,166	13,127	14,087	15,048	16,008	16,968	17,929	18,889	19,850	20,810	21,771	22,731	23,692	24,652	25,613	26,573	27,534	28,494	29,455	30,415	31,376	32,336	33,297	34,257	35,218	36,178	37,139
Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	7,385	7,968	8,551	9,134	9,717	10,300	10,883	11,466	12,049	12,632	13,215	13,798	14,381	14,964	15,547	16,130	16,713	17,296	17,879	18,462	19,045	19,628	20,211	20,794	21,377	21,960	22,543
	Blain Drive to Red Rover Road	9,990	10,779	11,568	12,356	13,145	13,934																					

TOTAL

Link	Section	2,008	2,009	2,010	2,011	2,012	2,013	2,014	2,015	2,016	2,017	2,018	2,019	2,020	2,021	2,022	2,023	2,024	2,025	2,026	2,027	2,028	2,029	2,030	2,031	2,032	2,033	2,034
Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	11,489	12,396	14,101	15,008	15,915	16,822	16,931	17,838	18,745	19,652	20,559	21,466	22,373	23,280	24,187	25,094	26,001	26,908	27,815	28,722	29,629	30,536	31,443	32,350	33,257	34,164	35,071
	Breslin Street to Blain Drive	12,674	13,674	15,473	16,473	17,474	18,474	18,677	19,678	20,678	21,679	22,679	23,680	24,680	25,681	26,682	27,682	28,683	29,683	30,684	31,684	32,685	33,686	34,686	35,687	36,687	37,688	38,688
	Blain Drive to Philip Street	16,449	17,747	20,469	21,767	23,066	24,365	24,547	25,846	27,145	28,443	29,742	31,040	32,381	33,680	34,978	36,277	37,575	38,874	40,172	41,471	42,770	44,068	45,367	46,665	47,964	49,263	50,561
	Philip Street to Penda Avenue	22,772	24,570	27,749	29,547	31,344	33,142	33,691	35,489	37,286	39,084	40,882	42,680	44,415	46,213	48,011	49,808	51,606	53,404	55,202	57,000	58,797	60,595	62,393	64,191	65,988	67,786	69,584
	Penda Avenue to Chapman Drive	18,162	19,596	22,326	23,760	25,194	26,628	26,853	28,287	29,721	31,155	32,588	34,022	35,368	36,801	38,235	39,669	41,103	42,537	43,970	45,404	46,838	48,272	49,706	51,140	52,573	54,007	55,441
	Chapman Drive to Don Young Drive	11,296	12,188	13,260	14,151	15,043	15,935	16,847	17,538	18,430	19,322	20,214	21,105	21,997	22,889	23,781	24,673	25,564	26,456	27,348	28,240	29,131	30,023	30,915	31,807	32,699	33,590	34,482
	Don Young Drive to Harvey Road	5,954	6,424	6,971	7,441	7,911	8,382	8,774	9,244	9,714	10,184	10,654	11,124	11,594	12,064	12,534	13,004	13,474	13,945	14,415	14,885	15,355	15,825	16,295	16,765	17,235	17,705	18,175
	Harvey Road to Bruce Highway	4,962	5,354	5,823	6,215	6,606	6,998	7,312	7,704	8,096	8,488	8,879	9,271	9,663	10,055	10,446	10,838	11,230	11,622	12,013	12,405	12,797	13,189	13,580	13,972	14,364	14,756	15,147
	Bruce Highway to Drynan Drive	4,707	4,989	5,272	5,657	6,041	6,119	6,402	6,684	6,966	7,249	7,531	7,814	8,096	8,378	8,661	8,943	9,226	9,508	9,791	10,073	10,355	10,638	10,920	11,203	11,485	11,768	12,050
	Drynan Drive to Gladstone-Monto Road	1,654	1,753	1,852	2,054	2,255	2,150	2,249	2,349	2,448	2,547	2,646	2,746	2,845	2,944	3,043	3,143	3,242	3,342	3,441	3,540	3,639	3,738	3,837	3,937	4,036	4,135	4,234
	Gladstone-Monto Road to Access to Pipeline Camp 4	929	985	1,040	1,254	1,411	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	Access to Pipeline Camp 4 to New point 1	929	985	1,040	1,254	1,411	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	New to CSC/BSC Border	929	985	1,040	1,254	1,411	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	CSC/BSC Border to New point 2	929	985	1,040	1,254	1,411	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	New point 2 to Argoon Road	929	985	1,040	1,220	1,377	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378
	Argoon Road to Calilde Dam Road	866	918	970	1,146	1,299	1,126	1,178	1,230	1,282	1,334	1,386	1,438	1,490	1,541	1,593	1,645	1,697	1,749	1,801	1,853	1,905	1,957	2,009	2,061	2,113	2,165	2,217
	Calilde Dam Road to Tognalins - Baldwin Road	1,285	1,362	1,439	1,585	1,763	1,671	1,748	1,825	1,902	1,979	2,056	2,133	2,210	2,287	2,364	2,442	2,519	2,596	2,673	2,750	2,827	2,904	2,981	3,058	3,135	3,213	3,290
	Tognalins - Baldwin Road to Bloleto	7,247	7,682	8,117	8,620	9,156	9,421	9,856	10,291	10,726	11,160	11,595	12,030	12,465	12,900	13,334	13,769	14,204	14,639	15,074	15,509	15,943	16,378	16,813	17,248	17,683	18,118	18,552
Dawson Highway 46B	Bloleto to Crowdsale Camboon Road	1,756	1,861	1,967	2,141	2,347	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
	Crowdsale Camboon Road to Point 1	1,756	1,861	1,967	2,141	2,347	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
	Point 1 to Greycliffe Road	1,756	1,861	1,967	2,141	2,347	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
	Greycliffe Road to Banana	1,238	1,312	1,387	1,529	1,705	1,609	1,684	1,758	1,832	1,907	1,981	2,055	2,129	2,204	2,278	2,352	2,426	2,501	2,575	2,649	2,724	2,798	2,872	2,946	3,021	3,095	3,169
	Banana to Moura Mine	1,306	1,384	1,463	1,586	1,765	1,701	1,780	1,858	1,936	2,015	2,093	2,172	2,250	2,328	2,407	2,485	2,563	2,642	2,720	2,798	2,877	2,955	3,033	3,112	3,190	3,269	3,347
Dawson Highway 46C	Moura Mine to Moura Township	1,660	1,760	1,859	2,004	2,204	2,162	2,261	2,361	2,460	2,560	2,660	2,759	2,859	2,958	3,058	3,158	3,257	3,357	3,456	3,556	3,656	3,755	3,855	3,954	4,054	4,154	4,253
	Moura Township to CH. 30	374	396	419	680	679	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957
	CH. 30 to CH. 41	374	396	419	616	616	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957
	CH. 41 to District Boundary	374	396	419	616	616	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957
	Dawson Highway to Hilderbrand Street	12,166	13,127	14,924	15,884	16,845	17,805	18,024	18,984	19,945	20,905	21,866	22,826	23,833	24,794	25,754	26,715	27,676	28,636	29,596	30,557	31,517	32,478	33,438	34,398	35,359	36,319	37,280
Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	7,385	7,968	8,635	9,218	9,801	10,384	10,978	11,561	12,144	12,727	13,310	13,893	14,523	15,106	15,689	16,272	16,855	17,438	18,021	18,604	19,187	19,770	20,353	20,936	21,519	22,102	22,685
	Blain Drive to Red Rover Road	9,990	10,779	12,354	13,143	13,931	14,720	15,254	16,043	16,831	17,620	18,409	19,198	20,155	20,944	21,732	22,521	23,310	24,098</									

Appendix C

Pavement Impact Assessment Summary

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)			2,340	3,646	4,056	2,572	189	189	189	258	258	258	258	310	310	310	310	310	310	310	310	310	310	310	310	310	
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)			2,340	3,646	4,056	2,572	189	189	189	258	258	258	258	310	310	310	310	310	310	310	310	310	310	310	310	310	
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)			0	396	936	414	189	189	189	258	258	258	258	310	310	310	310	310	310	310	310	310	310	310	310	310	
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)																											

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Total Plant+Bridge+Bund Vol

Aussmed 50% Class 3 loaded

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Total Plant+Bridge+Bund Vol

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Total Plant+Bridge+Bund Vol

Aussmed 100% Class 9 loaded

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Total Plant+Bridge+Bund Vol

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Total Plant+Bridge+Bund Vol

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Total Plant+Bridge+Bund Vol

Total Class 3 Vehicle Trips - 50% Loaded																																	
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034			
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)			0	0	0	0	0	0	0	0																				

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Total Field Volume

Aussmed 50% Class 3 loaded

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Total Field Volume

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Total Field Volume

Aussmed 100% Class 9 loaded

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Total Field Volume

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Total Field Volume

220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Inters	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Inters	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
225	Warrego Highway	KM135.5 to Roma	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
226	Warrego Highway	Roma to KM135.5	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228	Jackson-Wandoan Road	Grid to18D/Dulacca North Intersection	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234	Bruce Highway (10D)	Benaraby CH. 147.1 o CH. 112	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Based on 0% Class 9 loaded

Total029,548162,801231,501251,072327,087308,393313,107356,891336,038340,921332,145373,409345,975353,152369,653347,448354,140339,367339,368339,002334,308337,773338,069336,120334,570334,5228,136,831

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Total Pipeline Volume

ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0																					
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0																					
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0																					
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0																					
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0																					
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0																					
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0																					
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0																					
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0																					
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0																					
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0																					
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0																					
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	300	0	0																					
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	0	0	0																					
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	300	0	0																					
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	0	0	0																					
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	300	0	0																					
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	0	0	0																					
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	300	0	0																					
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	0	0	0																					
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	300	0	0																					
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	0	0	0																					
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	300	0	0																					
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	0	0	0																					
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	300	0	0																					
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	0	0	0																					
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	300	0	0																					
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	0	0	0																					
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	200	0	0																					
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	0	0	0																					
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	200	0	0																					
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	0	0	0																					
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	200	0	0																					
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	0	0	0																					
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			0	200	0	0																					
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	0	0	0																					
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			0	200	0	0																					
38	Dawson Highway 46B	Crowsdale Camboon Road to Biloela	Eastbound (A)			0	0	0	0																					
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			0	200	0	0																					
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	0	0	0																					
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			0	200	0	0																					
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	0	0	0																					
43	Dawson Highway 46B	Grecliffe Road to Banana	Westbound (G)			0	200	0	0																					
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	0	0	0																					
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			0	300	0	0																					
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	0	0	0																					
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			0	300	0	0																					
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	0	0	0																					
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			0	5,555	0	0																					
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	0	0	0																					
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			0	5,555	0	0																					

Aussmed 100% Class 9 loaded

Total Class 9 Vehicle Trips - 0% Loaded

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Total Pipeline Volume

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Total Pipeline Volume

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Total Pipeline Volume

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Total Development Volume

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Total Development Volume

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Total Development Volume

Aussmed 100% Class 9 loaded

Total Class 9 Vehicle Trains : 0% Loaded

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Total Development Volume

Based on 0% Class 9 loaded

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Total Development Volume

Road	Section	Direction	Roughness Count*	Count Year	Roughness Count Deficiency	Roughness Deterioration Rate	Background				With Development				Bring Forward Time Period (Years)	Bring Forward Responsibility	
							Rehabilitation Year	ESA Load at Rehabilitation Year (rounded)	EAS Load 1 Year After Rehabilitation Year	ESA Load at Breakpoint	Rehabilitation Year (rounded)	ESA Load at Rehabilitation Year (rounded)	EAS Load 1 Year After Rehabilitation Year	Rehabilitation Year			
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)	79.0	2006	120.0	3.0	2019.7	4,434,635	4,913,919	4,770,134	2019	4,458,476	4,937,761	2019.7	0.0	No
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)	79.0	2006	120.0	3.0	2019.7	2,198,339	2,435,930	2,364,653	2019	2,242,654	2,480,245	2019.5	0.2	No
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)	59.0	2006	120.0	3.0	2026.3	8,289,859	8,892,604	8,470,683	2026	8,313,701	8,916,446	2026.3	0.0	No
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)	59.0	2006	120.0	3.0	2026.3	10,278,482	11,025,817	10,502,682	2026	10,322,797	11,070,132	2026.2	0.1	No
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)	66.0	2006	120.0	3.0	2024.0	11,268,218	12,165,290	11,268,218	2023	10,460,482	11,331,426	2023.9	0.1	No
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)	66.0	2006	120.0	3.0	2024.0	24,868,978	26,848,818	24,868,978	2023	23,047,389	24,969,564	2023.9	0.1	No
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)	76.0	2006	120.0	3.0	2020.7	7,850,598	8,639,286	8,402,680	2020	7,905,590	8,698,298	2020.6	0.1	No
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)	76.0	2006	120.0	3.0	2020.7	9,400,015	10,344,360	10,061,057	2020	9,455,007	10,403,372	2020.6	0.1	No
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)	54.0	2006	120.0	3.0	2028.0	8,421,190	8,987,227	8,421,190	2027	7,930,652	8,480,202	2027.9	0.1	No
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)	54.0	2006	120.0	3.0	2028.0	12,341,950	13,171,523	12,341,950	2027	11,595,551	12,400,961	2027.9	0.1	No
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)	51.0	2006	120.0	3.0	2029.0	4,361,982	4,644,951	4,361,982	2029	4,361,982	4,644,951	2029.0	0.0	No
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)	51.0	2006	120.0	3.0	2029.0	6,274,208	6,681,227	6,274,208	2029	6,274,208	6,681,227	2029.0	0.0	No
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)	54.0	2006	120.0	3.0	2028.0	5,705,968	6,089,499	5,705,968	2027	5,351,338	5,723,697	2028.0	0.0	No
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)	54.0	2006	120.0	3.0	2028.0	5,879,044	6,274,208	5,879,044	2027	5,534,543	5,918,198	2027.9	0.1	No
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)	79.0	2006	120.0	3.0	2019.7	2,780,651	3,081,177	2,991,019	2019	2,798,380	3,098,906	2019.6	0.1	No
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)	79.0	2006	120.0	3.0	2019.7	2,737,764	3,033,655	2,944,887	2019	2,776,918	3,072,808	2019.6	0.1	No
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)	48.0	2006	120.0	3.0	2030.0	8,238,735	8,755,695	8,238,735	2029	7,751,208	8,253,110	2030.0	0.0	No
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)	48.0	2006	120.0	3.0	2030.0	8,565,379	9,102,834	8,565,379	2029	8,056,422	8,578,224	2030.0	0.0	No
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)	60.0	2006	120.0	3.0	2026.0	3,052,184	3,274,104	3,052,184	2025	2,851,102	3,066,559	2025.9	0.1	No
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	3,324,038	3,565,725	3,324,038	2025	3,102,236	3,336,883	2025.9	0.1	No
21	Dawson Highway 46A	Gladstone-Monto Road to Access to Pipeline Camp 4	Westbound (G)	60.0	2006	120.0	3.0	2026.0	2,633,184	2,824,639	2,633,184	2025	2,467,403	2,653,282	2025.9	0.1	No
22	Dawson Highway 46A	Access to Pipeline Camp 4 to Gladstone-Monto Road	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	2,540,197	2,724,891	2,540,197	2025	2,379,451	2,558,765	2025.9	0.1	No
23	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Westbound (G)	60.0	2006	120.0	3.0	2026.0	2,633,184	2,824,639	2,633,184	2025	2,467,403	2,653,282	2025.9	0.1	No
24	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	2,540,197	2,724,891	2,540,197	2025	2,379,451	2,558,765	2025.9	0.1	No
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)	118.0	2006	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)	118.0	2006	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)	60.0	2006	120.0	3.0	2026.0	2,633,184	2,824,639	2,633,184	2025	2,467,403	2,653,282	2025.9	0.1	No
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	2,540,197	2,724,891	2,540,197	2025	2,379,451	2,558,765	2025.9	0.1	No
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)	71.0	2006	120.0	3.0	2022.3	1,921,525	2,091,631	1,972,557	2022	1,938,616	2,108,722	2022.2	0.1	No
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)	71.0	2006	120.0	3.0	2022.3	1,853,669	2,017,768	1,902,899	2022	1,869,741	2,033,839	2022.2	0.1	No
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)	80.0	2006	120.0	3.0	2019.3	1,280,151	1,418,506	1,321,657	2019	1,297,242	1,435,597	2019.2	0.1	No
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)	80.0	2006	120.0	3.0	2019.3	1,241,545	1,375,728	1,281,800	2019	1,257,616	1,391,799	2019.2	0.1	No
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)	80.0	2006	120.0	3.0	2019.3	1,654,059	1,832,826	1,707,689	2019	1,665,427	1,844,193	2019.2	0.1	No
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)	80.0	2006	120.0	3.0	2019.3	1,577,096	1,747,544	1,628,230	2019	1,587,443	1,757,892	2019.2	0.1	No
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)	106.0	2006	120.0	3.0	2010.7	536,897	817,485	733,308	2010	536,897	821,359	2010.7	0.0	No
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)	106.0	2006	120.0	3.0	2010.7	528,390	804,532	721,690	2010	528,390	807,387	2010.7	0.0	No
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,727,847	1,948,302	2017.6	0.1	No
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,726,827	1,947,282	2017.7	0.0	No
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,727,847	1,948,302	2017.6	0.1	No
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,726,827	1,947,282	2017.7	0.0	No
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)	60.0	2007	120.0	3.0	2027.0	4,243,740	4,540,012	4,243,740	2026	3,967,465	4,255,107	2027.0	0.0	No
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	4,243,740	4,540,012	4,243,740	2026	3,966,445	4,254,087	2027.0	0.0	No
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)	60.0	2007	120.0	3.0	2027.0	3,253,892	3,481,058	3,253,892	2026	3,044,709	3,265,259	2026.9	0.1	No
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	3,253,892	3,481,058	3,253,892	2026	3,043,689	3,264,239	2027.0	0.0	No
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)	79.0	2007	120.0	3.0	2020.7	1,998,897	2,199,711	2,139,467	2020	2,009,309	2,210,123	2020.6	0.1	No
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)	79.0	2007	120.0	3.0	2020.7	1,998,897	2,199,711	2,139,467	2020	2,007,779	2,208,593	2020.7	0.0	No
47	Dawson Highway																

57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)	62.0	2006	120.0	3.0	2025.3	13,544,341	14,573,068	13,852,959	2025	13,572,740	14,602,081	2025.3	0.0	No
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)	62.0	2006	120.0	3.0	2025.3	13,231,070	14,236,003	13,532,550	2025	13,289,508	14,295,055	2025.2	0.1	No
59	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Westbound (G)	92.0	2006	120.0	3.0	2015.3	5,499,416	6,382,107	5,764,224	2015	5,543,541	6,435,092	2015.2	0.1	No
60	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Eastbound (A)	92.0	2006	120.0	3.0	2015.3	6,009,749	6,974,352	6,299,130	2015	6,075,506	7,045,975	2015.2	0.1	No
61	Gladstone-Mt Larcom Rd	Red Rover Road to Power Station	Westbound (G)	64.0	2006	120.0	3.0	2024.7	14,466,770	15,618,482	15,272,968	2024	14,562,394	15,714,720	2024.6	0.1	No
62	Gladstone-Mt Larcom Rd	Red Rover Road to Power Station	Eastbound (A)	64.0	2006	120.0	3.0	2024.7	15,809,252	17,067,840	16,690,264	2024	15,899,147	17,158,349	2024.6	0.1	No
63	Gladstone-Mt Larcom Rd	Power Station to Reid Road	Westbound (G)	76.0	2006	120.0	3.0	2020.7	7,975,718	8,776,976	8,536,598	2020	8,064,341	8,871,334	2020.6	0.1	No
64	Gladstone-Mt Larcom Rd	Power Station to Reid Road	Eastbound (A)	76.0	2006	120.0	3.0	2020.7	8,282,819	9,114,929	8,865,296	2020	8,366,704	9,203,558	2020.6	0.1	No
65	Gladstone-Mt Larcom Rd	Reid Road to Landing Road	Westbound (G)	51.0	2006	120.0	3.0	2029.0	16,115,776	17,161,235	16,115,776	2028	15,199,424	16,215,047	2028.9	0.1	No
66	Gladstone-Mt Larcom Rd	Reid Road to Landing Road	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	16,736,306	17,822,020	16,736,306	2028	15,775,142	16,829,847	2028.9	0.1	No
67	Gladstone-Mt Larcom Rd	Landing Road to Targinnie Road	Westbound (G)	51.0	2006	120.0	3.0	2029.0	9,818,221	10,455,146	9,818,221	2028	9,226,271	9,844,672	2029.0	0.0	No
68	Gladstone-Mt Larcom Rd	Landing Road to Targinnie Road	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	11,106,495	11,826,993	11,106,495	2028	10,620,741	11,320,520	2028.7	0.3	No
69	Gladstone-Mt Larcom Rd	Targinnie Road to Quarry Road	Westbound (G)	51.0	2006	120.0	3.0	2029.0	9,818,221	10,455,146	9,818,221	2028	9,221,505	9,839,879	2029.0	0.0	No
70	Gladstone-Mt Larcom Rd	Targinnie Road to Quarry Road	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	11,106,495	11,826,993	11,106,495	2028	10,590,747	11,290,260	2028.7	0.3	No
71	Gladstone-Mt Larcom Rd	Quarry Road to Bruce Highway	Westbound (G)	51.0	2006	120.0	3.0	2029.0	9,818,221	10,455,146	9,818,221	2028	9,199,877	9,818,252	2029.0	0.0	No
72	Gladstone-Mt Larcom Rd	Quarry Road to Bruce Highway	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	11,106,495	11,826,993	11,106,495	2028	10,407,286	11,106,799	2029.0	0.0	No
73	Carnarvon Highway 24A	CH. 0.00 (NSW border) to CH. 10	Northbound (G)	66.0	2007	120.0	3.0	2025.0	794,585	854,935	794,585	2025	794,585	854,935	2025.0	0.0	No
74	Carnarvon Highway 24A	CH. 10 to CH. 0.0 (NSW border)	Southbound (A)	66.0	2007	120.0	3.0	2025.0	794,585	854,935	794,585	2025	794,585	854,935	2025.0	0.0	No
75	Carnarvon Highway 24A	CH. 10m to CH. 40 (Thallon)	Northbound (G)	96.0	2007	120.0	3.0	2015.0	280,030	324,977	280,030	2015	280,030	324,977	2015.0	0.0	No
76	Carnarvon Highway 24A	CH. 40 (Thallon) to CH. 10	Southbound (A)	96.0	2007	120.0	3.0	2015.0	280,030	324,977	280,030	2015	280,030	324,977	2015.0	0.0	No
77	Carnarvon Highway 24A	CH. 40 (Thallon) to CH. 74 (Ningdigully)	Northbound (G)	82.0	2007	120.0	3.0	2019.7	440,936	488,591	474,295	2019	440,936	488,591	2019.7	0.0	No
78	Carnarvon Highway 24A	CH. 74 (Nindigully) to CH. 40 (Thallon)	Southbound (A)	82.0	2007	120.0	3.0	2019.7	440,936	488,591	474,295	2019	440,936	488,591	2019.7	0.0	No
79	Carnarvon Highway 24A	CH. 74 (Nindigully) to CH. 111	Northbound (G)	83.0	2007	120.0	3.0	2019.3	672,398	745,069	694,200	2019	672,398	745,069	2019.3	0.0	No
80	Carnarvon Highway 24A	CH. 111 to CH.74 (Nindigully)	Southbound (A)	83.0	2007	120.0	3.0	2019.3	672,398	745,069	694,200	2019	672,398	745,069	2019.3	0.0	No
81	Carnarvon Highway 24A	CH. 111 to St George	Northbound (G)	83.0	2007	120.0	3.0	2019.3	1,415,741	1,568,751	1,461,644	2019	1,415,741	1,568,751	2019.3	0.0	No
82	Carnarvon Highway 24A	St George to CH. 111	Southbound (A)	83.0	2007	120.0	3.0	2019.3	1,415,741	1,568,751	1,461,644	2019	1,415,741	1,568,751	2019.3	0.0	No
83	Carnarvon Highway 24B	CH. 0.00 (St George) to CH. 4	Northbound (G)	79.0	2007	120.0	3.0	2020.7	1,461,105	1,607,890	1,563,854	2020	1,461,105	1,607,890	2020.7	0.0	No
84	Carnarvon Highway 24B	CH. 4 to CH. 0.0 (St George)	Southbound (A)	79.0	2007	120.0	3.0	2020.7	1,461,105	1,607,890	1,563,854	2020	1,461,105	1,607,890	2020.7	0.0	No
85	Carnarvon Highway 24B	CH. 4m to CH. 9	Northbound (G)	55.0	2007	120.0	3.0	2028.7	2,590,889	2,765,037	2,712,793	2028	2,590,889	2,765,037	2028.7	0.0	No
86	Carnarvon Highway 24B	CH. 9 to CH. 56	Southbound (A)	55.0	2007	120.0	3.0	2028.7	2,590,889	2,765,037	2,712,793	2028	2,590,889	2,765,037	2028.7	0.0	No
87	Carnarvon Highway 24B	CH. 9 to CH. 4	Northbound (G)	76.0	2007	120.0	3.0	2021.7	725,231	793,424	772,966	2021	725,231	793,424	2021.7	0.0	No
88	Carnarvon Highway 24B	CH. 56 to CH. 9	Southbound (A)	76.0	2007	120.0	3.0	2021.7	725,231	793,424	772,966	2021	725,231	793,424	2021.7	0.0	No
89	Carnarvon Highway 24B	CH. 56 to CH. 116 (Surat)	Northbound (G)	82.0	2007	120.0	3.0	2019.7	545,401	604,346	586,662	2019	545,401	604,346	2019.7	0.0	No
90	Carnarvon Highway 24B	CH. 116 (Surat) to CH. 56	Southbound (A)	82.0	2007	120.0	3.0	2019.7	545,401	604,346	586,662	2019	545,401	604,346	2019.7	0.0	No
91	Carnarvon Highway 24C	CH. 0.00 (Surat) to CH. 33	Northbound (G)	96.0	2007	120.0	3.0	2015.0	441,128	511,932	441,128	2015	441,128	511,932	2015.0	0.0	No
92	Carnarvon Highway 24C	CH. 33 to CH. 0.0 (Surat)	Southbound (A)	96.0	2007	120.0	3.0	2015.0	441,128	511,932	441,128	2015	441,128	511,932	2015.0	0.0	No
93	Carnarvon Highway 24C	CH. 33m to CH. 73 (Roma)	Northbound (G)	90.0	2007	120.0	3.0	2017.0	629,439	710,280	629,439	2017	629,439	710,280	2017.0	0.0	No
94	Carnarvon Highway 24C	CH. 73 (Roma) to CH. 33	Southbound (A)	90.0	2007	120.0	3.0	2017.0	629,439	710,280	629,439	2017	629,439	710,280	2017.0	0.0	No
95	Carnarvon Highway 24D	CH. 0.00 (Roma) to CH. 3	Northbound (G)	111.0	2007	120.0	3.0	2010.0	397,545	605,306	397,545	2009	203,494	452,273	2009.8	0.2	No
96	Carnarvon Highway 24D	CH. 3 to CH. 0.0 (Roma)	Southbound (A)	111.0	2007	120.0	3.0	2010.0	397,545	605,306	397,545	2009	197,653	437,405	2009.8	0.2	No
97	Carnarvon Highway 24D	CH. 3m to CH. 18 Roma - Taroom Road	Northbound (G)	91.0	2007	120.0	3.0	2016.7	1,659,196	1,895,559	1,824,650	2015	1,781,302	2,088,494	2015.1	1.6	Yes
98	Carnarvon Highway 24D	CH. 18 Roma - Taroom Road to CH. 3	Southbound (A)	91.0	2007	120.0	3.0	2016.7	1,659,196	1,895,559	1,824,650	2015	1,732,010	2,026,813	2015.3	1.4	Yes
99	Carnarvon Highway 24D	Roma - Taroom Road to Injune	Northbound (G)	85.0	2007	120.0	3.0	2018.7	1,192,531	1,332,332	1,290,391	2015	1,148,673	1,354,324	2015.7	3.0	Yes
100	Carnarvon Highway 24D	Injune to Roma - Taroom Road	Southbound (A)	85.0	2007	120.0	3.0	2018.7	1,192,531	1,332,332	1,290,391	2015	1,099,381	1,292,643	2016.0	2.7	Yes
101	Carnarvon Highway 24E	CH. 0.00 (Injune) to Fairview Field Access CH25.00	Northbound (G)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2014	657,516	786,023	2014.3	2.0	Yes
102	Carnarvon Highway 24E	Fairview Field Access CH. 25.00 to CH. 0.0 (Injune)	Southbound (A)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2014	626,891	753,714	2014.6	1.7	Yes
103	Carnarvon Highway 24E	Fairview Field Access to CH. 69 Boundary with Emerald	Northbound (G)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2015	623,823	728,033	2015.8	0.5	No
104	Carnarvon Highway 24E	CH. 69 to Fairview Field Access	Southbound (A)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2015	623,823	728,033	2015.8	0.5	No
105	Carnarvon Highway 24E	CH. 69 to CH. 86 Access to Camp 1	Northbound (G)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,260,666	1,381,031	2021.2	0.5	No
106	Carnarvon Highway 24E	CH. 86 Access to Camp 1 to CH. 69	Southbound (A)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,260,666	1,381,031	2021.2	0.5	No
107	Carnarvon Highway 24E	CH. 86 Access to Camp 1 to CH. 111	Northbound (G)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,230,375	1,346,978	2021.4	0.3	No
108	Carnarvon Highway 24E	CH. 111 to CH. 86 Access to Camp 1	Southbound (A)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,230,375	1,346,978	2021.4	0.3	No
109	Carnarvon Highway 24E	CH. 111 to CH.172 (Rollestone)	Northbound (G)	75.0	2007	120.0	3.0	2022.0	1,498,080	1,630,700	1,498,080	2021	1,399,651	1,532,170	2021.7	0.3	No
110	Carnarvon Highway 24E	CH. 172 (Rollestone) to CH.111	Southbound (A)	75.0	2007	120.0	3.0	2022.0	1,498,080	1,630,700	1,498,080	2021	1,399,651	1,532,170	2021.7	0.3	No
111	Leichhardt Highway 26A	CH. 00 Capicorn Highway to Burnett Highway	Southbound (G)	59.0	2007	120.0	3.0	2027.3	3,734,373	3,995,084	3,812,586	2027	3,734,373	3,995,084	2027.3	0.0	No
112	Leichhardt Highway 26A	Burnett Highway to Capicorn Highway	Northbound (A)	59.0	2007	120.0	3.0	2027.3	3,734,373	3,995,084	3,812,586	2027	3,734,373	3,995,084	2027.3	0.0	No
113	Leichhardt Highway 26A	Burnett Highway to CH. 51.1	Southbound (G)	59.0	2007	120.0	3.0	2027.3	2,441,523	2,611,975	2,492,658	2027	2,441,523	2,611,975	2027.3	0.0	No
114	Leichhardt Highway 26A	CH. 51.1 to Burnett Highway	Northbound (A)	59.0	2007	120.0	3.0	2027.3	2,441,523	2,611,975	2,492,658	2027	2,441,523	2,611,975	2027.3	0.0	No
115	Leichhardt Highway 26A	CH. 51.1 to CH. 62.6	Southbound (G)	82.0	2007	120.0	3.0	2019.7	1,245,001	1,379,557	1,339,191	2019	1,245,001	1,379,557	2019.7	0.0	No
116	Leichhardt Highway 26A	CH. 62.6 to CH. 51.1	Northbound (A)	82.0	2007	120.0	3.0	2019.7	1,245,001	1,379,557	1,339,191	2019	1,245,001	1,379,557	2019.7	0.0	No
117	Leichhardt Highway 26A	CH. 62.6 to CH. 86.0 Fairview Road	Southbound (G)	62.0	2007	120.0	3.0	2026.3	2,397,811	2,572,153	2,450,113	2026	2,397,811	2,572,153	2026.3	0.0	No
118	Leichhardt Highway 26A	CH. 86.0 Fairview Road to CH. 62.6	Northbound (A)	62.0	2007	120.0	3.0	2026.3	2,397,811	2,572,153	2,450,113	2026	2,397,811	2,572,153	2026.3	0.0	

126	Leichhardt Highway 26A	CH. 117.0 to Banana CH. 105.2	Northbound (A)	84.0	2007	120.0	3.0	2019.0	1,550,672	1,718,265	1,550,672	2018	1,390,934	1,553,646	2019.0	0.0	No
127	Leichhardt Highway 26A	CH. 117.0 to CH. 124.0	Southbound (G)	104.0	2007	120.0	3.0	2012.3	506,522	642,791	547,403	2012	506,522	642,791	2012.3	0.0	No
128	Leichhardt Highway 26A	CH. 124.0 to CH. 117.0	Northbound (A)	104.0	2007	120.0	3.0	2012.3	506,522	642,791	547,403	2012	506,522	642,791	2012.3	0.0	No
129	Leichhardt Highway 26A	Theodore CH. 162.3 to CH.124.0	Westbound (G)	100.0	2007	120.0	3.0	2013.7	642,791	783,147	741,040	2013	642,791	783,147	2013.7	0.0	No
130	Leichhardt Highway 26A	CH.124.0 to Theodore CH. 162.4	Eastbound (A)	100.0	2007	120.0	3.0	2013.7	642,791	783,147	741,040	2013	642,791	783,147	2013.7	0.0	No
131	Leichhardt Highway 26A	Theodore CH. 162.3 to CH. 124.0	Westbound (G)	60.0	2007	120.0	3.0	2027.0	2,386,071	2,552,652	2,386,071	2027	2,386,071	2,552,652	2027.0	0.0	No
132	Leichhardt Highway 26A	Theodore CH. 162.3 to Glenmoral Roundstone Road	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	2,386,071	2,552,652	2,386,071	2027	2,386,071	2,552,652	2027.0	0.0	No
133	Leichhardt Highway 26A	Glenmoral Roundstone Road to Isla Delusion Road	Westbound (G)	60.0	2007	120.0	3.0	2027.0	2,205,775	2,359,768	2,205,775	2027	2,205,775	2,359,768	2027.0	0.0	No
134	Leichhardt Highway 26A	Isla Delusion Road to Glenmoral Roundstone Road	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	2,205,775	2,359,768	2,205,775	2027	2,205,775	2,359,768	2027.0	0.0	No
135	Leichhardt Highway 26A	Isla Delusion Road to District Boundary	Westbound (G)	97.0	2007	110.0	3.0	2011.3	271,444	367,408	300,233	2011	271,444	367,408	2011.3	0.0	No
136	Leichhardt Highway 26A	District Boundary to Isla Delusion Road	Eastbound (A)	97.0	2007	110.0	3.0	2011.3	271,444	367,408	300,233	2011	271,444	367,408	2011.3	0.0	No
137	Bruce Highway	Gladstone-Beraraby Road to Dawson Highway	Westbound (G)	62.0	2006	110.0	3.0	2022.0	7,945,298	8,648,666	7,945,298	2021	7,318,626	8,001,774	2021.9	0.1	No
138	Bruce Highway	Gladstone-Beraraby Road to Dawson Highway	Eastbound (A)	62.0	2006	110.0	3.0	2022.0	8,633,571	9,397,870	8,633,571	2021	7,897,207	8,639,271	2022.0	0.0	No
139	Bruce Highway	Dawson Highway to Calliope River Road	Westbound (G)	72.0	2006	110.0	3.0	2018.7	4,924,137	5,501,396	5,328,218	2018	4,949,528	5,532,373	2018.6	0.1	No
140	Bruce Highway	Dawson Highway to Calliope River Road	Eastbound (A)	72.0	2006	110.0	3.0	2018.7	5,164,876	5,770,357	5,588,713	2018	5,169,513	5,775,558	2018.7	0.0	No
141	Bruce Highway	Calliope River Road to Gladstone Mt-Larcom Road	Westbound (G)	70.0	2006	110.0	3.0	2019.3	5,501,396	6,095,972	5,679,769	2019	5,503,703	6,098,280	2019.3	0.0	No
142	Bruce Highway	Calliope River Road to Gladstone Mt-Larcom Road	Eastbound (A)	70.0	2006	110.0	3.0	2019.3	5,770,357	6,394,002	5,957,451	2019	5,772,664	6,396,310	2019.3	0.0	No
143	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Road	Westbound (G)	62.0	2006	110.0	3.0	2022.0	10,655,093	11,598,349	10,655,093	2021	9,739,341	10,655,124	2022.0	0.0	No
144	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Road	Eastbound (A)	62.0	2006	110.0	3.0	2022.0	11,496,258	12,513,980	11,496,258	2021	10,508,482	11,496,562	2022.0	0.0	No
145	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Westbound (G)	66.0	2006	110.0	3.0	2020.7	9,857,580	10,847,893	10,550,799	2020	9,857,580	10,847,893	2020.7	0.0	No
146	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Eastbound (A)	66.0	2006	120.0	3.0	2024.0	14,030,481	15,147,460	14,030,481	2024	14,030,481	15,147,460	2024.0	0.0	No
147	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Westbound (G)	64.0	2006	120.0	3.0	2024.7	15,749,612	17,003,453	16,627,301	2024	15,749,612	17,003,453	2024.7	0.0	No
148	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Eastbound (A)	64.0	2006	120.0	3.0	2024.7	15,802,450	17,060,497	16,683,083	2024	15,802,450	17,060,497	2024.7	0.0	No
149	Bruce Highway	Burnett Highway to Capricorn Highway	Westbound (G)	71.0	2006	120.0	3.0	2022.3	13,798,572	15,020,109	14,165,033	2022	13,798,572	15,020,109	2022.3	0.0	No
150	Bruce Highway	Burnett Highway to Capricorn Highway	Eastbound (A)	71.0	2006	120.0	3.0	2022.3	14,188,561	15,444,623	14,565,380	2022	14,188,561	15,444,623	2022.3	0.0	No
151	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	79.0	2006	120.0	3.0	2019.7	15,476,127	17,148,747	16,646,961	2019	15,476,127	17,148,747	2019.7	0.0	No
152	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	79.0	2006	120.0	3.0	2019.7	15,005,991	16,627,800	16,141,257	2019	15,005,991	16,627,800	2019.7	0.0	No
153	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	79.0	2006	120.0	3.0	2019.7	9,981,730	11,060,530	10,736,890	2019	9,981,730	11,060,530	2019.7	0.0	No
154	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	79.0	2006	120.0	3.0	2019.7	9,703,320	10,752,030	10,437,417	2019	9,703,320	10,752,030	2019.7	0.0	No
155	Gladstone - Benaraby Road	CH.0.0 Dawson Highway CH. 0.00 to Sun valley Road CH. 0.645	Southbound (G)	66.0	2007	120.0	3.0	2025.0	10,400,066	11,189,978	10,400,066	2025	10,400,066	11,189,978	2025.0	0.0	No
156	Gladstone - Benaraby Road	Sun Valley Road CH. 0.645 to Dawson Highway CH.0.00	Northbound (A)	66.0	2007	120.0	3.0	2025.0	9,167,211	9,863,484	9,167,211	2025	9,167,211	9,863,484	2025.0	0.0	No
157	Gladstone - Benaraby Road	CH. 0.645 to Glenlyon Road CH. 2.159	Southbound (G)	66.0	2007	120.0	3.0	2025.0	7,353,935	7,912,485	7,353,935	2025	7,353,935	7,912,485	2025.0	0.0	No
158	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to CH. 0.645	Northbound (A)	66.0	2007	120.0	3.0	2025.0	7,595,669	8,172,579	7,595,669	2025	7,595,669	8,172,579	2025.0	0.0	No
159	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to French Street CH. 3.40	Southbound (G)	93.0	2007	120.0	3.0	2016.0	3,391,457	3,874,591	3,391,457	2016	3,391,457	3,874,591	2016.0	0.0	No
160	Gladstone - Benaraby Road	French Street CH. 3.40 to Glenlyon Road CH. 2.159	Northbound (A)	93.0	2007	120.0	3.0	2016.0	3,776,138	4,314,073	3,776,138	2016	3,776,138	4,314,073	2016.0	0.0	No
161	Gladstone - Benaraby Road	French Street CH. 3.40 to Glen Eden Drive CH. 5.70	Southbound (G)	68.0	2007	120.0	3.0	2024.3	7,687,652	8,299,673	7,871,258	2024	7,687,652	8,299,673	2024.3	0.0	No
162	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to French Street CH. 3.40	Northbound (A)	68.0	2007	120.0	3.0	2024.3	8,559,637	9,241,077	8,764,069	2024	8,559,637	9,241,077	2024.3	0.0	No
163	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to South Trees Drive CH. 7.30	Southbound (G)	68.0	2007	120.0	3.0	2024.3	7,687,652	8,299,673	7,871,258	2024	7,687,652	8,299,673	2024.3	0.0	No
164	Gladstone - Benaraby Road	South Trees Drive CH. 5.70 to Glen Eden Drive CH. 3.40	Northbound (A)	68.0	2007	120.0	3.0	2024.3	8,559,637	9,241,077	8,764,069	2024	8,559,637	9,241,077	2024.3	0.0	No
165	Gladstone - Benaraby Road	South Trees Drive CH. 7.30 to Boyne Island Road CH. 16.039	Southbound (G)	68.0	2007	120.0	3.0	2024.3	7,687,652	8,299,673	7,871,258	2024	7,687,652	8,299,673	2024.3	0.0	No
166	Gladstone - Benaraby Road	Boyne Island Drive CH. 16.039 to South Trees Drive CH. 5.70	Northbound (A)	68.0	2007	120.0	3.0	2024.3	8,559,637	9,241,077	8,764,069	2024	8,559,637	9,241,077	2024.3	0.0	No
167	Gladstone - Benaraby Road	Boyne Island Road CH. 16.039 to Bruce Highway CH. 19.21	Southbound (G)	70.0	2007	120.0	3.0	2023.7	5,665,091	6,139,636	5,997,273	2023	5,665,091	6,139,636	2023.7	0.0	No
168	Gladstone - Benaraby Road	Bruce Highway CH. 19.21 to Boyne Island Road CH. 16.039	Northbound (A)	70.0	2007	120.0	3.0	2023.7	5,659,018	6,133,055	5,990,844	2023	5,659,018	6,133,055	2023.7	0.0	No
169	Burnett Highway 41D	CH.0.0 District Boundary to CH.65.0	Southbound (G)	73.0	2007	120.0	3.0	2022.7	1,250,699	1,361,419	1,328,203	2022	1,250,699	1,361,419	2022.7	0.0	No
170	Burnett Highway 41D	CH.65.0 to District Boundary CH.0.0	Northbound (A)	73.0	2007	120.0	3.0	2022.7	1,250,699	1,361,419	1,328,203	2022	1,250,699	1,361,419	2022.7	0.0	No
171	Burnett Highway 41D	CH.65.0 to Hinton's Lane CH.85.5	Southbound (G)	102.0	2007	120.0	3.0	2013.0	388,623	473,480	388,623	2013	388,623	473,480	2013.0	0.0	No
172	Burnett Highway 41D	Hinton's Lane CH.85.5 to CH.65.0	Northbound (A)	102.0	2007	120.0	3.0	2013.0	388,623	473,480	388,623	2013	388,623	473,480	2013.0	0.0	No
173	Burnett Highway 41D	Hinton's Lane CH.85.5 to Sara Lane CH.92.0	Southbound (G)	67.0	2007	120.0	3.0	2024.7	2,421,729	2,614,525	2,556,687	2024	2,421,729	2,614,525	2024.7	0.0	No
174	Burnett Highway 41D	Sara Lane CH.92.0 to Hinton's Lane CH.85.5	Northbound (A)	67.0	2007	120.0	3.0	2024.7	2,421,729	2,614,525	2,556,687	2024	2,421,729	2,614,525	2024.7	0.0	No
175	Burnett Highway 41D	Sara Lane CH.92.0 to Dawson Highway CH.93.8	Southbound (G)	142.0	2007	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
176	Burnett Highway 41D	Dawson Highway CH.93.8 to Sara Lane CH.92.0	Northbound (A)	142.0	2007	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
177	Burnett Highway 41E	Dawson Highway CH.93.8 to CH.18.5	Southbound (G)	97.0	2007	120.0	3.0	2014.7	651,003	771,177	735,125	2014	651,003	771,177	2014.7	0.0	No
178	Burnett Highway 41E	CH.18.5 to Dawson Highway CH.93.8	Northbound (A)	97.0	2007	120.0	3.0	2014.7	651,003	771,177	735,125	2014	651,003	771,177	2014.7	0.0	No
179	Burnett Highway 41E	CH.18.5 to Jambin Rail Crossing CH.27.2	Southbound (G)	60.0	2007	120.0	3.0	2027.0	2,527,849	2,704,328	2,527,849	2027	2,527,849	2,704,328	2027.0	0.0	No
180	Burnett Highway 41E	Jambin Rail Crossing CH.27.2 to CH.18.5	Northbound (A)	60.0	2007	120.0	3.0	2027.0	2,527,849	2,704,328	2,527,849	2027	2,527,849	2,704,328	2027.0	0.0	No
181	Burnett Highway 41E	Jambin Rail Crossing CH.27.2 to Goovigen Connection Road CH.35.5	Southbound (G)	80.0	2007	120.0	3.0	2020.3	1,428,335	1,571,829	1,471,383	2020	1,428,335	1,571,829	2020.3	0.0	No
182	Burnett Highway 41E	Goovigen Connection Road CH.35.5 to Jambin Rail Crossing CH.27.2	Northbound (A)	80.0	2007	120.0	3.0	2020.3	1,428,335	1,571,829	1,471,383	2020	1,428,335	1,571,829	2020.3	0.0	No
183	Burnett Highway 41E	Goovigen Connection Road CH.35.5 to Tohlinn Road (South) CH.38.9	Southbound (G)	106.0	2007	120.0	3.0	2011.7	270,069	365,546	336,903	2011	270,069	365,546	2011.7	0.0	No
184	Burnett Highway 41E	Tohlinn Road (South) CH.38.9 to Goovigen Connection Road CH.35.5	Northbound (A)	106.0	2007	120.0	3.0	2011.7	270,069	365,546	336,903	2011	270,069	365,546	2011.7	0.0	No
185	Burnett Highway 41E	Tomlin Road (South) CH.38.9 to Tomlin Rd (North) CH.53.4	Southbound (G)	57.0	2007	120.0	3.0	2028.0	2,347,810	2,505,620	2,347,810	2028	2,347,810	2,505,620	2028.0	0.0	No
186	Burnett Highway 41E	Tomlin Rd (North) CH.53.4 to Tomlin Road (South) CH.38.9	Northbound (A)	57.0	2007	120.0	3.0	2028.0	2,347,810	2,505,620	2,347,810	2028	2,347,810	2,505,620	2028.0	0.0	

195	Dawson Highway 46C	Fitzroy Dev. 85A Intersection to Duaringa/Woorabinda Intersection	Westbound (G)	83.0	2007	120.0	3.0	2019.3	280,575	310,899	289,672	2017	262,841	291,424	2017.9	1.4	Yes
196	Dawson Highway 46C	Duaringa/Woorabinda Intersection to Fitzroy Dev. 85A Intersection	Eastbound (A)	83.0	2007	120.0	3.0	2019.3	280,575	310,899	289,672	2018	267,330	296,771	2018.8	0.5	No
197	Dawson Highway 46C	Duaringa/Woorabinda Intersection to Woorabinda/Duaringa Intersection	Westbound (G)	76.0	2007	120.0	3.0	2021.7	687,157	751,770	732,386	2021	727,446	792,059	2021.1	0.6	No
198	Dawson Highway 46C	Woorabinda/Duaringa to Duaringa/Woorabinda Intersection Intersection	Eastbound (A)	76.0	2007	120.0	3.0	2021.7	687,157	751,770	732,386	2021	703,352	767,965	2021.4	0.3	No
199	Dawson Highway 46C	Woorabinda/Duaringa to 46C/85B Intersection	Westbound (G)	80.0	2007	120.0	3.0	2020.3	624,426	687,157	643,245	2019	595,634	656,538	2019.8	0.5	No
200	Dawson Highway 46C	46C/85B Intersection to Woorabinda/Duaringa	Eastbound (A)	80.0	2007	120.0	3.0	2020.3	624,426	687,157	643,245	2020	631,543	694,274	2020.2	0.1	No
201	Dawson Highway 46C	46C/85B Intersection to Prospect Creek Culvert	Westbound (G)	64.0	2007	120.0	3.0	2025.7	831,696	894,865	875,914	2025	854,876	918,045	2025.3	0.4	No
202	Dawson Highway 46C	Prospect Creek Culvert to 46C/85B Intersection	Eastbound (A)	64.0	2007	120.0	3.0	2025.7	831,696	894,865	875,914	2025	838,813	901,982	2025.6	0.1	No
203	Dawson Highway 46C	Prospect Creek Culvert to Duaringa/Bauhinia Intersection	Westbound (G)	54.3	2007	120.0	3.0	2028.9	1,026,946	1,095,973	1,089,070	2028	1,050,126	1,119,153	2028.6	0.3	No
204	Dawson Highway 46C	Duaringa/Bauhinia Intersection to Prospect Creek Culvert	Eastbound (A)	54.3	2007	120.0	3.0	2028.9	1,026,946	1,095,973	1,089,070	2028	1,034,063	1,103,090	2028.8	0.1	No
205	Dawson Highway 46C	Duaringa/Bauhinia Intersection to KM 137.5	Westbound (G)	79.4	2007	120.0	3.0	2020.5	542,398	596,889	569,644	2020	565,578	620,069	2020.1	0.4	No
206	Dawson Highway 46C	KM 137.5 to Duaringa/Bauhinia Intersection	Eastbound (A)	79.4	2007	120.0	3.0	2020.5	542,398	596,889	569,644	2020	549,515	604,006	2020.4	0.1	No
207	Dawson Highway 46C	KM 137.5 to Rolleston	Westbound (G)	93.1	2007	120.0	3.0	2016.0	339,852	388,266	339,852	2015	293,562	340,566	2016.0	0.0	No
208	Dawson Highway 46C	Rollston to KM 137.5	Eastbound (A)	93.1	2007	120.0	3.0	2016.0	339,852	388,266	339,852	2015	293,562	340,566	2016.0	0.0	No
209	Leichhardt Highway 26A	District Boundary to 26A/85A intersection	Westbound (G)	70.0	2008	120.0	3.0	2024.7	1,944,901	2,099,736	2,053,286	2024	1,944,901	2,099,736	2024.7	0.0	No
210	Leichhardt Highway 26A	26A/84A intersection to District Boundary	Eastbound (A)	70.0	2008	120.0	3.0	2024.7	1,944,901	2,099,736	2,053,286	2024	1,944,901	2,099,736	2024.7	0.0	No
211	Leichhardt Highway 26A	26A/85A intersection to Taroom	Westbound (G)	68.0	2008	120.0	3.0	2025.3	2,418,339	2,602,018	2,473,442	2025	2,418,339	2,602,018	2025.3	0.0	No
212	Leichhardt Highway 26A	Taroom to 26A/84A intersection	Eastbound (A)	68.0	2008	120.0	3.0	2025.3	2,418,339	2,602,018	2,473,442	2025	2,418,339	2,602,018	2025.3	0.0	No
213	Leichhardt Highway 26B	Taroom to KM35.00	Westbound (G)	104.0	2008	120.0	3.0	2013.3	603,392	735,145	642,918	2013	603,392	735,145	2013.3	0.0	No
214	Leichhardt Highway 26B	KM35.00 to Taroom	Eastbound (A)	104.0	2008	120.0	3.0	2013.3	603,392	735,145	642,918	2013	603,392	735,145	2013.3	0.0	No
215	Leichhardt Highway 26B	KM35.00 to Jackson-Wandoan Road	Westbound (G)	81.0	2008	120.0	3.0	2021.0	1,774,986	1,941,887	1,774,986	2021	1,774,986	1,941,887	2021.0	0.0	No
216	Leichhardt Highway 26B	Jackson-Wandoan Road to KM35.00	Eastbound (A)	81.0	2008	120.0	3.0	2021.0	1,774,986	1,941,887	1,774,986	2021	1,774,986	1,941,887	2021.0	0.0	No
217	Leichhardt Highway 26B	Jackson-Wandoan Road to Miles	Westbound (G)	81.0	2008	120.0	3.0	2021.0	1,909,572	2,089,129	1,909,572	2021	1,909,572	2,089,129	2021.0	0.0	No
218	Leichhardt Highway 26B	Miles to Jackson-Wandoan Road	Eastbound (A)	81.0	2008	120.0	3.0	2021.0	1,909,572	2,089,129	1,909,572	2021	1,909,572	2,089,129	2021.0	0.0	No
219	Warrego Highway	Miles to 18D/Dulacca North Intersetcion	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,660,381	2,972,258	2,753,944	2017	2,514,083	2,831,605	2017.8	0.5	No
220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,660,381	2,972,258	2,753,944	2018	2,697,002	3,011,469	2018.2	0.1	No
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Intersection\	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,376,828	2,655,465	2,460,419	2017	2,262,803	2,548,052	2017.7	0.6	No
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Intersection	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,376,828	2,655,465	2,460,419	2018	2,413,450	2,694,675	2018.2	0.1	No
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,758,496	3,081,875	2,855,509	2017	2,601,031	2,929,719	2017.8	0.5	No
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,758,496	3,081,875	2,855,509	2018	2,795,117	3,121,086	2018.2	0.1	No
225	Warrego Highway	KM135.5 to Roma	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,043,290	2,282,826	2,115,151	2017	2,096,286	2,363,321	2017.1	1.2	Yes
226	Warrego Highway	Roma to KM135.5	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,043,290	2,282,826	2,115,151	2017	1,972,835	2,228,719	2017.6	0.7	No
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)	87.3	2008	120.0	3.0	2018.9	97,623	109,068	107,923	2018	97,623	109,068	2018.9	0.0	No
228	Jackson-Wandoan Road	Grid to 18D/Dulacca North Intersection	Southbound (G)	87.3	2008	120.0	3.0	2018.9	97,623	109,068	107,923	2018	97,623	109,068	2018.9	0.0	No
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)	128.3	2008	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)	128.3	2008	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)	70.0	2007	110.0	3.0	2020.3	9,216,041	10,141,903	9,493,800	2020	9,268,394	10,196,017	2020.2	0.1	No
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)	70.0	2007	110.0	3.0	2020.3	9,216,041	10,141,903	9,493,800	2020	9,221,625	10,147,665	2020.3	0.0	No
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)	64.0	2007	110.0	3.0	2022.3	11,095,542	12,077,790	11,390,216	2022	11,149,655	12,131,903	2022.2	0.1	No
234	Bruce Highway (10D)	Benaraby CH. 147.1 o CH. 112	Southbound (G)	64.0	2007	110.0	3.0	2022.3	11,095,542	12,077,790	11,390,216	2022	11,101,304	12,083,552	2022.3	0.0	No

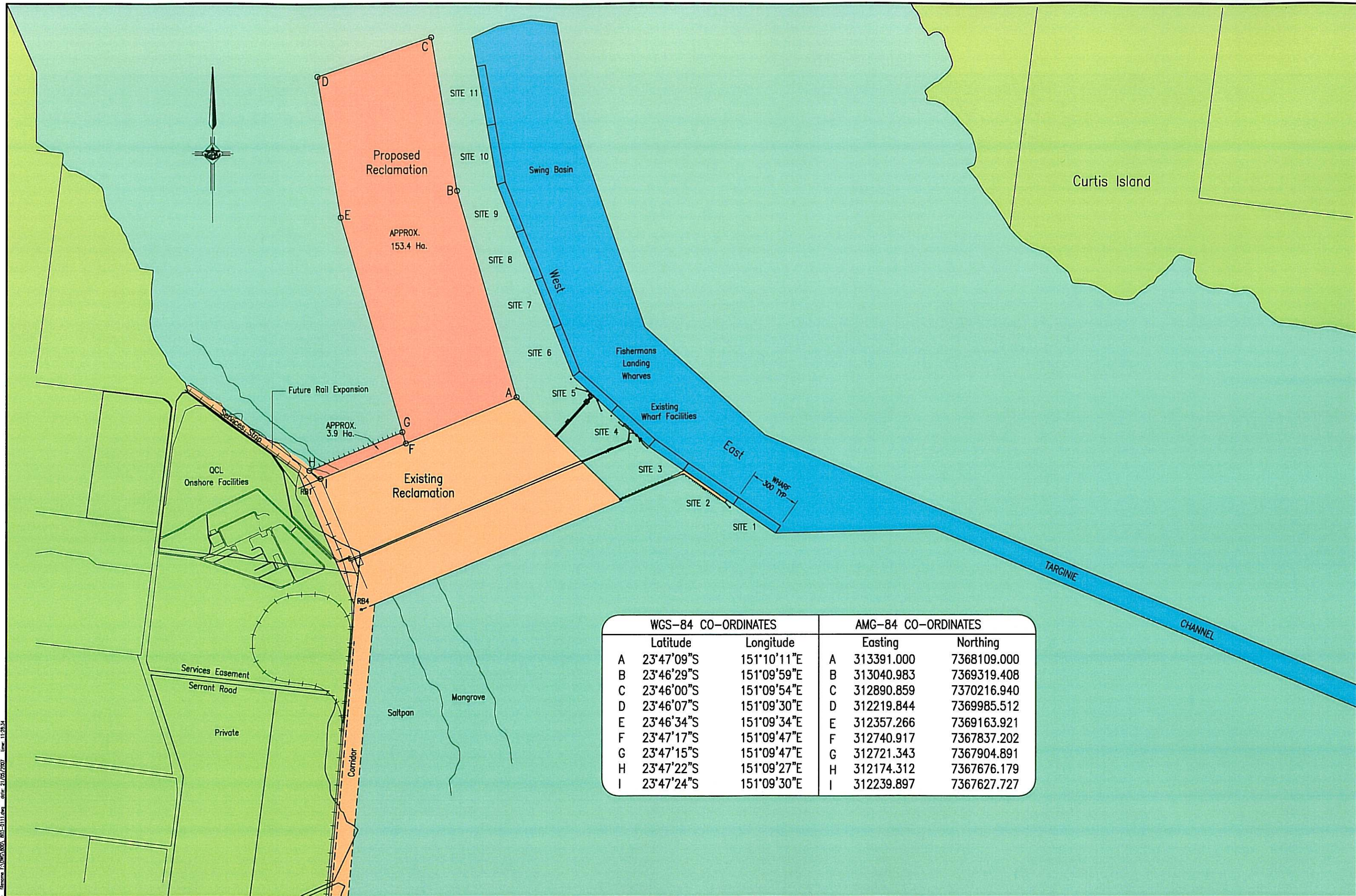
Annual Maintenance Cost																													
Road	Section	Direction	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)	\$11,077	\$11,852	\$12,682	\$13,570	\$14,520	\$15,536	\$16,623	\$17,787	\$19,032	\$20,364	\$21,790	\$23,315	\$24,947	\$26,694	\$28,562	\$30,562	\$32,701	\$34,990	\$37,439	\$40,060	\$42,864	\$45,865	\$49,075	\$52,510	\$56,186	\$60,119
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)	\$11,077	\$11,852	\$12,682	\$13,570	\$14,520	\$15,536	\$16,623	\$17,787	\$19,032	\$20,364	\$21,790	\$23,315	\$24,947	\$26,694	\$28,562	\$30,562	\$32,701	\$34,990	\$37,439	\$40,060	\$42,864	\$45,865	\$49,075	\$52,510	\$56,186	\$60,119
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)	\$5,169	\$5,531	\$5,918	\$6,333	\$6,776	\$7,250	\$7,758	\$8,301	\$8,882	\$9,503	\$10,169	\$10,880	\$11,642	\$12,457	\$13,329	\$14,262	\$15,260	\$16,329	\$17,472	\$18,695	\$20,003	\$21,403	\$22,902	\$24,505	\$26,220	\$28,056
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)	\$5,169	\$5,531	\$5,918	\$6,333	\$6,776	\$7,250	\$7,758	\$8,301	\$8,882	\$9,503	\$10,169	\$10,880	\$11,642	\$12,457	\$13,329	\$14,262	\$15,260	\$16,329	\$17,472	\$18,695	\$20,003	\$21,403	\$22,902	\$24,505	\$26,220	\$28,056
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)	\$6,646	\$7,111	\$7,609	\$8,142	\$8,712	\$9,322	\$9,974	\$10,672	\$11,419	\$12,219	\$13,074	\$13,989	\$14,968	\$16,016	\$17,137	\$18,337	\$19,621	\$20,994	\$22,464	\$24,036	\$25,718	\$27,519	\$29,445	\$31,506	\$33,712	\$36,072
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)	\$6,646	\$7,111	\$7,609	\$8,142	\$8,712	\$9,322	\$9,974	\$10,672	\$11,419	\$12,219	\$13,074	\$13,989	\$14,968	\$16,016	\$17,137	\$18,337	\$19,621	\$20,994	\$22,464	\$24,036	\$25,718	\$27,519	\$29,445	\$31,506	\$33,712	\$36,072
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)	\$9,500	\$10,072	\$10,991	\$11,760	\$12,584	\$13,464	\$14,407	\$15,415	\$16,496	\$17,649	\$18,885	\$20,207	\$21,621	\$23,134	\$24,754	\$26,487	\$28,341	\$30,325	\$32,447	\$34,719	\$37,149	\$39,749	\$42,532	\$45,509	\$48,695	\$52,103
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)	\$9,500	\$10,072	\$10,991	\$11,760	\$12,584	\$13,464	\$14,407	\$15,415	\$16,496	\$17,649	\$18,885	\$20,207	\$21,621	\$23,134	\$24,754	\$26,487	\$28,341	\$30,325	\$32,447	\$34,719	\$37,149	\$39,749	\$42,532	\$45,509	\$48,695	\$52,103
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)	\$5,508	\$6,321	\$6,764	\$7,237	\$7,744	\$8,286	\$8,866	\$9,486	\$10,151	\$10,861	\$11,621	\$12,435	\$13,305	\$14,237	\$15,233	\$16,299	\$17,440	\$18,661	\$19,968	\$21,365	\$22,861	\$24,461	\$26,173	\$28,006	\$29,966	\$32,064
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)	\$5,508	\$6,321	\$6,764	\$7,237	\$7,744	\$8,286	\$8,866	\$9,486	\$10,151	\$10,861	\$11,621	\$12,435	\$13,305	\$14,237	\$15,233	\$16,299	\$17,440	\$18,661	\$19,968	\$21,365	\$22,861	\$24,461	\$26,173	\$28,006	\$29,966	\$32,064
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)	\$23,631	\$25,285	\$27,055	\$28,949	\$30,975	\$33,143	\$35,463	\$37,946	\$40,602	\$43,444	\$46,485	\$49,739	\$53,221	\$56,946	\$60,933	\$65,198	\$69,762	\$74,645	\$79,870	\$85,461	\$91,443	\$97,845	\$104,694	\$111,022	\$119,864	\$128,254
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)	\$23,631	\$25,285	\$27,055	\$28,949	\$30,975	\$33,143	\$35,463	\$37,946	\$40,602	\$43,444	\$46,485	\$49,739	\$53,221	\$56,946	\$60,933	\$65,198	\$69,762	\$74,645	\$79,870	\$85,461	\$91,443	\$97,845	\$104,694	\$111,022	\$119,864	\$128,254
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)	\$14,031	\$15,013	\$16,064	\$17,188	\$18,391	\$19,679	\$21,056	\$22,530	\$24,107	\$25,795	\$27,601	\$29,533	\$31,600	\$33,812	\$36,179	\$38,711	\$41,421	\$44,321	\$47,423	\$50,743	\$54,295	\$58,095	\$62,162	\$66,513	\$71,169	\$76,151
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)	\$14,031	\$15,013	\$16,064	\$17,188	\$18,391	\$19,679	\$21,056	\$22,530	\$24,107	\$25,795	\$27,601	\$29,533	\$31,600	\$33,812	\$36,179	\$38,711	\$41,421	\$44,321	\$47,423	\$50,743	\$54,295	\$58,095	\$62,162	\$66,513	\$71,169	\$76,151
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)	\$94,246	\$98,743	\$103,555	\$108,704	\$114,213	\$119,108	\$124,356	\$129,961	\$135,927	\$141,258	\$146,904	\$152,867	\$159,147	\$165,746	\$172,675	\$179,944	\$187,563	\$195,432	\$203,661	\$212,269	\$221,266	\$230,663	\$240,468	\$250,692	\$261,346	\$272,440
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)	\$94,246	\$98,743	\$103,555	\$108,704	\$114,213	\$119,108	\$124,356	\$129,961	\$135,927	\$141,258	\$146,904	\$152,867	\$159,147	\$165,746	\$172,675	\$179,944	\$187,563	\$195,432	\$203,661	\$212,269	\$221,266	\$230,663	\$240,468	\$250,692	\$261,346	\$272,440
17	Dawson Highway 46A	Bruce Highway to Dryan Drive	Southbound (G)	\$20,308	\$21,729	\$23,250	\$24,878	\$26,619	\$28,483	\$30,476	\$32,610	\$34,892	\$37,335	\$39,948	\$42,745	\$45,737	\$48,938	\$52,364	\$56,029	\$59,952	\$64,148	\$68,639	\$73,443	\$78,584	\$84,085	\$89,971	\$96,269	\$103,008	\$110,218
18	Dawson Highway 46A	Bruce Highway to Dryan Drive	Northbound (A)	\$20,308	\$21,729	\$23,250	\$24,878	\$26,619	\$28,483	\$30,476	\$32,610	\$34,892	\$37,335	\$39,948	\$42,745	\$45,737	\$48,938	\$52,364	\$56,029	\$59,952	\$64,148	\$68,639	\$73,443	\$78,584	\$84,085	\$89,971	\$96,269	\$103,008	\$110,218
19	Dawson Highway 46A	Dryan Drive to Gladstone-Monto Road	Westbound (G)	\$24,810	\$26,547	\$28,405	\$30,393	\$32,521	\$34,797	\$37,233	\$39,839	\$42,628	\$45,612	\$48,805	\$52,221	\$55,877	\$59,788	\$63,973	\$68,452	\$73,243	\$78,370	\$83,856	\$89,726	\$96,007	\$102,727	\$109,918	\$117,612	\$125,845	\$134,655
20	Dawson Highway 46A	Dryan Drive to Gladstone-Monto Road	Eastbound (A)	\$24,810	\$26,547	\$28,405	\$30,393	\$32,521	\$34,797	\$37,233	\$39,839	\$42,628	\$45,612	\$48,805	\$52,221	\$55,877	\$59,788	\$63,973	\$68,452	\$73,243	\$78,370	\$83,856	\$89,726	\$96,007	\$102,727	\$109,918	\$117,612	\$125,845	\$134,655
21	Dawson Highway 46A	Gladstone-Monto Road to Access to Pipeline Camp 4	Westbound (G)	\$146,782	\$157,057	\$168,051	\$179,814	\$192,401	\$205,869	\$220,280	\$235,700	\$252,199	\$269,853	\$288,742	\$308,954	\$330,581	\$353,722	\$378,482	\$404,976	\$433,324	\$463,657	\$496,113	\$530,841	\$568,000	\$607,760	\$650,303	\$699,824	\$744,532	\$796,649
22	Dawson Highway 46A	Access to Pipeline Camp 4 to Gladstone-Monto Road	Eastbound (A)	\$146,782	\$157,057	\$168,051	\$179,814	\$192,401	\$205,869	\$220,280	\$235,700	\$252,199	\$269,853	\$288,742	\$308,954	\$330,581	\$353,722	\$378,482	\$404,976	\$433,324	\$463,657	\$496,113	\$530,841	\$568,000	\$607,760	\$650,303	\$699,824	\$744,532	\$796,649
23	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Westbound (G)	\$147,978	\$158,337	\$169,420	\$181,280	\$193,969	\$207,547	\$222,076	\$237,621	\$254,254	\$272,052	\$291,096	\$311,472	\$333,276	\$356,605	\$381,567	\$408,277	\$436,856	\$467,436	\$500,157	\$535,168	\$572,629	\$612,713	\$655,603	\$701,496	\$750,600	\$803,142
24	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Eastbound																										

119	Leichhardt Highway 26A	CH. 86.0 Fairview Road to CH. 88.0	Southbound (G)	\$12,594	\$13,475	\$14,419	\$15,428	\$16,508	\$17,664	\$18,900	\$20,223	\$21,639	\$23,153	\$24,774	\$26,508	\$28,364	\$30,349	\$32,474	\$34,747	\$37,179	\$39,782	\$42,567	\$45,546	\$48,734	\$52,146	\$55,796	\$59,702	\$63,881	\$68,353
120	Leichhardt Highway 26A	CH. 88.0 to CH.86.0	Northbound (A)	\$12,594	\$13,475	\$14,419	\$15,428	\$16,508	\$17,664	\$18,900	\$20,223	\$21,639	\$23,153	\$24,774	\$26,508	\$28,364	\$30,349	\$32,474	\$34,747	\$37,179	\$39,782	\$42,567	\$45,546	\$48,734	\$52,146	\$55,796	\$59,702	\$63,881	\$68,353
121	Leichhardt Highway 26A	CH. 88.0 to CH. 99.0 (Camp 3)	Southbound (G)	\$69,266	\$74,115	\$79,439	\$84,854	\$90,794	\$97,150	\$103,950	\$111,227	\$119,013	\$127,344	\$136,258	\$145,796	\$156,001	\$166,921	\$178,606	\$191,108	\$204,486	\$218,800	\$24,116	\$250,504	\$268,039	\$286,802	\$306,878	\$329,360	\$351,345	\$375,939
122	Leichhardt Highway 26A	CH. 99.0 (Camp 3) to CH. 88.0	Northbound (A)	\$69,266	\$74,115	\$79,439	\$84,854	\$90,794	\$97,150	\$103,950	\$111,227	\$119,013	\$127,344	\$136,258	\$145,796	\$156,001	\$166,921	\$178,606	\$191,108	\$204,486	\$218,800	\$24,116	\$250,504	\$268,039	\$286,802	\$306,878	\$329,360	\$351,345	\$375,939
123	Leichhardt Highway 26A	CH. 99.0 to Banania CH. 105.2	Southbound (G)	\$39,041	\$41,774	\$44,698	\$47,827	\$51,175	\$54,757	\$58,590	\$62,691	\$67,080	\$71,775	\$76,800	\$82,176	\$87,928	\$94,083	\$100,669	\$107,716	\$115,256	\$123,324	\$131,956	\$141,193	\$151,077	\$161,652	\$172,968	\$185,075	\$198,031	\$211,893
124	Leichhardt Highway 26A	Banania CH. 105.2 to CH. 99.0	Northbound (A)	\$39,041	\$41,774	\$44,698	\$47,827	\$51,175	\$54,757	\$58,590	\$62,691	\$67,080	\$71,775	\$76,800	\$82,176	\$87,928	\$94,083	\$100,669	\$107,716	\$115,256	\$123,324	\$131,956	\$141,193	\$151,077	\$161,652	\$172,968	\$185,075	\$198,031	\$211,893
125	Leichhardt Highway 26A	Banania CH. 105.2 to CH. 117.0	Southbound (G)	\$14,304	\$19,505	\$25,075	\$31,028	\$37,360	\$44,015	\$51,150	\$58,816	\$67,003	\$75,768	\$85,169	\$95,199	\$105,967	\$117,581	\$130,056	\$143,507	\$157,942	\$173,369	\$189,797	\$207,223	\$225,649	\$245,075	\$265,501	\$286,927	\$309,353	\$332,779
126	Leichhardt Highway 26A	CH. 117.0 to Banania CH. 105.2	Northbound (A)	\$74,304	\$79,505	\$85,075	\$91,028	\$97,360	\$104,015	\$111,150	\$118,816	\$127,003	\$135,768	\$145,169	\$155,199	\$165,967	\$177,581	\$190,056	\$203,507	\$217,942	\$233,369	\$249,797	\$267,223	\$285,649	\$305,075	\$325,501	\$346,927	\$369,353	\$392,779
127	Leichhardt Highway 26A	CH. 117.0 to CH. 124.0	Southbound (G)	\$39,270	\$42,019	\$44,960	\$48,108	\$51,475	\$55,078	\$58,934	\$63,059	\$67,473	\$72,196	\$77,250	\$82,658	\$88,444	\$94,635	\$101,259	\$108,347	\$115,932	\$124,047	\$132,730	\$142,021	\$151,963	\$162,600	\$173,982	\$186,161	\$199,192	\$213,136
128	Leichhardt Highway 26A	CH. 124.0 to CH. 117.0	Northbound (A)	\$39,270	\$42,019	\$44,960	\$48,108	\$51,475	\$55,078	\$58,934	\$63,059	\$67,473	\$72,196	\$77,250	\$82,658	\$88,444	\$94,635	\$101,259	\$108,347	\$115,932	\$124,047	\$132,730	\$142,021	\$151,963	\$162,600	\$173,982	\$186,161	\$199,192	\$213,136
129	Leichhardt Highway 26A	Theodore CH. 162.3 to CH.124.0	Westbound (G)	\$241,173	\$258,055	\$276,119	\$295,448	\$316,129	\$338,258	\$361,936	\$387,271	\$414,380	\$443,387	\$474,424	\$507,634	\$543,168	\$581,190	\$621,873	\$665,404	\$711,983	\$761,822	\$815,149	\$872,209	\$933,264	\$996,593	\$1,068,494	\$1,143,289	\$1,223,319	\$1,308,951
130	Leichhardt Highway 26A	CH.124.0 to Theodore CH. 124.0	Eastbound (A)	\$241,173	\$258,055	\$276,119	\$295,448	\$316,129	\$338,258	\$361,936	\$387,271	\$414,380	\$443,387	\$474,424	\$507,634	\$543,168	\$581,190	\$621,873	\$665,404	\$711,983	\$761,822	\$815,149	\$872,209	\$933,264	\$996,593	\$1,068,494	\$1,143,289	\$1,223,319	\$1,308,951
131	Leichhardt Highway 26A	Theodore CH. 162.3 to CH. 124.0	Westbound (G)	\$50,376	\$53,902	\$57,675	\$61,712	\$66,032	\$70,654	\$75,600	\$80,892	\$86,555	\$92,613	\$99,096	\$106,033	\$113,456	\$121,397	\$129,895	\$138,988	\$148,717	\$159,127	\$170,266	\$182,185	\$194,938	\$208,583	\$223,184	\$238,807	\$255,524	\$273,410
132	Leichhardt Highway 26A	Theodore CH. 162.3 to Glenmorral Roundstone Road	Eastbound (A)	\$50,376	\$53,902	\$57,675	\$61,712	\$66,032	\$70,654	\$75,600	\$80,892	\$86,555	\$92,613	\$99,096	\$106,033	\$113,456	\$121,397	\$129,895	\$138,988	\$148,717	\$159,127	\$170,266	\$182,185	\$194,938	\$208,583	\$223,184	\$238,807	\$255,524	\$273,410
133	Leichhardt Highway 26A	Glenmorral Roundstone Road to Isla Delusion Road	Westbound (G)	\$96,268	\$92,307	\$88,768	\$85,628	\$82,307	\$78,827	\$75,107	\$71,147	\$66,847	\$62,107	\$57,007	\$51,507	\$45,507	\$39,007	\$32,007	\$24,507	\$16,007	\$7,507	\$0,007	\$0,007	\$0,007	\$0,007	\$0,007	\$0,007	\$0,007	\$0,007
134	Leichhardt Highway 26A	Isla Delusion Road to Glenmorral Roundstone Road	Eastbound (A)	\$96,268	\$92,307	\$88,768	\$85,628	\$82,307	\$78,827	\$75,107	\$71,147	\$66,847	\$62,107	\$57,007	\$51,507	\$45,507	\$39,007	\$32,007	\$24,507	\$16,007	\$7,507	\$0,007	\$0,007	\$0,007	\$0,007	\$0,007	\$0,007	\$0,007	\$0,007
135	Leichhardt Highway 26A	Glenmorral Roundstone Road to Dawson Highway	Westbound (G)	\$151,655	\$155,249	\$159,117	\$163,255	\$167,683	\$172,421	\$177,490	\$182,915	\$188,719	\$194,929	\$201,574	\$208,684	\$216,292	\$224,432	\$233,143	\$242,463	\$252,435	\$263,105	\$274,533	\$286,739	\$299,811	\$313,798	\$328,764	\$344,777	\$361,812	\$379,887
136	Leichhardt Highway 26A	District Boundary to Isla Delusion Road	Eastbound (A)	\$151,655	\$155,249	\$159,117	\$163,255	\$167,683	\$172,421	\$177,490	\$182,915	\$188,719	\$194,929	\$201,574	\$208,684	\$216,292	\$224,432	\$233,143	\$242,463	\$252,435	\$263,105	\$274,533	\$286,739	\$299,811	\$313,798	\$328,764	\$344,777	\$361,812	\$379,887
137	Bruce Highway	Gladstone-Beraraty Road to Dawson Highway	Westbound (G)	\$81,013	\$86,684	\$92,752	\$99,245	\$106,192	\$113,625	\$121,579	\$130,089	\$139,196	\$148,939	\$159,365	\$170,521	\$182,457	\$195,229	\$208,895	\$223,458	\$239,164	\$256,905	\$275,819	\$296,982	\$319,435	\$343,295	\$368,661	\$394,645	\$421,358	\$449,831
138	Bruce Highway	Dawson Highway to Callopie River Road	Eastbound (A)	\$81,013	\$86,684	\$92,752	\$99,245	\$106,192	\$113,625	\$121,579	\$130,089	\$139,196	\$148,939	\$159,365	\$170,521	\$182,457	\$195,229	\$208,895	\$223,458	\$239,164	\$256,905	\$275,819	\$296,982	\$319,435	\$343,295	\$368,661	\$394,645	\$421,358	\$449,831
139	Bruce Highway	Dawson Highway to Callopie River Road	Westbound (G)	\$57,508	\$61,320	\$65,612	\$70,205	\$75,119	\$80,377	\$86,004	\$92,024	\$98,466	\$105,358	\$112,733	\$120,625	\$129,069	\$138,103	\$147,771	\$158,114	\$169,183	\$181,025	\$193,697	\$207,256	\$221,764	\$237,287	\$253,897	\$271,670	\$290,687	\$311,035
140	Bruce Highway	Callopie River Road to Gladstone Mt-Larcom Road	Eastbound (A)	\$168,129	\$179,898	\$192,490	\$205,965	\$220,382	\$235,809	\$252,316	\$269,978	\$288,876	\$309,098	\$330,734	\$353,886	\$378,658	\$405,164	\$433,525	\$463,872	\$496,343	\$531,087	\$568,263	\$608,402	\$650,604	\$696,147	\$744,877	\$797,018	\$852,810	\$912,506
141	Bruce Highway	Callopie River Road to Gladstone Mt-Larcom Road	Westbound (G)	\$168,129	\$179,898	\$192,490	\$205,965	\$220,382	\$235,809	\$252,316	\$269,978	\$288,876	\$309,098	\$330,734	\$353,886	\$378,658	\$405,164	\$433,525	\$463,872	\$496,343	\$531,087	\$568,263	\$608,402	\$650,604	\$696,147	\$744,877	\$797,018	\$852,810	\$912,506
142	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Road	Westbound (G)	\$294,646	\$315,271	\$337,340	\$360,954	\$386,220	\$413,256	\$442,184	\$473,137	\$506,256	\$541,694	\$579,613	\$620,186	\$663,599	\$710,051	\$759,754	\$812,937	\$869,842	\$930,731	\$995,883	\$1,065,594	\$1,140,186	\$1,219,999	\$1,305,399	\$1,396,777	\$1,494,551	\$1,599,170
143	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Road	Eastbound (A)	\$294,646	\$315,271	\$337,340	\$360,954	\$386,220	\$413,256	\$442,184	\$473,137	\$506,256	\$541,694	\$579,613	\$620,186	\$663,599	\$710,051	\$759,754	\$812,937	\$869,842	\$930,731	\$995,883	\$1,065,594	\$1,140,186	\$1,219,999	\$1,305,399	\$1,396,777	\$1,494,551	\$1,599,170
144	Bruce Highway	Bajool Port Alma Road to Gairloch Gracemere Road	Westbound (G)	\$10,705	\$11,305	\$11,905	\$12,505	\$13,105	\$13,705	\$14,305	\$14,905	\$15,505	\$16,105	\$16,705	\$17,305	\$17,905	\$18,505	\$19,105	\$19,705	\$20,305	\$20,905	\$21,505	\$22,105	\$22,705	\$23,305	\$23,905	\$24,505	\$25,105	\$25,705
145	Bruce Highway	Bajool Port Alma Road to Gairloch Gracemere Road	Eastbound (A)	\$10,705	\$11,305	\$11,905	\$12,505	\$13,105	\$13,705	\$14,305	\$14,905	\$15,505	\$16,105	\$16,705	\$17,305	\$17,905	\$18,505	\$19,105	\$19,705	\$20,305	\$20,905	\$21,505	\$22,105	\$22,705	\$23,305	\$23,905	\$24,505	\$25,105	\$25,705
146	Bruce Highway	Gairloch Gracemere Road to Burnett Highway	Westbound (G)	\$39,877	\$42,668	\$45,655	\$48,851	\$52,270	\$55,929	\$59,844	\$64,034	\$68,516	\$73,312	\$78,444	\$83,935	\$89,810	\$96,097	\$102,824	\$110,022	\$117,723	\$125,964	\$134,781	\$144,216	\$154,311	\$165,113	\$176,671	\$189,037	\$202,270	\$216,429
147	Bruce Highway	Gairloch Gracemere Road to Burnett Highway	Eastbound (A)	\$39,877	\$42,668	\$45,655	\$48,851	\$52,270	\$55,929	\$59,844	\$64,034	\$68,516	\$73,312	\$78,444	\$83,935	\$89,810	\$96,097	\$102,824	\$110,022	\$117,723	\$125,964	\$134,781	\$144,216	\$154,311	\$165,113	\$176,671	\$189,037	\$202,270	\$216,429
148	Bruce Highway	Burnett Highway to Capricorn Highway	Westbound (G)	\$20,986	\$22,455	\$24,027	\$25,709	\$27,508	\$29,434	\$31,494	\$33,699	\$36,058	\$38,582	\$41,283	\$44,172	\$47,265	\$50,573	\$54,113	\$57,901	\$61,954	\$66,291	\$70,931	\$75,897	\$81,209	\$86,894	\$92,976	\$99,485	\$106,449	\$113,900
149	Bruce Highway	Burnett Highway to Capricorn Highway	Eastbound (A)	\$20,986	\$22,455	\$24,027	\$25,709	\$27,508	\$29,434	\$31,494	\$33,699	\$36,058	\$38,582	\$41,283	\$44,172	\$47,265	\$50,573	\$54,113	\$57,901	\$61,954	\$66,291	\$70,931	\$75,897	\$81,209	\$86,894	\$92,976	\$99,485	\$106,449	\$113,900
150	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	\$22,084	\$23,630	\$25,284	\$27,054	\$28,947	\$30,974	\$33,142	\$35,462	\$37,944	\$40,600	\$43,442	\$46,483	\$49,737	\$53,218	\$56,944	\$60,930	\$65,195	\$69,758	\$74,642	\$79,866	\$85,457	\$91,439	\$97,840	\$104,689	\$112,017	\$119,858
151	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	\$22,084	\$23,630	\$25,284	\$27,054	\$28,947	\$30,974	\$33,142	\$35,462	\$37,944	\$40,600	\$43,442	\$46,483	\$49,737	\$53,218	\$56,944	\$60,930	\$65,195	\$69,758	\$74,642	\$79,866	\$85,457	\$91,439	\$97,840	\$104,689	\$112,017	\$119,858
152	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	\$10,806	\$11,348	\$11,943	\$12,593	\$13,302	\$14,075	\$14,917	\$15,831	\$16,823	\$17,899	\$19,064	\$20,324	\$21,687	\$23,162	\$24,750	\$26,462	\$28,300	\$30,265	\$32,368	\$34,619	\$37,028	\$39,597	\$42,336	\$45,165	\$48,094	\$51,123
153	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	\$10,806	\$11,348	\$11,943	\$12,593	\$13,302	\$14,075	\$14,917	\$15,831	\$16,823	\$17,899	\$19,064	\$20,324	\$21,687	\$23,162	\$24,750	\$26,462	\$28,300	\$30,265	\$32,368	\$34,619	\$37,028	\$39,597	\$42,336	\$45,165	\$48,094	\$51,123
154	Gladstone - Benarady Road	CH. 1																											

[illegible]

Appendix A

Fisherman's Landing Expansion Plan



WGS-84 CO-ORDINATES		AMG-84 CO-ORDINATES	
Latitude	Longitude	Easting	Northing
A 23°47'09"S	151°10'11"E	A 313391.000	7368109.000
B 23°46'29"S	151°09'59"E	B 313040.983	7369319.408
C 23°46'00"S	151°09'54"E	C 312890.859	7370216.940
D 23°46'07"S	151°09'30"E	D 312219.844	7369985.512
E 23°46'34"S	151°09'34"E	E 312357.266	7369163.921
F 23°47'17"S	151°09'47"E	F 312740.917	7367837.202
G 23°47'15"S	151°09'47"E	G 312721.343	7367904.891
H 23°47'22"S	151°09'27"E	H 312174.312	7367676.179
I 23°47'24"S	151°09'30"E	I 312239.897	7367627.727

NO.	DRN	DATE	REVISION DESCRIPTION	APPR	DRG. NO.	REFERENCE DRAWING TITLE	USE HARD COPY INFORMATION ONLY U.N.O. ELECTRONIC CAD FILE ACCURACY IS NOT GUARANTEED.	GLADSTONE PORT AUTHORITY 3RD ANGLE PROJECTION U.N.O. ALL DIMENSIONS IN MILLIMETRES U.N.O. DO NOT SCALE	SCALE AT A1: 1:10000	CLIENT No: DRAWING No. 803-0111
E	G.K.	21.11.00	S/BUILD AREA REMOVED, NEW RECLAIM COLOUR CHANGE, CORRIDOR AREA WIDENED AND NEW RECLAIM CO-ORDINATES ADDED	N.B.	411-0023	FISHERMANS LANDING - PROPOSED 7 BERTH WHARF EXTENSION			DRAWN* S.DEMPSEY 16-06-97	
F	G.K.	27.2.04	RAIL LINE & RECLAMATION REMOVED, COMALCO BERTH ADDED	O.B.	431-0020	RECLAMATION NORTH OF F/LANDING LAYOUT AND LEVELS			CHECK* N.BOWLEY	
G	G.K.	11.5.04	CO-ORDINATES AMENDED & ADDED, EASTINGS NORTHINGS & REFERENCES ADDED AND AREA UPGRADE	O.B.	431-0053	PROPOSED NORTHERN DEVELOPMENT AT F/LANDING			DESIGN* N.BOWLEY	
H	G.K.	16.5.07	70M RECLAIM STRIP & CO-ORDINATES ADDED	B.C.	431-0054	RECLAMATION NORTH OF F/LANDING HYDROGRAPHIC DATA			APPROVE*	

Appendix B

Queensland Transport Approved Truck Routes

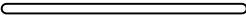
MULTI-COMBINATION VEHICLES IN QUEENSLAND

MARKED ROUTES

The following legend indicates which vehicles may/or may not use routes which are marked in the maps.

The vehicle description listed opposite the type of route marking indicates which vehicles are permitted or not permitted on routes depicted in that manner in the maps.

Legend

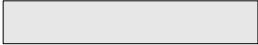
23 metre B-doubles only	
23 metre & 25 metre B-doubles only	
Type 1 road trains, 23 metre & 25 metre B-doubles only	
Type 1 and Type 2 road trains, 23 metre & 25 metre B-doubles	
No road trains or B-doubles to operate on these roads	

Operations are not permitted on roads where signs prohibit use or as indicated by above legend

SHADED AREAS

There are two shaded areas indicated on the maps.

These areas indicate that specified types of multi-combination vehicles can operate on most roads within the specified shaded area as per the legend above and text below.

 All multi-combination vehicles
(excluding Type 2 road trains)

Light shaded area

There are some marked routes in the light shaded area that cannot be used by road train or B-double combinations. Refer to the marked routes legend to identify these routes on maps.

 All multi-combination vehicles

Dark shaded area

There are some marked routes in the dark shaded area that cannot be used by road train or B-double combinations. Refer to the marked routes legend to identify these routes on maps.

There are maps provided for some towns within the shaded areas where operation of road train or B-double combinations is limited to the routes specified (see index to locate these maps which are marked with an asterisk).

Operations in other towns is not restricted unless signs prohibit use or the route is marked for no road train or B-double operations in the guideline.

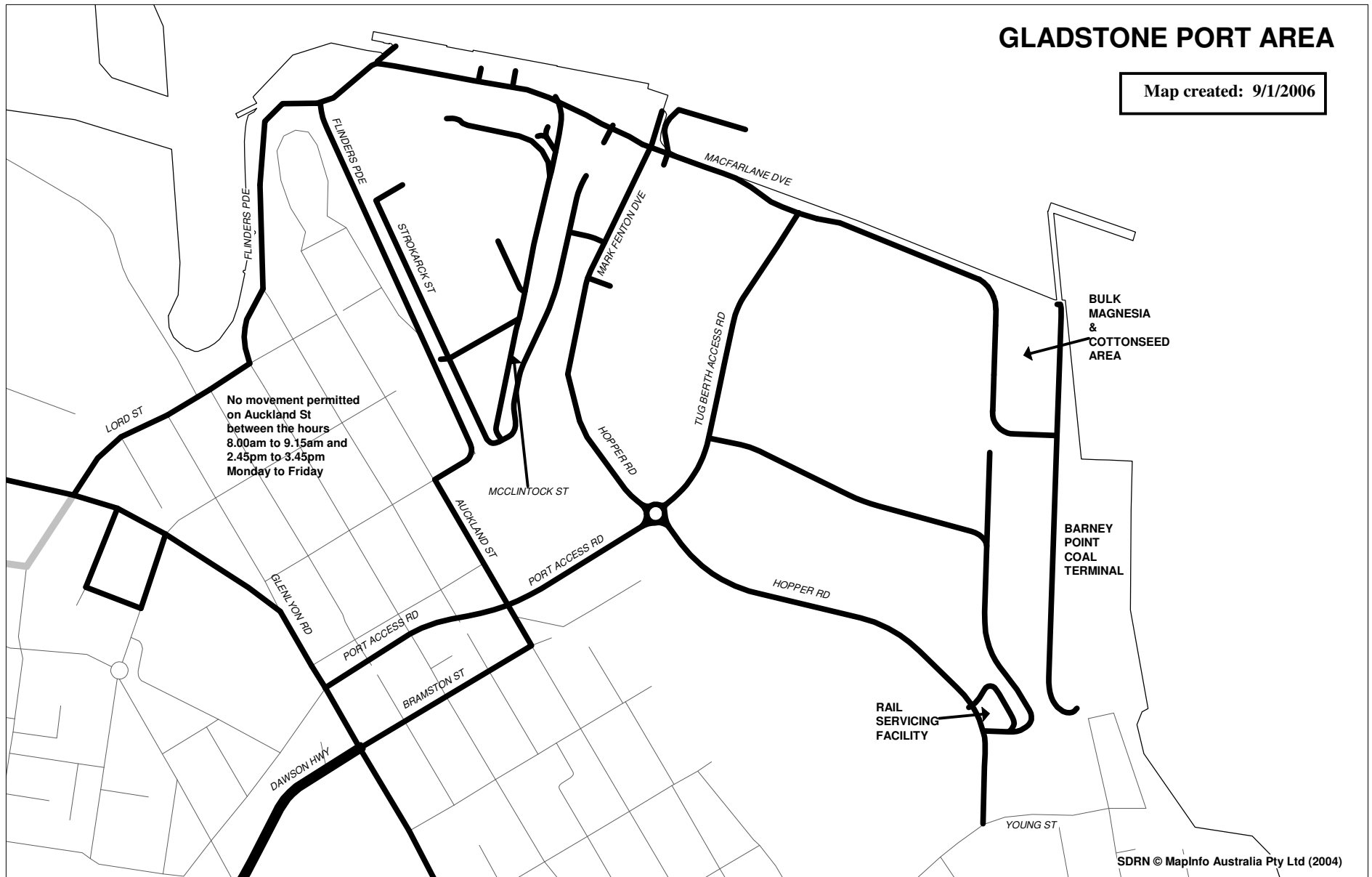
Operations on local authority roads in shaded areas is not restricted unless signs prohibit use or the route is marked for no road train or B-double operations in the guideline.

UNSHADED AREA

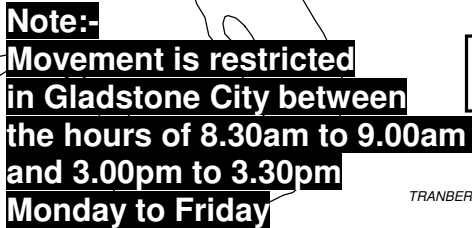
There is also an unshaded (all white) area where multi-combination vehicles can only operate on marked routes as per the legend above.

 Multi-combination vehicles may operate
only on approved routes shown.

All white area



Refer to Legend for identification of marked routes and shaded areas



Access via Tranberg St,
Drewe St, Kingdon St
to Hanson Rd

SEE GLADSTONE PORT MAP
for detail

GLADSTONE

Map updated: 15/8/06

Auckland St
No movement permitted
between the hours
8.00am to 9.15am and
2.45pm to 3.45pm
Monday to Friday

**Access from
Brambles,
French St to
QAL Wharf
Parsons Point**

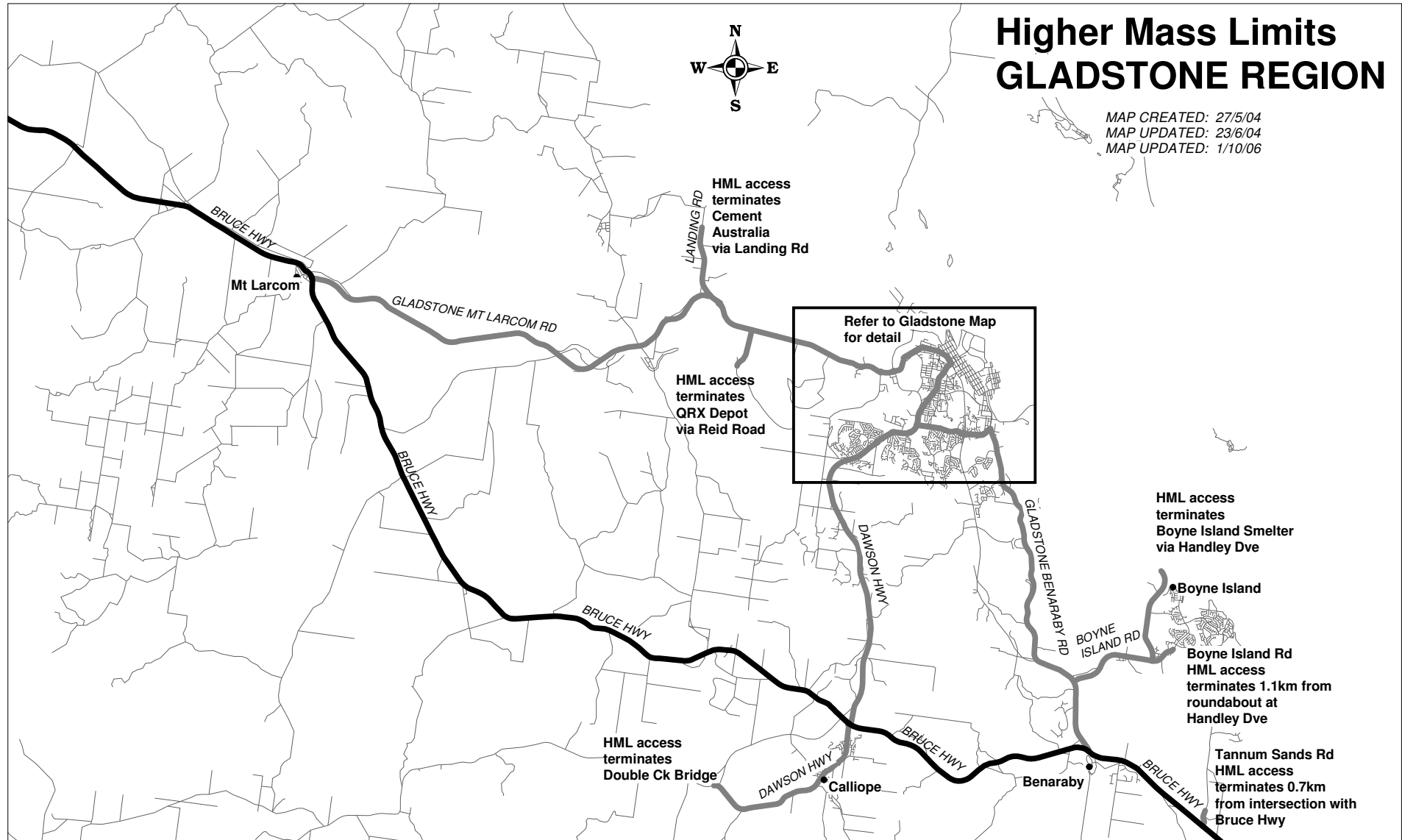
**23 metre
access to
Reef
City Ford**

23 metre access
Manning St



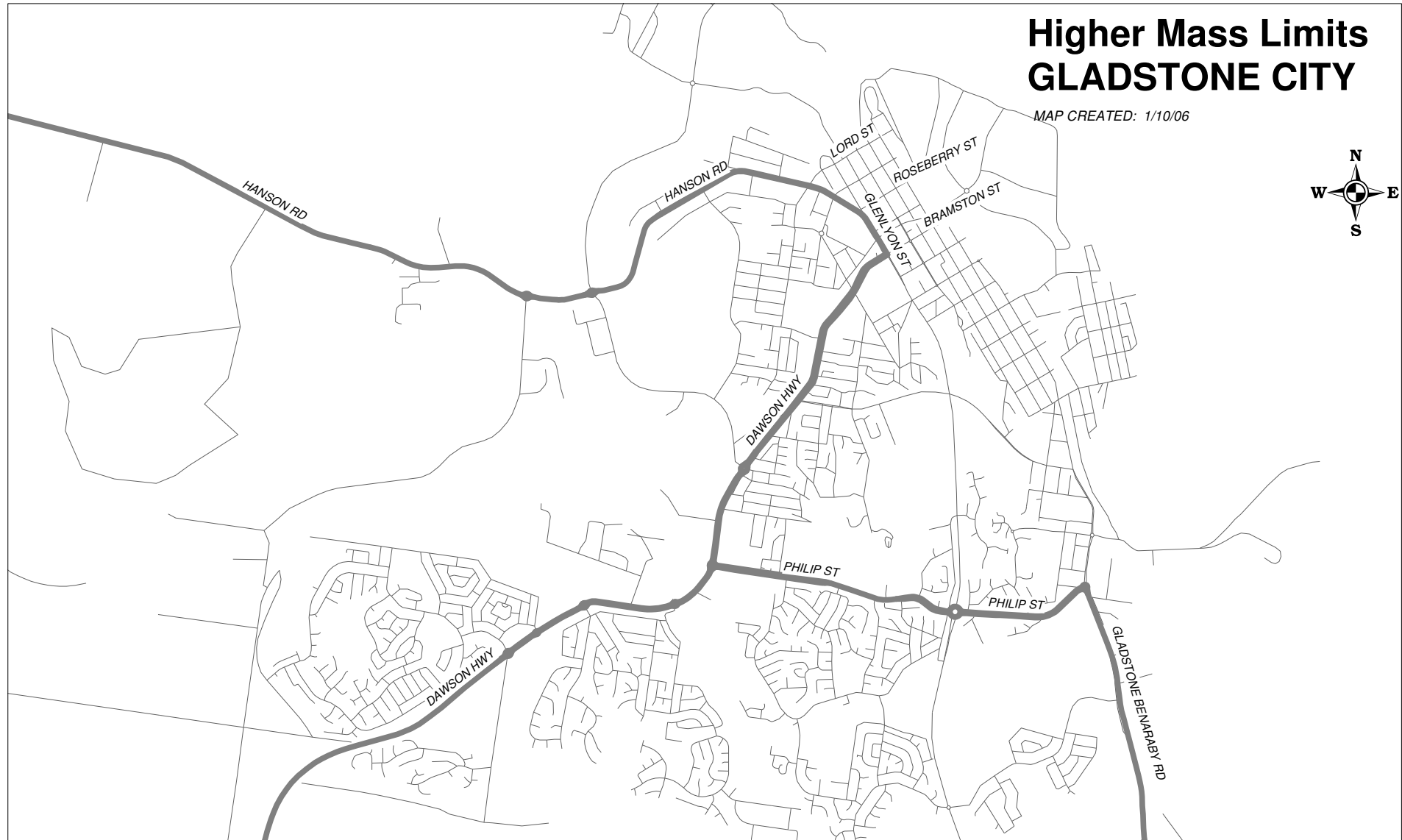
Refer to Legend for identification of marked routes and shaded areas

APPROVED ROUTES FOR HIGHER MASS LIMITS FOR VEHICLES WITH ROAD FRIENDLY SUSPENSIONS





APPROVED ROUTES FOR HIGHER MASS LIMITS FOR VEHICLES WITH ROAD FRIENDLY SUSPENSIONS



Appendix C

GLNG Environmental Impact Statement – Marine

Transport Strategy

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Gladstone LNG Environmental Impact Statement – Marine Transport Strategy

Prepared for GLNG

February 2009

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- 5.2 Ferry Cycle Time Comparison

APPENDICES:

- A Fisherman's Landing Expansion Plan
- B Queensland Transport Approved Truck Routes

Document Control Gladstone LNG EIS – Marine Transport Strategy					
Version	Date	Author		Reviewer	
		Name	Initials	Name	Initials
1	17 November 2008	Joey Bansen		Craig Thompson	
2	23 December 2008	Joey Bansen		Craig Thompson	
3	5 February 2009	Joey Bansen		Craig Thompson	
4	10 February 2009	Joey Bansen		Craig Thompson	

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1.0 INTRODUCTION

1.1 Background

Cardno Eppell Olsen (CEO) has been commissioned by URS as a representative of Santos to prepare a Marine Transport Strategy for the movement of goods, equipment and personnel related to the construction of Train 1 of the LNG facility on Curtis Island for the GLNG Project.

A bridge from the mainland crossing Port Curtis between Friend Point and Laird Point to Curtis Island, approximately 20km northwest of Gladstone is proposed to ultimately provide a link for LNG facility construction and operations. Note that the need for such a bridge is still being assessed in consultation with stakeholder agencies, however for the purposes of this assessment the construction of a bridge is being treated as the base case. Current planning of the project suggests that the bridge, if built, would not be completed during construction of Train 1 of the LNG facility. Because of this, alternative arrangements are necessary for transferring construction materials, plant, equipment and personnel to Curtis Island, including barging of goods and ferrying of people.

Considering the above, this transport strategy provides a general and comparative assessment of options related to the traffic and transport implications of the following issues:

- Location and arrangements for construction worker accommodation;
- Location of mainland ferry landing for worker loading/offloading and bus transfer;
- Location of ship and truck cargo transfer facility.

1.2 References

In preparing this report the following background reference materials and documents have been utilised:

- Bechtel, GLNG Project Pre-FEED Study – Camp Strategy, 22 August 2008;
- Foster Wheeler Energy Ltd, Civil Design Report, 12 August 2008;
- Curtis Ferry Services: <http://www.curtisferryservices.com.au/>;
- Bechtel, Traffic and Logistics Survey, 22 August 2008; and
- GLNG Project Description, URS, 8 January 2009.

2.0 WORKER ACCOMMODATION OPTION ASSESSMENT

Options for worker accommodation locations have been outlined in the Bechtel memorandum GLNG Project Pre-FEED Study Camp Strategy, dated 22 August 2008. Two options were identified and discussed in the memorandum, which include accommodation for all workers on Curtis Island and a workers accommodation for all construction workers on the mainland at Calliope. The main issues discussed related to the two workers accommodation options were:

- safety: getting employees to/from work safely;
- community impact: including disruptions due to commute, ferry services, living accommodations, and local economy;
- employee quality of life: including standard of accommodation, food, recreation and communication, commute time;
- employee well-being/medical.

The workers accommodation options have been further investigated to quantify and qualify the issues/benefits of each, as related to the transport of workers to/from the site and the associated traffic impacts of doing so. Two additional options have been added as requested by URS. The worker accommodation options for evaluation are:

1. 3,000 person workers accommodation on Curtis Island;
2. 1,500 person workers accommodation at Calliope Historical Village and 1,500 person workers accommodation on Curtis Island;
3. 3,000 person workers accommodation at Calliope Historical Village; and
4. 1,500 person workers accommodation at Calliope Historical Village and 1,500 people in Gladstone (bus pickup).

The options evaluated for location of worker accommodations has been for workforce associated with Train 1 of the LNG facility construction, assuming that the potential bridge to Curtis Island would not be accessible until near the end of Train 1 construction (4th Quarter 2013). If the proposed bridge is constructed and accessible for construction personnel to the island, the mode of travel to Curtis Island would be likely to change significantly to primarily buses/shuttles and personal vehicles (no ferries).

The following criteria have been identified for evaluation of worker accommodation options:

- bus services needed from accommodation to ferry service;
- needs of ferry service;
 - frequency
 - number of vessels
 - ferry cycle times to island
- logistics of people drop-off and ferry loading;
 - need for bus drop-off areas
 - need for parking of private vehicles
 - loading procedures for people onto ferries
- total time required to transport staff from accommodation to Curtis Island worksite.

2.1 Workforce Transport Assumptions

Based on construction personnel numbers provided in the GLNG EIS Project Description, the peak and average workforce for each year of the construction of Train 1 of the LNG facility are provided in Table 2.1 below.

Table 2.1 LNG Facility – Train 1 Daily Construction Workforce Numbers

Year of Construction	1	2	3	4
Peak Workforce	1,482	3,080	2,940	1,120
Average Workforce	1,002	2,760	2,494	649

As shown in the table above, Year 2 is expected to have the highest construction workforce needs, with approximately 3,080 in the peak month, and 2,760 averaged over the year. These workforce numbers for Year 2 of construction have formed the basis for the assessment provided herein to provide a “worst case” assessment of workforce transport strategies.

All information on the expected movements and shift patterns of the construction workforce is not known at this time. The following sections provide a summary of the information and assumptions used thus far for determining the personnel movements for each worker accommodation option.

2.1.1 Worker Shift Patterns

The following general assumptions have been made regarding shift patterns of LNG facility construction personnel. Information has been sourced from the Bechtel Camp Strategy, dated 22 August 2008.

- personnel housed in the workers accommodations will spend 10 days working and living in the workers accommodations, with a subsequent 4-day leave period;

- workers living in private residences in Gladstone and surrounds while on shift will work a 5-day on/2-day off schedule;
- based on the above shift patterns, it is assumed the total workforce will be split in thirds, with two-thirds of the total workforce always on the construction site, and one-third always on leave;
- workers based on the mainland will be transported to Curtis Island every day, and are assumed to be split into two, twelve-hour shifts;
- personnel shift change frequencies, bus trips and ferry trips are presented on a return trip (2-way) basis, which assumes each trip made by a ferry or bus will be utilised for transport of personnel to Curtis Island as well as returning personnel who are finishing their shift back to the mainland. If this efficiency is not achieved the vessel/bus movements would be increased. Travel times for workers are less affected.

Option 1 proposes that the vast majority of workers involved in the construction of the LNG facility will be housed within a self-contained workers accommodation adjacent to the LNG facility site on Curtis Island. The following assumptions for the movements of personnel have been made:

- approximately one-third of the total workforce is rotated off Curtis Island every fourth day, while one-third is rotated onto the island. Approximately two-thirds of total construction workforce will be accommodated on Curtis Island at any given time;
- it is assumed that three worker cycle changes will be made each 14-day period;
- each worker will travel to/from the island once within each 14-day work cycle.

Option 2 proposes that half (approximately 1,500) of the total construction personnel will be housed in a self-contained workers accommodation on Curtis Island, and half will be housed in a workers accommodation on the mainland at Calliope. The following assumptions have been made:

- similar to Option 1, approximately one-third of the portion of workers accommodated on Curtis Island is rotated off Curtis Island every fourth day, while one-third is rotated onto the island;
- those workers accommodated in the workers accommodation at Calliope will be transported to Curtis Island every day, and will be split into two, twelve-hour shifts each day;
- assume that one-third of the portion of workers accommodated in Calliope are constantly rotating through their four days of time off, leaving two-thirds to commute to Curtis Island every day.

GLNG Project – Marine Transport Strategy

Option 3 proposes that all workers for the construction of the LNG facility will be housed in a workers accommodation in Calliope and will commute to and from the island every day. The following assumptions have been made:

- workers will be transported from the workers accommodation at Calliope to Curtis Island every day, with a schedule of 10 days on during a 14-day work cycle.
- assume one-third of the portion of workers is constantly rotating through their four days of time off, leaving two-thirds to commute to Curtis Island every day, which will be split into two, twelve-hour shifts each day.

Option 4 proposes the accommodation of half the total LNG facility construction workforce in a workers accommodation at Calliope Historical Village, and half the total workforce in private residences local to Gladstone and surrounds. The following assumptions have been made:

- similar to Option 2 and 3, those workers housed in the workers accommodation at Calliope will be transported to Curtis Island every day, with a schedule of 10 days on during a 14-day work cycle;
- assume that one-third of the portion of workers accommodated in Calliope are constantly rotating through their four days of time off, leaving two-thirds to commute to Curtis Island every day, split into two, twelve-hour shifts each day.

Based on the assumptions for construction personnel movements for each option, Table 2.2 below summarises the number of workers transported per each shift change and the frequency of which they occur in a 14-day work cycle.

Table 2.2 Construction Workforce Movement Summary

Option		Personnel transported per shift change:	Frequency (per 14-day work cycle)
1	Peak	1027	3
	Average	920	
2	Peak	513 (Island accommodation portion) 1027 (Calliope accommodation portion)	3 (Island accommodation portion) 14 (Calliope accommodation portion)
	Average	460 (Island accommodation portion) 920 (Calliope accommodation portion)	
3	Peak	2053	14
	Average	1840	
4	Peak	1027 (Calliope accommodation portion) 1027 (Local Gladstone portion)	14
	Average	920 (Calliope accommodation portion) 920 (Local Gladstone portion)	

2.2 Bus service

A comparison of the four options for construction worker accommodations has been undertaken to determine the bus service needs to transport workers from the accommodations to ferry services to Curtis Island. An average bus capacity for worker transport has been estimated at 30 personnel per bus, though better efficiency will be achieved with buses of greater capacity.

A comparison summary of the four options is provided in Table 2.3 below, including the number of bus trips needed to transport the construction personnel during each shift change (provided in Table 2.2) and the total number of return bus trips for a 14-day work cycle. For each shift changeover, each option has a similar need for bus service, as shown in Table 2.3. However, Option 1 has a considerably lower need for bus service per 14-day work cycle than the other three options because of the lower frequency of shift changeovers. Additionally, traffic on the Gladstone road network is expected to be significantly lower for Option 1 than the other options assessed because personnel only travel to Curtis Island once every two weeks.

Table 2.3 *Bus Service Comparison Summary*

Option		Bus Trips per Shift Change	Bus Trips per 14-day Cycle
1	Peak	34	103
	Average	31	92
2	Peak	17 (Island accommodation portion) 34 (Calliope accommodation portion)	51 (Island accommodation portion) 479 (Calliope accommodation portion)
	Average	15 (Island accommodation portion) 31 (Calliope accommodation portion)	46 (Island accommodation portion) 429 (Calliope accommodation portion)
3	Peak	68	958
	Average	61	859
4	Peak	34 (Calliope accommodation portion) 34 (Local Gladstone portion)	479 (Calliope accommodation portion) 479 (Local Gladstone portion)
	Average	31 (Calliope accommodation portion) 31 (Local Gladstone portion)	430 (Calliope accommodation portion) 430 (Local Gladstone portion)

The following general assumptions have been made for bus travel from the various sites proposed for worker accommodations:

- for options including workers accommodation in Calliope, the route for buses from the workers accommodation to the existing ferry services at Gladstone Marina is approximately 30km, assuming buses will travel north along Calliope River Road, then east along Gladstone-Mount Larcom Road and into Gladstone via Hanson Road and Alf O'Rourke Drive. A 90kph average travel speed has been based on travel distance and posted speed limits, with a total cycle time of approximately 50 minutes to be expected for buses along this route;
- alternate bus routes from the workers accommodation at Calliope utilising Bruce Highway and Dawson Highway into Gladstone to access the marina may need to be taken if some personnel are to be picked up at centralised locations around Gladstone. These routes will be similar in length to that described above, though may have lower average travel speeds because of more travel on lower order roads. The assessment of alternatives has been undertaken based on one chosen route for purposes of comparison;
- for the option of providing workers accommodation on Curtis Island a commute time of 20 minutes was assumed for workers being transported to the ferries to rotate into the 10-day shift in the workers accommodation on Curtis Island. This is based on the Bechtel Camp Strategy memorandum and assumes buses will pick up personnel at specified centralised points or parking areas around the Gladstone area;
- in addition to buses on the mainland, buses or shuttles will also be needed to transport workers from the material offloading facility (MOF) drop-off point to the workers accommodation on Curtis Island;
- it has been assumed that the workers accommodation on Curtis Island is approximately 20 minute bus/shuttle ride from the Material Off-Loading Facility (MOF) on the island, and the workers accommodation is within walking distance to LNG facility construction site;
- for Option 4 which includes construction personnel living in private residences in Gladstone, workers are assumed to travel in private vehicles to centralised secure parking lot(s) where buses will transport workers to the ferry crossing. This is a conservative assumption, as it is likely that some of these workers will not have access to private vehicles and shuttle/vanpool/carpool arrangements will need to be arranged to transport them to the ferry crossing to Curtis Island;
- based on the Bechtel Camp Strategy memorandum, a commute time of 20 minutes was assumed for workers living in Gladstone and surrounds (Option 4) and being transported to the ferries from centralised points or parking areas around the Gladstone area.

For Options 1 and 2, workers will likely be travelling by private vehicle to rotate into their 10-day shift on Curtis Island. A secure parking lot site would need to be found to provide a centralised bus pick-up and drop-off point to transport workers to the ferry.

Assuming that approximately 80% of construction personnel will drive personal vehicles to the secure parking lot site, approximately 1,650 car park spaces will need to be accommodated in an approximately five hectare area for Option 1. The parking need for Option 2 will be significantly less at approximately 820 spaces.

For Option 3, and the portion of Option 2 that will be housed in the workers accommodation at Calliope, it is assumed that all workers will be transported to ferry services by bus.

For Option 4, the locations and feasibility of centralised secure parking facilities for the construction workforce living in Gladstone and surrounds will need to be investigated based on the option selected for worker accommodations and ferry landing location. If possible, parking facilities directly adjacent to the ferry crossing are desirable to reduce the need for transferring to bus for those personnel that use private vehicles. Significant areas of undeveloped land exist in the industrial areas on the west and southwest sides of Gladstone, which may present opportunities for secure parking facilities for “park and ride”.

It may be beneficial for Option 4 to provide shuttle or bus service through Gladstone to pickup personnel at select locations to reduce single-occupant vehicle impact of the project. These options should be further investigated once a final option is selected for ferry location and workers accommodation strategy.

2.3 Ferry service

A comparison of the four options for construction worker accommodations has been undertaken to determine the ferry service needs to transport workers from the mainland to the LNG facility construction site on Curtis Island.

For the comparative assessment of options, the existing Curtis Ferry Service was assumed to be utilised from Gladstone Marina to Curtis Island. This service is located on the western end of Gladstone Marina and operates two ferries with 150 passenger capacity each. Based on information obtained from Curtis Ferry Service, the ferries have operating speeds of 10 knots.

Table 2.4 below provides a comparison summary of the four options, providing the number of ferry trips needed to transport the construction personnel during each shift change (provided in Table 2.2) and the total number of ferry trips for a 14-day work cycle. As shown in the table, Option 1 has a considerably lower need for ferry service than the other three options because of the lower frequency of shift changeovers.

Table 2.4 Ferry Service Comparison Summary

Option		Ferry Trips per Shift Change	Ferry Trips per 14-day Cycle
1	Peak	7	21
	Average	7	21
2	Peak	4 (Island accommodation portion) 7 (Calliope accommodation portion)	12 (Island accommodation portion) 98 (Calliope accommodation portion)
	Average	4 (Island accommodation portion) 7 (Calliope accommodation portion)	12 (Island accommodation portion) 98 (Calliope accommodation portion)
3	Peak	14	196
	Average	13	182
4	Peak	7 (Calliope accommodation portion) 7 (Local Gladstone portion)	98 (Calliope accommodation portion) 98 (Local Gladstone portion)
	Average	7 (Calliope accommodation portion) 7 (Local Gladstone portion)	91 (Calliope accommodation portion) 91 (Local Gladstone portion)

Based on the ferry service speed of 10 knots, a return trip from Gladstone Marina to Curtis Island (7.5km each way) will take approximately 69 minutes, factoring in ten minutes each for loading and unloading.

The following sections provide further discussion of the ferry service needs of each construction worker accommodation option.

2.3.1 Option 1

Using the ferry cycle time of 69 minutes, approximately four hours is needed to transport all workers to Curtis Island under Option 1.

Alternative options for ferry transport across to Curtis Island may be needed in order to streamline the worker transport process. One option may be to place the buses on barges and ferry them across to Curtis Island where they will drive off the barge and deliver personnel directly to the workers accommodation or construction site. This option would reduce total travel time by reducing loading and unloading times, as well as limit the total number of buses/shuttles necessary for personnel transport. Another option for ferry transport is to commission one or more “fast-cat” type ferries with higher speed and passenger capacity capabilities.

2.3.2 Option 2

Utilising the ferry cycle time of 69 minutes, approximately 100 minutes is needed to transport the portion of workers rotating to their 10-day shift on Curtis Island every fourth day. In addition to this, approximately 100 minutes each shift changeover (200 minutes each day) is also required to transport the portion of workers residing in the workers accommodation at Calliope.

Similar to Option 1, investigation of alternative options for ferry transport across to Curtis Island is needed in order to streamline the worker transport process. The best option for ferry transport is to commission one or more “fast-cat” type ferries with higher speed and passenger capacity capabilities to handle the daily trips necessary to Curtis Island.

2.3.3 Option 3

Utilising the existing ferry services from the ferry terminal at Gladstone Marina, approximately four hours is needed to transport workers to Curtis Island during each shift changeover under Option 3. This equates to the ferry service operating for approximately eight hours per day to transport personnel during the two shifts.

This scenario is not practical with the use of the two existing Gladstone ferries, considering the total time needed to transport personnel to Curtis Island. In order to make a workers accommodation at Calliope a viable option, alternative ferry transport options should be considered. The most important consideration should be providing larger capacity and faster ferries to reduce the total number of trips and cycle times.

2.3.4 Option 4

Utilising the existing ferry services from the ferry terminal at Gladstone Marina, a ferry cycle time of 69 minutes was used. Similar to Option 3, approximately four hours is needed to transport all workers to Curtis Island during each shift changeover under Option 4. This equates to the ferry service operating for approximately eight hours per day to transport personnel during the two shifts.

Similar to Option 3, this scenario is not practical with the use of the two existing Gladstone ferries, considering the total time needed to transport personnel to Curtis Island.

In order to make a workers accommodation on the mainland a viable option, alternative ferry transport options should be considered as discussed for all the options above. An online review of specifications for typical “fast-cat” ferries in Queensland yielded the vessels listed in Table 2.5. As shown, ferries with capacities of 300-400 passengers and service speeds of 15-25km/h are currently operating along the Queensland coast.

Table 2.5 Queensland Ferry Service Summary

Ferry Service	Vessel Name	Passenger Capacity	Vehicle Capacity	Service Speed (knots)
Moreton Island Ferries	Micat	419	52 (4WD vehicles)	15
Sea Stradbroke	Sea Breeze	350	62	NA
Stradbroke Ferries	Minjerribah	400	52	NA
	Quandamooka	400	52	NA
	Escape to Stradbroke	170	NA	NA
	Lakarma	204	22	NA
	Moreton Escape	297	22	NA
	Stradbroke Venture	403	36	NA
Tangalooma Island Resort Launch	Tangalooma Flyer	200	NA	24
	Tangalooma Jet	350	NA	25

2.4 Worker travel time

Approximate worker travel times were calculated and compared for each option based on bus and ferry input assumptions and the Bechtel Camp Strategy memorandum. As outlined in Sections 2.2 and 2.3 above, the following assumptions for worker travel times have been made:

- travel to the ferry by bus on the mainland was assumed to take 20 minutes with loading and disembarking (Bechtel Camp Strategy). This travel only includes the portion from a designated bus pickup point or parking lot; any travel before this point would be considered “non-work” travel and is not factored into the commute calculations.
- one-way travel by bus from the workers accommodation at Calliope to the ferry terminal was calculated at 30 minutes, including loading and unloading time.
- travel via ferry calculated at 44 minutes for a one-way trip including loading and disembarking.
- bus travel from the MOF ferry drop-off point to the workers accommodation or worksite on Curtis Island assumed at 20 minutes.

2.4.1 Option 1

Employee commute times for Option 1 are summarised in Table 2.6. Total travel time for each worker during a 14-day work period has been calculated to be 169 minutes under Option 1. The cumulative total travel time for all workers over a 14-day work period was calculated at 8,655 hours.

Table 2.6 *Option 1 – Employee Commute Time Summary*

Employee Travel Time Per 14-Day Period		
Secure parking lot to ferry	20 min	<i>From Bechtel Camp Strategy</i>
Ferry - Gladstone to MOF	44 min	<i>Calculated from assumptions</i>
MOF to Workers accommodation	20 min	<i>From Bechtel Camp Strategy</i>
Workers accommodation to MOF	20 min	<i>From Bechtel Camp Strategy</i>
Ferry - MOF to Gladstone	44 min	<i>Calculated from assumptions</i>
Ferry to Parking Lot	20 min	<i>From Bechtel Camp Strategy</i>
Total Travel Time:	169 min	2.81 hrs
Total Travel Time (all employees):	519,276 min	8,655 hrs

2.4.2 Option 2

Worker travel times include a mix of daily travel from the workers accommodation at Calliope on the mainland as well as fortnightly travel to the workers accommodation on Curtis Island. A summary of the commute times for workers, broken into the two workers accommodation options is provided in Table 2.7.

With the two components of worker commute times, a cumulative total travel time for all LNG facility construction workers over a 14-day work period was calculated at 52,734 hours (2,197 days) for Option 2.

Table 2.7 **Option 2 – Employee Commute Time Summary**

Employee Travel Time Per 14-Day Period - Island Accommodation Portion		
Secure parking lot to ferry	20 min	<i>From Bechtel Camp Strategy</i>
Ferry - Gladstone to MOF	44 min	<i>Calculated from assumptions</i>
MOF to Workers accommodation	20 min	<i>From Bechtel Camp Strategy</i>
Workers accommodation to MOF	20 min	<i>From Bechtel Camp Strategy</i>
Ferry - MOF to Gladstone	44 min	<i>Calculated from assumptions</i>
Ferry to Parking Lot	20 min	<i>From Bechtel Camp Strategy</i>
Travel Time Per 14-Day Period (per person):	169 min	2.81 hrs
Employee Travel Time Per 14-Day Period - Calliope Accommodation Portion		
Bus - Calliope workers accommodation to ferry	30 min	<i>From Bechtel Camp Strategy</i>
Ferry - Gladstone to MOF	44 min	<i>Calculated from assumptions</i>
Bus - MOF to Site	20 min	<i>From Bechtel Camp Strategy</i>
Bus - Site to MOF	20 min	<i>From Bechtel Camp Strategy</i>
Ferry - MOF to Gladstone	44 min	<i>Calculated from assumptions</i>
Bus - Ferry to Calliope workers accommodation	30 min	<i>From Bechtel Camp Strategy</i>
Travel Time Per Day:	189 min	3.14 hrs
Travel Time Per 14-Day Period (per person):	1886 min	31.43 hrs
Total Travel Time (all employees):	3,164,018 min	52,734 hrs

2.4.3 Option 3

A summary of approximate worker commute times for Option 3 is shown in Table 2.8.

Table 2.8 **Option 3 – Employee Commute Time Summary**

Employee Travel Time Per 14-Day Period		
Bus - Calliope workers accommodation to ferry	30 min	<i>From Bechtel Camp Strategy</i>
Ferry - Gladstone to MOF	44 min	<i>Calculated from assumptions</i>
Bus - MOF to Site	20 min	<i>From Bechtel Camp Strategy</i>
Bus - Site to MOF	20 min	<i>From Bechtel Camp Strategy</i>
Ferry - MOF to Gladstone	44 min	<i>Calculated from assumptions</i>
Bus - Ferry to Calliope workers accommodation	30 min	<i>From Bechtel Camp Strategy</i>
Travel Time Per Day:	189 min	3.14 hrs
Travel Time Per 14-Day Period (per person):	1886 min	31.43 hrs
Total Travel Time (all employees):	5,808,760 min	96,813 hrs

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Each worker will likely experience up to 189 minutes (over 3 hours) of travel time each day if commuting from the workers accommodation at Calliope to the construction site at Curtis Island, equalling over 31 hours of total travel time for each employee during a 14-day work cycle.

2.4.4 Option 4

A summary of approximate worker commute times for Option 4 is shown in Table 2.9. Each worker will likely experience up to 189 minutes (over 3 hours) of travel time each day if commuting from the workers accommodation at Calliope to the construction site at Curtis Island, equalling over 31 hours of total travel time for each employee during a 14-day work cycle.

Those workers commuting from private residences around Gladstone will likely experience an average of 169 minutes of commute time each day, not including any time needed to reach the bus service assumed in this analysis. These workers will each have total commute times of greater than 28 hours each over a 14-day work cycle.

Table 2.9 *Option 4 – Employee Commute Time Summary*

Employee Travel Time Per 14-Day Period - Private Residence Portion		
Bus - Secure Parking Lot to Ferry	20 min	<i>From Bechtel Camp Strategy</i>
Ferry - Gladstone to MOF	44 min	<i>Calculated from assumptions</i>
Bus - MOF to Site	20 min	<i>From Bechtel Camp Strategy</i>
Bus - Site to MOF	20 min	<i>From Bechtel Camp Strategy</i>
Ferry - MOF to Gladstone	44 min	<i>Calculated from assumptions</i>
Bus - Ferry to Parking Lot	20 min	<i>From Bechtel Camp Strategy</i>
Travel Time Per Day:	169 min	2.81 hrs
Travel Time Per 14-Day Period (per person):	1686 min	28.10 hrs
Employee Travel Time Per 14-Day Period - Calliope Accommodation portion		
Bus - Calliope workers accommodation to ferry	30 min	<i>From Bechtel Camp Strategy</i>
Ferry - Gladstone to MOF	44 min	<i>Calculated from assumptions</i>
Bus - MOF to Site	20 min	<i>From Bechtel Camp Strategy</i>
Bus - Site to MOF	20 min	<i>From Bechtel Camp Strategy</i>
Ferry - MOF to Gladstone	44 min	<i>Calculated from assumptions</i>
Bus - Ferry to Calliope workers accommodation	30 min	<i>From Bechtel Camp Strategy</i>
Travel Time Per Day:	189 min	3.14 hrs
Travel Time Per 14-Day Period (per person):	1886 min	31.43 hrs
Total Travel Time (all employees)	5,500,760 min	91,679 hrs

2.5 Conclusion

Table 2.10 below provides a comparison of total bus and ferry trips per 14-day work cycle for each construction worker accommodation option assessed. These trips are presented as return (two-way) trips assuming shift changeovers will occur such that the buses and ferries will be utilised on both the trips to and from Curtis Island. A comparison of worker commute times between each option is also presented.

Table 2.10 Worker Accommodation Option Comparison

Assessment Parameter	Option 1	Option 2	Option 3	Option 4
Bus trips per 14-day work cycle	68	353	639	639
Ferry trips per 14-day work cycle	21	124	196	196
Travel time per worker per 14-day cycle	169 minutes	169 min (Island accommodation) 1,886 min (Calliope accommodation)	1,886 minutes	1,686 min (private residence portion) 1,886 min (Calliope accommodation)
Total travel time per 14-day cycle (all workers)	8,655 hours	52,734 hours	96,813 hours	91,679 hours

As shown in Table 2.10, Option 1 requires a considerably lower number of bus and ferry trips for purposes of transporting workers to and from the LNG facility construction site on Curtis Island than the other three options. This equates to considerably lower costs related to these services and lower traffic impacts. Because the workers would be living on the island, the inconvenience of a long commute would only occur once every fourteen days. In addition, the total commute time for each worker under Option 1 is expected to be less than 10% of Options 2, 3 and 4 for a 14-day typical work cycle.

Because of the considerable savings in traffic generated and worker commute times, Option 1 (100% workers accommodation on Curtis Island) is recommended. If an option for accommodating some or all workers on the mainland is pursued, the following should be considered to make this option feasible:

- Commission ferries of higher passenger capacity and speed;
- If feasible, Fisherman's Landing is recommended as the ferry take off point to reduce bus travel time from Calliope, vehicle travel through Gladstone urban area and ferry travel distance to Curtis Island. This conclusion is outlined further in Section 3 below.

3.0 FERRY LANDING LOCATION ASSESSMENT (WORKER TRANSPORT)

Options for the location of a mainland ferry landing for the transport of LNG facility construction personnel to Curtis Island have been identified through site visits and review of existing facilities in Gladstone and surrounds. The potential ferry landing locations have been assessed based on the following criteria:

- existing ferry services available;
- proximity and ease of access to Curtis Island;
- space/accommodation for vessel manoeuvring/moorage;
- security and access restrictions of facility;
- agreement/contract/coordination needed with controlling party;
- amenity for people queuing/loading – logistics of facility;
- provision for bus drop-off and private vehicle parking; and
- existing condition of facilities – improvements needed

Four options for potential mainland ferry landing locations have been identified, as listed below:

1. Gladstone Marina – Public Wharf at Brian Jordan Drive;
2. Connell Wharf – Flinders Parade;
3. Auckland Point Wharf; and
4. Fisherman's Landing Wharf.

3.1 Option 1 (Gladstone Marina Ferry Terminal)

Gladstone Marina services a mix of private and commercial vessels. It contains several barge/ferry ramps that may present opportunity to serve as a ferry landing for transporting construction personnel to Curtis Island. One ferry/barge landing is located at the west end of Gladstone Marina, from which Curtis Ferry Services operates. Curtis Ferry Service operates two passenger and vehicle ferries to Curtis Island, each with 150 passenger capacities.

Another ferry/barge ramp is on the east end of the marina at the Gladstone ferry terminal accessed via Brian Jordan Drive. A service jetty also exists adjacent to the ferry terminal off Brian Jordan Drive, which could also serve ferry loading and unloading if needed. Marine facilities at Gladstone Marina are maintained by Gladstone Port Authority.

3.1.1 Access

Curtis Ferry Service is approximately 8.5km from the currently proposed MOF site and ferry landing on Curtis Island. Vessels operated by the existing Curtis Ferry Service have been used in this assessment for the purposes of comparing each ferry landing location. Based on a service speed of 10 knots and loading/unloading times of 10 minutes each, the total cycle time for ferries from Gladstone Marina would be approximately 75 minutes.

The ferry landing at Gladstone Ferry Terminal on the east end of the marina is only approximately 7.5km from Curtis Island, making a total ferry cycle time of 69 minutes. It is noted that low speed limits exist within the marina, possibly increasing cycle times, though a constant speed has been assumed.

Gladstone Marina allows easy access in and out via Auckland Creek to the Port of Gladstone. Depending on the location of the ferry landing within Gladstone Marina, different levels of conflicts with other vessels will occur. Adequate space is generally available for manoeuvring and docking within the marina.

Vehicle and bus access to Gladstone Marina can be gained via Dawson Highway, Glenlyon Road and Brian Jordan Drive through Gladstone or via Hanson Road and Alf O'Rourke Drive from the west. Adequate bus manoeuvring, drop-off and turn-around space is provided at Curtis Ferry Services as well as at the ferry terminal.

3.1.2 Amenity

Amenities for passenger queuing and loading at Curtis Ferry Services and Gladstone Ferry Terminal exist. As Curtis Ferry Service is located away from the public access docks and ferry terminal, it is a more suitable location for transferring a larger number of construction personnel to the ferry, and creates less disruption to existing activity in the area.

A private car park is available for customers at Curtis Ferry Service which may present limited opportunity for securing permanent parking for private/Santos vehicles. Similarly, a public car park is located at the marina off Brian Jordan Drive, though would likely not be available for long term parking options for this project. The vast majority of personnel transported to the island would need to arrive via bus or be dropped off at the ferry location because of lack of parking provision and to reduce the overall traffic impacts associated with the construction workforce.

3.1.3 Coordination with Owner/Operator

Conflicts with existing barge/ferry traffic may present issues. Since this is a public marina, it may not be favourable to the operators to have such a large volume of workers coming in and out every day.

Depending on the worker accommodation option selected, the existing Curtis Ferry Service at Gladstone Marina may present a viable option for transporting construction personnel and vehicles to Curtis Island. Because Gladstone Marina is owned and operated by Gladstone Port Authority, agreements may need to be put in place to coordinate the increased activity in the marina.

3.2 Option 2 (Connell Wharf)

Connell Wharf is located on Auckland Creek just south of the opening to Gladstone Marina, accessed by land via Flinders Parade. Facilities at the location include a stationary (not floating) dock and boat launch ramps. This location may present opportunities as a mainland ferry landing point to transport construction personnel to Curtis Island.

3.2.1 Access

This location affords very direct marine access to Curtis Island via the Port of Gladstone. Ferries would likely not have issues manoeuvring to reach docks or boat launch ramps as Auckland Creek provides adequate channel width.

Connell Wharf is approximately 7.5km through the port from the currently proposed MOF site and ferry landing on Curtis Island. Assuming the existing Curtis Ferry Service is used, total cycle time for ferries from Connell Wharf would be approximately 69 minutes, similar to that from Gladstone Marina.

Vehicle access to the site is gained from the south via Dawson Highway/Dawson Road to Glenlyon Road to Lord Street and Flinders Parade. From the west, access is gained via Gladstone-Mount Larcom Road and Hanson Road to Lord Street and Flinders Parade. These routes provide fairly direct access, with most travel on highways and arterial roadways.

Bus unloading and manoeuvring areas appear to be adequate through the parking area of Connell Wharf.

3.2.2 Amenity

Docks are stationary (not floating), so the dock height may limit passenger loading for some vessels depending on the tidal levels and the loading location for the specific vessel. Based on a site visit to Connell Wharf, the condition and structural integrity of the dock appears to be in question. If this location is selected as a ferry docking site an option may be to reconstruct or retrofit the docks to fit the services needed.

Public parking is available at Connell Wharf, but is limited. It is likely that private vehicle parking for use by Santos personnel would be limited, making bus services necessary for the vast majority of construction personnel being transported to Curtis Island.

3.2.3 Coordination with Owner/Operator

Because of the existing use of the boat launch and parking area, agreements would likely need to be reached with facility managers due to the large volume of passengers expected to be transported to Curtis Island.

3.3 Option 3 (Auckland Point Wharf)

Auckland Point wharf is owned and partially operated by Gladstone Port Authority, with portions of the facility operated by private entities.

3.3.1 Access

Docks at Auckland Point are approximately 7.5km from the currently proposed MOF site and ferry landing on Curtis Island. Assuming the existing Curtis Ferry Service will transport workers, total cycle time for ferries from Auckland Point Wharf is approximately 69 minutes, similar to Options 1 and 2. This provides direct access to Curtis Island, with adequate space for ferries to manoeuvre to reach the docks.

The existing Curtis Ferry Service would likely be able to access Auckland Point Wharf, though additional services/ferry capacity may be needed.

Vehicle access to Auckland Point from Gladstone and from the south would likely be via Dawson Road to Glenlyon Road the Port Access Road. Access from the west would be via Gladstone-Mount Larcom Road to Hanson Road to Port Access Road. Using these routes, most traffic would be travelling on highways or arterial roadways.

3.3.2 Amenity

There appears to be adequate space for bus drop-off and passenger queuing and loading. Private vehicle parking would not likely be available; all workers would likely need to be transported by bus into the site.

3.3.3 Coordination with Owner/Operator

Since Auckland Point Wharf is a secure facility, it may not be feasible to gain access for the large number of workers proposed during the construction of the LNG facility. Because it is a secure port area, all workers will require commonwealth security and safety induction cards to enter the area for embarkation to the island.

3.4 Option 4 (Fisherman's Landing Wharf)

Fisherman's Landing is located approximately 15km northwest of Gladstone in the Port of Gladstone. Facilities are owned by Gladstone Port Corporation (GPC). Three wharf facilities are currently available. From aerial images, it appears that a ground landing is available for a ferry to potentially utilise. Future plans have also been proposed by GPC for the reclamation of 153.4ha of additional land on the northern side of the existing Fisherman's Landing reclamation, creating opportunity for six additional wharf facilities at the site.

Plans for the potential expansion of Fisherman's Landing are included in Appendix A.

3.4.1 Access

Fisherman's Landing has the most direct marine access to Curtis Island of all the options assessed. It is located just across from the proposed MOF and ferry landing site for the LNG facility on Curtis Island; approximately a 4.5km distance ferry trip. Assuming similar vessels to Curtis Ferry Services will be utilised to transport workers to the island, total cycle time for ferries is approximately 49 minutes (approximately 20 minutes less than all other options).

Road access to Fisherman's Landing from the south and west is gained from Calliope River Road and Gladstone-Mount Larcom Road to Landing Road. From Gladstone to the east, the site is accessed via Hanson Road/Gladstone-Mount Larcom Road to Landing Road. This location is approximately 25km from the proposed workers accommodation at Calliope (approximately 5km closer than all other terminals), with all road travel occurring on rural roadways.

For worker accommodations options wherein construction personnel do not travel from Calliope, locating ferry facilities at Fisherman's Landing will likely increase the total distance travelled to reach the ferry facilities, compared to the other options within Gladstone. A higher percentage of workers would likely be travelling by private vehicle in these cases, with origins in Gladstone. This would likely increase the total traffic impact of construction personnel travelling to Curtis Island.

3.4.2 Amenity

There appears to be surrounding land available to provide a secure car park for employees to be transported by bus to the ferry landing. If land for parking is available close enough to the wharf facilities, the need for bus transport is reduced and greater flexibility is provided in how construction personnel are transported to Curtis Island. Private car use may have impacts on intersection capacity and road upgrading needs. Though if a workers accommodation at Calliope is selected, it is likely that busses will still be the preferred option for transporting the large numbers of workers to the ferries.

3.4.3 Coordination with Owner/Operator

GPC have expressed some concern at using Fisherman's Landing for worker transport due to the safety and security issues caused by the conflict with the existing use as an industrial site. This issue will need to be negotiated if Fisherman's Landing is the GLNG preferred option.

3.5 Conclusion

Table 3.1 below provides a comparison of the four options for ferry landing locations. In the comparisons, it was assumed that ferries will be similar to those provided by Curtis Ferry Services (for basis of comparison), with a 10 knot average speed and 10 minute loading and unloading times. Overall, cycle times for each ferry landing location are similar with the exception of Option 4 – Fisherman's Landing wharf. Other benefits of Fisherman's Landing over the others include:

- closer proximity to Curtis Island (approximately 4.5km);
- closest option to proposed Calliope workers accommodation if that option is selected;
- potential location to consolidate worker and goods transport to Curtis Island (Auckland Point Wharf also has this potential);
- best potential location to provide worker vehicle car park and bus pick-up to ferry, while reducing duration of bus trips.

The primary disadvantage of Fisherman's Landing is the security and safety issues identified by GPC.

Table 3.1**Ferry Cycle Time Comparison**

	Option 1 – Gladstone Marina	Option 2 – Connell Wharf	Option 3 – Auckland Point Wharf	Option 4 – Fisherman's Landing
Ferry Capacity:	150			
Average Speed (knots):	10			
Conversion (Knots-kph):	1.852			
Travel Distance (km):	8.5	7.5	7.5	4.5
Load Time (min):	10	10	10	10
Travel Time (min):	28	24	24	15
Unload Time (min):	10	10	10	10
Return Time (min):	28	24	24	15
Total Ferry Cycle (min):	75	69	69	49

4.0 BARGE LANDING LOCATION ASSESSMENT (GOODS TRANSPORT)

Options for evaluation:

1. Auckland Point Wharf
2. Fisherman's Landing
3. Proposed Port Curtis bridge crossing site

Related issues for evaluation of options:

- access/security restrictions for use of facility;
- accommodation for vehicles delivering goods;
- vehicle weight/size restrictions;
- facility accommodation for storage of goods/vehicles before loading;
- origin of goods to be delivered;
- impacts of vehicles on external road networks;
- ease of access of vehicles from origin.

Available port facilities in the area are outlined and discussed in the Bechtel Traffic and Logistics Survey, dated 22 August 2008. The survey describes Auckland Point Wharf and Fishermans Landing Wharf as the two best potential options.

4.1 Option 1 (Auckland Point Wharf)

The owner of the facility is Gladstone Port Authority and operated by Gladstone Port Authority and others. Wharves 3 and 4 are multi-user facilities. The Bechtel survey nominates wharves 3 and 4 as suitable options. Auckland Point is approximately 7.5km from Curtis Island via Port of Gladstone.

4.1.1 Goods Handling Capabilities

Auckland Point Wharf does not have an unloading crane. All vessels that berth here are usually self-gearred. The facility has a weight limit of 90 metric tons to be craned onto a multi-wheeled trailer. This limit will only apply to this project for cargo being transported to Auckland Point by truck and offloaded onto barge. Most large cargo for this project is expected to arrive via ship and be offloaded to a barge to Curtis Island. Auckland Point can handle larger ships than Fisherman's Landing and includes undercover warehouse and large lay-down area, a rail loop and Australian quarantine facilities if needed.

4.1.2 Access

Access for goods delivery through Auckland Point will occur both by ship through the Port of Gladstone and by truck via the highway system. The origin of goods will generally be as follows:

- large items likely via ship;
- road cargo mostly from Brisbane and other areas to the south. Primary route will be via Bruce Highway.

Auckland Point Wharf is approximately 24km from the Bruce Highway along the Dawson Highway. The most likely route for trucks to Auckland Point Wharves will be via Bruce Highway to Dawson Highway to Glenlyon Road to Port Access Road, or Dawson Highway to Don Young Drive to Red Rover Road to Hanson Road to Port Access Road. A dedicated port access road through Gladstone has been constructed diverting heavy vehicles away from the CBD area and adjacent to the railway. This removes heavy vehicles from mixing with general traffic within Gladstone.

The routes specified above leave trucks primarily on highways and arterial roads to access Auckland Point, following designated high mass limit routes into Gladstone. Movement of multi-combination vehicles is restricted in Gladstone between the hours of 8:30am to 9:00am and 3:00pm to 3:30pm Monday to Friday. Combination trucks up to 23 metre and 25 metre B-double are permitted on selected routes in Gladstone.

Truck routes specified by Queensland Transport are provided at Appendix B.

One constraint found with accessing Auckland Point Wharves is the Goodoon Street bridge over Port Access Road which has a vertical clearance of 5.1m which controls the land-side delivery of large items. It should also be noted that Glenlyon Road has a vertical clearance of 4.7m under the rail line in this vicinity. Other routes that do not require passing under bridges or road overpasses are more circuitous routes through Gladstone, which may not be negotiated by a large truck or fit into Queensland Transport high mass limit routes. Deliveries to the site will need to be coordinated to ensure that loads with vertical clearance constraints are delivered via ship or barge.

4.2 Option 2 (Fisherman's Landing)

The owner of the wharf facilities at Fisherman's Landing is Gladstone Port Authority. Fisherman's Landing is operated as a multi-user facility. Security access is gained from Landing Road. The Bechtel survey nominates Fisherman's Landing as a suitable option, and it is the closest option to Curtis Island at 4km via Port of Gladstone. It is also important to note that Fisherman's Landing is the Main Roads preferred location for goods transport to Curtis Island because trucks will avoid travelling through the Gladstone urban area.

4.2.1 Goods Handling Capabilities

Three wharf facilities are currently available at Fisherman's Landing. As discussed in Section 4 of this report, Gladstone Port Authority has proposed plans for future expansion of the Fisherman's Landing reclamation area and a potential for seven additional wharf facilities. Wharf number 4 has a pivoting radial arm ship loader with capacity of 2,000tph. Wharf number 5 has two SVT 300mm loading arms.

4.2.2 Access

Access for goods delivery through Fisherman's Landing would likely occur both by ship through the Port of Gladstone and by truck via the highway system. The origin of goods will generally be as follows:

- large items likely via ship;
- road cargo mostly from Brisbane and other areas to the south. The main route will be via Bruce Highway to Calliope River Road.

The primary truck route to Fisherman's Landing will be Bruce Highway to Calliope River Road to Gladstone-Mount Larcom Road to Landing Road. This route is approximately 30km from Bruce Highway at Dawson Highway, and have been identified by Queensland Transport as high mass limit roadways. As Fisherman's Landing lies outside of Gladstone, most trucks delivering goods to the site are likely to be on rural highways the entire route to the wharf.

The potential haulage route to Fisherman's Landing crosses underneath the rail line at one point, which may present a vertical clearance issue. Visual inspections of vertical clearance signs was undertaken at the following locations:

- Gladstone-Mount Larcom Road under conveyor at Comalco (0.7km east of Landing Road): 7m;
- Gladstone-Mount Larcom Road under rail east of Comalco (1.5km east of Landing Road) : 6.75m;
- Calliope River Road under rail south of Gladstone-Mount Larcom Road: not signed – though appears to be approximately 7m.

All potential haulage routes to Fisherman's Landing pass under the rail line at one point, of which vertical clearances and load expectations for the project should be reconciled before choosing this option.

High mass limit access on Landing Road terminates at the access road for Cement Australia. Landing Road will need to be upgraded to high mass limit standards if used as a goods transport location for the LNG facility construction.

4.3 Option 3 (Proposed Port Curtis Bridge Crossing Site)

The option of providing a materials offloading facility at the mainland side of the planned bridge site crossing Port Curtis between Friend Point and Laird Point to Curtis Island has been discussed. This option would require all new facilities to be constructed for the purpose of docking ships and offloading trucks onto barges to Curtis Island. An alternative may be that truck deliveries are handled at this site and ship deliveries are handled at either Fisherman's Landing or Auckland Point.

The viability of this option weighs on the timing of the works proposed for the bridge across Port Curtis between Friend Point and Laird Point, as significant access roadwork must be completed to access the bridge site. The bridge access road will likely tie into the existing road network at the end of Landing Road.

4.3.1 Access

Marine access from the mainland bridge crossing site is approximately 8km distance to the proposed MOF on Curtis Island. This is the furthest of the three options discussed.

Delivery of goods and materials via truck will mostly originate from Brisbane and other areas to the south. The primary route will be via Bruce Highway to Calliope River Road to Gladstone-Mount Larcom Road to Landing Road. This route is approximately 35km from Bruce Highway at Dawson Highway. The route has been identified by Queensland Transport as high mass limit roadways, though the end of Landing Road past Cement Australia and the bridge access road would need upgrading to this standard. As this location lies outside of Gladstone, trucks delivering goods to the site will most likely be on rural highways the entire route to the wharf, reducing traffic impacts due to heavy vehicles.

Similar to Option 2, the potential haulage route to the Port Curtis bridge crossing location crosses underneath the rail line at one point, which may present a vertical clearance issue. All alternative routes to the location pass under a rail line at one point, of which vertical clearances and load expectations for the project should be reconciled before choosing this option.

4.4 Conclusion

Based on the facilities provided and potential traffic impacts of each location assessed for the transfer of goods to Curtis Island, Fisherman's Landing has the following advantages over the other two options:

- proximity to Curtis Island: Fisherman's landing is approximately 4km via the Port of Gladstone, compared to 7-8km for the other options;
- consolidated transport facility: the option exists to make this a centralised goods (truck and ship cargo) and personnel transfer facility for the construction of the LNG facility on Curtis Island;
- direct access: trucks will be able to access Fisherman's Landing from Bruce Highway without necessarily travelling through Gladstone, reducing the overall traffic impacts of the project;
- potential wharf expansion: with potential plans for the expansion of Fisherman's Landing wharf facilities, opportunity may exist to coordinate the expansion to fit the material handling needs of this project; and
- Fisherman's Landing is the preferred wharf site according to Main Roads because of the reduced impact on the Gladstone road network.

It is noted that other LNG and industrial facilities are currently being planned in the Fisherman's Landing area, which may create a conflict for GLNG equipment and materials transfer activities to be based there. If Fisherman's Landing ceases to be an option because of these conflicts, Auckland Point wharf is well positioned as a potential location for goods transfer to Curtis Island and has existing infrastructure to handle GLNG project needs, as described above.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Worker Accommodations Options

A summary of the assessment parameters for worker accommodation options is provided in Table 5.1 below. The options are:

1. 3,000 person workers accommodation on Curtis Island;
2. 1,500 person workers accommodation at Calliope Historical Village and 1,500 person workers accommodation on Curtis Island;
3. 3,000 person workers accommodation at Calliope Historical Village; and
4. 1,500 person workers accommodation at Calliope Historical Village and 1,500 people in Gladstone (bus pickup).

Table 5.1 *Worker Accommodation Option Comparison*

Assessment Parameter	Option 1	Option 2	Option 3	Option 4
Bus trips per 14-day work cycle	103	530	958	958
Ferry trips per 14-day work cycle	21	110	196	196
Travel time per worker per 14-day cycle	169 minutes	169 min (Island accommodation) 1,886 min (Calliope accommodation)	1,886 minutes	1,686 min (private residence portion) 1,886 min (Calliope accommodation)
Total travel time per 14-day cycle (all workers)	8,655 hours	52,734 hours	96,813 hours	91,679 hours

Based on the general and comparative assessment of options for worker accommodations, the following conclusions are made:

- Option 1 has a considerably lower need for bus service than the other three options because of the lower frequency of shift changeovers.
- traffic on the Gladstone road network is expected to be significantly lower for Option 1 than the other options assessed because personnel only travel to Curtis Island once every two weeks.
- Option 1 has a considerably lower need for ferry service than the other three options because of the lower frequency of shift changeovers.
- the total time needed for transport of construction personnel to Curtis Island utilising the existing service in Gladstone is prohibitive to providing an efficient workforce.

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- total commute time for each worker under Option 1 is expected to be less than 10% that of Options 2, 3 and 4 for a 14-day typical work cycle.

Based on the above, the following is recommended for the accommodation of construction workforce during the construction of Train 1 of the LNG facility:

- because of the considerable savings in traffic generated and worker commute times, Option 1 (100% workers accommodation on Curtis Island) is recommended; and
- commission ferries of higher passenger capacity and speed to efficiently transport personnel to Curtis Island.

5.2 Ferry Landing Location for Worker Transport

A summary of the estimated cycle times for ferry landing location options is provided in Table 5.2 below.

Table 5.2 *Ferry Cycle Time Comparison*

	Option 1 – Gladstone Marina	Option 2 – Connell Wharf	Option 3 – Auckland Point Wharf	Option 4 – Fisherman's Landing
Ferry Capacity:	150			
Average Speed (knots):	10			
Conversion (Knots-kph):	1.852			
Travel Distance (km):	8.5	7.5	7.5	4.5
Load Time (min):	10	10	10	10
Travel Time (min):	28	24	24	15
Unload Time (min):	10	10	10	10
Return Time (min):	28	24	24	15
Total Ferry Cycle (min):	75	69	69	49

Based on the general and comparative assessment of options for ferry landing location, the following conclusions are made:

- overall, cycle times for each ferry landing location are similar with the exception of Option 4 – Fisherman's Landing wharf, which is approximately 3km closer to Curtis Island than the other locations;
- Option 4 is the closest to the proposed Calliope workers accommodation if that option is selected;
- Fisherman's Landing (Option 4) will require the furthest travel for personnel living or flying into Gladstone, compared to the other options located within Gladstone;

- Fisherman's Landing and Auckland Point have the potential to consolidate worker and goods transport to Curtis Island, though security access and personnel safety issues may be problematic with both;
- all locations provide some potential for nearby car parking, though Fisherman's Landing (Option 4) may be the most readily available.

Based on the above, Fisherman's Landing is recommended for the location of the ferry landing to Curtis Island provided issues associated with security and personnel safety can be resolved with GPC. Gladstone Marina would offer a suitable alternative ferry landing if security and safety issues associated with Fisherman's Landing cannot be mitigated.

5.3 Barge Landing Location for Goods Transport

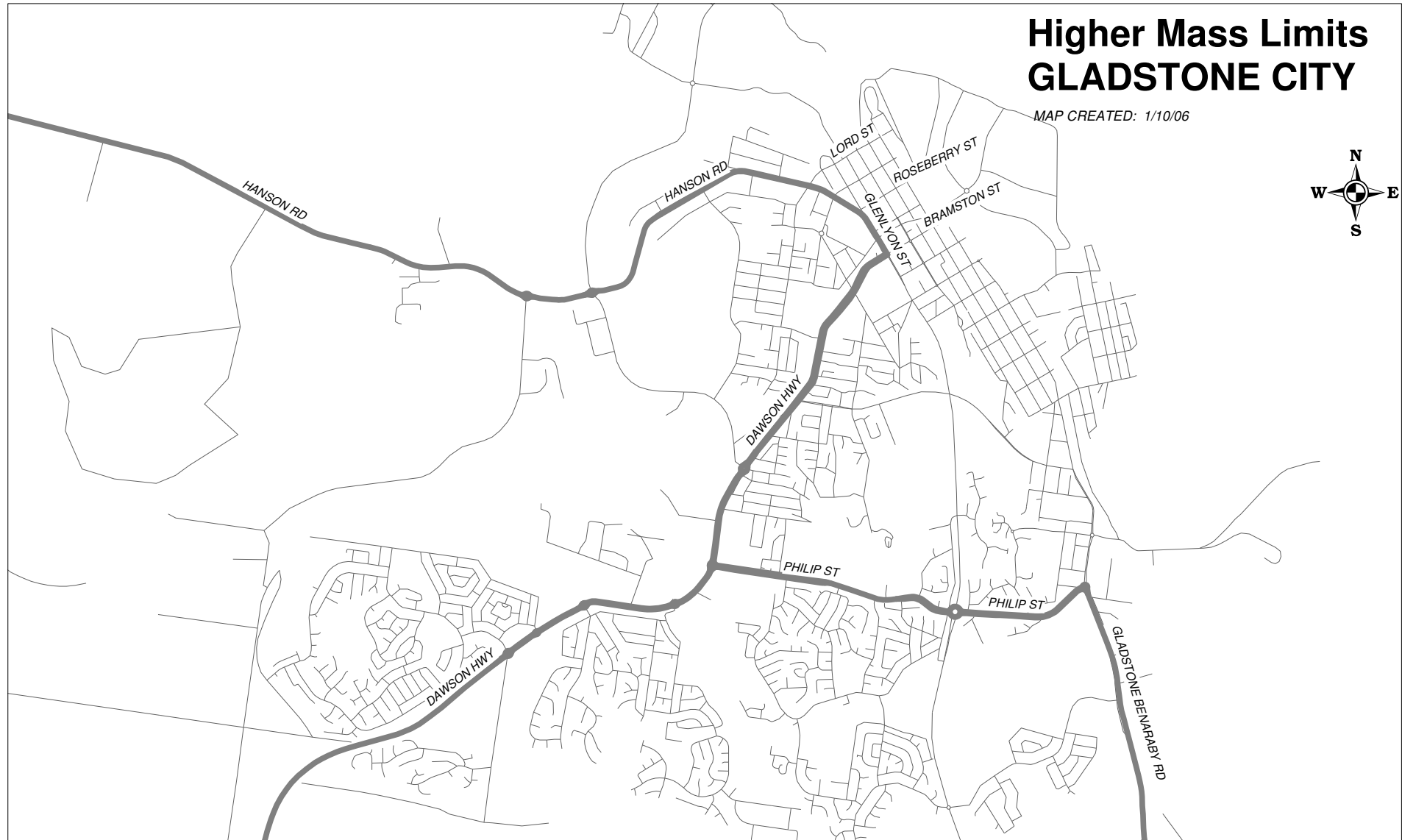
Based on the general and comparative assessment of options for goods transport location to Curtis Island, the following conclusions are made:

- Fisherman's landing is the closest to Curtis Island, at approximately 4km compared to 7-8km of the other options;
- Fisherman's Landing and Auckland Point Wharves may both be viable options for handling both truck and ship cargo, with the possibility of also providing a ferry landing point for transporting personnel to Curtis Island;
- Fisherman's Landing has the most direct access of all options – trucks will be able to access Fisherman's Landing from Bruce Highway without travelling through Gladstone;
- Potential wharf expansion: with potential plans for the expansion of Fisherman's Landing wharf facilities, opportunity may exist to coordinate the expansion to fit the material handling needs of this project;
- Fisherman's Landing is the Queensland Department of Main Roads' preferred option because of the avoidance of heavy vehicle traffic through Gladstone.

Based on the above, Fisherman's Landing is the preferred location for goods and material transfer from trucks and ships to Curtis Island.

It is noted that other LNG and industrial facilities are currently being planned in the Fisherman's Landing area, which may create a conflict for GLNG equipment and materials transfer activities to be based there. If Fisherman's Landing ceases to be an option because of these conflicts, Auckland Point wharf is well positioned as a potential location for goods transfer to Curtis Island and has existing infrastructure to handle GLNG project needs, as described above.

APPROVED ROUTES FOR HIGHER MASS LIMITS FOR VEHICLES WITH ROAD FRIENDLY SUSPENSIONS



Appendix D

Existing Traffic Counts

ID	ROAD ID	ROAD NAME	CATEGORY	AADT	EAVY VEHICL	LOCATION
L7853R0F	1	AC RIDEOUTS	4b	33.9	2.04	150m from Intersection Coal Road Stoney Ridge
H476J22M	2	AERODROME ROAD ROAD	1	186.3	6.2	860m on the left hand side of the Burnett HWY
L637PFSM	4	ALBERTA ROAD	1	79.7	11.02	150m south of Baralaba Woorabinda Rd and Alberta Rds intersection
S092Z70Y	7	ALMA VALE ROAD	4B	5.1	20	1000M EAST OF DULULU BUNERBA ROAD INSECTION AT GRID
L727GTCT	8	Andersons Road	4b	9.4	24.33	150m West of Leichhardt Highway @ T Sign
H4777837	10	ARGOON HIGHWAY ROAD	1	101.9	9.92	14.5Km from Dawson HWY
H476J22M	11	ARGOON KILBURNIE ROAD	1	188.2	11	4.55 Km from Dawson HWY
T657ATBV	604	Auburn Street	60	653.8	8.21	30m East of Callide Street
S0886VGZ	383	AUSTINS ROAD	3	12.3	8.24	60M SOUTH OF GIBBER GUNYAH CONNECTION ROAD
L788PKBV	13	BACKENS ROAD	4B	14.1	17.7	40M WEST OF BANANA-BARALABA ROAD INTERSECTION
L788PKBV	15	BAILEYS LANE	1	185.6	6.25	250m from Calvale Rd
H4777837	15	BAILEYS LANE	1	314.9	3.96	190m from the intersection of Baileys Lane and Valentine Plains Rd
H4757HN9	15	BAILEYS LANE	1	191	6.14	4.52Km from the intersection of Baileys Lane and Valentine Plains Rd
L727GTCT	19	BANANA HOLDINGS ROAD	4b	9.4	18.84	200M SOUTH OF DAWSON HIGHWAY
L788PKBV	20	BANANA MUNGI ROAD	4B	14.9	23.96	40M WEST OF DAWSON HIGHWAY INTERSECTION
S0886VGZ	21	BANANA STATION ROAD	4B	18.5	23.53	80M NORTH OF DAWSON HIGHWAY INTERSECTION
S188XBCB	20	BANANA-MUNGI ROAD	4B	16.8	12.6	50M WEST OF MOURA BARALABA ROAD INTERSECTION
H4777837	17	BARALABA BANANA ROAD	2a	81.9	20.75	at Ramsay Creek
L7853ROF	23	BARALABA KOOEMBA ROAD	4a	63.7	7.68	85m east from Baralaba Woorabinda intersection
L788PKBV	25	BARFIELD ROAD	3	87	9.56	200m from the intersection of the Leichhardt HWY and Barfield Rd
L727GTCT	25	BARFIELD ROAD	3	12.4	7.24	300m from the intersection of Sewells-Walloon Rd and Barfield Rd
L637PFSM	26	BATHS ROAD	4b	2.4	32.14	190m from Camboon Crowsdale rd intersection
L788PKBV	27	BEARS LAGOON ROAD	2A	38	14.64	250M NORTH OF DAWSON HIGHWAY INTERSECTION
S153WX4J	30	BECKERS ROAD	2A	11.2	15.39	80M SOUTH OF MOOGINE ROAD INTERSECTION
L7853R0F	30	BECKERS ROAD	1	10.5	31.51	250M NORTH OF SAWMILL ROAD INTERSECTION
S153WX4J	31	BEHRENDORFFS ROAD	4A	26.7	29.67	60M SOUTH OF MALONEYS & KIANGA RIVER ROAD INTERSECTION
L788PKBV	33	BELLDEEN DEFENCE ROAD	2a	13.9	12.27	200m from the intersection of Dawson HWY and Beldeen Defence Rd
L7853R0F	33	BELLDEEN DEFENCE ROAD	2a	18.2	13.29	200m from the intersection of Leichhardt HWY and Beldeen Deence Rd
L7853R0F	33	BELLDEEN DEFENCE ROAD	2a	18.2	13.29	200m from the intersection of Leichhardt HWY and Beldeen Deence Rd
S092Z70Y	34	BELLDEEN GREYCLIFFE ROAD	1	39	36.22	300M NORTH OF DAWSON HIGHWAY INTERSECTION
L788PKBV	34	BELLDEEN-GREYCLIFFE ROAD	2A	45.4	13.77	250M WEST OF PROSPECT CREEK - GOOVIGEN ROAD INTERSECTION
L788PKBV	397	BENSONS ROAD	4B	12.6	20.45	60M SOUTH OF GIBBER GUNYAH CON ROAD INTERSECTION
L788PKBV	37	BINDAREE HARCOURT ROAD	4B	14	20.17	200M NORTH OF BINDAREE MOURA ROAD & BINDAREE ROAD INTERSECTION
L7853ROF	36	BINDAREE ROAD	3	4.4	35.29	50M EAST OF MOURA BINDAREE INTERSECTION
L637PFSM	399	Birchleys Road	4b	13.2	8.57	30m South of Isla Delusion Road Intersection
L7853R0F	38	BLACKMANS YARD ROAD	3	5.4	23.08	250m from the Burnett HWY intersection
L788PKBV	38	BLACKMANS YARD ROAD	4b	18.6	28.88	250m from the intersection of the Burnett HWY and Blackmans Yard Rd
L788PKBV	41	BLACKS ROAD	3	30.4	19.39	950m from the Burnett HWY intersection
L788PKBV	39	BLACKS ROAD	4b	13.6	14.03	100m from the intersection of Argoon HWY and Black Rd
L7853R0F	40	BLACKS ROAD	4b	13.7	1.01	250m from the intersection of the Dawson HWY and Blacks Rd
S188XBCB	43	BLOTTS ROAD	4B	12.5	13.13	30M SOUTH OF DIXALEE DEEFORD ROAD INTERSECTION
T657ATBV	46	Boughyard Road	4b	14.6	3.45	80m North of Eidsvold Theodore Road Intersection
L727GTCT	47	BOWKETTS LANE	4b	18.1	8.84	50 m from the Dawson HWY intersection
S188XBCB	47	BOWKETTS LANE	4B	6.5	4.21	150M SOUTH OF ZISCHKES LANE INTERSECTION
L788PKBV	47	BOWKETTS LANE	4B	22.3	5.51	50M NORTH OF DAWSON HWY INT @ T SIGN
S092Z70Y	47	BOWKETTS LANE	4B	11.1	3.68	2.8999KM NORTH OF DAWSON HWY INTERSECTION
L637PFSM	611	Buckland Street	6	358.6	2.36	50m East of State Farm Rd int @ pole 4086707
S092Z70Y	51	BUNDALBA ROAD	4A	35.6	14.43	50M SOUTH OF DIXALEE DEEFORD ROAD INTERSECTION
S0886VGZ	52	BUNERBA SCHOOL ROAD	3	13.2	22.22	200M EAST BURNETT HIGHWAY INTERSECTION @ T SIGN
L727GTCT	53	BUNERU ROAD	4A	8.7	5	300M SOUTH OF ROMERS ROAD INTERSECTION @ BEND SIGN
S0886VGZ	53	BUNERU ROAD	4A	19.7	18.66	200M EAST OF LEICHHARDT HIGHWAY @ T SIGN
S092Z70Y	54	BUNERU SCHOOL ROAD	4A	9.7	2.99	80M NORTH OF MULLERS ROAD INTERSECTION
L727GTCT	58	BYRNES ROAD	3	9.6	18.95	300M WEST OF ALBERTA ROAD INTERSECTION
L7853R0F	59	CAHILLS LANE	4b	5.9	13.2	250m from the 5 ways Mt Eugene intersection
L727GTCT	59	CAHILLS LANE	4b	12.6	11.54	200m from the Burnett HWY intersection
L727GTCT	60	CALLIDE HIGHWAY ROAD	4a	24.1	16.31	180m from Jambin Dakenbah Road intersection
L727GTCT	61	CALLIDE KILBURNIE ROAD	3	26.9	23.3	120 m from the Jambin Dakenbah intersection
L788PKBV	61	CALLIDE KILBURNIE ROAD	4a	7.3	17.94	200m from the Argoon Kilburnie
L637PFSM	63	CALVALE ROAD	1	1113.4	6.28	1.38Km from the intersection of Dawson HWY and Calvale Rd
L727GTCT	63	CALVALE ROAD	1	412.7	6.15	275m from the intersection of Baileys Lane and Calvale Rd
L788PKBV	63	CALVALE ROAD	1	68.3	4.05	200m from the Grid and its on the 60Km/h Sign
L727GTCT	64	Carmodys Road	4B	22.4	9.5	300m East Theodore Eidsvold Road Intersection
L788PKBV	65	CARNELLS ROAD	4B	5.7	0	50M WEST OF POCKET CREEK ROAD & BUNERU ROAD INTERSECTION
L727GTCT	66	CARTWRIGHTS ROAD	3	6.3	17.07	100M WEST OF TOMLINS & LINDLEYS ROAD INTERSECTION
S092Z70Y	67	Castle Creek Road	1	70.1	17.76	200m East of Leichhardt Highway intersection
L727GTCT	71	CHARVEL ROAD	4B	22.4	29.41	80M NORTH GIBBER GUNYAH CONNECTION ROAD INTERSECTION
L727GTCT	262	CLAIRE LANE	4B	10.6	8.7	100M NORTH OF GOOVIGEN RANNES ROAD INTERSECTION
L788PKBV	72	CLANFIELDS ROAD	4A	7.4	0	230M WEST OF BURNETT HIGHWAY INTERSECTION @ T SIGN
L788PKBV	62	COAL ROAD	4a	63.6	8.53	50m from Callide road
L7853ROF	62	COAL ROAD	4A	74.9	14.97	AT THE GRID
L727GTCT	74	COATES ROAD	4b	14.4	23.22	300m from the Shawlands Rd intersection
L7853R0F	75	COCKS MILLARD ROAD	3	33	18.32	3.16Km from the Burnett HWY intersection
L637PFSM	75	COCKS MILLARD ROAD	3	118.7	9.2	200m from the intersection of the Burnett HWY and Cocks-Millard Rd
S188XBCB	76	COLOMBO ROAD	2A	27.8	10.34	180M NORTH OF LEICHHARDT HIGHWAY INTERSECTION
L788PKBV	77	COOKS ROAD	4b	7.5	10.66	250m from Lawgi Connection Rd intersection
L7853ROF	78	COOLUM ROAD	4b	28.5	23.49	50M WEST OF ALBERTA ROAD
S153WX4J	79	COOPER DOWNS ROAD	4B	6.4	70.45	40M FROM LEICHHARDT HIGHWAY INTERSECTION
L727GTCT	624	Coorada Street	6	168.2	3.33	40m East of State Farm Road @ pole 4025011
L788PKBV	80	COOREEN WATERBOARD ROAD	4a	16.9	18.39	100m from Davis rd intersection
L637PFSM	80	COREEN WATERBOARD ROAD	4a	22	23.72	50m from the Bunett HWY intersection
L637PFSM	83	COWANS LANE	4B	13.2	22.47	30M SOUTH OF MELCERS ROAD INTERSECTION
H476J22M	86	CROWSDALE CAMBOON ROAD	1	158.1	6.27	on the intersection of Crowsdale Camboon Rd and Dawson HWY
L727GTCT	85	CROWSDALE CAMBOON ROAD	2b	9.1	8.59	Theadore end of Crowsdale-Camboon Rd
H4757HN9	86	CROWSDALE CAMBOON ROAD	1	63.3	9.99	At the crossing of Prospect Creek and Crowsdale Camboon Rd
S092Z70Y	85	Crowsdale Camboon Road	2a	8.8	19.17	150m North Defence Road intersection
S0886VGZ	58	Crowsdale Camboon Road	2A	14.6	28.78	80m South Shawlands Road intersection
L788PKBV	58	Crowsdale Camboon Road	2B	4.5	17.65	250m South Dingley Dell Road intersection
L727GTCT	85	Crowsdale Camboon Road	2A	8.4	18.35	400m South Rawbelle Road intersection
L637PFSM	86	Crowsdale Camboon Road	2A	17.9	27.54	100m South Drumberle Road intersection
S153WX4J	86	Crowsdale Camboon Road	1	34.9	21.85	50m South Rowes Road intersection
L7853R0F	86	Crowsdale Camboon Road	1	132.7	27.19	200m South Ziebarths Road intersection
S188XBCB	86	Crowsdale Camboon Road	1	195.5	15.16	200m South Dawson Highway intersection
S0886VGZ	398	DAVIES ROAD	4B	12.5	9.19	100M SOUTH OF GIBBER GUNYAH CON ROAD INTERSECTION
L7853R0F	88	DAVIS ROAD	4b	12	6.12	100m from the intersection of Beldeen-GreyCliffe and Davis Rd
L727GTCT	88	DAVIS ROAD	4a	26.7	22.11	100m from the intersection of Coreen Water Board and Davis Rd
SO886VGZ	89	DAVIS ROAD	4b	5	0	100M FROM THE INTERSECTION OF BARALABA - KOOEMBA ROAD
L637PFSM	801	DAWSON AVENUE	6	52.7	10.8	20M SOUTH OF LEICHHARDT HIGHWAY INTERSECTION
H4777837	379	DEE RIVER ROAD	1	83.4	10.75	on the intersection of Dixalea-Deeford and Dee River Rd
L7853ROF	379	DEE RIVER ROAD	1	157.9	14.25	550M EAST OF LEICHHARDT HIGHWAY INTERSECTION
L7853ROF	91	DENBY ROAD	4A	7.5	10.61	50M SOUTH OF ALBERTA HINEMOA ROADS INTERSECTION
0886VGZ	92	DINGLES ROAD	4B	5.7	7.69	80M WEST OF BURNETT HIGHWAY
L7853R0F	93	DINGLEY DELL ROAD	4a	5.8	12.04	300m from the Crowsdale Camboon Rd intersection
L7853ROF	94	DIXALEA DOREEN ROAD	1	39.4	10.3	400M WEST OF BURNETT HIGHWAY
L637PFSM	96	DMITRIFFS ROAD	4b	12.4	12.72	600m from the Burnett HWY intersection
S188XBCB	98	DOONEY SMITH ROAD	4A	15.4	17.3	250M EAST OF FIVE WAYS LAKE PLEASANT ROAD INTERSECTION
L727GTCT	99	DOONEYS ROAD	4A	17	7.02	220M WEST OF BURNETT HIGHWAY @ + SIGN
L788PKBV	99	DOONEYS ROAD	4B	2.2	0	120M EAST OF BURNETT HIGHWAY @ + SIGN
L788PKBV	100	DRAKES ROAD	4b	3.6	32.44	30M NORTH OF BARALABA - RANNES ROAD INTERSECTION
L727GTCT	101	DRUMBERLE ROAD	1	136.8	5.39	220mk from the Meissners Rd and Parker lane intersection
L788PKBV	101	DRUMBERLE ROAD	1	34.5	8.77	140m from the Mclaughlins Drumburle Rd intersection
H476J22M	102	DUDARKOS ROAD	4b	70.6	10.78	250m from the Shepherdddson Rd intersection
S188XBCB	103	DUFFS ROAD	4B	0.4	0	70M NORTH OF BURNETT HIGHWAY AT HISTORICAL SITE
T628VBNP	104	Dukes Plains Road	4b	11.1	4.5	400m South of Isla Delusion Road Intersection
L727GTCT	105	DULULU BUNERBA ROAD	4A	29.9	16.09	50M EAST OF BUNERBA SCHOOL ROAD INTERSECTION
L637PFSM	105	DULULU BUNERBA ROAD	3	49.2	15.83	50M NORTH OF BURNETT HIGHWAY INTERSECTION
L637PFSM	108	EARLSFIELD PIT ROAD	4a	9.5	20.2	400m from the Mcarthys Rd Intersection
L7853R0F	108	EARLSFIELD PIT ROAD	4a	4.9	28.84	100m form the Argoon-Kilburnie Rd intersection
L637PFSM	108	EARLSFIELD PIT ROAD	4b	6.4	10.67	120m from the intersection of Mallinsons and Argoon-Kilburnie Rd
L637PFSM	109	EARLSFIELD ROAD	3	25.3	22.12	120m from the Jambin Dakenbah Rd intersection
H4757HN9	109	EARLSFIELD ROAD	1	776.4	10.74	9.977Km from the intersection of Callide Kilburnie Rd
L727GTCT	109	EARLSFIELD ROAD	4a	10.5	15.27	120m from the intersection of Earsfield and Earlsfields Pit Rd
L788PKBV	109	EARLSFIELD ROAD	4a	13.5	32.67	120m from the intersection of Earsfield and Earlsfields Pit Rd
S188XBCB	110	EDWARDS ROAD	4b	10.8	4.76	40M WEST OF GLENMORAL ROUNDSTONE ROAD INTERSECTION
L637PFSM	114	ENGELS ROAD	4A	3.8	4.88	300M EAST OF GEIGERS ROAD INTERSECTION
S092Z70Y	115	ERIKSONS ROAD	4B	11.7	18.29	200M EAST OF BURNETT HIGHWAY INTERSECTION @ STOP SIGN AHEAD SIGN
S153WX4J	116	ESHERS ROAD	4B	14.6	10.79	100M WEST OF LEICHHARDT HIGHWAY
S0866VGZ	118	FAIRVIEW ROAD	3	11.5	37.5	200M EAST OF BANANA-BARALABA ROAD INTERSECTION
L7853ROF	118	FAIRVIEW ROAD	4A	63.2	56.07	300M WEST OF LEICHHARDT HIGHWAY INTERSECTION
S0886VGZ	120	FIVE WAYS-LAKE PLEASANT R	3	23.4	11.25	450M NORTH OF GOOVIGEN CONNECTION ROAD
L7853R0F	121	FIVEWAYS MOUNT EUGENE RD	3	39.5	20.18	200m from the Burett HWY intersection
L727GTCT	121	FIVEWAYS MOUNT EUGENE RD	3	36	17.97	200m from the Cahill and 5 ways Mt Eugene intersection
L788PKBV	121	FIVEWAYS MOUNT EUGENE RD	3	24.9	33.16	200m from the Smartd lane and 5 Ways Mt Eugene intersection

District **6 CENTRAL DISTRICT**

Road Section **10E BENARABY - ROCKHAMPTON**

Year **2006**

TDist Status **C**

Direction **All Directions**

Through Distance

Site

0.000 - 11.580 **60127 500m S Dawson Hwy (Calliope)**

% per Vehicle Class

Gaz Dir	AADT	% per Vehicle Class						% Growth		
		Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	1,919	79.05	20.95	79.05	6.13	9.38	5.44	-5.61	1.65	3.70
A	1,959	77.70	22.30	77.70	6.34	9.87	6.09	-2.20	1.85	5.07
B	3,878	78.38	21.62	78.38	6.23	9.63	5.76	-3.91	1.75	4.35

11.580 - 45.410 **60006 25m N Calliope River**

% per Vehicle Class

Gaz Dir	AADT	% per Vehicle Class						% Growth		
		Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	1,539	75.87	24.13	75.87	6.36	11.12	6.65	-3.15	2.24	1.99
A	1,508	74.17	25.83	74.17	6.09	11.96	7.78	-.26	2.10	1.10
B	3,047	75.00	25.00	75.00	6.24	11.54	7.22	-1.74	2.17	1.54

45.410 - 85.320 **60023 Hut Ck (Nth Ambrose)**

% per Vehicle Class

Gaz Dir	AADT	% per Vehicle Class						% Growth		
		Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	2,272	76.27	23.73	76.27	6.63	9.74	7.36	3.65	1.86	4.09
A	2,283	74.52	25.48	74.52	7.14	10.24	8.10	-1.47	3.64	2.73
B	4,555	75.39	24.61	75.39	6.89	9.99	7.73	1.02	2.73	3.37

85.320 - 108.950 **61551 WiM Site Midgee**

% per Vehicle Class

Gaz Dir	AADT	% per Vehicle Class						% Growth		
		Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	2,574	76.67	23.33	76.67	6.88	9.45	7.00	3.75	N/A	N/A
A	2,563	76.52	23.48	76.52	6.64	9.56	7.28	4.27	N/A	N/A
B	5,137	76.58	23.42	76.58	6.76	9.51	7.15	4.01	N/A	N/A

108.950 - 114.400 **60130 Gavial Creek**

% per Vehicle Class

Gaz Dir	AADT	% per Vehicle Class						% Growth		
		Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	2,515	73.14	26.86	73.14	7.38	11.85	7.63	.64	4.09	3.49
A	2,471	72.57	27.43	72.57	7.31	12.03	8.09	6.05	2.87	2.35
B	4,986	72.87	27.13	72.87	7.34	11.93	7.86	3.25	3.43	2.81

District	6 CENTRAL DISTRICT	
Road Section	10E BENARABY - ROCKHAMPTON	
Year	2006	
TDist		Status C
Direction	All Directions	

Through Distance

Site

114.400 - 116.960

60024 1km N Scrubby Creek

% per Vehicle Class

Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	3,138	77.75	22.25	77.75	6.51	9.57	6.17	-4.76	-2.32	-.56
A	3,112	76.93	23.07	76.93	6.98	9.65	6.44	-6.69	-2.68	-.93
B	6,250	77.34	22.66	77.34	6.74	9.61	6.31	-5.73	-2.50	-.76

116.960 - 119.736

60868 100m North Oswald St (Lower Dawson Rd)

% per Vehicle Class

Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	9,245	88.70	11.30	88.70	6.01	3.65	1.64	-.10	3.65	3.17
A	8,839	88.54	11.46	88.54	5.99	3.77	1.70	9.76	4.98	4.17
B	18,084	88.60	11.40	88.60	6.00	3.72	1.68	4.49	4.29	3.65

119.736 - 121.050

61086 Gladstone Road @ Derby St

% per Vehicle Class

Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	10,974	92.01	7.99	92.01	4.24	2.90	.85	-6.21	2.10	2.03
A	11,544	91.84	8.16	91.84	4.40	2.87	.89	-6.85	2.92	3.57
B	22,518	91.94	8.06	91.94	4.31	2.88	.87	-6.54	2.51	2.79

L637PFSM	121	FIVEWAYS MOUNT EUGENE R	3	36.5	23.26	200m from the 5 Ways Mt Eugene and Wilson lane intersection
S153WX4J	122	FLAGSTAFF ROAD	2B	6.7	13.79	500M SOUTH OF GLENBAR ROAD INTERSECTION
S188XBCB	123	FLOHRS ROAD	4B	2.1	26.67	70M NORTH OF FLOODS ROAD INTERSECTION
S0886VGZ	124	FLOODS ROAD	3	37.1	15.77	280M NORTH OF WOWAN-WESTWOOD ROAD INTERSECTION @ T SIGN
L7853ROF	124	FLOODS ROAD	4A	22.4	10.12	50M NORTH OF LEICHHARDT HIGHWAY INTERSECTION
L7853ROF	384	FOREST HILLS ROAD (1)	2B	14.6	17.46	150M WEST OF GLENMORAL ROUNDSTONE ROAD INTERSECTION
S0886VGZ	384	FOREST HILLS ROAD (2)	4B	7.9	25.49	100M WEST OF FOREST HILLS (1) INTERSECTION
L637PFSM	126	FORESTRY ROAD	2b	32.6	56.14	220m from the Froestry Rd and Dawsons HWY
L788PKBV	127	FRAWLEYS ROAD	4a	9	18.12	200m from the Frawleys and Drumburle RD intersection
S092Z70Y	130	Frenchs Road	4B	17.6	24.51	50m North of Theodore Eidsvold Road intersection
L7853ROF	132	GEIGERS ROAD	4A	4.7	10	100M EAST OF GOOVIGEN RANNES ROAD INTERSECTION
L788PKBV	133	GELOBERA ROAD	4A	15.2	20.19	400M EAST OF DULULU BUNERBA ROAD
L7853ROF	134	GENEVA ROAD	3	9	19.35	100M NORTH OF LEICHHARDT HIGHWAY
L637PFSM	134	GENEVA ROAD	4B	4.9	2.94	200M EAST OF LEICHHARDT HIGHWAY INTERSECTION
L788PKBV	136	GIBBER GUNYAH CONNECTIO	1	98	18	100M NORTH OF LEICHHARDT HIGHWAY INTERSECTION @ SCHOOL BUS SIGN
L727GTCT	136	GIBBER GUNYAH CONNECTIO	1	22.6	9.5	80M EAST OF CHARVEL & SAWMILL INTERSECTION
S153WX4J	137	Gibbs Road	4B	32.4	7.31	100m South Theodore Eidsvold Road intersection
L7853ROF	138	GIBIHI ROAD	1	395	11.65	150m from the round about on Gibihi (left hand side)
L788PKBV	138	GIBIHI ROAD	1	161.3	26.15	150m from the round about on Gibihi (right hand side)
S188XBCB	138	GIBIHI ROAD	1	664.9	14.42	100M EAST OF THEODORE MOURA INTERSECTION
S188XBCB	139	GLEN HEATON ROAD	4B	5.3	27.03	40M SOUTH OF CAPRICON HIGHWAY
L637PFSM	141	GLENBAR ROAD	2B	12.3	12.57	500M SOUTH OF GLEMMORAL ROUNDSTONE ROAD INTERSECTION
S0886VGZ	143	GLENMORAL ROUNDSTONE R	2A	34.6	22.59	200M SOUTH OF DAWSON HIGHWAY
L788PKBV	143	GLENMORAL ROUNDSTONE R	2B	30.7	16.86	180M SOUTH DAWSON HWY @ T SIGN
T657ATBV	143	GLENMORAL ROUNDSTONE R	1	23.7	23.81	120M SOUTH OF HARRISONS ROAD INTERSECTION
T628VBNP	143	GLENMORAL ROUNDSTONE R	1	54.5	20.59	150M WEST OF SAWMILL ROAD INTERSECTION @ GRAVEL RD SIGN
T539EMSE	143	GLENMORAL ROUNDSTONE R	1	56.5	22.68	100M FROM LEICHHARDT HWY @ BUS ROUTE SIGN
S153WX4J	144	GLIDING CLUB ROAD	4B	7.9	12.73	200M WEST OF BURNETT HIGHWAY INTERSECTION @ T SIGN
S188XBCB	145	GOOLARA HEINEKE ROAD	4A	56.7	10.08	150M EAST OF LEICHHARDT HIGHWAY INTERSECTION
H4757HN9	146	GOOVIGEN CONNECTION ROA	1	77.6	19.33	4.9Km from the Burnett HWY and Goovigen Connection Rd intersection
H4777837	147	GOOVIGEN RANNES ROAD	1	75.1	20.23	3.5Km from the Goovigen Connection Rd intersection
L727GTCT	149	GRALOWS ROAD	4B	3.3	8.7	300M SOUTH OF TERENCEVALE ROAD INTERSECTION
L788PKBV	150	GRANTLEIGH PHEASANT CREE	4A	12	16.67	20M NORTH OF HORNIMANS ROAD INTERSECTION
S092Z70Y	150	GRANTLEIGH PHEASANT CREE	4A	16.2	12.08	200M WEST OF WOWAN WESTWOOD ROAD @ + SIGN
L7853ROF	151	GREENDALE ROAD	4B	14.2	42.57	100M WEST OF DEE RIVER ROAD INTERSECTION
L7853ROF	152	GREVELLS	4a	42.8	18.08	26m from the intersection of Grevells Rd and Dawson HWY
L788PKBV	152	GREVELLS ROAD	4a	12.7	18.18	70m from the Intersection of Dudarkos Rd andGrevelles Rd
L727GTCT	152	GREVELLS ROAD	4b	32.7	12.11	180m from the intersection of the Dawson HWY and Freemans Rd
T539EMSE	386	Gyranda Road	4b	17.8	11.51	100m South of Eidsvold Theodore Road Intersection
L637PFSM	156	HALLS ROAD	4b	24.2	28.19	200m from the McLaughlins and Halls Rd
L7853ROF	156	HALLS ROAD	4b	19.9	61.07	250m from the intersection of Thangool Lookerbie and Halls Rd
L727GTCT	157	Hamiltons Road	4B	3.7	11.54	200m North of Defence Road intersection Brindebella Sign
L7853ROF	158	HANSONS ROAD	4B	6	14.29	250M NORTH OF MULLERS ROAD INTERSECTION
L788PKBV	159	HARCHS ROAD	4b	37.4	38.01	160m from the Burnett HWY intersection
L727GTCT	160	HARCOURT ROAD	4A	37.1	43.75	250M WEST OF MOURA BARALABA ROAD INTERSECTION
S09270Y	163	HARRISONS ROAD	4B	7.3	19.15	150M EAST OF GLENMORAL ROUNDSTONE ROAD INTERSECTION
L637PFSM	164	HARSANTS ROAD	3	20.6	24.38	200m from the Burnett HWY intersection
L788PKBV	164	HARSANTS ROAD	4a	20.9	17.8	250m from the Moore Schubert and Harsants intersection
L637PFSM	165	HENDERSONS ROAD	4A	11.4	15.73	50M NORTH OF DIXALEA DEEFORD ROAD INTERSECTION
L7853ROF	735	HERZOG STREET	5	661.5	5.07	10M WEST OF THEODORE-MOURA RD INTERSECTION
S0886VGZ	166	HETHERINGTONS ROAD	3	17.6	20.87	200m south of the Baralaba Rannes Rd intersection
L788PKBV	167	HETHERINGTONS ROAD	4B	1.4	38.89	150M SOUTH OF GRANTLEIGH-PHEASANT CREEK ROAD INTERSECTION
L637PFSM	168	HIBBS ROAD	4B	14.6	18.18	250M EAST OF BURNETT HIGHWAY INTERSECTION @ T SIGN
L727GTCT	169	HICKS ROAD	4B	4.7	32.43	450M NORTH OF CLANFIELDS ROAD INTERSECTION
L7853ROF	170	HILLS ROAD	4b	1.9	26.31	70m from the Camboon-Crowsdale and Hills Rd intersection
L727GTCT	172	HINEMOA ROAD	4A	6.1	3.77	50M WEST OF ALBERTA & DENBY ROADS INTERSECTION
L727GTCT	174	HODGETTS ROAD	3	36.8	15.35	100m from the intersection of the Burnett HWY and Hodgetts Rd
L637PFSM	174	HODGETTS ROAD	3	34.7	10.63	280m from the intersection of Jambin Darkinba and Hodgetts Rd
L7853ROF	175	HOGANS LANE	4b	24.1	47.03	50m from the intersection of Jambin 3 ways and Hogans Rd intersection
S0886VGZ	176	HOLMES ROAD	4B	0.9	0	50M NORTH TERENCEVALE ROAD INTERSECTION
S092Z70Y	177	HORNIMANS ROAD	4A	10.6	35.14	350M EAST OF GRANLEIGHT PHEASANT CREEK ROAD INTERSECTION
L637PFSM	177	HORNIMANS ROAD	4A	8.6	37.29	50M WEST OF WOWAN WESTWOOD ROAD INTERSECTION
L637PFSM	179	Hutchinsons Road	4B	1.6	0	150m South of Defence Road intersection
L727GTCT	22	IAN MCCAULEY WAY	4B	16.6	5.61	100M NORTH OF COAL ROAD
L637PFSM	181	INVERNESS ROAD	4a	13.8	5.74	135m from the Dawson HWY Inverness Intersection
L788PKBV	181	INVERNESS ROAD	4a	14.2	25.84	100m from the Argoon-Kilburrie and Inverness Rd intersection
S153WX4J	182	Isla Delusion Road	4a	18.4	10.03	400m West of Eidsvold Theodore Road
T622FE52	182	Isla Delusion Road	3	24.1	12.05	180m South of Leichhardt Hwy @ T Sign
H4777837	183	JAMBIN DAKENBA ROAD	1	49.6	19.53	300m from the Burnett HWY and Jambin-Dakenba intersection
H476J22M	184	JAMBIN GOOVIGEN ROAD	1	45.6	9.2	1.9Km from the intersection of Burnett HWY and Jambin Goovigen intersection
L637PFSM	185	JAMBIN THREEWAYS ROAD	3	59.1	19.19	150m from the intersection of Jambin 3 way and 5 ways Mt Eugene
L788PKBV	185	JAMBIN THREEWAYS ROAD	3	72.5	13.85	700m from the Burnett HWY and Jambin 3 ways Rd
S188XBCB	187	JAMESONS LANE	4A	13.7	22.45	80M WEST OF BURNETT HIGHWAY INTERSECTION @ T SIGN
S153WX4J	187	JAMESONS LANE	4A	25.1	20	50M EAST OF DEE RIVER ROAD INTERSECTION
H476J22M	183	JAMFIN DAKENBA ROAD	2a	50.6	13.35	60m from the intersection of the Burnett HWy and Jambin Dakenba Rd
S188XBCB	188	JEWELLS ROAD	4A	8.2	0	50M WEST OF PROSPECT CK GOOVIGEN ROAD INTERSECTION
L637PFSM	190	JOHNSON PARRY ROAD	4A	18.8	13.84	250M NORTH OF BELLDEEN GREYCLIFFE ROAD INTERSECTION
L788PKBV	191	JUBBS ROAD	4b	3.5	15.55	200m from the intersection of Halls and Jubbd Rd
L788PKBV	192	KAVANAGHS ROAD	4b	9.5	8.75	200m from the intersection of Kavanaghs Rd and Leichardt HWY
L727GTCT	192	KAVANAGHS ROAD	4b	18.84	9.4	200m from the intersection of Kavanaghs Rd and the Lechhardt HWY
L637PFSM	193	KELLYS ROAD	4B	15.7	8.57	100M EAST OF LINDLEYS ROAD INTERSECTION
L727GTCT	194	KENTS ROAD	4b	8.5	18.39	125m from the intersection of Camboon-Crowsdale and Kent Rd intersection
L788PKBV	196	KIANGA RIVER ROAD	3	49	23.62	250m from the intersection of Theodore Moura and Kianga River Rd
S092Z70Y	196	KIANGA RIVER ROAD	3	22.7	21.29	150M EAST OF BEHRENDORFFS & MALONEYS INTERSECTION
L637PFSM	195	KIANGA ROAD	4b	32.2	15.27	250m from the intersection of Theodore and Kianga Rd
L727GTCT	195	KIANGA ROAD	4B	15.2	2.86	570M WEST OF LEICHHARDT HIGHWAY
L788PKBV	199	Kitty Maran Road	4B	3.7	3.85	250m South of Castle Creek Road intersection
L7853ROF	427	Klans Road	4b	3.2	0	80m North of Eidsvold Theodore Road Intersection
S153WX4J	200	KOKOTUNGO DON RIVER ROA	2a	26.9	15.77	120m north of Baralaba Rannes Rd intersection
L788PKBV	202	KOKOTUNGO WANDOO ROAD	2a	23.7	22.58	90m South of Baralba Rannes and Kokotungo Wandoo Rds intersection
L637PFSM	205	L ANDERSONS ROAD	4b	4.5	28.8	400m form the intersetion of Barfield and L Anderson Rd
S153WX4J	207	LAKE PLEASANT ROAD	4A	24.1	10.43	80M NORTH OF GOOVIGEN CONNECTION ROAD INTERSECTION
S153WX4J	209	LANCEFIED ROAD	4B	6.8	17.02	20M SOUTH OF PLAYFIELDS ROAD @ GRID
L637PFSM	210	LANDS END ROAD	4b	7.5	12.96	200m from the intersection of Drumburle and Lands-End Rd
S188XBCB	211	LANGLEYS ROAD	4B	0.4	0	100M NORTH OF PLAYFIELDS ROAD INTERSECTION
S188XBCB	212	LANIGANS ROAD	4B	26.4	9.84	20M EAST OF BURNETT HIGHWAY
L7853ROF	213	LARSENS ROAD	4B	5.5	5.56	150M NORTH OF DIXALEA DOREEN ROAD INTERSECTION
L727GTCT	214	LAWGI CONNECTION ROAD	4b	8.4	19.68	300m from the intersection of Burnett HWY and Lawgi Connection Rd
S153WX4J	215	LAWRIES ROAD	4B	6.3	53.49	70M EAST OF LEICHHARDT HIGHWAY INTERSECTION
S153WX4J	387	LAWS ROAD	4B	17	15.13	180M WEST OF FLOODS ROAD INTERSECTION
S0886VGZ	218	Legallez Road	4B	10.5	8.51	80m North Woolthorpe Road intersection
L727GTCT	409	LEIGHTONS ROAD	4B	2.4	12.5	150M SOUTH OF MELCERS ROAD INTERSECTION
S188XBCB	219	Letchford Road	4A	27.7	18.14	140m north Woolthorpe Road intersection
S092Z70Y	220	LINDLEYS ROAD	3	19.2	12.6	200M WEST OF LINDLEYS & KELLYS ROADS INTERSECTION
L7853ROF	221	LINKES ROAD	1	819.5	4.59	240m from the intersection of Biloela-Callide and Linkes Rd
L727GTCT	222	LOBEGEIER'S ROAD	4b	14.6	25.25	900m from the intersection of Lobegeiers and Blacks Rd
L637PFSM	223	LOOKERBIE CIRCLE	4b	12.4	16.18	225m from the intersection of Moschionis and Lookerbie Rd
L7853ROF	223	LOOKERBIE CIRCLE ROAD	4b	4.3	20.82	350m from the Thangool-Lookerbie Road intersection
L727GTCT	223	LOOKERBIE CIRCLE ROAD	4b	34.6	10	140m from the intersection of Corfield and Lookerbie-Circle Rd
L7853ROF	223	LOOKERBIE CIRCLE ROAD	4b	4.9	21.05	475m from the intersection of Lookerbie Circle and Thangool-Lookerir
L788PKBV	223	LOOKERBIE CIRCLE ROAD	4b	23.3	15.64	250m from the intersection of Moschionis and Lookerbie Rd
T622FE52	652	Lookerbie Street	6	201.6	4.2	80m West of Thalberg Ave Int @ pole 2086181
S188XBXB	225	LOWRIES NO 1 ROAD	4B	16.1	19.3	140M EAST OF KOKOTUNGO WANDOO INTERSECTION
L727GTCT	388	LOWRIES NO 2 ROAD	4B	4.4	6.45	100M SOUTH OF LOWRIES NO 1 ROAD INTERSECTION
S0886VGZ	226	LUCYS ROAD	2B	6.3	0	200M SOUTH OF PATTERSONS ROAD INTERSECTION
S153WX4J	227	Lyndale Road	4B	9.3	15.62	500m North of Defence Road intersection
L637PFSM	389	MAHNALS ROAD	4B	3.9	11.54	30M SOUTH OF GIBBER GUNYA CON INTERSECTION
S092Z70Y	229	MALAKOFF ROAD	4A	15.8	11.01	100M NORTH OF LEICHHARDT HIGHWAY
S0886VGZ	653	Malakoff Street	6	237.9	5.54	25m East of Rainbow Street
S153WX4J	231	MALONEYS ROAD	2A	10.9	5.21	50M SOUTH OF DAWSON HIGHWAY INTERSECTION
S188XBCB	232	MARTINS ROAD	4B	4.2	22.22	100M NORTH OF GEIGERS ROAD INTERSECTION
S0886VGZ	233	MCCABES ROAD	4A	30.7	7.55	250M NORTH OF GOOVIGEN-RANNES ROAD
H4757HN9	234	MCCANN'S ROAD	1	97.1	17.56	2.5Km from the intersection of the Burnett HWY and McCanns Rd
L727GTCT	235	MCCARTHY'S ROAD	4a	12.4	38.14	200m rom the intersection of Hogans Lane and Macarthys Rd
S0886VGZ	236	MCDONALD'S ROAD	4A	3.8	11.11	150M WEST OF BURNETT HIGHWAY INTERSECTION
L637PFSM	237	McKenna Road	4B	13.3	27.59	170m South Theodore Eidsvold Road intersection
L727GTCT	239	MCLAUGHLINS DRUMBERLE R	3	13.4	17.25	1.26Km from the intersection of Mcglocans-Drumburle and Drumburle Rd
L727GTCT	238	MCLAUGHLINS ROAD	2b	55.9	6.17	250m from the intersection of McLaughlins and Thangool-Lookerbie Rd
L637PFSM	238	MCLAUGHLINS ROAD	2b	27.5	27.23	Where the Bituman Starts on McLaughlins Rd
L637PFSM	242	MEISSNERS ROAD	2a	56.9	10.93	200m from the intersection of Meissners Rd and Oarkers Lane
L7853ROF	242	MEISSNERS ROAD	1	282	5.27	80m from the intersection of the Dawson HWY and Meissners Rd
L788PKBV	242	MEISSNERS ROAD	1	161.1	11.42	135m from the intersection of Sarah lane and Meissners Rd
S092Z70Y	83	MELCERS ROAD	4B	37.4	10.72	20M WEST OF JAMBIN GOOVIGEN ROAD INTERSECTION ON GRAVEL ROAD SIGN

S188XBXB	246	MOOGINE ROAD	4B	5.3	18.92	150M WEST OF BECKERS ROAD INTERSECTION	
L7853R0F	247	MOORE SCHUBERT ROAD	3	2.1	45.95	250m from the intersection of Moore-Schuberts and Harsants Rd	
L637PFSM	248	MORELANDS ROAD	4B	17.7	18.25	50M SOUTH OF BURNETT HIGHWAY INTERSECTION	
S0886VGZ	250	MORTONS LANE	4A	27.9	5.46	90M NORTH OF DIXALEA DEEFORD ROAD INTERSECTION	
L637PFSM	251	MOSCHIONIS ROAD	3	21.2	17.83	250m from the intersection of Moschonis and Lookerbie-Circle Rd	
251L727G	251	MOSCHIONIS ROAD	3	16.8	22.45	250m from the intersection of Moschionis and Potts Rd	
L788PKBV	252	MOURA BARALABA ROAD	1	36.9	20.22	1.7km north of Banana Mungi intersection near Gas Pipeline entrance	1st week before mine traffic commenced
L637PFSM	252	MOURA BARALABA ROAD	1	179.8	18.98	900m south of Baralaba Rannes intersection	1st week before mine traffic commenced
L727GTCT	252	MOURA BARALABA ROAD	1	90.6	14.26	165m north of Dawson Highway	1st week before mine traffic commenced
L7853ROF	252	MOURA BARALABA ROAD	1	48.8	18.07	200m south of Banana Baralaba Rd intersection	1st week before mine traffic commenced
S0886VGZ	253	MOURA-BINDAREE ROAD	3	120.2	12.82	600M NORTH OF DAWSON HIGHWAY INTERSECTION	
L637PFSM	256	MUIRS ROAD	3	52.4	7.35	75m from the intersection of Muirs and Biloela-Callide Rd	
H4757HN9	258	MULLERS LANE	4b	62	8.89	350m from the intersection of the Burnett HWY and Mullers Rd	
L637PFSM	257	MULLERS ROAD	4A	27.3	30.13	100M EAST OF LEICHHARDT HIGHWAY	
S0886VGZ	260	Nathan Gorge Road	2b	38	9.27	50m East of 14th Ave @ 60k Sign	
L77853R0	661	Netley Street	6	75	3.13	80m North of Sellheim Street @ pole 4098955	
L637PFSM	261	NEWTONS ROAD	4B	5.9	31.57	200M EAST OF WOWAN-WESTWOOD ROA INTERSECTION @ + SIGN	
L7853R0F	267	NORTHS ROAD	4b	24	14.95	200m from the intersection of Notrths Rd and Leichardt HWY	
L637PFSM	268	OGDENS ROAD	4b	5.9	13.04	300m from intersection of Ogdens and Barfield Rd	
L727GTCT	271	OLINDA ROAD	4b	34.4	13.23	180M North of Baralaba Koemba Rd and Olinda Rds intersection	Hay being baled and carted to Wheat dump on Davis Rd
L637PFSM	275	ORANGE CREEK BUS ROAD	4b	7.9	7.27	190m from the intersection of Orange Creek Bus Run and Orange Creek Rd	
L7853R0F	275	ORANGE CREEK BUS ROAD	4b	5	20	260m from the intersection of the Dawson HWY and Orange Creek Bus Run Rd	
L727GTCT	274	ORANGE CREEK ROAD	3	33	21.21	260m from the intersection of Orange Creek and Beldeen Greycliff Rd	
L788PKBV	274	ORANGE CREEK ROAD	3	52.8	14.55	320m from the intersection of Prospect Creek Goovigen and Orange Creek Rd	
S092Z70Y	276	OVERDEEN ROAD	4B	4.1	3.45	250M WEST OF LEICHHARDT HIGHWAY	
L637PFSM	391	PAINES ROAD	1	521.1	10.27	150m from the intersection of the Burnett HWY and Paines Rd	
H4777837	277	PARKERS LANE	2b	178.6	8.49	650m from the intersection of Parkers lane and the Burnett HWY	
L7853ROF	278	PARRYS ROAD	4B	3.3	13.64	200M NORTH OF JOHNSON PARRY ROAD INTERSECTION	
S153WX4J	279	PATTERSONS ROAD	2B	37.1	9.37	500M WEST OF PEACEFUL LANE @ 100KM SIGN	
L637PFSM	282	PELICAN POINT ROAD	4b	21.3	20.15	2m from the grid on intersection of Pelican Point Rd and	
S092Z70Y	284	PIDGEE ROAD	4B	7.3	6.12	25M WEST OF BURNETT HIGHWAY	
L727GTCT	285	PIT ROAD	4a	0.6	25	160m from the intersection of Pit and potts Rd	
L7853R0F	285	PIT ROAD	4a	2.4	3.45	160m from the intersection of pit and Corfield Rd	
L788PKBV	286	PLAYFIELDS ROAD	1	25.8	19.99	150M EAST OF DIXALEA DOREEN ROAD INTERSECTION	
S088VGZ	287	POCKET CREEK ROAD	2B	18.7	14.49	200M WEST OF DON STREET AT 50KM SIGN	
L788PKBV	289	POPES ROAD	4B	0.8	45.45	80m East of Letchford Road Intersection	
L788PKBV	290	POTTS ROAD	4a	15.5	10.46	375m from the intersection of Pits and Potts Rd	
H476J22M	292	PROSPECT CREEK GOOVIGEN	1	107.9	7.63	300m from the intersection of Prospect Ceek Goovigen Rd and Dawson Hwy	
L7853R0F	293	PROSPECT CREEK SCHOOL R	4b	24.6	52.35	100m from the intersection of Dawson HWY and Prospect Creek School rd	
S092Z70Y	296	RACECOURSE ROAD	4B	4.3	0	80M WEST OF LEICHHARDT HIGHWAY INTERSECTION	
L637PFSM	298	RAWBELLE ROAD	4a	6.6	64.14	100m from the intersection of Crowsdale Camboon and Rawbelle Rd	
L7853R0F	299	RED HILL ROAD	4b	28.8	4.26	250 from the intersection of Red Hill and Drumberle	
S188XBCB	300	REDHILL BYPASS ROAD	4A	13.7	21.84	40M WEST OF WOWAN-WESTWOOD ROAD INTERSECTION	
L7853ROF	300	REDHILL BYPASS ROAD	4A	12.6	28.57	250M SOUTH OF WOWAN-WESTWOOD ROAD INTERSECTION @ T SIGN	
L788PKBV	302	REIMERS ROAD	4B	15.6	0	100M NORTH OF BELDEEN GREYCLIFFE ROAD	
L637PFSM	303	REMFREYS ROAD	2B	20.3	7.77	50M EAST OF THE MOURA - BARALABA ROAD	1st week of count no mine traffic
S153WX4J	307	RIDERS ROAD	4a	9.2	16.67	250M SOUTH OF THE BARALABA RANNES ROAD	
S092Z70Y	308	RIFLE RANGE ROAD	4A	10.4	17.5	200M WEST OF BURNETT HIGHWAY INTERSECTION @ STOP SIGN	
L727GTCT	309	RIVER ROAD	3	55.9	16.89	20m from the intersection of theTheodore Moura and River Rd	
L788PKBV	309	RIVER ROAD	3	24.4	15.79	25M WEST OF THEODORE-MOURA ROAD INTERSECTION	
I637PFSM	310	ROBYN NOTT ROAD	4B	0.3	50	70M SOUTH OF LEICHHARDT HIGHWAY	
L788PKBV	380	ROLEYS LANE	4B	6.7	1.37	150M NORTH OF ENGELS ROAD INTERSECTION	
L727GTCT	311	ROMERS ROAD	4B	14.6	20.74	20M WEST OF WOWAN-WESTWOOD ROAD INTERSECTION	
L727GTCT	314	ROYS ROAD	3	28.3	13.39	250m from the intersection of Roys Rd and the Burnett HWY	
T622fe52	315	RUSHMORE ROAD	4B	15.5	12.57	150M SOUTH OF LEICHHARDT HIGHWAY INTERSECTION	
L727GTCT	316	RUSSELS LANE	4b	31.2	6.15	265m from the intersection of Russells lane and Tollemaches Rd	
L788PKBV	316	RUSSELS LANE	4b	23.5	6.95	1.565Km from the intersection of Russells lane and Tollemaches Rd	
L7853R0F	317	RUSSIAN CLUB ROAD	3	24.2	15.93	500m from the intersection of the Burnett HWY and Russian Club Rd	
L637PFSM	318	SALEYARDS ROAD	3	281	5.63	250M SOUTH OF DAWSON HIGHWAY INTERSECTION	
L727GTCT	319	SANDERSONS ROAD	4b	3.9	13.43	300m from the intersection of the Burnett HWY and Sandersons Rd	
S153WX4J	321	SAUNDERS ROAD	4B	7.1	26.67	60M SOUTH OF REDHILL BYPASS ROAD	
S092Z70Y	322	SAWMILL ROAD	1	17.2	35	20M NORTH OF BECKERS ROAD INTERSECTION	
L727GTCT	322	SAWMILL ROAD	4A	11.2	33.11	250M NORTH OF GLENMORAL ROUNDSTONE INTERSECTION	
L637PFSM	381	SAXELBYS ROAD	4B	35.9	6.35	100M SOUTH OF DAWSON HIGHWAY INTERSECTION	
L727GTCT	323	SCHABES	4a	5.4	22.45	490m from the intersection of Pitts and Schabes Rd	
L7853R0F	323	SCHABES ROAD	4a	11.8	19.3	250m from the intersection of the Burnett and Schabes Rd	
L637PFSM	323	SCHABES ROAD	4a	16.4	7.94	200m from the intersection of Schabes and Tollemaches	
L637PFSM	325	SCOTTS ROAD	4a	8.4	12.7	400m from the intersection of Scotts and Shamlands Rd	
L788PKBV	325	SCOTTS ROAD	4a	11.9	25	100m from the intersection of Scotts and Defence Rd	
L7853R0F	325	Scotts Road	4A	13.9	36.55	150m North of Defence Road intersection	
H4777837	326	SEMPLES ROAD	3	74.5	15.35	on the intersection of Semples Rd and Dawson HWY	
L7853R0F	326	SEMPLES ROAD	4b	20	2.27	250m from the intersection of Drumburle and Maggacisis Rd	
L7853R0F	327	SEWELLS WALLOON ROAD	3	11.6	15.07	300m from the intersection Shawlwands and Sewells Rd	
L788PKBV	328	SHAWLANDS ROAD	4a	5.5	15.59	100m from the intersection of Shawlands and Crowsdale and Camboon Rd	
H4757HN9	329	SHEPHERDSONS ROAD	2a	76.3	10.12	75m from the intersection of the Dawson HWY and Shepherdsons Rd	
H4777837	329	SHEPHERDSONS ROAD	1	62.5	16.76	3.55Km from the intersection of the Dawson HWY and Shepherdsons Rd	
S188XBCB	330	Shoecrafts Road	4B	9.1	3.28	300m North of Defence Road intersection	
L727GTCT	331	SHORTS ROAD	4b	25.9	1.1	150m from the intersection of Shorts and Biloela-Callide Rd	
L788PKBV	332	SMARTS LANE	4b	9.2	16.46	200m from the intersection of 5 Ways Mt Eugene and Smarts Lane	
L7853R0F	73	SORRENSONS ROAD	4B	10.4	4.17	100M NORTH OF LEICHHARDT HIGHWAY INTERSECTION	
T628VBNP	681	State Farm Road	5	2285	4.93	50m North of Gladstone Road Intersection @ 60k sign	
S153WX4J	335	STEVENSONS ROAD	4B	5.5	45.9	150M NORTH OF LEICHHARDT HIGHWAY INTERSECTION @ GRID	
L727GTCT	336	STEVES ROAD	4A	8.7	33.87	60M SOUTH OF ROMERS ROAD INTERSECTION	
L7853R0F	337	STOCKYARD CREEK ROAD	4B	2.4	12.12	80M NORTH OF GOLARA HEINEKE ROAD INTERSECTION	
L637PFSM	338	SWANS ROAD	4b	5.5	4.26	100m from the intersection of Barfield Rd and Swans Rd	
L788PKBV	403	TAN DRIVE	4b	37.2	6.29	160m from the intersection Tan Drive and the Burnett HWY	
S153WX4J	339	TERENCEVALE ROAD	4A	28.4	3.79	100M NORTH OF WOOLTHORPE ROAD INTERSECTION	
S153WX4J	683	Thalberg Ave	6	341.5	3.62	30m North of Coorada St int @ pole 4025014	
L637PFSM	342	THEODORE MOURA ROAD	1	137.7	19.38	180m from the intersection from Leichardt HWY and Theodore-Moura Rd	
S092Z70Y	342	THEODORE-MOURA ROAD	1	717.8	17.35	100M NORTH OF HERZOG STREET INTERSECTION	
S0886VGZ	342	THEODORE-MOURA ROAD	1	324.6	21.4	200M SOUTH OF RIVER ROAD GIBIHI INTERSECTION	
S153WX4J	342	THEODORE-MOURA ROAD	1	1111.6	14.64	200M SOUTH OF DAWSON HIGHWAY INTERSECTION	
L727GTCT	342	THEODORE-MOURA ROAD	1	998.4	13.81	100M SOUTH OF HERZOG STREET INTERSECTION	
L637PFSM	342	THEODORE-MOURA ROAD	1	923.8	16.61	200M NORTH OF RIVER ROAD GIBIHI ROAD INTERSECTION	
L727GTCT	347	THOMPSONS LANE	4b	1.5	0	on the intersection of the Burnett HWY and Thompsons lane	
L788PKBV	347	THOMPSONS LANE	4b	49.7	3.48	50m from the intersection of Russels lane and Thomsons Lane	
S092Z70Y	394	THREE CHAIN ROAD	4B	311.9	20.17	100M SOUTH OF DAWSON HIGHWAY INTERSECTION @ T SIGN	
T539EMSE	684	Tiamby Street	6	385	4.85	40m South of Malakoff Street intersection @ pole 4099028	
L7853R0F	348	TOGNOLINI BALDWIN ROAD	1	343.1	8.55	900m from the intersection of the Dawson HWY and Tognolini Rd	
L727GTCT	349	TOLLEMACHES ROAD	3	114.6	5.89	150m from the intersection of the Burnett and Tollemaches Rd	
L637PFSM	349	TOLLEMACHES ROAD	3	49.3	11.83	600m from the intersection of the Burnett HWY and Tollemaches Rd	
S153WX4J	382	TOMAZUKS ROAD	2B	81.2	12.27	50M NORTH OF RIVER ROAD INTERSECTION	
L788PKBV	350	TOMLINS ROAD	2a	52.2	20.05	200m north of Burnett Highway(South)	
L637PFSM	350	TOMLINS ROAD	2a	17.5	18.04	500m north of Dodsons Rd intersection	
L7853ROF	350	TOMLINS ROAD	2a	7.5	10.2	400m north of Lindleys Rd intersection	
L727GTCT	350	TOMLINS ROAD	1	26.7	17	200m east of Burnett Highway intersection	
L7853R0F	351	UNCLE TOMS ROAD	3	19.2	11.48	300m from the intersection of the Leichhardt HWY and Uncle Toms Rd	
L788PKBV	353	VALENTINE PLAINS ROAD	1	202.4	12.86	175m west of Mullers Rd intersection	
L637PFSM	353	VALENTINE PLAINS ROAD	1	1256.7	3.88	150m north of Hills Avenue	
L7853ROF	353	VALENTINE PLAINS ROAD	1	597.9	6.03	275m north of Baileys Lane	
L727GTCT	353	VALENTINE PLAINS ROAD	1	39.3	17.12	200m north of floodway or 4.65km north of Alcocks Rd intersection	
S153WX4J	354	VAN DEN HEUVEL ROAD	4B	21.4	38.4	20M SOUTH OF DIXALEA DEEFORD ROAD @ GRID	
H476J22M	355	VAN ITALLIES ROAD	2a	199.9	6.85	230m from the intersection of Van Itallies and Valentine Plains rd	
S153WX4J	356	WALKERS ROAD	4B	34.8	9.25	50M NORTH OF LEICHHARDT HIGHWAY INTERSECTION	
S188XBXB	357	WARDLES ROAD	4B	378.3	62.42	60M NORTH OF DAWSON HIGHWAY	
L788PKBV	359	Watsons Road	4B	21.8	29.17	100m North Woolthorpe Road intersection	
L637PFSM	360	WHITES ROAD	4b	8.4	6.56	200m from the intersection of the Burnett HWY and Whites Rd	
L788PKBV	362	WILLETTS ROAD	4B	6.1	0	50M EAST OF BURNETT HIGHWAY INTERSECTION	
L637PFSM	364	WILSONS LANE	4b	4.9	17.95	200m from the intersection of 5 Way Mt Eugene and Wilsons Rd	
L7853R0F	368	Woolthorpe Road	2B	92.4	6.56	510m South Theodore Eidsvold intersection at T sign	
S0886VGZ	368	Woolthorpe Road	1	14.8	3.77	100m North Eidsvold Theodore Road intersection	
L7237GTC	369	WOWAN BORE ROAD	4B	9.6	1.49	150M EAST OF FLOODS ROAD INTERSECTION	
L7853ROF	372	WOWAN-WESTWOOD ROAD	3	39	17.67	600M SOUTH OF LEICHHARDT HIGHWAY INTERSECTION @ ONE LANE BRIDGE SIGN	
S0886VGZ	372	WOWAN-WESTWOOD ROAD	1	73.1	12.22	180M WEST OF FLOODS ROAD INTERSECTION A 100KM SIGN	
L637PFSM	373	YAPARABAH SCHOOL ROAD	3	24.1	4.78	250m from the intersection of the Burnett HWY and Yaparaba School Rd	
L788PKBV	373	YAPARABAH SCHOOL ROAD	3	14	8.03	400m from the intersection of Moore Schubert and Yaparaba School Rd	
L637PFSM	374	YOUNGERS ROAD	4B	2.9	5	80M NORTH OF TERENCEVALE ROAD INTERSECTION	
L788PKBV	376	ZANGARIS ROAD	4B	4.9	10.29	60m from the intersection of Coal and Zangaris Rd	
L788PKBV	377	ZIEBARTHS ROAD	3	33.2	14.38	160m form the intersection of Crowsdale Camboon and Ziebaths Rd	
L637PFSM	378	ZISCHKES LANE	4b	3.5	4.84	20m from the Bowketts lane intersection	
L727GTCT	378	ZISCHKES ROAD	2b	50.1	10.07	250m from the intersection of the Burnett HWY and Zichkes Lane	
	0			0	0		

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	10E BENARABY - ROCKHAMPTON		
Year	2006		
TDist	11.58	45.399	Status C
Direction	All Directions		

Through Distance		Site								
11.580 - 45.410		60006 25m N Calliope River								
% per Vehicle Class								% Growth		
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	1,539	75.87	24.13	75.87	6.36	11.12	6.65	-3.15	2.24	1.99
A	1,508	74.17	25.83	74.17	6.09	11.96	7.78	-.26	2.10	1.10
B	3,047	75.00	25.00	75.00	6.24	11.54	7.22	-1.74	2.17	1.54

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	185 GLADSTONE - BENARABY ROAD		
Year	2007		
TDist	16.04	19.21	Status C
Direction	All Directions		

Through Distance		Site								
16.040 - 19.210		60009 G'stone-Benaraby Rd 1.3Km E Bruce Hwy								
% per Vehicle Class								% Growth		
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	1,934	87.29	12.71	87.29	7.68	3.30	1.73	9.02	4.76	4.28
A	2,031	87.91	12.09	87.91	7.21	3.24	1.64	10.68	5.74	4.51
B	3,965	87.60	12.40	87.60	7.44	3.28	1.68	9.86	5.26	4.40

* These values were updated manually or derived from previous years growth figures.

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	185 GLADSTONE - BENARABY ROAD		
Year	2007		
TDist	.645	2.159	Status C
Direction	All Directions		

Through Distance		Site										
0.645 - 2.160		60869 G'stone-Benaraby Rd 150m E Reef St										
% per Vehicle Class										% Growth		
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr		
G	6,784	95.98	4.02	95.98	3.39	.56	.07	6.48	1.53	2.80		
A	7,007	95.98	4.02	95.98	3.32	.61	.09	7.37	2.31	2.83		
B	13,791	95.98	4.02	95.98	3.36	.58	.08	6.93	1.92	2.81		

* These values were updated manually or derived from previous years growth figures.

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	10E BENARABY - ROCKHAMPTON		
Year	2007		
TDist	116.96	119.735	Status C
Direction	All Directions		

Through Distance		Site									
116.960 - 119.736		60868 100m North Oswald St (Lower Dawson Rd)									
% per Vehicle Class									% Growth		
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr	
G	10,274	86.88	13.12	86.88	7.37	3.98	1.77	11.13	5.88	3.81	
A	9,910	86.72	13.28	86.72	7.06	4.33	1.89	12.12	7.46	4.94	
B	20,184	86.80	13.20	86.80	7.21	4.16	1.83	11.61	6.64	4.35	

* These values were updated manually or derived from previous years growth figures.

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	185 GLADSTONE - BENARABY ROAD		
Year	2007		
TDist	2.16	16.039	Status C
Direction	All Directions		

Through Distance	Site
2.160 - 16.040	60078 G'ston-Benaraby 1km S Sth Trees Inlet Dr

Gaz Dir	AADT	% per Vehicle Class						% Growth		
		Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	4,435	93.06	6.94	93.06	4.86	1.68	.40	-6.51	.86	2.31
A	4,861	92.95	7.05	92.95	5.27	1.43	.35	4.07	3.29	4.23
B	9,296	93.01	6.99	93.01	5.07	1.55	.37	-1.26	2.10	3.26

* These values were updated manually or derived from previous years growth figures.

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	185 GLADSTONE - BENARABY ROAD		
Year	2007		
TDist	0	.644	Status C
Direction	All Directions		

Through Distance		Site								
0.000 - 0.645		60077 G'stone-Benaraby Rd 400m SE Dawson Hwy								
		% per Vehicle Class						% Growth		
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	10,070	96.17	3.83	96.17	3.16	.59	.08	5.30	-2.44	2.28
A	9,769	96.52	3.48	96.52	2.94	.48	.06	-2.31	.06	1.96
B	19,839	96.35	3.65	96.35	3.05	.53	.07	1.41	-1.38	2.10

* These values were updated manually or derived from previous years growth figures.

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	181 GLADSTONE - MT LARCOM ROAD		
Year	2006		
TDist	12.292	32.139	Status C
Direction	All Directions		

Through Distance		Site								
12.292 - 32.140		60076 150m N Yarwun Rd								
		% per Vehicle Class						% Growth		
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	1,346	80.07	19.93	80.07	6.45	6.68	6.80	13.40	6.10	5.67
A	1,401	78.34	21.66	78.34	7.31	7.29	7.06	10.66	6.15	4.38
B	2,747	79.20	20.80	79.20	6.88	6.98	6.94	11.99	6.13	4.96

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	181 GLADSTONE - MT LARCOM ROAD		
Year	2006		
TDist	4.625	12.291	Status C
Direction	All Directions		

Through Distance		Site								
4.625 - 12.292		60074 1km N Calliope River								
% per Vehicle Class								% Growth		
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	2,578	82.92	17.08	82.92	5.91	8.15	3.02	7.37	4.74	3.16
A	2,622	82.56	17.44	82.56	6.32	7.87	3.25	4.88	5.05	3.56
B	5,200	82.74	17.26	82.74	6.12	8.01	3.13	6.10	4.90	3.36

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	181 GLADSTONE - MT LARCOM ROAD		
Year	2007		
TDist	0	1.344	Status C
Direction	All Directions		

Through Distance		Site								
0.000 - 1.345		60071 G'stone-Mt Larcom Rd 200m N Lord St								
		% per Vehicle Class						% Growth		
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	4,362	87.84	12.16	87.84	8.30	2.32	1.54	-2.15	-3.81	-.64
A	4,269	87.04	12.96	87.04	8.41	2.55	2.00	1.64	-7.03	-1.35
B	8,631	87.44	12.56	87.44	8.36	2.43	1.77	-.31	-5.51	-1.01

* These values were updated manually or derived from previous years growth figures.

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	183 GLADSTONE PORT ACCESS ROAD		
Year	2007		
TDist	0	.858	Status C
Direction	All Directions		

Through Distance		Site								
0.000 - 0.858		61605 G'ston Port Access Rd 50m E Glenlyon St								
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	925	73.31	26.69	73.31	10.32	6.29	10.08	12.67	56.74	N/A
A	825	71.56	28.44	71.56	10.58	6.79	11.07	8.27	52.67	N/A
B	1,750	72.49	27.51	72.49	10.44	6.52	10.55	10.55	54.75	N/A

* These values were updated manually or derived from previous years growth figures.

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	181 GLADSTONE - MT LARCOM ROAD		
Year	2006		
TDist			Status C
Direction	All Directions		

Through Distance		Site								
0.000 - 1.345		60071 200m N Lord St								
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	4,458	88.62	11.38	88.62	6.44	2.51	2.43	-15.65	-2.05	-.36
A	4,200	87.56	12.44	87.56	6.76	2.87	2.81	-34.61	-5.25	-1.58
B	8,658	88.11	11.89	88.11	6.59	2.69	2.61	-26.05	-3.71	-.97

1.345 - 3.258		60073 50m S Auckland Ck								
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	2,943	83.43	16.57	83.43	10.94	3.80	1.83	5.64	4.17	2.67
A	2,760	82.74	17.26	82.74	11.08	4.13	2.05	5.91	4.82	3.11
B	5,703	83.09	16.91	83.09	11.00	3.98	1.93	5.77	4.48	2.88

3.258 - 4.625		61052 500m East Red Rover Rd								
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	3,828	85.31	14.69	85.31	7.38	5.40	1.91	-1.21	8.06	4.22
A	3,798	83.82	16.18	83.82	8.92	5.21	2.05	-.47	7.69	4.00
B	7,626	84.57	15.43	84.57	8.15	5.30	1.98	-.85	7.87	4.11

4.625 - 12.292		60074 1km N Calliope River								
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	2,578	82.92	17.08	82.92	5.91	8.15	3.02	7.37	4.74	3.16
A	2,622	82.56	17.44	82.56	6.32	7.87	3.25	4.88	5.05	3.56
B	5,200	82.74	17.26	82.74	6.12	8.01	3.13	6.10	4.90	3.36

12.292 - 32.140		60076 150m N Yarwun Rd								
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	1,346	80.07	19.93	80.07	6.45	6.68	6.80	13.40	6.10	5.67
A	1,401	78.34	21.66	78.34	7.31	7.29	7.06	10.66	6.15	4.38
B	2,747	79.20	20.80	79.20	6.88	6.98	6.94	11.99	6.13	4.96

District **6 CENTRAL DISTRICT**

Road Section **46A GLADSTONE - BILOELA**

Year **2006**

TDist Status **C**

Direction **All Directions**

Through Distance

Site

0.000 -

1.498

60061 150m South Park St

% per Vehicle Class

Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	7,010	96.13	3.87	96.13	3.16	.65	.06	2.25	5.78	2.62
A	5,977	97.75	2.25	97.75	1.77	.40	.08	-.17	-2.16	-.85
B	12,987	97.05	2.95	97.05	2.38	.50	.07	1.12	1.72	.88

1.498 -

2.238

61083 250m West Breslin St (Dawson Hwy)

% per Vehicle Class

Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	10,836	97.44	2.56	97.44	2.17	.30	.09	18.49	4.48	2.58
A	9,912	96.53	3.47	96.53	3.02	.38	.07	10.38	2.70	1.73
B	20,748	96.98	3.02	96.98	2.59	.35	.08	14.47	3.61	2.16

2.238 -

3.130

61000 250m North Paterson St

% per Vehicle Class

Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	12,269	96.43	3.57	96.43	3.05	.40	.12	9.78	1.43	2.17
A	11,949	91.91	8.09	91.91	7.45	.50	.14	8.94	1.47	2.47
B	24,218	94.21	5.79	94.21	5.23	.44	.12	9.37	1.45	2.32

3.130 -

4.391

60063 Police Ck (Auckland Ck)

% per Vehicle Class

Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	13,377	96.76	3.24	96.76	2.89	.25	.10	.75	2.44	3.27
A	14,257	96.36	3.64	96.36	3.16	.32	.16	7.68	3.71	2.80
B	27,634	96.57	3.43	96.57	3.02	.28	.13	4.21	3.09	3.00

4.391 -

5.179

60064 Penda Ave to Aerodrome Rd

% per Vehicle Class

Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	10,630	97.69	2.31	97.69	2.16	.13	.02	-.47	3.32	2.47
A	9,914	96.37	3.63	96.37	3.11	.36	.16	-9.70	2.40	1.33
B	20,544	97.04	2.96	97.04	2.63	.24	.09	-5.15	2.86	1.91

District **6 CENTRAL DISTRICT**

Road Section **46A GLADSTONE - BILOELA**

Year **2006**

TDist Status **C**

Direction **All Directions**

Through Distance

Site

5.179 -

10.296

60062 450m West Chapman Drive

% per Vehicle Class

Gaz Dir	AADT	% per Vehicle Class						% Growth		
		Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	2,820	94.10	5.90	94.10	3.99	.94	.97	12.31	5.37	5.18
A	2,971	94.23	5.77	94.23	3.94	.99	.84	17.66	6.87	5.82
B	5,791	94.17	5.83	94.17	3.96	.97	.90	14.99	6.13	5.50

10.296 -

19.050

60065 250m W Chamberlain Rd

% per Vehicle Class

Gaz Dir	AADT	% per Vehicle Class						% Growth		
		Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	2,137	92.04	7.96	92.04	4.93	1.81	1.22	6.11	3.62	4.24
A	2,112	92.07	7.93	92.07	4.82	1.92	1.19	4.30	2.56	3.99
B	4,249	92.05	7.95	92.05	4.88	1.86	1.21	5.20	3.08	4.11

19.050 -

21.750

60066 200m E Drynan Dr

% per Vehicle Class

Gaz Dir	AADT	% per Vehicle Class						% Growth		
		Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	2,354	91.02	8.98	91.02	5.34	2.09	1.55	1.33	3.45	4.00
A	2,353	90.66	9.34	90.66	5.41	2.40	1.53	.77	3.50	4.20
B	4,707	90.84	9.16	90.84	5.38	2.24	1.54	1.05	3.48	4.10

21.750 -

25.690

60128 250m E Monto Rd

% per Vehicle Class

Gaz Dir	AADT	% per Vehicle Class						% Growth		
		Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	827	87.65	12.35	87.65	6.99	3.06	2.30	-5.81	6.36	-.52
A	840	86.55	13.45	86.55	6.94	3.94	2.57	10.96	7.57	-.63
B	1,667	87.10	12.90	87.10	6.97	3.50	2.43	1.96	6.95	-.58

25.690 -

101.266

60005 9km W Calliope

% per Vehicle Class

Gaz Dir	AADT	% per Vehicle Class						% Growth		
		Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	464	81.01	18.99	81.01	8.99	5.15	4.85	7.66	5.46	3.88
A	465	81.72	18.28	81.72	7.76	5.98	4.54	8.90	5.58	3.95
B	929	81.36	18.64	81.36	8.38	5.57	4.69	8.28	5.52	3.92

District	6 CENTRAL DISTRICT		
Road Section	46A GLADSTONE - BILOELA		
Year	2006		
TDist			Status C
Direction	All Directions		

Through Distance		Site									
101.266	-	113.986	60067 450m West of Oaky Creek								
% per Vehicle Class											
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth			
								1 Yr	5 Yr	10 Yr	
G	431	81.83	18.17	81.83	8.60	5.25	4.32	N/A	N/A	N/A	
A	435	82.54	17.46	82.54	7.15	6.04	4.27	N/A	N/A	N/A	
B	866	82.19	17.81	82.19	7.88	5.64	4.29	N/A	N/A	N/A	

113.986	-	117.094	61084 Callide Ck							
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	634	84.04	15.96	84.04	9.58	3.78	2.60	9.12	3.94	-1.45
A	651	85.18	14.82	85.18	7.80	4.32	2.70	12.05	4.51	-2.26
B	1,285	84.62	15.38	84.62	8.68	4.05	2.65	10.59	4.22	-1.87

117.094	-	120.016	61085 50m East Bell St(Biloela)							
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	3,579	94.21	5.79	94.21	4.34	.94	.51	-1.57	.29	-.88
A	3,668	94.44	5.56	94.44	4.09	.99	.48	-.33	1.09	2.03
B	7,247	94.33	5.67	94.33	4.22	.96	.49	-.94	.69	.47

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	46A GLADSTONE - BILOELA		
Year	2006		
TDist	5.179	10.295	Status C
Direction	All Directions		

Through Distance		Site								
5.179 - 10.296		60062 450m West Chapman Drive								
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	2,820	94.10	5.90	94.10	3.99	.94	.97	12.31	5.37	5.18
A	2,971	94.23	5.77	94.23	3.94	.99	.84	17.66	6.87	5.82
B	5,791	94.17	5.83	94.17	3.96	.97	.90	14.99	6.13	5.50

* These values were updated manually or derived from previous years growth figures.

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	46A GLADSTONE - BILOELA		
Year	2006		
TDist	3.13	4.39	Status C
Direction	All Directions		

Through Distance		Site								
3.130 - 4.391		60063 Police Ck (Auckland Ck)								
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	13,377	96.76	3.24	96.76	2.89	.25	.10	.75	2.44	3.27
A	14,257	96.36	3.64	96.36	3.16	.32	.16	7.68	3.71	2.80
B	27,634	96.57	3.43	96.57	3.02	.28	.13	4.21	3.09	3.00

* These values were updated manually or derived from previous years growth figures.

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	46A GLADSTONE - BILOELA		
Year	2006		
TDist	4.391	5.178	Status C
Direction	All Directions		

Through Distance		Site								
4.391 - 5.179		60064 Penda Ave to Aerodrome Rd								
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	10,630	97.69	2.31	97.69	2.16	.13	.02	-.47	3.32	2.47
A	9,914	96.37	3.63	96.37	3.11	.36	.16	-9.70	2.40	1.33
B	20,544	97.04	2.96	97.04	2.63	.24	.09	-5.15	2.86	1.91

* These values were updated manually or derived from previous years growth figures.

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	46A GLADSTONE - BILOELA		
Year	2006		
TDist	10.296	19.049	Status C
Direction	All Directions		

Through Distance		Site								
10.296 - 19.050		60065 250m W Chamberlain Rd								
% per Vehicle Class										
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	% Growth		
								1 Yr	5 Yr	10 Yr
G	2,137	92.04	7.96	92.04	4.93	1.81	1.22	6.11	3.62	4.24
A	2,112	92.07	7.93	92.07	4.82	1.92	1.19	4.30	2.56	3.99
B	4,249	92.05	7.95	92.05	4.88	1.86	1.21	5.20	3.08	4.11

* These values were updated manually or derived from previous years growth figures.

Road/Town	Location	AADT
Taroom-Bauhina Road	0.98km north of intersection with Leichardt Highway	78
Taroom-Bauhina Road	33.55km north of intersection with Leichardt Highway	30
Roma	0.23km east of Roma (Warrego Highway)	2898
Roma	1.18km west of Currey Street (Roma)	3879
Injune	1.22km north of Ah-See Creek (Carnarvon Highway)	534
Injune	0.10km south of Sandy Creek (Carnarvon Highway)	293
Taroom	1.62km South of intersection with Fitzroy Developmental Road (Leichhardt Highway)	467
Taroom	4.48km north of Box Creek (Leichhardt Highway)	380

District	15 CENTRAL HIGHLANDS DISTRICT		
Road Section	24E INJUNE - ROLLESTON		
Year	2007		
TDist			Status C
Direction	All Directions		

Through Distance

Site

68.510 - 111.580

150017 Carnarvon Hwy 2km S Moolayember Creek

% per Vehicle Class

% Growth

Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	220	74.51	25.49	74.51	5.02	5.55	14.92	6.80	13.05	11.68
A	170	60.04	39.96	60.04	11.59	8.87	19.50	13.33	7.29	6.77
B	390	68.20	31.80	68.20	7.87	7.00	16.93	9.55	10.33	9.30

111.580 - 172.310

159561 Carnarvon Hwy 10km Sth of Dawson Hwy

% per Vehicle Class

% Growth

Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	210	66.98	33.02	66.98	7.95	7.33	17.74	5.00	5.25	6.27
A	197	63.35	36.65	63.35	9.16	8.67	18.82	17.26	4.59	5.12
B	407	65.23	34.77	65.23	8.53	7.98	18.26	10.60	4.93	5.69

Traffic Analysis and Reporting System

AADT SEGMENTS REPORT

District	6 CENTRAL DISTRICT		
Road Section	183 GLADSTONE PORT ACCESS ROAD		
Year	2006		
TDist			Status C
Direction	All Directions		

Through Distance		Site								
0.000 - 0.858		61605 50m East of Glenlyon St on 183								
% per Vehicle Class								% Growth		
Gaz Dir	AADT	Light Vehicle	Heavy Vehicle	Short Vehicle	Truck or Bus	Articulated Vehicle	Road Train	1 Yr	5 Yr	10 Yr
G	821	77.07	22.93	77.07	9.72	4.99	8.22	-7.13	N/A	N/A
A	762	75.23	24.77	75.23	10.55	5.39	8.83	-4.99	N/A	N/A
B	1,583	76.19	23.81	76.19	10.12	5.18	8.51	-6.11	N/A	N/A

MetroCount Traffic Executive **Weekly Vehicle Counts**

WeeklyVehicle-307 -- English (ENA)

Datasets:

Site: [60072] Gladstone - Mt Larcom Rd(250m S Breslin St) Mt Larcom bound
Direction: 7 - North bound A>B, South bound B>A., **Lane:** 1
Survey Duration: 11:00 Friday, 28 October 2005 => 13:45 Friday, 11 November 2005
File: G:\SHARED\Traffic_data\2005\60072\6007211Nov2005.EC1 (Plus)
Identifier: N572XD3E MC56-L4 [MC55] (c)Microcom 19Sep03
Algorithm: Factory default
Data type: Axle sensors - Paired (Class/Speed/Count)

Site: [60072] Gladstone - Mt Larcom Rd(250m S Breslin St) Gladstone bound
Direction: 7 - North bound A>B, South bound B>A., **Lane:** 2
Survey Duration: 11:00 Friday, 28 October 2005 => 14:01 Friday, 11 November 2005
File: G:\SHARED\Traffic_data\2005\60072\6007211Nov2005.EC2 (Plus)
Identifier: 215138FC MC56-6 [MC55] (c)Microcom 02/03/01
Algorithm: Factory default
Data type: Axle sensors - Paired (Class/Speed/Count)

Profile:

Filter time: 0:00 Saturday, 29 October 2005 => 14:00 Friday, 11 November 2005
Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Speed range: 10 - 160 km/h.
Direction: North, East, South, West (bound)
Separation: All - (Headway)
Name: Factory default profile
Scheme: Vehicle classification (AustRoads94)
Units: Metric (meter, kilometer, m/s, km/h, kg, tonne)
In profile: Vehicles = 119447 / 126461 (94.45%)

Weekly Vehicle Counts

WeeklyVehicle-307
Site: 60072.1SN60072.2SN

Description: Multiple sites - See Header sheet for site descriptions.

Filter time: 0:00 Saturday, 29 October 2005 => 14:00 Friday, 11 November 2005

Scheme: Vehicle classification (AustRoads94)

Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon 24 Oct	Tue 25 Oct	Wed 26 Oct	Thu 27 Oct	Fri 28 Oct	Sat 29 Oct	Sun 30 Oct	Averages 1 - 5	1 - 7
Hour									
0000-0100	*	*	*	*	*	72	76	*	74.0
0100-0200	*	*	*	*	*	47	47	*	47.0
0200-0300	*	*	*	*	*	32	36	*	34.0
0300-0400	*	*	*	*	*	23	45	*	34.0
0400-0500	*	*	*	*	*	45	68	*	56.5
0500-0600	*	*	*	*	*	92	70	*	81.0
0600-0700	*	*	*	*	*	138	84	*	111.0
0700-0800	*	*	*	*	*	292	164	*	228.0
0800-0900	*	*	*	*	*	487	272	*	379.5
0900-1000	*	*	*	*	*	620	387	*	503.5
1000-1100	*	*	*	*	*	695<	435	*	565.0<
1100-1200	*	*	*	*	*	640	463<	*	551.5
1200-1300	*	*	*	*	*	591<	453<	*	522.0<
1300-1400	*	*	*	*	*	466	374	*	420.0
1400-1500	*	*	*	*	*	426	377	*	401.5
1500-1600	*	*	*	*	*	415	437	*	426.0
1600-1700	*	*	*	*	*	390	375	*	382.5
1700-1800	*	*	*	*	*	470	391	*	430.5
1800-1900	*	*	*	*	*	413	346	*	379.5
1900-2000	*	*	*	*	*	236	199	*	217.5
2000-2100	*	*	*	*	*	169	151	*	160.0
2100-2200	*	*	*	*	*	173	83	*	128.0
2200-2300	*	*	*	*	*	113	36	*	74.5
2300-2400	*	*	*	*	*	104	14	*	59.0
Totals									
0700-1900	*	*	*	*	*	5905	4474	*	5189.5
0600-2200	*	*	*	*	*	6621	4991	*	5806.0
0600-0000	*	*	*	*	*	6838	5041	*	5939.5
0000-0000	*	*	*	*	*	7149	5383	*	6266.0
AM Peak	*	*	*	*	*	1000	1100		
	*	*	*	*	*	695	463		
PM Peak	*	*	*	*	*	1200	1200		
	*	*	*	*	*	591	453		

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-307
Site: 60072.1SN60072.2SN

Description: Multiple sites - See Header sheet for site descriptions.

Filter time: 0:00 Saturday, 29 October 2005 => 14:00 Friday, 11 November 2005

Scheme: Vehicle classification (AustRoads94)

Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon 31 Oct	Tue 01 Nov	Wed 02 Nov	Thu 03 Nov	Fri 04 Nov	Sat 05 Nov	Sun 06 Nov	Averages 1 - 5	1 - 7
Hour									
0000-0100	9	14	14	12	30	66	64	15.8	29.9
0100-0200	6	9	14	14	15	29	55	11.6	20.3
0200-0300	9	8	19	6	15	37	41	11.4	19.3
0300-0400	7	10	24	12	14	34	44	13.4	20.7
0400-0500	36	34	34	29	39	36	46	34.4	36.3
0500-0600	145	164	148	138	149	88	74	148.8	129.4
0600-0700	339	334	354	358	332	156	85	343.4	279.7
0700-0800	628	651	598	593	574	277	158	608.8	497.0
0800-0900	1087<	1055<	1082<	1126<	1065<	491	267	1083.0<	881.9<
0900-1000	641	638	611	638	634	615	390	632.4	595.3
1000-1100	595	547	587	614	558	696<	385	580.2	568.9
1100-1200	575	605	553	592	572	691	465<	579.4	579.0
1200-1300	593	601	695	638	644	664<	465<	634.2	614.3
1300-1400	560	475	593	557	643	486	374	565.6	526.9
1400-1500	660	554	662	669	730	437	344	655.0	579.4
1500-1600	993<	965<	1013<	1049<	1166<	390	395	1037.2<	853.0<
1600-1700	869	828	958	958	865	383	401	895.6	751.7
1700-1800	947	779	954	1003	924	450	411	921.4	781.1
1800-1900	546	502	568	639	612	420	344	573.4	518.7
1900-2000	309	283	354	357	356	247	219	331.8	303.6
2000-2100	188	172	220	300	245	164	133	225.0	203.1
2100-2200	128	126	156	135	192	181	94	147.4	144.6
2200-2300	60	75	66	103	150	174	39	90.8	95.3
2300-2400	25	41	31	61	87	85	21	49.0	50.1
Totals									
0700-1900	8694	8200	8874	9076	8987	6000	4399	8766.2	7747.1
0600-2200	9658	9115	9958	10226	10112	6748	4930	9813.8	8678.1
0600-0000	9743	9231	10055	10390	10349	7007	4990	9953.6	8823.6
0000-0000	9955	9470	10308	10601	10611	7297	5314	10189.0	9079.4
AM Peak	0800 1087	0800 1055	0800 1082	0800 1126	0800 1065	1000 696	1100 465		
PM Peak	1500 993	1500 965	1500 1013	1500 1049	1500 1166	1200 664	1200 465		

* - No data.

Weekly Vehicle Counts

WeeklyVehicle-307
Site: 60072.1SN60072.2SN

Description: Multiple sites - See Header sheet for site descriptions.

Filter time: 0:00 Saturday, 29 October 2005 => 14:00 Friday, 11 November 2005

Scheme: Vehicle classification (AustRoads94)

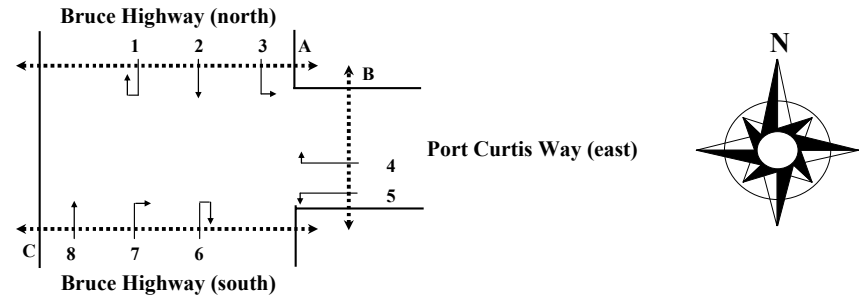
Filter: Cls(1 2 3 4 5 6 7 8 9 10 11 12) Dir(NESW) Sp(10,160) Headway(>0)

	Mon 07 Nov	Tue 08 Nov	Wed 09 Nov	Thu 10 Nov	Fri 11 Nov	Sat 12 Nov	Sun 13 Nov	Averages 1 - 5	1 - 7
Hour									
0000-0100	17	20	15	20	24	*	*	19.2	19.2
0100-0200	6	9	13	13	15	*	*	11.2	11.2
0200-0300	5	8	8	15	17	*	*	10.6	10.6
0300-0400	16	8	12	5	26	*	*	13.4	13.4
0400-0500	28	22	30	39	44	*	*	32.6	32.6
0500-0600	136	147	134	151	158	*	*	145.2	145.2
0600-0700	323	338	344	353	305	*	*	332.6	332.6
0700-0800	576	644	624	563	556	*	*	592.6	592.6
0800-0900	1078<	1161<	1098<	1085<	1062<	*	*	1096.8<	1096.8<
0900-1000	654	587	610	637	657	*	*	629.0	629.0
1000-1100	526	521	526	483	160	*	*	443.2	443.2
1100-1200	554	560	560	599	0	*	*	454.6	454.6
1200-1300	610	600	593	613	0	*	*	483.2	483.2
1300-1400	609	585	554	593	0	*	*	468.2	468.2
1400-1500	631	668	645	647	*	*	*	647.8	647.8
1500-1600	1029<	970<	998<	1032<	*	*	*	1007.3<	1007.3<
1600-1700	902	944	898	921	*	*	*	916.3	916.3
1700-1800	917	943	993	1010	*	*	*	965.8	965.8
1800-1900	528	544	566	615	*	*	*	563.3	563.3
1900-2000	288	310	346	328	*	*	*	318.0	318.0
2000-2100	173	230	236	256	*	*	*	223.8	223.8
2100-2200	141	161	171	175	*	*	*	162.0	162.0
2200-2300	57	94	79	108	*	*	*	84.5	84.5
2300-2400	23	29	33	58	*	*	*	35.8	35.8
Totals									
0700-1900	8614	8727	8665	8798	*	*	*	8267.8	8267.8
0600-2200	9539	9766	9762	9910	*	*	*	9304.2	9304.2
0600-0000	9619	9889	9874	10076	*	*	*	9424.5	9424.5
0000-0000	9827	10103	10086	10319	*	*	*	9656.6	9656.6
AM Peak	0800 1078	0800 1161	0800 1098	0800 1085	0800 1062	*	*		
PM Peak	1500 1029	1500 970	1500 998	1500 1032	*	*	*		

* - No data.

AUSTRALASIAN TRAFFIC SURVEYS MANUAL INTERSECTION COUNT

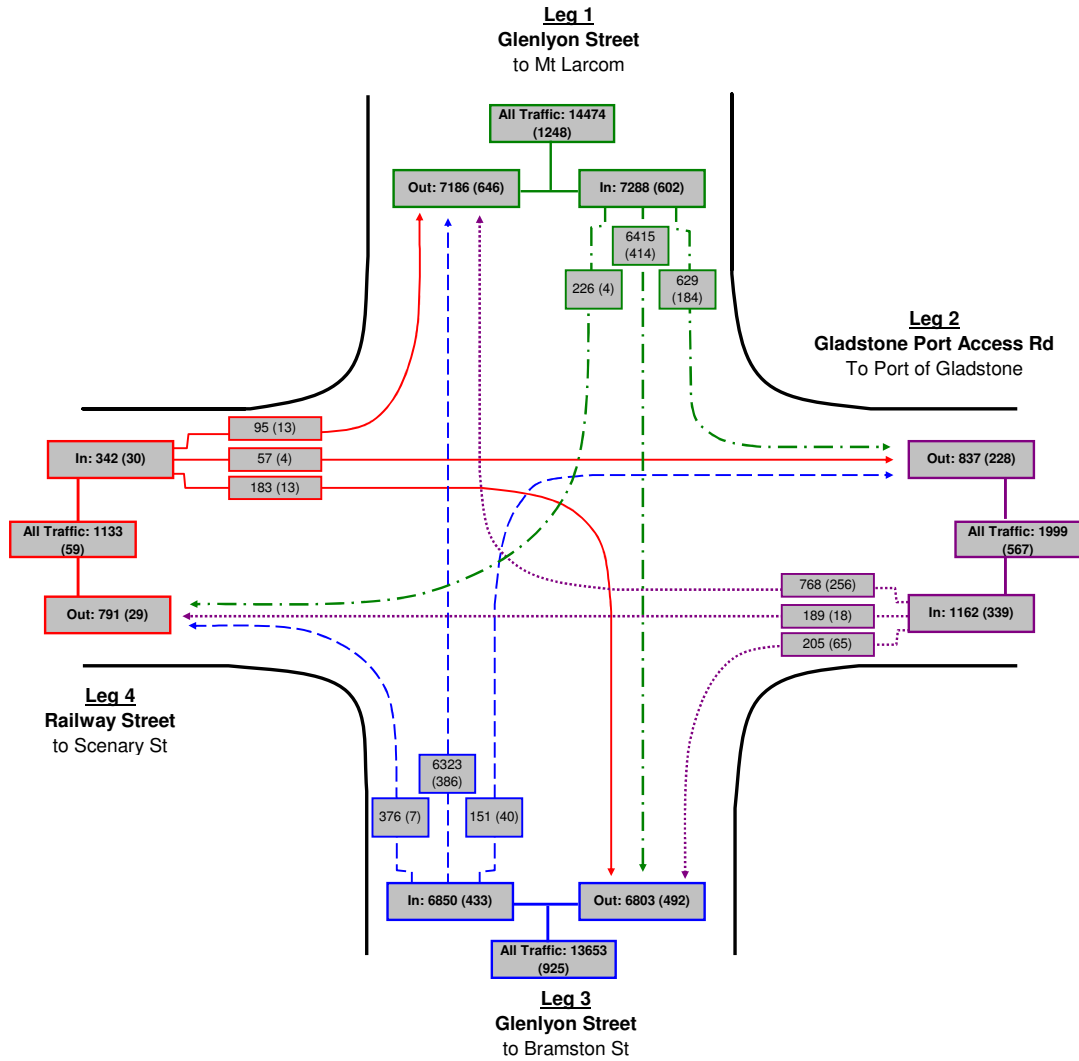
Site No.: 1 Weather: Fine
Location: Bruce Highway/Port Curtis Way, Gladstone
Day/Date: Thursday 9 February 2006
AM Peak: Hour ending - 9:00 AM
PM Peak: Hour ending - 5:45 PM



TIME (1/4 hr end)	Movement 1					Movement 2					Movement 3					Movement 4					Movement 5					Movement 6					Movement 7					Movement 8					Pedestrian Movements		
	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	A	B	C					
5:45 AM	0	0	0	0	0	3	3	0	6	0	11	3	0	14	0	4	2	0	6	0	1	0	0	1	0	0	0	0	0	2	0	0	2	0	4	3	0	7	0	0	0	0	
6:00 AM	0	0	0	0	0	5	4	0	9	0	16	5	0	21	0	2	3	0	5	0	2	1	0	3	0	0	0	0	2	0	0	2	0	3	5	0	8	0	0	0	0		
6:15 AM	0	0	0	0	0	2	4	0	6	0	9	1	0	10	0	5	4	0	9	0	0	0	0	0	0	0	0	3	0	0	3	0	3	5	0	8	0	0	0	0			
6:30 AM	0	0	0	0	0	7	5	0	12	0	19	4	0	23	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5	0	0	0	0				
6:45 AM	0	0	0	0	0	4	7	0	11	0	16	9	0	25	0	10	6	0	16	0	3	0	0	3	0	0	0	2	3	0	5	0	8	4	0	12	0	0	0	0			
7:00 AM	0	0	0	0	0	9	8	0	17	0	10	7	0	17	0	12	3	0	15	0	1	0	0	1	0	0	0	2	0	0	2	0	2	4	0	6	0	0	0	0			
7:15 AM	0	0	0	0	0	7	2	0	9	0	14	3	0	17	0	17	3	0	20	0	1	0	0	1	0	0	0	2	0	0	2	0	6	2	0	8	0	0	0	0			
7:30 AM	0	0	0	0	0	10	5	0	15	0	27	5	0	32	0	14	5	0	19	0	0	0	0	0	0	0	0	2	0	0	2	0	5	10	0	15	0	0	0	0			
7:45 AM	0	0	0	0	0	11	0	0	11	0	24	3	0	27	0	22	8	0	30	0	1	0	0	1	0	0	0	0	0	0	0	7	10	0	17	0	0	0	0				
8:00 AM	0	0	0	0	0	11	3	0	14	0	17	5	0	22	0	13	6	0	19	0	0	0	0	0	0	0	0	3	0	0	3	0	3	8	0	11	0	0	0	0			
8:15 AM	0	0	0	0	0	16	12	0	28	0	29	5	0	34	0	16	11	0	27	0	1	0	0	1	0	0	0	1	0	0	4	10	0	14	0	0	0	0	0				
8:30 AM	0	0	0	0	0	18	10	0	28	0	19	2	0	21	0	7	3	0	10	0	1	0	0	1	0	0	0	0	0	0	3	8	0	11	0	0	0	0	0				
3 hr Total	0	0	0	0	0	47	38	0	85	0	122	37	0	159	0	71	26	0	97	0	8	1	0	9	0	0	0	15	3	0	18	0	34	35	0	69	0	0	0	0			
AM Peak	0	0	0	0	0	48	20	0	68	0	97	18	0	115	0	65	30	0	95	0	2	0	0	2	0	0	0	6	0	0	6	0	19	38	0	57	0	0	0	0			

TIME (1/4 hr end)	Movement 1					Movement 2					Movement 3					Movement 4					Movement 5					Movement 6					Movement 7					Movement 8					Pedestrian Movements		
	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	A	B	C					
2:45 PM	0	0	0	0	0	10	6	0	16	0	21	5	0	26	0	14	4	0	18	0	0	0	0	0	0	0	0	0	0	0	5	1	0	6	0	0	0	0					
3:00 PM	0	0	0	0	0	13	8	0	21	0	12	7	0	19	0	17	4	0	21	0	0	0	0	0	0	0	1	0	0	1	0	13	3	0	16	0	0	0	0				
3:15 PM	0	0	0	0	0	9	3	0	12	0	11	8	0	19	0	13	2	0	15	0	1	0	0	1	0	0	0	0	0	13	1	0	14	0	0	0	0						
3:30 PM	0	0	0	0	0	13	5	0	18	0	20	4	0	24	0	17	5	0	22	0	2	0	0	2	0	0	1	0	0	1	0	17	4	0	21	0	0	0	0				
3:45 PM	0	0	0	0	0	13	3	0	16	0	18	5	0	23	0	32	6	0	38	0	1	0	0	1	0	0	0	0	2	0	12	6	0	18	0	0	0	0					
4:00 PM	0	0	0	0	0	13	6	0	19	0	18	4	0	22	0	22	5	0	27	0	1	0	0	1	0	0	0	0	2	0	14	6	0	20	0	0	0	0					
4:15 PM	0	0	0	0	0	13	2	0	15	0	15	4	0	19	0	21	1	0	22	0	0	0	0	0	0	0	0	0	0	0	16	8	0	24	0	0	0	0					
4:30 PM	0	0	0	0	0	14	5	0	19	0	11	3	0	14	0	21	5	0	26	0	3	1	0	4	0	0	0	0	0	0	14	3	0	17	0	0	0	0					
4:45 PM	0	0	0	0	0	17	2	0	19	0	19	5	0	24	0	30	2	0	32	0	0	0	0	0	0	0	0	0	0	11	4	0	15	0	0	0	0						
5:00 PM	0	0	0	0	0	13	3	0	16	0	20	4	0	24	0	21	4	0	25	0	1	0	0	1	0	0	0	0	0	12	2	0	14	0	0	0	0						
5:15 PM	0	0	0	0	0	22	3	0	25	0	17	3	0	20	0	28	0	0	28	0	2	0	0	2	0	0	2	0	0	8	5	0	13	0	0	0	0						
5:30 PM	0	0	0	0	0	15	9	0	24	0	17	2	0	19	0	24	2	0	26	0	4	0	0	4	0	0	0	0	0	11	4	0	15	0	0	0	0						
3 hr Total	0	0	0	0	0	165	55	0	220	0	199	54	0	253	0	260	40	0	300	0	15	1	0	16	0	0	8	0	0	8	0	146	47	0	193	0	0	0					
PM Peak	0	0	0	0	0	52	16	0	68	0	71	17	0	88	0	92	17	0	109	0	4	0	0	4	0	0	5	0	0	59	24	0	83	0	0	0	0						

LOCATION: Intersection Of Glenlyon Street & GPAR & Railway St
ROAD No: 181 (Int 1712 @ Tdist 3.294km)
DATE: Tue, 05/07/05
TIME: 06:00 - 18:00



Count Tally Sheet
Intersection of Glenlyon St GPAR Railway St
181 (Int 1702 @ Tdist1.799km)
Tue 05/07/05

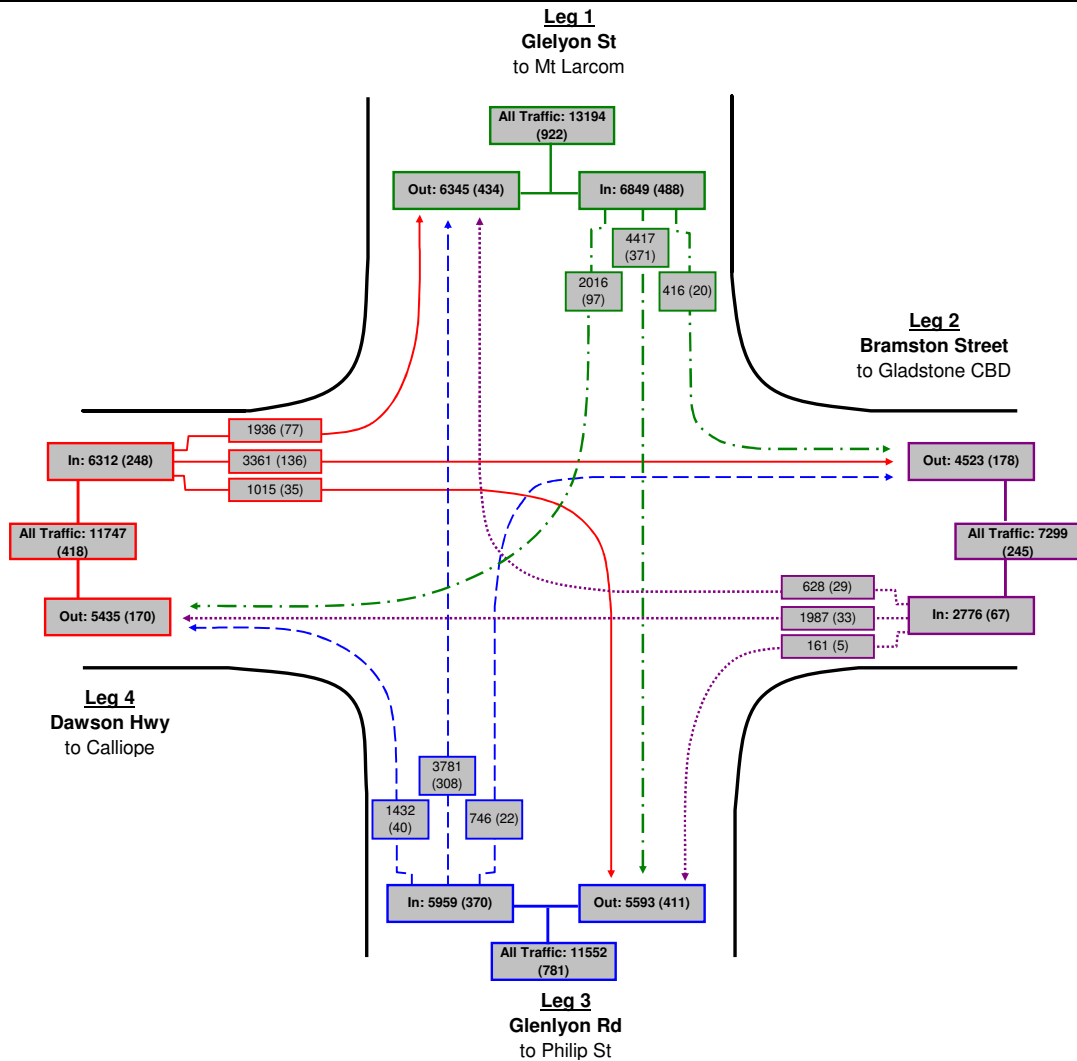


Queensland Government
Department of Main Roads

Time	Leg 1								Leg Total	Leg 2								Leg Total	Leg 3								Leg Total	Leg 4								Leg Total								
	Left		Thru		Right		U-turn	Leg Total		Left		Thru		Right		U-turn	Leg Total		Left		Thru		Right		U-turn	Leg Total		Left		Thru		Right		U-turn	Leg Total									
	2	2H	3	3H	4	4H				3	3H	4	4H	1	1H				2	2H	3	3H	4	4H				1	1H	2	2H	3	3H				4	4H	1	1H	2	2H	3	3H
6:00 - 6:15	3	1	28	4	1	0	0	37	2	2	12	2	4	14	0	36	0	0	54	4	2	0	0	0	60	1	0	0	0	0	0	0	0	0	0	0								
6:15 - 6:30	9	5	59	10	1	2	0	86	6	1	14	4	13	6	0	44	3	0	97	8	1	0	0	0	109	0	2	0	0	0	7	0	0	0	9									
6:30 - 6:45	6	6	39	7	1	0	0	59	2	2	10	6	9	7	0	36	4	0	48	2	6	2	0	0	62	4	0	0	0	0	0	2	0	0	6									
6:45 - 7:00	9	7	49	9	0	1	0	75	2	1	8	1	17	9	0	38	1	0	165	6	13	1	0	0	186	3	0	2	0	4	1	0	0	10										
7:00 - 7:15	13	8	43	5	4	0	0	73	4	3	9	2	13	11	0	42	2	0	99	8	3	1	0	0	113	1	0	0	0	2	0	0	0	3										
7:15 - 7:30	14	7	64	9	0	0	0	94	2	0	12	0	15	10	0	39	2	0	127	15	3	1	0	0	148	1	0	0	0	2	0	0	0	3										
7:30 - 7:45	10	5	50	7	2	0	0	74	5	0	12	1	21	11	0	50	2	0	128	7	5	0	0	0	142	1	0	0	0	5	0	0	0	6										
7:45 - 8:00	9	6	179	15	0	0	0	209	4	1	6	0	19	12	0	42	6	0	276	15	3	1	0	0	301	0	0	0	0	0	0	0	0	0										
8:00 - 8:15	10	7	84	16	0	0	0	117	5	2	7	0	21	14	0	49	11	0	190	7	2	0	0	0	210	0	0	0	0	0	0	0	0	0										
8:15 - 8:30	16	1	120	41	18	0	0	196	7	1	8	0	18	11	0	45	6	0	239	4	0	1	0	0	250	0	0	0	0	0	2	0	0	2										
8:30 - 8:45	10	2	115	15	7	0	0	149	4	1	7	0	15	10	0	37	16	1	285	21	5	3	0	0	331	2	0	1	0	3	0	0	0	6										
8:45 - 9:00	12	4	110	14	8	0	0	148	5	2	9	0	14	9	0	39	8	0	230	15	3	1	0	0	257	1	0	1	0	2	0	0	0	4										
9:00 - 9:15	14	7	120	11	6	0	0	158	1	2	7	0	10	14	0	34	7	0	190	19	1	2	0	0	219	1	0	0	0	2	0	0	0	3										
9:15 - 9:30	10	5	115	12	4	0	1	147	2	1	6	1	18	15	0	43	4	0	180	16	3	1	0	0	204	1	0	1	0	1	0	0	0	3										
9:30 - 9:45	9	3	94	10	3	0	0	119	1	1	3	0	24	16	0	45	12	0	188	18	0	0	0	0	218	0	0	0	0	0	4	0	0	4										
9:45 - 10:00	10	4	99	8	4	0	0	125	2	4	4	1	26	14	0	51	7	0	180	17	2	1	0	0	207	1	0	1	0	1	2	0	0	5										
10:00 - 10:15	13	8	111	12	10	0	0	154	0	0	5	0	19	11	0	35	8	0	129	15	0	1	0	0	153	3	4	1	0	2	1	0	0	11										
10:15 - 10:30	12	4	115	10	4	0	0	145	1	4	2	0	13	7	0	27	8	0	184	25	3	3	0	0	223	2	0	2	0	2	0	0	0	6										
10:30 - 10:45	9	6	118	9	4	0	0	146	2	6	4	0	15	4	0	31	7	0	156	23	2	1	0	0	189	1	2	4	0	0	0	0	0	7										
10:45 - 11:00	12	4	114	15	9	0	1	155	1	3	3	0	12	2	0	21	14	0	103	9	1	0	0	0	127	2	0	1	1	0	0	0	0	4										
11:00 - 11:15	17	6	109	20	4	0	0	156	1	1	1	0	9	3	0	15	8	0	106	9	1	1	0	0	125	0	0	1	0	0	0	0	1	2										
11:15 - 11:30	13	1	123	10	5	0	0	152	1	0	0	0	8	4	0	13	5	0	79	7	1	0	0	0	92	0	1	0	2	0	0	0	0	3										
11:30 - 11:45	3	6	61	5	4	0	0	79	0	0	0	0	10	2	0	12	8	4	49	5	1	0	0	0	67	0	0	0	0	0	1	0	0	1										
11:45 - 12:00	11	9	138	4	3	0	0	165	0	3	1	0	11	1	0	16	3	0	132	9	2	1	0	0	147	0	0	1	0	1	0	0	0	2										



Time	Leg 1									Leg Total	Leg 2									Leg Total	Leg 3									Leg Total	Leg 4									Leg Total															
	Left		Thru		Right		U-turn		Light		Heavy	Light	Heavy	Light	Heavy	Light	Heavy	Light	Heavy		Light	Heavy	Light	Heavy	Light	Heavy	Light	Heavy	Light		Heavy	All																							
	2	2H	3	3H	4	4H	1	1H																									2	2H	3	3H	4	4H	1		1H	2	2H	3	3H	4	4H	1	1H	2	2H	3	3H	4	4H
	Light	Heavy	Light	Heavy	Light	Heavy	All	Light																									Heavy	Light	Heavy	All	Light	Heavy	Light		Heavy	All	Light	Heavy	Light	Heavy	All	Light	Heavy	Light	Heavy	All	Light	Heavy	All
12:00 - 12:15	5	4	142	6	3	0	0	163	4	2	2	0	1	1	0	10	9	0	88	8	1	3	0	109	3	1	3	0	1	0	0	0	8																						
12:15 - 12:30	8	1	114	11	5	0	0	136	0	1	2	0	8	2	0	13	15	0	84	9	1	1	0	110	1	0	1	0	1	0	0	0	3																						
12:30 - 12:45	8	5	185	7	2	0	0	207	4	0	0	0	7	2	0	13	3	0	116	8	2	1	0	130	1	1	2	0	2	0	1	7																							
12:45 - 13:00	10	1	136	9	5	0	0	161	1	0	0	0	9	6	0	16	6	0	109	3	0	0	0	118	0	0	2	0	2	0	0	4																							
13:00 - 13:15	10	1	139	6	4	0	3	163	2	0	0	0	9	7	0	18	3	0	112	5	2	0	0	122	2	0	2	0	2	0	0	6																							
13:15 - 13:30	11	1	124	8	3	0	0	147	6	1	0	0	8	0	0	15	7	0	91	0	2	0	0	100	2	0	1	2	0	0	1	7																							
13:30 - 13:45	4	5	102	5	0	0	0	116	0	1	0	0	5	0	0	6	1	0	87	0	4	1	0	93	2	0	0	0	1	0	0	3																							
13:45 - 14:00	3	1	114	7	6	0	4	135	0	4	0	0	6	0	0	10	1	0	86	2	2	1	0	92	4	0	3	0	3	0	0	10																							
14:00 - 14:15	3	9	130	7	3	0	0	152	3	1	0	0	6	1	0	11	4	0	111	11	1	0	0	127	0	0	0	0	1	0	0	1																							
14:15 - 14:30	7	1	115	4	2	0	1	130	0	0	0	0	3	0	0	3	15	1	67	2	0	0	0	85	4	0	1	0	2	0	0	7																							
14:30 - 14:45	8	1	116	5	6	0	0	136	1	1	0	0	6	1	0	9	6	0	62	7	2	0	0	77	7	0	1	0	5	0	2	15																							
14:45 - 15:00	9	1	177	6	7	0	0	200	4	0	0	0	5	2	0	11	14	0	124	2	1	1	0	142	2	0	1	0	6	0	0	9																							
15:00 - 15:15	12	8	189	7	5	0	1	222	2	0	0	0	6	2	0	10	5	0	119	12	6	2	0	144	5	0	1	0	4	0	0	10																							
15:15 - 15:30	4	7	121	4	2	1	0	139	8	2	0	0	11	4	0	25	8	0	132	6	2	0	0	148	4	0	0	0	4	0	0	8																							
15:30 - 15:45	18	6	200	6	9	0	0	239	14	2	0	0	12	4	0	32	15	1	122	6	2	0	0	146	3	0	2	0	6	0	2	13																							
15:45 - 16:00	11	1	96	3	8	0	1	120	5	0	1	0	6	2	0	14	7	0	76	4	3	3	0	93	0	0	2	0	9	0	0	11																							
16:00 - 16:15	9	2	194	5	5	0	2	217	5	0	7	0	12	2	0	26	11	0	123	2	0	2	0	138	0	2	3	0	11	0	0	16																							
16:15 - 16:30	7	1	202	7	13	0	1	231	4	2	1	0	10	2	0	19	13	0	123	3	3	1	0	143	0	0	1	0	6	0	0	9																							
16:30 - 16:45	11	2	215	4	6	0	0	238	3	0	1	0	4	0	0	8	9	0	109	3	3	0	0	124	4	0	0	1	5	0	0	10																							
16:45 - 17:00	12	2	163	2	1	0	2	182	1	0	2	0	10	0	0	13	12	0	94	0	2	0	0	108	2	0	1	0	2	0	0	5																							
17:00 - 17:15	6	1	291	7	11	0	1	317	7	2	2	0	4	1	0	16	14	0	102	3	2	0	0	121	1	0	5	0	7	0	0	13																							
17:15 - 17:30	5	1	199	5	7	0	0	217	1	2	1	0	6	0	0	10	27	0	70	2	3	0	0	102	4	0	1	0	27	0	0	32																							
17:30 - 17:45	7	0	166	3	5	0	0	181	4	3	1	0	2	0	0	10	7	0	58	2	2	0	0	69	2	0	1	0	13	0	0	16																							
17:45 - 18:00	3	0	114	2	2	0	0	121	1	0	1	0	2	0	0	4	5	0	58	2	2	2	0	69	2	0	2	0	14	0	0	18																							
Total:	445	184	6001	414	222	4	18	7288	140	65	171	18	512	256	0	1162	369	7	5937	386	111	40	0	6850	82	13	53	4	170	13	7	342																							
Peak Count:	73		891		39		7	968	36		57		143		0	186	62		1037		30		0	1092	18		9		61		2	79																							
Peak Hour:	06:45 to 07:45		16:15 to 17:15		08:15 to 09:15		13:00 to 14:00	16:15 to 17:15	15:15 to 16:15		06:00 to 07:00		09:15 to 10:15		06:00 to 07:00	07:30 to 08:30	16:30 to 17:30		07:45 to 08:45		06:30 to 07:30		06:00 to 07:00	07:45 to 08:45	14:15 to 15:15		10:00 to 11:00		17:00 to 18:00		12:30 to 13:30	17:00 to 18:00																							



Count Tally Sheet
Intersection of Glenlyon St Dawson Hwy
181 46A (Int 1711 @ Tdist3.18km 0.00km)
Tue 15/03/05



Queensland Government
Department of Main Roads

Time	Leg 1								Leg 2								Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	2	2H	3	3H	4	4H			3	3H	4	4H	1	1H			4	4H	1	1H	2	2H			1	1H	2	2H	3	3H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		4	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
6:00 - 6:15	1	1	9	3	6	1		21	4	3	37	1	5	6		56	3	1	59	3	17	0		83	41	0	29	1	14	2		87
6:15 - 6:30	1	1	26	3	7	0		38	2	0	15	0	0	0		17	4	0	73	12	12	0		101	63	0	37	2	41	2		145
6:30 - 6:45	1	0	34	4	9	0		48	0	0	6	0	1	0		7	12	0	87	8	9	0		116	73	1	43	7	11	1		136
6:45 - 7:00	3	0	25	3	16	0		47	0	0	13	0	10	1		24	21	0	137	7	11	0		176	105	3	34	2	45	1		190
7:00 - 7:15	2	0	46	8	15	3		74	0	0	12	0	9	1		22	4	1	151	20	7	1		184	70	0	32	0	24	0		126
7:15 - 7:30	0	0	32	6	12	1		51	0	0	7	0	5	1		13	14	0	125	13	8	0		160	41	2	33	0	28	0		104
7:30 - 7:45	3	0	38	5	22	1		69	0	0	14	0	2	1		17	2	0	112	24	1	1		140	50	2	76	0	24	1		153
7:45 - 8:00	9	0	59	10	23	2		103	1	0	21	0	16	0		38	25	0	219	21	16	0		281	136	2	116	0	90	2		346
8:00 - 8:15	12	1	48	7	21	1		90	2	0	35	0	14	1		52	18	0	164	12	11	0		205	145	3	141	2	76	0		367
8:15 - 8:30	8	1	53	5	24	1		92	0	0	34	1	25	1		61	13	0	160	23	13	0		209	122	3	153	0	78	4		360
8:30 - 8:45	7	1	60	8	37	1		114	5	0	36	0	17	1		59	18	0	201	10	15	0		244	118	6	209	2	95	1		431
8:45 - 9:00	10	0	79	6	48	0		143	0	0	52	2	14	0		68	14	0	134	26	6	0		180	79	6	109	0	61	5		260
9:00 - 9:15	10	1	101	9	42	11		174	4	0	50	2	14	1		71	12	0	108	14	17	1		152	72	7	98	1	47	3		228
9:15 - 9:30	21	2	114	16	65	2		220	6	0	56	3	26	0		91	19	0	103	17	14	1		154	60	10	78	4	55	5		212
9:30 - 9:45	12	0	70	11	56	3		152	5	0	39	2	13	0		59	10	0	53	5	10	0		78	42	0	58	0	20	3		123
9:45 - 10:00	13	2	49	7	49	2		122	0	0	30	2	6	0		38	14	1	78	11	13	0		117	61	0	61	0	25	1		148
10:00 - 10:15	10	1	48	4	41	3		107	3	0	18	2	14	0		37	8	2	60	9	8	1		88	40	2	59	3	28	2		134
10:15 - 10:30	5	0	64	8	36	5		118	3	0	13	2	16	0		34	5	0	53	14	6	0		78	28	1	62	2	23	0		116
10:30 - 10:45	10	0	60	55	55	17		197	10	0	16	2	17	0		45	4	0	58	16	6	0		84	25	1	65	1	26	0		118
10:45 - 11:00	9	0	71	4	53	2		139	1	0	48	0	8	0		57	7	0	50	7	9	0		73	41	3	61	1	20	0		126
11:00 - 11:15	10	0	47	9	51	2		119	9	0	18	0	7	0		34	2	1	62	14	4	1		84	45	3	65	0	26	0		139
11:15 - 11:30	7	0	55	6	47	3		118	7	0	38	0	13	0		58	1	1	40	7	2	0		51	42	2	64	1	20	1		130
11:30 - 11:45	9	0	59	5	37	5		115	4	0	40	0	17	0		61	3	2	50	3	3	0		61	52	1	70	1	22	0		146
11:45 - 12:00	17	0	103	10	66	2		198	1	0	64	0	8	0		73	4	0	57	0	7	0		68	58	3	70	0	25	1		157

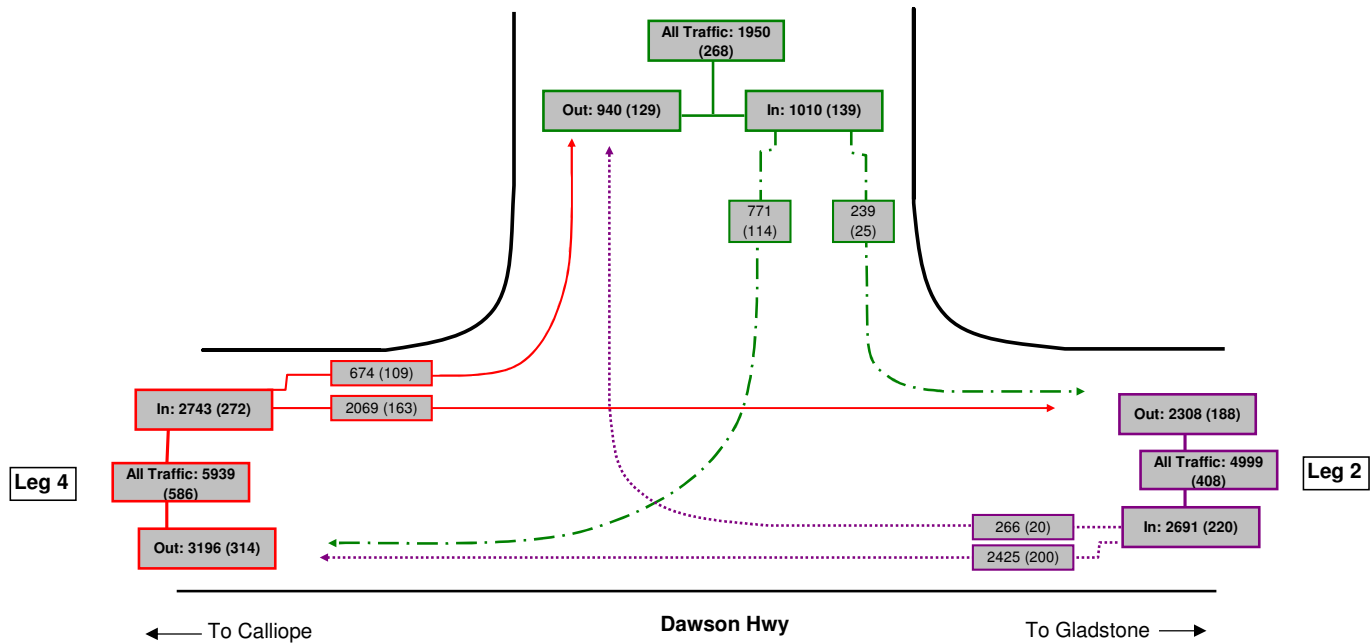
Count Tally Sheet
Intersection of Glenlyon St Dawson Hwy
181 46A (Int 1711 @ Tdist3.18km 0.00km)
Tue 15/03/05



Queensland Government
Department of Main Roads

Time	Leg 1								Leg Total	Leg 2								Leg Total	Leg 3								Leg Total	Leg 4								Leg Total
	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn								
	2	2H	3	3H	4	4H	All	3		3H	4	4H	1	1H	All	4	4H		1	1H	2	2H	All	1	1H	2		2H	3	3H	All					
	Light	Heavy	Light	Heavy	Light	Heavy		4		Heavy	Light	Heavy	Light	Heavy		Light	Heavy		Light	Heavy	Light	Heavy		Light	Heavy	Light		Heavy	Light	Heavy		Light	Heavy			
12:00 - 12:15	8	0	65	4	58	2		137	1	0	63	0	11	0	75	44	3	49	0	17	2		115	3	1	51	2	2	0	59						
12:15 - 12:30	5	0	74	4	36	3		122	1	0	35	0	8	0	44	49	0	37	1	14	1		102	4	1	50	5	2	0	62						
12:30 - 12:45	6	0	109	9	33	1		158	7	0	22	0	4	1	34	52	1	48	2	19	0		122	6	0	46	2	2	0	56						
12:45 - 13:00	10	0	80	5	58	2		155	3	0	43	1	10	0	57	58	2	51	1	22	0		134	10	0	63	3	1	0	77						
13:00 - 13:15	10	0	73	2	21	0		106	2	1	43	2	18	1	67	43	2	30	0	17	1		93	10	2	51	7	2	0	72						
13:15 - 13:30	12	0	67	8	53	0		140	2	0	39	0	14	1	56	55	0	55	0	24	0		134	10	1	56	7	2	0	76						
13:30 - 13:45	4	0	84	15	35	0		138	1	0	36	1	13	0	51	64	6	63	0	14	0		147	4	1	59	5	1	0	70						
13:45 - 14:00	9	0	67	5	29	0		110	3	0	34	1	8	0	46	46	1	47	2	18	1		115	3	1	61	4	0	0	69						
14:00 - 14:15	5	1	62	5	51	1		125	0	0	33	1	15	0	49	46	3	45	0	27	0		121	4	0	46	6	3	0	59						
14:15 - 14:30	6	2	116	10	29	4		167	10	0	36	0	20	0	66	44	2	49	0	10	1		106	0	0	62	4	1	0	67						
14:30 - 14:45	12	0	81	4	50	2		149	3	1	28	0	15	1	48	35	0	39	1	16	1		92	10	0	51	4	1	0	66						
14:45 - 15:00	10	1	90	9	39	5		154	7	0	58	1	11	0	77	39	2	65	0	31	2		139	8	4	43	10	1	0	66						
15:00 - 15:15	12	1	171	6	60	0		250	3	0	93	3	16	1	116	55	2	44	1	23	2		127	8	2	54	9	5	0	78						
15:15 - 15:30	4	1	117	14	48	1		185	3	0	56	0	9	0	68	59	0	61	0	21	4		145	16	1	90	4	4	0	115						
15:30 - 15:45	14	0	129	5	36	0		184	2	0	53	0	14	0	69	60	0	35	3	22	1		121	13	1	63	5	1	0	83						
15:45 - 16:00	8	1	136	9	45	3		202	1	0	42	0	11	2	56	48	2	52	0	33	0		135	21	0	53	2	3	0	79						
16:00 - 16:15	16	0	163	10	53	2		244	8	0	124	0	29	2	163	57	1	54	0	29	0		141	25	1	106	7	5	0	144						
16:15 - 16:30	7	1	81	3	35	0		127	1	0	38	1	9	3	52	33	1	32	0	17	0		83	17	0	63	3	1	0	84						
16:30 - 16:45	13	0	158	9	44	1		224	4	0	75	1	19	3	102	54	1	39	0	30	0		124	13	0	60	7	3	0	83						
16:45 - 17:00	7	1	157	12	46	1		224	4	0	45	0	9	0	58	47	1	36	0	15	0		99	11	0	62	2	4	0	79						
17:00 - 17:15	15	0	255	2	70	0		342	10	0	114	1	25	0	150	53	0	33	0	22	0		108	9	0	58	5	6	0	78						
17:15 - 17:30	5	0	150	3	60	0		218	8	0	61	1	20	0	90	37	0	41	0	22	0		100	17	0	68	2	2	0	89						
17:30 - 17:45	4	0	130	4	48	0		186	4	0	45	0	7	0	56	38	0	47	0	21	0		106	19	0	44	1	3	0	67						
17:45 - 18:00	4	0	81	3	44	1		133	1	0	26	0	7	0	34	39	1	27	1	15	0		83	9	0	42	0	1	0	52						
Total:	396	20	4046	371	1919	97	0	6849	156	5	1954	33	599	29	0	2776	1392	40	3473	308	724	22	0	5959	1859	77	3225	136	980	35	0	6312				
Peak Count:	61		745		230		0	1008	27		298		78		0	400	230		810		110		0	939	535		623		346		0	1504				
Peak Hour:	09:00 to 10:00		16:30 to 17:30		09:00 to 10:00		06:00 to 07:00	16:30 to 17:30	10:30 to 11:30		16:30 to 17:30		15:45 to 16:45		06:00 to 07:00	16:30 to 17:30	12:45 to 13:45		07:45 to 08:45		15:15 to 16:15		06:00 to 07:00	07:45 to 08:45		07:45 to 08:45		07:45 to 08:45		06:00 to 07:00	07:45 to 08:45					

Leg 1
Don Young Drv.



Count Tally Sheet With Totals and Peak Flows.



LOCATION: Dawson Hwy & Don Young Drv
ROAD No: 46A (Int. 2031 @ Tdist 7.129 km)
DATE: Tue, 06/02/07
TIME: 06:00 - 18:00

Time	Leg 1						Leg 2							Leg 4						
	Left		Right		U-turn	Leg Total	Thru		Right		U-turn	Leg Total	Left		Thru		U-turn	Leg Total		
	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All			
6:00 - 6:15	0	0	13	1		14	33	6	14	1		54	33	2	27	2		64		
6:15 - 6:30	2	0	8	3		13	43	9	11	0		63	34	4	38	3		79		
6:30 - 6:45	3	1	11	2		17	30	6	15	0		51	39	5	55	5		104		
6:45 - 7:00	2	0	10	1		13	36	5	11	1		53	22	3	50	5		80		
7:00 - 7:15	3	0	8	1		12	41	7	8	1		57	18	1	41	5		65		
7:15 - 7:30	1	0	6	2		9	31	3	6	0		40	17	3	63	5		88		
7:30 - 7:45	4	1	9	3		17	43	7	5	1		56	17	0	70	6		93		
7:45 - 8:00	5	0	6	1		12	58	4	4	0		66	21	3	77	4		105		
8:00 - 8:15	3	0	15	5		23	56	7	5	0		68	37	2	133	8		180		
8:15 - 8:30	5	0	12	4		21	37	5	9	0		51	19	3	52	3		77		
8:30 - 8:45	4	0	9	2		15	55	1	6	0		62	8	3	56	5		72		
8:45 - 9:00	2	1	13	5		21	38	6	3	0		47	12	1	43	3		59		
9:00 - 9:15	6	1	8	3		18	28	5	4	1		38	9	1	45	2		57		
9:15 - 9:30	5	2	7	2		16	30	4	2	1		37	10	1	52	4		67		
9:30 - 9:45	0	1	6	7		14	37	4	3	0		44	4	1	31	2		38		
9:45 - 10:00	3	2	7	1		13	40	2	3	0		45	10	3	42	5		60		
10:00 - 10:15	4	1	13	2		20	43	2	2	2		49	7	1	39	6		53		
10:15 - 10:30	2	0	10	4		16	34	5	3	0		42	13	5	30	5		53		
10:30 - 10:45	1	2	6	4		13	24	2	2	1		29	17	6	40	6		69		
10:45 - 11:00	1	1	4	5		11	30	5	1	1		37	7	1	38	3		49		
11:00 - 11:15	2	0	4	1		7	31	4	2	0		37	2	2	38	3		45		
11:15 - 11:30	3	0	7	2		12	32	2	0	1		35	4	6	37	3		50		
11:30 - 11:45	4	0	5	0		9	37	1	1	0		39	8	2	27	8		45		
11:45 - 12:00	5	0	13	4		22	35	3	1	2		41	11	2	40	4		57		

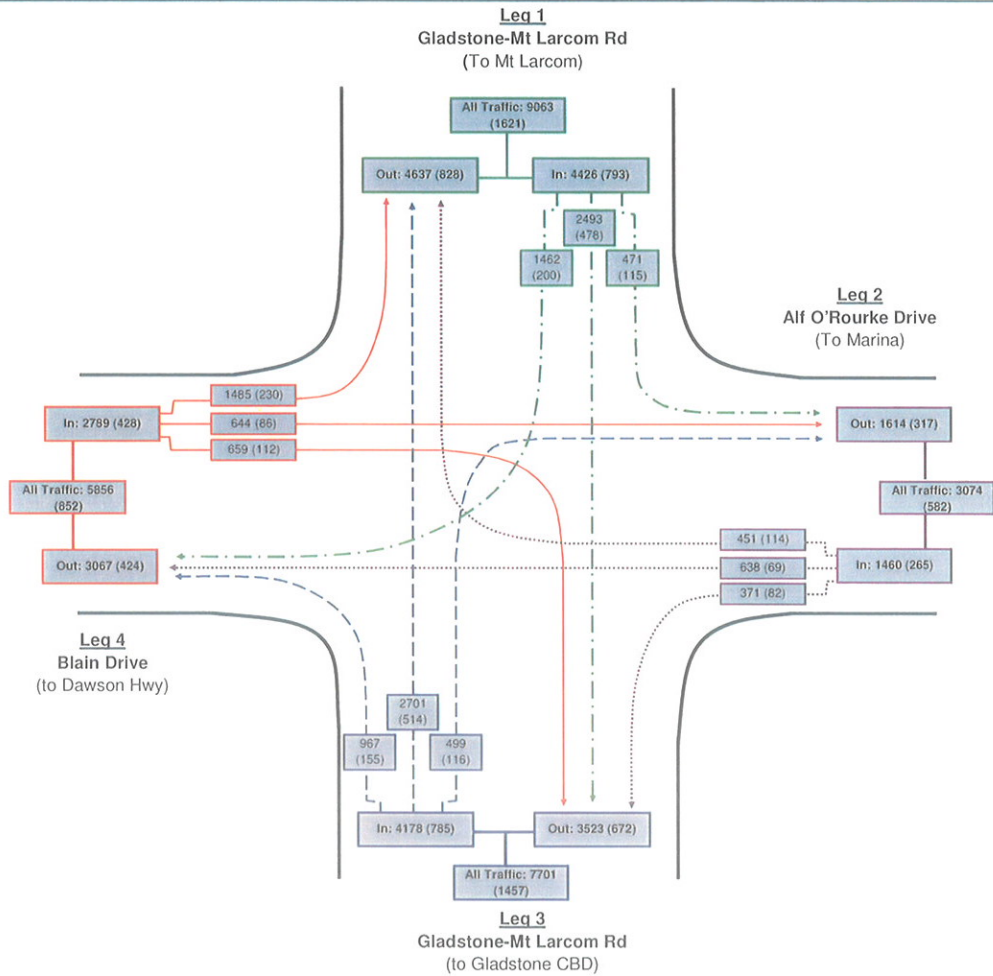
Count Tally Sheet With Totals and Peak Flows.



LOCATION: Dawson Hwy & Don Young Drv
ROAD No: 46A (Int. 2031 @ Tdist 7.129 km)
DATE: Tue, 06/02/07
TIME: 06:00 - 18:00

Time	Leg 1						Leg 2						Leg 4					
	Left		Right		U-turn	Leg Total	Thru		Right		U-turn	Leg Total	Left		Thru		U-turn	Leg Total
	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All	
12:00 - 12:15	5	0	7	4		16	42	2	6	2		52	13	6	29	3		51
12:15 - 12:30	3	1	9	0		13	38	5	8	0		51	11	3	15	2		31
12:30 - 12:45	7	3	18	2		30	65	9	11	0		85	19	5	33	4		61
12:45 - 13:00	5	0	6	4		15	35	0	11	0		46	6	3	11	0		20
13:00 - 13:15	4	0	6	2		12	46	7	3	0		56	9	0	27	0		36
13:15 - 13:30	1	0	12	2		15	30	3	1	1		35	6	3	31	2		42
13:30 - 13:45	3	0	10	4		17	54	8	5	0		67	5	4	39	5		53
13:45 - 14:00	2	1	6	1		10	30	4	4	1		39	3	3	38	6		50
14:00 - 14:15	5	0	4	0		9	33	3	2	1		39	2	4	25	0		31
14:15 - 14:30	3	0	6	5		14	43	3	3	0		49	7	0	33	2		42
14:30 - 14:45	1	1	12	3		17	44	7	4	0		55	5	1	40	1		47
14:45 - 15:00	7	2	19	2		30	73	7	4	1		85	5	1	39	4		49
15:00 - 15:15	1	0	18	2		21	55	8	5	0		68	10	1	24	1		36
15:15 - 15:30	16	0	36	3		55	61	2	8	1		72	11	5	53	3		72
15:30 - 15:45	11	0	19	1		31	43	3	8	0		54	5	1	20	4		30
15:45 - 16:00	5	1	18	1		25	53	7	0	0		60	11	2	26	4		43
16:00 - 16:15	5	1	14	1		21	58	2	6	0		66	8	1	27	7		43
16:15 - 16:30	10	1	33	1		45	91	2	9	0		102	6	0	29	3		38
16:30 - 16:45	8	1	28	1		38	80	2	5	0		87	7	1	31	2		41
16:45 - 17:00	9	0	29	6		44	61	4	3	0		68	10	1	39	1		51
17:00 - 17:15	18	0	71	1		90	91	2	7	0		100	11	1	44	2		58
17:15 - 17:30	6	0	24	1		31	72	3	5	0		80	6	2	30	1		39
17:30 - 17:45	7	0	26	1		34	63	1	3	0		67	3	0	33	1		37
17:45 - 18:00	2	0	16	1		19	62	1	4	0		67	7	0	26	0		33
Total:	214	25	657	114	0	1010	2225	200	246	20	0	2691	565	109	1906	163	0	2743
Peak Count:	45	6	161	17	0	217	323	27	51	5	0	357	128	17	343	23	0	466
Peak Hour:	16:15 to 17:15	09:00 to 10:00	16:15 to 17:15	08:45 to 09:45	06:00 to 07:00	16:15 to 17:15	16:15 to 17:15	06:15 to 07:15	06:00 to 07:00	11:15 to 12:15	06:00 to 07:00	16:15 to 17:15	06:00 to 07:00	12:00 to 13:00	07:15 to 08:15	07:15 to 08:15	06:00 to 07:00	07:15 to 08:15

LOCATION: Intersection of Gladstone-Mt Larcom Rd & Blain Dr/Alf O'Rourke Dr
ROAD No: 181 (Int1724 @ Tdist 3.258km)
DATE: Tues 19/09/2006
TIME: 06:00 - 18:00



Count Tally Sheet
Intersection of Gladstone-Mt Larcom Rd Blain Dr/Alf O'Rourke Dr
(Road 181 Int 1724 @ Tdist 3.258km)
Tue 19/09/06

Time	Leg 1								Leg 2							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	2	2H	3	3H	4	4H			3	3H	4	4H	1	1H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
6:00 - 6:15	38	0	37	4	21	0	0	100	1	1	27	0	17	0	0	46
6:15 - 6:30	39	0	43	12	29	4	0	127	2	1	12	1	14	1	0	31
6:30 - 6:45	21	2	62	10	34	4	0	133	1	0	13	0	13	3	0	30
6:45 - 7:00	14	2	53	4	41	2	0	116	0	2	16	4	12	3	0	37
7:00 - 7:15	12	6	65	17	36	5	0	141	3	0	17	2	12	4	0	38
7:15 - 7:30	11	4	57	14	32	4	0	122	2	0	14	2	10	3	0	31
7:30 - 7:45	15	5	59	11	27	10	0	127	10	5	14	3	12	4	0	48
7:45 - 8:00	13	1	37	6	18	6	0	81	8	3	13	0	10	3	0	37
8:00 - 8:15	16	1	63	7	30	3	0	120	5	5	12	1	9	6	0	38
8:15 - 8:30	14	4	65	8	23	2	0	116	4	3	11	2	8	5	0	33
8:30 - 8:45	16	5	53	21	38	7	0	140	3	0	6	3	7	4	0	23
8:45 - 9:00	14	4	45	16	35	5	0	119	2	0	4	2	6	3	0	17
9:00 - 9:15	12	1	41	12	20	5	0	91	0	0	2	1	5	4	0	12
9:15 - 9:30	6	2	32	9	17	2	0	68	1	1	4	3	4	5	0	18
9:30 - 9:45	5	1	40	10	14	3	0	73	3	2	2	2	2	2	0	13
9:45 - 10:00	4	1	44	6	22	0	0	77	2	0	8	5	4	1	0	20
10:00 - 10:15	6	3	43	10	20	6	0	88	3	0	9	2	4	2	0	20
10:15 - 10:30	4	4	37	8	17	5	0	75	2	0	7	1	6	2	0	18
10:30 - 10:45	5	5	34	9	15	6	0	74	3	0	8	2	9	9	0	31
10:45 - 11:00	3	2	29	11	14	4	0	63	2	0	9	2	6	3	0	22
11:00 - 11:15	2	2	24	5	17	6	0	56	3	0	5	0	4	2	0	14
11:15 - 11:30	3	4	22	4	15	5	0	53	4	1	6	1	5	1	0	18
11:30 - 11:45	4	2	44	13	16	2	0	81	1	0	5	1	1	4	0	12
11:45 - 12:00	0	0	34	7	21	6	0	68	3	0	2	0	2	0	0	7

Count Tally Sheet
Intersection of Gladstone-Mt Larcom Rd Blain Dr/Alf O'Rourke Dr
(Road 181 Int 1724 @ Tdist 3.258km)
Tue 19/09/06

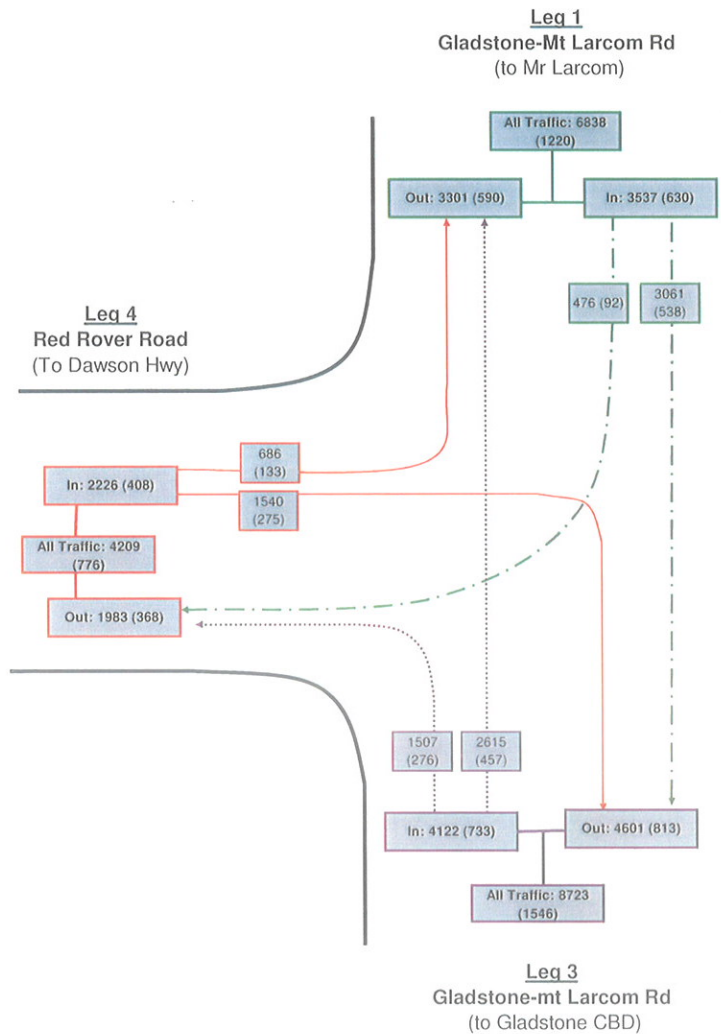
Time	Leg 1									Leg 2								
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total		
	2	2H	3	3H	4	4H			3	3H	4	4H	1	1H				
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All			
12:00 - 12:15	7	3	29	10	19	8	0	76	8	3	15	2	2	0	0	30		
12:15 - 12:30	0	3	15	8	8	5	0	39	3	3	4	0	3	3	0	16		
12:30 - 12:45	2	1	16	8	14	4	0	45	2	2	4	1	2	2	0	13		
12:45 - 13:00	5	4	38	10	13	9	0	79	6	5	11	0	10	4	0	36		
13:00 - 13:15	1	0	39	9	22	3	0	74	5	4	7	3	4	2	0	25		
13:15 - 13:30	1	0	24	8	11	7	0	51	12	3	11	0	1	1	0	28		
13:30 - 13:45	1	3	35	13	16	1	0	69	7	1	4	1	3	0	0	16		
13:45 - 14:00	5	1	27	20	12	3	0	68	3	1	4	0	7	1	0	16		
14:00 - 14:15	4	4	37	22	31	11	0	109	7	3	4	4	2	2	0	22		
14:15 - 14:30	2	2	14	12	7	6	0	43	9	4	7	0	5	3	0	28		
14:30 - 14:45	4	3	30	9	21	4	0	71	15	4	2	0	1	2	0	24		
14:45 - 15:00	5	4	27	12	22	3	0	73	6	2	5	0	2	0	0	15		
15:00 - 15:15	0	1	56	14	24	4	0	99	10	2	6	2	6	6	0	32		
15:15 - 15:30	0	2	34	6	18	5	0	65	3	1	0	2	1	0	0	7		
15:30 - 15:45	4	4	75	15	52	10	0	160	18	3	11	2	0	0	0	34		
15:45 - 16:00	4	1	46	13	33	2	0	99	4	2	6	1	2	2	0	17		
16:00 - 16:15	5	5	56	11	41	4	0	122	9	0	2	2	3	1	0	17		
16:15 - 16:30	3	5	83	13	62	1	0	167	19	1	47	2	12	6	0	87		
16:30 - 16:45	3	4	47	5	42	3	0	104	21	2	61	2	16	1	0	103		
16:45 - 17:00	8	4	56	6	49	1	0	124	15	5	21	2	8	3	0	54		
17:00 - 17:15	7	0	75	8	49	3	0	142	27	4	66	3	41	0	0	141		
17:15 - 17:30	2	0	43	5	59	1	0	110	3	1	6	0	9	0	0	19		
17:30 - 17:45	4	0	31	5	45	0	0	85	2	0	15	0	6	1	0	24		
17:45 - 18:00	2	0	19	2	20	0	0	43	7	2	24	0	9	0	0	42		
Total:	356	115	2015	478	1262	200	0	4426	289	82	569	69	337	114	0	1460		
Peak Count:	116		312		210		0	548	94		204		87		0	385		
Peak Hour:	06:00 to 07:00		15:30 to 16:30		16:15 to 17:15		06:00 to 07:00	15:30 to 16:30	16:15 to 17:15		16:15 to 17:15		16:15 to 17:15		06:00 to 07:00	16:15 to 17:15		

Count Tally Sheet
Intersection of Gladstone-Mt Larcom Rd Blain Dr/Alf O'Rourke Dr
(Road 181 Int 1724 @ Tdist 3.258km)
Tue 19/09/06

Time	Leg 3								Leg Total	Leg 4							
	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn			
	4	4H	1	1H	2	2H		1		1H	2	2H	3	3H			
	Light	Heavy	Light	Heavy	Light	Heavy	All	Light		Heavy	Light	Heavy	Light	Heavy	All		
6:00 - 6:15	0	2	44	2	16	5	0	69	101	5	61	0	0	0	0		
6:15 - 6:30	2	2	46	11	19	2	0	82	100	1	61	3	0	0	0		
6:30 - 6:45	7	4	80	22	19	4	0	136	163	6	30	4	0	0	0		
6:45 - 7:00	10	2	54	9	7	2	0	84	85	7	32	5	6	3	0		
7:00 - 7:15	16	7	60	20	8	7	0	118	60	7	34	3	22	6	0		
7:15 - 7:30	15	5	56	18	7	5	0	106	72	8	35	4	19	5	0		
7:30 - 7:45	13	3	42	8	4	5	0	75	40	5	31	2	20	5	0		
7:45 - 8:00	7	7	27	7	6	3	0	57	16	2	11	3	26	4	0		
8:00 - 8:15	14	6	54	20	12	4	0	110	29	9	8	1	26	3	0		
8:15 - 8:30	14	6	50	17	10	3	0	100	26	6	7	2	20	5	0		
8:30 - 8:45	16	7	51	11	15	2	0	102	14	6	7	3	15	3	0		
8:45 - 9:00	17	5	50	15	12	4	0	103	20	8	5	5	18	4	0		
9:00 - 9:15	15	2	42	13	14	4	0	90	15	7	8	2	13	6	0		
9:15 - 9:30	12	5	33	7	7	2	0	66	11	10	5	1	15	3	0		
9:30 - 9:45	21	9	31	13	4	3	0	81	10	3	9	2	19	4	0		
9:45 - 10:00	21	5	24	8	10	1	0	69	11	9	8	1	11	3	0		
10:00 - 10:15	25	7	37	8	12	4	0	93	13	7	8	2	22	5	0		
10:15 - 10:30	19	7	34	7	8	3	0	78	13	5	7	2	20	4	0		
10:30 - 10:45	23	5	25	10	7	1	0	71	13	7	10	2	13	3	0		
10:45 - 11:00	25	6	31	12	5	5	0	84	10	15	8	1	12	4	0		
11:00 - 11:15	13	2	31	7	5	1	0	59	11	2	7	3	11	2	0		
11:15 - 11:30	25	3	42	10	10	2	0	92	12	5	5	4	10	7	0		
11:30 - 11:45	14	3	20	17	9	1	0	64	16	6	5	2	7	4	0		
11:45 - 12:00	20	5	23	10	4	2	0	64	10	2	6	1	14	4	0		

Count Tally Sheet
Intersection of Gladstone-Mt Larcom Rd Blain Dr/Alf O'Rourke Dr
(Road 181 Int 1724 @ Tdist 3.258km)
Tue 19/09/06

Time	Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	
	4	4H	1	1H	2	2H	1		1H	2	2H	3	3H			
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
12:00 - 12:15	21	1	41	14	7	1	0	85	10	10	9	5	12	0	0	
12:15 - 12:30	14	2	28	4	6	3	0	57	6	3	7	2	13	3	0	
12:30 - 12:45	19	1	30	11	7	1	2	71	6	4	11	2	7	2	0	
12:45 - 13:00	19	4	45	9	7	0	1	85	13	6	5	2	14	2	0	
13:00 - 13:15	13	2	37	9	16	1	2	80	12	4	8	1	8	1	0	
13:15 - 13:30	23	1	39	12	9	2	1	87	10	1	4	0	6	0	0	
13:30 - 13:45	19	1	49	7	12	5	0	93	17	2	1	0	7	1	0	
13:45 - 14:00	19	3	43	16	9	5	1	96	20	3	4	1	8	1	0	
14:00 - 14:15	32	6	57	15	8	1	0	119	18	3	11	2	21	3	0	
14:15 - 14:30	12	0	40	11	7	1	3	74	10	5	5	2	7	2	0	
14:30 - 14:45	10	1	31	12	6	3	1	64	10	4	2	0	9	0	0	
14:45 - 15:00	14	5	78	17	9	2	0	125	6	3	8	1	10	0	0	
15:00 - 15:15	27	0	44	9	10	4	0	94	26	11	9	1	16	2	0	
15:15 - 15:30	12	1	32	8	2	1	0	56	14	3	1	0	2	2	0	
15:30 - 15:45	16	0	62	12	2	0	0	92	15	7	16	1	12	0	0	
15:45 - 16:00	13	0	57	7	6	0	0	83	10	7	8	3	8	3	0	
16:00 - 16:15	15	3	48	9	9	8	0	92	13	1	12	1	8	2	0	
16:15 - 16:30	20	4	12	12	3	2	0	53	22	1	15	4	8	0	0	
16:30 - 16:45	15	3	86	14	2	0	0	120	26	1	2	0	15	0	0	
16:45 - 17:00	25	0	62	5	2	1	0	95	23	2	5	0	6	0	0	
17:00 - 17:15	40	0	107	7	7	0	0	161	34	0	1	0	2	1	0	
17:15 - 17:30	21	1	76	3	1	0	0	102	20	0	1	0	2	0	0	
17:30 - 17:45	17	0	56	2	3	0	0	78	25	0	5	0	6	0	1	
17:45 - 18:00	12	1	40	7	3	0	0	63	18	1	0	0	1	0	0	
Total:	812	155	2187	514	383	116	11	4178	1255	230	558	86	547	112	1	
Peak Count:	117		360		74		6	478	468		196		109		1	
Peak Hour:	10:00 to 11:00		16:30 to 17:30		06:00 to 07:00		12:30 to 13:30	16:30 to 17:30	06:00 to 07:00		06:00 to 07:00		07:30 to 08:30		16:45 to 17:45	



Count Tally Sheet With Totals and Peak Flows.



LOCATION: Gladstone-Mt Larcom Rd & Red Rover Rd
ROAD No: 181 (Int 1726 @ Tdist 7.02km)
DATE: Thurs 21/09/06
TIME: 06:00 - 18:00

Time	Leg 1					Leg 3					Leg 4				
	Thru		Right		U-turn All	Left		Thru		U-turn All	Left		Right		Leg Total
	Light	Heavy	Light	Heavy		Light	Heavy	Light	Heavy		Light	Heavy	Light	Heavy	
6:00 - 6:15	20	0	5	0		20	10	80	12		34	6	24	6	70
6:15 - 6:30	43	9	9	0		29	2	131	17		66	9	55	6	136
6:30 - 6:45	32	4	11	0		22	2	184	19		61	2	40	3	106
6:45 - 7:00	54	7	9	4		26	5	179	12		2	0	30	0	32
7:00 - 7:15	44	3	5	4		40	7	67	11		44	2	29	8	83
7:15 - 7:30	84	18	4	6		23	15	103	21		36	4	71	12	123
7:30 - 7:45	65	12	5	1		20	13	58	15		19	4	53	10	86
7:45 - 8:00	48	9	2	0		14	5	30	5		54	13	34	9	60
8:00 - 8:15	40	10	3	0		14	7	25	6		15	6	40	8	69
8:15 - 8:30	42	11	5	1		13	7	51	7		10	2	52	3	67
8:30 - 8:45	40	8	4	2		17	6	23	12		8	4	44	7	63
8:45 - 9:00	35	9	6	1		15	5	25	9		9	3	40	6	58
9:00 - 9:15	30	7	4	2		20	10	30	11		7	4	32	4	47
9:15 - 9:30	29	9	6	1		17	8	21	8		8	3	28	2	41
9:30 - 9:45	35	10	5	2		14	5	21	16		16	7	29	5	57
9:45 - 10:00	38	8	3	0		12	7	26	9		10	4	25	4	43
10:00 - 10:15	30	10	6	7		20	8	27	6		54	10	18	0	34
10:15 - 10:30	44	16	5	4		18	2	26	5		61	12	24	4	42
10:30 - 10:45	37	14	5	3		21	4	28	13		66	10	18	8	40
10:45 - 11:00	35	9	4	1		21	6	40	7		74	7	16	5	30
11:00 - 11:15	45	13	3	2		18	9	35	13		75	5	14	9	32
11:15 - 11:30	41	10	2	3		29	8	27	12		76	9	12	8	33
11:30 - 11:45	39	12	4	0		28	10	23	9		70	7	20	9	37
11:45 - 12:00	42	13	5	1		22	7	19	9		8	3	24	10	45

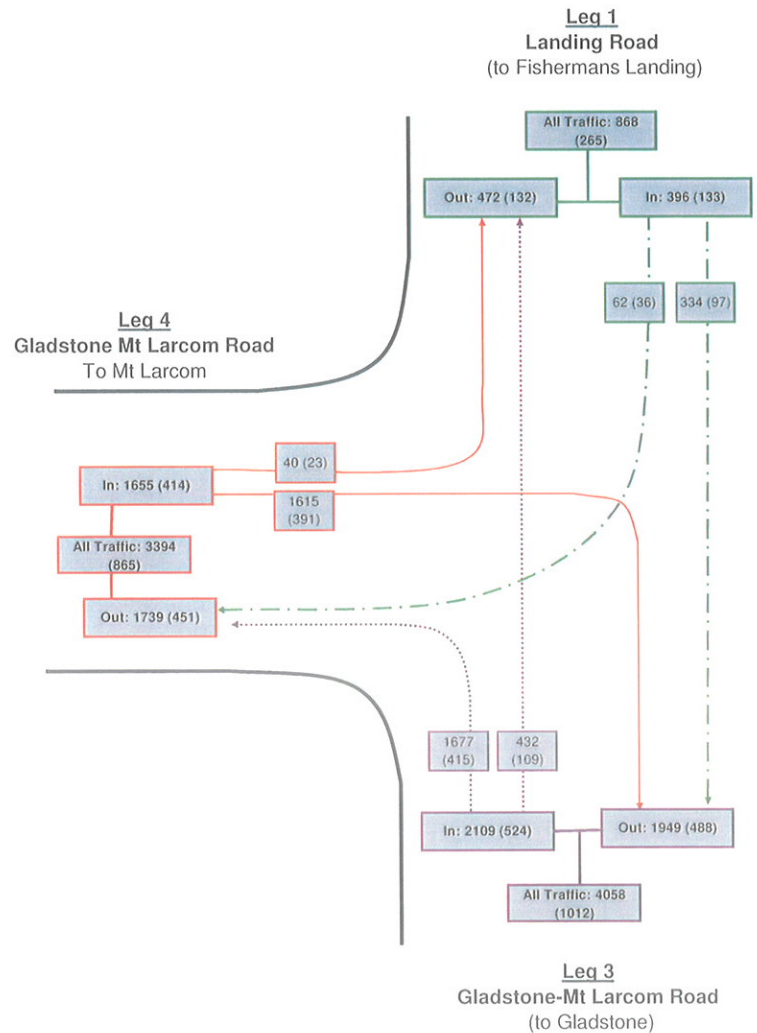
Count Tally Sheet With Totals and Peak Flows.



Queensland
Government
Department of
Main Roads

LOCATION: Gladstone-Mt Larcom Rd & Red Rover Rd
ROAD No: 181 (Int 1726 @ Tdist 7.02km)
DATE: Thurs 21/09/06
TIME: 06:00 - 18:00

Time	Leg 1					Leg 3					Leg 4				
	Thru		Right		U-turn	Left		Thru		U-turn	Left		Right		U-turn
	Light	Heavy	Light	Heavy		Light	Heavy	Light	Heavy		Light	Heavy	Light	Heavy	
12:00 - 12:15	54	15	6	2		20	9	25	12		7	6	40	15	
12:15 - 12:30	52	18	8	3		24	5	17	10		9	4	45	18	
12:30 - 12:45	60	16	7	4		21	8	14	8		10	5	24	13	
12:45 - 13:00	28	10	4	1		17	7	28	15		6	4	20	6	
13:00 - 13:15	27	8	1	1		17	5	49	7		5	0	23	6	
13:15 - 13:30	20	11	3	2		24	5	49	9		4	1	18	2	
13:30 - 13:45	35	13	5	0		16	3	47	8		3	0	15	5	
13:45 - 14:00	28	9	3	5		16	4	41	6		6	0	13	4	
14:00 - 14:15	36	9	4	4		17	6	35	8		8	0	15	4	
14:15 - 14:30	46	10	9	2		24	7	46	5		7	4	12	9	
14:30 - 14:45	48	16	9	1		15	2	38	10		6	0	18	4	
14:45 - 15:00	49	8	7	5		19	4	29	9		3	1	16	2	
15:00 - 15:15	40	9	9	3		24	9	46	12		6	2	17	7	
15:15 - 15:30	66	17	14	1		16	5	29	11		5	2	12	8	
15:30 - 15:45	127	20	18	1		35	4	45	7		3	2	22	7	
15:45 - 16:00	97	22	15	2		30	5	30	12		5	4	18	8	
16:00 - 16:15	118	28	17	1		38	3	37	10		4	1	19	6	
16:15 - 16:30	131	17	16	1		36	2	32	10		6	2	22	1	
16:30 - 16:45	94	13	23	1		67	1	44	6		2	1	30	0	
16:45 - 17:00	109	14	26	3		44	2	49	7		6	1	27	0	
17:00 - 17:15	91	9	23	1		101	4	34	2		102	3	28	4	
17:15 - 17:30	67	7	21	1		59	3	41	5		108	3	17	0	
17:30 - 17:45	68	6	10	2		36	2	38	2		78	6	13	0	
17:45 - 18:00	40	2	6	0		22	3	36	2		63	3	9	0	
Total:	2523	538	384	92	0	1231	276	2158	457	0	553	133	1265	275	0
Peak Count:	473	87	93	15	0	271	40	574	63	0	173	19	198	56	0
Peak Hour:	15:30 to 16:30	15:15 to 16:15	16:30 to 17:30	06:45 to 07:45	06:00 to 07:00	16:30 to 17:30	06:45 to 07:45	06:00 to 07:00	06:30 to 07:30	06:00 to 07:00	06:15 to 07:15	12:00 to 13:00	07:15 to 08:15	11:45 to 12:45	06:15 to 07:15



Count Tally Sheet With Totals and Peak Flows.



LOCATION: Gladstone Mt Larcom Road and Landing Road
ROAD No: 181 (Int. 1997 @ Tdist. 15.472)
DATE: Tue, 12/06/07
TIME: 06:00 - 18:00

Time	Leg 1						Leg 2						Leg 3					
	Left		Thru		U-turn	Leg Total	Left		Right		U-turn	Leg Total	Thru		Right		U-turn	Leg Total
	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All	
6:00 - 6:15	4	1	0	0		5	14	1	18	1		34	3	0	29	6		38
6:15 - 6:30	2	0	0	0		2	16	0	23	2		41	0	1	34	5		40
6:30 - 6:45	5	0	1	0		6	18	8	20	3		49	0	0	36	8		44
6:45 - 7:00	0	4	0	0		4	12	3	12	2		29	0	0	31	7		38
7:00 - 7:15	2	1	0	0		3	17	3	9	4		33	0	1	25	5		31
7:15 - 7:30	0	2	0	0		2	21	5	11	0		37	1	1	30	5		37
7:30 - 7:45	2	1	0	0		3	18	13	8	0		39	0	1	38	7		46
7:45 - 8:00	1	1	0	0		2	13	4	5	2		24	1	0	48	11		60
8:00 - 8:15	4	4	1	1		10	29	9	4	1		43	0	0	32	12		44
8:15 - 8:30	4	1	0	0		5	16	11	9	8		44	0	0	35	5		40
8:30 - 8:45	2	2	0	1		5	23	16	2	4		45	0	1	32	9		42
8:45 - 9:00	4	2	0	0		6	21	6	4	1		32	0	1	24	7		32
9:00 - 9:15	3	1	2	5		11	18	9	4	4		35	0	0	32	5		37
9:15 - 9:30	4	0	0	4		8	19	8	14	4		45	0	0	33	9		42
9:30 - 9:45	7	0	1	3		11	24	5	10	2		41	0	1	46	15		62
9:45 - 10:00	5	2	1	2		10	22	5	8	4		39	0	1	40	13		54
10:00 - 10:15	3	2	1	0		6	28	10	6	4		48	0	0	32	7		39
10:15 - 10:30	3	3	0	0		6	25	6	11	3		45	0	1	40	9		50
10:30 - 10:45	5	1	3	1		10	22	10	8	5		45	1	0	19	7		27
10:45 - 11:00	8	4	1	0		13	21	8	5	2		36	1	0	15	17		33
11:00 - 11:15	2	1	0	0		3	37	12	2	4		55	0	0	25	5		30
11:15 - 11:30	2	6	1	1		10	38	8	5	2		53	0	1	21	13		35
11:30 - 11:45	2	2	0	2		6	28	7	4	0		39	0	2	17	8		27
11:45 - 12:00	1	2	3	0		6	27	7	6	1		41	0	0	23	5		28

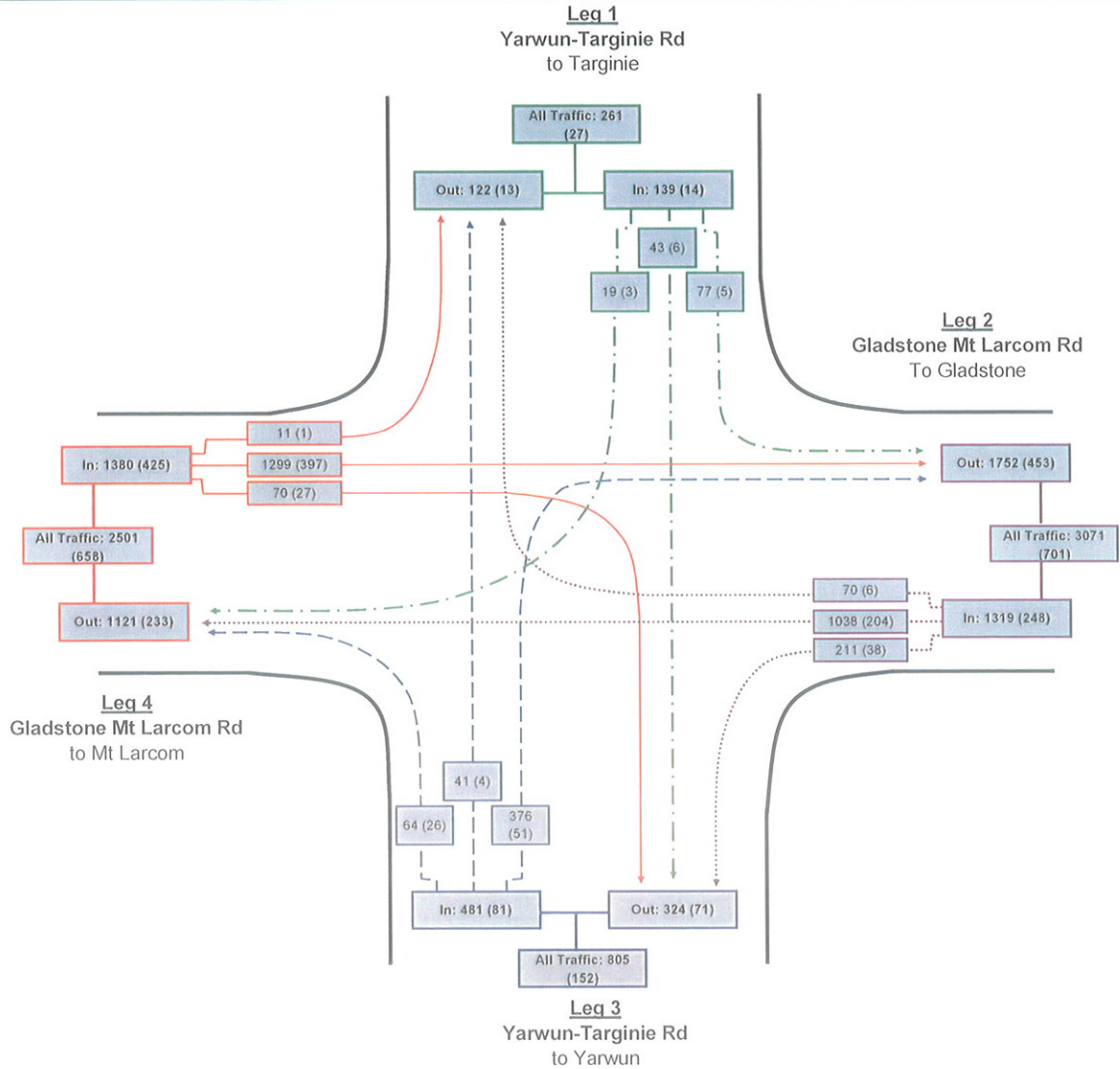
Count Tally Sheet With Totals and Peak Flows.



LOCATION: Gladstone Mt Larcom Road and Landing Road
ROAD No: 181 (Int. 1997 @ Tdist. 15.472)
DATE: Tue, 12/06/07
TIME: 06:00 - 18:00

Time	Leg 1						Leg 2						Leg 3					
	Left		Thru		U-turn	Leg Total	Left		Right		U-turn	Leg Total	Thru		Right		U-turn	Leg Total
	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All	
12:00 - 12:15	5	1	0	0		6	28	7	4	1		40	3	0	12	10		25
12:15 - 12:30	3	1	1	0		5	22	7	3	0		32	0	1	13	7		21
12:30 - 12:45	3	0	0	1		4	29	8	2	2		41	0	0	24	16		40
12:45 - 13:00	3	1	1	2		7	22	9	11	2		44	2	1	21	9		33
13:00 - 13:15	0	2	1	0		3	23	6	8	4		41	0	0	14	10		24
13:15 - 13:30	3	3	0	2		8	30	14	6	3		53	0	1	25	15		41
13:30 - 13:45	6	5	0	0		11	31	16	11	1		59	0	0	19	7		26
13:45 - 14:00	3	3	0	0		6	25	10	8	5		48	0	0	13	7		20
14:00 - 14:15	6	1	0	0		7	24	8	6	2		40	0	1	27	10		38
14:15 - 14:30	3	2	0	1		6	22	6	3	1		32	1	1	16	5		23
14:30 - 14:45	8	3	1	0		12	28	8	0	1		37	0	0	18	7		25
14:45 - 15:00	4	1	1	0		6	29	8	3	1		41	0	2	22	6		30
15:00 - 15:15	11	1	0	2		14	32	7	8	1		48	2	0	19	6		27
15:15 - 15:30	20	4	1	0		25	34	6	6	2		48	1	1	20	8		30
15:30 - 15:45	13	0	0	1		14	28	10	4	3		45	0	0	15	10		25
15:45 - 16:00	6	3	0	3		12	47	10	3	3		63	0	1	36	14		51
16:00 - 16:15	10	0	0	1		11	30	8	2	3		43	0	0	26	9		35
16:15 - 16:30	15	3	2	0		20	36	15	5	4		60	0	0	26	7		33
16:30 - 16:45	13	5	1	2		21	33	10	3	1		47	0	0	15	9		24
16:45 - 17:00	9	4	0	0		13	34	16	2	3		55	0	0	19	8		27
17:00 - 17:15	3	2	0	0		5	62	35	1	1		99	1	1	25	4		31
17:15 - 17:30	4	2	0	0		6	36	8	6	1		51	0	1	21	2		24
17:30 - 17:45	6	3	2	1		12	29	5	7	1		42	0	0	22	3		25
17:45 - 18:00	5	4	0	0		9	21	4	3	0		28	0	0	19	2		21
Total:	237	97	26	36	0	396	1262	415	323	109	0	2109	17	23	1224	391	0	1655
Peak Count:	50	14	5	14	0	65	165	76	73	17	0	261	5	4	158	50	0	205
Peak Hour:	15:00 to 16:00	16:15 to 17:15	09:45 to 10:45	09:00 to 10:00	06:00 to 07:00	15:00 to 16:00	16:15 to 17:15	16:15 to 17:15	06:00 to 07:00	08:15 to 09:15	06:00 to 07:00	16:15 to 17:15	12:00 to 13:00	14:00 to 15:00	09:30 to 10:30	12:30 to 13:30	06:00 to 07:00	09:30 to 10:30

LOCATION: Intersection Of Gladstone-Mt Larcom Rd & Targinie Rd
 ROAD No: 181 (Int 1736 @ Tdist 19.42km)
 DATE: Tue, 07/03/06
 TIME: 06:00 - 18:00



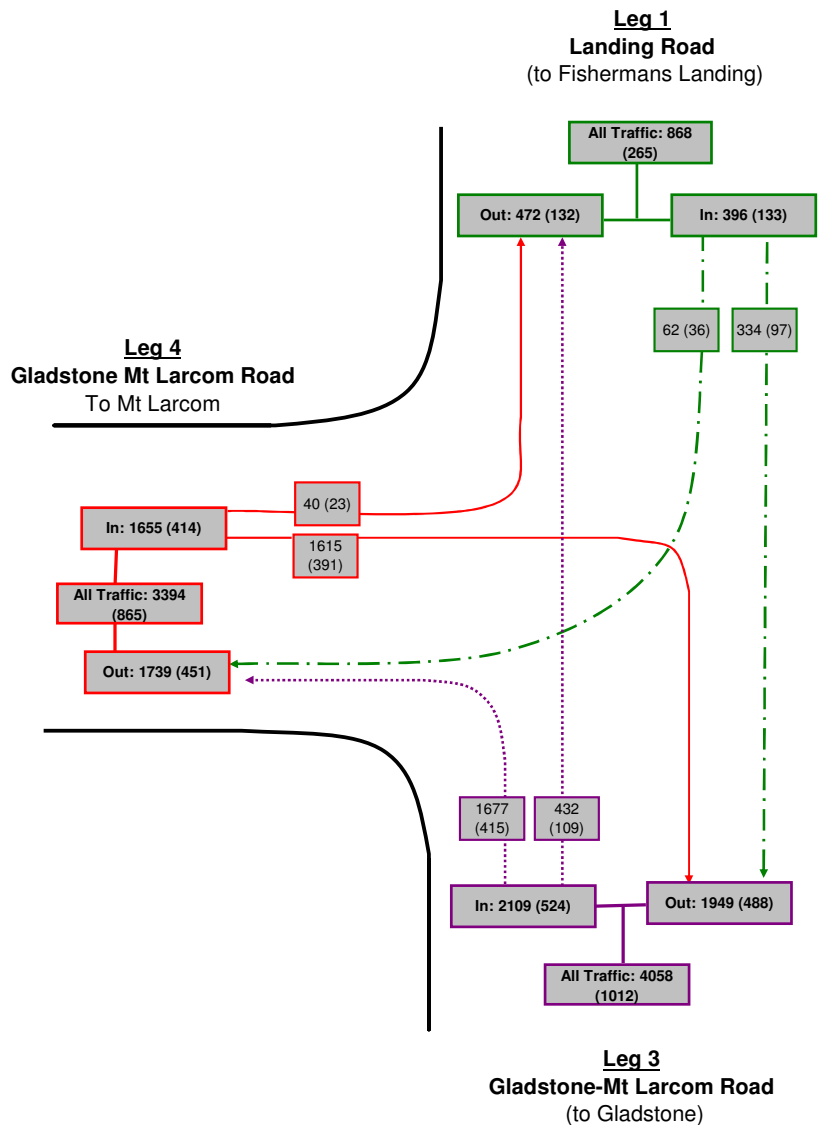
Count Tally Sheet
Intersection of Gladstone Mt Larcom Rd Targinia Rd
181 (Int 1735 @ Tdist 19.42km)
Tue 14/03/06

Time	Leg 1								Leg Total	Leg 2								Leg Total	Leg 3								Leg Total	Leg 4								Leg Total
	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn								
	2	2H	3	3H	4	4H		3		3H	4	4H	1	1H		4	4H		1	1H	2	2H		1	1H	2		2H	3	3H						
	Light	Heavy	Light	Heavy	Light	Heavy	All	Light		Heavy	Light	Heavy	Light	Heavy	All	Light	Heavy		Light	Heavy	Light	Heavy	All	Light	Heavy	Light		Heavy	Light	Heavy	All					
6:00 - 6:15	3	0	0	0	0	0	0	3	1	0	4	0	0	0	0	5	1	0	0	18	0	0	19	0	0	29	15	2	0	0	46					
6:15 - 6:30	3	0	1	0	0	0	0	4	1	0	18	7	0	0	0	26	1	2	0	0	31	0	0	34	0	0	28	17	3	0	0	48				
6:30 - 6:45	5	0	0	0	0	0	0	5	1	0	18	4	0	0	0	21	3	1	4	0	35	0	0	43	0	0	30	16	0	0	0	46				
6:45 - 7:00	0	0	0	0	0	0	0	0	0	1	0	11	4	0	0	16	1	4	0	0	18	3	0	26	0	0	23	17	0	0	0	40				
7:00 - 7:15	3	0	0	0	0	0	0	3	2	0	11	1	0	0	0	14	1	2	0	0	16	5	0	24	0	0	18	11	0	0	0	29				
7:15 - 7:30	2	0	0	0	0	0	0	2	5	1	18	2	1	1	0	26	0	1	1	0	15	1	0	18	0	0	17	8	0	1	0	26				
7:30 - 7:45	6	0	1	0	0	0	0	7	0	1	11	7	3	1	0	23	0	0	0	0	17	2	0	19	0	0	19	15	1	0	0	35				
7:45 - 8:00	1	0	1	0	0	0	0	2	3	0	18	8	1	0	0	30	0	1	1	0	18	0	0	20	0	0	23	17	2	2	0	44				
8:00 - 8:15	4	0	2	1	0	0	0	7	0	2	12	3	0	0	0	17	4	2	1	0	18	3	0	26	0	0	20	16	0	0	0	36				
8:15 - 8:30	3	1	0	0	0	0	0	4	1	2	17	7	1	0	0	28	1	0	0	0	11	0	0	12	0	0	22	15	0	1	0	38				
8:30 - 8:45	3	0	1	0	1	0	0	5	7	0	17	3	0	0	0	27	2	0	0	0	9	1	0	12	0	0	35	17	1	0	0	53				
8:45 - 9:00	1	0	5	0	0	0	1	7	4	3	16	7	0	0	0	30	3	0	3	0	9	0	0	15	0	0	29	14	2	0	0	45				
9:00 - 9:15	2	0	3	0	0	0	0	5	3	2	23	6	0	0	0	34	1	2	1	2	7	0	0	13	1	0	29	19	1	0	0	50				
9:15 - 9:30	1	0	0	0	0	0	0	1	2	1	20	6	1	0	0	30	2	0	5	0	8	1	0	16	0	0	34	15	3	2	0	54				
9:30 - 9:45	1	0	1	0	0	0	0	2	0	0	13	4	0	0	0	17	0	0	0	0	6	1	0	7	0	0	32	18	0	0	0	50				
9:45 - 10:00	1	0	0	0	0	0	0	1	1	0	11	3	0	0	0	15	1	0	0	0	4	0	0	5	1	0	22	14	0	0	0	37				
10:00 - 10:15	1	0	2	0	0	0	0	3	1	4	18	6	0	0	0	27	1	1	1	0	6	2	0	11	0	0	27	13	1	1	0	42				
10:15 - 10:30	0	0	0	1	0	0	0	1	2	1	6	5	0	0	0	14	0	0	0	0	7	2	0	9	0	0	22	12	1	3	0	38				
10:30 - 10:45	1	0	1	0	1	1	1	4	1	0	12	5	0	0	0	18	0	0	0	0	4	1	0	5	1	0	18	8	1	0	0	28				
10:45 - 11:00	1	0	0	0	0	0	0	1	1	1	14	8	0	0	0	24	0	0	2	0	5	2	0	9	1	0	14	7	0	0	0	22				
11:00 - 11:15	1	0	0	0	0	0	0	1	2	1	14	11	2	0	0	30	2	1	0	0	4	1	0	8	0	0	18	5	2	0	0	26				
11:15 - 11:30	0	0	0	0	0	0	0	0	1	0	14	6	0	0	0	21	0	0	1	0	3	2	0	6	1	0	13	7	0	2	0	23				
11:30 - 11:45	0	0	0	0	0	0	0	0	2	1	7	4	1	0	0	15	1	0	0	0	1	4	0	6	0	0	15	6	0	0	0	21				
11:45 - 12:00	0	0	0	0	0	0	0	0	5	1	18	6	2	0	0	32	2	0	1	0	2	0	0	5	1	0	12	3	1	0	0	17				

Count Tally Sheet
Intersection of Gladstone Mt Larcom Rd Targinie Rd
181 (Int 1736 @ Tdist 19.42km)
Tue 14/03/06

Time	Leg 1								Leg Total	Leg 2								Leg Total	Leg 3								Leg Total	Leg 4								Leg Total
	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn								
	2	2H	3	3H	4	4H		3		3H	4	4H	1	1H		4	4H		1	1H	2	2H		1	1H	2		2H	3	3H						
	Light	Heavy	Light	Heavy	Light	Heavy	All	Light		Heavy	Light	Heavy	Light	Heavy	All	Light	Heavy		Light	Heavy	Light	Heavy	All	Light	Heavy	Light		Heavy	Light	Heavy	All					
12:00 - 12:15	1	0	0	0	0	0	0	1	0	1	7	2	1	0	0	11	1	1	0	0	4	1	0	7	0	0	5	2	0	0	0	7				
12:15 - 12:30	1	0	1	0	1	0	0	3	3	1	13	3	0	0	0	20	0	0	0	0	1	1	0	2	0	0	21	5	0	2	0	28				
12:30 - 12:45	3	0	1	0	0	0	0	4	1	1	15	4	2	1	0	24	0	0	0	0	0	1	0	1	0	0	15	8	0	1	0	24				
12:45 - 13:00	1	0	0	0	1	0	0	2	1	2	16	3	0	0	0	22	0	0	2	0	0	3	0	5	3	0	18	5	0	0	0	26				
13:00 - 13:15	3	0	0	0	0	0	0	3	2	3	9	5	1	0	0	20	0	0	0	0	4	1	0	5	0	0	15	3	1	0	0	19				
13:15 - 13:30	0	0	1	1	0	0	0	2	5	3	24	11	0	0	0	43	1	0	0	0	0	0	0	1	0	0	8	4	0	0	0	12				
13:30 - 13:45	0	0	0	2	0	0	0	2	3	0	20	3	0	0	0	26	0	2	1	0	3	0	0	6	0	0	10	6	0	0	0	16				
13:45 - 14:00	0	0	0	0	1	0	0	1	1	0	11	1	0	0	0	13	0	0	0	0	2	0	0	2	0	0	12	7	0	1	0	20				
14:00 - 14:15	1	0	1	0	1	0	0	3	4	0	23	6	1	0	0	34	0	0	0	0	0	0	0	0	0	0	10	7	2	0	0	19				
14:15 - 14:30	1	0	0	0	2	0	0	3	2	0	12	3	1	0	0	18	0	0	0	0	0	1	0	1	1	0	5	6	0	0	0	12				
14:30 - 14:45	1	0	1	0	0	0	0	2	5	0	13	3	1	0	0	22	0	0	0	0	3	3	0	6	0	0	20	3	0	0	0	23				
14:45 - 15:00	0	0	0	0	3	0	0	3	7	1	23	4	3	0	0	38	0	1	0	0	1	2	0	4	0	0	17	4	1	1	0	23				
15:00 - 15:15	0	0	2	0	0	0	0	2	1	1	26	4	3	1	0	36	3	2	0	0	1	0	0	6	0	0	17	2	1	2	0	22				
15:15 - 15:30	2	0	5	0	0	0	0	7	0	3	36	5	0	0	0	44	0	1	0	0	2	0	0	3	0	1	26	4	1	0	0	32				
15:30 - 15:45	3	2	2	0	1	0	0	8	11	0	19	2	1	0	0	33	2	1	3	0	9	0	0	15	0	0	20	2	0	1	0	23				
15:45 - 16:00	0	0	0	0	2	0	0	2	2	0	22	3	3	0	0	30	2	1	1	1	2	1	0	8	0	0	13	3	1	1	0	18				
16:00 - 16:15	0	0	0	0	0	0	0	0	6	0	12	3	2	1	0	24	0	0	0	0	7	2	0	9	0	0	9	4	1	1	0	15				
16:15 - 16:30	4	1	3	1	1	0	0	10	14	0	21	2	2	0	0	39	0	0	2	0	0	2	0	4	0	0	17	2	2	3	0	24				
16:30 - 16:45	2	0	1	0	0	0	0	3	7	0	26	3	6	0	0	42	0	0	1	0	2	1	0	4	0	0	25	4	4	2	0	35				
16:45 - 17:00	0	1	0	0	1	1	0	3	13	1	42	4	4	0	0	64	1	0	3	0	7	1	0	12	0	0	11	2	1	0	0	14				
17:00 - 17:15	0	0	0	0	0	0	0	0	10	0	24	2	4	1	0	41	0	0	0	0	3	0	0	3	0	0	19	2	4	0	0	25				
17:15 - 17:30	1	0	1	0	0	0	0	2	6	0	26	2	2	0	0	36	0	0	0	0	2	0	0	2	0	0	14	1	1	0	0	16				
17:30 - 17:45	1	0	0	0	0	0	0	1	5	0	23	0	6	0	0	34	0	0	2	1	2	0	0	5	0	0	17	5	1	0	0	23				
17:45 - 18:00	4	0	0	0	0	0	0	4	17	0	36	3	9	0	0	65	1	0	1	0	0	0	0	2	0	0	9	1	1	0	0	11				
Total:	72	5	37	6	16	3	0	139	173	38	834	204	64	6	0	1319	38	26	37	4	325	51	0	481	10	1	902	397	43	27	0	1380				
Peak Count:	15		9		6		0	23	45		129		22		0	186	12		7		29		0	127	3		192		16		0	202				
Peak Hour:	07:30 to 08:30	08:00 to 09:00		14:00 to 15:00		06:00 to 07:00		08:00 to 09:00	16:15 to 17:15		16:30 to 17:30		17:00 to 18:00		06:00 to 07:00	16:15 to 17:15	15:00 to 16:00	15:30 to 16:30		10:00 to 11:00		07:00 to 08:00	06:15 to 07:15	10:30 to 11:30		08:30 to 09:30		16:15 to 17:15		07:00 to 08:00	08:30 to 09:30					

LOCATION: Gladstone Mt Larcom Road and Landing Road
ROAD No: 181 (Int. 1997 @ Tdist. 15.472)
DATE: Tue, 12/06/07
TIME: 06:00 - 18:00



Count Tally Sheet With Totals and Peak Flows.



LOCATION: Gladstone Mt Larcom Road and Landing Road
ROAD No: 181 (Int. 1997 @ Tdist. 15.472)
DATE: Tue, 12/06/07
TIME: 06:00 - 18:00

Time	Leg 1						Leg 2						Leg 3					
	Left		Thru		U-turn	Leg Total	Left		Right		U-turn	Leg Total	Thru		Right		U-turn	Leg Total
	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All	
6:00 - 6:15	4	1	0	0		5	14	1	18	1		34	3	0	29	6		38
6:15 - 6:30	2	0	0	0		2	16	0	23	2		41	0	1	34	5		40
6:30 - 6:45	5	0	1	0		6	18	8	20	3		49	0	0	36	8		44
6:45 - 7:00	0	4	0	0		4	12	3	12	2		29	0	0	31	7		38
7:00 - 7:15	2	1	0	0		3	17	3	9	4		33	0	1	25	5		31
7:15 - 7:30	0	2	0	0		2	21	5	11	0		37	1	1	30	5		37
7:30 - 7:45	2	1	0	0		3	18	13	8	0		39	0	1	38	7		46
7:45 - 8:00	1	1	0	0		2	13	4	5	2		24	1	0	48	11		60
8:00 - 8:15	4	4	1	1		10	29	9	4	1		43	0	0	32	12		44
8:15 - 8:30	4	1	0	0		5	16	11	9	8		44	0	0	35	5		40
8:30 - 8:45	2	2	0	1		5	23	16	2	4		45	0	1	32	9		42
8:45 - 9:00	4	2	0	0		6	21	6	4	1		32	0	1	24	7		32
9:00 - 9:15	3	1	2	5		11	18	9	4	4		35	0	0	32	5		37
9:15 - 9:30	4	0	0	4		8	19	8	14	4		45	0	0	33	9		42
9:30 - 9:45	7	0	1	3		11	24	5	10	2		41	0	1	46	15		62
9:45 - 10:00	5	2	1	2		10	22	5	8	4		39	0	1	40	13		54
10:00 - 10:15	3	2	1	0		6	28	10	6	4		48	0	0	32	7		39
10:15 - 10:30	3	3	0	0		6	25	6	11	3		45	0	1	40	9		50
10:30 - 10:45	5	1	3	1		10	22	10	8	5		45	1	0	19	7		27
10:45 - 11:00	8	4	1	0		13	21	8	5	2		36	1	0	15	17		33
11:00 - 11:15	2	1	0	0		3	37	12	2	4		55	0	0	25	5		30
11:15 - 11:30	2	6	1	1		10	38	8	5	2		53	0	1	21	13		35
11:30 - 11:45	2	2	0	2		6	28	7	4	0		39	0	2	17	8		27
11:45 - 12:00	1	2	3	0		6	27	7	6	1		41	0	0	23	5		28

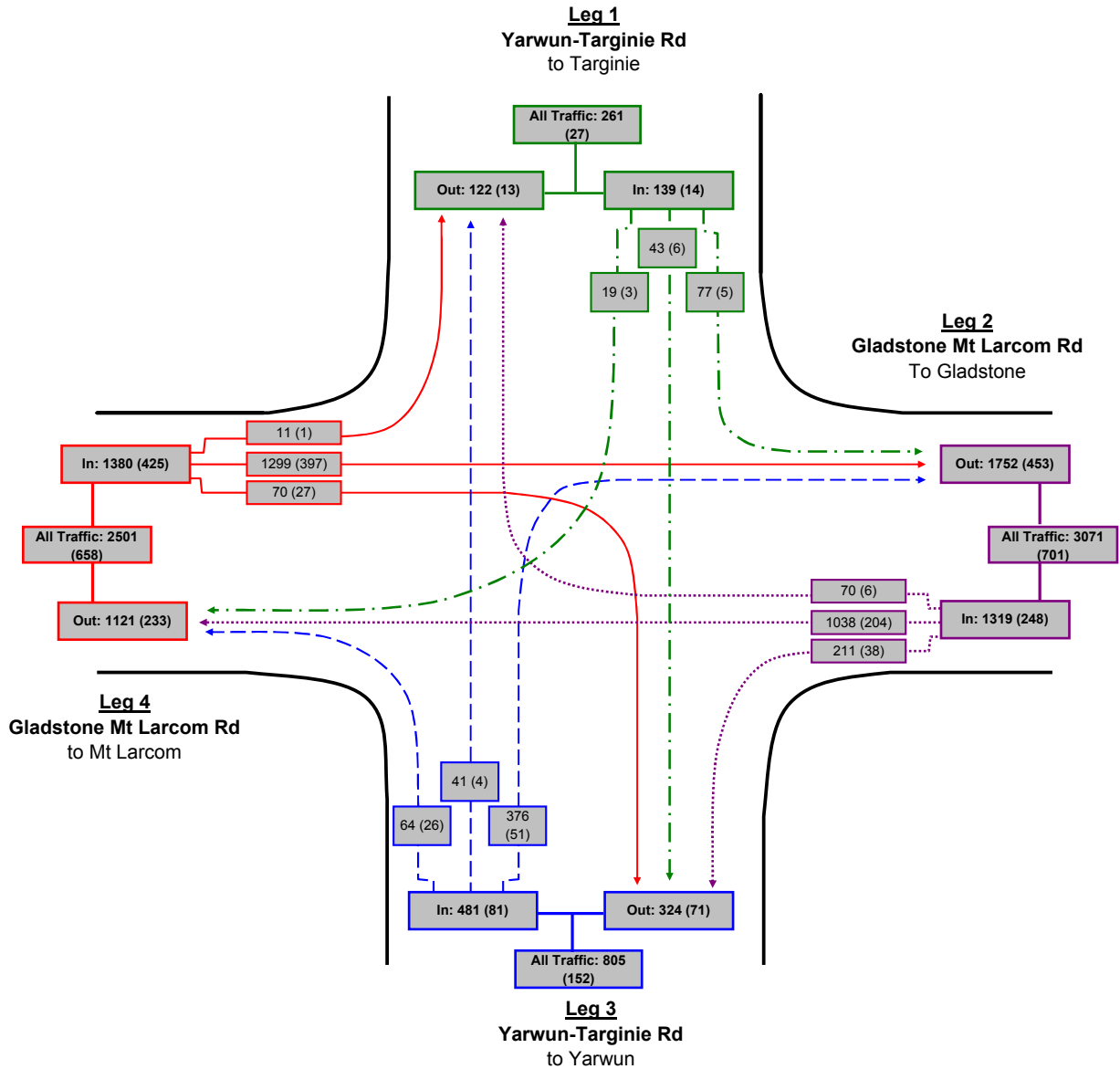
Count Tally Sheet With Totals and Peak Flows.



LOCATION: Gladstone Mt Larcom Road and Landing Road
ROAD No: 181 (Int. 1997 @ Tdist. 15.472)
DATE: Tue, 12/06/07
TIME: 06:00 - 18:00

Time	Leg 1						Leg 2						Leg 3					
	Left		Thru		U-turn	Leg Total	Left		Right		U-turn	Leg Total	Thru		Right		U-turn	Leg Total
	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All	
12:00 - 12:15	5	1	0	0		6	28	7	4	1		40	3	0	12	10		25
12:15 - 12:30	3	1	1	0		5	22	7	3	0		32	0	1	13	7		21
12:30 - 12:45	3	0	0	1		4	29	8	2	2		41	0	0	24	16		40
12:45 - 13:00	3	1	1	2		7	22	9	11	2		44	2	1	21	9		33
13:00 - 13:15	0	2	1	0		3	23	6	8	4		41	0	0	14	10		24
13:15 - 13:30	3	3	0	2		8	30	14	6	3		53	0	1	25	15		41
13:30 - 13:45	6	5	0	0		11	31	16	11	1		59	0	0	19	7		26
13:45 - 14:00	3	3	0	0		6	25	10	8	5		48	0	0	13	7		20
14:00 - 14:15	6	1	0	0		7	24	8	6	2		40	0	1	27	10		38
14:15 - 14:30	3	2	0	1		6	22	6	3	1		32	1	1	16	5		23
14:30 - 14:45	8	3	1	0		12	28	8	0	1		37	0	0	18	7		25
14:45 - 15:00	4	1	1	0		6	29	8	3	1		41	0	2	22	6		30
15:00 - 15:15	11	1	0	2		14	32	7	8	1		48	2	0	19	6		27
15:15 - 15:30	20	4	1	0		25	34	6	6	2		48	1	1	20	8		30
15:30 - 15:45	13	0	0	1		14	28	10	4	3		45	0	0	15	10		25
15:45 - 16:00	6	3	0	3		12	47	10	3	3		63	0	1	36	14		51
16:00 - 16:15	10	0	0	1		11	30	8	2	3		43	0	0	26	9		35
16:15 - 16:30	15	3	2	0		20	36	15	5	4		60	0	0	26	7		33
16:30 - 16:45	13	5	1	2		21	33	10	3	1		47	0	0	15	9		24
16:45 - 17:00	9	4	0	0		13	34	16	2	3		55	0	0	19	8		27
17:00 - 17:15	3	2	0	0		5	62	35	1	1		99	1	1	25	4		31
17:15 - 17:30	4	2	0	0		6	36	8	6	1		51	0	1	21	2		24
17:30 - 17:45	6	3	2	1		12	29	5	7	1		42	0	0	22	3		25
17:45 - 18:00	5	4	0	0		9	21	4	3	0		28	0	0	19	2		21
Total:	237	97	26	36	0	396	1262	415	323	109	0	2109	17	23	1224	391	0	1655
Peak Count:	50	14	5	14	0	65	165	76	73	17	0	261	5	4	158	50	0	205
Peak Hour:	15:00 to 16:00	16:15 to 17:15	09:45 to 10:45	09:00 to 10:00	06:00 to 07:00	15:00 to 16:00	16:15 to 17:15	16:15 to 17:15	06:00 to 07:00	08:15 to 09:15	06:00 to 07:00	16:15 to 17:15	12:00 to 13:00	14:00 to 15:00	09:30 to 10:30	12:30 to 13:30	06:00 to 07:00	09:30 to 10:30

LOCATION: Intersection Of Gladstone-Mt Larcom Rd & Targinie Rd
ROAD No: 181 (Int 1736 @ Tdist 19.42km)
DATE: Tue, 07/03/06
TIME: 06:00 - 18:00

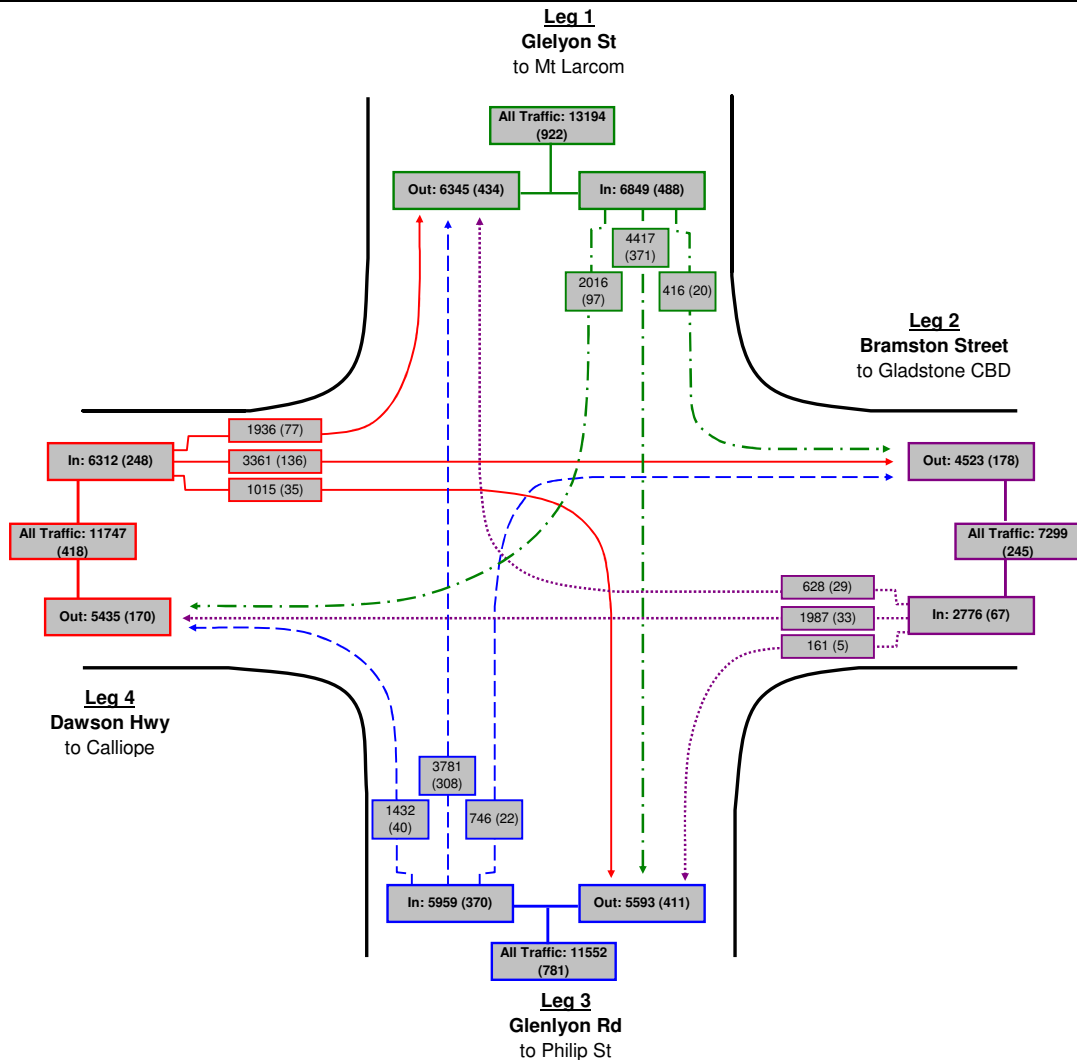


Count Tally Sheet
Intersection of Gladstone Mt Larcom Rd Targinie Rd
181 (Int 1736 @ Tdist 19.42km)
Tue 14/03/06

Time	Leg 1								Leg Total	Leg 2								Leg Total	Leg 3								Leg Total	Leg 4								Leg Total
	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn								
	2	2H	3	3H	4	4H		3		3H	4	4H	1	1H		4	4H		1	1H	2	2H		1	1H	2		2H	3	3H						
	Light	Heavy	Light	Heavy	Light	Heavy	All	Light		Heavy	Light	Heavy	Light	Heavy	All	Light	Heavy		Light	Heavy	Light	Heavy	All	Light	Heavy	Light		Heavy	Light	Heavy	All					
6:00 - 6:15	3	0	0	0	0	0	0	0	3	1	0	4	0	0	0	0	5	1	0	0	0	18	0	0	19	0	0	29	15	2	0	0	46			
6:15 - 6:30	3	0	1	0	0	0	0	0	4	1	0	18	7	0	0	0	26	1	2	0	0	31	0	0	34	0	0	28	17	3	0	0	48			
6:30 - 6:45	5	0	0	0	0	0	0	0	5	1	0	16	4	0	0	0	21	3	1	4	0	35	0	0	43	0	0	30	16	0	0	0	46			
6:45 - 7:00	0	0	0	0	0	0	0	0	0	1	0	11	4	0	0	0	16	1	4	0	0	18	3	0	26	0	0	23	17	0	0	0	40			
7:00 - 7:15	3	0	0	0	0	0	0	0	3	2	0	11	1	0	0	0	14	1	2	0	0	16	5	0	24	0	0	18	11	0	0	0	29			
7:15 - 7:30	2	0	0	0	0	0	0	0	2	5	1	16	2	1	1	0	26	0	1	1	0	15	1	0	18	0	0	17	8	0	1	0	26			
7:30 - 7:45	6	0	1	0	0	0	0	0	7	0	1	11	7	3	1	0	23	0	0	0	0	17	2	0	19	0	0	19	15	1	0	0	35			
7:45 - 8:00	1	0	1	0	0	0	0	0	2	3	0	18	8	1	0	0	30	0	1	1	0	18	0	0	20	0	0	23	17	2	2	0	44			
8:00 - 8:15	4	0	2	1	0	0	0	0	7	0	2	12	3	0	0	0	17	4	2	1	0	16	3	0	26	0	0	20	16	0	0	0	36			
8:15 - 8:30	3	1	0	0	0	0	0	0	4	1	2	17	7	1	0	0	28	1	0	0	0	11	0	0	12	0	0	22	15	0	1	0	38			
8:30 - 8:45	3	0	1	0	1	0	0	0	5	7	0	17	3	0	0	0	27	2	0	0	0	9	1	0	12	0	0	35	17	1	0	0	53			
8:45 - 9:00	1	0	5	0	0	0	1	0	7	4	3	16	7	0	0	0	30	3	0	3	0	9	0	0	15	0	0	29	14	2	0	0	45			
9:00 - 9:15	2	0	3	0	0	0	0	0	5	3	2	23	6	0	0	0	34	1	2	1	2	7	0	0	13	1	0	29	19	1	0	0	50			
9:15 - 9:30	1	0	0	0	0	0	0	0	1	2	1	20	6	1	0	0	30	2	0	5	0	8	1	0	16	0	0	34	15	3	2	0	54			
9:30 - 9:45	1	0	1	0	0	0	0	0	2	0	0	13	4	0	0	0	17	0	0	0	0	6	1	0	7	0	0	32	18	0	0	0	50			
9:45 - 10:00	1	0	0	0	0	0	0	0	1	1	0	11	3	0	0	0	15	1	0	0	0	4	0	0	5	1	0	22	14	0	0	0	37			
10:00 - 10:15	1	0	2	0	0	0	0	0	3	1	4	16	6	0	0	0	27	1	1	1	0	6	2	0	11	0	0	27	13	1	1	0	42			
10:15 - 10:30	0	0	0	0	1	0	0	0	1	2	1	6	5	0	0	0	14	0	0	0	0	7	2	0	9	0	0	22	12	1	3	0	38			
10:30 - 10:45	1	0	1	0	1	1	0	0	4	1	0	12	5	0	0	0	18	0	0	0	0	4	1	0	5	1	0	18	8	1	0	0	28			
10:45 - 11:00	1	0	0	0	0	0	0	0	1	1	1	14	8	0	0	0	24	0	0	2	0	5	2	0	9	1	0	14	7	0	0	0	22			
11:00 - 11:15	1	0	0	0	0	0	0	0	1	2	1	14	11	2	0	0	30	2	1	0	0	4	1	0	8	0	0	18	5	2	0	0	25			
11:15 - 11:30	0	0	0	0	0	0	0	0	0	1	0	14	6	0	0	0	21	0	0	1	0	3	2	0	6	1	0	13	7	0	2	0	23			
11:30 - 11:45	0	0	0	0	0	0	0	0	0	2	1	7	4	1	0	0	15	1	0	0	0	1	4	0	6	0	0	15	6	0	0	0	21			
11:45 - 12:00	0	0	0	0	0	0	0	0	0	5	1	18	6	2	0	0	32	2	0	1	0	2	0	0	5	1	0	12	3	1	0	0	17			

Count Tally Sheet
Intersection of Gladstone Mt Larcom Rd Targinie Rd
181 (Int 1736 @ Tdist 19.42km)
Tue 14/03/06

Time	Leg 1								Leg 2								Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	2	2H	3	3H	4	4H	3		3H	4	4H	1	1H	4	4H		1	1H	2	2H	1	1H	2		2H	3	3H	2	2H	3	3H	
	Light	Heavy	Light	Heavy	Light	Heavy	Light		Heavy	Light	Heavy	Light	Heavy	Light	Heavy		Light	Heavy	Light	Heavy	Light	Heavy	Light		Heavy	Light	Heavy	Light	Heavy	Light	Heavy	
12:00 - 12:15	1	0	0	0	0	0	0	1	0	1	7	2	1	0	0	11	1	1	0	0	4	1	0	7	0	0	5	2	0	0	0	7
12:15 - 12:30	1	0	1	0	1	0	0	3	3	1	13	3	0	0	0	20	0	0	0	0	1	1	0	2	0	0	21	5	0	2	0	28
12:30 - 12:45	3	0	1	0	0	0	0	4	1	1	15	4	2	1	0	24	0	0	0	0	0	1	0	1	0	0	15	8	0	1	0	24
12:45 - 13:00	1	0	0	0	0	1	0	2	1	2	16	3	0	0	0	22	0	0	2	0	0	3	0	5	3	0	18	5	0	0	0	26
13:00 - 13:15	3	0	0	0	0	0	0	3	3	2	9	5	1	0	0	20	0	0	0	0	4	1	0	5	0	0	15	3	1	0	0	19
13:15 - 13:30	0	0	1	1	0	0	0	2	5	3	24	11	0	0	0	43	1	0	0	0	0	0	0	1	0	0	8	4	0	0	0	12
13:30 - 13:45	0	0	0	2	0	0	0	2	3	0	20	3	0	0	0	26	0	2	1	0	3	0	0	6	0	0	10	6	0	0	0	16
13:45 - 14:00	0	0	0	0	1	0	0	1	1	0	11	1	0	0	0	13	0	0	0	0	2	0	0	2	0	0	12	7	0	1	0	20
14:00 - 14:15	1	0	1	0	1	0	0	3	4	0	23	6	1	0	0	34	0	0	0	0	0	0	0	0	0	0	10	7	2	0	0	19
14:15 - 14:30	1	0	0	0	2	0	0	3	2	0	12	3	1	0	0	18	0	0	0	0	0	1	0	1	1	0	5	6	0	0	0	12
14:30 - 14:45	1	0	1	0	0	0	0	2	5	0	13	3	1	0	0	22	0	0	0	0	3	3	0	6	0	0	20	3	0	0	0	23
14:45 - 15:00	0	0	0	0	3	0	0	3	7	1	23	4	3	0	0	38	0	1	0	0	1	2	0	4	0	0	17	4	1	1	0	23
15:00 - 15:15	0	0	2	0	0	0	0	2	1	1	26	4	3	1	0	36	3	2	0	0	1	0	0	6	0	0	17	2	1	2	0	22
15:15 - 15:30	2	0	5	0	0	0	0	7	0	3	36	5	0	0	0	44	0	1	0	0	2	0	0	3	0	1	26	4	1	0	0	32
15:30 - 15:45	3	2	2	0	1	0	0	8	11	0	19	2	1	0	0	33	2	1	3	0	9	0	0	15	0	0	20	2	0	1	0	23
15:45 - 16:00	0	0	0	0	2	0	0	2	2	0	22	3	3	0	0	30	2	1	1	1	2	1	0	8	0	0	13	3	1	1	0	18
16:00 - 16:15	0	0	0	0	0	0	0	0	6	0	12	3	2	1	0	24	0	0	0	0	7	2	0	9	0	0	9	4	1	1	0	15
16:15 - 16:30	4	1	3	1	1	0	0	10	14	0	21	2	2	0	0	39	0	0	2	0	0	2	0	4	0	0	17	2	2	3	0	24
16:30 - 16:45	2	0	1	0	0	0	0	3	7	0	26	3	6	0	0	42	0	0	1	0	2	1	0	4	0	0	25	4	4	2	0	35
16:45 - 17:00	0	1	0	0	1	1	0	3	13	1	42	4	4	0	0	64	1	0	3	0	7	1	0	12	0	0	11	2	1	0	0	14
17:00 - 17:15	0	0	0	0	0	0	0	0	10	0	24	2	4	1	0	41	0	0	0	0	3	0	0	3	0	0	19	2	4	0	0	25
17:15 - 17:30	1	0	1	0	0	0	0	2	6	0	26	2	2	0	0	36	0	0	0	0	2	0	0	2	0	0	14	1	1	0	0	16
17:30 - 17:45	1	0	0	0	0	0	0	1	5	0	23	0	6	0	0	34	0	0	2	1	2	0	0	5	0	0	17	5	1	0	0	23
17:45 - 18:00	4	0	0	0	0	0	0	4	17	0	36	3	9	0	0	65	1	0	1	0	0	0	0	2	0	0	9	1	1	0	0	11
Total:	72	5	37	6	16	3	0	139	173	38	834	204	64	6	0	1319	38	26	37	4	325	51	0	481	10	1	902	397	43	27	0	1380
Peak Count:	15		9		6		0	23	45		129		22		0	186	12		7		29		0	127	3		192		16		0	202
Peak Hour:	07:30 to 08:30		08:00 to 09:00		14:00 to 15:00		06:00 to 07:00	08:00 to 09:00	16:15 to 17:15		16:30 to 17:30		17:00 to 18:00		06:00 to 07:00	16:15 to 17:15	15:00 to 16:00		15:30 to 16:30		10:00 to 11:00		06:00 to 07:00	06:15 to 07:15	10:30 to 11:30		08:30 to 09:30		16:15 to 17:15		06:00 to 07:00	08:30 to 09:30



Count Tally Sheet
Intersection of Glenlyon St Dawson Hwy
181 46A (Int 1711 @ Tdist3.18km 0.00km)
Tue 15/03/05



Queensland Government
Department of Main Roads

Time	Leg 1								Leg 2								Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	2	2H	3	3H	4	4H			3	3H	4	4H	1	1H			4	4H	1	1H	2	2H			1	1H	2	2H	3	3H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		4	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
6:00 - 6:15	1	1	9	3	6	1		21	4	3	37	1	5	6		56	3	1	59	3	17	0		83	41	0	29	1	14	2		87
6:15 - 6:30	1	1	26	3	7	0		38	2	0	15	0	0	0		17	4	0	73	12	12	0		101	63	0	37	2	41	2		145
6:30 - 6:45	1	0	34	4	9	0		48	0	0	6	0	1	0		7	12	0	87	8	9	0		116	73	1	43	7	11	1		136
6:45 - 7:00	3	0	25	3	16	0		47	0	0	13	0	10	1		24	21	0	137	7	11	0		176	105	3	34	2	45	1		190
7:00 - 7:15	2	0	46	8	15	3		74	0	0	12	0	9	1		22	4	1	151	20	7	1		184	70	0	32	0	24	0		126
7:15 - 7:30	0	0	32	6	12	1		51	0	0	7	0	5	1		13	14	0	125	13	8	0		160	41	2	33	0	28	0		104
7:30 - 7:45	3	0	38	5	22	1		69	0	0	14	0	2	1		17	2	0	112	24	1	1		140	50	2	76	0	24	1		153
7:45 - 8:00	9	0	59	10	23	2		103	1	0	21	0	16	0		38	25	0	219	21	16	0		281	136	2	116	0	90	2		346
8:00 - 8:15	12	1	48	7	21	1		90	2	0	35	0	14	1		52	18	0	164	12	11	0		205	145	3	141	2	76	0		367
8:15 - 8:30	8	1	53	5	24	1		92	0	0	34	1	25	1		61	13	0	160	23	13	0		209	122	3	153	0	78	4		360
8:30 - 8:45	7	1	60	8	37	1		114	5	0	36	0	17	1		59	18	0	201	10	15	0		244	118	6	209	2	95	1		431
8:45 - 9:00	10	0	79	6	48	0		143	0	0	52	2	14	0		68	14	0	134	26	6	0		180	79	6	109	0	61	5		260
9:00 - 9:15	10	1	101	9	42	11		174	4	0	50	2	14	1		71	12	0	108	14	17	1		152	72	7	98	1	47	3		228
9:15 - 9:30	21	2	114	16	65	2		220	6	0	56	3	26	0		91	19	0	103	17	14	1		154	60	10	78	4	55	5		212
9:30 - 9:45	12	0	70	11	56	3		152	5	0	39	2	13	0		59	10	0	53	5	10	0		78	42	0	58	0	20	3		123
9:45 - 10:00	13	2	49	7	49	2		122	0	0	30	2	6	0		38	14	1	78	11	13	0		117	61	0	61	0	25	1		148
10:00 - 10:15	10	1	48	4	41	3		107	3	0	18	2	14	0		37	8	2	60	9	8	1		88	40	2	59	3	28	2		134
10:15 - 10:30	5	0	64	8	36	5		118	3	0	13	2	16	0		34	5	0	53	14	6	0		78	28	1	62	2	23	0		116
10:30 - 10:45	10	0	60	55	55	17		197	10	0	16	2	17	0		45	4	0	58	16	6	0		84	25	1	65	1	26	0		118
10:45 - 11:00	9	0	71	4	53	2		139	1	0	48	0	8	0		57	7	0	50	7	9	0		73	41	3	61	1	20	0		126
11:00 - 11:15	10	0	47	9	51	2		119	9	0	18	0	7	0		34	2	1	62	14	4	1		84	45	3	65	0	26	0		139
11:15 - 11:30	7	0	55	6	47	3		118	7	0	38	0	13	0		58	1	1	40	7	2	0		51	42	2	64	1	20	1		130
11:30 - 11:45	9	0	59	5	37	5		115	4	0	40	0	17	0		61	3	2	50	3	3	0		61	52	1	70	1	22	0		146
11:45 - 12:00	17	0	103	10	66	2		198	1	0	64	0	8	0		73	4	0	57	0	7	0		68	58	3	70	0	25	1		157

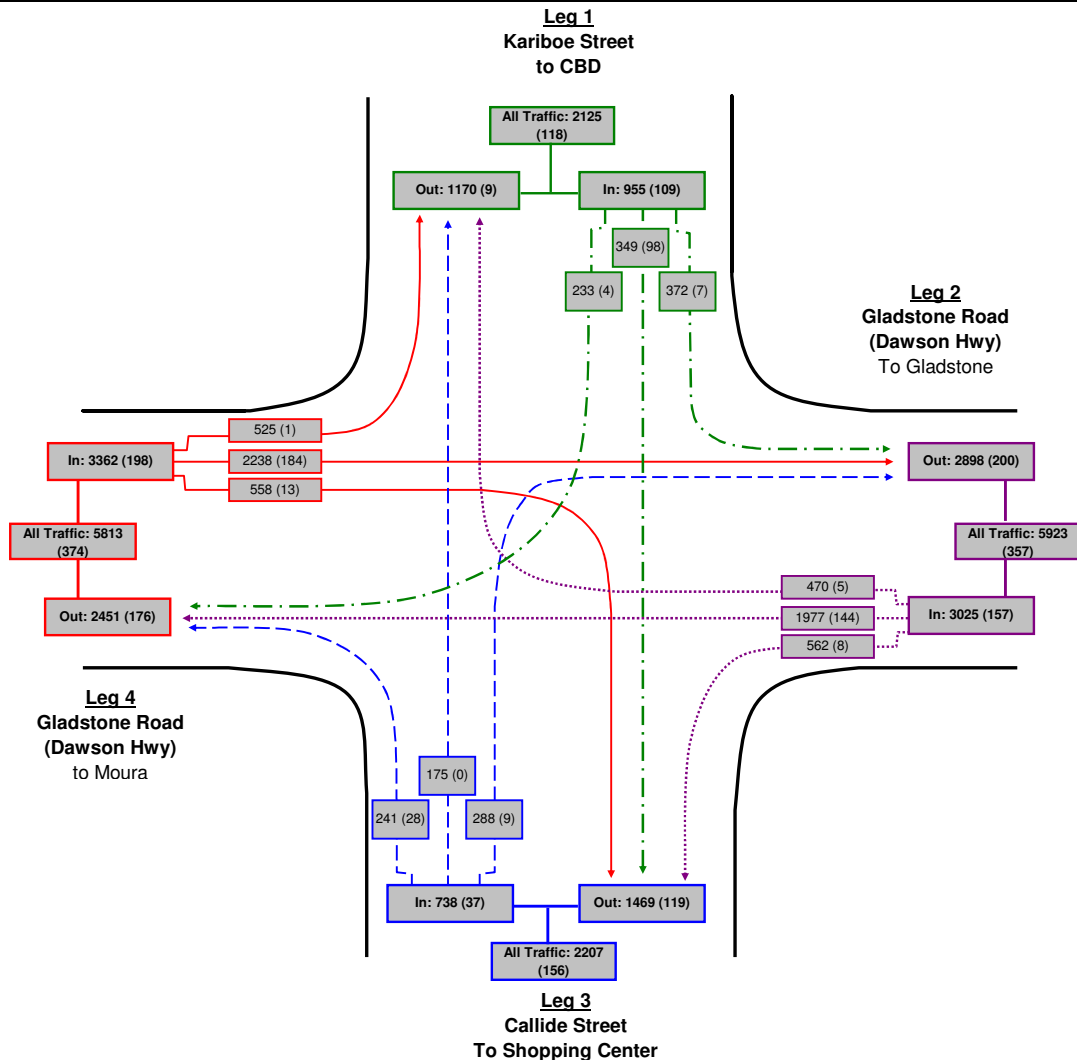
Count Tally Sheet
Intersection of Glenlyon St Dawson Hwy
181 46A (Int 1711 @ Tdist3.18km 0.00km)
Tue 15/03/05



Queensland Government
Department of Main Roads

Time	Leg 1								Leg Total	Leg 2								Leg Total	Leg 3								Leg Total	Leg 4								Leg Total
	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn								
	2	2H	3	3H	4	4H	All	3		3H	4	4H	1	1H	All	4	4H		1	1H	2	2H	All	1	1H	2		2H	3	3H	All					
	Light	Heavy	Light	Heavy	Light	Heavy		4		Heavy	Light	Heavy	Light	Heavy		Light	Heavy		Light	Heavy	Light	Heavy		Light	Heavy	Light		Heavy	Light	Heavy		Light	Heavy			
12:00 - 12:15	8	0	65	4	58	2		137	1	0	63	0	11	0	75	44	3	49	0	17	2		115	3	1	51	2	2	0	59						
12:15 - 12:30	5	0	74	4	36	3		122	1	0	35	0	8	0	44	49	0	37	1	14	1		102	4	1	50	5	2	0	62						
12:30 - 12:45	6	0	109	9	33	1		158	7	0	22	0	4	1	34	52	1	48	2	19	0		122	6	0	46	2	2	0	56						
12:45 - 13:00	10	0	80	5	58	2		155	3	0	43	1	10	0	57	58	2	51	1	22	0		134	10	0	63	3	1	0	77						
13:00 - 13:15	10	0	73	2	21	0		106	2	1	43	2	18	1	67	43	2	30	0	17	1		93	10	2	51	7	2	0	72						
13:15 - 13:30	12	0	67	8	53	0		140	2	0	39	0	14	1	56	55	0	55	0	24	0		134	10	1	56	7	2	0	76						
13:30 - 13:45	4	0	84	15	35	0		138	1	0	36	1	13	0	51	64	6	63	0	14	0		147	4	1	59	5	1	0	70						
13:45 - 14:00	9	0	67	5	29	0		110	3	0	34	1	8	0	46	46	1	47	2	18	1		115	3	1	61	4	0	0	69						
14:00 - 14:15	5	1	62	5	51	1		125	0	0	33	1	15	0	49	46	3	45	0	27	0		121	4	0	46	6	3	0	59						
14:15 - 14:30	6	2	116	10	29	4		167	10	0	36	0	20	0	66	44	2	49	0	10	1		106	0	0	62	4	1	0	67						
14:30 - 14:45	12	0	81	4	50	2		149	3	1	28	0	15	1	48	35	0	39	1	16	1		92	10	0	51	4	1	0	66						
14:45 - 15:00	10	1	90	9	39	5		154	7	0	58	1	11	0	77	39	2	65	0	31	2		139	8	4	43	10	1	0	66						
15:00 - 15:15	12	1	171	6	60	0		250	3	0	93	3	16	1	116	55	2	44	1	23	2		127	8	2	54	9	5	0	78						
15:15 - 15:30	4	1	117	14	48	1		185	3	0	56	0	9	0	68	59	0	61	0	21	4		145	16	1	90	4	4	0	115						
15:30 - 15:45	14	0	129	5	36	0		184	2	0	53	0	14	0	69	60	0	35	3	22	1		121	13	1	63	5	1	0	83						
15:45 - 16:00	8	1	136	9	45	3		202	1	0	42	0	11	2	56	48	2	52	0	33	0		135	21	0	53	2	3	0	79						
16:00 - 16:15	16	0	163	10	53	2		244	8	0	124	0	29	2	163	57	1	54	0	29	0		141	25	1	106	7	5	0	144						
16:15 - 16:30	7	1	81	3	35	0		127	1	0	38	1	9	3	52	33	1	32	0	17	0		83	17	0	63	3	1	0	84						
16:30 - 16:45	13	0	158	8	44	1		224	4	0	75	1	19	3	102	54	1	39	0	30	0		124	13	0	60	7	3	0	83						
16:45 - 17:00	7	1	157	12	46	1		224	4	0	45	0	9	0	58	47	1	36	0	15	0		99	11	0	62	2	4	0	79						
17:00 - 17:15	15	0	255	2	70	0		342	10	0	114	1	25	0	150	53	0	33	0	22	0		108	9	0	58	5	6	0	78						
17:15 - 17:30	5	0	150	3	60	0		218	8	0	61	1	20	0	90	37	0	41	0	22	0		100	17	0	68	2	2	0	89						
17:30 - 17:45	4	0	130	4	48	0		186	4	0	45	0	7	0	56	38	0	47	0	21	0		106	19	0	44	1	3	0	67						
17:45 - 18:00	4	0	81	3	44	1		133	1	0	26	0	7	0	34	39	1	27	1	15	0		83	9	0	42	0	1	0	52						
Total:	396	20	4046	371	1919	97	0	6849	156	5	1954	33	599	29	0	2776	1392	40	3473	308	724	22	0	5959	1859	77	3225	136	980	35	0	6312				
Peak Count:	61		745		230		0	1008	27		298		78		0	400	230		810		110		0	939	535		623		346		0	1504				
Peak Hour:	09:00 to 10:00		16:30 to 17:30		09:00 to 10:00		06:00 to 07:00		16:30 to 17:30		10:30 to 11:30		16:30 to 17:30		15:45 to 16:45		06:00 to 07:00		16:30 to 17:30		12:45 to 13:45		07:45 to 08:45		15:15 to 16:15		06:00 to 07:00		07:45 to 08:45		07:45 to 08:45		06:00 to 07:00		07:45 to 08:45	

LOCATION: Intersection Of Gladstone Road(Dawson Hwy) & Kariboe Street
ROAD No: 46A (Int 817 @ Tdist 119.821km)
DATE: Tue, 11/04/06
TIME: 06:00 - 18:00

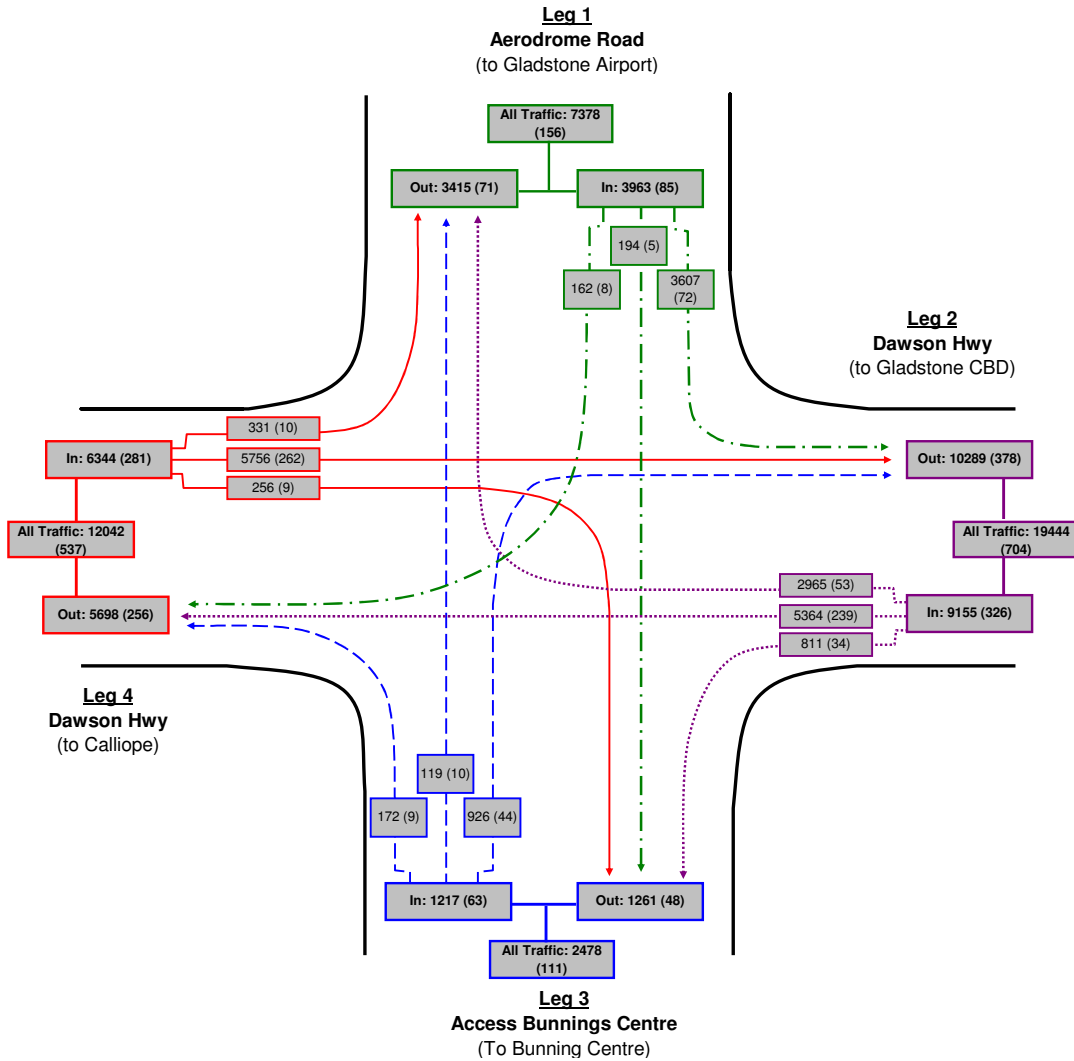


Count Tally Sheet
Intersection Of Boyne Island Road Pioneer Road / Tucker Road
1806(Int 1929 @ Tdist 2.748km)
Tue 10/05/05

Time	Leg 1								Leg 2								Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	2	2H	3	3H	4	4H			3	3H	4	4H	1	1H			4	4H	1	1H	2	2H			1	1H	2	2H	3	3H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
6:00 - 6:15	1	0	0	0	4	0	0	5	0	0	31	2	1	0	0	34	0	0	0	0	1	0	0	1	2	0	31	8	0	0	0	41
6:15 - 6:30	3	1	0	0	4	0	0	8	1	0	33	1	1	0	0	36	0	0	0	0	1	0	0	1	7	0	27	3	2	0	1	40
6:30 - 6:45	2	0	0	0	3	1	0	6	2	0	22	3	0	0	0	27	0	0	0	0	0	0	0	0	3	0	29	4	1	0	0	37
6:45 - 7:00	3	0	0	0	6	1	0	10	3	0	41	1	1	0	0	46	1	0	1	0	0	0	0	2	0	0	28	6	1	0	0	35
7:00 - 7:15	3	0	0	0	0	0	0	3	2	0	33	1	1	0	1	38	1	0	1	0	0	0	0	2	0	0	22	4	0	0	0	26
7:15 - 7:30	1	0	1	1	3	0	0	6	6	0	40	1	1	0	0	48	2	0	0	0	0	0	0	2	2	0	28	2	2	0	0	34
7:30 - 7:45	1	0	0	0	2	0	0	3	5	0	26	4	5	0	0	40	1	0	0	0	2	0	0	3	3	0	29	8	1	0	0	41
7:45 - 8:00	1	1	2	2	8	1	0	15	10	1	89	6	5	1	0	112	1	0	0	0	2	0	4	7	8	0	56	9	2	2	3	80
8:00 - 8:15	6	0	13	13	10	1	0	43	24	0	101	11	16	0	0	152	1	6	3	0	3	1	0	14	6	0	49	7	6	1	2	71
8:15 - 8:30	0	0	2	2	2	0	0	6	9	0	25	3	7	0	0	44	1	9	2	0	2	2	2	18	5	0	51	6	9	2	1	74
8:30 - 8:45	2	0	2	2	5	0	0	11	6	0	30	4	6	0	1	47	1	7	4	0	4	4	4	24	6	0	56	5	12	3	4	86
8:45 - 9:00	11	1	6	6	7	0	0	31	7	0	49	1	14	0	0	71	2	3	5	0	5	0	3	18	7	0	49	2	8	0	2	68
9:00 - 9:15	5	0	1	1	0	0	0	7	9	0	38	6	7	0	0	60	1	0	3	0	2	0	2	8	13	0	40	6	9	0	3	71
9:15 - 9:30	5	0	6	6	3	0	0	20	16	0	46	4	18	0	0	84	1	1	0	0	2	1	3	8	15	0	46	3	15	0	2	81
9:30 - 9:45	8	0	6	6	5	0	0	25	9	0	47	3	14	0	2	75	7	0	1	0	0	0	2	10	13	0	49	4	17	0	2	85
9:45 - 10:00	11	0	15	15	7	0	0	48	28	0	34	5	25	0	1	93	6	0	2	0	8	0	1	17	18	0	40	5	15	0	4	82
10:00 - 10:15	5	0	2	2	2	0	0	11	7	0	28	2	15	0	1	53	4	0	0	0	5	0	2	11	15	0	33	2	12	0	3	65
10:15 - 10:30	9	0	8	8	6	0	0	31	10	0	24	4	13	0	0	51	6	0	0	0	3	0	0	9	11	0	28	1	7	0	2	49
10:30 - 10:45	5	0	4	4	1	0	0	14	16	1	37	2	12	0	0	68	3	0	2	0	4	0	0	9	9	0	35	5	5	1	1	56
10:45 - 11:00	6	0	7	7	3	0	0	23	11	0	32	3	15	0	0	61	5	1	2	0	5	0	0	13	8	0	30	3	12	1	0	54
11:00 - 11:15	10	1	7	7	4	0	0	29	11	0	25	1	11	0	0	48	4	0	0	0	9	0	2	15	13	0	47	5	7	0	2	74
11:15 - 11:30	10	1	5	5	3	0	0	24	17	1	27	2	15	1	0	63	7	1	5	0	8	0	1	22	10	0	45	2	9	1	0	67
11:30 - 11:45	9	1	5	5	4	0	0	24	15	1	30	2	12	1	0	61	5	0	3	0	7	0	0	15	18	0	40	1	7	0	0	66
11:45 - 12:00	5	1	6	6	3	0	0	21	13	1	33	6	14	0	0	67	7	0	3	0	6	0	0	16	15	0	41	7	13	0	0	76

Count Tally Sheet
Intersection Of Boyne Island Road Pioneer Road / Tucker Road
1806(Int 1929 @ Tdist 2.748km)
Tue 10/05/05

Time	Leg 1									Leg 2									Leg 3									Leg 4								
	Left		Thru		Right		U-turn		Leg Total	Left		Thru		Right		U-turn		Leg Total	Left		Thru		Right		U-turn		Leg Total									
	2	2H	3	3H	4	4H	1	1H		2	2H	1	1H	2	2H	1	1H		2	2H	3	3H	1	1H	2	2H		3	3H							
	Light	Heavy	Light	Heavy	Light	Heavy	All	Light		Heavy	Light	Heavy	All	Light	Heavy	Light	Heavy		All	Light	Heavy	Light	Heavy	All	Light	Heavy		Light	Heavy	All						
12:00 - 12:15	4	0	7	0	11	0	0	22	9	0	33	3	14	0	0	59	5	0	6	0	4	1	0	16	18	0	43	0	15	0	0	76				
12:15 - 12:30	26	0	4	0	7	0	0	37	14	0	38	3	11	0	2	68	3	0	8	0	7	0	0	18	20	0	60	4	18	0	0	102				
12:30 - 12:45	18	0	3	0	5	0	0	26	9	0	33	0	10	0	1	53	6	0	6	0	5	0	0	17	17	0	49	3	19	0	0	88				
12:45 - 13:00	10	0	6	0	8	0	0	24	10	0	20	2	11	0	0	43	7	0	5	0	7	0	2	21	15	0	45	4	14	0	2	80				
13:00 - 13:15	6	0	8	0	6	0	1	21	16	0	27	1	13	0	0	57	6	0	6	0	6	0	1	19	14	0	43	5	12	0	1	75				
13:15 - 13:30	3	0	2	0	3	0	0	8	15	0	40	7	13	0	0	75	5	0	7	0	9	0	2	23	12	0	41	3	22	0	1	79				
13:30 - 13:45	4	0	2	0	5	0	0	11	7	0	27	2	7	0	0	43	7	0	10	0	11	0	1	29	14	0	40	4	23	0	1	82				
13:45 - 14:00	7	0	3	0	6	0	0	16	8	0	37	3	6	0	2	56	9	0	12	0	12	0	0	33	16	0	44	3	26	0	2	91				
14:00 - 14:15	12	0	5	0	2	0	0	19	8	0	50	2	6	0	0	66	7	0	8	0	10	0	0	25	13	0	36	2	19	0	0	70				
14:15 - 14:30	14	0	10	0	10	0	0	34	10	1	25	1	11	1	0	49	4	0	6	0	8	0	0	18	9	0	30	1	15	0	0	55				
14:30 - 14:45	8	0	2	0	5	0	0	15	6	0	30	2	8	0	0	46	7	0	8	0	7	0	0	22	9	0	33	5	14	1	0	62				
14:45 - 15:00	5	0	9	0	9	0	0	23	11	0	36	1	9	0	2	59	5	0	6	0	5	0	0	16	15	0	37	3	10	0	0	65				
15:00 - 15:15	8	0	10	0	6	0	0	24	14	0	44	3	10	0	0	71	3	0	5	0	5	0	0	13	13	0	35	4	11	0	0	63				
15:15 - 15:30	7	0	5	0	4	0	0	16	14	0	27	8	15	0	0	64	7	0	3	0	12	0	0	22	15	0	47	4	13	0	0	79				
15:30 - 15:45	13	0	11	0	3	0	0	27	13	0	34	3	13	0	0	63	6	0	2	0	7	0	0	15	12	0	49	6	9	0	0	76				
15:45 - 16:00	4	0	7	0	9	0	0	20	6	0	33	3	11	0	0	53	5	0	3	0	6	0	2	16	15	0	35	4	10	0	2	66				
16:00 - 16:15	15	0	6	0	3	0	0	24	26	2	42	5	12	0	0	87	6	0	4	0	10	0	0	20	17	0	43	3	16	0	0	79				
16:15 - 16:30	11	0	8	0	5	0	0	24	20	0	50	1	7	0	2	80	10	0	5	0	12	0	0	27	14	0	38	5	12	0	0	69				
16:30 - 16:45	13	0	6	0	2	0	0	21	12	0	43	5	19	0	1	80	7	0	4	0	7	0	0	18	15	1	35	8	15	0	0	74				
16:45 - 17:00	12	0	6	0	6	0	0	24	12	0	44	4	7	0	0	67	6	0	2	0	6	0	0	14	12	0	48	0	22	1	0	83				
17:00 - 17:15	17	0	16	0	12	0	0	45	28	0	66	4	8	0	0	106	3	0	4	0	11	0	0	18	7	0	94	3	18	0	0	122				
17:15 - 17:30	12	0	11	0	3	0	0	26	21	0	50	1	6	0	0	78	6	0	6	0	10	0	0	22	10	0	76	0	15	0	0	101				
17:30 - 17:45	6	0	4	0	3	0	0	13	15	0	47	1	4	0	0	67	13	0	11	0	14	0	0	38	12	0	62	1	16	0	0	91				
17:45 - 18:00	8	0	2	0	1	0	0	11	13	0	36	1	5	1	0	56	3	0	1	0	9	0	0	13	3	0	62	1	9	0	0	75				
Total:	365	7	251	98	229	4	1	955	554	8	1833	144	465	5	16	3025	213	28	175	0	279	9	34	738	524	1	2054	184	545	13	41	3362				
Peak Count:	60		62		31		1	116	77		278		72		4	355	30		37		44		12	110	71		299		90		11	397				
Peak Hour:	12:15 to 13:15		09:30 to 10:30		12:00 to 13:00		12:15 to 13:15	16:30 to 17:30	17:00 to 18:00		07:15 to 08:15		09:15 to 10:15		09:15 to 10:15	07:45 to 08:45	08:00 to 09:00		13:15 to 14:15		17:00 to 18:00		08:30 to 09:30	13:15 to 14:15	11:30 to 12:30		17:00 to 18:00		13:15 to 14:15		08:30 to 09:30	16:45 to 17:45				



Count Tally Sheet
Intersection Of Dawson Hwy
and Aerodrome Rd 46A (Int 753 @ Tdist 4.875km)
Thur 24/05/07

Time	Leg 1								Leg Total	Leg 2								Leg Total
	Left		Thru		Right		U-turn	Left		Thru		Right		U-turn				
	2	2H	3	3H	4	4H		3		3H	4	4H	1	1H				
	Light	Heavy	Light	Heavy	Light	Heavy	All	Light		Heavy	Light	Heavy	Light	Heavy	All			
6:00 - 6:15	77	0	0	0	1	0	0	78	1	0	24	4	41	1	0	71		
6:15 - 6:30	67	2	2	0	4	1	0	76	2	0	32	3	38	3	0	78		
6:30 - 6:45	65	4	1	0	1	0	0	71	2	0	49	0	28	2	0	81		
6:45 - 7:00	69	4	3	0	0	0	0	76	6	0	47	2	27	1	0	83		
7:00 - 7:15	59	1	1	0	0	0	0	61	7	0	48	4	31	0	0	90		
7:15 - 7:30	92	1	1	0	0	0	0	94	6	0	54	4	43	1	0	108		
7:30 - 7:45	94	0	8	0	5	0	0	107	5	2	62	6	30	1	0	106		
7:45 - 8:00	123	1	6	0	6	0	0	136	9	1	101	7	48	1	0	167		
8:00 - 8:15	113	2	4	1	9	1	0	130	9	0	127	8	46	1	0	191		
8:15 - 8:30	147	5	8	0	15	0	0	175	14	1	150	10	57	1	0	233		
8:30 - 8:45	121	0	3	0	9	0	0	133	21	0	120	8	55	1	0	205		
8:45 - 9:00	82	3	5	0	4	0	0	94	34	2	70	4	41	3	0	154		
9:00 - 9:15	69	4	2	1	2	1	0	79	22	3	80	7	33	0	0	145		
9:15 - 9:30	65	2	7	0	4	0	0	78	24	1	68	10	50	1	0	154		
9:30 - 9:45	69	0	9	0	0	0	0	78	17	0	64	2	48	1	0	132		
9:45 - 10:00	52	2	7	0	6	0	0	67	28	1	63	5	44	1	0	142		
10:00 - 10:15	84	0	8	0	3	0	0	95	23	2	84	10	52	0	0	171		
10:15 - 10:30	63	2	6	0	1	1	0	73	24	1	70	6	54	1	0	156		
10:30 - 10:45	69	3	7	1	2	0	0	82	20	2	74	8	50	2	0	156		
10:45 - 11:00	67	1	8	1	0	1	0	78	33	0	76	4	58	1	0	172		
11:00 - 11:15	60	2	6	0	2	0	0	70	25	1	63	2	50	1	0	142		
11:15 - 11:30	50	1	9	0	4	0	0	64	17	1	57	7	36	2	0	120		
11:30 - 11:45	60	1	8	0	2	0	0	71	27	1	66	3	36	0	0	133		
11:45 - 12:00	65	1	6	1	3	0	0	76	22	1	60	10	35	0	0	128		

Count Tally Sheet
Intersection Of Dawson Hwy
and Aerodrome Rd 46A (Int 753 @ Tdist 4.875km)
Thur 24/05/07

Time	Leg 1								Leg 2							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	2	2H	3	3H	4	4H			3	3H	4	4H	1	1H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
12:00 - 12:15	30	1	3	0	6	0	0	40	23	0	93	3	30	0	0	149
12:15 - 12:30	29	2	9	0	3	0	0	43	38	0	96	4	31	1	0	170
12:30 - 12:45	50	1	2	0	2	1	0	56	17	1	73	2	61	1	0	155
12:45 - 13:00	41	1	1	0	1	0	0	44	17	2	81	2	120	1	0	223
13:00 - 13:15	63	0	4	0	2	0	0	69	17	3	81	4	63	0	0	168
13:15 - 13:30	56	1	1	0	2	0	0	60	17	0	82	4	46	0	0	149
13:30 - 13:45	53	4	5	0	1	0	0	63	14	1	84	2	38	0	0	139
13:45 - 14:00	46	0	1	0	4	0	0	51	20	0	99	10	54	1	0	184
14:00 - 14:15	45	1	2	0	2	0	0	50	20	0	109	2	53	3	0	187
14:15 - 14:30	45	1	9	0	0	0	0	55	19	0	110	4	50	0	0	183
14:30 - 14:45	98	3	3	0	4	0	0	108	14	0	146	10	35	0	0	205
14:45 - 15:00	55	3	1	0	0	1	0	60	22	0	169	4	40	0	1	236
15:00 - 15:15	97	3	2	0	1	0	0	103	12	0	154	8	46	0	0	220
15:15 - 15:30	65	0	2	0	3	0	0	70	12	0	213	7	86	1	0	319
15:30 - 15:45	66	0	2	0	5	0	0	73	16	1	163	7	74	2	0	263
15:45 - 16:00	70	1	4	0	1	0	0	76	8	1	169	5	107	4	0	294
16:00 - 16:15	95	3	1	0	1	1	0	101	15	1	158	7	113	5	0	299
16:15 - 16:30	80	2	1	0	5	0	0	88	9	1	148	3	116	0	3	280
16:30 - 16:45	84	0	0	0	3	0	0	87	18	2	204	4	150	2	6	386
16:45 - 17:00	89	0	0	0	3	0	0	92	16	0	214	5	115	1	1	352
17:00 - 17:15	89	1	4	0	6	0	0	100	9	0	184	3	102	2	2	302
17:15 - 17:30	162	1	4	0	5	0	0	172	17	0	271	2	135	3	1	429
17:30 - 17:45	88	0	0	0	5	0	0	93	4	0	154	1	98	0	1	258
17:45 - 18:00	57	1	3	0	6	0	0	67	5	1	161	2	118	0	0	287
Total:	3535	72	189	5	154	8	0	3963	777	34	5125	239	2912	53	15	9155
Peak Count:	512		32		40		0	574	112		887		510		12	1469
Peak Hour:	07:45 to 08:45		10:30 to 11:30		07:45 to 08:45		06:00 to 07:00	07:45 to 08:45	11:30 to 12:30		16:30 to 17:30		16:30 to 17:30		16:15 to 17:15	16:30 to 17:30

Count Tally Sheet
Intersection Of Dawson Hwy
and Aerodrome Rd 46A (Int 753 @ Tdist 4.875km)
Thur 24/05/07

Time	Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	4	4H	1	1H	2	2H			1	1H	2	2H	3	3H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
6:00 - 6:15	0	0	0	0	0	0	0	0	1	0	79	6	0	1	0	87
6:15 - 6:30	0	0	0	0	0	0	0	0	5	1	90	3	0	0	0	99
6:30 - 6:45	1	0	0	0	0	0	0	1	3	0	89	4	0	0	0	96
6:45 - 7:00	0	0	0	0	1	0	0	1	4	1	112	9	0	0	0	126
7:00 - 7:15	0	0	0	0	0	0	0	0	6	0	115	6	0	1	0	128
7:15 - 7:30	1	0	0	0	1	2	0	4	5	0	129	4	0	0	0	138
7:30 - 7:45	1	0	2	0	5	0	0	8	6	0	142	3	1	0	0	152
7:45 - 8:00	1	0	0	0	5	0	0	6	13	0	218	7	2	0	0	240
8:00 - 8:15	1	0	1	0	2	1	0	5	11	0	219	9	1	0	0	240
8:15 - 8:30	0	1	0	0	4	0	0	5	18	0	226	13	6	0	0	263
8:30 - 8:45	0	1	0	0	5	3	0	9	22	1	204	15	9	0	0	251
8:45 - 9:00	2	0	2	1	8	0	0	13	10	0	148	18	4	0	0	180
9:00 - 9:15	1	0	1	0	7	0	0	9	5	1	134	3	15	0	0	158
9:15 - 9:30	3	0	2	0	16	3	0	24	4	0	109	2	8	1	0	124
9:30 - 9:45	5	0	1	0	10	3	0	19	5	0	106	8	5	0	0	124
9:45 - 10:00	1	0	1	1	18	0	0	21	11	0	89	7	10	0	0	117
10:00 - 10:15	5	1	2	0	18	1	0	27	5	0	82	6	14	1	0	108
10:15 - 10:30	0	0	4	0	26	5	0	35	8	0	103	11	14	0	0	136
10:30 - 10:45	1	0	3	1	24	4	0	33	6	1	90	8	11	1	0	117
10:45 - 11:00	2	0	6	0	21	2	0	31	7	0	93	5	8	0	0	113
11:00 - 11:15	2	0	0	0	28	1	0	31	9	0	79	6	8	0	0	102
11:15 - 11:30	8	0	2	0	26	1	0	37	6	0	72	4	6	1	0	89
11:30 - 11:45	5	0	1	0	22	0	0	28	10	0	78	5	12	1	0	106
11:45 - 12:00	3	0	2	0	34	1	0	40	9	1	66	3	6	0	0	85

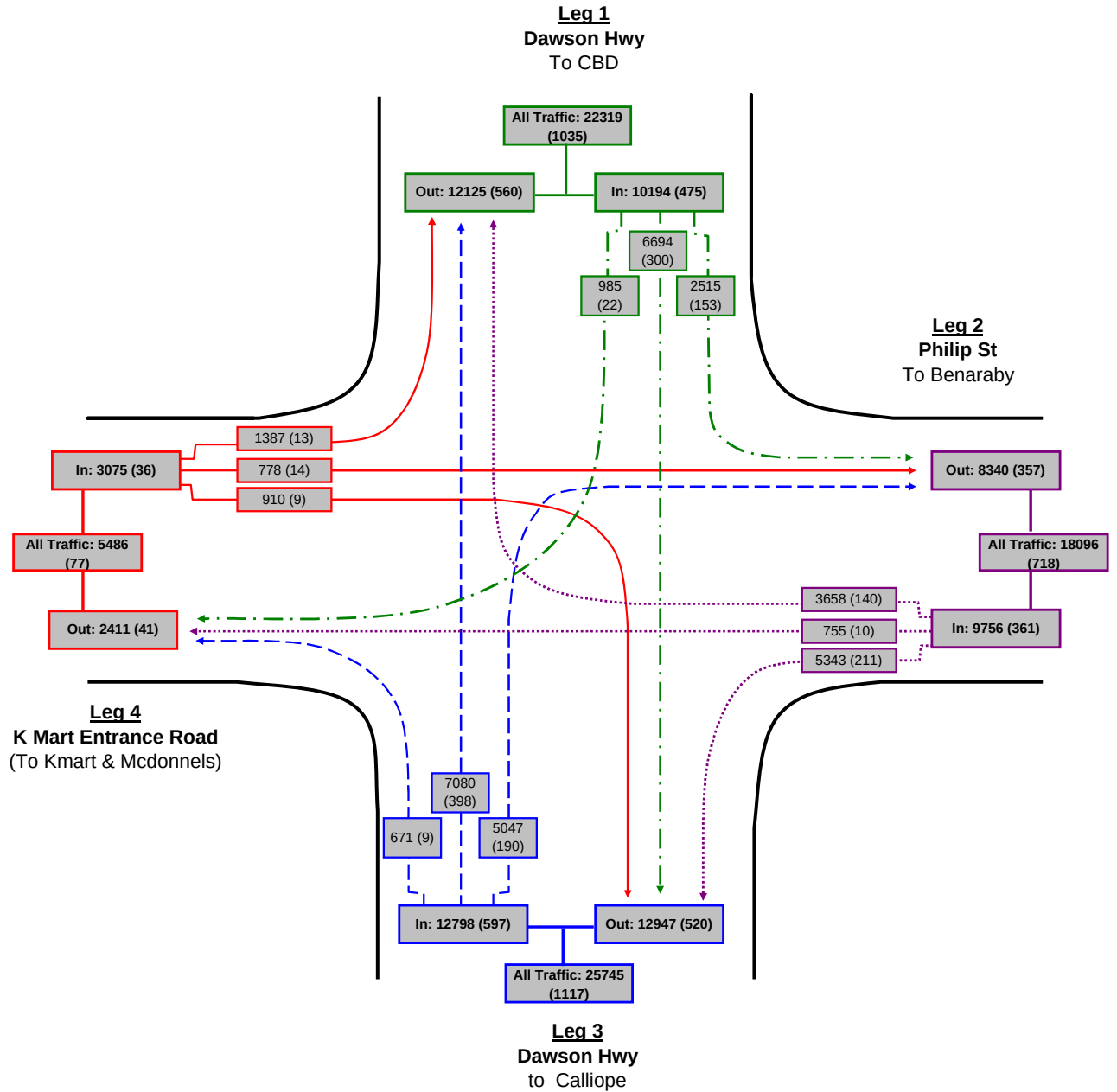
Count Tally Sheet
Intersection Of Dawson Hwy
and Aerodrome Rd 46A (Int 753 @ Tdist 4.875km)
Thur 24/05/07

Time	Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	4	4H	1	1H	2	2H			1	1H	2	2H	3	3H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
12:00 - 12:15	3	0	5	0	18	0	0	26	3	0	68	3	3	0	0	77
12:15 - 12:30	6	0	5	0	27	0	0	38	2	0	75	5	5	1	0	88
12:30 - 12:45	5	1	2	2	13	0	0	23	3	0	60	3	4	0	0	70
12:45 - 13:00	7	1	3	0	28	1	0	40	1	0	52	2	4	0	0	59
13:00 - 13:15	5	1	2	0	26	0	0	34	8	0	91	5	5	0	0	109
13:15 - 13:30	3	0	3	0	23	2	0	31	1	0	86	3	6	0	0	96
13:30 - 13:45	7	0	5	1	30	4	0	47	2	0	83	2	2	0	0	89
13:45 - 14:00	10	0	7	1	21	1	0	40	6	1	89	3	7	0	0	106
14:00 - 14:15	5	0	4	0	19	1	0	29	1	0	83	3	3	0	0	90
14:15 - 14:30	4	0	7	1	25	1	0	38	3	0	68	5	4	0	1	81
14:30 - 14:45	8	0	4	0	26	1	0	39	4	1	104	5	6	0	0	120
14:45 - 15:00	9	1	3	1	24	1	0	39	6	1	113	10	5	0	0	135
15:00 - 15:15	4	1	0	0	36	0	0	41	7	0	223	4	3	0	0	237
15:15 - 15:30	4	0	2	0	21	1	0	28	5	0	167	6	5	0	0	183
15:30 - 15:45	2	0	1	0	24	3	0	30	4	0	120	3	4	0	0	131
15:45 - 16:00	4	0	4	1	47	1	0	57	7	0	134	8	6	0	0	155
16:00 - 16:15	6	0	3	0	23	0	0	32	6	0	97	11	3	0	0	117
16:15 - 16:30	4	0	1	0	26	0	0	31	4	1	123	1	6	0	0	135
16:30 - 16:45	2	0	2	0	29	0	0	33	13	0	123	3	4	0	0	143
16:45 - 17:00	7	0	4	0	24	0	0	35	12	0	114	1	6	0	0	133
17:00 - 17:15	8	0	6	0	22	0	0	36	9	0	107	4	5	0	0	125
17:15 - 17:30	3	1	2	0	36	0	0	42	12	0	202	3	6	0	0	223
17:30 - 17:45	4	0	3	0	16	0	0	23	5	0	123	3	2	1	0	134
17:45 - 18:00	0	0	1	0	17	0	0	18	8	0	117	1	3	0	0	129
Total:	163	9	109	10	882	44	0	1217	321	10	5494	262	247	9	1	6344
Peak Count:	27		26		133		0	157	65		911		51		1	994
Peak Hour:	13:45 to 14:45		13:30 to 14:30		15:00 to 16:00		06:00 to 07:00	14:15 to 15:15	07:45 to 08:45		07:45 to 08:45		09:45 to 10:45		13:30 to 14:30	07:45 to 08:45

Count Tally Sheet



LOCATION: Intersection Of Dawson Hwy & Philip Street
ROAD No: 46A & 185 (Int 749 @ Tdist 3.13 km & 0.00km)
DATE: Wed, 19/03/08
TIME: 06:00 - 18:00



Count Tally Sheet

Intersection Of Dawson Hwy and Philip St (Int 749 @ Tdist 3.13km and 0.00km)

Time	Leg 1								Leg 2							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	2	2H	3	3H	4	4H			3	3H	4	4H	1	1H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
6:00 - 6:15	24	3	44	0	3	1		75	42	3	7	1	78	4		135
6:15 - 6:30	13	5	37	4	4	0		63	60	2	10	2	88	5		167
6:30 - 6:45	14	2	38	3	4	2		63	67	4	11	0	105	2		189
6:45 - 7:00	23	1	56	7	5	0		92	81	7	6	0	120	3		217
7:00 - 7:15	25	2	56	4	9	0		96	69	5	6	0	70	6		156
7:15 - 7:30	23	2	72	5	2	0		104	59	3	11	0	62	3		138
7:30 - 7:45	27	2	73	14	12	0		128	82	7	11	0	76	1		177
7:45 - 8:00	31	3	58	7	10	0		109	89	7	3	0	81	2		182
8:00 - 8:15	29	7	104	7	13	0		160	92	5	12	1	75	1		186
8:15 - 8:30	40	4	103	8	15	1		171	101	3	9	0	73	4		190
8:30 - 8:45	54	6	106	10	14	1		191	115	3	17	3	79	3		220
8:45 - 9:00	70	3	134	6	25	1		239	103	3	8	1	73	7		195
9:00 - 9:15	34	4	79	5	28	1		151	86	2	17	0	63	2		170
9:15 - 9:30	57	4	113	6	19	0		199	103	6	20	1	82	5		217
9:30 - 9:45	49	3	95	7	23	1		178	80	7	17	0	57	2		163
9:45 - 10:00	42	6	91	6	25	0		170	116	3	20	0	71	2		212
10:00 - 10:15	61	2	93	12	24	0		192	79	8	10	0	72	5		174
10:15 - 10:30	44	2	133	10	24	1		214	96	7	20	0	63	3		189
10:30 - 10:45	53	1	117	6	26	2		205	80	2	16	0	81	2		181
10:45 - 11:00	62	5	152	4	32	0		255	90	5	21	0	75	6		197
11:00 - 11:15	48	4	115	4	21	0		192	77	5	12	0	58	2		154
11:15 - 11:30	52	5	115	6	22	0		200	105	5	19	0	74	4		207
11:30 - 11:45	69	3	107	1	25	0		205	104	7	8	0	77	2		198
11:45 - 12:00	52	1	124	7	33	1		218	120	5	12	0	84	0		221

Count Tally Sheet

Intersection Of Dawson Hwy and Philip St (Int 749 @ Tdist 3.13km and 0.00km)

Time	Leg 1								Leg 2							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	2	2H	3	3H	4	4H			3	3H	4	4H	1	1H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
12:00 - 12:15	47	0	132	6	38	1		224	123	2	16	0	80	4		225
12:15 - 12:30	54	3	111	8	21	0		197	112	2	21	0	81	1		217
12:30 - 12:45	60	3	161	8	14	0		246	91	3	17	0	71	3		185
12:45 - 13:00	70	5	144	6	31	0		256	97	10	23	0	85	3		218
13:00 - 13:15	59	9	126	20	25	0		239	75	5	20	0	69	3		172
13:15 - 13:30	67	3	172	6	34	2		284	71	4	31	0	74	2		182
13:30 - 13:45	61	6	113	5	14	0		199	70	2	19	0	72	2		165
13:45 - 14:00	43	4	119	9	17	0		192	110	3	9	0	56	3		181
14:00 - 14:15	50	4	128	5	23	0		210	79	7	14	0	68	5		173
14:15 - 14:30	55	5	100	3	22	0		185	117	7	16	0	67	4		211
14:30 - 14:45	70	4	158	5	15	0		252	99	3	18	0	77	4		201
14:45 - 15:00	90	2	120	7	24	0		243	100	5	13	0	79	2		199
15:00 - 15:15	77	2	132	5	25	1		242	136	2	19	1	66	5		229
15:15 - 15:30	46	2	239	16	29	2		334	139	5	24	0	73	3		244
15:30 - 15:45	58	1	226	11	37	1		334	152	2	18	0	70	5		247
15:45 - 16:00	67	6	189	3	24	0		289	181	7	12	0	67	3		270
16:00 - 16:15	59	6	226	5	28	0		324	173	4	24	0	77	2		280
16:15 - 16:30	101	3	207	6	9	2		328	148	3	28	0	64	3		246
16:30 - 16:45	69	1	258	4	12	0		344	166	6	15	0	60	1		248
16:45 - 17:00	27	3	263	5	16	0		314	158	1	21	0	82	0		262
17:00 - 17:15	56	0	232	3	21	0		312	150	3	12	0	56	1		222
17:15 - 17:30	18	0	259	2	22	0		301	145	3	13	0	74	2		237
17:30 - 17:45	30	1	207	3	15	0		256	172	3	17	0	50	2		244
17:45 - 18:00	32	0	157	0	29	1		219	172	5	22	0	63	1		263
Total:	2362	153	6394	300	963	22	0	10194	5132	211	745	10	3518	140	0	9756
Peak Count:	312		1026		121		0	1310	688		93		405		0	1044
Peak Hour:	15:45 to 16:45		16:30 to 17:30		15:15 to 16:15		06:00 to 07:00	16:00 to 17:00	15:45 to 16:45		12:45 to 13:45		06:00 to 07:00		06:00 to 07:00	15:45 to 16:45

Count Tally Sheet

Intersection Of Dawson Hwy and Philip St (Int 749 @ Tdist 3.13km and 0.00km)

Time	Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	4	4H	1	1H	2	2H			1	1H	2	2H	3	3H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
6:00 - 6:15	6	0	81	3	86	0		176	4	0	5	2	2	1		14
6:15 - 6:30	6	0	113	6	103	4		232	10	0	3	0	2	1		16
6:30 - 6:45	10	0	126	7	93	1		237	9	0	4	1	3	1		18
6:45 - 7:00	9	0	180	13	112	4		318	17	0	6	0	6	0		29
7:00 - 7:15	6	0	113	3	83	6		211	5	0	8	1	4	0		18
7:15 - 7:30	5	0	170	5	102	5		287	5	0	3	0	6	1		15
7:30 - 7:45	10	0	181	6	106	3		306	11	0	4	0	2	0		17
7:45 - 8:00	11	2	263	14	115	7		412	19	0	3	0	1	0		23
8:00 - 8:15	19	0	209	6	158	6		398	21	1	5	0	6	0		33
8:15 - 8:30	20	0	238	15	145	1		419	19	0	13	0	8	0		40
8:30 - 8:45	22	1	258	12	139	4		436	23	3	8	1	9	0		44
8:45 - 9:00	26	0	238	10	147	3		424	25	0	5	1	7	1		39
9:00 - 9:15	14	0	161	8	113	8		304	26	0	14	0	8	0		48
9:15 - 9:30	20	1	157	10	93	1		282	20	0	15	0	10	1		46
9:30 - 9:45	24	1	124	9	83	7		248	19	0	15	0	14	0		48
9:45 - 10:00	23	0	136	4	75	4		242	36	1	9	0	18	0		64
10:00 - 10:15	25	0	113	4	84	3		229	22	1	12	1	15	0		51
10:15 - 10:30	19	1	135	5	82	3		245	32	0	18	1	25	0		76
10:30 - 10:45	17	0	134	6	94	9		260	32	2	12	0	20	0		66
10:45 - 11:00	12	0	152	9	87	14		274	36	1	12	0	12	0		61
11:00 - 11:15	9	1	104	6	104	3		227	22	0	16	0	15	0		53
11:15 - 11:30	28	1	95	12	77	6		219	48	0	15	2	18	1		84
11:30 - 11:45	19	0	101	24	76	2		222	52	0	30	0	17	0		99
11:45 - 12:00	20	0	123	5	80	3		231	30	0	20	0	26	0		76

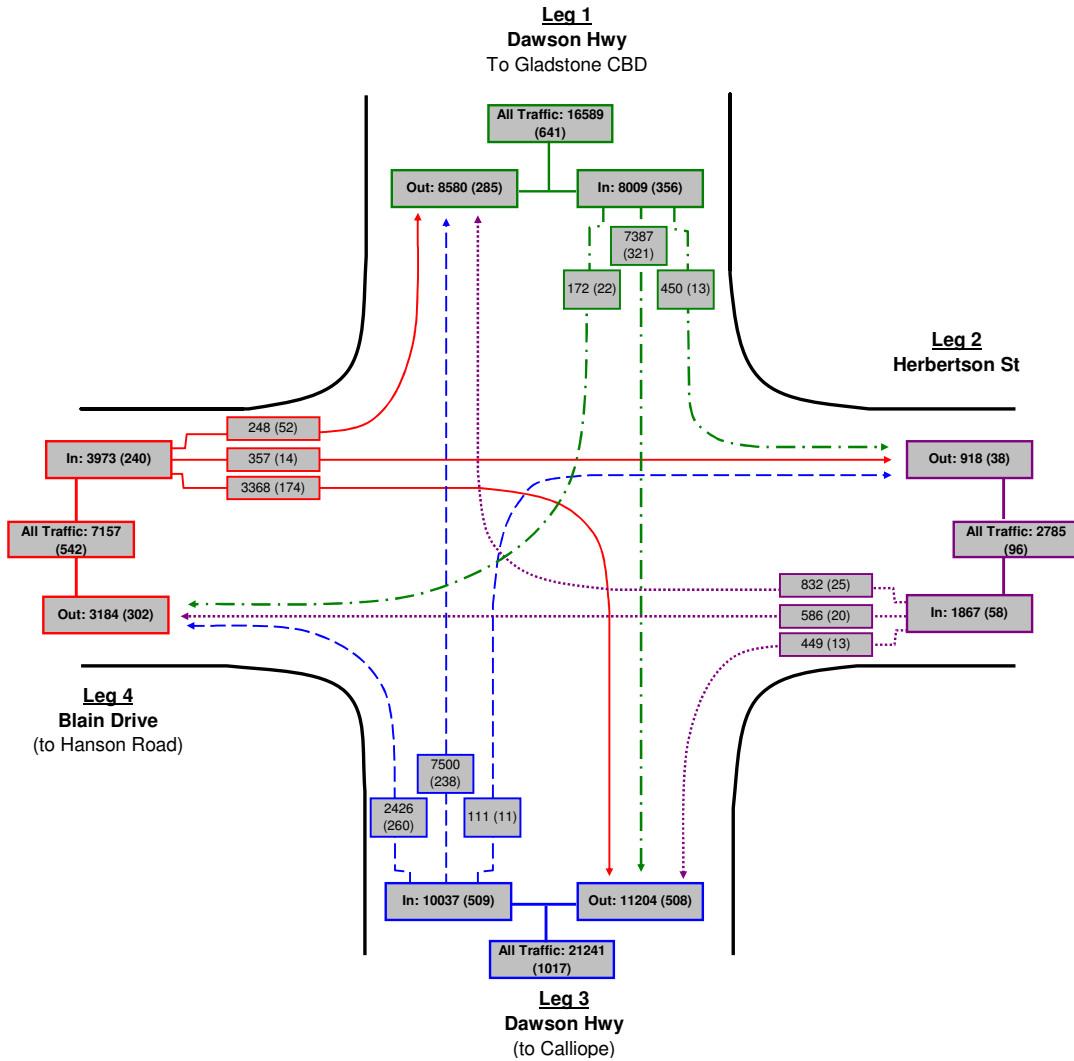
Count Tally Sheet

Intersection Of Dawson Hwy and Philip St (Int 749 @ Tdist 3.13km and 0.00km)

Time	Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	4	4H	1	1H	2	2H			1	1H	2	2H	3	3H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
12:00 - 12:15	15	0	102	11	91	3		222	45	0	24	0	21	0		90
12:15 - 12:30	18	0	123	6	74	3		224	38	0	19	0	21	1		79
12:30 - 12:45	13	0	109	7	72	8		209	53	0	26	1	22	0		102
12:45 - 13:00	13	0	157	3	91	2		266	45	0	20	0	31	0		96
13:00 - 13:15	18	0	95	1	74	6		194	29	0	28	0	13	0		70
13:15 - 13:30	20	0	118	5	65	1		209	37	0	19	0	29	0		85
13:30 - 13:45	14	0	115	8	74	8		219	38	0	26	0	20	0		84
13:45 - 14:00	8	0	138	8	74	3		231	28	0	21	0	20	0		69
14:00 - 14:15	12	0	113	8	54	5		192	32	0	28	0	21	0		81
14:15 - 14:30	9	0	129	6	76	4		224	35	2	16	0	18	0		71
14:30 - 14:45	12	0	130	8	76	3		229	36	0	19	0	23	0		78
14:45 - 15:00	6	1	143	7	139	4		300	34	0	27	2	22	0		85
15:00 - 15:15	13	0	129	35	149	2		328	34	1	20	0	23	0		78
15:15 - 15:30	9	0	119	6	114	2		250	32	0	13	0	11	0		56
15:30 - 15:45	7	0	131	7	111	5		261	26	0	15	0	16	0		57
15:45 - 16:00	7	0	120	8	105	6		246	27	0	17	0	34	0		78
16:00 - 16:15	10	0	127	10	103	5		255	27	1	13	1	12	0		54
16:15 - 16:30	4	0	147	13	121	3		288	24	0	14	0	23	0		61
16:30 - 16:45	17	0	114	23	126	1		281	50	0	18	0	40	0		108
16:45 - 17:00	21	0	114	4	117	1		257	42	0	34	0	48	0		124
17:00 - 17:15	8	0	114	5	120	5		252	20	0	19	0	44	1		84
17:15 - 17:30	6	0	117	3	125	0		251	30	0	26	0	46	0		102
17:30 - 17:45	16	0	130	3	112	1		262	37	0	24	0	48	0		109
17:45 - 18:00	6	0	143	1	157	2		309	32	0	23	0	41	0		96
Total:	662	9	6682	398	4857	190	0	12798	1374	13	764	14	901	9	0	3075
Peak Count:	94		1015		603		0	1677	181		103		187		0	419
Peak Hour:	09:15 to 10:15		07:45 to 08:45		08:00 to 09:00		06:00 to 07:00	08:00 to 09:00	12:00 to 13:00		16:45 to 17:45		16:45 to 17:45		06:00 to 07:00	16:45 to 17:45

Data Collection Date: 19/03/08

Compiled by: Ken Ah Quee

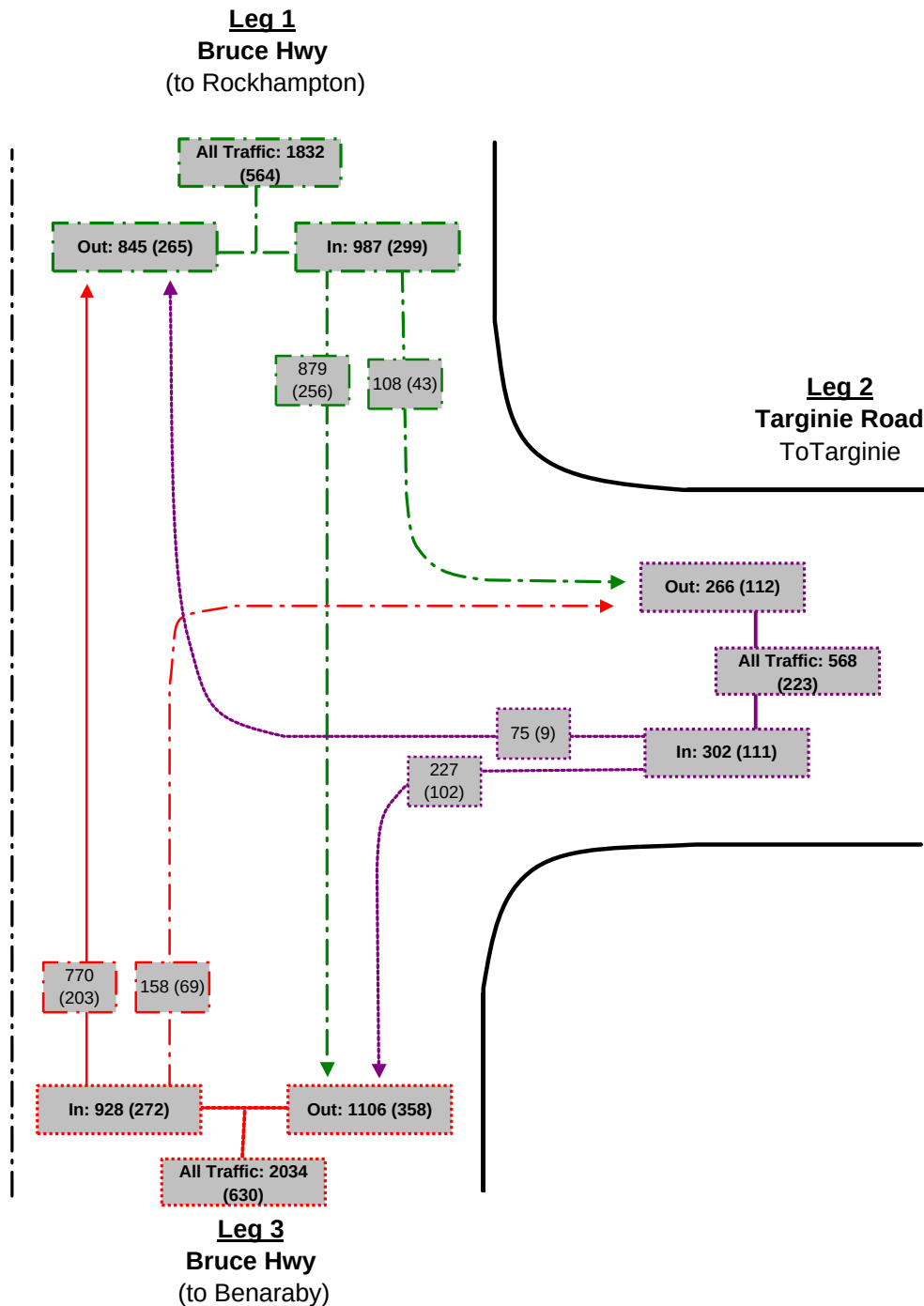


Count Tally Sheet
Intersection of Dawson Hwy Herbertson St/Blain Dr
46A (Int 746 @ Tdist 2.24km)
Tue 22/08/06
06:00 - 18:00

Time	Leg 1									Leg 2									Leg 3									Leg 4								
	Left		Thru		Right		U-turn	Leg Total		Left		Thru		Right		U-turn	Leg Total		Left		Thru		Right		U-turn	Leg Total		Left		Thru		Right		U-turn	Leg Total	
	2	2H	3	3H	4	4H				3	3H	4	4H	1	1H				4	4H	1	1H	2	2H				1	1H	2	2H	3	3H			
	Light	Heavy	Light	Heavy	Light	Heavy	All			Light	Heavy	Light	Heavy	Light	Heavy	All			Light	Heavy	Light	Heavy	Light	Heavy	All			Light	Heavy	Light	Heavy	Light	Heavy	All		
6:00 - 6:15	3	1	44	3	9	0		60		6	0	24	0	6	2		38		156	2	76	3	2	0		239		0	0	3	1	37	1		42	
6:15 - 6:30	4	0	58	4	16	0		82		8	1	34	0	7	3		53		180	9	67	5	3	1		265		4	1	3	0	24	4		36	
6:30 - 6:45	8	0	52	3	17	0		80		12	2	29	1	9	0		53		181	1	88	2	0	1		273		5	0	4	0	18	5		32	
6:45 - 7:00	6	0	62	2	16	0		86		4	0	34	1	8	0		47		188	7	127	1	0	0		323		1	0	6	0	44	8		59	
7:00 - 7:15	5	0	51	4	18	0		78		11	1	17	2	9	0		40		76	10	90	7	0	0		183		3	2	5	0	47	4		61	
7:15 - 7:30	4	0	67	16	16	0		103		14	2	31	0	6	0		53		107	7	137	5	4	0		260		1	1	4	0	30	5		41	
7:30 - 7:45	12	1	94	16	3	2		128		22	0	27	0	20	2		71		117	7	245	12	1	0		382		6	1	9	0	41	8		65	
7:45 - 8:00	6	0	95	17	1	1		120		16	0	25	0	40	1		82		76	6	298	9	3	0		392		3	3	17	0	25	4		52	
8:00 - 8:15	10	2	106	20	1	0		139		14	1	24	1	49	0		89		60	5	316	8	1	1		391		6	1	9	0	32	6		54	
8:15 - 8:30	8	0	131	12	0	2		153		12	1	34	2	87	0		136		56	4	266	10	1	0		337		4	2	3	0	37	1		47	
8:30 - 8:45	11	1	142	10	0	1		165		14	0	20	1	34	4		73		62	6	262	5	4	0		339		3	0	3	0	34	6		46	
8:45 - 9:00	12	2	170	3	0	0		187		13	1	16	0	45	1		76		71	8	248	7	4	1		339		4	3	6	2	52	13		80	
9:00 - 9:15	6	0	113	5	0	0		124		16	1	13	0	19	0		49		33	6	143	3	0	1		186		8	2	3	0	27	4		44	
9:15 - 9:30	7	1	132	6	0	0		146		19	0	21	0	19	1		60		43	5	167	11	1	1		228		1	3	8	0	64	6		82	
9:30 - 9:45	8	1	142	10	1	0		162		12	0	18	0	16	1		47		43	6	146	5	5	1		206		5	1	4	0	60	8		78	
9:45 - 10:00	7	1	138	16	3	0		165		15	0	14	2	17	2		50		37	8	139	7	2	1		194		4	1	10	0	58	5		78	
10:00 - 10:15	9	0	127	13	0	0		149		11	0	11	1	15	0		38		42	5	115	5	2	1		170		4	0	1	2	37	7		51	
10:15 - 10:30	16	0	131	10	1	0		158		10	0	13	0	14	0		37		37	12	170	8	3	0		230		2	0	5	0	52	6		65	
10:30 - 10:45	9	0	140	9	2	0		160		13	1	12	0	11	0		37		39	4	118	4	1	0		166		4	0	2	0	46	5		57	
10:45 - 11:00	5	0	146	7	0	2		160		8	0	11	0	10	0		29		56	13	140	11	1	0		221		4	0	2	0	50	9		65	
11:00 - 11:15	7	0	130	5	1	0		143		6	0	9	1	13	1		30		34	8	124	7	1	0		174		4	0	3	0	44	7		58	
11:15 - 11:30	9	0	137	4	3	0		153		7	0	8	2	15	0		32		36	10	119	5	1	0		171		5	0	5	0	37	5		52	
11:30 - 11:45	5	0	173	14	1	0		193		6	0	7	0	19	0		32		36	10	116	2	1	0		165		2	1	5	0	49	12		69	
11:45 - 12:00	8	0	172	10	1	0		191		5	0	6	0	10	0		21		33	4	136	7	2	0		182		5	2	6	0	50	4		67	

Count Tally Sheet
Intersection of Dawson Hwy Herbertson St/Blain Dr
46A (Int 746 @ Tdist 2.24km)
Tue 22/08/06
06:00 - 18:00

Time	Leg 1								Leg 2								Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	2	2H	3	3H	4	4H			3	3H	4	4H	1	1H			4	4H	1	1H	2	2H			1	1H	2	2H	3	3H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
12:00 - 12:15	10	0	159	4	4	0		177	11	0	4	0	3	0		18	24	8	94	2	4	0		132	1	0	5	0	58	6		70
12:15 - 12:30	4	0	106	2	1	0		113	3	0	9	0	12	0		24	10	4	123	4	0	0		141	0	0	4	0	49	5		58
12:30 - 12:45	11	0	128	2	4	0		145	5	0	5	0	14	1		25	17	4	154	6	0	0		181	0	1	9	0	57	2		69
12:45 - 13:00	6	1	135	4	6	1		153	5	1	4	1	20	0		31	18	5	140	5	0	0		168	1	1	1	0	49	2		54
13:00 - 13:15	17	0	182	6	3	0		208	5	0	4	0	8	0		17	20	8	119	3	4	0		154	4	2	3	0	67	3		79
13:15 - 13:30	7	0	126	5	2	1		141	1	0	3	0	14	1		19	14	2	77	2	5	0		100	1	4	3	0	54	0		62
13:30 - 13:45	10	0	134	2	2	3		151	7	0	0	1	5	1		14	18	4	101	4	1	0		128	3	6	5	0	31	0		45
13:45 - 14:00	10	0	137	2	1	3		153	2	0	3	1	15	0		21	26	7	147	4	4	0		188	2	6	3	0	49	0		60
14:00 - 14:15	7	0	145	7	0	0		159	5	0	4	1	15	0		25	16	5	145	0	1	0		167	0	0	6	1	97	2		106
14:15 - 14:30	5	1	131	5	1	0		143	3	1	9	0	11	1		25	22	4	130	3	2	0		161	7	1	6	1	84	2		101
14:30 - 14:45	9	0	119	3	1	1		133	3	0	1	0	8	0		12	11	3	123	1	1	0		139	3	0	5	1	46	0		55
14:45 - 15:00	9	0	161	5	1	2		178	11	0	1	0	16	1		29	22	2	214	6	3	0		247	10	0	12	0	104	4		130
15:00 - 15:15	16	0	190	15	1	1		223	7	0	3	0	14	0		24	12	6	205	5	2	0		230	15	0	15	1	157	4		192
15:15 - 15:30	25	0	287	12	2	0		326	20	0	7	1	32	0		60	7	12	148	11	2	0		180	17	1	14	1	74	1		108
15:30 - 15:45	13	1	254	7	1	0		276	13	0	9	0	17	1		40	6	2	161	6	0	0		175	3	1	9	2	98	0		113
15:45 - 16:00	9	0	191	6	1	0		207	7	0	4	0	14	1		26	8	1	157	3	3	0		172	4	1	5	0	64	0		74
16:00 - 16:15	13	0	230	2	1	0		246	7	0	7	0	8	0		22	7	0	159	9	1	2		178	6	0	4	0	100	0		110
16:15 - 16:30	10	0	244	3	2	1		260	5	0	5	0	16	0		26	21	6	207	1	2	0		237	8	1	12	0	207	0		228
16:30 - 16:45	8	0	244	1	1	0		254	8	0	6	0	8	0		22	29	5	150	5	2	0		191	3	0	19	0	137	0		159
16:45 - 17:00	11	0	184	1	2	0		198	5	0	8	0	9	0		22	6	2	134	5	1	0		148	5	0	7	0	99	0		111
17:00 - 17:15	21	0	249	1	0	0		271	10	0	3	0	10	0		23	21	4	171	1	2	0		199	6	0	32	1	200	0		239
17:15 - 17:30	6	0	209	4	1	1		221	6	0	2	0	14	0		22	14	0	90	1	10	0		115	3	1	18	0	130	0		152
17:30 - 17:45	10	0	212	2	0	0		224	5	0	6	1	12	0		24	12	1	127	0	4	0		144	6	2	11	0	130	0		149
17:45 - 18:00	5	0	156	1	2	0		164	8	0	1	0	14	0		23	6	2	133	2	3	0		146	0	0	9	1	58	0		68
Total:	437	13	7066	321	150	22	0	8009	436	13	566	20	807	25	0	1867	2166	260	7262	238	100	11	0	10037	196	52	343	14	3194	174	0	3973
Peak Count:	64		989		67		0	1055	69		123		220		0	380	724		1174		19		0	1502	47		77		643		0	737
Peak Hour:	14:45 to 15:45		15:15 to 16:15		06:15 to 07:15		07:00	16:15	07:15 to 08:15		06:00 to 07:00		08:00 to 09:00		06:00 to 07:00	07:45 to 08:45	06:00 to 07:00		07:45 to 08:45		17:00 to 18:00		07:00	08:30	14:45 to 15:45		16:30 to 17:30		16:15 to 17:15		07:00	17:15



Count Tally Sheet With Totals and Peak Flows.



LOCATION: Bruce Hwy & Targinie Road
ROAD No: 10E (Int. 632 @ Tdist 18.727km)
DATE: Tue, 15/02/05
TIME: 6:00 - 18:00



Time	Leg 1					Leg 2					Leg 3				
	Left		Thru		Leg Total	Left		Right		Leg Total	Thru		Right		Leg Total
	Light	Heavy	Light	Heavy		Light	Heavy	Light	Heavy		Light	Heavy	Light	Heavy	
6:00 - 6:15	1	0	5	1	7	4	4	2	0	10	2	7	3	1	13
6:15 - 6:30	4	0	22	5	31	2	2	4	0	8	3	5	8	7	23
6:30 - 6:45	5	0	6	8	19	3	3	5	0	11	10	1	12	4	27
6:45 - 7:00	4	2	14	11	31	4	4	3	0	11	5	10	2	2	19
7:00 - 7:15	8	2	18	2	30	7	7	5	0	19	6	11	4	5	26
7:15 - 7:30	0	2	14	5	21	6	6	3	0	15	1	5	3	2	11
7:30 - 7:45	1	4	16	10	31	7	7	6	1	21	10	2	1	1	14
7:45 - 8:00	2	5	16	5	28	3	3	1	0	7	19	6	1	1	27
8:00 - 8:15	0	2	17	4	23	5	5	2	0	12	12	6	0	2	20
8:15 - 8:30	1	3	11	8	23	4	4	1	0	9	12	2	1	1	16
8:30 - 8:45	1	0	16	7	24	6	6	0	0	12	8	6	0	1	15
8:45 - 9:00	3	1	17	2	23	5	5	3	0	13	12	5	0	2	19
9:00 - 9:15	0	2	9	3	14	3	3	1	0	7	16	7	0	1	24
9:15 - 9:30	1	1	17	6	25	2	2	1	1	6	18	1	0	1	20
9:30 - 9:45	2	4	18	9	33	3	3	2	0	8	1	4	1	4	10
9:45 - 10:00	2	0	8	0	10	2	2	0	0	4	15	6	4	2	27
10:00 - 10:15	2	2	34	7	45	1	1	1	1	4	9	4	0	2	15
10:15 - 10:30	1	3	14	3	21	2	2	0	1	5	8	10	0	1	19
10:30 - 10:45	2	2	15	8	27	1	1	0	1	3	7	1	1	3	12
10:45 - 11:00	5	2	19	10	36	3	3	1	0	7	3	3	0	0	6
11:00 - 11:15	6	3	30	13	52	2	2	1	1	6	18	2	0	0	20
11:15 - 11:30	5	2	16	6	29	4	4	3	2	13	12	4	1	2	19
11:30 - 11:45	0	0	11	10	21	2	2	2	0	6	18	4	0	1	23
11:45 - 12:00	0	0	16	4	20	0	0	0	0	0	24	14	2	3	43

Count Tally Sheet With Totals and Peak Flows.

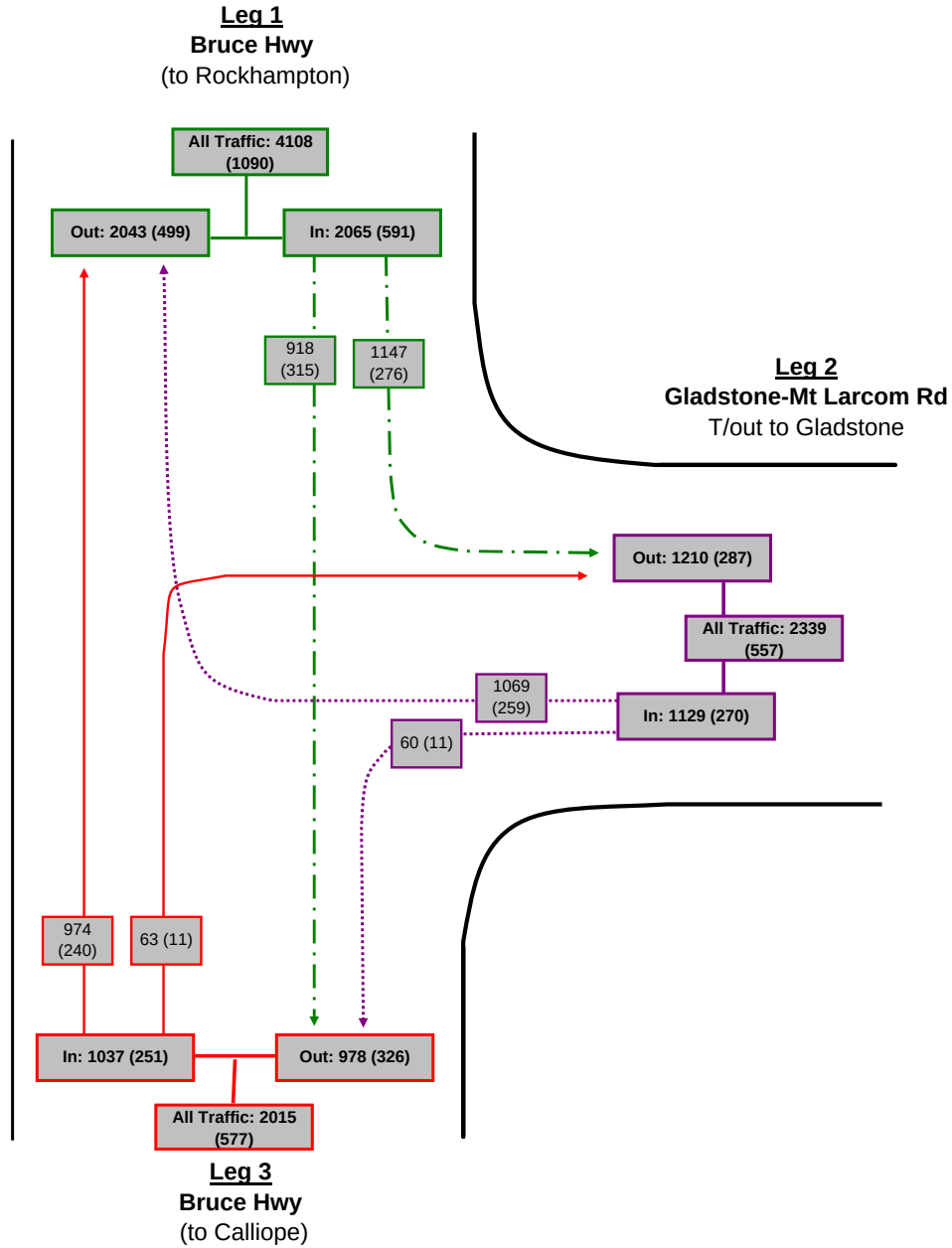


LOCATION: Bruce Hwy & Targinie Road
ROAD No: 10E (Int. 632 @ Tdist 18.727km)
DATE: Tue, 15/02/05
TIME: 6:00 - 18:00



Time	Leg 1					Leg 2					Leg 3				
	Left		Thru		Leg Total	Left		Right		Leg Total	Thru		Right		Leg Total
	Light	Heavy	Light	Heavy		Light	Heavy	Light	Heavy		Light	Heavy	Light	Heavy	
12:00 - 12:15	0	0	10	4	14	2	2	0	0	4	15	2	4	2	23
12:15 - 12:30	0	0	12	1	13	0	0	0	0	0	1	2	0	2	5
12:30 - 12:45	2	0	7	2	11	0	2	0	0	2	13	4	1	0	18
12:45 - 13:00	0	0	5	2	7	1	1	0	0	2	13	5	1	0	19
13:00 - 13:15	0	0	7	2	9	0	2	0	0	2	15	0	1	1	17
13:15 - 13:30	0	0	13	4	17	0	2	0	0	2	12	4	1	2	19
13:30 - 13:45	0	0	10	7	17	5	0	0	0	5	18	3	4	0	25
13:45 - 14:00	0	0	3	2	5	2	0	1	0	3	10	1	1	1	13
14:00 - 14:15	0	0	11	7	18	2	1	1	0	4	14	5	2	1	22
14:15 - 14:30	1	0	12	7	20	1	3	1	0	5	18	4	3	2	27
14:30 - 14:45	1	0	10	3	14	3	0	2	0	5	27	1	0	1	29
14:45 - 15:00	0	0	8	5	13	2	3	2	0	7	14	3	1	1	19
15:00 - 15:15	0	0	15	7	22	1	1	0	1	3	14	9	2	1	26
15:15 - 15:30	0	0	9	5	14	0	0	0	0	0	20	1	4	0	25
15:30 - 15:45	0	0	9	8	17	3	0	1	0	4	16	1	4	1	22
15:45 - 16:00	0	0	6	1	7	0	1	0	0	1	19	5	0	1	25
16:00 - 16:15	0	0	12	10	22	3	0	1	0	4	23	5	2	2	32
16:15 - 16:30	1	0	11	4	16	3	2	1	0	6	8	4	1	0	13
16:30 - 16:45	0	0	16	6	22	0	1	0	0	1	9	2	3	1	15
16:45 - 17:00	0	1	8	5	14	4	0	0	0	4	12	4	0	1	17
17:00 - 17:15	0	0	16	4	20	4	0	0	0	4	7	1	5	0	13
17:15 - 17:30	1	0	15	9	25	6	0	7	0	13	6	3	5	0	14
17:30 - 17:45	1	0	6	2	9	0	0	1	0	1	6	4	0	0	10
17:45 - 18:00	2	0	13	2	17	2	0	1	0	3	8	4	0	0	12
Total:	65	43	623	256	987	125	102	66	9	302	567	203	89	69	928
Peak Count:	21	14	82	39	144	24	24	17	4	66	78	28	0	18	108
Peak Hour:	06:15 to 07:15	07:30 to 08:30	10:00 to 11:00	10:45 to 11:45	10:30 to 11:30	06:45 to 07:45	06:45 to 07:45	06:15 to 07:15	10:30 to 11:30	06:45 to 07:45	15:15 to 16:15	06:45 to 07:45	06:00 to 07:00	06:15 to 07:15	11:15 to 12:15

LOCATION: Bruce Hwy & Gladstone-Mt Larcom Rd
ROAD No: 10E / 181(Int. 51 @ Tdist. 45.41 / 32.14)
DATE: Tue, 11/03/08
TIME: 06:00 - 18:00



Count Tally Sheet With Totals and Peak Flows.



LOCATION: Bruce Hwy & Gladstone-Mt Larcom Rd
ROAD No: 10E / 181(Int. 51 @ Tdist. 45.41 / 32.14)
DATE: Tue, 11/03/08
TIME: 06:00 - 18:00

Time	Leg 1						Leg 2						Leg 3					
	Left		Thru		U-turn	Leg Total	Left		Right		U-turn	Leg Total	Thru		Right		U-turn	Leg Total
	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All	
6:00 - 6:15	10	10	6	3		29	1	0	4	3		8	3	8	2	0		13
6:15 - 6:30	25	14	6	6		51	0	0	2	9		11	11	12	1	0		24
6:30 - 6:45	21	9	7	5		42	1	0	7	8		16	10	7	2	1		20
6:45 - 7:00	16	7	12	8		43	1	0	10	7		18	13	5	0	0		18
7:00 - 7:15	16	11	10	6		43	0	1	11	9		21	4	7	2	1		14
7:15 - 7:30	31	6	9	6		52	1	0	15	5		21	12	6	2	0		20
7:30 - 7:45	27	5	15	15		62	2	0	17	6		25	9	7	0	0		16
7:45 - 8:00	24	10	12	17		63	0	1	25	11		37	11	4	0	0		15
8:00 - 8:15	26	10	13	7		56	0	0	16	3		19	15	4	2	0		21
8:15 - 8:30	23	6	24	7		60	0	0	17	10		27	13	7	3	0		23
8:30 - 8:45	30	4	10	8		52	1	0	19	3		23	13	4	1	0		18
8:45 - 9:00	30	6	14	3		53	0	0	18	6		24	21	5	1	0		27
9:00 - 9:15	25	6	13	2		46	0	0	20	10		30	19	5	1	0		25
9:15 - 9:30	19	4	16	3		42	1	1	10	7		19	13	5	0	0		18
9:30 - 9:45	22	12	20	6		60	1	1	17	5		24	15	8	1	0		24
9:45 - 10:00	14	4	12	9		39	0	0	24	1		25	12	6	0	1		19
10:00 - 10:15	17	7	4	7		35	0	0	12	5		17	13	1	0	0		14
10:15 - 10:30	24	8	16	5		53	1	0	10	4		15	17	7	3	0		27
10:30 - 10:45	24	2	17	11		54	0	0	8	3		11	20	2	2	0		24
10:45 - 11:00	17	7	23	7		54	1	0	8	4		13	12	5	2	0		19
11:00 - 11:15	12	10	11	6		39	2	0	9	6		17	9	7	1	0		17
11:15 - 11:30	17	3	15	5		40	1	0	22	6		29	27	5	3	0		35
11:30 - 11:45	17	3	7	2		29	0	0	10	5		15	18	10	1	0		29
11:45 - 12:00	15	4	12	3		34	2	1	18	8		29	15	0	0	0		15

Count Tally Sheet With Totals and Peak Flows.



LOCATION: Bruce Hwy & Gladstone-Mt Larcom Rd
ROAD No: 10E / 181(Int. 51 @ Tdist. 45.41 / 32.14)
DATE: Tue, 11/03/08
TIME: 06:00 - 18:00

Time	Leg 1						Leg 2						Leg 3					
	Left		Thru		U-turn	Leg Total	Left		Right		U-turn	Leg Total	Thru		Right		U-turn	Leg Total
	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	All	
12:00 - 12:15	13	3	9	6		31	1	0	18	4		23	11	8	1	0		20
12:15 - 12:30	14	9	10	8		41	0	0	15	2		17	19	5	0	0		24
12:30 - 12:45	19	5	14	4		42	0	0	17	1		18	19	4	2	0		25
12:45 - 13:00	14	2	13	5		34	0	0	18	6		24	24	4	0	0		28
13:00 - 13:15	13	3	9	10		35	2	0	17	8		27	22	2	1	0		25
13:15 - 13:30	16	5	11	5		37	0	0	17	1		18	15	6	0	0		21
13:30 - 13:45	15	3	7	8		33	1	0	16	5		22	13	4	0	0		17
13:45 - 14:00	8	5	13	7		33	0	0	10	7		17	18	4	0	0		22
14:00 - 14:15	19	6	9	2		36	2	0	20	3		25	18	2	1	0		21
14:15 - 14:30	10	13	8	9		40	0	0	17	3		20	22	5	1	0		28
14:30 - 14:45	10	7	21	4		42	1	0	16	12		29	13	4	2	0		19
14:45 - 15:00	14	4	12	6		36	1	1	23	7		32	23	7	1	0		31
15:00 - 15:15	21	6	13	12		52	1	0	23	4		28	22	3	2	0		27
15:15 - 15:30	16	3	6	8		33	1	0	28	2		31	22	3	1	0		26
15:30 - 15:45	18	4	24	6		52	1	0	18	7		26	23	4	1	0		28
15:45 - 16:00	25	5	15	8		53	0	0	15	6		21	22	2	2	1		27
16:00 - 16:15	16	4	14	5		39	1	0	26	4		31	20	4	1	1		26
16:15 - 16:30	15	3	18	9		45	7	1	16	9		33	14	4	1	0		19
16:30 - 16:45	16	5	11	8		40	0	0	26	3		29	14	1	2	0		17
16:45 - 17:00	20	6	12	5		43	1	1	28	3		33	14	1	0	5		20
17:00 - 17:15	20	1	13	7		41	3	1	30	3		37	12	4	0	0		16
17:15 - 17:30	12	2	15	3		32	5	1	29	4		39	14	8	1	0		23
17:30 - 17:45	12	1	14	8		35	4	0	20	7		31	7	7	1	0		15
17:45 - 18:00	13	3	8	5		29	1	1	18	4		24	8	7	1	1		17
Total:	871	276	603	315	0	2065	49	11	810	259	0	1129	734	240	52	11	0	1037
Peak Count:	109	41	71	46	0	241	13	3	113	33	0	140	90	32	8	6	0	112
Peak Hour:	08:00 to 09:00	06:15 to 07:15	15:30 to 16:30	07:30 to 08:30	06:00 to 07:00	07:30 to 08:30	16:45 to 17:45	16:15 to 17:15	16:30 to 17:30	06:15 to 07:15	06:00 to 07:00	16:45 to 17:45	14:45 to 15:45	06:00 to 07:00	10:15 to 11:15	16:00 to 17:00	06:00 to 07:00	14:45 to 15:45

Count Tally Sheet

Intersection Of Yaamba Rd and Richardson Rd (Bruce Hwy Rockhampton)

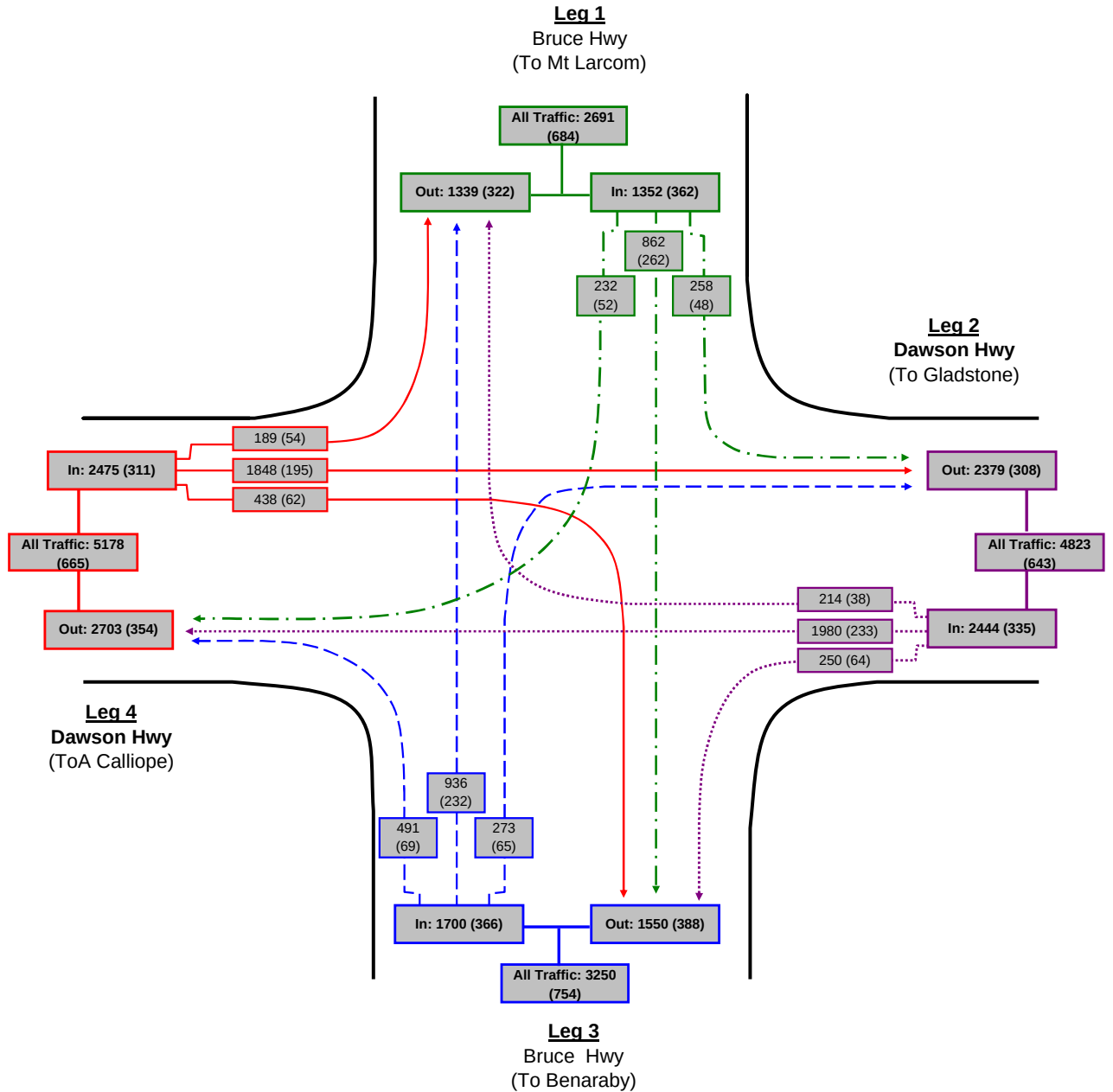
Int 577@ Tdist 5.517km)

LOCATION: Int Bruce Hwy & Dawson Hwy

ROAD No: 10E & 46A (Int 40 @ Tist 11.585km & km)

DATE: Thu, 03/04/08

TIME: 06:00 - 18:00



Count Tally Sheet
 Int Bruce Hwy Dawson Hwy
 10E and 46A Int 40 @ Tdist 11.58km 19.050km

Time	Leg 1								Leg 2							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	2	2H	3	3H	4	4H			3	3H	4	4H	1	1H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
6:00 - 6:15	4	0	6	8	5	1		24	3	1	22	2	4	1		33
6:15 - 6:30	11	0	7	1	7	0		26	6	0	36	11	3	2		58
6:30 - 6:45	11	1	9	3	3	1		28	4	2	18	9	6	0		39
6:45 - 7:00	3	1	16	5	1	1		27	6	1	24	6	1	0		38
7:00 - 7:15	3	1	9	3	5	1		22	11	1	24	5	2	0		43
7:15 - 7:30	3	0	4	2	2	0		11	7	0	20	3	2	2		34
7:30 - 7:45	9	0	12	2	3	2		28	1	0	22	8	3	1		35
7:45 - 8:00	10	1	3	3	6	3		26	5	1	34	10	3	0		53
8:00 - 8:15	12	2	13	4	5	1		37	6	1	32	10	2	0		51
8:15 - 8:30	10	2	23	6	8	3		52	2	2	34	1	0	0		39
8:30 - 8:45	3	0	12	10	4	0		29	7	3	35	4	1	2		52
8:45 - 9:00	3	1	9	2	8	1		24	4	1	31	5	3	0		44
9:00 - 9:15	4	0	15	9	3	0		31	4	1	31	9	1	2		48
9:15 - 9:30	2	0	10	5	6	2		25	5	2	24	11	2	3		47
9:30 - 9:45	4	0	13	2	4	1		24	1	2	19	6	4	0		32
9:45 - 10:00	4	1	19	5	5	2		36	2	0	27	6	2	0		37
10:00 - 10:15	2	2	21	9	0	2		36	2	1	24	3	1	0		31
10:15 - 10:30	3	3	13	5	1	2		27	1	2	21	4	1	1		30
10:30 - 10:45	2	2	14	9	1	1		29	5	5	20	2	3	2		37
10:45 - 11:00	3	2	14	4	2	0		25	0	1	25	5	1	1		33
11:00 - 11:15	3	1	20	5	4	3		36	0	2	17	4	4	0		27
11:15 - 11:30	3	0	14	5	6	1		29	2	2	24	8	4	2		42
11:30 - 11:45	1	1	7	8	0	0		17	5	0	31	7	1	1		45
11:45 - 12:00	5	1	13	5	5	0		29	2	4	28	4	3	1		42

Count Tally Sheet
 Int Bruce Hwy Dawson Hwy
 10E and 46A Int 40 @ Tdist 11.58km 19.050km

Time	Leg 1								Leg 2							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	2	2H	3	3H	4	4H			3	3H	4	4H	1	1H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
12:00 - 12:15	5	0	16	12	4	1		38	1	2	33	3	2	1		42
12:15 - 12:30	3	1	9	4	1	0		18	4	0	27	6	3	2		42
12:30 - 12:45	4	0	11	1	4	2		22	4	2	24	6	4	0		40
12:45 - 13:00	3	1	14	3	2	2		25	2	3	27	4	2	1		39
13:00 - 13:15	2	2	12	6	2	0		24	5	0	35	5	4	0		49
13:15 - 13:30	7	1	17	4	4	0		33	5	1	33	2	4	0		45
13:30 - 13:45	5	1	16	5	2	0		29	0	2	40	2	2	0		46
13:45 - 14:00	7	3	15	4	3	4		36	4	1	25	3	5	1		39
14:00 - 14:15	7	0	16	5	2	0		30	3	1	31	4	4	0		43
14:15 - 14:30	6	0	17	5	1	1		30	1	0	32	7	3	2		45
14:30 - 14:45	1	1	20	10	4	1		37	2	1	39	3	5	0		50
14:45 - 15:00	1	0	15	6	2	1		25	7	0	42	7	9	2		67
15:00 - 15:15	5	1	12	6	1	0		25	1	0	57	2	2	0		62
15:15 - 15:30	4	2	7	5	1	0		19	2	2	71	2	6	1		84
15:30 - 15:45	2	0	8	4	2	2		18	3	3	41	9	4	1		61
15:45 - 16:00	4	3	16	12	5	3		43	5	4	47	6	4	1		67
16:00 - 16:15	3	1	11	2	4	3		24	12	1	57	2	4	2		78
16:15 - 16:30	2	2	7	7	12	3		33	5	1	57	3	4	0		70
16:30 - 16:45	1	1	11	6	9	0		28	6	2	64	1	7	0		80
16:45 - 17:00	3	2	17	9	2	0		33	3	0	75	3	6	1		88
17:00 - 17:15	8	0	9	9	8	0		34	2	0	50	3	5	1		61
17:15 - 17:30	4	2	5	11	4	1		27	4	2	80	5	14	0		105
17:30 - 17:45	3	0	14	4	3	0		24	5	0	57	1	8	1		72
17:45 - 18:00	2	2	9	2	4	0		19	9	1	80	1	8	0		99
Total:	210	48	600	262	180	52	0	1352	186	64	1747	233	176	38	0	2444
Peak Count:	46		95		39		0	144	36		281		37		0	337
Peak Hour:	07:30 to 08:30		09:45 to 10:45		15:45 to 16:45		06:00 to 07:00	07:45 to 08:45	15:45 to 16:45		16:30 to 17:30		17:00 to 18:00		06:00 to 07:00	17:00 to 18:00

Data Collection Date:
 Compiled by:

Count Tally Sheet
 Int Bruce Hwy Dawson Hwy
 10E and 46A Int 40 @ Tdist 11.58km 19.050km

Time	Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	4	4H	1	1H	2	2H			1	1H	2	2H	3	3H		
	<i>Light</i>	<i>Heavy</i>	<i>Light</i>	<i>Heavy</i>	<i>Light</i>	<i>Heavy</i>	<i>All</i>		<i>Light</i>	<i>Heavy</i>	<i>Light</i>	<i>Heavy</i>	<i>Light</i>	<i>Heavy</i>	<i>All</i>	
6:00 - 6:15	9	2	6	4	9	1		31	5	1	41	1	4	0		52
6:15 - 6:30	12	2	8	2	5	1		30	7	0	52	6	8	0		73
6:30 - 6:45	7	0	6	2	13	2		30	2	0	77	8	7	1		95
6:45 - 7:00	11	2	7	2	7	8		37	4	4	37	3	4	3		55
7:00 - 7:15	11	0	5	4	2	1		23	3	3	39	7	2	2		56
7:15 - 7:30	8	2	11	6	5	3		35	3	2	39	4	4	2		54
7:30 - 7:45	16	3	7	13	5	5		49	1	2	49	12	8	0		72
7:45 - 8:00	13	2	15	5	8	0		43	6	3	49	6	8	0		72
8:00 - 8:15	14	2	9	7	2	2		36	4	1	61	15	6	3		90
8:15 - 8:30	8	1	16	5	3	1		34	3	3	57	6	6	1		76
8:30 - 8:45	9	1	11	8	2	3		34	4	0	44	7	4	2		61
8:45 - 9:00	9	3	13	3	1	2		31	1	1	42	4	11	2		61
9:00 - 9:15	17	0	13	11	3	1		45	5	1	48	1	7	4		66
9:15 - 9:30	9	0	16	5	5	0		35	4	0	30	4	5	1		44
9:30 - 9:45	14	0	17	9	4	0		44	2	1	57	3	7	1		71
9:45 - 10:00	4	0	18	5	6	1		34	3	1	24	1	4	2		35
10:00 - 10:15	4	4	10	6	4	1		29	4	2	25	2	8	2		43
10:15 - 10:30	9	1	19	8	8	1		46	2	0	21	7	7	0		37
10:30 - 10:45	9	4	23	3	5	0		44	2	1	23	4	6	0		36
10:45 - 11:00	5	1	18	5	3	1		33	5	3	25	5	10	2		50
11:00 - 11:15	5	0	18	4	6	3		36	2	1	34	7	6	1		51
11:15 - 11:30	7	1	23	4	6	5		46	2	1	25	3	8	1		40
11:30 - 11:45	5	1	28	11	8	1		54	3	4	24	5	8	6		50
11:45 - 12:00	10	0	25	5	6	1		47	1	0	26	3	8	2		40

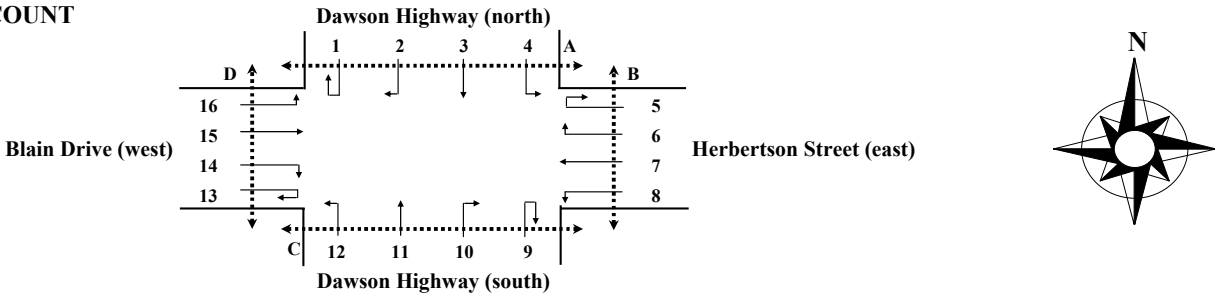
Count Tally Sheet
 Int Bruce Hwy Dawson Hwy
 10E and 46A Int 40 @ Tdist 11.58km 19.050km

Time	Leg 3								Leg 4							
	Left		Thru		Right		U-turn	Leg Total	Left		Thru		Right		U-turn	Leg Total
	4	4H	1	1H	2	2H			1	1H	2	2H	3	3H		
	Light	Heavy	Light	Heavy	Light	Heavy	All		Light	Heavy	Light	Heavy	Light	Heavy	All	
12:00 - 12:15	7	0	11	4	4	1		27	1	1	15	0	6	1		24
12:15 - 12:30	5	0	18	3	2	1		29	2	0	20	3	7	4		36
12:30 - 12:45	7	3	16	5	2	3		36	2	0	26	4	4	0		36
12:45 - 13:00	5	1	15	3	3	2		29	0	2	18	3	6	0		29
13:00 - 13:15	7	1	14	3	0	0		25	6	1	22	2	3	2		36
13:15 - 13:30	8	1	26	5	4	1		45	0	2	19	7	7	1		36
13:30 - 13:45	6	1	22	5	4	1		39	0	0	25	4	4	1		34
13:45 - 14:00	2	1	15	3	1	2		24	0	0	18	4	7	0		29
14:00 - 14:15	6	0	14	3	3	2		28	4	1	19	4	4	1		33
14:15 - 14:30	3	2	11	5	1	2		24	5	2	29	3	7	1		47
14:30 - 14:45	7	2	11	5	6	2		33	3	1	31	2	16	2		55
14:45 - 15:00	9	3	11	3	2	0		28	0	2	20	2	8	0		32
15:00 - 15:15	8	1	19	3	4	2		37	2	0	30	1	11	0		44
15:15 - 15:30	13	3	17	3	1	0		37	1	0	37	3	5	0		46
15:30 - 15:45	8	6	14	1	1	1		31	5	0	43	3	10	2		63
15:45 - 16:00	6	2	15	5	4	0		32	1	2	42	8	7	2		62
16:00 - 16:15	15	1	25	4	7	1		53	2	2	33	7	4	0		48
16:15 - 16:30	16	2	18	5	6	0		47	4	2	27	3	12	3		51
16:30 - 16:45	11	0	6	5	7	0		29	2	1	36	3	21	1		64
16:45 - 17:00	7	3	17	7	4	0		38	3	0	43	0	13	0		59
17:00 - 17:15	10	0	8	3	3	0		24	3	0	41	1	15	2		62
17:15 - 17:30	13	1	13	3	5	0		35	2	0	37	0	11	1		51
17:30 - 17:45	10	2	11	3	4	0		30	4	0	38	1	17	0		60
17:45 - 18:00	8	1	15	6	4	0		34	5	0	35	3	15	0		58
Total:	422	69	704	232	208	65	0	1700	135	54	1653	195	376	62	0	2475
Peak Count:	60		118		46		0	183	24		255		67		0	310
Peak Hour:	07:15 to 08:15		11:00 to 12:00		06:00 to 07:00		06:00 to 07:00	11:00 to 12:00	07:45 to 08:45		07:30 to 08:30		16:15 to 17:15		06:00 to 07:00	07:30 to 08:30

Data Collection Date:
 Compiled by:

AUSTRALASIAN TRAFFIC SURVEYS MANUAL INTERSECTION COUNT

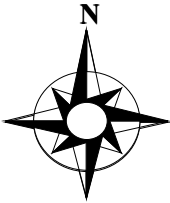
Site No.: 4 Weather: Fine
Location: Dawson Highway/Blain Drive, Gladstone
Day/Date: Thursday 9 February 2006
AM Peak: Hour ending - 8:30 AM
PM Peak: Hour ending - 5:30 PM



TIME (1/4 hr end)	Movement 1					Movement 2					Movement 3					Movement 4					Movement 5					Movement 6					Movement 7					Movement 8				
	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists					
5:45 AM	0	0	0	0	0	16	0	0	16	0	19	2	0	21	0	5	1	0	6	0	0	0	0	0	8	0	0	8	0	28	0	0	28	0	6	0	0	6	0	
6:00 AM	0	0	0	0	0	5	1	0	6	0	19	0	0	19	0	2	0	0	2	0	0	0	0	4	0	0	4	0	11	0	0	11	0	0	0	0	0	0		
6:15 AM	0	0	0	0	0	15	0	0	15	0	21	2	0	23	0	9	0	0	9	0	0	0	0	4	2	0	6	0	15	1	0	16	0	2	0	0	2	0		
6:30 AM	0	0	0	0	0	13	2	0	15	0	30	2	0	32	0	2	0	0	2	0	0	0	0	3	0	0	3	0	32	0	0	32	0	3	0	0	3	0		
6:45 AM	0	0	0	0	0	18	2	0	20	0	29	4	0	33	0	4	0	0	4	0	0	0	0	13	1	0	14	0	11	1	0	12	0	4	0	0	4	0		
7:00 AM	0	0	0	0	0	10	1	0	11	0	34	2	0	36	0	0	1	0	1	0	0	0	0	8	1	0	9	0	14	0	0	14	0	7	0	0	7	0		
7:15 AM	0	0	0	0	0	5	1	0	6	0	50	2	0	52	0	4	0	0	4	0	0	0	0	5	1	0	6	0	8	1	0	9	0	4	0	0	4	0		
7:30 AM	0	0	0	0	0	8	2	0	10	0	56	4	0	60	0	6	1	0	7	0	0	0	0	16	0	0	16	0	12	1	0	13	0	3	0	0	3	0		
7:45 AM	0	0	0	0	0	7	4	0	11	0	46	13	0	59	0	9	0	0	9	0	0	0	0	10	1	0	11	0	5	1	0	6	0	3	0	0	3	0		
8:00 AM	0	0	0	0	0	7	5	0	12	0	88	5	0	93	0	8	1	0	9	0	0	0	0	27	1	0	28	0	11	0	0	11	0	6	0	0	6	0		
8:15 AM	0	0	0	0	0	6	0	0	6	0	88	3	0	91	0	10	0	0	10	0	0	0	0	22	0	0	22	0	6	1	0	7	0	5	0	0	5	0		
8:30 AM	0	0	0	0	0	6	0	0	6	0	132	7	0	139	0	8	0	0	8	0	0	0	0	37	2	0	39	0	6	1	0	7	0	3	0	0	3	0		
3 hr Total	0	0	0	0	0	116	18	0	134	0	612	46	0	658	0	67	4	0	71	0	0	0	0	157	9	0	166	0	159	7	0	166	0	46	0	0	46	0		
AM Peak	0	0	0	0	0	26	9	0	35	0	354	28	0	382	0	35	1	0	36	0	0	0	0	96	4	0	100	0	28	3	0	31	0	17	0	0	17	0		

TIME (1/4 hr end)	Movement 1					Movement 2					Movement 3					Movement 4					Movement 5					Movement 6					Movement 7					Movement 8				
	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists					
2:45 PM	0	0	0	0	0	11	1	0	12	0	193	8	0	201	0	19	0	0	19	0	0	0	0	0	22	3	0	25	0	6	0	0	6	0	9	0	0	9	0	
3:00 PM	0	0	0	0	0	7	1	0	8	0	111	4	0	115	0	11	0	0	11	0	0	0	0	0	15	1	0	16	0	9	1	0	10	0	5	0	0	5	0	
3:15 PM	0	0	0	0	0	6	1	0	7	0	184	4	0	188	0	22	1	0	23	0	0	0	0	0	14	1	0	15	0	3	1	0	4	0	4	0	0	4	0	
3:30 PM	0	0	0	0	0	3	2	0	5	0	237	14	0	251	0	23	0	0	23	0	0	0	0	0	18	0	0	18	0	7	0	0	7	0	19	1	0	20	0	
3:45 PM	0	0	0	0	0	3	2	0	5	0	207	7	0	214	0	22	0	0	22	0	0	0	0	0	29	0	0	29	0	7	0	0	7	0	8	0	0	8	0	
4:00 PM	0	0	0	0	0	4	0	0	4	0	160	2	0	162	0	16	0	0	16	0	0	0	0	0	8	1	0	9	0	5	0	0	5	0	5	0	0	5	0	
4:15 PM	0	0	0	0	0	7	1	0	8	0	197	1	0	198	0	26	1	0	27	0	0	0	0	0	12	1	0	13	0	10	0	0	10	0	9	0	0	9	0	
4:30 PM	0	0	0	0	0	3	2	0	5	0	161	1	0	162	0	9	0	0	9	0	0	0	0	0	8	0	0	8	0	5	0	0	5	0	3	0	0	3	0	
4:45 PM	0	0	0	0	0	2	1	0	3	0	251	0	0	251	0	28	0	0	28	0	0	0	0	0	17	0	0	17	0	7	0	0	7	0	7	0	0	7	0	
5:00 PM	0	0	0	0	0	3	2	0	5	0	173	2	0	175	0	10	0	0	10	0	0	0	0	0	6	0	0	6	0	6	0	0	6	0	9	0	0	9	0	
5:15 PM	0	0	0	0	0	11	1	0	12	0	211	2	0	213	0	26	0	0	26	0	0	0	0	0	18	0	0	18	0	8	0	0	8	0	8	0	0	8	0	
5:30 PM	0	0	0	0	0	4	2	0	6	0	302	3	0	305	0	27	0	0	27	0	0	0	0	0	10	0	0	10	0	4	0	0	4	0	9	0	0	9	0	
3 hr Total	0	0	0	0	0	64	16	0	80	0	2387	48	0	2435	0	239	2	0	241	0	0	0	0	0	177	7	0	184	0	77	2	0	79	0	95	1	0	96	0	
PM Peak	0	0	0	0	0	20	6	0	26	0	937	7	0	944	0	91	0	0	91	0	0	0	0	0	51	0	0	51	0	25	0	0	25	0	33	0	0	33	0	

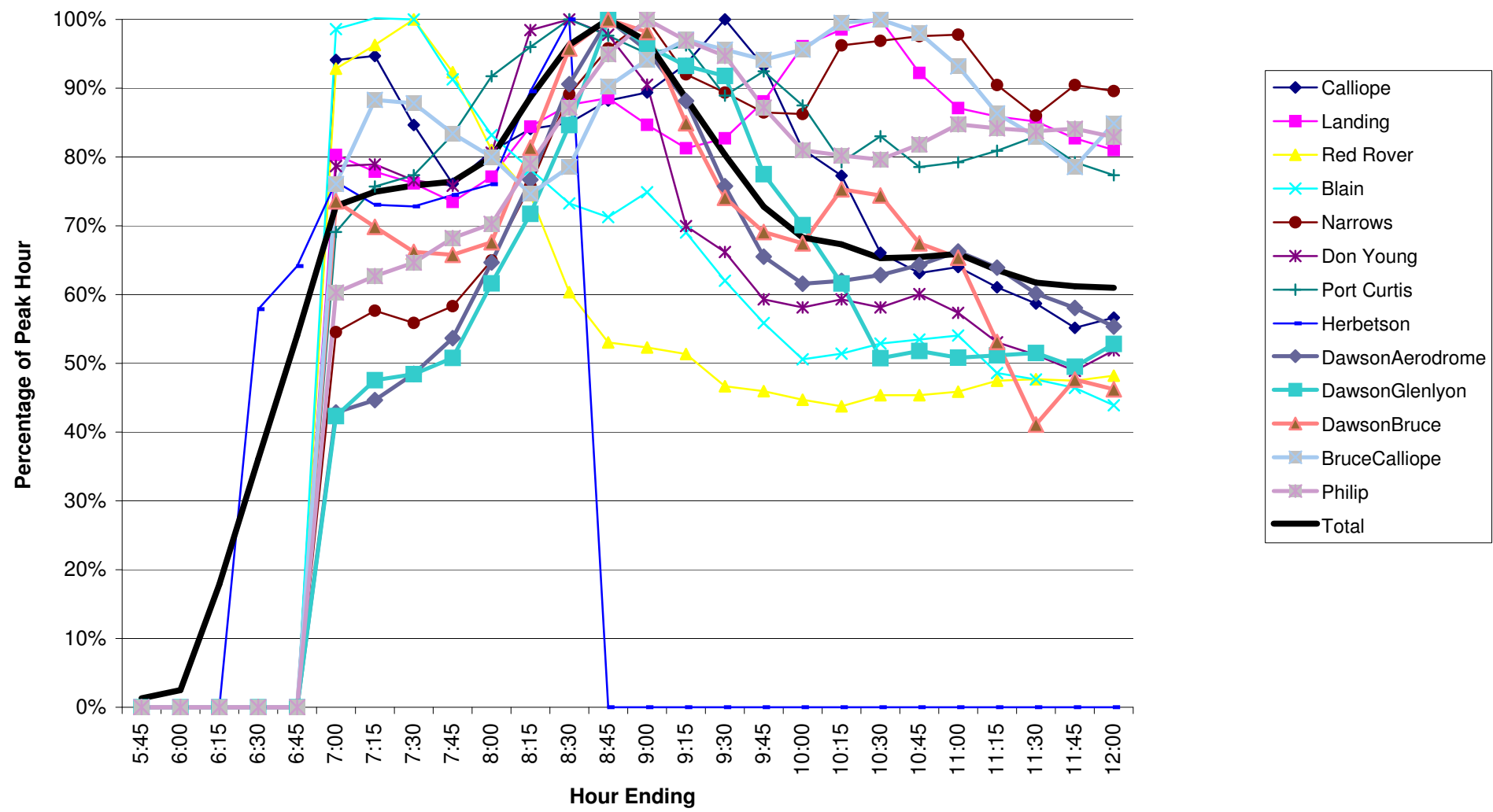
The diagram illustrates the intersection of Dawson Highway (north-south) and Blain Drive (east-west). Dawson Highway has 12 lanes, numbered 1 to 12 from north to south. Blain Drive has 8 lanes, numbered 5 to 8 from north to south. The diagram shows traffic flow and lane markings for both roads.



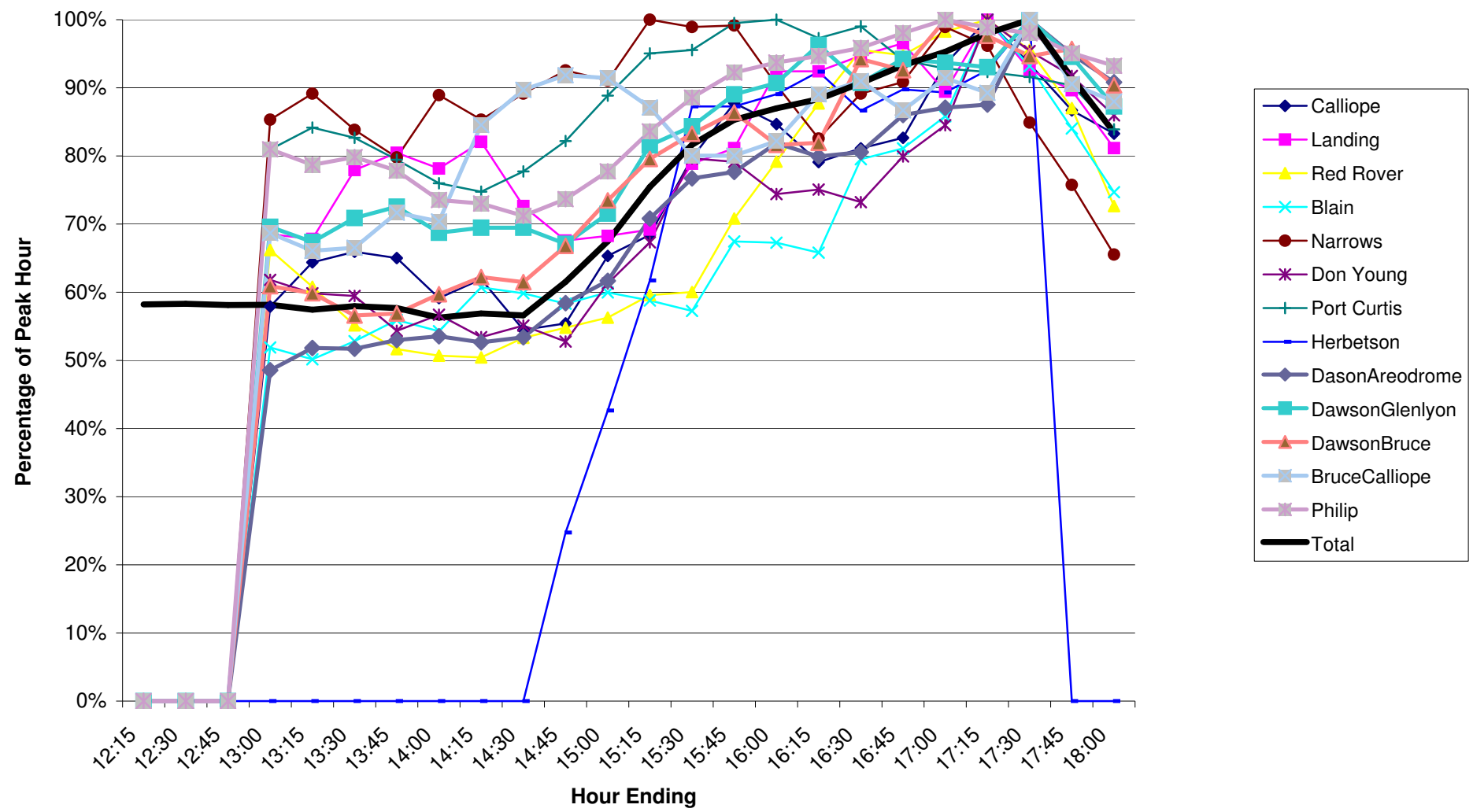
TIME (1/4 hr end)	Movement 9					Movement 10					Movement 11					Movement 12					Movement 13					Movement 14					Movement 15					Movement 16					Pedestrian Movements			
	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	Light Vehicles	Heavy Vehicles	Not Applicable	Total	Cyclists	A	B	C	D					
5:45 AM	0	0	0	0	0	0	0	0	0	0	25	1	0	26	0	60	0	0	60	0	1	0	0	1	0	16	1	0	17	0	3	0	0	3	0	11	1	0	12	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	35	0	0	35	0	90	0	0	90	0	0	0	0	0	10	2	0	12	0	2	0	0	2	0	6	1	0	7	0	0	0	0	0	
6:15 AM	3	0	0	3	0	6	1	0	7	0	57	1	0	58	0	119	1	0	120	0	2	0	0	2	0	15	3	0	18	0	4	1	0	5	0	9	2	0	11	0	0	0	0	0
6:30 AM	0	0	0	0	0	1	0	0	1	0	70	4	0	74	0	138	4	0	142	0	1	0	0	1	0	16	5	0	21	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	68	2	0	70	0	135	3	0	138	0	0	0	0	0	9	3	0	12	0	1	0	0	1	0	1	3	0	4	0	0	0	0	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	102	3	0	105	0	191	2	0	193	0	0	0	0	0	18	5	0	23	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	
7:15 AM	0	0	0	0	0	1	0	0	1	0	63	0	0	63	0	46	8	0	54	0	0	0	0	0	21	1	0	22	0	5	0	0	5	0	6	0	0	6	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	81	1	0	82	0	77	5	0	82	0	2	0	0	2	0	31	5	0	36	0	4	0	0	4	0	9	0	0	9	0	0	0	0	0
7:45 AM	1	0	0	1	0	1	1	0	2	0	134	3	0	137	0	62	7	0	69	0	0	0	0	0	21	8	0	29	0	0	0	0	0	5	0	0	5	0	0	0	0	0		
8:00 AM	0	0	0	0	0	0	2	0	2	0	172	5	0	177	0	52	3	0	55	0	0	0	0	0	22	3	0	25	0	8	1	0	9	0	0	1	0	0	0	0	0	0		
8:15 AM	0	0	0	0	0	0	0	0	0	0	237	2	0	239	0	46	1	0	47	0	0	0	0	0	30	3	0	33	0	4	0	0	4	0	3	0	0	3	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	199	9	0	208	0	50	2	0	52	0	0	0	0	0	26	8	0	34	0	6	0	0	6	0	1	1	0	2	0	0	0	0	0	
3 hr Total	4	0	0	4	0	9	4	0	13	0	1243	31	0	1274	0	1066	36	0	1102	0	6	0	0	6	0	235	47	0	282	0	38	2	0	40	0	51	11	0	62	0	0	0	0	
AM Peak	1	0	0	1	0	1	3	0	4	0	742	19	0	761	0	210	13	0	223	0	0	0	0	0	99	22	0	121	0	18	1	0	19	0	9	2	0	11	0	0	0	0	0	

[illegible]

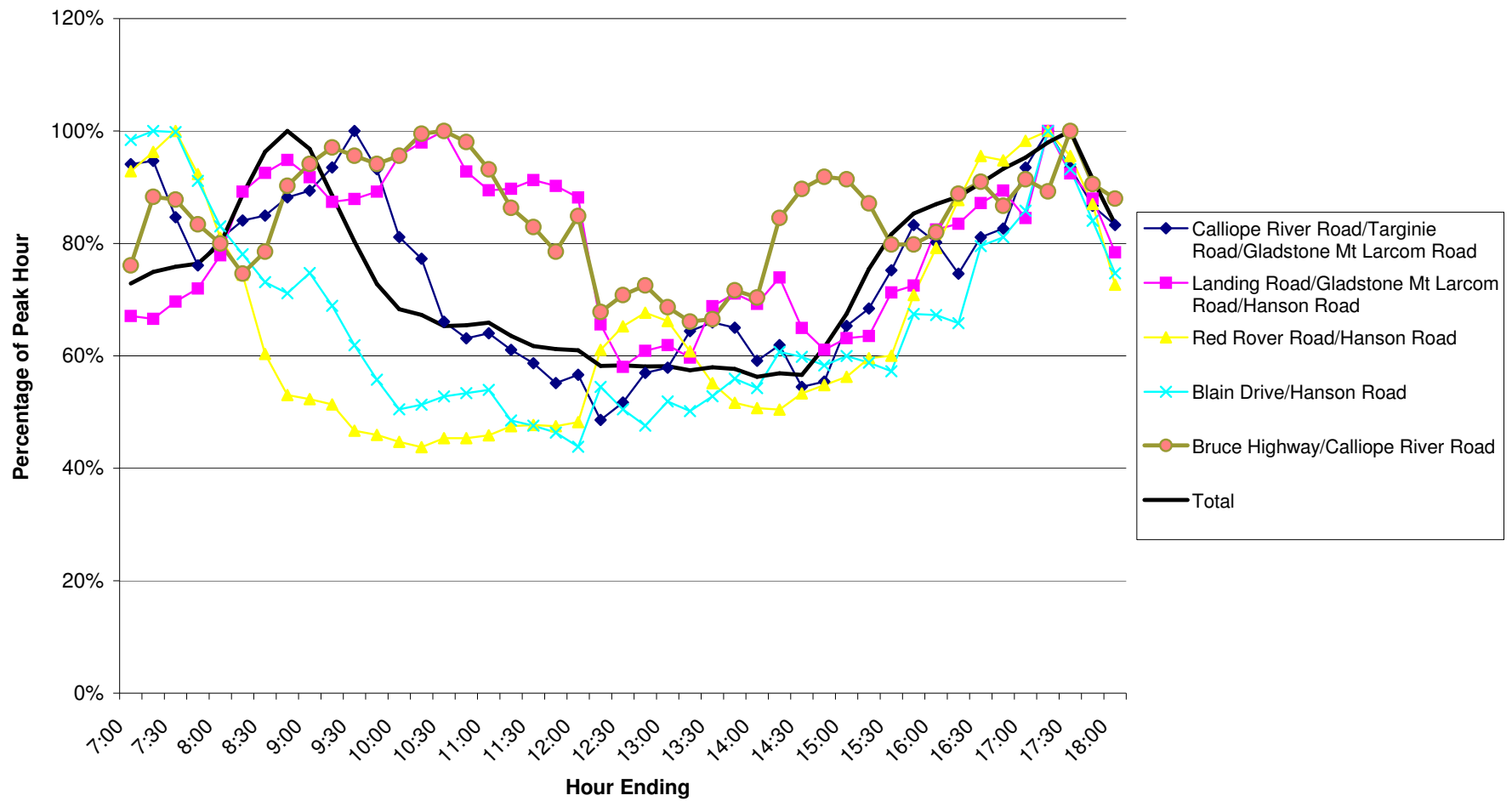
AM Peak Volume Distribution



PM Peak Volume Distribution



12h Volume Distribution



[illegible]

Sampling Period Distribution of 1-Minute Road Network Flows						Average Flow Rate
Interval (min)	Flow (veh)	East	West	Total	Flow Rate (veh/min)	
0:00-0:05	10	10	10	20	2.0	
0:05-0:10	10	10	10	20	2.0	
0:10-0:15	10	10	10	20	2.0	
0:15-0:20	10	10	10	20	2.0	
0:20-0:25	10	10	10	20	2.0	
0:25-0:30	10	10	10	20	2.0	
0:30-0:35	10	10	10	20	2.0	
0:35-0:40	10	10	10	20	2.0	
0:40-0:45	10	10	10	20	2.0	
0:45-0:50	10	10	10	20	2.0	
0:50-0:55	10	10	10	20	2.0	
0:55-1:00	10	10	10	20	2.0	
1:00-1:05	10	10	10	20	2.0	
1:05-1:10	10	10	10	20	2.0	
1:10-1:15	10	10	10	20	2.0	
1:15-1:20	10	10	10	20	2.0	
1:20-1:25	10	10	10	20	2.0	
1:25-1:30	10	10	10	20	2.0	
1:30-1:35	10	10	10	20	2.0	
1:35-1:40	10	10	10	20	2.0	
1:40-1:45	10	10	10	20	2.0	
1:45-1:50	10	10	10	20	2.0	
1:50-1:55	10	10	10	20	2.0	
1:55-2:00	10	10	10	20	2.0	
2:00-2:05	10	10	10	20	2.0	
2:05-2:10	10	10	10	20	2.0	
2:10-2:15	10	10	10	20	2.0	
2:15-2:20	10	10	10	20	2.0	
2:20-2:25	10	10	10	20	2.0	
2:25-2:30	10	10	10	20	2.0	
2:30-2:35	10	10	10	20	2.0	
2:35-2:40	10	10	10	20	2.0	
2:40-2:45	10	10	10	20	2.0	
2:45-2:50	10	10	10	20	2.0	
2:50-2:55	10	10	10	20	2.0	
2:55-3:00	10	10	10	20	2.0	
3:00-3:05	10	10	10	20	2.0	
3:05-3:10	10	10	10	20	2.0	
3:10-3:15	10	10	10	20	2.0	
3:15-3:20	10	10	10	20	2.0	
3:20-3:25	10	10	10	20	2.0	
3:25-3:30	10	10	10	20	2.0	
3:30-3:35	10	10	10	20	2.0	
3:35-3:40	10	10	10	20	2.0	
3:40-3:45	10	10	10	20	2.0	
3:45-3:50	10	10	10	20	2.0	
3:50-3:55	10	10	10	20	2.0	
3:55-4:00	10	10	10	20	2.0	
4:00-4:05	10	10	10	20	2.0	
4:05-4:10	10	10	10	20	2.0	
4:10-4:15	10	10	10	20	2.0	
4:15-4:20	10	10	10	20	2.0	
4:20-4:25	10	10	10	20	2.0	
4:25-4:30	10	10	10	20	2.0	
4:30-4:35	10	10	10	20	2.0	
4:35-4:40	10	10	10	20	2.0	
4:40-4:45	10	10	10	20	2.0	
4:45-4:50	10	10	10	20	2.0	
4:50-4:55	10	10	10	20	2.0	
4:55-5:00	10	10	10	20	2.0	
5:00-5:05	10	10	10	20	2.0	
5:05-5:10	10	10	10	20	2.0	
5:10-5:15	10	10	10	20	2.0	
5:15-5:20	10	10	10	20	2.0	
5:20-5:25	10	10	10	20	2.0	
5:25-5:30	10	10	10	20	2.0	
5:30-5:35	10	10	10	20	2.0	
5:35-5:40	10	10	10	20	2.0	
5:40-5:45	10	10	10	20	2.0	
5:45-5:50	10	10	10	20	2.0	
5:50-5:55	10	10	10	20	2.0	
5:55-6:00	10	10	10	20	2.0	
6:00-6:05	10	10	10	20	2.0	
6:05-6:10	10	10	10	20	2.0	
6:10-6:15	10	10	10	20	2.0	
6:15-6:20	10	10	10	20	2.0	
6:20-6:25	10	10	10	20	2.0	
6:25-6:30	10	10	10	20	2.0	
6:30-6:35	10	10	10	20	2.0	
6:35-6:40	10	10	10	20	2.0	
6:40-6:45	10	10	10	20	2.0	
6:45-6:50	10	10	10	20	2.0	
6:50-6:55	10	10	10	20	2.0	
6:55-7:00	10	10	10	20	2.0	
7:00-7:05	10	10	10	20	2.0	
7:05-7:10	10	10	10	20	2.0	
7:10-7:15	10	10	10	20	2.0	
7:15-7:20	10	10	10	20	2.0	
7:20-7:25	10	10	10	20	2.0	
7:25-7:30	10	10	10	20	2.0	
7:30-7:35	10	10	10	20	2.0	
7:35-7:40	10	10	10	20	2.0	
7:40-7:45	10	10	10	20	2.0	
7:45-7:50	10	10	10	20	2.0	
7:50-7:55	10	10	10	20	2.0	
7:55-8:00	10	10	10	20	2.0	
8:00-8:05	10	10	10	20	2.0	
8:05-8:10	10	10	10	20	2.0	
8:10-8:15	10	10	10	20	2.0	
8:15-8:20	10	10	10	20	2.0	
8:20-8:25	10	10	10	20	2.0	
8:25-8:30	10	10	10	20	2.0	
8:30-8:35	10	10	10	20	2.0	
8:35-8:40	10	10	10	20	2.0	
8:40-8:45	10	10	10	20	2.0	
8:45-8:50	10	10	10	20	2.0	
8:50-8:55	10	10	10	20	2.0	
8:55-9:00	10	10	10	20	2.0	
9:00-9:05	10	10	10	20	2.0	
9:05-9:10	10	10	10	20	2.0	
9:10-9:15	10	10	10	20	2.0	
9:15-9:20	10	10	10	20	2.0	
9:20-9:25	10	10	10	20	2.0	
9:25-9:30	10	10	10	20	2.0	
9:30-9:35	10	10	10	20	2.0	
9:35-9:40	10	10	10	20	2.0	
9:40-9:45	10	10	10	20	2.0	
9:45-9:50	10	10	10	20	2.0	
9:50-9:55	10	10	10	20	2.0	
9:55-10:00	10	10	10	20	2.0	
10:00-10:05	10	10	10	20	2.0	
10:05-10:10	10	10	10	20	2.0	
10:10-10:15	10	10	10	20	2.0	
10:15-10:20	10	10	10	20	2.0	
10:20-10:25	10	10	10	20	2.0	
10:25-10:30	10	10	10	20	2.0	
10:30-10:35	10	10	10	20	2.0	
10:35-10:40	10	10	10	20	2.0	
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10:50-10:55	10	10	10	20	2.0	
10:55-11:00	10	10	10	20	2.0	
11:00-11:05	10	10	10	20	2.0	
11:05-11:10	10	10	10	20	2.0	
11:10-11:15	10	10	10	20	2.0	
11:15-11:20	10	10	10	20	2.0	
11:20-11:25	10	10	10	20	2.0	
11:25-11:30	10	10	10	20	2.0	
11:30-11:35	10	10	10	20	2.0	
11:35-11:40	10	10	10	20	2.0	
11:40-11:45	10	10	10	20	2.0	
11:45-11:50	10	10	10	20	2.0	
11:50-11:55	10	10	10	20	2.0	
11:55-12:00	10	10	10	20	2.0	
12:00-12:05	10	10	10	20	2.0	
12:05-12:10	10	10	10	20	2.0	
12:10-12:15	10	10	10	20	2.0	
12:15-12:20	10	10	10	20	2.0	
12:20-12:25	10	10	10	20	2.0	
12:25-12:30	10	10	10	20	2.0	
12:30-12:35	10	10	10	20	2.0	
12:35-12:40	10	10	10	20	2.0	
12:40-12:45	10	10	10	20	2.0	
12:45-12:50	10	10	10	20	2.0	
12:50-12:55	10	10	10	20	2.0	
12:55-1:00	10	10	10	20	2.0	
1:00-1:05	10	10	10	20	2.0	
1:05-1:10	10	10	10	20	2.0	
1:10-1:15	10	10	10	20	2.0	
1:15-1:20	10	10	10	20	2.0	
1:20-1:25	10	10	10	20	2.0	
1:25-1:30	10	10	10	20	2.0	
1:30-1:35	10	10	10	20	2.0	
1:35-1:40	10	10	10	20	2.0	
1:40-1:45	10	10	10	20	2.0	
1:45-1:50	10	10	10	20	2.0	
1:50-1:55	10	10	10	20	2.0	
1:55-2:00	10	10	10	20	2.0	
2:00-2:05	10	10	10	20	2.0	
2:05-2:10	10	10	10	20	2.0	
2:10-2:15	10	10	10	20	2.0	
2:15-2:20	10	10	10	20	2.0	
2:20-2:25	10	10	10	20	2.0	
2:25-2:30	10	10	10	20	2.0	
2:30-2:35	10	10	10	20	2.0	
2:35-2:40	10	10	10	20	2.0	
2:40-2:45	10	10	10	20	2.0	
2:45-2:50	10	10	10	20	2.0	
2:50-2:55	10	10	10	20	2.0	
2:55-3:00	10	10	10	20	2.0	
3:00-3:05	10	10	10	20	2.0	
3:05-3:10	10	10	10	20	2.0	
3:10-3:15	10	10	10	20	2.0	
3:15-3:20	10	10	10	20	2.0	
3:20-3:25	10	10	10	20	2.0	
3:25-3:30	10	10	10	20	2.0	
3:30-3:35	10	10	10	20	2.0	
3:35-3:40	10	10	10	20	2.0	
3:40-3:45	10	10	10	20	2.0	
3:45-3:50	10	10	10	20	2.0	
3:50-3:55	10	10	10	20	2.0	
3:55-4:00	10	10	10	20	2.0	
4:00-4:05	10	10	10	20	2.0	
4:05-4:10	10	10	10	20	2.0	
4:10-4:15	10	10	10	20	2.0	
4:15-4:20	10	10	10	20	2.0	
4:20-4:25	10	10	10	20	2.0	
4:25-4:30	10	10	10	20	2.0	
4:30-4:35	10	10	10	20	2.0	
4:35-4:40	10	10	10	20	2.0	
4:40-4:45	10	10	10	20	2.0	
4:45-4:50	10	10	10	20	2.0	
4:50-4:55	10	10	10	20	2.0	
4:55-5:00	10	10	10	20	2.0	
5:00-5:05	10	10	10	20	2.0	
5:05-5:10	10	10	10	20	2.0	
5:10-5:15	10	10	10	20	2.0	
5:15-5:20	10	10	10	20	2.0	
5:20-5:25	10	10	10	20	2.0	
5:25-5:30	10	10	10	20	2.0	
5:30-5:35	10	10	10	20	2.0	
5:35-5:40	10	10	10	20	2.0	
5:40-5:45	10	10	10	20	2.0	
5:45-5:50	10	10	10	20	2.0	
5:50-5:55	10	10	10	20	2.0	
5:55-6:00	10	10	10	20	2.0	
6:00-6:05	10	10	10	20	2.0	
6:05-6:10	10	10	10	20	2.0	
6:10-6:15	10	10	10	20	2.0	
6:15-6:20	10	10	10	20	2.0	
6:20-6:25	10	10	10	20	2.0	
6:25-6:30	10	10	10	20	2.0	
6:30-6:35	10	10	10	20	2.0	
6:35-6:40	10	10	10	20	2.0	
6:40-6:45	10	10	10	20	2.0	
6:45-6:50	10	10	10	20	2.0	
6:50-6:						

Year	The 100 Best Western Hotels				Total	Hotel Rank
	Score	Rank	Score	Rank		
1990	86.0	100	73.0	217	217	100
1991	86.0	100	73.0	217	217	100
1992	86.0	100	73.0	217	217	100
1993	86.0	100	73.0	217	217	100
1994	86.0	100	73.0	217	217	100
1995	86.0	100	73.0	217	217	100
1996	86.0	100	73.0	217	217	100
1997	86.0	100	73.0	217	217	100
1998	86.0	100	73.0	217	217	100
1999	86.0	100	73.0	217	217	100
2000	86.0	100	73.0	217	217	100
2001	86.0	100	73.0	217	217	100
2002	86.0	100	73.0	217	217	100
2003	86.0	100	73.0	217	217	100
2004	86.0	100	73.0	217	217	100
2005	86.0	100	73.0	217	217	100
2006	86.0	100	73.0	217	217	100
2007	86.0	100	73.0	217	217	100
2008	86.0	100	73.0	217	217	100
2009	86.0	100	73.0	217	217	100
2010	86.0	100	73.0	217	217	100
2011	86.0	100	73.0	217	217	100
2012	86.0	100	73.0	217	217	100
2013	86.0	100	73.0	217	217	100
2014	86.0	100	73.0	217	217	100
2015	86.0	100	73.0	217	217	100
2016	86.0	100	73.0	217	217	100
2017	86.0	100	73.0	217	217	100
2018	86.0	100	73.0	217	217	100
2019	86.0	100	73.0	217	217	100
2020	86.0	100	73.0	217	217	100
2021	86.0	100	73.0	217	217	100
2022	86.0	100	73.0	217	217	100
2023	86.0	100	73.0	217	217	100
2024	86.0	100	73.0	217	217	100
2025	86.0	100	73.0	217	217	100
2026	86.0	100	73.0	217	217	100
2027	86.0	100	73.0	217	217	100
2028	86.0	100	73.0	217	217	100
2029	86.0	100	73.0	217	217	100
2030	86.0	100	73.0	217	217	100

2010-2011 Western Road										2011-2012	
Inventory	Year	Hours	Hours	Hours	Hours	Total	Hours	Hours	Hours	Hours	
1	2010	100	100	100	100	400	100	100	100	100	
2	2011	100	100	100	100	400	100	100	100	100	
3	2012	100	100	100	100	400	100	100	100	100	
4	2013	100	100	100	100	400	100	100	100	100	
5	2014	100	100	100	100	400	100	100	100	100	
6	2015	100	100	100	100	400	100	100	100	100	
7	2016	100	100	100	100	400	100	100	100	100	
8	2017	100	100	100	100	400	100	100	100	100	
9	2018	100	100	100	100	400	100	100	100	100	
10	2019	100	100	100	100	400	100	100	100	100	
11	2020	100	100	100	100	400	100	100	100	100	
12	2021	100	100	100	100	400	100	100	100	100	
13	2022	100	100	100	100	400	100	100	100	100	
14	2023	100	100	100	100	400	100	100	100	100	
15	2024	100	100	100	100	400	100	100	100	100	
16	2025	100	100	100	100	400	100	100	100	100	
17	2026	100	100	100	100	400	100	100	100	100	
18	2027	100	100	100	100	400	100	100	100	100	
19	2028	100	100	100	100	400	100	100	100	100	
20	2029	100	100	100	100	400	100	100	100	100	
21	2030	100	100	100	100	400	100	100	100	100	
22	2031	100	100	100	100	400	100	100	100	100	
23	2032	100	100	100	100	400	100	100	100	100	
24	2033	100	100	100	100	400	100	100	100	100	
25	2034	100	100	100	100	400	100	100	100	100	
26	2035	100	100	100	100	400	100	100	100	100	
27	2036	100	100	100	100	400	100	100	100	100	
28	2037	100	100	100	100	400	100	100	100	100	
29	2038	100	100	100	100	400	100	100	100	100	
30	2039	100	100	100	100	400	100	100	100	100	
31	2040	100	100	100	100	400	100	100	100	100	
32	2041	100	100	100	100	400	100	100	100	100	
33	2042	100	100	100	100	400	100	100	100	100	
34	2043	100	100	100	100	400	100	100	100	100	
35	2044	100	100	100	100	400	100	100	100	100	
36	2045	100	100	100	100	400	100	100	100	100	
37	2046	100	100	100	100	400	100	100	100	100	
38	2047	100	100	100	100	400	100	100	100	100	
39	2048	100	100	100	100	400	100	100	100	100	
40	2049	100	100	100	100	400	100	100	100	100	
41	2050	100	100	100	100	400	100	100	100	100	
42	2051	100	100	100	100	400	100	100	100	100	
43	2052	100	100	100	100	400	100	100	100	100	

The Researcher's Survey									
Questionnaire	1	2	3	4	5	6	7	8	9
1. The research is important	5	5	5	5	5	5	5	5	5
2. The research is useful	5	5	5	5	5	5	5	5	5
3. The research is interesting	5	5	5	5	5	5	5	5	5
4. The research is challenging	5	5	5	5	5	5	5	5	5
5. The research is innovative	5	5	5	5	5	5	5	5	5
6. The research is relevant	5	5	5	5	5	5	5	5	5
7. The research is timely	5	5	5	5	5	5	5	5	5
8. The research is accessible	5	5	5	5	5	5	5	5	5
9. The research is clear	5	5	5	5	5	5	5	5	5
10. The research is concise	5	5	5	5	5	5	5	5	5
11. The research is well-organized	5	5	5	5	5	5	5	5	5
12. The research is easy to read	5	5	5	5	5	5	5	5	5
13. The research is well-written	5	5	5	5	5	5	5	5	5
14. The research is well-presented	5	5	5	5	5	5	5	5	5
15. The research is well-structured	5	5	5	5	5	5	5	5	5
16. The research is easy to read	5	5	5	5	5	5	5	5	5
17. The research is well-written	5	5	5	5	5	5	5	5	5
18. The research is well-presented	5	5	5	5	5	5	5	5	5
19. The research is well-structured	5	5	5	5	5	5	5	5	5
20. The research is easy to read	5	5	5	5	5	5	5	5	5
21. The research is well-written	5	5	5	5	5	5	5	5	5
22. The research is well-presented	5	5	5	5	5	5	5	5	5
23. The research is well-structured	5	5	5	5	5	5	5	5	5
24. The research is easy to read	5	5	5	5	5	5	5	5	5
25. The research is well-written	5	5	5	5	5	5	5	5	5
26. The research is well-presented	5	5	5	5	5	5	5	5	5
27. The research is well-structured	5	5	5	5	5	5	5	5	5
28. The research is easy to read	5	5	5	5	5	5	5	5	5
29. The research is well-written	5	5	5	5	5	5	5	5	5
30. The research is well-presented	5	5	5	5	5	5	5	5	5
31. The research is well-structured	5	5	5	5	5	5	5	5	5
32. The research is easy to read	5	5	5	5	5	5	5	5	5
33. The research is well-written	5	5	5	5	5	5	5	5	5
34. The research is well-presented	5	5	5	5	5	5	5	5	5
35. The research is well-structured	5	5	5	5	5	5	5	5	5
36. The research is easy to read	5	5	5	5	5	5	5	5	5
37. The research is well-written	5	5	5	5	5	5	5	5	5
38. The research is well-presented	5	5	5	5	5	5	5	5	5
39. The research is well-structured	5	5	5	5	5	5	5	5	5
40. The research is easy to read	5	5	5	5	5	5	5	5	5
41. The research is well-written	5	5	5	5	5	5	5	5	5
42. The research is well-presented	5	5	5	5	5	5	5	5	5
43. The research is well-structured	5	5	5	5	5	5	5	5	5
44. The research is easy to read	5	5	5	5	5	5	5	5	5
45. The research is well-written	5	5	5	5	5	5	5	5	5
46. The research is well-presented	5	5	5	5	5	5	5	5	5
47. The research is well-structured	5	5	5	5	5	5	5	5	5
48. The research is easy to read	5	5	5	5	5	5	5	5	5
49. The research is well-written	5	5	5	5	5	5	5	5	5
50. The research is well-presented	5	5	5	5	5	5	5	5	5
51. The research is well-structured	5	5	5	5	5	5	5	5	5
52. The research is easy to read	5	5	5	5	5	5	5	5	5
53. The research is well-written	5	5	5	5	5	5	5	5	5
54. The research is well-presented	5	5	5	5	5	5	5	5	5
55. The research is well-structured	5	5	5	5	5	5	5	5	5
56. The research is easy to read	5	5	5	5	5	5	5	5	5
57. The research is well-written	5	5	5	5	5	5	5	5	5
58. The research is well-presented	5	5	5	5	5	5	5	5	5
59. The research is well-structured	5	5	5	5	5	5	5	5	5
60. The research is easy to read	5	5	5	5	5	5	5	5	5
61. The research is well-written	5	5	5	5	5	5	5	5	5
62. The research is well-presented	5	5	5	5	5	5	5	5	5
63. The research is well-structured	5	5	5	5	5	5	5	5	5
64. The research is easy to read	5	5	5	5	5	5	5	5	5
65. The research is well-written	5	5	5	5	5	5	5	5	5
66. The research is well-presented	5	5	5	5	5	5	5	5	5
67. The research is well-structured	5	5	5	5	5	5	5	5	5
68. The research is easy to read	5	5	5	5	5	5	5	5	5
69. The research is well-written	5	5	5	5	5	5	5	5	5
70. The research is well-presented	5	5	5	5	5	5	5	5	5
71. The research is well-structured	5	5	5	5	5	5	5	5	5
72. The research is easy to read	5	5	5	5	5	5	5	5	5
73. The research is well-written	5	5	5	5	5	5	5	5	5
74. The research is well-presented	5	5	5	5	5	5	5	5	5
75. The research is well-structured	5	5	5	5	5	5	5	5	5
76. The research is easy to read	5	5	5	5	5	5	5	5	5
77. The research is well-written	5	5	5	5	5	5	5	5	5
78. The research is well-presented	5	5	5	5	5	5	5	5	5
79. The research is well-structured	5	5	5	5	5	5	5	5	5
80. The research is easy to read	5	5	5	5	5	5	5	5	5
81. The research is well-written	5	5	5	5	5	5	5	5	5
82. The research is well-presented	5	5	5	5	5	5	5	5	5
83. The research is well-structured	5	5	5	5	5	5	5	5	5
84. The research is easy to read	5	5	5	5	5	5	5	5	5
85. The research is well-written	5	5	5	5	5	5	5	5	5
86. The research is well-presented	5	5	5	5	5	5	5	5	5
87. The research is well-structured	5	5	5	5	5	5	5	5	5
88. The research is easy to read	5	5	5	5	5	5	5	5	5
89. The research is well-written	5	5	5	5	5	5	5	5	5
90. The research is well-presented	5	5	5	5	5	5	5	5	5
91. The research is well-structured	5	5	5	5	5	5	5	5	5
92. The research is easy to read	5	5	5	5	5	5	5	5	5
93. The research is well-written	5	5	5	5	5	5	5	5	5
94. The research is well-presented	5	5	5	5	5	5	5	5	5
95. The research is well-structured	5	5	5	5	5	5	5	5	5
96. The research is easy to read	5	5	5	5	5	5	5	5	5
97. The research is well-written	5	5	5	5	5	5	5	5	5
98. The research is well-presented	5	5	5	5	5	5	5	5	5
99. The research is well-structured	5	5	5	5	5	5	5	5	5
100. The research is easy to read	5	5	5	5	5	5	5	5	5
101. The research is well-written	5	5	5	5	5	5	5	5	5
102. The research is well-presented	5	5	5	5	5	5	5	5	5
103. The research is well-structured	5	5	5	5	5	5	5	5	5
104. The research is easy to read	5	5	5	5	5	5	5	5	5
105. The research is well-written	5	5	5	5	5	5	5	5	5
106. The research is well-presented	5	5	5	5	5	5	5	5	5
107. The research is well-structured	5	5	5	5	5	5	5	5	5
108. The research is easy to read	5	5	5	5	5	5	5	5	5
109. The research is well-written	5	5	5	5	5	5	5	5	5
110. The research is well-presented	5	5	5	5	5	5	5	5	5
111. The research is well-structured	5	5	5	5	5	5	5	5	5
112. The research is easy to read	5	5	5	5	5	5	5	5	5
113. The research is well-written	5	5	5	5	5	5	5	5	5
114. The research is well-presented	5	5	5	5	5	5	5	5	5
115. The research is well-structured	5	5	5	5	5	5	5	5	5
116. The research is easy to read	5	5	5	5	5	5	5	5	5
117. The research is well-written	5	5	5	5	5	5	5	5	5
118. The research is well-presented	5	5	5	5	5	5	5	5	5
119. The research is well-structured	5	5	5	5	5	5	5	5	5
120. The research is easy to read	5	5	5	5	5	5	5	5	5
121. The research is well-written	5	5	5	5	5	5	5	5	5
122. The research is well-presented	5	5	5	5	5	5	5	5	5
123. The research is well-structured	5	5	5	5	5	5	5	5	5
124. The research is easy to read	5	5	5	5	5	5	5	5	5
125. The research is well-written	5	5	5	5	5	5	5	5	5
126. The research is well-presented	5	5	5	5	5	5	5	5	5
127. The research is well-structured	5	5	5	5	5	5	5	5	5
128. The research is easy to read	5	5	5	5	5	5	5	5	5
129. The research is well-written	5	5	5	5	5	5	5	5	5
130. The research is well-presented	5	5	5	5	5	5	5	5	5
131. The research is well-structured	5	5	5	5	5	5	5	5	5
132. The research is easy to read	5	5	5	5	5	5	5	5	5
133. The research is well-written	5	5	5	5	5	5	5	5	5
134. The research is well-presented	5	5	5	5	5	5	5	5	5
135. The research is well-structured	5	5	5	5	5	5	5	5	5
136. The research is easy to read	5	5	5	5	5	5	5	5	5
137. The research is well-written	5	5	5	5	5	5	5	5	5
138. The research is well-presented	5	5	5	5	5	5	5	5	5
139. The research is well-structured	5	5	5	5	5	5	5	5	5
140. The research is easy to read	5	5	5	5	5	5	5	5	5
141. The research is well-written	5	5	5	5	5	5	5	5	5
142. The research is well-presented	5	5	5	5	5	5	5	5	5
143. The research is well-structured	5	5	5	5	5	5	5	5	5
144. The research is easy to read	5	5	5	5	5	5	5	5	5
145. The research is well-written	5	5	5	5	5	5	5	5	5
146. The research is well-presented	5	5	5	5	5	5	5	5	5
147. The research is well-structured	5	5	5	5	5	5	5	5	5
148. The research is easy to read	5	5	5	5	5	5	5	5	5
149. The research is well-written	5	5	5	5	5	5	5	5	5
150. The research is well-presented	5	5	5	5	5	5	5	5	5
151. The research is well-structured	5	5	5	5	5	5	5	5	5
152. The research is easy to read	5	5	5	5	5	5	5	5	5
153. The research is well-written	5	5	5	5	5	5	5	5	5
154. The research is well-presented	5	5	5	5	5	5	5	5	5
155. The research is well-structured	5	5	5	5	5	5	5	5	5
156. The research is easy to read	5	5	5	5	5	5	5	5	5
157. The research is well-written	5	5	5	5	5	5	5	5	5
158. The research is well-presented	5	5	5	5	5	5	5	5	5
159. The research is well-structured	5	5	5	5	5	5	5	5	5
160. The research is easy to read	5	5	5	5	5	5	5	5	5
161. The research is well-written	5	5	5	5	5	5	5	5	5
162. The research is well-presented	5	5	5	5	5	5	5	5	5
163. The research is well-structured	5	5	5	5	5	5	5	5	5
164. The research is easy to read	5	5	5	5	5	5	5	5	5
165. The research is well-written	5	5	5	5	5	5	5	5	5
166. The research is well-presented	5	5	5	5	5	5	5	5	5
167. The research is well-structured	5	5	5	5	5	5	5	5	5
168. The research is easy to read	5	5	5	5	5	5	5	5	5
169. The research is well-written	5	5	5	5	5	5	5	5	5
170. The research is well-presented	5	5	5	5	5	5	5	5	5
171. The research is well-structured	5	5	5	5	5	5	5</		

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Population	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	1000000	10000																																																																																																																									

Detailed Financial Statement									
Period		Revenue		Expenses		Profit		Balance	
Month	Year	Actual	Target	Actual	Target	Actual	Target	Actual	Target
Jan	2023	12000	11500	8000	7800	4000	3700	15000	14500
Feb	2023	11500	11000	7500	7300	4000	3700	15500	15000
Mar	2023	13000	12500	8500	8200	4500	4300	16000	15500
Apr	2023	12500	12000	8000	7800	4500	4200	16500	16000
May	2023	13500	13000	9000	8800	4500	4200	17000	16500
Jun	2023	14000	13500	9500	9200	4500	4300	17500	17000
Jul	2023	14500	14000	10000	9800	4500	4200	18000	17500
Aug	2023	15000	14500	10500	10200	4500	4300	18500	18000
Sep	2023	15500	15000	11000	10800	4500	4200	19000	18500
Oct	2023	16000	15500	11500	11200	4500	4300	19500	19000
Nov	2023	16500	16000	12000	11800	4500	4200	20000	19500
Dec	2023	17000	16500	12500	12200	4500	4300	20500	20000
Jan	2024	17500	17000	13000	12800	4500	4200	21000	20500
Feb	2024	18000	17500	13500	13200	4500	4300	21500	21000
Mar	2024	18500	18000	14000	13800	4500	4200	22000	21500
Apr	2024	19000	18500	14500	14200	4500	4300	22500	22000
May	2024	19500	19000	15000	14800	4500	4200	23000	22500
Jun	2024	20000	19500	15500	15200	4500	4300	23500	23000
Jul	2024	20500	20000	16000	15800	4500	4200	24000	23500
Aug	2024	21000	20500	16500	16200	4500	4300	24500	24000
Sep	2024	21500	21000	17000	16800	4500	4200	25000	24500
Oct	2024	22000	21500	17500	17200	4500	4300	25500	25000
Nov	2024	22500	22000	18000	17800	4500	4200	26000	25500
Dec	2024	23000	22500	18500	18200	4500	4300	26500	26000
Jan	2025	23500	23000	19000	18800	4500	4200	27000	26500
Feb	2025	24000	23500	19500	19200	4500	4300	27500	27000
Mar	2025	24500	24000	20000	19800	4500	4200	28000	27500
Apr	2025	25000	24500	20500	20200	4500	4300	28500	28000
May	2025	25500	25000	21000	20800	4500	4200	29000	28500
Jun	2025	26000	25500	21500	21200	4500	4300	29500	29000
Jul	2025	26500	26000	22000	21800	4500	4200	30000	29500
Aug	2025	27000	26500	22500	22200	4500	4300	30500	30000
Sep	2025	27500	27000	23000	22800	4500	4200	31000	30500
Oct	2025	28000	27500	23500	23200	4500	4300	31500	31000
Nov	2025	28500	28000	24000	23800	4500	4200	32000	31500
Dec	2025	29000	28500	24500	24200	4500	4300	32500	32000

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Year		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		2037		2038		2039		2040		2041		2042		2043		2044		2045		2046		2047		2048		2049		2050		2051		2052		2053		2054		2055		2056		2057		2058		2059		2060		2061		2062		2063		2064		2065		2066		2067		2068		2069		2070		2071		2072		2073		2074		2075		2076		2077		2078		2079		2080		2081		2082		2083		2084		2085		2086		2087		2088		2089		2090		2091		2092		2093		2094		2095		2096		2097		2098		2099		2100	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																						

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Year		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
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Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094							

Age	Percentage of Total	Percentage of Youth
18-24	27.96	100%
25-34	27.96	100%
35-44	27.96	100%
45-54	27.96	100%
55-64	27.96	100%
65-74	27.96	100%
75-84	27.96	100%
85-94	27.96	100%
95-104	27.96	100%
105-114	27.96	100%
115-124	27.96	100%
125-134	27.96	100%
135-144	27.96	100%
145-154	27.96	100%
155-164	27.96	100%
165-174	27.96	100%
175-184	27.96	100%
185-194	27.96	100%
195-204	27.96	100%
205-214	27.96	100%
215-224	27.96	100%
225-234	27.96	100%
235-244	27.96	100%
245-254	27.96	100%
255-264	27.96	100%
265-274	27.96	100%
275-284	27.96	100%
285-294	27.96	100%
295-304	27.96	100%
305-314	27.96	100%
315-324	27.96	100%
325-334	27.96	100%
335-344	27.96	100%
345-354	27.96	100%
355-364	27.96	100%
365-374	27.96	100%
375-384	27.96	100%
385-394	27.96	100%
395-404	27.96	100%
405-414	27.96	100%
415-424	27.96	100%
425-434	27.96	100%
435-444	27.96	100%
445-454	27.96	100%
455-464	27.96	100%
465-474	27.96	100%
475-484	27.96	100%
485-494	27.96	100%
495-504	27.96	100%
505-514	27.96	100%
515-524	27.96	100%
525-534	27.96	100%
535-544	27.96	100%
545-554	27.96	100%
555-564	27.96	100%
565-574	27.96	100%
575-584	27.96	100%
585-594	27.96	100%
595-604	27.96	100%
605-614	27.96	100%
615-624	27.96	100%
625-634	27.96	100%
635-644	27.96	100%
645-654	27.96	100%
655-664	27.96	100%
665-674	27.96	100%
675-684	27.96	100%
685-694	27.96	100%
695-704	27.96	100%
705-714	27.96	100%
715-724	27.96	100%
725-734	27.96	100%
735-744	27.96	100%
745-754	27.96	100%
755-764	27.96	100%
765-774	27.96	100%
775-784	27.96	100%
785-794	27.96	100%
795-804	27.96	100%
805-814	27.96	100%
815-824	27.96	100%
825-834	27.96	100%
835-844	27.96	100%
845-854	27.96	100%
855-864	27.96	100%
865-874	27.96	100%
875-884	27.96	100%
885-894	27.96	100%
895-904	27.96	100%
905-914	27.96	100%
915-924	27.96	100%
925-934	27.96	100%
935-944	27.96	100%
945-954	27.96	100%
955-964	27.96	100%
965-974	27.96	100%
975-984	27.96	100%
985-994	27.96	100%
995-1004	27.96	100%
1005-1014	27.96	100%
1015-1024	27.96	100%
1025-1034	27.96	100%

Intersection Calliope

	Leg 1 N								Leg 2 E				Leg 3 S				Leg 4 W						TOTAL			
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru			Right		
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy		Total	IHeavy	
6:15	3	0	0	0	0	0	0	1	0	4	0	0	0	1	0	0	0	15	0	0	0	31	2	2	0	57
6:30	3	0	1	0	0	0	0	1	0	25	7	0	0	3	2	0	0	31	0	0	0	31	3	3	0	98
6:45	5	0	0	0	0	0	0	1	0	20	4	0	0	4	1	4	0	35	0	0	0	30	0	0	0	99
7:00	0	0	0	0	0	0	0	1	0	15	4	0	0	5	4	0	0	21	3	0	0	23	0	0	0	65
7:15	3	0	0	0	0	0	0	2	0	12	1	0	0	3	2	0	0	21	5	0	0	18	0	0	0	59
7:30	2	0	0	0	0	0	0	6	1	18	2	2	1	1	1	1	0	16	1	0	0	17	0	1	1	64
7:45	6	0	1	0	0	0	0	1	1	18	7	4	1	0	0	0	0	19	2	0	0	20	1	1	0	70
8:00	1	0	1	0	0	0	0	3	0	26	8	1	0	1	1	1	0	18	0	0	0	25	2	4	2	81
8:15	4	0	3	1	0	0	0	2	2	15	3	0	0	6	2	1	0	19	3	0	0	20	0	0	0	70
8:30	4	1	0	0	0	0	0	3	2	24	7	1	0	1	0	0	0	11	0	0	0	22	0	1	1	67
8:45	3	0	1	0	1	0	0	7	0	20	3	0	0	2	0	0	0	10	1	0	0	36	1	1	0	81
9:00	1	0	5	0	1	1	0	7	3	23	7	0	0	3	0	3	0	9	0	0	0	31	2	2	0	85
9:15	2	0	3	0	0	0	0	5	2	29	6	0	0	3	2	3	2	7	0	1	0	30	1	1	0	84
9:30	1	0	0	0	0	0	0	3	1	26	6	1	0	2	0	5	0	9	1	0	0	37	3	5	2	89
9:45	1	0	1	0	0	0	0	0	0	17	4	0	0	0	0	0	0	7	1	0	0	32	0	0	0	58
10:00	1	0	0	0	0	0	0	1	0	14	3	0	0	1	0	0	0	4	0	1	0	22	0	0	0	44
10:15	1	0	2	0	0	0	0	5	4	22	6	0	0	2	1	1	0	8	2	0	0	28	1	2	1	71
10:30	0	0	1	1	0	0	0	3	1	11	5	0	0	0	0	0	0	9	2	0	0	23	1	4	3	51
10:45	1	0	1	0	2	1	1	0	0	17	5	0	0	0	0	0	0	5	1	1	0	19	1	1	0	48
11:00	1	0	0	0	0	0	0	2	1	20	6	0	0	0	0	2	0	7	2	1	0	14	0	0	0	47
11:15	1	0	0	0	0	0	0	3	1	25	11	2	0	3	1	0	0	5	1	0	0	20	2	2	0	61
11:30	0	0	0	0	0	0	0	1	0	20	6	0	0	0	0	1	0	5	2	1	0	13	0	2	2	43
11:45	0	0	0	0	0	0	0	3	1	11	4	1	0	1	0	0	0	5	4	0	0	15	0	0	0	36
12:00	0	0	0	0	0	0	0	6	1	24	6	2	0	2	0	1	0	2	0	1	0	13	1	1	0	52
	44	1	20	2	4	2	68	21	456	121	14	2	44	17	23	2	298	31	6	0	570	21	33	12	1580	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		TOTAL	
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy		
12:15	1	0	0	0	0	0	0	1	1	9	2	1	0	2	1	0	0	5	1	0	0	7	2	0	0	26
12:30	1	0	1	0	1	0	0	4	1	16	3	0	0	0	0	0	0	2	1	0	0	26	5	2	2	53
12:45	3	0	1	0	0	0	0	2	1	19	4	3	1	0	0	0	0	1	1	0	0	23	8	1	1	53
13:00	1	0	0	0	1	0	0	3	2	19	3	0	0	0	0	2	0	3	3	3	0	23	5	0	0	55
13:15	3	0	0	0	0	0	0	5	3	14	5	1	0	0	0	0	0	5	1	0	0	18	3	1	0	47
13:30	0	0	2	1	0	0	0	8	3	35	11	0	0	1	0	0	0	0	0	0	0	12	4	0	0	58
13:45	0	0	2	2	0	0	0	3	0	23	3	0	0	2	2	1	0	3	0	0	0	16	6	0	0	50
14:00	0	0	0	0	1	0	0	1	0	12	1	0	0	0	0	0	0	2	0	0	0	19	7	1	1	36
14:15	1	0	1	0	1	0	0	4	0	29	6	1	0	0	0	0	0	0	0	0	0	17	7	2	0	56
14:30	1	0	0	0	0	2	0	2	0	15	3	1	0	0	0	0	0	1	1	1	0	11	6	0	0	34
14:45	1	0	1	0	0	0	0	5	0	16	3	1	0	0	0	0	0	6	3	0	0	23	3	0	0	53
15:00	0	0	0	0	3	0	0	8	1	27	4	3	0	1	1	0	0	3	2	0	0	21	4	2	1	68
15:15	0	0	2	0	0	0	0	2	1	30	4	4	1	5	2	0	0	1	0	0	0	19	2	3	2	66
15:30	2	0	5	0	0	0	0	3	3	41	5	0	0	1	1	0	0	2	0	0	0	1	4	1	0	70.5
15:45	5	2	2	0	1	0	0	11	0	21	2	1	0	3	1	3	0	9	0	0	0	22	2	1	1	79
16:00	0	0	0	0	2	0	0	2	0	25	3	3	0	3	1	2	1	3	1	0	0	16	3	2	1	58
16:15	0	0	0	0	0	0	0	6	0	15	3	3	1	0	0	0	0	9	2	0	0	13	4	2	1	48
16:30	5	1	4	1	1	0	0	14	0	23	2	2	0	0	0	2	0	2	2	0	0	19	2	5	3	77
16:45	2	0	1	0	0	0	0	7	0	29	3	6	0	0	0	1	0	3	1	0	0	29	4	6	2	84
17:00	1	1	0	0	2	1	0	14	1	46	4	4	0	1	0	3	0	8	1	0	0	13	2	1	0	93
17:15	0	0	0	0	0	0	0	10	0	26	2	5	1	0	0	0	0	3	0	0	0	21	2	4	0	69
17:30	1	0	1	0	0	0	0	6	0	28	2	2	0	0	0	0	0	2	0	0	0	15	1	1	0	56
17:45	1	0	0	0	0	0	0	5	0	23	0	6	0	0	0	2	0	2	0	0	0	22	5	1	0	62
18:00	4	0	0	0	0	0	0	17	0	39	3	9	0	1	0	1	0	0	0	0	0	10	1	1	0	82
	33	4	23	4	15	1	143	17	580	81	56	4	20	9	17	1	75	20	4	0	416	92	37	15	1434	
9:30	7	0	9	0	2	1	22	6	98	22	1	0	10	2	11	2	35	2	1	0	134	7	9	2	339	
17:15	8	2	5	1	3	1	45	1	124	11	17	1	1	0	6	0	16	4	0	0	82	10	16	5	323	
7:00	11	0	1	0	0	0	4	0	64	15	0	0	13	7	4	0	102	3	0	0	115	5	5	0	319	
8:45	12	1	5	1	1	0	15	4	85	21	2	0	10	3	2	0	58	4	0	0	103	3	6	3	299	
14:30	2	0	3	2	4	0	10	0	79	13	2	0	2	2	1	0	6	1	1	0	63	26	3	1	176	
17:30	4	2	5	1	3	1	41	1	113	12	15	1	1	0	6	0	22	6	0	0	74	12	14	6	302	

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Intersection Landing

	Leg 1 N				Leg 2 E				Leg 3 W				Leg 4			
	Left		Thru		Light	Left		Thru		Right	Right		Left	Thru		
	Total	Heavy	Total	Heavy		Total	Heavy	Total	Heavy							
6:15	5	1	0	0		15	1	19	1		3	0	35	6		77
6:30	2	0	0	0		16	0	25	2		1	1	39	5		83
6:45	5	0	1	0		26	8	23	3		0	0	44	8		99
7:00	4	4	0	0		15	3	14	2		0	0	38	7		71
7:15	3	1	0	0		20	3	13	4		1	1	30	5		67
7:30	2	2	0	0		26	5	11	0		2	1	35	5		76
7:45	3	1	0	0		31	13	8	0		1	1	45	7		88
8:00	2	1	0	0		17	4	7	2		1	0	59	11		86
8:15	8	4	2	1		38	9	5	1		0	0	44	12		97
8:30	5	1	0	0		27	11	17	8		0	0	40	5		89
8:45	4	2	1	1		39	16	6	4		1	1	41	9		92
9:00	6	2	0	0		27	6	5	1		1	1	31	7		70
9:15	4	1	7	5		27	9	8	4		0	0	37	5		83
9:30	4	0	4	4		27	8	18	4		0	0	42	9		95
9:45	7	0	4	3		29	5	12	2		1	1	61	15		114
10:00	7	2	3	2		27	5	12	4		1	1	53	13		103
10:15	5	2	1	0		38	10	10	4		0	0	39	7		93
10:30	6	3	0	0		31	6	14	3		1	1	49	9		101
10:45	6	1	4	1		32	10	13	5		1	0	26	7		82
11:00	12	4	1	0		29	8	7	2		1	0	32	17		82
11:15	3	1	0	0		49	12	6	4		0	0	30	5		88
11:30	8	6	2	1		46	8	7	2		1	1	34	13		98
11:45	4	2	2	2		35	7	4	0		2	2	25	8		72
12:00	3	2	3	0		34	7	7	1		0	0	28	5		75
	118	43	35	20		701	174	271	63		19	12	937	200		2081
	Left		Thru		Light	Left		Thru		Right	Right		Left	Thru		
	Total	Heavy	Total	Heavy		Total	Heavy	Total	Heavy		Total	Heavy				
12:15	6	1	0	0		35	7	5	1		3	0	22	10		71
12:30	4	1	1	0		29	7	3	0		1	1	20	7		58
12:45	3	0	1	1		37	8	4	2		0	0	40	16		85
13:00	4	1	3	2		31	9	13	2		3	1	30	9		84
13:15	2	2	1	0		29	6	12	4		0	0	24	10		68
13:30	6	3	2	2		44	14	9	3		1	1	40	15		102
13:45	11	5	0	0		47	16	12	1		0	0	26	7		96
14:00	6	3	0	0		35	10	13	5		0	0	20	7		74
14:15	7	1	0	0		32	8	8	2		1	1	37	10		85
14:30	5	2	1	1		28	6	4	1		2	1	21	5		61
14:45	11	3	1	0		36	8	1	1		0	0	25	7		74
15:00	5	1	1	0		37	8	4	1		2	2	28	6		77
15:15	12	1	2	2		39	7	9	1		2	0	25	6		89
15:30	24	4	1	0		40	6	8	2		2	1	28	8		103
15:45	13	0	1	1		38	10	7	3		0	0	25	10		84
16:00	9	3	3	3		57	10	6	3		1	1	50	14		126
16:15	10	0	1	1		38	8	5	3		0	0	35	9		89
16:30	18	3	2	0		51	15	9	4		0	0	33	7		113
16:45	18	5	3	2		43	10	4	1		0	0	24	9		92
17:00	13	4	0	0		50	16	5	3		0	0	27	8		95
17:15	5	2	0	0		97	35	2	1		2	1	29	4		135
17:30	6	2	0	0		44	8	7	1		1	1	23	2		81
17:45	9	3	3	1		34	5	8	1		0	0	25	3		79
18:00	9	4	0	0		25	4	3	0		0	0	21	2		58
	216	54	27	16		976	241	161	46		21	11	678	191		2079
10:30	25	7	8	5		125	26	48	13		3	3	202	44		411
17:15	54	14	5	2		241	76	20	9		2	1	113	28		435
7:00	16	5	1	0		72	12	81	8		4	1	156	26		330
8:45	19	8	3	2		121	40	35	15		2	1	184	37		364
14:30	29	11	1	1		142	40	37	9		3	2	104	29		316
17:30	42	12	6	3		182	49	23	11		0	0	119	33		389

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330	80%
320	78%
313	76%
302	73%
317	77%
347	84%
360	88%
364	89%
348	85%
334	81%
340	83%
362	88%
395	96%
405	99%
411	100%
379	92%
358	87%
353	86%
350	85%
340	83%
333	81%

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298	69%
295	68%
339	78%
350	80%
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353	81%

Intersection Red Rover

	Leg 1 W				Leg 2 Left/Right	Leg 3 E				Leg 4 S				TOTAL
	Left	Thru		Right		Left	Thru		Right	Left	Thru		Right	
		Total	Heavy				Total	Heavy			Total	Heavy		
6:15	20	0	5	0		30	10	92	12	40	6	30	6	217
6:30	22	9	9	0		31	2	148	17	75	9	61	6	346
6:45	36	4	11	0		24	2	203	19	63	2	43	3	380
7:00	61	7	13	4		31	5	191	12	2	0	30	0	328
7:15	47	3	9	4		47	7	78	11	46	2	37	8	264
7:30	102	18	10	6		38	15	124	21	40	4	83	12	397
7:45	77	12	6	1		33	13	73	15	23	4	63	10	275
8:00	57	9	2	0		19	5	35	5	17	4	43	9	173
8:15	50	10	3	0		21	7	31	6	21	6	48	8	174
8:30	53	11	6	1		20	7	58	7	12	2	55	3	204
8:45	48	8	6	2		23	6	35	12	12	4	51	7	175
9:00	44	9	7	1		20	5	34	9	12	3	46	6	163
9:15	37	7	6	2		30	10	41	11	11	4	36	4	161
9:30	38	9	7	1		25	8	29	8	11	3	30	2	140
9:45	45	10	7	2		19	5	37	16	23	7	34	5	165
10:00	46	8	3	0		19	7	35	9	14	4	29	4	146
10:15	40	10	13	7		28	8	33	6	16	4	18	0	148
10:30	60	16	9	4		20	2	31	5	14	2	28	4	162
10:45	51	14	8	3		25	4	41	13	14	4	26	8	165
11:00	44	9	5	1		27	6	47	7	9	2	21	5	153
11:15	58	13	5	2		27	9	48	13	9	4	23	9	170
11:30	51	10	5	3		37	8	39	12	13	4	20	8	165
11:45	51	12	4	0		38	10	32	9	8	1	29	9	162
12:00	55	13	6	1		29	7	28	9	11	3	34	10	163
	1193	231	165	45		661	168	1543	264	516	88	918	146	4996
	Left	Thru		Right	Left/Right	Left	Thru		Right	Left	Thru		Right	
	Total	Heavy	Total	Heavy		Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	
12:15	69	15	8	2		29	9	37	12	13	6	55	15	211
12:30	70	18	11	3		29	5	27	10	13	4	63	18	213
12:45	76	16	11	4		29	8	22	8	15	5	37	13	190
13:00	38	10	5	1		24	7	43	15	10	4	26	6	146
13:15	35	8	2	1		22	5	56	7	5	0	29	6	149
13:30	31	11	5	2		29	5	58	9	5	1	20	2	148
13:45	48	13	5	0		19	3	55	8	3	0	20	5	150
14:00	37	9	8	5		20	4	47	6	6	0	17	4	135
14:15	45	9	8	4		23	6	43	8	8	0	19	4	146
14:30	56	10	11	2		31	7	51	5	11	4	21	9	181
14:45	64	16	10	1		17	2	48	10	6	0	22	4	167
15:00	57	8	12	5		23	4	38	9	4	1	18	2	152
15:15	49	9	12	3		33	9	58	12	8	2	24	7	184
15:30	83	17	15	1		21	5	40	11	7	2	20	8	186
15:45	147	20	19	1		39	4	52	7	5	2	29	7	291
16:00	119	22	17	2		35	5	42	12	9	4	26	8	248
16:15	146	28	18	1		41	3	47	10	5	1	25	6	282
16:30	148	17	17	1		38	2	42	10	8	2	23	1	276
16:45	107	13	24	1		68	1	50	6	3	1	30	0	282
17:00	123	14	29	3		46	2	56	7	7	1	27	0	288
17:15	100	9	24	1		105	4	36	2	5	3	32	4	302
17:30	74	7	22	1		62	3	46	5	4	1	17	0	225
17:45	74	6	12	2		38	2	40	2	7	1	13	0	184
18:00	42	2	6	0		25	3	38	2	3	0	9	0	123
	1838	307	311	47		846	108	1072	193	170	45	622	129	4859
7:30	246	32	43	14		140	29	596	63	151	8	193	23	621
17:15	478	53	94	6		257	9	184	25	23	7	112	5	1148
7:00	139	20	38	4		116	19	634	60	180	17	164	15	1271
8:45	208	38	17	3		83	25	159	30	62	16	197	27	726
14:30	186	41	32	11		93	20	196	27	28	4	77	22	612
17:30	524	72	88	6		193	8	195	33	23	5	105	7	1128

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Intersection Blain

	Leg 1 W								Leg 2 N								Leg 3 E								Leg 4 S								TOTAL
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right										
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy									
6:15	38	0	41	4	21	0	2	1	27	0	17	0	2	2	46	2	21	5	106	5	81	0	0	0	402								
6:30	39	0	55	12	33	4	3	1	13	1	15	1	4	2	57	11	21	2	101	1	64	3	0	0	405								
6:45	23	2	72	10	38	4	1	0	13	0	16	3	11	4	102	22	23	4	169	6	34	4	0	0	502								
7:00	16	2	57	4	43	2	2	2	20	4	15	3	12	2	63	9	9	2	92	7	37	5	9	3	375								
7:15	18	6	82	17	41	5	3	0	19	2	16	4	23	7	80	20	15	7	67	7	37	3	28	6	429								
7:30	15	4	71	14	36	4	2	0	16	2	13	3	20	5	74	18	12	5	80	8	39	4	24	5	402								
7:45	20	5	70	11	37	10	15	5	17	3	16	4	16	3	50	8	9	5	45	5	33	2	25	5	353								
8:00	14	1	43	6	24	6	11	3	13	0	13	3	14	7	34	7	9	3	18	2	14	3	30	4	237								
8:15	17	1	70	7	33	3	10	5	13	1	15	6	20	6	74	20	16	4	38	9	9	1	29	3	344								
8:30	18	4	73	8	25	2	7	3	13	2	13	5	22	8	67	17	13	3	32	6	9	2	25	5	317								
8:45	21	5	74	21	45	7	3	0	9	3	11	4	23	7	68	11	17	2	20	6	10	3	18	3	319								
9:00	18	4	61	16	40	5	2	0	6	2	9	3	22	5	65	15	16	4	28	8	10	5	22	4	299								
9:15	13	1	53	12	25	5	0	0	3	1	9	4	17	2	55	13	18	4	22	7	10	2	19	6	244								
9:30	8	2	41	9	19	2	2	1	7	3	9	5	17	5	40	7	9	2	21	10	6	1	18	3	197								
9:45	6	1	50	10	17	3	5	2	4	2	4	2	30	9	44	13	7	3	13	3	11	2	23	4	214								
10:00	5	1	50	6	22	0	2	0	13	5	5	1	26	5	32	8	11	1	20	9	9	1	14	3	209								
10:15	9	3	53	10	26	6	3	0	11	2	6	2	32	7	45	8	16	4	20	7	10	2	27	5	258								
10:30	8	4	45	8	22	5	2	0	8	1	8	2	26	7	41	7	11	3	18	5	9	2	24	4	222								
10:45	10	5	43	9	21	6	3	0	10	2	18	9	28	5	35	10	8	1	20	7	12	2	16	3	224								
11:00	5	2	40	11	18	4	2	0	11	2	9	3	31	6	43	12	10	5	25	15	9	1	16	4	219								
11:15	4	2	29	5	23	6	3	0	5	0	6	2	15	2	38	7	6	1	13	2	10	3	13	2	165								
11:30	7	4	26	4	20	5	5	1	7	1	6	1	28	3	52	10	12	2	17	5	9	4	17	7	206								
11:45	6	2	63	19	18	2	1	0	6	1	5	4	17	3	37	17	10	1	22	6	7	2	11	4	203								
12:00	0	0	41	7	27	6	3	0	2	0	2	0	25	5	33	10	6	2	12	2	7	1	18	4	176								
	338	61	1303	240	674	102	92	24	266	40	256	74	481	117	1275	282	305	75	1019	148	486	58	426	87	6921								
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right										
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy									
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy									
12:15	10	3	39	10	27	8	11	3	17	2	2	0	22	1	55	14	8	1	20	10	14	5	12	0	237								
12:30	3	3	23	8	13	5	6	3	4	0	6	3	16	2	32	4	9	3	9	3	9	2	16	3	146								
12:45	3	1	24	8	18	4	4	2	5	1	4	2	20	1	41	11	8	1	10	4	13	2	9	2	159								
13:00	9	4	48	10	22	9	11	5	11	0	14	4	23	4	54	9	7	0	19	6	7	2	16	2	241								
13:15	1	0	48	9	25	3	9	4	10	3	6	2	15	2	46	9	17	1	16	4	9	1	9	1	211								
13:30	1	0	32	8	18	7	15	3	11	0	2	1	24	1	51	12	11	2	11	1	4	0	6	0	186								
13:45	4	3	48	13	17	1	8	1	5	1	3	0	20	1	56	7	17	5	19	2	1	0	8	1	206								
14:00	6	1	47	20	15	3	4	1	4	0	8	1	22	3	59	16	14	5	23	3	5	1	9	1	216								
14:15	8	4	59	22	42	11	10	3	8	4	4	2	38	6	72	15	9	1	21	3	13	2	24	3	308								
14:30	4	2	26	12	13	6	13	4	7	0	8	3	12	0	51	11	8	1	15	5	7	2	9	2	173								
14:45	7	3	39	9	25	4	19	4	2	0	3	2	11	1	43	12	9	3	14	4	2	0	9	0	183								
15:00	9	4	39	12	25	3	8	2	5	0	2	0	19	5	95	17	11	2	9	3	9	1	10	0	241								
15:15	1	1	70	14	28	4	12	2	8	2	12	6	27	0	53	9	14	4	37	11	10	1	18	2	290								
15:30	2	2	40	6	23	5	4	1	2	2	1	0	13	1	40	8	3	1	17	3	1	0	4	2	150								
15:45	8	4	90	15	62	10	21	3	13	2	0	0	16	0	74	12	2	0	22	7	17	1	12	0	337								
16:00	5	1	59	13	35	2	6	2	7	1	4	2	13	0	64	7	6	0	17	7	11	3	11	3	238								
16:15	10	5	67	11	45	4	9	0	4	2	4	1	18	3	57	9	17	8	14	1	13	1	10	2	268								
16:30	8	5	96	13	63	1	20	1	49	2	18	6	24	4	24	12	5	2	23	1	19	4	8	0	357								
16:45	7	4	52	5	45	3	23	2	53	2	17	1	18	3	100	14	2	0	27	1	2	0	15	0	361								
17:00	12	4	62	6	50	1	20	5	23	2	11	3	25	0	67	5	3	1	25	2	5	0	6	0	309								
17:15	7	0	83	8	52	3	31	4	69	3	41	0	40	0	114	7	7	0	34	0	1	0	3	1	482								
17:30	2	0	48	5	60	1	4	1	6	0	9	0	22	1	79	3	1	0	20	0	1	0	2	0	254								
17:45	4	0	36	5	45	0	2	0	15	0	7	1	17	0	58	2	3	0	25	0	5	0	6	0	223								
18:00	2	0	21	2	20	0	9	2	24	0	9	0	13	1	47	7	3	0	19	1	0	0	1	0	168								
	133	54	1196	244	788	98	279	58	362	29	195	40	488	40	1432	232	194	41	466	82	178	28	233	25	5944								
7:15	96	10	266	43	155	15	9	3	65	7	62	11	50	15	302	62	68	15	429	21	172	15	37	9	1711								
17:15	34	13	293	32	210	8	94	12	194	9	87	10	107	7	305	38	17	3	109	4	27	4	32	1	1509								
7:00	116	4	225	30	135	10	8	4	73	5	63	7	29	10	268	44	74	13	468	19	216	12	9	3	1684								
8:45	70	11	260	42	127	18	31	11	48	6	52	18	79	28	243	55	55	12	108	23	42	9	102	15	1217								
14:30	22	10	180	67	87	21	35	9	24	5	23	6	92	10	238	49	48																

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Intersection Narrows

	Leg 1 N								Leg 2 E								Leg 3 S								Leg 4 W								TOTAL
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right										
	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy									
6:15	1	0	27	6	0	0	0	0	0	0	0	0	0	1	0	13	7	0	0	1	0	2	0	8	0	53							
6:30	1	0	24	4	0	0	0	0	0	0	0	0	2	0	19	11	0	0	2	0	3	0	15	0	66								
6:45	1	0	20	5	1	0	0	0	0	0	0	0	1	0	33	16	0	0	1	0	4	0	13	0	74								
7:00	1	1	21	6	1	1	3	0	1	0	0	0	2	0	18	3	0	0	2	1	0	0	4	0	53								
7:15	0	0	26	8	1	0	0	0	0	0	0	0	2	0	28	8	0	0	0	0	1	0	9	0	67								
7:30	0	0	22	6	2	0	1	0	0	0	1	1	3	0	19	6	0	0	2	0	1	0	7	0	58								
7:45	0	0	37	13	1	0	1	1	1	0	0	0	7	0	30	8	0	0	2	0	0	0	6	0	85								
8:00	0	0	33	7	1	0	0	0	1	0	0	0	0	0	36	9	1	1	1	0	0	0	10	1	83								
8:15	1	0	50	7	1	1	1	0	0	0	0	0	3	0	45	10	1	1	2	0	1	0	11	1	116								
8:30	1	1	42	11	2	0	0	0	0	0	0	0	2	0	51	12	1	0	3	0	0	0	16	4	118								
8:45	1	1	45	9	0	0	2	0	3	2	1	0	2	0	46	11	2	1	0	0	1	1	12	2	115								
9:00	0	0	30	6	1	0	0	0	2	0	2	0	5	0	51	12	0	0	1	1	1	0	9	1	102								
9:15	1	0	25	2	4	2	1	1	1	1	0	0	6	3	32	9	0	0	3	0	1	1	6	0	80								
9:30	0	0	47	12	3	0	0	0	0	0	0	0	7	1	40	13	0	0	1	0	3	1	5	0	106								
9:45	0	0	44	16	3	0	0	0	2	0	1	0	5	1	37	12	1	0	3	1	0	0	6	0	102								
10:00	1	0	37	11	3	0	0	0	0	0	0	0	6	0	39	9	0	0	3	0	0	0	12	2	101								
10:15	0	0	50	10	3	2	2	0	2	0	0	0	7	0	49	12	0	0	4	0	0	0	8	0	125								
10:30	0	0	40	10	7	2	0	0	1	0	0	0	6	0	45	10	0	0	3	0	3	1	4	1	109								
10:45	0	0	31	10	14	5	0	0	1	0	0	0	2	0	44	12	0	0	0	0	3	0	10	2	105								
11:00	0	0	45	18	1	0	0	0	2	1	0	0	6	1	36	8	0	0	3	0	2	0	7	2	102								
11:15	0	0	42	11	4	0	0	0	0	0	0	0	2	0	37	7	0	0	4	2	0	0	3	0	92								
11:30	0	0	33	11	2	0	0	0	0	0	0	0	8	0	35	8	1	0	2	0	0	0	8	1	89								
11:45	1	0	67	19	6	1	1	0	1	0	0	0	4	0	33	11	1	0	4	0	2	2	5	0	125								
12:00	1	0	42	7	4	0	0	0	2	1	1	0	7	1	29	8	0	0	5	2	4	2	3	2	98								
	3	1	91	23	3	1	3	0	1	0	0	0	7	0	98	38	0	0	5	1	8	0	41	0	2224								
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right										
	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy									
12:15	0	0	38	8	2	0	2	0	0	0	0	0	7	2	31	6	1	0	5	1	1	0	9	0	96								
12:30	0	0	49	9	2	0	3	0	0	0	0	0	7	0	39	12	1	0	3	0	0	0	8	0	112								
12:45	0	0	48	6	2	0	0	0	3	1	1	0	9	0	34	9	0	0	5	0	2	0	7	0	111								
13:00	0	0	25	6	3	0	1	0	0	0	0	0	6	0	39	7	1	0	2	0	1	1	4	0	82								
13:15	0	0	52	12	0	0	0	0	0	0	0	0	9	2	45	11	0	0	5	2	0	0	3	0	114								
13:30	0	0	33	8	2	0	1	1	0	0	0	0	6	0	36	8	1	0	4	0	0	0	4	0	87								
13:45	0	0	41	13	2	0	0	0	0	0	0	0	4	0	38	4	0	0	3	0	0	0	4	0	92								
14:00	0	0	52	10	3	0	2	1	1	0	0	0	9	0	47	9	0	0	4	1	0	0	7	0	125								
14:15	0	0	37	11	1	0	1	0	1	0	0	0	7	0	37	7	1	0	7	1	0	0	5	0	97								
14:30	0	0	41	12	1	0	1	0	3	0	0	0	5	0	46	11	1	0	2	0	1	0	4	0	105								
14:45	0	0	39	4	2	0	0	0	0	0	0	0	5	2	57	16	0	0	1	0	1	0	3	0	108								
15:00	0	0	47	14	3	0	0	0	2	0	1	0	6	2	52	14	0	0	1	0	1	0	5	0	118								
15:15	2	0	53	12	7	2	0	0	4	0	0	0	7	2	49	10	1	0	6	5	2	1	8	2	139								
15:30	2	0	40	13	2	0	0	0	0	0	0	0	7	0	40	8	0	0	2	0	0	0	7	0	100								
15:45	0	0	54	12	1	0	2	1	0	0	1	0	6	0	36	6	0	0	3	0	0	0	6	0	109								
16:00	0	0	31	6	0	0	0	0	0	0	0	0	6	2	32	8	2	0	1	0	1	0	4	0	77								
16:15	0	0	32	5	3	0	0	0	1	0	0	0	8	0	51	15	1	0	5	0	0	0	1	0	102								
16:30	0	0	59	11	3	0	1	0	2	0	0	0	10	0	43	10	2	0	6	0	0	0	5	0	131								
16:45	0	0	41	5	1	0	0	0	1	0	0	0	15	0	49	15	0	0	5	0	2	0	3	0	117								
17:00	0	0	40	10	2	0	1	0	2	0	1	0	12	0	49	13	4	1	3	0	0	0	1	0	115								
17:15	0	0	33	3	0	0	1	0	1	0	0	0	7	0	36	11	1	0	3	0	3	0	4	0	89								
17:30	0	0	37	5	0	0	0	0	0	0	0	0	6	2	23	3	1	1	4	0	1	0	6	0	78								
17:45	0	0	41	7	1	0	0	0	1	0	0	0	3	1	20	2	0	0	2	0	2	0	4	0	74								
18:00	0	0	45	8	0	0	0	0	0	0	0	0	5	2	16	1	0	0	0	0	0	0	1	0	67								
	0	0	173	29	6	0	3	0	6	0	1	0	44	0	177	49	7	1	17	0	5	0	13	0	2445								
9:00	3	2	167	33	4	1	3	0	5	2	3	0	12	0	193	45	4	2	6	1	3	1	48	8	451								
15:15	2	0	180	42	13	2	1	0	9	0	1	0	23	6	204	51	2	0	10	5	5	1	20	2	470								
7:00	4	1	92	21	2	1	3	0	1	0	0	0	6	0	83	37	0	0	6	1	9	0	40	0	246								
8:45	3	2	170	34	4	1	3	0	4	2	1	0	7	0	178	42	5	3	6	0	2	1	49	8	432								
14:30	0	0	171	46	7	0	4	1	5	0	0	0	25	0	168	31	2	0	16	2	1	0	20	0	419								
17:30	0	0	172	31	9	0	2	0	6	0	1	0	45	0	192	53	7	1	19	0	2	0	10	0	465								

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246	55%
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451	100%
415	92%
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375	80%
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435	93%
428	91%
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388	83%
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465	99%
452	96%
399	85%
356	76%
308	66%

Intersection Don Young

	Leg 1 W						Leg 2 N						Leg 4 S						TOTAL
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		
	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	
6:15	0	0	0	0	14	1	0	39	6	15	1	35	2	29	2	132			
6:30	2	0	0	0	11	3	0	52	9	11	0	38	4	41	3	155			
6:45	4	1	0	0	13	2	0	36	6	15	0	44	5	60	5	172			
7:00	2	0	0	0	11	1	0	41	5	12	1	25	3	55	5	146			
7:15	3	0	0	0	9	1	0	48	7	9	1	19	1	46	5	134			
7:30	1	0	0	0	8	2	0	34	3	6	0	20	3	68	5	137			
7:45	5	1	0	0	12	3	0	50	7	6	1	17	0	76	6	166			
8:00	5	0	0	0	7	1	0	62	4	4	0	24	3	81	4	183			
8:15	3	0	0	0	20	5	0	63	7	5	0	39	2	141	8	271			
8:30	5	0	0	0	16	4	0	42	5	9	0	22	3	55	3	149			
8:45	4	0	0	0	11	2	0	56	1	6	0	11	3	61	5	149			
9:00	3	1	0	0	18	5	0	44	6	3	0	13	1	46	3	127			
9:15	7	1	0	0	11	3	0	33	5	5	1	10	1	47	2	113			
9:30	7	2	0	0	9	2	0	34	4	3	1	11	1	56	4	120			
9:45	1	1	0	0	13	7	0	41	4	3	0	5	1	33	2	96			
10:00	5	2	0	0	8	1	0	42	2	3	0	13	3	47	5	118			
10:15	5	1	0	0	15	2	0	45	2	4	2	8	1	45	6	122			
10:30	2	0	0	0	14	4	0	39	5	3	0	18	5	35	5	111			
10:45	3	2	0	0	10	4	0	26	2	3	1	23	6	46	6	111			
11:00	2	1	0	0	9	5	0	35	5	2	1	8	1	41	3	97			
11:15	2	0	0	0	5	1	0	35	4	2	0	4	2	41	3	89			
11:30	3	0	0	0	9	2	0	34	2	1	1	10	6	40	3	97			
11:45	4	0	0	0	5	0	0	38	1	1	0	10	2	35	8	93			
12:00	5	0	0	0	17	4	0	38	3	3	2	13	2	44	4	120			
	14	1	0	0	47	11	0	209	21	21	1	100	8	366	23	3208			
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		TOTAL
	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	
	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	
12:15	5	0	0	0	11	4	0	44	2	8	2	19	6	32	3	119			
12:30	4	1	0	0	9	0	0	43	5	8	0	14	3	17	2	95			
12:45	10	3	0	0	20	2	0	74	9	11	0	24	5	37	4	176			
13:00	5	0	0	0	10	4	0	35	0	11	0	9	3	11	0	81			
13:15	4	0	0	0	8	2	0	53	7	3	0	9	0	27	0	104			
13:30	1	0	0	0	14	2	0	33	3	2	1	9	3	33	2	92			
13:45	3	0	0	0	14	4	0	62	8	5	0	9	4	44	5	137			
14:00	3	1	0	0	7	1	0	34	4	5	1	6	3	44	6	99			
14:15	5	0	0	0	4	0	0	36	3	3	1	6	4	25	0	79			
14:30	3	0	0	0	11	5	0	46	3	3	0	7	0	35	2	105			
14:45	2	1	0	0	15	3	0	51	7	4	0	6	1	41	1	119			
15:00	9	2	0	0	21	2	0	80	7	5	1	6	1	43	4	164			
15:15	1	0	0	0	20	2	0	63	8	5	0	11	1	25	1	125			
15:30	16	0	0	0	39	3	0	63	2	9	1	16	5	56	3	199			
15:45	11	0	0	0	20	1	0	46	3	8	0	6	1	24	4	115			
16:00	6	1	0	0	19	1	0	60	7	0	0	13	2	30	4	128			
16:15	6	1	0	0	15	1	0	60	2	6	0	9	1	34	7	130			
16:30	11	1	0	0	34	1	0	93	2	9	0	6	0	32	3	185			
16:45	9	1	0	0	29	1	0	82	2	5	0	8	1	33	2	166			
17:00	9	0	0	0	35	6	0	65	4	3	0	11	1	40	1	163			
17:15	18	0	0	0	72	1	0	93	2	7	0	12	1	46	2	248			
17:30	6	0	0	0	25	1	0	75	3	5	0	8	2	31	1	150			
17:45	7	0	0	0	27	1	0	64	1	3	0	3	0	34	1	138			
18:00	2	0	0	0	17	1	0	63	1	4	0	7	0	26	0	119			
	47	2	0	0	170	9	0	333	10	24	0	37	3	151	8	3236			
8:30	18	1	0	0	55	13	0	217	23	24	1	102	8	353	21	769			
17:15	47	2	0	0	170	9	0	333	10	24	0	37	3	151	8	762			
7:00	8	1	0	0	49	7	0	168	26	53	2	142	14	185	15	605			
8:45	17	0	0	0	54	12	0	223	17	24	0	96	11	338	20	752			
14:30	14	1	0	0	36	10	0	178	18	16	2	28	11	148	13	420			
17:30	42	3	0	0	113	9	0	300	10	23	0	34	3	139	13	644			

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Intersection Port Curtis

	Leg 1 N					Leg 2 E					Leg 3 S					Leg 4				
	Left		Thru		Right	Left		Thru		Right	Left		Thru		Right	Left		Thru		Right
	Total	Heavy	Total	Heavy	Total	Total	Total	Heavy	Total	Total	Total	Total	Heavy	Total	Total	Total	Total	Heavy	Total	Total
6:15	20	10	9	3	1	0	7	3	11	8	2	0								50
6:30	39	14	12	6	0	0	11	9	23	12	1	0								86
6:45	30	9	12	5	1	0	15	8	17	7	3	1								78
7:00	23	7	20	8	1	0	17	7	18	5	0	0								79
7:15	27	11	16	6	1	1	20	9	11	7	3	1								78
7:30	37	6	15	6	1	0	20	5	18	6	2	0								93
7:45	32	5	30	15	2	0	23	6	16	7	0	0								103
8:00	34	10	29	17	1	1	36	11	15	4	0	0								115
8:15	36	10	20	7	0	0	19	3	19	4	2	0								96
8:30	29	6	31	7	0	0	27	10	20	7	3	0								110
8:45	34	4	18	8	1	0	22	3	17	4	1	0								93
9:00	36	6	17	3	0	0	24	6	26	5	1	0								104
9:15	31	6	15	2	0	0	30	10	24	5	1	0								101
9:30	23	4	19	3	2	1	17	7	18	5	0	0								79
9:45	34	12	26	6	2	1	22	5	23	8	1	0								108
10:00	18	4	21	9	0	0	25	1	18	6	1	1								83
10:15	24	7	11	7	0	0	17	5	14	1	0	0								66
10:30	32	8	21	5	1	0	14	4	24	7	3	0								95
10:45	26	2	28	11	0	0	11	3	22	2	2	0								89
11:00	24	7	30	7	1	0	12	4	17	5	2	0								86
11:15	22	10	17	6	2	0	15	6	16	7	1	0								73
11:30	20	3	20	5	1	0	28	6	32	5	3	0								104
11:45	20	3	9	2	0	0	15	5	28	10	1	0								73
12:00	19	4	15	3	3	1	26	8	15	0	0	0								78
	139	31	94	45	4	1	98	25	68	21	4	0								2120

	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right	
	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy
12:15	16	3	15	6	1	0	22	4	19	8	1	0	74																							
12:30	23	9	18	8	0	0	17	2	24	5	0	0	82																							
12:45	24	5	18	4	0	0	18	1	23	4	2	0	85																							
13:00	16	2	18	5	0	0	24	6	28	4	0	0	86	327																						
13:15	16	3	19	10	2	0	25	8	24	2	1	0	87	340																						
13:30	21	5	16	5	0	0	18	1	21	6	0	0	76	334																						
13:45	18	3	15	8	1	0	21	5	17	4	0	0	72	321																						
14:00	13	5	20	7	0	0	17	7	22	4	0	0	72	307																						
14:15	25	6	11	2	2	0	23	3	20	2	1	0	82	302																						
14:30	23	13	17	9	0	0	20	3	27	5	1	0	88	314																						
14:45	17	7	25	4	1	0	28	12	17	4	2	0	90	332																						
15:00	18	4	18	6	2	1	30	7	30	7	1	0	99	359																						
15:15	27	6	25	12	1	0	27	4	25	3	2	0	107	384																						
15:30	19	3	14	8	1	0	30	2	25	3	1	0	90	386																						
15:45	22	4	30	6	1	0	25	7	27	4	1	0	106	402																						
16:00	30	5	23	8	0	0	21	6	24	2	3	1	101	404																						
16:15	20	4	19	5	1	0	30	4	24	4	2	1	96	393																						
16:30	18	3	27	9	8	1	25	9	18	4	1	0	97	400																						
16:45	21	5	19	8	0	0	29	3	15	1	2	0	86	380																						
17:00	26	6	17	5	2	1	31	3	15	1	5	5	96	375																						
17:15	21	1	20	7	4	1	33	3	16	4	0	0	94	373																						
17:30	14	2	18	3	6	1	33	4	22	8	1	0	94	370																						
17:45	13	1	22	8	4	0	27	7	14	7	1	0	81	365																						
18:00	16	3	13	5	2	1	22	4	15	7	2	1	70	339																						
	86	17	87	32	5	1	112	20	107	17	5	0	2111																							

AM Peak	8:30	131	31	110	46	3	1	105	30	70	22	5	0	424
PM Peak	16:00	98	18	92	34	3	0	103	19	101	12	7	1	404

AM 6-7	7:00	112	40	53	22	3	0	50	27	69	32	6	1	293
AM 7:45-8:45	8:45	133	30	98	39	2	1	104	27	71	19	6	0	414
PM 1:30-2:30	14:30	79	27	63	26	3	0	81	18	86	15	2	0	314
PM 4:30-5:30	17:30	82	18	82	27	11	2	115	19	72	10	10	6	375

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Intersection Herbetson

	Leg 1 N						Leg 2 E						Leg 3 S						Leg 4 W						TOTAL
	Left		Thru	Right		Left		Thru	Right		Left		Thru	Right		Left		Thru	Right						
	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy					
5:45	6	1	21	2	16	0	6	0	28	0	8	0	60	0	26	1	0	0	12	1	3	0	17	1	203
6:00	2	0	19	0	6	1	0	0	11	0	4	0	90	0	35	0	0	0	7	1	2	0	12	2	188
6:15	9	0	23	2	15	0	2	0	16	1	6	2	120	1	58	1	7	1	11	2	5	1	18	3	290
6:30	2	0	32	2	15	2	3	0	32	0	3	0	142	4	74	4	1	0	1	1	0	0	21	5	326
6:45	4	0	33	4	20	2	4	0	12	1	14	1	138	3	70	2	0	0	4	3	1	0	12	3	312
7:00	1	1	36	2	11	1	7	0	14	0	9	1	193	2	105	3	0	0	1	1	1	0	23	5	401
7:15	4	0	52	2	6	1	4	0	9	1	6	1	54	8	63	0	1	0	6	0	5	0	22	1	232
7:30	7	1	60	4	10	2	3	0	13	1	16	0	82	5	82	1	0	0	9	0	4	0	36	5	322
7:45	9	0	59	13	11	4	3	0	6	1	11	1	69	7	137	3	2	1	5	0	0	0	29	8	341
8:00	9	1	93	5	12	5	6	0	11	0	28	1	55	3	177	5	2	2	1	1	9	1	25	3	428
8:15	10	0	91	3	6	0	5	0	7	1	22	0	47	1	239	2	0	0	3	0	4	0	33	3	467
8:30	8	0	139	7	6	0	3	0	7	1	39	2	52	2	208	9	0	0	2	1	6	0	34	8	504
8:45	0		0		0		0		0		0		0		0			0		0		0		0	0
9:00	0		0		0		0		0		0		0		0			0		0		0		0	0
9:15	0		0		0		0		0		0		0		0			0		0		0		0	0
9:30	0		0		0		0		0		0		0		0			0		0		0		0	0
9:45	0		0		0		0		0		0		0		0			0		0		0		0	0
10:00	0		0		0		0		0		0		0		0			0		0		0		0	0
10:15	0		0		0		0		0		0		0		0			0		0		0		0	0
10:30	0		0		0		0		0		0		0		0			0		0		0		0	0
10:45	0		0		0		0		0		0		0		0			0		0		0		0	0
11:00	0		0		0		0		0		0		0		0			0		0		0		0	0
11:15	0		0		0		0		0		0		0		0			0		0		0		0	0
11:30	0		0		0		0		0		0		0		0			0		0		0		0	0
11:45	0		0		0		0		0		0		0		0			0		0		0		0	0
12:00	0		0		0		0		0		0		0		0			0		0		0		0	0
	63	3	618	44	112	17	40	0	127	7	154	9	952	36	1213	30	13	4	43	9	35	2	253	44	3623
	Left		Thru	Right		Left		Thru	Right		Left		Thru	Right		Left		Thru	Right		TOTAL				
	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy	Total	L Heavy					
12:15	0		0		0		0		0		0		0		0		0		0		0		0		0
12:30	0		0		0		0		0		0		0		0		0		0		0		0		0
12:45	0		0		0		0		0		0		0		0		0		0		0		0		0
13:00	0		0		0		0		0		0		0		0		0		0		0		0		0
13:15	0		0		0		0		0		0		0		0		0		0		0		0		0
13:30	0		0		0		0		0		0		0		0		0		0		0		0		0
13:45	0		0		0		0		0		0		0		0		0		0		0		0		0
14:00	0		0		0		0		0		0		0		0		0		0		0		0		0
14:15	0		0		0		0		0		0		0		0		0		0		0		0		0
14:30	0		0		0		0		0		0		0		0		0		0		0		0		0
14:45	19	0	201	8	12	1	9	0	9	0	25	3	40	0	187	7	1	0	7	3	11	0	85	5	606
15:00	11	0	115	4	8	1	5	0	5	0	16	1	18	0	180	2	0	0	3	0	8	0	70	4	439
15:15	23	1	188	4	7	1	4	0	4	0	15	1	21	5	140	3	0	0	5	1	5	0	56	4	468
15:30	23	0	251	14	5	2	20	1	20	1	18	0	30	3	158	7	0	0	7	1	10	0	84	8	626
15:45	22	0	214	7	5	2	8	0	8	0	29	0	9	1	135	7	0	0	5	1	17	0	154	6	606
16:00	16	0	162	2	4	0	5	0	5	0	9	1	27	5	127	7	0	0	4	0	10	0	114	7	483
16:15	27	1	198	1	8	1	9	0	9	0	13	1	27	1	126	6	0	0	4	1	7	0	121	6	549
16:30	9	0	162	1	5	2	3	0	3	0	8	0	18	2	132	2	1	1	3	0	12	0	130	2	486
16:45	28	0	251	0	3	1	7	0	7	0	17	0	27	2	151	2	2	0	4	0	17	0	168	5	682
17:00	10	0	175	2	5	2	9	0	9	0	6	0	15	1	116	1	0	0	7	0	11	0	109	4	472
17:15	26	0	213	2	12	1	8	0	8	0	18	0	4	0	98	1	1	0	3	2	37	0	202	4	630
17:30	27	0	305	3	6	2	9	0	9	0	10	0	22	0	126	1	0	0	5	1	31	0	117	3	667
17:45	0		0		0		0		0		0		0		0			0		0		0		0	0
18:00	0		0		0		0		0		0		0		0			0		0		0		0	0
	241	2	2435	48	80	16	96	1	96	1	184	7	258	20	1676	46	5	1	57	10	176	0	1410	58	6714
8:30	36	1	382	28	35	9	17	0	31	3	100	4	223	13	761	19	4	3	11	2	19	1	121	22	1740
17:30	91	0	944	7	26	6	33	0	33	0	51	0	68	3	491	5	3	0	19	3	96	0	596	16	2451
7:00	16	1	124	10	61	5	16	0	74	2	32	4	593	10	307	10	8	1	17	7	7	1	74	16	1329
8:45	27	1	323	15	24	5	14	0	25	2	89	3	154	6	624	16	2	2	6	2	19	1	92	14	1399
14:30	76	1	755	30	32	5	38	1	38	1	74	5	109	8	665	19	1	0	22	5	34	0	295	21	2139
17:30	91	1	786	4	21	6	28	0	28	0	44	1	87	6	525	11	3	1	18	1	47	0	528	17	2189

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2139 used the closest count times from 2:30 until 3:30

Intersection Bruce Dawson

	Leg 1 N				Leg 2 E				Leg 3 S				Leg 4 W				TOTAL								
	Left		Thru		Right		Left		Thru		Right		Left		Thru			Right							
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy		Total	IHeavy						
6:15	77	0	0	0	1	0	1	0	28	4	42	1	0	0	0	0	0	1	0	85	6	1	1	236	
6:30	69	2	2	0	5	1	2	0	35	3	41	3	0	0	0	0	0	6	1	93	3	0	0	253	
6:45	69	4	1	0	1	0	2	0	49	0	30	2	1	0	0	0	0	3	0	93	4	0	0	249	
7:00	73	4	3	0	0	0	6	0	49	2	28	1	0	0	0	0	1	0	5	1	121	9	0	0	286
7:15	60	1	1	0	0	0	7	0	52	4	31	0	0	0	0	0	0	6	0	121	6	1	1	279	
7:30	93	1	1	0	0	0	6	0	58	4	44	1	1	0	0	0	3	2	5	0	133	4	0	0	344
7:45	94	0	8	0	5	0	7	2	68	6	31	1	1	0	2	0	5	0	6	0	145	3	1	0	373
8:00	124	1	6	0	6	0	10	1	108	7	49	1	1	0	0	0	5	0	13	0	225	7	2	0	549
8:15	115	2	5	1	10	1	9	0	135	8	47	1	1	0	1	0	3	1	11	0	228	9	1	0	566
8:30	152	5	8	0	15	0	15	1	160	10	58	1	1	1	0	0	4	0	18	0	239	13	6	0	676
8:45	121	0	3	0	9	0	21	0	128	8	56	1	1	1	0	0	8	3	23	1	219	15	9	0	598
9:00	85	3	5	0	4	0	36	2	74	4	44	3	2	0	3	1	8	0	10	0	166	18	4	0	441
9:15	73	4	3	1	3	1	25	3	87	7	33	0	1	0	1	0	7	0	6	1	137	3	15	0	391
9:30	67	2	7	0	4	0	25	1	78	10	51	1	3	0	2	0	19	3	4	0	111	2	9	1	380
9:45	69	0	9	0	0	0	17	0	66	2	49	1	5	0	1	0	13	3	5	0	114	8	5	0	353
10:00	54	2	7	0	6	0	29	1	68	5	45	1	1	0	2	1	18	0	11	0	96	7	10	0	347
10:15	84	0	8	0	3	0	25	2	94	10	52	0	6	1	2	0	19	1	5	0	88	6	15	1	401
10:30	65	2	6	0	2	1	25	1	76	6	55	1	0	0	4	0	31	5	8	0	114	11	14	0	400
10:45	72	3	8	1	2	0	22	2	82	8	52	2	1	0	4	1	28	4	7	1	98	8	12	1	388
11:00	68	1	9	1	1	1	33	0	80	4	59	1	2	0	6	0	23	2	7	0	98	5	8	0	394
11:15	62	2	6	0	2	0	26	1	65	2	51	1	2	0	0	0	29	1	9	0	85	6	8	0	345
11:30	51	1	9	0	4	0	18	1	64	7	38	2	8	0	2	0	27	1	6	0	76	4	7	1	310
11:45	61	1	8	0	2	0	28	1	69	3	36	0	5	0	1	0	22	0	10	0	83	5	13	1	338
12:00	66	1	7	1	3	0	23	1	70	10	35	0	3	0	2	0	35	1	10	1	69	3	6	0	329
	1924	42	130	5	88	5	418	20	1843	134	1057	26	46	3	33	3	308	27	195	6	3037	165	147	7	9226
	Leg 1 N				Leg 2 E				Leg 3 S				Leg 4 W				TOTAL								
	Left		Thru		Right		Left		Thru		Right		Left		Thru			Right							
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy		Total	IHeavy						
12:15	31	1	3	0	6	0	23	0	96	3	30	0	3	0	5	0	18	0	3	0	71	3	3	0	292
12:30	31	2	9	0	3	0	38	0	100	4	32	1	6	0	5	0	27	0	2	0	80	5	6	1	339
12:45	51	1	2	0	3	1	18	1	75	2	62	1	6	1	4	2	13	0	3	0	63	3	4	0	304
13:00	42	1	1	0	1	0	19	2	83	2	121	1	8	1	3	0	29	1	1	0	54	2	4	0	366
13:15	63	0	4	0	2	0	20	3	85	4	63	0	6	1	2	0	26	0	8	0	96	5	5	0	380
13:30	57	1	1	0	2	0	17	0	86	4	46	0	3	0	3	0	25	2	1	0	89	3	6	0	336
13:45	57	4	5	0	1	0	15	1	86	2	38	0	7	0	6	1	34	4	2	0	85	2	2	0	338
14:00	46	0	1	0	4	0	20	0	109	10	55	1	10	0	8	1	22	1	7	1	92	3	7	0	381
14:15	46	1	2	0	2	0	20	0	111	2	56	3	5	0	4	0	20	1	1	0	86	3	3	0	356
14:30	46	1	9	0	0	0	19	0	114	4	50	0	4	0	8	1	26	1	3	0	73	5	4	0	356
14:45	101	3	3	0	4	0	14	0	156	10	35	0	8	0	4	0	27	1	5	1	109	5	6	0	472
15:00	58	3	1	0	1	1	22	0	173	4	40	0	10	1	4	1	25	1	7	1	123	10	5	0	469
15:15	100	3	2	0	1	0	12	0	162	8	46	0	5	1	0	0	36	0	7	0	227	4	3	0	601
15:30	65	0	2	0	3	0	12	0	220	7	87	1	4	0	2	0	22	1	5	0	1	6	5	0	514
15:45	66	0	2	0	5	0	17	1	170	7	76	2	2	0	1	0	27	3	4	0	123	3	4	0	497
16:00	71	1	4	0	1	0	9	1	174	5	111	4	4	0	5	1	48	1	7	0	142	8	6	0	582
16:15	98	3	1	0	2	1	16	1	165	7	118	5	6	0	3	0	23	0	6	0	108	11	3	0	549
16:30	82	2	1	0	5	0	10	1	151	3	116	0	4	0	1	0	26	0	5	1	124	1	6	0	531
16:45	84	0	0	0	3	0	20	2	208	4	152	2	2	0	2	0	29	0	13	0	126	3	4	0	643
17:00	89	0	0	0	3	0	16	0	219	5	116	1	7	0	4	0	24	0	12	0	115	1	6	0	611
17:15	90	1	4	0	6	0	9	0	187	3	104	2	8	0	6	0	22	0	9	0	111	4	5	0	561
17:30	163	1	4	0	5	0	17	0	273	2	138	3	4	1	2	0	36	0	12	0	205	3	6	0	865
17:45	88	0	0	0	5	0	4	0	155	1	98	0	4	0	3	0	16	0	5	0	126	3	3	1	507
18:00	58	1	3	0	6	0	6	1	163	2	118	0	0	0	1	0	17	0	8	0	118	1	3	0	501
	1683	30	64	0	74	3	393	14	3521	105	1908	27	126	6	86	7	618	17	136	4	2547	97	109	2	11351
8:45	512	8	22	1	40	1	55	2	531	33	210	4	4	2	1	0	20	4	65	1	911	44	18	0	2389
17:30	426	2	8	0	17	0	62	2	887	14	510	8	21	1	14	0	111	0	46	0	557	11	21	0	2680
7:00	288	10	6	0	7	1	11	0	161	9	141	7	1	0	0	0	1	0	15	2	392	22	1	1	1024
8:45	512	8	22	1	40	1	55	2	531	33	210	4	4	2	1	0	20	4	65	1	911	44	18	0	2389
14:30	195	6	17	0	7	0	74	1	420	18	199	4	26	0	26	3	102	7	13	1	336	13	16	0	1431
17:30	426	5	2	0	13	1	62	4	743	19	502	8	19	0	10	0	102	0	36	1	473	16	19	0	2334

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Leg 1 N						Leg 1 E						Leg 1 S						Leg 1 W					
Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right	
L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H
77	0	0	0	1	0	1	0	24	4	41	1	0	0	0	0	0	0	1	0	79	6	0	1
67	2	2	0	4	1	2	0	32	3	38	3	0	0	0	0	0	0	5	1	90	3	0	0
65	4	1	0	1	0	2	0	49	0	28	2	1	0	0	0	0	0	3	0	89	4	0	0
69	4	3	0	0	0	6	0	47	2	27	1	0	0	0	0	1	0	4	1	112	9	0	0
59	1	1	0	0	0	7	0	48	4	31	0	0	0	0	0	0	0	6	0	115	6	0	1
92	1	1	0	0	0	6	0	54	4	43	1	1	0	0	0	1	2	5	0	129	4	0	0
94	0	8	0	5	0	5	2	62	6	30	1	1	0	2	0	5	0	6	0	142	3	1	0
123	1	6	0	6	0	9	1	101	7	48	1	1	0	0	0	5	0	13	0	218	7	2	0
113	2	4	1	9	1	9	0	127	8	46	1	1	0	1	0	2	1	11	0	219	9	1	0
147	5	8	0	15	0	14	1	150	10	57	1	0	1	0	0	4	0	18	0	226	13	6	0
121	0	3	0	9	0	21	0	120	8	55	1	0	1	0	0	5	3	22	1	204	15	9	0
82	3	5	0	4	0	34	2	70	4	41	3	2	0	2	1	8	0	10	0	148	18	4	0
69	4	2	1	2	1	22	3	80	7	33	0	1	0	1	0	7	0	5	1	134	3	15	0
65	2	7	0	4	0	24	1	68	10	50	1	3	0	2	0	16	3	4	0	109	2	8	1
69	0	9	0	0	0	17	0	64	2	48	1	5	0	1	0	10	3	5	0	106	8	5	0
52	2	7	0	6	0	28	1	63	5	44	1	1	0	1	1	18	0	11	0	89	7	10	0
84	0	8	0	3	0	23	2	84	10	52	0	5	1	2	0	18	1	5	0	82	6	14	1
63	2	6	0	1	1	24	1	70	6	54	1	0	0	4	0	26	5	8	0	103	11	14	0
69	3	7	1	2	0	20	2	74	8	50	2	1	0	3	1	24	4	6	1	90	8	11	1
67	1	8	1	0	1	33	0	76	4	58	1	2	0	6	0	21	2	7	0	93	5	8	0
60	2	6	0	2	0	25	1	63	2	50	1	2	0	0	0	28	1	9	0	79	6	8	0
50	1	9	0	4	0	17	1	57	7	36	2	8	0	2	0	26	1	6	0	72	4	6	1
60	1	8	0	2	0	27	1	66	3	36	0	5	0	1	0	22	0	10	0	78	5	12	1
65	1	6	1	3	0	22	1	60	10	35	0	3	0	2	0	34	1	9	1	66	3	6	0

Intersection Glenlyon Dawson

	Leg 1 N								Leg 2 E								Leg 3 S								Leg 4 W								TOTAL
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right										
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy									
6:15	2	1	12	3	7	1	7	3	38	1	11	6	4	1	62	3	17	0	41	0	30	1	16	2	247								
6:30	2	1	29	3	7	0	2	0	15	0	0	0	4	0	85	12	12	0	63	0	39	2	43	2	301								
6:45	1	0	38	4	9	0	0	0	6	0	1	0	12	0	95	8	9	0	74	1	50	7	12	1	307								
7:00	3	0	28	3	16	0	0	0	13	0	11	1	21	0	144	7	11	0	108	3	36	2	46	1	437								
7:15	2	0	54	8	18	3	0	0	12	0	10	1	5	1	171	20	8	1	70	0	32	0	24	0	406								
7:30	0	0	38	6	13	1	0	0	7	0	6	1	14	0	138	13	8	0	43	2	33	0	28	0	328								
7:45	3	0	43	5	23	1	0	0	14	0	3	1	2	0	136	24	2	1	52	2	76	0	25	1	379								
8:00	9	0	69	10	25	2	1	0	21	0	16	0	25	0	240	21	16	0	138	2	116	0	92	2	768								
8:15	13	1	55	7	22	1	2	0	35	0	15	1	18	0	176	12	11	0	148	3	143	2	76	0	714								
8:30	9	1	58	5	25	1	0	0	35	1	26	1	13	0	183	23	13	0	125	3	153	0	82	4	722								
8:45	8	1	68	8	38	1	5	0	36	0	18	1	18	0	211	10	15	0	124	6	211	2	96	1	848								
9:00	10	0	85	6	48	0	0	0	54	2	14	0	14	0	160	26	6	0	85	6	109	0	66	5	651								
9:15	11	1	110	9	53	11	4	0	52	2	15	1	12	0	122	14	18	1	79	7	99	1	50	3	625								
9:30	23	2	130	16	67	2	6	0	59	3	26	0	19	0	120	17	15	1	70	10	82	4	60	5	677								
9:45	12	0	81	11	59	3	5	0	41	2	13	0	10	0	58	5	10	0	42	0	58	0	23	3	412								
10:00	15	2	56	7	51	2	0	0	32	2	6	0	15	1	89	11	13	0	61	0	61	0	26	1	425								
10:15	11	1	52	4	44	3	3	0	20	2	14	0	10	2	69	9	9	1	42	2	62	3	30	2	366								
10:30	5	0	72	8	41	5	3	0	15	2	16	0	5	0	67	14	6	0	29	1	64	2	23	0	346								
10:45	10	0	115	55	72	17	10	0	18	2	17	0	4	0	74	16	6	0	26	1	66	1	26	0	444								
11:00	9	0	75	4	55	2	1	0	48	0	8	0	7	0	57	7	9	0	44	3	62	1	20	0	395								
11:15	10	0	56	9	53	2	9	0	18	0	7	0	3	1	76	14	5	1	48	3	65	0	26	0	376								
11:30	7	0	61	6	50	3	7	0	38	0	13	0	2	1	47	7	2	0	44	2	65	1	21	1	357								
11:45	9	0	64	5	42	5	4	0	40	0	17	0	5	2	53	3	3	0	53	1	71	1	22	0	383								
12:00	17	0	113	10	68	2	1	0	64	0	8	0	4	0	57	0	7	0	61	3	70	0	26	1	496								
	201	11	1562	212	906	68	70	3	731	19	291	14	246	9	2690	296	231	6	1670	61	1853	30	959	35	11410								
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right										
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy									
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy									
12:15	8	0	69	4	60	2	1	0	63	0	11	0	47	3	49	0	19	2	4	1	53	2	2	0	386								
12:30	5	0	78	4	39	3	1	0	35	0	8	0	49	0	38	1	15	1	5	1	55	5	2	0	330								
12:45	6	0	118	9	34	1	7	0	22	0	5	1	53	1	50	2	19	0	6	0	48	2	2	0	370								
13:00	10	0	85	5	60	2	3	0	44	1	10	0	60	2	52	1	22	0	10	0	66	3	1	0	423								
13:15	10	0	75	2	21	0	3	1	45	2	19	1	45	2	30	0	18	1	12	2	58	7	2	0	338								
13:30	12	0	75	8	53	0	2	0	39	0	15	1	55	0	55	0	24	0	11	1	63	7	2	0	406								
13:45	4	0	99	15	35	0	1	0	37	1	13	0	70	6	63	0	14	0	5	1	64	5	1	0	406								
14:00	9	0	72	5	29	0	3	0	35	1	8	0	47	1	49	2	19	1	4	1	65	4	0	0	340								
14:15	6	1	67	5	52	1	0	0	34	1	15	0	49	3	45	0	27	0	4	0	52	6	3	0	354								
14:30	8	2	126	10	33	4	10	0	36	0	20	0	46	2	49	0	11	1	0	0	66	4	1	0	406								
14:45	12	0	85	4	52	2	4	1	28	0	16	1	35	0	40	1	17	1	10	0	55	4	1	0	355								
15:00	11	1	99	9	44	5	7	0	59	1	11	0	41	2	65	0	33	2	12	4	53	10	1	0	436								
15:15	13	1	177	6	60	0	3	0	96	3	17	1	57	2	45	1	25	2	10	2	63	9	5	0	571								
15:30	5	1	131	14	49	1	3	0	56	0	9	0	59	0	61	0	25	4	17	1	1	4	4	0	466.5								
15:45	14	0	134	5	36	0	2	0	53	0	14	0	60	0	38	3	23	1	14	1	68	5	1	0	457								
16:00	9	1	145	9	48	3	1	0	42	0	13	2	50	2	52	0	33	0	21	0	55	2	3	0	472								
16:15	16	0	173	10	55	2	8	0	124	0	31	2	58	1	54	0	29	0	26	1	113	7	5	0	692								
16:30	8	1	84	3	35	0	1	0	39	1	12	3	34	1	32	0	17	0	17	0	66	3	1	0	346								
16:45	13	0	166	8	45	1	4	0	76	1	22	3	55	1	39	0	30	0	13	0	67	7	3	0	533								
17:00	8	1	169	12	47	1	4	0	45	0	9	0	48	1	36	0	15	0	11	0	64	2	4	0	460								
17:15	15	0	257	2	70	0	10	0	115	1	25	0	53	0	33	0	22	0	9	0	63	5	6	0	678								
17:30	5	0	153	3	60	0	8	0	62	1	20	0	37	0	41	0	22	0	17	0	70	2	2	0	497								
17:45	4	0	134	4	48	0	4	0	45	0	7	0	38	0	47	0	21	0	19	0	45	1	3	0	415								
18:00	4	0	84	3	45	1	1	0	26	0	7	0	40	1	28	1	15	0	9	0	42	0	1	0	302								
	215	9	2855	159	1110	29	91	2	1256	14	337	15	1186	31	1091	12	515	16	266	16	1415	106	56	0	10439.5								
8:45	39	3	250	30	110	5	8	0	127	1	75	3	74	0	810	66	55	0	535	14	623	4	346	7	3052								
17:30	41	1	745	25	222	2	26	0	298	3	76	3	193	2	149	0	89	0	50	0	264	16	15	0	2168								
7:00	8	2	107	13	39	1	9	3	72	1	23	7	41	1	386	30	49	0	286	4	155	12	117	6	1292								
8:45	39	3	250	30	110	5	8	0	127	1	75	3	74	0	810	66	55	0	535	14	623	4	346	7	3052								
14:30	27	3	364	35	149	5	14	0	142	3	56	0	212	12	206	2	71	2	13	2	247	19	5	0	1506								
17:30	41	2	592	33	182	4	17	0	284	2	74	8	195	4	161	0	91	0	67	1	310	19	13	0	2031								

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Leg 1 N						Leg 1 E						Leg 1 S						Leg 1 W					
Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right	
L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H
1	1	9	3	6	1	4	3	37	1	5	6	3	1	59	3	17	0	41	0	29	1	14	2
1	1	26	3	7	0	2	0	15	0	0	0	4	0	73	12	12	0	63	0	37	2	41	2
1	0	34	4	9	0	0	0	6	0	0	0	12	0	87	8	9	0	73	1	43	7	11	1
3	0	25	3	16	0	0	0	13	0	10	1	21	0	137	7	11	0	105	3	34	2	45	1
2	0	46	8	15	3	0	0	12	0	9	1	4	1	151	20	7	1	70	0	32	0	24	0
0	0	32	6	12	1	0	0	7	0	5	1	14	0	125	13	8	0	41	2	33	0	28	0
3	0	38	5	22	1	0	0	14	0	2	1	2	0	112	24	1	1	50	2	76	0	24	0
9	0	59	10	23	2	1	0	21	0	16	0	25	0	219	21	16	0	136	2	116	0	90	2
12	1	48	7	21	1	2	0	35	0	14	1	18	0	164	12	11	0	145	3	141	2	76	0
8	1	53	5	24	1	0	0	34	1	25	1	13	0	160	23	13	0	122	3	153	0	78	4
7	1	60	8	37	1	5	0	36	0	17	1	18	0	201	10	15	0	118	6	209	2	95	1
10	0	79	6	48	0	0	0	52	2	14	0	14	0	134	26	6	0	79	6	109	0	61	5
10	1	101	9	42	11	4	0	50	2	14	1	12	0	108	14	17	1	72	7	98	1	47	3
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12	0	70	11	56	3	5	0	39	2	13	0	10	0	53	5	10	0	42	0	58	0	20	3
13	2	49	7	49	2	0	0	30	2	6	0	14	1	78	11	13	0	61	0	61	0	25	1
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5	0	64	8	36	5	3	0	13	2	16	0	5	0	53	14	6	0	28	1	62	2	23	0
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7	0	55	6	47	3	7	0	38	0	13	0	1	1	40	7	2	0	42	2	64	1	20	1
9	0	59	5	37	5	4	0	40	0	17	0	3	2	50	3	3	0	52	1	70	1	22	0
17	0	103	10	66	2	1	0	64	0	8	0	4	0	57	0	7	0	58	3	70	0	25	1

Leg 1 N						Leg 1 E						Leg 1 S						Leg 1 W					
Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right	
L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H	L	H
8	0	65	4	58	2	1	0	63	0	11	0	44	3	49	0	17	2	3	1	51	2	2	0
5	0	74	4	36	3	1	0	35	0	8	0	49	0	37	1	14	1	4	1	50	5	2	0
6	0	109	9	33	1	7	0	22	0	4	1	52	1	48	2	19	0	6	0	46	2	2	0
10	0	80	5	58	2	3	0	43	1	10	0	58	2	51	1	22	0	10	0	63	3	1	0
10	0	73	2	21	0	2	1	43	2	18	1	43	2	30	0	17	1	10	2	51	7	2	0
12	0	67	8	53	0	2	0	39	0	14	1	55	0	55	0	24	0	10	1	56	7	2	0
4	0	84	15	35	0	1	0	36	1	13	0	64	6	63	0	14	0	4	1	59	5	1	0
9	0	67	5	29	0	3	0	34	1	8	0	46	1	47	2	18	1	3	1	61	4	0	0
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12	0	81	4	50	2	3	1	28	0	15	1	35	0	39	1	16	1	10	0	51	4	1	0
12	1	90	9	39	5	7	0	58	1	11	0	39	2	65	0	31	2	8	4	43	10	1	0
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14	0	129	5	36	0	2	0	53	0	14	0	60	0	35	3	22	1	13	1	63	5	1	0
8	1	136	9	45	3	1	0	42	0	11	2	48	2	52	0	33	0	21	0	53	2	3	0
16	0	163	10	53	2	8	0	124	0	29	2	57	1	54	0	29	0	25	1	106	7	5	0
7	1	81	3	35	0	1	0	38	1	9	3	33	1	32	0	17	0	17	0	63	3	1	0
13	0	158	8	44	1	4	0	75	1	19	3	54	1	39	0	30	0	13	0	60	7	3	0
7	1	157	12	46	1	4	0	45	0	9	0	47	1	36	0	15	0	11	0	62	2	4	0
15	0	255	2	70	0	10	0	114	1	25	0	53	0	33	0	22	0	9	0	58	5	6	0
5	0	150	3	60	0	8	0	61	1	20	0	37	0	41	0	22	0	17	0	68	2	2	0
4	0	130	4	48	0	4	0	45	0	7	0	38	0	47	0	21	0	19	0	44	1	3	0
4	0	81	3	44	1	1	0	26	0	7	0	39	1	27	1	15	0	9	0	42	0	1	0

Intersection Bruce Dawson

	Leg 1 N						Leg 2 E						Leg 3 S						Leg 4 W						TOTAL
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	
6:15	9	0	24	8	5	1	11	1	34	9	7	1	20	0	62	2	10	0	8	0	22	5	17	2	229
6:30	4	0	17	9	3	1	14	1	43	13	8	0	30	0	85	6	12	0	7	0	15	3	8	1	246
6:45	6	1	10	1	3	1	13	1	37	9	12	2	28	1	62	2	15	2	4	0	15	6	3	1	208
7:00	3	0	5	1	2	1	16	0	37	8	15	3	27	2	69	4	17	3	4	0	8	3	2	1	205
7:15	1	0	5	1	2	1	14	1	31	9	11	1	23	3	69	6	15	4	4	0	7	6	2	1	184
7:30	1	0	3	1	2	1	17	2	35	9	11	2	25	4	83	9	15	3	3	0	5	4	2	1	202
7:45	1	0	1	0	1	1	15	1	36	11	12	1	22	3	92	11	16	2	2	0	3	2	2	1	203
8:00	3	1	5	2	4	2	20	2	38	10	8	0	19	4	98	12	19	4	4	0	5	3	4	2	227
8:15	19	4	34	2	6	0	19	3	52	12	11	0	15	2	115	11	16	2	11	1	47	15	5	1	350
8:30	18	2	16	1	3	0	19	4	59	13	14	1	17	3	143	14	27	3	12	2	45	14	3	1	376
8:45	5	1	28	5	2	0	15	1	38	8	13	2	10	0	97	6	19	1	3	0	19	7	5	1	254
9:00	3	1	16	4	1	0	16	0	32	6	9	0	12	1	87	8	16	2	2	0	8	4	3	1	205
9:15	5	0	14	0	0	0	12	2	32	7	12	2	15	5	57	5	17	1	5	0	16	6	5	1	190
9:30	7	1	27	2	0	0	27	3	28	5	4	1	10	2	71	2	16	5	7	0	44	12	4	0	245
9:45	2	0	15	1	3	0	19	1	37	9	10	2	6	1	63	8	12	2	7	0	12	0	8	1	194
10:00	7	0	4	1	0	0	18	3	28	8	7	1	4	1	50	4	17	2	11	0	26	2	13	7	185
10:15	4	2	30	2	6	0	103	4	26	7	5	0	4	0	45	6	11	1	11	0	29	4	11	0	285
10:30	4	2	42	2	8	0	10	3	28	8	6	2	7	2	45	5	9	0	12	1	45	6	18	6	234
10:45	4	2	14	1	2	0	11	6	19	4	7	0	2	0	33	4	5	0	1	0	10	0	2	1	110
11:00	4	2	18	3	7	0	4	1	48	14	6	2	4	1	33	3	5	1	6	0	21	7	4	1	160
11:15	5	1	16	1	4	0	6	2	39	12	3	1	10	2	29	5	5	1	4	0	15	0	1	0	137
11:30	1	0	6	1	1	0	4	1	30	10	3	2	7	1	23	3	5	2	3	0	6	0	0	0	89
11:45	18	3	13	3	5	0	6	1	51	14	7	3	6	2	36	1	4	2	7	0	33	18	3	2	189
12:00	6	1	38	3	1	0	4	1	24	4	3	0	2	1	27	5	1	1	5	0	29	4	3	1	143
	140	24	401	55	71	9	413	45	862	219	204	29	325	41	1574	142	304	44	143	4	485	131	128	34	5050

	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	
12:15	2	0	27	5	3	1	3	1	29	5	2	1	3	0	17	4	5	2	2	0	6	4	0	0	99
12:30	4	0	56	8	7	4	6	1	17	2	3	1	1	0	19	3	7	0	0	0	6	4	2	0	128
12:45	2	1	29	4	4	0	6	0	14	2	0	0	3	0	10	1	7	1	2	0	11	6	0	0	88
13:00	6	1	30	3	3	0	6	1	12	1	2	0	3	0	20	2	9	1	3	0	2	1	0	0	96
13:15	2	2	13	2	3	0	5	1	29	7	5	1	9	1	17	3	5	0	0	0	4	1	0	0	92
13:30	0	0	15	1	2	0	4	2	20	4	2	0	5	0	34	5	10	0	5	0	9	0	0	0	106
13:45	3	1	17	3	1	0	5	1	23	2	2	1	4	0	19	3	5	3	2	0	9	0	0	0	90
14:00	1	1	30	5	4	3	3	0	22	4	3	0	7	2	19	2	11	5	4	1	9	2	2	0	115
14:15	2	0	29	3	4	1	5	1	22	5	1	0	2	0	26	3	4	0	6	3	8	0	0	0	109
14:30	2	0	20	0	1	0	5	0	24	3	1	0	9	1	22	5	9	3	2	0	6	2	0	0	101
14:45	6	2	42	4	4	0	6	0	22	1	3	0	3	2	22	3	6	1	0	0	11	4	1	0	126
15:00	3	0	68	5	6	0	6	0	20	4	6	0	6	1	28	1	4	0	0	0	11	2	2	0	160
15:15	8	0	33	1	5	0	12	1	31	4	3	0	7	0	25	1	9	0	3	0	11	3	3	0	150
15:30	8	0	21	3	2	0	13	2	21	2	2	0	10	1	36	2	5	1	0	0	1	6	1	0	126
15:45	6	0	31	4	8	0	12	3	27	1	5	2	2	0	25	4	11	0	1	0	18	7	1	0	147
16:00	7	0	34	3	3	0	7	0	23	2	2	0	3	0	24	6	5	0	1	0	17	6	2	0	128
16:15	8	2	46	3	4	0	15	5	19	1	4	0	6	1	20	2	2	0	3	0	18	4	7	0	152
16:30	5	0	87	7	10	0	17	3	18	3	9	1	4	0	25	1	7	1	3	0	14	2	10	3	209
16:45	4	0	41	1	3	0	7	0	17	4	4	0	4	0	31	1	9	3	1	0	13	2	2	1	136
17:00	6	0	59	2	7	2	9	1	20	6	5	1	5	0	38	2	9	0	2	0	16	4	2	0	178
17:15	2	1	51	3	8	5	3	1	6	4	5	1	5	0	32	2	10	0	3	0	7	2	4	0	136
17:30	14	1	73	4	8	0	5	1	16	6	3	1	1	1	35	4	9	0	6	0	17	9	2	1	189
17:45	7	1	45	0	9	0	7	2	6	2	6	0	1	0	27	0	12	0	2	0	19	6	2	0	143
18:00	9	1	41	1	15	1	6	0	13	3	7	0	5	1	23	1	6	0	4	1	10	3	3	0	142
	117	14	938	75	124	17	173	27	471	78	85	10	108	11	594	61	176	21	55	5	253	80	46	5	3146

AM Peak	8:45	45	8	83	10	15	2	73	10	187	43	46	3	61	9	453	43	81	10	30	3	116	39	17	5	1207
PM Peak	17:00	23	2	233	13	24	2	48	9	74	14	22	2	19	1	114	6	27	4	9	0	61	12	21	4	675
AM 6-7	7:00	22	1	56	19	13	4	54	3	151	39	42	6	105	3	278	14	54	5	23	0	60	17	30	5	888
AM 7:45-8:45	8:45	45	8	83	10	15	2	73	10	187	43	46	3	61	9	453	43	81	10	30	3	116	39	17	5	1207
PM 1:30-2:30	14:30	8	2	96	11	10	4	18	2	91	14	7	1	22	3	86	13	29	11	14	4	32	4	2	0	415
PM 4:30-5:30	17:30	26	2	233	13	24	2	48	9	74	14	22	2	19	1	114	6	27	4	9	0	61	12	21	4	675

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Intersection Bruce Calliope

	Leg 1 W				Leg 2 N				Leg 3 E				Leg 4 S				TOTAL								
	Left		Thru		Right		Left		Thru		Right		Left		Thru			Right							
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy		Total	IHeavy						
6:15	0	0	9	4	0	0	3	1	0	0	1	0	0	0	10	4	10	2	0	0	0	0	33		
6:30	0	0	12	5	0	0	6	0	0	0	2	1	0	0	0	11	4	7	0	0	0	0	38		
6:45	1	1	12	8	0	0	4	1	0	0	0	0	0	0	16	8	6	1	0	0	0	0	39		
7:00	0	0	13	6	0	0	6	1	0	0	0	0	0	0	25	12	2	0	0	0	0	0	46		
7:15	3	1	24	11	0	0	2	0	0	0	1	0	0	0	25	12	3	1	0	0	0	0	58		
7:30	1	0	18	8	0	0	4	1	0	0	0	0	0	0	11	4	3	2	0	0	0	0	37		
7:45	0	0	15	3	0	0	2	1	0	0	0	0	0	0	12	4	1	1	0	0	0	0	30		
8:00	1	0	13	6	0	0	0	0	0	0	1	1	0	0	23	7	1	0	0	0	0	0	39		
8:15	0	0	16	5	0	0	7	1	0	0	2	0	0	0	20	5	2	0	0	0	0	0	47		
8:30	0	0	20	5	0	0	4	0	0	0	0	0	0	0	19	10	2	0	0	0	0	0	45		
8:45	0	0	31	7	0	0	1	0	0	0	0	0	0	0	21	10	1	1	0	0	0	0	54		
9:00	2	0	22	9	0	0	3	0	0	0	0	0	0	0	20	5	0	0	0	0	0	0	47		
9:15	2	0	21	3	0	0	2	1	0	0	0	0	0	0	25	12	3	2	0	0	0	0	53		
9:30	1	1	20	1	0	0	2	2	0	0	0	0	0	0	17	8	2	0	0	0	0	0	42		
9:45	1	0	30	10	0	0	2	1	0	0	0	0	0	0	17	6	1	1	0	0	0	0	51		
10:00	0	0	32	9	0	0	4	3	0	0	0	0	0	0	12	3	2	1	0	0	0	0	50		
10:15	0	0	29	9	0	0	1	0	0	0	1	1	0	0	28	11	2	0	0	0	0	0	61		
10:30	1	1	22	5	0	0	0	0	0	0	2	0	0	0	16	4	2	0	0	0	0	0	43		
10:45	0	0	25	6	0	0	0	0	0	0	0	0	0	0	20	3	2	1	0	0	0	0	47		
11:00	0	0	19	3	0	0	2	1	0	0	1	1	0	0	17	9	1	1	0	0	0	0	40		
11:15	1	1	24	6	0	0	3	0	0	0	1	1	0	0	14	3	4	4	0	0	0	0	47		
11:30	0	0	15	3	0	0	1	0	0	0	1	1	0	0	17	5	2	1	0	0	0	0	36		
11:45	1	1	13	2	0	0	3	3	0	0	0	0	0	0	21	7	0	0	0	0	0	0	38		
12:00	1	0	20	5	0	0	3	1	0	0	0	0	0	0	27	3	2	0	0	0	0	0	53		
	16	6	475	139	0	0	65	18	0	0	13	6	0	0	444	159	61	19	0	0	0	0	0	1074	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		TOTAL
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy			
12:15	0	0	15	5	0	0	1	1	0	0	0	0	0	0	14	3	1	1	0	0	0	0	0	31	
12:30	0	0	23	7	0	0	1	0	0	0	2	2	0	0	16	5	1	0	0	0	0	0	0	43	
12:45	0	0	17	7	0	0	2	0	0	0	1	0	0	0	20	3	2	1	0	0	0	0	0	42	
13:00	0	0	22	8	0	0	1	0	0	0	2	2	0	0	17	1	2	1	0	0	0	0	0	44	
13:15	0	0	15	4	0	0	0	0	0	0	1	1	0	0	7	3	2	1	0	0	0	0	0	25	
13:30	1	1	22	5	0	0	2	2	0	0	2	0	0	0	14	2	3	2	0	0	0	0	0	44	
13:45	1	0	21	6	0	0	3	1	0	0	1	0	0	0	26	7	2	1	0	0	0	0	0	54	
14:00	0	0	23	11	0	0	1	0	0	0	0	0	0	0	16	0	1	1	0	0	0	0	0	41	
14:15	1	1	35	8	0	0	2	2	0	0	1	1	0	0	19	3	0	0	0	0	0	0	0	58	
14:30	1	0	37	5	0	0	1	0	0	0	0	0	0	0	17	6	0	0	0	0	0	0	0	56	
14:45	2	1	29	10	0	0	4	2	0	0	3	0	0	0	20	4	1	0	0	0	0	0	0	59	
15:00	0	0	14	8	0	0	1	0	0	0	0	0	0	0	22	1	3	1	0	0	0	0	0	40	
15:15	0	0	24	7	0	0	5	1	0	0	1	0	0	0	18	6	0	0	0	0	0	0	0	48	
15:30	0	0	25	4	0	0	1	0	0	0	1	1	0	0	12	3	0	0	0	1	0	0	0	39.5	
15:45	1	0	24	7	0	0	0	1	0	0	0	1	0	0	29	1	3	1	0	0	0	0	0	59	
16:00	4	1	15	4	0	0	4	1	0	0	1	0	0	0	20	6	1	0	0	0	0	0	0	45	
16:15	2	0	24	7	0	0	5	1	0	0	1	0	0	0	29	8	3	2	0	0	0	0	0	64	
16:30	1	0	22	5	0	0	3	1	0	0	1	0	0	0	17	6	0	0	0	0	0	0	0	44	
16:45	3	0	25	3	0	0	6	1	0	0	1	1	0	0	13	3	1	0	0	0	0	0	0	49	
17:00	1	0	20	1	0	0	4	0	0	0	0	0	0	0	26	5	5	0	0	0	0	0	0	56	
17:15	2	1	26	5	0	0	6	0	0	0	2	0	0	0	17	4	6	1	0	0	0	0	0	59	
17:30	0	0	28	7	0	0	8	1	0	0	3	0	0	0	25	8	5	2	0	0	0	0	0	69	
17:45	0	0	13	6	0	0	5	0	0	0	0	0	0	0	5	1	4	0	0	0	0	0	0	27	
18:00	2	0	20	5	0	0	5	0	0	0	0	0	0	0	16	6	7	1	0	0	0	0	0	50	
	22	5	539	145	0	0	72	14	0	0	25	8	0	0	435	95	53	16	0	0	1	0	0	0	1146.5
10:30	2	1	113	33	0	0	7	4	0	0	3	1	0	0	73	24	7	2	0	0	0	0	0	205	
17:00	6	1	99	16	0	0	24	2	0	0	6	1	0	0	81	20	17	3	0	0	0	0	0	0	233
7:00	1	1	46	23	0	0	19	3	0	0	3	1	0	0	62	28	25	3	0	0	0	0	0	0	156
8:45	1	0	80	23	0	0	12	1	0	0	3	1	0	0	83	32	6	1	0	0	0	0	0	0	185
14:30	3	1	116	30	0	0	7	3	0	0	2	1	0	0	78	16	3	2	0	0	0	0	0	0	209
17:30	6	0	91	16	0	0	18	3	0	0	3	1	0	0	85	22	9	2	0	0	0	0	0	0	213

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1	0	10	8	3	1	0	0	7	4	1	2
0	0	12	3	1	1	0	0	8	4	0	1
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0	0	24	7	1	0	0	0	11	10	0	1
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0	1	19	1	0	2	0	0	9	8	2	0
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0	0	16	3	1	1	0	1	8	9	0	1
0	1	18	6	3	0	0	1	11	3	0	4
0	0	12	3	1	0	0	1	12	5	1	1
0	1	11	2	0	3	0	0	14	7	0	0
1	0	15	5	2	1	0	0	24	3	2	0

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Intersection Dawson Philip

	Leg 1 N						Leg 2 E						Leg 3 S						Leg 4 W						TOTAL			
	Left			Thru			Right			Left			Thru			Right			Left			Thru				Right		
	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy		Total	I	Heavy
6:15	27	3	44	0	4	1	45	3	8	1	82	4	6	0	84	3	86	0	4	0	7	2	3	1	400			
6:30	18	5	41	4	4	0	62	2	12	2	93	5	6	0	119	6	107	4	10	0	3	0	3	1	478			
6:45	16	2	41	3	6	2	71	4	11	0	107	2	10	0	133	7	94	1	9	0	5	1	4	1	507			
7:00	24	1	63	7	5	0	88	7	6	0	123	3	9	0	193	13	116	4	17	0	6	0	6	0	656			
7:15	27	2	60	4	9	0	74	5	6	0	76	6	6	0	116	3	89	6	5	0	9	1	4	0	481			
7:30	25	2	77	5	2	0	62	3	11	0	65	3	5	0	175	5	107	5	5	0	3	0	7	1	544			
7:45	29	2	87	14	12	0	89	7	11	0	77	1	10	0	187	6	109	3	11	0	4	0	2	0	628			
8:00	34	3	65	7	10	0	96	7	3	0	83	2	13	2	277	14	122	7	19	0	3	0	1	0	726			
8:15	36	7	111	7	13	0	97	5	13	1	76	1	19	0	215	6	164	6	22	1	5	0	6	0	777			
8:30	44	4	111	8	16	1	104	3	9	0	77	4	20	0	253	15	146	1	19	0	13	0	8	0	820			
8:45	60	6	116	10	15	1	118	3	20	3	82	3	23	1	270	12	143	4	26	3	9	1	9	0	891			
9:00	73	3	140	6	26	1	106	3	9	1	80	7	26	0	248	10	150	3	25	0	6	1	8	1	897			
9:15	38	4	84	5	29	1	88	2	17	0	65	2	14	0	169	8	121	8	26	0	14	0	8	0	673			
9:30	61	4	119	6	19	0	109	6	21	1	87	5	21	1	167	10	94	1	20	0	15	0	11	1	744			
9:45	52	3	102	7	24	1	87	7	17	0	59	2	25	1	133	9	90	7	19	0	15	0	14	0	637			
10:00	48	6	97	6	25	0	119	3	20	0	73	2	23	0	140	4	79	4	37	1	9	0	18	0	688			
10:15	63	2	105	12	24	0	87	8	10	0	77	5	25	0	117	4	87	3	23	1	13	1	15	0	646			
10:30	46	2	143	10	25	1	103	7	20	0	66	3	20	1	140	5	85	3	32	0	19	1	25	0	724			
10:45	54	1	123	6	28	2	82	2	16	0	83	2	17	0	140	6	103	9	34	2	12	0	20	0	712			
11:00	67	5	156	4	32	0	95	5	21	0	81	6	12	0	161	9	101	14	37	1	12	0	12	0	787			
11:15	52	4	119	4	21	0	82	5	12	0	60	2	10	1	110	6	107	3	22	0	16	0	15	0	626			
11:30	57	5	121	6	22	0	110	5	19	0	78	4	29	1	107	12	83	6	48	0	17	2	19	1	710			
11:45	72	3	108	1	25	0	111	7	8	0	79	2	19	0	125	24	78	2	52	0	30	0	17	0	724			
12:00	53	1	131	7	34	1	125	5	12	0	84	0	20	0	128	5	83	3	30	0	20	0	26	0	746			
	1076	80	2364	149	430	12	2210	114	312	9	1913	76	388	8	3907	202	2544	107	552	9	265	10	261	7	16222			
	Left			Thru			Right			Left			Thru			Right			Left			Thru			Right			
	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy				
	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy	Total	I	Heavy				
12:15	47	0	138	6	39	1	125	2	16	0	84	4	15	0	113	11	94	3	45	0	24	0	21	0	761			
12:30	57	3	119	8	21	0	114	2	21	0	82	1	18	0	129	6	77	3	38	0	19	0	22	1	717			
12:45	63	3	169	8	14	0	94	3	17	0	74	3	13	0	116	7	80	8	53	0	27	1	22	0	742			
13:00	75	5	150	6	31	0	107	10	23	0	88	3	13	0	160	3	93	2	45	0	20	0	31	0	836			
13:15	68	9	146	20	25	0	80	5	20	0	72	3	18	0	96	1	80	6	29	0	28	0	13	0	675			
13:30	70	3	178	6	36	2	75	4	31	0	76	2	20	0	123	5	66	1	37	0	19	0	29	0	760			
13:45	67	6	118	5	14	0	72	2	19	0	74	2	14	0	123	8	82	8	38	0	26	0	20	0	667			
14:00	47	4	128	9	17	0	113	3	9	0	59	3	8	0	146	8	77	3	28	0	21	0	20	0	673			
14:15	54	4	133	5	23	0	86	7	14	0	73	5	12	0	121	8	59	5	32	0	28	0	21	0	656			
14:30	60	5	103	3	22	0	124	7	16	0	71	4	9	0	135	6	80	4	37	2	16	0	18	0	691			
14:45	74	4	163	5	15	0	102	3	18	0	81	4	12	0	138	8	79	3	36	0	19	0	23	0	760			
15:00	92	2	127	7	24	0	105	5	13	0	81	2	7	1	150	7	143	4	34	0	29	2	22	0	827			
15:15	79	2	137	5	26	1	138	2	20	1	71	5	13	0	164	35	151	2	35	1	20	0	23	0	877			
15:30	48	2	255	16	31	2	144	5	24	0	76	3	9	0	125	6	116	2	32	0	1	0	11	0	878			
15:45	59	1	237	11	38	1	154	2	18	0	75	5	7	0	138	7	116	5	26	0	15	0	16	0	899			
16:00	73	6	192	3	24	0	188	7	12	0	70	3	7	0	128	8	111	6	27	0	17	0	34	0	883			
16:15	65	6	231	5	28	0	177	4	24	0	79	2	10	0	137	10	108	5	28	1	14	1	12	0	913			
16:30	104	3	213	6	11	2	151	3	28	0	67	3	4	0	160	13	124	3	24	0	14	0	23	0	923			
16:45	70	1	262	4	12	0	172	6	15	0	61	1	17	0	137	23	127	1	50	0	18	0	40	0	981			
17:00	30	3	268	5	16	0	159	1	21	0	82	0	21	0	118	4	118	1	42	0	34	0	48	0	957			
17:15	56	0	235	3	21	0	153	3	12	0	57	1	8	0	119	5	125	5	20	0	19	0	45	1	870			
17:30	18	0	261	2	22	0	148	3	13	0	76	2	6	0	120	3	125	0	30	0	26	0	46	0	891			
17:45	31	1	210	3	15	0	175	3	17	0	52	2	16	0	133	3	113	1	37	0	24	0	48	0	871			
18:00	32	0	157	0	30	1	177	5	22	0	64	1	6	0	144	1	159	2	32	0	23	0	41	0	887			
	1439	73	4330	151	555	10	3133	97	443	1	1745	64	283	1	3173	196	2503	83	835	4	501	4	649	2	19595			
9:00	213	20	478	31	70	3	425	14	51	5	315	15	88	1	986	43	603	14	92	4	33	2	31	1	3385			
17:00	269	13	974	20	67	2	659	14	88	0	289	6	52	0	552	50	477	10	144	1	80	1	123	0	3774			
7:00	85	11	189	14	19	3	266	16	37	3	405	14	31	0	529	29	403	9	40	0	21	3	16	3	2041			
8:45	174	20	403	32	54	2	415	18	45	4	318	10	75	3	1015	47	575	18	86	4	30	1	24	0	3214			
14:30	228	19	482	22	76	0	395	19	58	0	277	14	43	0	525	30	298	20	135	2	91	0	79	0	2687			
17:30	174	13	974	20	67	2	659	14	88	0	289	6	52	0	552	50	477	10	144	1	80	1	123	0	3774			

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		Leg 1 N					
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Intersection Glenlyon Port Acss

SS	Leg 1 N								Leg 2 E								Leg 3 S								Leg 4 W								TOTAL
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right										
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy									
6:15	4	1	32	4	1	0	4	2	14	2	18	14	0	0	58	4	2	0	1	0	0	0	0	0	134								
6:30	14	5	69	10	3	2	7	1	18	4	19	6	3	0	105	8	1	0	2	2	0	0	7	0	248								
6:45	12	6	46	7	1	0	4	2	16	6	16	7	4	0	50	2	8	2	4	0	0	0	2	2	163								
7:00	16	7	58	9	1	1	3	1	9	1	26	9	1	0	171	6	14	1	3	0	2	0	5	1	309								
7:15	21	8	48	5	4	0	7	3	11	2	24	11	2	0	107	8	4	1	1	0	2	0	2	0	233								
7:30	21	7	73	9	0	0	2	0	12	0	25	10	2	0	142	15	4	1	1	0	2	0	2	0	286								
7:45	15	5	57	7	2	0	5	0	13	1	32	11	2	0	135	7	5	0	1	0	5	0	5	0	277								
8:00	15	6	194	15	0	0	5	1	6	0	31	12	6	0	291	15	4	1	0	0	0	0	0	0	552								
8:15	17	7	100	16	0	0	7	2	7	0	35	14	11	0	197	7	2	0	0	0	0	0	0	0	376								
8:30	17	1	161	41	18	0	8	1	8	0	29	11	6	0	243	4	1	1	0	0	2	0	2	2	495								
8:45	12	2	130	15	7	0	5	1	7	0	25	10	17	1	306	21	8	3	2	0	1	0	3	0	523								
9:00	16	4	124	14	8	0	7	2	9	0	23	9	8	0	245	15	4	1	1	0	1	0	2	0	448								
9:15	21	7	131	11	6	0	3	2	7	0	24	14	7	0	209	19	3	2	1	0	2	0	2	0	416								
9:30	15	5	127	12	4	0	3	1	7	1	33	15	4	0	196	16	4	1	1	0	1	0	1	0	396								
9:45	12	3	104	10	3	0	2	1	3	0	40	16	12	0	206	18	0	0	0	0	4	0	4	4	390								
10:00	14	4	107	8	4	0	6	4	5	1	40	14	7	0	197	17	3	1	1	0	1	0	3	2	388								
10:15	21	8	123	12	10	0	0	0	5	0	30	11	8	0	144	15	1	1	7	4	1	0	3	1	353								
10:30	16	4	125	10	4	0	5	4	2	0	20	7	8	0	209	25	6	3	2	0	2	0	2	0	401								
10:45	15	6	127	9	4	0	8	6	4	0	19	4	7	0	179	23	3	1	3	2	4	0	2	0	375								
11:00	16	4	129	15	9	0	4	3	3	0	14	2	14	0	112	9	1	0	2	0	2	1	0	0	306								
11:15	23	6	129	20	4	0	2	1	1	0	12	3	8	0	115	9	2	1	0	0	1	0	0	0	297								
11:30	14	1	133	10	5	0	1	0	0	0	12	4	5	0	86	7	1	0	1	1	4	2	0	0	262								
11:45	9	6	66	5	4	0	0	0	0	0	12	2	12	4	54	5	1	0	0	0	1	0	1	1	160								
12:00	20	9	142	4	3	0	3	3	1	0	12	1	3	0	141	9	3	1	0	0	1	0	1	0	330								
	376	122	2535	278	105	3	101	41	168	18	571	217	157	5	3898	284	85	22	34	9	39	3	49	13	8118								

	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	
	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	Total	IHeavy	
12:15	12	4	148	6	3	0	6	2	2	0	2	1	9	0	96	8	4	3	4	1	3	0	1	0	290
12:30	6	1	125	11	5	0	1	1	2	0	10	2	15	0	93	9	2	1	1	0	1	0	1	0	262
12:45	13	5	192	7	2	0	4	0	0	0	9	2	3	0	124	8	3	1	2	1	2	0	2	0	356
13:00	11	1	145	9	5	0	1	0	0	0	15	6	6	0	112	3	0	0	0	0	2	0	2	0	299
13:15	11	1	145	6	4	0	2	0	0	0	16	7	3	0	117	5	2	0	2	0	2	0	2	0	306
13:30	12	1	132	8	3	0	7	1	0	0	8	0	7	0	91	0	2	0	2	0	2	0	2	0	268
13:45	9	5	107	5	0	0	1	1	0	0	5	0	1	0	87	0	5	1	2	0	0	0	1	0	218
14:00	4	1	121	7	6	0	4	4	0	0	6	0	1	0	88	2	3	1	4	0	3	0	3	0	243
14:15	12	9	137	7	3	0	4	1	0	0	7	1	4	0	122	11	1	0	0	0	0	0	1	0	291
14:30	8	1	119	4	2	0	0	0	0	0	3	0	16	1	69	2	0	0	4	0	1	0	2	0	224
14:45	9	1	121	5	6	0	2	1	0	0	7	1	6	0	69	7	2	0	7	0	1	0	5	0	235
15:00	10	1	183	6	7	0	4	0	0	0	7	2	14	0	126	2	2	1	2	0	1	0	6	0	362
15:15	20	8	196	7	5	0	2	0	0	0	8	2	5	0	131	12	8	2	5	0	1	0	4	0	385
15:30	11	7	125	4	3	1	10	2	0	0	15	4	8	0	138	6	2	0	4	0	0	0	4	0	320
15:45	24	6	206	6	9	0	16	2	0	0	16	4	16	1	128	6	2	0	3	0	2	0	6	0	428
16:00	12	1	99	3	8	0	5	0	1	0	8	2	7	0	80	4	6	3	0	0	2	0	9	0	237
16:15	11	2	199	5	5	0	5	0	7	0	14	2	11	0	125	2	2	2	2	2	3	0	11	0	395
16:30	8	1	209	7	13	0	6	2	1	0	12	2	13	0	126	3	4	1	2	0	1	0	6	0	401
16:45	13	2	219	4	6	0	3	0	1	0	4	0	9	0	112	3	3	0	4	0	1	1	5	0	380
17:00	14	2	165	2	1	0	1	0	2	0	10	0	12	0	94	0	2	0	2	0	1	0	2	0	306
17:15	7	1	298	7	11	0	9	2	2	0	5	1	14	0	105	3	2	0	1	0	5	0	7	0	466
17:30	6	1	204	5	7	0	3	2	1	0	6	0	27	0	72	2	3	0	4	0	1	0	27	0	361
17:45	7	0	169	3	5	0	7	3	1	0	2	0	7	0	60	2	2	0	2	0	1	0	13	0	276
18:00	3	0	116	2	2	0	1	0	1	0	2	0	5	0	60	2	4	2	2	0	2	0	14	0	212
	253	62	3880	136	121	1	104	24	21	0	197	39	219	2	2425	102	66	18	61	4	38	1	136	0	7521

AM Peak	10:30	63	19	459	40	21	0	13	9	15	1	130	48	35	0	756	75	10	5	10	4	8	0	12	7	1532
PM Peak	17:00	40	6	886	18	25	0	16	4	6	0	25	1	62	0	383	8	10	0	11	0	8	1	41	0	1513
AM 6-7	7:00	46	19	205	30	6	3	18	6	57	13	79	36	8	0	384	20	25	3	10	2	2	0	14	3	854
AM7:45-8:45	8:45	61	16	585	87	25	0	25	5	28	0	120	47	40	1	1037	47	15	5	2	0	3	0	5	2	1946
PM 1:30-2:30	14:30	33	16	484	23	11	0	9	6	0	0	21	1	22	1	366	15	9	2	10	0	4	0	7	0	976
PM 4:30-5:30	17:30	40	7	792	18	25	0	15	2	11	0	40	4	45	0	457	8	11	3	10	2	6	1	24	0	1482

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Intersection Dawson Kariboe

	Leg 1 N								Leg 2 E								Leg 3 S								Leg 4 W								TOTAL
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right										
	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy									
6:15	1	0	0	0	4	0	0	0	33	2	1	0	0	0	0	0	1	0	2	0	39	8	0	0	81								
6:30	4	1	0	0	4	0	1	0	34	1	1	0	0	0	0	0	1	0	7	0	30	3	2	0	84								
6:45	2	0	0	0	4	1	2	0	25	3	0	0	0	0	0	0	0	3	0	33	4	1	0	70									
7:00	3	0	0	0	7	1	3	0	42	1	1	0	1	0	1	0	0	0	0	34	6	1	0	93									
7:15	3	0	0	0	0	0	2	0	34	1	1	0	1	0	1	0	0	0	0	26	4	0	0	68									
7:30	1	0	2	1	3	0	6	0	41	1	1	0	2	0	0	0	0	2	0	30	2	2	0	90									
7:45	1	0	0	0	2	0	5	0	30	4	5	0	1	0	0	0	2	0	3	0	37	8	1	0	87								
8:00	2	1	4	2	9	1	11	1	95	6	6	1	1	0	0	0	2	0	8	0	65	9	4	2	207								
8:15	6	0	26	13	11	1	24	0	112	11	16	0	7	6	3	0	4	1	6	0	56	7	7	1	278								
8:30	0	0	4	2	2	0	9	0	28	3	7	0	10	9	2	0	4	2	5	0	57	6	11	2	139								
8:45	2	0	4	2	5	0	6	0	34	4	6	0	8	7	4	0	8	4	6	0	61	5	15	3	159								
9:00	12	1	12	6	7	0	7	0	50	1	14	0	5	3	5	0	5	0	7	0	51	2	8	0	183								
9:15	5	0	2	1	0	0	9	0	44	6	7	0	1	0	3	0	2	0	13	0	46	6	9	0	141								
9:30	5	0	12	6	3	0	16	0	50	4	18	0	2	1	0	0	3	1	15	0	49	3	15	0	188								
9:45	8	0	12	6	5	0	9	0	50	3	14	0	7	0	1	0	0	0	13	0	53	4	17	0	189								
10:00	11	0	30	15	7	0	28	0	39	5	25	0	6	0	2	0	8	0	18	0	45	5	15	0	234								
10:15	5	0	4	2	2	0	7	0	30	2	15	0	4	0	0	0	5	0	15	0	35	2	12	0	134								
10:30	9	0	16	8	6	0	10	0	28	4	13	0	6	0	0	0	3	0	11	0	29	1	7	0	138								
10:45	5	0	8	4	1	0	17	1	39	2	12	0	3	0	2	0	4	0	9	0	40	5	6	1	146								
11:00	6	0	14	7	3	0	11	0	35	3	15	0	6	1	2	0	5	0	8	0	33	3	13	1	151								
11:15	11	1	14	7	4	0	11	0	26	1	11	0	4	0	0	0	9	0	13	0	52	5	7	0	162								
11:30	11	1	10	5	3	0	18	1	29	2	16	1	8	1	5	0	8	0	10	0	47	2	10	1	175								
11:45	10	1	10	5	4	0	16	1	32	2	13	1	5	0	3	0	7	0	18	0	41	1	7	0	166								
12:00	6	1	12	6	3	0	14	1	39	6	14	0	7	0	3	0	6	0	15	0	48	7	13	0	180								
	129	7	196	98	99	4	242	5	999	78	232	3	95	28	37	0	87	8	207	0	1037	108	183	11	3543								
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		TOTAL								
	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy											
	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy	Total	Heavy											
12:15	4	0	7	0	11	0	9	0	36	3	14	0	5	0	6	0	5	1	18	0	43	0	15	0	173								
12:30	26	0	4	0	7	0	14	0	41	3	11	0	3	0	8	0	7	0	20	0	64	4	18	0	223								
12:45	18	0	3	0	5	0	9	0	33	0	10	0	6	0	6	0	5	0	17	0	52	3	19	0	183								
13:00	10	0	6	0	8	0	10	0	22	2	11	0	7	0	5	0	7	0	15	0	49	4	14	0	164								
13:15	6	0	8	0	6	0	16	0	28	1	13	0	6	0	6	0	6	0	14	0	48	5	12	0	169								
13:30	3	0	2	0	3	0	15	0	47	7	13	0	5	0	7	0	9	0	12	0	44	3	22	0	182								
13:45	4	0	2	0	5	0	7	0	29	2	7	0	7	0	10	0	11	0	14	0	44	4	23	0	163								
14:00	7	0	3	0	6	0	8	0	40	3	6	0	9	0	12	0	12	0	16	0	47	3	26	0	192								
14:15	12	0	5	0	2	0	8	0	52	2	6	0	7	0	8	0	10	0	13	0	38	2	19	0	180								
14:30	14	0	10	0	10	0	11	1	26	1	12	1	4	0	6	0	8	0	9	0	31	1	15	0	156								
14:45	8	0	2	0	5	0	6	0	32	2	8	0	7	0	8	0	7	0	9	0	38	5	15	1	145								
15:00	5	0	9	0	9	0	11	0	37	1	9	0	5	0	6	0	5	0	15	0	40	3	10	0	161								
15:15	8	0	10	0	6	0	14	0	47	3	10	0	3	0	5	0	5	0	13	0	39	4	11	0	171								
15:30	7	0	5	0	4	0	14	0	35	8	15	0	7	0	3	0	12	0	15	0	1	4	13	0	156								
15:45	13	0	11	0	3	0	13	0	37	3	13	0	6	0	2	0	7	0	12	0	55	6	9	0	181								
16:00	4	0	7	0	9	0	6	0	36	3	11	0	5	0	3	0	6	0	15	0	39	4	10	0	151								
16:15	15	0	6	0	3	0	28	2	47	5	12	0	6	0	4	0	10	0	0	0	46	3	16	0	193								
16:30	11	0	8	0	5	0	20	0	51	1	7	0	10	0	5	0	12	0	14	0	43	5	12	0	198								
16:45	13	0	6	0	2	0	12	0	48	5	19	0	7	0	4	0	7	0	16	1	43	8	15	0	192								
17:00	12	0	6	0	6	0	12	0	48	4	7	0	6	0	2	0	6	0	12	0	48	0	23	1	188								
17:15	17	0	16	0	12	0	28	0	70	4	8	0	3	0	4	0	11	0	7	0	97	3	18	0	291								
17:30	12	0	11	0	3	0	21	0	51	1	6	0	6	0	6	0	10	0	10	0	76	0	15	0	227								
17:45	6	0	4	0	3	0	15	0	48	1	4	0	13	0	11	0	14	0	12	0	63	1	16	0	209								
18:00	8	0	2	0	1	0	13	0	37	1	6	1	3	0	1	0	9	0	3	0	63	1	9	0	155								
	243	0	153	0	134	0	320	3	978	66	238	2	146	0	138	0	201	1	301	1	1151	76	375	2	4403								
8:45	10	1	38	19	27	2	50	1	269	24	35	1	26	22	9	0	18	7	25	0	239	27	37	8	783								
17:45	47	0	37	0	24	0	76	0	217	10	25	0	28	0	23	0	41	0	41	0	284	4	72	1	915								
7:00	10	1	0	0	19	2	6	0	134	7	3	0	1	0	1	0	2	0	12	0	136	21	4	0	328								
8:45	10	1	38	19	27	2	50	1	269	24	35	1	26	22	9	0	18	7	25	0	239	27	37	8	783								
14:30	37	0	20	0	23	0	34	1	147	8	31	1	27	0	36	0	41	0	52	0	160	10	83	0	691								
17:30	54	0	26	0	16	0	72	2	194	15	45	0	29	0	15	0	35	0	42	1	180	16	66	1	771								
7:00	12	1	0	0	24	2	7	0	166	9	4	0	1	0	1	0	2	0	15	0	169	26	5	0	407								
8:45	12	1	47	24	33	2	62	1	334	30	43	1	32	27	11	0	22	9	31	0	296	33	46	10	971								
14:30	46	0	25	0	29	0	42	1	182	10	38	1	33	0	45	0	51	0	64	0	198	12	103	0	857								
17:30	67	0	32	0	20	0	89	2	241	19	56	0	36	0	19	0	43	0	52	1	223	20	82	1	956								
7:00	12	1	0	0	24	2	7	0	225	9	4	0	1	0	1	0	2	0	15	0	228	2											

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328 42%
315 40%
321 41%
338 43%
452 58%
662 85%
711 91%
783 100%
759 97%
622 79%
671 86%
701 90%
752 96%
745 95%
695 89%
652 83%
569 73%
597 76%
634 81%
654 84%
683 87%

Appendix E

Cumulative Project Impact Information

SUMMARY of CUMMULATIVE PROJECTS

Developments	Name	Construction														Operation																							
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
1	Aldoga																																						
2	WICT																																						
3	Nickel																																						

Counts available

construction/operation works

The diagram illustrates the traffic signal configuration for the intersection of Bruce Highway and Phillip Street. The main road, Bruce Highway, runs horizontally across the top and bottom of the diagram. The cross street, Phillip Street, runs vertically through the center. The diagram shows the layout of the intersection, including the main road (Bruce Highway) and the cross street (Phillip Street). It details the traffic signals, lane configurations, and the flow of traffic. The diagram is a technical drawing used for traffic engineering and planning.

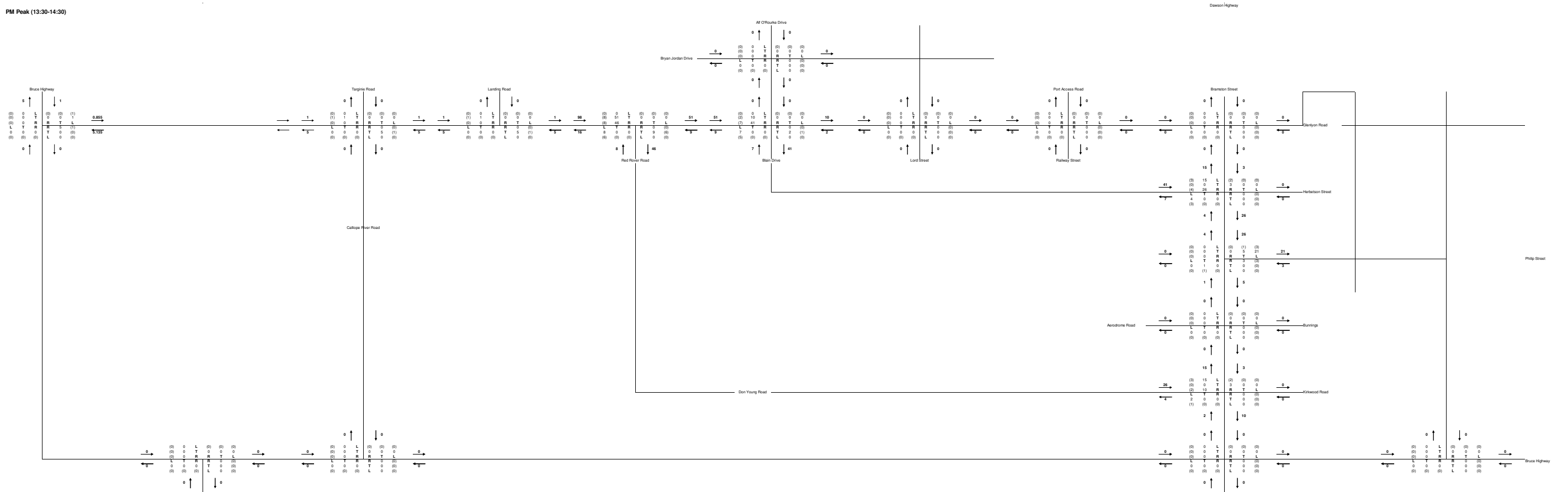
The diagram illustrates the traffic signal timing for Bruce Highway, showing 12 signal phases and their durations in seconds. The timeline is marked from 0 to 120 seconds.

Signal Phases and Durations:

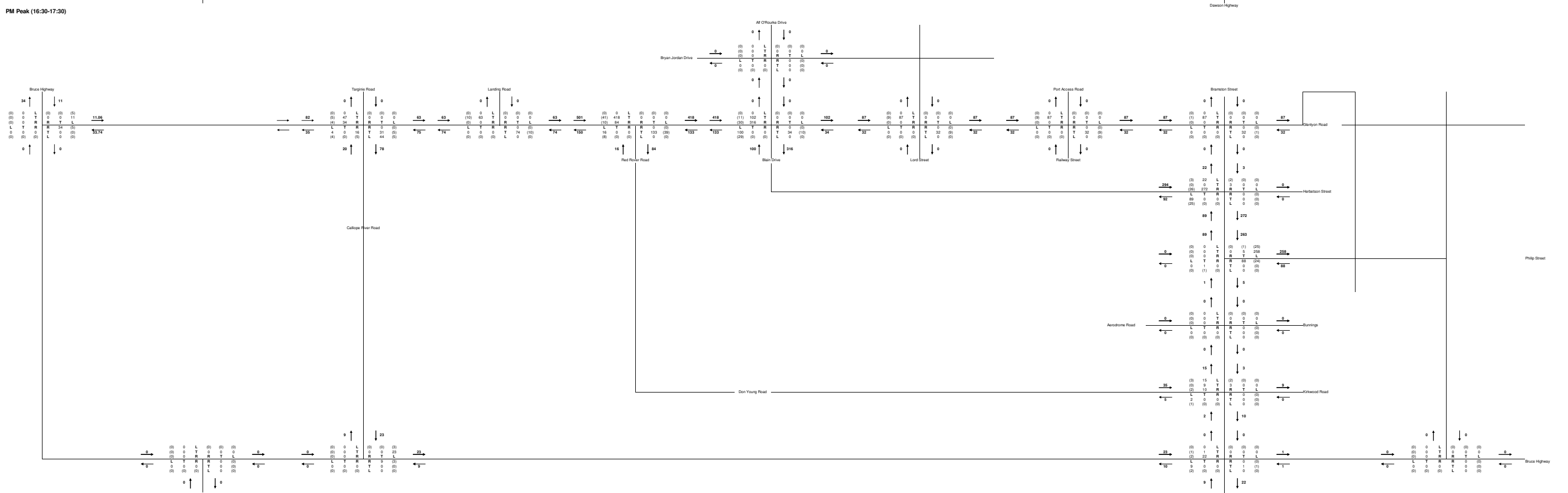
- Phase 1: L (0-10s)
- Phase 2: T (10-20s)
- Phase 3: R (20-30s)
- Phase 4: V (30-40s)
- Phase 5: L (40-50s)
- Phase 6: T (50-60s)
- Phase 7: R (60-70s)
- Phase 8: V (70-80s)
- Phase 9: L (80-90s)
- Phase 10: T (90-100s)
- Phase 11: R (100-110s)
- Phase 12: V (110-120s)

The diagram is divided into two main sections: the top section shows the first 10 phases, and the bottom section shows the remaining 2 phases. The timeline is marked with vertical lines at 10-second intervals. The signal phases are: 1. L (0-10s), 2. T (10-20s), 3. R (20-30s), 4. V (30-40s), 5. L (40-50s), 6. T (50-60s), 7. R (60-70s), 8. V (70-80s), 9. L (80-90s), 10. T (90-100s), 11. R (100-110s), 12. V (110-120s).

PM Peak (13:30-14:30)

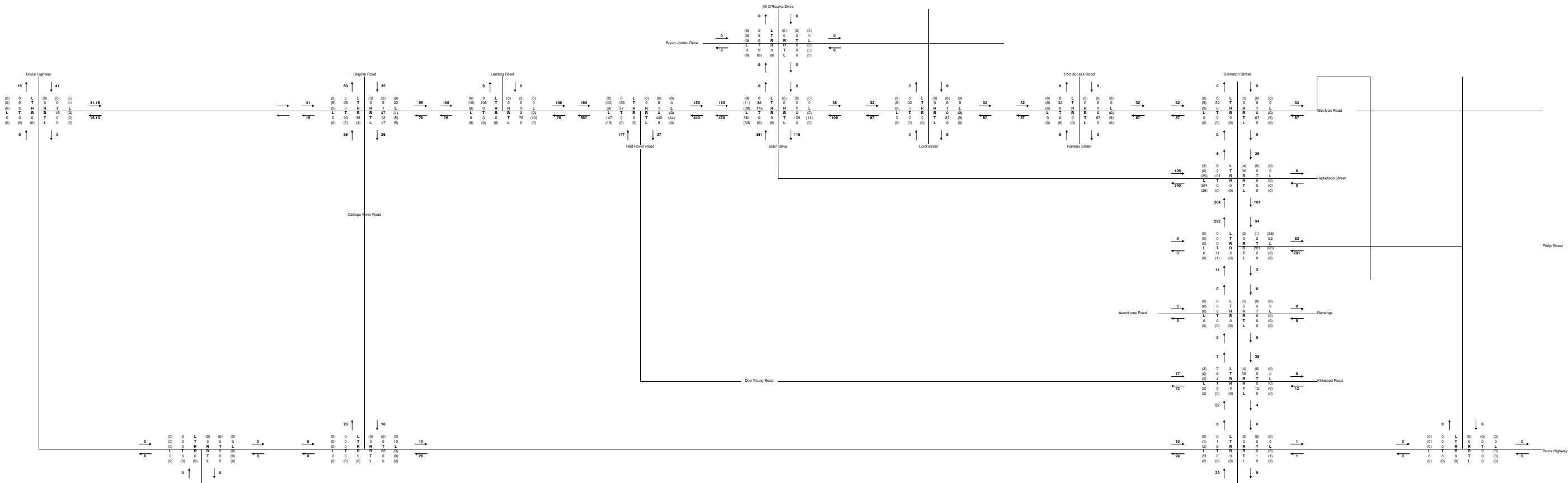


PM Peak (16:30-17:30)

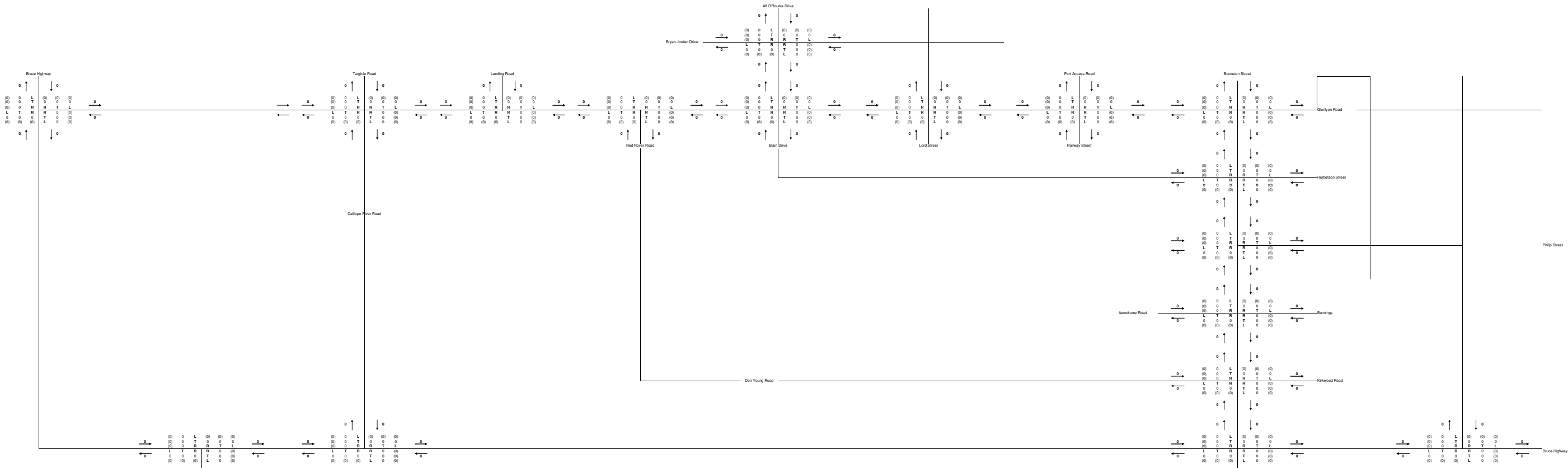


LEGEND
100 Total Volume
(10) Heavy Vehicles

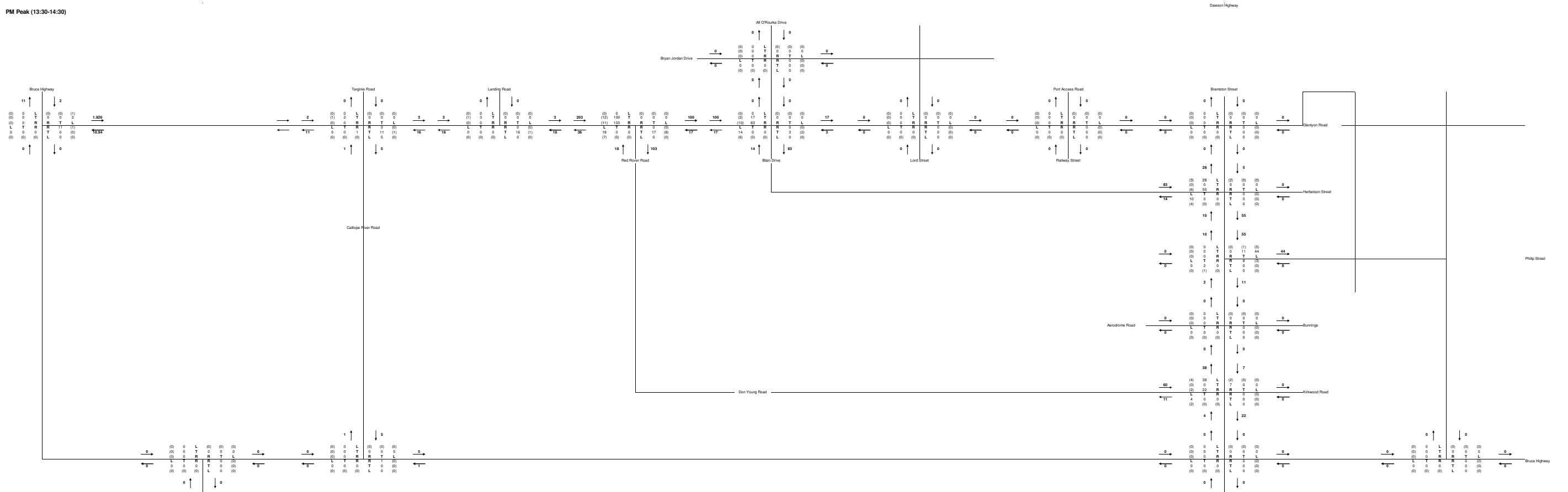
AM Peak (6:00-7:00)



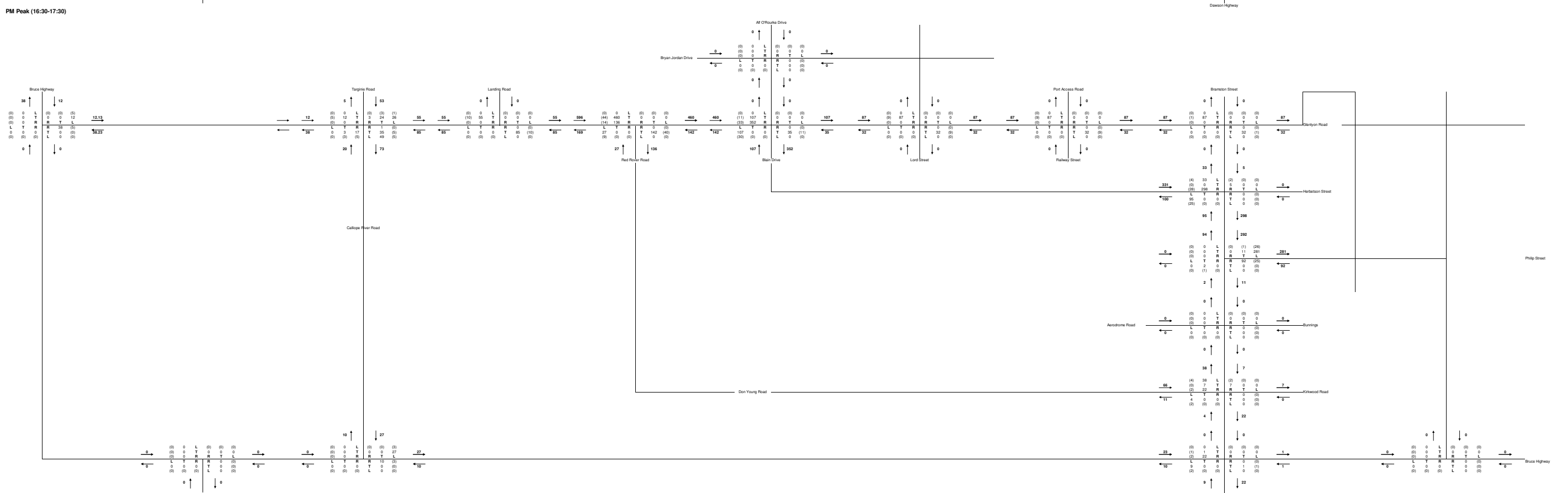
AM Peak (7:45-8:45)



PM Peak (13:30-14:30)



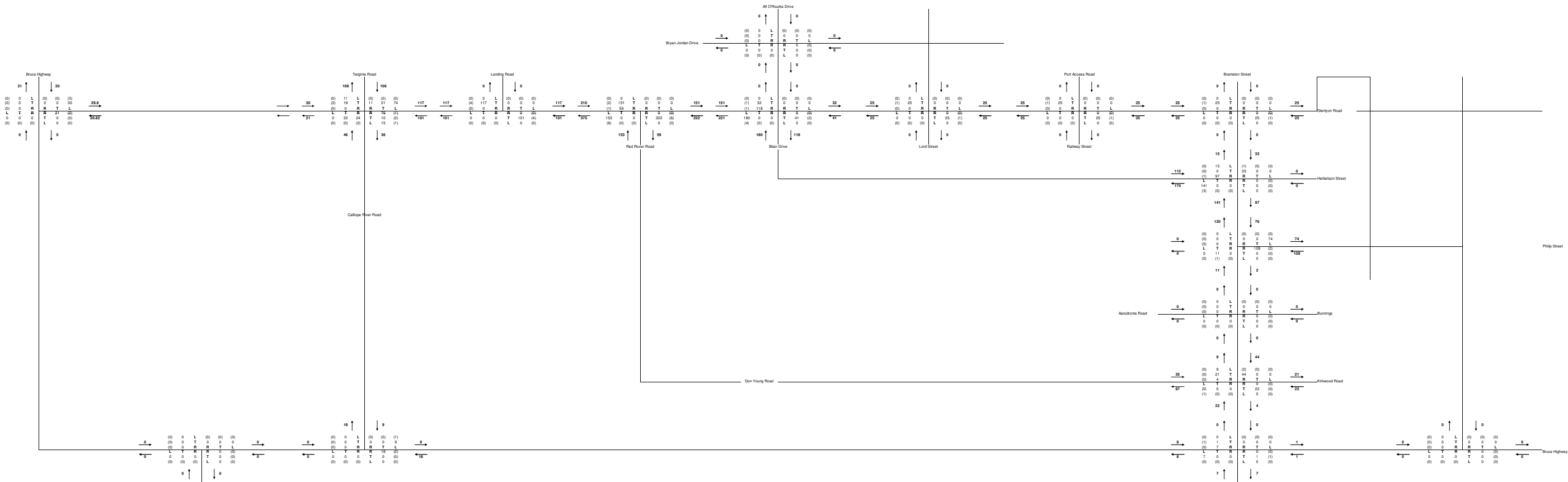
PM Peak (16:30-17:30)



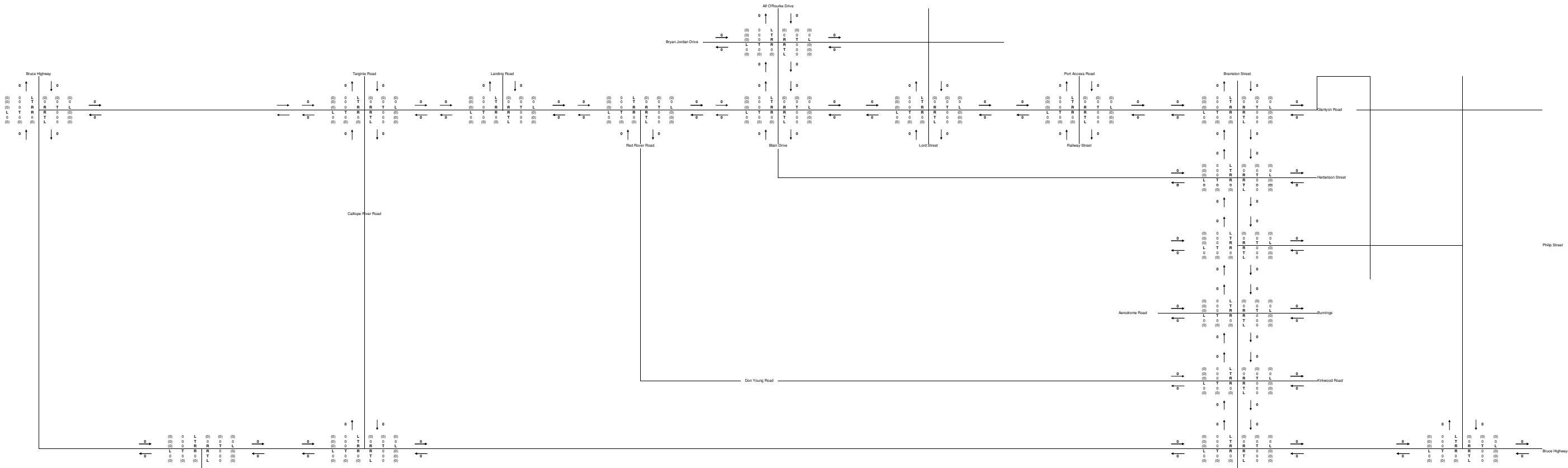
2020 Cumulative Impact Traffic Total

LEGEND
100 Total Volume
(10) Heavy Vehicles

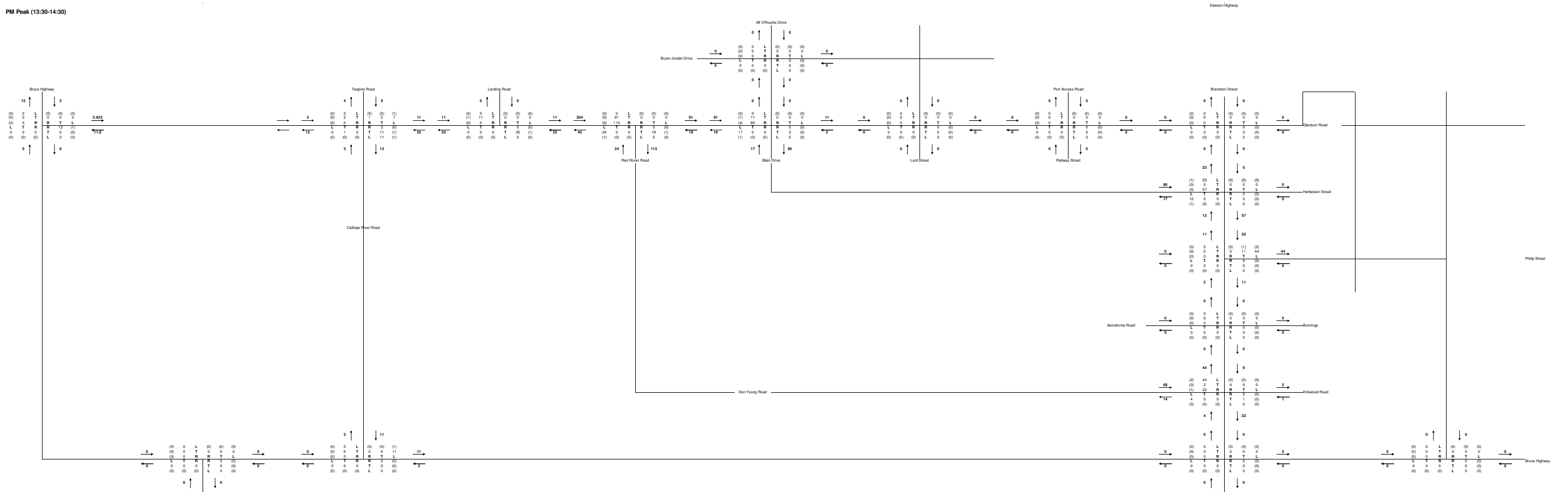
AM Peak (6:00-7:00)



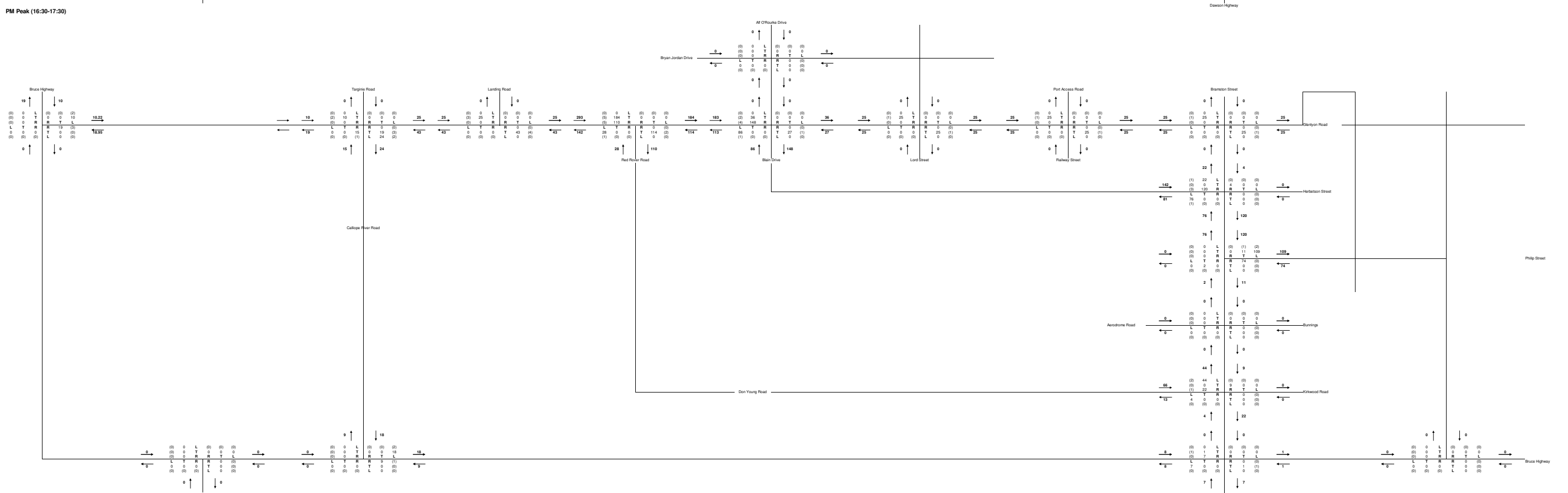
AM Peak (7:45-8:45)



PM Peak (13:30-14:30)



PM Peak (16:30-17:30)



Appendix F

Traffic Generation and Distribution Summary Tables

GLNG Plant Construction Traffic

Year		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Construction				Train 1						Train 2					Train 3					Plant Operation									
		GLNG Plant Construction Traffic																											
Light Vehicle Trips	Construction Staff - Camp			25	69	62	16	16	41	37	10	16	41	37	10	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Construction Staff - Non Camp			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Heavy Vehicles	Miscellaneous Deliveries			1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
		Construction Staff - Camp			5	14	13	3	3	8	8	2	3	8	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0
		Construction Staff - Non Camp			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Drink water			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Waste			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Fuel			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Raw water			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Equipment			0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Pipe			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Concrete - Precast			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Concrete Insitu			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Prefab. Steelwork			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Steel			0	1	1	1	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Pavement			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Earthwork			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Rig. Movement			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Miscellaneous Class 9			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		Miscellaneous Deliveries - Class 3			1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL				34	87	79	23	21	53	49	15	21	53	48	15	0	0	0	0	0	0	0	0	0	0	0	0	0	

GLNG Plant Operation Traffic

Operation	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Staff - Cars	0	0	0	0	0	0	100	100	100	100	135	135	135	135	170	170	170	170	170	170	170	170	170	170	170	170	170
Staff - Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel Deliveries - Class 9 vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Deliveries - Class 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Deliveries - Light Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	101	101	101	101	136	136	136	136	171	171	171	171	171	171	171	171	171	171	171	171	171

GLNG Roma Field Construction

Construction		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Deliveries	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Heavy Vehicle Trips	Buses from to and from Camp	1	1	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	
	Drink Water	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Fuel	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	Well water	0	0	1	1	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	
	Equipment	0	0	1	2	1	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	
	Pipe	0	1	2	4	2	0	1	2	1	1	2	1	1	2	1	1	1	2	1	1	0	0	0	0	0	0	
	Miscellaneous - class 9	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	Rig movement - class 9	0	0	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	
	Miscellaneous Deliveries - Class 3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total		1	3	8	14	9	3	5	5	6	5	5	5	7	6	6	6	5	8	3	3	3	1	2	2	3	2	1

GLNG Fairview Field Constructi

Construction		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle Trips	Buses from to and from Camp	0	1	2	2	1	1	0	0	2	1	1	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	Drink Water	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Waste	0	0	1	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Well water	0	0	1	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Equipment	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pipe	0	1	1	1	0	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Miscellaneous - class 9	0	1	2	2	1	2	0	0	2	1	1	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	Rig movement - Class 9	0	0	1	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	Miscellaneous Deliveries - Class 3	0	1	1	1	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	6	8	9	5	6	1	0	8	5	4	0	8	0	0	3	0	0	0	0	0	0	0	0	0	0	0

GLNG Arcadia Field Constructi

Construction		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Heavy Vehicle Trips	Buses from to and from Camp	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	1	1	0	0	0	0	1	1	1
	Drink Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Waste	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Well water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Equipment	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	Pipe	0	0	0	0	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	
	Miscellaneous - class 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Rig movement - Class 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Miscellaneous Deliveries - Class 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		1	1	1	1	5	4	3	3	4	2	3	3	2	3	3	4	0	0	1	1	0	0	0	0	1	1	1

75	
75	
0	
1,549	
1,487	
62	
1,265	
258	
1,007	
741	
341	
400	
197	
88	
109	
220	
220	
0	

TOTAL
TOTAL
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TOTALTOTAL
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TOTAL
TOTAL

GLNG Plant Construction Traffic

Year		2008	2009	2010	2011	2012	2013	2014	2016	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Construction				Train 1				Train 2				Train 3				Plant Operation										
		GLNG Plant Construction Traffic																								
Light Vehicle Trips	Construction Staff - Camp			100	276	249	65	62	166	150	39	62	166	150	39	0	0	0	0	0	0	0	0	0	0	0
	Construction Staff - Non Camp			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles	Miscellaneous Deliveries			10	10	10	10	10	10	10	10	10	10	10	10	0	0	0	0	0	0	0	0	0	0	0
	Construction Staff - Camp			20	55	50	13	13	33	30	8	13	33	30	8	0	0	0	0	0	0	0	0	0	0	0
	Construction Staff - Non Camp			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Drink water			4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Waste			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Fuel			1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
	Raw water			4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Equipment			3	6	6	4	2	4	4	3	2	4	4	2	0	0	0	0	0	0	0	0	0	0	0
	Pipe			1	3	3	2	1	2	2	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0
	Concrete - Precast			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Concrete Insitu			2	4	4	3	1	3	3	2	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0
	Prefab. Steelwork			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Steel			3	10	10	6	2	6	6	4	2	6	5	2	0	0	0	0	0	0	0	0	0	0	0
	Pavement			0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	Earthwork			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rig. Movement			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Class 9			0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Deliveries - Class 3			10	10	10	10	10	10	10	10	10	10	10	10	10	0	0	0	0	0	0	0	0	0	0	0
TOTAL				158	375	343	116	102	235	216	80	102	235	214	76	0	0	0	0	0	0	0	0	0	0	0

GLNG Plant Operation Traffic

Operation	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Staff - Cars	0	0	0	0	0	0	200	200	200	200	270	270	270	270	340	340	340	340	340	340	340	340	340	340	340	340	340
Staff - Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel Deliveries - Class 9 vehicles	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Miscellaneous Deliveries - Class 3	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Miscellaneous Deliveries - Light Vehicles	0	0	0	0	0	0	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TOTAL	0	0	0	0	0	0	206	206	206	206	276	276	276	277	347	347	347	347	347	347	347	347	347	347	347	347	347

GLNG Roma Field Construction

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Construction																												
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Deliveries	0	1	3	5	3	0	2	2	3	2	2	2	3	2	2	2	2	4	1	1	0	1	0	1	1	0	0
Heavy Vehicle Trips	Buses from to and from Camp	2	1	5	6	6	5	4	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	3	3	2
	Drink Water	0	2	4	8	4	0	2	3	4	3	3	3	4	3	3	3	3	5	2	2	2	0	1	1	1	0	0
	Waste	0	1	2	4	2	0	1	2	2	2	2	2	2	2	2	2	2	3	1	1	1	0	1	1	1	0	0
	Fuel	0	2	4	8	4	0	2	3	4	3	3	3	4	3	3	3	3	5	2	2	2	0	1	1	1	0	0
	Well water	0	3	6	11	6	0	4	5	5	7	7	7	8	4	4	4	4	5	2	2	2	0	1	1	1	0	0
	Equipment	0	4	9	18	9	0	7	9	7	7	7	7	9	7	7	7	7	12	4	4	3	0	2	2	1	0	0
	Pipe	0	8	18	36	18	0	10	14	17	14	14	14	17	14	14	14	14	24	7	7	6	0	4	4	1	0	0
	Miscellaneous - class 9	0	2	4	9	5	0	3	4	4	4	4	4	4	4	4	4	4	6	2	2	2	0	1	1	1	0	0
	Rig movement - Class 9	0	3	5	8	5	0	3	5	5	5	5	5	5	5	5	5	5	5	3	3	3	0	3	3	3	0	0
	Miscellaneous Deliveries - Class 3	0	1	3	5	3	0	2	2	3	2	2	2	2	3	2	2	2	2	4	1	1	1	0	1	1	1	0
Total		2	28	63	118	65	5	37	47	57	47	47	47	58	48	48	48	47	77	26	26	24	1	17	17	15	3	2

GLNG Fairview Field Constructi

Construction		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Heavy Vehicle Trips	Buses from to and from Camp	0	2	3	3	2	2	0	0	3	2	2	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	
	Drink Water	3	3	6	5	6	5	6	2	2	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	
	Waste	0	3	5	5	2	3	0	0	5	3	2	0	5	0	0	1	0	0	0	0	0	0	0	0	0	0	
	Fuel	0	2	3	3	1	2	0	0	3	2	1	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	
	Well water	0	3	5	5	2	3	0	0	5	3	2	0	5	0	0	1	0	0	0	0	0	0	0	0	0	0	
	Equipment	0	5	7	7	3	5	0	0	7	4	3	0	7	0	0	2	0	0	0	0	0	0	0	0	0	0	
	Pipe	0	7	11	12	5	8	0	0	11	7	4	0	11	0	0	3	0	0	0	0	0	0	0	0	0	0	
	Miscellaneous - class 9	0	14	22	23	10	15	0	0	21	13	8	0	21	0	0	5	0	0	0	0	0	0	0	0	0	0	
	Rig movement - Class 9	0	4	5	6	3	4	0	0	5	3	2	0	5	0	0	2	0	0	0	0	0	0	0	0	0	0	
	Miscellaneous Deliveries - Class 3	0	5	5	5	3	5	0	0	5	3	3	0	5	0	0	3	0	0	0	0	0	0	0	0	0	0	
Total		3	48	72	74	37	52	6	2	67	41	28	1	66	1	1	21	2	2	2	2	2	2	2	2	1	1	

GLNG Arcadia Field Constructi

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Construction																													
	Light Vehicle Trips																												
Heavy Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Deliveries	0	0	0	0	0	2	1	1	2	1	1	1	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	
	Buses from to and from Camp	1	1	1	2	2	2	1	1	1	1	2	2	0	1	0	1	0	0	1	1	0	0	0	0	1	1	1	
	Drink Water	0	0	0	0	3	2	2	2	2	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0	0	0	
	Waste	0	0	0	0	2	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	
	Fuel	0	0	0	0	3	2	2	2	2	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0	0	0	
	Well water	0	0	0	0	3	3	3	4	3	1	2	2	2	2	3	3	0	0	0	0	0	0	0	0	0	0	0	
	Equipment	0	0	0	0	5	4	5	4	5	3	3	3	3	4	4	5	0	0	0	0	0	0	0	0	0	0	0	
	Pipe	0	0	0	0	11	10	8	7	9	2	5	3	3	6	7	9	0	0	0	0	0	0	0	0	0	0	0	
	Miscellaneous - class 9	0	0	0	0	3	3	2	2	2	1	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	
	Rig movement - Class 9	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	
	Miscellaneous Deliveries - Class 3	0	0	0	0	2	2	1	1	2	1	1	1	1	1	1	2	2	0	0	0	0	0	0	0	0	0	0	
	Total		1	1	1	2	41	35	28	26	32	14	22	22	23	26	29	32	0	0	1	1	0	0	0	0	1	1	1

300	
300	
0	
4,090	
3,470	
620	
5,260	
2,583	
2,677	
6,933	
3,407	
3,526	
1,797	
877	
920	
880	
880	
0	

CSG Field

TOTAL
TOTAL
TOTAL
TOTAL

CSG Field

TOTAL	1	1
TOTAL		
TOTAL		
TOTAL	2	1

CSG Field

TOTAL	1	1
TOTAL		
TOTAL	1	
TOTAL	3	2
		1

GLNG Plant Construction Traffic

Year		2008	2009	2010	2011	2012	2013	2014	2016	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Construction				Train 1				Train 2				Train 3				Plant Operation											
GLNG Plant Construction Traffic																											
Light Vehicle Trips Heavy Vehicles	Car & Light Deliveries			14,061	32,344	29,578	10,390	10,130	20,862	19,209	7,686	10,130	20,862	19,209	7,686	0	0	0	0	0	0	0	0	0	0	0	
	Bus Trips			2,080	5,720	5,200	1,352	1,300	3,432	3,120	832	1,300	3,432	3,120	832	0	0	0	0	0	0	0	0	0	0	0	
	Drink water			1,188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Waste			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Fuel			91	46	46	26	55	28	28	16	55	28	24	9	0	0	0	0	0	0	0	0	0	0	0	
	Raw water			1,170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Equipment			974	2,177	2,177	1,244	584	1,306	1,306	746	584	1,306	1,108	432	0	0	0	0	0	0	0	0	0	0	0	
	Pipe			261	914	914	523	157	549	549	314	157	549	466	181	0	0	0	0	0	0	0	0	0	0	0	
	Concrete - Precast			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Concrete Insitu			376	1,315	1,315	751	225	789	789	451	225	789	670	261	0	0	0	0	0	0	0	0	0	0	0	
	Prefab. Steelwork			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Steel			980	3,431	3,431	1,960	588	2,059	2,059	1,176	588	2,059	1,747	681	0	0	0	0	0	0	0	0	0	0	0	
	Pavement			0	0	0	174	0	0	0	104	0	0	0	60	0	0	0	0	0	0	0	0	0	0	0	
	Earthwork			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Rig. Movement			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Miscellaneous Class 9			0	0	0	28	0	0	0	0	17	0	0	10	0	0	0	0	0	0	0	0	0	0	0	
	Miscellaneous Deliveries - Class 3			3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	3,640	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL				24,821	49,587	46,301	20,088	16,678	32,664	30,699	14,981	16,678	32,664	29,983	13,792	0	0	0	0	0	0	0	0	0	0	0

328,939

GLNG Plant Operation Traffic

Operation	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Staff - Cars	0	0	0	0	0	0	55,680	55,680	55,680	55,680	76,320	76,320	76,320	76,320	96,960	96,960	96,960	96,960	96,960	96,960	96,960	96,960	96,960	96,960	96,960	96,960	
Miscellaneous Deliveries - Light Vehicle	0	0	0	0	0	0	757	757	757	1,032	1,032	1,032	1,032	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	1,239	
Staff - Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fuel Deliveries	0	0	0	0	0	0	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	
Miscellaneous Deliveries - Class 3	0	0	0	0	0	0	379	379	379	516	516	516	516	619	619	619	619	619	619	619	619	619	619	619	619	619	
TOTAL	0	0	0	0	0	0	56,920	56,920	56,920	57,333	77,973	77,973	77,973	78,283	98,923	98,923	98,923	98,923	98,923	98,923	98,923	98,923	98,923	98,923	98,923	98,923	

1,826,289

GLNG Roma Field Construction

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Construction			56,437	56,437	56,437	56,712	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352	77,352
Light Vehicle Trips			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle Trips			168	2,383	5,428	10,786	5,683	408	3,284	4,090	4,981	4,066	4,090	4,114	5,101	4,162	4,186	4,138	4,066	6,849	2,057	81	71	48	1,167	1,215	667
Construction Staff			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deliveries			0	94	207	435	213	0	121	162	162	162	162	162	162	162	162	162	288	81	81	71	40	40	10	0	0
Buses from to and from Camp			168	96	408	528	552	408	364	72	72	48	72	96	192	144	168	120	48	48	48	72	48	48	96	216	192
Drink Water			0	148	328	688	336	0	192	256	320	256	256	256	320	256	256	256	456	128	128	112	0	64	64	16	0
Waste			0	74	164	344	168	0	96	128	160	128	128	128	160	128	128	128	228	64	64	56	0	32	32	8	0
Fuel			0	148	328	688	336	0	192	256	320	256	256	256	320	256	256	256	456	128	128	112	0	64	64	16	0
Well water			0	222	492	1,032	504	0	288	384	480	384	384	480	384	384	384	384	684	192	192	168	0	96	96	24	0
Equipment			0	370	820	1,720	840	0	480	640	800	640	640	800	640	640	640	640	1,140	320	320	280	0	160	160	40	0
Pipe			0	740	1,640	3,440	1,680	0	960	1,280	1,600	1,280	1,280	1,600	1,280	1,280	1,280	1,280	2,280	640	640	560	0	320	320	80	0
Miscellaneous - class 9			0	170	377	791	386	0	221	294	368	294	294	368	294	294	294	294	524	147	147	129	0	74	74	18	0
Rig movement - Class 9			0	228	456	684	456	0	228	456	684	456	456	456	456	456	456	456	856	228	228	228	0	228	228	228	0
Miscellaneous Deliveries - Class 3			0	94	207	435	213	0	121	162	162	162	162	162	162	162	162	162	288	81	81	71	0	40	40	10	0
Total			168	2,383	5,428	10,786	5,683	408	3,284	4,090	4,981	4,066	4,090	4,114	5,101	4,162	4,186	4,138	4,066	6,849	2,057	81	71	48	1,167	1,215	667

84,910

GLNG Fairview Field Constructi

GENERAL REVIEW FIELD CONSTRUCTION		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Construction																												
Light Vehicle Trips	Construction Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Deliveries	0	167	258	271	121	172	0	0	253	152	96	0	248	0	58	0	0	0	0	0	0	0	0	0	0	0	0
	Buses from to and from Camp	216	216	552	456	504	480	528	144	168	96	24	24	72	96	96	120	192	192	192	192	192	192	192	144	24	24	24
	Drink Water	0	264	408	428	192	272	0	0	400	240	152	0	392	0	0	92	0	0	0	0	0	0	0	0	0	0	0
	Waste	0	132	204	214	96	136	0	0	200	120	76	0	196	0	0	46	0	0	0	0	0	0	0	0	0	0	0
	Fuel	0	264	408	428	192	272	0	0	400	240	152	0	392	0	0	92	0	0	0	0	0	0	0	0	0	0	0
	Well water	0	396	612	642	288	408	0	0	600	360	228	0	588	0	0	138	0	0	0	0	0	0	0	0	0	0	0
	Equipment	0	660	1,020	1,070	480	680	0	0	1,000	600	380	0	980	0	0	230	0	0	0	0	0	0	0	0	0	0	0
	Pipes	0	1,320	2,040	2,140	1,360	1,960	0	0	2,200	1,360	860	0	1,200	0	0	460	0	0	0	0	0	0	0	0	0	0	0
	Miscellaneous - class 9	0	304	469	492	221	313	0	0	460	276	175	0	451	0	0	106	0	0	0	0	0	0	0	0	0	0	0
Rig movement - Class 9	0	456	456	456	228	456	0	0	456	228	228	0	456	0	0	228	0	0	0	0	0	0	0	0	0	0	0	
Miscellaneous Deliveries - Class 3	0	167	258	271	121	172	0	0	253	152	96	0	248	0	0	58	0	0	0	0	0	0	0	0	0	0	0	
Total		216	4,346	6,685	6,668	3,404	4,721	528	144	6,190	3,664	2,367	24	5,983	96	96	1,628	192	192	192	192	192	192	192	144	24	24	24

27,300	27,300	0
1,492,850	1,266,550	226,300
1,893,475	942,795	950,680
2,497,503	1,243,555	1,253,948
642,843	320,105	322,738
321,200	321,200	0
FAL	154,470	5,908
FAL	148,563	251,155
FAL	109,800	141,355
FAL	650,901	430,865
FAL	220,036	546,572
FAL	1,056,526	509,954
FAL	6,526,672	3,773,005
FAL	3,773,005	2,753,667
FAL	321,200	321,200
FAL	1,826,289	1,812,226
FAL	8,674,161	14,063
FAL	5,906,431	2,767,730
FAL	6,681,142	3,778,913
FAL	2,243,099	2,902,229
FAL	572,355	431,000
FAL	2,447,190	141,355
FAL	6,453,003	2,277,684
FAL	9,730,687	2,277,684

Appendix G

Peak Hour Volumes for Intersection

Assessment Scenarios

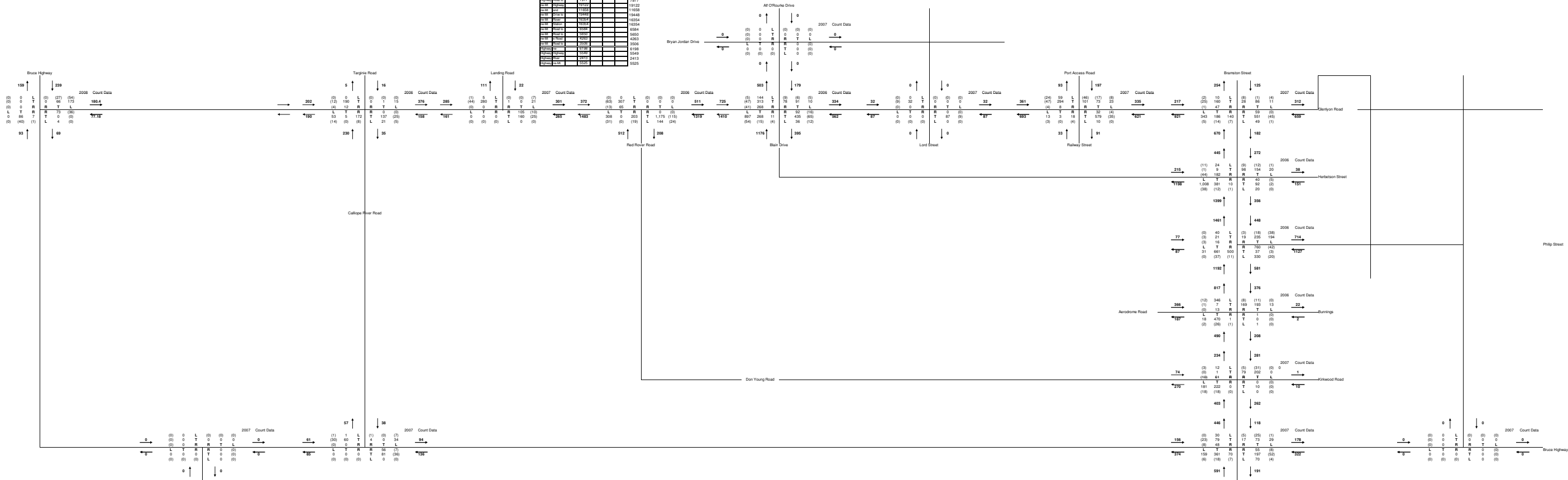
2012 Background - Cumulative Impact Traffic

AME 17736
AME 21177
AME 23414
AME 62527

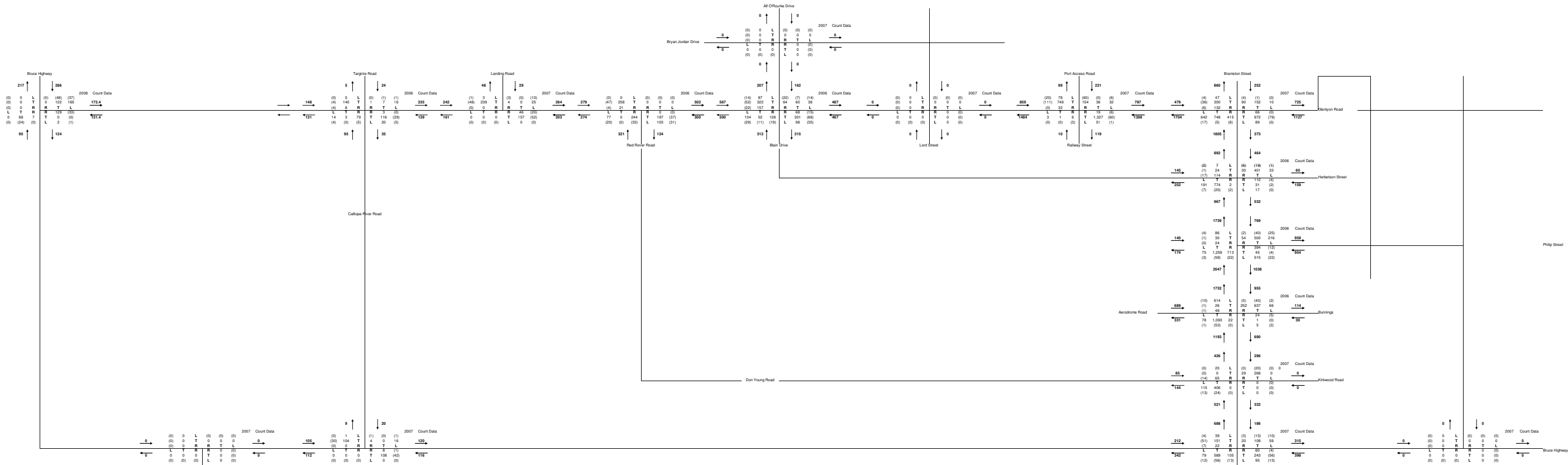
Link	Segment	2006 Count	2007 Count	2008 Count	2009 Count
1	1	17145	17145	17145	17145
2	2	17145	17145	17145	17145
3	3	17145	17145	17145	17145
4	4	17145	17145	17145	17145
5	5	17145	17145	17145	17145
6	6	17145	17145	17145	17145
7	7	17145	17145	17145	17145
8	8	17145	17145	17145	17145
9	9	17145	17145	17145	17145
10	10	17145	17145	17145	17145
11	11	17145	17145	17145	17145
12	12	17145	17145	17145	17145
13	13	17145	17145	17145	17145
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17	17	17145	17145	17145	17145
18	18	17145	17145	17145	17145
19	19	17145	17145	17145	17145
20	20	17145	17145	17145	17145
21	21	17145	17145	17145	17145
22	22	17145	17145	17145	17145
23	23	17145	17145	17145	17145
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64	64	17145	17145	17145	17145
65	65	17145	17145	17145	17145
66	66	17145	17145	17145	17145
67	67	17145	17145	17145	17145
68	68	17145	17145	17145	17145
69	69	17145	17145	17145	17145
70	70	17145	17145	17145	17145
71	71	17145	17145	17145	17145
72	72	17145	17145	17145	17145
73	73	17145	17145	17145	17145
74	74	17145	17145	17145	17145
75	75	17145	17145	17145	17145
76	76	17145	17145	17145	17145
77	77	17145	17145	17145	17145
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92	92	17145	17145	17145	17145
93	93	17145	17145	17145	17145
94	94	17145	17145	17145	17145
95	95	17145	17145	17145	17145
96	96	17145	17145	17145	17145
97	97	17145	17145	17145	17145
98	98	17145	17145	17145	17145
99	99	17145	17145	17145	17145
100	100	17145	17145	17145	17145

LEGEND
100 Total Volume
150 Heavy Vehicle Volume

AM Peak (6:00-7:00)



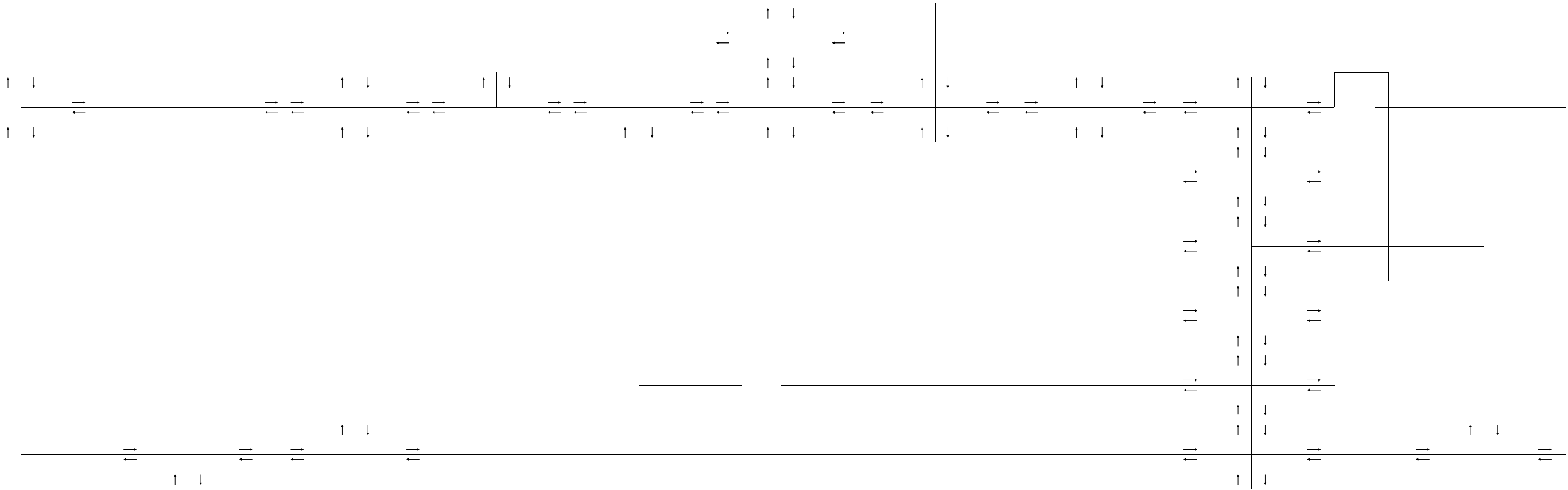
AM Peak (7:45-8:45)



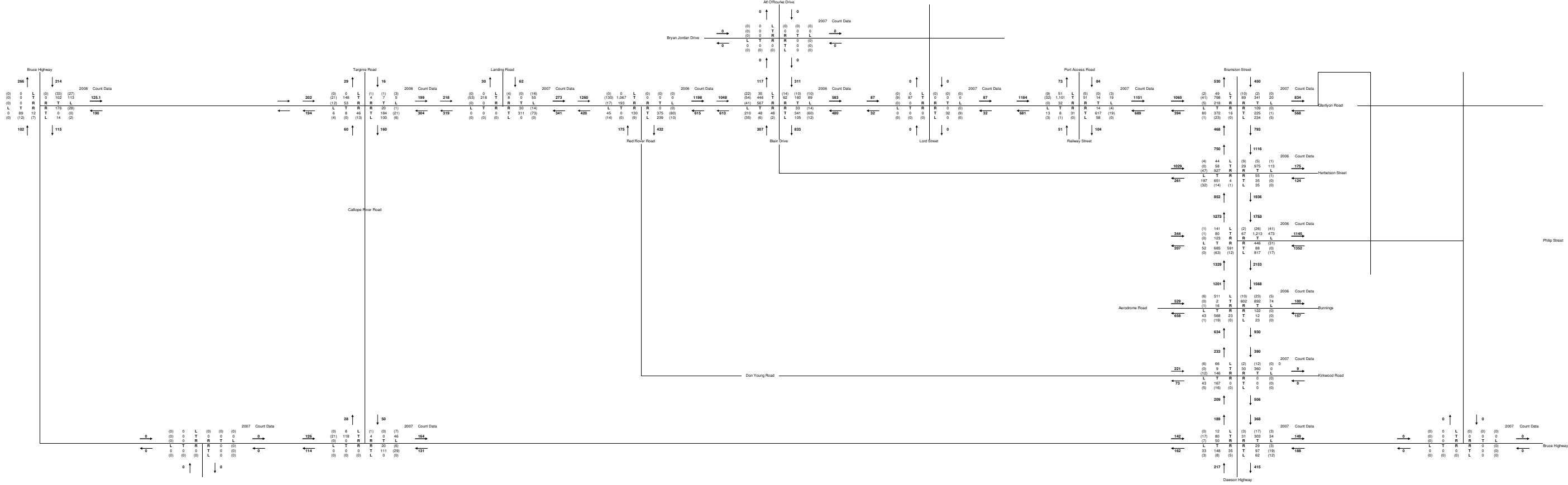
0 ↑ | ↓ 0

774 ↑ | ↓ 225
Dawson Highway

PM Peak (13:30-14:30)



PM Peak (16:30-17:30)

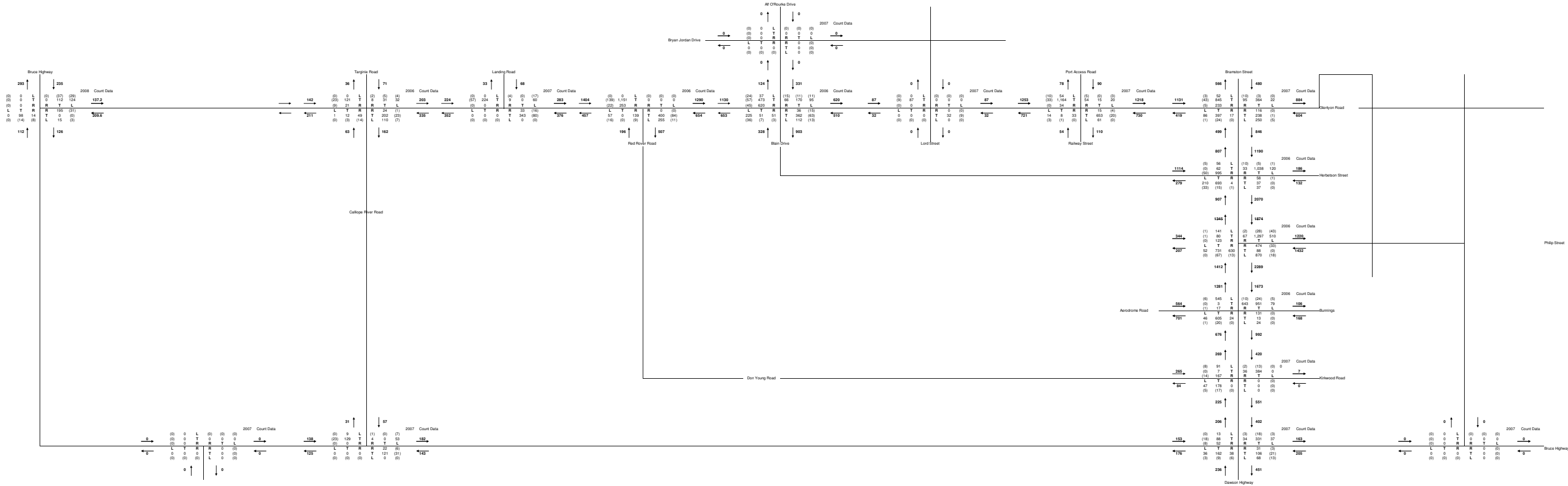


PM Peak (13:30-14:30)

846 ↑ ↓ 246
Dawson Highway

PM Peak (16:30-17:30)

Dawson Highway



2024 Background - Cumulative Impact Traffic

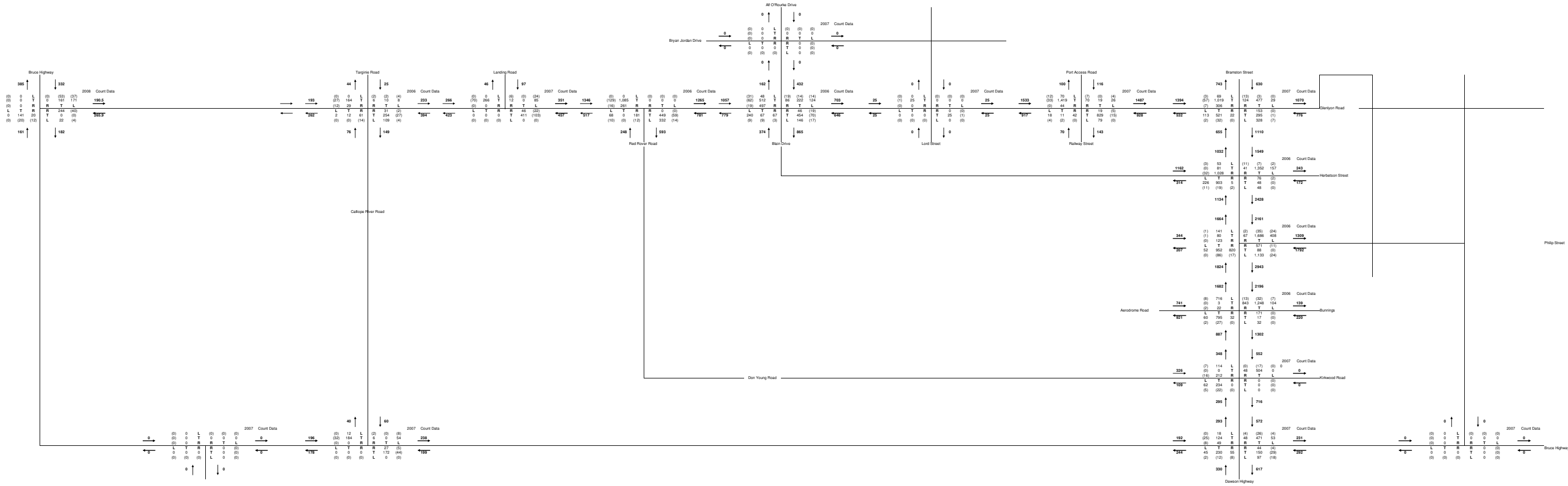
Mid Block Assessment					
Loc	Section	2006	2007	2014	2024
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1001	1001-1002	1001	1001	1001	1001
1002	1002-1003	1002	1002	1002	1002
1003	1003-1004	1003	1003	1003	1003
1004	1004-1005	1004	1004	1004	1004
1005	1005-1006	1005	1005	1005	1005
1006	1006-1007	1006	1006	1006	1006
1007	1007-1008	1007	1007	1007	1007
1008	1008-1009	1008	1008	1008	1008
1009	1009-1010	1009	1009	1009	1009
1010	1010-1011	1010	1010	1010	1010
1011	1011-1012	1011	1011	1011	1011
1012	1012-1013	1012	1012	1012	1012
1013	1013-1014	1013	1013	1013	1013
1014	1014-1015	1014	1014	1014	1014
1015	1015-1016	1015	1015	1015	1015
1016	1016-1017	1016	1016	1016	1016
1017	1017-1018	1017	1017	1017	1017
1018	1018-1019	1018	1018	1018	1018
1019	1019-1020	1019	1019	1019	1019
1020	1020-1021	1020	1020	1020	1020
1021	1021-1022	1021	1021	1021	1021
1022	1022-1023	1022	1022	1022	1022
1023	1023-1024	1023	1023	1023	1023
1024	1024-1025	1024	1024	1024	1024
1025	1025-1026	1025	1025	1025	1025
1026	1026-1027	1026	1026	1026	1026
1027	1027-1028	1027	1027	1027	1027
1028	1028-1029	1028	1028	1028	1028
1029	1029-1030	1029	1029	1029	1029
1030	1030-1031	1030	1030	1030	1030
1031	1031-1032	1031	1031	1031	1031
1032	1032-1033	1032	1032	1032	1032
1033	1033-1034	1033	1033	1033	1033
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1035	1035-1036	1035	1035	1035	1035
1036	1036-1037	1036	1036	1036	1036
1037	1037-1038	1037	1037	1037	1037
1038	1038-1039	1038	1038	1038	1038
1039	1039-1040	1039	1039	1039	1039
1040	1040-1041	1040	1040	1040	1040
1041	1041-1042	1041	1041	1041	1041
1042	1042-1043	1042	1042	1042	1042
1043	1043-1044	1043	1043	1043	1043
1044	1044-1045	1044	1044	1044	1044
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1046	1046-1047	1046	1046	1046	1046
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1048	1048-1049	1048	1048	1048	1048
1049	1049-1050	1049	1049	1049	1049
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1052	1052-1053	1052	1052	1052	1052
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1078	1078-1079	1078	1078	1078	1078
1079	1079-1080	1079	1079	1079	1079
1080	1080-1081	1080	1080	1080	1080
1081	1081-1082	1081	1081	1081	1081
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1099	1099-1100	1099	1099	1099	1099
1100	1100-1101	1100	1100	1100	1100
1101	1101-1102	1101	1101	1101	1101
1102	1102-1103	1102	1102	1102	1102
1103	1103-1104	1103	1103	1103	1103
1104	1104-1105	1104	1104	1104	1104
1105	1105-1106	1105	1105	1105	1105
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1109	1109-1110	1109	1109	1109	1109
1110	1110-1111	1110	1110	1110	1110
1111	1111-1112	1111	1111	1111	1111
1112	1112-1113	1112	1112	1112	1112
1113	1113-1114	1113	1113	1113	1113
1114	1114-1115	1114	1114	1114	1114
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1122	1122-1123	1122	1122	1122	1122
1123	1123-1124	1123	1123	1123	1123
1124	1124-1125	1124	1124	1124	1124
1125	1125-1126	1125	1125	1125	1125
1126	1126-1127	1126	1126	1126	1126
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1167	1167-1168	1167	1167	1167	1167
1168	1168-1169	1168	1168	1168	1168
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1170	1170-1171	1170	1170	1170	1170
1171	1171-1172	1171	1171	1171	1171
1172	1172-1173	1172	1172	1172	1172
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1183	1183-1184	1183	1183	1183	1183
1184	1184-1185	1184	1184	1184	1184
1185	1185-1186	1185	1185	1185	1185
1186	1186-1187	1186	1186	1186	1186
1187	1187-1188	1187	1187	1187	1187
1188	1188-1189	1188	1188	1188	1188
1189	1189-1190	1189	1189	1189	1189
1190	1190-1191	1190	1190	1190	1190
1191	1191-1192	1191			

PM Peak (13:30-14:30)

Dawson Highway

PM Peak (16:30-17:30)

Dawson Highway



[illegible]

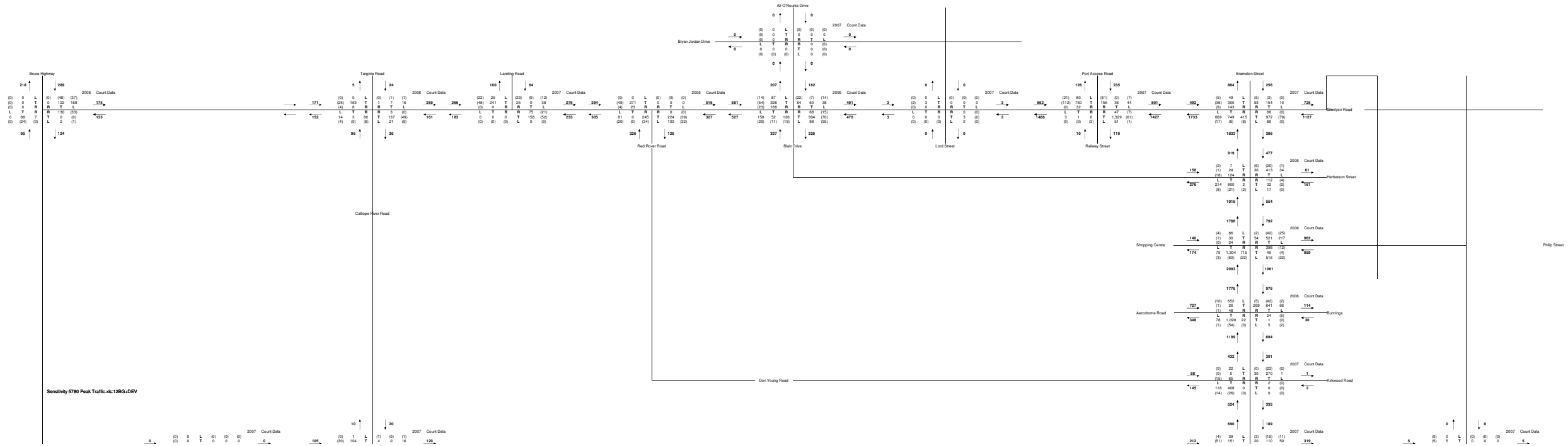
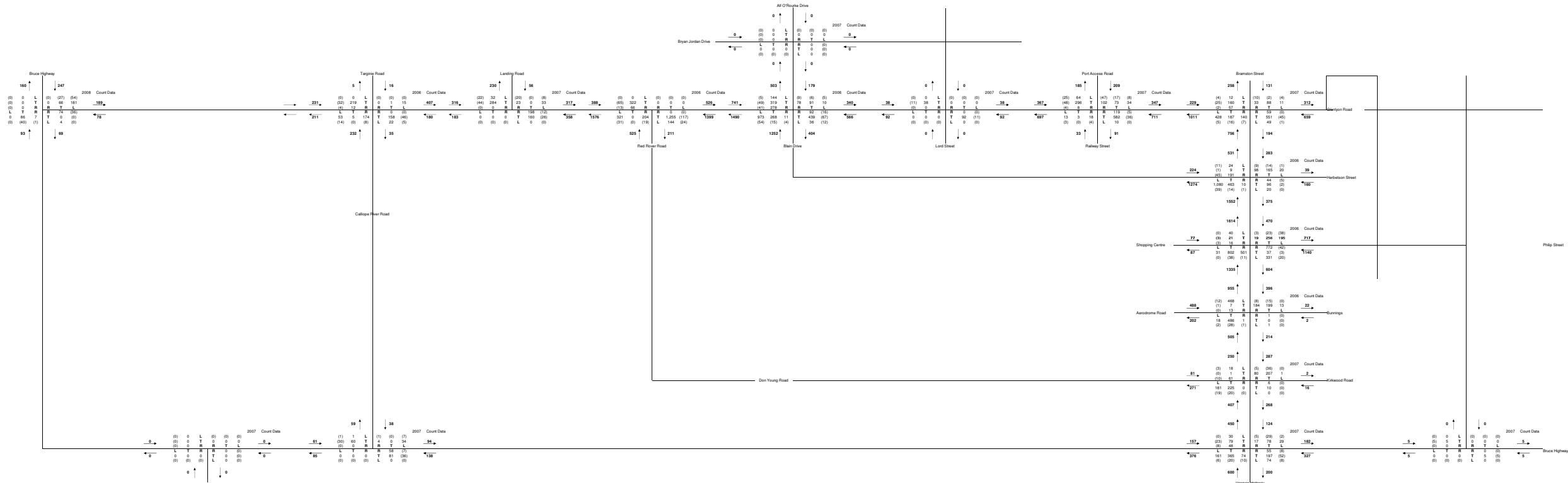
LEGEND

100 Total Volume
(10) Heavy Vehicle Volume

Heavy Vehicle Distribution				
Heavy Blue	Vehicle	Brand	Estimate/Operator	
Heavy	Shovel	Landis	100%	
	Shovel	Landis	0%	
	W/with	Landis	100%	
		Landis	0%	
	Fuel	Landis	100%	
	Roll	Landis	100%	
	Roll	Landis	100%	
	Roller	Landis	100%	
		Landis	0%	
	Pipe	Landis	100%	
		Landis	0%	
	Comp	Landis	100%	
		Landis	100%	
	Comp	Landis	100%	
	Pre/af	Landis	100%	
		Landis	100%	
	W/with	Landis	100%	
		Landis	0%	
	Earth	Landis	100%	
	Earth	Landis	100%	
Earth	Landis	100%		
Earth	Landis	100%		

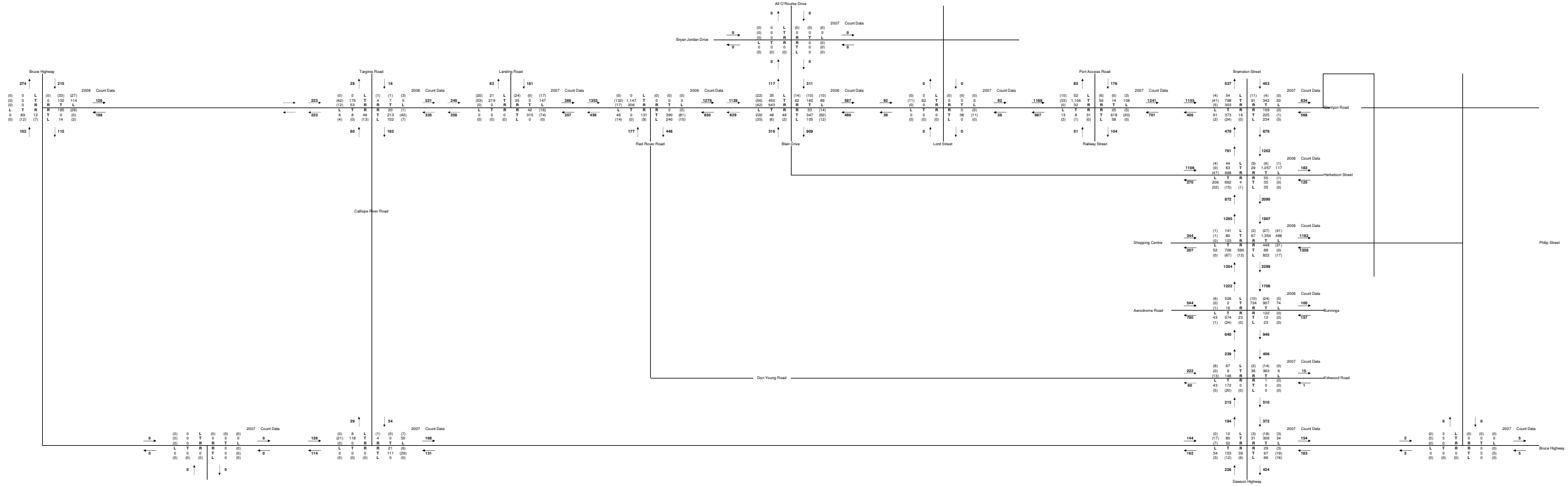
Agency	Service	Year				
		2008	2013	2014	2020	2029
Agway	Link		1,810/24			
Agway	Direct to Link		1,668/3			
Agway	Drive to Link		2,030/40			
Agway	Direct to Link		3,448/5			
Agway	Autocycle		2,081/21			
Agway	Drive		1,479/39			
Agway	Direct to Link		8,072/2			
Agway	Direct to Link		8,072/6			
Agway	Direct to Link		2,030/38			
Agway	Link		1,178/8			
Agway	Drive to Link		2,032/39			
Agway	Direct to Link		1,741/2			
Agway	Station		1,741/2			
Agway	Direct to Link		754/3			
Agway	Direct to Link		6,020/8			
Agway	Direct to Link		4,545/5			
Agway	Direct to Link		3,597/7			
Agway	Direct to Link		4,513/1			
Agway	Direct to Link		3,524/4			
Agway	Direct to Link		2,413/3			
Agway	Direct to Link		5,615/5			

Agency	Service	Year				
		2008	2013	2014	2020	2029
Agway	Link		1,810/24			
Agway	Direct to Link		1,668/3			
Agway	Drive to Link		2,030/40			
Agway	Direct to Link		3,448/5			
Agway	Autocycle		2,081/21			
Agway	Drive		1,479/39			
Agway	Direct to Link		8,072/2			
Agway	Direct to Link		8,072/6			
Agway	Direct to Link		20,038/8			
Agway	Link		1,178/8			
Agway	Drive to Link		2,027/9			
Agway	Direct to Link		1,741/2			
Agway	Station		1,741/2			
Agway	Placed to Link		754/3			
Agway	Placed to Link		6,078/8			
Agway	Placed to Link		454/5			
Agway	Placed to Link		3,987/7			
Agway	Placed to Link		6,073/1			
Agway	Placed to Link		3,987/4			
Agway	Placed to Link		241/3			
Agway	Placed to Link		581/5			

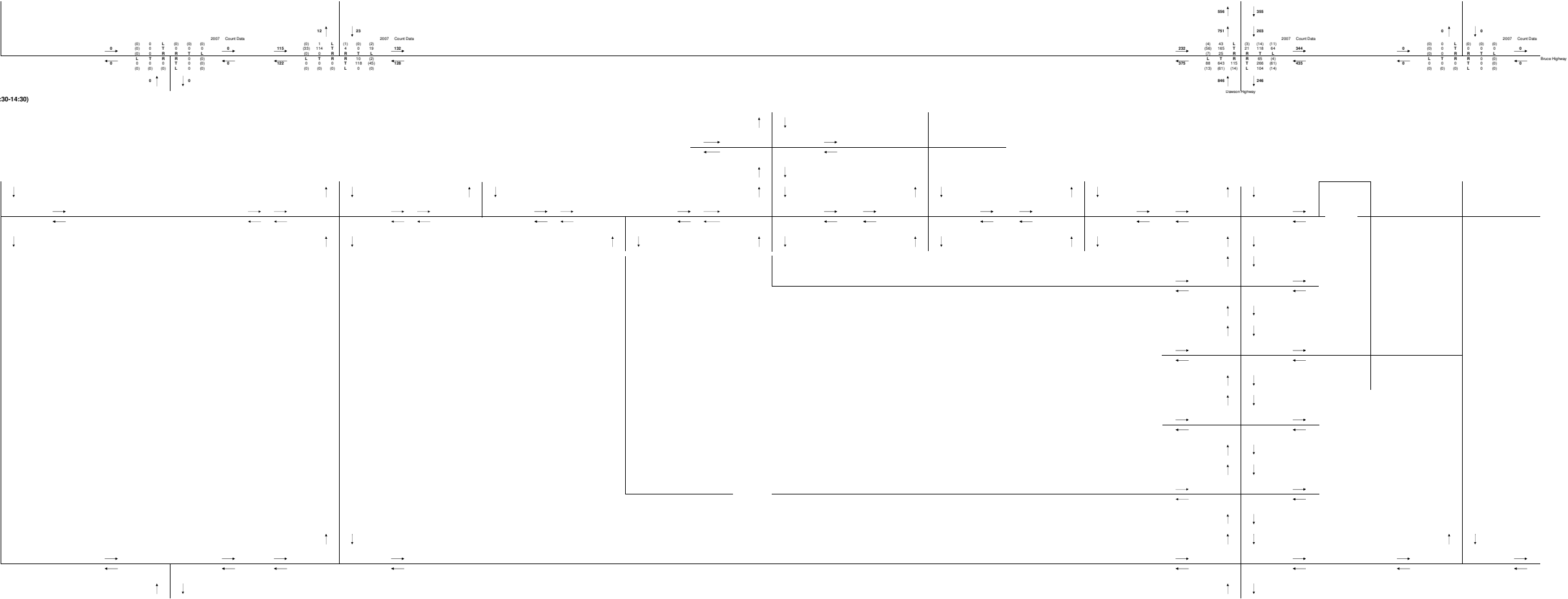


PM Peak (13:30-14:30)

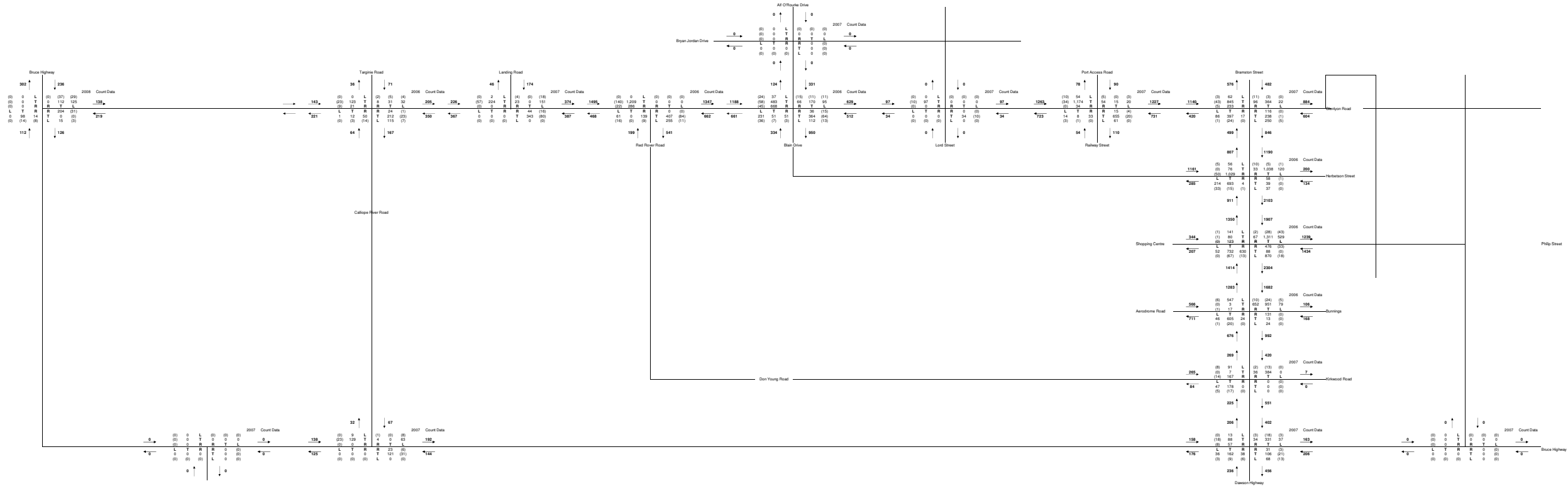
PM Peak (16:30-17:30)



PM Peak (13:30-14:30)



PM Peak (16:30-17:30)



2024 Total Traffic

Type	AM Early		AM Late		PM Early		PM Late	
	In	Out	In	Out	In	Out	In	Out
Light Vehicle	0	0	0	0	0	0	0	0
Heavy Vehicle	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0
Tram	0	0	0	0	0	0	0	0
Truck	0	0	0	0	0	0	0	0
Motorcycle	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0

(0) 0 L (0) (0) (0)
(0) 0 T 0 0 0
(0) 0 R R T L
L T R R 0 (0)
0 0 T 0 (0)
(0) (0) L 0 (0)

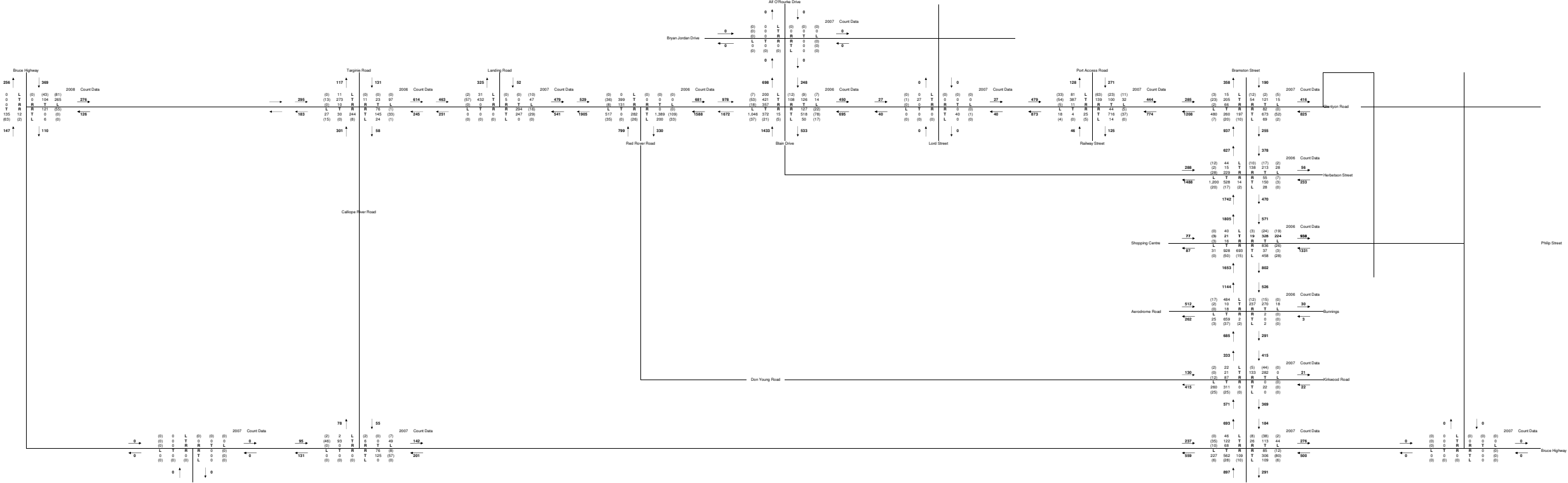
LEGEND
100 Total Volume
(10) Heavy Vehicle Volume

Light Vehicle	Landing Access	Marine Access	Landing Access	Landing Access	Dowson Highway	Dowson Highway
Light Vehicle	0	0	0	0	0	0
Heavy Vehicle	0	0	0	0	0	0
Bus	0	0	0	0	0	0
Tram	0	0	0	0	0	0
Truck	0	0	0	0	0	0
Motorcycle	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	0	0	0	0	0	0

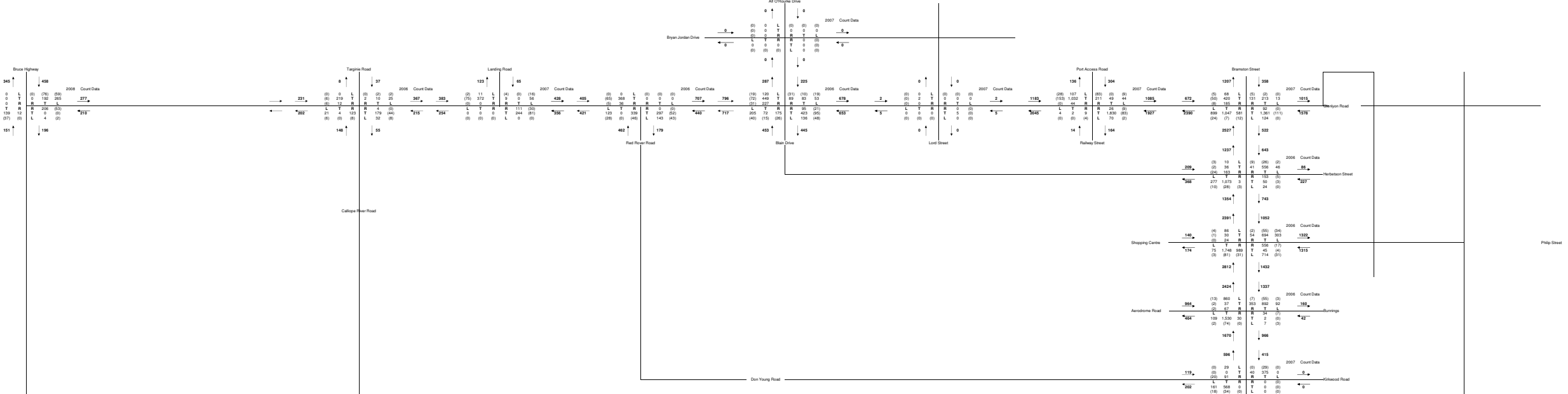
Heavy Vehicle Distribution	Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Heavy Vehicle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Mid Block Assessment	Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Mid Block Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

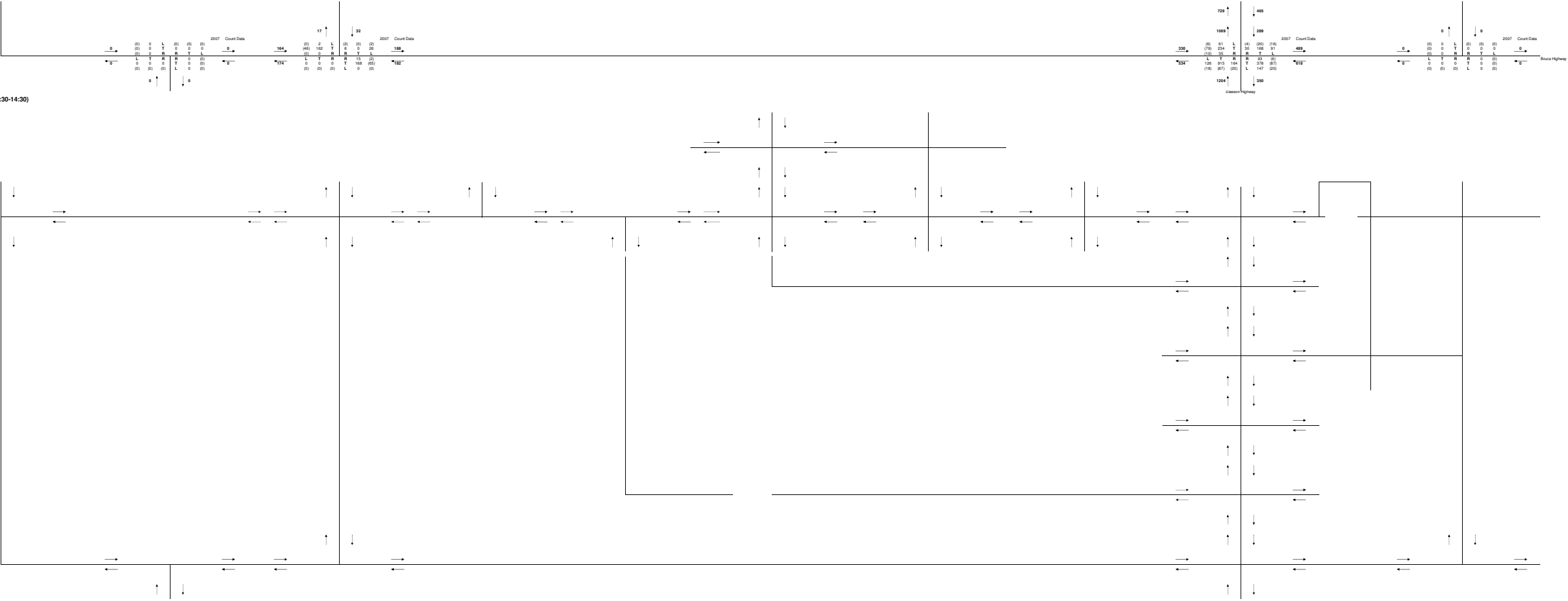
AM Peak (6:00-7:00)



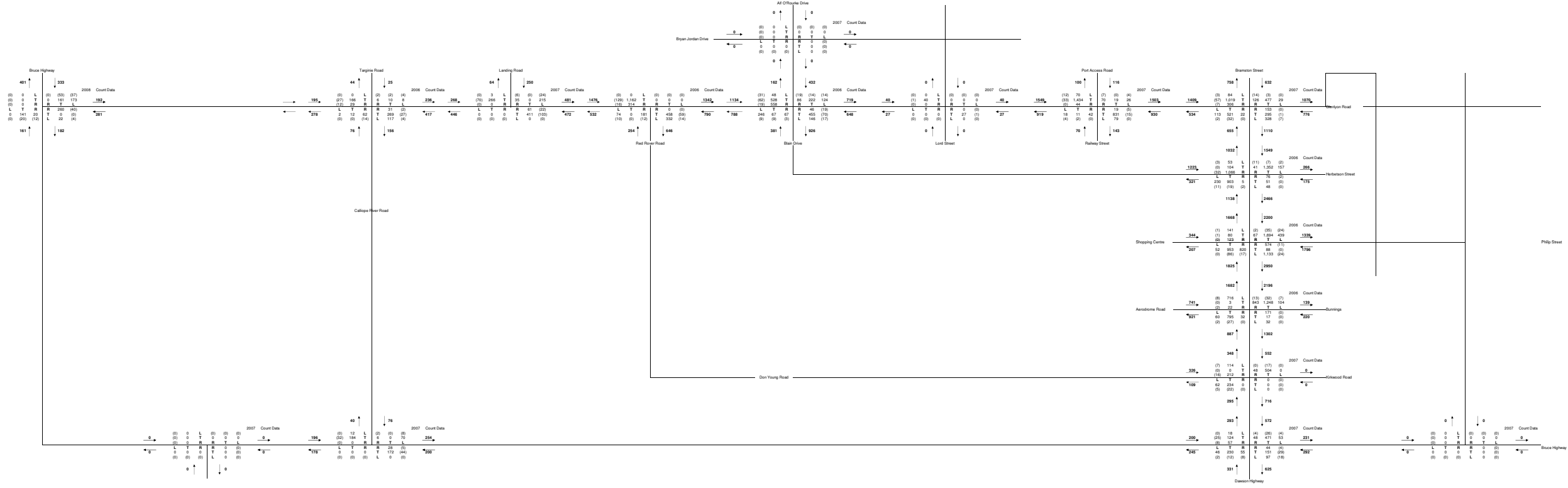
AM Peak (7:45-8:45)



PM Peak (13:30-14:30)



PM Peak (16:30-17:30)



Appendix H

Midblock Assessment Volumes

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)			120	257	280	91	101	101	101	101	136	136	136	136	171	171	171	171	171	171	171	171	171	171	171	171	
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)			120	257	280	91	101	101	101	101	136	136	136	136	171	171	171	171	171	171	171	171	171	171	171	171	
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)			0	32	70	43	101	101	101	101	136	136	136	136	171	171	171	171	171	171	171	171	171	171	171	171	
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)			0	32	70	43	101	101	101	101	136	136	136	136	171	171	171	171	171	1							

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110	Carnarvon Highway 24E	CH. 172 (Rollestone) to CH.111	Southbound (A)				3	3	3	8	7	8	8	9	9	10	10	10	11	12	11	11	11	11	11	11	11	11	11	11	11	11
111	Leichhardt Highway 26A	CH. 00 Capicorn Highway to Burnett Highway	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	Leichhardt Highway 26A	Burnett Highway to Capicorn Highway	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113	Leichhardt Highway 26A	Burnett Highway to CH. 51.1	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114	Leichhardt Highway 26A	CH. 51.1 to Burnett Highway	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	Leichhardt Highway 26A	CH. 51.1 to CH. 62.6	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116	Leichhardt Highway 26A	CH. 62.6 to CH. 51.1	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	Leichhardt Highway 26A	CH. 62.6 to CH. 86.0 Fairview Road	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
118	Leichhardt Highway 26A	CH. 86.0 Fairview Road to CH. 62.6	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
119	Leichhardt Highway 26A	CH. 86.0 Fairview Road to CH. 88.0	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	Leichhardt Highway 26A	CH. 88.0 to CH.86.0	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	Leichhardt Highway 26A	CH. 88.0 to CH. 99.0 (Camp 3)	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122	Leichhardt Highway 26A	CH. 99.0 (Camp 3) to CH. 88.0	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
123	Leichhardt Highway 26A	CH. 99.0 to Banana CH. 105.2	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	Leichhardt Highway 26A	Banana CH. 105.2 to CH. 99.0	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	Leichhardt Highway 26A	Banana CH. 105.2 to CH. 117.0	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126	Leichhardt Highway 26A	CH. 117.0 to Banana CH. 105.2	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	Leichhardt Highway 26A	CH. 117.0 to CH. 124.0	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	Leichhardt Highway 26A	CH. 124.0 to CH. 117.0	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	Leichhardt Highway 26A	Theodore CH. 162.3 to CH.124.0	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	Leichhardt Highway 26A	CH.124.0 to Theodore CH. 162.4	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	Leichhardt Highway 26A	Theodore CH. 162.3 to CH. 124.0	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	Leichhardt Highway 26A	Theodore CH. 162.3 to Glenmoral Roundstone Road	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	Leichhardt Highway 26A	Glenmoral Roundstone Road to Isla Delusion Road	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	Leichhardt Highway 26A	Isla Delusion Road to Glenmoral Roundstone Road	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	Dawson Highway 46B	Isla Delusion Road to District Boundary	Westbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	Dawson Highway 46B	District Boundary to Isla Delusion Road	Eastbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	Bruce Highway 10E	Gladstone-Beraraby Road to Dawson Highway	Westbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	Bruce Highway 10E	Gladstone-Beraraby Road to Dawson Highway	Eastbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	Bruce Highway	Dawson Highway to Callopie River Road	Westbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	Bruce Highway	Dawson Highway to Callopie River Road	Eastbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	Bruce Highway	Callopie River Road to Gladstone Mt-Larcom Road	Westbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	Bruce Highway	Callopie River Road to Gladstone Mt-Larcom Road	Eastbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Rd	Westbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Rd	Eastbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Westbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Eastbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Westbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
148	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Eastbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149	Bruce Highway	Burnett Highway to Capricorn Highway	Westbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	Bruce Highway	Burnett Highway to Capricorn Highway	Eastbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	Gladstone - Benaraby Road	CH.0.0 Dawson Highway CH. 0.00 to Sun valley Rd	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
156	Gladstone - Benaraby Road	Sun Valley Road CH. 0.645 to Dawson Highway CH. 2.159	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	Gladstone - Benaraby Road	CH. 0.645 to Glenlyon Road CH. 2.159	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to CH. 0.645	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to French Street CH. 3.40	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	Gladstone - Benaraby Road	French Street CH. 3.40 to Glenlyon Road CH. 2.159	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161	Gladstone - Benaraby Road	French Street CH. 3.40 to Glen Eden Drive CH. 5.70	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to French Street CH. 3.40	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to South Trees Drive CH. 7.30	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	Gladstone - Benaraby Road	South Trees Drive CH. 5.70 to Glen Eden Drive CH. 7.30	Northbound (A)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	Gladstone - Benaraby Road	South Trees Drive CH. 7.30 to Boyne Island Road CH. 16.039	Southbound (G)				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	Gladstone - Benaraby Road	Boy																														

Aussmed 50% Class 3 loaded[illegible]

G:\CE005780\5780 Calculations\Base Case\M I A\5780 MIA Volumes_Revised_Base.xlsTotal Field Volume

Aussmed 100% Class 9 loaded

[illegible]

G:\CE005780\5780 Calculations\Base Case\M I A\5780 MIA Volumes_Revised_Base.xlsTotal Field Volume

129	Leichhardt Highway 26A	Theodore CH. 162.3 to CH.124.0	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	Leichhardt Highway 26A	CH.124.0 to Theodore CH. 162.4	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	Leichhardt Highway 26A	Theodore CH. 162.3 to CH. 124.0	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	Leichhardt Highway 26A	Theodore CH. 162.3 to Glenmoral Roundstone Road	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	Leichhardt Highway 26A	Glenmoral Roundstone Road to Isla Delusion Road	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	Leichhardt Highway 26A	Isla Delusion Road to Glenmoral Roundstone Road	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	Dawson Highway 46B	Isla Delusion Road to District Boundary	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	Dawson Highway 46B	District Boundary to Isla Delusion Road	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	Bruce Highway 10E	Gladstone-Beraraby Road to Dawson Highway	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	Bruce Highway 10E	Gladstone-Beraraby Road to Dawson Highway	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	Bruce Highway	Dawson Highway to Calliope River Road	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	Bruce Highway	Dawson Highway to Calliope River Road	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	Bruce Highway	Calliope River Road to Gladstone Mt-Larcom Road	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	Bruce Highway	Calliope River Road to Gladstone Mt-Larcom Road	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Rd	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Rd	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
148	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149	Bruce Highway	Burnett Highway to Capricorn Highway	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	Bruce Highway	Burnett Highway to Capricorn Highway	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
153	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	Gladstone - Benaraby Road	CH.0.0 Dawson Highway CH. 0.00 to Sun valley Rd	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
156	Gladstone - Benaraby Road	Sun Valley Road CH. 0.645 to Dawson Highway CH. 0.645	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	Gladstone - Benaraby Road	CH. 0.645 to Glenlyon Road CH. 2.159	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to CH. 0.645	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to French Street CH. 3.4	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	Gladstone - Benaraby Road	French Street CH. 3.40 to Glenlyon Road CH. 2.159	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161	Gladstone - Benaraby Road	French Street CH. 3.40 to Glen Eden Drive CH. 5.7	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to French Street CH. 3.4	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to South Trees Drive CH. 7.30	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	Gladstone - Benaraby Road	South Trees Drive CH. 5.70 to Glen Eden Drive CH. 5.7	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	Gladstone - Benaraby Road	South Trees Drive CH. 7.30 to Boyne Island Road CH. 16.039	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	Gladstone - Benaraby Road	Boyne Island Drive CH. 16.039 to South Trees Drive CH. 7.30	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	Gladstone - Benaraby Road	Boyne Island Road CH. 16.039 to Bruce Highway CH. 19.21	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	Gladstone - Benaraby Road	Bruce Highway CH. 19.21 to Boyne Island Road CH. 16.039	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169	Burnett Highway 41D	CH.0.0 District Boundary to CH.65.0	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	Burnett Highway 41D	CH.65.0 to District Boundary CH.0.0	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171	Burnett Highway 41D	CH.65.0 to Hinton's Lane CH.85.5	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172	Burnett Highway 41D	Hinton's Lane CH.85.5 to CH.65.0	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
173	Burnett Highway 41D	Hinton's Lane CH.85.5 to Sara Lane CH.92.0	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	Burnett Highway 41D	Sara Lane CH.92.0 to Hinton's Lane CH.85.5	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	Burnett Highway 41D	Sara Lane CH.92.0 to Dawson Highway CH.93.8	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	Burnett Highway 41D	Dawson Highway CH.93.8 to Sara Lane CH.92.0	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	Burnett Highway 41E	Dawson Highway CH.93.8 to CH.18.5	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
178	Burnett Highway 41E	CH.18.5 to Dawson Highway CH.93.8	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	Burnett Highway 41E	CH.18.5 to Jambin Rail Crossing CH.27.2	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	Burnett Highway 41E	Jambin Rail Crossing CH.27.2 to CH.18.5	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
181	Burnett Highway 41E	Jambin Rail Crossing CH.27.2 to Goovigen Connection Road CH.35.5	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
182	Burnett Highway 41E	Goovigen Connection Road CH.35.5 to Jambin Rail Crossing CH.27.2	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
183	Burnett Highway 41E	Goovigen Connection Road CH.35.5 to Tohlinn Road CH.38.9	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
184	Burnett Highway 41E	Tohlinn Road (South) CH.38.9 to Goovigen Connection Road CH.35.5	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
185	Burnett Highway 41E	Tomlin Road (South) CH.38.9 to Tomlin Rd (North) CH.53.4	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
186	Burnett Highway 41E	Tomlin Rd (North) CH.53.4 to Tomlin Road (South) CH.38.9	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
187	Burnett Highway 41E	Tomlin Rd (North) CH.53.4 to Leichhardt Highway CH.71.8	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
188	Burnett Highway 41E	Leichhardt Highway CH.71.8 to Tohlinn Road CH.38.9	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
189	Burnett Highway 41E	Leichhardt Highway CH.71.8 to School Grounds CH.101.4	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190	Burnett Highway 41E	School Grounds CH.101.4 to Leichhardt Highway CH.71.8	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
191	Burnett Highway 41E	School Grounds CH.101.4 to Gordon Street CH.101.4	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0										

220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)	0	22	39	58	39	25	18	22	47	30	28	20	45	22	22	29	14	24	8	8	7	0	4	4	2	0	0
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Interse	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Interse	Eastbound (A)	0	22	39	58	39	25	18	22	47	30	28	20	45	22	22	29	14	24	8	8	7	0	4	4	2	0	0
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)	0	22	39	58	39	25	18	22	47	30	28	20	45	22	22	29	14	24	8	8	7	0	4	4	2	0	0
225	Warrego Highway	KM135.5 to Roma	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
226	Warrego Highway	Roma to KM135.5	Eastbound (A)	0	22	39	58	39	25	18	22	47	30	28	20	45	22	22	29	14	24	8	8	7	0	4	4	2	0	0
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228	Jackson-Wandoan Road	Grid to18D/Dulacca North Intersection	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234	Bruce Highway (10D)	Benaraby CH. 147.1 o CH. 112	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Based on 0% Class 9 loaded

Total23191,2651,7581,8122,1881,9802,0212,4792,2302,2322,1172,5472,2062,2462,4212,1232,2002,0552,0552,0431,9812,0292,0312,0211,9891,98752,008

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			0	39	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	39	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)			0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)			0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)			0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
59	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Westbound (G)			0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
60	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Eastbound (A)			0	3																							

[illegible]

201	Dawson Highway 46C	46C/85B Intersection to Prospect Creek Culvert	Westbound (G)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
202	Dawson Highway 46C	Prospect Creek Culvert to 46C/85B Intersection	Eastbound (A)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
203	Dawson Highway 46C	Prospect Creek Culvert to Duaringa/Bauhinia Inters	Westbound (G)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
204	Dawson Highway 46C	Duaringa/Bauhinia Intersection to Prospect Creek C	Eastbound (A)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
205	Dawson Highway 46C	Duaringa/Bauhinia Intersection to KM 137.5	Westbound (G)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
206	Dawson Highway 46C	KM 137.5 to Duaringa/Bauhinia Intersection	Eastbound (A)			0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
207	Dawson Highway 46C	KM 137.5 to Rolleston	Westbound (G)			0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
208	Dawson Highway 46C	Rolleston to KM 137.5	Eastbound (A)			0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209	Leichhardt Highway 26A	District Boundary to 26A/85A intersection	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210	Leichhardt Highway 26A	26A/84A intersection to District Boundary	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
211	Leichhardt Highway 26A	26A/85A intersection to Taroom	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
212	Leichhardt Highway 26A	Taroom to 26A/84A intersection	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
213	Leichhardt Highway 26B	Taroom to KM35.00	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
214	Leichhardt Highway 26B	KM35.00 to Taroom	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
215	Leichhardt Highway 26B	KM35.00 to Jackson-Wandoan Road	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
216	Leichhardt Highway 26B	Jackson-Wandoan Road to KM35.00	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
217	Leichhardt Highway 26B	Jackson-Wandoan Road to Miles	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
218	Leichhardt Highway 26B	Miles to Jackson-Wandoan Road	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
219	Warrego Highway	Miles to 18D/Dulacca North Intersectio	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Interse	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Interse	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
225	Warrego Highway	KM135.5 to Roma	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
226	Warrego Highway	Roma to KM135.5	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228	Jackson-Wandoan Road	Grid to18D/Dulacca North Intersection	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234	Bruce Highway (10D)	Benaraby CH. 147.1 o CH. 112	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Assumed 50% Class 3 loaded

Total Class 9 Vehicle Trips - 100% Loaded

ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0																					
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0																					
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0																					
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0																					
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0																					
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0																					
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0																					
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0																					
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0																					
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0																					
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0																					
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0																					
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			57	59	0	0																					
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	52	78	0																					
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			57	59	0	0																					
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	52	78	0																					
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			57	58	0	0																					
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	39	78	0																					
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			57	58	0	0																					
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	39	78	0																					
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			57	58	0	0																					
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	39	78	0																					
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			57	58	0	0																					
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	39	78	0																					
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			57	58	0	0																					
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	39	78	0																					
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			48	48	0	0																					
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	39	78	0																					
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			48	48	0	0																					
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	26	65	0																					
31	Dawson Highway 46A	Agoon Road to Callide Dam Road	Westbound (G)			48	48	0	0																					
32	Dawson Highway 46A	Agoon Road to Callide Dam Road	Eastbound (A)			0	26	65	0																					
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			48	48	0	0																					
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	26	65	0																					
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			48	48	0	0																					
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	26	65	0																					
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			38	39	0	0																					
38	Dawson Highway 46B	Crewsdale Camboon Road to Biloela	Eastbound (A)			0	26	65	0																					
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			38	39	0	0																					
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	26	65	0																					
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			38	39	0	0																					
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	26	65	0																					
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)			38	39	0	0																					
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	26	65	0																					
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			38	39	0	0																					
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	13	52	0																					
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			38	39	0	0																					
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	13	52	0																					
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			29	30	0	0																					
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	13	52	0																					
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			29	30	0	0																					

[illegible]

Aussmed 100% Class 9 loaded

Total Class 9 Vehicle Trips - 0% Loaded

[illegible]

[illegible]

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)		0	120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)		0	120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)		0	120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)		0	120	226	210	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)		0	120	226	210	49	47	109	100	33	47	109	100	33	0	0	0	0	0	0	0	0	0	0	0	0	
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)		0	0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)		0	0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)		0	0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)		0	0	37	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)		0	0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)		0	0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)		0	0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)		0	0	31	43	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)		0	0	59	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)		0	0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)		0	0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)		0	0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)		0	0	48	59	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
38	Dawson Highway 46B	Crowsdale Camboon Road to Biloela	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)		0	0	20	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)		0	0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)		0	0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)		0	0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)		0	0	11	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)		0	0	39	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)		0	0	39	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)		0	0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)		0	0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)		0	0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)		0	0	7	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)		0	120	295	323	93	103	103	103	103	138	138	138	138	173	173	173	173	173	173	173	173	173	173	173	173	
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)		0	120	295	323	93	103	103	103	103	138	138	138	138	173	173	173	173	173	173	173	173	173	173	173	173	
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)		0	0	69	113	44	103	103	103	103	138	138	138	138	173	173	173	173	173	173	173	173	173	173	173	173	
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)		0	0	69																							

[illegible]

[illegible]

Aussmed 50% Class 3 loaded

Total Class 9 Vehicle Trips - 100% Loaded[illegible]

G:\CE005780\5780 Calculations\Base Case\M I A\5780 MIA Volumes_Revised_Base.xlsTotal Development Volume

[illegible]

Aussmed 100% Class 9 loaded

Total Class 9 Vehicle Trips - 0% Loaded

[illegible]

G:\CE005780\5780 Calculations\Base Case\M I A\5780 MIA Volumes_Revised_Base.xlsTotal Development Volume

Based on 0% Class 9 loaded

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G:\CE005780\5780 Calculations\Base Case\M I A\5780 MIA Volumes_Revised_Base.xlsTotal Development Volume

107	Camaron Highway 24E	CH. 69 to CH. 111	Northbound (G)		0	3	3	25	8	7	8	8	9	9	10	10	10	11	12	11	11	11	11	11	11	11	11	11	11
108	Camaron Highway 24E	CH. 111 to CH. 69	Southbound (A)		0	3	3	25	8	7	8	8	9	9	10	10	10	11	12	11	11	11	11	11	11	11	11	11	11
109	Camaron Highway 24E	CH. 111 to CH.172 (Rolleston)	Northbound (G)		0	3	3	25	8	7	8	8	9	9	10	10	10	11	12	11	11	11	11	11	11	11	11	11	
110	Camaron Highway 24E	CH. 172 (Rolleston) to CH.111	Southbound (A)		0	3	3	25	8	7	8	8	9	9	10	10	10	11	12	11	11	11	11	11	11	11	11	11	
111	Leichhardt Highway 26A	CH. 00 Capicorn Highway to Burnett Highway	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
112	Leichhardt Highway 26A	Burnett Highway to Capicorn Highway	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
113	Leichhardt Highway 26A	Burnett Highway to CH. 51.1	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
114	Leichhardt Highway 26A	CH. 51.1 to Burnett Highway	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
115	Leichhardt Highway 26A	CH. 51.1 to CH. 62.6	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
116	Leichhardt Highway 26A	CH. 62.6 to CH. 51.1	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
117	Leichhardt Highway 26A	CH. 62.6 to CH. 86.0 Fairview Road	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
118	Leichhardt Highway 26A	CH. 86.0 Fairview Road to CH. 62.6	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
119	Leichhardt Highway 26A	CH. 86.0 Fairview Road to CH. 88.0	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
120	Leichhardt Highway 26A	CH. 88.0 to CH.86.0	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
121	Leichhardt Highway 26A	CH. 88.0 to CH. 99.0 (Camp 3)	Southbound (G)		0	0	23	22	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
122	Leichhardt Highway 26A	CH. 99.0 (Camp 3) to CH. 88.0	Northbound (A)		0	0	23	22	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
123	Leichhardt Highway 26A	CH. 99.0 to Banana CH. 105.2	Southbound (G)		0	0	43	42	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
124	Leichhardt Highway 26A	Banana CH. 105.2 to CH. 99.0	Northbound (A)		0	0	43	42	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
125	Leichhardt Highway 26A	Banana CH. 105.2 to CH. 117.0	Southbound (G)		0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
126	Leichhardt Highway 26A	CH. 117.0 to Banana CH. 105.2	Northbound (A)		0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
127	Leichhardt Highway 26A	CH. 117.0 to CH. 124.0	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
128	Leichhardt Highway 26A	CH. 124.0 to CH. 117.0	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
129	Leichhardt Highway 26A	Theodore CH. 162.3 to CH.124.0	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
130	Leichhardt Highway 26A	CH.124.0 to Theodore CH. 162.4	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
131	Leichhardt Highway 26A	Theodore CH. 162.3 to CH. 124.0	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
132	Leichhardt Highway 26A	Theodore CH. 162.3 to Glenmoral Roundstone Rd	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
133	Leichhardt Highway 26A	Glenmoral Roundstone Road to Isla Delusion Rd	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
134	Leichhardt Highway 26A	Isla Delusion Road to Glenmoral Roundstone Rd	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
135	Dawson Highway 46B	Isla Delusion Road to District Boundary	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
136	Dawson Highway 46B	District Boundary to Isla Delusion Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
137	Bruce Highway 10E	Gladstone-Beraraby Road to Dawson Highway	Westbound (G)		0	2	6	6	4	2	4	4	3	2	4	4	2	1	1	1	1	1	1	1	1	1	1	1	
138	Bruce Highway 10E	Gladstone-Beraraby Road to Dawson Highway	Eastbound (A)		0	2	6	6	4	2	4	4	3	2	4	4	2	1	1	1	1	1	1	1	1	1	1	1	
139	Bruce Highway	Dawson Highway to Calliope River Road	Westbound (G)		0	0	21	0	20	2	4	4	3	2	4	4	2	1	1	1	1	1	1	1	1	1	1	1	
140	Bruce Highway	Dawson Highway to Calliope River Road	Eastbound (A)		0	0	20	0	20	2	4	4	3	2	4	4	2	1	1	1	1	1	1	1	1	1	1	1	
141	Bruce Highway	Calliope River Road to Gladstone Mt-Larcom Road	Westbound (G)		0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
142	Bruce Highway	Calliope River Road to Gladstone Mt-Larcom Road	Eastbound (A)		0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
143	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Road	Westbound (G)		0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
144	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Road	Eastbound (A)		0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
145	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
146	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
147	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
148	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
149	Bruce Highway	Burnett Highway to Capricorn Highway	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
150	Bruce Highway	Burnett Highway to Capricorn Highway	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
151	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
152	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
153	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
154	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
155	Gladstone - Benaraby Road	CH.0.0 Dawson Highway CH. 0.00 to Sun Valley Road	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
156	Gladstone - Benaraby Road	Sun Valley Road CH. 0.645 to Dawson Highway	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
157	Gladstone - Benaraby Road	CH. 0.645 to Glenlyon Road CH. 2.159	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
158	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to CH. 0.645	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
159	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to French Street CH. 3.40	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
160	Gladstone - Benaraby Road	French Street CH. 3.40 to Glenlyon Road CH. 2.159	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
161	Gladstone - Benaraby Road	French Street CH. 3.40 to Glen Eden Drive CH. 5.70	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
162	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to French Street CH. 3.40	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
163	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to South Trees Drive CH. 7.30	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
164	Gladstone - Benaraby Road	South Trees Drive CH. 5.70 to Glen Eden Drive CH. 3.40	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
165	Gladstone - Benaraby Road	South Trees Drive CH. 7.30 to Boyne Island Road	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
166	Gladstone - Benaraby Road	Boyne Island Drive CH. 16.039 to South Trees Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
167	Gladstone - Benaraby Road	Boyne Island Road CH. 16.039 to Bruce Highway	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
168	Gladstone - Benaraby Road	Bruce Highway CH. 19.21 to Boyne Island Road	Northbound (A)		0	0	0	0	0																				

[illegible]

Background

Link	Section	2,008	2,009	2,010	2,011	2,012	2,013	2,014	2,015	2,016	2,017	2,018	2,019	2,020	2,021	2,022	2,023	2,024	2,025	2,026	2,027	2,028	2,029	2,030	2,031	2,032	2,033	2,034	
Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	11,489	12,396	13,303	14,210	15,117	16,024	16,931	17,838	18,745	19,652	20,559	21,466	22,373	23,280	24,187	25,094	26,001	26,908	27,815	28,722	29,629	30,536	31,443	32,350	33,257	34,164	35,071	
	Breslin Street to Blain Drive	12,674	13,674	14,675	15,675	16,676	17,677	18,677	19,678	20,678	21,679	22,679	23,680	24,680	25,681	26,682	27,682	28,683	29,683	30,684	31,684	32,685	33,686	34,686	35,687	36,687	37,688	38,688	
	Blain Drive to Philip Street	16,449	17,747	19,046	20,344	21,643	22,942	24,240	25,539	26,837	28,136	29,434	30,733	32,032	33,330	34,629	35,927	37,226	38,525	39,823	41,122	42,420	43,719	45,017	46,316	47,615	48,913	50,212	
	Philip Street to Penda Avenue	22,772	24,570	26,367	28,165	29,963	31,761	33,559	35,356	37,154	38,952	40,750	42,547	44,345	46,143	47,941	49,739	51,536	53,334	55,132	56,930	58,727	60,525	62,323	64,121	65,919	67,716	69,514	
	Penda Avenue to Chapman Drive	18,162	19,596	21,029	22,463	23,897	25,331	26,765	28,198	29,632	31,066	32,500	33,934	35,368	36,801	38,235	39,669	41,103	42,537	43,970	45,404	46,838	48,272	49,706	51,140	52,573	54,007	55,441	
	Chapman Drive to Don Young Drive	11,296	12,188	13,079	13,971	14,863	15,755	16,647	17,538	18,430	19,322	20,214	21,105	21,997	22,889	23,781	24,673	25,564	26,456	27,348	28,240	29,131	30,023	30,915	31,807	32,699	33,590	34,482	
	Don Young Drive to Harvey Road	5,954	6,424	6,894	7,364	7,834	8,304	8,774	9,244	9,714	10,184	10,654	11,124	11,594	12,064	12,534	13,004	13,474	13,945	14,415	14,885	15,355	15,825	16,295	16,765	17,235	17,705	18,175	
	Harvey Road to Bruce Highway	4,962	5,354	5,746	6,137	6,529	6,921	7,312	7,704	8,096	8,488	8,879	9,271	9,663	10,055	10,446	10,838	11,230	11,622	12,013	12,405	12,797	13,189	13,580	13,972	14,364	14,756	15,147	
	Bruce Highway to Drynan Drive	4,707	4,989	5,272	5,554	5,837	6,119	6,402	6,684	6,966	7,249	7,531	7,814	8,096	8,378	8,661	8,943	9,226	9,508	9,791	10,073	10,355	10,638	10,920	11,203	11,485	11,768	12,050	
	Drynan Drive to Gladstone-Monto Road	1,654	1,753	1,852	1,952	2,051	2,150	2,249	2,349	2,448	2,547	2,646	2,746	2,845	2,944	3,043	3,143	3,242	3,341	3,440	3,540	3,639	3,738	3,837	3,937	4,036	4,135	4,234	
	Gladstone-Monto Road to Access to Pipeline Camp 4	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378	
	Access to Pipeline Camp 4 to New point 1	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378	
	New to CSC/BSC Border	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378	
	CSC/BSC Border to New point 2	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378	
	New point 2 to Argoon Road	929	985	1,040	1,096	1,152	1,208	1,263	1,319	1,375	1,431	1,486	1,542	1,598	1,654	1,709	1,765	1,821	1,877	1,932	1,988	2,044	2,100	2,155	2,211	2,267	2,323	2,378	
	Argoon Road to Calilde Dam Road	866	918	970	1,022	1,074	1,126	1,178	1,230	1,282	1,334	1,386	1,438	1,490	1,541	1,593	1,645	1,697	1,749	1,801	1,853	1,905	1,957	2,009	2,061	2,113	2,165	2,217	
	Calilde Dam Road to Tognalini - Baldwin Road	1,285	1,362	1,439	1,516	1,593	1,671	1,748	1,825	1,902	1,979	2,056	2,133	2,210	2,287	2,364	2,442	2,519	2,596	2,673	2,750	2,827	2,904	2,981	3,058	3,135	3,213	3,290	
	Tognalini - Baldwin Road to Biela	7,247	7,682	8,117	8,551	8,986	9,421	9,856	10,291	10,726	11,160	11,595	12,030	12,465	12,900	13,334	13,769	14,204	14,639	15,074	15,509	15,943	16,378	16,813	17,248	17,683	18,118	18,552	
	Dawson Highway 46B	Biela to Crowdsdale Camboon Road	1,756	1,861	1,967	2,072	2,177	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
		Crowdsdale Camboon Road to Point 1	1,756	1,861	1,967	2,072	2,177	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
		Point 1 to Greycliff Road	1,756	1,861	1,967	2,072	2,177	2,283	2,388	2,494	2,599	2,704	2,810	2,915	3,020	3,126	3,231	3,336	3,442	3,547	3,652	3,758	3,863	3,969	4,074	4,179	4,285	4,390	4,495
		Greycliff Road to Banana	1,238	1,312	1,387	1,461	1,535	1,609	1,684	1,758	1,832	1,907	1,981	2,055	2,129	2,204	2,278	2,352	2,426	2,501	2,575	2,649	2,724	2,798	2,872	2,946	3,021	3,095	3,169
Banana to Moura Mine		1,306	1,384	1,463	1,541	1,619	1,698	1,776	1,855	1,933	2,011	2,090	2,168	2,246	2,325	2,403	2,481	2,560	2,638	2,716	2,795	2,873	2,952	3,030	3,108	3,187	3,265	3,343	
Dawson Highway 46C	Moura Mine to Moura Township	1,660	1,760	1,859	1,959	2,058	2,158	2,258	2,357	2,457	2,556	2,656	2,756	2,855	2,955	3,054	3,154	3,254	3,353	3,453	3,552	3,652	3,752	3,851	3,951	4,050	4,150	4,250	
	Moura Township to CH. 30	374	396	419	441	464	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957	
	CH. 30 to CH. 41	374	396	419	441	464	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957	
	CH. 41 to District Boundary	374	396	419	441	464	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957	
		374	396	419	441	464	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957	
Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	12,166	13,127	14,087	15,048	16,008	16,968	17,929	18,889	19,850	20,810	21,771	22,731	23,692	24,652	25,613	26,573	27,534	28,494	29,455	30,415	31,376	32,336	33,297	34,257	35,218	36,178		

TOTAL																													
Link	Section	2,008	2,009	2,010	2,011	2,012	2,013	2,014	2,015	2,016	2,017	2,018	2,019	2,020	2,021	2,022	2,023	2,024	2,025	2,026	2,027	2,028	2,029	2,030	2,031	2,032	2,033	2,034	
Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	11,489	12,396	14,101	15,008	15,915	16,822	16,931	17,838	18,745	19,652	20,559	21,466	22,373	23,280	24,187	25,094	26,001	26,908	27,815	28,722	29,629	30,536	31,443	32,350	33,257	34,164	35,071	
	Breslin Street to Blain Drive	12,674	13,674	15,473	16,473	17,474	18,474	18,677	19,678	20,678	21,679	22,679	23,680	24,680	25,681	26,682	27,682	28,683	29,683	30,684	31,684	32,685	33,686	34,686	35,687	36,687	37,688	38,688	
	Blain Drive to Philip Street	16,449	17,747	20,469	21,767	23,066	24,365	24,547	25,846	27,145	28,443	29,742	31,040	32,341	33,640	34,938	36,277	37,575	38,874	40,172	41,471	42,770	44,068	45,367	46,665	47,964	49,263	50,561	
	Philip Street to Penda Avenue	22,772	24,570	27,749	29,547	31,344	33,142	33,691	35,489	37,286	39,084	40,882	42,680	44,415	46,213	48,011	49,808	51,606	53,404	55,202	57,000	58,797	60,595	62,393	64,191	65,988	67,786	69,584	
	Penda Avenue to Chapman Drive	18,162	19,596	22,326	23,760	25,194	26,628	26,853	28,287	29,721	31,155	32,588	34,022	35,368	36,801	38,235	39,669	41,103	42,537	43,970	45,404	46,838	48,272	49,706	51,140	52,573	54,007	55,441	
	Chapman Drive to Don Young Drive	11,296	12,188	13,260	14,151	15,043	15,935	16,647	17,538	18,430	19,322	20,214	21,105	21,997	22,889	23,781	24,673	25,564	26,456	27,348	28,240	29,131	30,023	30,915	31,807	32,699	33,590	34,482	
	Don Young Drive to Harvey Road	5,954	6,424	6,971	7,441	7,911	8,382	8,774	9,244	9,714	10,184	10,654	11,124	11,594	12,064	12,534	13,004	13,474	13,945	14,415	14,885	15,355	15,825	16,295	16,765	17,235	17,705	18,175	
	Harvey Road to Bruce Highway	4,962	5,354	5,823	6,215	6,606	6,998	7,312	7,704	8,096	8,488	8,879	9,271	9,663	10,055	10,446	10,838	11,230	11,622	12,013	12,405	12,797	13,189	13,580	13,972	14,364	14,756	15,147	
	Bruce Highway to Drynan Drive	4,707	4,989	5,387	5,809	6,078	6,123	6,405	6,687	6,970	7,252	7,535	7,817	8,100	8,382	8,664	8,947	9,229	9,512	9,794	10,077	10,359	10,641	10,924	11,206	11,489	11,771	12,053	
	Drynan Drive to Gladstone-Monto Road	1,654	1,753	1,967	2,207	2,292	2,154	2,253	2,352	2,451	2,551	2,650	2,749	2,848	2,948	3,047	3,146	3,245	3,345	3,444	3,543	3,642	3,742	3,841	3,940	4,039	4,139	4,238	
	Gladstone-Monto Road to Access to Pipeline Camp 4	929	985	1,155	1,407	1,448	1,211	1,267	1,323	1,378	1,434	1,490	1,546	1,601	1,657	1,713	1,769	1,824	1,880	1,936	1,992	2,047	2,103	2,159	2,215	2,270	2,326	2,382	
	Access to Pipeline Camp 4 to New point 1	929	985	1,155	1,407	1,448	1,211	1,267	1,323	1,378	1,434	1,490	1,546	1,601	1,657	1,713	1,769	1,824	1,880	1,936	1,992	2,047	2,103	2,159	2,215	2,270	2,326	2,382	
	New to CSC/BSC Border	929	985	1,155	1,407	1,448	1,211	1,267	1,323	1,378	1,434	1,490	1,546	1,601	1,657	1,713	1,769	1,824	1,880	1,936	1,992	2,047	2,103	2,159	2,215	2,270	2,326	2,382	
	CSC/BSC Border to New point 2	929	985	1,136	1,388	1,448	1,211	1,267	1,323	1,378	1,434	1,490	1,546	1,601	1,657	1,713	1,769	1,824	1,880	1,936	1,992	2,047	2,103	2,159	2,215	2,270	2,326	2,382	
	New point 2 to Argoon Road	929	985	1,136	1,340	1,401	1,211	1,267	1,323	1,378	1,434	1,490	1,546	1,601	1,657	1,713	1,769	1,824	1,880	1,936	1,992	2,047	2,103	2,159	2,215	2,270	2,326	2,382	
	Argoon Road to Calide Dam Road	866	918	1,066	1,265	1,323	1,129	1,181	1,233	1,285	1,337	1,389	1,441	1,493	1,545	1,597	1,649	1,701	1,753	1,805	1,857	1,909	1,961	2,013	2,065	2,117	2,169	2,221	
	Calide Dam Road to Tognalini - Baldwin Road	1,285	1,362	1,535	1,704	1,787	1,674	1,751	1,828	1,905	1,982	2,060	2,137	2,214	2,291	2,368	2,445	2,522	2,599	2,676	2,753	2,831	2,908	2,985	3,062	3,139	3,216	3,293	
	Tognalini - Baldwin Road to Bilela	7,247	7,682	8,212	8,739	9,180	9,425	9,859	10,294	10,729	11,164	11,599	12,034	12,468	12,903	13,338	13,773	14,208	14,642	15,077	15,512	15,947	16,382	16,817	17,251	17,686	18,121	18,556	
	Dawson Highway 46B	Bilela to Crossdale Camboon Road	1,756	1,861	2,043	2,241	2,371	2,286	2,392	2,497	2,602	2,708	2,813	2,919	3,024	3,129	3,235	3,340	3,445	3,551	3,656	3,761	3,867	3,972	4,077	4,183	4,288	4,394	4,499
		Crossdale Camboon Road to Point 1	1,756	1,861	2,043	2,241	2,371	2,286	2,392	2,497	2,602	2,708	2,813	2,919	3,024	3,129	3,235	3,340	3,445	3,551	3,656	3,761	3,867	3,972	4,077	4,183	4,288	4,394	4,499
Point 1 to Greycliffe Road		1,756	1,861	2,043	2,241	2,371	2,286	2,392	2,497	2,602	2,708	2,813	2,919	3,024	3,129	3,235	3,340	3,445	3,551	3,656	3,761	3,867	3,972	4,077	4,183	4,288	4,394	4,499	
Greycliffe Road to Banana		1,238	1,312	1,463	1,630	1,729	1,613	1,687	1,762	1,836	1,910	1,984	2,059	2,133	2,207	2,281	2,356	2,430	2,504	2,579	2,653	2,727	2,801	2,876	2,950	3,024	3,099	3,173	
Banana to Moura Mine		1,306	1,384	1,539	1,666	1,769	1,698	1,776	1,855	1,933	2,011	2,090	2,168	2,246	2,325	2,403	2,481	2,560	2,638	2,716	2,795	2,873	2,952	3,030	3,108	3,187	3,265	3,343	
Dawson Highway 46C	Moura Mine to Moura Township	1,660	1,760	1,936	2,084	2,208	2,158	2,258	2,357	2,457	2,556	2,656	2,756	2,855	2,955	3,054	3,154	3,254	3,353	3,453	3,552	3,652	3,752	3,851	3,951	4,050	4,150	4,250	
	Moura Township to CH. 30	374	396	476	603	669	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957	
	CH. 30 to CH. 41	374	396	476	539	606	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957	
	CH. 41 to District Boundary	374	396	476	539	606	486	509	531	554	576	598	621	643	666	688	711	733	755	778	800	823	845	868	890	913	935	957	
	Dawson Highway to Hilderbrand Street	12,166	13,127	14,924	15,884	16,845	17,805	18,024	18,984	19,945	20,905	21,866	22,826	23,787	24,748	25,709	26,670	27,631	28,592	29,553	30,514	31,475	32,436	33,397	34,358	35,319	36,280	37,241	
Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	7,385	7,968	8,635	9,218	9,801	10,384	10,978	11,561	12,144	12,727	13,310	13,893	14,476	15,059	15,642	16,225	16,808	17,391	17,974	18,557	19,140	19,723	20,306	20,889	21,472	22,055	22,638	
	Blain Drive to Red Rover Road	9,990	10,779	12,354	13,143	13,931	14,720	15,254	16,043	16,831	17,620	18,409																	

Appendix I

Pavement Impact Assessment Summary

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)			2,340	3,646	4,056	2,572	189	189	189	258	258	258	258	310	310	310	310	310	310	310	310	310	310	310	310	310	
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)			2,340	3,646	4,056	2,572	189	189	189	258	258	258	258	310	310	310	310	310	310	310	310	310	310	310	310	310	
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)			0	396	936	414	189	189	189	258	258	258	258	310	310	310	310	310	310	310	310	310	310	310	310	310	
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)																											

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Total Plant+Bridge+Bund Vol

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Total Plant+Bridge+Bund Vol

Aussmed 100% Class 9 loaded

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Total Plant+Bridge+Bund Vol

Total Class 3 Vehicle Trips - 50% Loaded																																	
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034			
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)			0	0	0	0	0	0	0	0																				

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Total Field Volume

Aussmed 50% Class 3 loaded

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Total Field Volume

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Total Field Volume

Aussmed 100% Class 9 loaded

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Total Field Volume

220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Inters	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Inters	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
225	Warrego Highway	KM135.5 to Roma	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
226	Warrego Highway	Roma to KM135.5	Eastbound (A)	0	1,988	3,551	5,385	3,551	2,239	1,641	1,795	4,246	2,528	2,432	1,641	3,937	1,814	1,969	2,432	1,235	2,200	618	618	540	0	309	309	77	0	0
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
228	Jackson-Wandoan Road	Grid to18D/Dulacca North Intersection	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
234	Bruce Highway (10D)	Benaraby CH. 147.1 o CH. 112	Southbound (G)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Based on 0% Class 9 loaded

Total029,515162,750231,448251,100327,101308,430313,136356,881336,015340,926332,166373,386346,005353,190369,680347,448354,140339,367339,368339,002334,308337,773338,069336,120334,570334,5228,136,900

Total Class 3 Vehicle Trips - 50% Loaded																														
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0																					
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0																					
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0																					
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0																					
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0																					
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0																					
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0																					
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0																					
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0																					
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0																					
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0																					
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0																					
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			0	3,483	4,302	0																					
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	3,483	4,302	0																					
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			0	3,483	4,302	0																					
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	3,483	4,302	0																					
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			0	3,091	4,302	0																					
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	3,091	4,302	0																					
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			0	3,091	4,302	0																					
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	3,091	4,302	0																					
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			0	5,566	4,714	0																					
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	5,566	4,714	0																					
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			0	5,566	4,714	0																					
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	5,566	4,714	0																					
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			0	5,566	4,714	0																					
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	5,566	4,714	0																					
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			0	5,566	4,714	0																					
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	5,566	4,714	0																					
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			0	4,220	4,490	0																					
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	4,220	4,490	0																					
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			0	4,220	4,490	0																					
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	4,220	4,490	0																					
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			0	1,745	4,077	0																					
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	1,745	4,077	0																					
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			0	1,745	4,077	0																					
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	1,745	4,077	0																					
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			0	1,745	4,077	0																					
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)			0	1,745	4,077	0																					
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			0	1,745	4,077	0																					
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	1,745	4,077	0																					
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			0	1,745	4,077	0																					
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	1,745	4,077	0																					
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)			0	1,745	4,077	0																					
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	1,745	4,077	0																					
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			0	897	3,865	0																					
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	897	3,865	0																					
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			0	897	3,865	0																					
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	897	3,865	0																					
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			0	2,547	6,340	0																					
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	2,547	6,340	0																					
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			0	177	2,785	0																					
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)			0	177	2,785	0																					
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)			0	177	2,785	0																					
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)			0	177	2,785	0																					
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)			0	3,483	4,302	0																					
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)			0	3,483	4,302	0																					
57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)			0	3,483	4,302	0																					
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)			0	3,483	4,302	0																					
59	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Westbound (G)			0	3,483	4,302	0																					
60	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Eastbound (A)			0	3,483	4,302	0																					
61	Gladstone-Mt Larcom Rd	Red Rover Road to Power Station	Westbound (G)			0	0	0	0																					
62	Gladstone-Mt Larcom Rd	Red Rover Road to Power Station	Eastbound (A)			0	0	0	0																					
63	Gladstone-Mt Larcom Rd	Power Station to Reid Road	Westbound (G)			0	0	0	0																					
64	Gladstone-Mt Larcom Rd	Power Station to Reid Road	Eastbound (A)			0	0	0	0																					
65	Gladstone-Mt Larcom Rd	Reid Road to Landing Road	Westbound (G)			0	0	0	0																					
66	Gladstone-Mt Larcom Rd	Reid Road to Landing Road	Eastbound (A)			0	0	0	0																					
67	Gladstone-Mt Larcom Rd	Landing Road to Targinnie Road	Westbound (G)			0	0	0	0																					
68	Gladstone-Mt Larcom Rd	Landing Road to Targinnie Road	Eastbound (A)			0	0	0	0																					
69	Gladstone-Mt Larcom Rd	Targinnie Road to Quarry Road	Westbound (G)			0	0	0	0																					
70	Gladstone-Mt Larcom Rd	Targinnie Road to Quarry Road	Eastbound (A)			0	0	0	0																					
71	Gladstone-Mt Larcom Rd	Quarry Road to Bruce Highway	Westbound (G)			0	0	0	0																					
72	Gladstone-Mt Larcom Rd	Quarry Road to Bruce Highway	Eastbound (A)			0	0	0	0																					
95	Camarvon Highway 24D	CH. 0.00 (Roma) to CH. 3	Northbound (G)			0	0	502	0																					
96	Camarvon Highway 24D																													

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Total Pipeline Volume

ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)			0	0	0	0																					
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)			0	0	0	0																					
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)			0	0	0	0																					
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)			0	0	0	0																					
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)			0	0	0	0																					
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)			0	0	0	0																					
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)			0	0	0	0																					
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)			0	0	0	0																					
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)			0	0	0	0																					
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)			0	0	0	0																					
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)			0	0	0	0																					
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)			0	0	0	0																					
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)			5,255	5,555	0	0																					
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)			0	0	0	0																					
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)			5,255	5,555	0	0																					
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)			0	0	0	0																					
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)			5,255	5,555	0	0																					
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)			0	0	0	0																					
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)			5,255	5,555	0	0																					
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)			0	0	0	0																					
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)			5,255	5,555	0	0																					
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)			0	0	0	0																					
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)			5,255	5,555	0	0																					
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)			0	0	0	0																					
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)			5,255	5,555	0	0																					
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)			0	0	0	0																					
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)			4,379	4,679	0	0																					
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)			0	0	0	0																					
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)			4,379	4,579	0	0																					
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)			0	0	0	0																					
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)			4,379	4,579	0	0																					
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)			0	0	0	0																					
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)			4,379	4,579	0	0																					
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)			0	0	0	0																					
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)			4,379	4,579	0	0																					
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)			0	0	0	0																					
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)			3,503	3,703	0	0																					
38	Dawson Highway 46B	Crowsdale Camboon Road to Biloela	Eastbound (A)			0	0	0	0																					
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)			3,503	3,703	0	0																					
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)			0	0	0	0																					
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)			3,503	3,703	0	0																					
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)			0	0	0	0																					
43	Dawson Highway 46B	Grecliffe Road to Banana	Westbound (G)			3,503	3,703	0	0																					
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)			0	0	0	0																					
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)			3,503	3,803	0	0																					
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)			0	0	0	0																					
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)			3,503	3,803	0	0																					
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)			0	0	0	0																					
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)			2,627	2,927	0	0																					
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)			0	0	0	0																					
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)			2,627	2,927	0	0																					

Aussmed 100% Class 9 loaded

Total Class 9 Vehicle Trips - 0% Loaded

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Total Pipeline Volume

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Total Pipeline Volume

Total Class 3 Vehicle Trips - 50% Loaded																															
ID	Link	Section	Direction	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)		0	2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)		0	2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)		0	2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)		0	2,340	3,250	3,120	2,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)		0	2,340	3,250	3,120	2,158	2,145	2,678	2,600	2,028	2,145	2,678	2,600	2,028	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)		0	0	3,483	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)		0	0	3,483	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)		0	0	3,483	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)		0	0	3,483	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)		0	0	3,091	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)		0	0	3,091	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)		0	0	3,091	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)		0	0	3,091	4,302	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21	Dawson Highway 46A	Gladstone-Monto Road to Pipeline Camp 4	Westbound (G)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	Dawson Highway 46A	Pipeline camp 4 to Gladstone-Monto Road	Eastbound (A)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	Dawson Highway 46A	Pipeline Camp 4 to New point 1	Westbound (G)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	Dawson Highway 46A	Pipeline Camp 4 Road to New point 1	Eastbound (A)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)		0	0	5,566	4,714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)		0	0	4,220	4,490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)		0	0	4,220	4,490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)		0	0	4,220	4,490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)		0	0	4,220	4,490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	Dawson Highway 46A	Tognalini - Baldwin Road to Bileela	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
36	Dawson Highway 46A	Tognalini - Baldwin Road to Bileela	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37	Dawson Highway 46B	Bileela to Crowsdale Camboon Road	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
38	Dawson Highway 46B	Crowsdale Camboon Road to Broela	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)		0	0	1,745	4,077	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)		0	0	897	3,865	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)		0	0	897	3,865	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)		0	0	897	3,865	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)		0	0	897	3,865	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49	Dawson Highway 46C	Moura Township to CH_30	Westbound (G)		0	0	2,547	6,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	Dawson Highway 46C	CH_30 to Moura Township	Eastbound (A)		0	0	2,547	6,340	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	Dawson Highway 46C	CH_30 to CH_41	Westbound (G)		0	0	177	2,785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	Dawson Highway 46C	CH_41 to CH_30	Eastbound (A)		0	0	177	2,785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	Dawson Highway 46C	CH_41 to District Boundary	Westbound (G)		0	0	177	2,785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	Dawson Highway 46C	Boundary to CH_41	Eastbound (A)		0	0	177	2,785	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	Gladstone-Mt Larcom Rd	Dawson Highway																													

G:\CE005780\5780 Calculations\Base Case\P I A\5780 PIA Volumes_Revised_Base
Total Development Volume

G:\CE005780\5780 Calculations\Base Case\PIA\5780 PIA Volumes_Revised_Base
Total Development Volume

Aussmed 100% Class 9 loaded

G:\CE005780\5780 Calculations\Base Case\P I A\5780 PIA Volumes_Revised_Base
Total Development Volume

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Total Development Volume

Based on 0% Class 9 loaded

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Total Development Volume

ESA Load by Vehicle Class

Unloaded ESA's calculated from first principles

Loaded ESA's as defined in the Department of Main Roads Road Planning and Design Manual, Chapter 5, Table 5.16(a)

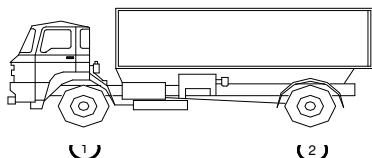
Loaded ESA NOT based on Gross Combination Mass allowed under the Mass Limits Review concession for vehicles fitted with Road Friendly Suspension

Variables

Unloaded Axle Loads	
4.5	single axle single wheels
4.5	single axle dual wheels
5	tandem axle dual wheels
6.5	tri-axle dual wheels
Loaded Axle Loads	
6	single axle single wheels
9	single axle dual wheels
16.5	tandem axle dual wheels
20	tri-axle dual wheels
Equivalent Axle Loads	
5.4	single axle single wheels
8.2	single axle dual wheels
13.8	tandem axle dual wheels
18.5	tri-axle dual wheels

Two Axle Truck (class 3)

(General Access Vehicles, Rigid Trucks)

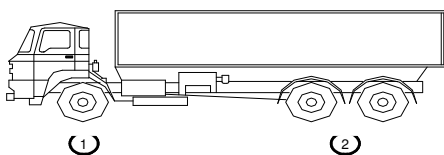


Scenario	Component	Single Axle Single Wheels 1	Single Axle Single Wheels 2	TOTAL
Unloaded	Axle Load (t)	4.5	4.5	9
	Equiv Load (t)	5.4	5.4	
	ESA	0.482	0.482	0.965
Loaded	ESA	-	-	3.000

AVG. ESA
1.98

Three Axle Truck (class 4)

(Three Axle Truck)

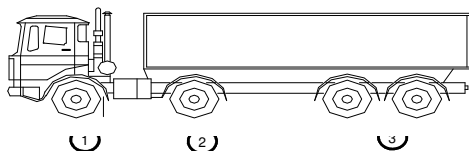


Scenario	Component	Single Axle Single Wheels 1	Tandem Axle Dual Wheels 2	TOTAL
Unloaded	Axle Load (t)	4.5	5	9.5
	Equiv Load (t)	5.4	13.8	
	ESA	0.482	0.017	0.499
Loaded	ESA	-	-	3.700

AVG. ESA
2.10

Four Axle Truck (class 5)

(Four Axle Truck)

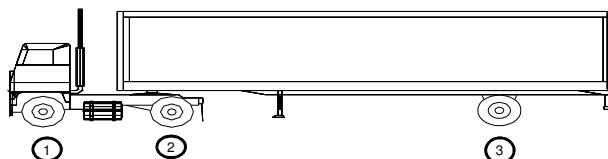


Scenario	Component	Single Axle Single Wheels 1	Single Axle Single Wheels 2	Tandem Axle Dual Wheels 3	TOTAL
Unloaded	Axle Load (t)	4.5	4.5	5	14
	Equiv Load (t)	5.4	5.4	13.8	
	ESA	0.482	0.482	0.017	0.982
Loaded	ESA	-	-	-	4.400

AVG. ESA
2.69

ESA Load by Vehicle Class

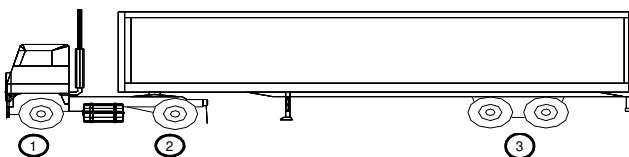
Three Axle Semi-trailer (class 6)
(Three Axle Articulated Vehicle)



Scenario	Component	Single Axle Single Wheels ①	Single Axle Dual Wheels ②	Single Axle Dual Wheels ③	TOTAL
Unloaded	Axle Load (t)	4.5	4.5	4.5	13.5
	Equiv Load (t)	5.4	8.2	8.2	
	ESA	0.482	0.091	0.091	0.664
Loaded	ESA	-	-	-	4.400

AVG. ESA
2.53

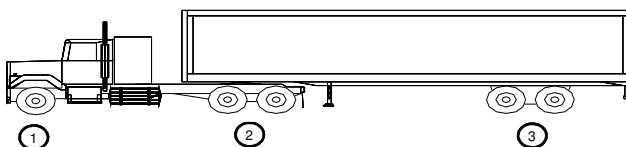
Four Axle Semi-trailer (class 7)
(Four Axle Articulated Vehicle)



Scenario	Component	Single Axle Single Wheels ①	Single Axle Dual Wheels ②	Tandem Axle Dual Wheels ③	TOTAL
Unloaded	Axle Load (t)	4.5	4.5	5	9.5
	Equiv Load (t)	5.4	8.2	13.8	
	ESA	0.482	0.091	0.017	0.590
Loaded	ESA	-	-	-	5.100

AVG. ESA
2.85

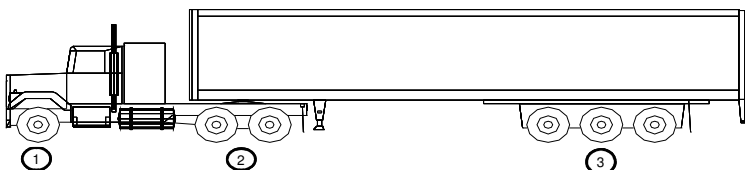
Five Axle Semi-trailer (class 8)
(Five Axle Articulated Vehicle)



Scenario	Component	Single Axle Single Wheels ①	Tandem Axle Dual Wheels ②	Tandem Axle Dual Wheels ③	TOTAL
Unloaded	Axle Load (t)	4.5	5	5	14.5
	Equiv Load (t)	5.4	13.8	13.8	
	ESA	0.482	0.017	0.017	0.517
Loaded	ESA	-	-	-	5.900

AVG. ESA
3.21

Six Axle Semi Trailer (class 9)
(Prime Mover Semi Trailer)

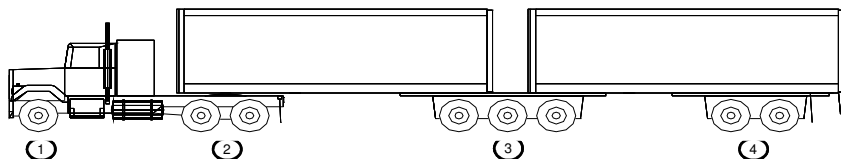


Scenario	Component	Single Axle Single Wheels ①	Tandem Axle Dual Wheels ②	Tri-axle Dual Wheels ③	TOTAL
Unloaded	Axle Load (t)	4.5	5	6.5	16
	Equiv Load (t)	5.4	13.8	18.5	
	ESA	0.482	0.017	0.015	0.515
Loaded	ESA	-	-	-	5.100

AVG. ESA
2.81

ESA Load by Vehicle Class

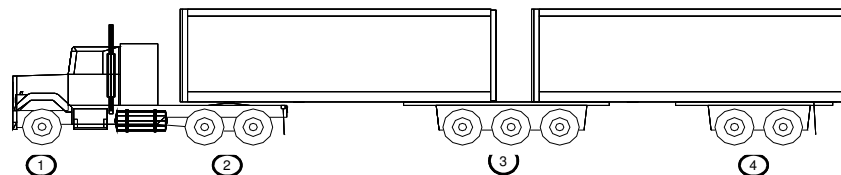
8 Axle B Double (class 10)
(19m B-double)



Scenario	Component	Single Axle Single Wheels 1	Tandem Axle Dual Wheels 2	Tri-axle Dual Wheels 3	Tandem Axle Dual Wheels 4	TOTAL
Unloaded	Axle Load (t)	4.5	5	6.5	5	21
	Equiv Load (t)	5.4	13.8	18.5	13.8	
	ESA	0.482	0.017	0.015	0.017	0.532
Loaded	ESA	-	-	-	-	7.200

AVG. ESA
3.87

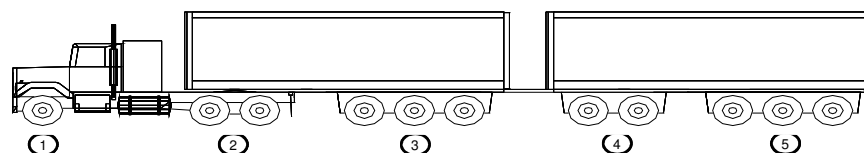
9 Axle B Double (class 10)
(25m B-double)



Scenario	Component	Single Axle Single Wheels 1	Tandem Axle Dual Wheels 2	Tri-axle Dual Wheels 3	Tri-Axle Dual Wheels 4	TOTAL
Unloaded	Axle Load (t)	4.5	5	6.5	6.5	22.5
	Equiv Load (t)	5.4	13.8	18.5	18.5	
	ESA	0.482	0.017	0.015	0.015	0.530
Loaded	ESA	-	-	-	-	6.400

+ 1 wheel
AVG. ESA
3.46

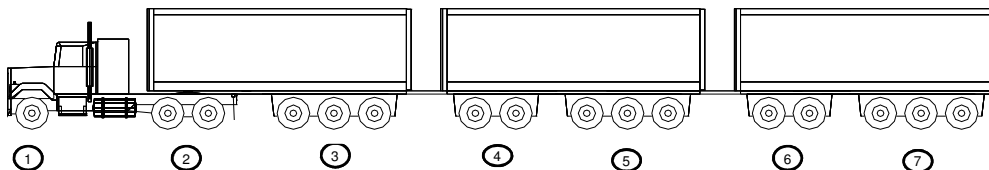
11 Axle Double Road Train (class 11)
(conventional type I road train)



Scenario	Component	Single Axle Single Wheels 1	Tandem Axle Dual Wheels 2	Tri-axle Dual Wheels 3	Tandem Axle Dual Wheels 4	Tri-axle Dual Wheels 5	TOTAL
Unloaded	Axle Load (t)	4.5	5	6.5	5	6.5	27.5
	Equiv Load (t)	5.4	13.8	18.5	13.8	18.5	
	ESA	0.482	0.017	0.015	0.017	0.015	0.547
Loaded	ESA	-	-	-	-	-	6.600

AVG. ESA
4.57

16 Axle Triple Road Train (class 12)
(conventional type II road train)



Scenario	Component	Single Axle Single Wheels 1	Tandem Axle Dual Wheels 2	Tri-axle Dual Wheels 3	Tandem Axle Dual Wheels 4	Tri-axle Dual Wheels 5	Tandem Axle Dual Wheels 6	Tri-axle Dual Wheels 7	TOTAL
Unloaded	Axle Load (t)	4.5	5	6.5	5	6.5	5	6.5	39
	Equiv Load (t)	5.4	13.8	18.5	13.8	18.5	13.8	18.5	
	ESA	0.482	0.017	0.015	0.017	0.015	0.017	0.015	0.580
Loaded	ESA	-	-	-	-	-	-	-	12.140

AVG. ESA
6.36

Bitumen Roads Rehabilitation & Maintenance Costs

Seal Width (m)	Rehabilitation Costs (\$/km)	Annual Routine Maintenance (\$/km)
3.6	\$115,000	\$4,700
5	\$160,000	\$6,000
6	\$195,000	\$9,800
7	\$230,000	\$9,100
8	\$260,000	\$10,300
9	\$295,000	\$11,000
10	\$325,000	\$12,200
11	\$360,000	\$12,900
12	\$390,000	\$14,100

Base Year for the above costs = 2007

Other Input Data

ESA's/HV	2.9	Bruce Highway
	3.2	All Other Roads
Roughness Increase	3	counts/year
Terminal Roughness	110	Bruce Highway
	120	All Other Roads
Inflation Rate	7.0%	
Discount Rate	7.0%	
HV Growth Rate	3%	All road sections

325

Source: Data provided by DMR 28/03/08

6500

Road	Section	Direction	Roughness Count*	Count Year	Roughness Count Deficiency	Roughness Deterioration Rate	Background				With Development				Bring Forward Time Period (Years)	Bring Forward Responsibility
							Rehabilitation Year	ESA Load at Rehabilitation Year (rounded)	EAS Load 1 Year After Rehabilitation Year	ESA Load at Breakpoint	Rehabilitation Year (rounded)	ESA Load at Rehabilitation Year (rounded)	EAS Load 1 Year After Rehabilitation Year	Rehabilitation Year		
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)	79.0	2006	120.0	3.0	2019.7	4,434,635	4,913,919	4,770,134	2019	4,458,476	4,937,761	2019.7	No
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)	79.0	2006	120.0	3.0	2019.7	2,198,339	2,435,930	2,364,653	2019	2,242,654	2,480,245	2019.5	No
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)	59.0	2006	120.0	3.0	2026.3	8,289,859	8,892,604	8,470,683	2026	8,313,701	8,916,446	2026.3	No
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)	59.0	2006	120.0	3.0	2026.3	10,278,482	11,025,817	10,502,682	2026	10,322,797	11,070,132	2026.2	No
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)	66.0	2006	120.0	3.0	2024.0	11,268,218	12,165,290	11,268,218	2023	10,460,482	11,331,426	2023.9	No
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)	66.0	2006	120.0	3.0	2024.0	24,868,978	26,848,818	24,868,978	2023	23,047,389	24,969,564	2023.9	No
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)	76.0	2006	120.0	3.0	2020.7	7,850,598	8,639,286	8,402,680	2020	7,905,590	8,698,298	2020.6	No
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)	76.0	2006	120.0	3.0	2020.7	9,400,015	10,344,360	10,061,057	2020	9,455,007	10,403,372	2020.6	No
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)	54.0	2006	120.0	3.0	2028.0	8,421,190	8,987,227	8,421,190	2027	7,930,652	8,480,202	2027.9	No
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)	54.0	2006	120.0	3.0	2028.0	12,341,950	13,171,523	12,341,950	2027	11,595,551	12,400,961	2027.9	No
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)	51.0	2006	120.0	3.0	2029.0	4,361,982	4,644,951	4,361,982	2029	4,361,982	4,644,951	2029.0	No
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)	51.0	2006	120.0	3.0	2029.0	6,274,208	6,681,227	6,274,208	2029	6,274,208	6,681,227	2029.0	No
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)	54.0	2006	120.0	3.0	2028.0	5,705,968	6,089,499	5,705,968	2027	5,406,744	5,779,103	2027.8	No
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)	54.0	2006	120.0	3.0	2028.0	5,879,044	6,274,208	5,879,044	2027	5,541,761	5,925,415	2027.9	No
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)	79.0	2006	120.0	3.0	2019.7	2,780,651	3,081,177	2,991,019	2019	2,853,786	3,154,312	2019.5	No
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)	79.0	2006	120.0	3.0	2019.7	2,737,764	3,033,655	2,944,887	2019	2,784,135	3,080,026	2019.5	No
17	Dawson Highway 46A	Bruce Highway to Drynan Drive	Southbound (G)	48.0	2006	120.0	3.0	2030.0	8,238,735	8,755,695	8,238,735	2029	7,806,614	8,308,516	2029.9	No
18	Dawson Highway 46A	Bruce Highway to Drynan Drive	Northbound (A)	48.0	2006	120.0	3.0	2030.0	8,565,379	9,102,834	8,565,379	2029	8,063,640	8,585,441	2030.0	No
19	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Westbound (G)	60.0	2006	120.0	3.0	2026.0	3,052,184	3,274,104	3,052,184	2025	2,906,508	3,121,965	2025.7	No
20	Dawson Highway 46A	Drynan Drive to Gladstone-Monto Road	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	3,324,038	3,565,725	3,324,038	2025	3,109,453	3,344,101	2025.9	No
21	Dawson Highway 46A	Gladstone-Monto Road to Access to Pipeline Camp 4	Westbound (G)	60.0	2006	120.0	3.0	2026.0	2,633,184	2,824,639	2,633,184	2025	2,522,809	2,708,688	2025.6	No
22	Dawson Highway 46A	Access to Pipeline Camp 4 to Gladstone-Monto Road	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	2,540,197	2,724,891	2,540,197	2025	2,386,668	2,565,983	2025.9	No
23	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Westbound (G)	60.0	2006	120.0	3.0	2026.0	2,633,184	2,824,639	2,633,184	2025	2,522,809	2,708,688	2025.6	No
24	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	2,540,197	2,724,891	2,540,197	2025	2,386,668	2,565,983	2025.9	No
25	Dawson Highway 46A	New to CSC/BSC Border	Westbound (G)	118.0	2006	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
26	Dawson Highway 46A	New to CSC/BSC Border	Eastbound (A)	118.0	2006	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
27	Dawson Highway 46A	CSC/BSC Border to New point 2	Westbound (G)	60.0	2006	120.0	3.0	2026.0	2,633,184	2,824,639	2,633,184	2025	2,513,876	2,699,755	2025.6	No
28	Dawson Highway 46A	CSC/BSC Border to New point 2	Eastbound (A)	60.0	2006	120.0	3.0	2026.0	2,540,197	2,724,891	2,540,197	2025	2,385,766	2,565,081	2025.9	No
29	Dawson Highway 46A	New point 2 to Argoon Road	Westbound (G)	71.0	2006	120.0	3.0	2022.3	1,921,525	2,091,631	1,972,557	2021	1,819,325	1,984,476	2021.9	No
30	Dawson Highway 46A	New point 2 to Argoon Road	Eastbound (A)	71.0	2006	120.0	3.0	2022.3	1,853,669	2,017,768	1,902,899	2022	1,875,443	2,039,542	2022.2	No
31	Dawson Highway 46A	Argoon Road to Callide Dam Road	Westbound (G)	80.0	2006	120.0	3.0	2019.3	1,280,151	1,418,506	1,321,657	2018	1,208,776	1,343,102	2018.8	No
32	Dawson Highway 46A	Argoon Road to Callide Dam Road	Eastbound (A)	80.0	2006	120.0	3.0	2019.3	1,241,545	1,375,728	1,281,800	2019	1,263,318	1,397,501	2019.1	No
33	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Westbound (G)	80.0	2006	120.0	3.0	2019.3	1,654,059	1,832,826	1,707,689	2018	1,537,727	1,711,286	2019.0	No
34	Dawson Highway 46A	Callide Dam Road to Tognalini - Baldwin Road	Eastbound (A)	80.0	2006	120.0	3.0	2019.3	1,577,096	1,747,544	1,628,230	2019	1,593,146	1,763,594	2019.2	No
35	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Westbound (G)	106.0	2006	120.0	3.0	2010.7	536,897	817,485	733,308	2010	559,229	866,630	2010.6	No
36	Dawson Highway 46A	Tognalini - Baldwin Road to Biloela	Eastbound (A)	106.0	2006	120.0	3.0	2010.7	528,390	804,532	721,690	2010	530,644	812,500	2010.7	No
37	Dawson Highway 46B	Biloela to Crowsdale Camboon Road	Westbound (G)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,764,774	1,985,228	2017.5	No
38	Dawson Highway 46B	Crowsdale Camboon Road to Bioela	Eastbound (A)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,731,628	1,952,083	2017.6	No
39	Dawson Highway 46B	Crowsdale Camboon Road to Point 1	Westbound (G)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,764,774	1,985,228	2017.5	No
40	Dawson Highway 46B	Point 1 to Crowsdale Camboon Road	Eastbound (A)	88.0	2007	120.0	3.0	2017.7	1,716,480	1,936,934	1,870,798	2017	1,731,628	1,952,083	2017.6	No
41	Dawson Highway 46B	Point 1 to Greycliffe Road	Westbound (G)	60.0	2007	120.0	3.0	2027.0	4,243,740	4,540,012	4,243,740	2026	4,004,391	4,292,034	2026.8	No
42	Dawson Highway 46B	Greycliffe Road to Point 1	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	4,243,740	4,540,012	4,243,740	2026	3,971,246	4,258,888	2026.9	No
43	Dawson Highway 46B	Greycliffe Road to Banana	Westbound (G)	60.0	2007	120.0	3.0	2027.0	3,253,892	3,481,058	3,253,892	2026	3,081,635	3,302,186	2026.8	No
44	Dawson Highway 46B	Banana to Greycliffe Road	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	3,253,892	3,481,058	3,253,892	2026	3,048,490	3,269,040	2026.9	No
45	Dawson Highway 46C	Banana to Moura Mine	Westbound (G)	79.0	2007	120.0	3.0	2020.7	1,998,897	2,199,711	2,139,467	2020	2,045,599	2,246,412	2020.5	No
46	Dawson Highway 46C	Moura Mine to Banana	Eastbound (A)	79.0	2007	120.0	3.0	2020.7	1,998,897	2,199,711	2,139,467	2020	2,011,943	2,212,756	2020.6	No
47	Dawson Highway 46C	Moura Mine to Moura Township	Westbound (G)	76.0	2007	120.0	3.0	2021.7	2,280,885	2,495,355	2,431,014	2021	2,327,586	2,542,057	2021.5	No
48	Dawson Highway 46C	Moura Township to Moura Mine	Eastbound (A)	76.0	2007	120.0	3.0	2021.7	2,280,885	2,495,355	2,431,014	2021	2,293,930	2,508,401	2021.6	No
49	Dawson Highway 46C	Moura Township to CH. 30	Westbound (G)	81.0	2007	120.0	3.0	2020.0	712,034	783,566	712,034	2019	688,530	757,979	2019.3	No
50	Dawson Highway 46C	CH. 30 to Moura Township	Eastbound (A)	81.0	2007	120.0	3.0	2020.0	712,034	783,566	712,034	2019	662,906	732,355	2019.7	No
51	Dawson Highway 46C	CH. 30 to CH. 41	Westbound (G)	117.0	2007	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
52	Dawson Highway 46C	CH. 41 to CH. 30	Eastbound (A)	117.0	2007	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
53	Dawson Highway 46C	CH. 41 to District Boundary	Westbound (G)	85.0	2007	120.0	3.0	2018.7	575,159	642,585	622,357	2018	609,359	676,785	2018.2	No
54	Dawson Highway 46C	Boundary to CH. 41	Eastbound (A)	85.0	2007	120.0	3.0	2018.7	575,159	642,585	622,357	2018	583,735	651,161	2018.6	No
55	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Westbound (G)	105.0	2006	120.0	3.0	2011.0	2,001,344	2,708,880	2,001,344	2010	1,359,189	2,099,828	2010.9	No
56	Gladstone-Mt Larcom Rd	Dawson Highway to Hilderbrand Street	Eastbound (A)	105.0	2006	120.0	3.0	2011.0	2,061,148	2,789,826	2,061,148	2010	1,366,035	2,103,556	2010.9	No

57	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Westbound (G)	62.0	2006	120.0	3.0	2025.3	13,544,341	14,573,068	13,852,959	2025	13,637,079	14,666,420	2025.2	0.1	No
58	Gladstone-Mt Larcom Rd	Hilderbrand Street to Blain Drive	Eastbound (A)	62.0	2006	120.0	3.0	2025.3	13,231,070	14,236,003	13,532,550	2025	13,297,627	14,303,174	2025.2	0.1	No
59	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Westbound (G)	92.0	2006	120.0	3.0	2015.3	5,499,416	6,382,107	5,764,224	2015	5,607,880	6,499,431	2015.2	0.1	No
60	Gladstone-Mt Larcom Rd	Blain Drive to Red Rover Road	Eastbound (A)	92.0	2006	120.0	3.0	2015.3	6,009,749	6,974,352	6,299,130	2015	6,083,625	7,054,094	2015.2	0.1	No
61	Gladstone-Mt Larcom Rd	Red Rover Road to Power Station	Westbound (G)	64.0	2006	120.0	3.0	2024.7	14,466,770	15,618,482	15,272,968	2024	14,571,327	15,723,653	2024.6	0.1	No
62	Gladstone-Mt Larcom Rd	Red Rover Road to Power Station	Eastbound (A)	64.0	2006	120.0	3.0	2024.7	15,809,252	17,067,840	16,690,264	2024	15,900,049	17,159,251	2024.6	0.1	No
63	Gladstone-Mt Larcom Rd	Power Station to Reid Road	Westbound (G)	76.0	2006	120.0	3.0	2020.7	7,975,718	8,776,976	8,536,598	2020	8,073,274	8,880,267	2020.6	0.1	No
64	Gladstone-Mt Larcom Rd	Power Station to Reid Road	Eastbound (A)	76.0	2006	120.0	3.0	2020.7	8,282,819	9,114,929	8,865,296	2020	8,367,605	9,204,460	2020.6	0.1	No
65	Gladstone-Mt Larcom Rd	Reid Road to Landing Road	Westbound (G)	51.0	2006	120.0	3.0	2029.0	16,115,776	17,161,235	16,115,776	2028	15,208,357	16,223,980	2028.9	0.1	No
66	Gladstone-Mt Larcom Rd	Reid Road to Landing Road	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	16,736,306	17,822,020	16,736,306	2028	15,776,044	16,830,749	2028.9	0.1	No
67	Gladstone-Mt Larcom Rd	Landing Road to Targinnie Road	Westbound (G)	51.0	2006	120.0	3.0	2029.0	9,818,221	10,455,146	9,818,221	2028	9,235,204	9,853,605	2028.9	0.1	No
68	Gladstone-Mt Larcom Rd	Landing Road to Targinnie Road	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	11,106,495	11,826,993	11,106,495	2028	10,621,642	11,321,421	2028.7	0.3	No
69	Gladstone-Mt Larcom Rd	Targinnie Road to Quarry Road	Westbound (G)	51.0	2006	120.0	3.0	2029.0	9,818,221	10,455,146	9,818,221	2028	9,230,438	9,848,812	2029.0	0.0	No
70	Gladstone-Mt Larcom Rd	Targinnie Road to Quarry Road	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	11,106,495	11,826,993	11,106,495	2028	10,591,649	11,291,162	2028.7	0.3	No
71	Gladstone-Mt Larcom Rd	Quarry Road to Bruce Highway	Westbound (G)	51.0	2006	120.0	3.0	2029.0	9,818,221	10,455,146	9,818,221	2028	9,208,810	9,827,185	2029.0	0.0	No
72	Gladstone-Mt Larcom Rd	Quarry Road to Bruce Highway	Eastbound (A)	51.0	2006	120.0	3.0	2029.0	11,106,495	11,826,993	11,106,495	2028	10,408,188	11,107,700	2029.0	0.0	No
73	Carnarvon Highway 24A	CH. 0.00 (NSW border) to CH. 10	Northbound (G)	66.0	2007	120.0	3.0	2025.0	794,585	854,935	794,585	2025	794,585	854,935	2025.0	0.0	No
74	Carnarvon Highway 24A	CH. 10 to CH. 0.0 (NSW border)	Southbound (A)	66.0	2007	120.0	3.0	2025.0	794,585	854,935	794,585	2025	794,585	854,935	2025.0	0.0	No
75	Carnarvon Highway 24A	CH. 10m to CH. 40 (Thallon)	Northbound (G)	96.0	2007	120.0	3.0	2015.0	280,030	324,977	280,030	2015	280,030	324,977	2015.0	0.0	No
76	Carnarvon Highway 24A	CH. 40 (Thallon) to CH. 10	Southbound (A)	96.0	2007	120.0	3.0	2015.0	280,030	324,977	280,030	2015	280,030	324,977	2015.0	0.0	No
77	Carnarvon Highway 24A	CH. 40 (Thallon) to CH. 74 (Ningdigully)	Northbound (G)	82.0	2007	120.0	3.0	2019.7	440,936	488,591	474,295	2019	440,936	488,591	2019.7	0.0	No
78	Carnarvon Highway 24A	CH. 74 (Nindigully) to CH. 40 (Thallon)	Southbound (A)	82.0	2007	120.0	3.0	2019.7	440,936	488,591	474,295	2019	440,936	488,591	2019.7	0.0	No
79	Carnarvon Highway 24A	CH. 74 (Nindigully) to CH. 111	Northbound (G)	83.0	2007	120.0	3.0	2019.3	672,398	745,069	694,200	2019	672,398	745,069	2019.3	0.0	No
80	Carnarvon Highway 24A	CH. 111 to CH.74 (Nindigully)	Southbound (A)	83.0	2007	120.0	3.0	2019.3	672,398	745,069	694,200	2019	672,398	745,069	2019.3	0.0	No
81	Carnarvon Highway 24A	CH. 111 to St George	Northbound (G)	83.0	2007	120.0	3.0	2019.3	1,415,741	1,568,751	1,461,644	2019	1,415,741	1,568,751	2019.3	0.0	No
82	Carnarvon Highway 24A	St George to CH. 111	Southbound (A)	83.0	2007	120.0	3.0	2019.3	1,415,741	1,568,751	1,461,644	2019	1,415,741	1,568,751	2019.3	0.0	No
83	Carnarvon Highway 24B	CH. 0.00 (St George) to CH. 4	Northbound (G)	79.0	2007	120.0	3.0	2020.7	1,461,105	1,607,890	1,563,854	2020	1,461,105	1,607,890	2020.7	0.0	No
84	Carnarvon Highway 24B	CH. 4 to CH. 0.0 (St George)	Southbound (A)	79.0	2007	120.0	3.0	2020.7	1,461,105	1,607,890	1,563,854	2020	1,461,105	1,607,890	2020.7	0.0	No
85	Carnarvon Highway 24B	CH. 4m to CH. 9	Northbound (G)	55.0	2007	120.0	3.0	2028.7	2,590,889	2,765,037	2,712,793	2028	2,590,889	2,765,037	2028.7	0.0	No
86	Carnarvon Highway 24B	CH. 9 to CH. 56	Southbound (A)	55.0	2007	120.0	3.0	2028.7	2,590,889	2,765,037	2,712,793	2028	2,590,889	2,765,037	2028.7	0.0	No
87	Carnarvon Highway 24B	CH. 9 to CH. 4	Northbound (G)	76.0	2007	120.0	3.0	2021.7	725,231	793,424	772,966	2021	725,231	793,424	2021.7	0.0	No
88	Carnarvon Highway 24B	CH. 56 to CH. 9	Southbound (A)	76.0	2007	120.0	3.0	2021.7	725,231	793,424	772,966	2021	725,231	793,424	2021.7	0.0	No
89	Carnarvon Highway 24B	CH. 56 to CH. 116 (Surat)	Northbound (G)	82.0	2007	120.0	3.0	2019.7	545,401	604,346	586,662	2019	545,401	604,346	2019.7	0.0	No
90	Carnarvon Highway 24B	CH. 116 (Surat) to CH. 56	Southbound (A)	82.0	2007	120.0	3.0	2019.7	545,401	604,346	586,662	2019	545,401	604,346	2019.7	0.0	No
91	Carnarvon Highway 24C	CH. 0.00 (Surat) to CH. 33	Northbound (G)	96.0	2007	120.0	3.0	2015.0	441,128	511,932	441,128	2015	441,128	511,932	2015.0	0.0	No
92	Carnarvon Highway 24C	CH. 33 to CH. 0.0 (Surat)	Southbound (A)	96.0	2007	120.0	3.0	2015.0	441,128	511,932	441,128	2015	441,128	511,932	2015.0	0.0	No
93	Carnarvon Highway 24C	CH. 33m to CH. 73 (Roma)	Northbound (G)	90.0	2007	120.0	3.0	2017.0	629,439	710,280	629,439	2017	629,439	710,280	2017.0	0.0	No
94	Carnarvon Highway 24C	CH. 73 (Roma) to CH. 33	Southbound (A)	90.0	2007	120.0	3.0	2017.0	629,439	710,280	629,439	2017	629,439	710,280	2017.0	0.0	No
95	Carnarvon Highway 24D	CH. 0.00 (Roma) to CH. 3	Northbound (G)	111.0	2007	120.0	3.0	2010.0	397,545	605,306	397,545	2009	203,494	452,273	2009.8	0.2	No
96	Carnarvon Highway 24D	CH. 3 to CH. 0.0 (Roma)	Southbound (A)	111.0	2007	120.0	3.0	2010.0	397,545	605,306	397,545	2009	197,653	437,405	2009.8	0.2	No
97	Carnarvon Highway 24D	CH. 3m to CH. 18 Roma - Taroom Road	Northbound (G)	91.0	2007	120.0	3.0	2016.7	1,659,196	1,895,559	1,824,650	2015	1,781,620	2,088,813	2015.1	1.6	Yes
98	Carnarvon Highway 24D	CH. 18 Roma - Taroom Road to CH. 3	Southbound (A)	91.0	2007	120.0	3.0	2016.7	1,659,196	1,895,559	1,824,650	2015	1,732,328	2,027,131	2015.3	1.4	Yes
99	Carnarvon Highway 24D	Roma - Taroom Road to Injune	Northbound (G)	85.0	2007	120.0	3.0	2018.7	1,192,531	1,332,332	1,290,391	2015	1,148,992	1,354,643	2015.7	3.0	Yes
100	Carnarvon Highway 24D	Injune to Roma - Taroom Road	Southbound (A)	85.0	2007	120.0	3.0	2018.7	1,192,531	1,332,332	1,290,391	2015	1,099,699	1,292,961	2016.0	2.7	Yes
101	Carnarvon Highway 24E	CH. 0.00 (Injune) to Fairview Field Access CH25.00	Northbound (G)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2014	657,150	785,701	2014.4	1.9	Yes
102	Carnarvon Highway 24E	Fairview Field Access CH. 25.00 to CH. 0.0 (Injune)	Southbound (A)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2014	628,178	755,039	2014.6	1.7	Yes
103	Carnarvon Highway 24E	Fairview Field Access to CH. 69 Boundary with Emerald	Northbound (G)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2015	624,141	728,352	2015.7	0.6	No
104	Carnarvon Highway 24E	CH. 69 to Fairview Field Access	Southbound (A)	92.0	2007	120.0	3.0	2016.3	673,450	769,387	702,231	2015	624,141	728,352	2015.7	0.6	No
105	Carnarvon Highway 24E	CH. 69 to CH. 86 Access to Camp 1	Northbound (G)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,260,984	1,381,350	2021.1	0.6	No
106	Carnarvon Highway 24E	CH. 86 Access to Camp 1 to CH. 69	Southbound (A)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,260,984	1,381,350	2021.1	0.6	No
107	Carnarvon Highway 24E	CH. 86 Access to Camp 1 to CH. 111	Northbound (G)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,230,694	1,347,296	2021.4	0.3	No
108	Carnarvon Highway 24E	CH. 111 to CH. 86 Access to Camp 1	Southbound (A)	76.0	2007	120.0	3.0	2021.7	1,200,048	1,312,888	1,279,036	2021	1,230,694	1,347,296	2021.4	0.3	No
109	Carnarvon Highway 24E	CH. 111 to CH.172 (Rollestone)	Northbound (G)	75.0	2007	120.0	3.0	2022.0	1,498,080	1,630,700	1,498,080	2021	1,399,969	1,532,489	2021.7	0.3	No
110	Carnarvon Highway 24E	CH. 172 (Rollestone) to CH.111	Southbound (A)	75.0	2007	120.0	3.0	2022.0	1,498,080	1,630,700	1,498,080	2021	1,399,969	1,532,489	2021.7	0.3	No
111	Leichhardt Highway 26A	CH. 00 Capicorn Highway to Burnett Highway	Southbound (G)	59.0	2007	120.0	3.0	2027.3	3,734,373	3,995,084	3,812,586	2027	3,734,373	3,995,084	2027.3	0.0	No
112	Leichhardt Highway 26A	Burnett Highway to Capicorn Highway	Northbound (A)	59.0	2007	120.0	3.0	2027.3	3,734,373	3,995,084	3,812,586	2027	3,734,373	3,995,084	2027.3	0.0	No
113	Leichhardt Highway 26A	Burnett Highway to CH. 51.1	Southbound (G)	59.0	2007	120.0	3.0	2027.3	2,441,523	2,611,975	2,492,658	2027	2,441,523	2,611,975	2027.3	0.0	No
114	Leichhardt Highway 26A	CH. 51.1 to Burnett Highway	Northbound (A)	59.0	2007	120.0	3.0	2027.3	2,441,523	2,611,975	2,492,658	2027	2,441,523	2,611,975	2027.3	0.0	No
115	Leichhardt Highway 26A	CH. 51.1 to CH. 62.6	Southbound (G)	82.0	2007	120.0	3.0	2019.7	1,245,001	1,379,557	1,339,191	2019	1,245,001	1,379,557	2019.7	0.0	No
116	Leichhardt Highway 26A	CH. 62.6 to CH. 51.1	Northbound (A)	82.0	2007	120.0	3.0	2019.7	1,245,001	1,379,557	1,339,191	2019	1,245,001	1,379,557	2019.7	0.0	No
117	Leichhardt Highway 26A	CH. 62.6 to CH. 86.0 Fairview Road	Southbound (G)	62.0	2007	120.0	3.0	2026.3	2,397,811	2,572,153	2,450,113	2026	2,397,811	2,572,153	2026.3	0.0	No
118	Leichhardt Highway 26A	CH. 86.0 Fairview Road to CH. 62.6	Northbound (A)	62.0	2007	120.0	3.0	2026.3	2,397,811	2,572,153	2,450,113	2026	2,397,811	2,572,153	2026.3	0.0	

126	Leichhardt Highway 26A	CH. 117.0 to Banana CH. 105.2	Northbound (A)	84.0	2007	120.0	3.0	2019.0	1,550,672	1,718,265	1,550,672	2018	1,390,934	1,553,646	2019.0	0.0	No
127	Leichhardt Highway 26A	CH. 117.0 to CH. 124.0	Southbound (G)	104.0	2007	120.0	3.0	2012.3	506,522	642,791	547,403	2012	506,522	642,791	2012.3	0.0	No
128	Leichhardt Highway 26A	CH. 124.0 to CH. 117.0	Northbound (A)	104.0	2007	120.0	3.0	2012.3	506,522	642,791	547,403	2012	506,522	642,791	2012.3	0.0	No
129	Leichhardt Highway 26A	Theodore CH. 162.3 to CH.124.0	Westbound (G)	100.0	2007	120.0	3.0	2013.7	642,791	783,147	741,040	2013	642,791	783,147	2013.7	0.0	No
130	Leichhardt Highway 26A	CH.124.0 to Theodore CH. 162.4	Eastbound (A)	100.0	2007	120.0	3.0	2013.7	642,791	783,147	741,040	2013	642,791	783,147	2013.7	0.0	No
131	Leichhardt Highway 26A	Theodore CH. 162.3 to CH. 124.0	Westbound (G)	60.0	2007	120.0	3.0	2027.0	2,386,071	2,552,652	2,386,071	2027	2,386,071	2,552,652	2027.0	0.0	No
132	Leichhardt Highway 26A	Theodore CH. 162.3 to Glenmoral Roundstone Road	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	2,386,071	2,552,652	2,386,071	2027	2,386,071	2,552,652	2027.0	0.0	No
133	Leichhardt Highway 26A	Glenmoral Roundstone Road to Isla Delusion Road	Westbound (G)	60.0	2007	120.0	3.0	2027.0	2,205,775	2,359,768	2,205,775	2027	2,205,775	2,359,768	2027.0	0.0	No
134	Leichhardt Highway 26A	Isla Delusion Road to Glenmoral Roundstone Road	Eastbound (A)	60.0	2007	120.0	3.0	2027.0	2,205,775	2,359,768	2,205,775	2027	2,205,775	2,359,768	2027.0	0.0	No
135	Leichhardt Highway 26A	Isla Delusion Road to District Boundary	Westbound (G)	97.0	2007	110.0	3.0	2011.3	271,444	367,408	300,233	2011	271,444	367,408	2011.3	0.0	No
136	Leichhardt Highway 26A	District Boundary to Isla Delusion Road	Eastbound (A)	97.0	2007	110.0	3.0	2011.3	271,444	367,408	300,233	2011	271,444	367,408	2011.3	0.0	No
137	Bruce Highway	Gladstone-Beraraby Road to Dawson Highway	Westbound (G)	62.0	2006	110.0	3.0	2022.0	7,945,298	8,648,666	7,945,298	2021	7,318,626	8,001,774	2021.9	0.1	No
138	Bruce Highway	Gladstone-Beraraby Road to Dawson Highway	Eastbound (A)	62.0	2006	110.0	3.0	2022.0	8,633,571	9,397,870	8,633,571	2021	7,897,207	8,639,271	2022.0	0.0	No
139	Bruce Highway	Dawson Highway to Calliope River Road	Westbound (G)	72.0	2006	110.0	3.0	2018.7	4,924,137	5,501,396	5,328,218	2018	4,949,528	5,532,373	2018.6	0.1	No
140	Bruce Highway	Dawson Highway to Calliope River Road	Eastbound (A)	72.0	2006	110.0	3.0	2018.7	5,164,876	5,770,357	5,588,713	2018	5,169,513	5,775,558	2018.7	0.0	No
141	Bruce Highway	Calliope River Road to Gladstone Mt-Larcom Road	Westbound (G)	70.0	2006	110.0	3.0	2019.3	5,501,396	6,095,972	5,679,769	2019	5,503,703	6,098,280	2019.3	0.0	No
142	Bruce Highway	Calliope River Road to Gladstone Mt-Larcom Road	Eastbound (A)	70.0	2006	110.0	3.0	2019.3	5,770,357	6,394,002	5,957,451	2019	5,772,664	6,396,310	2019.3	0.0	No
143	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Road	Westbound (G)	62.0	2006	110.0	3.0	2022.0	10,655,093	11,598,349	10,655,093	2021	9,739,341	10,655,124	2022.0	0.0	No
144	Bruce Highway	Gladstone-Mt Larcom Road to Bajool Port Alma Road	Eastbound (A)	62.0	2006	110.0	3.0	2022.0	11,496,258	12,513,980	11,496,258	2021	10,508,482	11,496,562	2022.0	0.0	No
145	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Westbound (G)	66.0	2006	110.0	3.0	2020.7	9,857,580	10,847,893	10,550,799	2020	9,857,580	10,847,893	2020.7	0.0	No
146	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Eastbound (A)	66.0	2006	120.0	3.0	2024.0	14,030,481	15,147,460	14,030,481	2024	14,030,481	15,147,460	2024.0	0.0	No
147	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Westbound (G)	64.0	2006	120.0	3.0	2024.7	15,749,612	17,003,453	16,627,301	2024	15,749,612	17,003,453	2024.7	0.0	No
148	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Eastbound (A)	64.0	2006	120.0	3.0	2024.7	15,802,450	17,060,497	16,683,083	2024	15,802,450	17,060,497	2024.7	0.0	No
149	Bruce Highway	Burnett Highway to Capricorn Highway	Westbound (G)	71.0	2006	120.0	3.0	2022.3	13,798,572	15,020,109	14,165,033	2022	13,798,572	15,020,109	2022.3	0.0	No
150	Bruce Highway	Burnett Highway to Capricorn Highway	Eastbound (A)	71.0	2006	120.0	3.0	2022.3	14,188,561	15,444,623	14,565,380	2022	14,188,561	15,444,623	2022.3	0.0	No
151	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	79.0	2006	120.0	3.0	2019.7	15,476,127	17,148,747	16,646,961	2019	15,476,127	17,148,747	2019.7	0.0	No
152	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	79.0	2006	120.0	3.0	2019.7	15,005,991	16,627,800	16,141,257	2019	15,005,991	16,627,800	2019.7	0.0	No
153	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	79.0	2006	120.0	3.0	2019.7	9,981,730	11,060,530	10,736,890	2019	9,981,730	11,060,530	2019.7	0.0	No
154	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	79.0	2006	120.0	3.0	2019.7	9,703,320	10,752,030	10,437,417	2019	9,703,320	10,752,030	2019.7	0.0	No
155	Gladstone - Benaraby Road	CH.0.0 Dawson Highway CH. 0.00 to Sun valley Road CH. 0.645	Southbound (G)	66.0	2007	120.0	3.0	2025.0	10,400,066	11,189,978	10,400,066	2025	10,400,066	11,189,978	2025.0	0.0	No
156	Gladstone - Benaraby Road	Sun Valley Road CH. 0.645 to Dawson Highway CH.0.00	Northbound (A)	66.0	2007	120.0	3.0	2025.0	9,167,211	9,863,484	9,167,211	2025	9,167,211	9,863,484	2025.0	0.0	No
157	Gladstone - Benaraby Road	CH. 0.645 to Glenlyon Road CH. 2.159	Southbound (G)	66.0	2007	120.0	3.0	2025.0	7,353,935	7,912,485	7,353,935	2025	7,353,935	7,912,485	2025.0	0.0	No
158	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to CH. 0.645	Northbound (A)	66.0	2007	120.0	3.0	2025.0	7,595,669	8,172,579	7,595,669	2025	7,595,669	8,172,579	2025.0	0.0	No
159	Gladstone - Benaraby Road	Glenlyon Road CH. 2.159 to French Street CH. 3.40	Southbound (G)	93.0	2007	120.0	3.0	2016.0	3,391,457	3,874,591	3,391,457	2016	3,391,457	3,874,591	2016.0	0.0	No
160	Gladstone - Benaraby Road	French Street CH. 3.40 to Glenlyon Road CH. 2.159	Northbound (A)	93.0	2007	120.0	3.0	2016.0	3,776,138	4,314,073	3,776,138	2016	3,776,138	4,314,073	2016.0	0.0	No
161	Gladstone - Benaraby Road	French Street CH. 3.40 to Glen Eden Drive CH. 5.70	Southbound (G)	68.0	2007	120.0	3.0	2024.3	7,687,652	8,299,673	7,871,258	2024	7,687,652	8,299,673	2024.3	0.0	No
162	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to French Street CH. 3.40	Northbound (A)	68.0	2007	120.0	3.0	2024.3	8,559,637	9,241,077	8,764,069	2024	8,559,637	9,241,077	2024.3	0.0	No
163	Gladstone - Benaraby Road	Glen Eden Drive CH. 5.70 to South Trees Drive CH. 7.30	Southbound (G)	68.0	2007	120.0	3.0	2024.3	7,687,652	8,299,673	7,871,258	2024	7,687,652	8,299,673	2024.3	0.0	No
164	Gladstone - Benaraby Road	South Trees Drive CH. 5.70 to Glen Eden Drive CH. 3.40	Northbound (A)	68.0	2007	120.0	3.0	2024.3	8,559,637	9,241,077	8,764,069	2024	8,559,637	9,241,077	2024.3	0.0	No
165	Gladstone - Benaraby Road	South Trees Drive CH. 7.30 to Boyne Island Road CH. 16.039	Southbound (G)	68.0	2007	120.0	3.0	2024.3	7,687,652	8,299,673	7,871,258	2024	7,687,652	8,299,673	2024.3	0.0	No
166	Gladstone - Benaraby Road	Boyne Island Drive CH. 16.039 to South Trees Drive CH. 5.70	Northbound (A)	68.0	2007	120.0	3.0	2024.3	8,559,637	9,241,077	8,764,069	2024	8,559,637	9,241,077	2024.3	0.0	No
167	Gladstone - Benaraby Road	Boyne Island Road CH. 16.039 to Bruce Highway CH. 19.21	Southbound (G)	70.0	2007	120.0	3.0	2023.7	5,665,091	6,139,636	5,997,273	2023	5,665,091	6,139,636	2023.7	0.0	No
168	Gladstone - Benaraby Road	Bruce Highway CH. 19.21 to Boyne Island Road CH. 16.039	Northbound (A)	70.0	2007	120.0	3.0	2023.7	5,659,018	6,133,055	5,990,844	2023	5,659,018	6,133,055	2023.7	0.0	No
169	Burnett Highway 41D	CH.0.0 District Boundary to CH.65.0	Southbound (G)	73.0	2007	120.0	3.0	2022.7	1,250,699	1,361,419	1,328,203	2022	1,250,699	1,361,419	2022.7	0.0	No
170	Burnett Highway 41D	CH.65.0 to District Boundary CH.0.0	Northbound (A)	73.0	2007	120.0	3.0	2022.7	1,250,699	1,361,419	1,328,203	2022	1,250,699	1,361,419	2022.7	0.0	No
171	Burnett Highway 41D	CH.65.0 to Hinton's Lane CH.85.5	Southbound (G)	102.0	2007	120.0	3.0	2013.0	388,623	473,480	388,623	2013	388,623	473,480	2013.0	0.0	No
172	Burnett Highway 41D	Hinton's Lane CH.85.5 to CH.65.0	Northbound (A)	102.0	2007	120.0	3.0	2013.0	388,623	473,480	388,623	2013	388,623	473,480	2013.0	0.0	No
173	Burnett Highway 41D	Hinton's Lane CH.85.5 to Sara Lane CH.92.0	Southbound (G)	67.0	2007	120.0	3.0	2024.7	2,421,729	2,614,525	2,556,687	2024	2,421,729	2,614,525	2024.7	0.0	No
174	Burnett Highway 41D	Sara Lane CH.92.0 to Hinton's Lane CH.85.5	Northbound (A)	67.0	2007	120.0	3.0	2024.7	2,421,729	2,614,525	2,556,687	2024	2,421,729	2,614,525	2024.7	0.0	No
175	Burnett Highway 41D	Sara Lane CH.92.0 to Dawson Highway CH.93.8	Southbound (G)	142.0	2007	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
176	Burnett Highway 41D	Dawson Highway CH.93.8 to Sara Lane CH.92.0	Northbound (A)	142.0	2007	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
177	Burnett Highway 41E	Dawson Highway CH.93.8 to CH.18.5	Southbound (G)	97.0	2007	120.0	3.0	2014.7	651,003	771,177	735,125	2014	660,838	781,011	2014.6	0.1	No
178	Burnett Highway 41E	CH.18.5 to Dawson Highway CH.93.8	Northbound (A)	97.0	2007	120.0	3.0	2014.7	651,003	771,177	735,125	2014	651,003	771,177	2014.7	0.0	No
179	Burnett Highway 41E	CH.18.5 to Jambin Rail Crossing CH.27.2	Southbound (G)	60.0	2007	120.0	3.0	2027.0	2,527,849	2,704,328	2,527,849	2027	2,527,849	2,704,328	2027.0	0.0	No
180	Burnett Highway 41E	Jambin Rail Crossing CH.27.2 to CH.18.5	Northbound (A)	60.0	2007	120.0	3.0	2027.0	2,527,849	2,704,328	2,527,849	2027	2,527,849	2,704,328	2027.0	0.0	No
181	Burnett Highway 41E	Jambin Rail Crossing CH.27.2 to Goovigen Connection Road CH.35.5	Southbound (G)	80.0	2007	120.0	3.0	2020.3	1,428,335	1,571,829	1,471,383	2020	1,428,335	1,571,829	2020.3	0.0	No
182	Burnett Highway 41E	Goovigen Connection Road CH.35.5 to Jambin Rail Crossing CH.27.2	Northbound (A)	80.0	2007	120.0	3.0	2020.3	1,428,335	1,571,829	1,471,383	2020	1,428,335	1,571,829	2020.3	0.0	No
183	Burnett Highway 41E	Goovigen Connection Road CH.35.5 to Tohlinn Road (South) CH.38.9	Southbound (G)	106.0	2007	120.0	3.0	2011.7	270,069	365,546	336,903	2011	270,069	365,546	2011.7	0.0	No
184	Burnett Highway 41E	Tohlinn Road (South) CH.38.9 to Goovigen Connection Road CH.35.5	Northbound (A)	106.0	2007	120.0	3.0	2011.7	270,069	365,546	336,903	2011	270,069	365,546	2011.7	0.0	No
185	Burnett Highway 41E	Tomlin Road (South) CH.38.9 to Tomlin Rd (North) CH.53.4	Southbound (G)	57.0	2007	120.0	3.0	2028.0	2,347,810	2,505,620	2,347,810	2028	2,347,810	2,505,620	2028.0	0.0	No
186	Burnett Highway 41E	Tomlin Rd (North) CH.53.4 to Tomlin Road (South) CH.38.9	Northbound (A)	57.0	2007	120.0	3.0	2028.0	2,347,810	2,505,620	2,347,810	2028	2,347,810	2,505,620	2028.0	0.0	

195	Dawson Highway 46C	Fitzroy Dev. 85A Intersection to Duaringa/Woorabinda Intersection	Westbound (G)	83.0	2007	120.0	3.0	2019.3	280,575	310,899	289,672	2017	262,523	291,106	2017.9	1.4	Yes
196	Dawson Highway 46C	Duaringa/Woorabinda Intersection to Fitzroy Dev. 85A Intersection	Eastbound (A)	83.0	2007	120.0	3.0	2019.3	280,575	310,899	289,672	2018	267,011	296,452	2018.8	0.5	No
197	Dawson Highway 46C	Duaringa/Woorabinda Intersection to Woorabinda/Duaringa Intersection	Westbound (G)	76.0	2007	120.0	3.0	2021.7	687,157	751,770	732,386	2021	727,128	791,741	2021.1	0.6	No
198	Dawson Highway 46C	Woorabinda/Duaringa to Duaringa/Woorabinda Intersection	Eastbound (A)	76.0	2007	120.0	3.0	2021.7	687,157	751,770	732,386	2021	703,033	767,646	2021.5	0.2	No
199	Dawson Highway 46C	Woorabinda/Duaringa to 46C/85B Intersection	Westbound (G)	80.0	2007	120.0	3.0	2020.3	624,426	687,157	643,245	2019	595,316	656,220	2019.8	0.5	No
200	Dawson Highway 46C	46C/85B Intersection to Woorabinda/Duaringa	Eastbound (A)	80.0	2007	120.0	3.0	2020.3	624,426	687,157	643,245	2020	631,224	693,955	2020.2	0.1	No
201	Dawson Highway 46C	46C/85B Intersection to Prospect Creek Culvert	Westbound (G)	64.0	2007	120.0	3.0	2025.7	831,696	894,865	875,914	2025	854,557	917,726	2025.3	0.4	No
202	Dawson Highway 46C	Prospect Creek Culvert to 46C/85B Intersection	Eastbound (A)	64.0	2007	120.0	3.0	2025.7	831,696	894,865	875,914	2025	838,494	901,664	2025.6	0.1	No
203	Dawson Highway 46C	Prospect Creek Culvert to Duaringa/Bauhinia Intersection	Westbound (G)	54.3	2007	120.0	3.0	2028.9	1,026,946	1,095,973	1,089,070	2028	1,049,807	1,118,834	2028.6	0.3	No
204	Dawson Highway 46C	Duaringa/Bauhinia Intersection to Prospect Creek Culvert	Eastbound (A)	54.3	2007	120.0	3.0	2028.9	1,026,946	1,095,973	1,089,070	2028	1,033,744	1,102,771	2028.8	0.1	No
205	Dawson Highway 46C	Duaringa/Bauhinia Intersection to KM 137.5	Westbound (G)	79.4	2007	120.0	3.0	2020.5	542,398	596,889	569,644	2020	565,260	619,750	2020.1	0.4	No
206	Dawson Highway 46C	KM 137.5 to Duaringa/Bauhinia Intersection	Eastbound (A)	79.4	2007	120.0	3.0	2020.5	542,398	596,889	569,644	2020	549,197	603,687	2020.4	0.1	No
207	Dawson Highway 46C	KM 137.5 to Rolleston	Westbound (G)	93.1	2007	120.0	3.0	2016.0	339,852	388,266	339,852	2015	293,880	340,884	2016.0	0.0	No
208	Dawson Highway 46C	Rollston to KM 137.5	Eastbound (A)	93.1	2007	120.0	3.0	2016.0	339,852	388,266	339,852	2015	293,880	340,884	2016.0	0.0	No
209	Leichhardt Highway 26A	District Boundary to 26A/85A intersection	Westbound (G)	70.0	2008	120.0	3.0	2024.7	1,944,901	2,099,736	2,053,286	2024	1,944,901	2,099,736	2024.7	0.0	No
210	Leichhardt Highway 26A	26A/84A intersection to District Boundary	Eastbound (A)	70.0	2008	120.0	3.0	2024.7	1,944,901	2,099,736	2,053,286	2024	1,944,901	2,099,736	2024.7	0.0	No
211	Leichhardt Highway 26A	26A/85A intersection to Taroom	Westbound (G)	68.0	2008	120.0	3.0	2025.3	2,418,339	2,602,018	2,473,442	2025	2,418,339	2,602,018	2025.3	0.0	No
212	Leichhardt Highway 26A	Taroom to 26A/84A intersection	Eastbound (A)	68.0	2008	120.0	3.0	2025.3	2,418,339	2,602,018	2,473,442	2025	2,418,339	2,602,018	2025.3	0.0	No
213	Leichhardt Highway 26B	Taroom to KM35.00	Westbound (G)	104.0	2008	120.0	3.0	2013.3	603,392	735,145	642,918	2013	603,392	735,145	2013.3	0.0	No
214	Leichhardt Highway 26B	KM35.00 to Taroom	Eastbound (A)	104.0	2008	120.0	3.0	2013.3	603,392	735,145	642,918	2013	603,392	735,145	2013.3	0.0	No
215	Leichhardt Highway 26B	KM35.00 to Jackson-Wandoan Road	Westbound (G)	81.0	2008	120.0	3.0	2021.0	1,774,986	1,941,887	1,774,986	2021	1,774,986	1,941,887	2021.0	0.0	No
216	Leichhardt Highway 26B	Jackson-Wandoan Road to KM35.00	Eastbound (A)	81.0	2008	120.0	3.0	2021.0	1,774,986	1,941,887	1,774,986	2021	1,774,986	1,941,887	2021.0	0.0	No
217	Leichhardt Highway 26B	Jackson-Wandoan Road to Miles	Westbound (G)	81.0	2008	120.0	3.0	2021.0	1,909,572	2,089,129	1,909,572	2021	1,909,572	2,089,129	2021.0	0.0	No
218	Leichhardt Highway 26B	Miles to Jackson-Wandoan Road	Eastbound (A)	81.0	2008	120.0	3.0	2021.0	1,909,572	2,089,129	1,909,572	2021	1,909,572	2,089,129	2021.0	0.0	No
219	Warrego Highway	Miles to 18D/Dulacca North Intersection	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,660,381	2,972,258	2,753,944	2017	2,514,083	2,831,605	2017.8	0.5	No
220	Warrego Highway	18D/Dulacca North Intersection to Miles	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,660,381	2,972,258	2,753,944	2018	2,697,002	3,011,469	2018.2	0.1	No
221	Warrego Highway	18D/Dulacca North Intersection to 18D/3441 Intersection\	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,376,828	2,655,465	2,460,419	2017	2,262,803	2,548,052	2017.7	0.6	No
222	Warrego Highway	18D/3441 Intersection to 18D/Dulacca North Intersection	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,376,828	2,655,465	2,460,419	2018	2,413,450	2,694,675	2018.2	0.1	No
223	Warrego Highway	18D/3441 Intersection to KM135.5	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,758,496	3,081,875	2,855,509	2017	2,601,031	2,929,719	2017.8	0.5	No
224	Warrego Highway	KM135.5 to 18D/3441 Intersection	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,758,496	3,081,875	2,855,509	2018	2,795,117	3,121,086	2018.2	0.1	No
225	Warrego Highway	KM135.5 to Roma	Westbound (G)	89.0	2008	120.0	3.0	2018.3	2,043,290	2,282,826	2,115,151	2017	2,096,286	2,363,321	2017.1	1.2	Yes
226	Warrego Highway	Roma to KM135.5	Eastbound (A)	89.0	2008	120.0	3.0	2018.3	2,043,290	2,282,826	2,115,151	2017	1,972,835	2,228,719	2017.6	0.7	No
227	Jackson-Wandoan Road	Warrego Highway Intersection to Grid	Northbound (A)	87.3	2008	120.0	3.0	2018.9	97,623	109,068	107,923	2018	97,623	109,068	2018.9	0.0	No
228	Jackson-Wandoan Road	Grid to 18D/Dulacca North Intersection	Southbound (G)	87.3	2008	120.0	3.0	2018.9	97,623	109,068	107,923	2018	97,623	109,068	2018.9	0.0	No
229	Jackson-Wandoan Road	Grid to Leichardt Highway	Eastbound (A)	128.3	2008	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
230	Jackson-Wandoan Road	Leichardt Highway to Grid	Westbound (G)	128.3	2008	120.0	3.0	O/R by 09	#N/A	#VALUE!	#N/A	#N/A	#N/A	#N/A	#N/A	#VALUE!	#VALUE!
231	Bruce Highway (10D)	Miriam Vale CH. 98.8 to CH. 112	Northbound (A)	70.0	2007	110.0	3.0	2020.3	9,216,041	10,141,903	9,493,800	2020	9,268,394	10,196,017	2020.2	0.1	No
232	Bruce Highway (10D)	CH. 112 to Miriam Vale CH. 98.8	Southbound (G)	70.0	2007	110.0	3.0	2020.3	9,216,041	10,141,903	9,493,800	2020	9,221,625	10,147,665	2020.3	0.0	No
233	Bruce Highway (10D)	CH. 112 to Benaraby CH. 147.1	Northbound (A)	64.0	2007	110.0	3.0	2022.3	11,095,542	12,077,790	11,390,216	2022	11,149,655	12,131,903	2022.2	0.1	No
234	Bruce Highway (10D)	Benaraby CH. 147.1 to CH. 112	Southbound (G)	64.0	2007	110.0	3.0	2022.3	11,095,542	12,077,790	11,390,216	2022	11,101,304	12,083,552	2022.3	0.0	No

Road Maintenance Cost			Direction	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
1	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Southbound (G)	\$11,077	\$11,852	\$12,682	\$13,570	\$14,520	\$15,536	\$16,623	\$17,787	\$19,032	\$20,364	\$21,790	\$23,315	\$24,947	\$26,694	\$28,562	\$30,562	\$32,701	\$34,990	\$37,439	\$40,060	\$42,864	\$45,865	\$49,075	\$52,510	\$56,186	\$60,119
2	Dawson Highway 46A	Gladstone-Mt Larcom Road to Breslin Street	Northbound (A)	\$11,077	\$11,852	\$12,682	\$13,570	\$14,520	\$15,536	\$16,623	\$17,787	\$19,032	\$20,364	\$21,790	\$23,315	\$24,947	\$26,694	\$28,562	\$30,562	\$32,701	\$34,990	\$37,439	\$40,060	\$42,864	\$45,865	\$49,075	\$52,510	\$56,186	\$60,119
3	Dawson Highway 46A	Breslin Street to Blain Drive	Southbound (G)	\$5,169	\$5,531	\$5,918	\$6,333	\$6,776	\$7,250	\$7,758	\$8,301	\$8,882	\$9,503	\$10,169	\$10,880	\$11,642	\$12,457	\$13,329	\$14,262	\$15,260	\$16,329	\$17,472	\$18,695	\$20,003	\$21,403	\$22,902	\$24,505	\$26,220	\$28,056
4	Dawson Highway 46A	Breslin Street to Blain Drive	Northbound (A)	\$5,169	\$5,531	\$5,918	\$6,333	\$6,776	\$7,250	\$7,758	\$8,301	\$8,882	\$9,503	\$10,169	\$10,880	\$11,642	\$12,457	\$13,329	\$14,262	\$15,260	\$16,329	\$17,472	\$18,695	\$20,003	\$21,403	\$22,902	\$24,505	\$26,220	\$28,056
5	Dawson Highway 46A	Blain Drive to Philip Street	Southbound (G)	\$6,646	\$7,111	\$7,609	\$8,142	\$8,712	\$9,322	\$9,974	\$10,672	\$11,419	\$12,219	\$13,074	\$13,989	\$14,968	\$16,016	\$17,137	\$18,337	\$19,621	\$20,994	\$22,464	\$24,036	\$25,718	\$27,519	\$29,445	\$31,506	\$33,712	\$36,072
6	Dawson Highway 46A	Blain Drive to Philip Street	Northbound (A)	\$6,646	\$7,111	\$7,609	\$8,142	\$8,712	\$9,322	\$9,974	\$10,672	\$11,419	\$12,219	\$13,074	\$13,989	\$14,968	\$16,016	\$17,137	\$18,337	\$19,621	\$20,994	\$22,464	\$24,036	\$25,718	\$27,519	\$29,445	\$31,506	\$33,712	\$36,072
7	Dawson Highway 46A	Philip Street to Penda Avenue	Southbound (G)	\$9,590	\$10,272	\$10,991	\$11,760	\$12,584	\$13,464	\$14,407	\$15,415	\$16,495	\$17,649	\$18,885	\$20,207	\$21,621	\$23,134	\$24,754	\$26,487	\$28,341	\$30,325	\$32,447	\$34,719	\$37,149	\$39,749	\$42,532	\$45,509	\$48,695	\$52,103
8	Dawson Highway 46A	Philip Street to Penda Avenue	Northbound (A)	\$9,590	\$10,272	\$10,991	\$11,760	\$12,584	\$13,464	\$14,407	\$15,415	\$16,495	\$17,649	\$18,885	\$20,207	\$21,621	\$23,134	\$24,754	\$26,487	\$28,341	\$30,325	\$32,447	\$34,719	\$37,149	\$39,749	\$42,532	\$45,509	\$48,695	\$52,103
9	Dawson Highway 46A	Penda Avenue to Chapman Drive	Southbound (G)	\$5,908	\$6,321	\$6,764	\$7,237	\$7,744	\$8,286	\$8,866	\$9,486	\$10,151	\$10,861	\$11,621	\$12,435	\$13,305	\$14,237	\$15,233	\$16,299	\$17,440	\$18,661	\$19,968	\$21,365	\$22,861	\$24,461	\$26,173	\$28,006	\$29,966	\$32,064
10	Dawson Highway 46A	Penda Avenue to Chapman Drive	Northbound (A)	\$5,908	\$6,321	\$6,764	\$7,237	\$7,744	\$8,286	\$8,866	\$9,486	\$10,151	\$10,861	\$11,621	\$12,435	\$13,305	\$14,237	\$15,233	\$16,299	\$17,440	\$18,661	\$19,968	\$21,365	\$22,861	\$24,461	\$26,173	\$28,006	\$29,966	\$32,064
11	Dawson Highway 46A	Chapman Drive to Don Young Drive	Southbound (G)	\$23,631	\$25,285	\$27,055	\$28,949	\$30,975	\$33,143	\$35,463	\$37,946	\$40,602	\$43,444	\$46,485	\$49,739	\$53,221	\$56,946	\$60,933	\$65,198	\$69,762	\$74,645	\$79,870	\$85,461	\$91,443	\$97,845	\$104,694	\$112,022	\$119,864	\$128,254
12	Dawson Highway 46A	Chapman Drive to Don Young Drive	Northbound (A)	\$23,631	\$25,285	\$27,055	\$28,949	\$30,975	\$33,143	\$35,463	\$37,946	\$40,602	\$43,444	\$46,485	\$49,739	\$53,221	\$56,946	\$60,933	\$65,198	\$69,762	\$74,645	\$79,870	\$85,461	\$91,443	\$97,845	\$104,694	\$112,022	\$119,864	\$128,254
13	Dawson Highway 46A	Don Young Drive to Harvey Road	Southbound (G)	\$14,031	\$15,013	\$16,064	\$17,188	\$18,391	\$19,679	\$21,056	\$22,530	\$24,107	\$25,795	\$27,601	\$29,533	\$31,600	\$33,812	\$36,179	\$38,711	\$41,421	\$44,321	\$47,423	\$50,743	\$54,295	\$58,095	\$62,162	\$66,513	\$71,169	\$76,151
14	Dawson Highway 46A	Don Young Drive to Harvey Road	Northbound (A)	\$14,031	\$15,013	\$16,064	\$17,188	\$18,391	\$19,679	\$21,056	\$22,530	\$24,107	\$25,795	\$27,601	\$29,533	\$31,600	\$33,812	\$36,179	\$38,711	\$41,421	\$44,321	\$47,423	\$50,743	\$54,295	\$58,095	\$62,162	\$66,513	\$71,169	\$76,151
15	Dawson Highway 46A	Harvey Road to Bruce Highway	Southbound (G)	\$94,249	\$98,743	\$103,555	\$108,704	\$114,213	\$119,108	\$124,356	\$129,961	\$135,928	\$142,263	\$148,974	\$156,069	\$163,557	\$171,447	\$179,747	\$188,465	\$197,602	\$207,172	\$217,187	\$227,652	\$238,582	\$249,992	\$261,987	\$274,572	\$287,753	\$301,534
16	Dawson Highway 46A	Harvey Road to Bruce Highway	Northbound (A)	\$94,249	\$98,743	\$103,555	\$108,704	\$114,213	\$119,108	\$124,356	\$129,961	\$135,928	\$142,263	\$148,974	\$156,069	\$163,557	\$171,447	\$179,747	\$188,465	\$197,602	\$207,172	\$217,187	\$227,652	\$238,582	\$249,992	\$261,987	\$274,572	\$287,753	\$301,534
17	Dawson Highway 46A	Bruce Highway to Dryan Drive	Southbound (G)	\$20,308	\$21,729	\$23,250	\$24,878	\$26,619	\$28,483	\$30,476	\$32,610	\$34,892	\$37,335	\$39,948	\$42,745	\$45,737	\$48,938	\$52,364	\$56,029	\$59,952	\$64,148	\$68,639	\$73,443	\$78,584	\$84,085	\$89,971	\$96,269	\$103,008	\$110,218
18	Dawson Highway 46A	Bruce Highway to Dryan Drive	Northbound (A)	\$20,308	\$21,729	\$23,250	\$24,878	\$26,619	\$28,483	\$30,476	\$32,610	\$34,892	\$37,335	\$39,948	\$42,745	\$45,737	\$48,938	\$52,364	\$56,029	\$59,952	\$64,148	\$68,639	\$73,443	\$78,584	\$84,085	\$89,971	\$96,269	\$103,008	\$110,218
19	Dawson Highway 46A	Dryan Drive to Gladstone-Monto Road	Westbound (G)	\$24,810	\$26,547	\$28,405	\$30,393	\$32,521	\$34,797	\$37,233	\$39,839	\$42,628	\$45,612	\$48,805	\$52,221	\$55,877	\$59,788	\$63,973	\$68,452	\$73,243	\$78,370	\$83,856	\$89,726	\$96,007	\$102,727	\$109,918	\$117,612	\$125,845	\$134,655
20	Dawson Highway 46A	Dryan Drive to Gladstone-Monto Road	Eastbound (A)	\$24,810	\$26,547	\$28,405	\$30,393	\$32,521	\$34,797	\$37,233	\$39,839	\$42,628	\$45,612	\$48,805	\$52,221	\$55,877	\$59,788	\$63,973	\$68,452	\$73,243	\$78,370	\$83,856	\$89,726	\$96,007	\$102,727	\$109,918	\$117,612	\$125,845	\$134,655
21	Dawson Highway 46A	Gladstone-Monto Road to Access to Pipeline Camp 4	Westbound (G)	\$146,782	\$157,057	\$168,051	\$179,814	\$192,401	\$205,869	\$220,280	\$235,700	\$252,199	\$269,853	\$288,742	\$308,954	\$330,581	\$353,722	\$378,482	\$404,976	\$433,324	\$463,657	\$496,113	\$530,841	\$568,000	\$607,760	\$650,303	\$695,824	\$744,532	\$796,649
22	Dawson Highway 46A	Access to Pipeline Camp 4 to Gladstone-Monto Road	Eastbound (A)	\$146,782	\$157,057	\$168,051	\$179,814	\$192,401	\$205,869	\$220,280	\$235,700	\$252,199	\$269,853	\$288,742	\$308,954	\$330,581	\$353,722	\$378,482	\$404,976	\$433,324	\$463,657	\$496,113	\$530,841	\$568,000	\$607,760	\$650,303	\$695,824	\$744,532	\$796,649
23	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Westbound (G)	\$147,978	\$158,337	\$169,420	\$181,280	\$193,969	\$207,547	\$222,076	\$237,621	\$254,254	\$272,052	\$291,096	\$311,472	\$333,276	\$356,605	\$381,567	\$408,277	\$436,856	\$467,436	\$500,157	\$535,168	\$572,629	\$612,713	\$655,603	\$701,496	\$750,600	\$803,142
24	Dawson Highway 46A	Access to Pipeline Camp 4 to New point 1	Eastbound (A)	\$147,978	\$158,337																								

119	Leichhardt Highway 26A	CH. 86.0 Fairview Road to CH. 88.0	Southbound (G)	\$12,594	\$13,475	\$14,419	\$15,428	\$16,508	\$17,664	\$18,900	\$20,223	\$21,639	\$23,153	\$24,774	\$26,508	\$28,364	\$30,349	\$32,474	\$34,747	\$37,179	\$39,782	\$42,567	\$45,546	\$48,734	\$52,146	\$55,796	\$59,702	\$63,881	\$68,353
120	Leichhardt Highway 26A	CH. 88.0 to CH. 88.0	Northbound (A)	\$12,594	\$13,475	\$14,419	\$15,428	\$16,508	\$17,664	\$18,900	\$20,223	\$21,639	\$23,153	\$24,774	\$26,508	\$28,364	\$30,349	\$32,474	\$34,747	\$37,179	\$39,782	\$42,567	\$45,546	\$48,734	\$52,146	\$55,796	\$59,702	\$63,881	\$68,353
121	Leichhardt Highway 26A	CH. 88.0 to CH. 99.0 (Camp 3)	Southbound (G)	\$69,256	\$74,115	\$79,303	\$84,854	\$90,794	\$97,150	\$103,950	\$111,227	\$119,013	\$127,344	\$136,258	\$145,796	\$156,001	\$166,921	\$178,606	\$191,108	\$204,486	\$218,800	\$242,116	\$250,504	\$268,039	\$286,802	\$306,878	\$329,360	\$351,345	\$375,939
122	Leichhardt Highway 26A	CH. 99.0 (Camp 3) to CH. 88.0	Northbound (A)	\$69,266	\$74,115	\$79,303	\$84,854	\$90,794	\$97,150	\$103,950	\$111,227	\$119,013	\$127,344	\$136,258	\$145,796	\$156,001	\$166,921	\$178,606	\$191,108	\$204,486	\$218,800	\$242,116	\$250,504	\$268,039	\$286,802	\$306,878	\$329,360	\$351,345	\$375,939
123	Leichhardt Highway 26A	CH. 99.0 to Banania CH. 105.2	Southbound (G)	\$39,041	\$41,774	\$44,698	\$47,827	\$51,175	\$54,757	\$58,590	\$62,691	\$67,080	\$71,775	\$76,800	\$82,176	\$87,928	\$94,083	\$100,669	\$107,716	\$115,256	\$123,324	\$131,956	\$141,193	\$151,077	\$161,652	\$172,968	\$185,075	\$198,031	\$211,893
124	Leichhardt Highway 26A	Banania CH. 105.2 to CH. 99.0	Northbound (A)	\$39,041	\$41,774	\$44,698	\$47,827	\$51,175	\$54,757	\$58,590	\$62,691	\$67,080	\$71,775	\$76,800	\$82,176	\$87,928	\$94,083	\$100,669	\$107,716	\$115,256	\$123,324	\$131,956	\$141,193	\$151,077	\$161,652	\$172,968	\$185,075	\$198,031	\$211,893
125	Leichhardt Highway 26A	Banania CH. 105.2 to CH. 117.0	Southbound (G)	\$14,304	\$15,505	\$16,807	\$18,208	\$19,710	\$21,311	\$23,013	\$24,814	\$26,715	\$28,716	\$30,817	\$33,018	\$35,319	\$37,720	\$40,221	\$42,822	\$45,523	\$48,324	\$51,225	\$54,226	\$57,327	\$60,528	\$63,829	\$67,230	\$70,731	\$74,332
126	Leichhardt Highway 26A	CH. 117.0 to Banania CH. 105.2	Northbound (A)	\$14,304	\$15,505	\$16,807	\$18,208	\$19,710	\$21,311	\$23,013	\$24,814	\$26,715	\$28,716	\$30,817	\$33,018	\$35,319	\$37,720	\$40,221	\$42,822	\$45,523	\$48,324	\$51,225	\$54,226	\$57,327	\$60,528	\$63,829	\$67,230	\$70,731	\$74,332
127	Leichhardt Highway 26A	CH. 117.0 to CH. 124.0	Southbound (G)	\$39,270	\$42,019	\$44,960	\$48,108	\$51,475	\$55,078	\$58,934	\$63,059	\$67,473	\$72,196	\$77,250	\$82,658	\$88,444	\$94,635	\$101,259	\$108,347	\$115,932	\$124,047	\$132,730	\$142,021	\$151,963	\$162,600	\$173,982	\$186,161	\$199,192	\$213,136
128	Leichhardt Highway 26A	CH. 124.0 to CH. 117.0	Northbound (A)	\$39,270	\$42,019	\$44,960	\$48,108	\$51,475	\$55,078	\$58,934	\$63,059	\$67,473	\$72,196	\$77,250	\$82,658	\$88,444	\$94,635	\$101,259	\$108,347	\$115,932	\$124,047	\$132,730	\$142,021	\$151,963	\$162,600	\$173,982	\$186,161	\$199,192	\$213,136
129	Leichhardt Highway 26A	Theodore CH. 162.3 to CH. 124.0	Westbound (G)	\$241,173	\$258,055	\$276,119	\$295,448	\$316,129	\$338,258	\$361,936	\$387,271	\$414,380	\$443,387	\$474,424	\$507,634	\$543,168	\$581,190	\$621,873	\$665,404	\$711,983	\$761,822	\$815,149	\$872,209	\$933,264	\$996,593	\$1,068,494	\$1,143,289	\$1,223,319	\$1,308,951
130	Leichhardt Highway 26A	CH. 124.0 to Theodore CH. 162.4	Eastbound (A)	\$241,173	\$258,055	\$276,119	\$295,448	\$316,129	\$338,258	\$361,936	\$387,271	\$414,380	\$443,387	\$474,424	\$507,634	\$543,168	\$581,190	\$621,873	\$665,404	\$711,983	\$761,822	\$815,149	\$872,209	\$933,264	\$996,593	\$1,068,494	\$1,143,289	\$1,223,319	\$1,308,951
131	Leichhardt Highway 26A	Theodore CH. 162.3 to CH. 124.0	Westbound (G)	\$50,376	\$53,902	\$57,675	\$61,712	\$66,032	\$70,654	\$75,600	\$80,892	\$86,555	\$92,613	\$99,096	\$106,033	\$113,456	\$121,397	\$129,895	\$138,988	\$148,717	\$159,127	\$170,266	\$182,185	\$194,938	\$208,583	\$223,184	\$238,807	\$255,524	\$273,410
132	Leichhardt Highway 26A	Theodore CH. 162.3 to Glenmorral Roundstone Road	Eastbound (A)	\$50,376	\$53,902	\$57,675	\$61,712	\$66,032	\$70,654	\$75,600	\$80,892	\$86,555	\$92,613	\$99,096	\$106,033	\$113,456	\$121,397	\$129,895	\$138,988	\$148,717	\$159,127	\$170,266	\$182,185	\$194,938	\$208,583	\$223,184	\$238,807	\$255,524	\$273,410
133	Leichhardt Highway 26A	Glenmorral Roundstone Road to Isla Delusion Road	Westbound (G)	\$96,268	\$92,307	\$88,768	\$105,682	\$113,080	\$120,996	\$129,465	\$138,528	\$148,225	\$158,601	\$169,703	\$181,582	\$194,293	\$207,893	\$222,446	\$238,017	\$254,678	\$272,505	\$291,581	\$311,991	\$333,831	\$357,199	\$382,203	\$408,957	\$437,584	\$468,215
134	Leichhardt Highway 26A	Isla Delusion Road to Glenmorral Roundstone Road	Eastbound (A)	\$96,268	\$92,307	\$88,768	\$105,682	\$113,080	\$120,996	\$129,465	\$138,528	\$148,225	\$158,601	\$169,703	\$181,582	\$194,293	\$207,893	\$222,446	\$238,017	\$254,678	\$272,505	\$291,581	\$311,991	\$333,831	\$357,199	\$382,203	\$408,957	\$437,584	\$468,215
135	Leichhardt Highway 26A	Sun Valley Road CH. 0.645 to Dawson Highway CH. 0.00	Northbound (A)	\$5,306	\$5,751	\$6,240	\$6,772	\$7,346	\$7,964	\$8,628	\$9,339	\$10,098	\$10,907	\$11,768	\$12,682	\$13,652	\$14,689	\$15,795	\$16,971	\$18,218	\$19,537	\$20,930	\$22,400	\$23,958	\$25,607	\$27,349	\$29,187	\$31,125	\$33,165
136	Leichhardt Highway 26A	District Boundary to Isla Delusion Road	Eastbound (A)	\$31,635	\$35,249	\$39,117	\$43,255	\$47,683	\$52,419	\$57,463	\$62,825	\$68,519	\$74,569	\$80,992	\$87,807	\$94,994	\$102,564	\$110,527	\$118,983	\$127,934	\$137,381	\$147,325	\$157,768	\$168,710	\$179,151	\$190,089	\$201,524	\$213,557	\$226,189
137	Bruce Highway	Gladstone-Bareraby Road to Dawson Highway	Westbound (G)	\$91,013	\$86,684	\$82,752	\$99,245	\$106,192	\$113,625	\$121,579	\$130,089	\$139,196	\$148,939	\$159,365	\$170,521	\$182,457	\$195,229	\$208,895	\$223,518	\$239,164	\$255,905	\$273,813	\$292,986	\$313,495	\$335,421	\$358,921	\$384,045	\$410,928	\$439,693
138	Bruce Highway	Gladstone-Bareraby Road to Dawson Highway	Eastbound (A)	\$91,013	\$86,684	\$82,752	\$99,245	\$106,192	\$113,625	\$121,579	\$130,089	\$139,196	\$148,939	\$159,365	\$170,521	\$182,457	\$195,229	\$208,895	\$223,518	\$239,164	\$255,905	\$273,813	\$292,986	\$313,495	\$335,421	\$358,921	\$384,045	\$410,928	\$439,693
139	Bruce Highway	Dawson Highway to Callopie River Road	Westbound (G)	\$57,508	\$61,320	\$65,612	\$70,205	\$75,119	\$80,377	\$86,004	\$92,024	\$98,466	\$105,358	\$112,733	\$120,625	\$129,069	\$138,103	\$147,771	\$158,114	\$169,183	\$181,025	\$193,697	\$207,256	\$221,764	\$237,287	\$253,897	\$271,670	\$290,687	\$311,035
140	Bruce Highway	Dawson Highway to Callopie River Road	Eastbound (A)	\$57,508	\$61,320	\$65,612	\$70,205	\$75,119	\$80,377	\$86,004	\$92,024	\$98,466	\$105,358	\$112,733	\$120,625	\$129,069	\$138,103	\$147,771	\$158,114	\$169,183	\$181,025	\$193,697	\$207,256	\$221,764	\$237,287	\$253,897	\$271,670	\$290,687	\$311,035
141	Bruce Highway	Callopie River Road to Gladstone Mt-Larcom Road	Westbound (G)	\$168,129	\$179,898	\$192,490	\$205,965	\$220,382	\$235,609	\$252,316	\$269,978	\$288,876	\$309,098	\$330,734	\$353,886	\$378,658	\$405,164	\$433,525	\$463,872	\$496,343	\$531,087	\$568,263	\$608,402	\$650,604	\$696,147	\$744,877	\$797,018	\$852,810	\$912,506
142	Bruce Highway	Callopie River Road to Gladstone Mt-Larcom Road	Eastbound (A)	\$168,129	\$179,898	\$192,490	\$205,965	\$220,382	\$235,609	\$252,316	\$269,978	\$288,876	\$309,098	\$330,734	\$353,886	\$378,658	\$405,164	\$433,525	\$463,872	\$496,343	\$531,087	\$568,263	\$608,402	\$650,604	\$696,147	\$744,877	\$797,018	\$852,810	\$912,506
143	Bruce Highway	Gladstone Mt Larcom Road to Bajool Port Alma Road	Westbound (G)	\$294,646	\$315,271	\$337,340	\$360,954	\$386,220	\$413,256	\$442,184	\$473,137	\$506,256	\$541,694	\$579,613	\$620,186	\$663,599	\$710,051	\$759,754	\$812,937	\$869,842	\$930,731	\$995,883	\$1,065,594	\$1,140,186	\$1,219,999	\$1,305,399	\$1,396,777	\$1,494,551	\$1,599,170
144	Bruce Highway	Gladstone Mt Larcom Road to Bajool Port Alma Road	Eastbound (A)	\$294,646	\$315,271	\$337,340	\$360,954	\$386,220	\$413,256	\$442,184	\$473,137	\$506,256	\$541,694	\$579,613	\$620,186	\$663,599	\$710,051	\$759,754	\$812,937	\$869,842	\$930,731	\$995,883	\$1,065,594	\$1,140,186	\$1,219,999	\$1,305,399	\$1,396,777	\$1,494,551	\$1,599,170
145	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Westbound (G)	\$175,015	\$187,266	\$200,375	\$214,401	\$229,409	\$245,468	\$262,651	\$281,036	\$300,709	\$321,758	\$344,281	\$368,381	\$394,188	\$421,759	\$451,283	\$482,872	\$516,673	\$552,840	\$591,539	\$632,947	\$672,251	\$714,661	\$757,387	\$802,664	\$851,741	\$904,983
146	Bruce Highway	Bajool Port Alma Road to Gavial-Gracemere Road	Eastbound (A)	\$175,015	\$187,266	\$200,375	\$214,401	\$229,409	\$245,468	\$262,651	\$281,036	\$300,709	\$321,758	\$344,281	\$368,381	\$394,188	\$421,759	\$451,283	\$482,872	\$516,673	\$552,840	\$591,539	\$632,947	\$672,251	\$714,661	\$757,387	\$802,664	\$851,741	\$904,983
147	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Westbound (G)	\$39,677	\$42,668	\$45,655	\$48,851	\$52,270	\$55,929	\$59,844	\$64,034	\$68,516	\$73,312	\$78,444	\$83,935	\$89,810	\$96,097	\$102,824	\$110,022	\$117,723	\$125,964	\$134,781	\$144,216	\$154,311	\$165,113	\$176,671	\$189,037	\$202,270	\$216,429
148	Bruce Highway	Gavial-Gracemere Road to Burnett Highway	Eastbound (A)	\$39,677	\$42,668	\$45,655	\$48,851	\$52,270	\$55,929	\$59,844	\$64,034	\$68,516	\$73,312	\$78,444	\$83,935	\$89,810	\$96,097	\$102,824	\$110,022	\$117,723	\$125,964	\$134,781	\$144,216	\$154,311	\$165,113	\$176,671	\$189,037	\$202,270	\$216,429
149	Bruce Highway	Burnett Highway to Capricorn Highway	Westbound (G)	\$20,586	\$22,455	\$24,027	\$25,709	\$27,508	\$29,434	\$31,494	\$33,699	\$36,058	\$38,582	\$41,283	\$44,172	\$47,265	\$50,573	\$54,113	\$57,901	\$61,954	\$66,291	\$70,931	\$75,897	\$81,209	\$86,894	\$92,976	\$99,485	\$106,449	\$113,900
150	Bruce Highway	Burnett Highway to Capricorn Highway	Eastbound (A)	\$20,586	\$22,455	\$24,027	\$25,709	\$27,508	\$29,434	\$31,494	\$33,699	\$36,058	\$38,582	\$41,283	\$44,172	\$47,265	\$50,573	\$54,113	\$57,901	\$61,954	\$66,291	\$70,931	\$75,897	\$81,209	\$86,894	\$92,976	\$99,485	\$106,449	\$113,900
151	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	\$32,084	\$33,630	\$35,284	\$37,054	\$38,947	\$40,974	\$43,142	\$45,462	\$47,944	\$50,590	\$53,422	\$56,443	\$59,659	\$63,073	\$66,687	\$70,501	\$74,524	\$78,757	\$83,201	\$87,855	\$92,719	\$97,794	\$103,081	\$108,581	\$114,294	\$120,221
152	Bruce Highway	Capricorn Highway to Stanley Street	Eastbound (A)	\$32,084	\$33,630	\$35,284	\$37,054	\$38,947	\$40,974	\$43,142	\$45,462	\$47,944	\$50,590	\$53,422	\$56,443	\$59,659	\$63,073	\$66,687	\$70,501	\$74,524	\$78,757	\$83,201	\$87,855	\$92,719	\$97,794	\$103,081	\$108,581	\$114,294	\$120,221
153	Bruce Highway	Capricorn Highway to Stanley Street	Westbound (G)	\$10,806	\$11,348	\$11,943	\$12,593	\$13,302	\$14,075	\$14,917	\$15,831	\$16,823	\$17,894	\$19,046	\$20,288	\$21,620	\$23,042	\$24,555	\$26,158	\$27,851	\$29,634	\$31,507	\$33,470	\$35,523	\$				

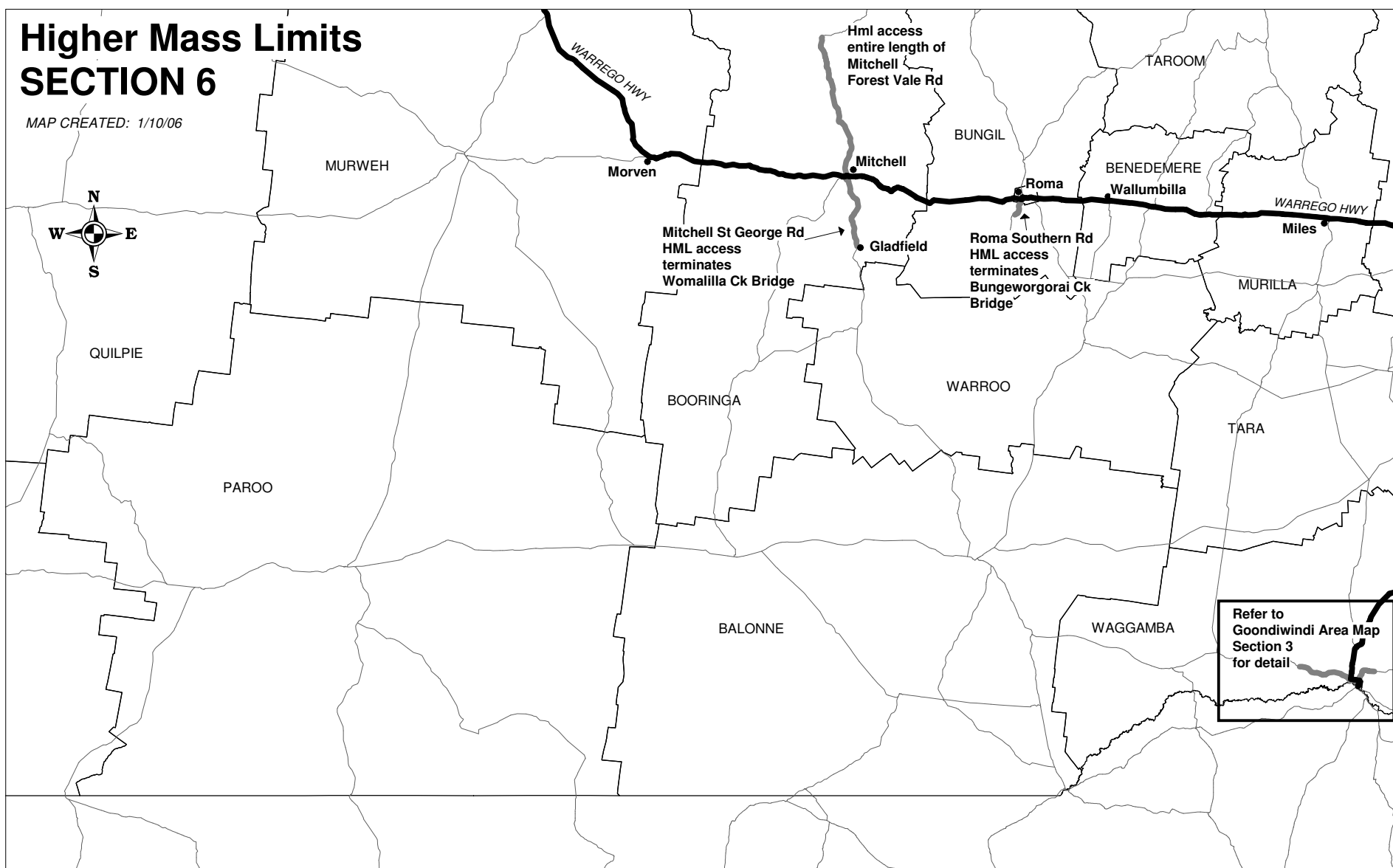
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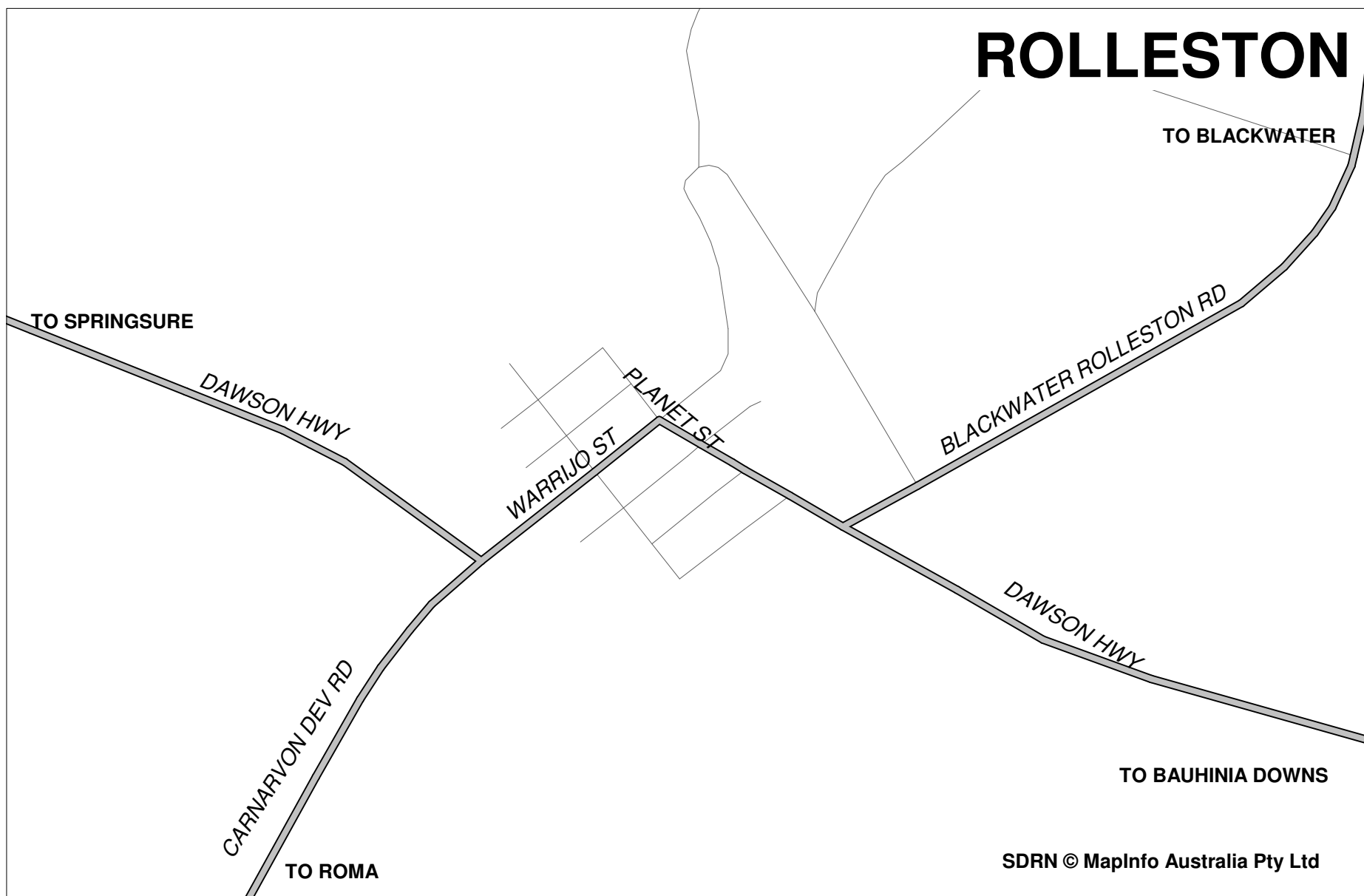
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Appendix J

Queensland Transport Approved Heavy Vehicle Routes

APPROVED ROUTES FOR HIGHER MASS LIMITS FOR VEHICLES WITH ROAD FRIENDLY SUSPENSIONS



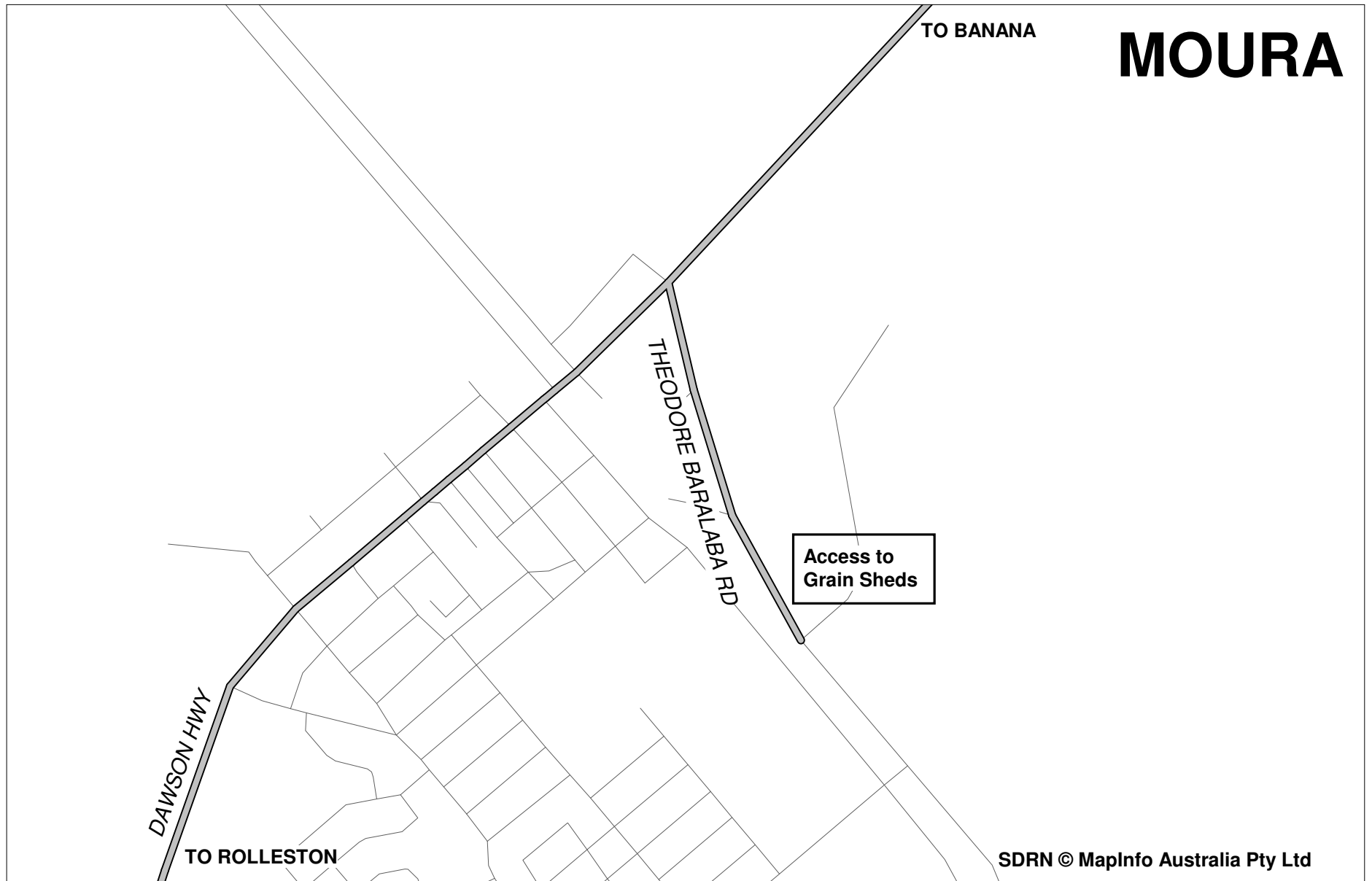


Refer to Legend for identification of marked routes and shaded areas



Queensland Government

Queensland Transport



Refer to Legend for identification of marked routes and shaded areas

MULTI-COMBINATION VEHICLES IN QUEENSLAND

MARKED ROUTES

The following legend indicates which vehicles may/or may not use routes which are marked in the maps.

The vehicle description listed opposite the type of route marking indicates which vehicles are permitted or not permitted on routes depicted in that manner in the maps.

Legend

23 metre B-doubles only	
23 metre & 25 metre B-doubles only	
Type 1 road trains, 23 metre & 25 metre B-doubles only	
Type 1 and Type 2 road trains, 23 metre & 25 metre B-doubles	
No road trains or B-doubles to operate on these roads	

Operations are not permitted on roads where signs prohibit use or as indicated by above legend

SHADED AREAS

There are two shaded areas indicated on the maps.

These areas indicate that specified types of multi-combination vehicles can operate on most roads within the specified shaded area as per the legend above and text below.

 All multi-combination vehicles
(excluding Type 2 road trains)

Light shaded area

There are some marked routes in the light shaded area that cannot be used by road train or B-double combinations. Refer to the marked routes legend to identify these routes on maps.

 All multi-combination vehicles

Dark shaded area

There are some marked routes in the dark shaded area that cannot be used by road train or B-double combinations. Refer to the marked routes legend to identify these routes on maps.

There are maps provided for some towns within the shaded areas where operation of road train or B-double combinations is limited to the routes specified (see index to locate these maps which are marked with an asterisk).

Operations in other towns is not restricted unless signs prohibit use or the route is marked for no road train or B-double operations in the guideline.

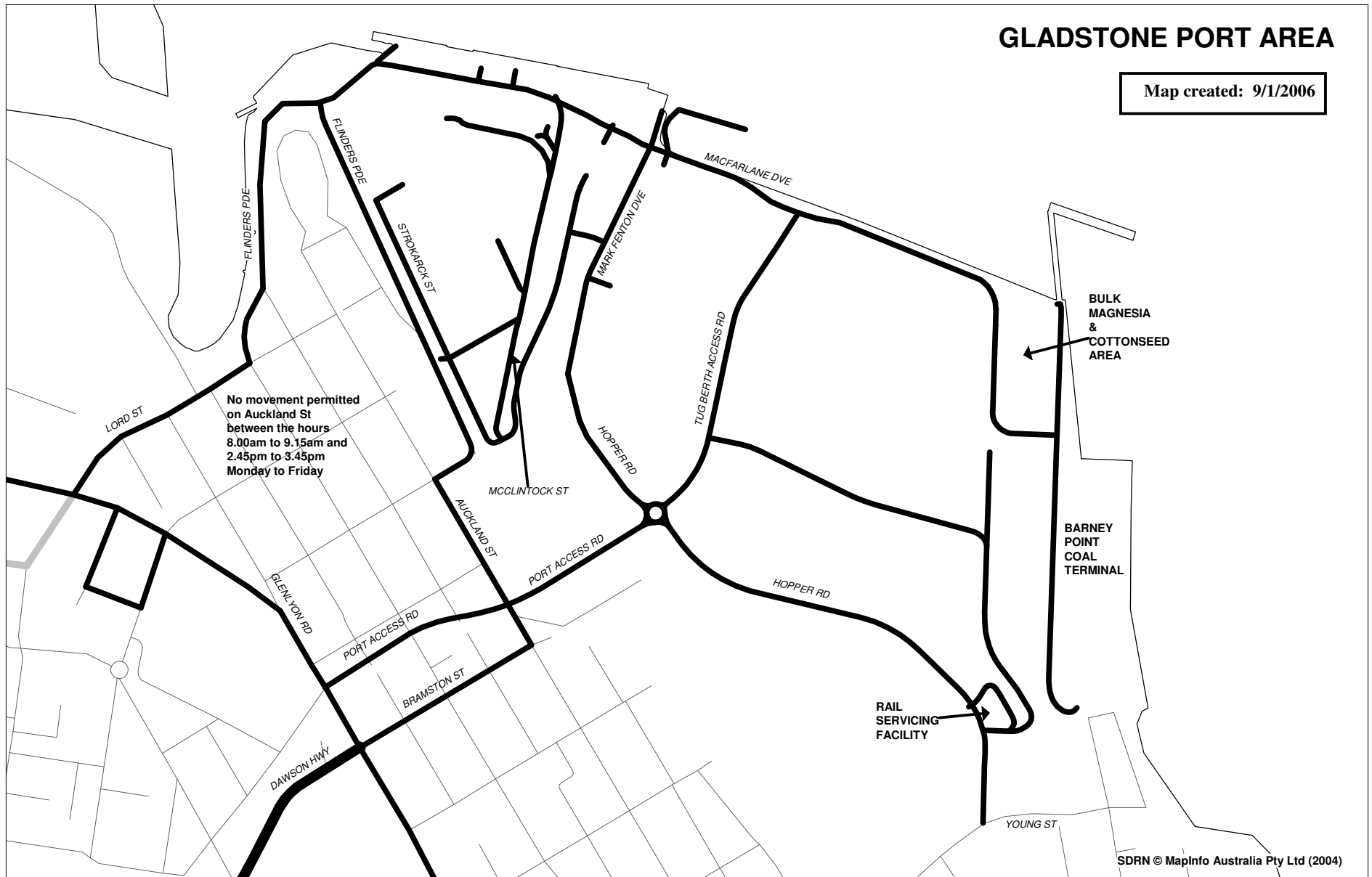
Operations on local authority roads in shaded areas is not restricted unless signs prohibit use or the route is marked for no road train or B-double operations in the guideline.

UNSHADED AREA

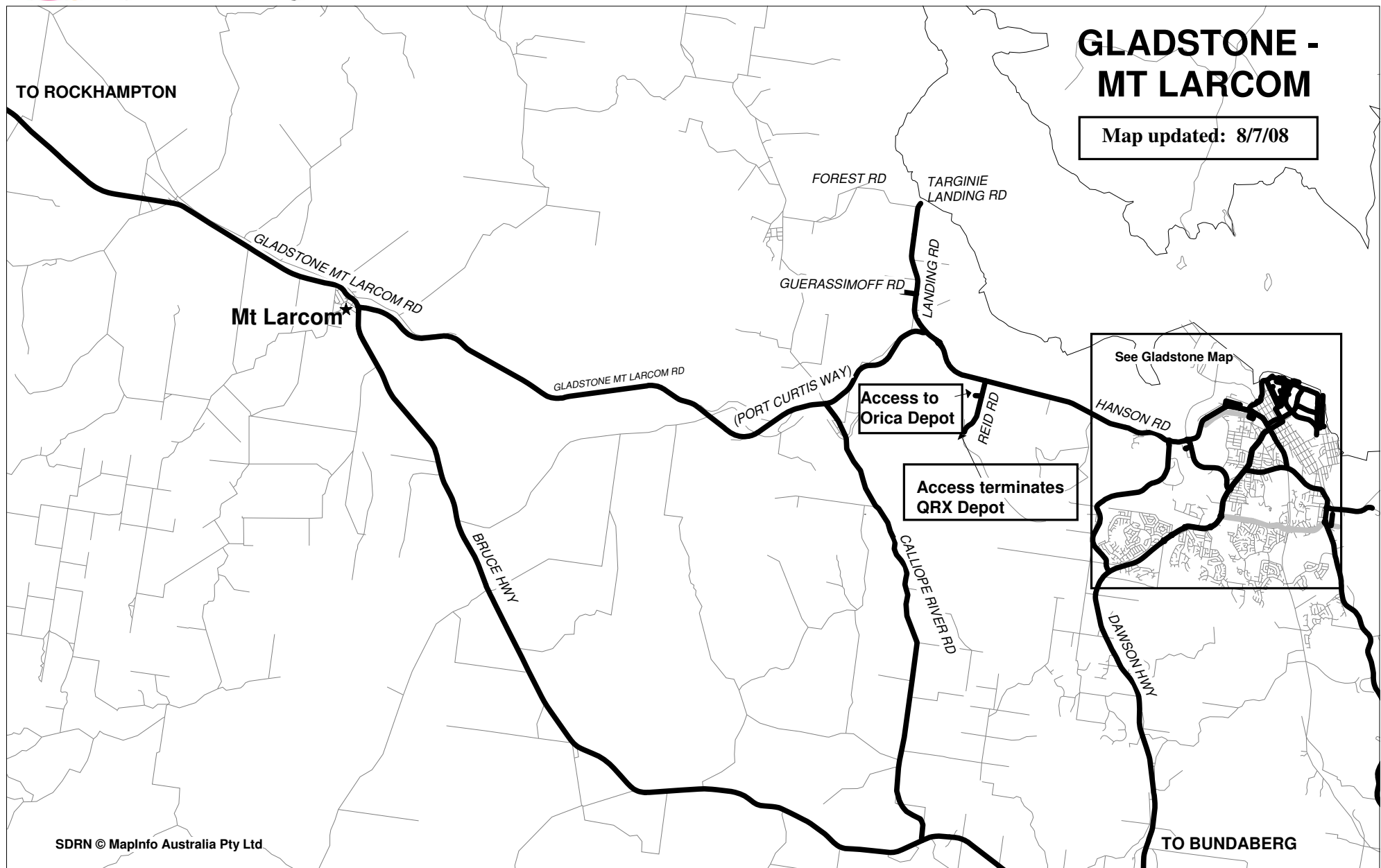
There is also an unshaded (all white) area where multi-combination vehicles can only operate on marked routes as per the legend above.

 Multi-combination vehicles may operate
only on approved routes shown.

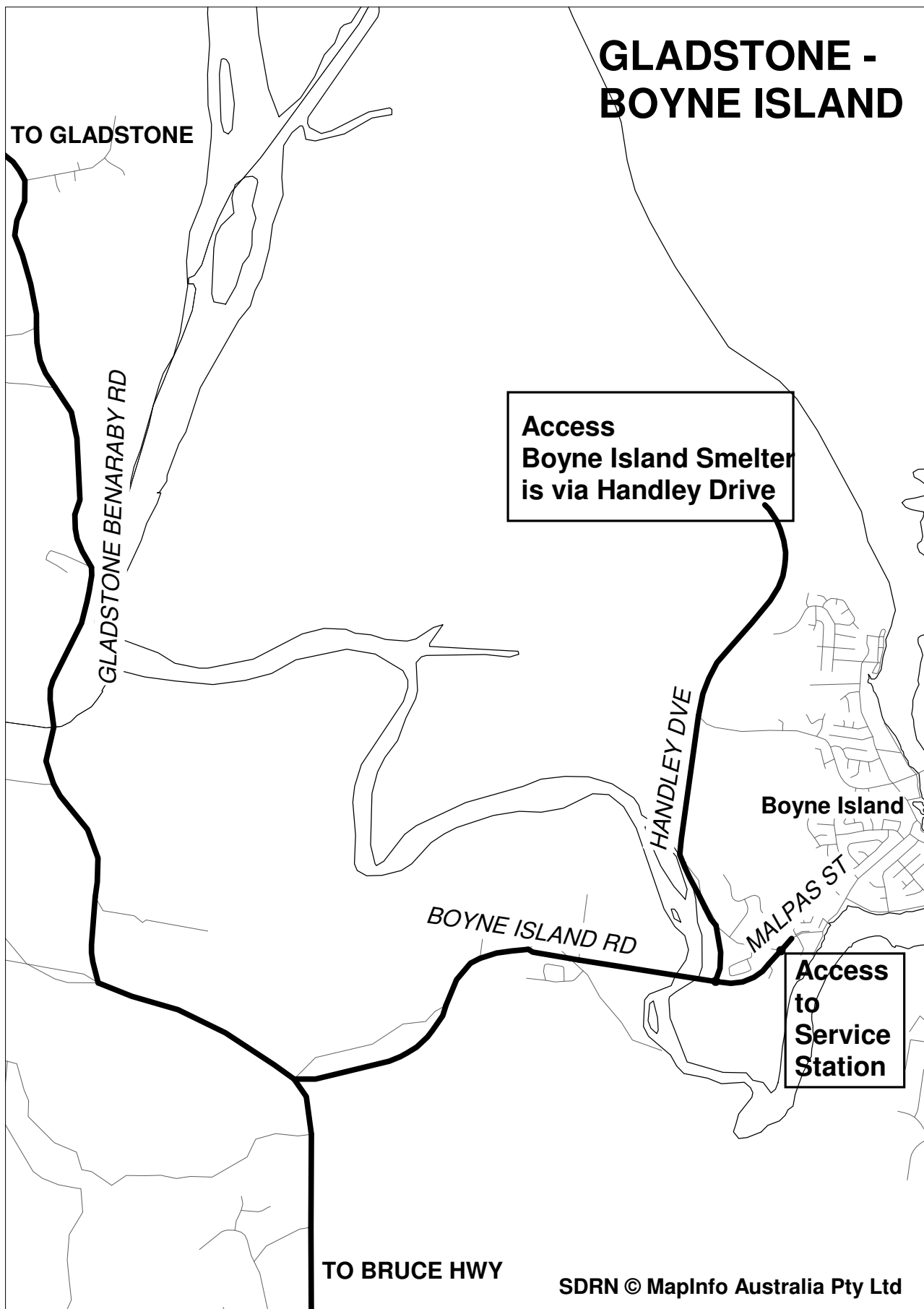
All white area



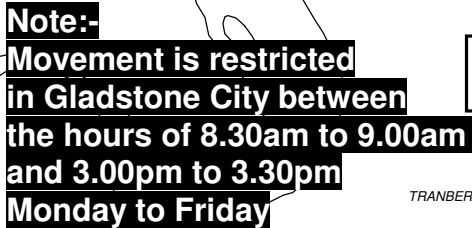
Refer to Legend for identification of marked routes and shaded areas



Refer to Legend for identification of marked routes and shaded areas



Refer to Legend for identification of marked routes and shaded areas



Access via Tranberg St,
Drewe St, Kingdon St
to Hanson Rd

SEE GLADSTONE PORT MAP
for detail

GLADSTONE

Map updated: 15/8/06

Auckland St
No movement permitted
between the hours
8.00am to 9.15am and
2.45pm to 3.45pm
Monday to Friday

**Access from
Brambles,
French St to
QAL Wharf
Parsons Point**

23 metre
access to
Reef
City Ford

23 metre access
Manning St

Access to Gladstone Power Station

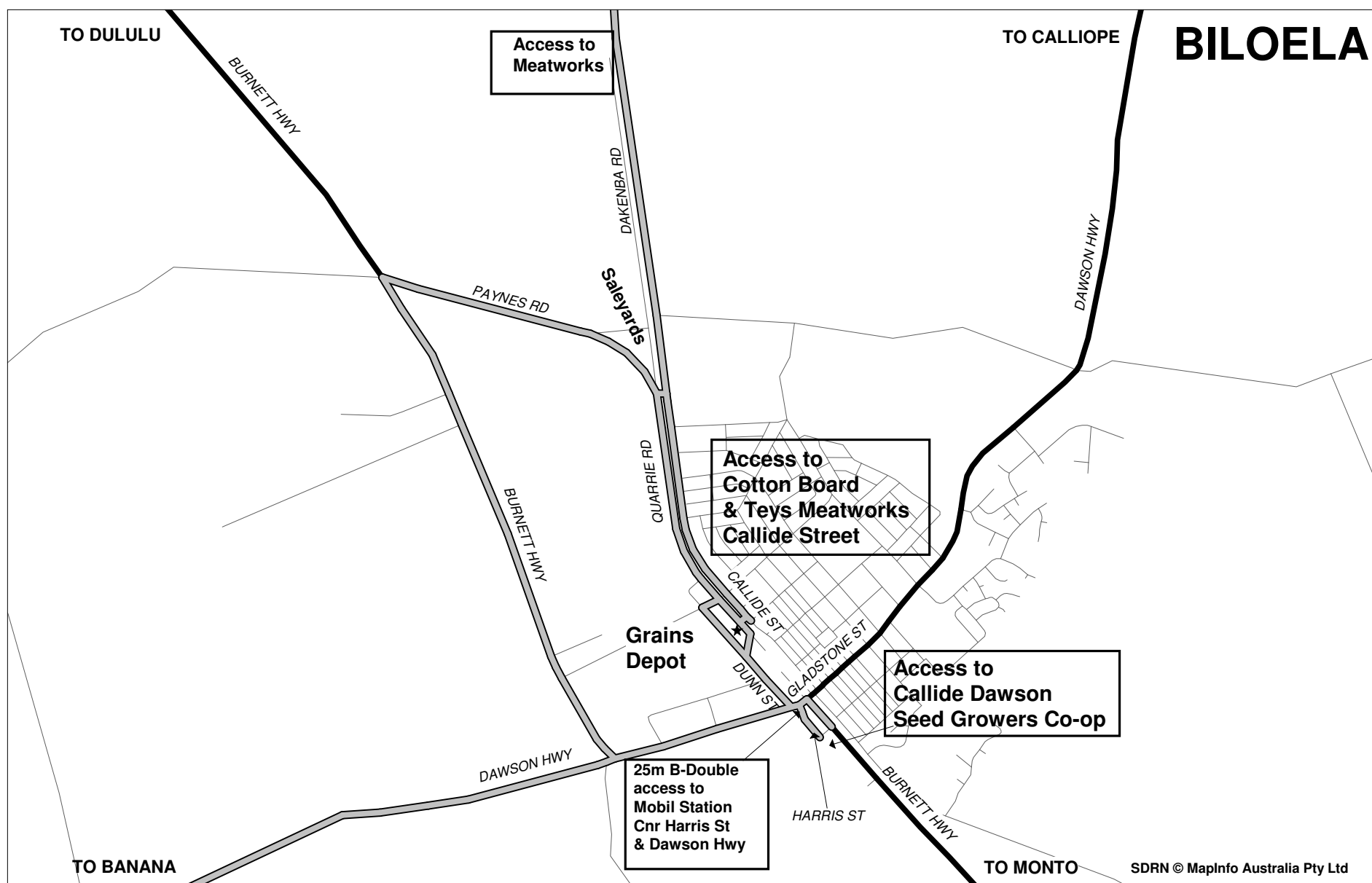
**Red Rover Rd from
Don Young Dve
Callemondah Overpass
to Hanson Road
(Port Curtis Way)**

**Access to
transport depot
Cnr Bassett &
Garfield Sts**

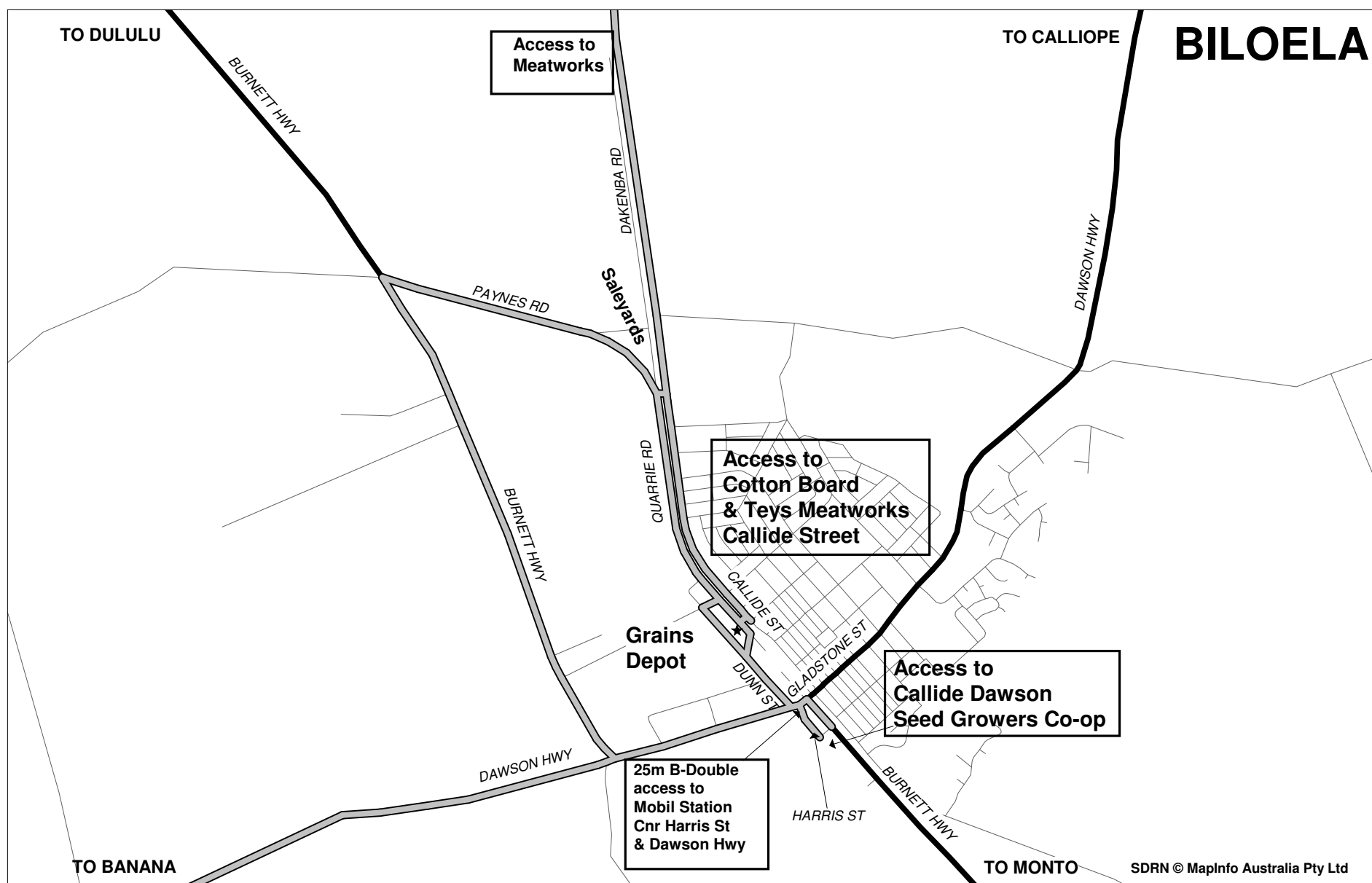
Access to QT
Inspection
Centre
Paterson Street

**Don Young Drive
from Dawson Hwy to
Red Rover Rd via the
Callemondah
Overpass Bridges.**

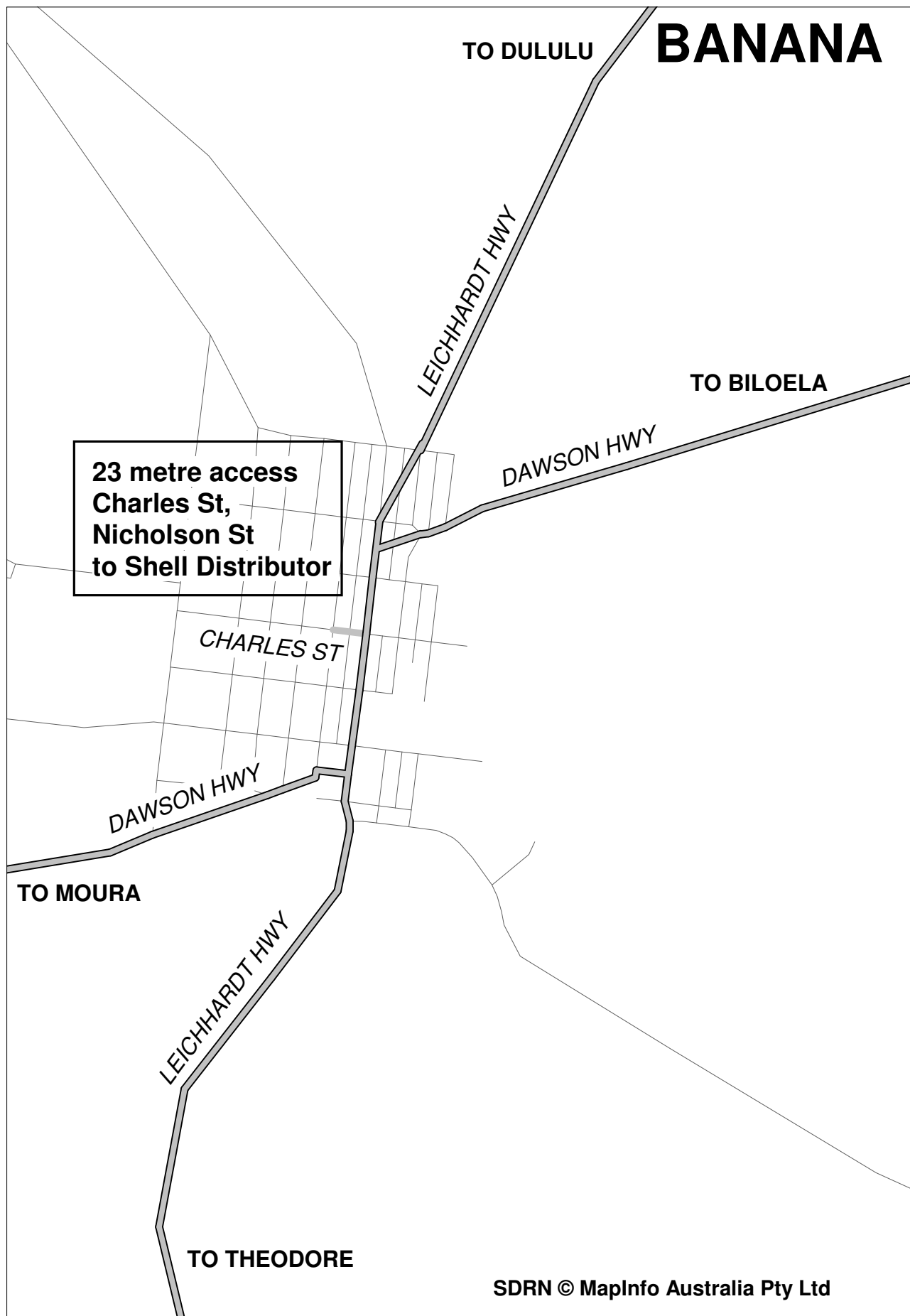
Refer to Legend for identification of marked routes and shaded areas



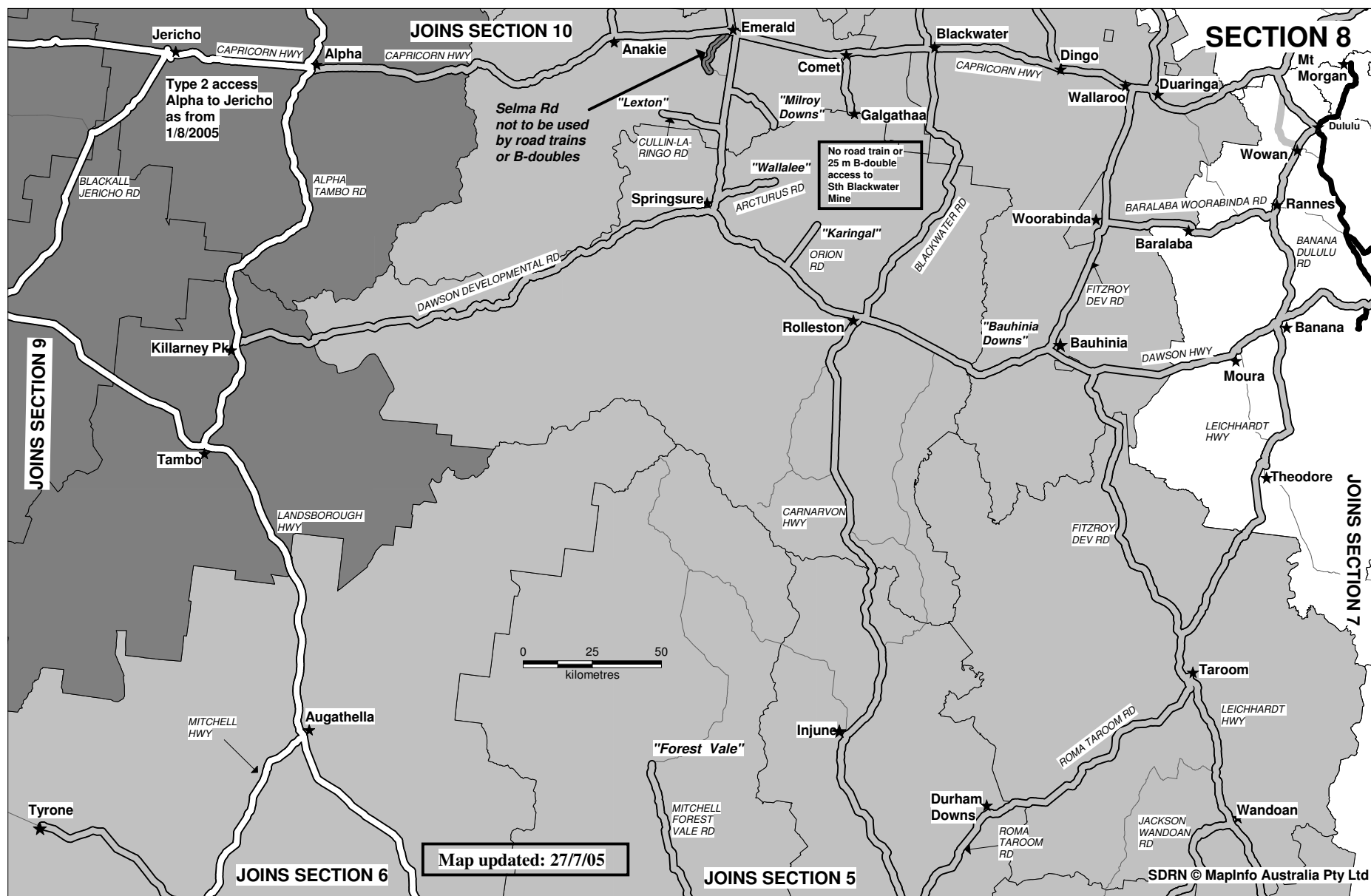
Refer to Legend for identification of marked routes and shaded areas



Refer to Legend for identification of marked routes and shaded areas



Refer to Legend for identification of marked routes and shaded areas



Refer to Legend for identification of marked routes and shaded areas

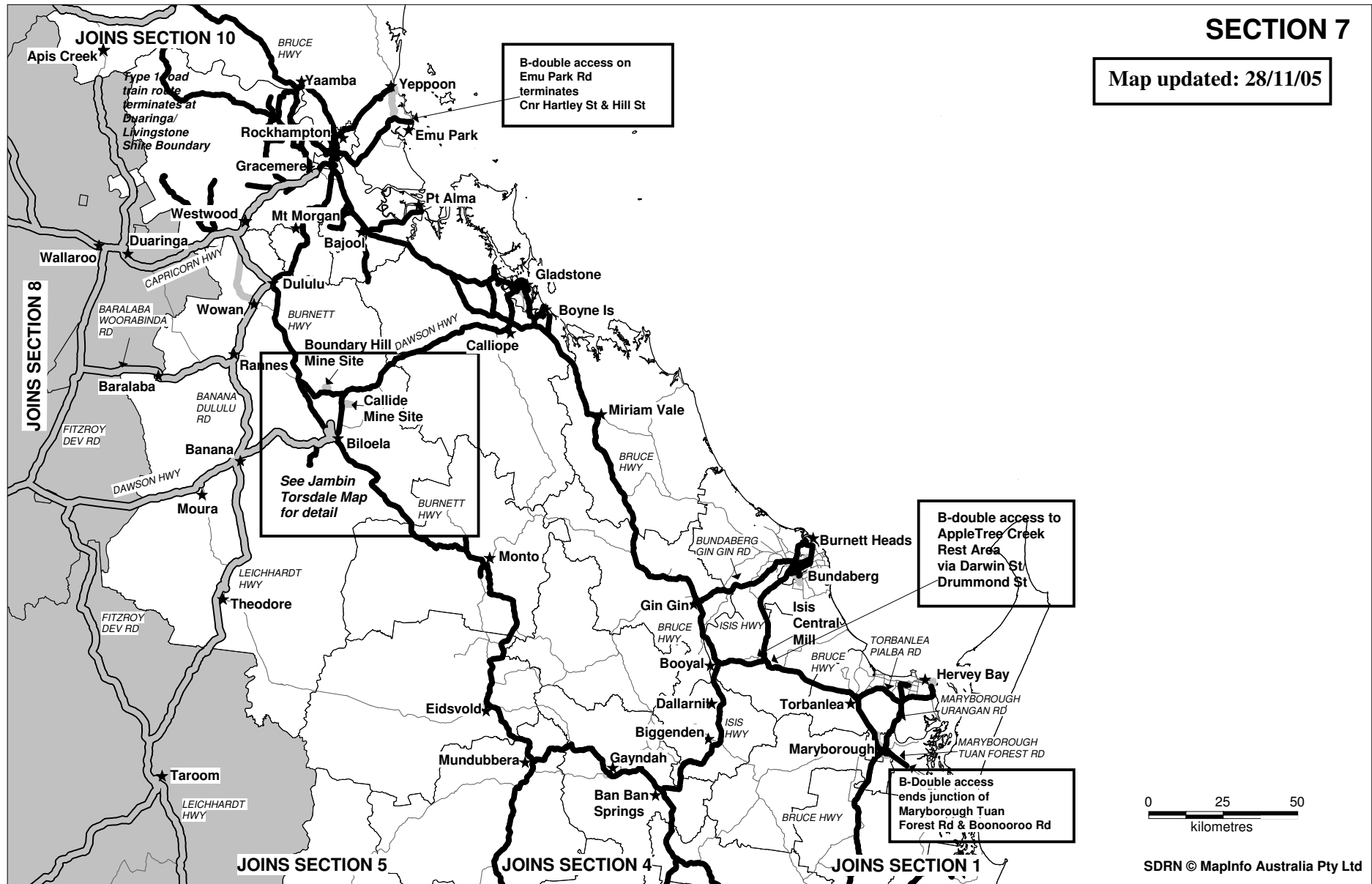


Queensland Government

Queensland Transport

SECTION 7

Map updated: 28/11/05



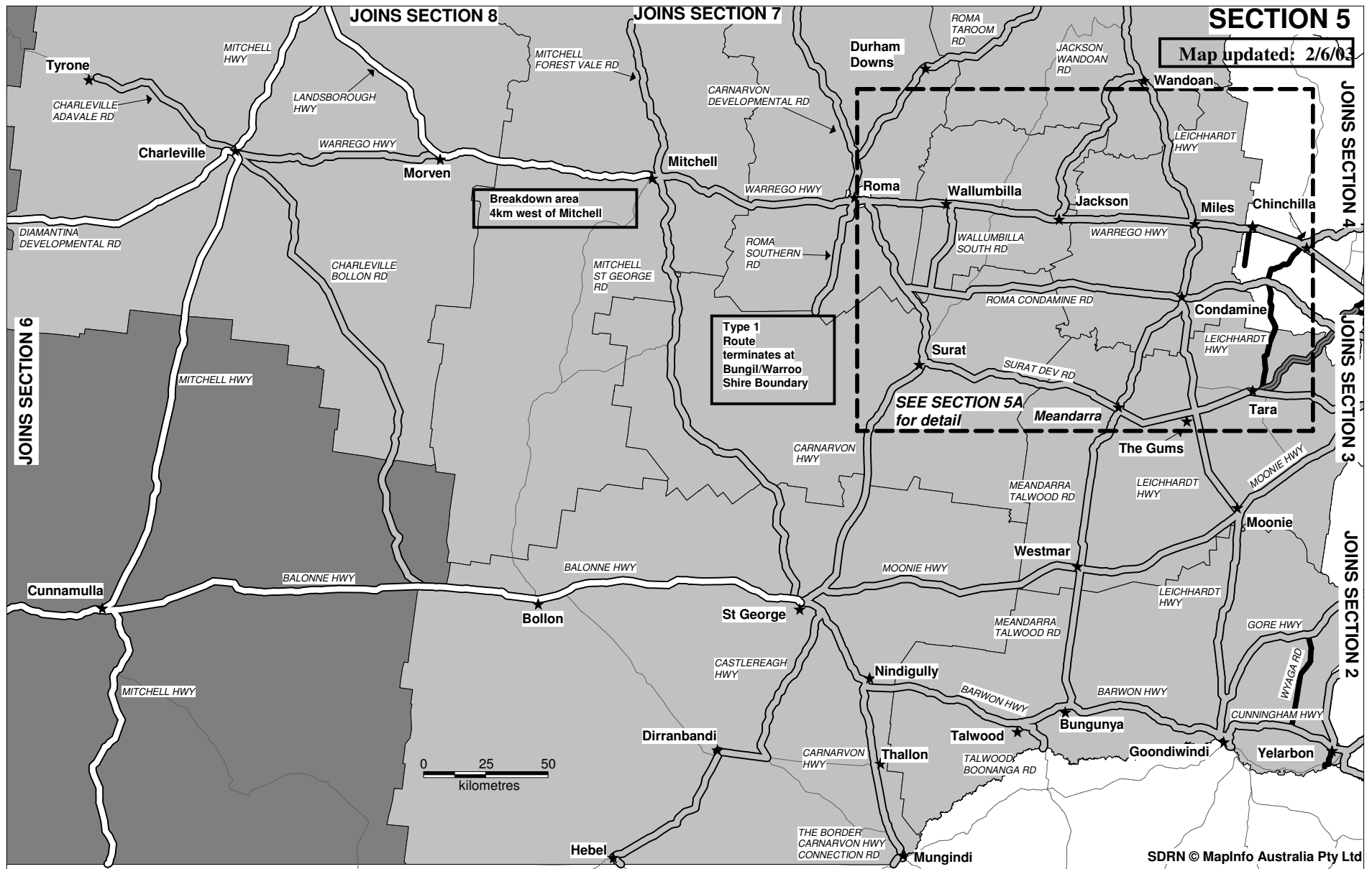
Refer to Legend for identification of marked routes and shaded areas

SDRN © MapInfo Australia Pty Ltd



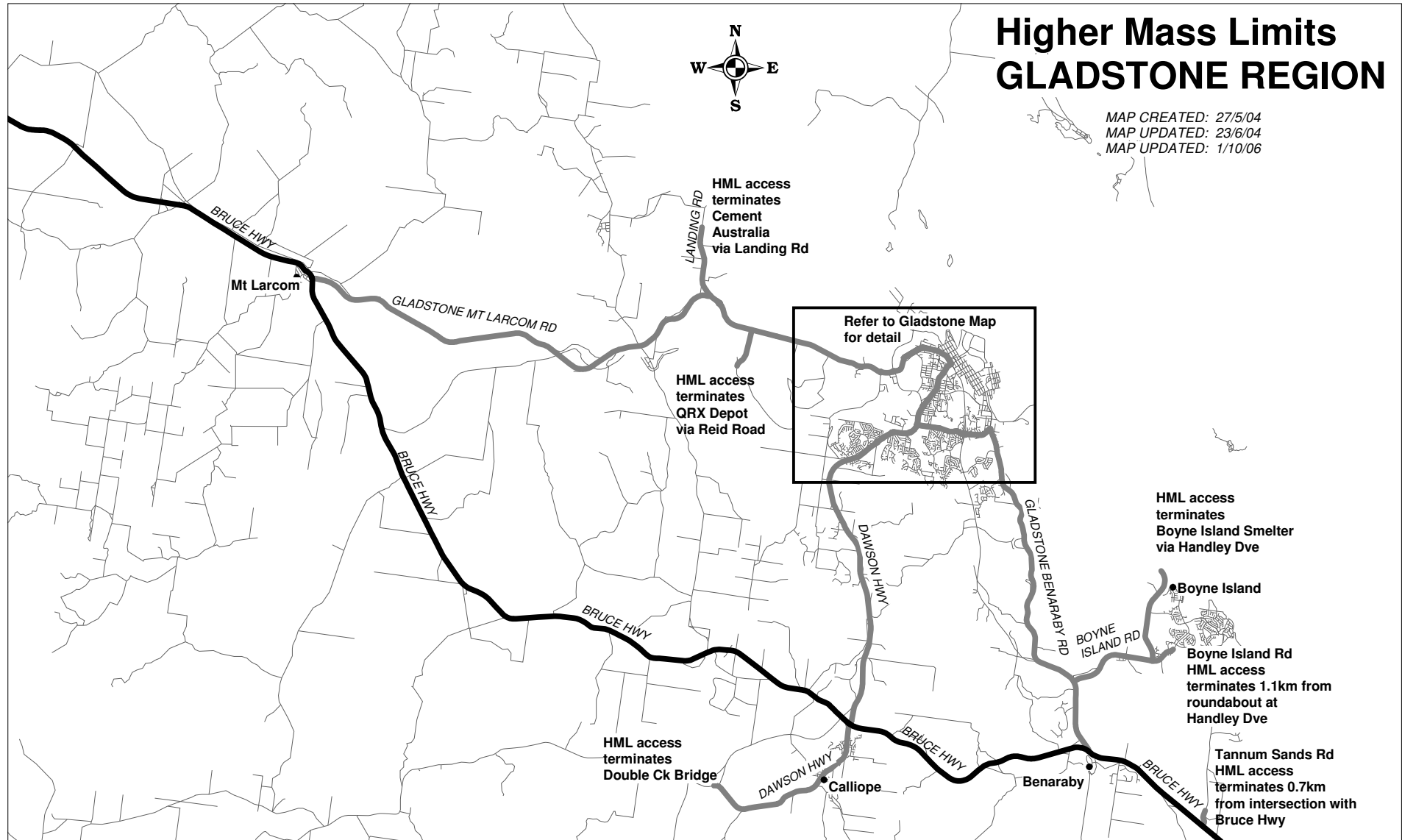
Queensland Government

Queensland Transport



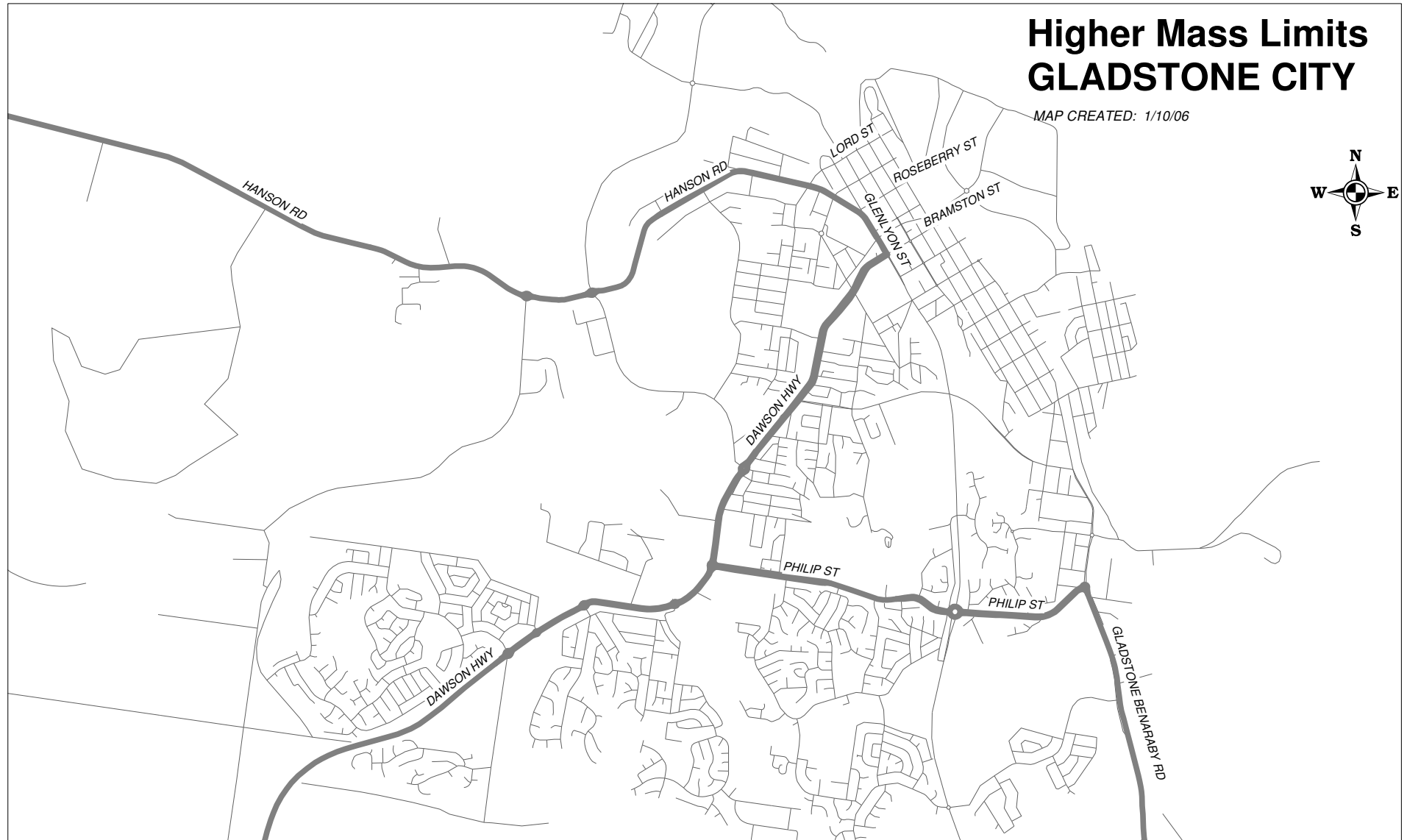
Refer to Legend for identification of marked routes and shaded areas

APPROVED ROUTES FOR HIGHER MASS LIMITS FOR VEHICLES WITH ROAD FRIENDLY SUSPENSIONS



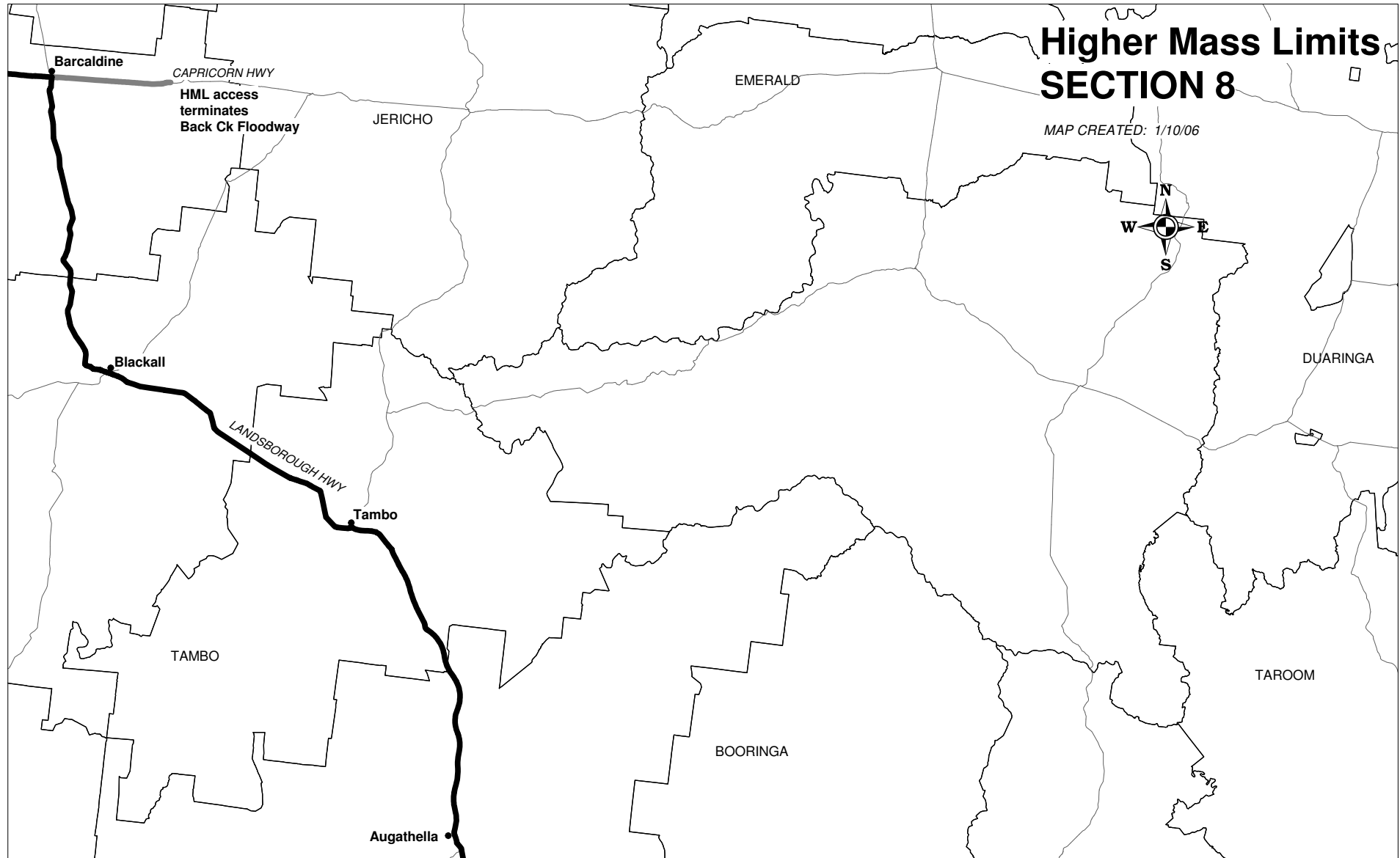


APPROVED ROUTES FOR HIGHER MASS LIMITS FOR VEHICLES WITH ROAD FRIENDLY SUSPENSIONS

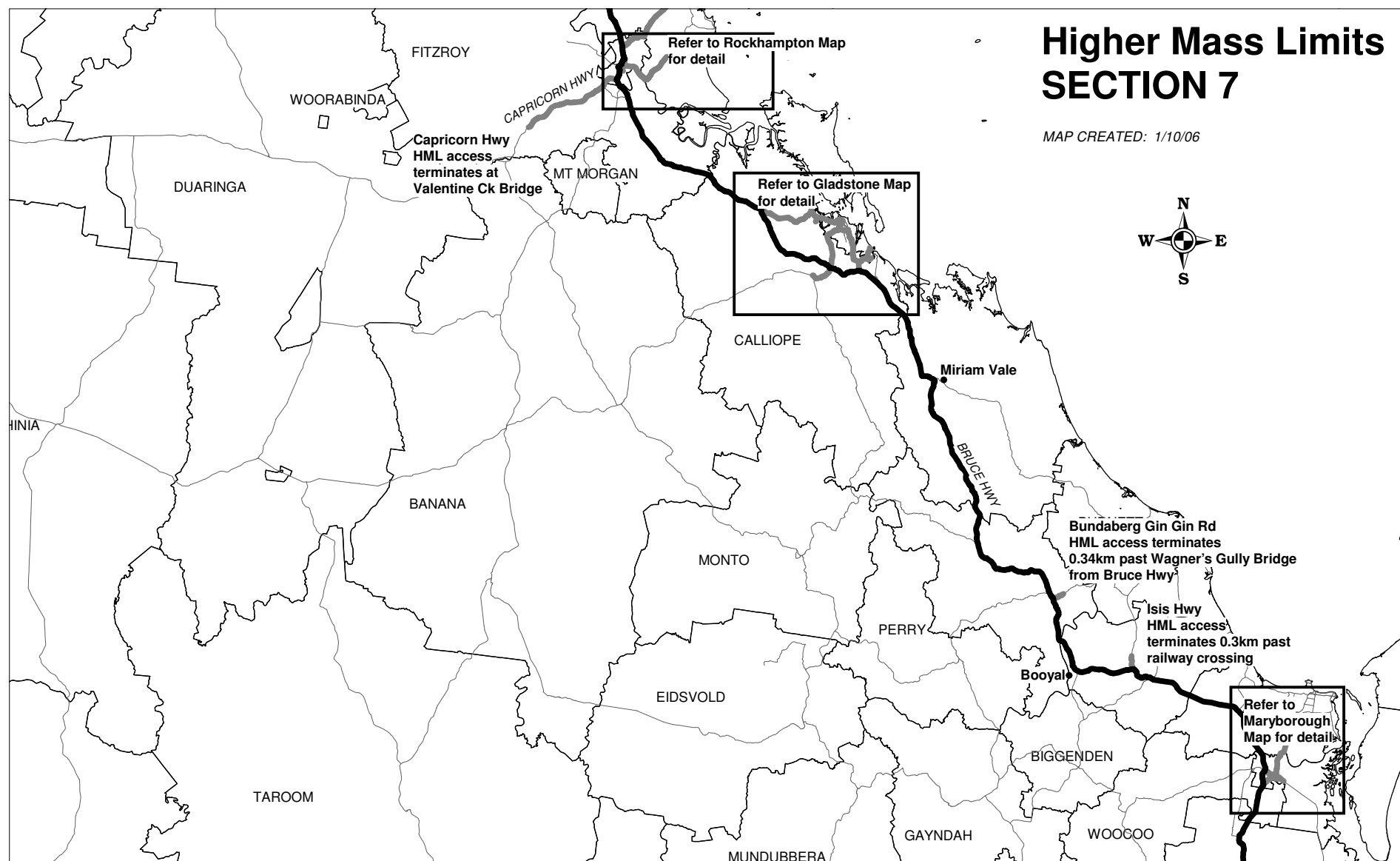


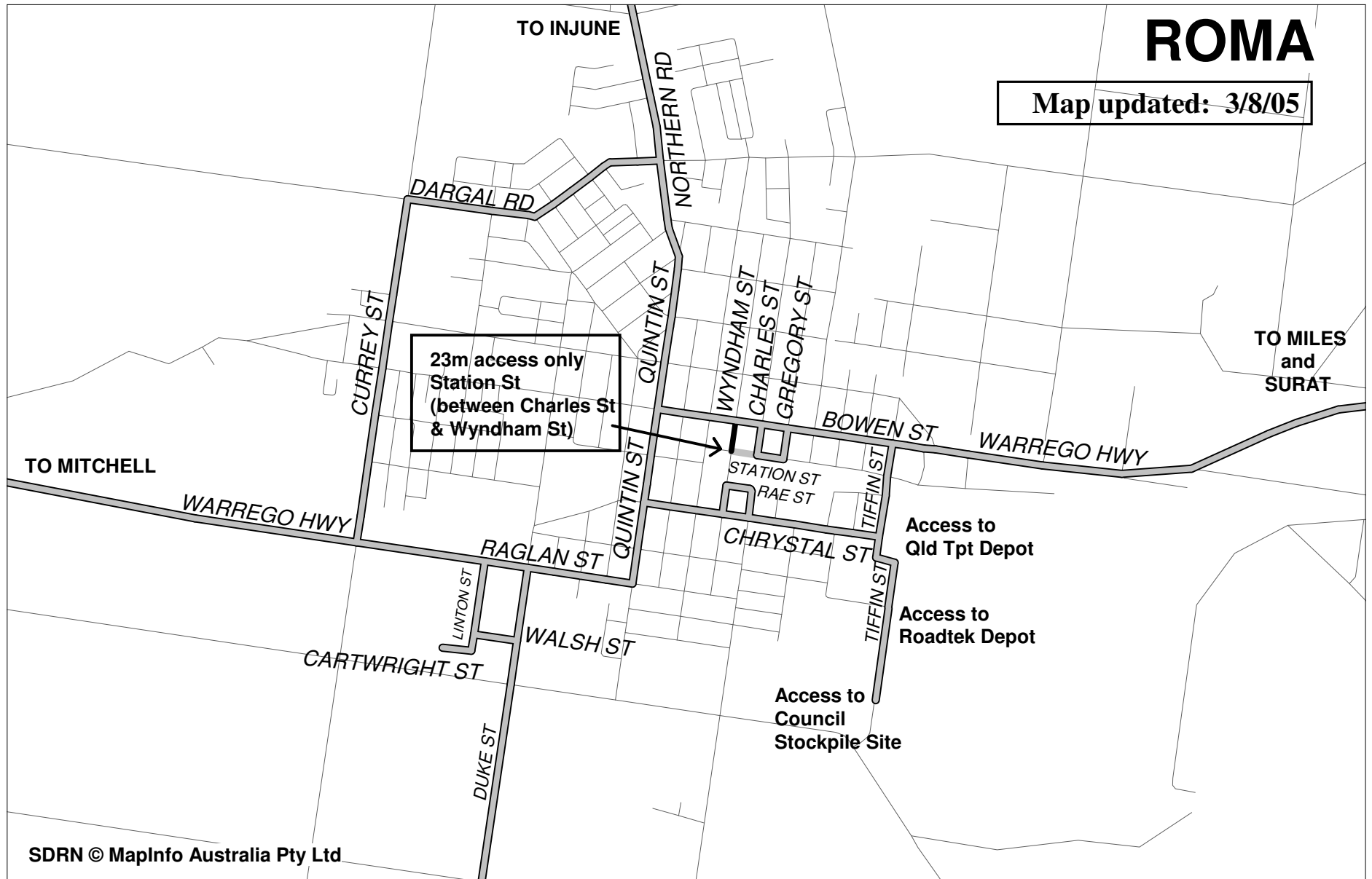


APPROVED ROUTES FOR HIGHER MASS LIMITS FOR VEHICLES WITH ROAD FRIENDLY SUSPENSIONS



APPROVED ROUTES FOR HIGHER MASS LIMITS FOR VEHICLES WITH ROAD FRIENDLY SUSPENSIONS



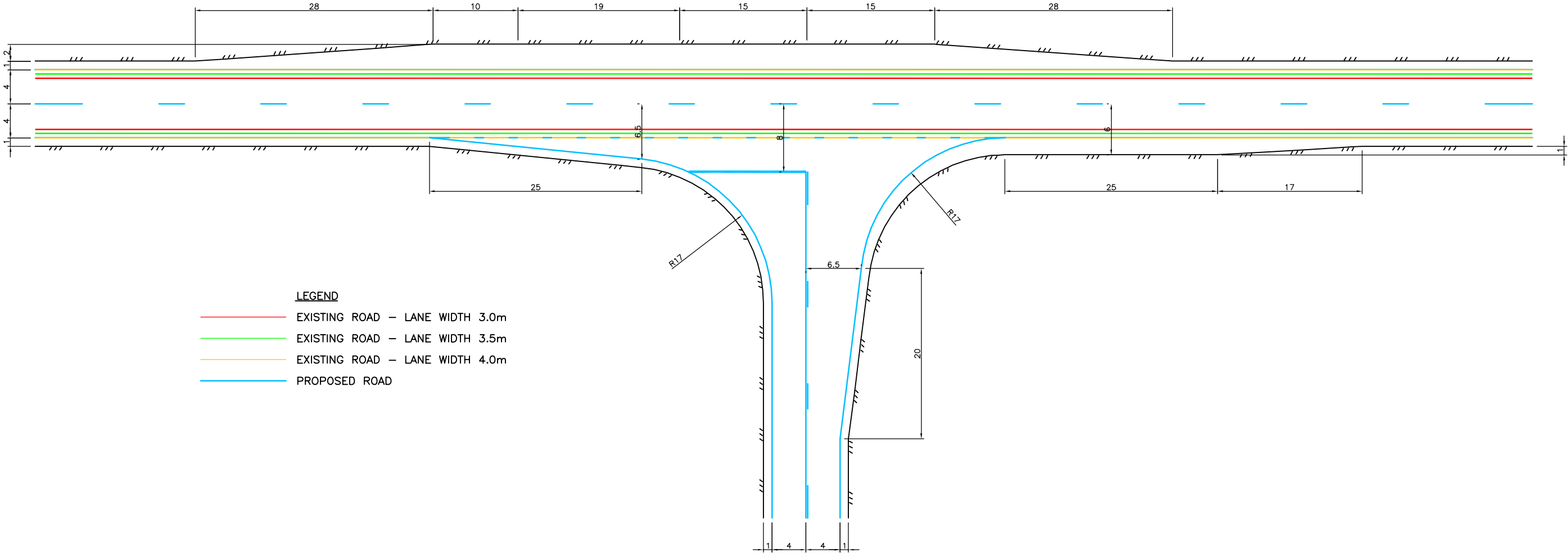
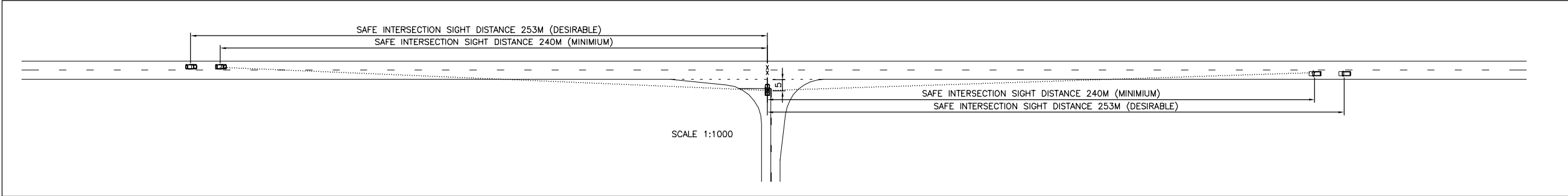


Refer to Legend for identification of marked routes and shaded areas

Appendix K

Priority Intersection Design Standards Concept

CONCEPT ONLY



LEGEND

- EXISTING ROAD - LANE WIDTH 3.0m
- EXISTING ROAD - LANE WIDTH 3.5m
- EXISTING ROAD - LANE WIDTH 4.0m
- PROPOSED ROAD

Issue	Description	Date	By
A	ISSUE FOR COMMENT	10.12.08	JMM

PRELIMINARY PRINT
NOT FOR CONSTRUCTION

5 0 5 10 15 20 25 METRES

SCALE 1 : 250 @ A1
SCALE 1 : 500 @ A3

North

DISCLAIMER: This drawing and it's components shall be used only for the intended purpose unless otherwise approved by Cardno Eppell Olsen. This drawing cannot be altered or amended without the consent of Cardno Eppell Olsen.

Base Information Supplied By NIL		
Design MAG	Drawn JMM	Checked CCT
Certified		
RPEQ No.		

Project Title GLADSTONE SANTOS LNG EIS
Client URS AUSTRALIA

Drawing Title INTERSECTION CONCEPT

Drawing No.	
5780-101	
Sheet	1 of 1
Scale	1:250 at A1
Project	CE005780
Xref	NIL
ACAD file	5780_Base.dwg

Appendix L

Gas Transmission Pipeline Route Maps



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Santos

Report for Gladstone LNG Gas
Pipeline Project
Pre-FEED Pipeline Route
Selection

April 2008

20047-P-RP-005

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1. Introduction

1.1 Project Overview

Santos is undertaking numerous Pre-FEED Studies to determine the viability to construct an LNG plant on Curtis Island, Gladstone, and the associated infrastructure to achieve LNG production, namely a 435 km gas pipeline and coal seam gas field facilities.

For the pipeline component of the project, a pre-feasibility study conducted by GHD in November 2007 identified a number of possible pipeline routes between the Fairview region and Gladstone based on desktop information. Santos reviewed the options by helicopter to ultimately select one pipeline route for further investigation during the Pre-FEED Study.

The pipeline route to be investigated during the Pre-FEED Study would closely follow the Queensland Gas Pipeline (QGP).

1.2 Pipeline Route Selection Overview

The Pre-FEED study pipeline route selection objective is to select a pipeline route within a 200 m corridor (± 100 m of centreline) that meets environmental, constructability, engineering design and land owner requirements. Currently, the selection process is ongoing, with refinements and new alignments being identified with further investigations.

The route selection process, summarised below, is detailed within this report:

Table 1 Route Selection Summary

Item	Summary
» Siting Criteria	Basis of route selection from a multidiscipline approach.
» Desktop Preliminary Workshop	Workshop to select a desktop pipeline route closely following QGP, taking into consideration environmental, construction, and landowner issues.
» Aerial Investigation	Inspection and refinement, by helicopter, of the preliminary desktop pipeline route and route selection through difficult areas, such as the ranges.
» Ground Truthing	Ground inspection and refinement of the pipeline route from a construction perspective.
» Land Owner Consultation	Ongoing.
» Environmental	Ongoing.

1.3 Abbreviations

Table 2 Abbreviations and Descriptions

Abbreviation	Description
CSG	Coal Seam Gas
EIS	Environmental Impact Study
FEED	Front End Engineering Design
GSDA	Gladstone State Development Area
HDD	Horizontal Directional Drill
LNG	Liquefied Natural Gas
MLV	Mainline Valve
QGP	Queensland Gas Pipeline – owned and operated by Jemena
RE	Regional Ecosystem
ROW	Right of Way

2. Siting Criteria

Prior to the route selection process commencing, a list of criteria was developed to form a basis for the initial proposed pipeline route.

2.1 Land Owner

- » Avoid infrastructure (eg. dams, houses, stock yards);
- » Parallel property boundaries adjacent to fence line where possible, rather than dissecting lots;
- » Minimise crossing specialist agricultural blocks (eg. laser levelled, flood irrigated areas, contoured land);
- » Minimise number of landowners affected (i.e. crossing lots for a short distance – try avoid cutting corners);
- » Freehold land is preferable.

2.2 Environmental

2.2.1 Ecological (Flora and Fauna)

- » Minimise impacts on regional ecosystems, by avoiding endangered dominant ecosystems;
- » Avoid essential habitats;
- » Minimise impacts of vegetation clearing where avoidable.

2.2.2 Watercourse and Wetlands

- » Cross watercourses at 90° to flow;
- » Avoid crossing watercourses at bends, to prevent erosion of disturbed land;
- » Minimise impacts on riparian vegetation, by crossing at disturbed areas;
- » Avoid wetlands;
- » Minimise impact on wetlands by avoiding watercourses running into catchment.

2.3 Design & Construction

2.3.1 Populated Areas / Residences

- » Avoid populated areas (residential suburbs < 1 ha allotments) and areas where people congregate (petrol stations / road houses / schools etc) in 'country' areas by approximately 1 – 2 km. Design measures can be applied, if the area is unavoidable, with associated cost;
- » The Gladstone area is an exception, as it is unavoidable, and design measures will be applied with a cost implication;
- » Single houses / homesteads are not necessarily a cause for re-alignment. Minor design techniques can be used to eliminate threats within the immediate area. Will be more of a landowner issue;

- » Small properties (1 – 5 ha) are acceptable. Minimal design changes, predominantly procedural with minor costs associated;
- » Land sizes >16 ha are ideal.

2.3.2 Land Use

- » If possible, land use is to be identified. Design techniques can eliminate some threats from land activities; however not all. (eg. avoid explosive manufactures and testing sites, irrigated areas by flooding, waste/disposal land);
- » Below ground mining (causing mine subsidence);
- » Petroleum Leases (future CSG fields – risk of boring machines);
- » Military.

2.3.3 Co-Use of Easements

- » Road easements can be utilised; however, not all easements will be able to cater for a 35 m ROW/Easement. Generally, road easements contain 3rd party services, which can be a threat to pipeline integrity;
- » Power line easements can be used; however, additional design costs apply. Powerlines can straddle significant land features that would significantly increase construction costs for a gas pipeline;
- » Railway easements are not ideal, unless significant space available;
- » Cross roads, highways, railways and other services at 90°;
- » Minimise 3rd party crossings (eg. roads, railway lines, gas pipelines).

2.3.4 Construction

- » Typical cross country construction ~ \$1.5M / km;
- » Ensure sufficient space for 35 m ROW;
- » Consider access along the ROW for workers / pipe trucks. Cannot drive ROW for access all the time;
- » Elevation is not a key driver;
- » Terrain and Slope is critical to construction costs. Slope / Terrain may not be entirely evident during this workshop;
- » Avoid side slope (i.e. paralleling contours on a hill);
- » It is preferential to run with slope (i.e. cross contours at 90°);
- » Short sharp steep sections can be constructed - at cost;
- » Avoid escarpments – unless prepared to HDD;
- » Minimise HDD's where possible, as they are costly;
- » HDD's require access to both ends of the drill and space for pipe string and utilities (water, power, drill storage etc);

- » Cross rivers at 90°;
- » Avoid flood plains where possible; measures to prevent floatation can be costly;
- » Avoid areas of significant erosion; can be rectified, at cost, although high potential for future erosion;
- » Ensure access between creeks / rivers for construction equipment;
- » Identify seismic activity for design issues;
- » Soil types, generally unavoidable due to their extents. Not intended to be critical during this desktop workshop.

2.3.5 Pipeline Stations & Facilities

- » Scraper stations & MLV's require road access for maintenance and emergencies;
- » Spacing determined by design modelling;
- » Compressor Stations require access for maintenance;
- » Adequate separation between noise receptors;
- » Avoid flood plains;
- » Local services can be advantageous (power, communications); not necessarily a requirement.

3. Preliminary Route Selection Workshop

3.1 Overview

The preliminary route selection workshop developed the first pass pipeline alignment which would be studied in more detail during the Pre-FEED study.

The initial area which was studied during the workshop was the existing QGP alignment, as determined by the outcomes of the Feasibility studies previously undertaken.

The workshop process and findings is summarised below.

3.2 Workshop Details

The workshop was held in GHD's offices, Level 6 145 Eagle Street, on the 16th and 17th of April 2008, and attended by:

Table 3 Preliminary Workshop Attendees

Name	Role	Date	
		16/04/08	17/04/08
Steve Schoemaker	Santos – Pipeline Project Manager	Part time	Part time
David Wood	Santos – Land Agent	a	a
Angus McLeod	URS – Ecology	a	a
Phillipa Kassianos	URS – Watercourses & Wetlands	a	
Norm Bain	URS – Terrain Specialist		a
Peter Barnett	GHD – Design & Construction	a	a
Tim O'Donnell	GHD – GIS Operator	morning	
Matthew Gerber	GHD – GIS Operator	a	a

3.3 Initial Pipeline Alignment

The proposed GLNG pipeline route primarily follows the QGP; therefore, a paralleling alignment 200 m to the south was used as the alignment to investigate during the workshop.

Both the QGP alignment and the proposed 'Alternative' route following the Arcadia Valley were investigated during the workshop.

3.4 Resources Utilised

The GIS data used during the workshop is provided in Appendix A. Each layer was viewed, as the team progressed along the pipeline route to determine the most practical route.

Santos provided SPOT 2.5 aerial photography for the pipeline route, which formed the background for the pipeline route selection. It was indicated the photography was produced in 2006.

3.5 Workshop Methodology

The siting criteria, as per Section 2, formed the basis for the preliminary route selection and rationale for deviation from the initial area of investigation.

3.6 Workshop Findings

A pipeline alignment was generated during the workshop that achieved a compromise between the various siting criteria, with a defined list of locations requiring further investigation. This route is represented in Appendix C, by the yellow dotted line.

Further refinements would be undertaken by helicopter investigations followed by ground truthing. Environmental site investigations were also to be undertaken in the near future, to complete the EIS.

The priority areas for the project and the Pre-FEED study are:

- » Between Moura and Gladstone, due to higher density of land owners;
- » 'Alternative Route' via the Arcadia Valley in conjunction with the Carnarvon Range crossing;
- » Expedition Range;
- » Dawson Range;
- » Callide Range;
- » Calliope Range.

3.6.1 General Further Investigations

Endangered – Dominant RE Separation

During the workshop it was identified that approval would be required to pass within 500 m of an Endangered - Dominant Regional Ecosystem. In many instances the selected route passes within the prescribed separation distance due to the lack of the adjacent RE, and it is believed approval would be granted.

Watercourse and Wetland Crossings

Some specific watercourse and wetlands crossings were identified as requiring further investigation. It is believed that environmental investigations would be undertaken on majority of all crossings during the EIS, irrespective of the workshop findings.

3.6.2 Specific Areas Requiring Further Investigation

The areas identified as requiring further investigation are tabled in Appendix A

4. Aerial Route Investigation

An aerial inspection of the desktop alignment produced during the preliminary route selection workshop was undertaken to determine its suitability and verify the accuracy of the data used to select the desktop alignment. Details of the investigation are as follows:

4.1 Details

The attendees, as per Table 4, undertook the works as per the following schedule:

- » 6th May 2008 - Flew to Roma;
- » 7th & 8th May 2008 - Aerial inspection by helicopter, commencing at Roma travelling towards Gladstone;
- » 9th May 2008 - Review / debrief workshop to produce pipeline alignment with comments.

Table 4 Aerial Investigation Attendees

Name	Role	Aerial Investigation	Workshop
Garth Wright	AJ Lucas – Construction	a	a
Angus McLeod	URS – Ecology	a	a
Mark Metelmann	GHD –Pipeline Engineer / Design	a	a
Peter Barnett	GHD – Pipeline Engineer		a
Matthew Gerber	GHD – GIS Operator		a

4.2 Aerial Investigation Pipeline Alignment

The pipeline alignment produced at the desktop route selection workshop was flown for further investigation. This alignment corresponds to the following project documentation:

- » 1603-GHD-2-3.3-1001 Revision A – Report (GHD # 20047-P-RP-001);
- » 1603-40-1004 Revision A – Pipeline Route (MapInfo files);
- » 1603-40-1005 Revision A – Pipeline Route Comments (MapInfo files);
- » 1603-40-1002 Revision A – Route Maps (Sheets 1 to 66).

The aerial investigation:

- » included the alignment between PCS and Fairview Lateral;
- » included the eastern 'Alternative' through the Arcadia Valley;
- » excluded the western QGP alignment, bypassed by the Arcadia Valley alternative.

4.3 Resources and Methodology Utilised

The same map data sets and route selection methodologies were utilised from the preliminary desktop workshop, which can be found in Section 2.

4.4 Investigation Findings

4.4.1 Alignment Alterations

Adjustments to the alignment were recorded by the pilot using the helicopters inbuilt GPS, in the form of individual waypoints and linear tracking. The refined pipeline alignment is presented in Appendix C, and represented by the solid yellow line.

4.4.2 Notes / Commentary of Pipeline Alignment

A debriefing workshop was held immediately following the investigation, where notes from each discipline were collated and recorded directly into a GIS file with geographic location. The pipeline route was altered to reflect the new alignment from the aerial investigation.

The list of notes/comments, which can be found in Appendix B, has been filtered into construction, 'Con', and environmental 'Eco' disciplines for ease of analysis during future studies.

Maps of the new alignment and comments can be found in Appendix B.

Lot and Plan numbers were included within the comments register provided, such that selected Land Owners can be contacted for points of interest.

4.4.3 Pipeline Easement Width

The pipeline easement width, nominally 35 m, was taken into consideration when reviewing and refining the proposed pipeline alignment. In areas of difficult terrain, a solitary route was selected such that an additional easement would not be required at a later stage for the construction of a paralleling pipeline. In some instances, a reduced easement width will be required, such as river crossings and narrow ridgelines.

Forethought will be required during the initial easement clearing to ensure adequate provisions are made for the construction of a second pipeline. Recent projects have experienced clearing issues on their own easement due to insufficient clearing during the construction of the first pipeline; subsequently limiting construction space, increasing construction cost and prolonging construction schedule.

4.4.4 Further Investigation Requirements

Ground truthing within the range crossing areas were identified as requiring further investigation to confirm the constructability of the chosen route.

4.4.5 Additional Notes

Review of the altered pipeline alignment by other project personnel has highlighted to following comments:

Table 5 Additional Notes from Aerial Inspection

Figure 5 - Sheet #	Location	Comment	Further Action
7	WPT#5 to Con 13	The new pipeline route parallels the eastern boundary of Expedition National Park within the nominated exclusion zone. The pipeline route was moved to this alignment to follow an existing track, with the intention to minimise vegetation fragmentation and improve access without consideration for the NP.	» A new alignment within this area is to be investigated with respect to the allowable separation distance from the National Park.
52	IP 333 to IP 334	Alignment between IPs intersects HV power line between poles.	» No further action required. Maintain alignment.

5. Ground Truthing Investigation Findings

To be completed.

6. Possible Alignment Deviations

A number of deviations to the alignment selected during the aerial investigation have been identified, predominantly due to land owner issues.

6.1 Wilson Deviation

This deviation, identified by the project Land Agents, has been initiated due to disapproval from the land owner for the construction of another utility service through their land.

The Wilson property lies immediately to the east of the Calliope Range, straddling the Dawson Highway. The proposed deviation can be found in Appendix E.

A portion of this land is being used for hardwood plantations, typically incurs high compensation due to long term land sterilisation.

6.1.1 Details

The original proposed pipeline alignment paralleled the Dawson Highway within land to the south of the road easement. The road easement was not considered as a suitable alignment due to existing infrastructure (highway and QGP) and environmental considerations. The suggested deviation avoids majority of the land owner's property, by passing to the north. A short length inside the owner's western boundary has been used to avoid constructability issues with the foothills of the Calliope Range.

Consequences of deviation:

- » Increase in pipeline length of approximately 1.1 km;
- » Crosses Calliope River further upstream, outside of RE (Of Concern – Sub-Dominant), potentially smaller crossing. Requires investigation to eliminate HDD;
- » Eliminates crossing the Dawson Hwy at two (2) locations;
- » Comparable number of creek crossings;
- » Equivalent number of railway crossings;

Table 6 Wilson Deviation

Alignment	Length
Proposed alignment	27.6 km
Wilson Deviation	28.7 km
TOTAL DEVIATION	+1.1 km

Further land owner negotiations and ground investigations are required.

6.2 Calliope Range Deviation

The Department of Main Roads (DMR) is currently undertaking works to re-align the Dawson Highway over of the Calliope Range, taking on more of a sweeping bend to the north of the existing road.

Preliminary plans show the road will cross the proposed gas pipeline alignment at two (2) distinct locations and come together towards the crest of the range. At this location, there are considerable space restrictions as a result of terrain and existing infrastructure. It should be noted this location is restricted for space without the re-alignment of the highway.

Additional information provided to the Santos land agent, indicates there will be surface drainage channels constructed over the proposed pipeline alignment. The proposed Dawson Highway re-alignment can be found in Appendix F, in relation to the proposed gas pipeline route.

6.2.1 Details

The proposed deviation, avoids the constrained Calliope Range and connects to the Wilson Deviation on the eastern side of the range. The proposed deviation, which was identified by the Santos Lang Agent, crosses the Calliope Range approximately 7 km to the north of the initial desktop alignment, using a valley just north of Mt Redshirt.

Alternative range crossings to the south of the Dawson Highway result in the route passing through land owned by Wilson and number hardwood plantations.

Consequences of deviation:

- » Increase in pipeline length of approximately 4.4 km, with the Wilson Deviation;
- » Eliminates crossing the Dawson Hwy at two (2) locations;
- » Comparable number of creek crossings;
- » Equivalent number of railway crossings (in conjunction with the Wilson Deviation);
- » Terrain appears to be rolling hills, with the crossing of an additional spur off the range.

Table 7 Calliope Range (including Wilson Deviation)

Alignment	Length
Proposed alignment (start of Calliope Range Deviation to end of Wilson Deviation)	35.7 km
Calliope Range Deviation + Wilson Deviation	40.1 km
TOTAL DEVIATION (Includes Wilson Deviation)	+4.4 km

Further land owner negotiations and ground investigations are required.

6.3 Swan Deviation

This deviation, identified by the project Land Agents, has been initiated due to disapproval from the land owner for the construction of a gas pipeline through their property.

The Swan's property lies to the east of the Dawson River (north of Moura). The proposed deviation can be found in.

6.3.1 Details

The suggested deviation avoids land owned by the Swan's, by deviating to the south.

Consequences of deviation:

- » Increase in pipeline length of approximately 1.5 km;
- » Decreases HDD length at Dawson River;
- » Crosses creek (downstream of dam) anticipated to be open cut.

Table 8 Swan Deviation

Alignment	Length
Proposed alignment	20.5 km
Swan Deviation	22.0 km
TOTAL DEVIATION	+1.5 km

Further land owner negotiations and ground investigations are required.

6.4 GSDA Deviation

The proposed pipeline route from the Bruce Highway through to the LNG plant, on Curtis Island, is initially intended to be constructed within the Gladstone State Development Area (GSDA), which is a common infrastructure corridor created by the Queensland Government. It is anticipated the corridor will contain numerous gas / water / slurry pipelines, roads, power and other linear infrastructure.

Due to uncertainties with the proposed corridor, an alternative route/s were contemplated, and presented in Appendix H.

6.4.1 Details

The deviation avoids the narrowest / most constrained segment of the GSDA, the Yarwun Neck, and a number of heavy industrial facilities.

The alternative alignment passes through land predominantly used for short term grazing, which is more favourable for construction of a pipeline. In addition, the route travels adjacent to a number of small lots used for cultivation and orchids.

In contrast, the deviated alignment parallels the adjoining boundary of two mineral development leases, with the intention of minimising impact (land sterilisation) to a lease holder. However, the impacts of constructing a pipeline through this region with respect to shale oil yield are not known.

The terrain appears to be generally rolling hills, with a crossing of the Mount Larcom Range through a small valley between two knolls, just to the north of Mount Larcom.

Consequences of deviation:

- » Increase in pipeline length of approximately 8.0 km;
- » Increased length adjacent to tidal mangroves

Table 9 Swan Deviation

Alignment	Length
Proposed alignment (GSDA)	33.0 km
Western GSDA Alternative	40.3 km
Eastern GSDA Alternative	41.0 km
TOTAL DEVIATION	+8.0 km

If this alignment is proposed, more detailed investigations are to be performed in the areas of land owner negotiations and ground investigations to confirm the suitability of this desktop level alignment.

Appendix A

Preliminary Workshop Route Selection

GIS Data Register

Workshop Findings

Custodian	Category	Title	Abstract	Date/Currency	MD_date	Disclaimer
EPA	Environment	Regional Ecosystems (V5), Banana	Vegetation mapping at a map scale of 1:100,000 and 1:50,000 in part, based on surveys of vegetation communities. Regional ecosystem linework reproduced at a scale greater than 1:100,000, except in designated areas, should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100,000 is 100 metres. The map scale of 1:50,000 applies to part of Southeastern Queensland and map amendments areas. The mapping includes regional ecosystems as described in Sattler & Williams (ed.) (1999) and updated in the Regional Ecosystem Description Database, on the EPA website: http://www.epa.qld.gov.au/nature_conservation/biodiversity/regional_ecosystems/ Related polygon coverages include: pre-clearing vegetation, 1995, 1997, 1999, 2001 remnant vegetation / regional ecosystem and remnant vegetation cover (RVC) for areas where regional ecosystem coverages have not been completed. Point coverage of survey sites for the region extracted from CORVEG. Complete site data are stored in the Queensland Herbarium CORVEG database	2003mmdd	200509dd	Map disclaimer: Regional ecosystem mapping, Version 5.0 Date: 13/12/05. Regional ecosystem linework reproduced at scale greater than 1:100,000, except in designated areas, should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100,000 is 100 metres. Regional ecosystem mapping reproduced with permission of Environmental Protection Agency [2006]. While every care is taken to ensure the accuracy of the Information Product, the Environmental Protection Agency makes no representations or warranties about its accuracy , reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which you might incur as a result of the product being inaccurate or incomplete in any way and for any reason. Data must not be used for direct marketing or be used in breach of the privacy laws.
EPA	Environment	Regional Ecosystems (v5), Bauhinia				
EPA	Environment	Regional Ecosystems (v5), Bungil				
EPA	Environment	Regional Ecosystems (v5), Calliope				
EPA	Environment	Regional Ecosystems (v5), duaringa				
EPA	Environment	Regional Ecosystems, Certified Amendments	Certified map amendments are updates to the remnant regional ecosystem mapping. Certified map amendments to the latest version of the remnant regional ecosystem mapping are based on satellite imagery, aerial photography, field validation, and information (often supplied by the requesting Vegetation Management Officers, DNR&W). Modifications result from requests to assess regional ecosystem mapping on a property by property basis. In these cases, regional ecosystem mapping is frequently assessed at map scale larger than the original map scale of 1:100,000 (or 1:50,000 for parts of Southeast Queensland). Regional ecosystem mapping is produced at a scale of 1:100,000 which has a minimum polygon area of 5 hectares or minimum width of 75 metres. The precision of polygon boundaries or positional accuracy of linework is 100m. Certified map amendments are frequently mapped at a scale of 1:50,000 with a minimum polygon area of 1 hectare.	2005	20071029	
Santos	Elevation	5m Contours, Curtis		20051219	200804dd	
Santos	Elevation	Major Contours Fairview		20051219	200804dd	
Santos	Elevation	Minor Contours Fairview		20051219	200804dd	
Santos	Elevation	Major Contours Surat		20051219	200804dd	
Santos	Elevation	Minor Contours Surat		20051219	200804dd	

Custodian	Category	Title	Abstract	Date/Currency	MD_date	Disclaimer
EPA	Environment	Essential Habitats (V2.1)	Vegetation Management Act Essential Habitat is vegetation in which a species has been known to occur that is endangered, vulnerable, or rare. One of the purposes of the Vegetation Management Act 1999 is to regulate vegetation clearing in a way that prevents the loss of biodiversity. To fulfil this obligation, Department of Natural Resources and Water (NRW) uses the essential habitat map as a tool when assessing vegetation clearing applications to assist in determining whether the vegetation is habitat for endangered, vulnerable, or rare species. It is the responsibility of the EPA to provide this information to NRW on hard copy maps and digital layers at current best standards for the State.	20070416	20070416	While every care is taken to ensure the accuracy of this documentation of the methodology, the Environmental Protection Agency makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which might be incurred as a result of the methodology being inaccurate or incomplete in any way and for any reason.
EPA	Environment	Protected Area Estates 2007.4	While every care is taken to ensure the accuracy of this documentation of the methodology, the Environmental Protection Agency makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which might be incurred as a result of the methodology being inaccurate or incomplete in any way and for any reason.	20071207	20071231	Based on or contains data provided by the Environmental Protection Agency, Queensland [year] which gives no warranty in relation to the data (including accuracy, reliability, completeness or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damages or costs (including consequential damage) relating to any use of the data.
Santos	Base	Imagery		2006	2006	
GA	Physical	Water Courses	Series 3 contains a medium scale vector representation of the topography of Australia.	20060509	20060509	
EPA	Environment	Wetlands		2006	2006	
GA	social	Homesteads	Series 3 contains a medium scale vector representation of the topography of Australia.	20060509	20060509	
GA	Base	Place Names	Series 3 contains a medium scale vector representation of the topography of Australia.	20060509	20060509	
GA	Base	Populated Places	Series 3 contains a medium scale vector representation of the topography of Australia.	20060509	20060509	
	Base	Route Notes	Notes listed during preliminary route assessment workshop from 20080414 to 20080416	20080416		
NRW	DCDB	DCDB, Banana	The DCDB is the spatial representation of the property boundaries and the related property descriptions of Queensland. The DCDB provides the map base for systems dealing with land and land related information and provides data in order to generate hard copy	20071109	20071109	Based on or contains data provided by the State of Queensland (Department of Natural Resources and Water) [2008]. In consideration of the State permitting use of this data you

Custodian	Category	Title	Abstract	Date/Currency	MD_date	Disclaimer
NRW	DCDB	DCDB, Bauhinia	map products. The DCDB is a fundamental reference layer for spatial information systems in Queensland.			acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws
NRW	DCDB	DCDB, Bungil				
NRW	DCDB	DCDB, Calliope				
NRW	DCDB	DCDB, Duaringa				
NRW	DCDB	DCDB, Taroom				
EPA	Social	Cultural Heritage	Spatial representation of listing boundaries for places entered in the Queensland Heritage Register. Places that are provisionally and permanently entered in the Queensland Heritage Register are protected under the provisions of the Queensland Heritage Act 1992. The Queensland Heritage Council has approved these places.	20071105	20071114	
Santos	Social	Aboriginal Cultural Heritage			200804dd	
GA	Infrastructure	Airports	Series 3 contains a medium scale vector representation of the topography of Australia.	20060509	20060509	
GA	Infrastructure	Railways	Series 3 contains a medium scale vector representation of the topography of Australia.	20060509	20060509	
GA	Infrastructure	Roads	Series 3 contains a medium scale vector representation of the topography of Australia.	20060509	20060509	
URS	Infrastructure	QGP				
	Infrastructure	Proposed GLNG Alternatives	Possible alternative route sections	20080416		
	Infrastructure	Proposed GLNG Alignment	Proposed Alignment for pipe line	20080416		
Santos	Base	Project Buffer				

Custodian	Category	Title	Abstract	Date/Currency	MD_date	Disclaimer
DME	Mining	Petroleum Lease			20071215	
	Mining	Mineral Deveolpment Licence			20071022	
DME	Mining	Mining Lease			20071215	
GA	Infrastructure	Powerlines	Series 3 contains a medium scale vector representation of the topography of Australia.	20060509	20060509	
GA	Infrastructure	Pipelines	Series 3 contains a medium scale vector representation of the topography of Australia.	20060509	20060509	
NRW	Base	LGA Boundaries		2008	2008	
	Base	Mapbook Preliminary Route	Mapbook series created to Preliminary Route. Used in Landowners mapseries	2008		
Santos	DCDB	DCDB, Easments	Santos DCDB Easments, clipped to area of interest		200804dd	
Santos	DCDB	DCDB, Parcels	Santos DCDB Parcels, clipped to area of interest		200804dd	
Santos	DCDB	DCDB, cmt	Santos DCDB cmt clipped to area of interest		200804dd	
Santos	Infrastructure	Roads	Santos Roads, clipped to Area of Interest		200804dd	
Santos	Infrastructure	QGP	Satos Version of Queensland Gas Pipeline Alignment		200804dd	

APPENDIX A

Table A1 Workshop Further Investigations

Point/s	Sheet #	Location / Feature	Comment
335	#64	Larcom Ck	Investigate Of Concern RE.
323	#62	Calliope River	Investigate Of Concern RE / Avoid House
311	#59	Dawson Hwy / Moura Short Railway Line	Investigate 500 m Endangered RE buffer. Alignment within buffer yet cleared surroundings.
295 to 302	#57 & #58	Calliope Range	Investigate route paralleling road easement to minimise effects on vegetation (essential habitat);
262 to 290	#53 to #56	Callide Range	Investigate route paralleling road easement to minimise effects on vegetation (essential habitat);
247 to 249	#51	Callide regional	Investigate value of land use and vegetation through Kroombit Ck.
245	#50	-	Landowner issues?
244	#50	-	Investigate crossing between watercourse / wetland.
224 to 226	#45	Banana Ck & Moura Mine Lease	Investigate Banana Ck crossing for proximity to QGP and RE. It is preferential to parallel the QGP through the Mining Lease.
221 to 223	#44	-	Investigate 500 m Endangered RE buffer. Alignment within buffer yet cleared surroundings.
215 to 217	#43	-	Investigate 500 m Endangered RE buffer. Alignment within buffer yet cleared surroundings. Investigate QGP alignment, not identifiable on available maps. Particularly around Pt215.
213	#43	Kianga Ck	Investigate RE at Kianga Ck crossing.
208 to 209	#42	Dawson River / Black Ck	Investigate RE at watercourse crossings.
200 to 205	#40	Dawson Range	Investigate 500 m RE buffer. Investigate using existing road (driveway?), and alternate clearing to north (max 500 m).
197 to 198	#40	Mimosa Ck	Investigate Mimosa Ck crossing to avoid RE near 196.
191 to 192	#39	-	Investigate wetlands crossing.

Point/s	Sheet #	Location / Feature	Comment
185 to 186	#38	-	Investigate wetlands crossing.
178	#37	-	Investigate RE crossing, consider crossing at track to minimise impact on RE.
173	#35	Zamia Ck	Investigate closeness to Zamia Ck vegetation.
172 to 173	#35	Zamia Ck	Investigate closeness to Zamia Ck vegetation.
171 to 172	#35		Investigate 500 m Endangered RE buffer. Alignment within buffer yet cleared surroundings.
171	#35		Investigate RE.
170 to 171	#35		Investigate 500 m Endangered RE buffer. Alignment within buffer yet cleared surroundings.
165 to 167	#34	Prospect Ck	Investigate crossing of Prospect Ck with respect to vegetation and wetlands.
128 to 147	#27 to #29	Expedition Range	Investigate route across range.
123 to 124	#23	Deep Ck	Investigate wetlands.
119 to 120	#22	Clemantis Ck	Investigate vegetation, crossing at thinnest RE.
115	#21	-	Investigate 500 m Endangered RE buffer. Alignment within buffer yet cleared surroundings.
112 to 113	#19	Membrane Ck	Investigate 500 m Endangered RE buffer. Alignment within buffer yet cleared surroundings.
Alternative Route via Arcadia Valley			
105 to 106	#15	Arcadia Ck	Investigate 500 m Endangered RE buffer. Alignment within buffer yet cleared surroundings.
98 to 99	#13	Bully Frog Ck	Investigate creek crossing in Of Concern RE.
75 to 96	#10 to #12	Arcadia Valley	Investigate option to enter valley, avoiding RE and construction issues.
QGP Route			
61 to 62	#7	Carnarvan Range	Investigate endangered dominant RE.
37 to 43	#6	-	Investigate RE values near essential habitat.

Point/s	Sheet #	Location / Feature	Comment
12 to 15	#3 to #4	-	Consider alternative route to follow road rather than QGP.
1 to 2	#1	-	Minimise impact on RE.

Appendix B

Aerial Pipeline Route Investigation

Investigation Findings / Comments

APPENDIX B

Table B1 Construction Notes

Point/s	Figure 5 Sheet #	Location / Feature	Comment	Lot #	Plan #
Con 1	1		Due to topography, stay on up hill side (west) of road	8	AB200
Con 2	1		Can not follow road or existing pipeline around sharp corners (Limitations in pipeline's ability to change directions quickly and sharply)	20	WT32
Con 3	2		Follow existing pipeline as much as possible	4	WT217
Con 4	3		Cliff issues	4	WT217
Con 5	3		Keep to the east side of camp	4	WT217
Con 6	4		Follow existing pipeline to "Con 7"	3	WT216
Con 7	4		Follow existing pipeline to "Con 6"	3	WT216
Con 8	4		Follow beside road	Beilba Road	
Con 9	5		Rocky area	3	WT35
Con 10	5		Ground truthing over range	1	WT37
Con 11	6		Follow escarpment	1	WT37
Con 12	6		Investigate HDD under creek and up escarpment	807	PH1979
Con 13	7		Shorter route around small range to the east	807	PH1979
Con 14	8		Route option to follow road was explored and considered tricky from an ecological view. Route would come also close to houses and dams.	7	TR22
Con 15	11		Wet area	5	TR18
Con 16	11		Avoid dam and creek	8	TR15
Con 17	14		Easy country	5	TR10
Con 18	15		Align to miss yards	3	TR31
Con 19	17		Align to miss houses along road	4	TR32
Con 20	20		Straightened alignment	2	CUE92
Con 21	23		Aligned to follow fence line	7	CUE37

Point/s	Figure 5 Sheet #	Location / Feature	Comment	Lot #	Plan #
Con 22	23		Realign to miss yards	41	SP103698
Con 23	25		Further investigation and ground truthing needed	7	CUE91
Con 24	25		To minimised impacts on biodiversity, it is best to follow existing QGP through range to, until proposed QGP crossing	7	CUE91
Con 25	25		Proposed pipeline unable to follow QGP up this escarpment. Escarpment 100m south of QGP could be an option (Subject to ground truthing).	7	CUE91
Con 26	25		Cross QGP to miss impassable topography on the south side	29	FTY1847
Con 27	26		Follow along northern side of QGP until proposed cross over	29	FTY1847
Con 28	26		Topography issues	29	FTY1847
Con 29	26		Realign to valley and follow existing track.	29	FTY1847
Con 30	32		Follow as close as possible to QGP while crossing creek	Conciliation Creek	
Con 31	33		Realign to miss farm shed	4	KM74
Con 32	34		Realign to miss yards	4	KM74
Con 33	34		Follow road	Denby Road	
Con 34	34		Stay south side of road	Denby Road	
Con 35	34		Align to clearing	8	KM87
Con 36	36		HDD, Environmental reasons	Dawson River	
Con 37	36		Realign to miss yards	16	FN506
Con 38	36		Avoid dam	37	FN506
Con 39	37		Avoid vegetation	3	FN207
Con 40	37		Avoid vegetation	3	FN207
Con 41	38		Avoid Dams	22	FN301
Con 42	39		Possible creek crossing through gap in vegetation	5	FN10
Con 43	40		Follow QGP, undulation topography to the south	57	PM83
Con 44	41		Follow QGP	82	PM222

Point/s	Figure 5 Sheet #	Location / Feature	Comment	Lot #	Plan #
Con 45	42		Escarpment	75	PM207
Con 46	42		Avoid house	75	PM207
Con 47	42		Pass through powerlines between poles	1	RN347
Con 48	43		Avoid dam	76	RN425
Con 49	43		Avoid dams	84	RN426
Con 50	44		Challenging topography on the south side of road	8	RN1580
Con 51	45		Follow existing QGP not possible	8	RN1580
Con 52	45		Ground truthing needed over range	8	RN1580
Con 53	46		Speak to property owners about best route through small parcel blocks	7	RP843126
Con 54	47		Follow QGP over range where possible	2	RN1093
Con 55	47		Following road would difficult	Dawson Highway	
Con 56	47		Cannot follow QGP at this point. Due to benching into ridge	A	AP6806
Con 57	47		Follow track from ridge to QGP	A	AP6806
Con 58	47		Erosion issues along creek	5	CL40380
Con 59	47		Hardwood plantation	5	CL40380
Con 60	47		Discuss with landowner in relation to hardwood plantation	5	CL40380
Con 61	48		Hardwood plantation	5	CL40380
Con 62	48		Align a short distance away from road to minimise remnant vegetation loss	5	CL40380
Con 63	48		Power line tower, hardwood plantation conflict to south	5	CL40380
Con 64	48		Avoid Vegetation in road reserve	13	SP199384
Con 65	49		Possible crossing point to north side of QGP	Dawson Highway	
Con 66	49		Road and rail are frequently cut in	6	SP199373
Con 67	49		Railway cut in	10	SP122296
Con 68	49		Ground truth railway, highway and possible QGP crossing	2	SP197810

Point/s	Figure 5 Sheet #	Location / Feature	Comment	Lot #	Plan #
Con 69	49		Follow QGP	Dawson Highway	
Con 70	50		HDD for environmental reasons	174	CL40177
Con 71	51		Fit between QGP and road	219	CL40301
Con 72	51		Avoid yards	49	CTN512

APPENDIX B

Table B2 Environmental Notes

Point	Figure 5 Sheet #	Location / Feature	Comment	Lot #	Plan #
Eco 0	1		Check Vegetation	20	WT32
Eco 0	1		Select Best Route Across Creek	20	WT32
Eco 0	1		Veg Clearing Issues	8	AB200
Eco 0	1		Vegetation Clearing Issues	8	AB200
Eco 1	4		Investigate best crossing point	10	WT189
Eco 2	5		Avoid large trees	3	WT35
Eco 3	5		Investigation route over range Wpt 339 - IP 91	1	WT37
Eco 4	6		Investigate best crossing point	807	PH1979
Eco 5	6		Follow seismic line and investigate firebreak potential	807	PH1979
Eco 6	9		Check new crossing point	6	TR20
Eco 7	11		Find best route through trees	8	TR15
Eco 8	12		Avoid large trees	8	TR15
Eco 9	13		Pick best path through non-rem brigalow	7	TR39
Eco 10	19		500m buffer query	13	CUE94
Eco 11	20		Investigate best crossing point	2	CUE92
Eco 12	20		Investigate best crossing point	1	CUE95
Eco 13	23		Avoid large trees	7	CUE37
Eco 14	23		Investigate best crossing point	41	SP103698
Eco 15	24		Explore range crossing	7	CUE91
Eco 16	25		Essential habitat	29	FTY1847
Eco 17	27		Investigate best crossing point	1	BH240
Eco 18	29		Investigate best crossing point	27	RP911528
Eco 19	30		Explore best route and 500m ERE buffer query	14	BH207
Eco 20	30		Verify best route	14	BH207
Eco 21	30		Verify location - avoid to north	9	BH97

Point	Figure 5 Sheet #	Location / Feature	Comment	Lot #	Plan #
Eco 22	32		ERE but scrappy	10	BH223
Eco 23	33		Avoid wetlands - verify	5	KM65
Eco 24	34		500m buffer query	4	KM74
Eco 25	34		Avoid large trees	4	KM74
Eco 26	34		Inspect for best route	4	KM74
Eco 27	34		Investigate best crossing point	4	KM74
Eco 28	34		Dawson Range investigation	Denby Road	
Eco 29	35		Investigate best crossing point	7	KM142
Eco 30	36		Verify best route through trees	37	FN506
Eco 31	37		500m buffer query	2	FN197
Eco 32	37		Investigate best crossing points	39	FN305
Eco 33	38		Check creek alignment and vegetation	40	FN305
Eco 34	39		Check creek alignment and vegetation	4	FN6
Eco 35	40		Check creek crossing point	2	SP122586
Eco 36	40		500m buffer query	59	PM224
Eco 37	41		Investigate best crossing point	81	PM222
Eco 38	42		Investigate best crossing point - clearing permit req?	25	RN347
Eco 39	42		Investigate best crossing point	24	RN347
Eco 40	42		Investigate best crossing point - clear area at Wpt 389	32	RN1155
Eco 41	43		Investigate best crossing point	49	RN350
Eco 42	43		Investigate best crossing point	49	RN350
Eco 43	43		Investigate best crossing point	64	RN373
Eco 44	44		Open woodland - avoid large trees	1	RP618390
Eco 45	44		Ground truth route	8	RN1580
				8	PR843126
				9	PR843126
Eco 46	47		Investigate best crossing point	41	RN800347
Eco 47	47		Investigate best crossing point	A	AP6806

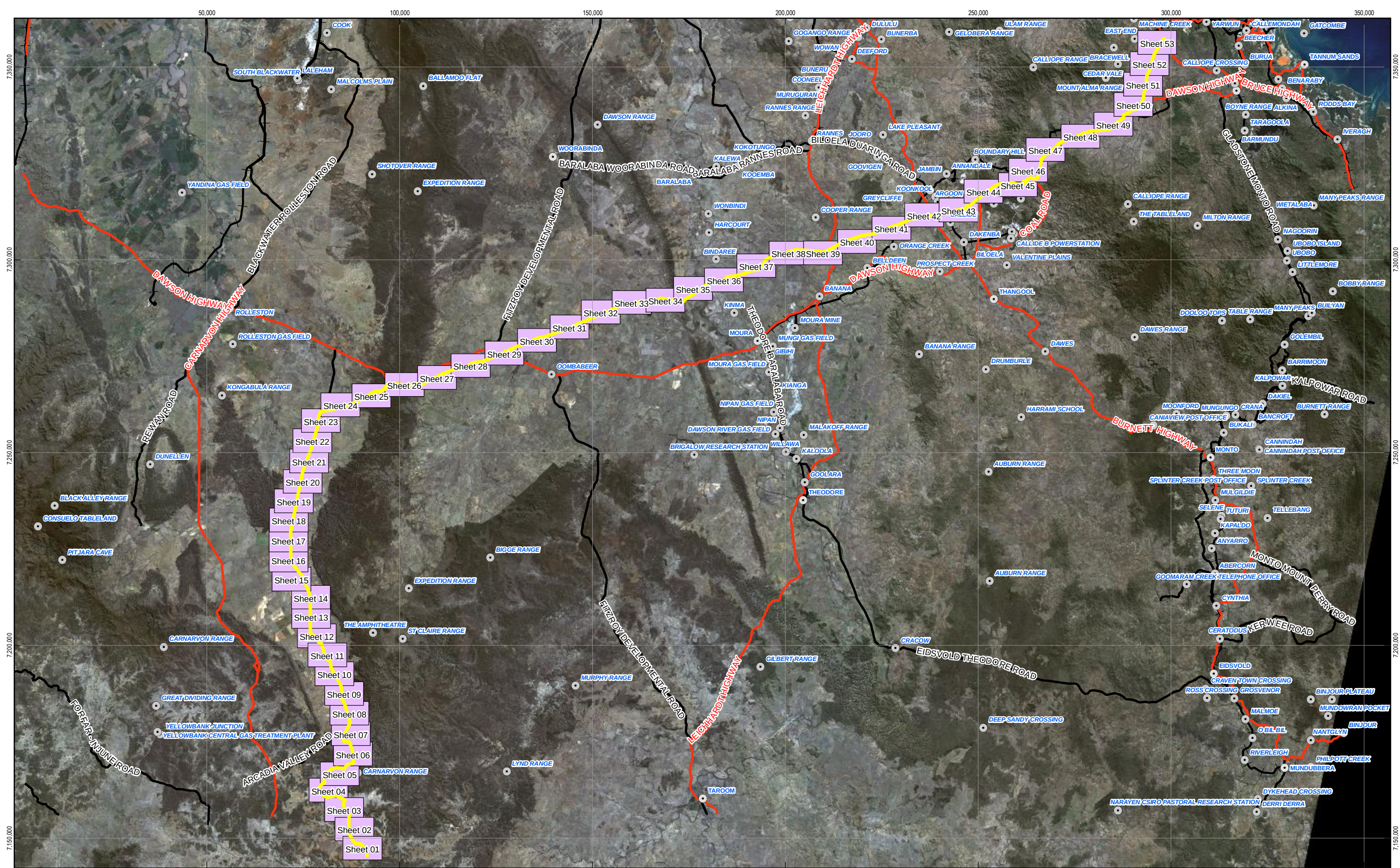
Point	Figure 5 Sheet #	Location / Feature	Comment	Lot #	Plan #
Eco 48	48		Investigate best crossing point	15	CTN305
Eco 49	49		Investigate best crossing point	481	CL40224
Eco 50	49		Investigate best crossing point - wpt 394	1	RP609064
Eco 51	49		Investigate best crossing point	481	CL40224
Eco 52	49		Investigate best crossing point	6	SP199373
Eco 53	49		Investigate large trees in Road reserve	Dawson Highway	
Eco 54	50		Avoid large trees	Dawson Highway	
Eco 55	50		Confirm values to promote HDD	Calliope River	
Eco 56	51		Investigate best crossing point	219	CL40301
Eco 57	52		Investigate best crossing point	48	CTN512
Eco 58	52		Confirm best crossings at creek and road	479	CL40215
Eco 59	52		Investigate best crossing point	48	CTN512
Eco 60	53		Avoid large trees	525	CL40243

Appendix C

Workshop Pipeline Alignment Maps

Desktop Workshop and Aerial Investigation

Figure 5



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Map Projection: Transverse Mercator
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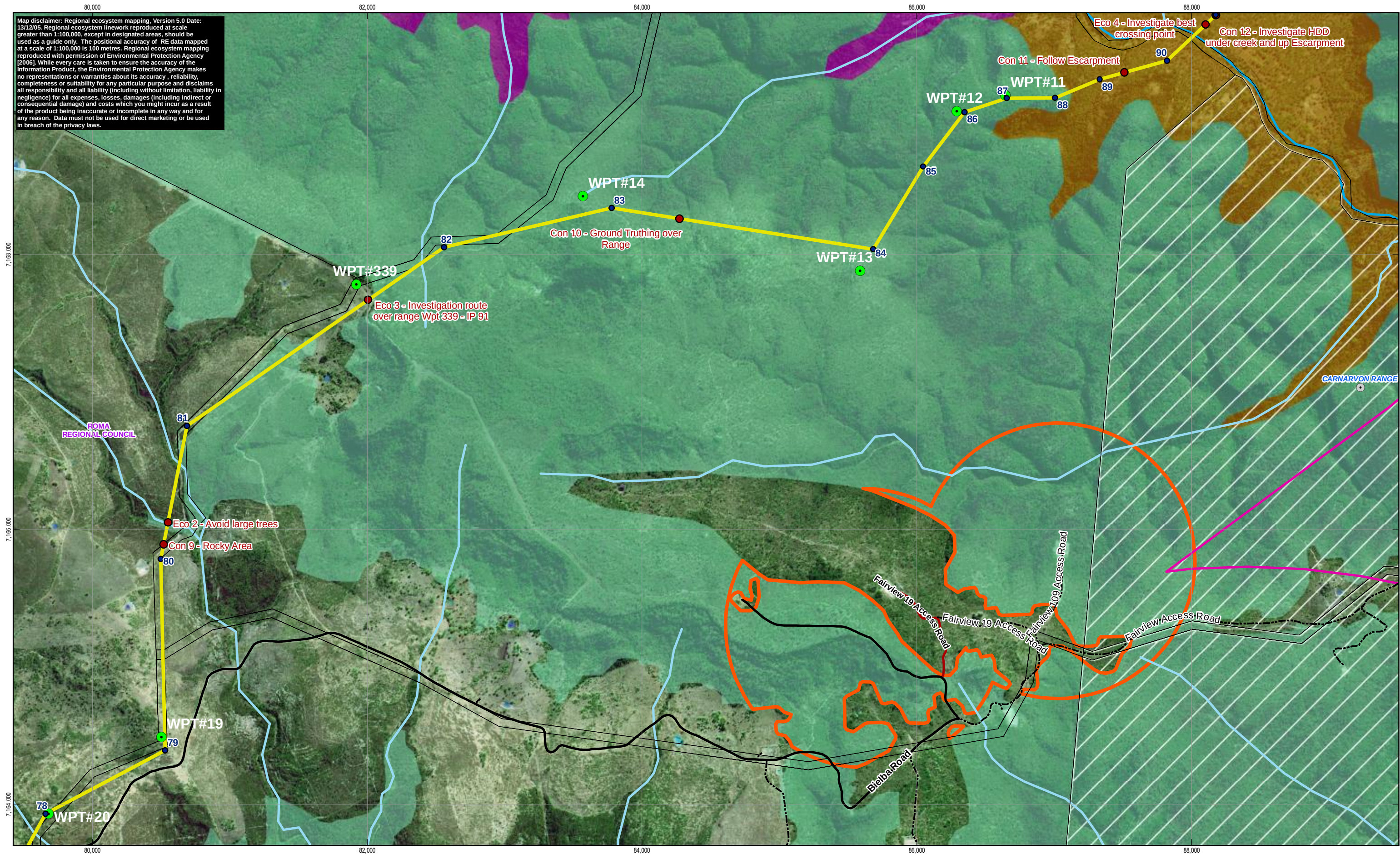
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- Map Sheets
- Localities
- Dual Carriageway
- Principal Road
- Secondary Road
- Railway

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Gladstone LNG Pipeline pre-FEED Study

Revised Alignment
Map Series Overview

Job Number 41-20047
Revision B
Date 22 May 2008

Figure 5



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- Route Intersect Points
- Post Flight Notes
- Flight Waypoints
- Post Flight Alignment
- Pre-flight Alignment
- Localities
- Major Waterways
- Minor Waterways
- Sealed Road
- Unsealed Road
- Track
- Railway
- QGP Alignment
- Project Extent
- Parcel Boundary
- LGA Boundaries
- Essential Habitat
- Wetlands
- National Park
- Protected Area
- Mineral Development Licence
- Mining Lease

REGIONAL ECOSYSTEMS (EPA, 2003)

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- Of Concern - Dominant
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- Not Of Concern

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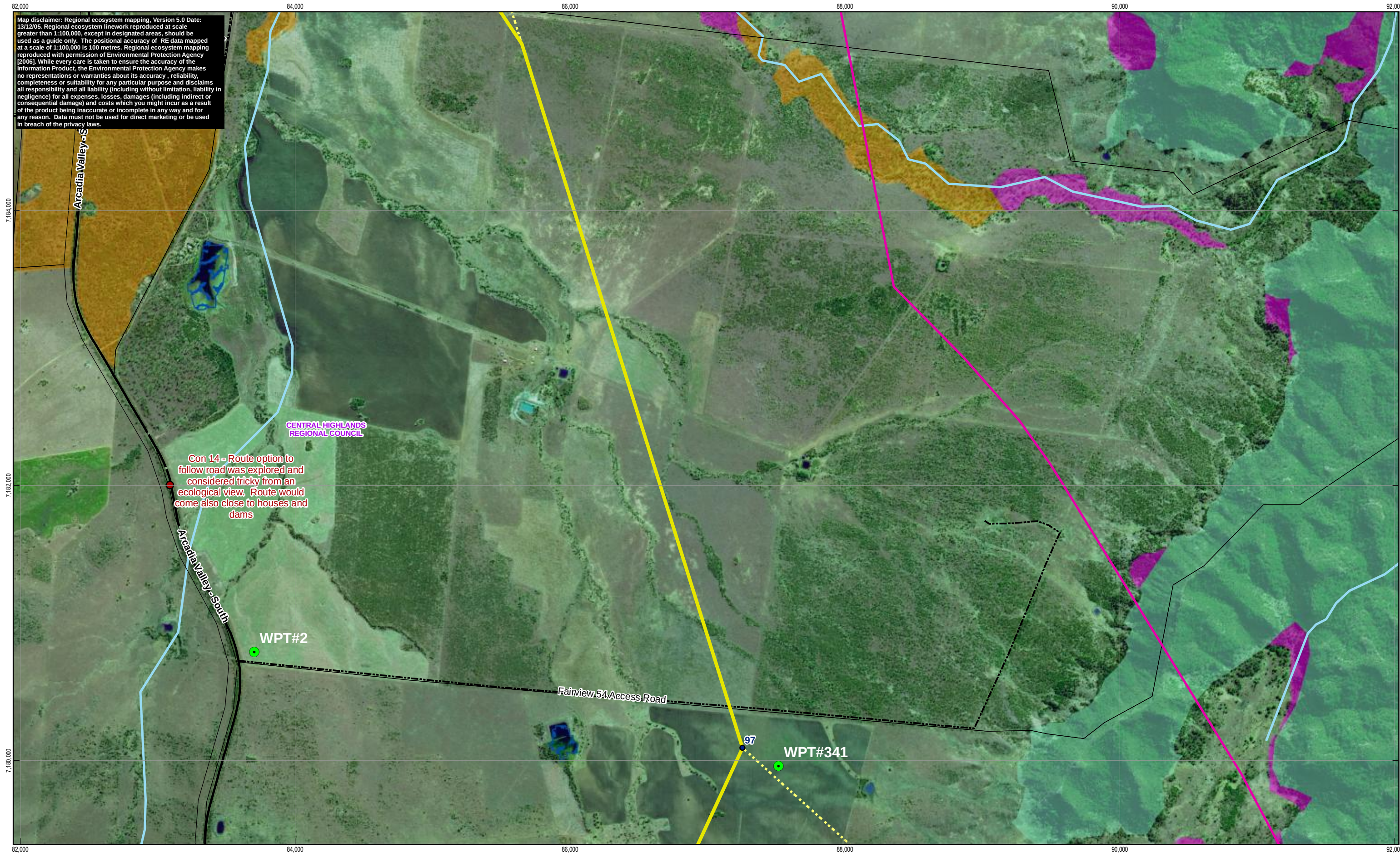
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Gladstone LNG Pipeline pre-FEED Study

Revised Alignment
Sheet 05 / 53

Job Number 41-20047
Revision A
Date 21 May 2008

Figure 5



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LEGEND

- Route Intersect Points
- Post Flight Notes
- Flight Waypoints
- Post Flight Alignment
- Pre-flight Alignment
- Localities
- Major Waterways
- Minor Waterways
- Sealed Road
- Unsealed Road
- Track
- Railway
- QGP Alignment
- Project Extent
- Parcel Boundary
- LGA Boundaries
- Essential Habitat
- Wetlands
- National Park
- Protected Area
- Mineral Development Licence
- Mining Lease

REGIONAL ECOSYSTEMS (EPA, 2003)

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- Endangered - Sub-dominant
- Of Concern - Dominant
- Of Concern - Sub-dominant
- Not Of Concern

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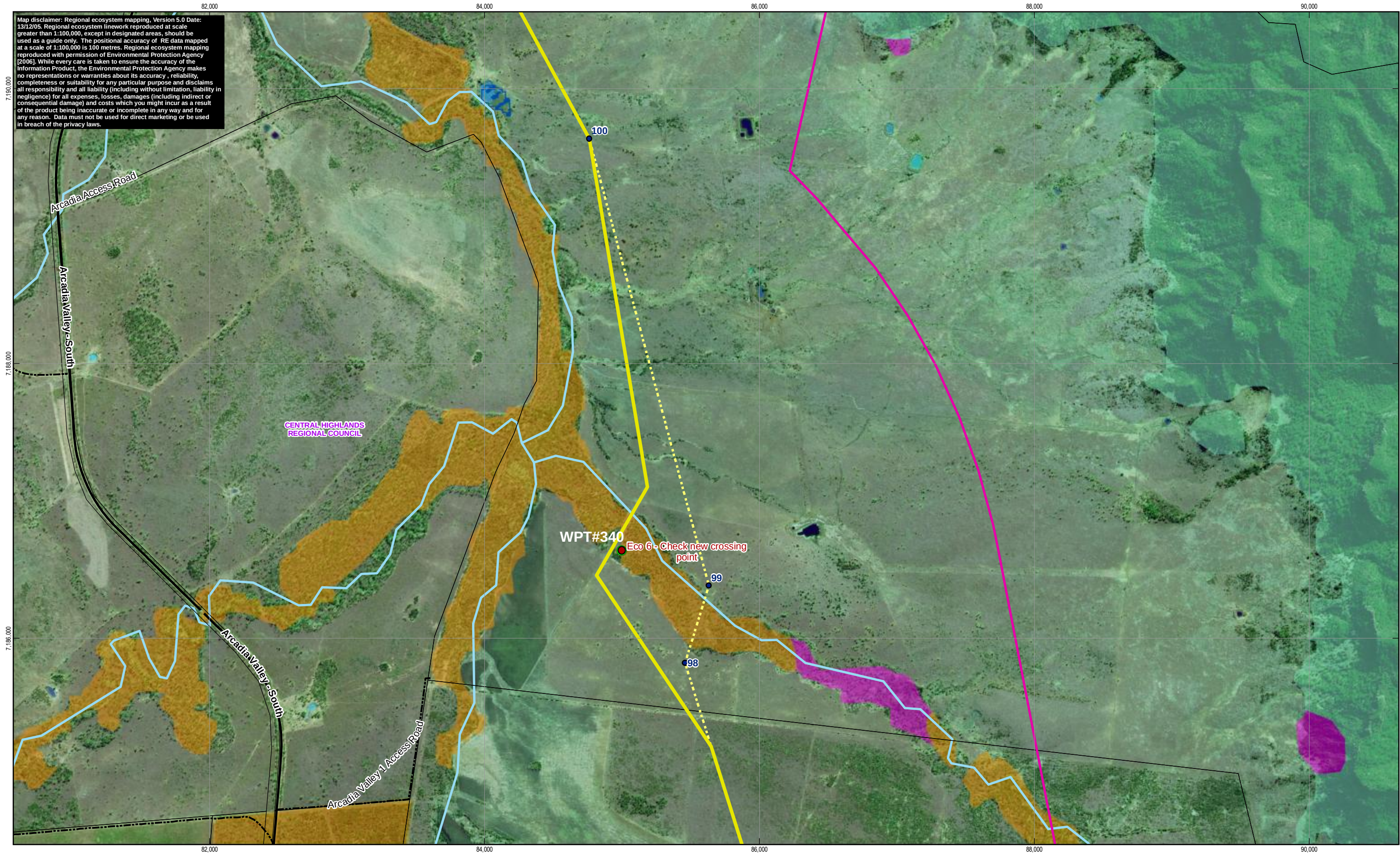
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Gladstone LNG Pipeline pre-FEED Study

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Sheet 08 / 53

Job Number 41-20047
Revision A
Date 21 May 2008

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LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
● Post Flight Notes	Minor Waterways	Project Extent	National Park
● Flight Waypoints	Sealed Road	Parcel Boundary	Protected Area
● Post Flight Alignment	Unsealed Road	LGA Boundaries	Mineral Development Licence
● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

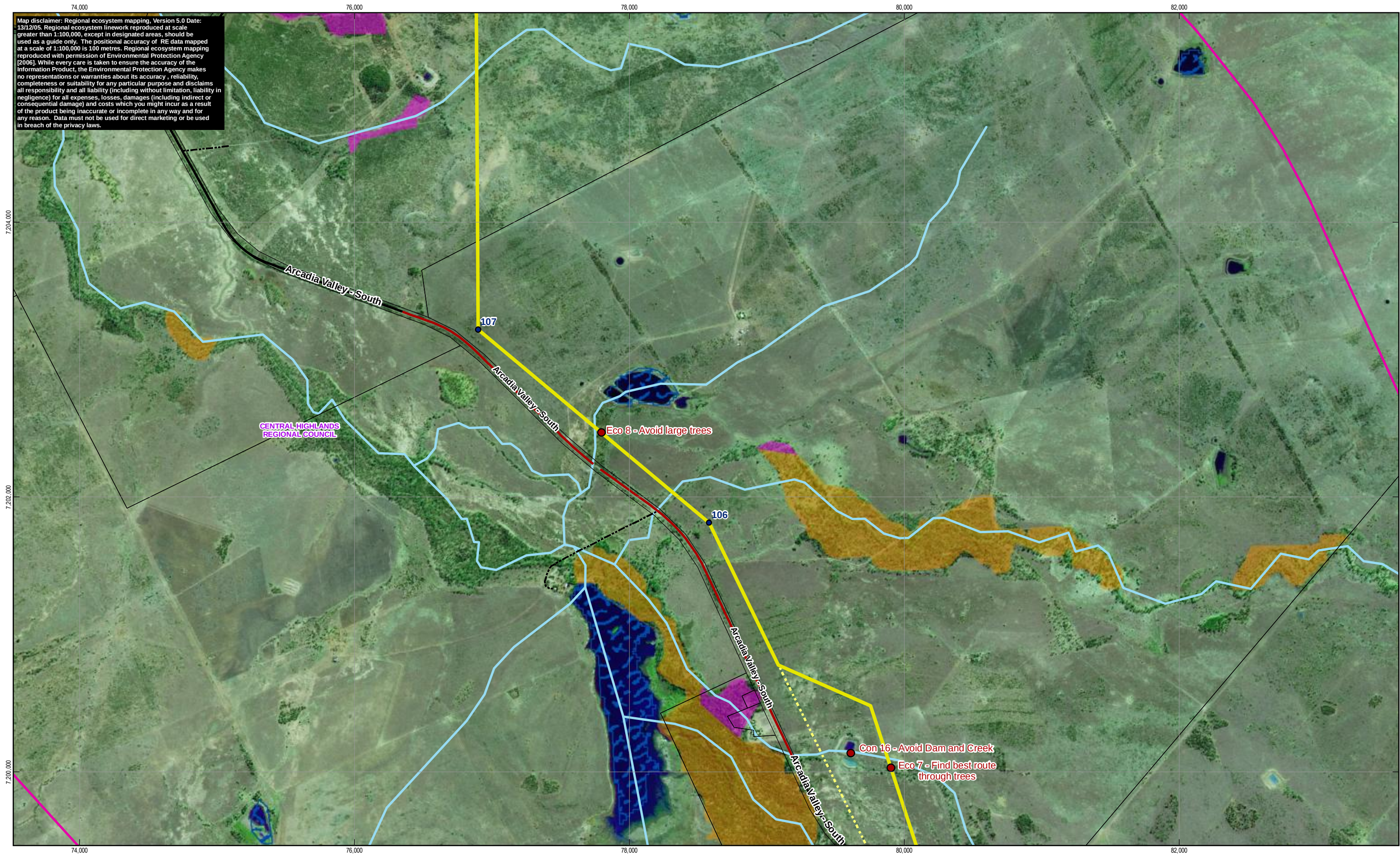
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Job Number 41-20047
Revision A
Date 21 May 2008

Figure 5



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LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
● Post Flight Notes	Minor Waterways	Project Extent	National Park
● Flight Waypoints	Sealed Road	Parcel Boundary	Protected Area
● Post Flight Alignment	Unsealed Road	LGA Boundaries	Mineral Development Licence
● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

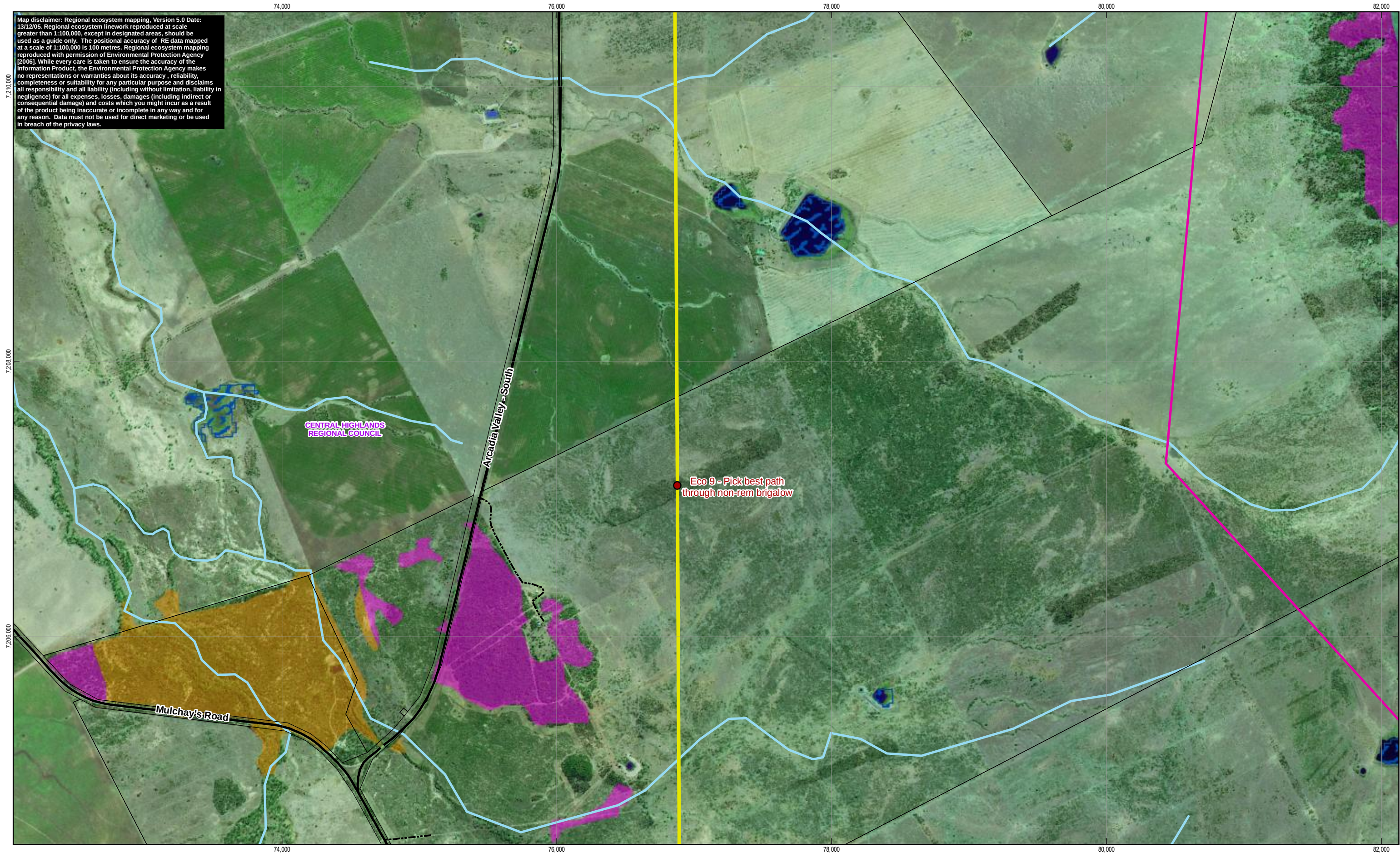
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LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
● Post Flight Notes	Minor Waterways	Project Extent	National Park
● Flight Waypoints	Sealed Road	Parcel Boundary	Protected Area
● Post Flight Alignment	Unsealed Road	LGA Boundaries	Mineral Development Licence
● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

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Of Concern - Dominant
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Not Of Concern

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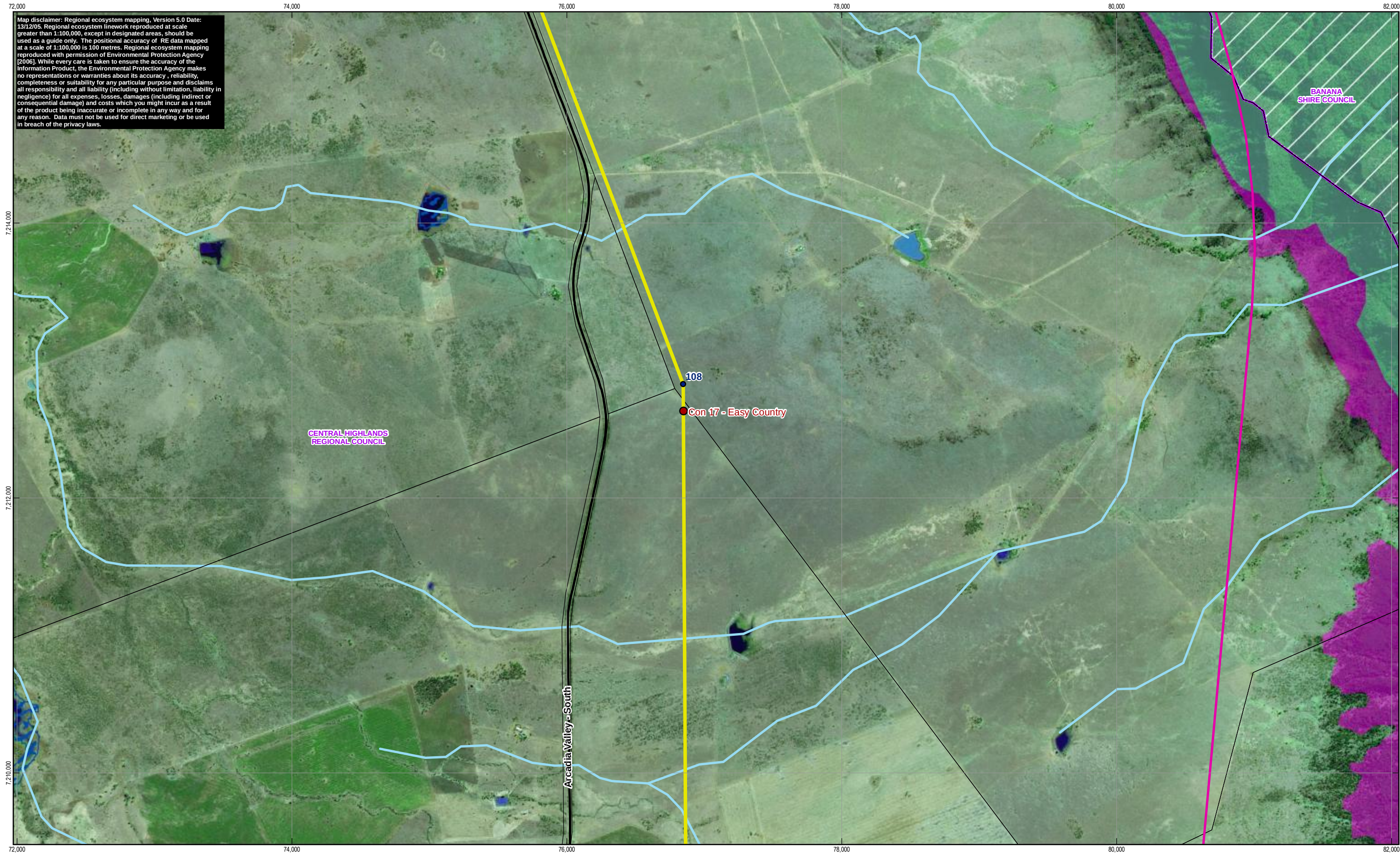
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Job Number 41-20047
Revision A
Date 21 May 2008

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Sheet 13 / 53

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LEGEND

- Route Intersect Points
- Post Flight Notes
- Flight Waypoints
- Post Flight Alignment
- Pre-flight Alignment
- Localities

- Major Waterways
- Minor Waterways
- Sealed Road
- Unsealed Road
- Track
- Railway

- QGP Alignment
- Project Extent
- Parcel Boundary
- LGA Boundaries
- Essential Habitat

- Wetlands
- National Park
- Protected Area
- Mineral Development Licence
- Mining Lease

REGIONAL ECOSYSTEMS (EPA, 2003)

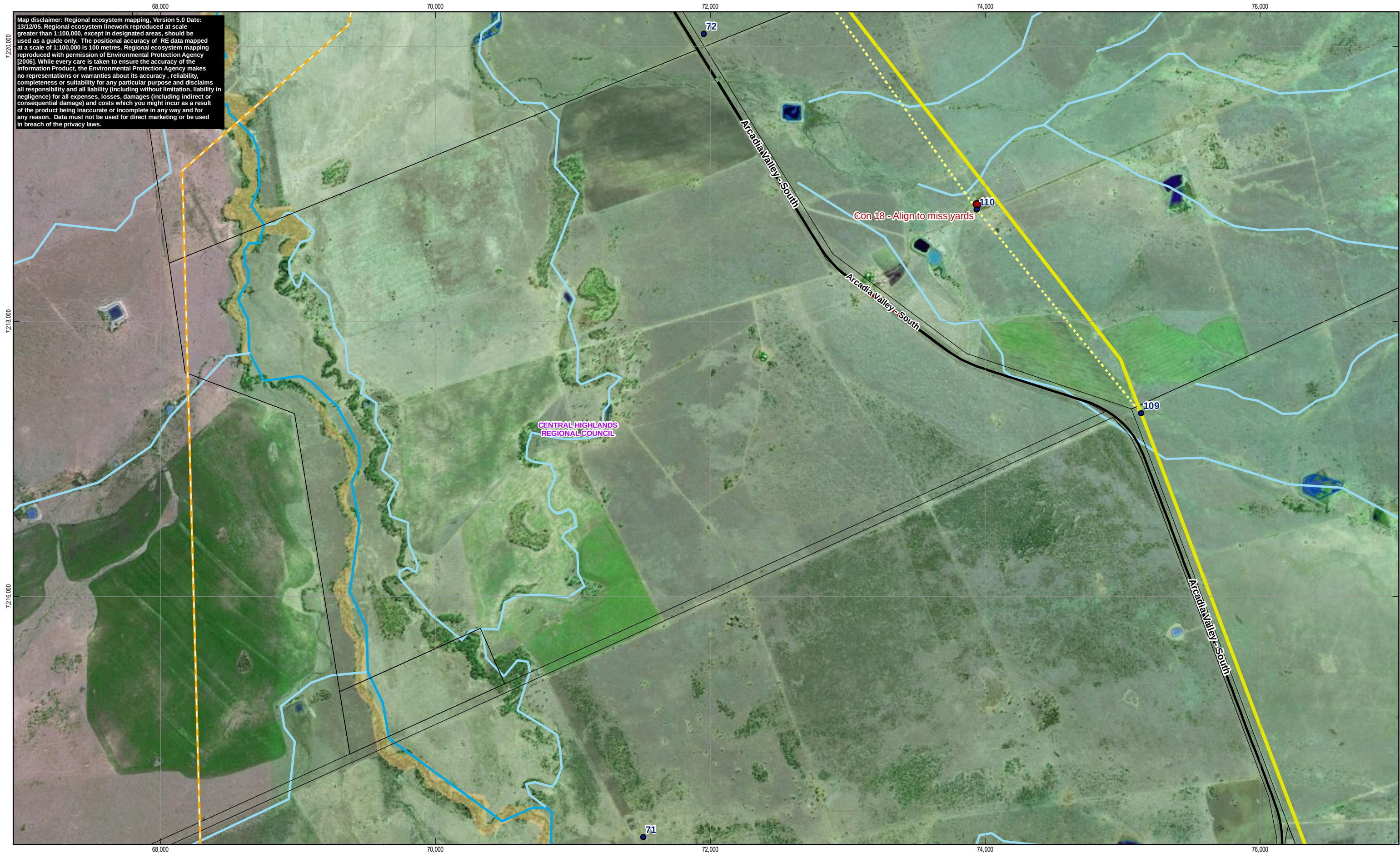
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- Not Of Concern

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Revision A
Date 21 May 2008

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Figure 5



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● Route Intersect Points

● Post Flight Notes

● Flight Waypoints

● Post Flight Alignment

● Pre-flight Alignment

● Localities

Major Waterways

Minor Waterways

Sealed Road

Unsealed Road

Track

Railway

QGP Alignment

Project Extent

Parcel Boundary

LGA Boundaries

Essential Habitat

Wetlands

National Park

Protected Area

Mineral Development Licence

Mining Lease

REGIONAL ECOSYSTEMS (EPA, 2003)

Endangered - Dominant

Endangered - Sub-dominant

Of Concern - Dominant

Of Concern - Sub-dominant

Not Of Concern

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Gladstone LNG Pipeline pre-FEED Study

Job Number

41-20047

Revision

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Date

21 May 2008

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Sheet 15 / 53

Figure 5

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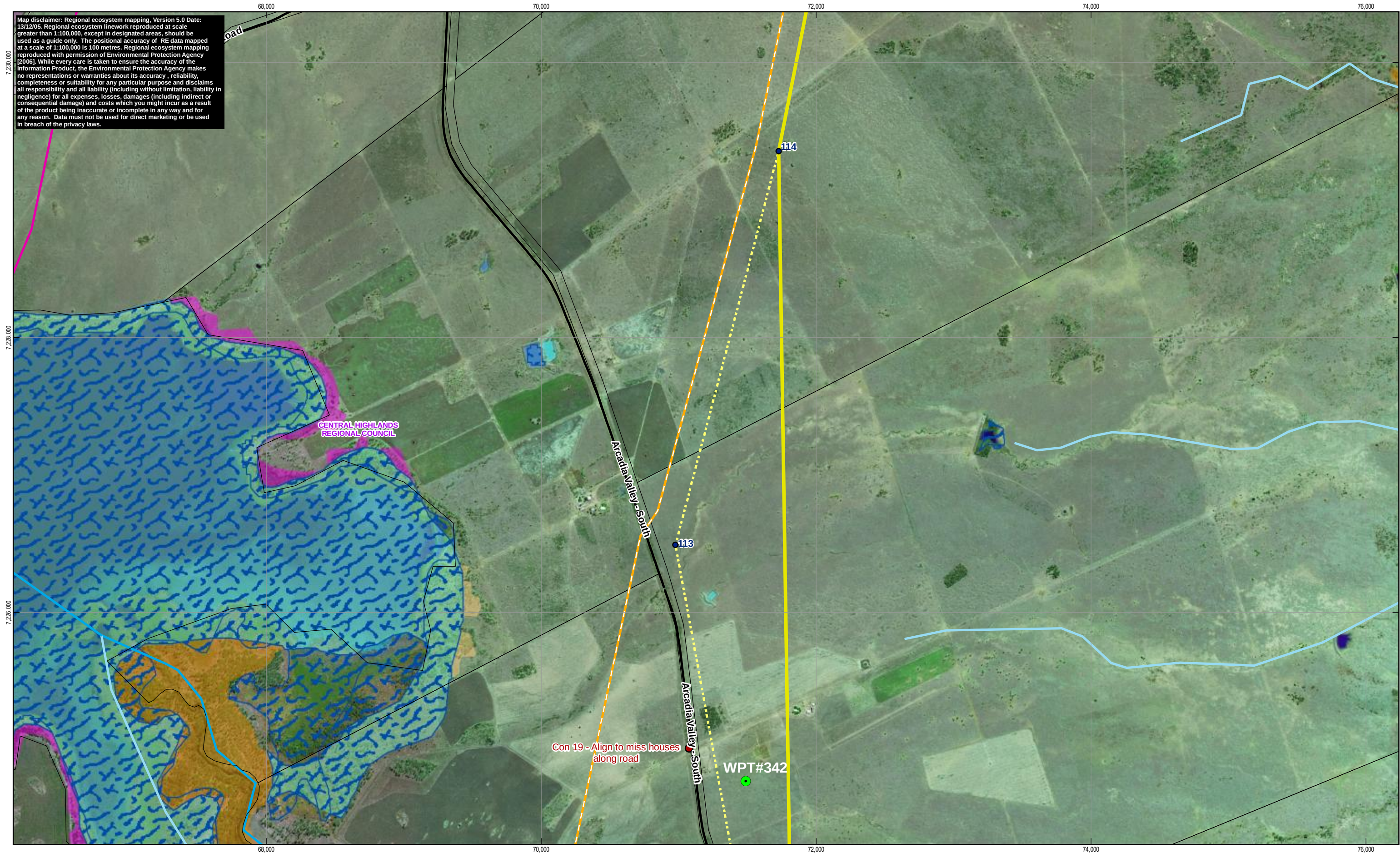
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Data source: Santos, Imagery, 2006, Cadastre, Roads, 2008. GA, Railways, waterways, 250k Topo 2007. URS, QGP Alignment, 2008. EPA, Regional Ecosystems, Essential Habitats, 2006. DME, Mineral Development Licences, Mining Lease, 2008.



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LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
● Post Flight Notes	Minor Waterways	Project Extent	National Park
● Flight Waypoints	Sealed Road	Parcel Boundary	Protected Area
● Post Flight Alignment	Unsealed Road	LGA Boundaries	Mineral Development Licence
● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

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Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

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Revision A
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Figure 5



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LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
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● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

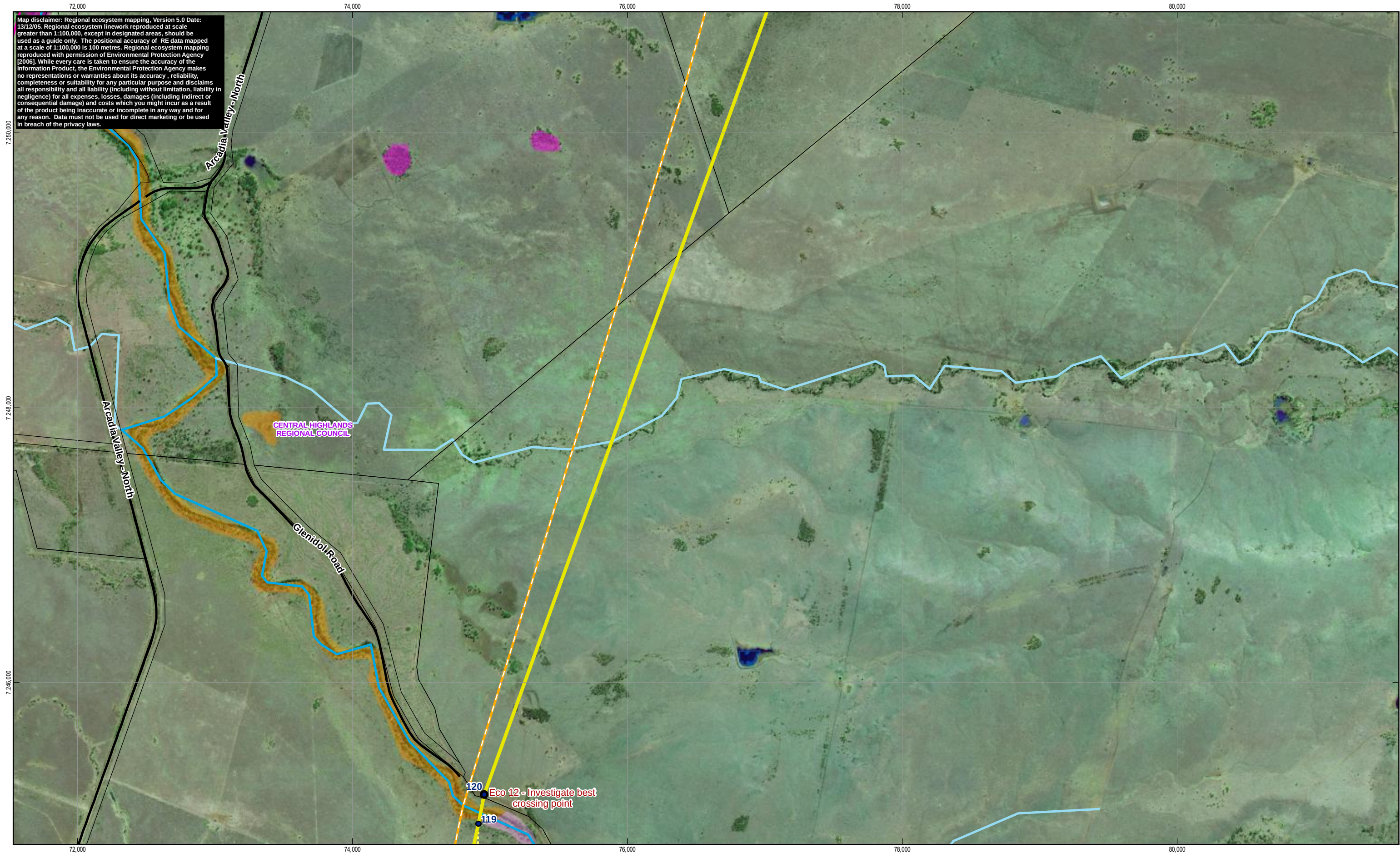
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Not Of Concern

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Job Number 41-20047
Revision A
Date 21 May 2008

Figure 5



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Metres @A3

Map Projection: Transverse Mercator
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Grid: Map Grid of Australia, Zone 56

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LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
● Post Flight Notes	Minor Waterways	Project Extent	National Park
● Flight Waypoints	Sealed Road	Parcel Boundary	Protected Area
● Post Flight Alignment	Unsealed Road	LGA Boundaries	Mineral Development Licence
● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

GHD

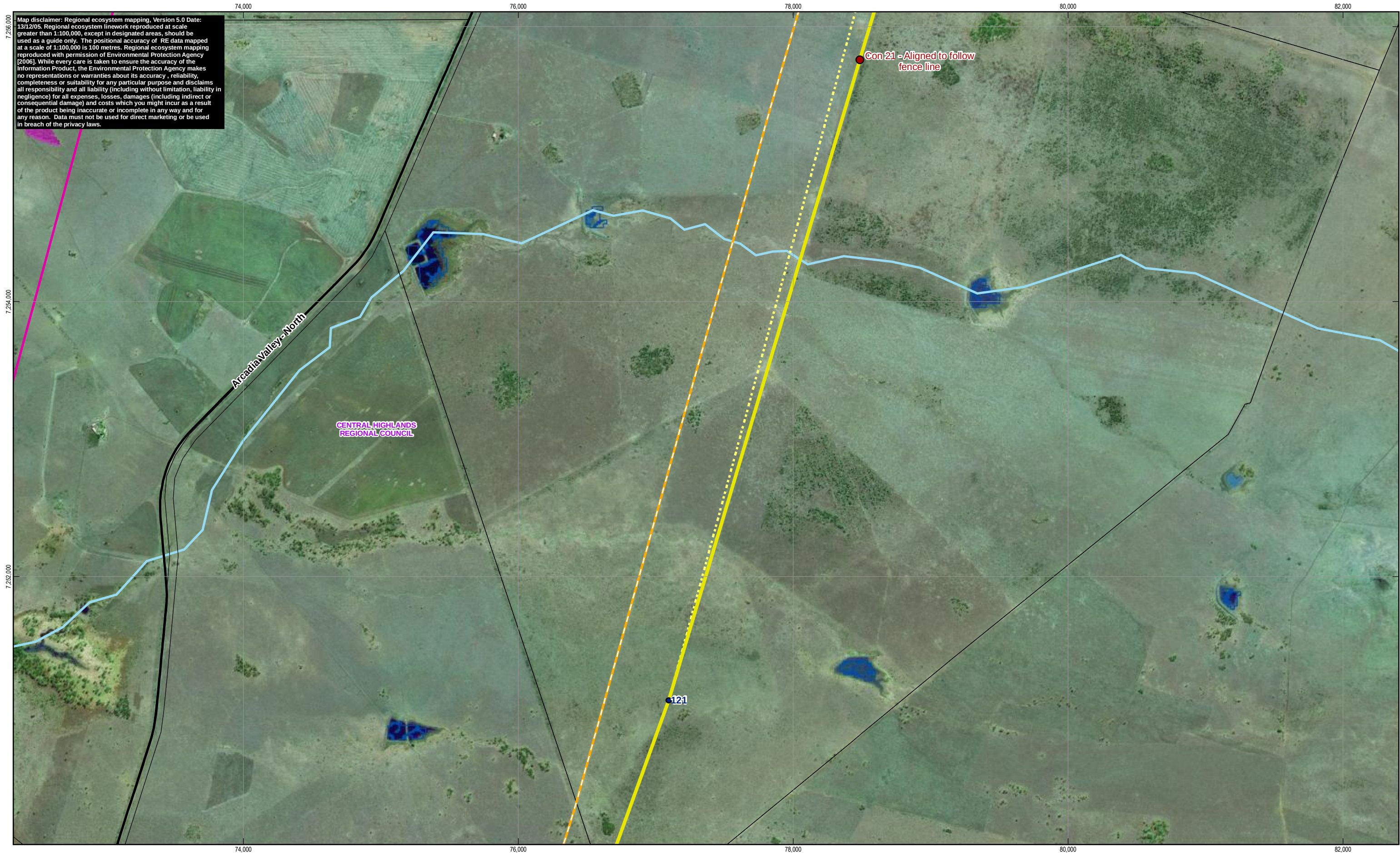
LNG Santos

Santos
Gladstone LNG Pipeline pre-FEED Study

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Revision A
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Sheet 21 / 53

Figure 5



1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
● Post Flight Notes	Minor Waterways	Project Extent	National Park
● Flight Waypoints	Sealed Road	Parcel Boundary	Protected Area
● Post Flight Alignment	Unsealed Road	LGA Boundaries	Mineral Development Licence
● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

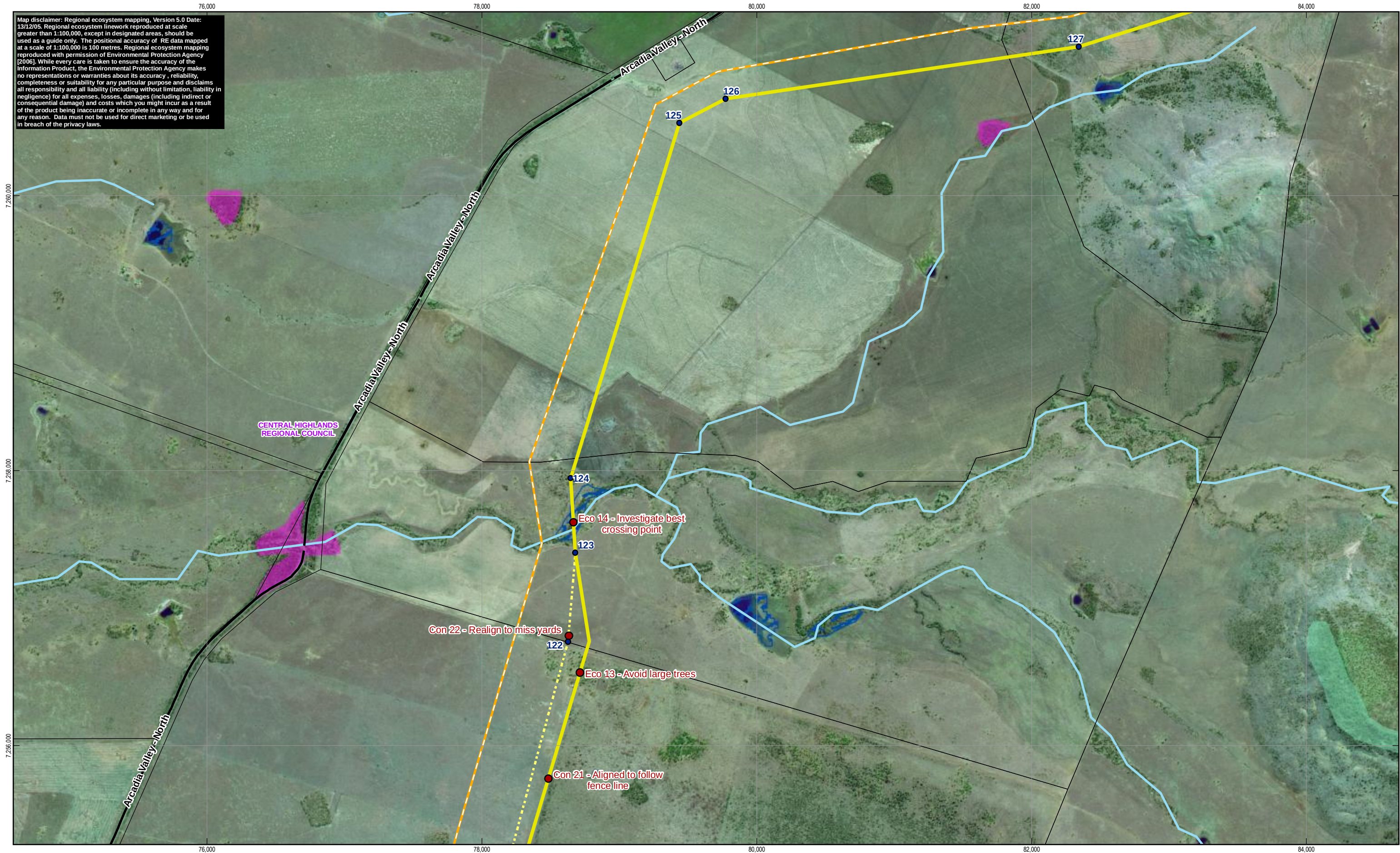
Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

Santos
Gladstone LNG Pipeline pre-FEED Study

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Job Number 41-20047
Revision A
Date 21 May 2008

Figure 5



1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
● Post Flight Notes	Minor Waterways	Project Extent	National Park
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● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

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Gladstone LNG Pipeline pre-FEED Study

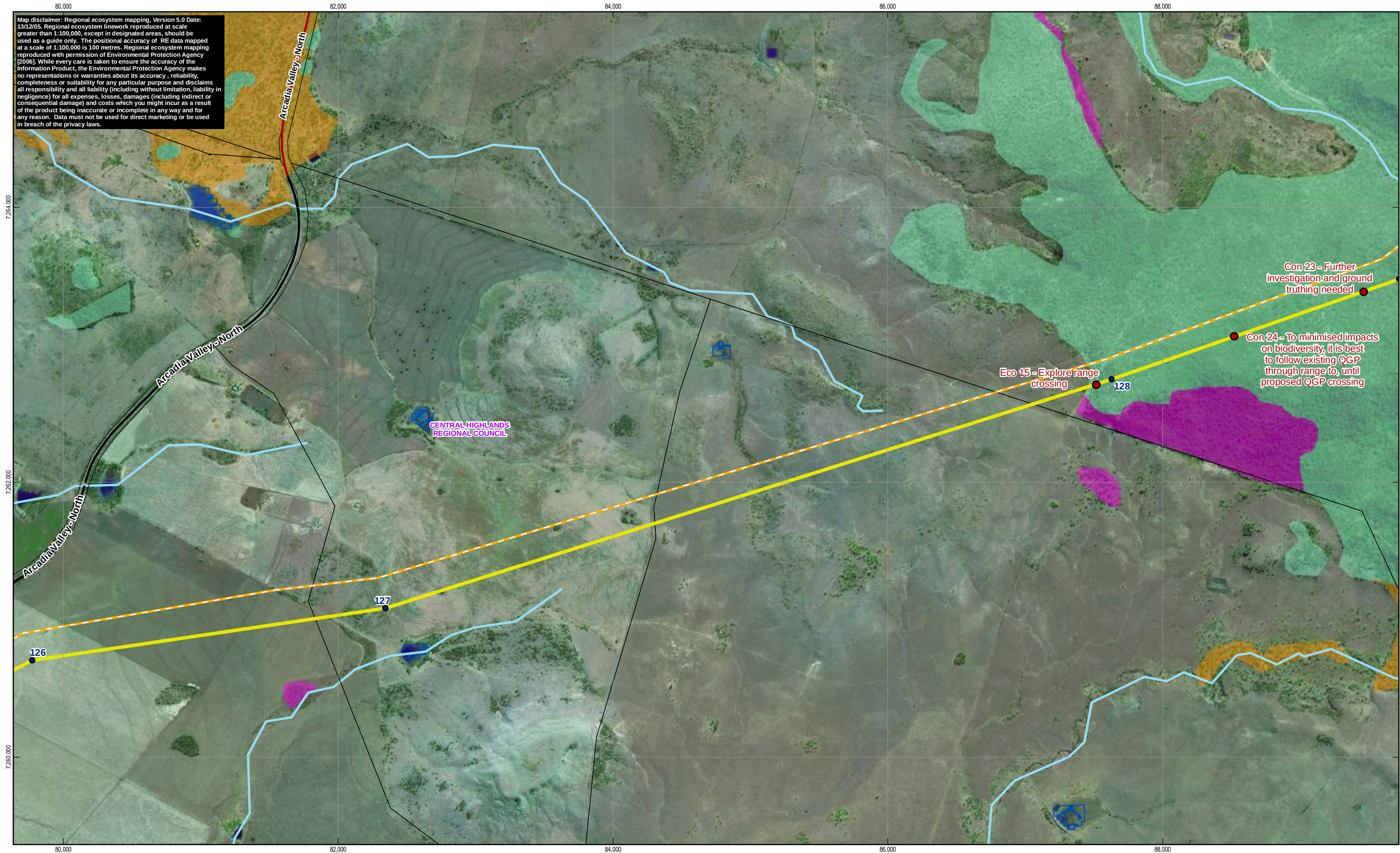
Revised Alignment
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Revision A
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Figure 5

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250

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750

Metres @A3

N

● Route Intersect Points

● Post Flight Notes

● Flight Waypoints

— Post Flight Alignment

— Pre-flight Alignment

⊙ Localities

— Major Waterways

— Minor Waterways

— Sealed Road

— Unsealed Road

— Track

— Railway

— QGP Alignment

□ Project Extent

□ Parcel Boundary

□ Essential Habitat

■ Wetlands

□ National Park

□ Protected Area

□ Mineral Development Licence

□ Mining Lease

REGIONAL ECOSYSTEMS (EPA, 2003)

■ Endangered - Dominant

■ Endangered - Sub-dominant

■ Of Concern - Dominant

■ Of Concern - Sub-dominant

■ Not Of Concern

Santos

Gladstone LNG Pipeline pre-FEED Study

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Date

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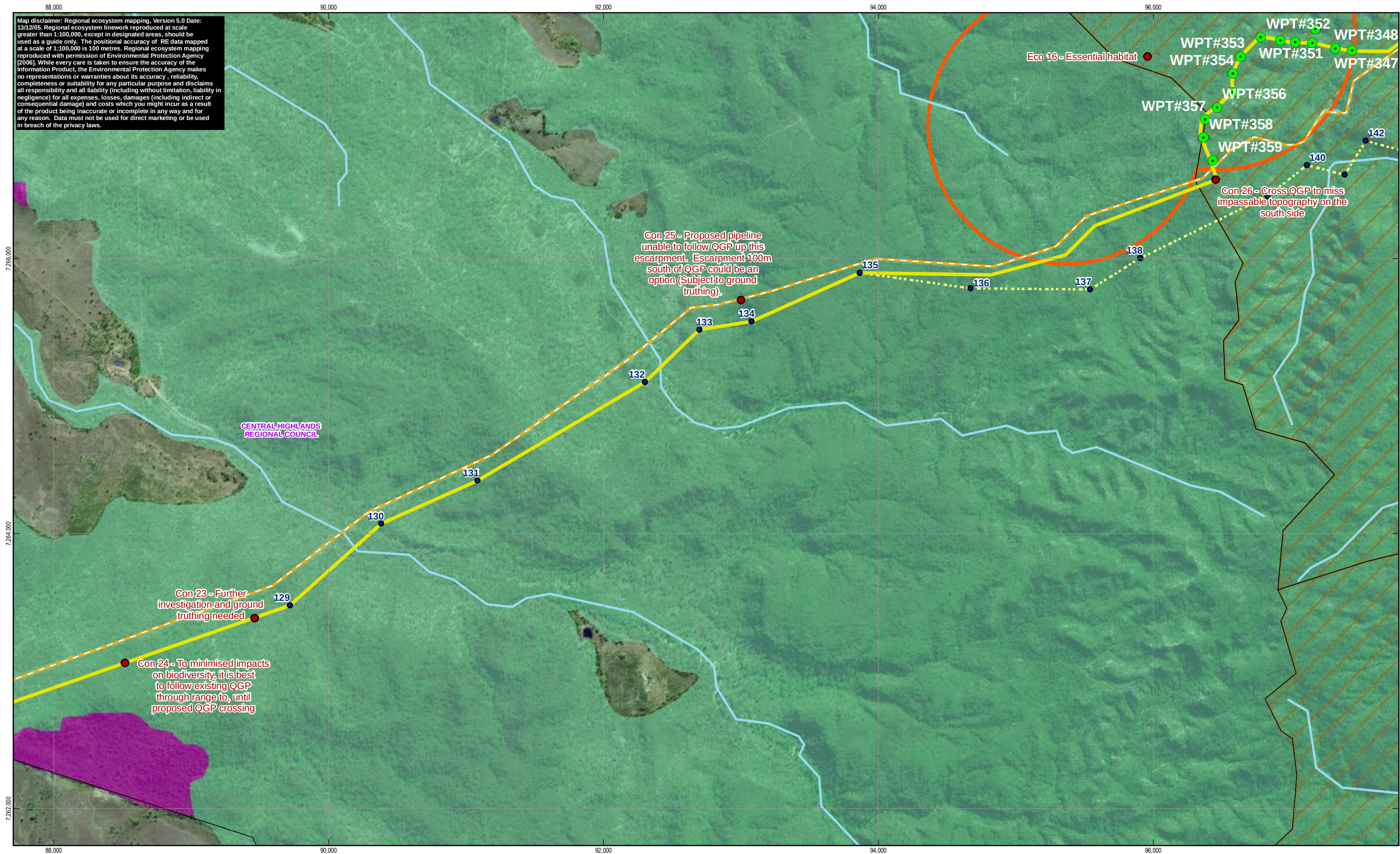
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Figure 5



1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
● Post Flight Notes	Minor Waterways	Project Extent	National Park
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● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

GHD

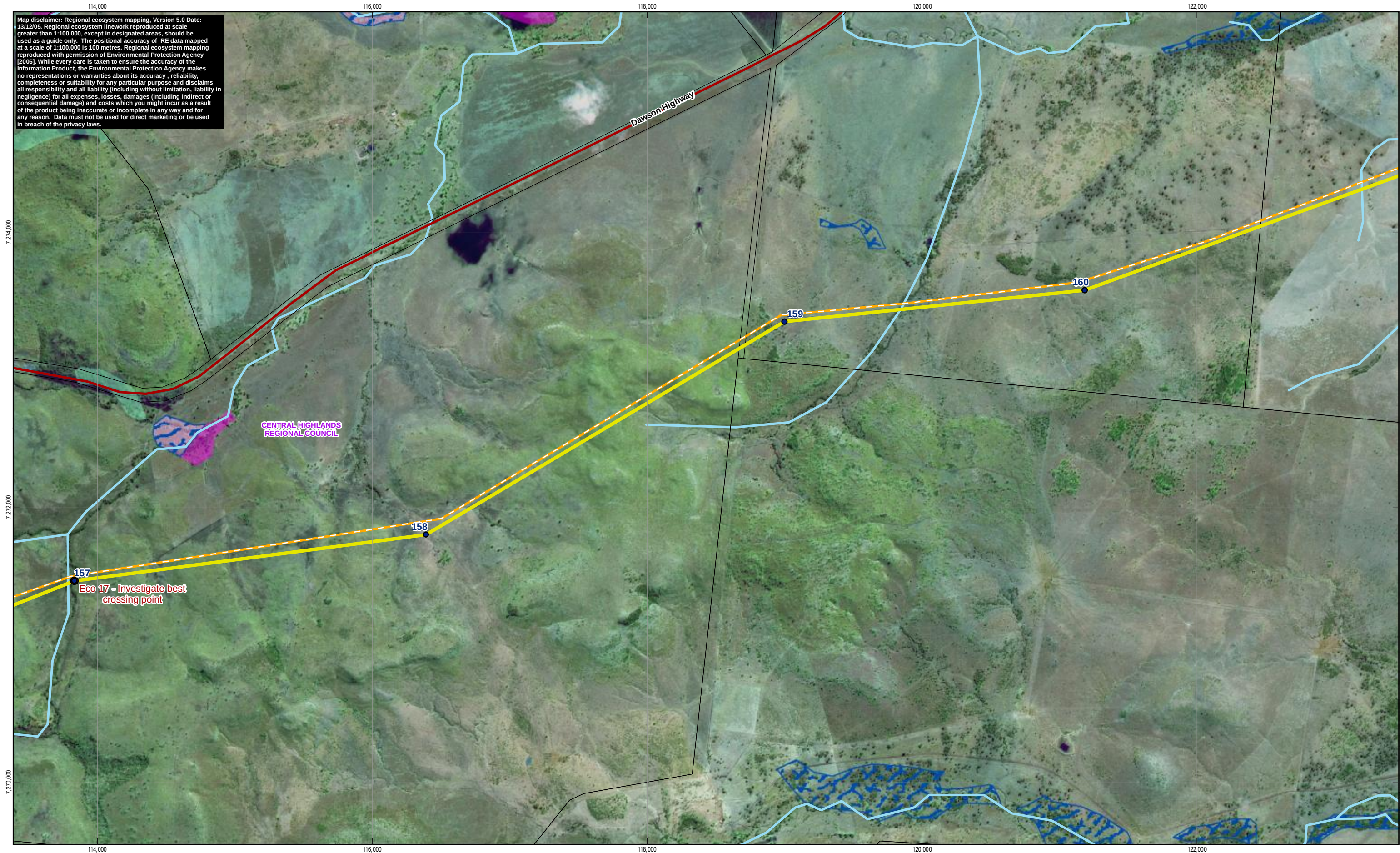
LNG Santos

Santos
Gladstone LNG Pipeline pre-FEED Study

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Date 21 May 2008

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Figure 5



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Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

● Route Intersect Points

● Post Flight Notes

● Flight Waypoints

● Post Flight Alignment

● Pre-flight Alignment

● Localities

Major Waterways

Minor Waterways

Sealed Road

Unsealed Road

Track

Railway

QGP Alignment

Project Extent

Parcel Boundary

LGA Boundaries

Essential Habitat

Wetlands

National Park

Protected Area

Mineral Development Licence

Mining Lease

REGIONAL ECOSYSTEMS (EPA, 2003)

Endangered - Dominant

Endangered - Sub-dominant

Of Concern - Dominant

Of Concern - Sub-dominant

Not Of Concern

Santos
Gladstone LNG Pipeline pre-FEED Study

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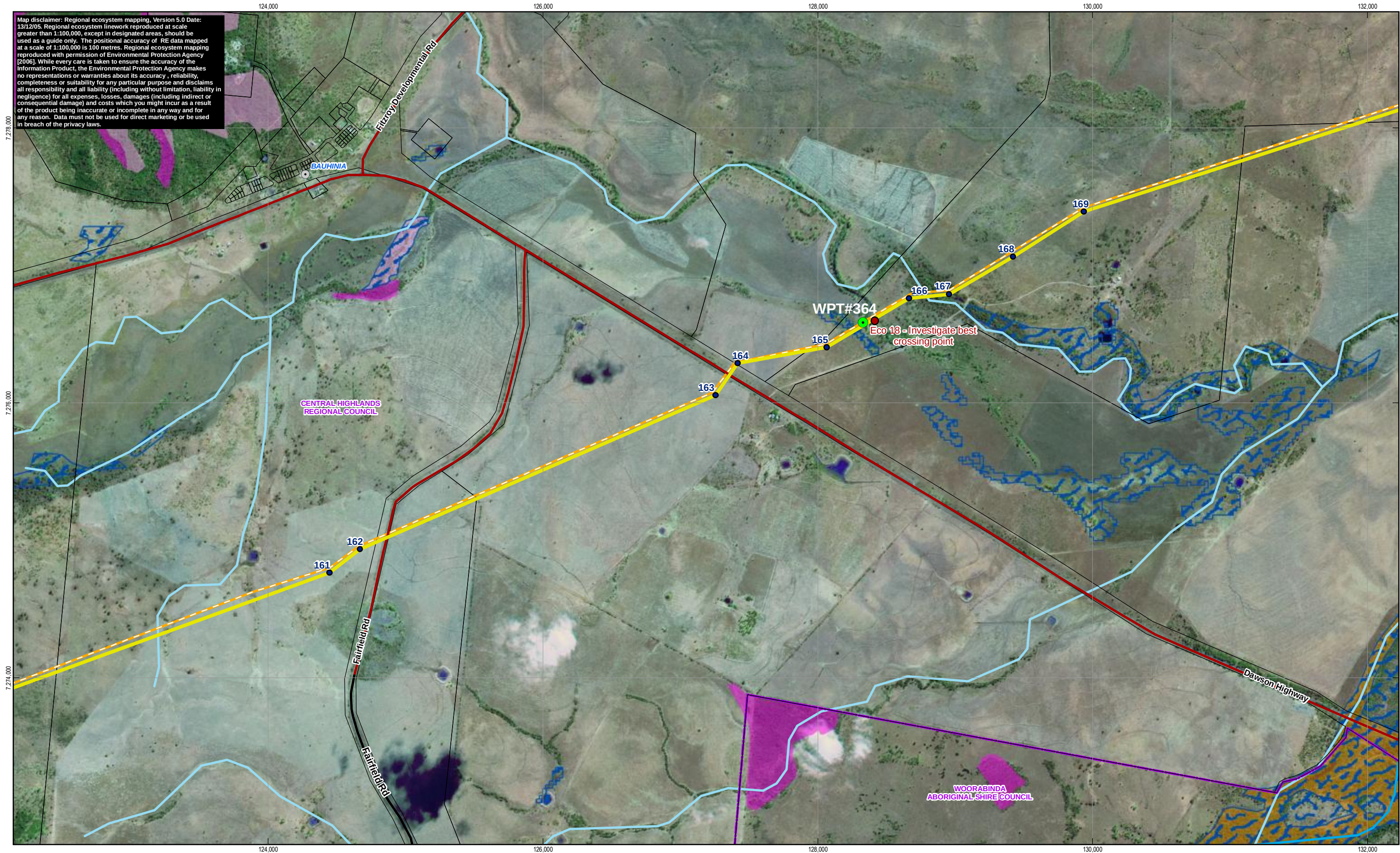
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Figure 5



1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
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● Post Flight Alignment	Unsealed Road	LGA Boundaries	Mineral Development Licence
● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

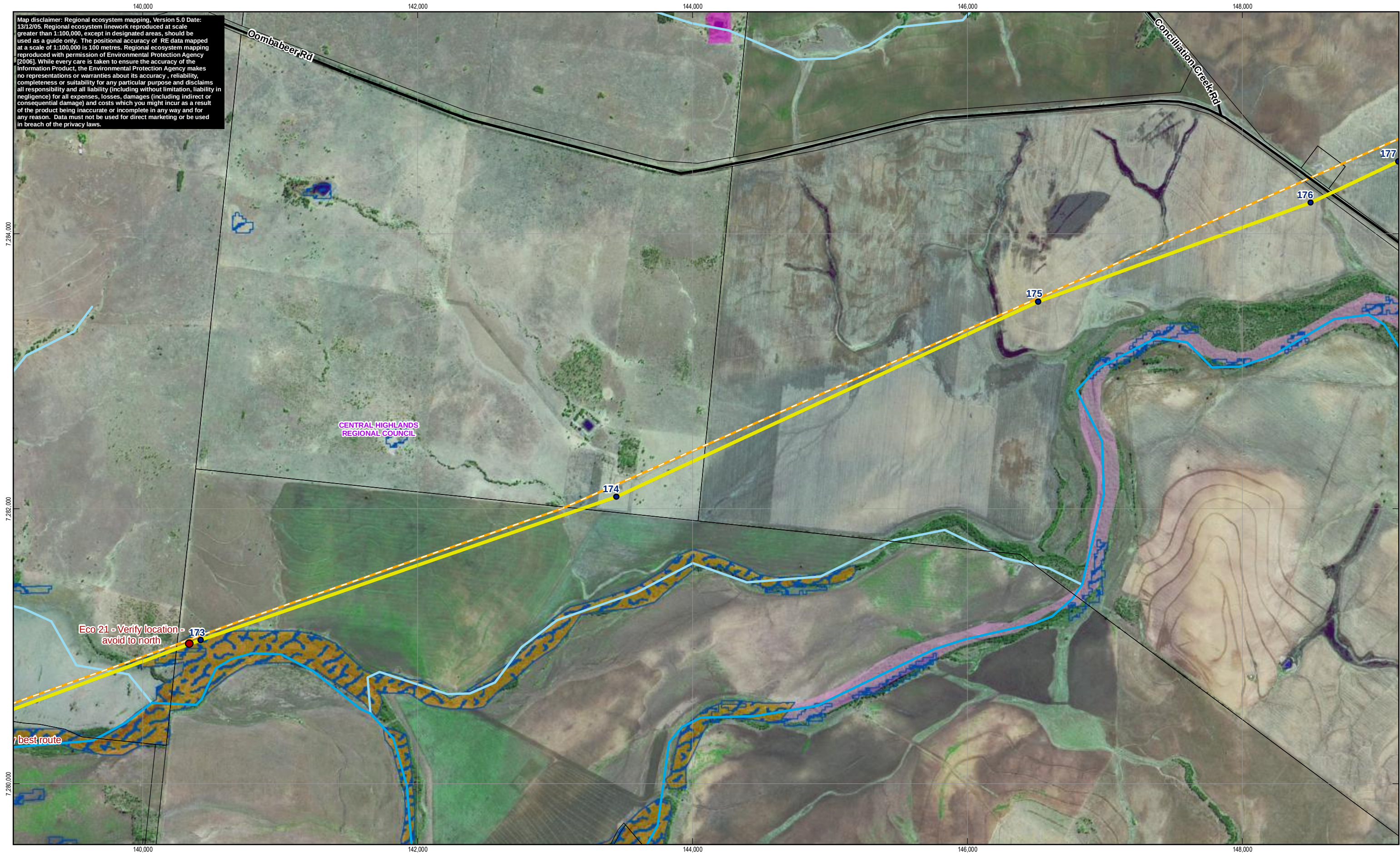
Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

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Gladstone LNG Pipeline pre-FEED Study

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Figure 5



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Metres @A3

N

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

● Route Intersect Points

● Post Flight Notes

● Flight Waypoints

● Post Flight Alignment

● Pre-flight Alignment

● Localities

Major Waterways

Minor Waterways

Sealed Road

Unsealed Road

Track

Railway

QGP Alignment

Project Extent

Parcel Boundary

LGA Boundaries

Essential Habitat

Wetlands

National Park

Protected Area

Mineral Development Licence

Mining Lease

REGIONAL ECOSYSTEMS (EPA, 2003)

Endangered - Dominant

Endangered - Sub-dominant

Of Concern - Dominant

Of Concern - Sub-dominant

Not Of Concern

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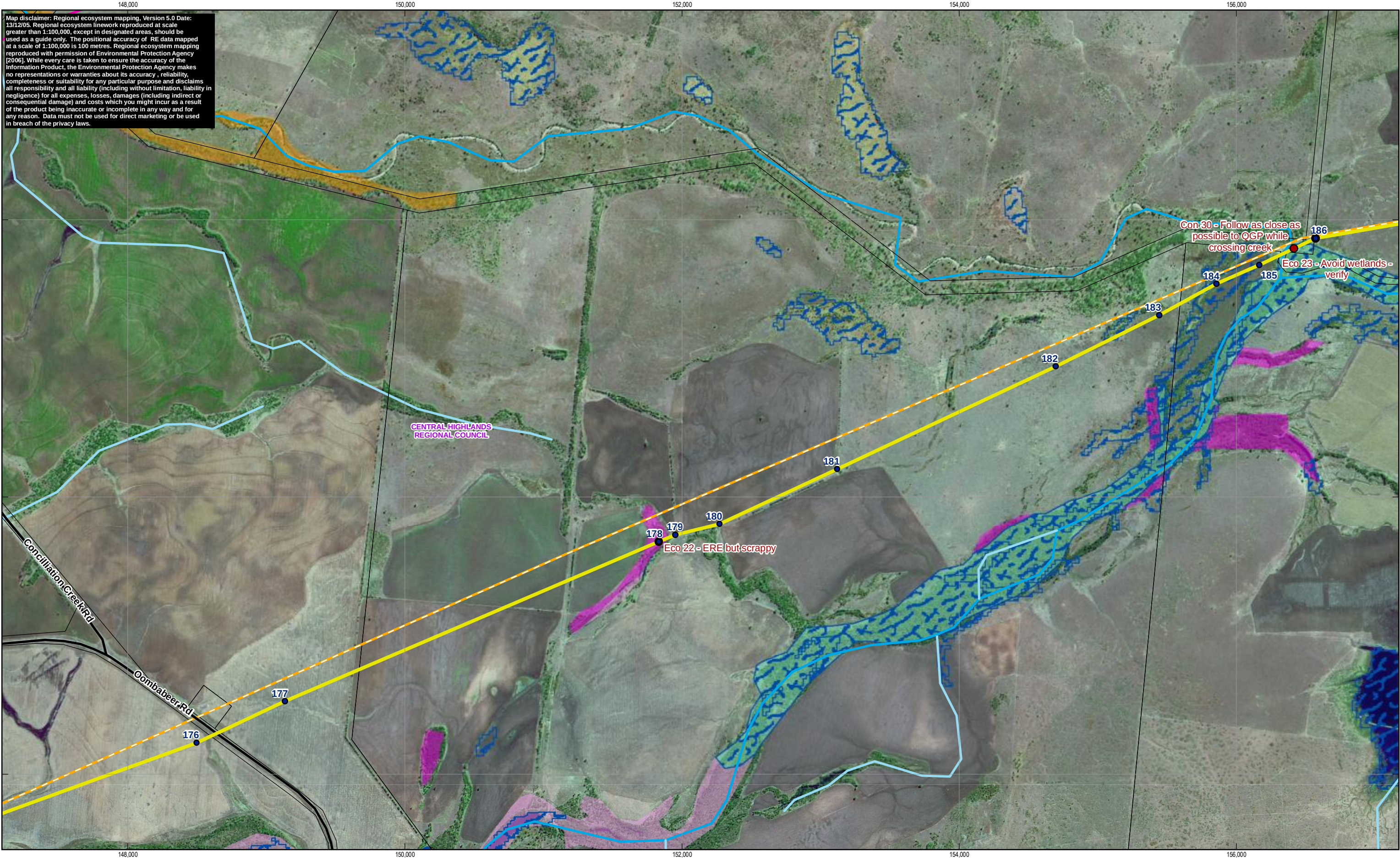
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Figure 5

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1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
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● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

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Gladstone LNG Pipeline pre-FEED Study

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Figure 5

Map disclaimer: Regional ecosystem mapping, Version 5.0 Date: 13/12/05. Regional ecosystem linework reproduced at scale greater than 1:100,000, except in designated areas, should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100,000 is 100 metres. Regional ecosystem mapping reproduced with permission of Environmental Protection Agency (2006). While every care is taken to ensure the accuracy of the Information Product, the Environmental Protection Agency makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which you might incur as a result of the product being inaccurate or incomplete in any way and for any reason. Data must not be used for direct marketing or be used in breach of the privacy laws.

CENTRAL HIGHLANDS REGIONAL COUNCIL

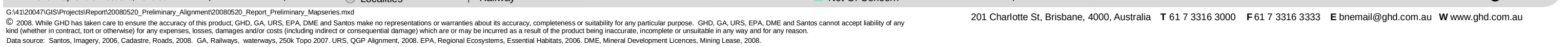
Con 30 - Follow as close as possible to QGP while crossing creek

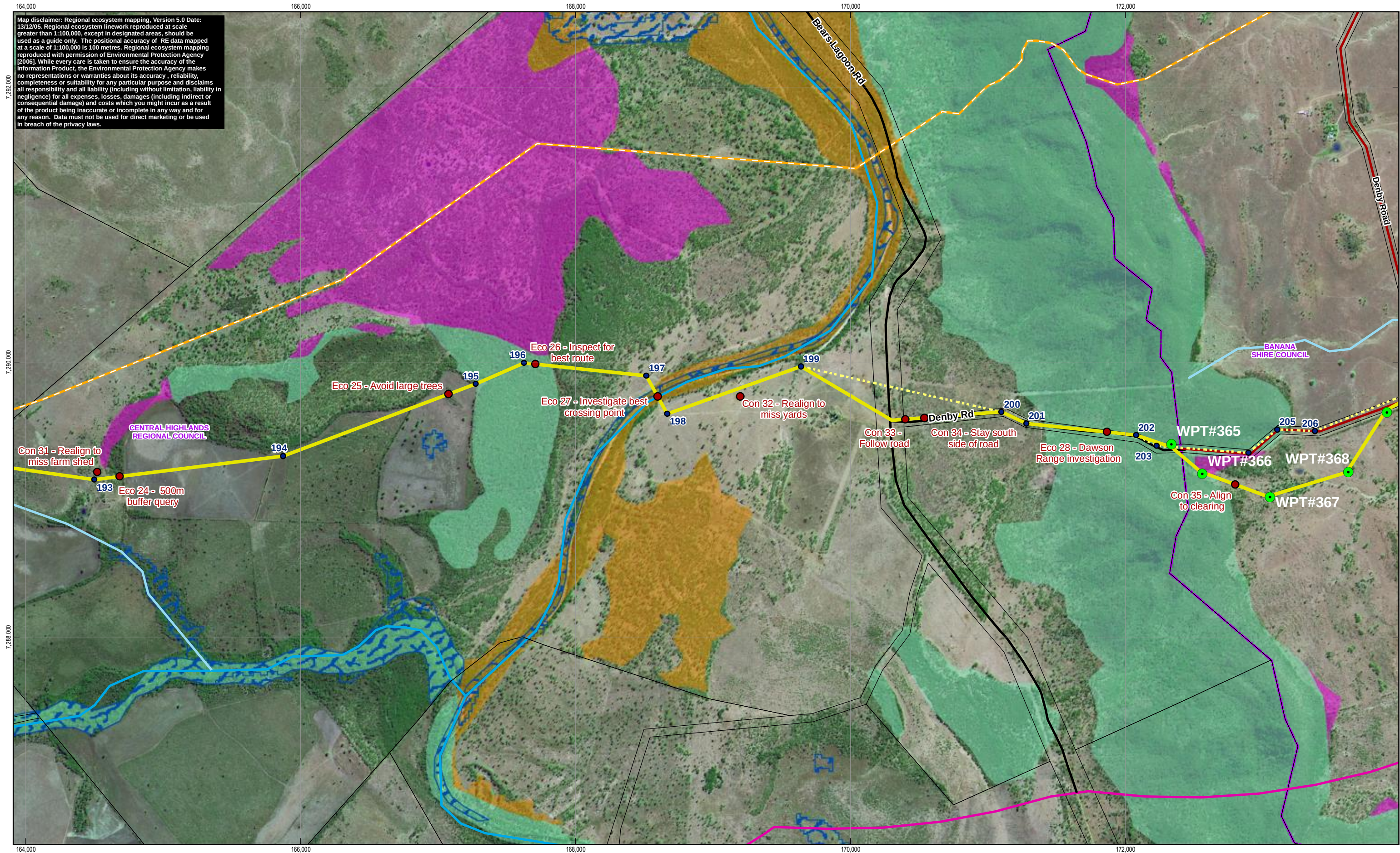
Eco 23 - Avoid wetlands - verify

Con 31 - Realign to miss farm shed

Eco 24 - 500m buffer query

Points 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193





1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
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● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

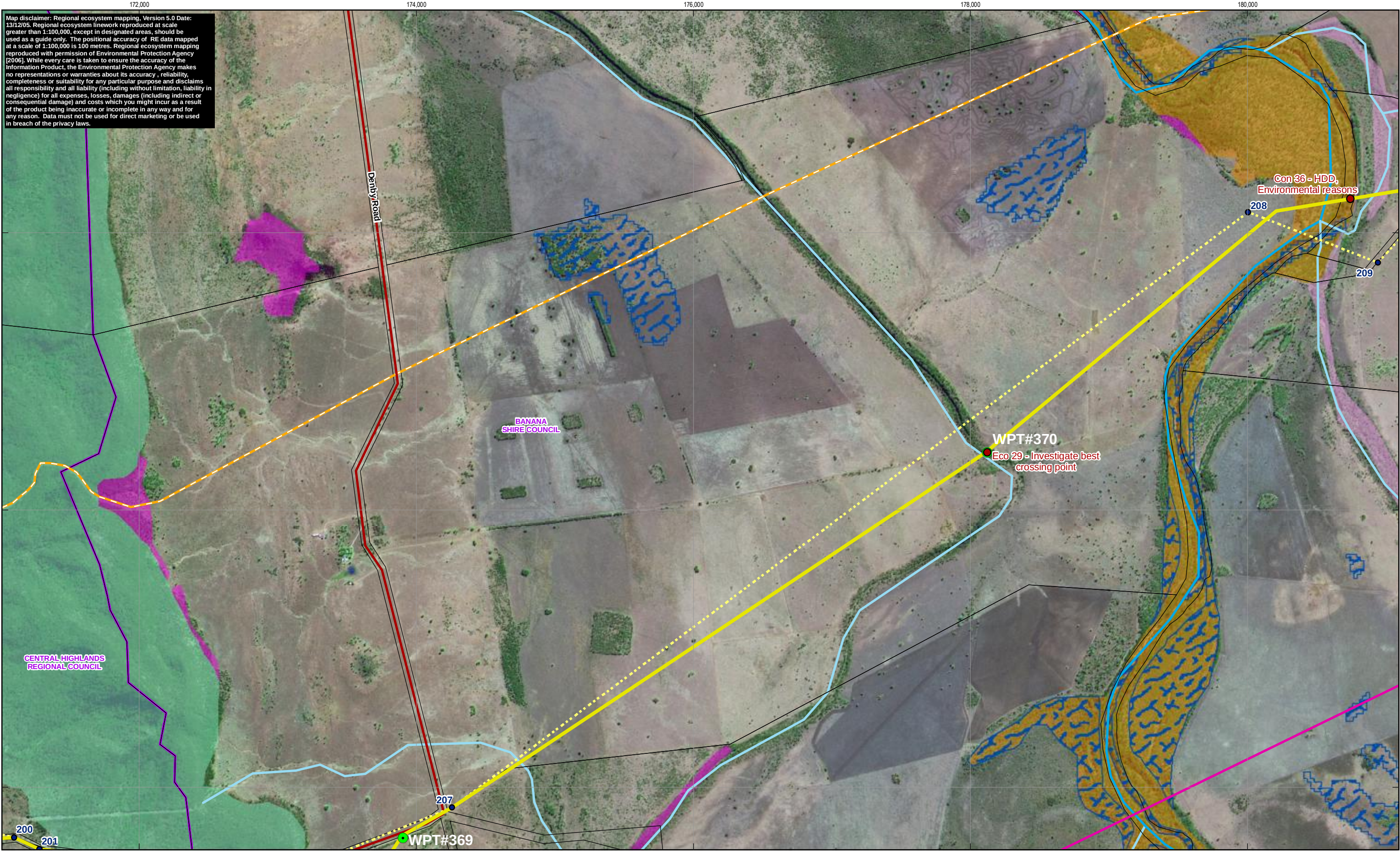
Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

Santos
Gladstone LNG Pipeline pre-FEED Study

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Figure 5



1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

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● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

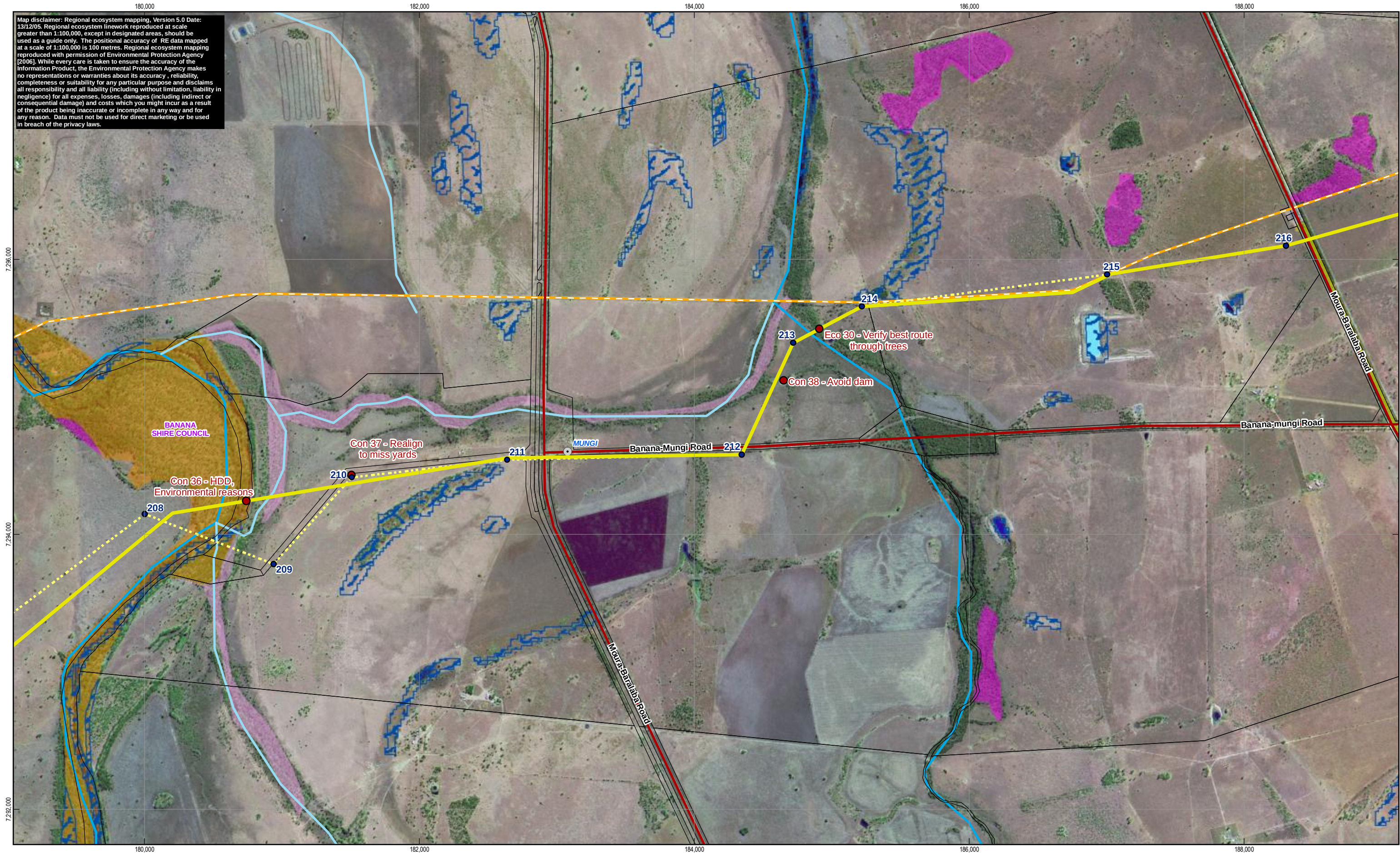
Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

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Gladstone LNG Pipeline pre-FEED Study

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Figure 5



1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

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● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

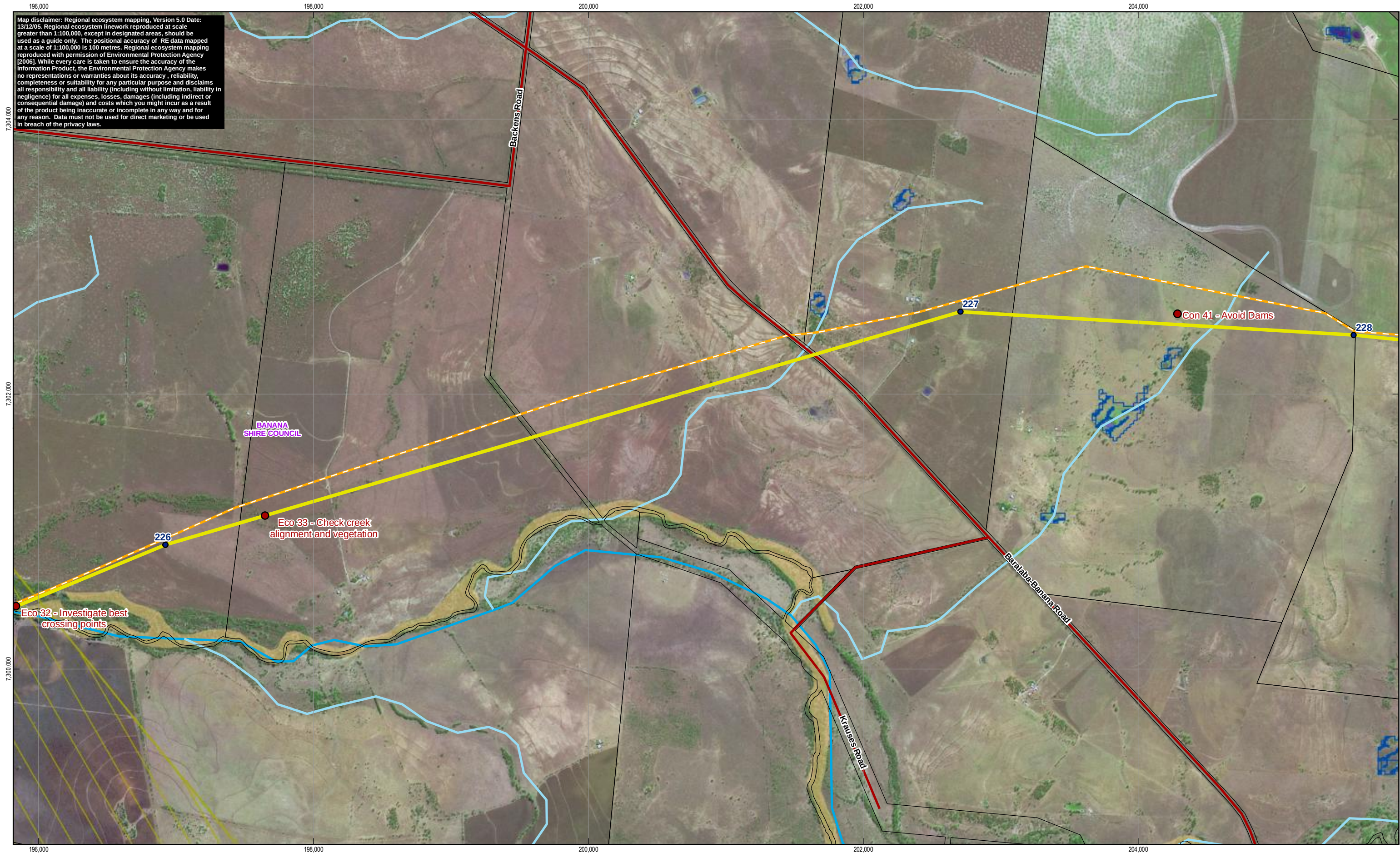
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Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

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Sheet 36 / 53

Figure 5



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750

Metres @A3

N

●

Route Intersect Points

●

Post Flight Notes

●

Flight Waypoints

—

Post Flight Alignment

—

Pre-flight Alignment

●

Localities

—

Major Waterways

—

Minor Waterways

—

Sealed Road

—

Unsealed Road

—

Track

+

Railway

—

QGP Alignment

□

Project Extent

□

Parcel Boundary

□

LGA Boundaries

□

Essential Habitat

□

Wetlands

□

National Park

□

Protected Area

□

Mineral Development Licence

□

Mining Lease

■

Endangered - Dominant

■

Endangered - Sub-dominant

■

Of Concern - Dominant

■

Of Concern - Sub-dominant

■

Not Of Concern

REGIONAL ECOSYSTEMS (EPA, 2003)

GHD

LNG

Santos

Santos

Gladstone LNG Pipeline pre-FEED Study

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Sheet 38 / 53

Job Number

41-20047

Revision

A

Date

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Figure 5

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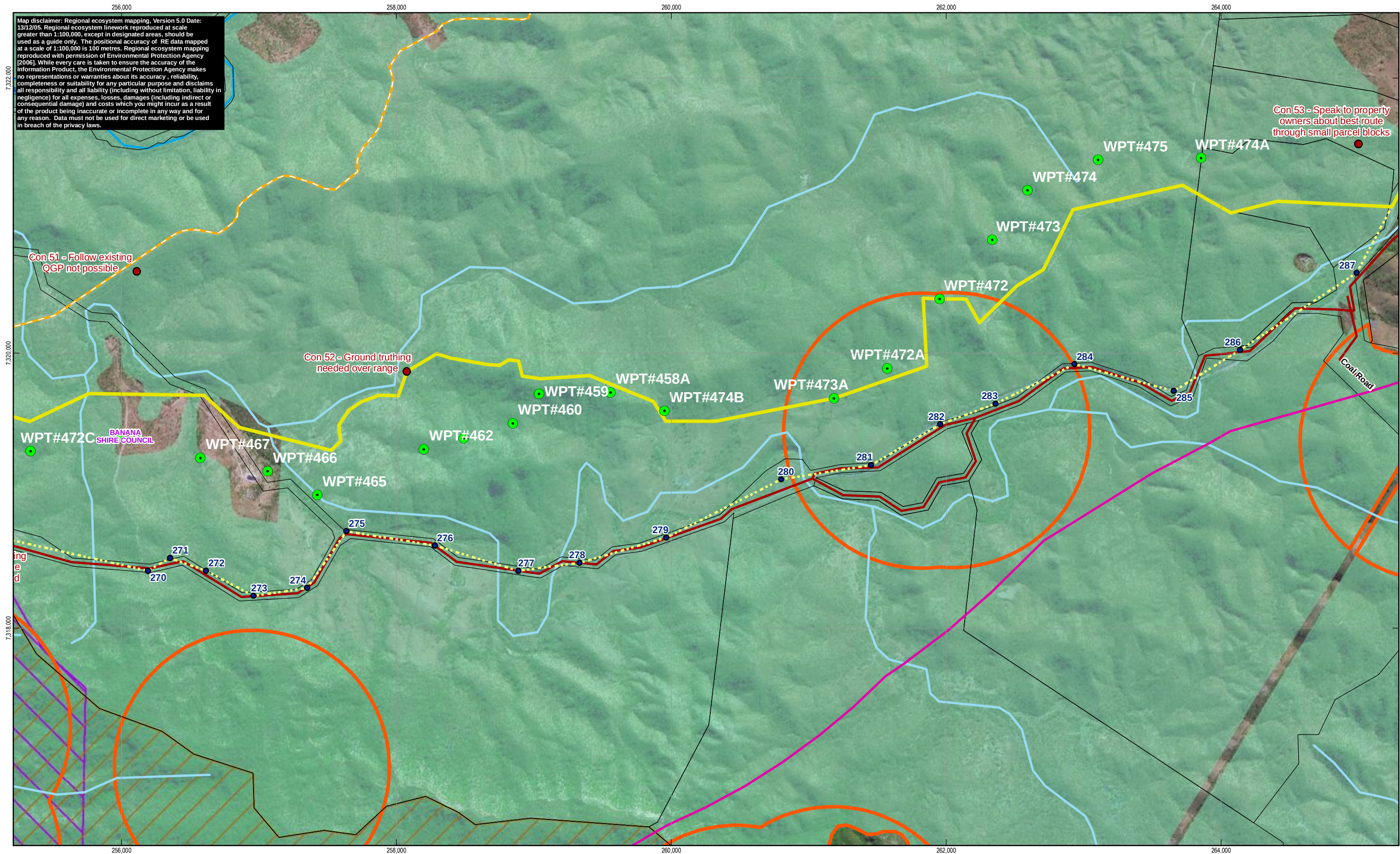
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F 61 7 3316 3333

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1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
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● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

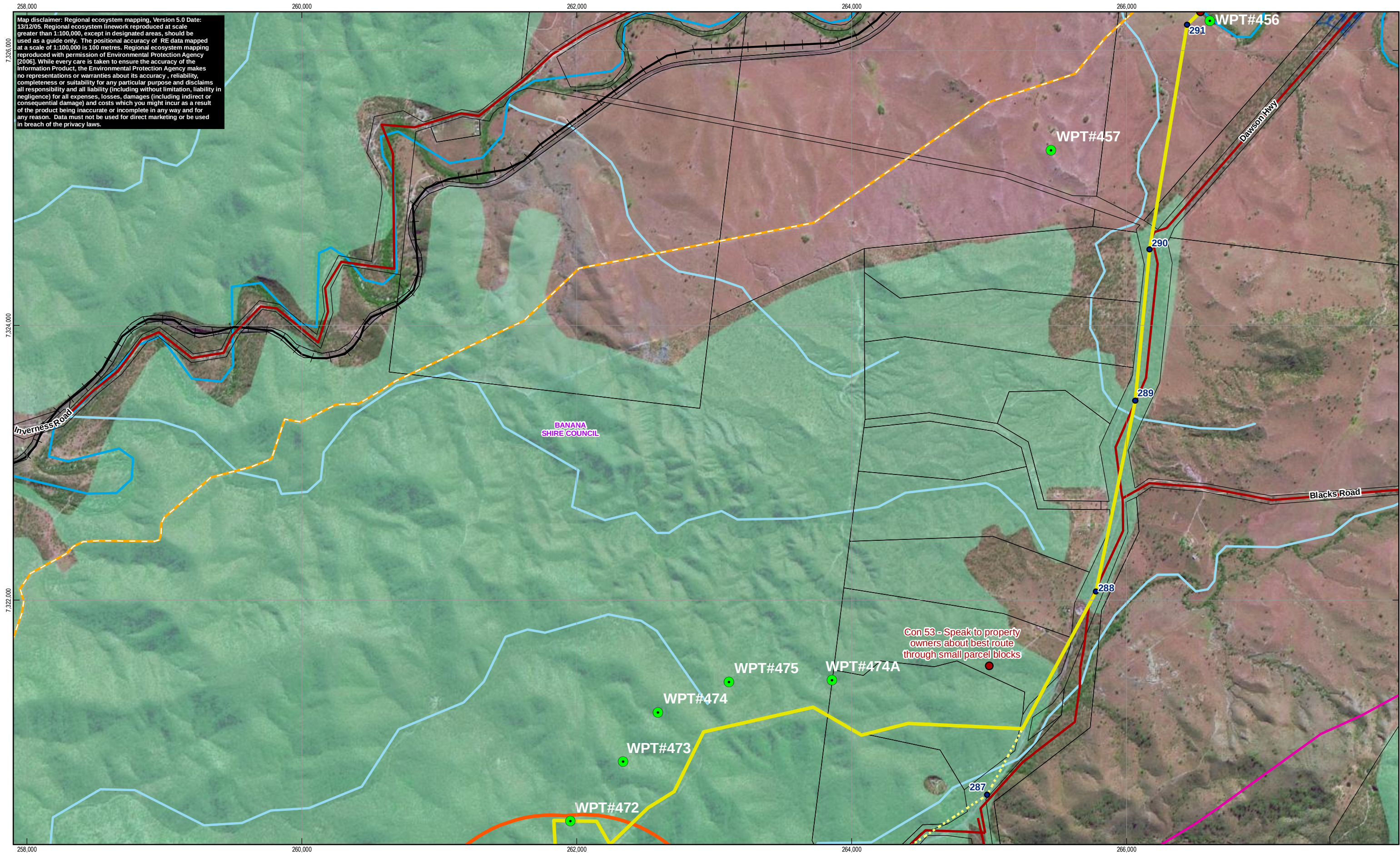
Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

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Date 21 May 2008

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Sheet 45 / 53

Figure 5



1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
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REGIONAL ECOSYSTEMS (EPA, 2003)

Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

GHD

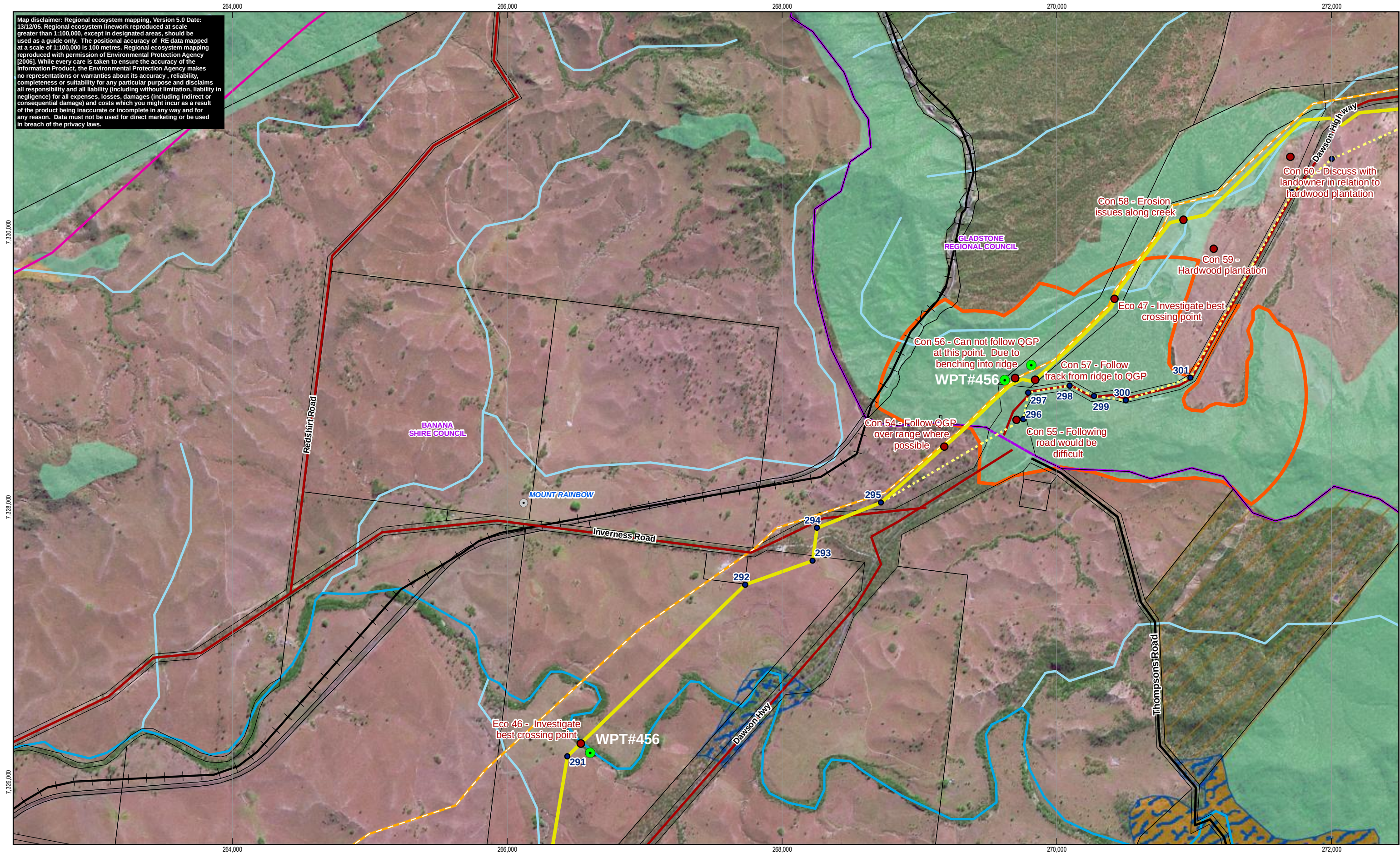
LNG Santos

Santos
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Sheet 46 / 53

Figure 5



1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

- Route Intersect Points
- Post Flight Notes
- Flight Waypoints
- Post Flight Alignment
- Pre-flight Alignment
- Localities

- Major Waterways
- Minor Waterways
- Sealed Road
- Unsealed Road
- Track
- Railway

- QGP Alignment
- Project Extent
- Parcel Boundary
- LGA Boundaries
- Essential Habitat

- Wetlands
- National Park
- Protected Area
- Mineral Development Licence
- Mining Lease

REGIONAL ECOSYSTEMS (EPA, 2003)

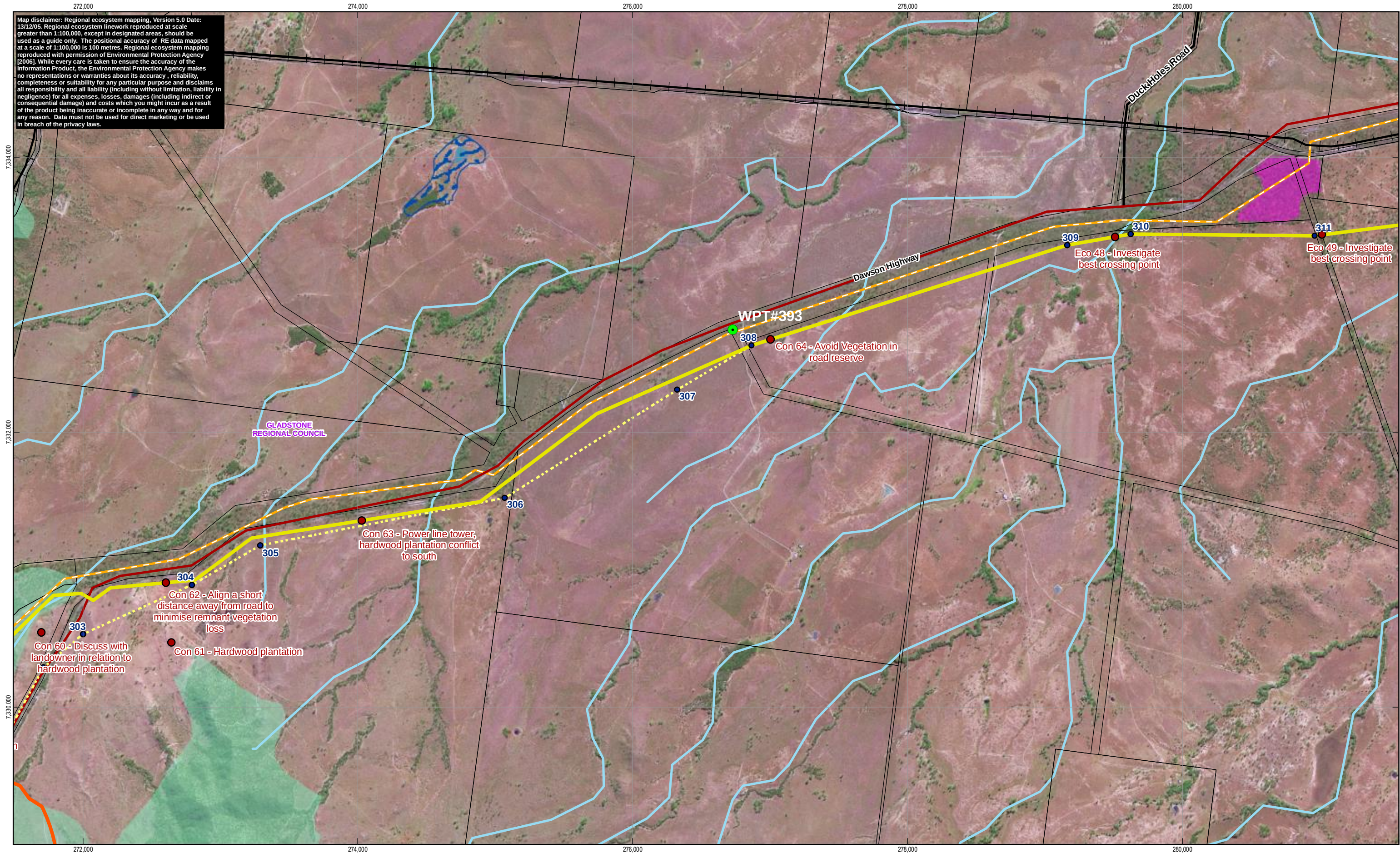
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- Endangered - Sub-dominant
- Of Concern - Dominant
- Of Concern - Sub-dominant
- Not Of Concern

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Gladstone LNG Pipeline pre-FEED Study

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Figure 5



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Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

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● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

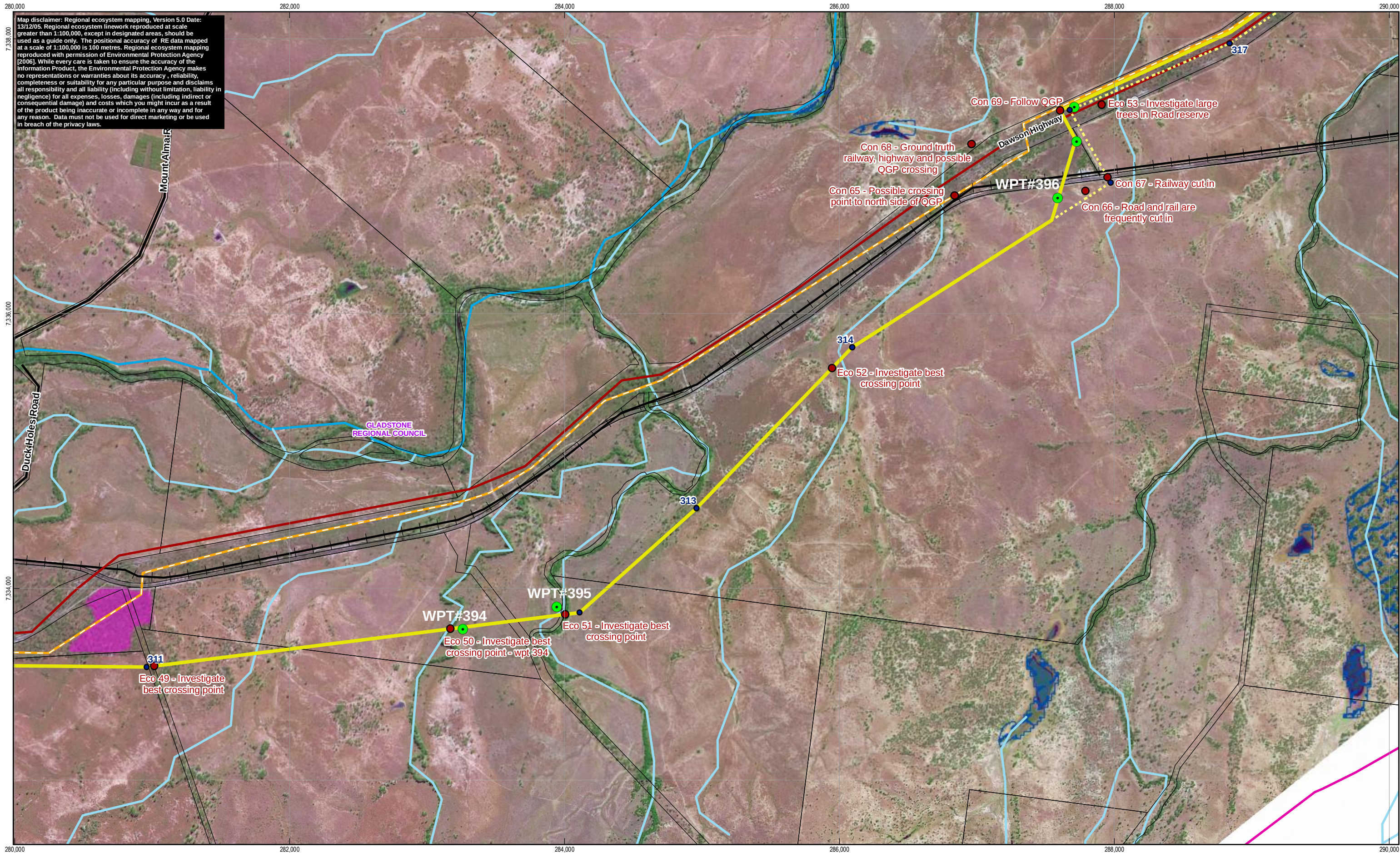
Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

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Date 21 May 2008

Figure 5



Map disclaimer: Regional ecosystem mapping, Version 5.0 Date: 13/12/05. Regional ecosystem linework reproduced at scale greater than 1:100,000, except in designated areas, should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100,000 is 100 metres. Regional ecosystem mapping reproduced with permission of Environmental Protection Agency (2006). While every care is taken to ensure the accuracy of the Information Product, the Environmental Protection Agency makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which you might incur as a result of the product being inaccurate or incomplete in any way and for any reason. Data must not be used for direct marketing or be used in breach of the privacy laws.

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Metres @A3

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Map Projection: Transverse Mercator

Horizontal Datum: Geocentric Datum of Australia 1994

Grid: Map Grid of Australia, Zone 56

LEGEND

● Route Intersect Points

● Post Flight Notes

● Flight Waypoints

● Post Flight Alignment

● Pre-flight Alignment

● Localities

Major Waterways

Minor Waterways

Sealed Road

Unsealed Road

Track

Railway

QGP Alignment

Project Extent

Parcel Boundary

LGA Boundaries

Essential Habitat

Wetlands

National Park

Protected Area

Mineral Development Licence

Mining Lease

REGIONAL ECOSYSTEMS (EPA, 2003)

Endangered - Dominant

Endangered - Sub-dominant

Of Concern - Dominant

Of Concern - Sub-dominant

Not Of Concern

GHD

LNG Santos

Santos

Gladstone LNG Pipeline pre-FEED Study

Job Number

41-20047

Revision

A

Date

21 May 2008

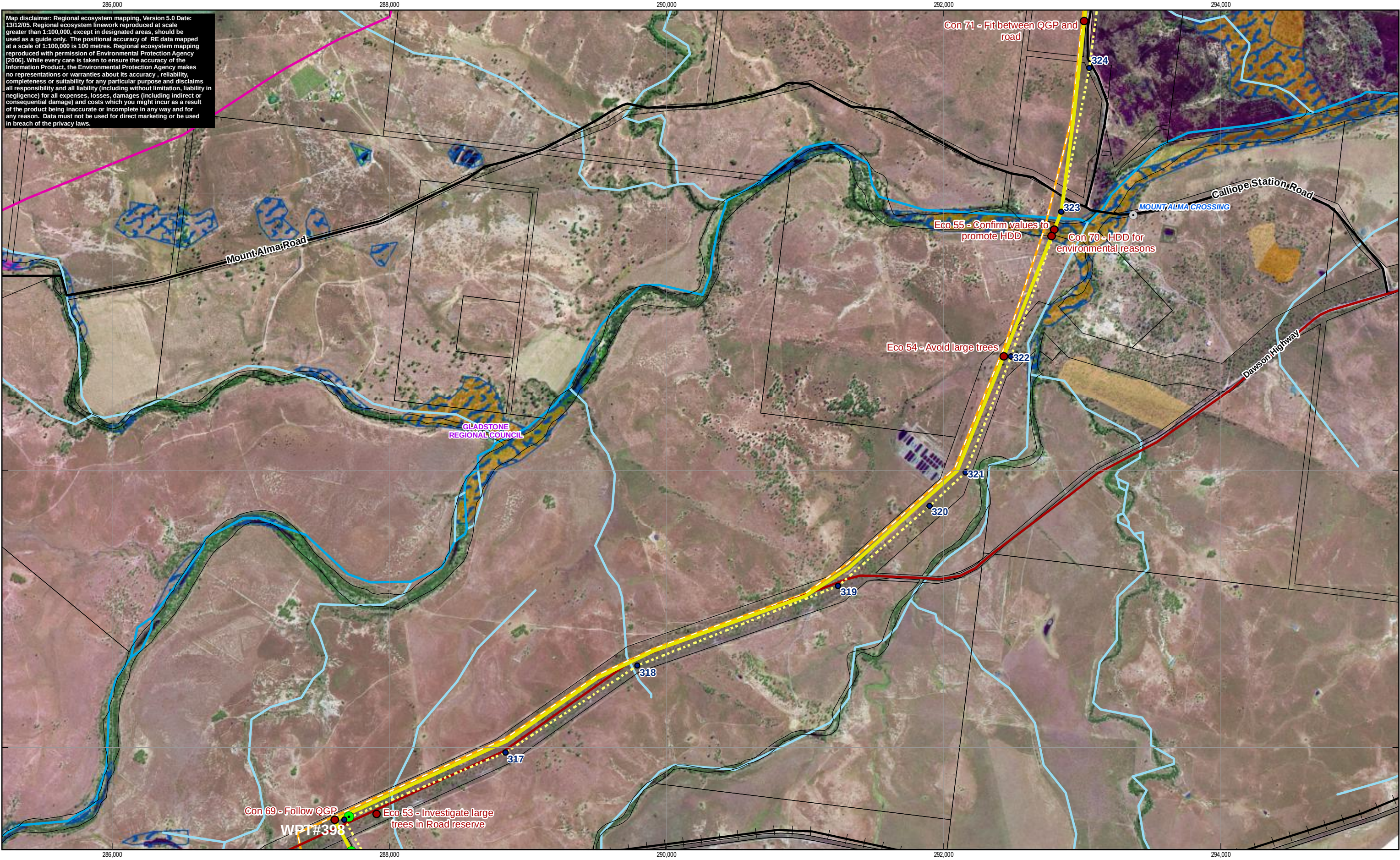
Revised Alignment

Sheet 49 / 53

Figure 5

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1:25,000

0 250 500 750

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

● Route Intersect Points	Major Waterways	QGP Alignment	Wetlands
● Post Flight Notes	Minor Waterways	Project Extent	National Park
● Flight Waypoints	Sealed Road	Parcel Boundary	Protected Area
● Post Flight Alignment	Unsealed Road	LGA Boundaries	Mineral Development Licence
● Pre-flight Alignment	Track	Essential Habitat	Mining Lease
● Localities	Railway		

REGIONAL ECOSYSTEMS (EPA, 2003)

Endangered - Dominant
Endangered - Sub-dominant
Of Concern - Dominant
Of Concern - Sub-dominant
Not Of Concern

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Gladstone LNG Pipeline pre-FEED Study

Revised Alignment
Sheet 50 / 53

Job Number 41-20047
Revision A
Date 21 May 2008

Figure 5

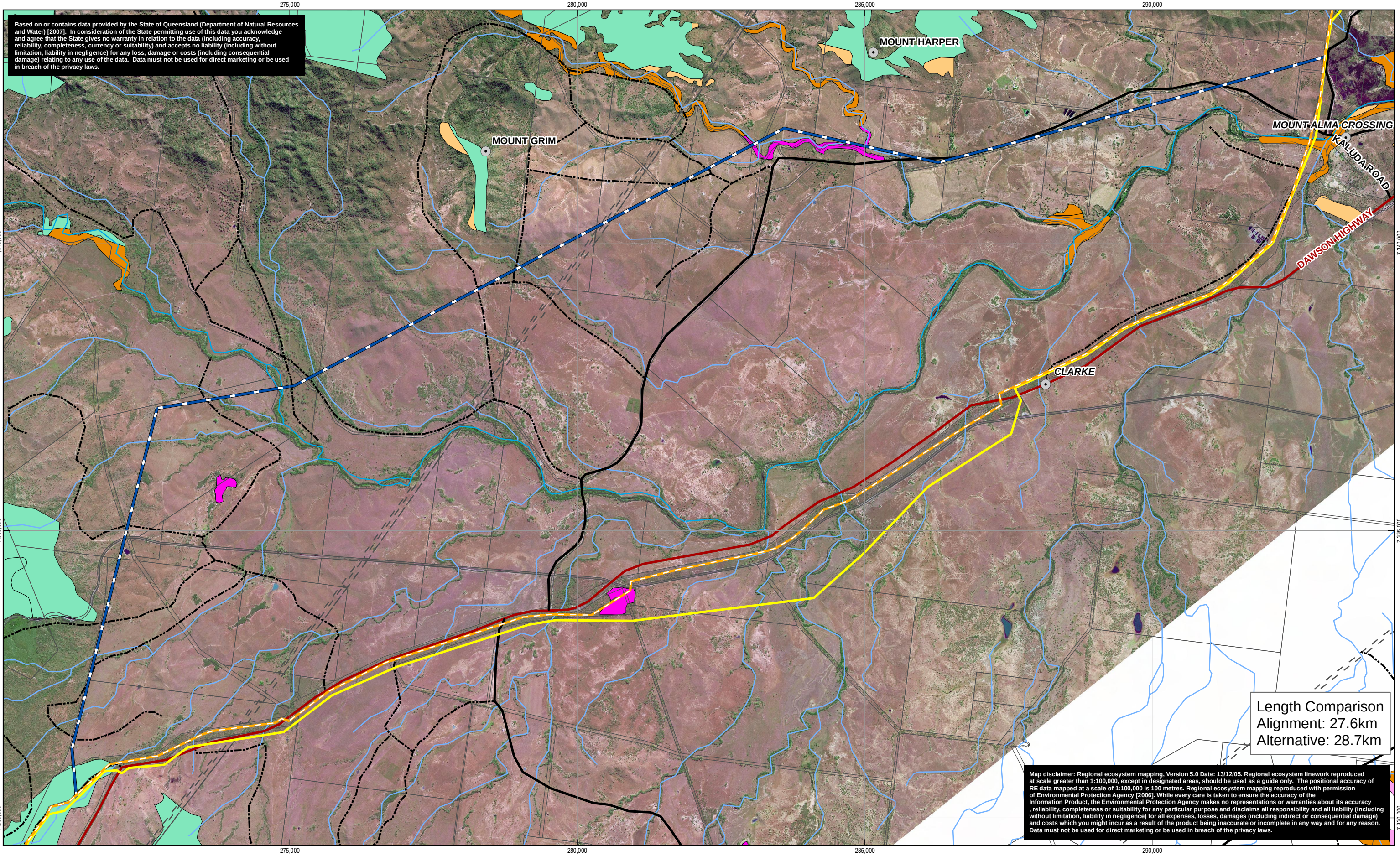
Appendix D

Proposed Pipeline Alignment Maps

Appendix E

Wilson Deviation

Figure 11



1:60,000

0 500 1,000 1,500 2,000 2,500

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

LEGEND

- Queensland Gas Pipeline
- Preliminary Gladstone LNG Alignment
- Wilson Deviation
- Major Watercourse
- Minor Watercourse
- Sealed Road
- Unsealed Road
- Track
- Parcel Boundary
- Easement
- Regional Ecosystems**
- Endangered - Dominant
- Endangered - Sub-dominant
- Of Concern - Dominant
- Of Concern - Sub-dominant
- Not Of Concern

GHD

LNG Santos

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Job Number 41-20047
Revision A
Date 27 August 2008

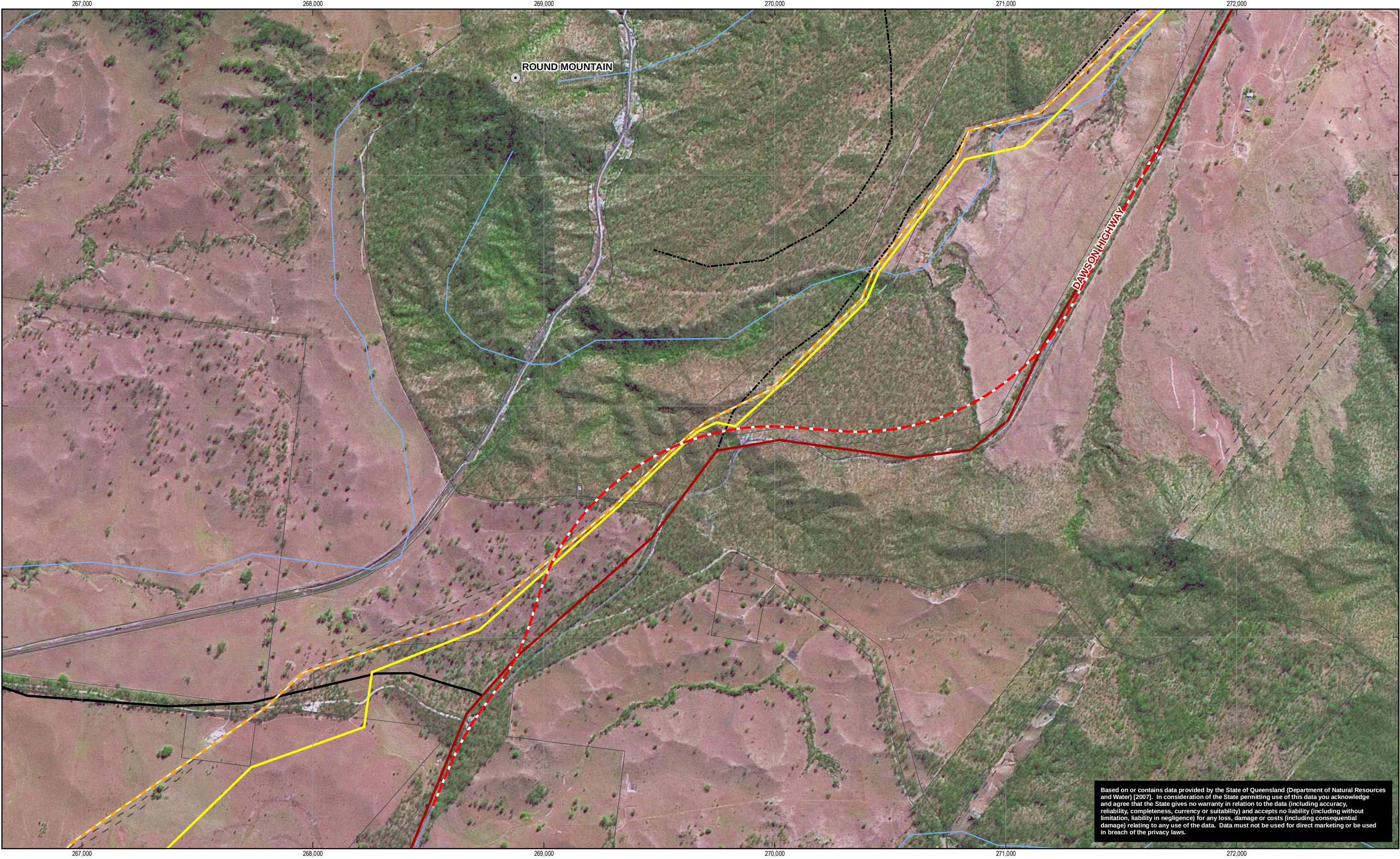
Wilson Deviation

Figure 11

Appendix F

Calliope Range Deviation

Figure 12 & Figure 13



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Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

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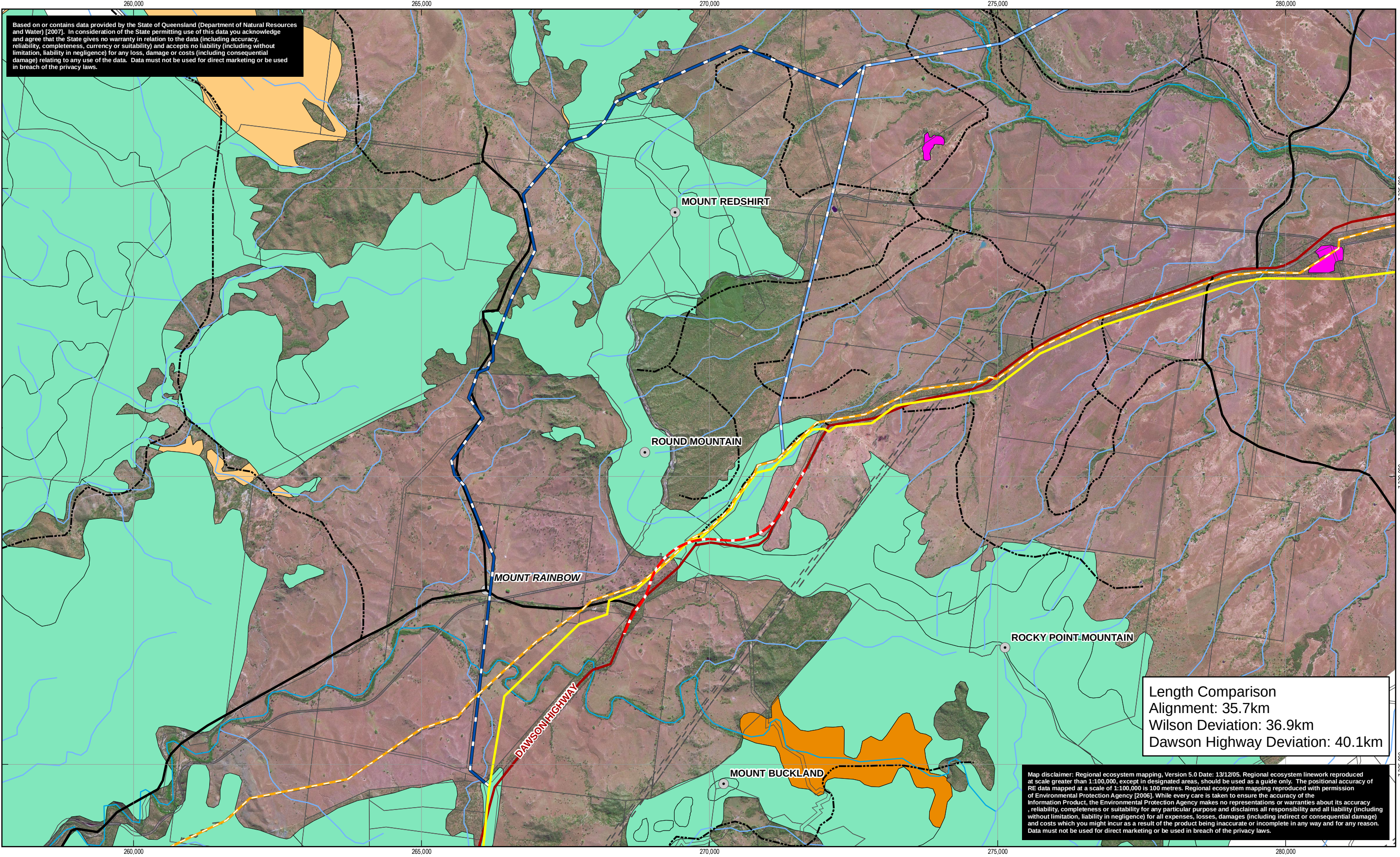
LEGEND

■ Proposed Dawson Highway Upgrade	■ Sealed Road
■ Queensland Gas Pipeline	■ Unsealed Road
■ Preliminary Gladstone LNG Alignment	■ Track
■ Major Watercourse	□ Parcel Boundary
■ Minor Watercourse	┌┐ Easement

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**Dawson Highway
Calliope Range Deviation**

Job Number	41-20047
Revision	A
Date	26 August 2008



1:60,000

0 500 1,000 1,500 2,000 2,500

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

LEGEND

- Proposed Dawson Highway Upgrade
- Queensland Gas Pipeline
- Preliminary Gladstone LNG Alignment
- Dawson Highway Deviation
- Wilson Deviation
- Major Watercourse
- Minor Watercourse
- Parcel Boundary
- Easement
- Sealed Road
- Unsealed Road
- Track
- Regional Ecosystems**
- Endangered - Dominant
- Endangered - Sub-dominant
- Of Concern - Dominant
- Of Concern - Sub-dominant
- Not Of Concern

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**Dawson Highway
Calliope Range Deviation**

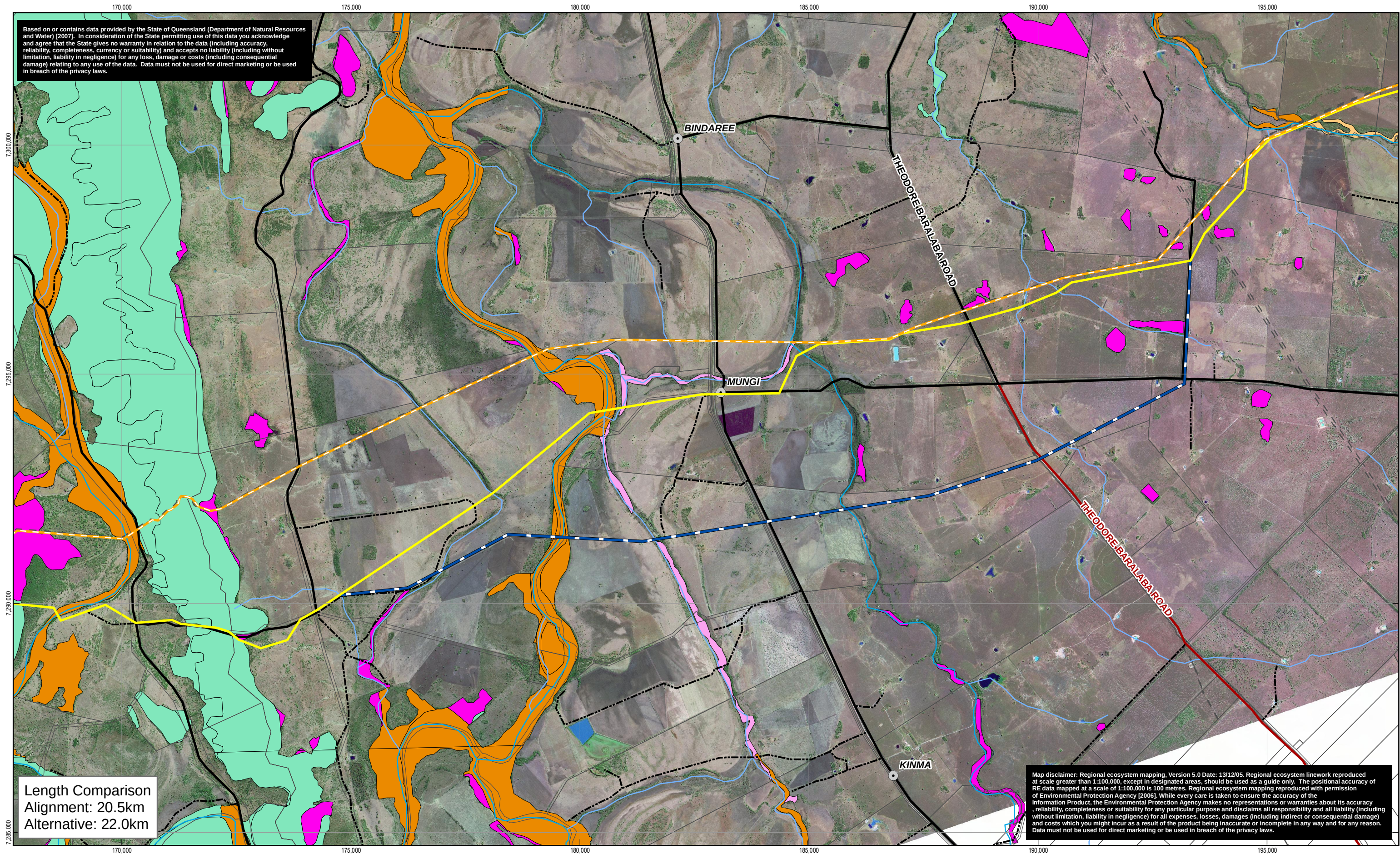
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Date 27 August 2008

Figure 13

Appendix G

Swan Deviation

Figure 10



1:75,000

0 1,000 2,000 3,000

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

— Queensland Gas Pipeline	— Sealed Road	Regional Ecosystems
— Preliminary Gladstone LNG Alignment	— Unsealed Road	■ Endangered - Dominant
— Swan Deviation	--- Track	■ Endangered - Sub-dominant
— Major Watercourse	□ Parcel Boundary	■ Of Concern - Dominant
— Minor Watercourse	┌┐ Easement	■ Of Concern - Sub-dominant
		■ Not Of Concern

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Swan Deviation

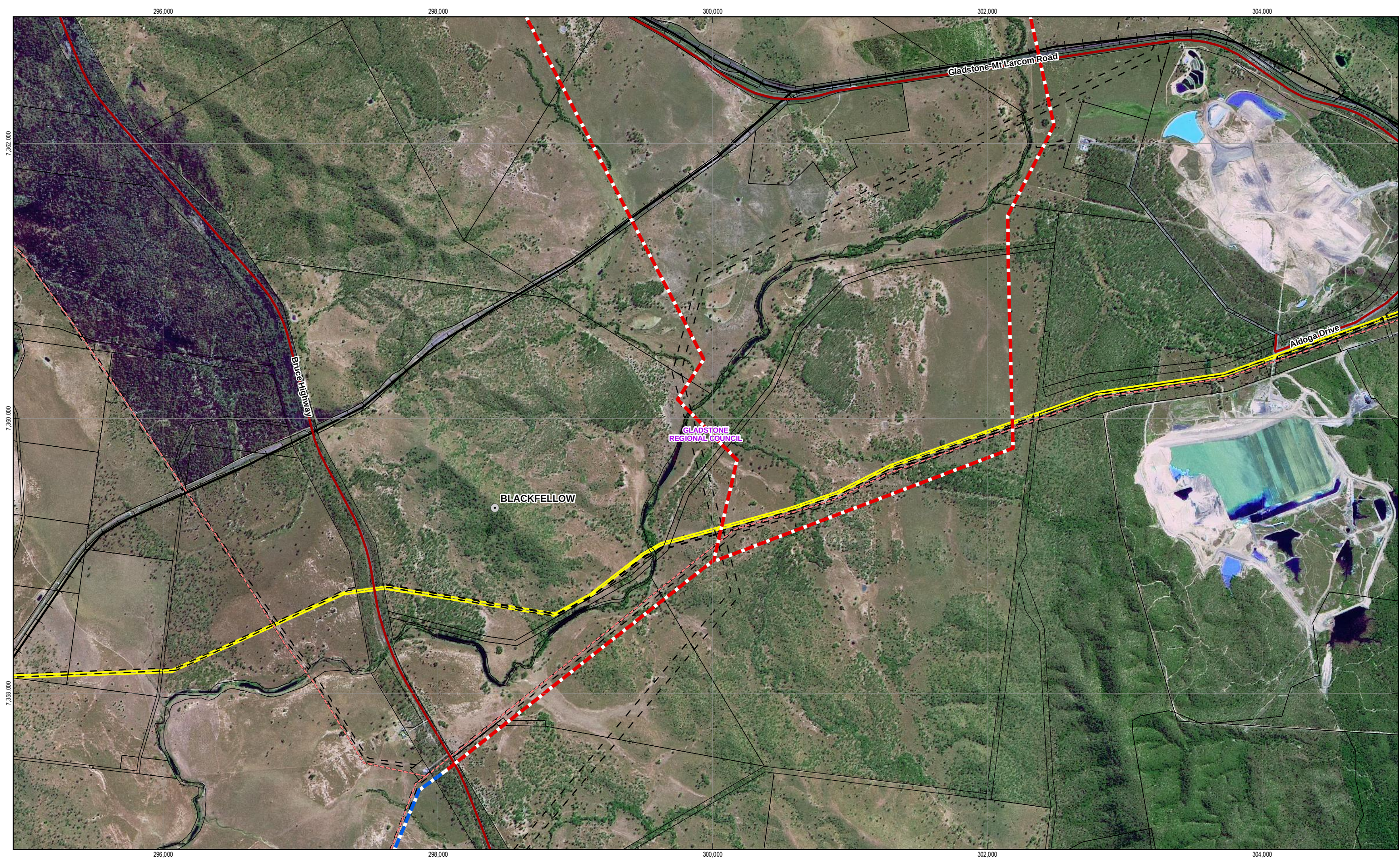
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Date 27 August 2008

Figure 10

Appendix H

GSDA Deviation

Figure 9



1:25,000

0

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1,000

Metres @A3

N

● Locality

■ GSDA Alternative Route

■ Preliminary Alignment

— Pipelines

— Powerlines

— Sealed Road

— Unsealed Road

— Track

✚ Railway

□ Parcel Boundary

⌋ Easement

■ Mineral Development Licence

■ Mining Lease

Santos

Gladstone LNG Pipeline pre-FEED Study

GSDA Route Alternative

Constraints

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Job Number

Revision

Date

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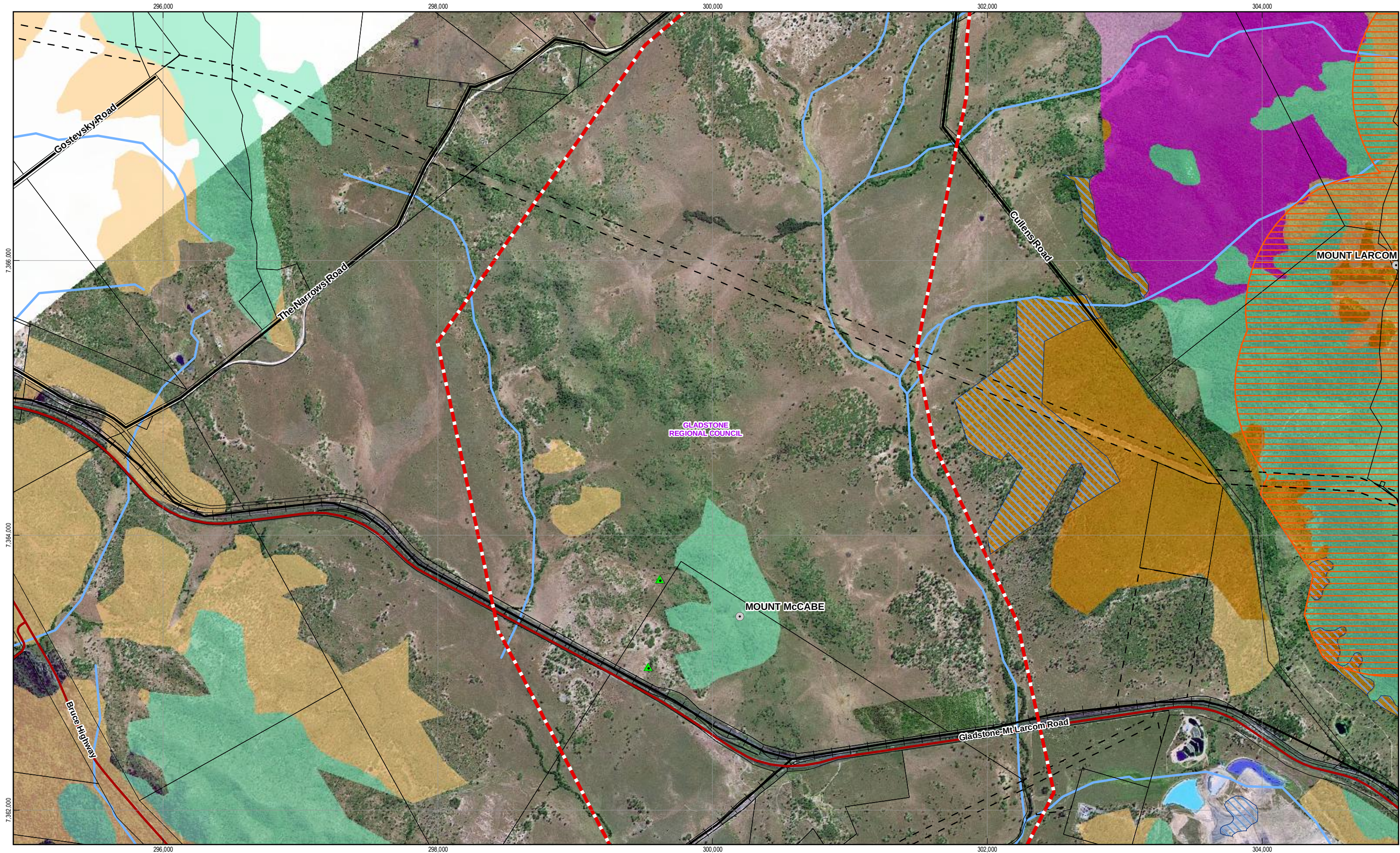
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Figure 9

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1:25,000

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250

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1,000

Metres @A3

N

● Locality

▲ Aboriginal Cultural Heritage

■ GSDA Alternative Route

■ Preliminary Alignment

✚ Railway

— Sealed Road

— Unsealed Road

— Major Waterway

— Minor Waterway

■ Amalgamated LGA

■ Essential Habitat

■ National Park

■ Protected Area

■ Wetland

□ Parcel Boundary

— Easement

Regional Ecosystems

■ Endangered - Dominant

■ Endangered - Sub-dominant

■ Of Concern - Dominant

■ Of Concern - Sub-dominant

■ Not Of Concern

Santos

Gladstone LNG Pipeline pre-FEED Study

GSDA Alternative Route

Constraints

Sheet 2a/ 5

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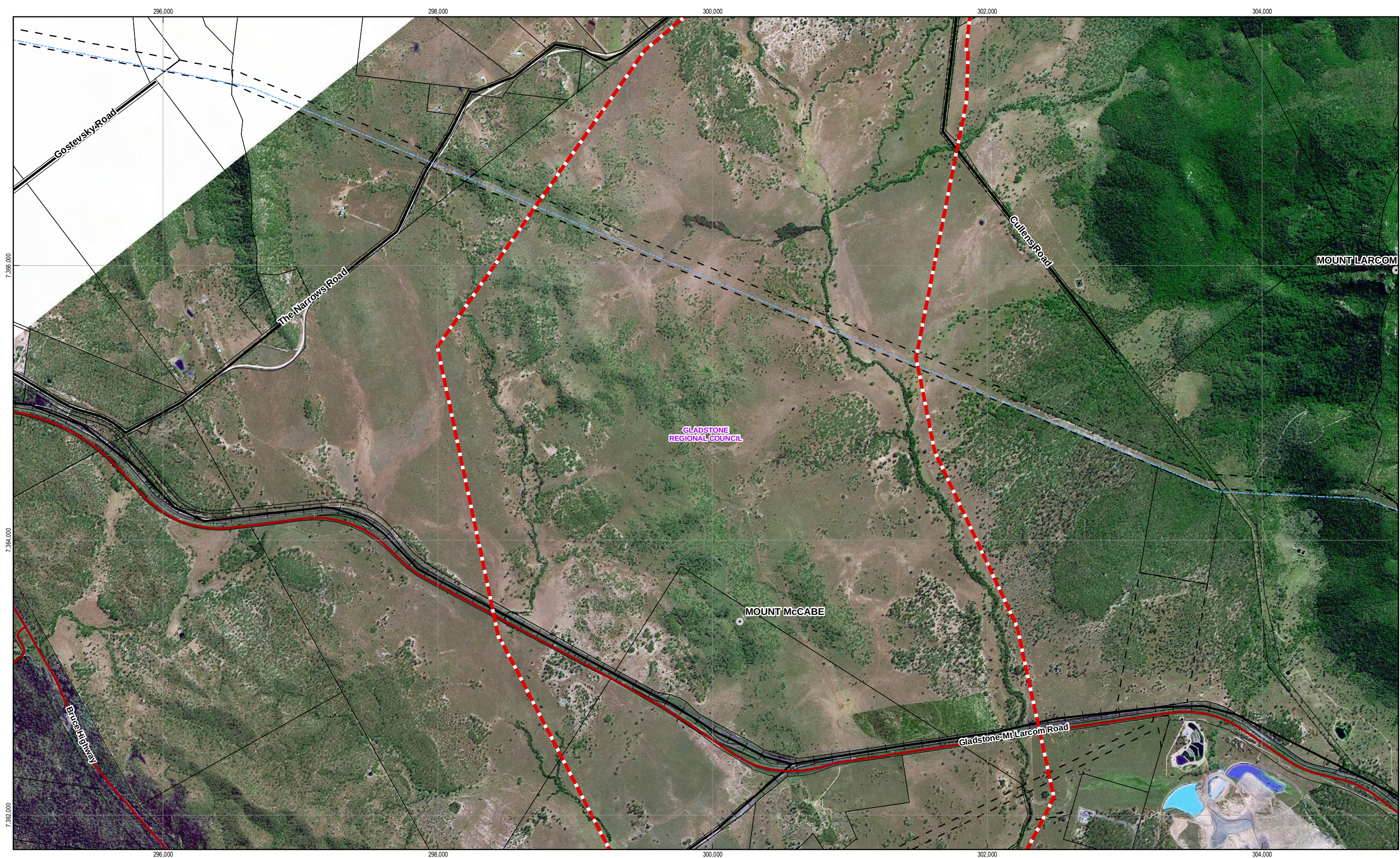
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Figure 9

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1:25,000

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Metres @A3

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Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

LEGEND

● Locality

■ GSDA Alternative Route

■ Preliminary Alignment

— Pipelines

— Powerlines

— Sealed Road

— Unsealed Road

— Track

✚ Railway

□ Parcel Boundary

— Easement

■ Mineral Development Licence

■ Mining Lease

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Gladstone LNG Pipeline pre-FEED Study
GSDA Route Alternative
Constraints
Sheet 2 b/ 5

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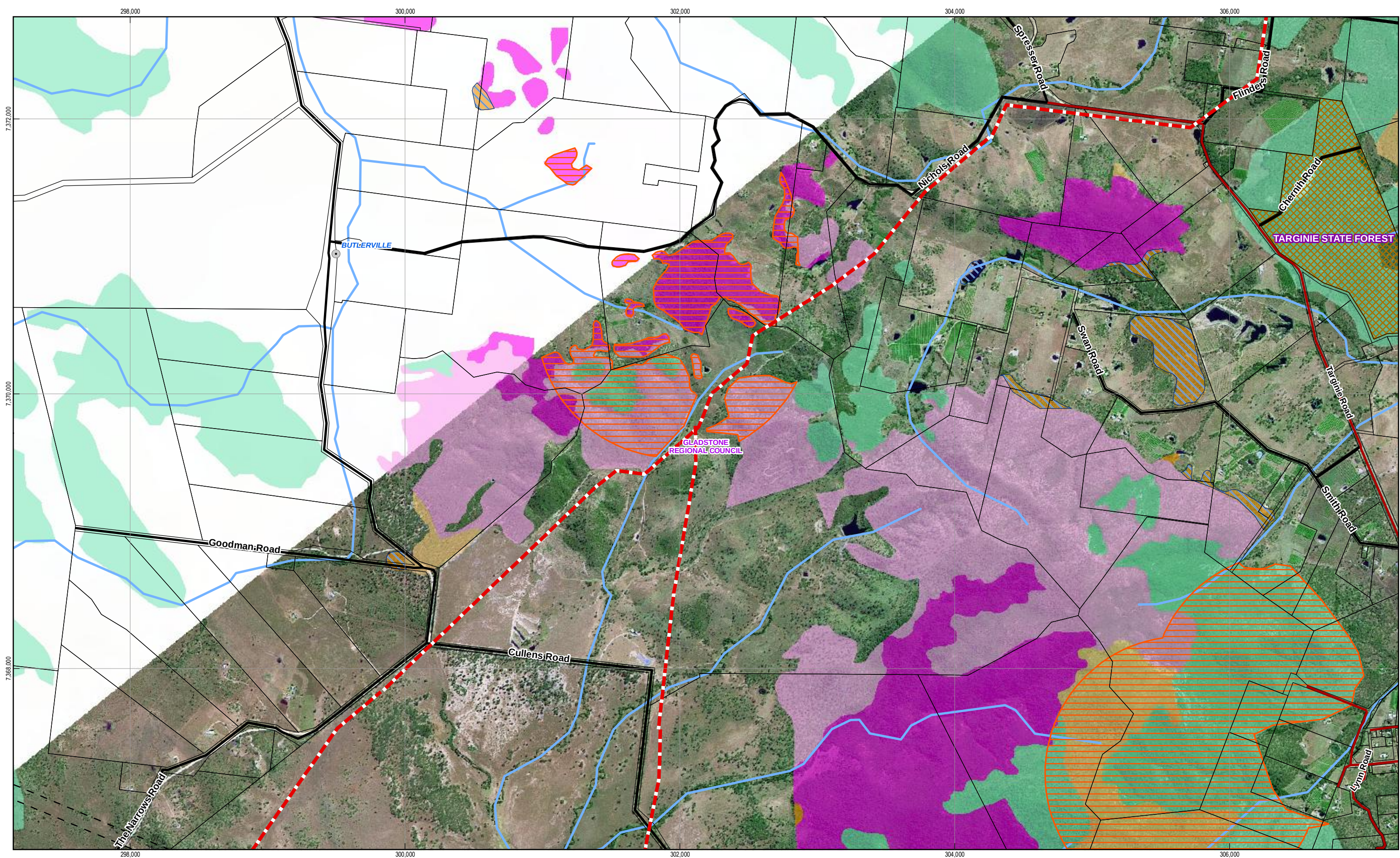
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1:25,000

0 250 500 750 1,000

Metres @A3

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia 1994
Grid: Map Grid of Australia, Zone 56

N

LEGEND

● Locality	✚ Railway	⬭ Amalgamated LGA	▭ Parcel Boundary
▲ Aboriginal Cultural Heritage	— Sealed Road	⬭ Essential Habitat	⬭ Easement
— GSDA Alternative Route	— Unsealed Road	⬭ National Park	
— Preliminary Alignment	— Major Waterway	⬭ Protected Area	
	— Minor Waterway	⬭ Wetland	

Regional Ecosystems

■ Endangered - Dominant
■ Endangered - Sub-dominant
■ Of Concern - Dominant
■ Of Concern - Sub-dominant
■ Not Of Concern

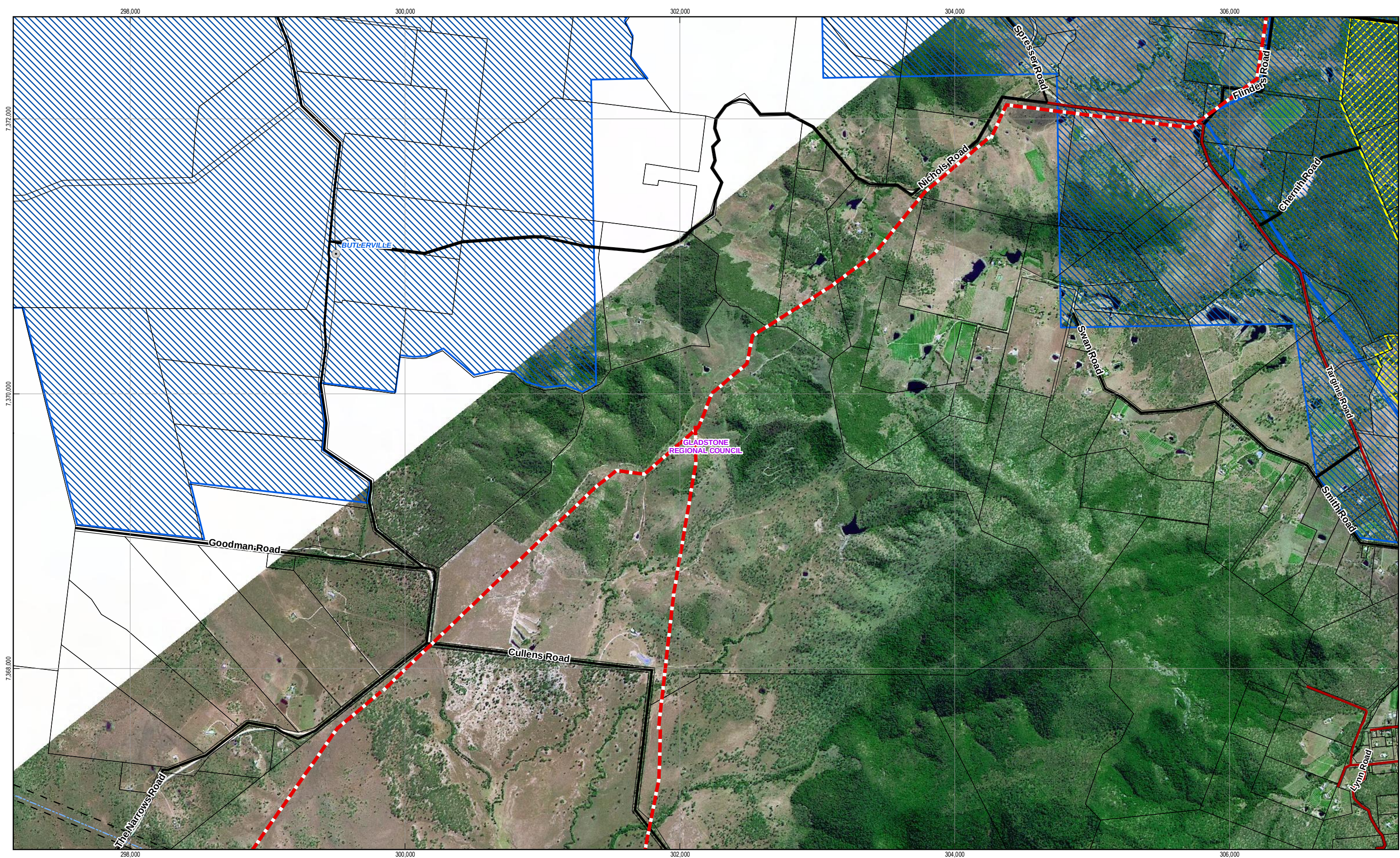
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Gladstone LNG Pipeline pre-FEED Study
GSDA Alternative Route
Constraints
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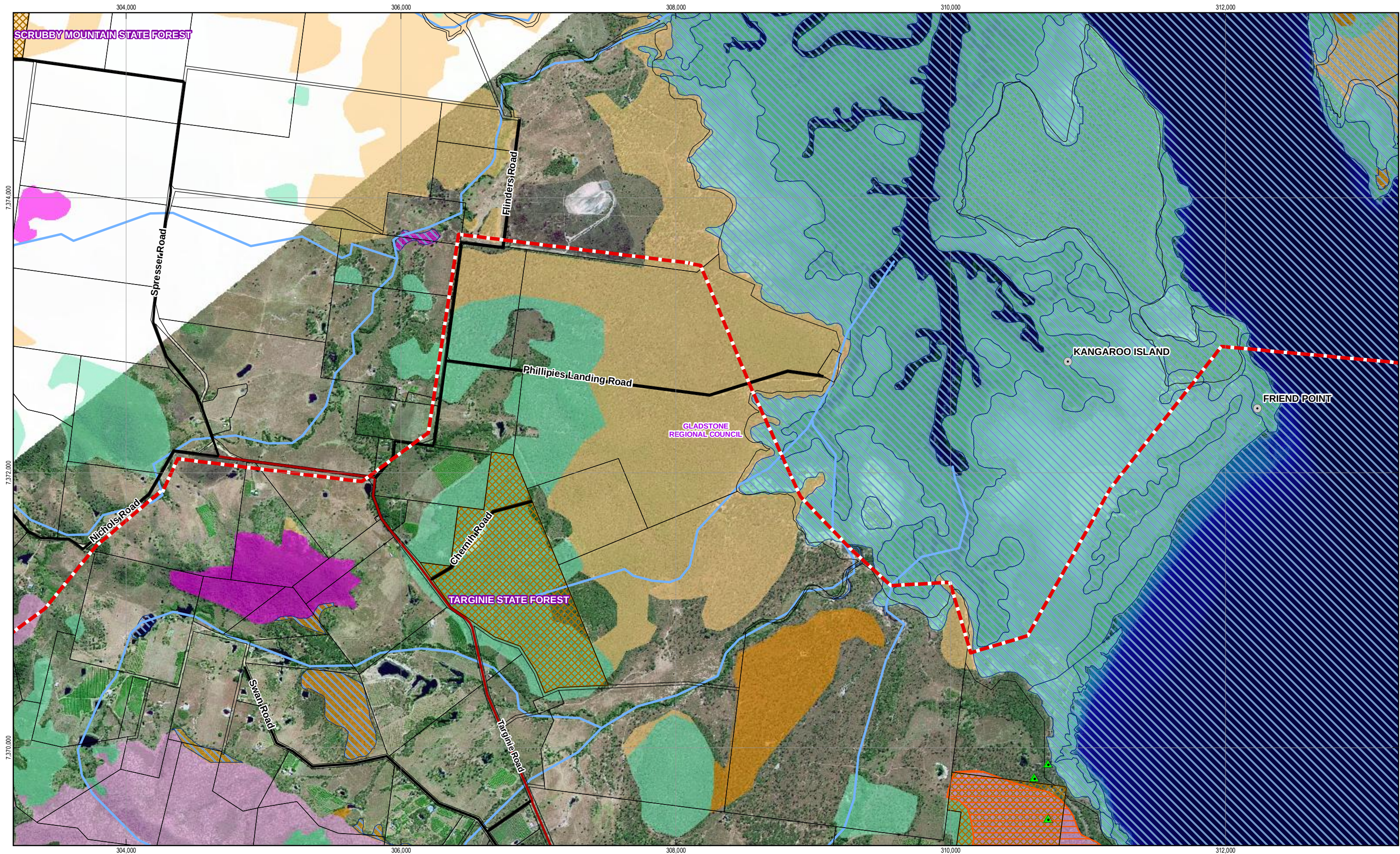
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Metres @A3

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LEGEND

● Locality	✚ Railway	🟪 Amalgamated LGA	▭ Parcel Boundary
▲ Aboriginal Cultural Heritage	— Sealed Road	🟠 Essential Habitat	⌋ Easement
— GSDA Alternative Route	— Unsealed Road	🏞 National Park	
— Preliminary Alignment	— Major Waterway	🌳 Protected Area	
	— Minor Waterway	🌊 Wetland	

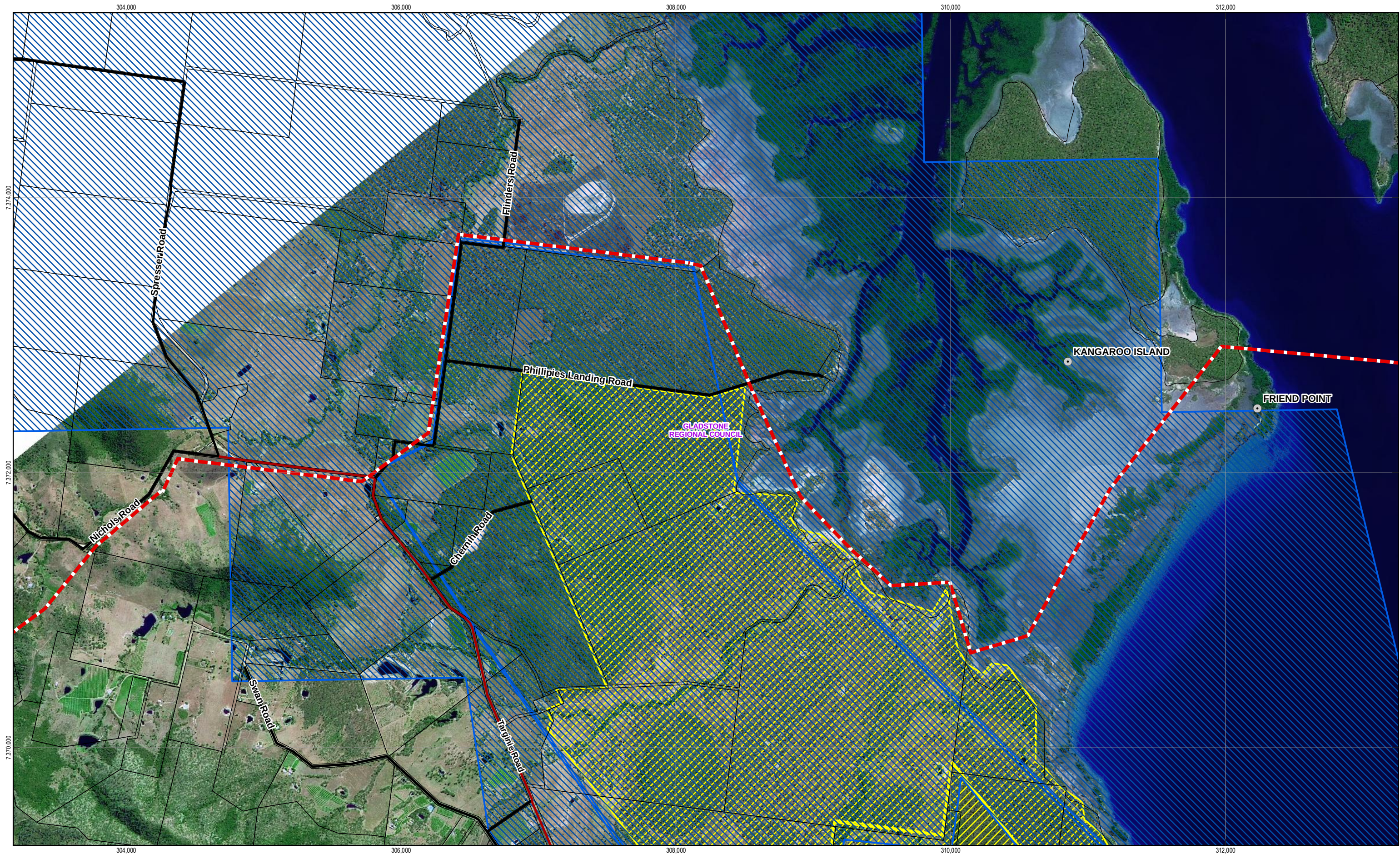
Regional Ecosystems

🟡 Endangered - Dominant
🟠 Endangered - Sub-dominant
🟢 Of Concern - Dominant
🟡 Of Concern - Sub-dominant
🟢 Not Of Concern

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Gladstone LNG Pipeline pre-FEED Study
GSDA Alternative Route
Constraints
Sheet 4a/ 5

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Figure 9



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Metres @A3

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LEGEND

● Locality	— Powerlines	+ Railway	▢ Mineral Development Licence
— GSDA Alternative Route	— Sealed Road	▢ Parcel Boundary	▢ Mining Lease
— Preliminary Alignment	— Unsealed Road	— Easement	
— Pipelines	— Track		

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GSDA Route Alternative
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Figure 9



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Metres @A3

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● Locality

■ GSDA Alternative Route

■ Preliminary Alignment

— Pipelines

— Powerlines

— Sealed Road

— Unsealed Road

— Track

✚ Railway

□ Parcel Boundary

⏏ Easement

■ Mineral Development Licence

■ Mining Lease

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		Name	Signature	Name	Signature	Date
A	P Barnett	A Kenny		JME		4/9/08

Appendix M

Pipeline Road and Rail Crossing Typical Drawings

