Traffic Management Plan

Lake Macdonald Dam Improvement Project

Prepared for: Seqwater
7 November 2024
Client Reference No. LMDIP-05806-ROD-TRR-MPL-00001

SMEC INTERNAL REF. 30035740

an SJ company

Appendix A

Conditions and Stakeholder Requirements Register

A-1 Coordinator-Generals Evaluation Report Register

Traffic and transport requirements from Coordinator-Generals Evaluation Report, May 2019

Requirement Report Reference	Request / Condition No.		Details	TMP Reference	Response
Appendix 2. Imposed conditions – Schedule 1. Management of environmental impacts	Condition 3. Construction environmental management plans *Note – entity with jurisdiction for this condition is the NSC*	(a) - (iv)	Notes in accordance with Condition 1, the following adaptive construction environmental management plans (CEMPs) are to be prepared: (iv) traffic management plan.	This document.	The TMP forms part of the CEMP and has been prepared with stakeholder consultation.
		(b)	The CEMP's must be prepared and implemented for all aspects of the Six Mile Creek Dam Safety Upgrade project, and must incorporate: (i) specific performance measures (e.g., release criteria, setbacks as relevant) to minimise impacts on nuisance sensitive places from construction activities (ii) actions that will avoid or mitigate and manage adverse environmental impacts on waters, traffic and the community (iii) appropriate adaptive management practices and details of how and when the practices will be implemented to address any non-compliance with performance measures (iv) relevant monitoring and auditing requirements.	Avoid impacts refer to **Section 3.4.1.3.1**. Mitigation refer to **Section 5**. Control measures refer to **Section 7**. Monitoring and auditing refer to **Section 8**.	The TMP addresses the avoidance and mitigation of environmental impacts. It also specifies traffic control measures for sensitive locations, such as school zones, and includes monitoring protocols.
		(c)	The approved CEMPs must be provided to NSC with any development application for a material change of use associated with the project.	-	This TMP is to be submitted to NSC as part of the broader CEMP when seeking approval for material changes in land use or traffic impacts.
	Condition 6. Construction vehicle haulage *Note – entity with jurisdiction for this condition is the NSC*	(a)	Construction vehicle site access is limited to a single access route in and out of Lake Macdonald Drive. 'Construction vehicle' does not include light motor vehicles such as cars, utes and motorbikes (including mopeds and tricycles), or specialised vehicles where prior approval from NSC has been obtained (e.g., vehicle required for site establishment and demobilisation works, and salvage and relocation). *Note although not set-out in the conditions it was noted from the evaluation report that any heavy vehicle construction traffic will not use the eastern access route to the site due to the nature and context of the roads, particularly the Sivyers-Gumboil-Collwood Roads section.*	Section 4.1	Vehicle access is restricted to the primary route on Lake Macdonald Drive, and north on Elm Street to Exit 237 on the Bruce Highway as outlined in the TMP. A secondary heavy vehicle route is required to/from Noosa for concrete deliveries. This will be via Stated Controlled Road including Cooroy – Noosa Road to Elm Street and north to Lake Macdonald Drive. No heavy vehicle access via the eastern route (Sivyers-Gumboil-Collwood Roads section) is permitted.
		(b)	Any laden construction vehicle must have its load fully covered and secured.	Section 5.3	Requirements included for load coverings and securing in the TMP to ensure compliance with this condition.
		(c)	Construction vehicles must not arrive at the site prior to the approved operating hours and must not leave the site with either a full or partial load after the approved operating hours.	Section 7.3	The TMP strictly regulates operating hours for construction vehicles, ensuring compliance with Seqwater and NSC guidelines. Further, monitoring is outlined with telematics systems which will allow auditing if any issues or non-compliances raised.
	Condition 7. Road Impact Assessment *Note – entity with jurisdiction for this condition is the NSC*	(a)	The proponent must undertake a detailed road impact assessment that confirms any upgrades or other road works required to be undertaken because of the project and its traffic, including to Lake Macdonald Drive, and the Lake Macdonald Drive-Seqwater access road intersection.	Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** and further summarised on **Section 5.2**.	The latest TIA included as **Appendix B** provided the full assessment of the Project with the latest information and confirms any upgrades or other road works required.
		(b)	The road impact assessment must be provided to NSC for approval at least two months prior to commencement of any on-site project works.	Refer Appendices B, C and D.	As part of this TMP, the latest assessments are included as appendices for the whole Project. Note the main works will commence in March 2025 which provides at least a two-month period prior to the main works commencing.
		(c)	Any road upgrades or road works required by the approved road impact assessment must be incorporated into the traffic management plan required under Schedule 1, Condition 3.	Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** and further summarised on **Section 5.2**.	Necessary road upgrades, as identified in the updated TIA are referenced in the TMP.

Requirement Report Reference	Request / Condition No.		Details	TMP Reference	Response
		(d)	Detailed engineering plans for all road upgrades or road works must be submitted to NSC for approval prior to commencement of works. The road upgrades and works must be designed in accordance with the relevant Austroads standards and the Department of Transport and Main Roads standard drawings and specifications.	N/A	Detailed engineering plans for all road upgrades to be supplied in follow-up stages and shall be in accordance with the relevant Austroads standards and the Department of Transport and Main Roads standard drawings and specifications.
Appendix 5. Coordinator General's recommendations Recommendation 2. Project specific information requirements for Material change of use – concrete batching plant (a) The proponent is to provide NSC with the following information in support of use application for the concrete batching plant.	(vi) a Traffic Impact Assessment of Lake Macdonald Drive extending from the intersection with Elm Street to the site access driveway for traffic associated with the concrete batching plant and including but not be limited to the following:	(A)	Pavement impact assessment in accordance DTMR's Pavement Impact Assessment Practice Note for Lake Macdonald Drive and the intersection with Elm Street prior to commencement of concrete batching plant activities at site.	Road Impact Assessment for LMDIP (December 2020) – Refer **Appendix E.**	Previously been completed by SMEC (Report dated 8 December 2020)
		(B)	Dilapidation report for Lake Macdonald Drive and the intersection with Elm Street.	Dilapidation Report for LMDIP (June 2024) – Refer **Appendix D.**	As part of this TMP, the latest assessments are included as noted.
		(C)	Safety review in accordance with DTMR's Route Assessment Guidelines for Multi-Combination Vehicles in Queensland for Lake Macdonald Drive and the intersection with Elm Street.	Road Safety Audit for LMDIP (November 2024) – Refer **Appendix C.**	A road safety audit, adhering to Austroads Guide to Road Safety, Part 6: Road Safety Audit 2022 (AGRS6) completed by SMEC, November 2024. Note, the largest design vehicle for regular movements will be a semi-trailer. Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** for swept path assessment and concept Traffic Guidance Scheme in **Appendix G-1** for the early works phase.
		(D)	Recommendations for any necessary improvement works to Lake Macdonald Drive and the intersection with Elm Street to cater for the proposed traffic (number and vehicle types).	Road Safety Audit for LMDIP (November 2024) – Refer **Appendix C.**	A road safety audit, adhering to Austroads Guide to Road Safety, Part 6: Road Safety Audit 2022 (AGRS6) completed by SMEC, November 2024. Note, the largest design vehicle for regular movements will be a semi-trailer. Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** for swept path assessment and concept Traffic Guidance Scheme in **Appendix G-1** for the early works phase.
		(E)	The number and type/size of trucks travelling to and from the site.	Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** and a summary as outlined on **Section 3.4**.	The latest TIA included as **Appendix B** provided the full assessment of the Project with the latest information including the number and type/size of trucks travelling to and from the site .
	(vii) The Traffic Impact Assessment should include details of traffic impacts both during construction and operation of the concrete batching plant.			Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** and a summary as outlined on **Section 3.4**.	The latest TIA included as **Appendix B** provided the full assessment of the Project with the latest information including materials delivered for the concrete batching plant.

A-2 TMP addressed TMR comments from 2021

Report / Area	Item No.	TMR Comments 2021	TMP Reference	Response
Traffic Impacts	1	The primary access route through Cooroy to Lake Macdonald Drive requires access via State Controlled Roads (SCR) from either the north or south. To mitigate impacts to local traffic, the preferred route to Lake Macdonald Drive is for all incoming heavy vehicle access to be from the north via Exit 237 on the Bruce Highway. Two exit options have been identified: - Exit Option 1 – exit north along Elm Street - Exit Option 2 – exit south along Elm Street Both exit options have advantages and disadvantages as stated in the TMP. Due to the deficiencies identified at the Myall and Elm Street intersection, TMRs preference is for Exit Option 1.	Section 4.1	Vehicle access is restricted to the primary route on Lake Macdonald Drive, and north on Elm Street to Exit 237 on the Bruce Highway as outlined in the TMP. A secondary heavy vehicle route is required to/from Noosa for concrete deliveries. This will be via Stated Controlled Road including Cooroy – Noosa Road to Elm Street and north to Lake Macdonald Drive. No heavy vehicle access via the eastern route (Sivyers-Gumboil-Collwood Roads section) is permitted.
Traffic Impacts	2	Performance of haulage routes should be monitored in the early stages to ensure routes are performing as expected and there are no issue or unforeseen traffic impacts. TMR would like to be informed of the final route selection.	Section 8.2.2.3	All delivery trucks to be fitted with a Telematics system/device tracking all movement to and from site for all deliveries.
Traffic Impacts	3	Exit Option 1: Due to the include on Lake Macdonald Drive and the increase in heavy vehicle traffic from the project, visibility at the intersection of Lane Macdonald Drive and Elm Street does present a challenge for drivers turning right from Lake Macdonald Drive. TMR notes a turnability assessment into Lake Macdonald Drive from the north is required. Assessment should include simultaneous turn-in and turn-out truck movements. If the proposal to implement temporary traffic control during peak heavy vehicle times for trucks turning right from Lake Macdonald Drive is implemented, it would need to operate outside of normal peak traffic times.	Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B**	Swept path assessment has been completed and identified truck and dog can simultaneous turn-in and turn-out, however, semi-trailers can't. An upgrade is identified to mitigate this existing issue. For the early works phase refer **Appendix B** for swept path assessment and concept Traffic Guidance Scheme in **Appendix G-1** for the early works phase.
Traffic Impacts	4	Traffic Management Plans (TMPs) will need to be submitted and approved by TMR. Any changes to the project TMP should be communicated to TMR.	This document	Noted.
Cooroy State School	1	Restriction of truck movements is essential past the school within the school zone period from 7:00am-9:00am and 2:00pm-4:00pm, weekdays to minimise impacts to school traffic and children. The proposal to limit truck speeds to 40km/h within the school zone at all times is also noted. Further restriction of truck movements outside of peak traffic hours from 2:00pm-5:00pm would further minimise impacts to the nearby school and local community. TMR notes compliance will be monitored. How will compliance with these restrictions be monitored and enforced?	Section 8.2.2.3	Reduced heavy vehicles are noted addressed in Traffic Impact Assessment for LMDIP (November 2024) – Refer Appendix B and a summary as outlined on Section 5.3. For compliance, monitoring and enforcement all major delivery trucks to be fitted with a Telematics system/device tracking all movement to and from site for all deliveries.
Truck Marshalling Area	1	The proposed truck marshalling area to manage inflow of heavy vehicles along Elm Street between Exit 237 on the Bruce Highway and the school zone near Cooroy State School will need approval from TMR if it is on or adjacent to the SCR. There is no obvious truck parking location in this area, so careful planning and management will be required for this to operate successfully.	Section 7.4.1	If required, a marshalling area has been identified on Elm Street prior to the Cooroy township.
Quarry at Kin Kin	1	The quarry located at Kin Kin is the source for concrete aggregate. There is an active community group opposing the volume of truck movements generated by the quarry at Kin Kin, with active media coverage. Consideration should be given on how to manage impacts and consultation should be held with the local community. The LMDU project team should provide contact information and prepare briefing information to TMR to assist in responding to anticipated enquiries.	Section 8.3	The quarry at Kin Kin is an approved operation which is outside the control of this Project. To ensure that local residents and stakeholders are informed of construction traffic impacts a comprehensive Stakeholder Management Plan (JH Document Number: 7225-JHG-MPL-CSM-001) has been developed and approved for the Project.
Consultation	1	TMR supports the 'no surprise' approach to stakeholders and the community to make them aware of all haulage routes, road diversions and closures. The Cooroy community should be consulted on the LMDU project, including community and traffic impacts and mitigation and management of these impacts. The Cooroy State School should also be consulted on traffic management and mitigation of traffic impacts. Early community engagement including use of portable variable message signs, should be considered. The LMDU project team should provide contact information and prepare briefing information to TMR to assist in responding to anticipated enquiries.	Section 8.3	Consultation Manager report provided with engagement between JHG, Seqwater and Cooroy State School and Milestones Early Learning.
Pavement Impact Assessment	1	Please send a copy of the pavement impact survey on SCRs to TMR.	Dilapidation Report for LMDIP (June 2024) – Refer **Appendix D**	Previously been completed by SMEC (Report dated 8 December 2020).

Report / Area	Item No.	TMR Comments 2021	TMP Reference	Response
Traffic Impact Assessment	1	A SIDRA sensitivity analysis over the indicated three-year period to understand the impact of growth would be desirable. The SIDRA analysis should further indicate the impact caused by the grade noted in the Lake Macdonald Drive departure route.	Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B**	Updated TIA has considered background growth to 2028 which is peak construction period a conservative growth rate. This was for all project key intersections.
Road Safety Audit	1	Section 1.2.2 of the Road Safety Audit has determined that Seqwater does not propose to address or analyse any safety issue that has an expensive solution. If Seqwater is going to be making a particular situation worse, they should investigate mitigation as part of their project to ensure operations can be undertaken safely. Mitigation may include consideration of infrastructure or traffic management options or solutions.	Section 5.2.1	An intersection upgrade of Elm Street / Macdonald Drive is proposed.
Section 6.1.1 Myall Street intersection	1	The audit has identified deficiencies at the intersection of Elm and Myall streets. The TMP for construction works should avoid directing heavy vehicle traffic through this intersection. TMR has current planning for upgrading this intersection, however, there is no funding in the program for development or implementation of upgrades at this time.	N/A	HV access is restricted to the primary route on Lake Macdonald Drive, and north on Elm Street to Exit 237 on the Bruce Highway (Option 1). Option 2 to exit to the south (via Myall Street) is not proposed for HV's.
Section 6.1.2 Myall Street intersection	1	A likely conflict with the turn path for 25 metre heavy vehicles has been identified at the intersection. The TMP for construction works haulage route Exit Option 1 avoids the intersection and Exit Option 2 proposes only south direction travel through the intersection which limits traffic impacts. Exit Option 1 is the preferred route.	N/A	HV access is restricted to the primary route on Lake Macdonald Drive, and north on Elm Street to Exit 237 on the Bruce Highway (Option 1). Option 2 to exit to the south (via Myall Street) is not proposed for HV's.
Section 6.1.3 Myall Street intersection	1	Pavement markings are deteriorated at the intersection. TMR will prioritise line marking maintenance at this intersection.	N/A	HV access is restricted to the primary route on Lake Macdonald Drive, and north on Elm Street to Exit 237 on the Bruce Highway (Option 1). Option 2 to exit to the south (via Myall Street) is not proposed for HV's.
Section 6.1.4 Myall Street intersection	1	Vegetation is overgrown and obstructing sight distance and road signage. TMR will prioritise vegetation maintenance at this intersection.	N/A	HV access is restricted to the primary route on Lake Macdonald Drive, and north on Elm Street to Exit 237 on the Bruce Highway (Option 1). Option 2 to exit to the south (via Myall Street) is not proposed for HV's.
Section 6.1.5 Elm Street – Myall Street to Lake Macdonald Drive	1	Operational deficiencies have been identified at the Diamond Street intersection. Planning has been undertaken for an upgrade for an upgrade to this intersection, however, these is currently no funding in the program for development or implementation of upgrades.	N/A	HV access is restricted to the primary route on Lake Macdonald Drive, and north on Elm Street to Exit 237 on the Bruce Highway (Option 1). Option 2 to exit to the south (via Myall Street) is not proposed for HV's.
Section 6.1.6 Elm Street – Myall Street to Lake Macdonald Drive	1	Elm Street is on the Principal Cycle Network but has minimal on-road provisions for cyclists. There are opportunities on the existing pavement to line mark a cycle lane at high-risk locations or instate Bicycle Awareness Zone (BAZ) markings. TMR will consider options, however, there is no current planning or funding for this section of road.	N/A	HV access is restricted to the primary route on Lake Macdonald Drive, and north on Elm Street to Exit 237 on the Bruce Highway (Option 1). Option 2 to exit to the south (via Myall Street) is not proposed for HV's.
Section 6.1.7 Elm Street –Lake Macdonald Drive to Gern Street	1	The continuity line is deteriorated at the car park exit of the Cooroy State School. TMR will prioritise line marking maintenance at this location.	Road Safety Audit for LMDIP (November 2024) – Refer **Appendix C**	Noted as still a risk in the latest RSA. TMR to undertake regular maintenance.
Section 6.2.1 Elm Street / Lake Macdonald Drive intersection	1	The auxiliary left-turn (AUL) into Lake Macdonald Drive operates as a trap lane with minimal advanced warning. There is a risk of vehicles suddenly merging into the through area. This lane arrangement has been in place for over 20 years and there are no crash records associated with a trapped lane. Performance should be monitored during the project and emerging issues mitigated appropriately.	Road Safety Audit for LMDIP (November 2024) – Refer **Appendix C**	Noted as still a risk in the latest RSA. Performance to be monitored during the project and emerging issues mitigated appropriately.
Section 6.2.2 Elm Street / Lake Macdonald Drive intersection	1	Low handing vegetation to the inside of the horizontal curve on Elm Street encroaches into the shoulder and traffic lane. This is a hazard for cyclists and vehicles. TMR will prioritise vegetation maintenance at this intersection.	Road Safety Audit for LMDIP (November 2024) – Refer **Appendix C**	Noted as still a risk in the latest RSA. TMR to undertake regular maintenance.
Section 6.2.3 Elm Street / Lake Macdonald Drive intersection	1	Green surface treatment and cyclist pavement markings are deteriorated at the intersection TMR will prioritise line marking maintenance at this location.	Road Safety Audit for LMDIP (November 2024) – Refer **Appendix C**	Noted as still a risk in the latest RSA. TMR to undertake regular maintenance.
Section 6.3.1 – 5 Sivyers Road intersection	1	Concerns with the unprotected right-hand turn, vegetation, guideposts, reflective raised pavement markers, line marking and night-time lighting. TMR notes the Coordinator General's condition that heavy vehicles are not permitted to utilise Sivyers Road to access the site. The TMP states the Colwood Road / Sivyers Road access to the site will be used for Seqwater vehicles and other vehicles required for the Noosa Water Treatment Plan. The exemption being that construction vehicles will be permitted to access Collwood Road / Sivyers Road for entry/exit to the site in the event of flooding and in consultation with and approval of Seqwater. Traffic control should be considered for this scenario.	Road Safety Audit for LMDIP (November 2024) – Refer **Appendix C**	Upgrade of channelised right turn lane completed. No heavy vehicle access via the eastern route (Sivyers-Gumboil-Collwood Roads section) is permitted. In the event of flooding, alternative route for any construction vehicle from the east would be to continue on Cooroy – Noosa Road to Elm Street and not use Sivyers-Gumboil-Collwood Roads section or Swift Drive.

Report / Area	Item No.	TMR Comments 2021	TMP Reference	Response
		Vegetation and delineation concerns will be passed to TMR's maintenance team for prioritisation. TMR has an intersection upgrade planning for this intersection which includes a channelised right turn lane. Construction is planned for commencement in mid-2022.		Outstanding items noted as still a risk in the latest RSA include - Vegetation, guideposts, reflective raised pavement markers, line marking and night-time lighting.

A-3 TMP addressed TMR comments from 2023

TMP addressed TMR comments from 2024

Report / Area	Item No.	TMR Comments 2024	TMP Reference	Response
Engagement	1	No further traffic information / TMP provided since 2021, or engagement has taken place.	Appendix H-3	Engagement has been undertaken as part of preparing this TMP.
Safety	2	Does not align with the intention of the safety assessment outlined in the CGER section 5.7.6, or Appendix 2, schedule 1, Condition 3. No detailed safety audit or assessment of the impacts of the haulage route on the state-controlled road network, particularly through Cooroy. Expectation is that a TMP will be provided that adequately identities safety risks and mitigation solutions before construction commences to ensure these risks are avoided, mitigated or managed appropriately and proactively rather than in response to an incident.	Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** Road Safety Audit for LMDIP (November 2024) – Refer **Appendix C**	Undertaken as part of preparing this TMP noting limited construction vehicle permitted through Cooroy.
Safety	3	Key concern is the intersection of Elm Street and LMD. Following review further: TMP notes constraints with intersection which are proposed to be addressed by drivers reducing speeds and giving way to oncoming traffic with a contingency route for vehicles unable to make the turn into LMD (TMP not clear how the contingency route is intended to be managed and should be further detailed and assessed). Submitted turn paths confirm that when HVs are approaching the intersection from the north the HVs have to sit in the median to be able to turn left into LMD, which is an unsafe movement and potentially contrary to the road rules. The left turn path on LMD conflicts with the expected queue of vehicles, particularly the AM peak queue, waiting to exit onto Elm Street. Appears to be insufficient sight distance for southbound traffic travelling on Elm Street to have sufficient time to react to slow moving traffic turning out of LMD. Elm Street and LMD form part of an existing 25m B-Double route, however the approved route is for the southern approach on Elm to turn right in and left out of LMD Based on the information in the TMP it appears that Elm Street / LMD intersection will need to operate under traffic control for the duration of the works, this hasn't been meaningfully assessed or addressed in the TMP.	Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B**	Swept path assessment has been completed and identified truck and dog can simultaneous turn-in and turn-out, however, semi-trailers can't. The assessment shows a semi-trailer straddling the two lanes and not turning from the hatched median and allows some safe distance for a vehicle propped at the intersection. An upgrade is identified to mitigate this existing issue. For the early works phase refer **Appendix B** for swept path assessment and concept Traffic Guidance Scheme in **Appendix G-1** for the early works phase. 25m B-Double vehicles are not proposed to be used by the Project. Lidar surveys will be collected in Mid-November and sight line checks will be completed. Any issues for Elm Street to have sufficient time to react to slow moving traffic turning out of LMD.

A-4 State Assessment Referral Agency

Table 8–1: TMP addressed SARA review comments

Item No.	SARA Request	TMP Reference	Response
1	CTMP / TMP to be certified by an RPEQ (or suitably qualified expert) and be submitted in accordance with DTMP Guide to Traffic Impact Assessment.	Document Control	TMR managed and signed by David Edwards – TMR Traffic Management Designer (TMD), registration number 152 and RPEQ 07432
2	Confirm haulage routes.	Section 4.1	Vehicle access is restricted to the primary route on Lake Macdonald Drive, and north on Elm Street to Exit 237 on the Bruce Highway as outlined in the TMP. A secondary heavy vehicle route is required to/from Noosa for concrete deliveries. This will be via Stated Controlled Road including Cooroy – Noosa Road to Elm Street and north to Lake Macdonald Drive. No heavy vehicle access via the eastern route (Sivyers-Gumboil-Collwood Roads section) is permitted.
3	Conform the construction schedule and when haulage will occur on the State Controlled Road network, including identification of any times haulage will be restricted, for example when school zones are operational.	Section 3.4.1 and Section 5.3	Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** for full details. Minimised heavy vehicle of six two-way flows during period noted as 7:20 - 8:45am and 2:30 - 3:45pm in Section 5.3.
4	Demonstrates how construction traffic is intended to be managed to minimise impacts on the state-controlled road network.	Section 3.4.1	Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** for full details.
5	The specific actions that will avoid or mitigate and manage adverse traffic impacts should be identified.	Section 5	Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** for full details.

A-5 Noosa Shire Council Comments Register

TMP addressed NSC review comments

Item No.	NSC Comments	TMP Reference	Response
1 (TMP P2)	Documents have not been signed, and there is no TMR Traffic Management Designer (TMD) registration number present. A TMP can only be produced by someone with their TMD accreditation in Queensland.	Document Control	TMR managed and signed by David Edwards – TMR Traffic Management Designer (TMD), registration number 152 and RPEQ 07432.
2 (TMP P10)	Indicates that light vehicle access via the eastern route but expected vehicle numbers have not been provided. The Coordinator Generals (CG) Evaluation Report highlights that vehicles will be required to use this route. Exact details on vehicle type and numbers should be considered and impact evaluated.	Section 3.4.1.2	Vehicle access is restricted to the primary route on Lake Macdonald Drive, and north on Elm Street to Exit 237 on the Bruce Highway as outlined in the TMP. A secondary heavy vehicle route is required to/from Noosa for concrete deliveries. This will be via Stated Controlled Road including Cooroy – Noosa Road to Elm Street and north to Lake Macdonald Drive. No heavy vehicle access via the eastern route (Sivyers-Gumboil-Collwood Roads section) is permitted.
3 (TMP P13)	There are many documents being referenced through the TMP, including Seqwater specification TS1300-7.08, it would be good to obtain copies of these documents to understand their requirements.	N/A	Seqwater to provide to NSC, if not done so already.
4 (TMP P14)	The TMP reference traffic data from The Coordinator Generals Impact Assessment Report – Chapter 9 – Traffic and Transport (January 2019). The CG Evaluation Report (May 2019) calls for another TIA to be undertaken. The most recent data/analysis should be used in the design of the TMP, another TIA has been undertaken in December 2020.	Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B**	An updated TIA has been completed as part of preparing this TMP.
5 (TMP P15)	Incorrect accreditation mentioned, TMR approved Traffic Management Contractor that has level 3 trained officers. TMD accreditation is required.	Document Control	TMR managed and signed by David Edwards – TMR Traffic Management Designer (TMD), registration number 152 and RPEQ 07432.
6 (TMP P27)	Note, all design plans will need to accommodate the turn manoeuvrability of a B-double	Section 5.2.1	B-Doubles are not proposed as part of the construction vehicles fleet for LMDIP.
7 (TMP P27)	Note, oversize/over mass deliveries with indivisible loads need to be considered in the development of plans.	Section 7.5	OSOM vehicles will be managed via necessary permits and approvals, as and when required.

Item No.	NSC Comments	TMP Reference	Response
8 (TMP P29) – (a)	That the Elm Street and Lake Macdonald intersection is not designed to accommodate HV movements. It is understood that HVs are currently utilising this intersection in its current format, however, this will not be acceptable once an HV is expected every 10 minutes. In addition, it is key to note that his is a school bus route.	Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B**	An upgrade is identified to mitigate this existing issue. For the early works phase refer **Appendix B** for swept path assessment and concept Traffic Guidance Scheme in **Appendix G-1** for the early works phase.
9 (TMP P29) – (b)	Suggests HV approaching from the south on Elm Street, this has not been reviewed previously and contradicts Coordinators Generals reference route. This will likely cause major traffic issues at the Elm Street and Myall Street intersection, as the intersection is not designed to accommodate B-double movements.	Section 3.4.1.2	Vehicle access is restricted to the primary route on Lake Macdonald Drive, and north on Elm Street to Exit 237 on the Bruce Highway as outlined in the TMP. A secondary heavy vehicle route is required to/from Noosa for concrete deliveries. This will be via Stated Controlled Road including Cooroy – Noosa Road to Elm Street and north to Lake Macdonald Drive. Elm Street and Myall Street to the south will not be used by Project heavy vehicles.
10 (TMP P29) – (c)	Additionally, the document highlights the possibility of using Swift Drive (a residential street) as a contingency plan.	Section 3.4.1.2	Swift Drive is not permitted as a HV route.
11 (TMP P29) – (d)	Indicates a lack of planning and investigation surrounding this section of the plan.	N/A	Ensure of context as unable to find referenced document page. Nevertheless the TMP has been developed from scratch with associated assessment all use the latest information and data.
12 (TMP P30)	The number of truck movements per minutes is based on a 12-hour day, however the CG has indicated that haulage operations need to be minimised between 7am-9am and 2pm-4pm, creating an 8-hour delivery day. Additionally, it will be difficult for vehicles to arrive in scheduled intervals, HVs arriving in groups need to be considered in the design.	Section 3.4.1 and Section 5.3	Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** for full details. Minimised heavy vehicle of six two-way flows during period noted as 7:20 - 8:45am and 2:30 - 3:45pm in Section 5.3.

Item No.	NSC Comments	TMP Reference	Response
13 (TMP P32)	Minimising HV movements during certain times (school drop off) has been mentioned, however, there are no details on how this will be undertaken. An external truck marshalling area could be utilised.	Section 7.4.1	If required, a marshalling area has been identified on Elm Street prior to the Cooroy township.
14 (TMP P38)	Section 5.4.2 details as protocol for HV movement in/out of the Dam project, however, the process does not account for conflicts surrounding HV entering and leaving at the same time, where there is insufficient room at the intersection to permit this. Considering the high number of vehicle movements.	Section 5.2.1	An upgrade is identified to mitigate this existing issue. For the early works phase refer **Appendix B** for swept path assessment and concept Traffic Guidance Scheme in **Appendix G-1** for the early works phase.
15 (Sub Plan P4)	Scope of works indicates HV deliveries (below) resulting 1 HV movement every 5 minutes for a 2-month period. I feel these components (below) are part of the bulk haulage operation, not the earlier works. I feel no bulk haulage should commence until all outstanding items are completely resolved. As soon as the HV starts, we will start hearing from the residents, and we need to be able to provide them with details of the control which should be in place. - Delivery of sheet piles (20-foot containers) - Delivery of rock to site from quarries.	Section 3.4.1	Refer Early Work Management Plan and Six Mile Creek Dam Safety Upgrade Project Coordinator-General's change report - Early Works November 2024. Refer to Traffic Impact Assessment for LMDIP (November 2024) – Refer **Appendix B** for full details with the latest information and data of heavy vehicle movements.
16 (Sub Plan P6)	TGSs are mentioned but not provided. The one provided has not been signed off.	Section 5.1 and Appendix G	Concepts TGSs have been provided in Appendix G. The contractor will provide formal TGS documentation for approval by TMR and NSC. and signed by.
17 (Sub Plan P9)	Commencing sheet piling and some of the site establishment items are not early works. These works need to be reviewed further and ins and outs determined.	Section 3.2	Sheet piling is part of Stage 2 All early works are in accordance with the Early Work Management Plan and Six Mile Creek Dam Safety Upgrade Project Coordinator-General's change report - Early Works November 2024
18 (Sub Plan General)	The sub plan is lacking many specific details, including further details on a communication plan that is required. I think they need VMS on Lake Macdonald Drive to supply constant updates on the project.	Section 8.3	VMS not proposed for project updates. Refer associated Community Consultation and Engagement Plan. Refer to Stakeholder Management Plan (JH Document Number: 7225-JHG-MPL-CSM-001).
19 (Sub Plan General)	Need approval of civil plans of the associated works if we are looking towards any type of approval for pre-works.	N/A	Approval of civil plans are outside the TMP. They will be /are submitted in the appropriate period.

Appendix B

Traffic Impact Assessment (SMEC), November 2024

Traffic Impact Assessment Report

Lake Macdonald Dam Improvement Project

Prepared for: Seqwater
6 November 2024
Client Reference No. LMDIP-05806-ROD-TRR-REP-00001

SMEC INTERNAL REF. 30035740

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Document Control

Document Type	Traffic Impact Assessment Report
Project Title	Lake Macdonald Dam Improvement Project
Project Number	30035740
File Location	X:\Projects\300357\30035740\100 Concept-Feasibility\Traffic\Deliverables\TIA_Nov2024\TIA_30035740_LMDIP_rev2_20241106.docx
Revision Number	02

Revision History

Revision No.	Date	Prepared By	Reviewed By	Approved for Issue By
01	27/09/2024	Timothy Clune	Anthony Burke (RPEQ)	CP Soin
02	6/11/2024	Timothy Clune	Anthony Burke (RPEQ)	Anthony Burke

Issue Register

Distribution List	Date Issued	Number of Copies
Seqwater	6/11/2024	Electronic

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Contents

Appendices

Figures

Tables

1. Introduction

SMEC have been commissioned by Seqwater to assist with the update and development of a Traffic Impact Assessment (TIA) for the proposed Lake MacDonald Dam Improvement Project (LMDIP).The LMDIP is part of Seqwater's broader Dam Improvement Program, aimed at ensuring dams comply with the latest safety standards and continue to function safely during extreme weather events.

The design for the new dam wall at Lake Macdonald is a split-level concrete spillway (see **Figure 1–1**). The earth embankments will be reconstructed to their original level on either side of the spillway. Scour protection will be an addition, with rocks placed downstream of the spillway to prevent erosion. An outlet tower will be constructed to the left side of the spillway which will have mechanical pipework and electrical components to facilitate both emergency release of water, to lower the dam reservoir, and environmental flows to the downstream Six Mile Creek. At completion of the project, the new dam will have the same storage volume and full supply level as the existing dam (storage to 8,000ML).

Figure 1–1: Proposed Dam Upgrades

Source: https://www.seqwater.com.au/project/lake-macdonald-dam-improvement-project)

1.1 History and Summary of Traffic Assessments

As part of the previous stages of the LMDIP, SMEC has completed the following specific TIA related reports:

- Traffic Impact Assessment (dated 25 January 2019) as part Impact Assessment Report for the Six Mile Creek Dam Safety Upgrade project:
  - In summary the report concluded the following:
    - The intersections assessed would operate within acceptable limits in both the AM and PM peak hour periods with the additional construction traffic. The additional traffic has minimal impact in both periods, with minimal increase in queueing and average delay in both the AM and PM peak periods.
    - Recommendation to upgrade lane markings at Noosa-Cooroy Road / Sivyers Road intersection to Channelised Right Turn (short), several minor signage upgrades and implementation of a traffic management plan.
  - The Coordinator General's report dated May 2019, resulted in several actions for further investigation:
    - Road Impact Assessment (RIA) to include a Pavement Impact Assessment (PIA) in addition to the TIA.
    - Heavy vehicles will not be permitted to utilise Sivyers Road to access the site.

    - Consequently, it was recommended that the TIA be revised under the assumption that all heavy vehicles would utilise the Noosa Water Treatment Plant (NWTP) Access Road via Lake Macdonald Drive to access the site. This new RIA would form the basis of discussion with impacted stakeholders.
- Road Impact Assessment (dated 8 December 2020) to address the actions outlined in the Coordinator General's report dated May 2019:
    - In summary the report concluded the following:
        - Construction traffic demands and distribution information supplied by Seqwater on 13 October 2020, with the following site access strategy adopted:
            - Heavy vehicles not permitted to utilise Sivyers Road to access the site as noted from the Coordinator General's report.
            - All construction traffic turned right out of Lake Macdonald Drive onto Elm Street. Light vehicles assumed to all enter/exit the site during the assessment peak periods.
        - The study intersections of Elm Street at Lake Macdonald Drive, and Lake Macdonald Drive at Collwood Road under the most conservative traffic demand scenarios were found to have minimal traffic impacts with both intersections operating well within operational capacity limits. The assessment noted that this was subject to approval by the works contractor and conclusion of recommended transport routes.
        - Heavy vehicle traffic was expected to exceed the 5% threshold from August 2021 to August 2023, however, both intersections were predicted to operate well within operational capacity limits.
- Traffic review (dated 19 October 2023) of current traffic flows to assess if there is any change in conditions to warrant a review of the December 2020 TIA:
    - New intersection surveys were completed on Tuesday 12th September 2023, and a screen line count was conducted between 6 - 12 September 2023.
    - It concluded the traffic changes were low and traffic patterns where equivalent to the October 2020 traffic surveys, with low volumes.
    - Note, no changes to construction staff and construction vehicles were provided and thus not included in the review.
- The following information that informed the previously completed TIA has since changed:
    - Personnel and construction traffic volumes have been updated and verified by the works contractor John Holland.
    - All staff car parking is to be provided on site.
    - All staff are to travel to/from the site via private vehicle with no proposed bus shuttle.
    - Working hours and movement of associated site personnel and construction vehicles has been updated.
    - Nominated travel routes for workers and construction vehicles have been outlined.

1.2 Scope of Assessment

Given the time lapse and latest information, an updated TIA has been completed with reference to the Department of Transport and Main Roads (TMR) *Guide to Traffic Impact Assessments*. The TIA includes the following sections:

- Section 2: Subject Site and Locality.
- Section 3: Construction Staging and Site Access.
- Section 4: Construction Traffic Impacts.
- Section 5: Site Access Review and Mitigation.
- Section 6: Summary and Next Steps.

The inputs and assessment findings will inform part of the Traffic Management Plan (TMP) and identify any local road network capacity impacts (if any) and any required mitigation measure to facilitate a safe means of access to and from the site during both construction and operational phases.

2. Subject Site and Locality

2.1 Overview

Lake Macdonald is located in Noosa Shire Council (NSC) local government area, approximately 4.5km north of Cooroy town centre. LMDIP is on the north-western side of Lake Macdonald with public access from Collwood Road (also known as Noosa Water Treatment Plant (NWTP) Access Road) / Lake Macdonald Drive intersection.

The focus of the TIA is of the following three sections as shown in **Figure 2–1** that will be used by construction heavy vehicles during the project:

1. 4.3km section of Lake Macdonald Drive controlled by NSC from Elm Street to the site i.e. Collwood Road.
2. 5.6km section of State Controlled Road 145 consisting of Elm Street / Cooroy Connection Road from Lake Macdonald Drive to the Bruce Highway (10A) Exit 237 (Cooroy Bypass northern interchange).
3. 5.6km section State Controlled Road 142 consisting of Diamond Street / Tewantin Road / Cooroy - Noosa Road from Elm Street to Sivyers Road.

Note, as outlined in **Section 3.3**, contracts for supply of bulk materials in particular quarried rock and concrete including on site batching material are still in negotiations. As such, the above routes are the most reasonable assumption at the time of undertaking this TIA.

Construction workers (light vehicles) will also use the above routes, as well as the following additional two traffic routes:

1. Southern route via Elm Street and Myall Street to the Bruce Highway Exit 230 (Cooroy Bypass southern interchange) a length of 2.5km.
2. Eastern route for workers to/from Cooroy - Noosa Road includes a 4.9km section of Sivyers Road, Gumboil Road, and Collwood Road (noted as gated and restricted from the public on the eastern side of the NWTP). An alternative to this route from the east is via Swift Drive which is an additional 3km. The Swift Drive route has not been included in this assessment as whilst it is signed as a route to the Noosa Botanical Gardens, it may raise community concerns if used to access the Project site.

Based on the above routes, four intersections have been assessed, as outlined below and shown in **Figure 2–1**:

1. Lake Macdonald Drive / Collwood Road.
2. Elm Street / Lake Macdonald Drive.
3. Cooroy - Noosa Road / Sivyers Road.
4. Elm Street / Diamond Street.

The immediate surroundings of the project include low-density rural residential, state forests and parks and gardens, including the Noosa Botanic Gardens. This area provides a range of recreational activities including fishing, rowing / watercrafts, trail walking and maintain biking, as shown in **Figure 2–2**. Paths along Lake Macdonald Drive interfacing with the Project area are expected to be disrupted during construction. Alternative paths and traffic controls measures will be provided as part of the projects TMP and associated Traffic Guidance Schemes (TGS). Access to Collwood Road to/from Cooroy - Noosa Road will be maintained for the public and not impacted by any construction vehicles or activities.

Figure 2–1: Site location and local road network

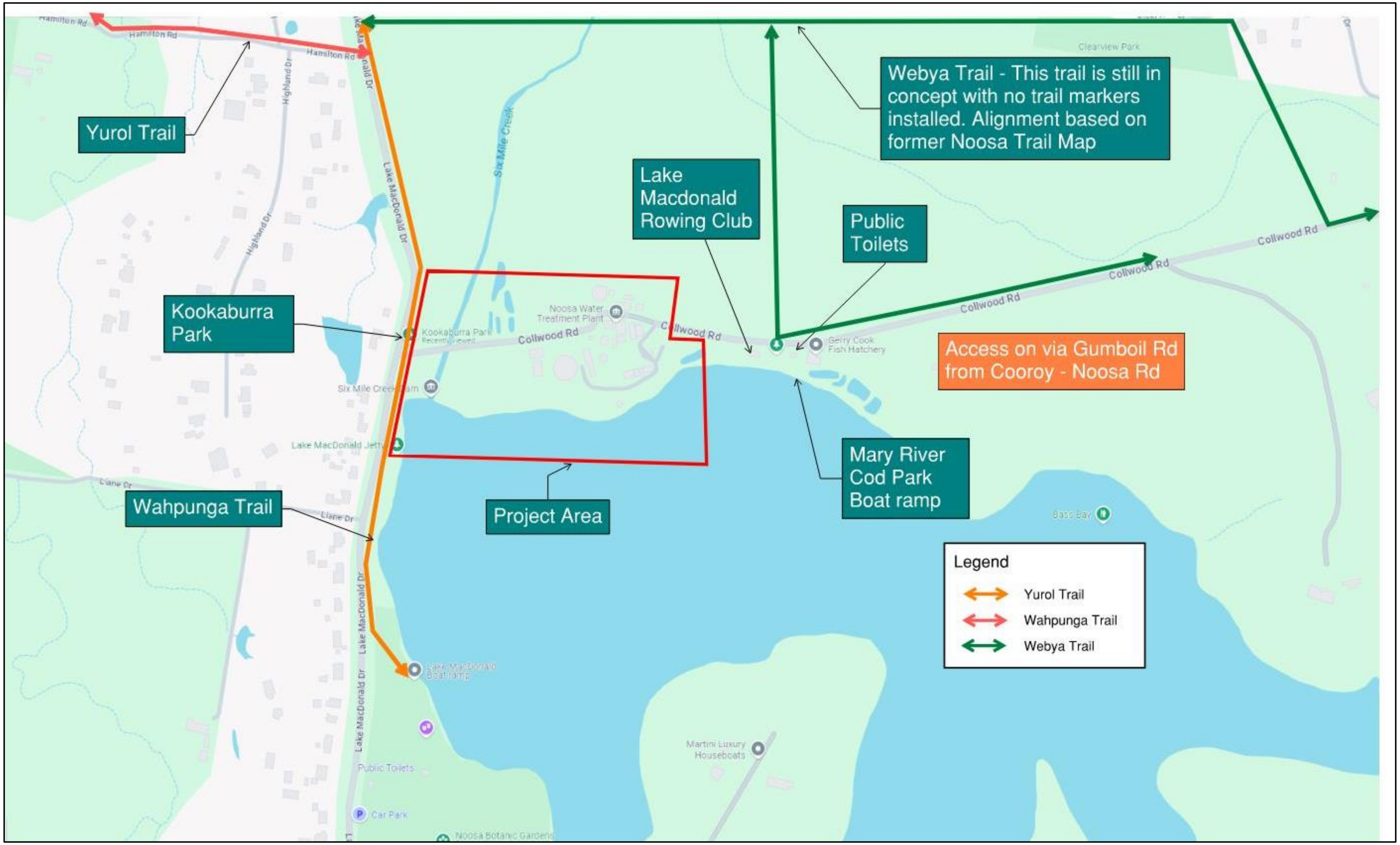


Figure 2–2: Site location and immediate surroundings

2.2 Public Transport

Cooroy is within Zone 8 of Translink network and serviced by two routes namely 631 and 632 as illustrated in **Figure 2–3**. Route 631 services Noosa to Nambour via Cooroy and Eumundi servicing Noosa Junction, Tewantin, Cooroy, Eumundi, Yandina, and Nambour. Route 632 Noosa to Cooran via Cooroy and Pomona servicing Noosa Junction, Noosa Civic, Tewantin, Cooroy, Pomona, and Cooran.

Both routes operate 7 days a week, however, only service 631 has two services in the AM period which arrives at Cooroy Train Station before or close to construction work times with regards to the project. Therefore, it is not expected that any construction workers will use public transport for this project.

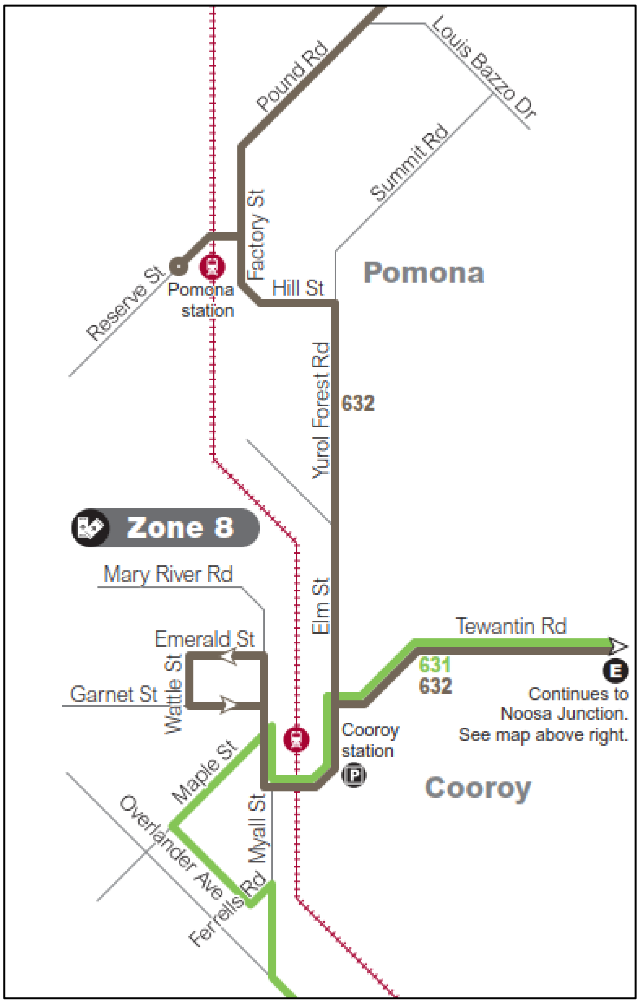


Figure 2–3: Public Transport Services

2.2.1 School Bus Routes

A school bus route travels along Lake Macdonald Drive, locally know as Route S731 (referred to as 792 on Translink's website, with two services per day between 7:20 - 8:05am and between 3:05 - 3:40pm. There are bus stops located at the following locations along the section of interest as shown on **Figure 2–4**:

- Blue Wren Pace
- Racehorse Lane
- Liane Drive
- North of Collwood Road
- Hamilton Road.

This service travels further north and south on Myall Street and Elm Street. It is noted a bus stop with significant school student transfers is located on the western side of Elm Street (northbound) opposite Pearl Street which is within the 40km/hr school zone. A turn-around facility used by buses is located immediately north of the mid-block signalised crossing at Sapphire Street.

The route extends goes past Noosa District State High School which is on Myall Street south of Tulip Street. Based on Education Queensland (Noosa District State High School | Department of Education (eq.edu.au)) it has 961 students from years 7 to 12 with 57 classrooms.

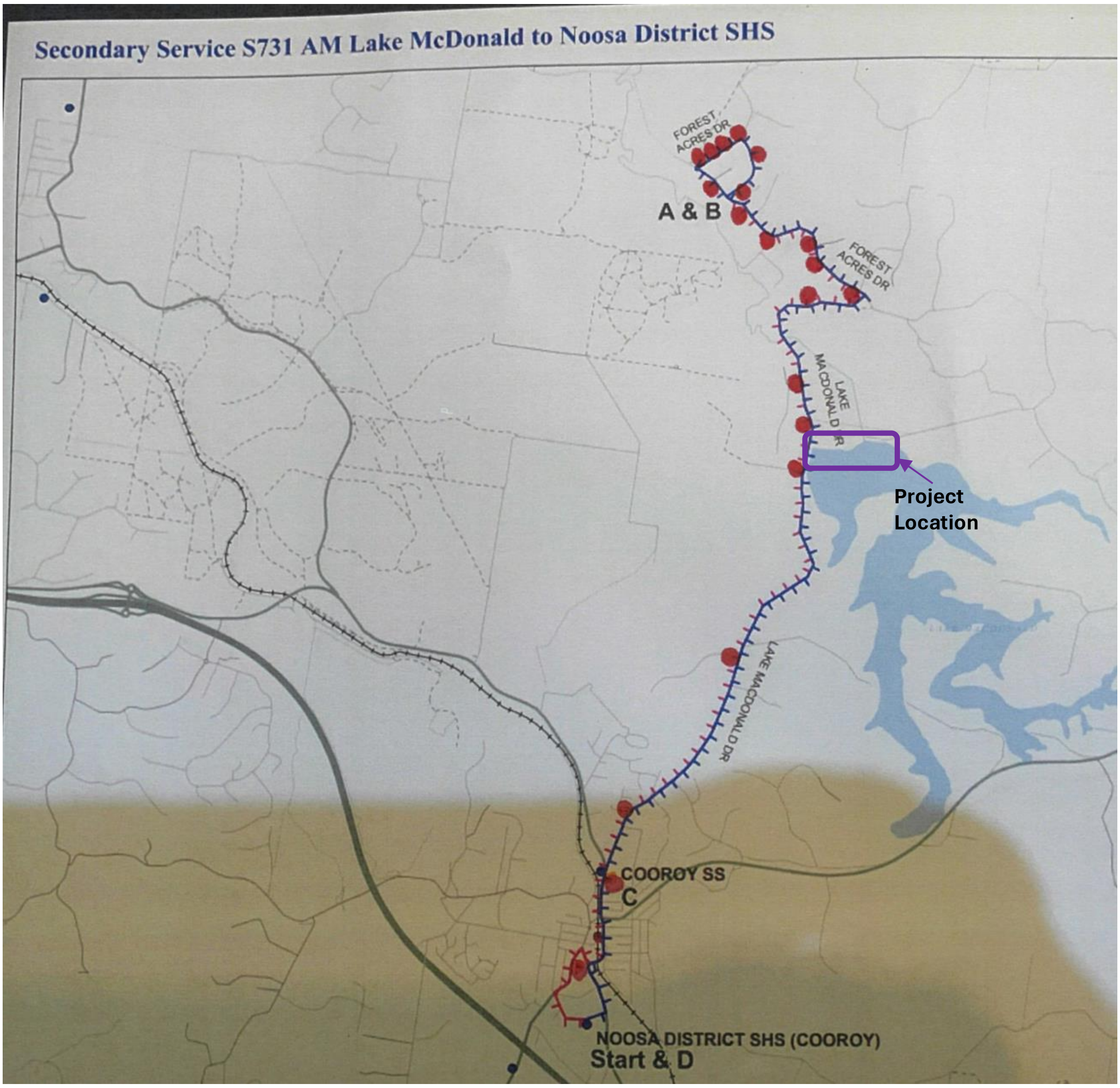


Figure 2–4: Bus Service S731 Route and Stops

2.2.2 Active Transport

The road network has been reviewed for cycling and walking hierarchy and existing infrastructure. In terms of hierarchy, TMR Principal Cycle Network Planning (PNPC) is illustrated in **Figure 2–5** which shows the following PNCP routes:

- Lake Macdonald Drive – Elm Street to Liane Drive (noted as just south of the Project extents in particular Hard strand area 3).
- Elm Street – entire length.
- Cooroy – Noosa Road and Tewantin Road – entire length.
- Myall Street – entire length.

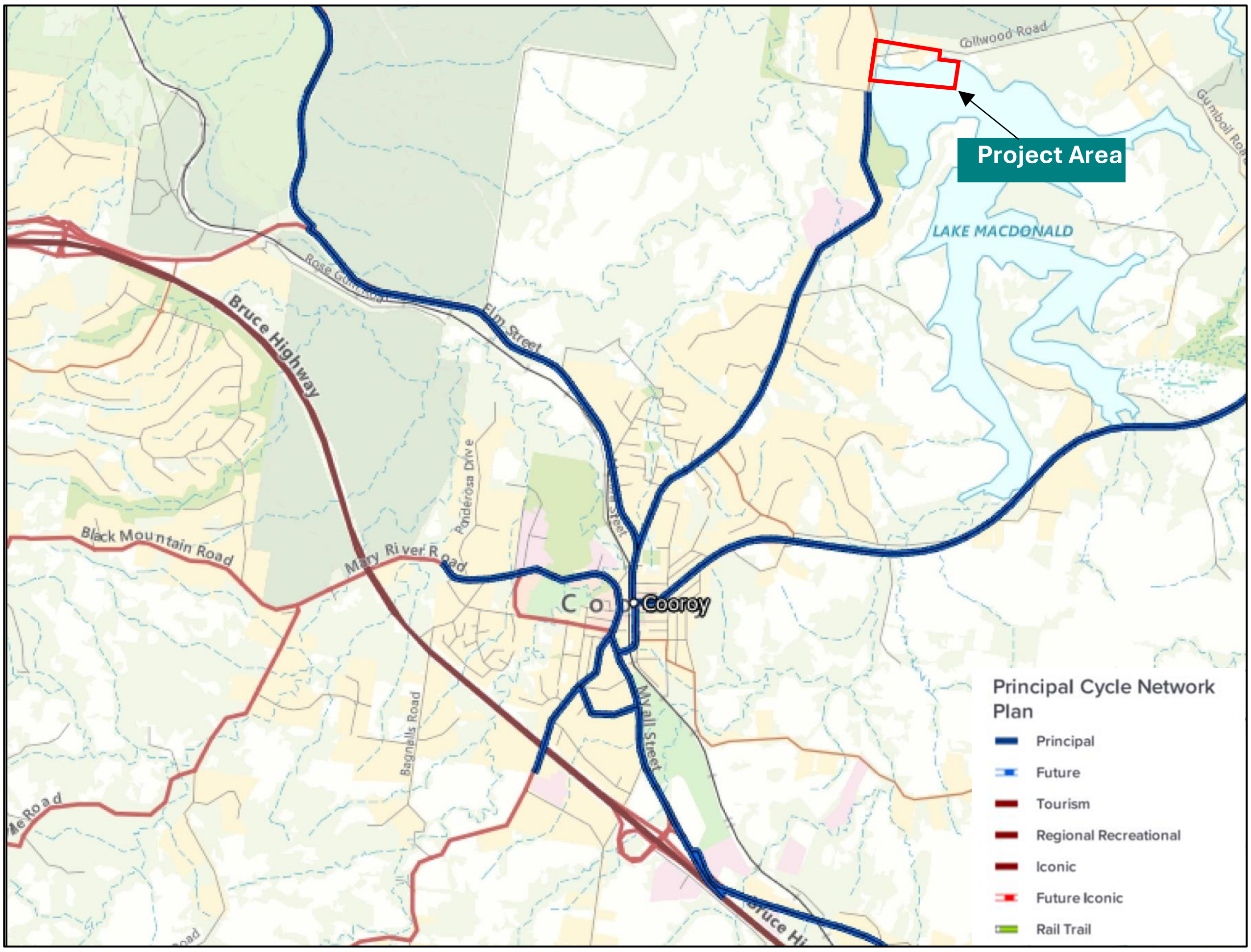


Figure 2–5: TMR PNCP (Source: Qld Glob)

Existing cycling and walking infrastructure has been reviewed based on open data sources including Noosa Shire Council Noosa Trail Network Maps which shows convergence of the Weyba, Yurol and Wahpunga Trials past the project area, as shown in **Figure 2–6** and **Figure 2–7** respectively.

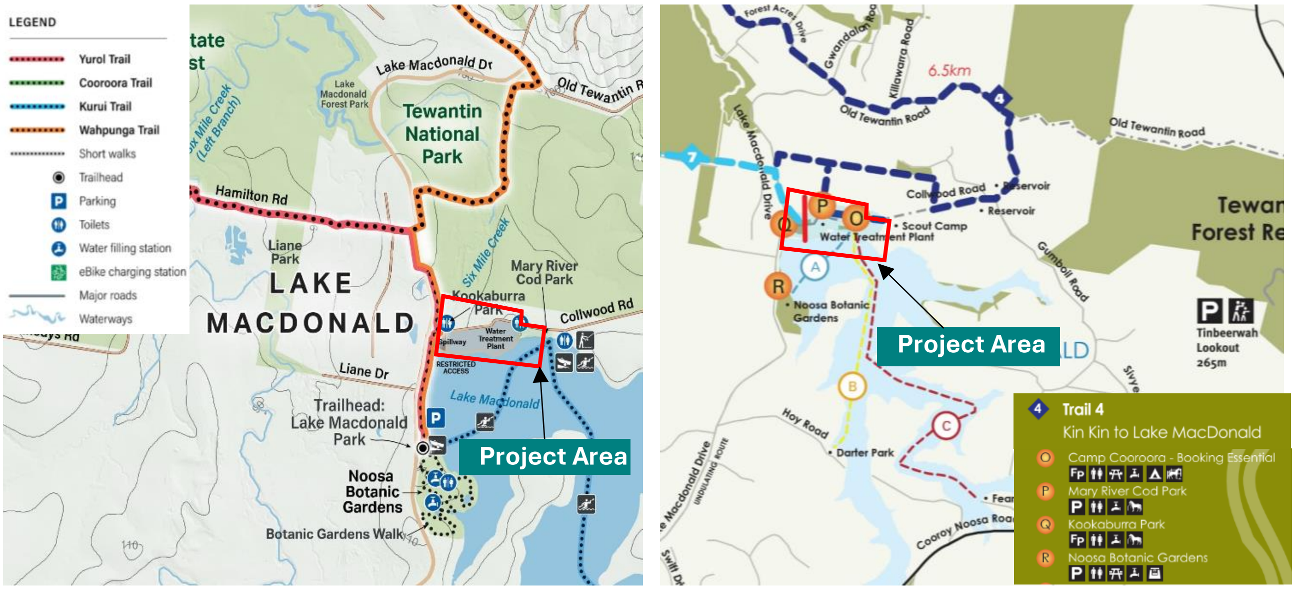


Figure 2–6: Noosa Trail Network Extracts (Source: NSC Website)

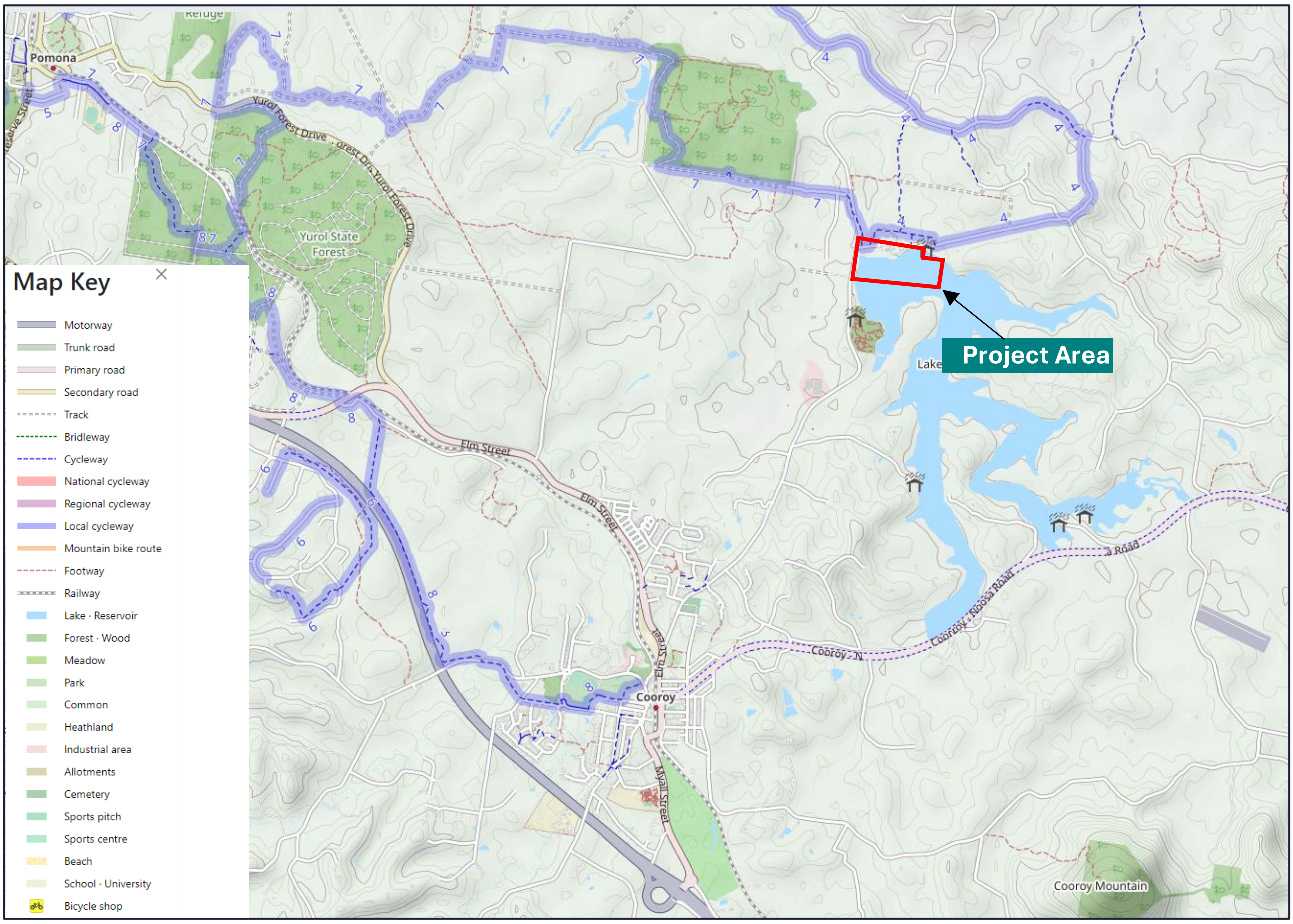


Figure 2–7: Cycling Provisions (Source: OpenStreetMap)

It is not expected any workers will use active transport for this project, however, as noted above the TMP needs to allow for alternative paths and traffic controls measures within the TMP and associated TGS to allow for the safe passage of public walkers and cyclists past the Project area.

2.3 Traffic Volumes and Conditions

2.3.1 Available Traffic Data

SMEC has undertaken this TIA with the latest classified intersection turn counts at the following intersections:

- Classified intersection surveys with peak periods:
  - Elm Street / Lake Macdonald Drive priority intersection - Tuesday 12 September 2023:
    - AM Peak 7:30 - 8:30am
    - PM Peak 2:45 - 3:45pm
  - Lake Macdonald Drive / Collwood Road priority intersection - Tuesday 12 September 2023:
    - AM Peak 7:30 - 8:30am
    - PM Peak 4:00 - 5:00pm
  - Elm Street / Diamond Street priority intersection – Friday 25 October 2024:
    - AM Peak 7:45 - 8:45am
    - PM Peak 2:30 - 3:30pm
  - Cooroy - Noosa Road / Sivyers Road priority intersection: Friday 25 October 2024:
    - AM Peak 7:30 - 8:30am

- PM Peak 2:45 - 3:45pm.

All flows for the intersection AM and PM peaks plus assessment peaks (Refer to **Section 4.4**) are included in **Appendix A.**

A tube count was also collected on Lake Macdonald Drive between Wednesday 6 and Tuesday 12 October 2023 outside no.407, which is approximately 170 south of Collwood Road.

Average Annual Daily Traffic (AADT) for Queensland State Controlled Roads 2013 to 2023 was gathered as part of the latest TIA to review background growth rates on State Controlled Roads.

The Elm Street / Myall Street intersection was also surveyed, however, not included in the assessment as the Project worker peaks travelling through the intersection are well outside is peak AM and PM peak time periods. The following outlines the peak times to confirm this assumption:

- Elm Street / Myall Street priority intersection – Friday 25 October 2024:
  - AM Peak 8:00 - 9:00am
  - PM Peak 2:45 - 3:45pm.

2.3.2 School Peak Period

The Cooroy State School is located on the western side of Elm Street immediately north of Lake Macdonald Drive. Based in information from the school's website, the school start/end times are 8:45am and 2:50pm, and based on Education Queensland data (Cooroy State School | Department of Education (eq.edu.au) it has 339 students across prep to year 6 in 30 classrooms.

An assessment of the school peak period with data from Elm Street / Lake Macdonald Drive priority intersection in September 2020 and September 2023 is shown in **Figure 2–8**. The figure shows the traffic flows through the intersection highlight distinct peak hour (ending) times of 8:30am / 8:45am and 3:30pm / 3:45pm.

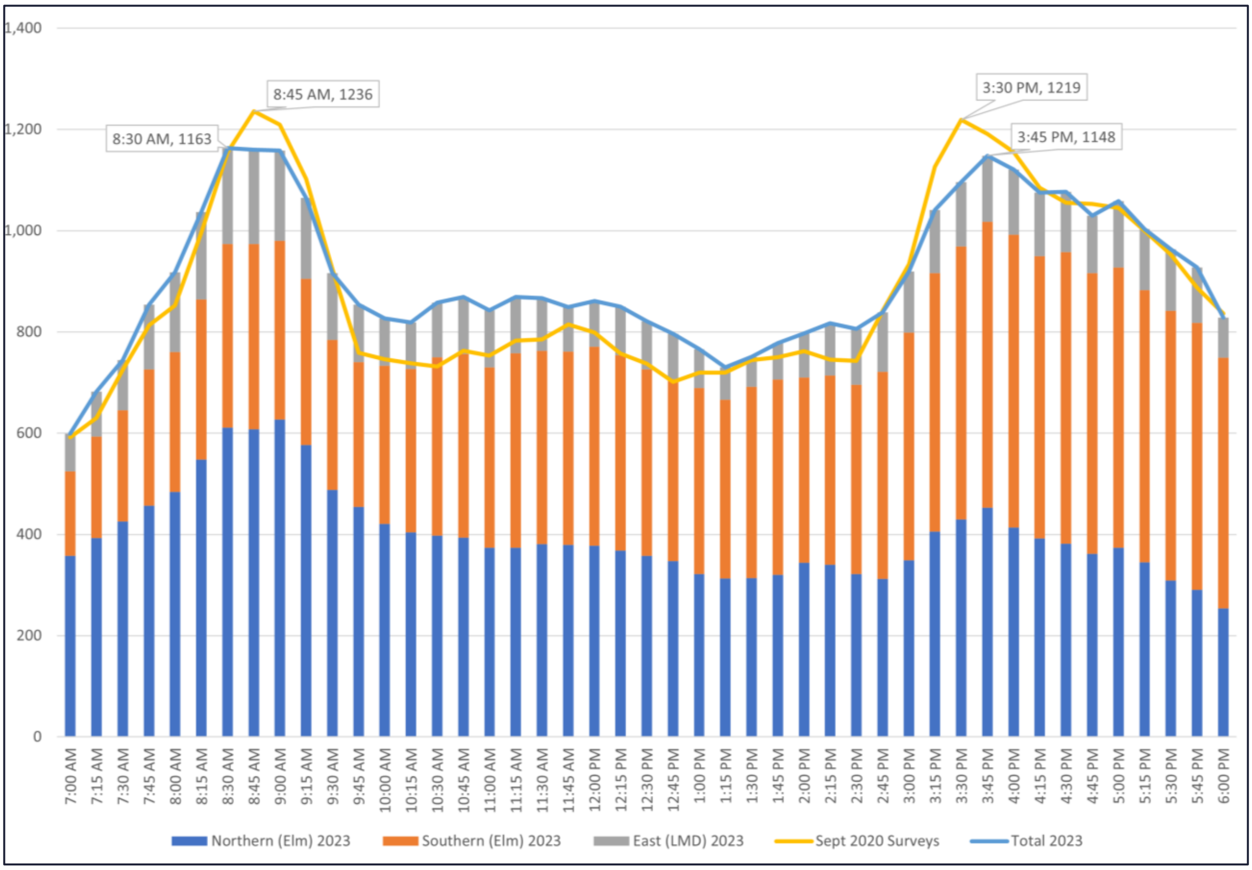


Figure 2–8: School Peak Assessment

2.3.3 School Peak Exclusion

Based on the school bus times and the school peak period traffic movement time periods outlined above, the recommendation in both this TIA and TMP is to restrict construction vehicles for the school peaks including school bus times from 7:20 - 8:45am and 2:30 - 3:45pm.

2.3.4 Growth Rates

Based on the available traffic data from October 2020 and October 2023 for intersection counts, the 12hr flows by approach and total are provided in **Table 2–1,** with the resulting compound growth rates.

Table 2–1: Growth Rates based on intersection surveys

Intersection	Approach	2020	2023	% Growth
Elm Street / Lake Macdonald Drive (LMD)	Northern (Elm Street)	4,499	4,699	1.5%
	Southern (Elm Street)	4,604	4,666	0.5%
	East (Lake Macdonald Drive)	1,300	1,330	0.8%
	Total	10,403	10,695	0.9%
Lake Macdonald Drive (LMD) / Collwood Road	Northern (Lake Macdonald Drive)	634	661	1.4%
	Southern (Lake Macdonald Drive)	43	30	-11.3%
	East (Collwood Road)	660	658	-0.1%
	Total	1,337	1,349	0.3%

AADT data for Queensland State Controlled Roads 2013 to 2023 was gathered and provided in **Table 2–2**.

Table 2–2: TMR Count Sites (Both Directions) Traffic Summary

Road Section ID / Name	Count Site ID / Location Description	AADT (2023)	% HV[1]	% Growth 10 years
142 / Cooroy Connection Road	20740 / 10m east of Miva Street	10,842	9.37	1.24
	20482 / 300m West of Sunrise Road	12,739	8.91	3.21
	20760 / Between Forest Dr and Griffith Ave	12,731	7.2	1.58
145 / Cooroy Connection Road	21130 / Cooroy School Pedestrian Crossing	9,884	Not available	0.93
	20050 / 200m North of Pearsons Rd	7,660	15.02	0.49
	50m North of Rose Gum Road	4,669	14.82	4.30

Note: 1 - Austroads Vehicle Classes 3 through 12.

Based on the above, a 1.5% compound growth rate per annum is considered a reasonable rate to be applied to all surveys for future year analysis.

2.4 Future Road Upgrades

In liaison with TMR, it was confirmed that there are no Category D (protected and funded) or Category C (protected but unfunded) projects in the township of Cooroy.

There is early category B planning in the Elm Street / Diamond Street area, but nothing funded or planned for delivery in the short to medium term, i.e., within the LDMIP construction program dates.

The Elm Street / Lake Macdonald Drive priority intersection is within a category A mapped area which covers the full length of the State Controlled roads between Cooroy and Pomona. There is no active planning being undertaken for the Elm Street / Lake Macdonald Drive priority intersection.

2.5 Crash History

A review of the crash history over the past 5 years for both construction and worker transport routes has been undertaken, with data provided from TMR Webcrash with dates as follows:

- Fatal crashes: 1 December 2018 to 30 April 2024.
- Non-fatal casualty (hospitalisation, medical treatment and minor injury) crashes: 1 December 2018 to 30 November 2023.

Figure 2–9 provides the crash locations mapped by severity which shows no black spots or black lengths in the study area. The crash data and additional summary tables are included in **Appendix B.**

Of note, the data shows no recorded crashes over the past five years available for Elm Street / Lake Macdonald Drive or Lake Macdonald Drive / Collwood Road. Further, the two rear end crashes at Cooroy - Noosa Road / Sivyers Road intersection were prior to the line-marking upgrades of a basic auxiliary right turn, competed in late 2022.

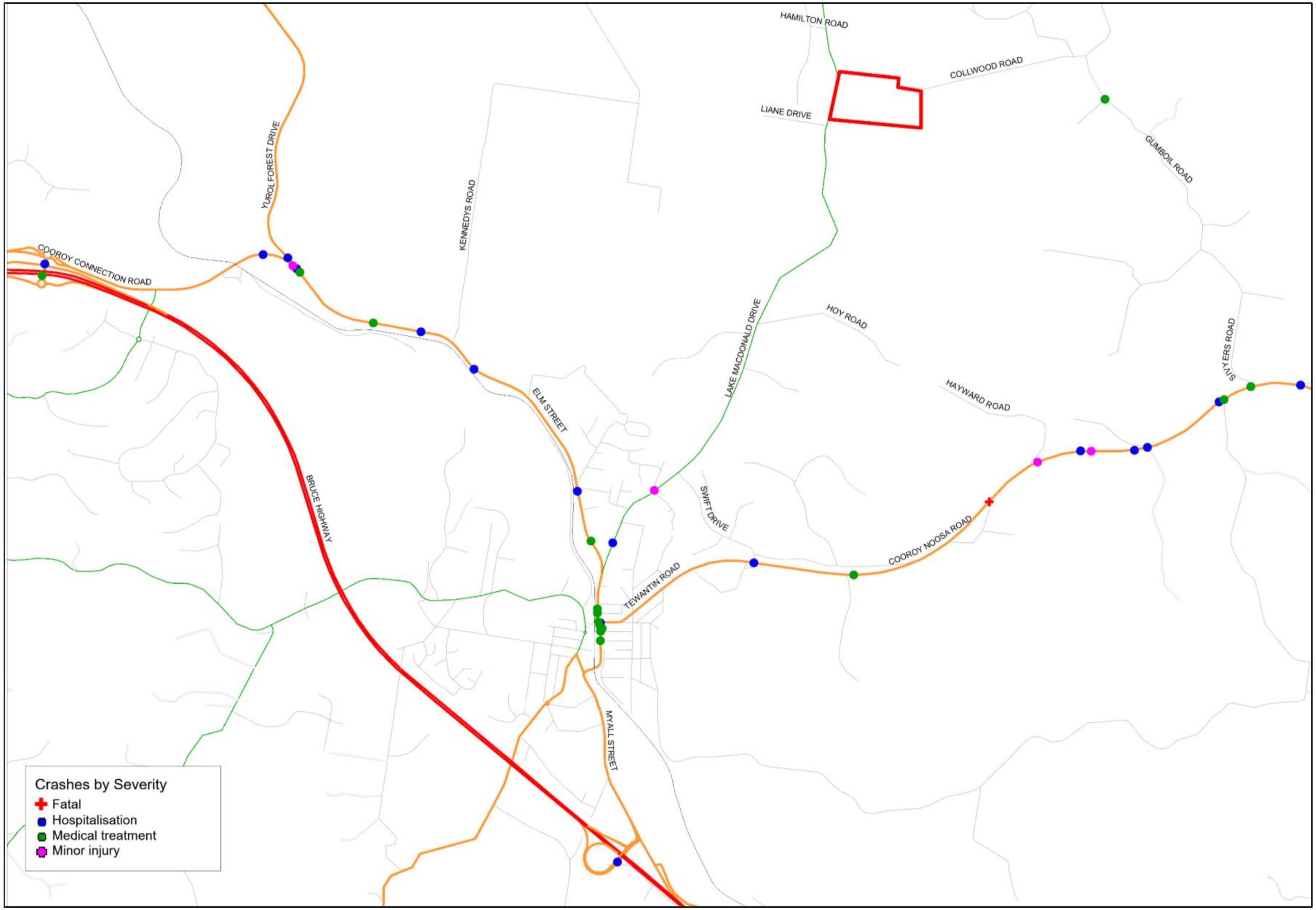


Figure 2–9: Crash locations by severity

2.6 Summary of Existing Traffic Network

Table 2–3 summarises the existing conditions of the key local roads providing access to and from the site. Data sources for the below information are from various sources including:

- SMEC site inspections completed during the project phases.
- Google Maps including Google StreetView.
- Queensland Globe.
- Noosa Shire Council City Planning Scheme Interactive Mapping.
- OpenStreetMap.

Table 2–3: Existing Road conditions

Transport element	Bruce Highway	Cooroy Connection Road (N) – links with Elm Street	Myall Street - links with Elm Street	Elm Street	Cooroy - Noosa Road (at Sivyers Road)	Lake Macdonald Drive	Sivyers Road	Gumboil Road	Collwood Road (east of NWTP)
Speed limit (km/h)	100	80	50 / 60 (with 40 zones for school areas)	60 (with 40 zones near school areas)		80 / 60 (with 40 zones for school areas)	70	60	Unsigned – assumed 50
Classification	Highway	Secondary	Secondary	Secondary	Secondary	Connector	Unclassified – assumed local/neighbourhood	Unclassified – assumed local/neighbourhood	Unclassified – assumed local/neighbourhood
Managed by	State Controlled	State Controlled	State Controlled	State Controlled	State Controlled	Noosa Shire Council	Noosa Shire Council	Noosa Shire Council	Noosa Shire Council
Driving lanes width (m)	7.4m (each carriageway)	6.8	7.3	6.8		5.5 to 6.6	6.1	5.5	~4.0m (unsealed)
Shoulder widths (m)	3.0m each side of carriageway	2.0	Varies – nil to 4.5m (at parking locations)	Varies – nil to 3.0m	1.0	Varies – nil to 1.0m	Nil	Nil	Nil
Total number of traffic lanes	Four	Two	Two	Two	Two	Two	Two	Two	Two
Traffic control	Interchange with Cooroy Connection Road / Old Bruce Highway	Interchange with Old Bruce Highway and onwards to Bruce Highway	Roundabout onwards to Bruce Highway Priority with Elm Street	Key priority intersections with Myall Street, Tewantin Road and Lake Macdonald Drive.	Priority with Sivyers Road	Priority with Elm Street	Priority with Cooroy Noosa Road Priority with Gumboil Road	Priority with Gumboil Road	Priority with Lake Macdonald Drive, Gumboil Road, and Clearview Drive
Principal Cycle Network	No	No	Yes	Yes - Connects with Yurol Forest Drive.	Yes	Yes - From Elm Street to Liane Drive	No	No	No
Bicycle facilities	Nil - Cyclists not permitted	Nil - Cyclists can use sealed verge, some minor lane provision through intersection with Gudgerie Drive.	Nil - Cyclists can use sealed verge	Yes – on-street bicycle lanes provided, some are not interconnected along the whole route.	Nil – wide shoulders along some sections of road	Nil - Cyclists can use sealed verge / parking lanes, some informal lanes provided across intersections but no bicycle markings.	Nil	Nil	Nil
Pedestrian facilities	Nil - Pedestrians not permitted	No	Yes - near several residential land uses, however sporadic and not well connected.	Yes – mainly on its eastern side providing links to residential land use. Pedestrian Operated Signal (POS) located 49m north of Pearl Street, providing a safe crossing link to Cooroy State School. Uncontrolled crossing with median located opposite the Cooroy State School playing fields. Uncontrolled crossing with median break located 96m north of Gem Street, provides links to bus stops.	Nil	Yes	Nil	Nil	Nil
Bus routes / facilities	631	No	No	631 and 632 bus route, and local bus route with bus stops located on both sides of Elm Street 96m north of Gem Street.	631 and 632 bus routes	School bus route with bus stops located: The Lake Macdonald Drive boat ramp The northern corner of Lake Macdonald Drive and Hamilton Road The corner of Lake Macdonald Drive and Forest Acres Drive.	School bus route – TBC	School bus route - TBC	No

Transport element	Bruce Highway	Cooroy Connection Road (N) – links with Elm Street	Myall Street - links with Elm Street	Elm Street	Cooroy - Noosa Road (at Sivyers Road)	Lake Macdonald Drive	Sivyers Road	Gumboil Road	Collwood Road (east of NWTP)
B-Double approved route	25/26m B-double and (PBS Level 2A route)	No	25/26m B-double and (PBS Level 2A route) – up to intersection with Elm Street	25/26m B-double and (PBS Level 2A route) – from Myall Street to Lake Macdonald Drive.	No	25/26m B-double and (PBS Level 2A route) – note route terminates at the disused Quarry (access 295m northeast of Swift Drive).	No	No	No

3. Construction Staging and Site Access

3.1 Construction Staging

Construction of LMDIP is understood to take approximately three years (excluding early works and site demobilisation), from March 2025 to March 20289 with the following work stages to be completed:

- Stage 1 – Preconstruction approvals, procurement, and site establishment (Early Works) from September 2024 to February 2025.
- Stage 2 – Reservoir lowering and aquatic salvage from March 2025 to April 2025.
- Stage 3 – Temporary works (Cofferdam, spillway demolition and working platform from April 2025 to May 2026.
- Stage 4 – Dam construction from May 2026 to March 2028.
- Stage 5 – Reinstatement, rehabilitation and close out from March 2028 to November 2029.

A full program provided is provided in **Appendix C** (refer to TeamBinder reference LMDIP-05242-GNL-PJC-PMM-00003).

3.2 Site Layout and Access

The site will be set-up for two main stages of works, early works and main construction works stages, with the site car parking provisions increasing in line with the increase of construction and worker requirements.

The site layouts are shown in the following figures:

- **Figure 3–1**: General Arrangement Layout – Early Works (Stage 1), includes:
  - Site access via Lake Macdonald Drive and Collwood Road priority intersection and via Collwood Road (E) approach.
  - Total of 60 car parking spaces to be provided for workers via car parks 1 and 2.
- **Figure 3–2**: General Arrangement Layout – Main Works (following Early Works until project completion), includes:
  - Site access via Lake Macdonald Drive and Collwood Road priority intersection and via Collwood Road (E) approach.
  - Total of 150 car parking spaces to be provided for workers. Prior to the main works car park 3 would be constructed to facilitate the increase in workers and associated parking demands.

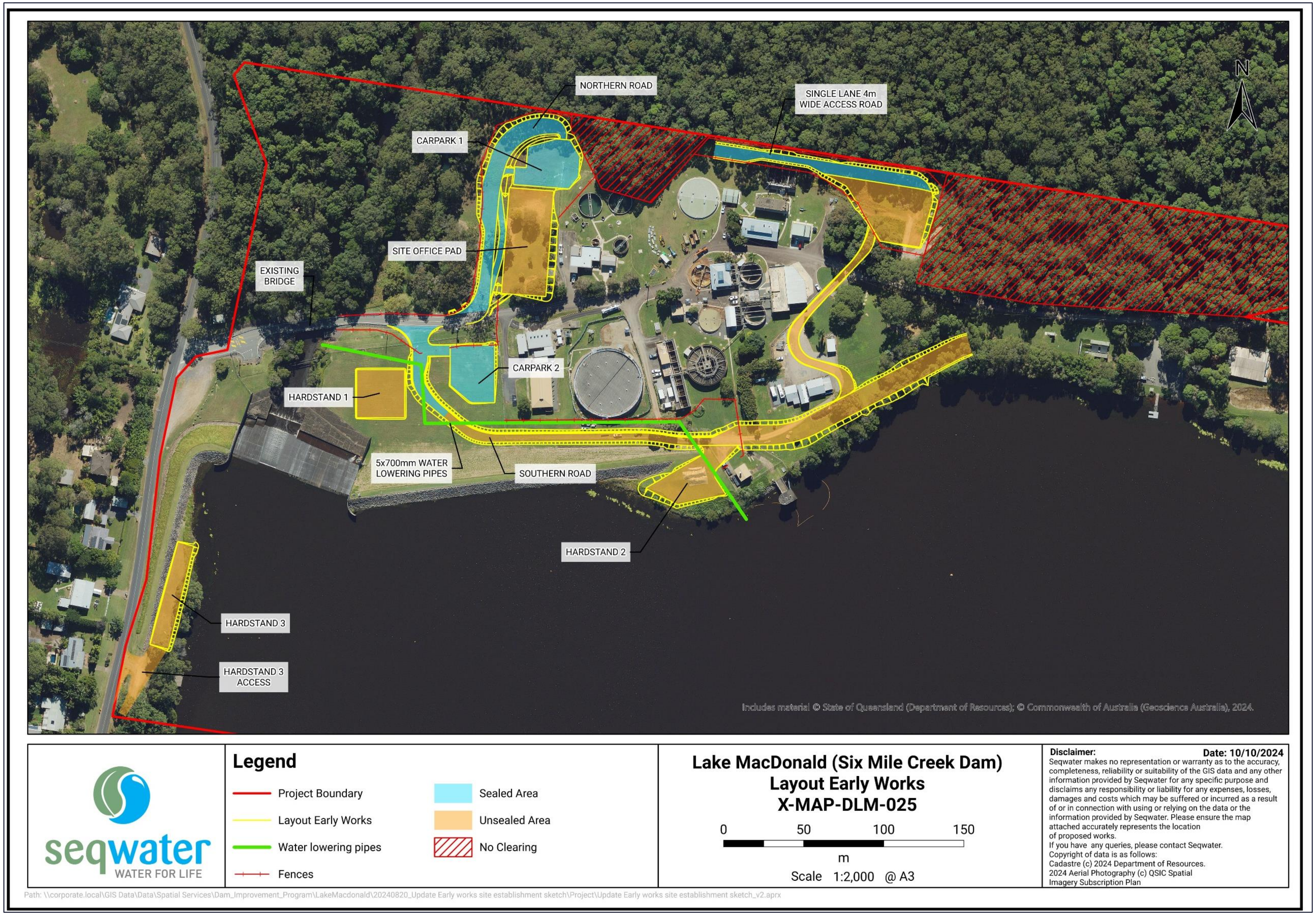


Figure 3–1: Civil Works – Temporary Roads General Arrangement – Early Works (source Seqwater)

Figure 3-2: Civil Works – Temporary Roads General Arrangement (source John Holland)

3.3 Construction Vehicle Types and Routes

3.3.1 Construction Vehicle Types

The construction vehicle types have been consolidated into groupings for the purposes of aiding with traffic generation and vehicle route assessments by their anticipated size, as shown in **Table 3–1**. Note construction vehicle types and classifications subject to final confirmation of John Holland suppliers and subcontractors (upon finalising these will be detailed in the Main Contractors Site Traffic Management Plan and Vehicle Management Plan.

The design vehicle that will require access via the proposed routes is a 19.0m articulated vehicle. Up to a maximum of 100 Oversize-Overmass (OMOS) vehicles are expected for this project at the time of undertaking this TIA. Any changes would be considered and updated as part of the TMP in consultation with key stakeholders.

Table 3–1: Construction traffic classicisation consolidation

Vehicle type	Sub-vehicle type	Vehicle classicisation	Vehicle length (based upon classification)	Vehicle weight
Light vehicles	Private car	99th percentile passenger vehicle	5.2m	-
	Utes			
Heavy vehicles	General purpose vehicle	Small Rigid Vehicle (SRV)	6.4m	2-5 tonnes
	Rubbish truck	Medium Rigid Vehicle (MRV)	8.8m	10 tonnes
	Concrete truck		8.8m (3.9m high)	32 tonnes
	Rigid truck	Heavy Rigid Vehicle (HRV)	12.5m	15 tonnes
	Semi-trailers	Articulated Vehicle (AV)	19.0m	24 – 42.5 tonnes depending on axle configuration
	Truck and Dog			30 tonnes

3.3.2 Construction Traffic Routes

3.3.2.1 Construction Workers (Light Vehicle Movements)

Construction workers are expected to reside in the Sunshine Coast, Noosa, and Gympie. As noted by John Holland all works are expected to travel to and from the site via their own private vehicle with on-site car parking provided. No mini-bus or bus/coach transfer of workers is proposed at this stage. Whilst some car-pooling is expected, this has not been included as part of this assessment for a more conservative approach to the total light vehicle numbers.

The following figures show the most direct and expect traffic routes to the site from the above origins:

- **Figure 3–3**: Sunshine Coast residing workers – travel via Bruce Highway (S), Myall Street, Elm Street, Lake Macdonald Drive.
- **Figure 3–4:** Noosa residing workers – travel via Eenie Creek Road, Backmans Road, Cooroy - Noosa Road, Sivyers Road, Gumboil Road, and Collwood Road.
- **Figure 3–5:** Gympie residing workers – travel via Bruce Highway (N), Cooroy Connection Road, Elm Street, Lake Macdonald Drive.

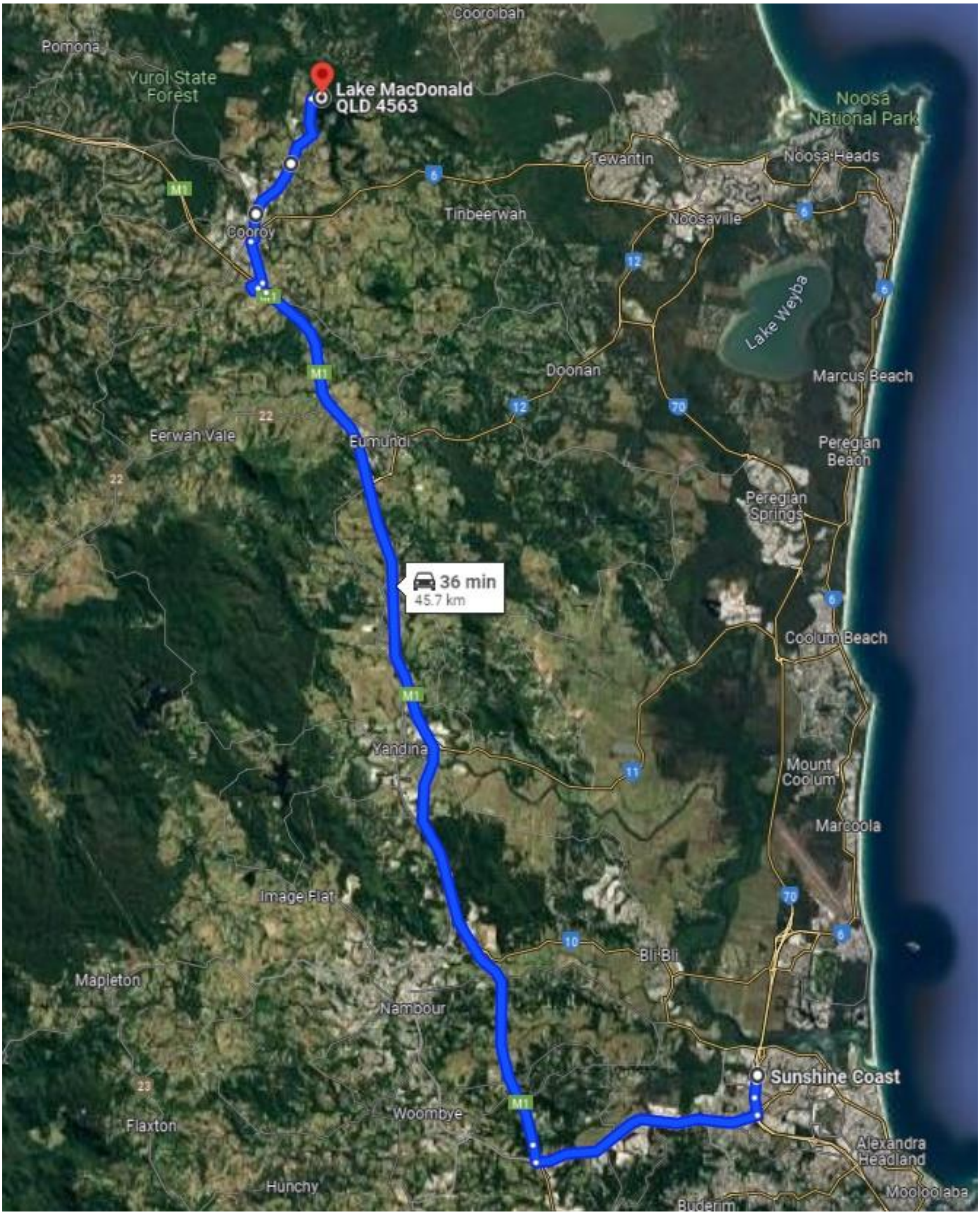


Figure 3–3: Sunshine Coast – Worker Travel Route

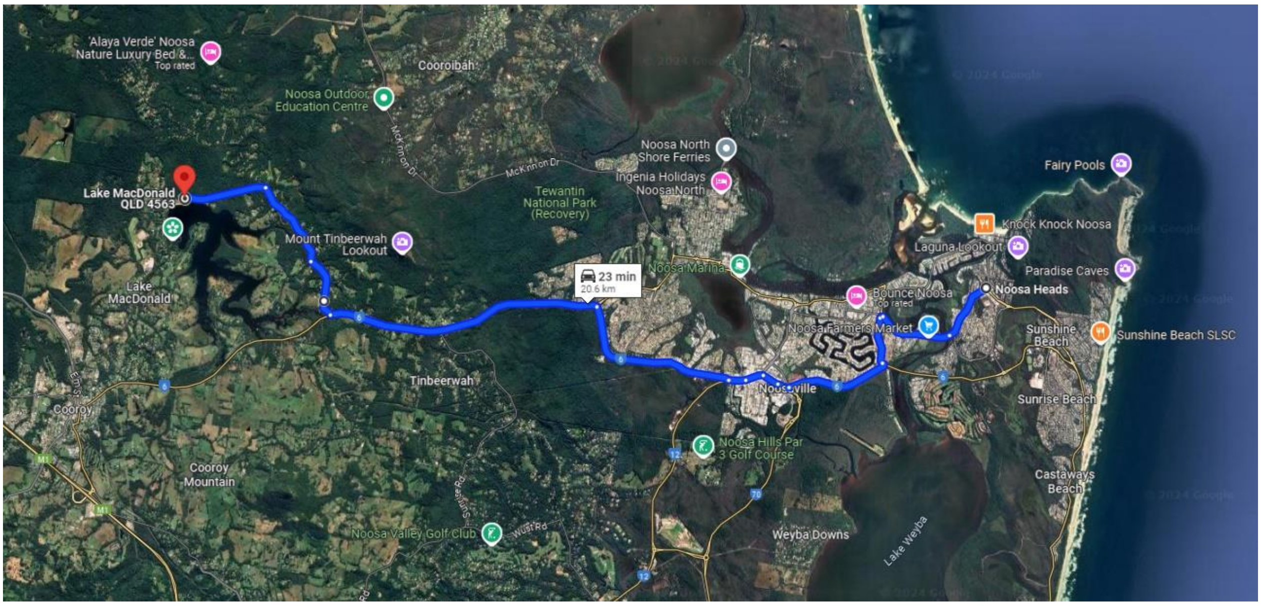


Figure 3–4: Noosa – Worker Travel Routes

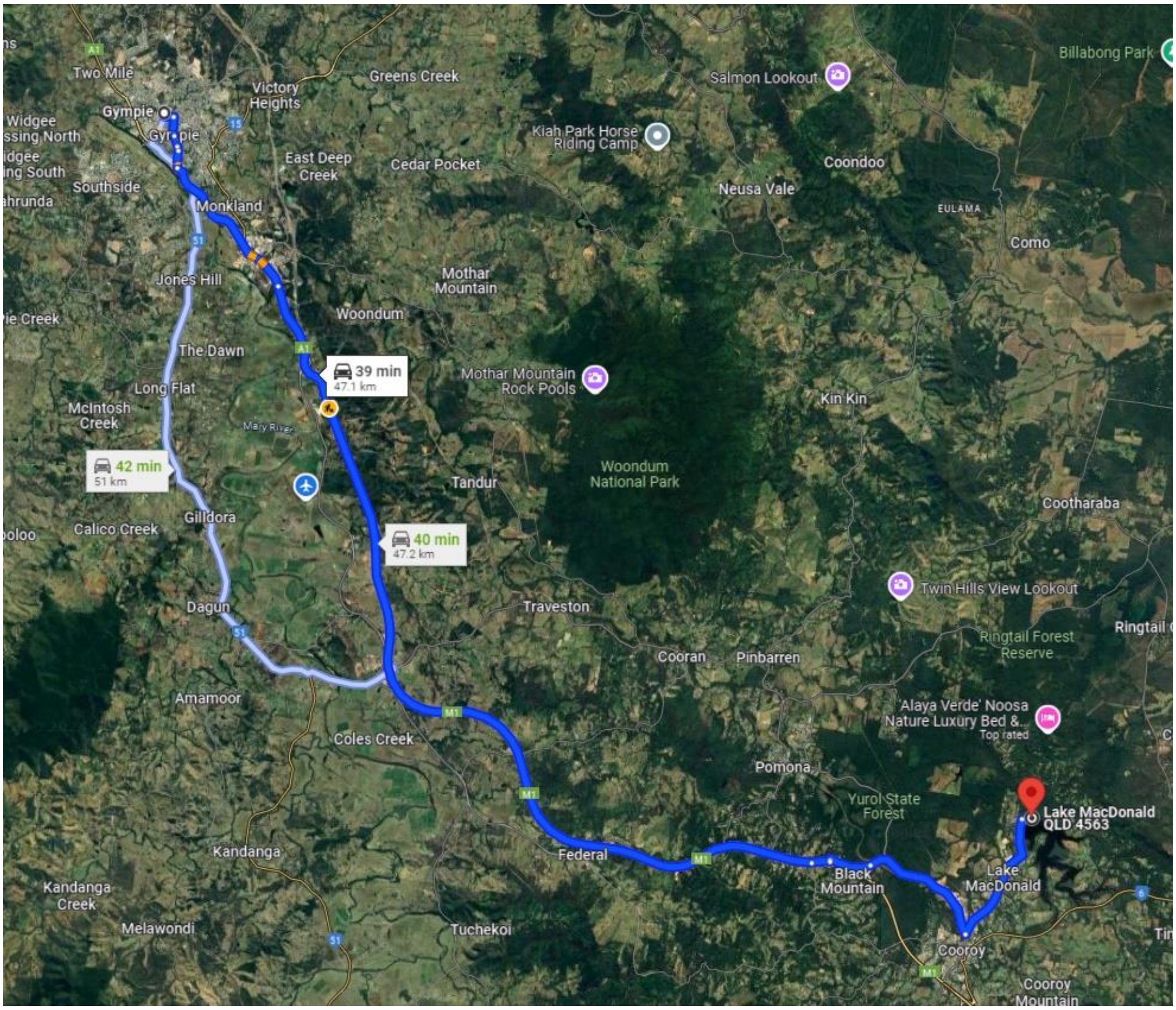


Figure 3–5: Gympie – Worker Travel Route

3.3.2.2 Construction Traffic (Heavy Vehicle Movements)

3.3.2.2.1 General Construction Vehicle Access

To comply with the Queensland Government – Coordinator Generals evaluation report (May 2019) and TMR comments on site accessibility requirements, construction traffic access to the site will be limited to the following routes:

- Construction vehicle site access is limited to a single access route onwards to the site in and out via Lake Macdonald Drive.
- Construction vehicles are to travel to / from the site access from the Bruce Highway north interchange (exit 237) with Cooroy Connection Road and travel to/from the site via Elm Street and Lake Macdonald Drive, refer Figure **3–6**.
- Construction vehicles are *not* permitted to travel via the following routes:
  - Eastern light vehicle access routes, particularly the Sivyers Road and Collwood Road (E) access route.
  - Bruce Highway interchange link to Myall Street as there are access and capacity concerns with regards to the Myall Street / Elm Street, and Elm Street / Diamond Street priority intersections.

At this stage (will be verified as part of the TMP), concrete deliveries will be from the east and use Cooroy – Noosa Road, right at Elm Street and right into Lake Macdonald Drive, with the reverse route used for existing vehicles. Whilst Elm Street / Lake Macdonald Drive intersection is within the school zone, this eastern construction vehicle route reduces the number of heavy vehicle passing the school pick up/drop off areas and supervised crossing.

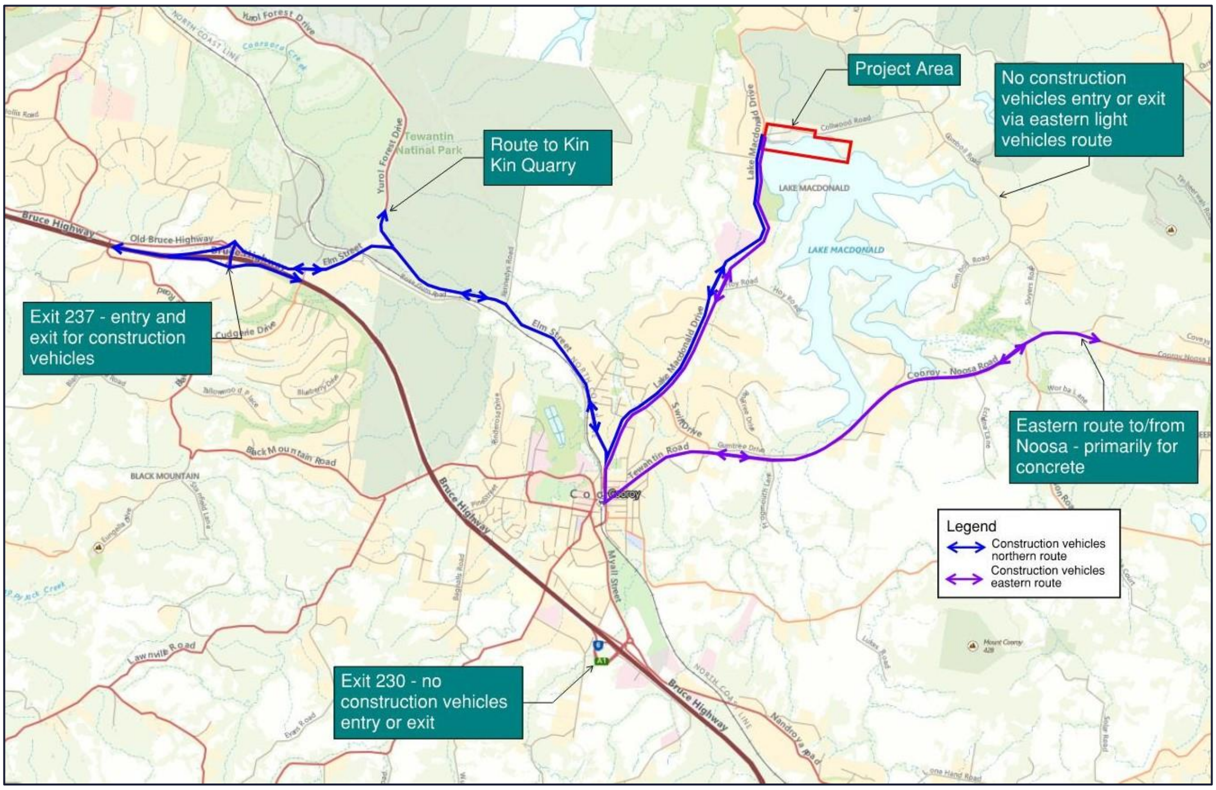


Figure 3–6: Construction heavy vehicle routes

3.3.2.2.2 Quarry Materials – Delivery Routes

John Holland has advised that the following local quarries will be utilised by the project, which can access the site via the following shown transport routes:

- Boral Moy Pocket in **Figure 3–7**:
  - Moy Pocket Road, Eumundi Kenilworth Road, Bruce Highway to exit 237, Cooroy Connection Road, and travel to/from the site via Elm Street and Lake Macdonald Drive.

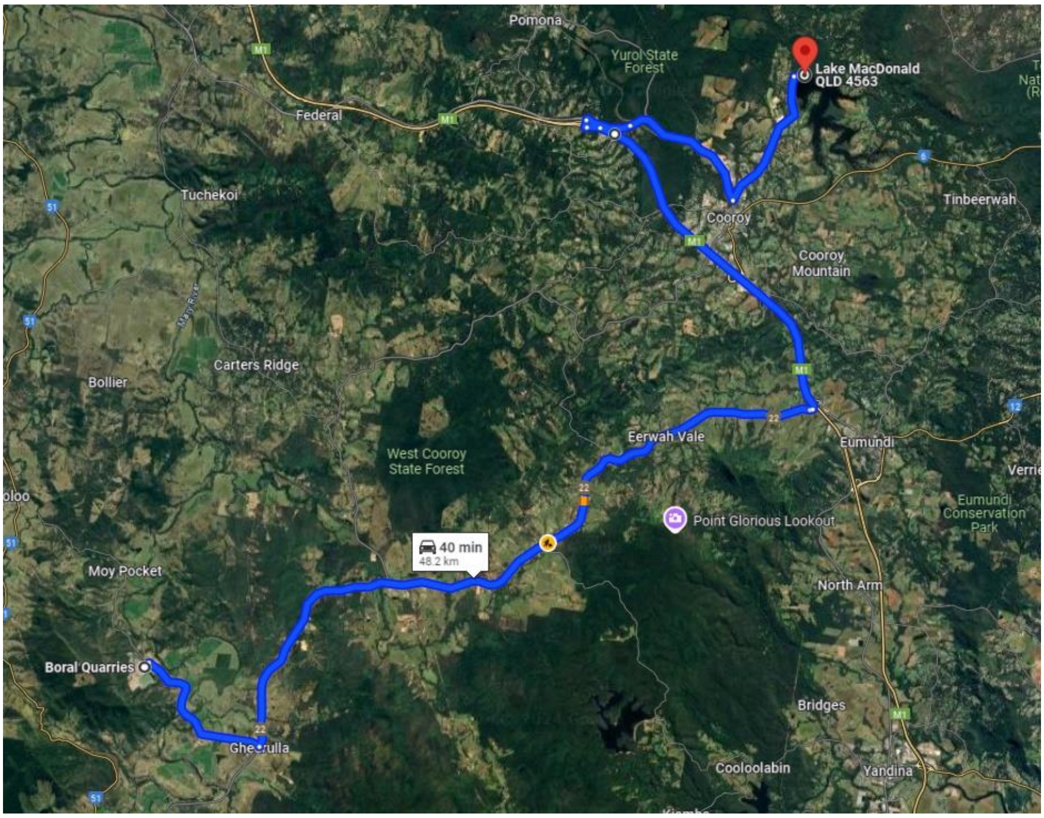


Figure 3–7: Boral Moy Pocket Quarry – Transport Route to LMD Site Access

- Corbets in **Figure 3–8**:
  - Bruce Highway to exit 237, Cooroy Connection Road and travel to/from the site via Elm Street and Lake Macdonald Drive.

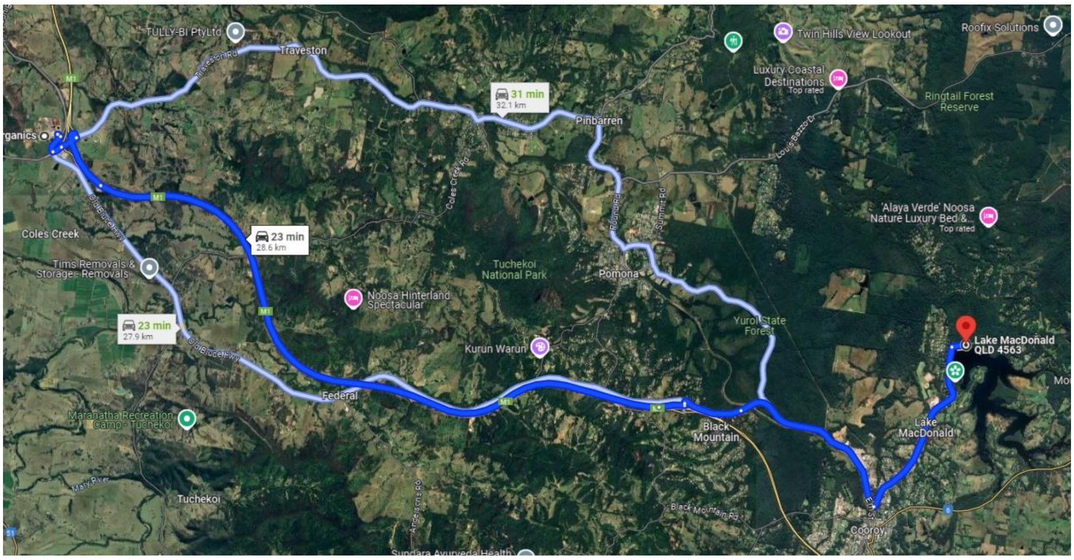


Figure 3–8: Corbets Quarry – Transport Route to LMD Site Access

- Kin Quarry in Figure 3–9:
  - Sheppersons Lane, Gympie Kin Road, Pomona Kin Kin Road, Factory Street, Hill Street, Yural Forest Drive, to/from the site via Elm Street and Lake Macdonald Drive.

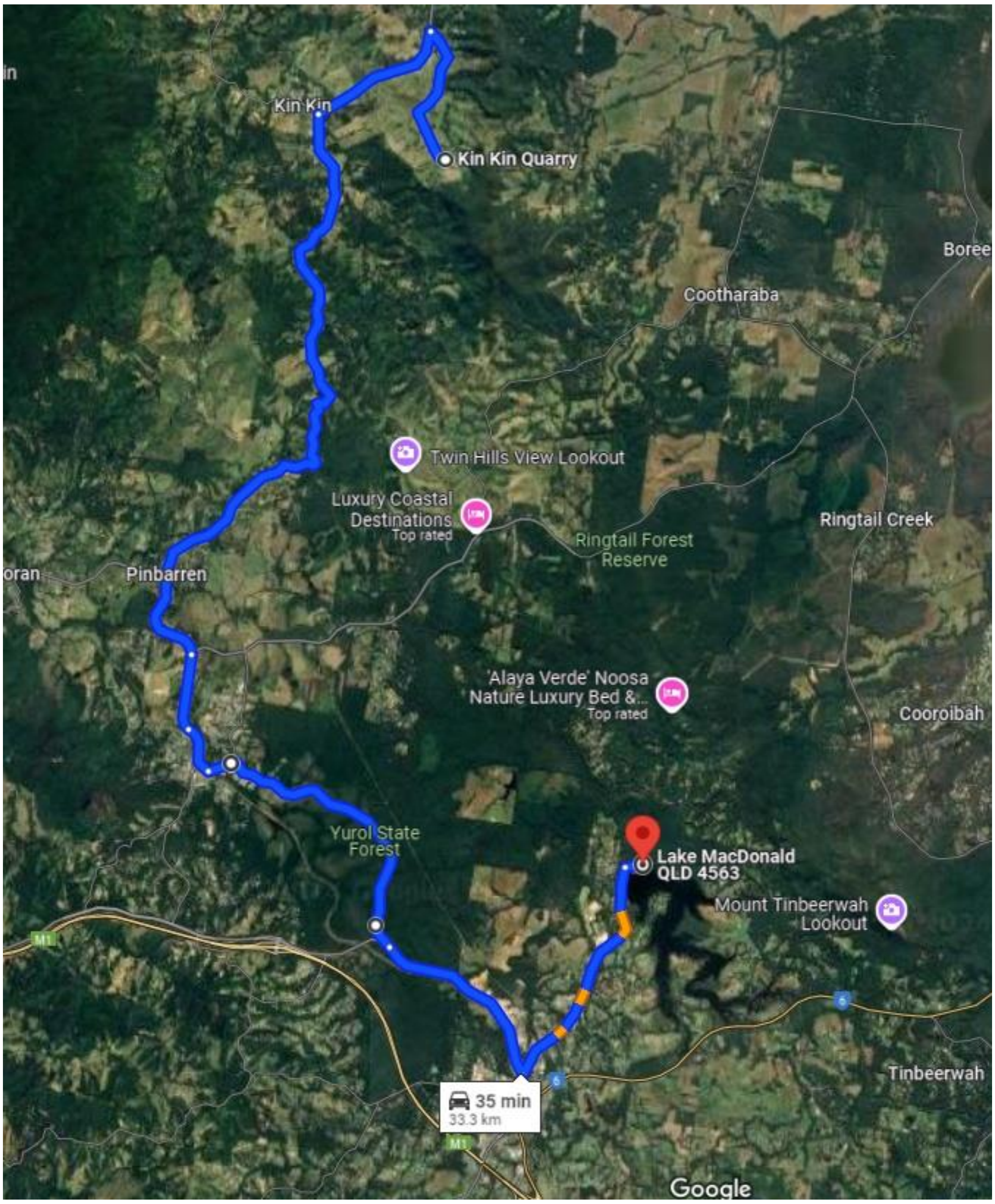


Figure 3–9: Kin Kin Quarry – Transport Route to LMD Site Access

3.3.2.2.3 Concrete and Concrete Materials – Delivery Routes

John Holland has advised that the following local concrete plants will be utilised by the project, which can access the site via the following shown transport routes:

- Holcim Noosa, 68 Rene Street in **Figure 3–10**:
  - Cooroy – Noosa Road from Beckmans Road (Tewantin) and travel to/from the site via Elm Street and Lake Macdonald Drive. Swift Drive is not a permitted route for heavy vehicles.

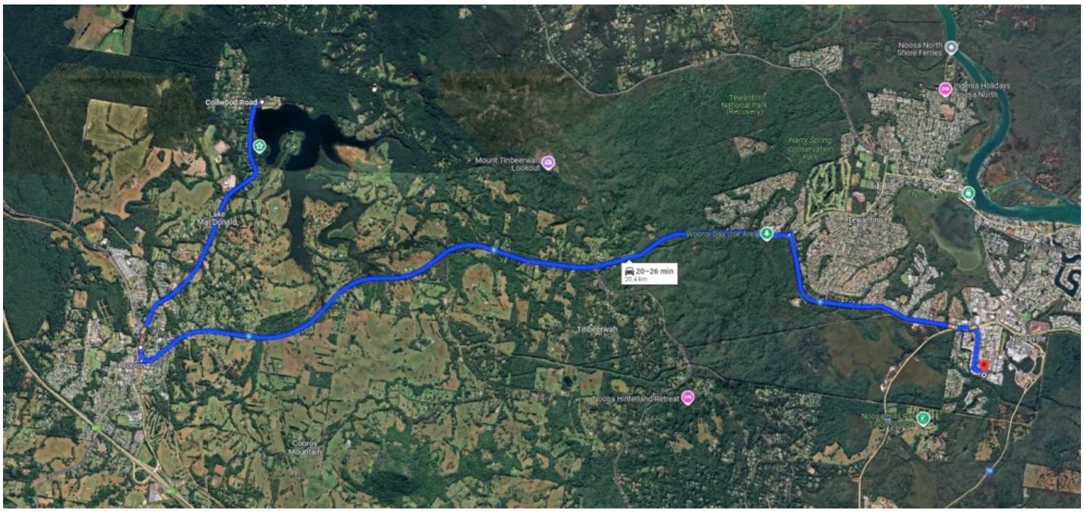


Figure 3–10: Holcim Noosa – Transport Route to LMD Site Access

- Holcim, Nursery Rd, Beerburrum in **Figure 3–11**:
  - Travel via Bruce Highway to exit 237, Cooroy Connection Road, Elm Street and Lake Macdonald Drive.

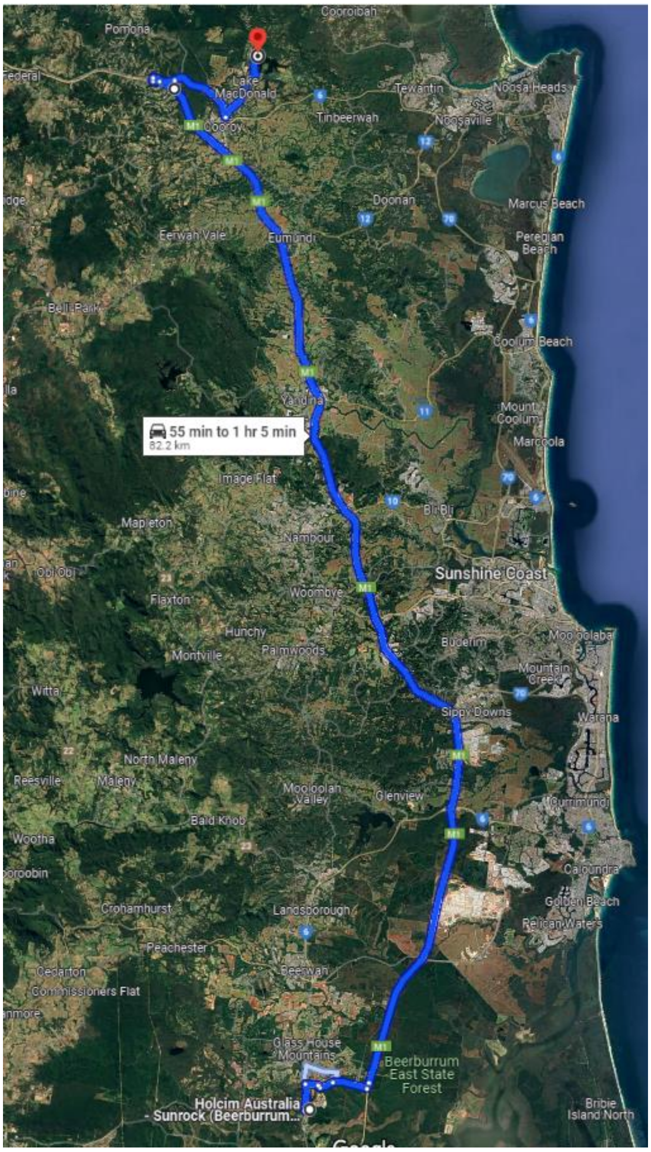


Figure 3–11: Holcim Beerburrum – Transport Route to LMD Site Access

4. Construction Traffic Impacts

4.1 Working Hours

Whilst the permitted working hours are Monday to Friday from 6:30am to 6:30pm and Saturday from 6:30am to 4:00pm, information provided from John Holland indicates that typically only a five-day working week will be undertaken for the Project. Additional details are provided below for workers and heavy vehicle times. This is with the exception of one minor works element for the spillway demolition and working platform, which is to be undertaken from 20 March and 23 April 2026 in the works program (final timeframes would be detailed in the TMP).

4.2 Workers / Light Vehicle Movements

It is noted that the Coordinator-General (OCG) evaluation report on the impacts assessment report (2019) required the below:

> **5.7.5 Proposed management and mitigation measures**
>
> To ensure additional project-related traffic does not result in unacceptable impacts on state-controlled and local roads, the proponent proposes controls on working hours to minimise truck haulage during peak traffic periods and school pick-up and drop-off periods. These controls will ensure the construction workforce travels to the project site prior to work commencing between 6:30 am and 7:30 am, and leaves the site between 3:30 pm and 4:30 pm, minimising the overlap with school bus operating times. I require this to be undertaken.

The above contradicts the requirement to minimise traffic impacts during school pick-up and drop-pick up periods. As such, John Holland indicates the workers will typically be travelling to and from the site from Monday to Friday and proposed arrival and departure times as outlined in **Figure 4–1** to *avoid* any impacts during school pick-up and drop-pick up periods

Figure 4–1 show a peak of 148 workers is expected in early 2028. During the highest three-month peak, there is an average of 140 workers which has been considered a reasonable basis for the intersection analysis.

Table 4–1: Project workers arrival and departure times, peak numbers

Worker Type	Arrive	Depart	Peak Month	Peak 3-month Average	Project Average
Project Staff (white collar)	6:00 - 6:30 AM	6:00 - 6:30 PM	29	31	25
Project Workforce (blue collar)	5:30 - 6:30 AM	5:00 - 6:00 PM	18	18	14
Sub-Contractor Personal (blue collar)	6:00 - 6:30 AM	5:00 - 5:15 PM	101	91	34
Total			**148**	**140**	**72**

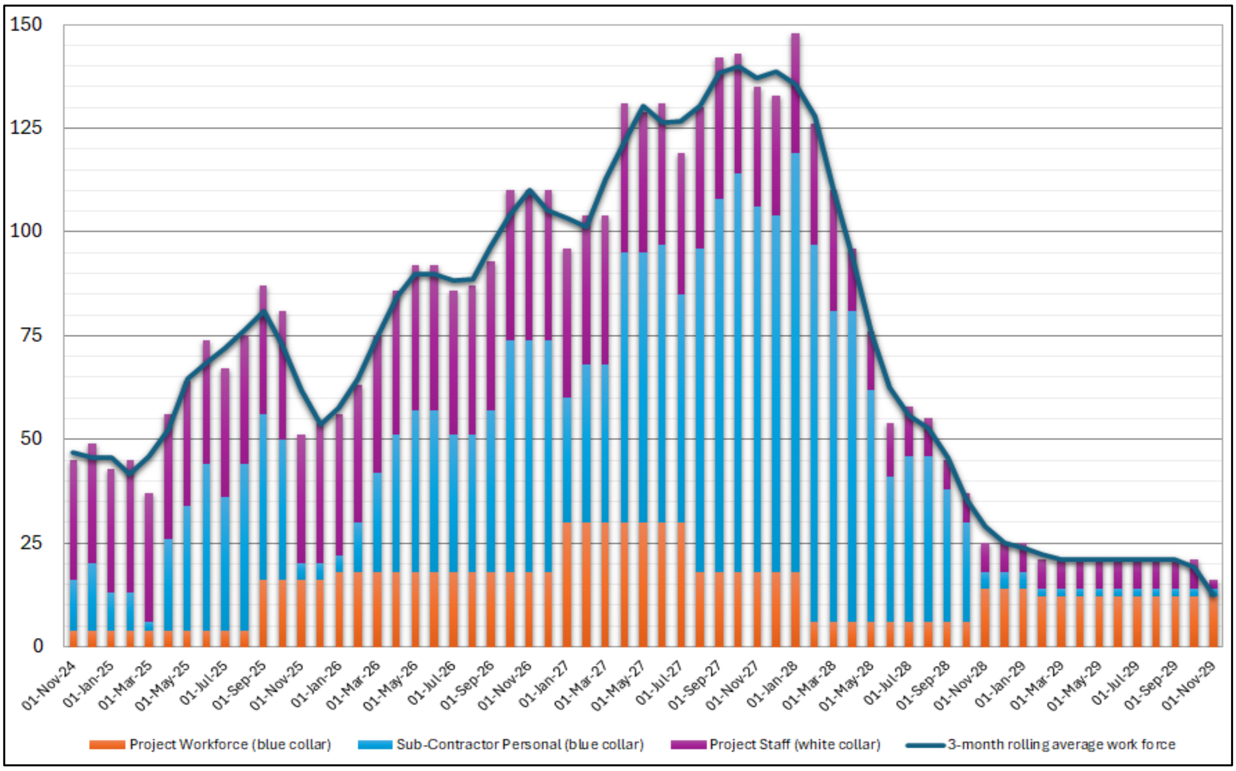


Figure 4–1: Workers by Month

It is expected that construction workers travelling to and from the site will be distributed as follows:

- 60% (~78 workers) from Sunshine Coast (entering site locally via Elm Street south, and Lake Macdonald Drive).
- 20% (~26 workers) from Noosa (entering site locally via Cooroy - Noosa Road and Sivyers Road).
- 20% (~26 workers) from Gympie (entering site locally via Elm Street north, and Lake Macdonald Drive).

4.3 Heavy Vehicle Movements

Heavy vehicle movements are understood to be required to be *minimised* during school pick-up/drop-off times and associated school bus route running times should the route transverse Elm Street to and along Lake Macdonald Drive.

- Accordingly, heavy vehicle movements are recommended to be *minimised*, *where possible*, during the following times based on the school bus times and analysis of traffic flows at Elm Street / Lake Macdonald Drive intersection (Refer to **Section 2.3.3**):
  - 7:20 - 8:45am
  - 2:30 - 3:45pm.
- Based on the above restricted time periods and a finishing time of 5:00pm, this equates to a total heavy vehicle movement/delivery window of 7 hours 50 minutes.

It should be noted, it is not practical for critical works such as concrete pours to have heavy vehicles restricted during the above times as they need regular movements to / from the site. Further, to reduce the length of the program and duration of impacts key work elements are proposed to continue during these restricted times but at reduced flows.

A summary graph of the daily average trucks per day (per month, two-way) is provided in **Figure 4–2** based on data provided by John Holland – Refer to **Appendix E**. As shown in **Figure 4–2**, a peak of 94 heavy vehicle (two-way) movements is estimated to occur during the construction peak in early 2028. The 3-monthly rolling average is also shown, which equates to 85 heavy vehicle (two-way) movements.

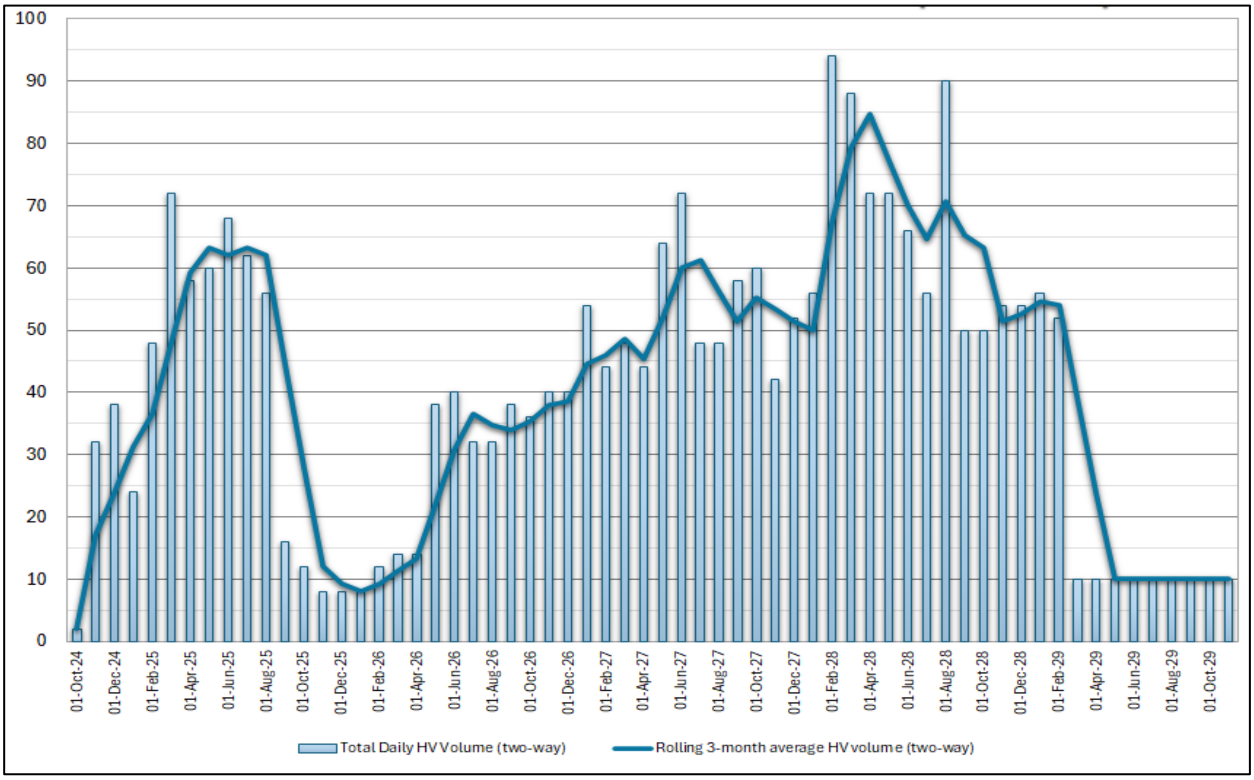


Figure 4–2: Heavy vehicle two-way flow by month

Figure 4–3 provides the daily average heavy vehicle movements (two-way) per day with the split between the northern and eastern routes and for reduced or restricted school hours.

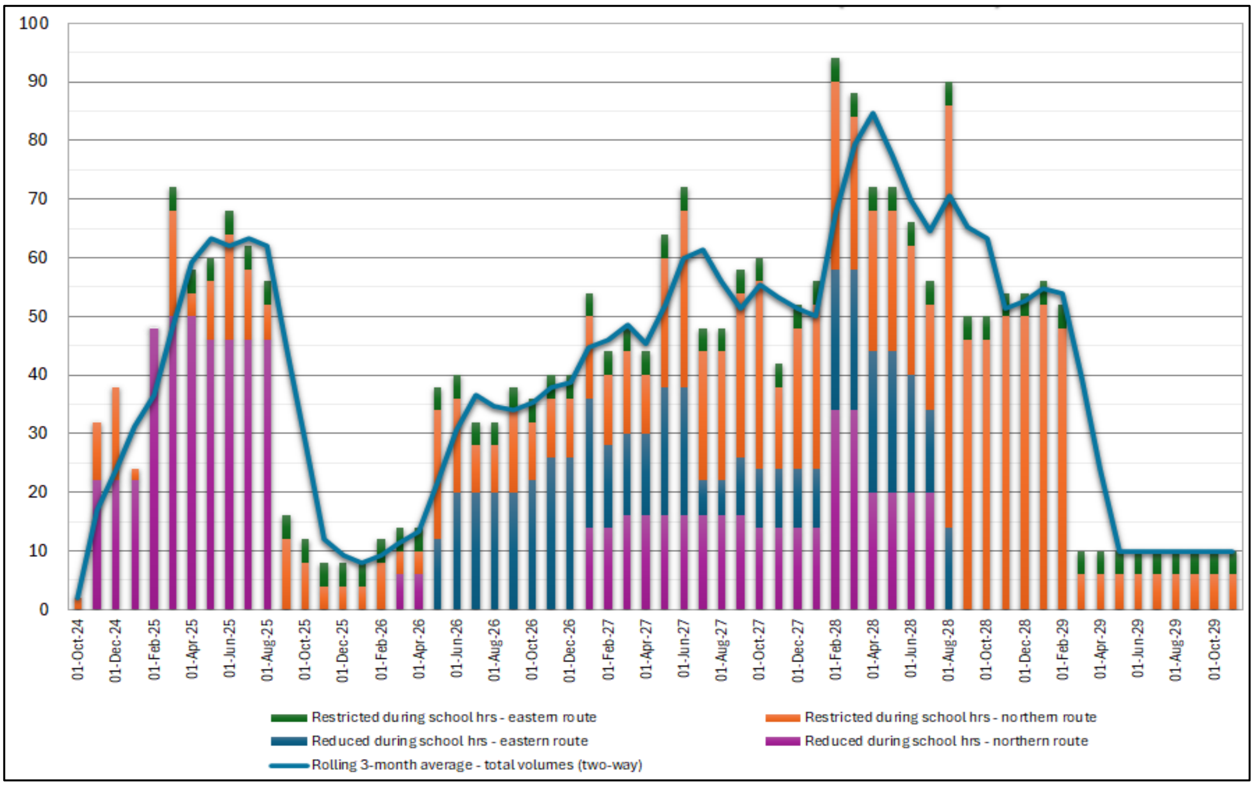


Figure 4–3: Heavy vehicle flows two-way by month by route and reduced or restricted school hours

Based on the assumption of a five-day work week and vehicle movement hours, the estimated peak hour flow for heavy vehicles is 21 two-way movements (rounded up to be conservative) as shown in **Figure 4–4** or 11 movements entering and 11 movements exiting the site. This equates to one heavy vehicle entering and one existing the site every 5.5 minutes.

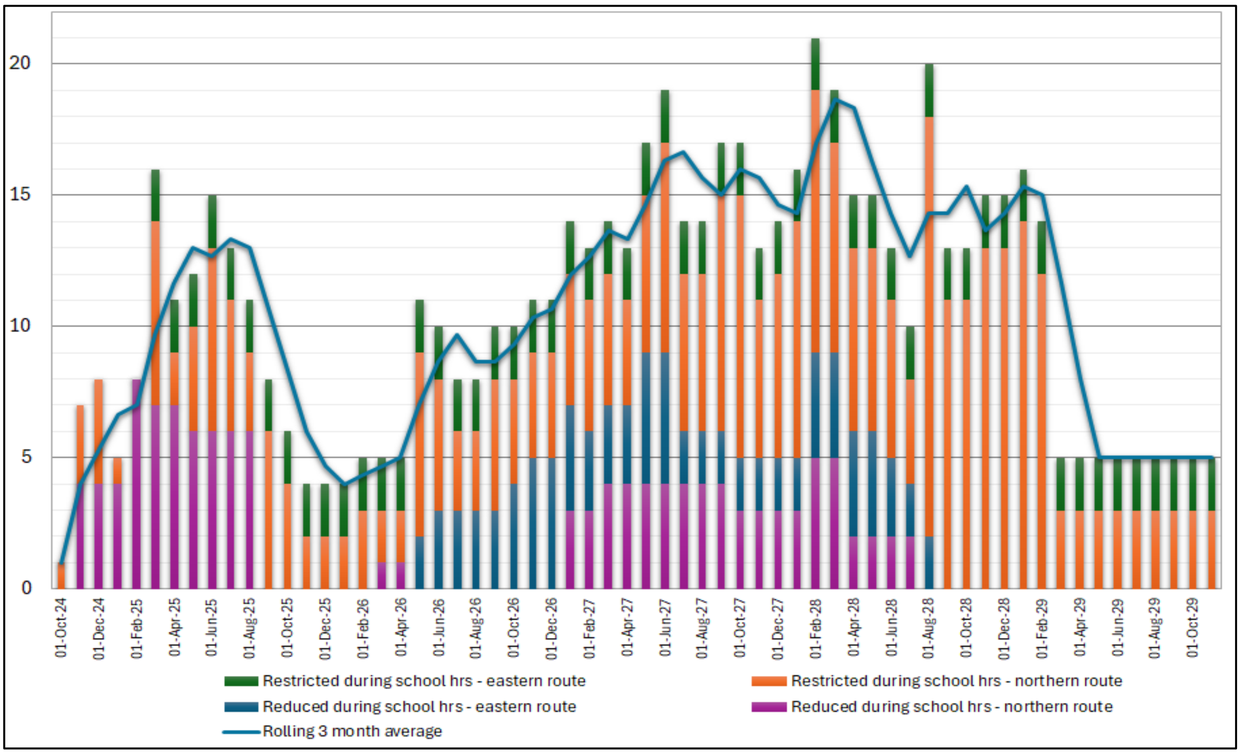


Figure 4–4: Peak hour heavy vehicle two-way flows (rounded up)

For work elements requiring continuous heavy vehicle movements during school peaks, the estimated heavy movement will be minimised to a maximum of six two-way movements or three movements entering and three movements exiting the site. This equates to one heavy vehicle entering the site every 20 minutes and one existing the site every 20 minutes noting split between the northern and eastern routes as shown in **Figure 4–5**.

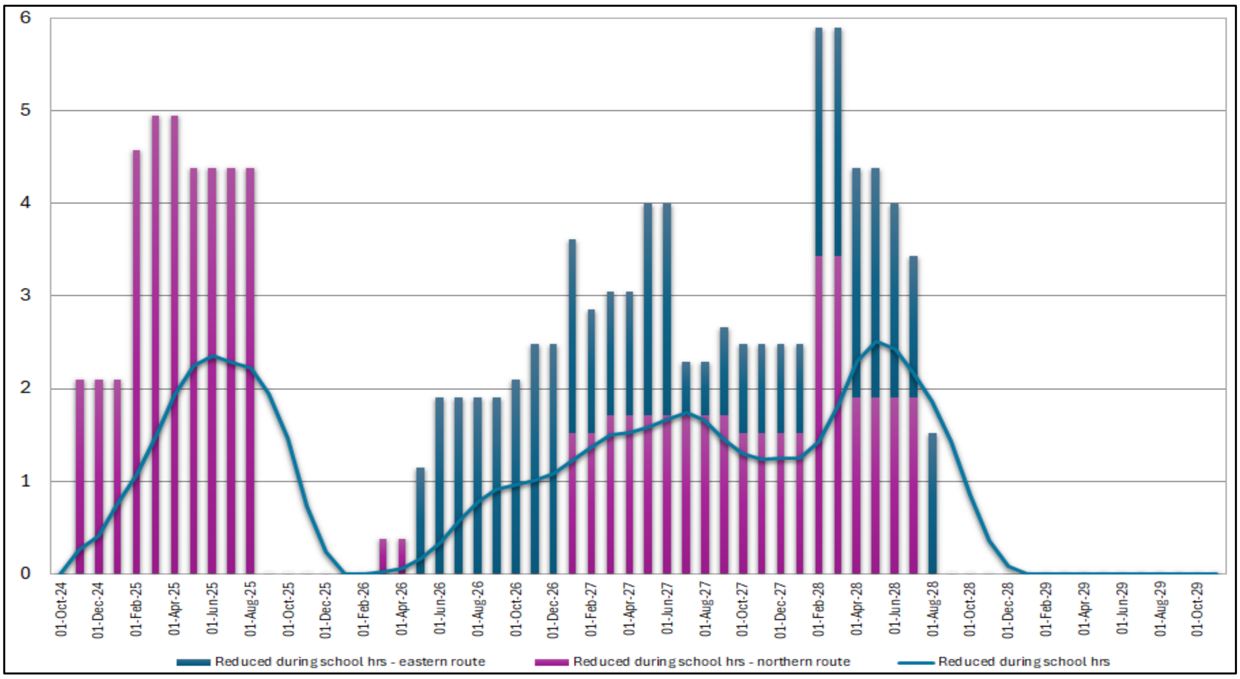


Figure 4–5: Reduced heavy vehicle two-way flows during school peaks

Figure 4–6 shows the peak hour flow for heavy vehicles restricted during school peaks of 18 two-way movements (rounded up to be conservative).

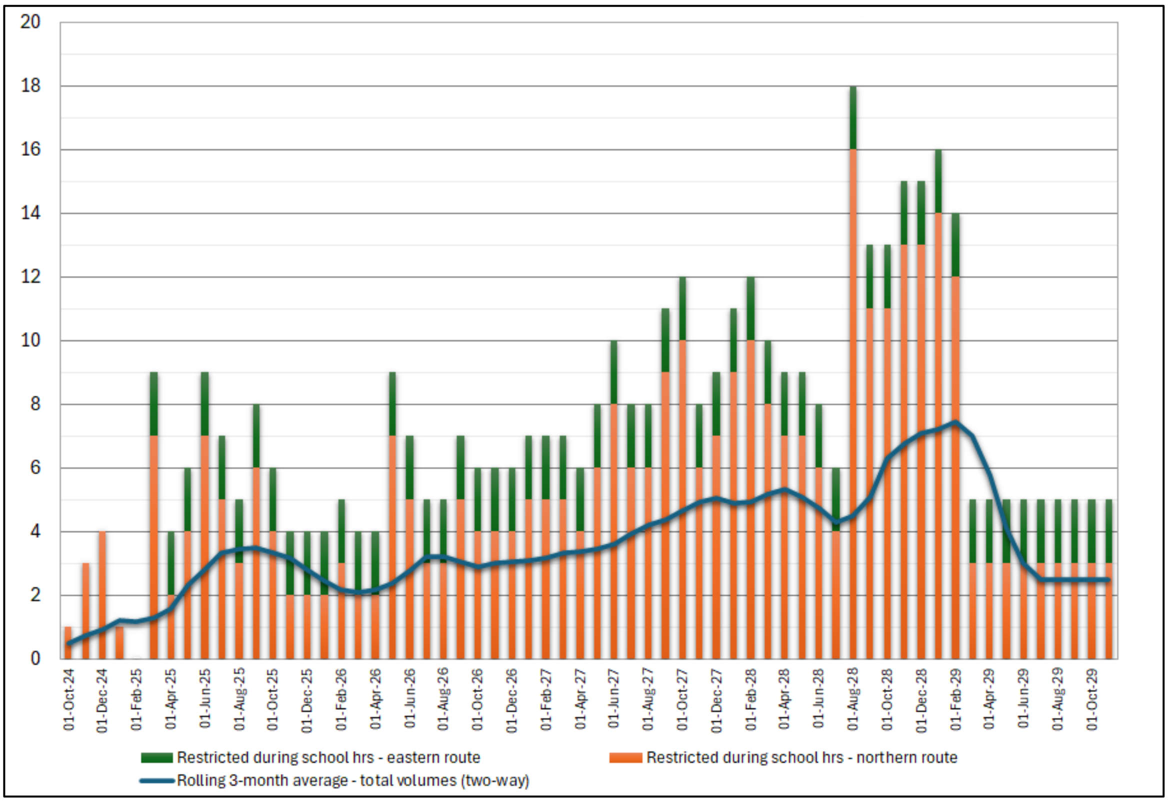


Figure 4–6: Restricted hourly heavy vehicle two-way flows outside school peaks

Figure 4–7 and **Figure 4–8** show the peak hour flow for heavy vehicles two-way movements (rounded up to be conservative) for the eastern and northern routes, respectively.

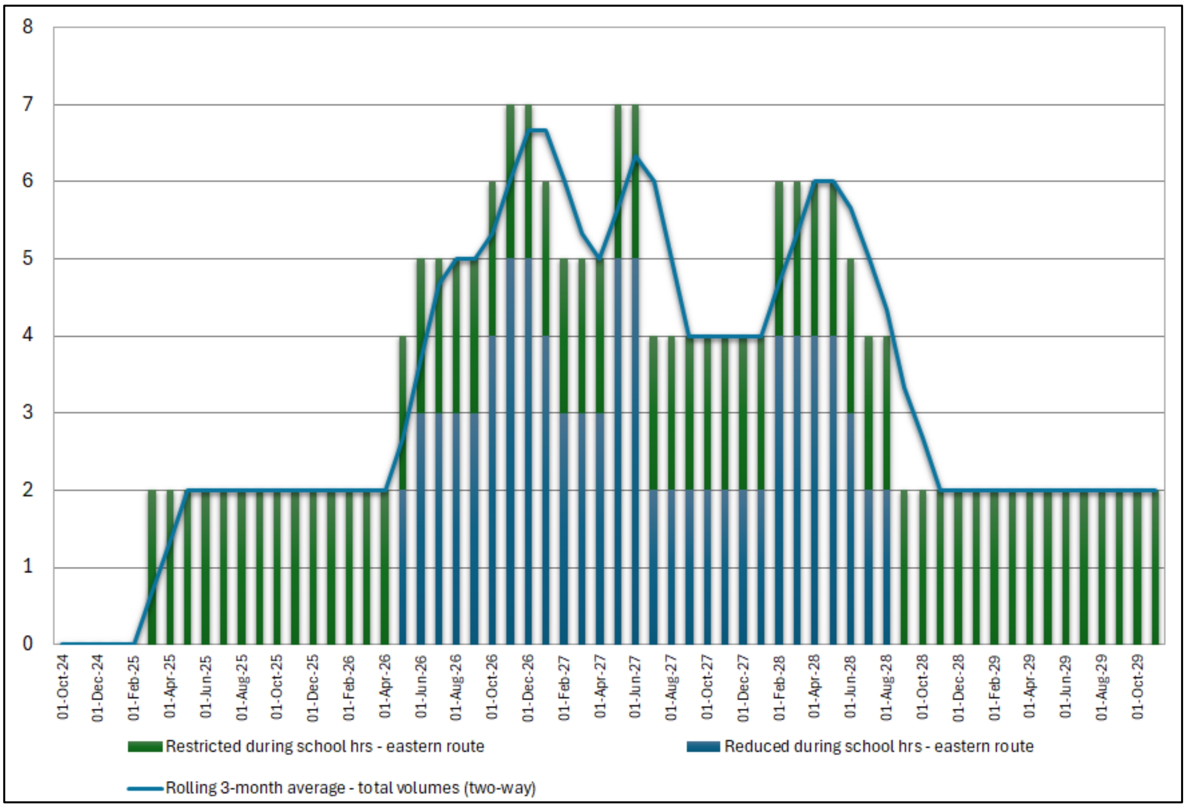


Figure 4–7: Eastern route hourly heavy vehicle two-way flows

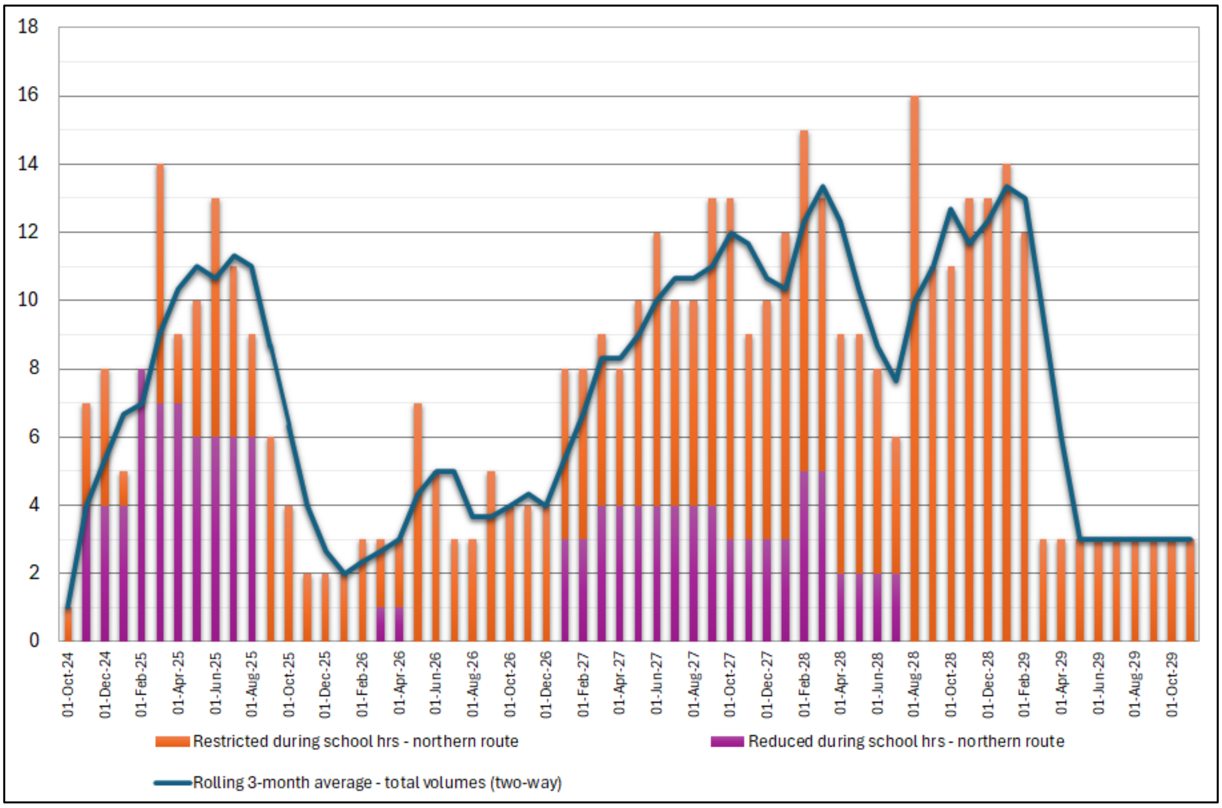


Figure 4–8: Western route hourly heavy vehicle two-way flows

For context, **Figure 4–9** and **Figure 4–10** provide the existing heavy vehicle flows at Elm Street / Lake Macdonald Drive for a rolling hourly and total 6am to 6pm respectively, which shows only 100 heavy vehicles currently turn to or from Lake Macdonald Drive.

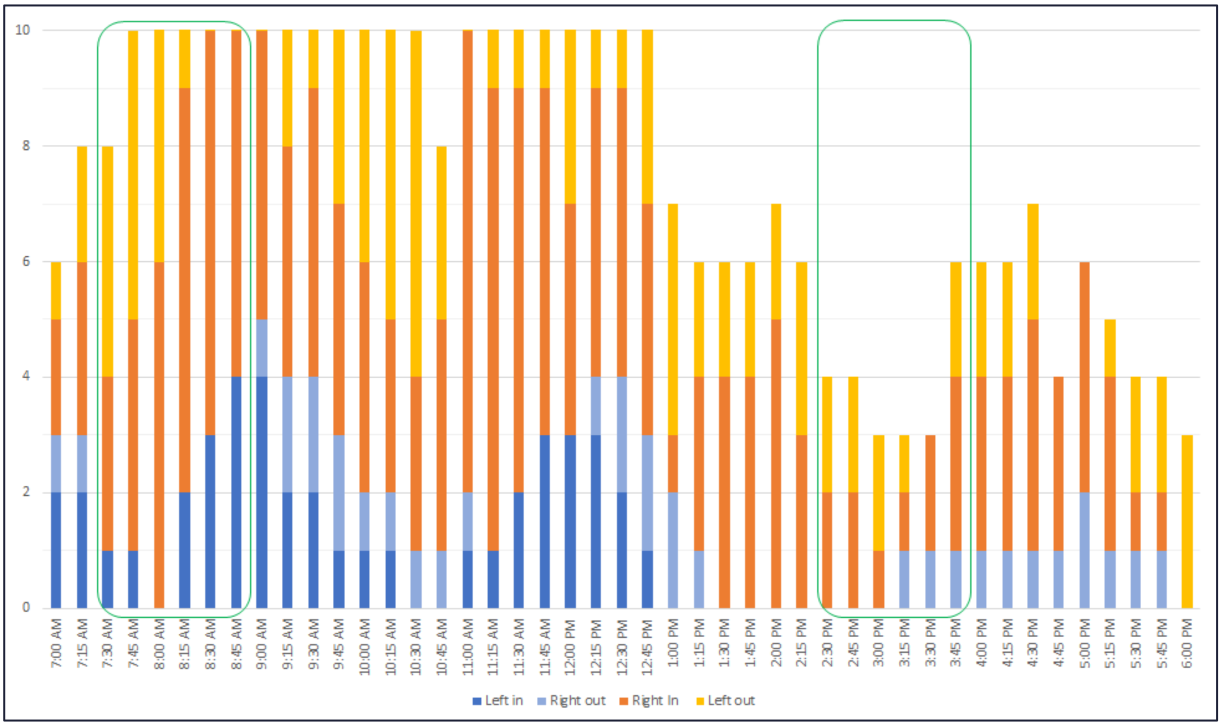


Figure 4–9: Existing heavy vehicle flows at Elm Street / Lake Macdonald Drive – rolling hourly profile

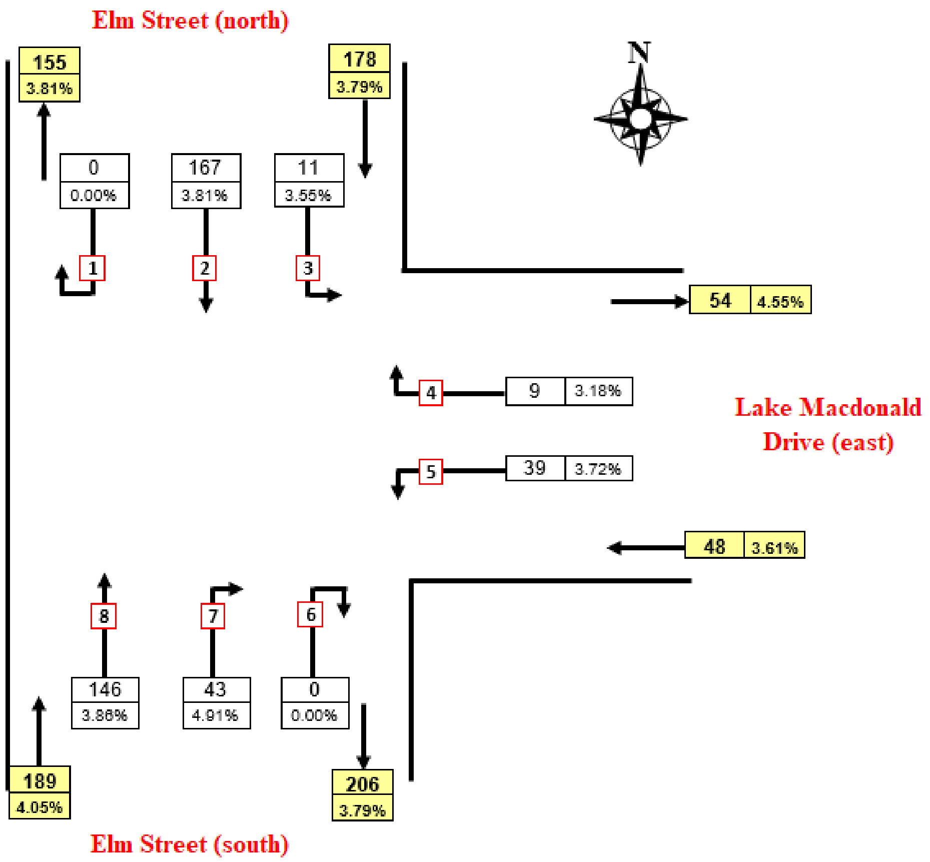


Figure 4–10: Existing Heavy vehicle flows at Elm Street / Lake Macdonald Drive – 6am to 6pm

4.4 Assessment Approach

Based on the above hours and movements for light and heavy vehicle, **Figure 4–11** shows a typical day with one-way traffic flows, noting only heavy vehicles will have two-way flows (i.e., workers will arrive in the morning and depart in the evening).

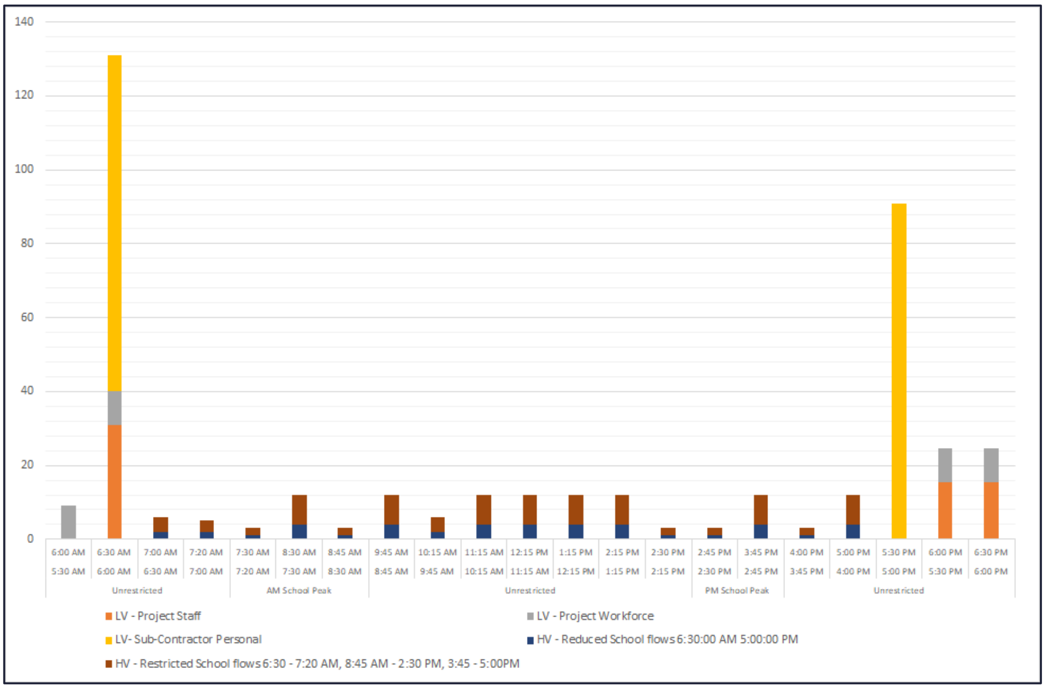


Figure 4–11: Project peak hour assessment

The following peak periods have been assessed for the various

1. AM workers arrival: 6:00 – 6:30 am – noting a 30min assessment
2. AM heavy vehicle: unrestricted flows from 10:15am to 11:15 am
3. PM heavy vehicle: unrestricted flows from 4:00 – 5:00 pm
4. PM workers departure: 5:00 – 6:00 pm.

Note, Elm Street / Myall Street intersection has not been assessed as only light vehicles will travel through it and outside its peak periods as noted in **Section 2.3.1**. Further, Cooroy - Noosa Road / Sivyers Road intersection will only be assessed in the workers arrival and departure assessment as only a peak of 3.5 heavy vehicles (one-way) will travel along Cooroy - Noosa Road and below the 5% assessment trigger.

4.5 SIDRA Modelling

SIDRA intersection (v9.1) has been used to assess the key local intersections with the following outputs:

- Degree of saturation (DoS). This is the ratio of demand to capacity. A DoS of 1.0 or more in theory represents over saturated conditions, but in reality, a lower practical DoS is used. For priority-controlled intersections, a DoS of 0.8 is the desired upper limit; for roundabouts, it is 0.85; and for signals it is 0.90.
- Average delay. This is the average amount of time it takes a vehicle to negotiate an intersection, including the time to negotiate corners and the time stopped in queues or waiting for a green signal. This parameter is the most tangible to drivers.
- Level of service (LoS). This is an alpha-numeric rating of the overall performance of an intersection, ranging from LoS A (very good) to LoS F (very poor). It is directly related to the average delay. The desirable target is generally LoS C or above, but in congested urban environments the realistic target is usually taken to be LoS D. Level of service is not reported for priority-controlled intersections from an overall intersection performance perspective, as major road movements have zero delay, which skews the results.
- 95th percentile back of queue (95% Q). This is the queue length that is not exceeded 95 percent of the time. Ideally, queue lengths should not exceed the turning lane storage or block back into upstream intersections.

4.5.1 SIDRA Model Development and Parameters

SIDRA models (isolated intersection) have been developed of the following intersections to assess the impacts of the construction worker and construction traffic impacts during the peak construction phase of the project in 2028.

1. Elm Street / Lake Macdonald Drive priority intersection: workers AM & PM / heavy vehicle AM and PM.
2. Lake Macdonald Drive / Collwood Road priority intersection: workers AM & PM / heavy vehicle AM and PM
3. Elm Street / Diamond Street priority intersection: workers AM & PM / heavy vehicle AM and PM noting heavy vehicle flows are below trigger threshold.
4. Cooroy - Noosa Road / Sivyers Road priority intersection: workers AM & PM / heavy vehicle AM and PM noting heavy vehicle flows are below trigger threshold.

The SIDRA models of the analysed intersections have been developed as follows:

- All measurements taken from google earth imagery.
- Model calibration parameters have adopted default saturation flow rates (1,950 through car units/hr (tcu/hr)). Intersection gap times adjusted to traffic lane compositions provided.
- Lake Macdonald Drive grades up to Elm Street. This has been inferred to be an approximate 4% gradient based on a level change of approximately 2.75m over 68m. This has been adopted in the SIDRA modelling of this intersection.
- Most models have not been validated to queuing as part of the traffic surveys as flows were low result in minimal queues.

- Intersection validation was based on general review of videos and observations from recent site inspections which found results reflective of the SIDRA base (without project) scenario with typical parameters i.e. gap acceptances.
- Elm Street / Diamond Street was reviewed in more detail with regards to produced traffic queues and adopted of appropriate gap and headway times for vehicles exiting and entering Diamond Street. Video footage was reviewed, and gap times adjusted with review to the SIDRA / Austroads times which are applicable for the road configuration and observed operations. This resulted in a modelled 6 sec gap and 3.5 sec headway for vehicles exiting and turning right from Diamond Street, with other gap / headway times adopted as per a two-lane give-way road.

4.5.2 Traffic Demands

The project is expected to be constructed over a 4-year period, pending approvals from March 2025 to March 2029. For the purposes of developing the most conservative case traffic volume impacts, and the nature of the local area traffic a 1.5% growth rates have been applied to the base traffic survey information to mid-2028 as the peak construction.

The base with development traffic demands is provided in the following drawings in **Appendix H1** and **Appendix H2** for base without Project and with without Project scenarios respectively:

- 30035740_TFD_005 – 2028 Base without Project (Worker LVs) AM (6:00 - 7:00am) and PM (5:00 - 6:00pm) peak periods
- 30035740_TFD_006 – 2023 Base with Development (Construction HVs) AM (10:15 -11:15am) and PM (4:00 - 5:00pm) peak periods
- 30035740_TFD_007 – 2028 Base with Development (Worker LVs) AM (6:00 - 7:00am) and PM (5:00 - 6:00pm) peak periods
- 30035740_TFD_008 – 2028 Base with Development (Construction HVs) AM (10:15 -11:15am) and PM (4:30 - 5:00pm) peak periods.

4.5.3 Intersection analysis

The following tables provide summary SIDRA results for each intersection for 2028 for the base (without Project) and with Project scenarios for all four peaks assessed. Full SIDRA outputs provided in **Appendix G.**

In summary the intersections are predicted to operate within capacity metrics with little or no traffic delays or queues.

It is noted that the Diamond Street (E) approach operates at a LoS E during the 2028 Base (without Project) Scenario (10:15 - 11:15am only) with delays close to reaching LoS F levels, which are triggered with the Project Scenario. It should be noted that during this assessment period only two heavy vehicle trips are predicted to be moving through the intersection (to/from the site). It is therefore considered that project related trips do not cause a detrimental operational outcome which requires mitigation measures at this intersection.

Table 4–2: Lake MacDonald Drive / Collwood Road - 2028 Light Vehicle SIDRA Summary Results

Approach	Lane configuration	AM – 6:00 – 7:00am				PM 5:00 – 6:00pm			
		95% Q	DoS	Avg Delay (secs)	LoS	95% Q	DoS	Avg Delay (secs)	LoS
Base (without Project) Scenario									
South - Lake MacDonald Drive	Lane 1 - Ahead and Right Turn	0	0.01	1.6	LOS A	0	0.04	0.1	LOS A
	Approach	0	0.01	1.6	NA	0	0.04	0.1	NA
East - Collwood Road	Lane 1 - Left and Right Turn	0	0.00	0.5	LOS A	0	0.00	0.5	LOS A
	Approach	0	0.00	0.5	LOS A	0	0.00	0.5	LOS A
North - Lake MacDonald Drive	Lane 1 - Ahead and Left Turn	0	0.04	2.1	LOS A	0	0.02	2.2	LOS A
	Approach	0	0.04	2.1	NA	0	0.02	2.2	NA
Overall		**0**	**0.04**	**2.0**	**NA**	**0**	**0.04**	**0.7**	**NA**
With Project Scenario									
South - Lake MacDonald Drive	Lane 1 - Ahead and Right Turn	2	0.07	5.4	LOS A	0	0.04	0.1	LOS A
	Approach	2	0.07	5.4	NA	0	0.04	0.1	NA
East - Collwood Road	Lane 1 - Left and Right Turn	0	0.00	0.6	LOS A	2	0.05	0.1	LOS A
	Approach	0	0.00	0.6	LOS A	2	0.05	0.1	LOS A
North - Lake MacDonald Drive	Lane 1 - Ahead and Left Turn	0	0.04	2.1	LOS A	0	0.02	2.2	LOS A
	Approach	0	0.04	2.1	NA	0	0.02	2.2	NA
Overall		**2**	**0.07**	**4.0**	**NA**	**2**	**0.05**	**0.4**	**NA**

Table 4–3: Lake MacDonald Drive / Collwood Road - 2028 Heavy Vehicle SIDRA Summary Results

Approach	Lane configuration	AM – 10:15 – 11:15am				PM – 4:00 – 5:00pm			
		95% Q	DoS	Avg Delay (secs)	LoS	95% Q	DoS	Avg Delay (secs)	LoS
Base (without Project) Scenario									
South - Lake MacDonald Drive	Lane 1 - Ahead and Right Turn	0	0.03	0.1	LOS A	0	0.06	0.1	LOS A
	Approach	0	0.03	0.1	NA	0	0.06	0.1	NA
East - Collwood Road	Lane 1 - Left and Right Turn	0	0.00	0.5	LOS A	0	0.00	0.5	LOS A
	Approach	0	0.00	0.5	LOS A	0	0.00	0.5	LOS A
North - Lake MacDonald Drive	Lane 1 - Ahead and Left Turn	0	0.03	2.1	LOS A	0	0.03	2.1	LOS A
	Approach	0	0.03	2.1	NA	0	0.03	2.1	NA
Overall		**0**	**0.03**	**1.1**	**NA**	**0**	**0.06**	**0.7**	**NA**
With Project Scenario									
South - Lake MacDonald Drive	Lane 1 - Ahead and Right Turn	0	0.03	0.1	LOS A	0	0.06	0.1	LOS A
	Approach	0	0.03	0.1	NA	0	0.06	0.1	NA
East - Collwood Road	Lane 1 - Left and Right Turn	0	0.00	0.5	LOS A	0	0.00	0.5	LOS A
	Approach	0	0.00	0.5	LOS A	0	0.00	0.5	LOS A
North - Lake MacDonald Drive	Lane 1 - Ahead and Left Turn	0	0.03	2.1	LOS A	0	0.03	2.1	LOS A
	Approach	0	0.03	2.1	NA	0	0.03	2.1	NA
Overall		**0**	**0.03**	**1.1**	**NA**	**0**	**0.06**	**0.7**	**NA**

Table 4–4: Elm Street / Lake MacDonald Drive - 2028 Light Vehicle SIDRA Summary Results

Approach	Lane configuration	AM – 6:00 – 7:00am				PM 5:00 – 6:00pm			
		95% Q	DoS	Avg Delay (secs)	LoS	95% Q	DoS	Avg Delay (secs)	LoS
Base (without Project) Scenario									
South - Elm Street	Lane 1 - Ahead Lane	0	0.08	0.0	LOS A	0	0.22	0.1	LOS A
	Lane 2 - Short Right Turn Lane	1	0.03	7.5	LOS A	3	0.09	6.7	LOS A
	Approach	1	0.08	1.1	NA	3	0.22	1.3	NA
East - Lake MacDonald Drive	Lane 1 - Left and Right Turn	3	0.11	8.5	LOS A	4	0.14	10.0	LOS B
	Approach	3	0.11	8.5	LOS A	4	0.14	10.0	LOS B
North - Lake MacDonald Drive	Lane 1 - Short Left Turn Lane	0	0.01	5.6	LOS A	0	0.01	5.5	LOS A
	Lane 2 - Ahead Lane	0	0.19	0.1	LOS A	0	0.13	0.0	LOS A
	Approach	0	0.19	0.4	NA	0	0.13	0.5	NA
Overall		**3**	**0.19**	**1.6**	**NA**	**4**	**0.22**	**1.9**	**NA**
With Project Scenario									
South - Elm Street	Lane 1 - Ahead Lane	0	0.08	0.0	LOS A	0	0.22	0.1	LOS A
	Lane 2 - Short Right Turn Lane	3	0.11	7.6	LOS A	3	0.09	6.7	LOS A
	Approach	3	0.11	3.1	NA	3	0.22	1.3	NA
East - Lake MacDonald Drive	Lane 1 - Left and Right Turn	3	0.11	8.8	LOS A	9	0.28	10.4	LOS B
	Approach	3	0.11	8.8	LOS A	9	0.28	10.4	LOS B
North - Lake MacDonald Drive	Lane 1 - Short Left Turn Lane	0	0.03	5.6	LOS A	0	0.01	5.5	LOS A
	Lane 2 - Ahead Lane	0	0.19	0.1	LOS A	0	0.13	0.0	LOS A
	Approach	0	0.19	0.7	NA	0	0.13	0.5	NA
Overall		**3**	**0.19**	**2.4**	**NA**	**9**	**0.28**	**2.7**	**NA**

Table 4–5: Elm Street / Lake MacDonald Drive - 2028 Heavy Vehicle SIDRA Summary Results

Approach	Lane configuration	AM – 10:15 – 11:15am				PM – 4:00 – 5:00pm			
		95% Q	DoS	Avg Delay (secs)	LoS	95% Q	DoS	Avg Delay (secs)	LoS
Base (without Project) Scenario									
South - Elm Street	Lane 1 - Ahead Lane	0	0.18	0.0	LOS A	0	0.24	0.1	LOS A
	Lane 2 - Short Right Turn Lane	3	0.10	8.0	LOS A	4	0.15	7.7	LOS A
	Approach	3	0.18	1.6	NA	4	0.24	1.9	NA
East - Lake MacDonald Drive	Lane 1 - Left and Right Turn	6	0.20	10.3	LOS B	10	0.30	13.6	LOS B
	Approach	6	0.20	10.3	LOS B	10	0.30	13.6	LOS B
North - Lake MacDonald Drive	Lane 1 - Short Left Turn Lane	0	0.01	5.6	LOS A	0	0.02	5.5	LOS A
	Lane 2 - Ahead Lane	0	0.20	0.1	LOS A	0	0.20	0.1	LOS A
	Approach	0	0.20	0.3	NA	0	0.20	0.5	NA
Overall		**6**	**0.20**	**2.2**	**NA**	**10**	**0.30**	**2.8**	**NA**
With Project Scenario									
South - Elm Street	Lane 1 - Ahead Lane	0	0.18	0.0	LOS A	0	0.24	0.1	LOS A
	Lane 2 - Short Right Turn Lane	3	0.10	8.1	LOS A	5	0.16	7.8	LOS A
	Approach	3	0.18	1.7	NA	5	0.24	1.9	NA
East - Lake MacDonald Drive	Lane 1 - Left and Right Turn	9	0.28	13.5	LOS B	16	0.43	19.5	LOS C
	Approach	9	0.28	13.5	LOS B	16	0.43	19.5	LOS C
North - Lake MacDonald Drive	Lane 1 - Short Left Turn Lane	0	0.02	5.9	LOS A	0	0.03	5.8	LOS A
	Lane 2 - Ahead Lane	0	0.20	0.1	LOS A	0	0.20	0.1	LOS A
	Approach	0	0.20	0.5	NA	0	0.20	0.6	NA
Overall		**9**	**0.28**	**2.7**	**NA**	**16**	**0.43**	**3.7**	**NA**

Table 4–6: Cooroy - Noosa Road / Sivyers Road- 2028 Light Vehicle SIDRA Summary Results

Approach	Lane configuration	AM – 6:00 – 7:00am				PM 5:00 – 6:00pm			
		95% Q	DoS	Avg Delay (secs)	LoS	95% Q	DoS	Avg Delay (secs)	LoS
Base (without Project) Scenario									
East - Cooroy - Noosa Road	Lane 1 - Ahead Lane	0	0.08	0.0	LOS A	0	0.22	0.1	LOS A
	Lane 2 - Short Right Turn Lane	1	0.03	7.5	LOS A	3	0.09	6.7	LOS A
	Approach	1	0.08	1.1	NA	3	0.22	1.3	NA
North - Sivyers Road	Lane 1 - Left and Right Turn	3	0.11	8.5	LOS A	4	0.14	10.0	LOS B
	Approach	3	0.11	8.5	LOS A	4	0.14	10.0	LOS B
West - Cooroy - Noosa Road	Lane 1 - Short Left Turn Lane	0	0.01	5.6	LOS A	0	0.01	5.5	LOS A
	Lane 2 - Ahead Lane	0	0.19	0.1	LOS A	0	0.13	0.0	LOS A
	Approach	0	0.19	0.4	NA	0	0.13	0.5	NA
Overall		**3**	**0.19**	**1.6**	**NA**	**4**	**0.22**	**1.9**	**NA**
With Project Scenario									
East - Cooroy - Noosa Road	Lane 1 - Ahead Lane	0	0.16	0.0	LOS A	0	0.28	0.1	LOS A
	Lane 2 - Short Right Turn Lane	1	0.03	8.9	LOS A	1	0.02	8.8	LOS A
	Approach	1	0.16	0.7	NA	1	0.28	0.4	NA
North - Sivyers Road	Lane 1 - Left and Right Turn	2	0.06	12.9	LOS B	3	0.11	12.3	LOS B
	Approach	2	0.06	12.9	LOS B	3	0.11	12.3	LOS B
West - Cooroy - Noosa Road	Lane 1 - Short Left Turn Lane	0	0.00	6.9	LOS A	0	0.01	6.9	LOS A
	Lane 2 - Ahead Lane	0	0.24	0.0	LOS A	0	0.21	0.0	LOS A
	Approach	0	0.24	0.1	NA	0	0.21	0.2	NA
Overall		**2**	**0.24**	**0.8**	**NA**	**3**	**0.28**	**0.9**	**NA**

Table 4–7: Cooroy - Noosa Road / Sivyers Road - 2028 Heavy Vehicle SIDRA Summary Results

Approach	Lane configuration	AM – 10:15 – 11:15am				PM – 4:00 – 5:00pm			
		95% Q	DoS	Avg Delay (secs)	LoS	95% Q	DoS	Avg Delay (secs)	LoS
Base (without Project) Scenario									
East - Cooroy - Noosa Road	Lane 1 - Ahead Lane	0	0.29	0.1	LOS A	0	0.30	0.1	LOS A
	Lane 2 - Short Right Turn Lane	1	0.03	10.2	LOS B	1	0.02	9.3	LOS A
	Approach	1	0.29	0.4	NA	1	0.30	0.3	NA
North - Sivyers Road	Lane 1 - Left and Right Turn	3	0.12	21.6	LOS C	2	0.09	17.3	LOS C
	Approach	3	0.12	21.6	LOS C	2	0.09	17.3	LOS C
West - Cooroy - Noosa Road	Lane 1 - Short Left Turn Lane	0	0.01	7.0	LOS A	0	0.01	6.9	LOS A
	Lane 2 - Ahead Lane	0	0.32	0.1	LOS A	0	0.26	0.0	LOS A
	Approach	0	0.32	0.3	NA	0	0.26	0.4	NA
Overall		**3**	**0.32**	**0.8**	**NA**	**2**	**0.30**	**0.7**	**NA**
With Project Scenario									
East - Cooroy - Noosa Road	Lane 1 - Ahead Lane	0	0.29	0.1	LOS A	0	0.30	0.1	LOS A
	Lane 2 - Short Right Turn Lane	1	0.03	10.2	LOS B	1	0.02	9.3	LOS A
	Approach	1	0.29	0.4	NA	1	0.30	0.3	NA
North - Sivyers Road	Lane 1 - Left and Right Turn	3	0.12	21.7	LOS C	2	0.09	17.4	LOS C
	Approach	3	0.12	21.7	LOS C	2	0.09	17.4	LOS C
West - Cooroy - Noosa Road	Lane 1 - Short Left Turn Lane	0	0.01	7.0	LOS A	0	0.01	6.9	LOS A
	Lane 2 - Ahead Lane	0	0.32	0.1	LOS A	0	0.26	0.0	LOS A
	Approach	0	0.32	0.3	NA	0	0.26	0.4	NA
Overall		**3**	**0.32**	**0.8**	**NA**	**2**	**0.30**	**0.8**	**NA**

Table 4–8: Elm Street / Diamond Street - 2028 Light Vehicle SIDRA Summary Results

Approach	Lane configuration	AM – 6:00 – 7:00am				PM 5:00 – 6:00pm			
		95% Q	DoS	Avg Delay (secs)	LoS	95% Q	DoS	Avg Delay (secs)	LoS
Base (without Project) Scenario									
South - Elm Street	Lane 1 - Ahead and Left Turn Lane	0	0.06	0.2	LOS A	0	0.16	0.1	LOS A
	Lane 2 - Short Right Turn Lane	6	0.20	7.2	LOS A	8	0.27	6.9	LOS A
	Approach	6	0.20	4.4	NA	8	0.27	3.1	NA
East - Diamond Street	Lane 1 - Short Left Turn Lane	5	0.15	5.6	LOS A	7	0.23	5.6	LOS A
	Lane 2 - Ahead and Right Turn Lane	4	0.15	14.9	LOS B	17	0.50	26.0	LOS D
	Approach	5	0.15	7.8	LOS A	17	0.50	12.1	LOS B
North - Elm Street	Lane 1 - Short Left Turn Lane	0	0.12	4.6	LOS A	0	0.09	4.6	LOS A
	Lane 2 - Ahead and Right Turn Lane	0	0.13	0.1	LOS A	0	0.13	0.1	LOS A
	Approach	0	0.13	2.2	NA	0	0.13	1.8	NA
West - Car Park Access	Lane 1 - All Movement	0	0.01	7.5	LOS A	1	0.02	11.9	LOS B
	Approach	0	0.01	7.5	LOS A	1	0.02	11.9	LOS B
Overall		**6**	**0.20**	**4.2**	**NA**	**17**	**0.50**	**5.5**	**NA**
With Project Scenario									
South - Elm Street	Lane 1 - Ahead and Left Turn Lane	0	0.10	0.1	LOS A	0	0.16	0.1	LOS A
	Lane 2 - Short Right Turn Lane	6	0.20	7.2	LOS A	9	0.29	7.6	LOS A
	Approach	6	0.20	3.4	NA	9	0.29	3.4	NA
East - Diamond Street	Lane 1 - Short Left Turn Lane	5	0.15	5.6	LOS A	8	0.24	6.0	LOS A
	Lane 2 - Ahead and Right Turn Lane	4	0.17	16.3	LOS C	19	0.57	30.7	LOS D
	Approach	5	0.17	8.2	LOS A	19	0.57	13.8	LOS B
North - Elm Street	Lane 1 - Short Left Turn Lane	0	0.12	4.6	LOS A	0	0.09	4.6	LOS A
	Lane 2 - Ahead and Right Turn Lane	0	0.13	0.1	LOS A	0	0.17	0.0	LOS A
	Approach	0	0.13	2.2	NA	0	0.17	1.5	NA
West - Car Park Access	Lane 1 - All Movement	0	0.01	8.3	LOS A	1	0.02	13.2	LOS B
	Approach	0	0.01	8.3	LOS A	1	0.02	13.2	LOS B
Overall		**6**	**0.20**	**4.0**	**NA**	**19**	**0.57**	**5.9**	**NA**

Table 4–9: Elm Street / Diamond Street - 2028 Heavy Vehicle SIDRA Summary Results

Approach	Lane configuration	AM – 10:15 – 11:15am				PM – 4:00 – 5:00pm			
		95% Q	DoS	Avg Delay (secs)	LoS	95% Q	DoS	Avg Delay (secs)	LoS
Base (without Project) Scenario									
South - Elm Street	Lane 1 - Ahead and Left Turn Lane	0	0.17	0.1	LOS A	0	0.18	0.1	LOS A
	Lane 2 - Short Right Turn Lane	19	0.45	10.0	LOS B	16	0.39	8.8	LOS A
	Approach	19	0.45	5.1	NA	16	0.39	4.2	NA
East - Diamond Street	Lane 1 - Short Left Turn Lane	10	0.29	6.4	LOS A	8	0.25	6.0	LOS A
	Lane 2 - Ahead and Right Turn Lane	26	0.74	49.2	LOS E	19	0.59	36.0	LOS E
	Approach	26	0.74	18.3	LOS C	19	0.59	14.3	LOS B
North - Elm Street	Lane 1 - Short Left Turn Lane	0	0.13	4.7	LOS A	0	0.11	4.6	LOS A
	Lane 2 - Ahead and Right Turn Lane	0	0.19	0.0	LOS A	0	0.17	0.0	LOS A
	Approach	0	0.19	1.8	NA	0	0.17	1.8	NA
West - Car Park Access	Lane 1 - All Movement	1	0.02	16.7	LOS C	1	0.03	14.9	LOS B
	Approach	1	0.02	16.7	LOS C	1	0.03	14.9	LOS B
Overall		**26**	**0.74**	**7.5**	**NA**	**19**	**0.59**	**6.1**	**NA**
With Project Scenario									
South - Elm Street	Lane 1 - Ahead and Left Turn Lane	0	0.17	0.1	LOS A	0	0.18	0.1	LOS A
	Lane 2 - Short Right Turn Lane	19	0.45	10.1	LOS B	16	0.39	8.8	LOS A
	Approach	19	0.45	5.1	NA	16	0.39	4.2	NA
East - Diamond Street	Lane 1 - Short Left Turn Lane	10	0.29	6.4	LOS A	8	0.25	6.0	LOS A
	Lane 2 - Ahead and Right Turn Lane	28	0.76	51.7	LOS F	19	0.61	37.4	LOS E
	Approach	28	0.76	19.1	LOS C	19	0.61	14.7	LOS B
North - Elm Street	Lane 1 - Short Left Turn Lane	0	0.13	4.7	LOS A	0	0.11	4.6	LOS A
	Lane 2 - Ahead and Right Turn Lane	0	0.19	0.0	LOS A	0	0.17	0.0	LOS A
	Approach	0	0.19	1.8	NA	0	0.17	1.8	NA

Approach	Lane configuration	AM – 10:15 – 11:15am				PM – 4:00 – 5:00pm			
		95% Q	DoS	Avg Delay (secs)	LoS	95% Q	DoS	Avg Delay (secs)	LoS
West - Car Park Access	Lane 1 - All Movement	1	0.02	16.7	LOS C	1	0.03	14.9	LOS B
	Approach	1	0.02	16.7	LOS C	1	0.03	14.9	LOS B
Overall		**28**	**0.76**	**7.7**	**NA**	**19**	**0.61**	**6.2**	**NA**

5. Swept Paths and Turn Warrants

5.1 Swept Paths

5.1.1 Lake Macdonald Drive / Collwood Road

The following 'design vehicle' swept paths were assessed, and results are included in **Appendix H-1**:

- Semi-trailer right in and left out
- Truck and Dog in and left out.

The assessment for semi-trailers shows both the right turn entering and left turn exiting both cross over the centreline. Truck and dog heavy vehicles will have sufficient overset to each other up to the western side of the no public access hatching.

As such, exiting vehicles will need to be held on site and give way to entering vehicles by traffic controllers.

5.1.2 Lake Macdonald Drive / Handstand Area 3

The following 'design vehicle' swept paths were assessed, and results are included in **Appendix H-2**:

- Truck and Dog in and left out.

Due to the limited area for manoeuvring, this area will only be accessed by truck and dog heavy vehicles. Also, the access width has been designed for a single vehicle to enter or exit at once to reduce the impact of vegetation clearing (due to the physical constraint of the left embankment).

As such, exiting vehicles will need to be held on site and give way to entering vehicles by traffic controllers.

5.1.3 Elm Street / Lake Macdonald Drive

The following 'design vehicle' swept paths were assessed, and results are included in **Appendix H-3**

- Semi left in (straddling the two lanes) and right out.
- Semi right in and left out.
- Truck and Dog left in and right out.
- Truck and Dog in and left out.

The assessment for semi-trailers shows both the left turn in from Elm Street and right turn from Lake Macdonald Road cross over the Lake Macdonald Road centreline. Further, semi-trailers turning left also cross over the road centreline on exiting. This is an existing deficiency, however, there are limited existing heavy vehicles undertaking these manoeuvres.

It is noted that the Lake Macdonald Drive is a designated 25/26m B-double and PBS Level 2A route terminating at the disused Quarry (access 295m northeast of Swift Drive). This route continues on Elm Street south of Lake Macdonald Drive onto Myall Street to the Bruce Highway exit 230 interchange.

In the Early stage between November 2024 to 28 February 2025, stop/go traffic management is proposed due to the limited planned semi-trailer numbers.

Prior to the increase of semi-trailers, this intersection will need to be upgraded to facilitate the safe movement of semi-trailers without impacting the road centreline and oncoming traffic.

Any additional provisions to allow for safe manoeuvring for 25/26m B-double and PBS Level 2A should be the responsibility of the relevant development or the State.

5.2 Turn Warrants

A turn warrants assessment has been undertaken at Lake Macdonald Drive / Collwood Road intersection for construction traffic conditions for the purpose of the assessment is to identify whether existing intersections meet current traffic conditions.

These assessments have been undertaken in accordance with:

- TMR Supplement to Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (November 2021).
- Traffic volume presented within Section 7.6.

Figure 5–1 illustrates the turn warrant assessment for Lake Macdonald Drive / Collwood Road for light vehicles AM peak and the range for heavy vehicles. Whilst a BAR may be installed, it is not considered required as the Project will install a works zone with a speed reduction of 40km/h and traffic controllers to control manage traffic flow and safety of all road users. Further, the following have also been considered and thus a BAR is not recommended:

- Additional road width will impact the western verge with will be required for the detour of walkers on the Noosa Trail Network.
- Lake Macdonald Drive will need to be reduced to a one way arrange for several months during the demolition and re-construction of the left embankment.

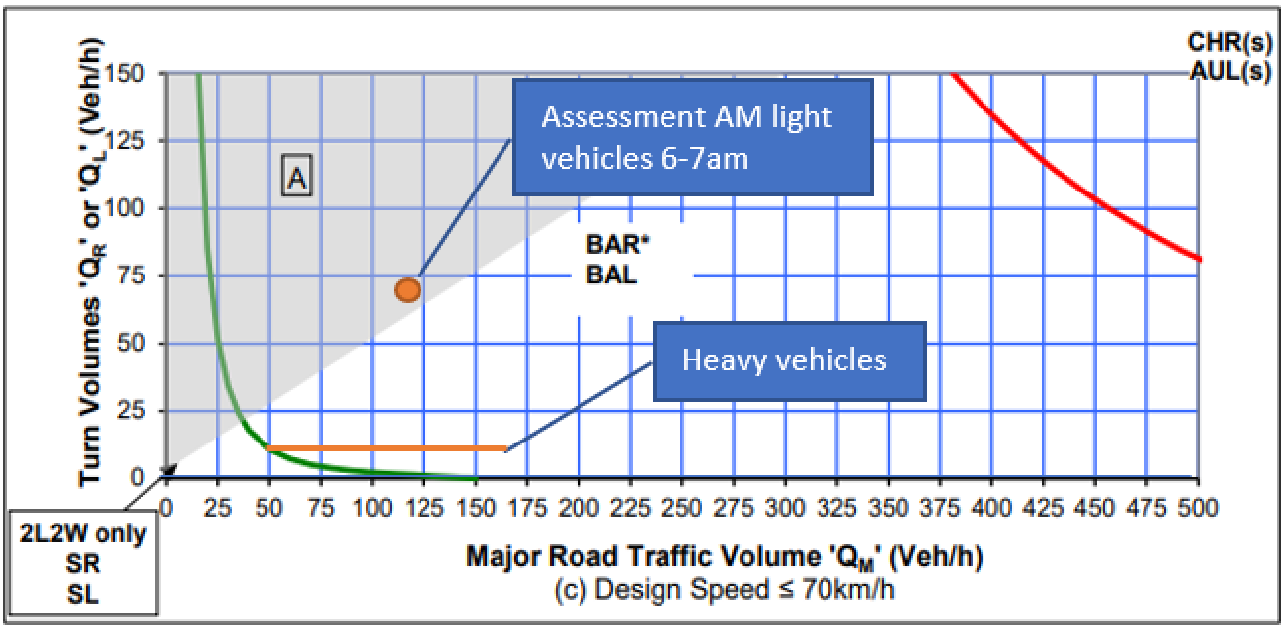


Figure 5–1: Lake Macdonald Drive / Collwood Road – Turn Warrant Assessment

6. Site Access Review and Mitigation

6.1 Elm Street / Lake Macdonald Drive

Following noted from a review of the Elm Street and Lake Macdonald Drive Priority Intersection:

- Intersection capacity: Performs within capacity under the assessed forecast traffic demands, with spare capacity.
- Intersection arrangement / turning lanes: Dedicated left and right turn traffic lanes are provided as part of the existing intersection arrangement. A bicycle lane is highlighted within the left turn traffic lane which is worn and needs to be re-painted.
- Safe Intersection Sight Distance (SISD): Potentially not achieved for cars although may be acceptable for trucks with increased object height criteria.
- Accessibility (Swept path): Semi-trailers cross over the centreline on Lake Macdonald Road. This is an existing deficiency, however, there are limited existing heavy vehicles undertaking these manoeuvres. Semi-trailers turning left into Lake Macdonald Road will need to undertake this movement by straddling the through and left turn lanes at low speed which has the risk of side swiping either other turning vehicles or passing cyclists if they are not aware / paying attention to these potential movements.
- Other:
  - Larger vehicles when propped up at the intersection will have to do so via Lake Macdonald Drive approach which is at a grade (inferred at approx. 4%), there is a risk of heavy vehicles rolling backwards, or exiting the intersection at a slow speed.
  - Larger vehicles when propped up at the intersection via Lake Macdonald Drive will block the uncontrolled pedestrian crossing. There is a risk of pedestrians crossing at the rear of the heavy vehicle and being struck by entering traffic whose visibility will be obscured.
- Potential mitigation measures include:
  - Approaching vehicles will need to be held on Lake Macdonald Road by traffic controllers for semi-trailers until permanent upgrade completed.
  - Kerb realignment to permit design vehicle movements via designated traffic lanes.
  - Warning signage of moving construction vehicles through the intersection.
  - Driver awareness / training.
  - Reduced speed limits through the intersection / approaches to 40km/h at all times during the construction phase, noting a school zone with a 40km/h speed limit between 7 -9 am and 2 -4 pm existing on Elm Street.

6.2 Lake Macdonald Drive / Collwood Road

Following noted from a review of the Lake Macdonald Drive and Collwood Road Priority Intersection:

- Intersection capacity: Performs within capacity under the assessed forecast traffic demands, with spare capacity.
- Intersection arrangement / turning lanes: Based on the very low traffic volumes no dedicated turning lanes are deemed to be warranted.
- Safe Intersection Sight Distance (SISD): No issue southbound with posted speed of 60km/h. Posted speed to the north is 80km/h directly north of this intersection and approach speed should be reduced.
- Accessibility (Swept path checks): Semi-trailers swept paths shows both the right turn entering and left turn exiting both cross over the centreline. Truck and dog heavy vehicles will have sufficient overset to each other up to the western side of the no public access hatching.
- Potential mitigation measures include:

  - Exiting vehicles will need to be held on site and give way to entering vehicles by traffic controllers Warning signage of moving construction vehicles through the intersection.
  - Driver awareness / training.
  - Reduced speed limits through the intersection / approaches to 40km/h at all times during the construction phase.

6.3 Elm Street / Diamond Street

Following noted from a review of the Lake Macdonald Drive and Collwood Road Priority Intersection:

- Intersection capacity: The right turn on Diamond Street has a high delay and approaching acceptable limits.
- Intersection arrangement / turning lanes: Elm Street right turn lane (southern leg) and left turn (northern leg) have dedicated short turn lanes. Diamond Street left turn has a dedicated short turn lane.
- Safe Intersection Sight Distance (SISD): The Elm Street left turn (northern leg) obstructs the view of southbound through movements due to the slight bend on the northern leg. This impacts the gap acceptance and thus the right turn movement with a high delay.
- Accessibility (Swept path checks): not completed as no change to typical vehicles proposed. Semi-trailers and rigid heavies are existing permitted vehicles.
- Potential mitigation measures include:
  - TMR to consider upgrade with left slip turn on Elm Street (northern leg) or to a roundabout or signalised intersection.
  - Driver awareness / training.

6.4 Cooroy - Noosa Road / Sivyers Road

Following noted from a review of the Cooroy - Noosa Road / Sivyers Road Priority Intersection:

- Intersection capacity: Performs within capacity under the assessed forecast traffic demands, with spare capacity.
- Intersection arrangement / turning lanes: Dedicated left and right turn traffic lanes are provided as part of the intersection arrangement.
- Safe Intersection Sight Distance (SISD): Visibility to the west may be impeded by street/signs, road barrier and the road alignment and may require further review. In addition, the vehicles turning left in can also present a visibility barrier for drivers looking west when exiting Sivyers Road.
- Accessibility (Swept path checks): Only light vehicle access therefore all movements sufficient.
- Potential mitigation measures include:
  - Driver awareness / training.

7. Summary and Next Steps

7.1 Summary

This assessment has shown that as per previously undertaken TIA's for the project that the construction phase of the project is predicted to have minimal traffic capacity impacts on the local road network and is deemed acceptable.

Some further construction traffic movement and safety measures have been identified for further consideration to mitigate potential accessibility impacts on the local network, which can be considered as part of the TMP for the project.

7.2 Next Steps

Following next steps are suggested:

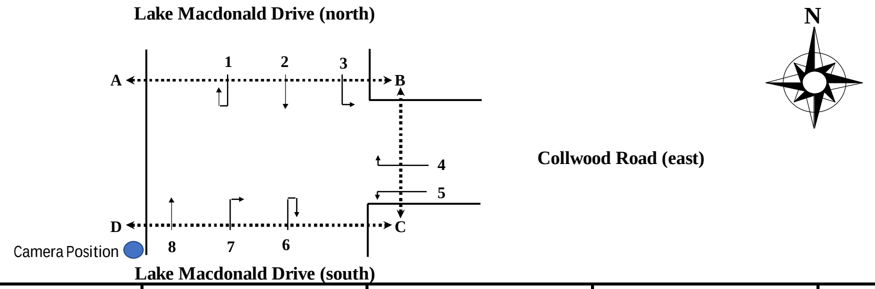
- Stakeholder agreement on:
  - Proposed construction transport routes and timings.
  - Findings on capacity impacts during the construction of the project.
- TMP to consider further and provide way forward on:
  - Construction vehicle accessibility (including swept path analysis) and mitigation considerations.
  - Further detail additional control measures.

Appendix A

Traffic Surveys

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 2 **Weather:** Fine
Location: Collwood Road/Lake Macdonald Drive, Cooroy
Day/Date: Tuesday, 12 September 2023
AM Peak: *Hour ending - 8:30 AM*
PM Peak: *Hour ending - 5:00 PM*



TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4			
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists
6:15 AM	0	0	0	0	15	0	15	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	14	0	14	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	16	0	16	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	23	0	23	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	22	0	22	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	23	0	23	0	0	0	0	0	1	0	1	0
7:45 AM	0	0	0	0	30	0	30	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	32	1	33	0	1	0	1	0	0	0	0	0
8:15 AM	0	0	0	0	26	1	27	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	24	0	24	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	16	1	17	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	21	0	21	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	15	0	15	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	11	1	12	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	13	0	13	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	9	0	9	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	15	0	15	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	13	0	13	0	1	0	1	0	1	0	1	0
10:45 AM	0	0	0	0	11	0	11	0	1	0	1	0	0	0	0	0
11:00 AM	0	0	0	0	7	0	7	0	0	0	0	0	1	0	1	0
11:15 AM	0	0	0	0	14	2	16	0	0	0	0	0	0	1	1	0
11:30 AM	0	0	0	0	15	0	15	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	6	0	6	0	1	0	1	0	0	0	0	0
12:00 PM	0	0	0	0	11	0	11	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	12	0	12	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	9	0	9	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	12	0	12	0	0	0	0	0	1	0	1	0
1:00 PM	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	14	0	14	0	0	0	0	0	1	0	1	0
1:30 PM	0	0	0	0	12	0	12	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	14	0	14	1	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	14	0	14	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	9	0	9	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	15	0	15	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	10	0	10	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	14	2	16	0	0	0	0	0	1	0	1	0
3:45 PM	0	0	0	0	8	0	8	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	9	0	9	0	0	0	0	0	1	0	1	0
4:15 PM	0	0	0	0	11	0	11	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	10	0	10	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	13	1	14	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	11	0	11	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	13	0	13	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	9	0	9	0	0	0	0	0	1	0	1	0
6:00 PM	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0
12 hr Total	0	0	0	0	648	9	657	1	4	0	4	0	8	1	9	0
AM Peak	0	0	0	0	112	2	114	0	1	0	1	0	0	0	0	0
PM Peak	0	0	0	0	45	1	46	0	0	0	0	0	0	0	0	0

TIME (1/4 hr end)	Movement 5				Movement 6				Movement 7				Movement 8			
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists
6:15 AM	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
7:00 AM	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	10	0	10	0
7:30 AM	0	0	0	0	0	0	0	0	2	0	2	0	7	0	7	0
7:45 AM	0	0	0	0	0	0	0	0	2	0	2	0	6	1	7	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8	0
8:15 AM	1	0	1	0	0	0	0	0	0	0	0	0	6	1	7	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	11	1	12	0
8:45 AM	0	0	0	0	0	0	0	0	2	0	2	0	9	0	9	0
9:00 AM	1	0	1	0	0	0	0	0	2	0	2	0	18	0	18	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	0
9:30 AM	1	0	1	0	0	0	0	0	0	0	0	0	11	0	11	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8	0
10:00 AM	0	0	0	0	0	0	0	0	1	0	1	0	4	0	4	0
10:15 AM	3	0	3	0	0	0	0	0	0	0	0	0	10	0	10	0
10:30 AM	0	0	0	0	0	0	0	0	3	0	3	0	11	1	12	0
10:45 AM	1	0	1	0	0	0	0	0	0	0	0	0	9	1	10	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	8	1	9	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	13	0	13	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	11	0	11	0
11:45 AM	1	0	1	0	0	0	0	0	0	0	0	0	13	0	13	0
12:00 PM	1	0	1	0	0	0	0	0	1	0	1	0	14	0	14	0
12:15 PM	1	0	1	0	0	0	0	0	1	0	1	0	10	0	10	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	19	0	19	0
12:45 PM	0	0	0	0	1	0	1	0	1	0	1	0	13	0	13	0
1:00 PM	1	0	1	0	0	0	0	0	1	0	1	0	17	0	17	0
1:15 PM	0	0	0	0	0	0	0	0	2	0	2	0	10	0	10	0
1:30 PM	2	0	2	0	0	0	0	0	0	1	1	0	8	0	8	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	14	0	14	0
2:00 PM	1	0	1	0	0	0	0	0	1	0	1	0	6	0	6	0
2:15 PM	1	0	1	0	0	0	0	0	0	0	0	0	20	0	20	0
2:30 PM	2	0	2	0	0	0	0	0	0	0	0	0	14	0	14	0
2:45 PM	3	0	3	0	0	0	0	0	0	0	0	0	15	0	15	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	20	0	20	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	17	1	18	0
3:30 PM	0	0	0	0	0	0	0	0	1	0	1	0	22	1	23	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	20	0	20	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	21	0	21	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	18	0	18	0
4:30 PM	1	0	1	0	0	0	0	0	0	0	0	0	28	1	29	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	20	0	20	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	34	0	34	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	18	0	18	0
5:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	20	0	20	0
6:00 PM	0	0	0	0	0	0	0	0	1	0	1	0	21	0	21	0
12 hr Total	21	0	21	0	1	0	1	0	26	2	28	0	620	9	629	0
AM Peak	1	0	1	0	0	0	0	0	2	0	2	0	31	3	34	0
PM Peak	1	0	1	0	0	0	0	0	0	0	0	0	100	1	101	0

TIME (1/4 hr end)	Pedestrian Movements											
	A - B		B - A		B - C		C - B		C - D		D - C	
	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12 hr Total	0	0	0	0	0	0	0	0	0	0	0	0
AM Peak	0	0	0	0	0	0	0	0	0	0	0	0
PM Peak	0	0	0	0	0	0	0	0	0	0	0	0

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 2 **Weather:** Fine

Location: Collwood Road/Lake Macdonald Drive, Cooroy

Day/Date: Tuesday, 12 September 2023

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

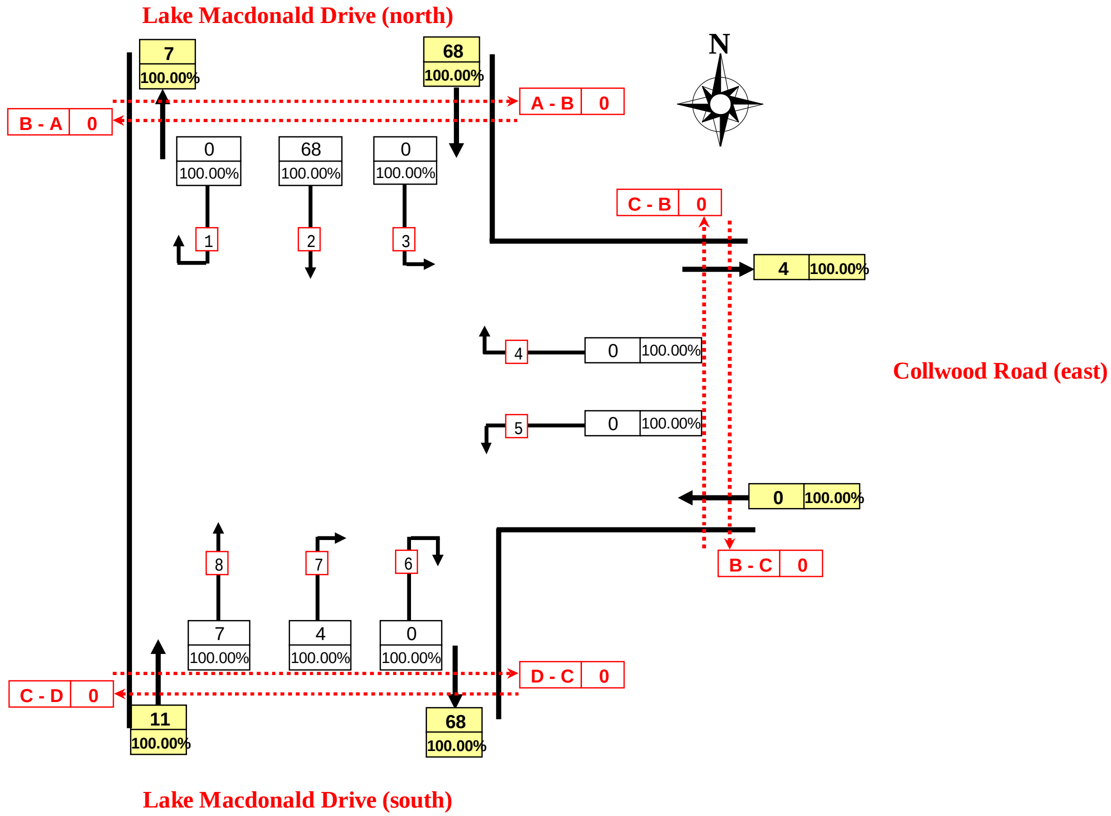
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 5:00 PM*

Hour Ending: 7:00 AM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 2 **Weather:** Fine

Location: Collwood Road/Lake Macdonald Drive, Cooroy

Day/Date: Tuesday, 12 September 2023

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

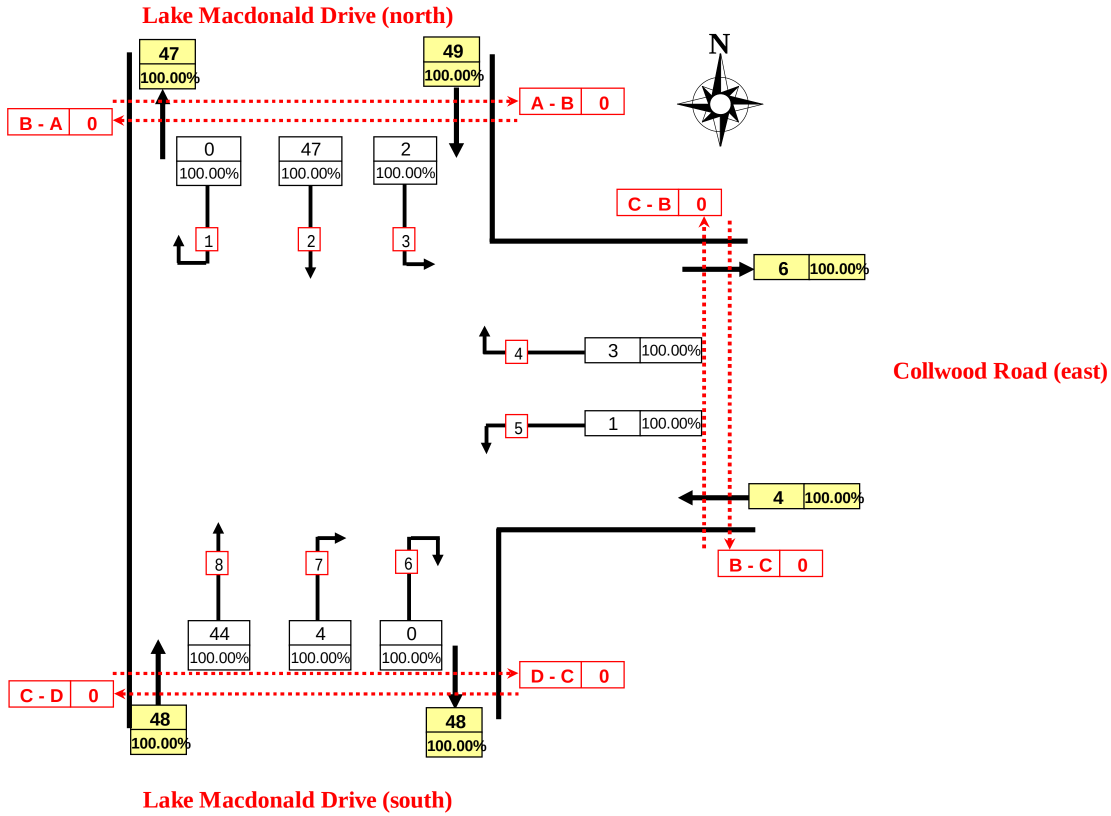
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 5:00 PM*

Hour Ending: 11:15 AM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 2 **Weather:** Fine

Location: Collwood Road/Lake Macdonald Drive, Cooroy

Day/Date: Tuesday, 12 September 2023

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

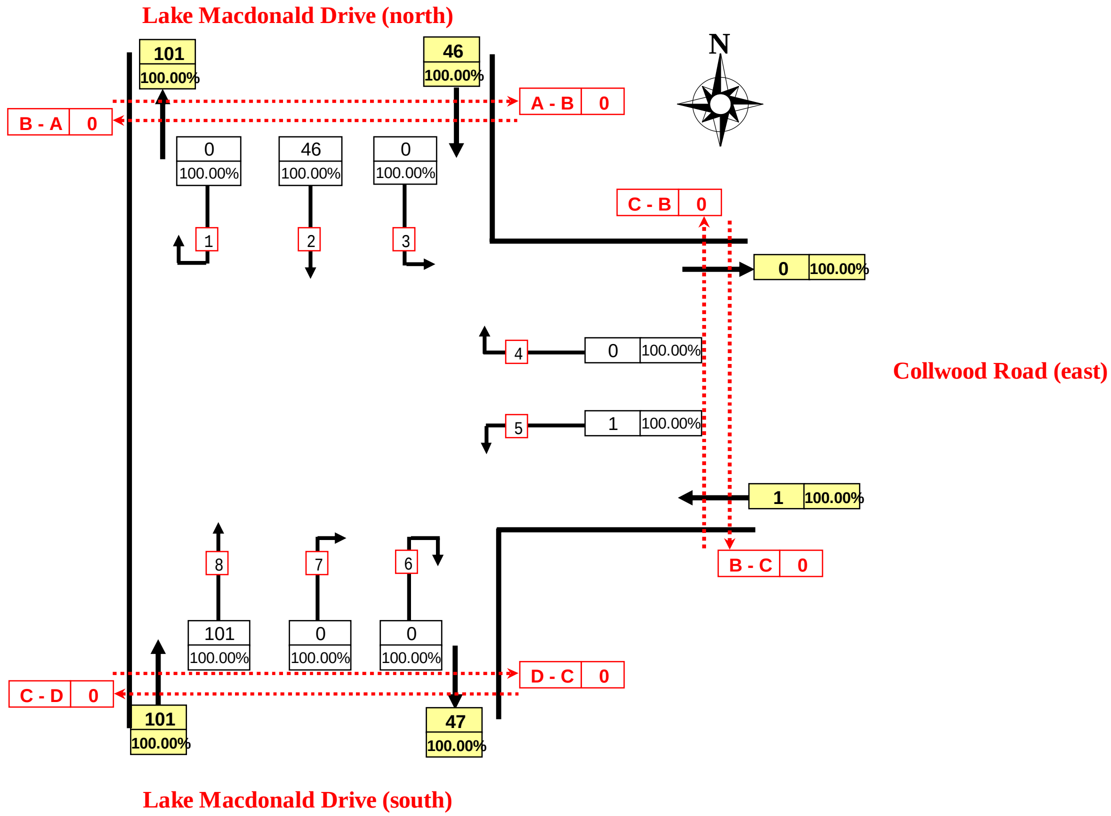
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 5:00 PM*

Hour Ending: 5:00 PM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 2 **Weather:** Fine

Location: Collwood Road/Lake Macdonald Drive, Cooroy

Day/Date: Tuesday, 12 September 2023

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

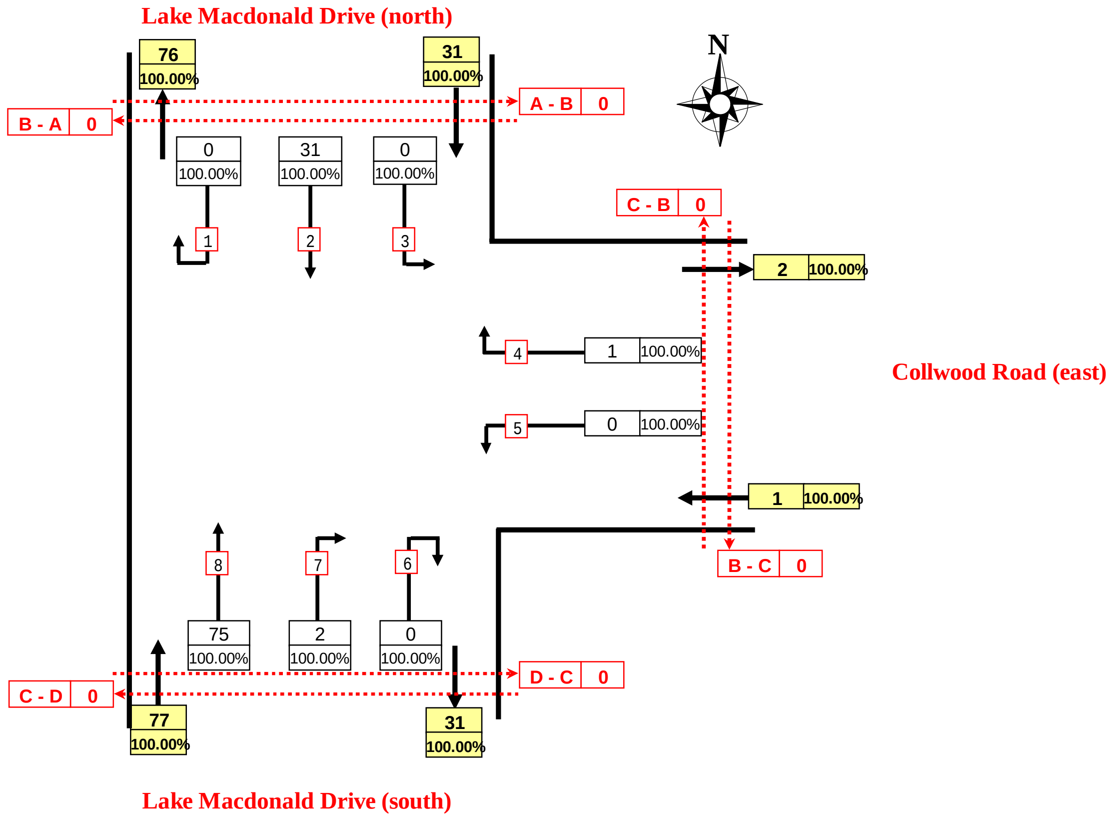
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 5:00 PM*

Hour Ending: 6:00 PM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 2 **Weather:** Fine

Location: Collwood Road/Lake Macdonald Drive, Cooroy

Day/Date: Tuesday, 12 September 2023

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

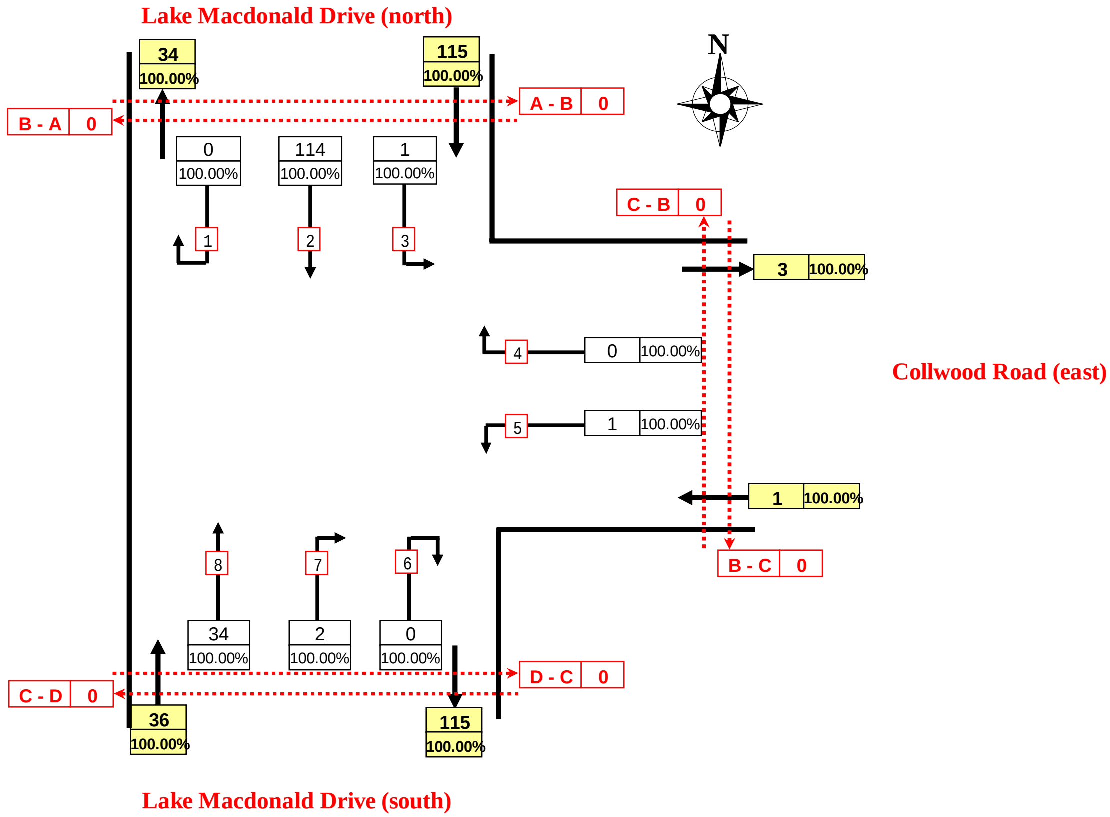
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 5:00 PM*

Hour Ending: 8:30 AM

On-road classification: Total Vehicles

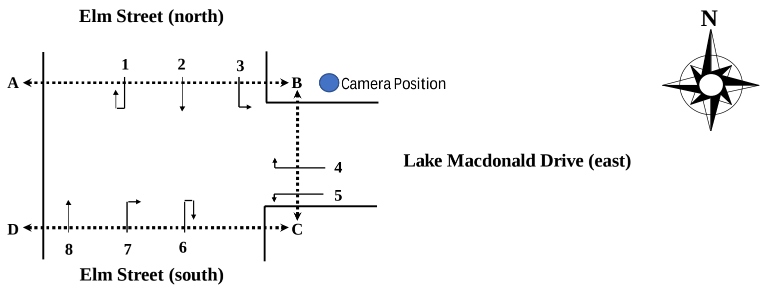
Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine
Location: Elm Street/Lake Macdonald Drive, Cooroy
Day/Date: Tuesday, 12 September 2023
AM Peak: *Hour ending - 8:30 AM*
PM Peak: *Hour ending - 3:45 PM*



TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4			
	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists
6:15 AM	0	0	**0**	0	56	0	**56**	1	8	0	**8**	0	3	0	**3**	0
6:30 AM	0	0	**0**	0	86	2	**88**	1	4	1	**5**	0	5	1	**6**	0
6:45 AM	0	0	**0**	0	98	6	**104**	0	4	0	**4**	0	1	0	**1**	0
7:00 AM	0	0	**0**	0	82	7	**89**	0	3	1	**4**	0	1	0	**1**	0
7:15 AM	0	0	**0**	0	94	4	**98**	1	1	0	**1**	0	3	0	**3**	0
7:30 AM	0	0	**0**	0	119	0	**119**	0	7	0	**7**	0	6	0	**6**	0
7:45 AM	0	0	**0**	0	122	8	**130**	4	9	0	**9**	0	6	0	**6**	0
8:00 AM	0	0	**0**	0	107	1	**108**	0	12	0	**12**	0	5	0	**5**	0
8:15 AM	0	0	**0**	0	142	8	**150**	0	11	2	**13**	0	10	0	**10**	0
8:30 AM	0	0	**0**	0	166	9	**175**	0	13	1	**14**	0	8	0	**8**	0
8:45 AM	0	0	**0**	0	122	4	**126**	0	9	1	**10**	0	16	0	**16**	0
9:00 AM	0	0	**0**	0	124	4	**128**	0	11	0	**11**	0	3	1	**4**	0
9:15 AM	0	0	**0**	0	100	8	**108**	0	5	0	**5**	0	3	1	**4**	0
9:30 AM	1	0	**1**	0	92	4	**96**	0	2	1	**3**	0	2	0	**2**	0
9:45 AM	0	0	**0**	0	93	6	**99**	0	3	0	**3**	0	4	0	**4**	0
10:00 AM	0	0	**0**	0	99	2	**101**	0	5	0	**5**	0	0	0	**0**	0
10:15 AM	0	0	**0**	0	88	2	**90**	0	6	0	**6**	0	4	1	**5**	0
10:30 AM	0	0	**0**	0	82	5	**87**	0	7	0	**7**	0	11	0	**11**	0
10:45 AM	0	0	**0**	0	93	2	**95**	0	3	0	**3**	0	6	0	**6**	0
11:00 AM	0	0	**0**	0	77	4	**81**	0	4	1	**5**	0	4	0	**4**	0
11:15 AM	0	0	**0**	0	88	3	**91**	0	5	0	**5**	0	4	0	**4**	0
11:30 AM	0	0	**0**	0	94	4	**98**	0	2	1	**3**	0	10	0	**10**	0
11:45 AM	0	0	**0**	0	90	2	**92**	0	3	1	**4**	0	4	0	**4**	0
12:00 PM	0	0	**0**	0	76	4	**80**	0	4	1	**5**	0	4	0	**4**	0
12:15 PM	0	0	**0**	0	82	1	**83**	0	3	0	**3**	0	4	1	**5**	0
12:30 PM	0	0	**0**	0	83	5	**88**	0	3	0	**3**	0	2	1	**3**	0
12:45 PM	0	0	**0**	0	77	4	**81**	0	4	0	**4**	0	2	0	**2**	0
1:00 PM	0	0	**0**	0	56	2	**58**	0	2	0	**2**	0	1	0	**1**	0
1:15 PM	0	0	**0**	0	68	2	**70**	0	7	0	**7**	0	7	0	**7**	0
1:30 PM	0	0	**0**	0	84	5	**89**	0	3	0	**3**	0	2	0	**2**	0
1:45 PM	0	0	**0**	0	77	6	**83**	0	8	0	**8**	0	4	0	**4**	0
2:00 PM	0	0	**0**	0	76	3	**79**	0	5	0	**5**	0	3	0	**3**	0
2:15 PM	0	0	**0**	0	66	3	**69**	0	4	0	**4**	0	6	0	**6**	0
2:30 PM	0	0	**0**	0	66	2	**68**	0	6	0	**6**	0	7	0	**7**	0
2:45 PM	0	0	**0**	0	70	4	**74**	0	7	0	**7**	0	10	0	**10**	0
3:00 PM	0	0	**0**	0	101	9	**110**	1	11	0	**11**	0	13	0	**13**	0
3:15 PM	0	0	**0**	0	111	1	**112**	0	18	0	**18**	0	14	1	**15**	0
3:30 PM	0	0	**0**	0	89	2	**91**	0	7	0	**7**	0	7	0	**7**	0
3:45 PM	0	0	**0**	0	93	2	**95**	0	9	0	**9**	0	11	0	**11**	0
4:00 PM	0	0	**0**	0	72	4	**76**	0	6	0	**6**	0	3	0	**3**	0
4:15 PM	0	0	**0**	0	95	5	**100**	0	8	0	**8**	0	9	1	**10**	0
4:30 PM	0	0	**0**	0	77	3	**80**	0	8	0	**8**	0	5	0	**5**	0
4:45 PM	0	0	**0**	0	74	1	**75**	0	9	0	**9**	0	5	0	**5**	0
5:00 PM	0	0	**0**	0	87	0	**87**	0	7	0	**7**	0	12	1	**13**	0
5:15 PM	0	0	**0**	0	69	1	**70**	0	9	0	**9**	0	9	0	**9**	0
5:30 PM	0	0	**0**	0	45	2	**47**	0	5	0	**5**	0	7	0	**7**	0
5:45 PM	0	0	**0**	0	59	0	**59**	0	7	0	**7**	0	5	0	**5**	0
6:00 PM	0	0	**0**	0	54	1	**55**	0	2	0	**2**	0	3	0	**3**	0
12 hr Total	1	0	1	0	4221	167	4388	8	299	11	310	0	274	9	283	0
AM Peak	0	0	0	0	537	26	563	4	45	3	48	0	29	0	29	0
PM Peak	0	0	0	0	394	14	408	1	45	0	45	0	45	1	46	0

TIME (1/4 hr end)	Movement 5				Movement 6				Movement 7				Movement 8			
	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists
6:15 AM	13	0	**13**	0	0	0	**0**	0	2	0	**2**	0	19	1	**20**	0
6:30 AM	14	1	**15**	0	0	0	**0**	0	7	0	**7**	0	27	1	**28**	0
6:45 AM	16	0	**16**	0	0	0	**0**	0	6	2	**8**	0	32	1	**33**	0
7:00 AM	19	0	**19**	0	0	0	**0**	0	6	0	**6**	0	57	6	**63**	0
7:15 AM	27	1	**28**	0	0	0	**0**	0	7	1	**8**	0	43	4	**47**	0
7:30 AM	22	3	**25**	0	0	0	**0**	0	7	0	**7**	0	43	4	**47**	0
7:45 AM	39	1	**40**	0	0	0	**0**	0	12	3	**15**	0	76	0	**76**	0
8:00 AM	44	1	**45**	0	0	0	**0**	0	8	2	**10**	0	62	4	**66**	0
8:15 AM	34	2	**36**	0	0	0	**0**	0	12	2	**14**	0	71	10	**81**	1
8:30 AM	39	0	**39**	0	0	0	**0**	0	12	0	**12**	0	84	5	**89**	0
8:45 AM	23	4	**27**	0	0	0	**0**	0	25	2	**27**	0	60	7	**67**	0
9:00 AM	36	2	**38**	0	0	0	**0**	0	18	1	**19**	0	43	1	**44**	0
9:15 AM	24	0	**24**	0	0	0	**0**	0	9	1	**10**	0	52	8	**60**	0
9:30 AM	17	0	**17**	0	0	0	**0**	0	12	1	**13**	0	54	2	**56**	0
9:45 AM	18	3	**21**	0	0	0	**0**	0	10	1	**11**	0	72	1	**73**	0
10:00 AM	20	2	**22**	0	0	0	**0**	0	14	1	**15**	0	71	3	**74**	0
10:15 AM	20	1	**21**	0	0	0	**0**	0	18	0	**18**	0	58	5	**63**	0
10:30 AM	24	0	**24**	0	0	0	**0**	0	26	1	**27**	0	71	0	**71**	0
10:45 AM	24	0	**24**	0	0	0	**0**	0	11	2	**13**	0	75	6	**81**	0
11:00 AM	18	0	**18**	0	0	0	**0**	0	13	5	**18**	0	63	2	**65**	0
11:15 AM	17	3	**20**	0	0	0	**0**	0	19	0	**19**	0	87	3	**90**	0
11:30 AM	18	0	**18**	0	0	0	**0**	0	15	0	**15**	0	80	1	**81**	0
11:45 AM	10	0	**10**	0	0	0	**0**	0	9	1	**10**	0	81	3	**84**	0
12:00 PM	18	2	**20**	0	0	0	**0**	0	17	3	**20**	2	72	2	**74**	0
12:15 PM	23	2	**25**	0	0	0	**0**	0	17	1	**18**	0	79	5	**84**	0
12:30 PM	22	2	**24**	0	0	0	**0**	0	25	0	**25**	0	50	3	**53**	0
12:45 PM	6	0	**6**	0	0	0	**0**	0	15	0	**15**	0	70	1	**71**	0
1:00 PM	11	0	**11**	0	0	0	**0**	0	9	0	**9**	0	85	7	**92**	0
1:15 PM	10	0	**10**	0	1	0	**1**	0	16	3	**19**	0	67	1	**68**	0
1:30 PM	18	2	**20**	0	1	0	**1**	0	14	1	**15**	0	83	4	**87**	0
1:45 PM	17	0	**17**	0	1	0	**1**	0	13	0	**13**	0	78	2	**80**	0
2:00 PM	24	0	**24**	0	0	0	**0**	0	15	1	**16**	0	62	3	**65**	0
2:15 PM	26	1	**27**	0	0	0	**0**	0	18	1	**19**	0	73	4	**77**	0
2:30 PM	21	1	**22**	0	0	0	**0**	0	13	0	**13**	0	88	2	**90**	0
2:45 PM	19	0	**19**	0	0	0	**0**	0	18	0	**18**	0	107	4	**111**	0
3:00 PM	16	0	**16**	0	0	0	**0**	0	16	0	**16**	0	102	4	**106**	0
3:15 PM	23	0	**23**	0	0	0	**0**	0	27	1	**28**	0	121	7	**128**	0
3:30 PM	24	0	**24**	0	0	0	**0**	0	34	1	**35**	0	94	3	**97**	0
3:45 PM	19	2	**21**	0	0	0	**0**	0	36	1	**37**	0	115	3	**118**	0
4:00 PM	25	0	**25**	0	0	0	**0**	0	29	0	**29**	0	105	1	**106**	0
4:15 PM	24	0	**24**	0	0	0	**0**	0	29	1	**30**	0	104	2	**106**	0
4:30 PM	20	0	**20**	0	0	0	**0**	0	30	2	**32**	0	117	1	**118**	0
4:45 PM	22	0	**22**	0	0	0	**0**	0	30	0	**30**	0	99	4	**103**	0
5:00 PM	32	0	**32**	0	0	0	**0**	0	38	1	**39**	0	92	3	**95**	0
5:15 PM	13	1	**14**	0	0	0	**0**	0	20	0	**20**	0	101	0	**101**	0
5:30 PM	18	1	**19**	0	0	0	**0**	0	25	0	**25**	0	120	0	**120**	0
5:45 PM	10	0	**10**	0	0	0	**0**	0	26	0	**26**	0	99	2	**101**	0
6:00 PM	11	1	**12**	0	0	0	**0**	0	25	0	**25**	0	77	0	**77**	0
12 hr Total	1008	39	1047	0	3	0	3	0	833	43	876	2	3641	146	3787	1
AM Peak	156	4	160	0	0	0	0	0	44	7	51	0	293	19	312	1
PM Peak	82	2	84	0	0	0	0	0	113	3	116	0	432	17	449	0

TIME (1/4 hr end)	Pedestrian Movements											
	A - B		B - A		B - C		C - B		C - D		D - C	
	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists
6:15 AM	0	0	0	0	2	0	1	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	3	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	1	2	0	0	0	0	0
7:45 AM	0	0	0	0	1	0	3	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	2	0	0	0	0	0
8:15 AM	0	0	0	0	3	0	1	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	1	0	2	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	1	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	1	0	0	0	0	0
10:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	1	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	3	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	1	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	1	0	1	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	1	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	1	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	2	1	0	0	0	0
3:30 PM	0	0	0	0	0	0	1	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	1	0	1	0	0	0	0	0
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	3	1	0	0	0	0
6:00 PM	0	0	0	0	3	0	0	0	0	0	0	0
12 hr Total	0	0	0	0	22	2	29	2	0	0	0	0
AM Peak	0	0	0	0	5	0	7	0	0	0	0	0
PM Peak	0	0	0	0	0	0	4	1	0	0	0	0

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine

Location: Elm Street/Lake Macdonald Drive, Cooroy

Day/Date: Tuesday, 12 September 2023

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

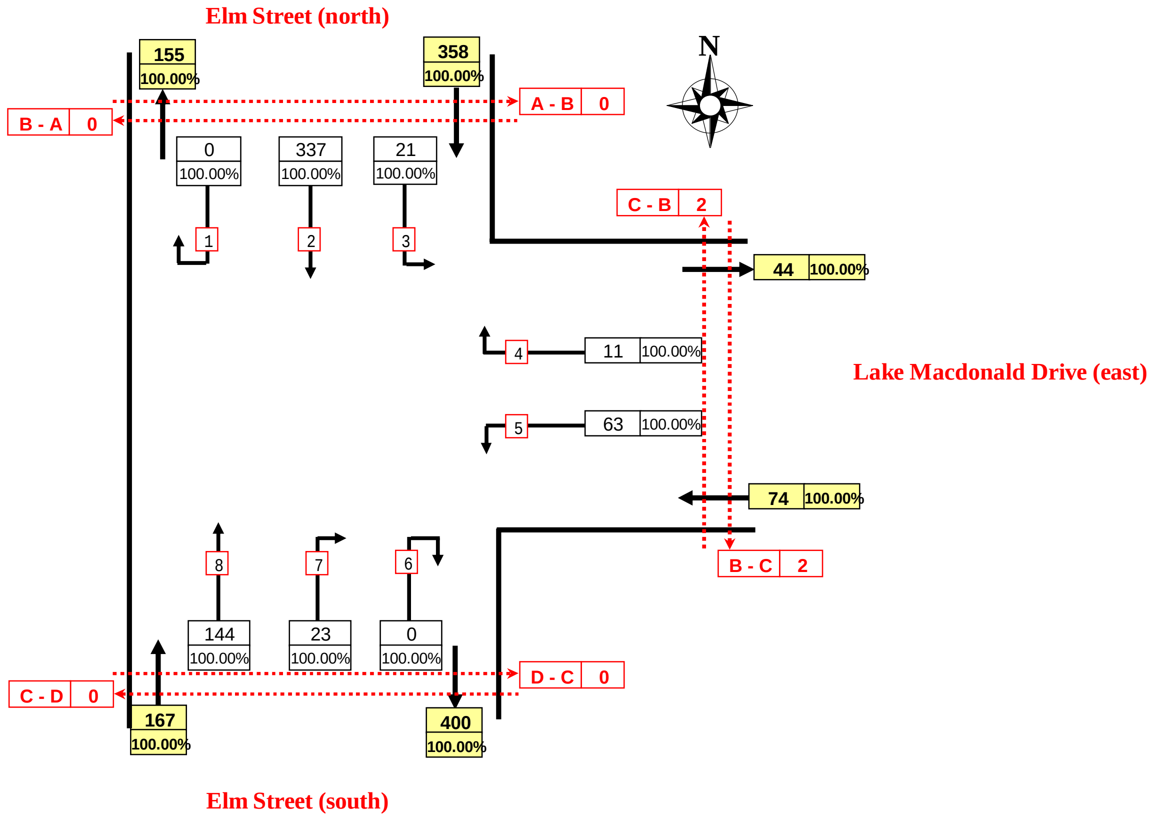
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 7:00 AM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine

Location: Elm Street/Lake Macdonald Drive, Cooroy

Day/Date: Tuesday, 12 September 2023

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

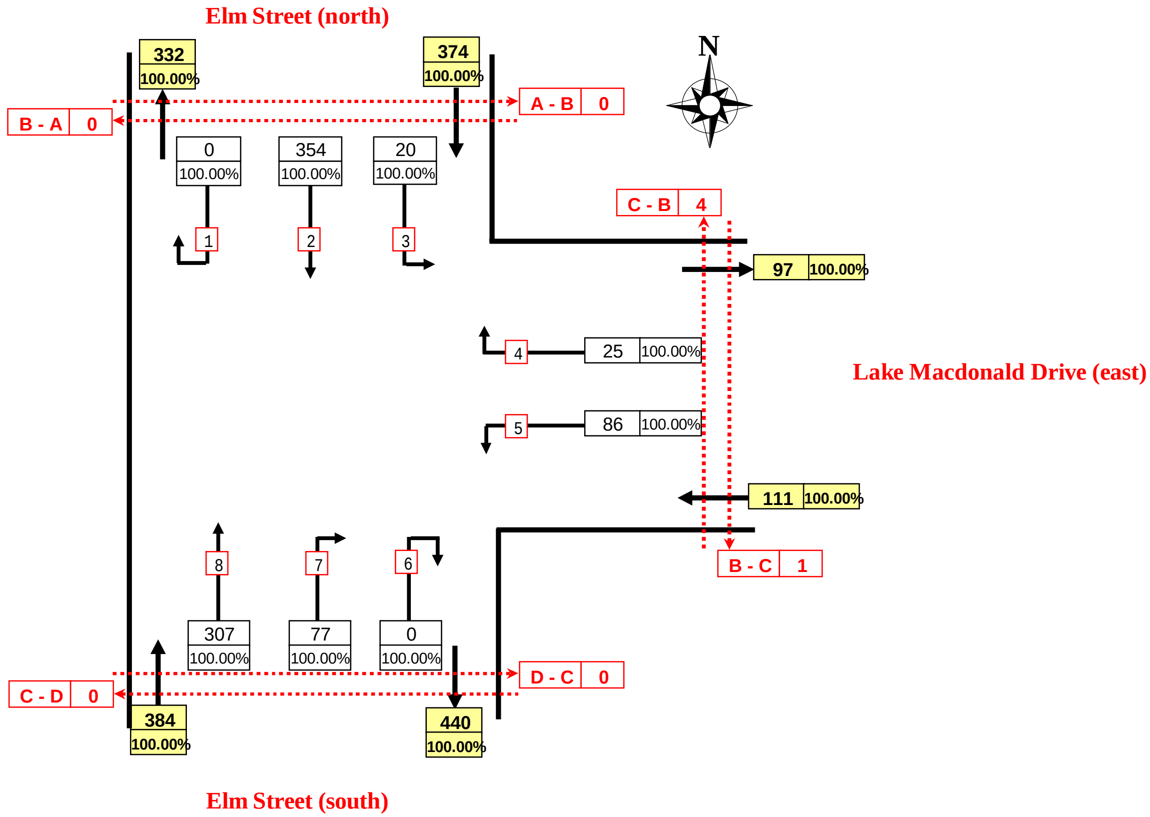
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 11:15 AM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine

Location: Elm Street/Lake Macdonald Drive, Cooroy

Day/Date: Tuesday, 12 September 2023

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

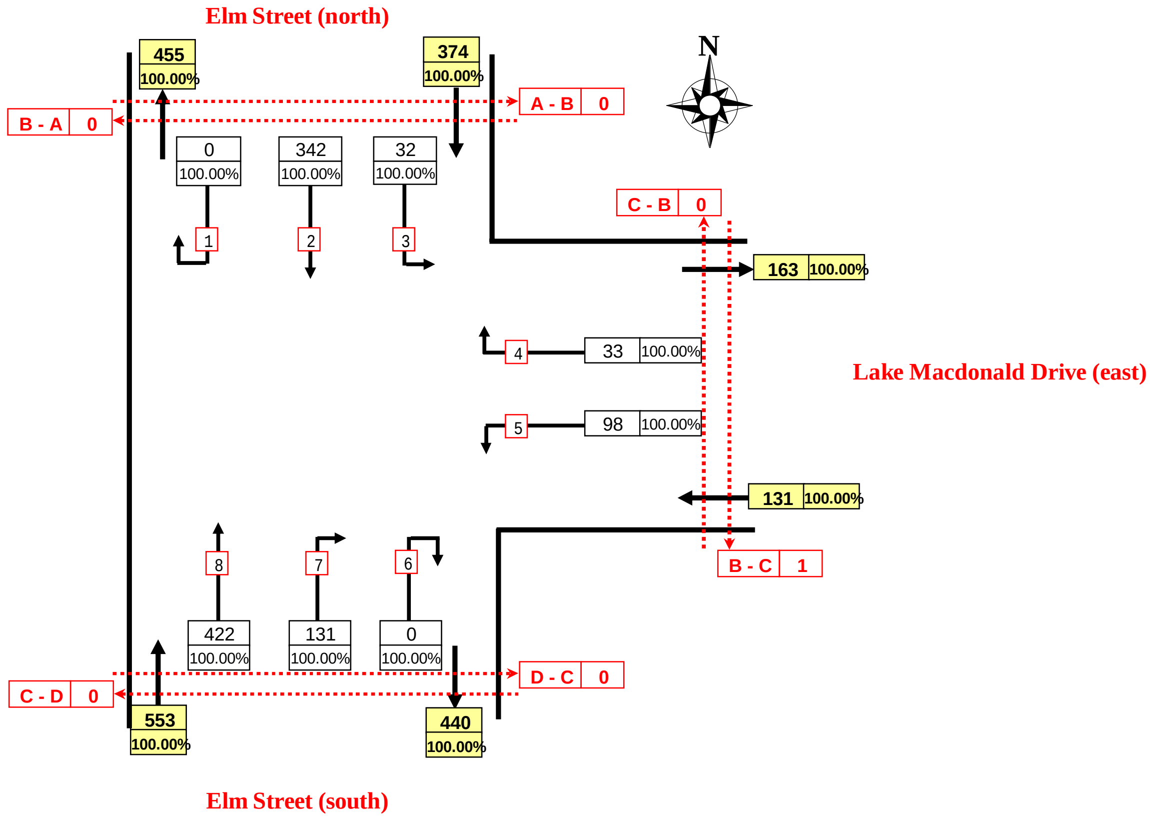
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 5:00 PM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine

Location: Elm Street/Lake Macdonald Drive, Cooroy

Day/Date: Tuesday, 12 September 2023

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

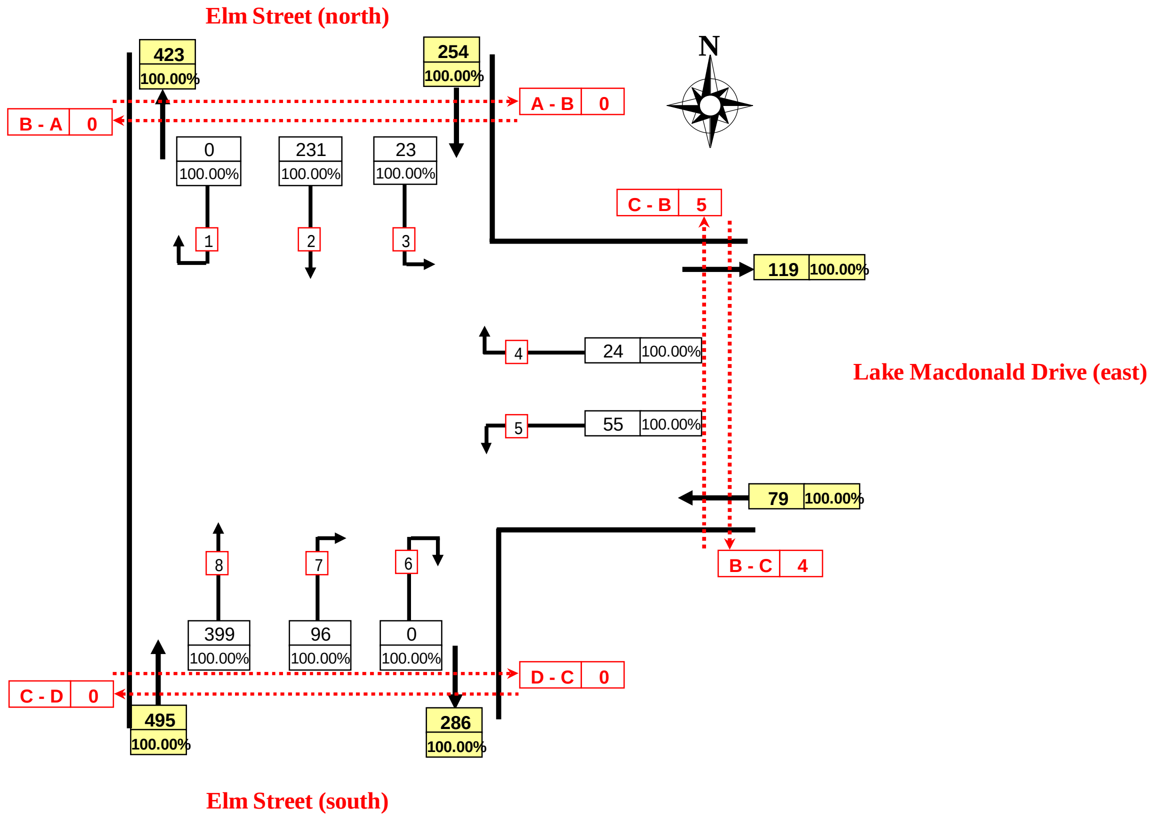
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 6:00 PM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine

Location: Elm Street/Lake Macdonald Drive, Cooroy

Day/Date: Tuesday, 12 September 2023

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

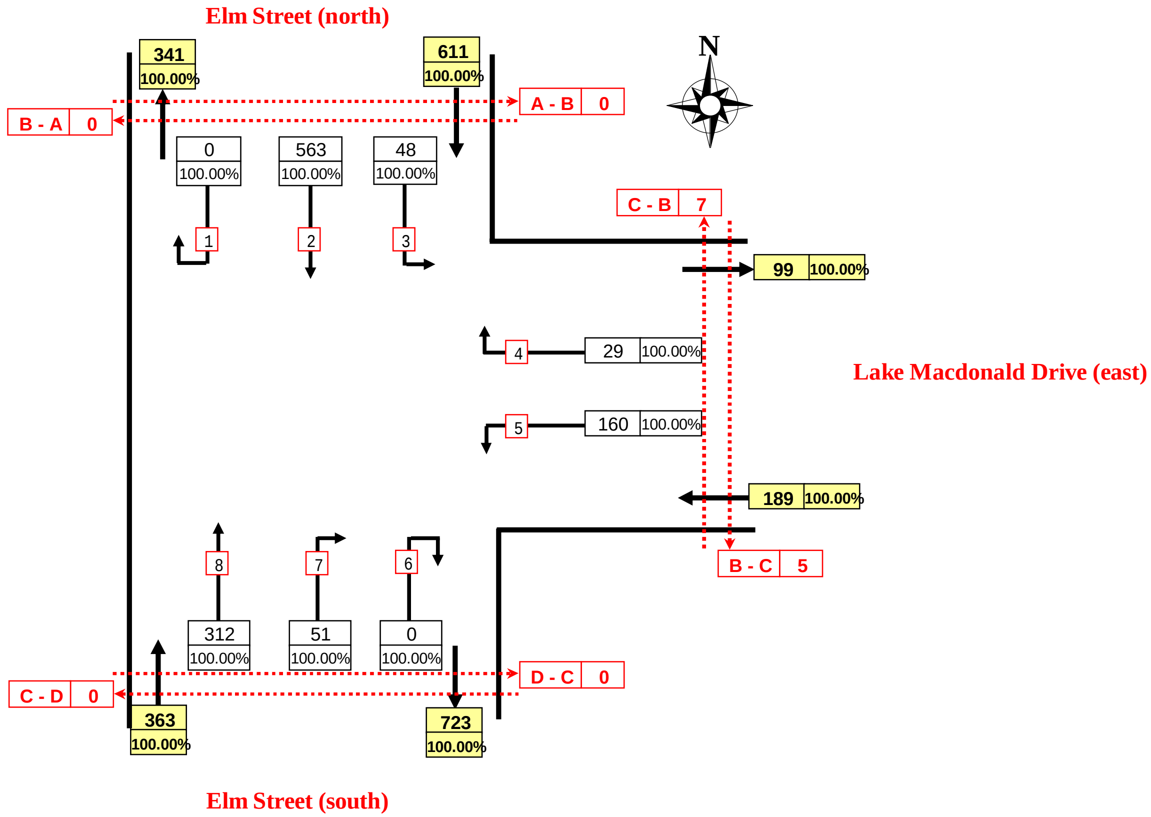
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 8:30 AM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine

Location: Elm Street/Lake Macdonald Drive, Cooroy

Day/Date: Tuesday, 12 September 2023

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

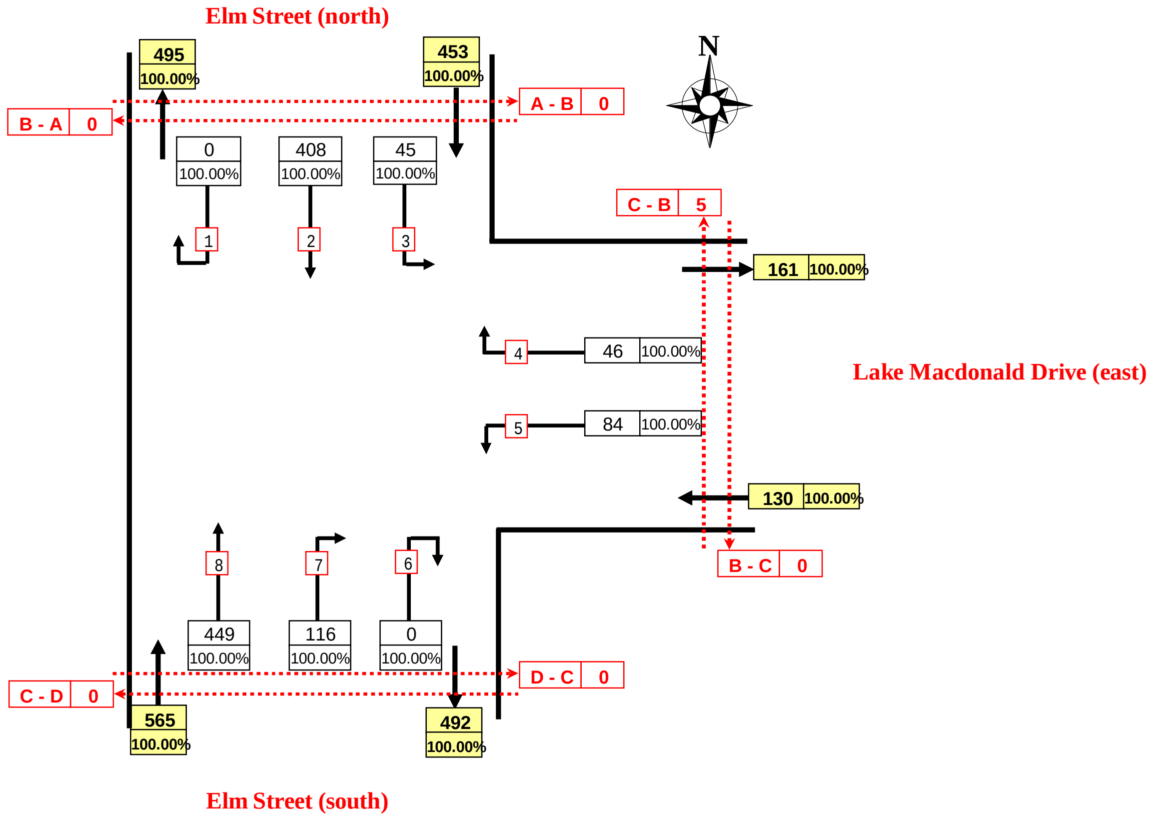
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 3:45 PM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



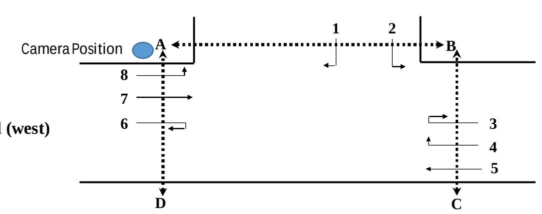
Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 3 **Weather:** Fine
Location: Cooroy Noosa Road/Sivyers Road, Lake Macdonald (Sunshine Coast)
Day/Date: Friday, 25 October 2024
AM Peak: *Hour ending - 8:30 AM*
PM Peak: *Hour ending - 3:45 PM*

Sivyers Road (north)

Cooroy Noosa Road (west)



Cooroy Noosa Road (east)

N

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*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*
6:15 AM	5	0	**5**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	47	3	**50**	0	0	0	**0**	0	100	3	**103**	0	2	0	**2**	0
6:30 AM	2	0	**2**	0	3	0	**3**	0	0	0	**0**	0	0	0	**0**	0	66	5	**71**	5	0	0	**0**	0	92	4	**96**	0	0	0	**0**	0
6:45 AM	1	0	**1**	0	3	0	**3**	0	0	0	**0**	0	0	0	**0**	0	66	11	**77**	31	0	0	**0**	0	109	8	**117**	3	1	0	**1**	0
7:00 AM	6	0	**6**	0	2	1	**3**	0	0	0	**0**	0	0	0	**0**	0	80	4	**84**	2	0	0	**0**	0	105	6	**111**	3	1	0	**1**	0
7:15 AM	5	1	**6**	0	4	0	**4**	0	0	0	**0**	0	1	2	**3**	0	78	2	**80**	2	0	0	**0**	0	117	6	**123**	0	1	0	**1**	0
7:30 AM	1	0	**1**	0	5	0	**5**	0	0	0	**0**	0	1	0	**1**	0	87	4	**91**	0	0	0	**0**	0	146	7	**153**	20	3	0	**3**	0
7:45 AM	5	0	**5**	0	15	1	**16**	0	0	0	**0**	0	4	0	**4**	0	89	8	**97**	1	0	0	**0**	0	185	15	**200**	0	3	0	**3**	0
8:00 AM	4	0	**4**	0	6	0	**6**	0	0	0	**0**	0	4	0	**4**	0	100	6	**106**	1	0	0	**0**	0	161	7	**168**	0	3	0	**3**	0
8:15 AM	2	0	**2**	0	5	0	**5**	0	0	0	**0**	0	1	0	**1**	0	90	7	**97**	2	0	0	**0**	0	157	7	**164**	1	1	1	**2**	0
8:30 AM	3	0	**3**	0	6	0	**6**	0	0	0	**0**	0	2	0	**2**	0	119	4	**123**	1	0	0	**0**	0	146	4	**150**	1	4	0	**4**	0
8:45 AM	5	0	**5**	0	3	0	**3**	0	0	0	**0**	0	6	1	**7**	0	96	1	**97**	2	0	0	**0**	0	182	6	**188**	1	2	0	**2**	0
9:00 AM	6	0	**6**	0	6	0	**6**	0	0	0	**0**	0	8	0	**8**	0	89	6	**95**	1	0	0	**0**	0	128	3	**131**	0	6	0	**6**	0
9:15 AM	4	0	**4**	0	4	0	**4**	0	0	0	**0**	0	2	0	**2**	0	101	5	**106**	0	0	0	**0**	0	140	5	**145**	0	1	0	**1**	0
9:30 AM	3	1	**4**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0	106	6	**112**	0	0	0	**0**	0	164	2	**166**	0	3	0	**3**	0
9:45 AM	2	0	**2**	0	2	0	**2**	0	0	0	**0**	0	9	0	**9**	0	107	7	**114**	1	0	0	**0**	0	141	7	**148**	1	2	0	**2**	0
10:00 AM	4	0	**4**	0	6	0	**6**	0	1	0	**1**	0	3	0	**3**	0	97	3	**100**	4	0	0	**0**	0	139	4	**143**	1	6	0	**6**	0
10:15 AM	6	0	**6**	0	4	0	**4**	0	0	0	**0**	0	3	0	**3**	0	116	3	**119**	0	0	0	**0**	0	126	7	**133**	0	1	1	**2**	0
10:30 AM	6	0	**6**	0	3	0	**3**	0	0	0	**0**	0	4	0	**4**	0	129	3	**132**	0	0	0	**0**	0	142	3	**145**	0	6	0	**6**	0
10:45 AM	1	0	**1**	0	1	0	**1**	0	0	0	**0**	0	7	0	**7**	0	100	10	**110**	0	0	0	**0**	0	136	9	**145**	1	4	0	**4**	0
11:00 AM	5	0	**5**	0	1	0	**1**	0	0	0	**0**	0	6	0	**6**	0	115	3	**118**	1	0	0	**0**	0	122	6	**128**	0	4	1	**5**	0
11:15 AM	4	0	**4**	0	4	0	**4**	0	0	0	**0**	0	2	0	**2**	0	138	9	**147**	0	0	0	**0**	0	132	10	**142**	1	2	0	**2**	0
11:30 AM	2	1	**3**	0	3	0	**3**	0	0	0	**0**	0	4	1	**5**	0	115	5	**120**	0	0	0	**0**	0	138	3	**141**	0	5	0	**5**	0
11:45 AM	5	0	**5**	0	7	0	**7**	0	0	0	**0**	0	9	0	**9**	0	115	4	**119**	0	0	0	**0**	0	133	8	**141**	0	7	0	**7**	0
12:00 PM	7	0	**7**	0	3	0	**3**	0	0	0	**0**	0	1	0	**1**	0	132	8	**140**	0	0	0	**0**	0	129	4	**133**	0	3	0	**3**	0
12:15 PM	3	0	**3**	0	3	0	**3**	0	0	0	**0**	0	1	0	**1**	0	128	1	**129**	0	0	0	**0**	0	127	2	**129**	0	2	0	**2**	0
12:30 PM	6	1	**7**	0	4	0	**4**	0	0	0	**0**	0	3	0	**3**	0	132	5	**137**	0	0	0	**0**	0	107	1	**108**	0	2	0	**2**	1
12:45 PM	2	0	**2**	0	4	0	**4**	0	0	0	**0**	0	4	1	**5**	0	123	11	**134**	0	0	0	**0**	0	127	3	**130**	0	2	0	**2**	0
1:00 PM	2	0	**2**	0	4	0	**4**	0	0	0	**0**	0	8	0	**8**	0	145	3	**148**	0	1	0	**1**	0	111	5	**116**	0	5	0	**5**	0
1:15 PM	2	0	**2**	0	1	0	**1**	0	0	0	**0**	0	8	0	**8**	0	119	6	**125**	0	0	0	**0**	0	98	2	**100**	0	2	0	**2**	0
1:30 PM	3	0	**3**	0	2	0	**2**	0	0	0	**0**	0	7	1	**8**	0	124	6	**130**	0	0	0	**0**	0	117	0	**117**	0	4	0	**4**	0
1:45 PM	0	0	**0**	0	6	0	**6**	0	0	0	**0**	0	5	0	**5**	0	150	6	**156**	0	0	0	**0**	0	128	9	**137**	0	4	1	**5**	0
2:00 PM	5	1	**6**	0	3	0	**3**	0	0	0	**0**	0	2	0	**2**	0	145	4	**149**	0	0	0	**0**	0	112	3	**115**	0	5	0	**5**	0
2:15 PM	3	0	**3**	0	5	1	**6**	0	0	0	**0**	0	3	0	**3**	0	137	4	**141**	0	0	0	**0**	0	129	4	**133**	0	7	1	**8**	0
2:30 PM	7	0	**7**	0	5	0	**5**	0	0	0	**0**	0	7	0	**7**	0	163	4	**167**	0	0	0	**0**	0	127	5	**132**	0	6	0	**6**	0
2:45 PM	7	0	**7**	0	1	0	**1**	0	0	0	**0**	0	2	0	**2**	0	156	8	**164**	2	0	0	**0**	0	109	2	**111**	0	4	0	**4**	0
3:00 PM	3	0	**3**	0	2	0	**2**	0	0	0	**0**	0	6	0	**6**	0	186	7	**193**	0	0	0	**0**	0	116	5	**121**	1	5	0	**5**	0
3:15 PM	4	0	**4**	0	4	0	**4**	0	0	0	**0**	0	7	0	**7**	0	161	3	**164**	0	0	0	**0**	0	119	4	**123**	1	4	0	**4**	0
3:30 PM	3	0	**3**	0	2	0	**2**	0	0	0	**0**	0	3	0	**3**	0	159	6	**165**	0	0	0	**0**	0	156	5	**161**	0	4	0	**4**	0
3:45 PM	3	0	**3**	0	4	0	**4**	0	0	0	**0**	0	4	0	**4**	0	142	5	**147**	1	0	0	**0**	0	134	5	**139**	0	7	0	**7**	0
4:00 PM	1	0	**1**	0	5	0	**5**	0	0	0	**0**	0	2	0	**2**	1	126	4	**130**	0	0	0	**0**	0	103	5	**108**	0	6	1	**7**	0
4:15 PM	3	0	**3**	0	3	0	**3**	0	0	0	**0**	0	4	0	**4**	0	131	1	**132**	0	0	0	**0**	0	138	3	**141**	0	3	0	**3**	0
4:30 PM	2	0	**2**	0	4	0	**4**	0	0	0	**0**	0	7	0	**7**	0	135	3	**138**	0	0	0	**0**	0	85	4	**89**	0	3	0	**3**	0
4:45 PM	5	0	**5**	0	2	0	**2**	0	0	0	**0**	0	4	0	**4**	0	128	1	**129**	0	0	0	**0**	0	122	1	**123**	0	10	0	**10**	0
5:00 PM	3	0	**3**	0	3	0	**3**	1	0	0	**0**	0	2	0	**2**	0	145	1	**146**	0	0	0	**0**	0	113	2	**115**	0	7	0	**7**	0
5:15 PM	2	0	**2**	0	2	0	**2**	0	0	0	**0**	0	4	0	**4**	0	142	2	**144**	0	0	0	**0**	0	96	1	**97**	0	1	0	**1**	0
5:30 PM	2	0	**2**	0	5	0	**5**	0	0	0	**0**	0	4	1	**5**	0	140	1	**141**	0	0	0	**0**	0	99	2	**101**	0	3	0	**3**	0
5:45 PM	4	0	**4**	0	3	0	**3**	0	1	0	**1**	0	8	0	**8**	0	112	4	**116**	0	0	0	**0**	0	94	2	**96**	0	2	0	**2**	0
6:00 PM	3	1	**4**	0	2	0	**2**	0	0	0	**0**	0	3	0	**3**	0	113	1	**114**	0	0	0	**0**	0	84	1	**85**	0	4	0	**4**	0
12 hr Total	**172**	**6**	**178**	**0**	**176**	**3**	**179**	**1**	**2**	**0**	**2**	**0**	**186**	**7**	**193**	**1**	**5720**	**224**	**5944**	**57**	**1**	**0**	**1**	**0**	**6021**	**220**	**6241**	**35**	**173**	**6**	**179**	**1**
AM Peak	**14**	**0**	**14**	**0**	**32**	**1**	**33**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**11**	**0**	**398**	**25**	**423**	**5**	**0**	**0**	**0**	**0**	**649**	**33**	**682**	**2**	**11**	**1**	**12**	**0**
PM Peak	**13**	**0**	**13**	**0**	**12**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**20**	**0**	**20**	**0**	**648**	**21**	**669**	**1**	**0**	**0**	**0**	**0**	**525**	**19**	**544**	**2**	**20**	**0**	**20**	**0**

TIME (1/4 hr end)	Pedestrian Movements: A - B		B - A		B - C		C - B		D - A		A - D	
	Pedestrians	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*	*Pedestrians*	*Cyclists*
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
12 hr Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
AM Peak	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PM Peak	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 3 **Weather:** Fine

Location: Cooroy Noosa Road/Sivyers Road, Lake Macdonald (Sunshine Coast)

Day/Date: Friday, 25 October 2024

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

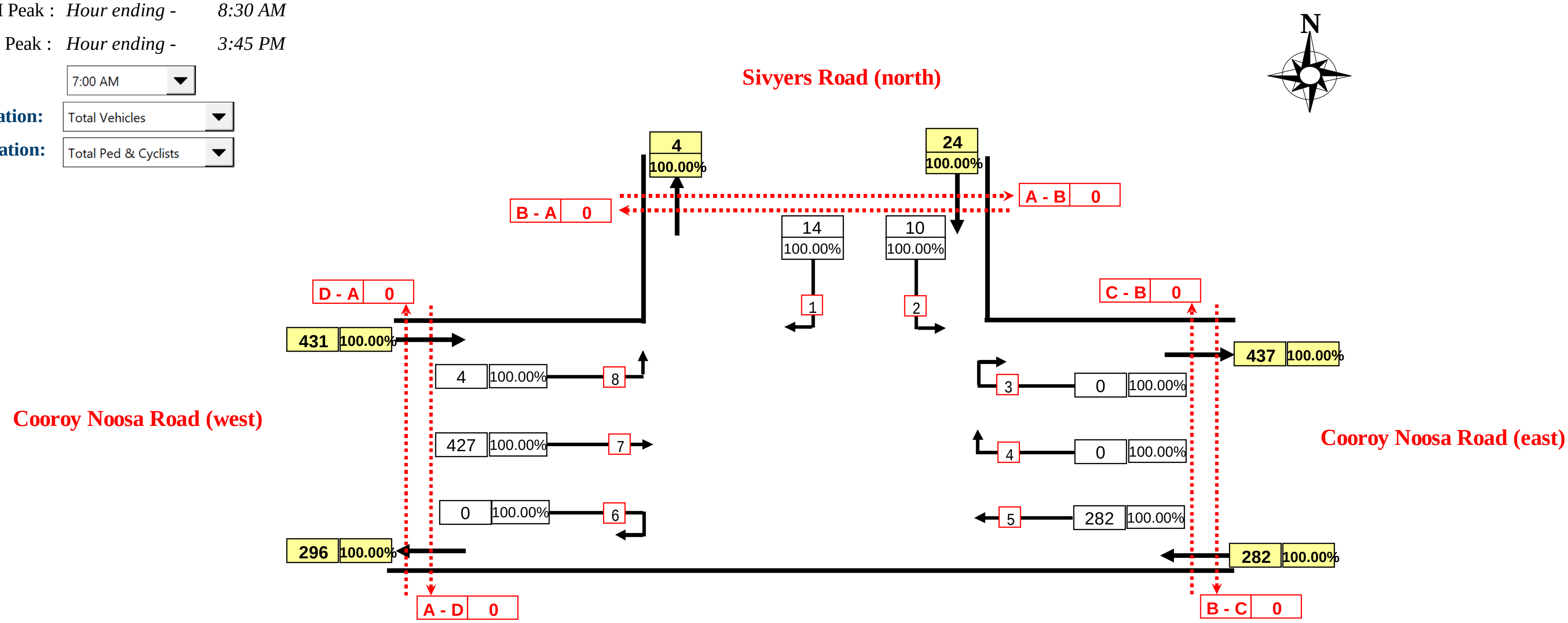
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 7:00 AM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 3 **Weather:** Fine

Location: Cooroy Noosa Road/Sivyers Road, Lake Macdonald (Sunshine Coast)

Day/Date: Friday, 25 October 2024

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

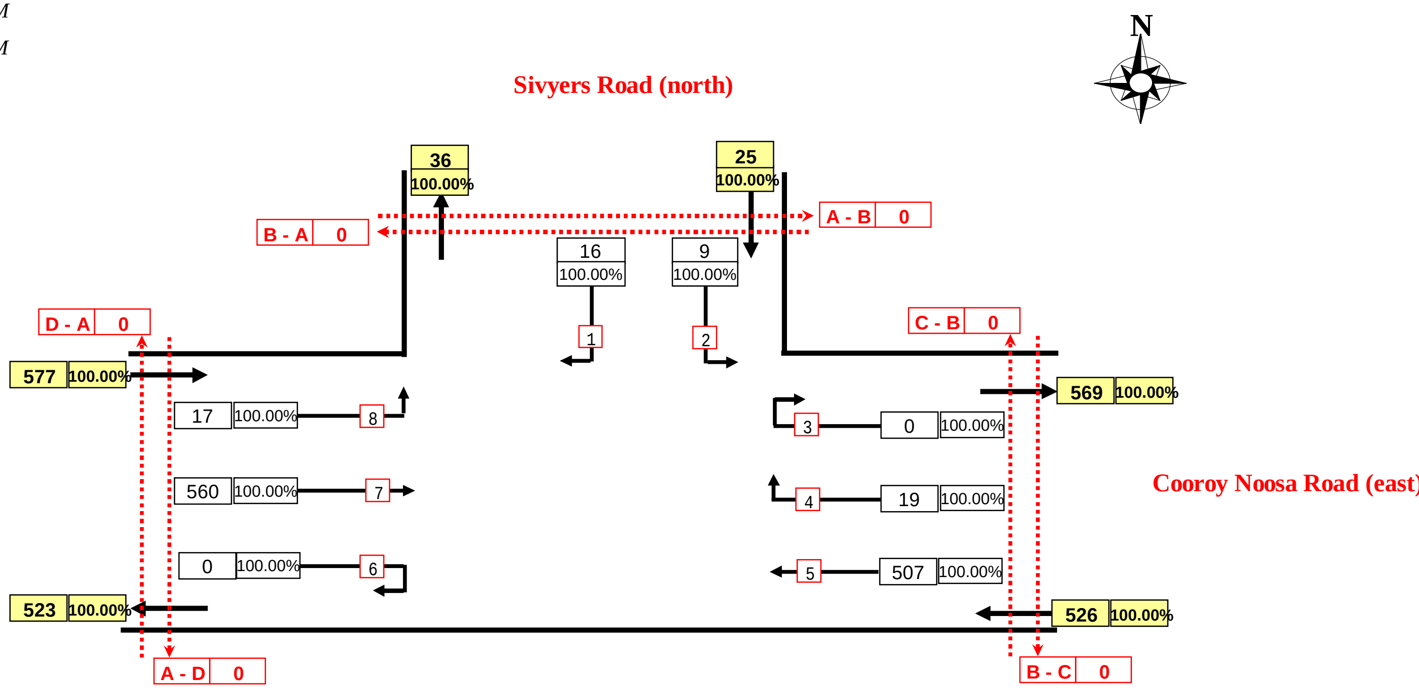
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 11:15 AM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 3 **Weather:** Fine

Location: Cooroy Noosa Road/Sivyers Road, Lake Macdonald (Sunshine Coast)

Day/Date: Friday, 25 October 2024

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

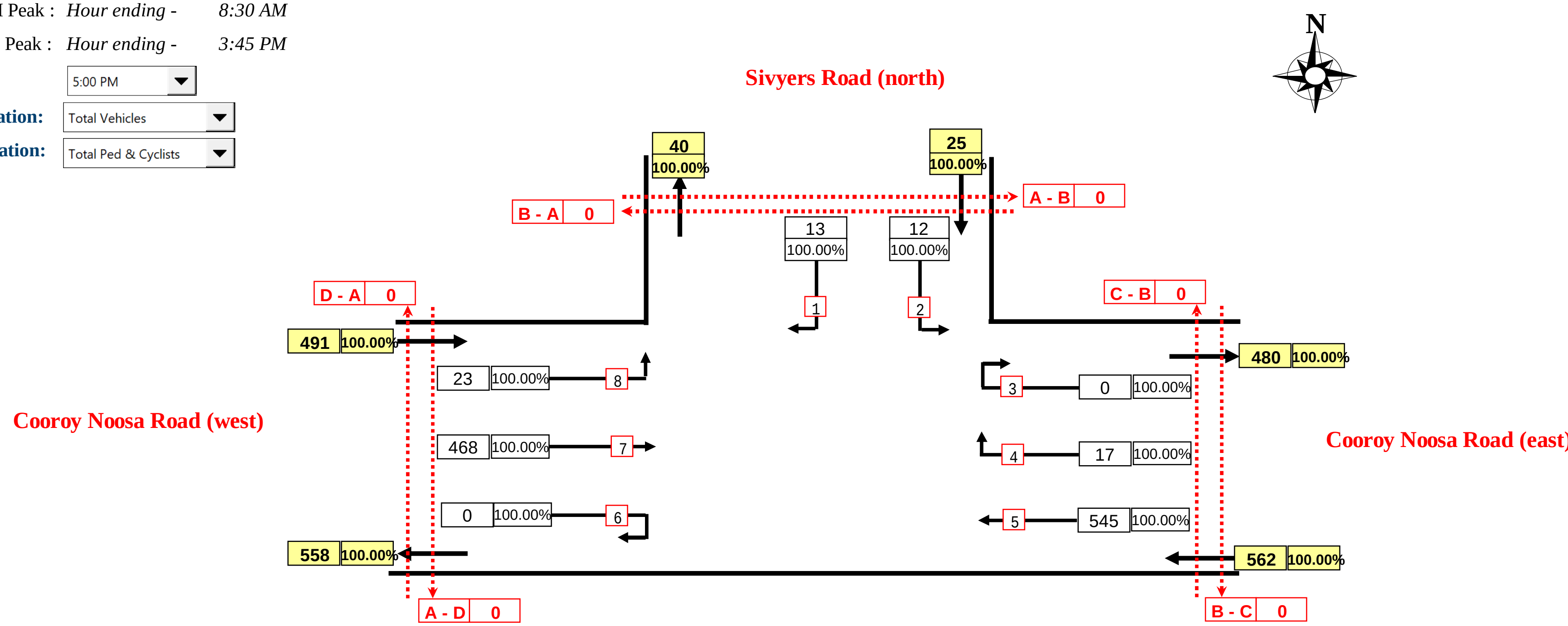
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 5:00 PM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 3 **Weather:** Fine

Location: Cooroy Noosa Road/Sivyers Road, Lake Macdonald (Sunshine Coast)

Day/Date: Friday, 25 October 2024

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

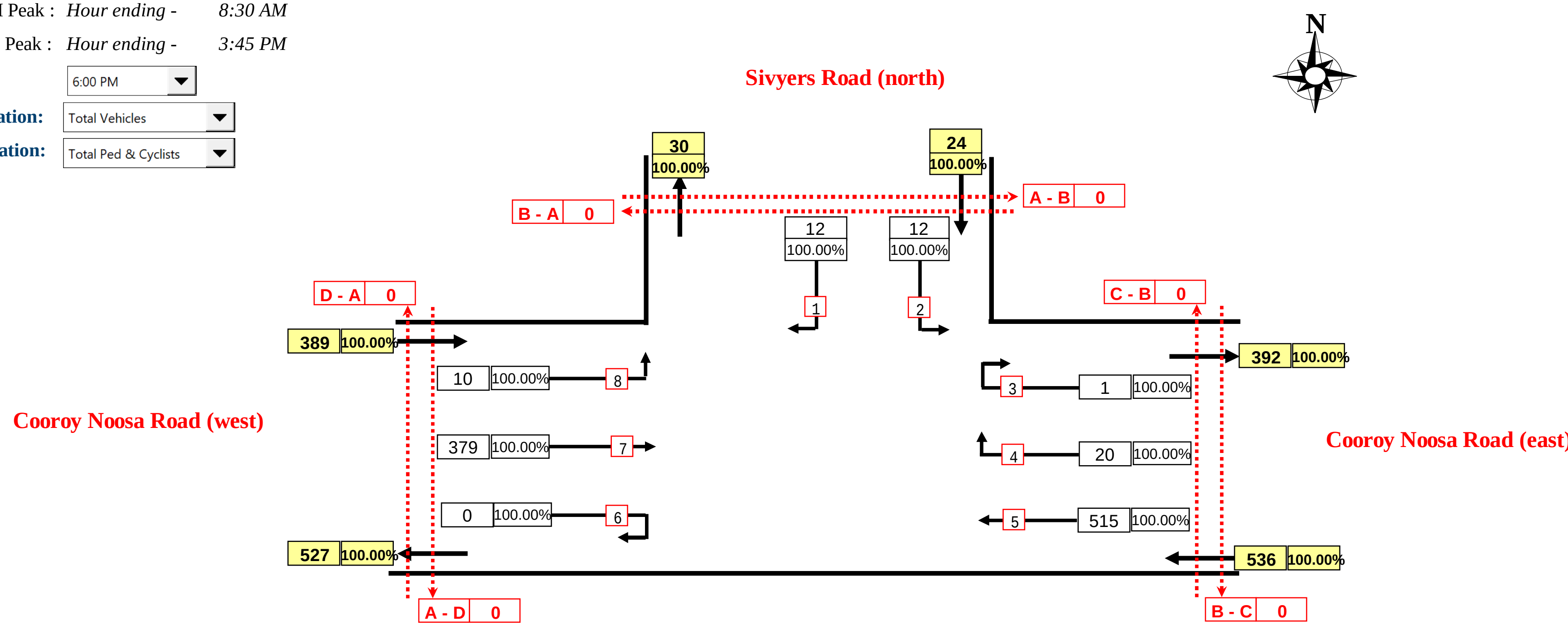
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 6:00 PM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 3 **Weather:** Fine

Location: Cooroy Noosa Road/Sivyers Road, Lake Macdonald (Sunshine Coast)

Day/Date: Friday, 25 October 2024

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

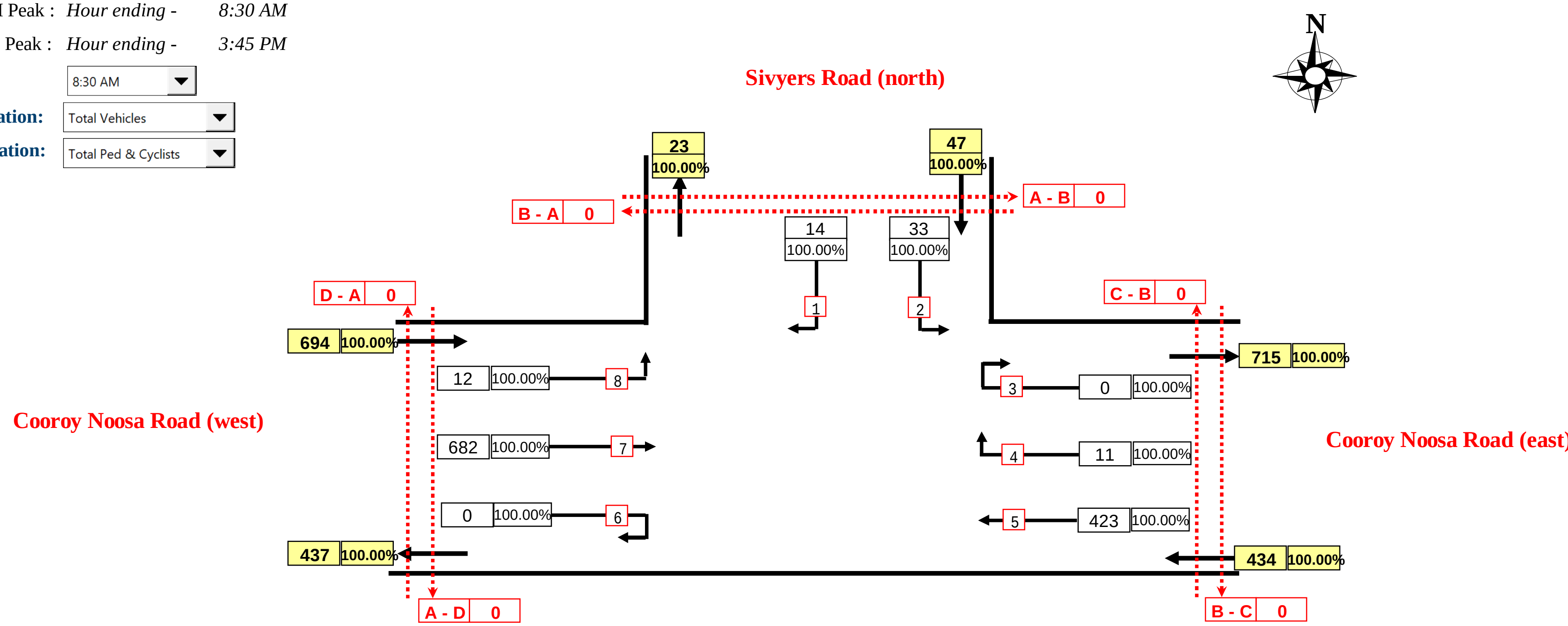
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 8:30 AM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 3 **Weather:** Fine

Location: Cooroy Noosa Road/Sivyers Road, Lake Macdonald (Sunshine Coast)

Day/Date: Friday, 25 October 2024

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

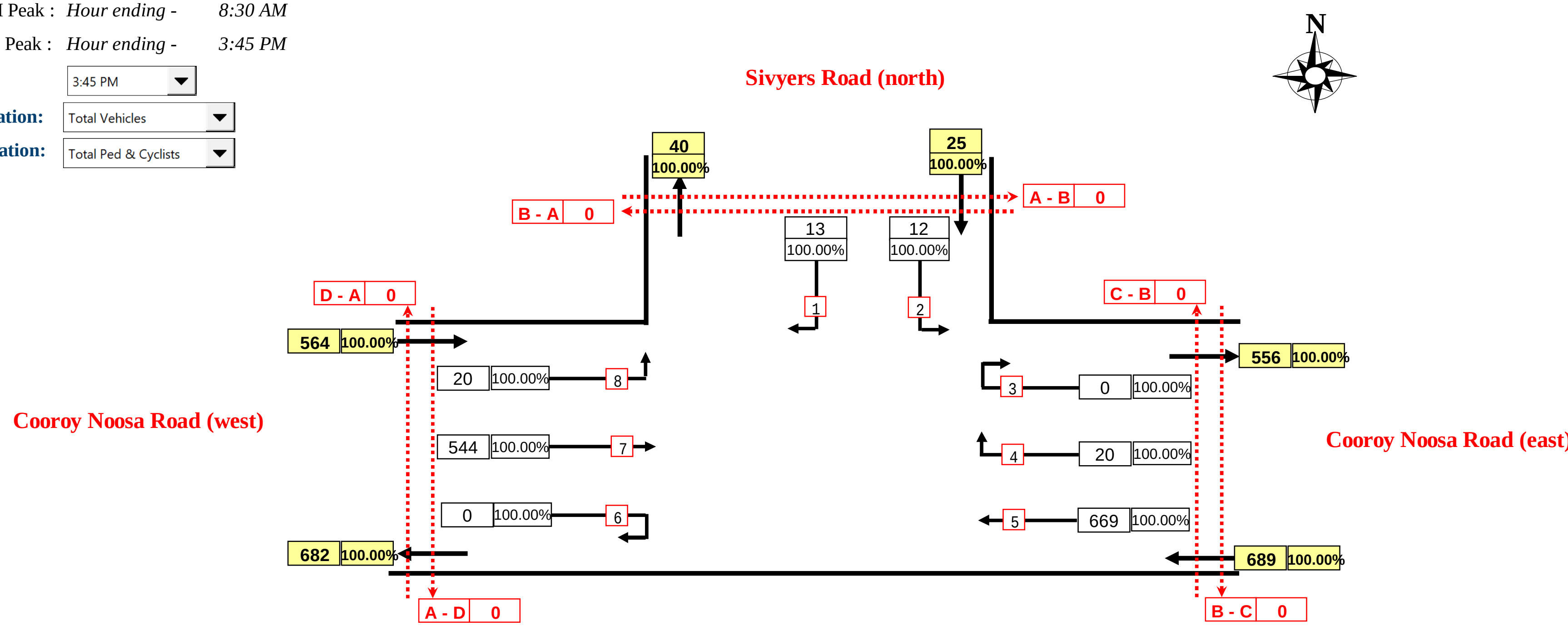
AM Peak : *Hour ending - 8:30 AM*

PM Peak : *Hour ending - 3:45 PM*

Hour Ending: 3:45 PM

On-road classification: Total Vehicles

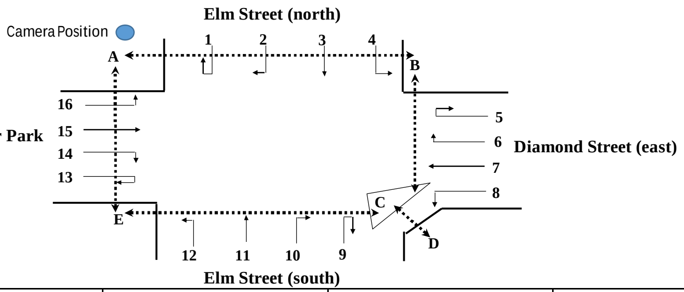
Off-road classification: Total Ped & Cyclists

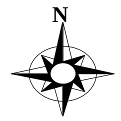


Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine
Location: Elm Street/Diamond Street, Lake Macdonlad (Sunshine Coast)
Day/Date: Friday, 25 October 2024
AM Peak: *Hour ending - 8:45 AM*
PM Peak: *Hour ending - 3:30 PM*

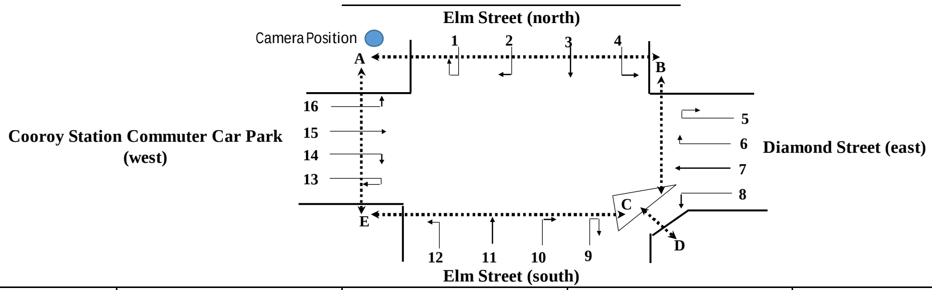


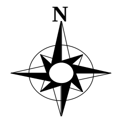


TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8			
	Light Vehicles	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*	*Light Vehicles*	*Heavy Vehicles*	***Total***	*Cyclists*
6:15 AM	0	0	**0**	0	1	0	**1**	0	33	1	**34**	0	46	3	**49**	0	0	0	**0**	0	10	1	**11**	0	0	0	**0**	0	34	2	**36**	0
6:30 AM	0	0	**0**	0	2	0	**2**	0	49	2	**51**	0	48	2	**50**	0	0	0	**0**	0	13	1	**14**	0	1	0	**1**	0	33	6	**39**	0
6:45 AM	0	0	**0**	0	2	0	**2**	0	65	1	**66**	1	57	2	**59**	0	0	0	**0**	0	17	3	**20**	0	0	0	**0**	0	50	4	**54**	4
7:00 AM	0	0	**0**	0	0	0	**0**	0	80	7	**87**	0	52	1	**53**	0	0	0	**0**	0	12	1	**13**	0	0	0	**0**	0	48	8	**56**	0
7:15 AM	0	0	**0**	0	0	0	**0**	0	92	2	**94**	0	66	2	**68**	0	0	0	**0**	0	9	0	**9**	0	0	0	**0**	0	61	2	**63**	0
7:30 AM	0	0	**0**	0	0	0	**0**	0	76	5	**81**	0	84	4	**88**	3	0	0	**0**	0	20	0	**20**	2	0	0	**0**	0	52	2	**54**	0
7:45 AM	0	0	**0**	0	0	0	**0**	0	73	6	**79**	0	72	2	**74**	0	0	0	**0**	0	9	1	**10**	0	0	0	**0**	0	67	5	**72**	0
8:00 AM	0	1	**1**	0	0	0	**0**	0	116	6	**122**	0	75	4	**79**	1	0	0	**0**	0	11	2	**13**	0	1	0	**1**	0	61	2	**63**	1
8:15 AM	0	0	**0**	0	0	0	**0**	0	120	12	**132**	0	65	2	**67**	0	0	0	**0**	0	10	2	**12**	0	0	0	**0**	0	69	2	**71**	1
8:30 AM	0	0	**0**	0	0	0	**0**	0	151	7	**158**	0	77	1	**78**	0	0	0	**0**	0	9	0	**9**	0	0	0	**0**	0	105	9	**114**	0
8:45 AM	0	0	**0**	0	0	0	**0**	0	128	4	**132**	0	82	1	**83**	0	0	0	**0**	0	12	0	**12**	0	2	0	**2**	0	92	1	**93**	0
9:00 AM	0	0	**0**	0	0	0	**0**	0	95	4	**99**	0	52	1	**53**	0	0	0	**0**	0	14	0	**14**	0	0	0	**0**	0	74	4	**78**	1
9:15 AM	0	0	**0**	0	1	0	**1**	0	92	1	**93**	1	54	1	**55**	0	0	0	**0**	0	12	1	**13**	0	1	0	**1**	0	65	8	**73**	0
9:30 AM	1	0	**1**	0	0	0	**0**	0	79	2	**81**	1	69	1	**70**	0	1	0	**1**	0	19	1	**20**	0	0	0	**0**	0	91	2	**93**	0
9:45 AM	0	0	**0**	0	0	0	**0**	0	91	4	**95**	0	67	4	**71**	1	0	0	**0**	0	21	2	**23**	0	0	0	**0**	0	68	4	**72**	0
10:00 AM	0	0	**0**	0	0	0	**0**	0	90	5	**95**	0	51	0	**51**	0	0	0	**0**	0	21	1	**22**	0	0	0	**0**	0	76	2	**78**	0
10:15 AM	1	0	**1**	0	0	0	**0**	0	84	3	**87**	0	76	2	**78**	0	1	0	**1**	0	20	0	**20**	1	0	0	**0**	0	79	1	**80**	1
10:30 AM	0	0	**0**	0	0	0	**0**	0	85	5	**90**	1	48	2	**50**	1	0	0	**0**	0	34	1	**35**	0	0	0	**0**	0	75	0	**75**	0
10:45 AM	0	0	**0**	0	0	0	**0**	0	71	4	**75**	1	46	5	**51**	0	0	0	**0**	0	20	2	**22**	0	0	0	**0**	0	79	8	**87**	0
11:00 AM	0	0	**0**	0	0	0	**0**	0	87	3	**90**	1	52	3	**55**	0	0	0	**0**	0	30	0	**30**	0	0	0	**0**	0	68	4	**72**	0
11:15 AM	0	0	**0**	0	0	0	**0**	0	75	2	**77**	0	50	6	**56**	0	1	0	**1**	0	26	2	**28**	0	0	0	**0**	0	61	4	**65**	0
11:30 AM	0	0	**0**	0	0	0	**0**	0	68	3	**71**	0	55	2	**57**	0	0	0	**0**	0	27	1	**28**	0	0	0	**0**	0	69	6	**75**	0
11:45 AM	0	0	**0**	0	0	0	**0**	0	83	4	**87**	0	46	2	**48**	0	0	0	**0**	0	26	2	**28**	0	0	0	**0**	0	77	1	**78**	0
12:00 PM	0	0	**0**	0	0	0	**0**	1	69	1	**70**	1	60	2	**62**	0	0	0	**0**	0	23	2	**25**	0	1	0	**1**	0	80	2	**82**	0
12:15 PM	0	0	**0**	0	0	0	**0**	0	69	4	**73**	0	53	2	**55**	0	0	0	**0**	0	33	2	**35**	0	0	0	**0**	0	82	2	**84**	0
12:30 PM	0	0	**0**	0	1	0	**1**	0	61	3	**64**	0	45	1	**46**	0	0	0	**0**	0	34	1	**35**	0	2	0	**2**	0	69	3	**72**	0
12:45 PM	0	0	**0**	0	0	0	**0**	0	62	2	**64**	0	55	0	**55**	0	0	0	**0**	0	36	0	**36**	0	0	0	**0**	0	66	8	**74**	0
1:00 PM	0	0	**0**	0	0	0	**0**	0	58	2	**60**	0	43	3	**46**	0	2	0	**2**	0	32	0	**32**	0	0	0	**0**	0	66	6	**72**	0
1:15 PM	0	0	**0**	0	0	0	**0**	0	71	3	**74**	0	45	1	**46**	0	0	0	**0**	0	31	1	**32**	0	1	0	**1**	0	64	3	**67**	0
1:30 PM	0	0	**0**	0	0	0	**0**	0	68	1	**69**	0	41	0	**41**	0	0	0	**0**	0	30	3	**33**	0	0	0	**0**	0	69	3	**72**	0
1:45 PM	0	0	**0**	0	0	0	**0**	0	66	3	**69**	0	44	1	**45**	0	0	0	**0**	0	25	0	**25**	0	2	0	**2**	0	80	5	**85**	0
2:00 PM	0	0	**0**	0	2	0	**2**	0	74	3	**77**	0	53	2	**55**	0	0	0	**0**	0	32	0	**32**	0	0	0	**0**	0	82	1	**83**	0
2:15 PM	0	0	**0**	0	0	0	**0**	0	79	5	**84**	0	41	2	**43**	0	0	0	**0**	0	29	1	**30**	0	1	0	**1**	0	82	3	**85**	0
2:30 PM	0	0	**0**	0	0	0	**0**	0	70	1	**71**	0	44	1	**45**	0	0	0	**0**	0	40	2	**42**	0	0	0	**0**	0	70	2	**72**	0
2:45 PM	0	0	**0**	0	0	0	**0**	0	76	2	**78**	0	45	0	**45**	0	0	0	**0**	0	31	1	**32**	0	0	0	**0**	0	88	7	**95**	0
3:00 PM	0	2	**2**	0	0	0	**0**	0	92	6	**98**	0	45	2	**47**	0	0	0	**0**	0	27	1	**28**	0	0	0	**0**	0	111	7	**118**	0
3:15 PM	0	2	**2**	0	0	0	**0**	0	146	6	**152**	1	82	3	**85**	0	0	0	**0**	0	10	1	**11**	0	0	0	**0**	0	104	3	**107**	0
3:30 PM	0	0	**0**	0	1	0	**1**	0	88	2	**90**	0	56	3	**59**	0	0	0	**0**	0	26	0	**26**	0	0	0	**0**	0	97	3	**100**	0
3:45 PM	1	0	**1**	0	0	0	**0**	0	69	0	**69**	0	47	1	**48**	0	0	0	**0**	0	30	1	**31**	0	0	0	**0**	0	72	6	**78**	0
4:00 PM	0	0	**0**	0	1	0	**1**	1	62	2	**64**	0	39	4	**43**	0	0	0	**0**	0	22	1	**23**	0	0	0	**0**	0	77	3	**80**	1
4:15 PM	0	0	**0**	0	0	0	**0**	0	80	3	**83**	0	55	0	**55**	0	0	0	**0**	0	20	1	**21**	0	1	0	**1**	0	70	0	**70**	0
4:30 PM	0	0	**0**	0	1	0	**1**	0	75	0	**75**	0	35	2	**37**	0	0	0	**0**	0	28	0	**28**	0	1	0	**1**	0	58	1	**59**	0
4:45 PM	0	0	**0**	0	0	0	**0**	0	74	1	**75**	0	54	4	**58**	0	0	0	**0**	0	25	0	**25**	0	0	0	**0**	0	69	3	**72**	0
5:00 PM	0	0	**0**	0	0	0	**0**	0	66	2	**68**	0	39	0	**39**	0	0	0	**0**	0	31	0	**31**	0	0	0	**0**	0	79	0	**79**	0
5:15 PM	0	0	**0**	0	1	0	**1**	0	65	1	**66**	0	32	2	**34**	0	0	0	**0**	0	27	2	**29**	0	0	0	**0**	0	68	0	**68**	0
5:30 PM	0	0	**0**	0	2	0	**2**	0	62	1	**63**	0	36	1	**37**	0	0	0	**0**	0	32	1	**33**	0	0	0	**0**	0	72	1	**73**	0
5:45 PM	0	0	**0**	0	0	0	**0**	0	56	2	**58**	1	41	2	**43**	0	0	0	**0**	0	30	2	**32**	0	1	0	**1**	0	71	0	**71**	0
6:00 PM	0	0	**0**	0	0	0	**0**	0	48	0	**48**	0	32	0	**32**	0	0	0	**0**	0	31	0	**31**	0	0	0	**0**	0	58	1	**59**	0
12 hr Total	**3**	**5**	**8**	**0**	**15**	**0**	**15**	**2**	**3789**	**149**	**3938**	**9**	**2552**	**92**	**2644**	**6**	**5**	**0**	**5**	**0**	**1117**	**47**	**1164**	**3**	**15**	**0**	**15**	**0**	**3458**	**160**	**3618**	**9**
AM Peak	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**515**	**29**	**544**	**0**	**299**	**8**	**307**	**1**	**0**	**0**	**0**	**0**	**42**	**4**	**46**	**0**	**3**	**0**	**3**	**0**	**327**	**14**	**341**	**2**
PM Peak	**0**	**4**	**4**	**0**	**1**	**0**	**1**	**0**	**402**	**16**	**418**	**1**	**228**	**8**	**236**	**0**	**0**	**0**	**0**	**0**	**94**	**3**	**97**	**0**	**0**	**0**	**0**	**0**	**400**	**20**	**420**	**0**

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine
Location: Elm Street/Diamond Street, Lake Macdonlad (Sunshine Coast)
Day/Date: Friday, 25 October 2024
AM Peak: *Hour ending - 8:45 AM*
PM Peak: *Hour ending - 3:30 PM*





TIME (1/4 hr end)	Movement 9				Movement 10				Movement 11				Movement 12				Movement 13				Movement 14				Movement 15				Movement 16			
	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists	Light Vehicles	Heavy Vehicles	**Total**	Cyclists
6:15 AM	0	0	**0**	0	28	1	**29**	0	19	1	**20**	0	2	0	**2**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0
6:30 AM	0	0	**0**	0	39	5	**44**	0	23	3	**26**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0
6:45 AM	0	0	**0**	0	46	4	**50**	0	23	1	**24**	0	0	1	**1**	0	0	0	**0**	0	1	0	**1**	2	0	0	**0**	0	2	1	**3**	0
7:00 AM	0	0	**0**	0	40	4	**44**	0	35	7	**42**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
7:15 AM	0	0	**0**	0	54	4	**58**	0	29	2	**31**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
7:30 AM	0	0	**0**	0	50	6	**56**	0	39	6	**45**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0
7:45 AM	1	0	**1**	0	78	7	**85**	0	44	6	**50**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
8:00 AM	0	0	**0**	0	59	4	**63**	0	59	4	**63**	1	2	0	**2**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
8:15 AM	0	0	**0**	0	83	3	**86**	0	61	13	**74**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0	2	0	**2**	0
8:30 AM	1	0	**1**	0	59	3	**62**	0	76	3	**79**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
8:45 AM	0	0	**0**	0	77	5	**82**	0	62	5	**67**	0	1	0	**1**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0
9:00 AM	0	0	**0**	0	76	1	**77**	0	48	6	**54**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
9:15 AM	0	0	**0**	0	76	5	**81**	0	59	2	**61**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	2	0	**2**	0
9:30 AM	0	0	**0**	0	73	2	**75**	0	71	2	**73**	0	1	0	**1**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0	2	0	**2**	0
9:45 AM	0	0	**0**	0	85	3	**88**	0	76	4	**80**	1	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0
10:00 AM	1	0	**1**	0	70	5	**75**	0	69	4	**73**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
10:15 AM	0	0	**0**	0	68	3	**71**	0	63	1	**64**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
10:30 AM	0	0	**0**	0	75	3	**78**	0	50	4	**54**	1	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0
10:45 AM	0	0	**0**	0	73	3	**76**	0	65	2	**67**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0
11:00 AM	0	0	**0**	0	69	1	**70**	0	73	4	**77**	0	2	0	**2**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0
11:15 AM	0	0	**0**	0	77	2	**79**	0	91	5	**96**	1	0	0	**0**	2	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	2	0	**2**	0
11:30 AM	0	0	**0**	0	95	3	**98**	0	70	2	**72**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
11:45 AM	0	0	**0**	0	80	6	**86**	0	74	3	**77**	0	2	0	**2**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
12:00 PM	0	0	**0**	0	81	1	**82**	0	51	0	**51**	1	1	0	**1**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0	3	0	**3**	0
12:15 PM	0	0	**0**	0	66	0	**66**	0	75	4	**79**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0	2	0	**2**	1
12:30 PM	0	0	**0**	0	77	2	**79**	0	92	1	**93**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0
12:45 PM	0	0	**0**	0	80	1	**81**	0	68	0	**68**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0
1:00 PM	0	0	**0**	0	55	2	**57**	0	58	2	**60**	0	1	0	**1**	0	0	0	**0**	0	1	0	**1**	0	2	0	**2**	0	2	0	**2**	0
1:15 PM	0	0	**0**	0	59	2	**61**	0	51	1	**52**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0	1	0	**1**	0
1:30 PM	0	0	**0**	0	65	3	**68**	0	60	2	**62**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0
1:45 PM	0	0	**0**	0	78	7	**85**	0	60	1	**61**	0	3	0	**3**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0
2:00 PM	0	0	**0**	0	82	4	**86**	0	64	3	**67**	0	0	0	**0**	0	0	0	**0**	0	2	0	**2**	0	0	0	**0**	0	2	0	**2**	0
2:15 PM	0	0	**0**	0	82	3	**85**	0	81	1	**82**	0	4	0	**4**	0	0	0	**0**	0	2	0	**2**	0	0	0	**0**	0	3	0	**3**	0
2:30 PM	0	0	**0**	0	73	1	**74**	0	86	2	**88**	0	2	0	**2**	0	0	0	**0**	0	2	0	**2**	0	0	0	**0**	0	1	0	**1**	0
2:45 PM	0	0	**0**	0	69	0	**69**	0	100	1	**101**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
3:00 PM	0	0	**0**	0	70	3	**73**	0	123	6	**129**	0	2	0	**2**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
3:15 PM	0	0	**0**	0	78	1	**79**	0	98	6	**104**	0	1	0	**1**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0	2	0	**2**	0
3:30 PM	0	0	**0**	0	88	2	**90**	0	107	2	**109**	0	2	0	**2**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0
3:45 PM	0	0	**0**	0	76	2	**78**	0	93	3	**96**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
4:00 PM	0	0	**0**	0	69	1	**70**	0	67	0	**67**	0	1	1	**2**	0	0	0	**0**	0	2	0	**2**	0	0	1	**1**	0	0	0	**0**	0
4:15 PM	0	0	**0**	0	76	3	**79**	0	74	0	**74**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0	2	0	**2**	0	2	0	**2**	0
4:30 PM	0	0	**0**	0	61	2	**63**	0	70	2	**72**	0	0	0	**0**	0	0	0	**0**	0	2	0	**2**	0	0	0	**0**	0	2	0	**2**	0
4:45 PM	0	0	**0**	0	83	1	**84**	0	80	0	**80**	0	1	0	**1**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	1
5:00 PM	0	0	**0**	0	68	0	**68**	0	95	2	**97**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0
5:15 PM	0	0	**0**	0	63	0	**63**	0	85	1	**86**	0	1	0	**1**	0	0	0	**0**	0	2	0	**2**	0	0	0	**0**	0	0	0	**0**	0
5:30 PM	0	0	**0**	0	57	3	**60**	0	58	0	**58**	0	1	0	**1**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0	2	0	**2**	1
5:45 PM	0	0	**0**	0	56	0	**56**	0	67	0	**67**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	0	0	0	**0**	0
6:00 PM	0	0	**0**	0	50	1	**51**	0	68	3	**71**	0	0	0	**0**	0	0	0	**0**	0	1	0	**1**	0	0	0	**0**	1	0	0	**0**	0
12 hr Total	**3**	**0**	**3**	**0**	**3292**	**128**	**3420**	**0**	**3210**	**133**	**3343**	**5**	**44**	**2**	**46**	**2**	**0**	**0**	**0**	**0**	**25**	**0**	**25**	**2**	**9**	**1**	**10**	**1**	**39**	**1**	**40**	**3**
AM Peak	**1**	**0**	**1**	**0**	**278**	**15**	**293**	**0**	**258**	**25**	**283**	**1**	**3**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**0**
PM Peak	**0**	**0**	**0**	**0**	**305**	**6**	**311**	**0**	**428**	**15**	**443**	**0**	**5**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**0**

TIME (1/4 hr end)	Pedestrian Movements																			
	A - B		B - A		B - C		C - B		C - D		D - C		C - E		E - C		E - A		A - E	
	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists
6:15 AM	0	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	2	0	0	0	2	0	0	0	4	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	1	0	2	0	2	0	1	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
8:15 AM	1	0	1	0	0	0	0	0	1	0	2	0	2	0	1	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	1	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0
9:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	2	1	4	0	4	0	2	2	0	0	0	0
9:45 AM	1	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
10:00 AM	1	0	0	0	1	0	0	0	3	0	0	2	1	2	3	0	0	0	0	0
10:15 AM	1	0	1	0	0	0	0	0	5	0	0	0	0	0	5	0	0	0	0	0
10:30 AM	1	0	0	0	5	0	2	0	3	0	2	0	0	0	0	0	0	0	0	0
10:45 AM	2	0	1	0	2	0	3	0	2	0	5	0	1	0	0	0	0	0	0	0
11:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	1	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	3	0	0	0	0
12:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	1	0	0	0	0
1:00 PM	3	0	0	0	0	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0
1:30 PM	0	0	2	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0
2:00 PM	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:15 PM	3	0	0	0	3	0	0	0	2	0	1	0	1	0	0	0	1	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	2	0	0	0	0	0
2:45 PM	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
3:00 PM	2	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0
3:15 PM	1	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
3:30 PM	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
3:45 PM	3	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0
4:00 PM	3	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	5	0	0	0	0	0	5	0	0	0	0	0
4:45 PM	0	0	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	0	0	2	0	1	0	1	0	2	0	0	0	0	0
5:45 PM	1	0	2	0	1	0	0	0	4	0	0	0	1	0	4	0	0	0	0	0
6:00 PM	2	0	1	0	0	0	2	0	0	0	3	0	2	0	1	0	0	0	1	0
12 hr Total	**37**	**0**	**23**	**0**	**15**	**0**	**14**	**0**	**50**	**3**	**37**	**3**	**29**	**3**	**45**	**7**	**1**	**0**	**3**	**0**
AM Peak	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**3**	**0**	**3**	**0**	**2**	**0**	**0**	**0**	**0**	**0**
PM Peak	**8**	**0**	**2**	**0**	**1**	**0**	**1**	**0**	**1**	**0**	**2**	**1**	**1**	**1**	**0**	**1**	**0**	**0**	**1**	**0**

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine

Location: Elm Street/Diamond Street, Lake Macdonlad (Sunshine Coast)

Day/Date: Friday, 25 October 2024

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

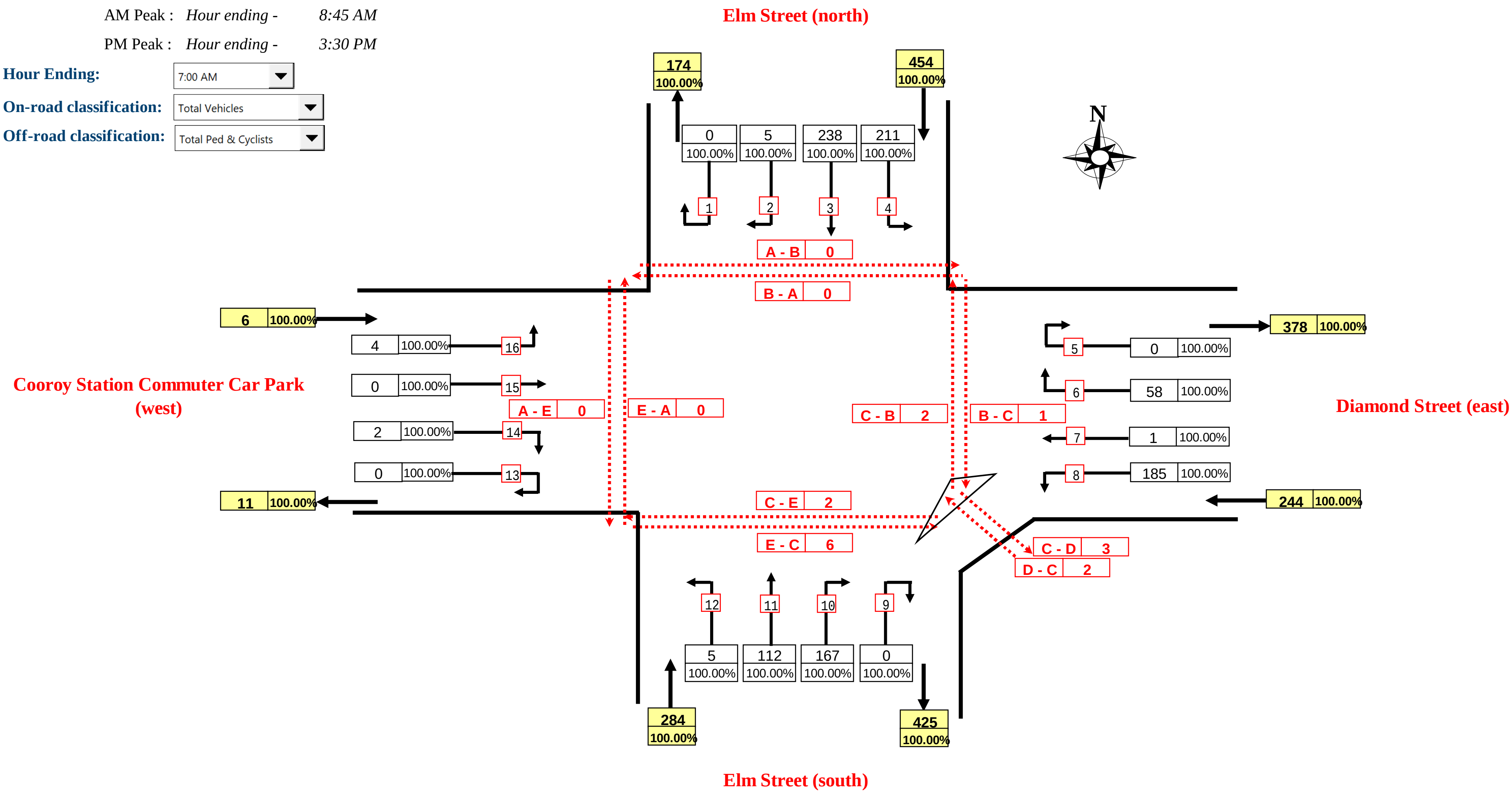
AM Peak : *Hour ending - 8:45 AM*

PM Peak : *Hour ending - 3:30 PM*

Hour Ending: 7:00 AM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine

Location: Elm Street/Diamond Street, Lake Macdonlad (Sunshine Coast)

Day/Date: Friday, 25 October 2024

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

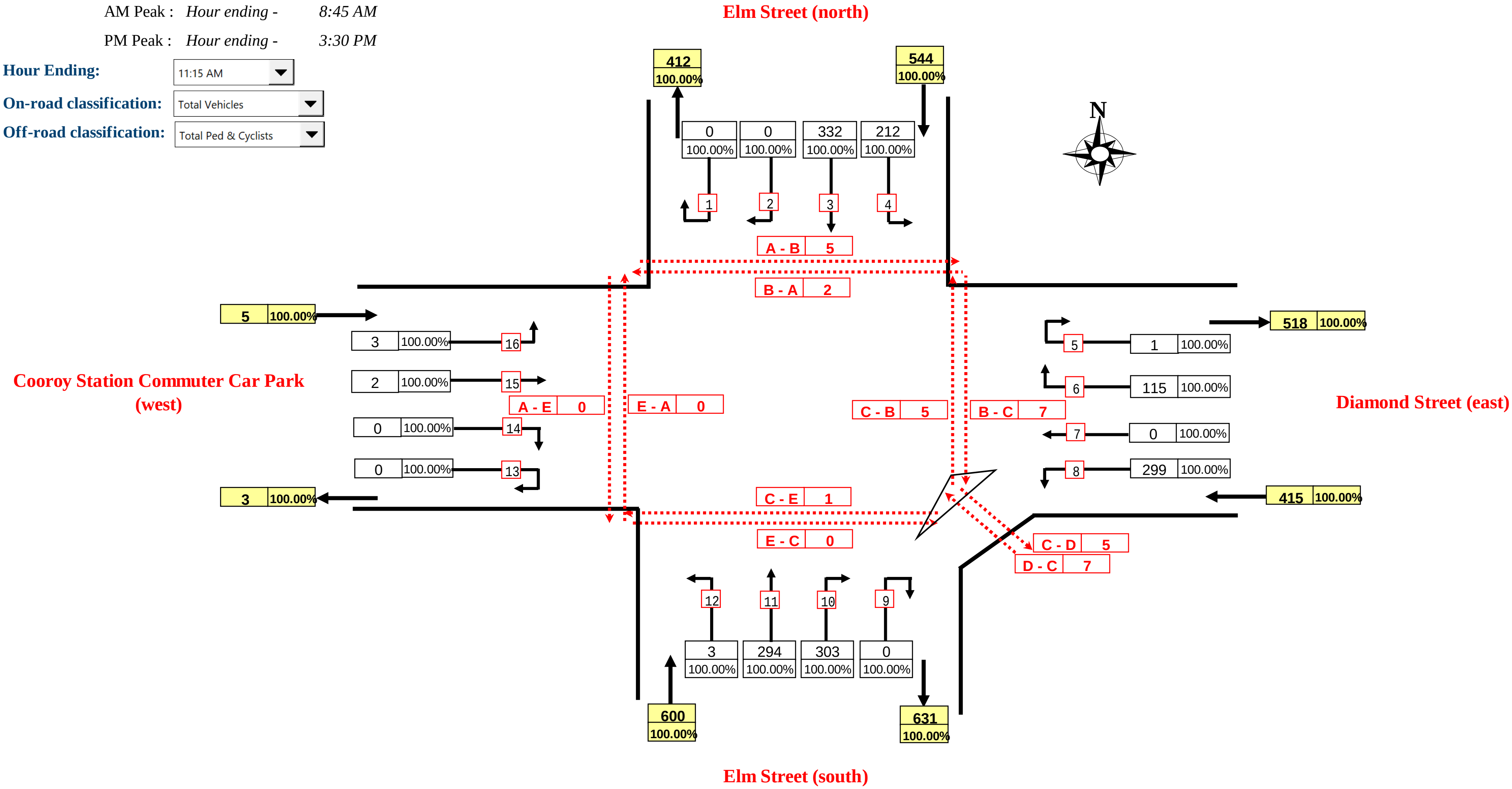
AM Peak : *Hour ending - 8:45 AM*

PM Peak : *Hour ending - 3:30 PM*

Hour Ending: 11:15 AM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists

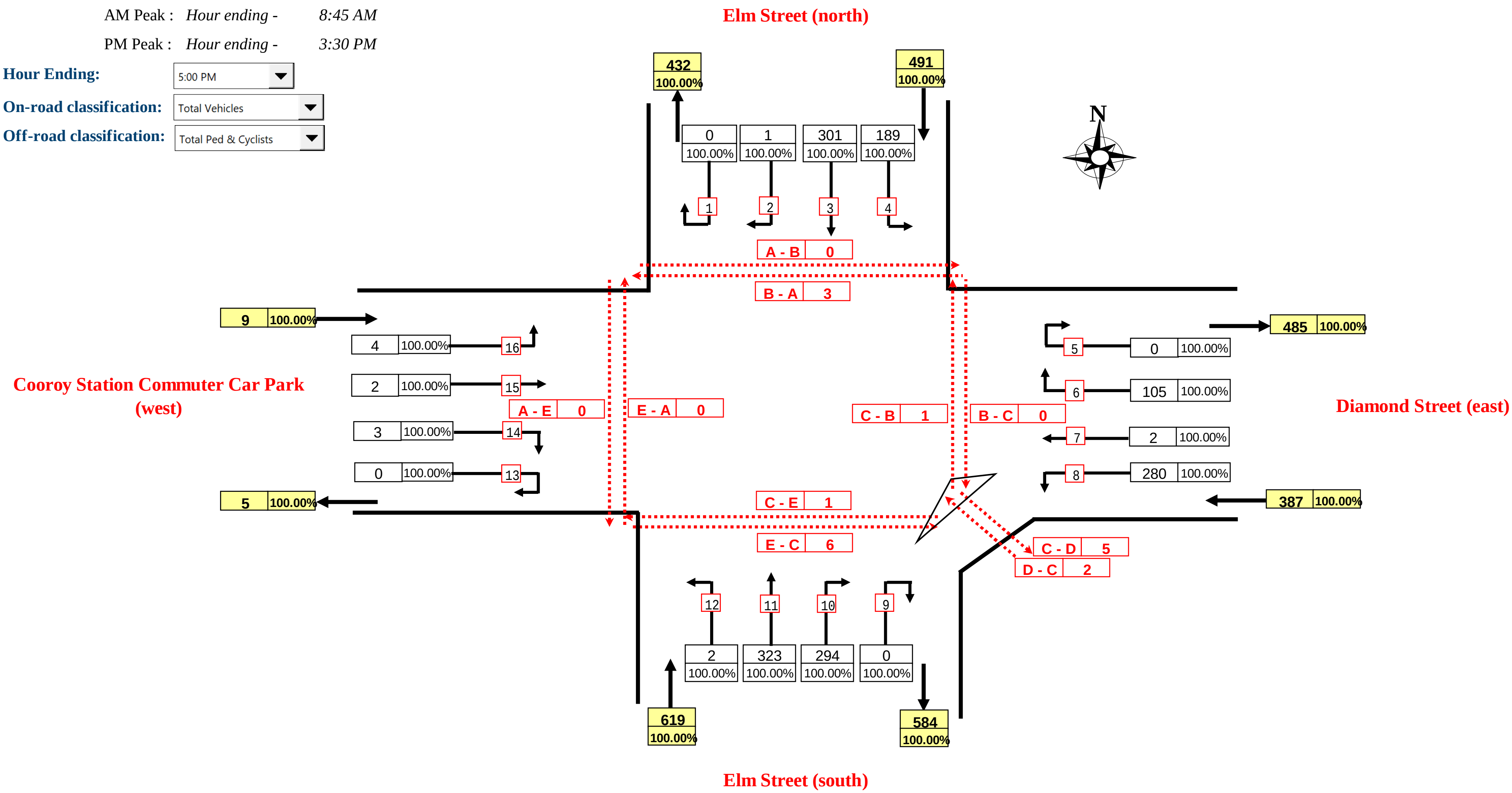


Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine
Location: Elm Street/Diamond Street, Lake Macdonlad (Sunshine Coast)
Day/Date: Friday, 25 October 2024
Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*
AM Peak : *Hour ending - 8:45 AM*
PM Peak : *Hour ending - 3:30 PM*

Hour Ending: 5:00 PM
On-road classification: Total Vehicles
Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine

Location: Elm Street/Diamond Street, Lake Macdonlad (Sunshine Coast)

Day/Date: Friday, 25 October 2024

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

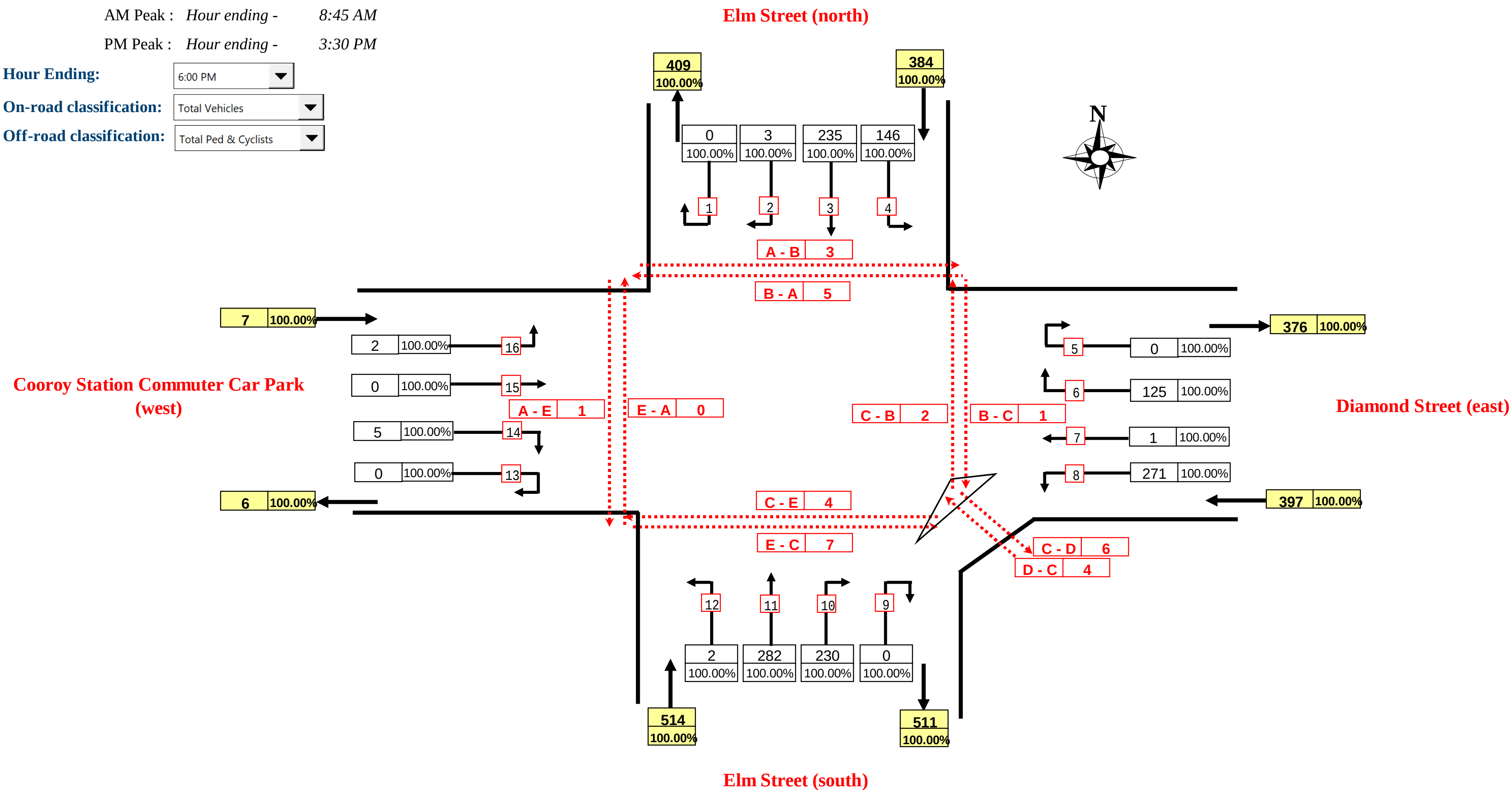
AM Peak : *Hour ending - 8:45 AM*

PM Peak : *Hour ending - 3:30 PM*

Hour Ending: 6:00 PM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine

Location: Elm Street/Diamond Street, Lake Macdonlad (Sunshine Coast)

Day/Date: Friday, 25 October 2024

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

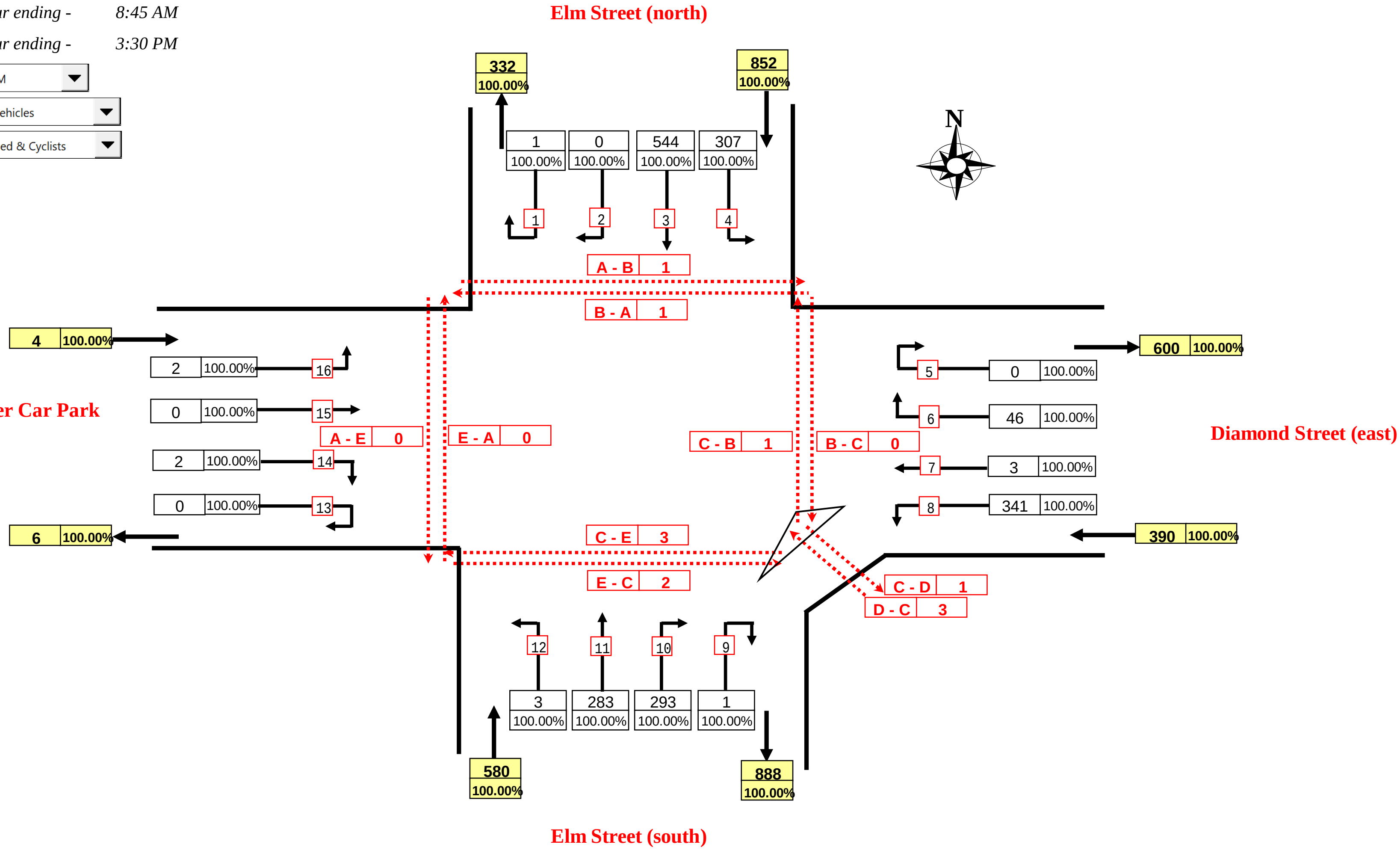
AM Peak : *Hour ending - 8:45 AM*

PM Peak : *Hour ending - 3:30 PM*

Hour Ending: 8:45 AM

On-road classification: Total Vehicles

Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 **Weather:** Fine

Location: Elm Street/Diamond Street, Lake Macdonlad (Sunshine Coast)

Day/Date: Friday, 25 October 2024

Summary: 12 Hour Volumes : *6:00 AM to 6:00 PM*

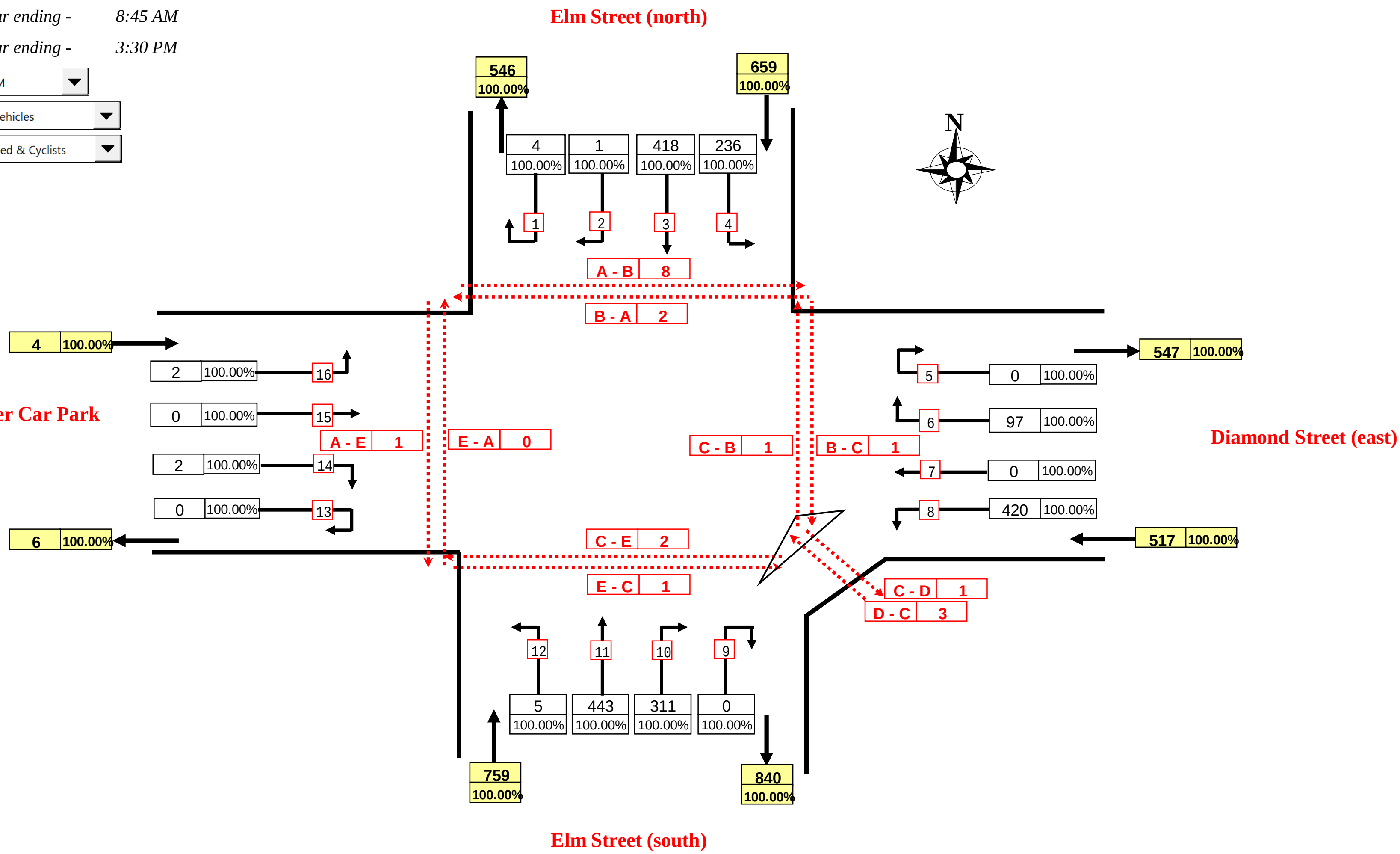
AM Peak : *Hour ending - 8:45 AM*

PM Peak : *Hour ending - 3:30 PM*

Hour Ending: 3:30 PM

On-road classification: Total Vehicles

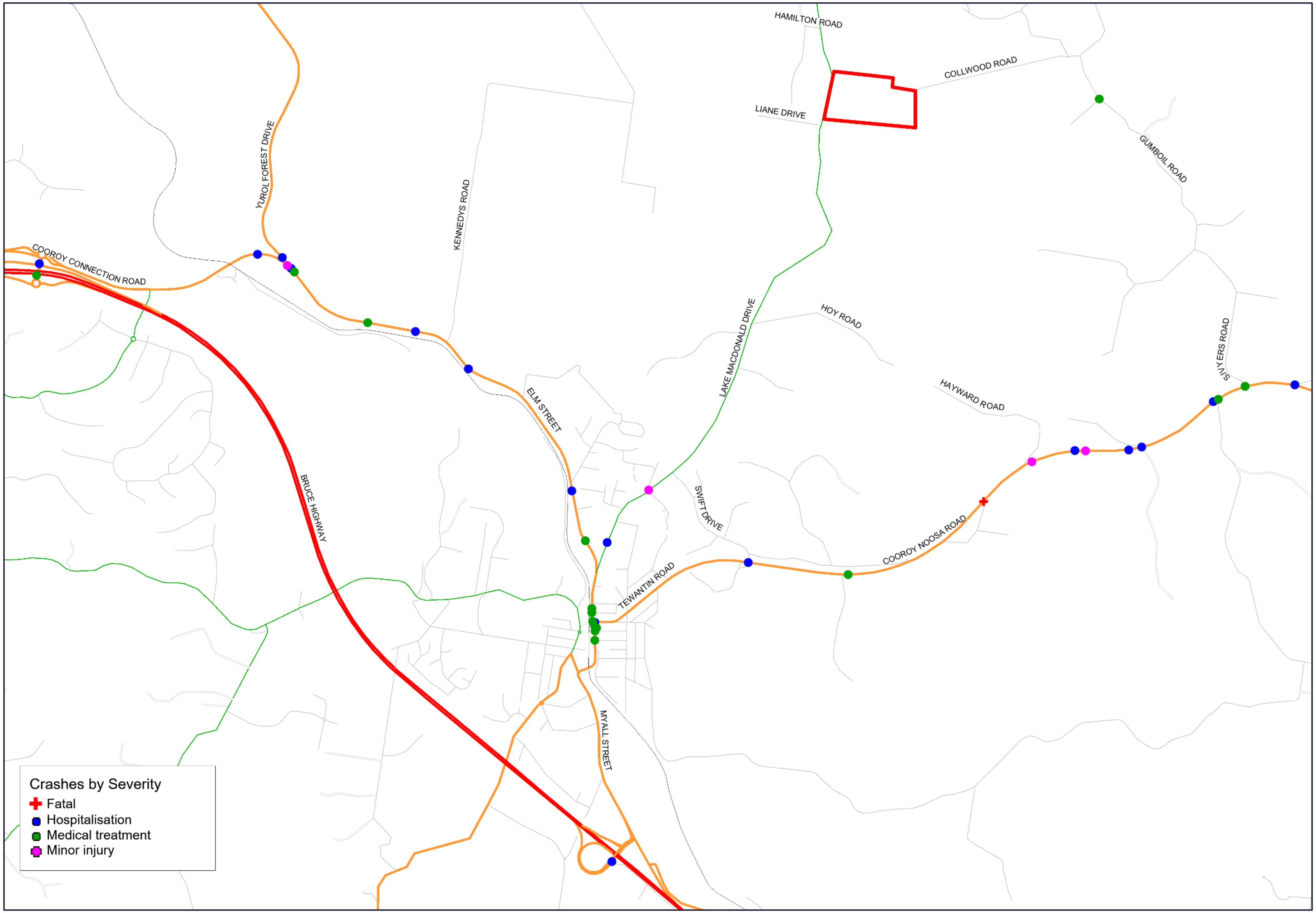
Off-road classification: Total Ped & Cyclists



Note: 3.28% = proportion of selected vehicle classification as a percentage of total vehicles

Appendix B

Crash Details and Summary Tables



HAMILTON ROAD
COLLWOOD ROAD
LIANE DRIVE
GUMBOIL ROAD
YUROL FOREST DRIVE
KENNEDYS ROAD
COOROY CONNECTION ROAD
LAKE MACDONALD DRIVE
HOY ROAD
HAYWARD ROAD
ELM STREET
BRUCE HIGHWAY
SWIFT DRIVE
COOROY NOOSA ROAD
TEWANTIN ROAD
MYALL STREET
Crashes by Severity
Fatal
Hospitalisation
Medical treatment
Minor injury

Crash Severity / Crash Conditions

Severity	Atmospheric Condition		No. of Crashes
	Clear	Raining	
Fatal	1		**1**
Hospitalisation	13	3	**16**
Medical treatment	17	1	**18**
Minor injury	4		**4**
Total	**35**	**4**	**39**

Crash Severity / Year

Severity	Crash Year						No. of Crashes
	2018	2019	2020	2021	2022	2023	
Fatal			1				**1**
Hospitalisation		5	2	1	4	4	**16**
Medical treatment	1	4	3	3	6	1	**18**
Minor injury				**2**	**1**	**1**	**4**
Total	**1**	**9**	**6**	**6**	**11**	**6**	**39**

Table 7–1: Study Area - Crash Definition for Coding Accidents (DCA) Codes

DCA	Description	Severity				No. of Crashes
		Fatal	Hospitalisation	Medical treatment	Minor injury	
3	Pedn: Far Side Vehicle Hit From Left			1		**1**
9	Pedn: Hit While Boarding/Alighting			1		**1**
104	Vehs Adjacent Approach: Thru-Right		1	1		**2**
201	Vehs Opposite Approach: Head On	1	4	1		**6**
202	Vehs Opposite Approach: Thru-Right		1	1	1	**3**
300	Vehs Same Direction: Other		1			**1**
301	Vehs Same Direction: Rear End			1	2	**3**
302	Vehs Same Direction: Left Rear		1	2		**3**
303	Vehs Same Direction: Right Rear			4		**4**
308	Vehs Same Direction: Right Turn S/Swipe			1		**1**
408	Vehs Manoeuvring: Entering From Footway			1		**2**
506	Vehs Overtaking: Overtake-Right Turn		1	1		**2**
701	Off Path-Straight: Left Off Cway				1	**1**
703	Off Path-Straight: Left Off Cway Hit Obj		1			**1**
705	Off Path-Straight: Out Of Control On Cway		1			**1**
803	Off Path-Curve: Off Cway Rt Bend Hit Obj		1	2		**3**
804	Off Path-Curve: Off Cway Lt Bend Hit Obj		2	1		**3**

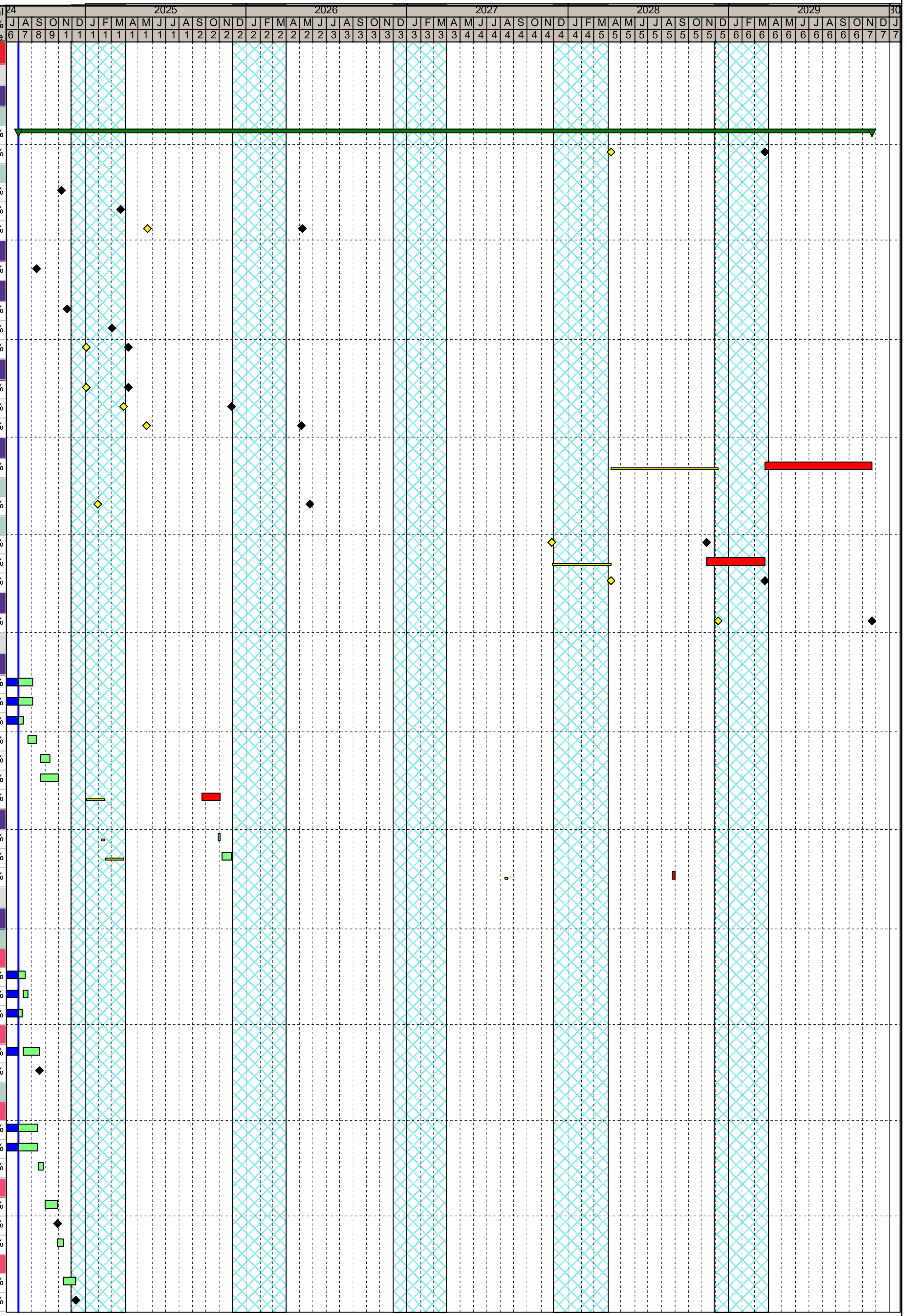
DCA	Description	Severity				No. of Crashes
		Fatal	Hospitalisation	Medical treatment	Minor injury	
806	Vehicle Left-Turning At I/S (Or Driveway)		1			**1**
Total		**1**	**16**	**18**	**4**	**39**

Appendix C

John Holland Construction Program

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals		937	19-Feb-24 A	22-Nov-29	03-Oct-23	07-Dec-28	-152	0	
MILESTONES		925	19-Feb-24 A	22-Nov-29	17-Feb-24	07-Dec-28	-152	0	
Key Milestones		811	19-Feb-24 A	22-Nov-29	17-Feb-24	07-Dec-28	-152	0	
Client		811	19-Feb-24 A	22-Nov-29	17-Feb-24	07-Dec-28	-152	0	
MIL-CL-1580	Client (Seqwater) - Contract Duration (Calendar Days)	1756	19-Feb-24 A	22-Nov-29	17-Feb-24	07-Dec-28	-350	0	0%
MIL-CL-1660	Client (Seqwater) - DRY Contractors' Date for Practical Completion	0		23-Mar-29		07-Apr-28	-232	168	0%
Contractor		330	07-Nov-24	08-May-26	02-May-24	20-May-25	-216	802	
MIL-CO-1080	Contractor (JH) - Able to Commence - Mobilisation / Site Establishment	0	07-Nov-24*		02-May-24		-122	131	0%
MIL-CO-1120	Contractor (JH) - Complete - Mobilisation / Site Establishment	0		21-Mar-25		09-May-24	-198	231	0%
MIL-CO-1140	Contractor (JH) - Spillway Protected for Inundation Event	0		08-May-26		20-May-25	-216	802	0%
Stage 0 - Plans + Preconstruction		0	11-Sep-24	11-Sep-24	08-Mar-24	08-Mar-24	-117	564	
MIL-CO-0920	Plans + Preconstruction - Stage 0 - Complete	0		11-Sep-24		08-Mar-24	-117	564	0%
Stage 1 - Resevoir Lowering		54	20-Nov-24	07-Apr-25	31-May-24	02-Jan-25	-41	146	
MIL-CO-1100	Reservoir Lowering - Stage 1 - Contractor (JH) - Receives Approval to Proceed with Reservoir Lowering	0		20-Nov-24		19-Jun-24	-108	142	0%
MIL-CO-1060	Reservoir Lowering - Stage 1 - Able to Commence	0	03-Mar-25*		31-May-24		-170	74	0%
MIL-CO-1200	Reservoir Lowering - Stage 1 - Complete to RL93	0		07-Apr-25		02-Jan-25	-37	156	0%
Stage 2 - Temporary Works (Spillway Demolition + Working Platform)		167	07-Apr-25	06-May-26	02-Jan-25	19-May-25	-152	144	
MIL-CO-1180	Temporary Work - Stage 2 - Able to Commence	0	07-Apr-25		02-Jan-25		-63	204	0%
MIL-CO-1220	Temporary Work - Stage 2 - Contractor (JH) - Receives Approval to Commence Demolition	0	28-Nov-25		28-Mar-25		-169	78	0%
MIL-CO-1620	Temporary Work - Stage 2 - Spillway Demolished + Working Platform Installed	0		06-May-26		19-May-25	-216	201	0%
Stage 3 - Dam Construction		565	26-May-26	21-Nov-29	29-Jan-25	06-Dec-28	-151	0	
MIL-CO-1640	Dam Construction - Stage 3 - Weather Contingency (Wet Weather + Heat + Humidity + BPIC etc)	243	24-Mar-29	21-Nov-29	08-Apr-28	06-Dec-28	-350	0	0%
Stage 3 - Dam Construction - Commence		0	26-May-26	26-May-26	29-Jan-25	29-Jan-25	-296	520	
MIL-CO-1240	Dam Construction - Stage 3 - Able to Commence	0	26-May-26		29-Jan-25		-296	520	0%
Stage 3 - Dam Construction - Practical Completion		51	10-Nov-28	23-Mar-29	26-Nov-27	07-Apr-28	-151	0	
MIL-CO-1500	Dam Construction - Stage 3 - Contractors' Target Date to reach Practical Completion	0		10-Nov-28		26-Nov-27	-213	0	0%
MIL-CO-1520	Dam Construction - Stage 3 - Contractors' Contingency (Cal Days) SRA-03 - P80	133	11-Nov-28	23-Mar-29	27-Nov-27	07-Apr-28	-350	0	0%
MIL-CO-1420	Dam Construction - Stage 3 - Contractors' Date for Practical Completion (DRY)	0		23-Mar-29		07-Apr-28	-350	0	0%
Stage 4 - Reinstatement + Close Out		0	22-Nov-29	22-Nov-29	07-Dec-28	07-Dec-28	-350	0	
MIL-CO-1480	Reinstatement + Close Out - Stage 4 - Contractors' Date for Completion	0		22-Nov-29		07-Dec-28	-350	0	0%
APPROVALS + REPORTS + STUDIES		719	06-Mar-24 A	31-Aug-28	04-Mar-24	18-Aug-27	-167	0	
Referable Structure Approval		411	06-Mar-24 A	03-Nov-25	04-Mar-24	13-Feb-25	-181	72	
RSA-1200	Client (Seqwater) - Referable Structure - EAP Addendum Upstream Coffer Dam	40	06-Mar-24 A	03-Sep-24	06-Mar-24	03-May-24	-85	191	57.5%
RSA-1220	Client (Seqwater) - Referable Structure - LDMG Consultation (on EAP) Upstream Coffer Dam	40	06-Mar-24 A	03-Sep-24	06-Mar-24	03-May-24	-85	191	57.5%
RSA-1160	Client (Seqwater) - Referable Structure - Undertake Failure Impact Assessments at 60% Design	20	12-Apr-24 A	12-Aug-24	04-Mar-24	02-Apr-24	-92	179	0%
RSA-1100	Client (Seqwater) - Referable Structure - TRP Review of 90% Design of Upstream Cofer Dam	15	23-Aug-24	12-Sep-24	09-Apr-24	30-Apr-24	-95	179	0%
RSA-1120	Client (Seqwater) - Referable Structure - TRP Review of IFC Design of Upstream Cofer Dam	15	20-Sep-24	11-Oct-24	09-May-24	29-May-24	-95	179	0%
RSA-1140	Client (Seqwater) - Referable Structure - Submission to Regulator (QDRDMW) Upstream Coffer Dam	30	20-Sep-24	01-Nov-24	09-May-24	19-Jun-24	-95	179	0%
RSA-1240	Client (Seqwater) - Referable Structure - Dam Safety Regulator Approval for Impoundment	30	22-Sep-25	03-Nov-25	02-Jan-25	13-Feb-25	-181	72	0%
Dam Operation Approvals		449	28-Oct-25	31-Aug-28	07-Feb-25	18-Aug-27	-167	0	
DOA-1000	Client (Seqwater) - Referable Structure - Operations Approval for Impoundment by the Upstream Coffer Dam	5	28-Oct-25	03-Nov-25	07-Feb-25	13-Feb-25	-181	72	0%
DOA-1020	Client (Seqwater) - Approval to Demolish Spillway Slot (Reduced from 30 to 15 Days)	15	06-Nov-25	27-Nov-25	14-Feb-25	27-Mar-25	-154	65	0%
DOA-1040	Client (Seqwater) - Approval to Remove Upstream Coffer Dam	5	25-Aug-28	31-Aug-28	12-Aug-27	18-Aug-27	-253	0	0%
EARLY WORKS / LIMITED NOTICE TO PROCEED (LNTP)		152	19-Mar-24 A	21-Dec-24	19-Jan-24	30-May-24	-98	785	
Design		134	02-May-24 A	09-Dec-24	19-Feb-24	08-May-24	-151	1206	
Upstream Cofferdam		76	02-May-24 A	17-Sep-24	09-Apr-24	08-May-24	-93	1264	
Detail Design		29	02-May-24 A	22-Aug-24	09-Apr-24	30-Apr-24	-80	1282	
EW-DES-D-001-1280	Design - Upstream - Request from SEQ Undertake Further Geotech/Compile Report	20	02-May-24 A	16-Aug-24				1286	10%
EW-DES-D-001-1160	Design - Upstream - Cofferdam - Detailed Design 90% - Client (Seqwater) - Review by Superintend	15	27-May-24 A	22-Aug-24	09-Apr-24	30-Apr-24	-80	179	0%
EW-DES-D-001-1240	Design - Upstream - Cofferdam - Request from SEQ to Re Run CFD Models on 1:5 Batter	15	18-Jun-24 A	09-Aug-24				1290	0%
Issue For Construction (IFC)		76	27-May-24 A	17-Sep-24	09-Apr-24	08-May-24	-93	181	
EW-DES-D-001-1180	Design - Upstream - Cofferdam - IFC 100% - Finalise + RPEQ Certify	20	27-May-24 A	17-Sep-24	09-Apr-24	08-May-24	-93	181	10%
EW-DES-D-001-1200	Design - Upstream - Cofferdam - IFC 100% - Submit to Superintendent (Information Only)	0		17-Sep-24		08-May-24	-93	181	0%
Reservoir Lowering - Siphon Only		114	18-Jun-24 A	09-Dec-24	19-Feb-24	10-Apr-24	-169	1161	
Preliminary Design		89	18-Jun-24 A	27-Sep-24				263	
ST0-DES-D-010-3100	Design - Reservoir Lowering System - Design/Proc and Method to 60% - Alternative 1 (RHE) Only	89	18-Jun-24 A	13-Sep-24				263	0%
ST0-DES-D-010-3120	Design - Reservoir Lowering System - Design/Proc and Method to 60% - Alternative 2 (LHE) - Likely not to proceed	89	18-Jun-24 A	13-Sep-24				263	0%
ST0-DES-D-010-3140	Design - Reservoir Lowering System - Detailed Design - SEQ to Confirm the Preferred Option	10	16-Sep-24	27-Sep-24				263	0%
Detail Design		30	30-Sep-24	11-Nov-24	19-Feb-24	08-Apr-24	-151	1161	
ST0-DES-D-010-1900	Design - Reservoir Lowering System - Detailed Design 90% - Develop	20	30-Sep-24	28-Oct-24	19-Feb-24	15-Mar-24	-155	1161	0%
ST0-DES-D-010-2540	Design - Reservoir Lowering System - Detailed Design 90% - Submit to Superintendent [within 90d of award]	0		28-Oct-24		15-Mar-24	-155	1161	0%
ST0-DES-D-010-2560	Design - Reservoir Lowering System - Detailed Design 90% - Client (Seqwater) - Review by Superintendent	10	29-Oct-24	11-Nov-24	18-Mar-24	08-Apr-24	-151	1161	0%
Issue For Construction (IFC)		20	12-Nov-24	09-Dec-24	09-Apr-24	10-Apr-24	-169	1161	
ST0-DES-D-010-2840	Design - Reservoir Lowering System - IFC 100% - Finalise + RPEQ Certify	20	12-Nov-24	09-Dec-24	09-Apr-24	10-Apr-24	-169	1161	0%
ST0-DES-D-010-3040	Design - Reservoir Lowering System - IFC 100% - Submit to Superintendent (Information Only)	0		09-Dec-24		10-Apr-24	-169	1161	0%



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

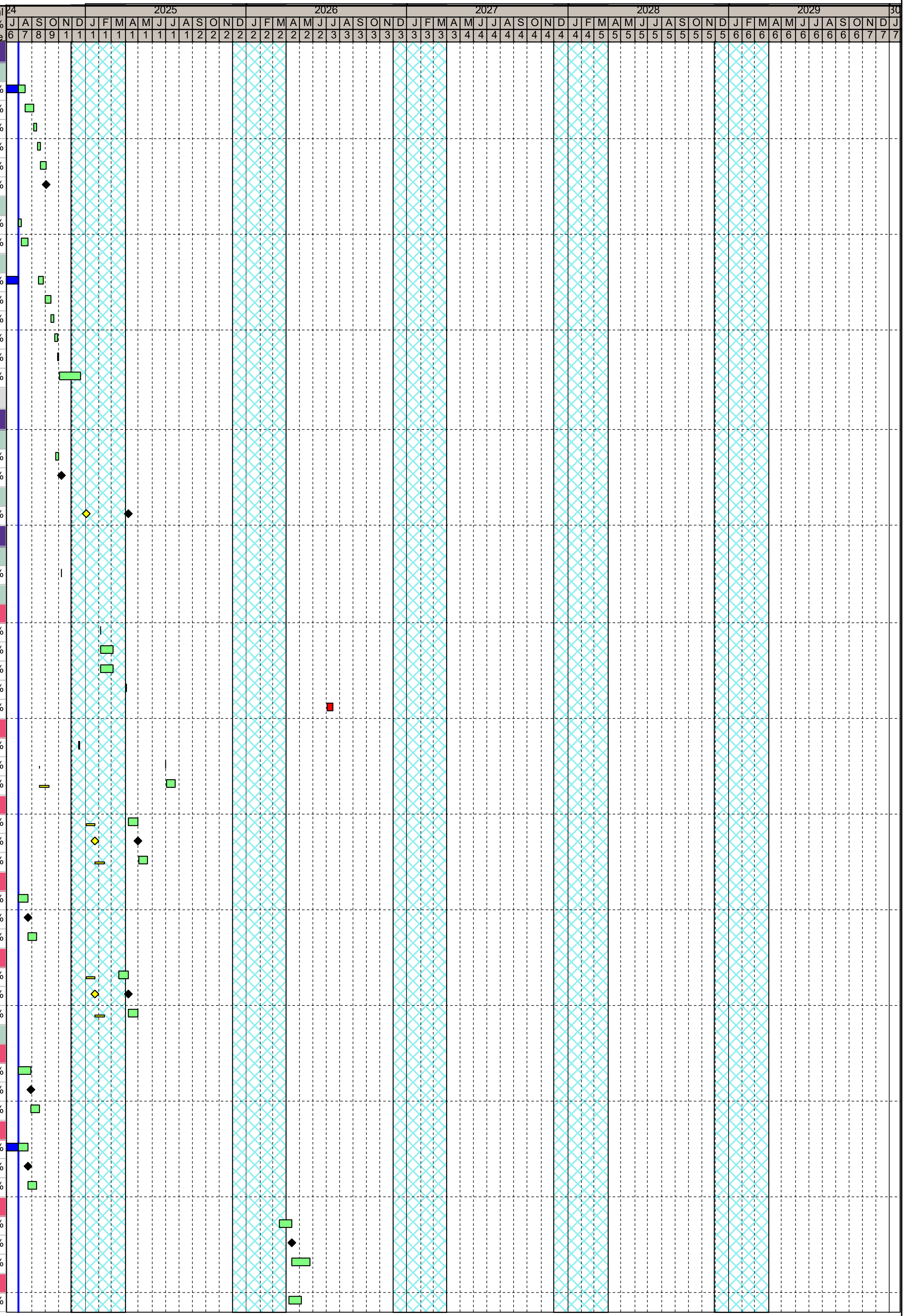
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
Procurement		152	19-Mar-24 A	21-Dec-24	19-Jan-24	30-May-24	-98	167	
S56 - 006 - Quarry Material - Upstream Cofferdam		68	03-Jun-24 A	04-Oct-24	19-Jan-24	02-May-24	-109	199	
EW-PRO-S56-1000	Procurement - Quarry Material - Upstream Cofferdam - Supply - RFQ Prepare + Issue Package	10	03-Jun-24 A	15-Aug-24	19-Jan-24	02-Feb-24	-134	199	0%
EW-PRO-S56-1020	Procurement - Quarry Material - Upstream Cofferdam - Supply - RFQ Tender Period	15	16-Aug-24	05-Sep-24	05-Feb-24	23-Feb-24	-134	199	0%
EW-PRO-S56-1040	Procurement - Quarry Material - Upstream Cofferdam - Supply - RFQ Compare / Evaluate / Negotiate / Recommend	5	06-Sep-24	12-Sep-24	26-Feb-24	08-Mar-24	-129	199	0%
EW-PRO-S56-1060	Procurement - Quarry Material - Upstream Cofferdam - Supply - RFQ Award	5	13-Sep-24	19-Sep-24	11-Mar-24	15-Mar-24	-129	199	0%
EW-PRO-S56-1080	Procurement - Quarry Material - Upstream Cofferdam - Supply - Manufacture + Lead Time (Reduced from 30 to 10 Days)	10	20-Sep-24	03-Oct-24	18-Mar-24	01-May-24	-109	199	0%
EW-PRO-S56-1100	Procurement - Quarry Material - Upstream Cofferdam - Supply - Commence Deliver to Site	0	04-Oct-24		02-May-24		-109	199	0%
S - 004 - Reservoir Lowering - Pump System (Design and Supply)		16	01-Aug-24	23-Aug-24	18-Mar-24	30-May-24	-60	204	
ST0-PRO-S-004-2060	Procurement - Reservoir Lowering - Siphon / Pump System - RFQ Award + Onboarding	5	01-Aug-24	07-Aug-24	18-Mar-24	21-Mar-24	-95	204	0%
ST0-PRO-S-004-2180	Procurement - Reservoir Lowering - Siphon / Pump System - Manufacture / Lead Time (10 weeks)	11	08-Aug-24	23-Aug-24	22-Mar-24	30-May-24	-60	204	0%
S-00X - Reservoir Lowering (Maintenance) - Siphon System (Supply Only)		152	19-Mar-24 A	21-Dec-24				167	
ST0-PRO-S-004-2220	Procurement - Reservoir Lowering - Siphon / Pump System - RFQ Prepare + Issue Package	5	19-Mar-24 A	27-Sep-24				263	100%
ST0-PRO-S-004-2240	Procurement - Reservoir Lowering - Siphon / Pump System - RFQ Tender Period	10	30-Sep-24	14-Oct-24				263	0%
ST0-PRO-S-004-2260	Procurement - Reservoir Lowering - Siphon / Pump System - RFQ Compare / Evaluate / Negotiate / Recommend	5	15-Oct-24	21-Oct-24				263	0%
ST0-PRO-S-004-2320	Procurement - Reservoir Lowering - Siphon / Pump System - SEQWater Approval	5	22-Oct-24	28-Oct-24				263	0%
ST0-PRO-S-004-2280	Procurement - Reservoir Lowering - Siphon / Pump System - RFQ Award + Onboarding	4	29-Oct-24	01-Nov-24				263	0%
ST0-PRO-S-004-2300	Procurement - Reservoir Lowering - Siphon / Pump System - Manufacture / Lead Time (10 weeks)	50	02-Nov-24	21-Dec-24				394	0%
STAGE 0 - PRECONSTRUCTION WORKS		735	20-Feb-24 A	15-Sep-28	03-Oct-23	26-Feb-25	-570	121	
CONTRACT EXECUTION / PRECONDITIONS		66	24-Oct-24	07-Apr-25	15-Mar-24	02-Jan-25	-41	146	
Precondtions: Access to Site [22 (b)]		5	24-Oct-24	06-Nov-24	15-Mar-24	21-Mar-24	-107	89	
ST0-PRE-1140	Preconstruction - Preconditions for Access to Site - 7 Day Review	7	24-Oct-24	01-Nov-24	15-Mar-24	21-Mar-24	-144	131	0%
ST0-PRE-1160	Preconstruction - Preconditions for Access to Site - Achieved	0		06-Nov-24		21-Mar-24	-158	142	0%
Preconditions: Stage 2 [26B]		0	07-Apr-25	07-Apr-25	02-Jan-25	02-Jan-25	-63	204	
ST0-PRE-1180	Preconstruction - Precondition - Water Supply Level - RL 93m	0	07-Apr-25		02-Jan-25		-63	204	0%
DOCUMENTATION		539	03-Apr-24 A	16-Jul-26	03-Oct-23	12-Feb-25	-350	526	
Client Supplied Documentation		1	06-Nov-24	06-Nov-24	25-Jan-24	25-Jan-24	-197	142	
ST0-DOC-1440	Documentation - Principal to Supply - CG Approval Conditions Table	1	06-Nov-24	06-Nov-24	25-Jan-24	25-Jan-24	-197	142	0%
Submittals		477	01-Aug-24	16-Jul-26	03-Oct-23	12-Feb-25	-350	214	
Ground Water Dewatering		357	04-Feb-25	16-Jul-26	03-Oct-23	21-May-24	-528	1	
ST0-DOC-1020	Document - Contractor (JH) - Submit Groundwater Specialist Details to Superintendent [within 90d of award]	1	04-Feb-25	04-Feb-25	25-Jan-24	25-Jan-24	-250	246	0%
ST0-DOC-1040	Document - Contractor (JH) - Groundwater Dewatering - Develop + Submit Construction Method [within 90d of award]	20	05-Feb-25	04-Mar-25	22-Apr-24	21-May-24	-192	246	0%
ST0-DOC-1060	Document - Contractor (JH) - Groundwater Dewatering - Develop + Submit Detailed Programme [within 90d of award]	20	05-Feb-25	04-Mar-25	22-Apr-24	21-May-24	-192	246	0%
ST0-DOC-1000	Document - Contractor (JH) - Submit Specialist Structural Engineer Details to Superintendent [within 90d of award]	1	04-Apr-25	04-Apr-25	25-Jan-24	25-Jan-24	-293	223	0%
ST0-DOC-1080	Document - Contractor (JH) - Groundwater Dewatering - Develop Dewatering Trial Report	10	03-Jul-26	16-Jul-26	03-Oct-23	16-Oct-23	-668	1	0%
Concrete Batch Plant		142	16-Dec-24	22-Jul-25	30-Apr-24	09-Oct-24	-189	454	
ST0-DOC-3020	Document - Contractor (JH) - Concrete Batch Plant - Submit to Superintendent [90d after award]	2	16-Dec-24	17-Dec-24	30-Apr-24	01-May-24	-161	424	0%
ST0-DOC-3100	Document - Contractor (JH) - Concrete Batch Plant Trial Results - Submit to Superintendent	2	01-Jul-25	02-Jul-25	17-Sep-24	18-Sep-24	-189	454	0%
ST0-DOC-3120	Document - Client (Seqwater) - Concrete Batch Plant - Trial Results - Review + Issue Acceptance by Superintendent	14	03-Jul-25	22-Jul-25	19-Sep-24	09-Oct-24	-189	454	0%
Mass Concrete		29	07-Apr-25	21-May-25	02-Jan-25	12-Feb-25	-66	448	
ST0-DOC-3140	Document - Contractor (JH) - Mass Concrete - Construction Method Statement (CMS) - Develop	15	07-Apr-25	30-Apr-25	02-Jan-25	22-Jan-25	-66	434	0%
ST0-DOC-3180	Document - Contractor (JH) - Mass Concrete - CMS - Submit to Superintendent [28d prior]	0		30-Apr-25		22-Jan-25	-66	434	0%
ST0-DOC-3200	Document - Client (Seqwater) - Mass Concrete - CMS - Review + Issue Acceptance by Superintendent	14	01-May-25	21-May-25	23-Jan-25	12-Feb-25	-66	448	0%
Erosion Protection Works		29	01-Aug-24	11-Sep-24	30-Jan-24	08-Mar-24	-128	612	
ST0-DOC-3260	Document - Contractor (JH) - Erosion Protection Works - Construction Method Statement (CMS) - Develop	15	01-Aug-24	22-Aug-24	30-Jan-24	19-Feb-24	-128	612	0%
ST0-DOC-3280	Document - Contractor (JH) - Erosion Protection Works - CMS - Submit to Superintendent [45d prior]	0		22-Aug-24		19-Feb-24	-128	612	0%
ST0-DOC-3300	Document - Client (Seqwater) - Erosion Protection Works - CMS - Review + Issue Acceptance by Superintendent	14	23-Aug-24	11-Sep-24	20-Feb-24	08-Mar-24	-128	612	0%
Embankments Construction		29	17-Mar-25	29-Apr-25	02-Jan-25	12-Feb-25	-51	249	
ST0-DOC-3160	Document - Contractor (JH) - Embankment Construction - Construction Method Statement (CMS) - Develop	15	17-Mar-25	07-Apr-25	02-Jan-25	22-Jan-25	-51	249	0%
ST0-DOC-3220	Document - Contractor (JH) - Embankment Construction - CMS - Submit to Superintendent [28d prior]	0		07-Apr-25		22-Jan-25	-51	249	0%
ST0-DOC-3240	Document - Client (Seqwater) - Embankment Construction - CMS - Review + Issue Acceptance by Superintendent	14	07-Apr-25	29-Apr-25	23-Jan-25	12-Feb-25	-51	249	0%
Execution Plans		462	10-Jun-24 A	25-May-26	23-Jan-24	10-Jun-24	-476	564	
Reservoir Lowering Management Plan		34	01-Aug-24	18-Sep-24	23-Jan-24	11-Mar-24	-132	186	
ST0-DOC-MP-1720	Plans - Contractor (JH) - Reservoir Lowering Management Plan - Develop	20	01-Aug-24	29-Aug-24	23-Jan-24	20-Feb-24	-132	186	0%
ST0-DOC-MP-2800	Plans - Contractor (JH) - Reservoir Lowering Management Plan - Submit To Superintendent [within 90d of award]	0		29-Aug-24		20-Feb-24	-132	186	0%
ST0-DOC-MP-2820	Plans - Client (Seqwater) - Reservoir Lowering Management Plan - Review by Superintendent	14	30-Aug-24	18-Sep-24	21-Feb-24	11-Mar-24	-132	186	0%
Construction Flood Management Plan		52	10-Jun-24 A	11-Sep-24	21-Mar-24	13-May-24	-86	358	
ST0-DOC-MP-2960	Plans - Contractor (JH) - Construction Flood Management Plan - Develop	20	10-Jun-24 A	22-Aug-24	21-Mar-24	19-Apr-24	-86	358	0%
ST0-DOC-MP-3040	Plans - Contractor (JH) - Construction Flood Management Plan - Submit To Superintendent [within 90d of award]	0		22-Aug-24		19-Apr-24	-86	358	0%
ST0-DOC-MP-3060	Plans - Client (Seqwater) - Construction Flood Management Plan - Review by Superintendent	14	23-Aug-24	11-Sep-24	22-Apr-24	13-May-24	-86	358	0%
Commissioning Plan		48	16-Mar-26	25-May-26	25-Jan-24	13-Mar-24	-535	564	
ST0-DOC-MP-1380	Plans - Contractor (JH) - Commissioning Plan - Develop	20	16-Mar-26	14-Apr-26	25-Jan-24	22-Feb-24	-521	564	0%
ST0-DOC-MP-2120	Plans - Contractor (JH) - Commissioning Plan - Submit To Superintendent [28d prior]	0		14-Apr-26		22-Feb-24	-521	564	0%
ST0-DOC-MP-2600	Plans - Client (Seqwater) - Commissioning Plan - Review by Superintendent	28	15-Apr-26	25-May-26	23-Feb-24	13-Mar-24	-535	564	0%
Rehabilitation Management Plan		34	07-Apr-26	25-May-26	25-Jan-24	13-Mar-24	-535	564	
ST0-DOC-MP-1400	Plans - Contractor (JH) - Rehabilitation Management Plan - Develop	20	07-Apr-26	05-May-26	25-Jan-24	22-Feb-24	-535	564	0%



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

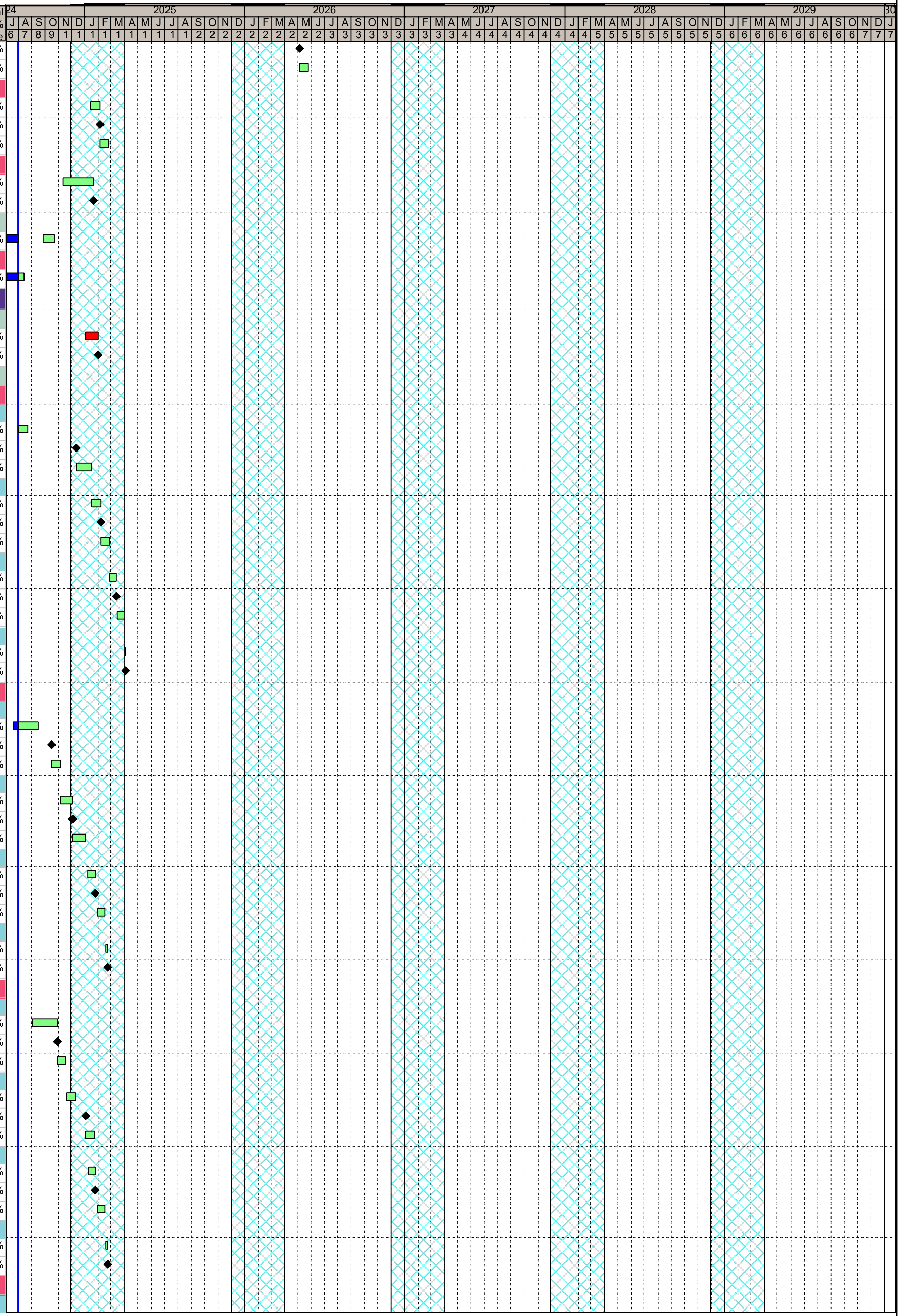
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST0-DOC-MP-2140	Plans - Contractor (JH) - Rehabilitation Management Plan - Submit To Superintendent	0		05-May-26		22-Feb-24	-535	564	0%
ST0-DOC-MP-2620	Plans - Client (Seqwater) - Rehabilitation Management Plan - Review by Superintendent	14	06-May-26	25-May-26	23-Feb-24	13-Mar-24	-535	564	0%
Dewatering Management Plan		29	14-Jan-25	24-Feb-25	22-Apr-24	10-Jun-24	-172	252	
ST0-DOC-MP-2920	Plans - Contractor (JH) - Dewatering Management Plan - Develop	15	14-Jan-25	04-Feb-25	22-Apr-24	21-May-24	-172	252	0%
ST0-DOC-MP-2980	Plans - Contractor (JH) - Dewatering Management Plan - Submit To Superintendent [within 90d of award]	0		04-Feb-25		21-May-24	-172	252	0%
ST0-DOC-MP-3000	Plans - Client (Seqwater) - Dewatering Management Plan - Review by Superintendent	14	05-Feb-25	24-Feb-25	22-May-24	10-Jun-24	-172	252	0%
Demolition Plan		40	12-Nov-24	20-Jan-25	25-Jan-24	21-Mar-24	-201	223	
ST0-DOC-MP-1100	Plans - Contractor (JH) - Demolition Plan - Develop	40	12-Nov-24	20-Jan-25	25-Jan-24	21-Mar-24	-201	223	0%
ST0-DOC-MP-1840	Plans - Contractor (JH) - Demolition Plan - Submit To Superintendent [28d prior to]	0		20-Jan-25		21-Mar-24	-201	223	0%
Coordinator General Management Plan Requirements		60	03-Apr-24 A	23-Oct-24	16-Feb-24	22-Apr-24	-128	144	
ST0-DOC-MP-3320	Plans - Stakeholder - Review + Issue Approval by Superintendent & Coordinator General	40	03-Apr-24 A	23-Oct-24	23-Feb-24	22-Apr-24	-128	144	0%
Community & Stakeholder Engagement Plan C4		40	03-Apr-24 A	13-Aug-24	16-Feb-24	15-Apr-24	-84	183	
ST0-DOC-MP-2640	Plans - Stakeholder - Community + Stakeholder Engagement Plan - Review & Issue Approval by Coordinator General	40	03-Apr-24 A	13-Aug-24	16-Feb-24	15-Apr-24	-84	183	0%
DESIGN		254	22-Jul-24 A	11-Mar-26	26-Oct-23	15-Oct-24	-216	473	
Safety in Design		20	03-Jan-25	31-Jan-25	25-Jan-24	22-Feb-24	-229	81	
ST0-DES-1180	Design - Construction Methodology Report - Develop	20	03-Jan-25	31-Jan-25	25-Jan-24	22-Feb-24	-229	81	0%
ST0-DES-1480	Design - Construction Methodology Report - Submit to Dam Safety Regulator [1 month prior to construction]	0		31-Jan-25		22-Feb-24	-229	81	0%
Temporary Design		126	22-Jul-24 A	23-May-25	25-Jan-24	06-Jun-24	-155	456	
Flood Management / Staging		164	01-Aug-24	04-Apr-25	25-Jan-24	13-May-24	-221	223	
Concept Design		107	01-Aug-24	14-Jan-25	25-Jan-24	13-Mar-24	-203	223	
ST0-DES-1300	Design - Construction Flood Management System - Concept Design - Memorandum + Drawings - Develop	15	01-Aug-24	22-Aug-24	25-Jan-24	22-Feb-24	-125	201	0%
ST0-DES-1920	Design - Construction Flood Management System - Concept Design - Submit To Superintendent [within 60d of award]	0		11-Dec-24		22-Feb-24	-203	223	0%
ST0-DES-1980	Design - Construction Flood Management System - Concept Design - Client (Seqwater) - Review by Superintendent	14	12-Dec-24	14-Jan-25	23-Feb-24	13-Mar-24	-203	223	0%
Preliminary Design		29	15-Jan-25	25-Feb-25	29-Feb-24	11-Apr-24	-213	223	
ST0-DES-2000	Design - Construction Flood Management System - Preliminary Design 60% - Develop	15	15-Jan-25	05-Feb-25	29-Feb-24	20-Mar-24	-213	223	0%
ST0-DES-2580	Design - Construction Flood Management System - Preliminary Design 60% - Submit to Superintendent	0		05-Feb-25		20-Mar-24	-213	223	0%
ST0-DES-2620	Design - Construction Flood Management System - Preliminary Design 60% - Client (Seqwater) - Review by Superintendent	14	06-Feb-25	25-Feb-25	21-Mar-24	11-Apr-24	-213	223	0%
Detail Design		26	26-Feb-25	02-Apr-25	02-Apr-24	09-May-24	-221	223	
ST0-DES-2640	Design - Construction Flood Management System - Detailed Design 90% - Develop	12	26-Feb-25	13-Mar-25	02-Apr-24	17-Apr-24	-221	223	0%
ST0-DES-3080	Design - Construction Flood Management System - Detailed Design 90% - Submit to Superintendent [within 90d of award]	0		13-Mar-25		17-Apr-24	-221	223	0%
ST0-DES-3120	Design - Construction Flood Management System - Detailed Design 90% - Client (Seqwater) - Review by Superintendent	14	14-Mar-25	02-Apr-25	18-Apr-24	09-May-24	-221	223	0%
Issue For Construction (IFC)		2	03-Apr-25	04-Apr-25	10-May-24	13-May-24	-221	223	
ST0-DES-3460	Design - Construction Flood Management System - IFC 100% - Finalise + RPEQ Certify	2	03-Apr-25	04-Apr-25	10-May-24	13-May-24	-221	223	0%
ST0-DES-3500	Design - Construction Flood Management System - IFC 100% - Submit to Superintendent (For Acceptance)	0		04-Apr-25		13-May-24	-221	223	0%
Working Platform		134	22-Jul-24 A	21-Feb-25	25-Jan-24	06-Jun-24	-173	223	
Concept Design		66	22-Jul-24 A	04-Nov-24	25-Jan-24	12-Apr-24	-142	223	
ST0-DES-D-050-1320	Design - Working Platform - Concept Design - Memorandum + Drawings - Develop	40	22-Jul-24 A	16-Sep-24	25-Jan-24	21-Mar-24	-122	201	0%
ST0-DES-D-050-1940	Design - Working Platform - Concept Design - Submit To Superintendent [within 60d of award]	0		15-Oct-24		21-Mar-24	-142	223	0%
ST0-DES-D-050-2020	Design - Working Platform - Concept Design - Client (Seqwater) - Review by Superintendent	14	16-Oct-24	04-Nov-24	22-Mar-24	12-Apr-24	-142	223	0%
Preliminary Design		34	05-Nov-24	03-Jan-25	28-Mar-24	13-May-24	-157	223	
ST0-DES-D-050-2040	Design - Working Platform - Preliminary Design 60% - Develop	20	05-Nov-24	02-Dec-24	28-Mar-24	19-Apr-24	-157	223	0%
ST0-DES-D-050-2600	Design - Working Platform - Preliminary Design 60% - Submit to Superintendent	0		02-Dec-24		19-Apr-24	-157	223	0%
ST0-DES-D-050-2660	Design - Working Platform - Preliminary Design 60% - Client (Seqwater) - Review by Superintendent	14	03-Dec-24	03-Jan-25	22-Apr-24	13-May-24	-157	223	0%
Detail Design		29	06-Jan-25	14-Feb-25	29-Apr-24	04-Jun-24	-170	223	
ST0-DES-D-050-2680	Design - Working Platform - Detailed Design 90% - Develop	15	06-Jan-25	24-Jan-25	29-Apr-24	15-May-24	-170	223	0%
ST0-DES-D-050-3100	Design - Working Platform - Detailed Design 90% - Submit to Superintendent	0		24-Jan-25		15-May-24	-170	223	0%
ST0-DES-D-050-3140	Design - Working Platform - Detailed Design 90% - Client (Seqwater) - Review by Superintendent	14	28-Jan-25	14-Feb-25	16-May-24	04-Jun-24	-170	223	0%
Issue For Construction (IFC)		5	17-Feb-25	21-Feb-25	05-Jun-24	06-Jun-24	-173	223	
ST0-DES-D-050-3480	Design - Working Platform - IFC 100% - Finalise + RPEQ Certify	5	17-Feb-25	21-Feb-25	05-Jun-24	06-Jun-24	-173	223	0%
ST0-DES-D-050-3520	Design - Working Platform - IFC 100% - Submit to Superintendent (For Acceptance)	0		21-Feb-25		06-Jun-24	-173	223	0%
Low Flow Channel		112	03-Sep-24	21-Feb-25				223	
Concept Design		54	03-Sep-24	18-Nov-24				231	
ST0-DES-D-050-3540	Design - Low Flow Channel - Concept Design - Memorandum + Drawings - Develop	40	03-Sep-24	29-Oct-24				201	0%
ST0-DES-D-050-3560	Design - Low Flow Channel - Concept Design - Submit To Superintendent	0		29-Oct-24				231	0%
ST0-DES-D-050-3580	Design - Low Flow Channel - Concept Design - Client (Seqwater) - Review by Superintendent	14	30-Oct-24	18-Nov-24				231	0%
Preliminary Design		37	19-Nov-24	22-Jan-25				223	
ST0-DES-D-050-3600	Design - Low Flow Channel - Preliminary Design 60% - Develop	15	19-Nov-24	09-Dec-24				231	0%
ST0-DES-D-050-3620	Design - Low Flow Channel - Preliminary Design 60% - Submit to Superintendent	0		02-Jan-25				223	0%
ST0-DES-D-050-3640	Design - Low Flow Channel - Preliminary Design 60% - Client (Seqwater) - Review by Superintendent	14	03-Jan-25	22-Jan-25				223	0%
Detail Design		26	09-Jan-25	14-Feb-25				223	
ST0-DES-D-050-3660	Design - Low Flow Channel - Detailed Design 90% - Develop	12	09-Jan-25	24-Jan-25				223	0%
ST0-DES-D-050-3680	Design - Low Flow Channel - Detailed Design 90% - Submit to Superintendent	0		24-Jan-25				223	0%
ST0-DES-D-050-3700	Design - Low Flow Channel - Detailed Design 90% - Client (Seqwater) - Review by Superintendent	14	28-Jan-25	14-Feb-25				223	0%
Issue For Construction (IFC)		5	17-Feb-25	21-Feb-25				223	
ST0-DES-D-050-3720	Design - Low Flow Channel - IFC 100% - Finalise + RPEQ Certify	5	17-Feb-25	21-Feb-25				223	0%
ST0-DES-D-050-3740	Design - Low Flow Channel - IFC 100% - Submit to Superintendent (For Acceptance)	0		21-Feb-25				223	0%
Ground Water Dewatering - Embankments		114	16-Oct-24	08-Apr-25	25-Jan-24	06-Jun-24	-205	201	
Concept Design		54	16-Oct-24	13-Jan-25	25-Jan-24	12-Apr-24	-182	201	



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

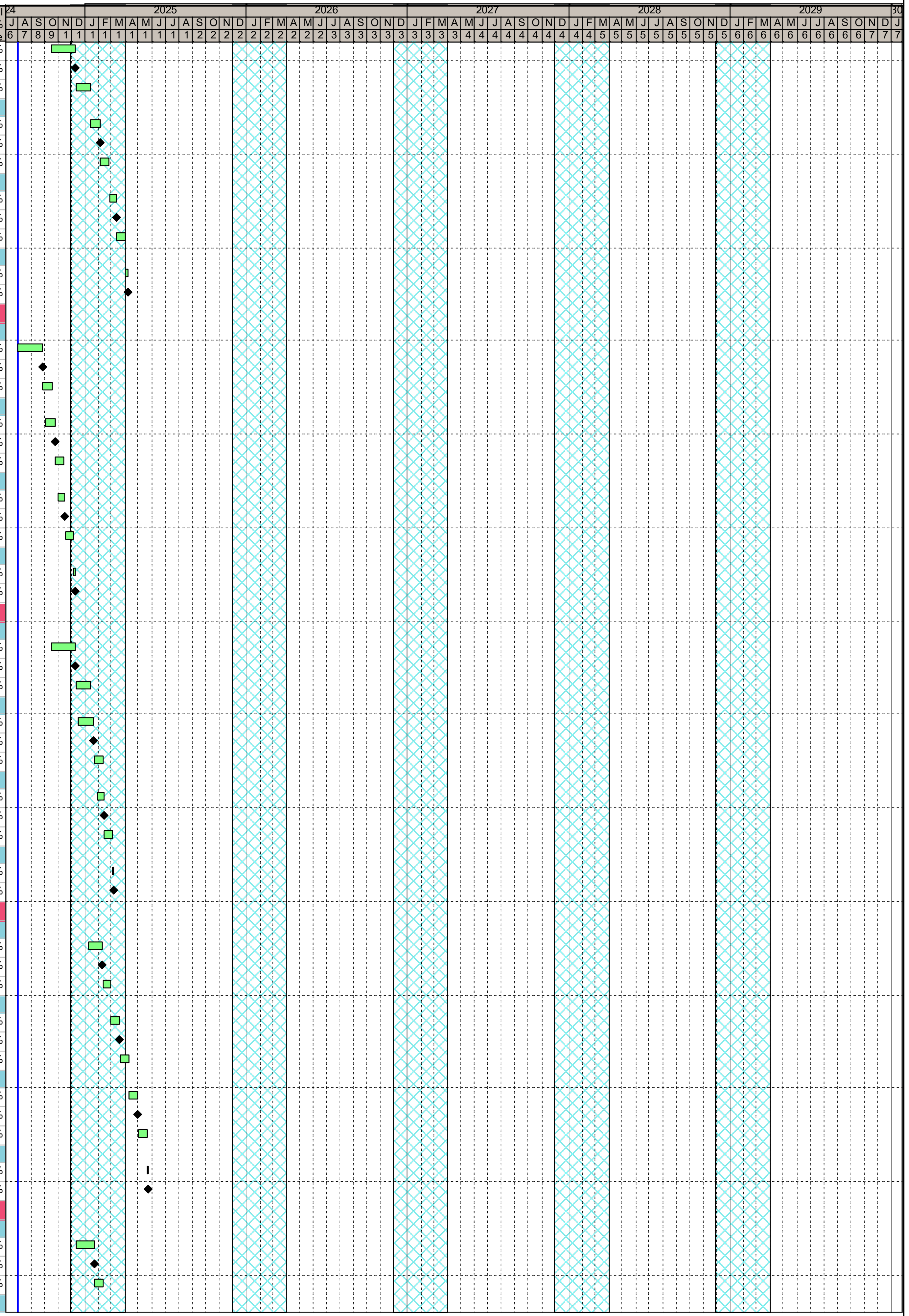
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST0-DES-1020	Design - Ground Water Dewatering - Concept Design - Memorandum + Drawings - Develop	40	16-Oct-24	10-Dec-24	25-Jan-24	21-Mar-24	-182	201	0%
ST0-DES-1340	Design - Ground Water Dewatering - Concept Design - Submit To Superintendent	0		10-Dec-24		21-Mar-24	-182	201	0%
ST0-DES-1520	Design - Ground Water Dewatering - Concept Design - Client(Seqwater) - Review by Superintendent	14	11-Dec-24	13-Jan-25	22-Mar-24	12-Apr-24	-182	201	0%
Preliminary Design		29	14-Jan-25	24-Feb-25	28-Mar-24	13-May-24	-192	201	
ST0-DES-1540	Design - Ground Water Dewatering - Preliminary Design 60% - Develop	15	14-Jan-25	04-Feb-25	28-Mar-24	19-Apr-24	-192	201	0%
ST0-DES-2060	Design - Ground Water Dewatering - Preliminary Design 60% - Submitto Superintendent	0		04-Feb-25		19-Apr-24	-192	201	0%
ST0-DES-2200	Design - Ground Water Dewatering - Preliminary Design 60% - Client (Seqwater) - Review by Superintendent	14	05-Feb-25	24-Feb-25	22-Apr-24	13-May-24	-192	201	0%
Detail Design		26	25-Feb-25	01-Apr-25	29-Apr-24	04-Jun-24	-202	201	
ST0-DES-2220	Design - Ground Water Dewatering - Detailed Design 90% - Develop	12	25-Feb-25	12-Mar-25	29-Apr-24	15-May-24	-202	201	0%
ST0-DES-2700	Design - Ground Water Dewatering - Detailed Design 90% - Submit to Superintendent	0		12-Mar-25		15-May-24	-202	201	0%
ST0-DES-2860	Design - Ground Water Dewatering - Detailed Design 90% - Client(Seqwater) - Review by Superintendent	14	13-Mar-25	01-Apr-25	16-May-24	04-Jun-24	-202	201	0%
Issue for Construction (IFC)		5	02-Apr-25	08-Apr-25	05-Jun-24	06-Jun-24	-205	201	
ST0-DES-3160	Design - Ground Water Dewatering - IFC 100% - Finalise + RPEQ Certify	5	02-Apr-25	08-Apr-25	05-Jun-24	06-Jun-24	-205	201	0%
ST0-DES-3320	Design - Ground Water Dewatering - IFC 100% - Submit to Superintendent (For Acceptance)	0		08-Apr-25		06-Jun-24	-205	201	0%
NIP Strengthening Works (Seqwater Design)		91	01-Aug-24	09-Dec-24				237	
Concept Design		54	01-Aug-24	17-Oct-24				237	
ST0-DES-3980	Design - NIP Strengthening Works - Concept Design - Memorandum + Drawings - Develop	40	01-Aug-24	26-Sep-24				237	0%
ST0-DES-4000	Design - NIP Strengthening Works - Concept Design - Submit To Superintendent	0		26-Sep-24				237	0%
ST0-DES-4020	Design - NIP Strengthening Works - Concept Design - Client (Seqwater) - Review by Superintendent	14	27-Sep-24	17-Oct-24				237	0%
Preliminary Design		29	03-Oct-24	13-Nov-24				237	
ST0-DES-4040	Design - NIP Strengthening Works - Preliminary Design 60% - Develop	15	03-Oct-24	24-Oct-24				237	0%
ST0-DES-4060	Design - NIP Strengthening Works - Preliminary Design 60% - Submit to Superintendent	0		24-Oct-24				237	0%
ST0-DES-2240	Design - NIP Strengthening Works - Preliminary Design 60% - Client (Seqwater) - Review by Superintendent	14	25-Oct-24	13-Nov-24				237	0%
Detail Design		26	31-Oct-24	05-Dec-24				237	
ST0-DES-4080	Design - NIP Strengthening Works - Detailed Design 90% - Develop	12	31-Oct-24	15-Nov-24				237	0%
ST0-DES-4100	Design - NIP Strengthening Works - Detailed Design 90% - Submit to Superintendent	0		15-Nov-24				237	0%
ST0-DES-4120	Design - NIP Strengthening Works - Detailed Design 90% - Client (Seqwater) - Review by Superintendent	14	18-Nov-24	05-Dec-24				237	0%
Issue For Construction (IFC)		2	06-Dec-24	09-Dec-24				237	
ST0-DES-4140	Design - NIP Strengthening Works - IFC 100% - Finalise + RPEQ Certify	2	06-Dec-24	09-Dec-24				237	0%
ST0-DES-4160	Design - NIP Strengthening Works - IFC 100% - Submit to Superintendent (For Acceptance)	0		09-Dec-24				237	0%
Ground Water Dewatering - D/S Erosion Protection Works		91	16-Oct-24	06-Mar-25				748	
Concept Design		54	16-Oct-24	13-Jan-25				748	
ST0-DES-3780	Design - Erosion Protection - Concept Design - Memorandum + Drawings - Develop	40	16-Oct-24	10-Dec-24				259	0%
ST0-DES-3800	Design - Erosion Protection - Concept Design - Submit To Superintendent	0		10-Dec-24				748	0%
ST0-DES-3820	Design - Erosion Protection - Concept Design - Client (Seqwater) - Review by Superintendent	14	11-Dec-24	13-Jan-25				748	0%
Preliminary Design		29	17-Dec-24	10-Feb-25				748	
ST0-DES-3840	Design - Erosion Protection - Preliminary Design 60% - Develop	15	17-Dec-24	20-Jan-25				748	0%
ST0-DES-3860	Design - Erosion Protection - Preliminary Design 60% - Submit to Superintendent	0		20-Jan-25				748	0%
ST0-DES-2220	Design - Erosion Protection - Preliminary Design 60% - Client (Seqwater) - Review by Superint	14	21-Jan-25	10-Feb-25				748	0%
Detail Design		26	28-Jan-25	04-Mar-25				748	
ST0-DES-3880	Design - Erosion Protection - Detailed Design 90% - Develop	12	28-Jan-25	12-Feb-25				748	0%
ST0-DES-3900	Design - Erosion Protection - Detailed Design 90% - Submit to Superintendent	0		12-Feb-25				748	0%
ST0-DES-3920	Design - Erosion Protection - Detailed Design 90% - Client (Seqwater) - Review by Superintend	14	13-Feb-25	04-Mar-25				748	0%
Issue For Construction (IFC)		2	05-Mar-25	06-Mar-25				748	
ST0-DES-3940	Design - Erosion Protection - IFC 100% - Finalise + RPEQ Certify	2	05-Mar-25	06-Mar-25				748	0%
ST0-DES-3960	Design - Erosion Protection - IFC 100% - Submit to Superintendent (For Acceptance)	0		06-Mar-25				748	0%
Sheet Piling - Sheet Pile Cut Off Wall		56	10-Jan-25	23-May-25				107	
Concept Design		34	10-Jan-25	27-Feb-25				158	
ST0-DES-D-048-3460	Design - Cut Off Wall - Sheet Piling - Concept Design - Memorandum + Drawings - Develop	20	10-Jan-25	07-Feb-25				158	0%
ST0-DES-D-048-3480	Design - Cut Off Wall - Sheet Piling - Concept Design - Submit To Superintendent	0		07-Feb-25				158	0%
ST0-DES-D-048-3500	Design - Cut Off Wall - Sheet Piling - Concept Design - Client (Seqwater) - Review by Superintendent	14	10-Feb-25	27-Feb-25				158	0%
Preliminary Design		29	28-Feb-25	09-Apr-25				158	
ST0-DES-D-048-3520	Design - Cut Off Wall - Sheet Piling - Preliminary Design 60% - Develop	15	28-Feb-25	20-Mar-25				158	0%
ST0-DES-D-048-3540	Design - Cut Off Wall - Sheet Piling - Preliminary Design 60% - Submit to Superintendent	0		20-Mar-25				158	0%
ST0-DES-D-048-3560	Design - Cut Off Wall - Sheet Piling - Preliminary Design 60% - Client (Seqwater) - Review by Superintendent	14	21-Mar-25	09-Apr-25				158	0%
Detail Design		15	10-Apr-25	21-May-25				107	
ST0-DES-D-048-3580	Design - Cut Off Wall - Sheet Piling - Detailed Design 90% - Develop	12	10-Apr-25	30-Apr-25				158	0%
ST0-DES-D-048-3600	Design - Cut Off Wall - Sheet Piling - Detailed Design 90% - Submit to Superintendent	0		30-Apr-25				225	0%
ST0-DES-D-048-3620	Design - Cut Off Wall - Sheet Piling - Detailed Design 90% - Client (Seqwater) - Review by Superintendent	14	01-May-25	21-May-25				158	0%
Issue For Construction (IFC)		2	22-May-25	23-May-25				158	
ST0-DES-D-048-3640	Design - Cut Off Wall - Sheet Piling - IFC 100% - Finalise + RPEQ Certify	2	22-May-25	23-May-25				158	0%
ST0-DES-D-048-3660	Design - Cut Off Wall - Sheet Piling - IFC 100% - Submit to Superintendent (For Acceptance)	0		23-May-25				158	0%
Secant Pile Retention		71	11-Dec-24	03-Apr-25	25-Jan-24	09-May-24	-222	262	
Concept Design		34	11-Dec-24	11-Feb-25	25-Jan-24	13-Mar-24	-222	259	
ST0-DES-D-047-1100	Design - Secant Pile Retention - Concept Design - Memorandum + Drawings - Develop	20	11-Dec-24	21-Jan-25	25-Jan-24	22-Feb-24	-222	259	0%
ST0-DES-D-047-1420	Design - Secant Pile Retention - Concept Design - Submit To Superintendent	0		21-Jan-25		22-Feb-24	-222	259	0%
ST0-DES-D-047-1680	Design - Secant Pile Retention - Concept Design - Client (Seqwater) - Review by Superintendentent	14	22-Jan-25	11-Feb-25	23-Feb-24	13-Mar-24	-222	259	0%
Preliminary Design		29	29-Jan-25	10-Mar-25	29-Feb-24	11-Apr-24	-222	262	



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

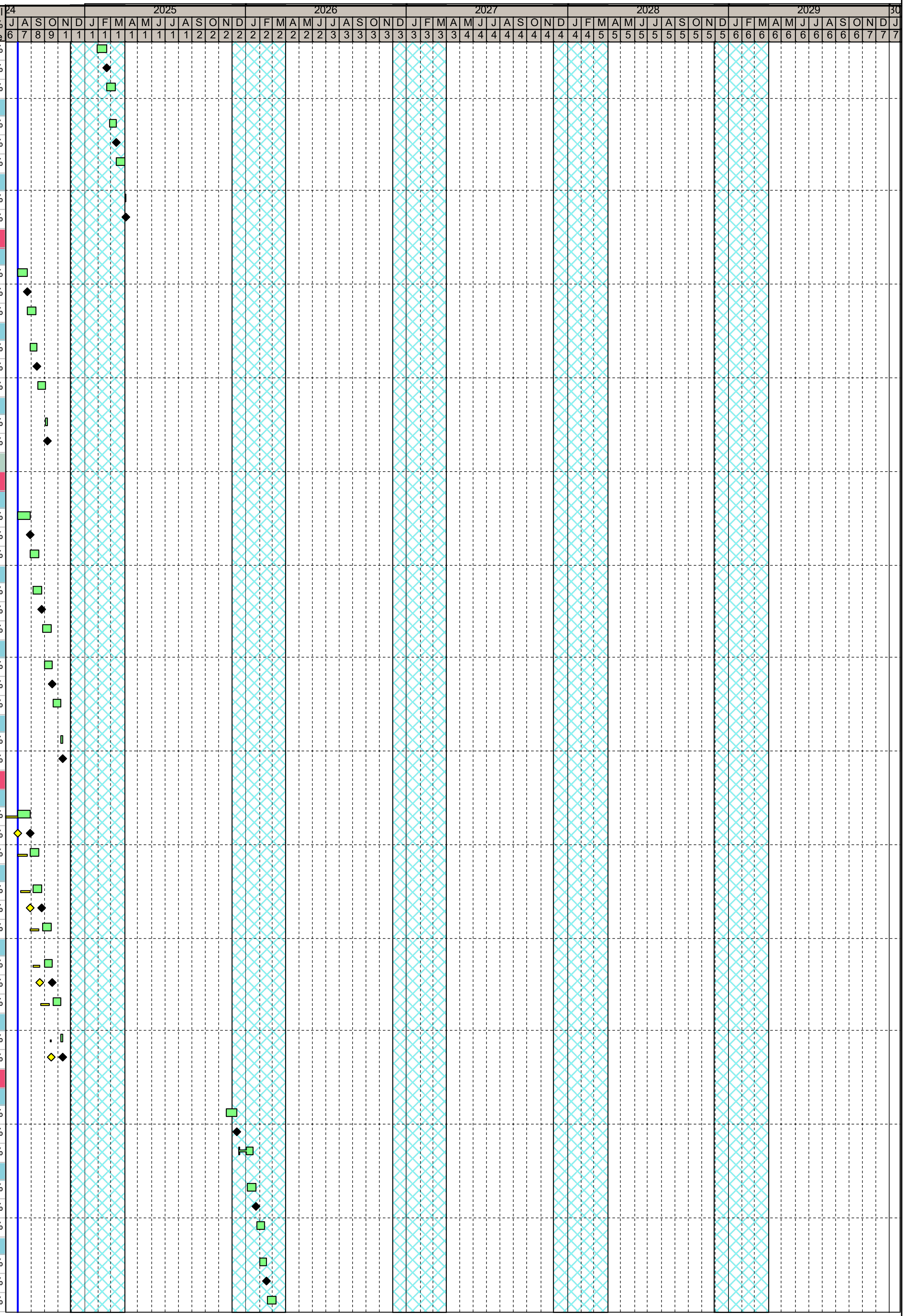
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST0-DES-D-047-1700	Design - Secant Pile Retention - Preliminary Design 60% - Develop	15	29-Jan-25	18-Feb-25	29-Feb-24	20-Mar-24	-222	259	0%
ST0-DES-D-047-2140	Design - Secant Pile Retention - Preliminary Design 60% - Submit to Superintendent	0		18-Feb-25		20-Mar-24	-222	262	0%
ST0-DES-D-047-2360	Design - Secant Pile Retention - Preliminary Design 60% - Client (Seqwater) - Review by Superintent	14	19-Feb-25	10-Mar-25	21-Mar-24	11-Apr-24	-222	262	0%
Detail Design		26	25-Feb-25	01-Apr-25	27-Mar-24	07-May-24	-222	262	
ST0-DES-D-047-2380	Design - Secant Pile Retention - Detailed Design 90% - Develop	12	25-Feb-25	12-Mar-25	27-Mar-24	15-Apr-24	-222	262	0%
ST0-DES-D-047-2780	Design - Secant Pile Retention - Detailed Design 90% - Submit to Superintendent	0		12-Mar-25		15-Apr-24	-222	262	0%
ST0-DES-D-047-2940	Design - Secant Pile Retention - Detailed Design 90% - Client (Seqwater) - Review by Superintendent	14	13-Mar-25	01-Apr-25	16-Apr-24	07-May-24	-222	262	0%
Issue For Construction (IFC)		2	02-Apr-25	03-Apr-25	08-May-24	09-May-24	-222	262	
ST0-DES-D-047-3240	Design - Secant Pile Retention - IFC 100% - Finalise + RPEQ Certify	2	02-Apr-25	03-Apr-25	08-May-24	09-May-24	-222	262	0%
ST0-DES-D-047-3400	Design - Secant Pile Retention - IFC 100% - Submit to Superintendent (For Acceptance)	0		03-Apr-25		09-May-24	-222	262	0%
Spoil Disposal Area - Part of Site Establishement Package		47	01-Aug-24	08-Oct-24	29-Feb-24	09-May-24	-106	340	
Preliminary Design		29	01-Aug-24	11-Sep-24	29-Feb-24	11-Apr-24	-106	340	
ST0-DES-1740	Design - Spoil Disposal Area - Preliminary Design 60% - Develop	15	01-Aug-24	22-Aug-24	29-Feb-24	20-Mar-24	-106	340	0%
ST0-DES-2160	Design - Spoil Disposal Area - Preliminary Design 60% - Submit to Superintendent	0		22-Aug-24		20-Mar-24	-106	340	0%
ST0-DES-2400	Design - Spoil Disposal Area - Preliminary Design 60% - Client (Seqwater) - Review by Superintendent	14	23-Aug-24	11-Sep-24	21-Mar-24	11-Apr-24	-106	340	0%
Detail Design		26	29-Aug-24	03-Oct-24	27-Mar-24	07-May-24	-106	340	
ST0-DES-2420	Design - Spoil Disposal Area - Detailed Design 90% - Develop	12	29-Aug-24	13-Sep-24	27-Mar-24	15-Apr-24	-106	340	0%
ST0-DES-2800	Design - Spoil Disposal Area - Detailed Design 90% - Submit to Superintendent	0		13-Sep-24		15-Apr-24	-106	340	0%
ST0-DES-2960	Design - Spoil Disposal Area - Detailed Design 90% - Client (Seqwater) - Review by Superintendent	14	16-Sep-24	03-Oct-24	16-Apr-24	07-May-24	-106	340	0%
Issue For Construction (IFC)		2	04-Oct-24	08-Oct-24	08-May-24	09-May-24	-106	340	
ST0-DES-3260	Design - Spoil Disposal Area - IFC 100% - Finalise + RPEQ Certify	2	04-Oct-24	08-Oct-24	08-May-24	09-May-24	-106	340	0%
ST0-DES-3420	Design - Spoil Disposal Area - IFC 100% - Submit to Superintendent (For Acceptance)	0		08-Oct-24		09-May-24	-106	340	0%
Permanent Design		389	01-Aug-24	11-Mar-26	26-Oct-23	15-Oct-24	-337	723	
Existing Infrastructure - Northern Interconnector Pipeline & Clear Water Tank		71	01-Aug-24	11-Nov-24	26-Oct-23	19-Feb-24	-184	257	
Concept Design		34	01-Aug-24	18-Sep-24	26-Oct-23	12-Dec-23	-184	257	
ST0-DES-D-011-1000	Design - Northern Interconnector Pipeline (NIP) - Concept Design - Memorandum + Drawings - Develop	20	01-Aug-24	29-Aug-24	26-Oct-23	22-Nov-23	-184	257	0%
ST0-DES-D-011-1020	Design - Northern Interconnector Pipeline (NIP) - Concept Design - Submit To Superintendent	0		29-Aug-24		22-Nov-23	-184	257	0%
ST0-DES-D-011-1040	Design - Northern Interconnector Pipeline (NIP) - Concept Design - Client (Seqwater) - Review by Superintendent	14	30-Aug-24	18-Sep-24	23-Nov-23	12-Dec-23	-184	257	0%
Preliminary Design		29	05-Sep-24	16-Oct-24	29-Nov-23	23-Jan-24	-184	257	
ST0-DES-D-011-1060	Design - Northern Interconnector Pipeline (NIP) - Preliminary Design 60% - Develop	15	05-Sep-24	25-Sep-24	29-Nov-23	03-Jan-24	-184	257	0%
ST0-DES-D-011-1080	Design - Northern Interconnector Pipeline (NIP) - Preliminary Design 60% - Submit to Superintendent	0		25-Sep-24		03-Jan-24	-184	257	0%
ST0-DES-D-011-1100	Design - Northern Interconnector Pipeline (NIP) - Preliminary Design 60% - Client (Seqwater) - Review by Superinte	14	26-Sep-24	16-Oct-24	04-Jan-24	23-Jan-24	-184	257	0%
Detail Design		26	02-Oct-24	07-Nov-24	10-Jan-24	15-Feb-24	-184	257	
ST0-DES-D-011-1120	Design - Northern Interconnector Pipeline (NIP) - Detailed Design 90% - Develop	12	02-Oct-24	18-Oct-24	10-Jan-24	25-Jan-24	-184	257	0%
ST0-DES-D-011-1140	Design - Northern Interconnector Pipeline (NIP) - Detailed Design 90% - Submit to Superintendent	0		18-Oct-24		25-Jan-24	-184	257	0%
ST0-DES-D-011-1160	Design - Northern Interconnector Pipeline (NIP) - Detailed Design 90% - Client (Seqwater) - Review by Superintende	14	21-Oct-24	07-Nov-24	29-Jan-24	15-Feb-24	-184	257	0%
Issue for Construction (IFC)		2	08-Nov-24	11-Nov-24	16-Feb-24	19-Feb-24	-184	257	
ST0-DES-D-011-1180	Design - Northern Interconnector Pipeline (NIP) - IFC 100% - Finalise + RPEQ Certify	2	08-Nov-24	11-Nov-24	16-Feb-24	19-Feb-24	-184	257	0%
ST0-DES-D-011-1200	Design - Northern Interconnector Pipeline (NIP) - IFC 100% - Submit to Superintendent (Information Only)	0		11-Nov-24		19-Feb-24	-184	257	0%
Seqwater Permanent Facilities		71	01-Aug-24	11-Nov-24	05-Jul-24	15-Oct-24	-19	1041	
Concept Design		34	01-Aug-24	18-Sep-24	05-Jul-24	22-Aug-24	-19	1041	
ST0-DES-3560	Design - Seqwater Permanent Facilities - Concept Design - Memorandum + Drawings - Develop	20	01-Aug-24	29-Aug-24	05-Jul-24	01-Aug-24	-19	1041	0%
ST0-DES-3580	Design - Seqwater Permanent Facilities - Concept Design - Submit To Superintendent	0		29-Aug-24		01-Aug-24	-19	1041	0%
ST0-DES-3600	Design - Seqwater Permanent Facilities - Concept Design - Client (Seqwater) - Review by Superintendent	14	30-Aug-24	18-Sep-24	02-Aug-24	22-Aug-24	-19	1041	0%
Preliminary Design		29	05-Sep-24	16-Oct-24	08-Aug-24	18-Sep-24	-19	1041	
ST0-DES-3620	Design - Seqwater Permanent Facilities - Preliminary Design 60% - Develop	15	05-Sep-24	25-Sep-24	08-Aug-24	29-Aug-24	-19	1041	0%
ST0-DES-3640	Design - Seqwater Permanent Facilities - Preliminary Design 60% - Submit to Superintendent	0		25-Sep-24		29-Aug-24	-19	1041	0%
ST0-DES-3660	Design - Seqwater Permanent Facilities - Preliminary Design 60% - Client (Seqwater) - Review by Superinte	14	26-Sep-24	16-Oct-24	30-Aug-24	18-Sep-24	-19	1041	0%
Detail Design		26	02-Oct-24	07-Nov-24	05-Sep-24	11-Oct-24	-19	1041	
ST0-DES-3680	Design - Seqwater Permanent Facilities - Detailed Design 90% - Develop	12	02-Oct-24	18-Oct-24	05-Sep-24	20-Sep-24	-19	1041	0%
ST0-DES-3700	Design - Seqwater Permanent Facilities - Detailed Design 90% - Submit to Superintendent	0		18-Oct-24		20-Sep-24	-19	1041	0%
ST0-DES-3720	Design - Seqwater Permanent Facilities - Detailed Design 90% - Client (Seqwater) - Review by Superintende	14	21-Oct-24	07-Nov-24	23-Sep-24	11-Oct-24	-19	1041	0%
Issue for Construction (IFC)		2	08-Nov-24	11-Nov-24	14-Oct-24	15-Oct-24	-19	1041	
ST0-DES-3740	Design - Seqwater Permanent Facilities - IFC 100% - Finalise + RPEQ Certify	2	08-Nov-24	11-Nov-24	14-Oct-24	15-Oct-24	-19	1041	0%
ST0-DES-3760	Design - Seqwater Permanent Facilities - IFC 100% - Submit to Superintendent (Information Only)	0		11-Nov-24		15-Oct-24	-19	1041	0%
Secant Pile / Cut-off Wall Connection Detail		71	17-Nov-25	11-Mar-26	25-Jan-24	04-Jul-24	-408	36	
Concept Design		34	17-Nov-25	16-Jan-26	25-Jan-24	13-Mar-24	-448	36	
ST0-DES-1140	Design - Secant Pile / Cut-off Wall Connection Detail - Concept Design - Memorandum + Drawings - Develop	20	17-Nov-25	12-Dec-25	25-Jan-24	22-Feb-24	-448	36	0%
ST0-DES-1460	Design - Secant Pile / Cut-off Wall Connection Detail - Concept Design - Submit To Superintendent	0		12-Dec-25		22-Feb-24	-448	36	0%
ST0-DES-1760	Design - Secant Pile / Cut-off Wall Connection Detail - Concept Design - Client (Seqwater) - Review by Superintendent	14	15-Dec-25	16-Jan-26	23-Feb-24	13-Mar-24	-448	36	0%
Preliminary Design		29	05-Jan-26	13-Feb-26	29-Feb-24	11-Apr-24	-448	36	
ST0-DES-1780	Design - Secant Pile / Cut-off Wall Connection Detail - Preliminary Design 60% - Develop	15	05-Jan-26	23-Jan-26	29-Feb-24	20-Mar-24	-448	36	0%
ST0-DES-2180	Design - Secant Pile / Cut-off Wall Connection Detail - Preliminary Design 60% - Submit to Superintendent	0		23-Jan-26		20-Mar-24	-448	36	0%
ST0-DES-2440	Design - Secant Pile / Cut-off Wall Connection Detail - Preliminary Design 60% - Client (Seqwater)	14	27-Jan-26	13-Feb-26	21-Mar-24	11-Apr-24	-448	36	0%
Detail Design		26	02-Feb-26	09-Mar-26	27-Mar-24	07-May-24	-448	36	
ST0-DES-2460	Design - Secant Pile / Cut-off Wall Connection Detail - Detailed Design 90% - Develop	12	02-Feb-26	17-Feb-26	27-Mar-24	15-Apr-24	-448	36	0%
ST0-DES-2820	Design - Secant Pile / Cut-off Wall Connection Detail - Detailed Design 90% - Submit to Superintendent	0		17-Feb-26		15-Apr-24	-448	36	0%
ST0-DES-2980	Design - Secant Pile / Cut-off Wall Connection Detail - Detailed Design 90% - Client (Seqwater) - Review by Superintende	14	18-Feb-26	09-Mar-26	16-Apr-24	07-May-24	-448	36	0%



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

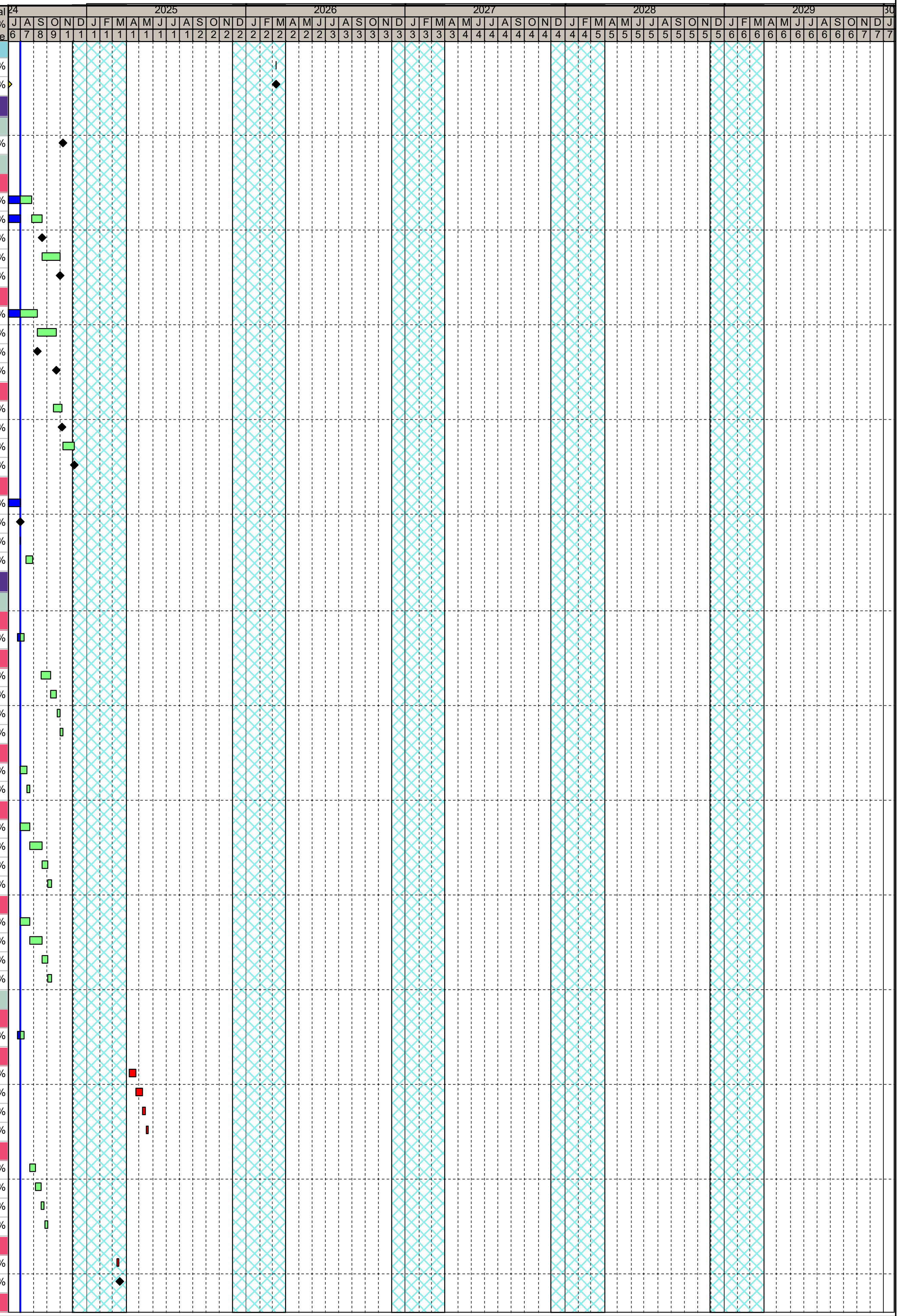
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
Issue for Construction (IFC)		2	10-Mar-26	11-Mar-26	08-May-24	04-Jul-24	-408	36	
ST0-DES-3280	Design - Secant Pile / Cut-off Wall Connection Detail - IFC 100% - Finalise + RPEQ Certify	2	10-Mar-26	11-Mar-26	08-May-24	09-May-24	-448	36	0%
ST0-DES-3540	Design - Secant Pile / Cut-off Wall Connection Detail - IFC 100% - Submit to Superintendent (For Acceptance)	0		11-Mar-26		04-Jul-24	-408	36	0%
APPROVALS / CONDITIONS		201	20-Feb-24 A	03-Dec-24	25-Jan-24	01-May-24	-151	434	
Client Approvals		0	06-Nov-24	06-Nov-24	24-Apr-24	24-Apr-24	-136	142	
ST0-CL-APP-1040	Approval + Conditions - Client (Seqwater) - Provide - Aboriginal Cultural Heritage Mgment Agreement	0		06-Nov-24		24-Apr-24	-136	142	0%
Contractor (JH) Permits & Approvals		201	20-Feb-24 A	03-Dec-24	25-Jan-24	01-May-24	-151	434	
Material Change of Use: Concrete Batching Plant		179	20-Feb-24 A	01-Nov-24	19-Feb-24	01-May-24	-129	456	
ST0-CO-APP-1140	Permit + Approval - Contractor (JH) - Material Change of Use - Concrete Batching Plant - Noosa Shire Council Interface	20	20-Feb-24 A	27-Aug-24	19-Feb-24	15-Mar-24	-112	456	100%
ST0-CO-APP-1860	Permit + Approval - Contractor (JH) - Material Change of Use - Concrete Batching Plant - Develop	40	01-Jul-24 A	19-Sep-24				456	0%
ST0-CO-APP-1600	Permit + Approval - Contractor (JH) - Material Change of Use - Concrete Batching Plant - Submit to Noosa Shire Council	0		19-Sep-24		15-Mar-24	-129	456	0%
ST0-CO-APP-1620	Permit + Approval - Stakeholder (NSC) - Material Change of Use - Concrete Batching Plant - Assess	30	20-Sep-24	01-Nov-24	18-Mar-24	01-May-24	-129	456	0%
ST0-CO-APP-1820	Permit + Approval - Stakeholder (NSC) - Material Change of Use - Concrete Batching Plant - Issue Approval	0		01-Nov-24		01-May-24	-129	456	0%
Environmental Authority: ERA16 2(a) Extractive & Screening Activities		172	20-Feb-24 A	23-Oct-24	19-Feb-24	01-May-24	-122	329	
ST0-CO-APP-1160	Permit + Approval - Contractor (JH) - ERA 16 2(a) Extractive & Screen Activities - Develop	20	20-Feb-24 A	10-Sep-24	19-Feb-24	15-Mar-24	-122	329	56%
ST0-CO-APP-1640	Permit + Approval - Contractor (JH) - ERA 16 2(a) Extractive & Screen Activities - DES - Assess	30	10-Sep-24	23-Oct-24	18-Mar-24	01-May-24	-122	329	0%
ST0-CO-APP-1580	Permit + Approval - Contractor (JH) - ERA 16 2(a) Extractive & Screen Activities - Submit to DES	0		10-Sep-24		15-Mar-24	-122	329	0%
ST0-CO-APP-1840	Permit + Approval - Contractor (JH) - ERA 16 2(a) Extractive & Screen Activities - DES - Issue Approval	0		23-Oct-24		01-May-24	-122	329	0%
Clearing Permit (Protected Plants)		35	16-Oct-24	03-Dec-24	19-Feb-24	09-Apr-24	-166	251	
ST0-CO-APP-1200	Permit + Approval - Contractor (JH) - Clearing Permit (Protected Plants) - Develop	15	16-Oct-24	05-Nov-24	19-Feb-24	08-Mar-24	-166	251	0%
ST0-CO-APP-1400	Permit + Approval - Contractor (JH) - Clearing Permit (Protected Plants) - Submit to DES	0		05-Nov-24		08-Mar-24	-166	251	0%
ST0-CO-APP-1500	Permit + Approval - Stakeholder (DES) - Clearing Permit (Protected Plants) - Assess	20	06-Nov-24	03-Dec-24	11-Mar-24	09-Apr-24	-166	251	0%
ST0-CO-APP-1720	Permit + Approval - Stakeholder (DES) - Clearing Permit (Protected Plants) - Issue Approval	0		03-Dec-24		09-Apr-24	-166	251	0%
Coordinator General Approval Conditions		129	18-Mar-24 A	28-Aug-24	25-Jan-24	30-Apr-24	-84	183	
ST0-CO-APP-1340	CG Approval - Stakeholder (Coordinator General) - Site Environmental Management Plan S1C1 - Issues Approval	40	18-Mar-24 A	01-Aug-24	23-Feb-24	22-Apr-24	-71	191	100%
ST0-CO-APP-1660	CG Approval - Provide Approved Adaptive CEMPs to Noosa Shire Council (with materials change application) S1C3	0	01-Aug-24		14-Mar-24		-96	202	0%
ST0-CO-APP-1120	CG Approval - Client (Seqwater) - Principal to Supply Road Impact Assessment S1C7	1	01-Aug-24	01-Aug-24	25-Jan-24	25-Jan-24	-130	201	0%
ST0-CO-APP-1680	CG Approval - Contractor (JH) - Upload to Project Website & Notify CG - CSE Plan S1C4 [within 2 weeks of approval]	10	15-Aug-24	28-Aug-24	16-Apr-24	30-Apr-24	-84	183	0%
PROCUREMENT		1069	12-Apr-24 A	15-Sep-28	25-Jan-24	26-Feb-25	-870	190	
Consultant		68	26-Jul-24 A	06-Nov-24	19-Feb-24	01-May-24	-132	586	
Aquatic Rescue		5	26-Jul-24 A	09-Aug-24	24-Apr-24	01-May-24	-71	213	
ST0-PRO-2860	Procurement - Aquatic Rescue Consultant - RFQ Award	5	26-Jul-24 A	09-Aug-24	24-Apr-24	01-May-24	-71	213	0%
Traffic Management		35	18-Sep-24	06-Nov-24	19-Feb-24	01-May-24	-132	142	
ST0-PRO-1260	Procurement - Traffic Management - RFQ Prepare + Issue Package	15	18-Sep-24	09-Oct-24	19-Feb-24	08-Mar-24	-147	142	0%
ST0-PRO-1660	Procurement - Traffic Management - RFQ Tender Period	10	10-Oct-24	23-Oct-24	11-Mar-24	09-Apr-24	-137	142	0%
ST0-PRO-2500	Procurement - Traffic Management - RFQ Compare / Evaluate / Negotiate / Recommend	5	24-Oct-24	30-Oct-24	10-Apr-24	23-Apr-24	-132	142	0%
ST0-PRO-2920	Procurement - Traffic Management - RFQ Award	5	31-Oct-24	06-Nov-24	24-Apr-24	01-May-24	-132	142	0%
Dam Safety Engineer		15	01-Aug-24	22-Aug-24				224	
ST0-PRO-3760	Procurement - Dam Safety Engineer - RFQ Compare / Evaluate / Negotiate / Recommend	10	01-Aug-24	15-Aug-24				224	0%
ST0-PRO-3780	Procurement - Dam Safety Engineer - RFQ Award	5	16-Aug-24	22-Aug-24				224	0%
Permanent Works Engineer		50	01-Aug-24	11-Oct-24				604	
ST0-PRO-4040	Procurement - Permanent Works Engineer - RFQ Prepare + Issue Package	15	01-Aug-24	22-Aug-24				604	0%
ST0-PRO-4060	Procurement - Permanent Works Engineer - RFQ Tender Period	20	23-Aug-24	19-Sep-24				604	0%
ST0-PRO-4080	Procurement - Permanent Works Engineer - RFQ Compare / Evaluate / Negotiate / Recommend	10	20-Sep-24	03-Oct-24				604	0%
ST0-PRO-4100	Procurement - Permanent Works Engineer - RFQ Award	5	04-Oct-24	11-Oct-24				604	0%
Hydraulic Engineer		50	01-Aug-24	11-Oct-24				472	
ST0-PRO-3800	Procurement - Hydraulic Engineer - RFQ Prepare + Issue Package	15	01-Aug-24	22-Aug-24				472	0%
ST0-PRO-3820	Procurement - Hydraulic Engineer - RFQ Tender Period	20	23-Aug-24	19-Sep-24				472	0%
ST0-PRO-3840	Procurement - Hydraulic Engineer - RFQ Compare / Evaluate / Negotiate / Recommend	10	20-Sep-24	03-Oct-24				472	0%
ST0-PRO-3860	Procurement - Hydraulic Engineer - RFQ Award	5	04-Oct-24	11-Oct-24				472	0%
Subcontract		778	22-Apr-24 A	20-Sep-27	19-Feb-24	26-Feb-25	-629	431	
C01 - 118 / 122 / 037 Lake Aquatic - Salvage + Relocation		5	26-Jul-24 A	09-Aug-24	18-Mar-24	22-Mar-24	-96	159	
ST0-PRO-C01-1060	Procurement - Lake Aquatics - RFQ Award	5	26-Jul-24 A	09-Aug-24	18-Mar-24	22-Mar-24	-96	159	0%
C15 - FRP Subcontractor		30	07-Apr-25	22-May-25	19-Feb-24	02-Apr-24	-278	81	
ST0-PRO-C15-1000	Procurement - FRP - RFQ Prepare + Issue Package	10	07-Apr-25	22-Apr-25	19-Feb-24	01-Mar-24	-278	81	0%
ST0-PRO-C15-1020	Procurement - FRP - RFQ Tender Period	10	23-Apr-25	08-May-25	04-Mar-24	15-Mar-24	-278	81	0%
ST0-PRO-C15-1040	Procurement - FRP - RFQ Compare / Evaluate / Negotiate / Recommend	5	09-May-25	15-May-25	18-Mar-24	22-Mar-24	-278	81	0%
ST0-PRO-C15-1060	Procurement - FRP - RFQ Award	5	16-May-25	22-May-25	25-Mar-24	02-Apr-24	-278	81	0%
C - xxx - Siphon System Installation		30	22-Aug-24	02-Oct-24				256	
ST0-PRO-C-0xy-1360	Procurement - Siphon System Install - RFQ Prepare + Issue Package	10	22-Aug-24	04-Sep-24				256	0%
ST0-PRO-C-0xy-1380	Procurement - Siphon System Install - RFQ Tender Period	10	05-Sep-24	18-Sep-24				256	0%
ST0-PRO-C-0xy-1400	Procurement - Siphon System Install - RFQ Compare / Evaluate / Negotiate / Recommend	5	19-Sep-24	25-Sep-24				256	0%
ST0-PRO-C-0xy-1420	Procurement - Siphon System Install - RFQ Award	5	26-Sep-24	02-Oct-24				256	0%
C32 - 009 - Piling - Sheet Pile - Install - Upstream Cofferdam		5	10-Mar-25	17-Mar-25	15-May-24	22-May-24	-200	80	
ST0-PRO-C32-1080	Procurement - Sheet Piling - Install - RFQ Award	5	10-Mar-25	14-Mar-25	15-May-24	21-May-24	-200	80	0%
ST0-PRO-C32-1140	Procurement - Sheet Piling - Install - Commence Mobilise Piling Equipment to Site	0	17-Mar-25		22-May-24		-200	80	0%
C29 - 038 - Onsite Materials Testing Labarotory		50	01-Aug-24	11-Oct-24	19-Feb-24	01-May-24	-114	472	



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

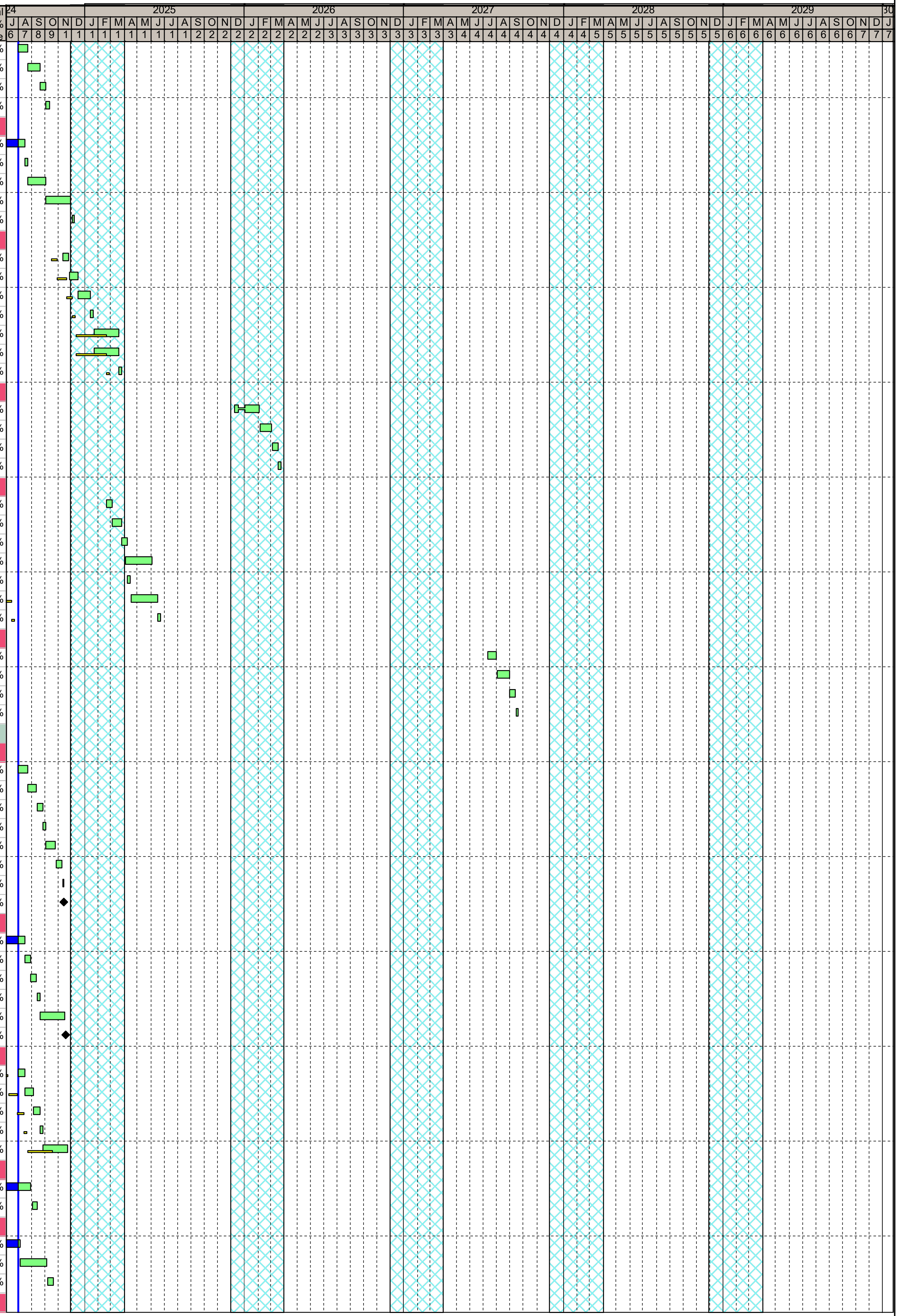
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

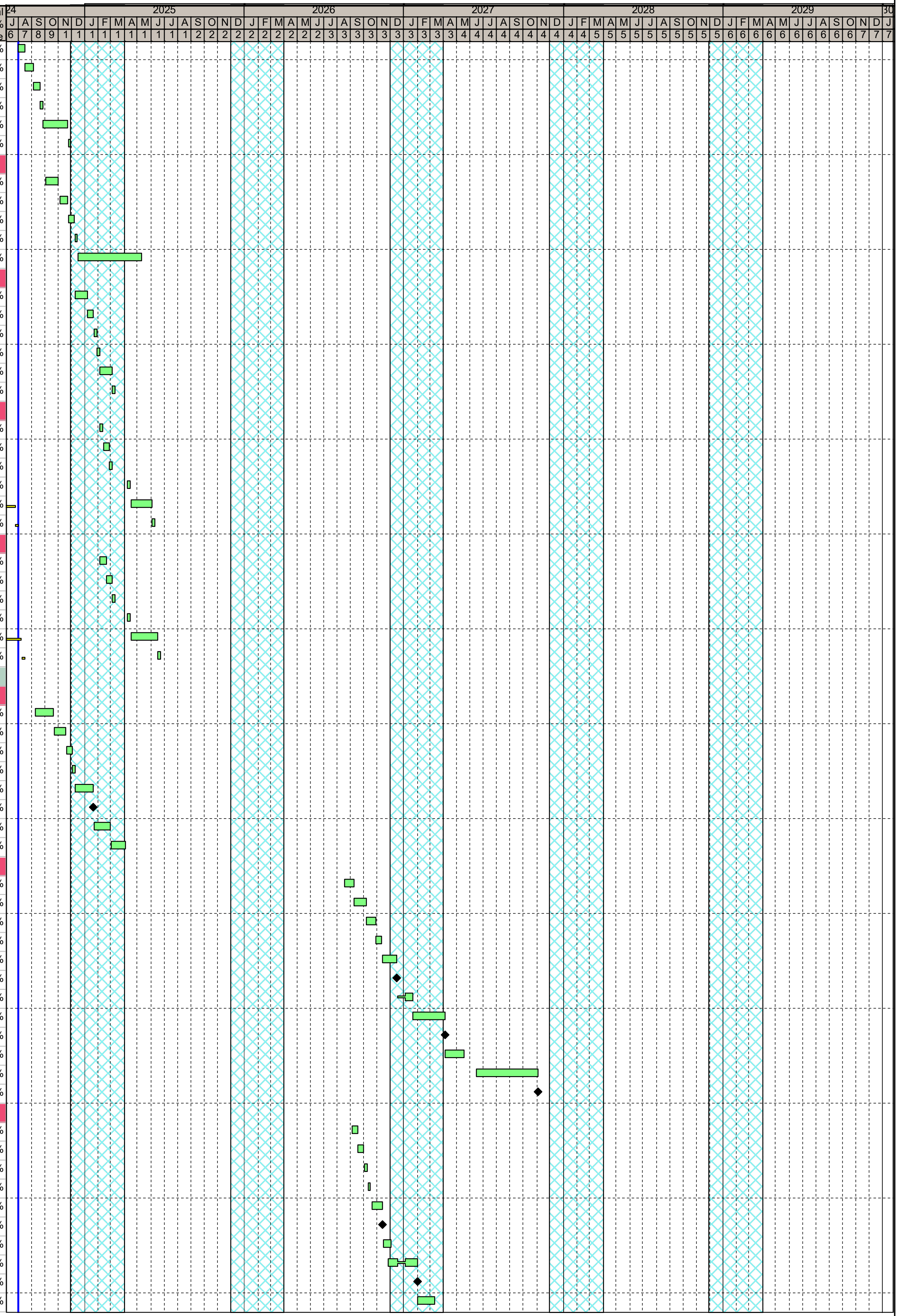
DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST0-PRO-C29-1320	Procurement - Onsite Materials Testing Lab - RFQ Prepare + Issue Package	15	01-Aug-24	22-Aug-24	19-Feb-24	08-Mar-24	-114	472	0%
ST0-PRO-C29-1700	Procurement - Onsite Materials Testing Lab - RFQ Tender Period	20	23-Aug-24	19-Sep-24	11-Mar-24	09-Apr-24	-114	472	0%
ST0-PRO-C29-2540	Procurement - Onsite Materials Testing Lab - RFQ Compare / Evaluate / Negotiate / Recommend	10	20-Sep-24	03-Oct-24	10-Apr-24	23-Apr-24	-114	472	0%
ST0-PRO-C29-2960	Procurement - Onsite Materials Testing Lab - RFQ Award	5	04-Oct-24	11-Oct-24	24-Apr-24	01-May-24	-114	472	0%
Site facilities - Supply and Install		102	22-Apr-24 A	06-Dec-24				257	
ST0-PRO-4160	Procurement - Site Facilities - RFQ Compare / Evaluate / Negotiate / Recommend	10	22-Apr-24 A	15-Aug-24				257	0%
ST0-PRO-4180	Procurement - Site Facilities - RFQ Award	5	16-Aug-24	22-Aug-24				257	0%
ST0-PRO-4200	Procurement - Site Facilities - Shop Drawings	30	23-Aug-24	03-Oct-24				257	0%
ST0-PRO-4220	Procurement - Site Facilities - Manufacture and Mobilisation Time	40	04-Oct-24	29-Nov-24				257	0%
ST0-PRO-4240	Procurement - Site Facilities - Able to Commence on-Site	5	02-Dec-24	06-Dec-24				257	0%
Building - Seqwater Permanent Facilities		85	12-Nov-24	25-Mar-25	16-Oct-24	26-Feb-25	-19	1041	
ST0-PRO-3580	Procurement - Building Works - Seqwater Permanent Facilities - RFQ Prepare + Issue Package	10	12-Nov-24	25-Nov-24	16-Oct-24	29-Oct-24	-19	1041	0%
ST0-PRO-3600	Procurement - Building Works - Seqwater Permanent Facilities - RFQ Tender Period	15	26-Nov-24	16-Dec-24	30-Oct-24	19-Nov-24	-19	1041	0%
ST0-PRO-3620	Procurement - Building Works - Seqwater Permanent Facilities - RFQ Compare / Evaluate / Negotiate / Recommend	10	17-Dec-24	13-Jan-25	20-Nov-24	03-Dec-24	-19	1041	0%
ST0-PRO-3640	Procurement - Building Works - Seqwater Permanent Facilities - RFQ Award	5	14-Jan-25	20-Jan-25	04-Dec-24	10-Dec-24	-19	1041	0%
ST0-PRO-3680	Procurement - Building Works - Seqwater Permanent Facilities - Mobilisation Time	40	21-Jan-25	18-Mar-25	11-Dec-24	19-Feb-25	-19	1041	0%
ST0-PRO-3700	Procurement - Building Works - Seqwater Permanent Facilities - Shop Drawings	40	21-Jan-25	18-Mar-25	11-Dec-24	19-Feb-25	-19	1041	0%
ST0-PRO-3660	Procurement - Building Works - Seqwater Permanent Facilities - Able to Commence on-Site	5	19-Mar-25	25-Mar-25	20-Feb-25	26-Feb-25	-19	1041	0%
E - 091 - Electrical		65	09-Dec-25	25-Mar-26	19-Feb-24	23-May-24	-448	798	
ST0-PRO-E-091-1340	Procurement - Electrical - RFQ Prepare + Issue Package	30	09-Dec-25	04-Feb-26	19-Feb-24	02-Apr-24	-448	798	0%
ST0-PRO-E-091-1720	Procurement - Electrical - RFQ Tender Period	20	05-Feb-26	04-Mar-26	03-Apr-24	01-May-24	-448	798	0%
ST0-PRO-E-091-2560	Procurement - Electrical - RFQ Compare / Evaluate / Negotiate / Recommend	10	05-Mar-26	18-Mar-26	02-May-24	16-May-24	-448	798	0%
ST0-PRO-E-091-2980	Procurement - Electrical - RFQ Award	5	19-Mar-26	25-Mar-26	17-May-24	23-May-24	-448	798	0%
C32 - 081 - Piling - Secant		85	19-Feb-25	23-Jun-25	21-Mar-24	23-Jul-24	-222	259	
ST0-PRO-C32-1960	Procurement - Secant Piling Install - RFQ Prepare + Issue Package	10	19-Feb-25	04-Mar-25	21-Mar-24	05-Apr-24	-222	259	0%
ST0-PRO-C32-2320	Procurement - Secant Piling Install - RFQ Tender Period	15	05-Mar-25	25-Mar-25	08-Apr-24	29-Apr-24	-222	259	0%
ST0-PRO-C32-3180	Procurement - Secant Piling Install - RFQ Compare / Evaluate / Negotiate / Recommend	10	26-Mar-25	08-Apr-25	30-Apr-24	14-May-24	-222	259	0%
ST0-PRO-C32-3080	Procurement - Secant Piling Install - Shop Drawings	40	04-Apr-25	04-Jun-25	10-May-24	04-Jul-24	-222	267	0%
ST0-PRO-C32-3300	Procurement - Secant Piling Install - RFQ Award	5	09-Apr-25	15-Apr-25	15-May-24	21-May-24	-222	259	0%
ST0-PRO-C32-3380	Procurement - Secant Piling Install - Manufacture / Lead Time	40	16-Apr-25	16-Jun-25	22-May-24	16-Jul-24	-222	259	0%
ST0-PRO-C32-3560	Procurement - Secant Piling Install - Deliver to Site	5	17-Jun-25	23-Jun-25	17-Jul-24	23-Jul-24	-222	259	0%
M - 093 - Metal Work		50	12-Jul-27	20-Sep-27	19-Feb-24	01-May-24	-830	36	
ST0-PRO-M093-1380	Procurement - Metal Works Install - RFQ Prepare + Issue Package	15	12-Jul-27	30-Jul-27	19-Feb-24	08-Mar-24	-830	36	0%
ST0-PRO-M093-1760	Procurement - Metal Works Install - RFQ Tender Period	20	02-Aug-27	30-Aug-27	11-Mar-24	09-Apr-24	-830	36	0%
ST0-PRO-M093-2600	Procurement - Metal Works Install - RFQ Compare / Evaluate / Negotiate / Recommend	10	31-Aug-27	13-Sep-27	10-Apr-24	23-Apr-24	-830	36	0%
ST0-PRO-M093-3020	Procurement - Metal Works Install - RFQ Award	5	14-Sep-27	20-Sep-27	24-Apr-24	01-May-24	-830	36	0%
Supply		278	12-Apr-24 A	23-Jun-25	25-Jan-24	17-Oct-24	-162	672	
TS3050 - Concrete Offsite Supply		72	01-Aug-24	13-Nov-24	25-Jan-24	18-Apr-24	-145	253	
ST0-PRO-S50-1020	Procurement - Offsite Concrete Supply - RFQ Prepare + Issue Package	15	01-Aug-24	22-Aug-24	25-Jan-24	15-Feb-24	-130	253	0%
ST0-PRO-S50-1420	Procurement - Offsite Concrete Supply - RFQ Tender Period	15	23-Aug-24	12-Sep-24	16-Feb-24	07-Mar-24	-130	253	0%
ST0-PRO-S50-1840	Procurement - Offsite Concrete Supply - RFQ Compare / Evaluate / Negotiate / Recommend	10	13-Sep-24	26-Sep-24	08-Mar-24	21-Mar-24	-130	253	0%
ST0-PRO-S50-2140	Procurement - Offsite Concrete Supply - RFQ Award	5	27-Sep-24	03-Oct-24	22-Mar-24	28-Mar-24	-130	253	0%
ST0-DES-1240	Design - Concrete Mix Design - Develop	15	04-Oct-24	25-Oct-24	19-Feb-24	15-Mar-24	-154	253	0%
ST0-PRO-S50-2380	Procurement - Offsite Concrete Supply - Undertake Testing	10	28-Oct-24	08-Nov-24	02-Apr-24	15-Apr-24	-145	253	0%
ST0-PRO-S50-2820	Procurement - Offsite Concrete Supply - Submit Results to Superintendent	2	11-Nov-24	12-Nov-24	16-Apr-24	17-Apr-24	-145	253	0%
ST0-PRO-S50-3040	Procurement - Offsite Concrete Supply - Available on Site	0	13-Nov-24		18-Apr-24		-145	253	0%
S56 - 073 / 074 / 075 - Quarry Products		137	12-Apr-24 A	18-Nov-24	25-Jan-24	30-May-24	-120	312	
ST0-PRO-S56-1000	Procurement - Quarry Products Supply - RFQ Prepare + Issue Package	15	12-Apr-24 A	15-Aug-24	25-Jan-24	15-Feb-24	-125	312	0%
ST0-PRO-S56-1400	Procurement - Quarry Products Supply - RFQ Tender Period	10	16-Aug-24	29-Aug-24	16-Feb-24	07-Mar-24	-120	312	0%
ST0-PRO-S56-1820	Procurement - Quarry Products Supply - RFQ Compare / Evaluate / Negotiate / Recommend	10	30-Aug-24	12-Sep-24	08-Mar-24	21-Mar-24	-120	312	0%
ST0-PRO-S56-2120	Procurement - Quarry Products Supply - RFQ Award	5	13-Sep-24	19-Sep-24	22-Mar-24	28-Mar-24	-120	312	0%
ST0-PRO-S56-2360	Procurement - Quarry Products Supply - Manufacture / Lead Time	40	20-Sep-24	15-Nov-24	02-Apr-24	29-May-24	-120	312	0%
ST0-PRO-S56-3460	Procurement - Quarry Products Supply - Available on Site	0	18-Nov-24		30-May-24		-120	312	0%
C - xxx - Sheet Piling - Supply - Embankments + Spillway + Downstream Cofferdam		80	01-Aug-24	22-Nov-24	26-Jun-24	17-Oct-24	-26	293	
ST0-PRO-C-002-2040	Procurement - Sheet Piling Supply - RFQ Prepare + Issue Package	10	01-Aug-24	15-Aug-24	26-Jun-24	09-Jul-24	-26	293	0%
ST0-PRO-C-002-2620	Procurement - Sheet Piling Supply - RFQ Tender Period	15	16-Aug-24	05-Sep-24	10-Jul-24	30-Jul-24	-26	293	0%
ST0-PRO-C-002-3200	Procurement - Sheet Piling Supply - RFQ Compare / Evaluate / Negotiate / Recommend	10	06-Sep-24	19-Sep-24	31-Jul-24	13-Aug-24	-26	293	0%
ST0-PRO-C-002-3320	Procurement - Sheet Piling Supply - RFQ Award	5	20-Sep-24	26-Sep-24	15-Aug-24	21-Aug-24	-26	293	0%
ST0-PRO-C-002-3400	Procurement - Sheet Piling Supply - Manufacture / Lead Time	40	27-Sep-24	22-Nov-24	22-Aug-24	17-Oct-24	-26	293	0%
C - xxx - UCD Structural Steel Supply		71	09-May-24 A	13-Sep-24				244	
ST0-PRO-C42-3600	Procurement - UCD Structural Steel Supply - Manufacture / Lead Time	43	09-May-24 A	30-Aug-24				244	0%
ST0-PRO-C42-3580	Procurement - UCD Structural Steel Supply - Deliver to Site	10	02-Sep-24	13-Sep-24				244	0%
C - xxx - UCD Tie Bar and Components Supply		73	01-May-24 A	21-Oct-24				219	
ST0-PRO-C42-3800	Procurement - UCD Structural Steel Supply - Review + Approve - Shop Drawings	5	01-May-24 A	05-Aug-24				219	0%
ST0-PRO-C42-3760	Procurement - UCD Structural Steel Supply - Manufacture / Lead Time	43	06-Aug-24	04-Oct-24				219	0%
ST0-PRO-C42-3740	Procurement - UCD Structural Steel Supply - Deliver to Site	10	08-Oct-24	21-Oct-24				219	0%
S57 - 076 - Reinforcement		85	01-Aug-24	29-Nov-24	25-Jan-24	29-May-24	-130	302	



DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST0-PRO-S57-1040	Procurement - Reinforcement Supply - RFQ Prepare + Issue Package	10	01-Aug-24	15-Aug-24	25-Jan-24	08-Feb-24	-130	302	0%
ST0-PRO-S57-1140	Procurement - Reinforcement Supply - RFQ Tender Period	15	16-Aug-24	05-Sep-24	09-Feb-24	29-Feb-24	-130	302	0%
ST0-PRO-S57-1560	Procurement - Reinforcement Supply - RFQ Compare / Evaluate / Negotiate / Recommend	10	06-Sep-24	19-Sep-24	01-Mar-24	14-Mar-24	-130	302	0%
ST0-PRO-S57-2000	Procurement - Reinforcement Supply - RFQ Award	5	20-Sep-24	26-Sep-24	15-Mar-24	21-Mar-24	-130	302	0%
ST0-PRO-S57-2160	Procurement - Reinforcement Supply - Manufacture / Lead Time	40	27-Sep-24	22-Nov-24	22-Mar-24	22-May-24	-130	302	0%
ST0-PRO-S57-3420	Procurement - Reinforcement Supply - Deliver to Site	5	25-Nov-24	29-Nov-24	23-May-24	29-May-24	-130	302	0%
P30 - 042 - Concrete Onsite Batch Plant		140	04-Oct-24	09-May-25	29-Feb-24	07-May-24	-246	336	
ST0-PRO-P30-1440	Procurement - Batch Plant Supply - RFQ Prepare + Issue Package	20	04-Oct-24	01-Nov-24	29-Feb-24	13-Mar-24	-161	336	0%
ST0-PRO-P30-1780	Procurement - Batch Plant Supply - RFQ Tender Period	15	04-Nov-24	22-Nov-24	14-Mar-24	05-Apr-24	-161	336	0%
ST0-PRO-P30-2200	Procurement - Batch Plant Supply - RFQ Compare / Evaluate / Negotiate / Recommend	10	25-Nov-24	06-Dec-24	08-Apr-24	19-Apr-24	-161	336	0%
ST0-PRO-P30-2720	Procurement - Batch Plant Supply - RFQ Award	5	09-Dec-24	13-Dec-24	22-Apr-24	29-Apr-24	-161	336	0%
ST0-PRO-P30-3120	Procurement - Batch Plant Supply - Mobilisation to Site	90	16-Dec-24	09-May-25	30-Apr-24	07-May-24	-246	336	0%
S - xxx - Low Flow Barriers Supply		55	10-Dec-24	11-Mar-25				742	
ST0-PRO-C-020-3540	Procurement - Low Flow Barriers / Channel - RFQ Prepare + Issue Package	10	10-Dec-24	06-Jan-25				742	0%
ST0-PRO-C-020-3560	Procurement - Low Flow Barriers / Channel - RFQ Tender Period	10	07-Jan-25	20-Jan-25				742	0%
ST0-PRO-C-020-3580	Procurement - Low Flow Barriers / Channel - RFQ Compare / Evaluate / Negotiate / Recommend	5	21-Jan-25	28-Jan-25				742	0%
ST0-PRO-C-020-3600	Procurement - Low Flow Barriers / Channel - RFQ Award	5	29-Jan-25	04-Feb-25				742	0%
ST0-PRO-C-020-3640	Procurement - Low Flow Barriers / Channel - Manufacture / Lead Time	20	05-Feb-25	04-Mar-25				742	0%
ST0-PRO-C-020-3620	Procurement - Low Flow Barriers / Channel - Deliver to Site	5	05-Mar-25	11-Mar-25				742	0%
C07 - 030 - Temporary Pumping Pipeline - Ground Water Dewatering		85	05-Feb-25	09-Jun-25	22-Apr-24	01-Aug-24	-205	516	
ST0-PRO-C07-1920	Procurement - Temp HDPE Pump Pipeline Supply - RFQ Prepare + Issue Package	5	05-Feb-25	11-Feb-25	22-Apr-24	29-Apr-24	-192	541	0%
ST0-PRO-C07-2080	Procurement - Temp HDPE Pump Pipeline Supply - RFQ Tender Period	10	12-Feb-25	25-Feb-25	30-Apr-24	14-May-24	-192	541	0%
ST0-PRO-C07-2660	Procurement - Temp HDPE Pump Pipeline Supply - RFQ Compare / Evaluate / Negotiate / Recommend	5	26-Feb-25	04-Mar-25	15-May-24	21-May-24	-192	541	0%
ST0-PRO-C07-3060	Procurement - Temp HDPE Pump Pipeline Supply - RFQ Award	5	09-Apr-25	15-Apr-25	07-Jun-24	13-Jun-24	-205	516	0%
ST0-PRO-C07-3220	Procurement - Temp HDPE Pump Pipeline Supply - Manufacture / Lead Time	30	16-Apr-25	02-Jun-25	14-Jun-24	25-Jul-24	-205	516	0%
ST0-PRO-C07-3480	Procurement - Temp HDPE Pump Pipeline Supply - Deliver to Site	5	03-Jun-25	09-Jun-25	26-Jul-24	01-Aug-24	-205	516	0%
C07 - 030 - Temporary Pumps - Ground Water Dewatering		95	05-Feb-25	23-Jun-25	22-Apr-24	16-Aug-24	-205	506	
ST0-PRO-C07-1900	Procurement - Temporary Pumps Supply - RFQ Prepare + Issue Package	10	05-Feb-25	18-Feb-25	22-Apr-24	07-May-24	-192	526	0%
ST0-PRO-C07-2260	Procurement - Temporary Pumps Supply - RFQ Tender Period	10	19-Feb-25	04-Mar-25	08-May-24	21-May-24	-192	526	0%
ST0-PRO-C07-2760	Procurement - Temporary Pumps Supply - RFQ Compare / Evaluate / Negotiate / Recommend	5	05-Mar-25	11-Mar-25	22-May-24	28-May-24	-192	526	0%
ST0-PRO-C07-3140	Procurement - Temporary Pumps Supply - RFQ Award	5	09-Apr-25	15-Apr-25	07-Jun-24	13-Jun-24	-205	506	0%
ST0-PRO-C07-3240	Procurement - Temporary Pumps Supply - Manufacture / Lead Time	40	16-Apr-25	16-Jun-25	14-Jun-24	08-Aug-24	-205	506	0%
ST0-PRO-C07-3500	Procurement - Temporary Pumps Supply - Deliver to Site	5	17-Jun-25	23-Jun-25	09-Aug-24	16-Aug-24	-205	506	0%
Supply inc Design		1069	12-Apr-24 A	15-Sep-28	19-Feb-24	18-Jul-24	-1016	36	
TS2150 - Demolition Works		138	09-Sep-24	04-Apr-25	19-Feb-24	23-May-24	-213	223	
ST0-PRO-C06-1360	Procurement - Demolition Works - RFQ Prepare + Issue Package	30	09-Sep-24	21-Oct-24	19-Feb-24	02-Apr-24	-140	223	0%
ST0-PRO-C06-1740	Procurement - Demolition Works - RFQ Tender Period	20	22-Oct-24	18-Nov-24	03-Apr-24	01-May-24	-140	223	0%
ST0-PRO-C06-2580	Procurement - Demolition Works - RFQ Compare / Evaluate / Negotiate / Recommend	10	19-Nov-24	02-Dec-24	02-May-24	16-May-24	-140	223	0%
ST0-PRO-C06-3000	Procurement - Demolition Works - RFQ Award	5	03-Dec-24	09-Dec-24	17-May-24	23-May-24	-140	223	0%
ST0-PRO-C06-3020	Procurement - Demolition Works - Methodology and Demolition Plan	20	10-Dec-24	20-Jan-25				223	0%
ST0-PRO-C06-3040	Procurement - Demolition Works - Methodology and Demolition Plan - Submit to Superintendent	0		20-Jan-25				223	0%
ST0-PRO-C06-3060	Procurement - Demolition Works - Methodology and Demolition Plan - Superintendent Review and Approval	28	21-Jan-25	28-Feb-25				223	0%
ST0-PRO-C06-3080	Procurement - Demolition Works - Mobilisation	25	03-Mar-25	04-Apr-25				223	0%
TS9050 - DAM Instrumentation		299	19-Aug-26	05-Nov-27				33	
ST0-PRO-S56-3600	Procurement - Instrumentation - RFQ Prepare + Issue Package	15	19-Aug-26	08-Sep-26				33	0%
ST0-PRO-S56-3620	Procurement - Instrumentation - RFQ Tender Period	20	09-Sep-26	07-Oct-26				33	0%
ST0-PRO-S56-3640	Procurement - Instrumentation - RFQ Compare / Evaluate / Negotiate / Recommend	15	08-Oct-26	28-Oct-26				33	0%
ST0-PRO-S56-3660	Procurement - Instrumentation - RFQ Award	10	29-Oct-26	11-Nov-26				33	0%
ST0-DES-D-011-3240	Procurement - Instrumentation - Concept Design - Memorandum + Drawings - Develop	25	12-Nov-26	16-Dec-26				33	0%
ST0-DES-D-011-3260	Procurement - Instrumentation - Concept Design - Submit To Superintendent	0		16-Dec-26				33	0%
ST0-DES-D-011-3280	Procurement - Instrumentation - Concept Design - Client (Seqwater) - Review by Superintendent	14	17-Dec-26	20-Jan-27				33	0%
ST0-DES-D-011-3300	Procurement - Instrumentation - Design and Drawings and RPEQ	50	21-Jan-27	05-Apr-27				33	0%
ST0-DES-D-011-3320	Procurement - Instrumentation - Design and Drawings - Submit to Superintendent	0		05-Apr-27				33	0%
ST0-DES-D-011-3340	Procurement - Instrumentation - Design and Drawings - Superintendent Review and Approval	30	06-Apr-27	18-May-27				33	0%
ST0-PRO-S56-3700	Procurement - Instrumentation - Manufacture / Lead Time	100	16-Jun-27	04-Nov-27				33	0%
ST0-PRO-S56-3680	Procurement - Instrumentation - Available on Site	0	05-Nov-27					33	0%
TS6050 - Pipework, Valves and Flowmeters		192	04-Sep-26	22-Jun-27				35	
ST0-PRO-C07-3520	Procurement - Pipework, Valves and Flow Meters - RFQ Prepare + Issue Package	10	04-Sep-26	17-Sep-26				35	0%
ST0-PRO-C07-3540	Procurement - Pipework, Valves and Flow Meters - RFQ Tender Period	10	18-Sep-26	01-Oct-26				35	0%
ST0-PRO-C07-3560	Procurement - Pipework, Valves and Flow Meters - RFQ Compare / Evaluate / Negotiate / Recommend	5	02-Oct-26	09-Oct-26				35	0%
ST0-PRO-C07-3580	Procurement - Pipework, Valves and Flow Meters - RFQ Award	5	12-Oct-26	16-Oct-26				35	0%
ST0-DES-D-011-1220	Procurement - Pipework, Valves and Flow Meters - Concept Design - Memorandum	20	19-Oct-26	13-Nov-26				35	0%
ST0-DES-D-011-1240	Procurement - Pipework, Valves and Flow Meters - Concept Design - Submit To Superintendent	0		13-Nov-26				35	0%
ST0-DES-D-011-1260	Procurement - Pipework, Valves and Flow Meters - Concept Design - Client (Seqwater) - Review by Superintendent	14	16-Nov-26	03-Dec-26				35	0%
ST0-DES-D-011-1400	Procurement - Pipework, Valves and Flow Meters - Design and Shop Detailing	35	27-Nov-26	01-Feb-27				35	0%
ST0-DES-D-011-1420	Procurement - Pipework, Valves and Flow Meters - Design and Shop detailing - Submit to Superintendent	0		01-Feb-27				35	0%
ST0-DES-D-011-2540	Procurement - Pipework, Valves and Flow Meters - Design and Shop Detailing - Superintendent Review	28	02-Feb-27	11-Mar-27				35	0%



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

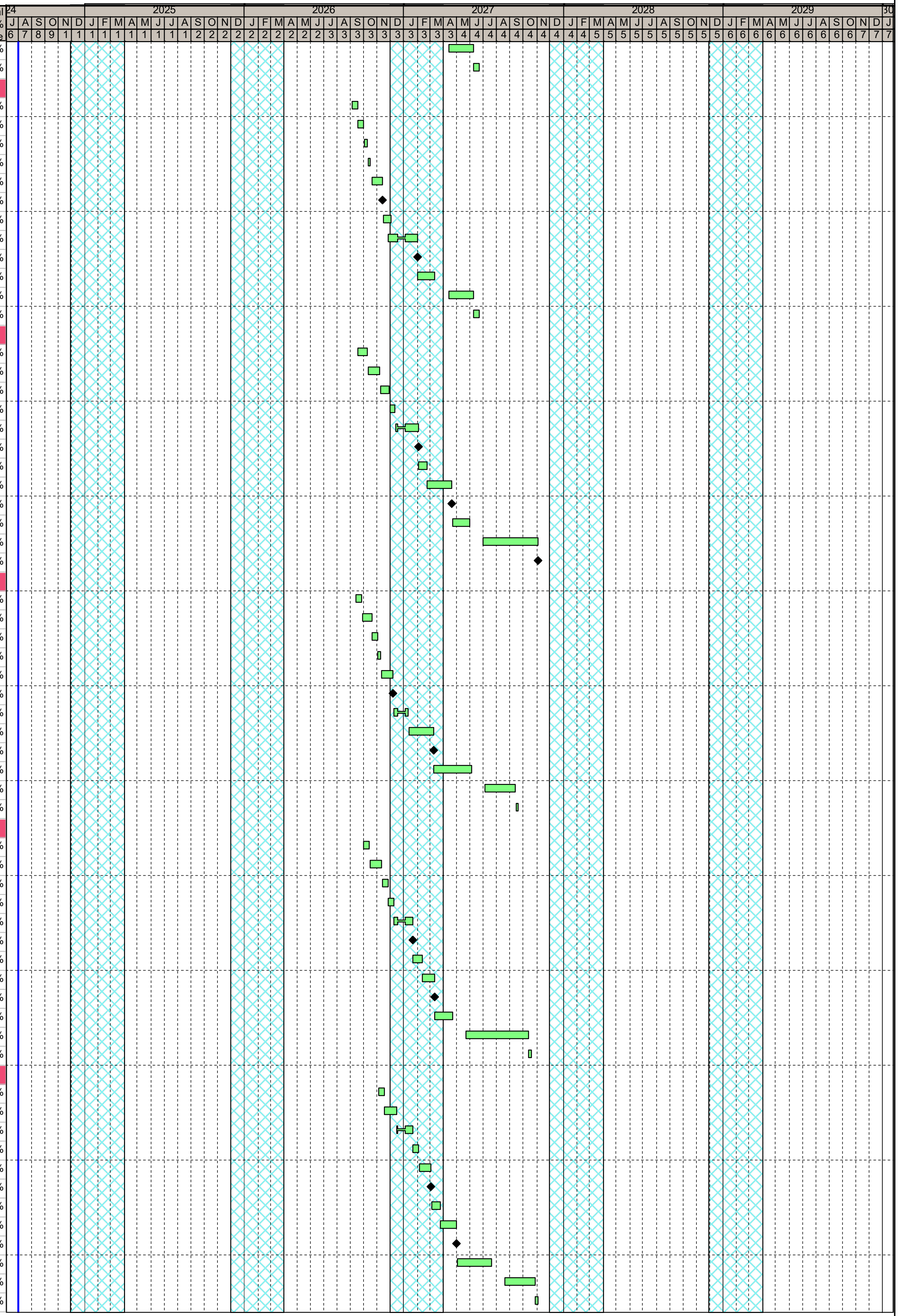
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST0-PRO-C07-3600	Procurement - Pipework, Valves and Flow Meters - Manufacture / Lead Time	40	13-Apr-27	08-Jun-27				35	0%
ST0-PRO-C07-3620	Procurement - Pipework, Valves and Flow Meters - Deliver to Site	10	09-Jun-27	22-Jun-27				35	0%
TS6250 - Sump Pump		192	04-Sep-26	22-Jun-27				35	
ST0-PRO-C07-3640	Procurement - Sump Pump - RFQ Prepare + Issue Package	10	04-Sep-26	17-Sep-26				35	0%
ST0-PRO-C07-3660	Procurement - Sump Pump - RFQ Tender Period	10	18-Sep-26	01-Oct-26				35	0%
ST0-PRO-C07-3680	Procurement - Sump Pump - RFQ Compare / Evaluate / Negotiate / Recommend	5	02-Oct-26	09-Oct-26				35	0%
ST0-PRO-C07-3700	Procurement - Sump Pump - RFQ Award	5	12-Oct-26	16-Oct-26				35	0%
ST0-DES-D-011-2560	Procurement - Sump Pump - Concept Design - Memorandum	20	19-Oct-26	13-Nov-26				35	0%
ST0-DES-D-011-2580	Procurement - Sump Pump - Concept Design - Submit To Superintendent	0		13-Nov-26				35	0%
ST0-DES-D-011-2600	Procurement - Sump Pump - Concept Design - Client (Seqwater) - Review by Superintendent	14	16-Nov-26	03-Dec-26				35	0%
ST0-DES-D-011-2620	Procurement - Sump Pump - Design and Shop Detailing	35	27-Nov-26	01-Feb-27				35	0%
ST0-DES-D-011-2640	Procurement - Sump Pump - Design and Shop detailing - Submit to Superintendent	0		01-Feb-27				35	0%
ST0-DES-D-011-2660	Procurement - Sump Pump - Design and Shop Detailing - Superintendent Review	28	02-Feb-27	11-Mar-27				35	0%
ST0-PRO-C07-3740	Procurement - Sump Pump - Manufacture / Lead Time	40	13-Apr-27	08-Jun-27				35	0%
ST0-PRO-C07-3720	Procurement - Sump Pump - Deliver to Site	10	09-Jun-27	22-Jun-27				35	0%
TS6030 - Outlet Tower Ventilation		277	18-Sep-26	05-Nov-27				33	
ST0-PRO-S56-3720	Procurement - Outlet Tower Ventilation - RFQ Prepare + Issue Package	15	18-Sep-26	09-Oct-26				33	0%
ST0-PRO-S56-3740	Procurement - Outlet Tower Ventilation - RFQ Tender Period	20	12-Oct-26	06-Nov-26				33	0%
ST0-PRO-S56-3760	Procurement - Outlet Tower Ventilation - RFQ Compare / Evaluate / Negotiate / Recommend	15	09-Nov-26	27-Nov-26				33	0%
ST0-PRO-S56-3780	Procurement - Outlet Tower Ventilation - RFQ Award	10	30-Nov-26	11-Dec-26				33	0%
ST0-DES-D-011-3360	Procurement - Outlet Tower Ventilation - Concept Design - Memorandum + Drawings - Develop	25	14-Dec-26	02-Feb-27				33	0%
ST0-DES-D-011-3380	Procurement - Outlet Tower Ventilation - Concept Design - Submit To Superintendent	0		02-Feb-27				33	0%
ST0-DES-D-011-3400	Procurement - Outlet Tower Ventilation - Concept Design - Client (Seqwater) - Review by Superintendent	14	03-Feb-27	22-Feb-27				33	0%
ST0-DES-D-011-3420	Procurement - Outlet Tower Ventilation - Design and Drawings and RPEQ	40	23-Feb-27	21-Apr-27				33	0%
ST0-DES-D-011-3440	Procurement - Outlet Tower Ventilation - Design and Drawings - Submit to Superintendent	0		21-Apr-27				33	0%
ST0-DES-D-011-3460	Procurement - Outlet Tower Ventilation - Design and Drawings - Superintendent Review and Approval	28	22-Apr-27	01-Jun-27				33	0%
ST0-PRO-S56-3820	Procurement - Outlet Tower Ventilation - Manufacture / Lead Time	90	30-Jun-27	04-Nov-27				33	0%
ST0-PRO-S56-3800	Procurement - Outlet Tower Ventilation - Available on Site	0	05-Nov-27					33	0%
TS7100 - Walkways/ Stairways		249	14-Sep-26	20-Sep-27				36	
ST0-PRO-C42-3980	Procurement - Walkways/Stairways - RFQ Prepare + Issue Package	10	14-Sep-26	25-Sep-26				36	0%
ST0-PRO-C42-4000	Procurement - Walkways/Stairways - RFQ Tender Period	15	28-Sep-26	19-Oct-26				36	0%
ST0-PRO-C42-4020	Procurement - Walkways/Stairways - RFQ Compare / Evaluate / Negotiate / Recommend	10	20-Oct-26	02-Nov-26				36	0%
ST0-PRO-C42-4040	Procurement - Walkways/Stairways - RFQ Award	5	03-Nov-26	09-Nov-26				36	0%
ST0-DES-D-011-2820	Procurement - Walkways/Stairways - Concept Design - Memorandum + Drawings - Develop	20	10-Nov-26	07-Dec-26				36	0%
ST0-DES-D-011-2840	Procurement - Walkways/Stairways - Concept Design - Submit To Superintendent	0		07-Dec-26				36	0%
ST0-DES-D-011-2860	Procurement - Walkways/Stairways - Concept Design - Client (Seqwater) - Review by Superintendent	14	08-Dec-26	11-Jan-27				36	0%
ST0-DES-D-011-2880	Procurement - Walkways/Stairways - Design and Shop Detailing - RPEQ Sign Of	40	12-Jan-27	09-Mar-27				36	0%
ST0-DES-D-011-2900	Procurement - Walkways/Stairways - Design and Shop Detailing - Submit to Superintendent	0		09-Mar-27				36	0%
ST0-DES-D-011-2920	Procurement - Walkways/Stairways - Design and Shop Detailing - Superintendent Review	60	10-Mar-27	04-Jun-27				36	0%
ST0-PRO-C42-4080	Procurement - Walkways/Stairways - Manufacture / Lead Time	50	05-Jul-27	13-Sep-27				36	0%
ST0-PRO-C42-4060	Procurement - Walkways/Stairways - Deliver to Site	5	14-Sep-27	20-Sep-27				36	0%
TS6350 - Watertight Door		257	30-Sep-26	19-Oct-27				36	
ST0-PRO-C-020-3780	Procurement - Watertight Door - RFQ Prepare + Issue Package	10	30-Sep-26	14-Oct-26				36	0%
ST0-PRO-C-020-3800	Procurement - Watertight Door - RFQ Tender Period	20	15-Oct-26	11-Nov-26				36	0%
ST0-PRO-C-020-3820	Procurement - Watertight Door - RFQ Compare / Evaluate / Negotiate / Recommend	10	12-Nov-26	25-Nov-26				36	0%
ST0-PRO-C-020-3840	Procurement - Watertight Door - RFQ Award	10	26-Nov-26	09-Dec-26				36	0%
ST0-DES-D-011-2100	Procurement - Watertight Door - Concept Design - Memorandum + Drawings - Develop	20	10-Dec-26	21-Jan-27				36	0%
ST0-DES-D-011-2120	Procurement - Watertight Door - Concept Design - Submit To Superintendent	0		21-Jan-27				36	0%
ST0-DES-D-011-2140	Procurement - Watertight Door - Concept Design - Client (Seqwater) - Review by Superintendent	14	22-Jan-27	11-Feb-27				36	0%
ST0-DES-D-011-2280	Procurement - Watertight Door - Design and Shop Drawings	20	12-Feb-27	11-Mar-27				36	0%
ST0-DES-D-011-2300	Procurement - Watertight Door - Design and Shop Drawings - Submit to Superintendent	0		11-Mar-27				36	0%
ST0-DES-D-011-3180	Procurement - Watertight Door - Design and Shop Drawings - Superintendent Review and Approval	28	12-Mar-27	22-Apr-27				36	0%
ST0-PRO-C-020-3880	Procurement - Watertight Door - Manufacture / Lead Time	100	24-May-27	12-Oct-27				36	0%
ST0-PRO-C-020-3860	Procurement - Watertight Door - Deliver to Site	5	13-Oct-27	19-Oct-27				36	0%
TS6200 - Gantry and Hoists		245	04-Nov-26	04-Nov-27				33	
ST0-PRO-C-020-3660	Procurement - Gantry & Hoists - RFQ Prepare + Issue Package	10	04-Nov-26	17-Nov-26				33	0%
ST0-PRO-C-020-3680	Procurement - Gantry & Hoists - RFQ Tender Period	20	18-Nov-26	15-Dec-26				33	0%
ST0-PRO-C-020-3700	Procurement - Gantry & Hoists - RFQ Compare / Evaluate / Negotiate / Recommend	15	16-Dec-26	20-Jan-27				33	0%
ST0-PRO-C-020-3720	Procurement - Gantry & Hoists - RFQ Award	10	21-Jan-27	04-Feb-27				33	0%
ST0-DES-D-011-1880	Procurement - Gantry & Hoist - Concept Design - Memorandum + Drawings - Develop	20	05-Feb-27	04-Mar-27				33	0%
ST0-DES-D-011-1900	Procurement - Gantry & Hoist - Concept Design - Submit To Superintendent	0		04-Mar-27				33	0%
ST0-DES-D-011-1920	Procurement - Gantry & Hoist - Concept Design - Client (Seqwater) - Review by Superintendent	14	05-Mar-27	24-Mar-27				33	0%
ST0-DES-D-011-2060	Procurement - Gantry & Hoists - Design and Shop Drawings	25	25-Mar-27	30-Apr-27				33	0%
ST0-DES-D-011-2080	Procurement - Gantry & Hoists - Design and Shop Drawings - Submit to Superintendent	0		30-Apr-27				33	0%
ST0-DES-D-011-3200	Procurement - Gantry & Hoists - Design and Shop Drawings - Superintendent Review and Approval	56	04-May-27	20-Jul-27				33	0%
ST0-PRO-C-020-3740	Procurement - Gantry & Hoists - Manufacture / Lead Time	50	19-Aug-27	28-Oct-27				33	0%
ST0-PRO-C-020-3760	Procurement - Gantry & Hoists - Deliver to Site	5	29-Oct-27	04-Nov-27				33	0%



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

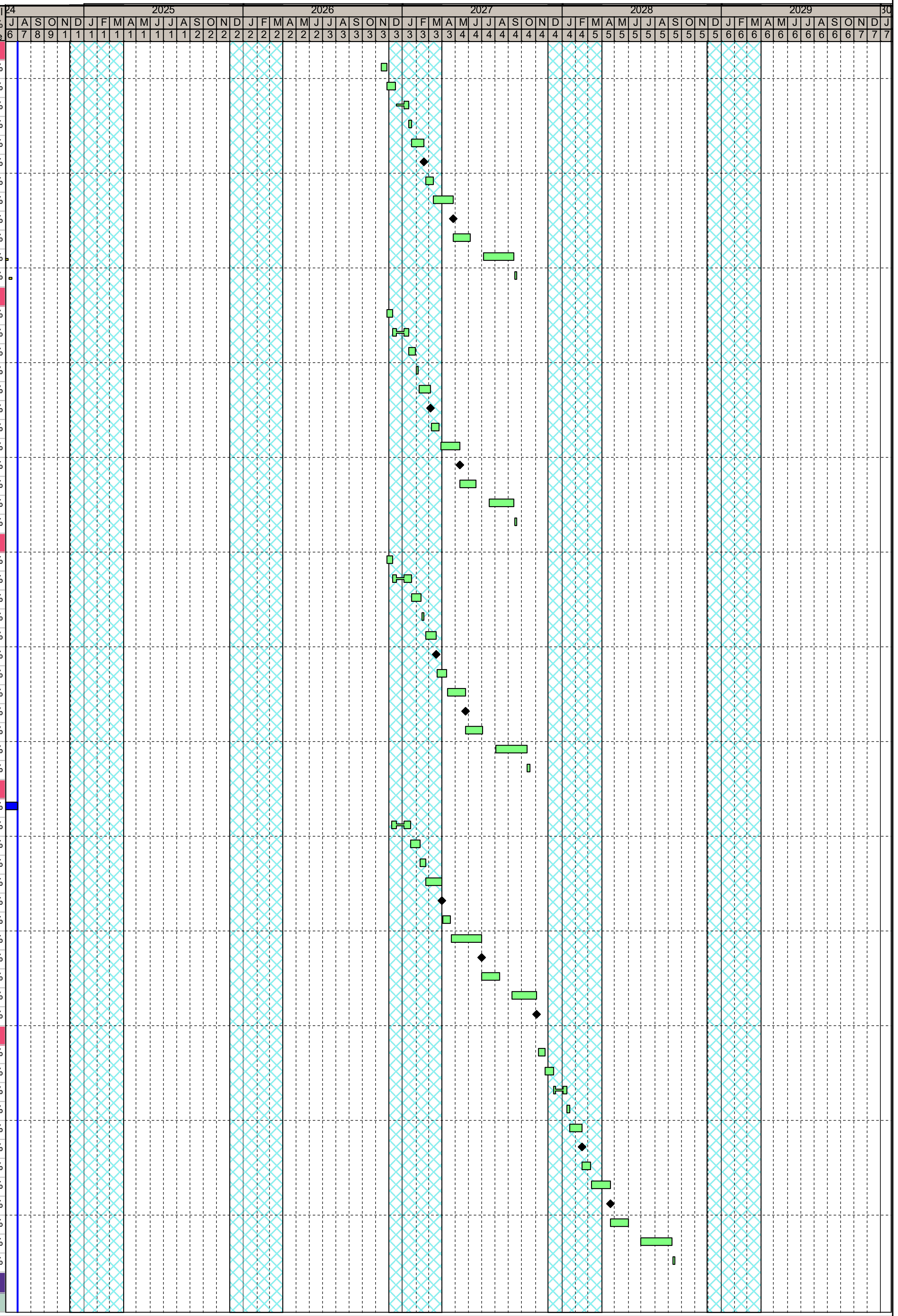
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
TS6150 - Bulkheads and Screens		207	12-Nov-26	20-Sep-27	19-Feb-24	18-Jul-24	-775	36	
ST0-PRO-C42-1160	Procurement - Bulkheads and Screens - RFQ Prepare + Issue Package	10	12-Nov-26	25-Nov-26	19-Feb-24	01-Mar-24	-673	36	0%
ST0-PRO-C42-1520	Procurement - Bulkheads and Screens - RFQ Tender Period	15	26-Nov-26	16-Dec-26	04-Mar-24	22-Mar-24	-673	36	0%
ST0-PRO-C42-2020	Procurement - Bulkheads and Screens - RFQ Compare / Evaluate / Negotiate / Recommend	10	17-Dec-26	14-Jan-27	25-Mar-24	09-Apr-24	-673	36	0%
ST0-PRO-C42-2400	Procurement - Bulkheads and Screens - RFQ Award	5	15-Jan-27	21-Jan-27	10-Apr-24	16-Apr-24	-673	36	0%
ST0-DES-D-011-1660	Procurement - Bulkheads and Screens - Concept Design - Memorandum + Drawings - Develop	20	22-Jan-27	19-Feb-27				36	0%
ST0-DES-D-011-1680	Procurement - Bulkheads and Screens - Concept Design - Submit To Superintendent	0		19-Feb-27				36	0%
ST0-DES-D-011-1700	Procurement - Bulkheads and Screens - Concept Design - Client (Seqwater) - Review by Superintendent	14	22-Feb-27	11-Mar-27				36	0%
ST0-DES-D-011-1840	Procurement - Bulkheads and Screens - Design and Shop Detailing	30	12-Mar-27	26-Apr-27				36	0%
ST0-DES-D-011-1860	Procurement - Bulkheads and Screens - Design and Shop Detailing - Submit to Superintendent	0		26-Apr-27				36	0%
ST0-DES-D-011-2680	Procurement - Bulkheads and Screens - Design and Shop Detailing - Superintendent Review	28	27-Apr-27	04-Jun-27				36	0%
ST0-PRO-C42-2700	Procurement - Bulkheads and Screens - Manufacture / Lead Time	50	05-Jul-27	13-Sep-27	31-May-24	11-Jul-24	-775	36	0%
ST0-PRO-C42-3440	Procurement - Bulkheads and Screens - Deliver to Site	5	14-Sep-27	20-Sep-27	12-Jul-24	18-Jul-24	-775	36	0%
TS7150 - Security Fencing and Gates		197	26-Nov-26	20-Sep-27				36	
ST0-PRO-C42-3820	Procurement - Security Fencing and Gates - RFQ Prepare + Issue Package	10	26-Nov-26	09-Dec-26				36	0%
ST0-PRO-C42-3840	Procurement - Security Fencing and Gates - RFQ Tender Period	15	10-Dec-26	14-Jan-27				36	0%
ST0-PRO-C42-3860	Procurement - Security Fencing and Gates - RFQ Compare / Evaluate / Negotiate / Recommend	10	15-Jan-27	29-Jan-27				36	0%
ST0-PRO-C42-3880	Procurement - Security Fencing and Gates - RFQ Award	5	01-Feb-27	05-Feb-27				36	0%
ST0-DES-D-011-2700	Procurement - Security Fencing and Gates - Concept Design - Memorandum + Drawings - Develop	20	08-Feb-27	05-Mar-27				36	0%
ST0-DES-D-011-2720	Procurement - Security Fencing and Gates - Concept Design - Submit To Superintendent	0		05-Mar-27				36	0%
ST0-DES-D-011-2740	Procurement - Security Fencing and Gates - Concept Design - Client (Seqwater) - Review by Superintendent	14	08-Mar-27	25-Mar-27				36	0%
ST0-DES-D-011-2760	Procurement - Security Fencing and Gates - Design and Shop Detailing	30	30-Mar-27	11-May-27				36	0%
ST0-DES-D-011-2780	Procurement - Security Fencing and Gates - Design and Shop Detailing - Submit to Superintendent	0		11-May-27				36	0%
ST0-DES-D-011-2800	Procurement - Security Fencing and Gates - Design and Shop Detailing - Superintendent Review	28	12-May-27	18-Jun-27				36	0%
ST0-PRO-C42-3920	Procurement - Security Fencing and Gates - Manufacture / Lead Time	40	19-Jul-27	13-Sep-27				36	0%
ST0-PRO-C42-3900	Procurement - Security Fencing and Gates - Deliver to Site	5	14-Sep-27	20-Sep-27				36	0%
TS7050 - Structural Steelwork/ Metalwork		217	26-Nov-26	19-Oct-27				36	
ST0-PRO-C42-4260	Procurement - Structural Steelwork/ Metalwork - RFQ Prepare + Issue Package	10	26-Nov-26	09-Dec-26				36	0%
ST0-PRO-C42-4280	Procurement - Structural Steelwork/ Metalwork - RFQ Tender Period	20	10-Dec-26	21-Jan-27				36	0%
ST0-PRO-C42-4300	Procurement - Structural Steelwork/ Metalwork - RFQ Compare / Evaluate / Negotiate / Recommend	15	22-Jan-27	12-Feb-27				36	0%
ST0-PRO-C42-4320	Procurement - Structural Steelwork/ Metalwork - RFQ Award	5	15-Feb-27	19-Feb-27				36	0%
ST0-DES-D-011-3060	Procurement - Structural Steelwork/ Metalwork - Concept Design - Memorandum + Drawings - Develop	20	22-Feb-27	19-Mar-27				36	0%
ST0-DES-D-011-3080	Procurement - Structural Steelwork/ Metalwork - Concept Design - Submit To Superintendent	0		19-Mar-27				36	0%
ST0-DES-D-011-3100	Procurement - Structural Steelwork/ Metalwork - Concept Design - Client (Seqwater) - Review by Superintendent	14	22-Mar-27	12-Apr-27				36	0%
ST0-DES-D-011-3120	Procurement - Structural Steelwork/ Metalwork - Design and Shop Detailing and RPEQ Sign Off	30	13-Apr-27	25-May-27				36	0%
ST0-DES-D-011-3140	Procurement - Structural Steelwork/ Metalwork - Design and Shop Detailing - Submit to Superintendent	0		25-May-27				36	0%
ST0-DES-D-011-3160	Procurement - Structural Steelwork/ Metalwork - Design and Shop Detailing - Superintendent Review	28	26-May-27	02-Jul-27				36	0%
ST0-PRO-C42-4360	Procurement - Structural Steelwork/ Metalwork - Manufacture / Lead Time	50	02-Aug-27	12-Oct-27				36	0%
ST0-PRO-C42-4340	Procurement - Structural Steelwork/ Metalwork - Deliver to Site	5	13-Oct-27	19-Oct-27				36	0%
TS8150 - Electrical and Security		860	12-Apr-24 A	05-Nov-27				33	
ST0-PRO-S56-3480	Procurement - Electrical and Security - RFQ Prepare + Issue Package	15	12-Apr-24 A	01-Aug-24				608	0%
ST0-PRO-S56-3500	Procurement - Electrical and Security - RFQ Tender Period	20	07-Dec-26	18-Jan-27				33	0%
ST0-PRO-S56-3520	Procurement - Electrical and Security - RFQ Compare / Evaluate / Negotiate / Recommend	15	19-Jan-27	09-Feb-27				33	0%
ST0-PRO-S56-3540	Procurement - Electrical and Security - RFQ Award	10	10-Feb-27	23-Feb-27				33	0%
ST0-DES-D-011-1440	Procurement - Electrical and Security - Concept Design - Memorandum + Drawings - Develop	25	24-Feb-27	01-Apr-27				33	0%
ST0-DES-D-011-1460	Procurement - Electrical and Security - Concept Design - Submit To Superintendent	0		01-Apr-27				33	0%
ST0-DES-D-011-1480	Procurement - Electrical and Security - Concept Design - Client (Seqwater) - Review by Superintendent	14	02-Apr-27	21-Apr-27				33	0%
ST0-DES-D-011-1620	Procurement - Electrical and Security - Design and Drawings and RPEQ	50	22-Apr-27	01-Jul-27				33	0%
ST0-DES-D-011-1640	Procurement - Electrical and Security - Design and Drawings - Submit to Superintendent	0		01-Jul-27				33	0%
ST0-DES-D-011-3220	Procurement - Electrical and Security - Design and Drawings - Superintendent Review and Approval	28	02-Jul-27	10-Aug-27				33	0%
ST0-PRO-S56-3580	Procurement - Electrical and Security - Manufacture / Lead Time	40	09-Sep-27	04-Nov-27				33	0%
ST0-PRO-S56-3560	Procurement - Electrical and Security - Available on Site	0	05-Nov-27					33	0%
TS6400 - Ogee Basin Gates and Drop Boards		207	09-Nov-27	15-Sep-28				36	
ST0-PRO-C42-4140	Procurement - Ogee Basin gates and Drop Boards - RFQ Prepare + Issue Package	10	09-Nov-27	22-Nov-27				36	0%
ST0-PRO-C42-4160	Procurement - Ogee Basin gates and Drop Boards - RFQ Tender Period	15	23-Nov-27	13-Dec-27				36	0%
ST0-PRO-C42-4180	Procurement - Ogee Basin gates and Drop Boards - RFQ Compare / Evaluate / Negotiate / Recommend	10	14-Dec-27	11-Jan-28				36	0%
ST0-PRO-C42-4200	Procurement - Ogee Basin gates and Drop Boards - RFQ Award	5	12-Jan-28	18-Jan-28				36	0%
ST0-DES-D-011-2940	Procurement - Ogee Basin gates and Drop Boards - Concept Design - Memorandum + Drawings - Develop	20	19-Jan-28	16-Feb-28				36	0%
ST0-DES-D-011-2960	Procurement - Ogee Basin gates and Drop Boards - Concept Design - Submit To Superintendent	0		16-Feb-28				36	0%
ST0-DES-D-011-2980	Procurement - Ogee Basin gates and Drop Boards - Concept Design - Client (Seqwater) - Review by Superintendent	14	17-Feb-28	07-Mar-28				36	0%
ST0-DES-D-011-3000	Procurement - Ogee Basin gates and Drop Boards - Design and Shop Detailing and RPEQ Sign Off	30	08-Mar-28	20-Apr-28				36	0%
ST0-DES-D-011-3020	Procurement - Ogee Basin gates and Drop Boards - Design and Shop Detailing - Submit to Superintendent	0		20-Apr-28				36	0%
ST0-DES-D-011-3040	Procurement - Ogee Basin gates and Drop Boards - Design and Shop Detailing - Superintendent Review	28	21-Apr-28	01-Jun-28				36	0%
ST0-PRO-C42-4240	Procurement - Ogee Basin gates and Drop Boards - Manufacture / Lead Time	50	30-Jun-28	08-Sep-28				36	0%
ST0-PRO-C42-4220	Procurement - Ogee Basin gates and Drop Boards - Deliver to Site	5	11-Sep-28	15-Sep-28				36	0%
SITE ESTABLISHMENT		156	01-Aug-24	23-Jul-25	16-Jan-24	14-Oct-24	-119	293	
On-Site Preliminaries		92	01-Aug-24	28-Feb-25	16-Jan-24	29-Jan-24	-175	167	



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

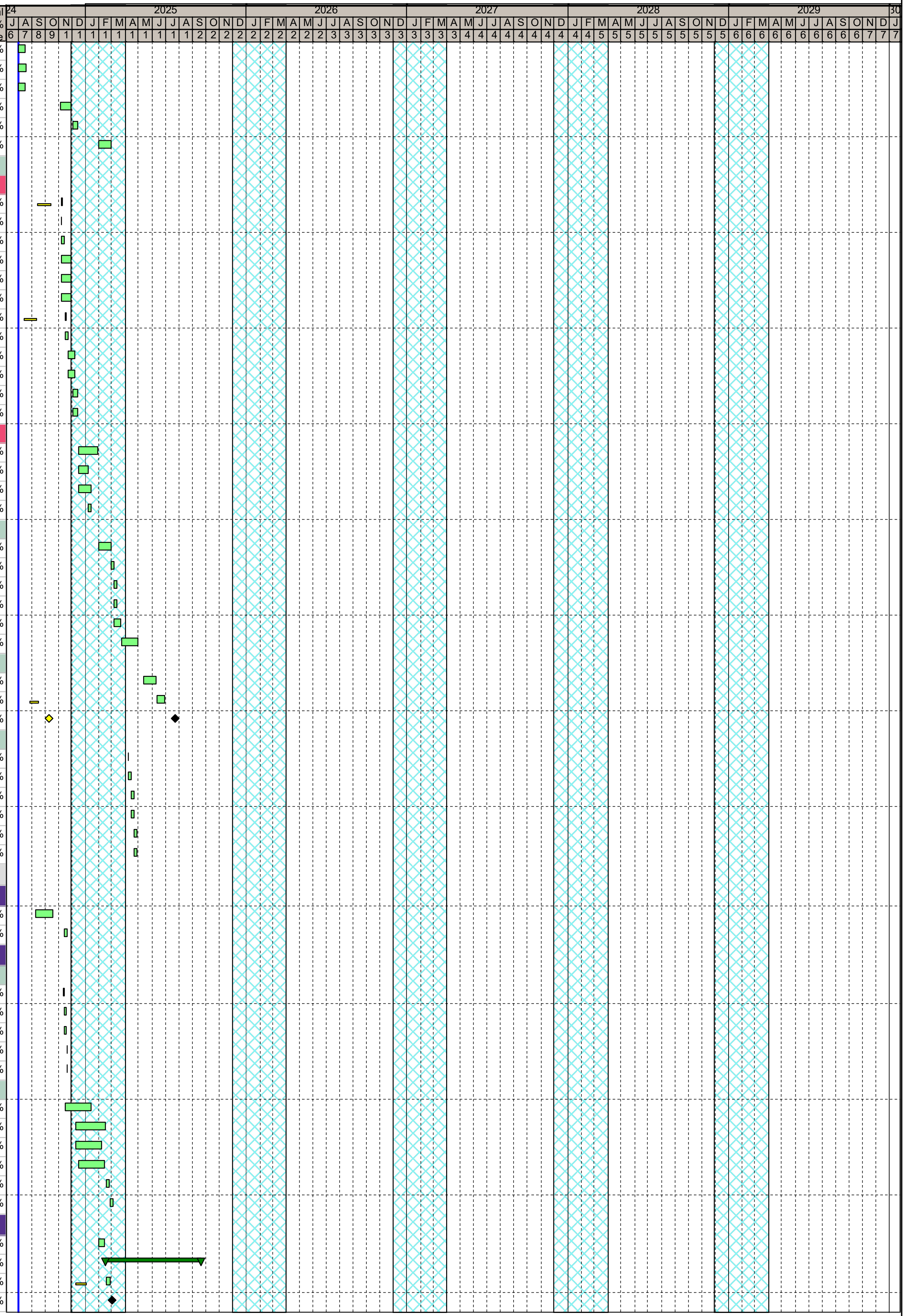
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST0-EST-1000	On-Site Preliminaries - Site Survey & Drone Mapping	8	01-Aug-24	15-Aug-24	16-Jan-24	29-Jan-24	-127	172	0%
ST0-EST-1080	On-Site Preliminaries - Condition Assessment of Existing and Surounding Facilities and Local Roads	10	01-Aug-24	19-Aug-24	19-Jan-24	29-Jan-24	-129	172	0%
ST0-EST-1720	On-Site Preliminaries - Community Notifications for site commencement (10 days)	10	01-Aug-24	15-Aug-24				189	0%
ST0-PRO-C-0xy-1440	On-Site Preliminaries - PUP's Protection - Design Protection Measures - Phase 2	20	04-Nov-24	29-Nov-24				304	0%
ST0-EST-1780	On-Site Preliminaries - PUP's Protection -Authorities Review + Approve Protection Measure - Phase 2	10	02-Dec-24	13-Dec-24				281	0%
ST0-EST-1740	On-Site Preliminaries - Condition Assessment of Surrounding Env. Inc Grassed Areas/Shrubs/Trees & Local Resident Prop	20	31-Jan-25	28-Feb-25				74	0%
Site Establishment		46	07-Nov-24	29-Jan-25	26-Mar-24	14-Oct-24	-60	371	
Phase 1		26	07-Nov-24	13-Dec-24	26-Mar-24	14-Oct-24	-40	231	
ST0-EST-1500	Site Establishment - Phase 1 - Protect Existing Services (PUP's) - Left Embankment and Access Roads	2	07-Nov-24	08-Nov-24	13-Sep-24	14-Oct-24	-16	131	0%
ST0-EST-1160	Site Establishment - Phase 1 - Establish - Environmental Controls	1	07-Nov-24	07-Nov-24	26-Mar-24	16-Apr-24	-133	143	0%
ST0-EST-1580	Site Establishment - Phase 1 - Tree Removal - HV Access road South 1	5	08-Nov-24	14-Nov-24				143	0%
ST0-EST-1620	Site Establishment - Phase 1 - Site Facilities and Car Park Earthworks	15	08-Nov-24	29-Nov-24				148	0%
ST0-EST-1680	Site Establishment - Phase 1 - Hardstand 3 - (LHE) Earthworks	15	08-Nov-24	29-Nov-24				148	0%
ST0-EST-1640	Site Establishment - Phase 1 - Hardstand 1 (North of RHE) Earthworks	15	08-Nov-24	29-Nov-24				153	0%
ST0-EST-1260	Site Establishment - Phase 1 - Protect Existing Services (PUP's) - Right Embankment	2	15-Nov-24	18-Nov-24	15-Aug-24	12-Sep-24	-42	146	0%
ST0-EST-1560	Site Establishment - Phase 1 - Temporary Fencing including removal of existing at WTP	5	15-Nov-24	21-Nov-24				143	0%
ST0-EST-1660	Site Establishment - Phase 1 - Hardstand 2 - (East of RHE) Earthworks	10	22-Nov-24	06-Dec-24				143	0%
ST0-EST-1600	Site Establishment - Phase 1 -Access Road Earthworks	10	22-Nov-24	06-Dec-24				148	0%
ST0-EST-1140	Site Establishment - Phase 1 - Stormwater Management Controls	10	02-Dec-24	13-Dec-24	26-Mar-24	16-Apr-24	-158	231	0%
ST0-EST-1700	Site Establishment - Phase 1 - Site Facilities Establishment	10	02-Dec-24	13-Dec-24				214	0%
Phase 2		20	17-Dec-24	29-Jan-25	26-Mar-24	02-May-24	-168	371	
ST0-EST-1040	Site Establishment - Phase 2 - Site Facilities	20	17-Dec-24	29-Jan-25	26-Mar-24	02-May-24	-168	231	0%
ST0-EST-1120	Site Establishment - Phase 2 - Power Supply	5	17-Dec-24	06-Jan-25	26-Mar-24	09-Apr-24	-168	281	0%
ST0-EST-1060	Site Establishment - Phase 2 - Site Security & Fencing incl. WTP & IT	10	17-Dec-24	13-Jan-25	26-Mar-24	16-Apr-24	-168	381	0%
ST0-EST-1240	Site Establishment - Phase 2 - Potable/General Water Supplies	5	07-Jan-25	13-Jan-25	10-Apr-24	16-Apr-24	-168	381	0%
Site Infrastructure		55	30-Jan-25	29-Apr-25	26-Mar-24	07-Jun-24	-198	337	
ST0-EST-1340	Site Establishment - Infrastructure - Clearing and Grubbing Staging Area	20	30-Jan-25	27-Feb-25	10-Apr-24	16-Apr-24	-198	231	0%
ST0-EST-1360	Site Establishment - Infrastructure - Strip & Stockpile Topsoil Staging Area	5	28-Feb-25	06-Mar-25	17-Apr-24	23-Apr-24	-198	231	0%
ST0-EST-1280	Site Establishment - Infrastructure - Construct Stockpile/Spoil Areas	5	07-Mar-25	13-Mar-25	26-Mar-24	09-Apr-24	-213	342	0%
ST0-EST-1380	Site Establishment - Infrastructure - Construct Haul Roads & Access Roads	5	07-Mar-25	13-Mar-25	26-Mar-24	09-Apr-24	-213	342	0%
ST0-EST-1400	Site Establishment - Infrastructure - Construct Hardstands incl. Batch Plant Area	10	07-Mar-25	21-Mar-25	24-Apr-24	09-May-24	-198	231	0%
ST0-EST-1480	Site Establishment - Infrastructure - Setup Onsite Materials Testing Facility	20	24-Mar-25	29-Apr-25	10-May-24	07-Jun-24	-198	337	0%
Concrete Batch Plant		49	13-May-25	23-Jul-25	10-May-24	10-Oct-24	-174	416	
ST0-EST-1420	Site Establishment - Batch Plant - Establish on Site Batch Plant & Commission	20	13-May-25	10-Jun-25	10-May-24	07-Jun-24	-225	309	0%
ST0-EST-1440	Site Establishment - Batch Plant - Undertake Batch Plant Trial [28d prior to commencing]	14	11-Jun-25	30-Jun-25	27-Aug-24	16-Sep-24	-174	310	0%
ST0-EST-1460	Site Establishment - Batch Plant - Batch Plant Available to Supply Site	0	23-Jul-25		10-Oct-24		-174	416	0%
Dewatering Requirements		6	07-Apr-25	28-Apr-25	30-Jan-24	20-Feb-24	-186	150	
ST0-EST-1100	Site Establishment - Dewatering - Undertake Dilapidation Survey of Seqwaters - CWR & CWPS	1	07-Apr-25	07-Apr-25	30-Jan-24	30-Jan-24	-271	206	0%
ST0-EST-1180	Site Establishment - Dewatering - Install & Commission - CWR & CWPS Monitoring Wells	7	08-Apr-25	14-Apr-25	31-Jan-24	06-Feb-24	-433	339	0%
ST0-EST-1200	Site Establishment - Dewatering - Record Baseline Readings - CWR & CWPS Monitoring Wells	7	15-Apr-25	21-Apr-25	07-Feb-24	13-Feb-24	-433	346	0%
ST0-EST-1220	Site Establishment - Dewatering - Install & Commission - CWR & CWPS Temporary Survey Markers	7	15-Apr-25	21-Apr-25	07-Feb-24	13-Feb-24	-433	339	0%
ST0-EST-1300	Site Establishment - Dewatering - Record Baseline Readings - CWR & CWPS Temporary Survey Markers	7	22-Apr-25	28-Apr-25	14-Feb-24	20-Feb-24	-433	339	0%
ST0-EST-1320	Site Establishment - Dewatering - Install & Commission - Data Loggers to Existing Standpipes	7	22-Apr-25	28-Apr-25	14-Feb-24	20-Feb-24	-433	339	0%
STAGE 1 - RESERVOIR LOWERING		248	09-Sep-24	17-Apr-26	30-Jan-24	06-May-25	-149	585	
Environmental Requirements		48	09-Sep-24	20-Nov-24	30-Jan-24	26-Feb-24	-171	131	
ST1-1280	Reservoir Lowering - Stage 1 - Enviro - Undertake Site Survey of Relocation Sites & Submit Report [4 weeks]	28	09-Sep-24	18-Oct-24	30-Jan-24	26-Feb-24	-151	131	0%
ST1-1260	Reservoir Lowering - Stage 1 - Enviro - Undertake Evaluation Survey in Lake Macdonald & Submit Report [1 week]	5	14-Nov-24	20-Nov-24	30-Jan-24	05-Feb-24	-185	131	0%
Construct Reservoir Lowering System		66	11-Nov-24	03-Mar-25	06-Feb-24	19-Jun-24	-158	1064	
Initial Lake Lowering System - Pumps		8	11-Nov-24	20-Nov-24	01-May-24	19-Jun-24	-100	131	
ST1-1080	Reservoir Lowering - Stage 1 - Lowering Syst - Construct Access and Pump Pad	3	11-Nov-24	13-Nov-24	01-May-24	16-May-24	-118	131	0%
ST1-1180	Reservoir Lowering - Stage 1 - Lowering Syst - Install Piping - Suction and Pumping	3	14-Nov-24	18-Nov-24	28-May-24	11-Jun-24	-104	131	0%
ST1-1060	Reservoir Lowering - Stage 1 - Lowering Syst - Install Pumps on Pump Pad	3	14-Nov-24	18-Nov-24	01-May-24	16-May-24	-121	131	0%
ST1-1220	Reservoir Lowering - Stage 1 - Lowering Syst - Commission	1	19-Nov-24	19-Nov-24	12-Jun-24	14-Jun-24	-102	131	0%
ST1-1300	Reservoir Lowering - Stage 1 - Lowering Syst - Provide Evidence of Minimum Flow Capacity to Superintendent	1	20-Nov-24	20-Nov-24	17-Jun-24	19-Jun-24	-100	131	0%
Maintenance Lake Lowering System - Siphon (Now Option 1 RHE, Sequence Needs Review)		62	15-Nov-24	03-Mar-25	06-Feb-24	11-Jun-24	-164	1064	
ST1-1100	Reservoir Lowering - Stage 1 - Lowering Syst - Trenching of Right Embankment	30	15-Nov-24	13-Jan-25	31-May-24	11-Jun-24	-132	236	0%
ST1-1200	Reservoir Lowering - Stage 1 - Lowering Syst - Commence Welding HDPE (Assume two Machines at this stage)	37	09-Dec-24	14-Feb-25	11-Jun-24	11-Jun-24	-154	231	0%
ST1-1240	Reservoir Lowering - Stage 1 - Lowering Syst - Concrete Thrust Block FRP and Curing	30	10-Dec-24	06-Feb-25	06-Feb-24	04-Mar-24	-208	1070	0%
ST1-1640	Reservoir Lowering - Stage 1 - Lowering Syst - Diffuser Structure	30	17-Dec-24	12-Feb-25				1066	0%
ST1-1660	Reservoir Lowering - Stage 1 - Lowering Syst - Finishing Works	5	18-Feb-25	24-Feb-25				1064	0%
ST1-1620	Reservoir Lowering (Siphon) - Stage 1 - Lowering Syst - Commission	5	25-Feb-25	03-Mar-25				1064	0%
Reservoir Lowering		187	31-Jan-25	17-Apr-26	23-Mar-24	06-May-25	-149	585	
ST1-1600	Reservoir Lowering - Stage 1 - Lowering - Lake Aquatics - MMJ - Fish Survey Exercises	10	31-Jan-25	13-Feb-25	23-Mar-24	01-Apr-24	-196	74	0%
ST1-1580	Reservoir Lowering - Stage 1 - Lowering - Lake Aquatics - Salvage + Relocate	218	14-Feb-25	19-Sep-25	19-Apr-24	01-Jan-25	-261	1525	0%
ST1-1360	Reservoir Lowering - Stage 1 - Lowering - Install Erosion Protection	6	18-Feb-25	25-Feb-25	10-Dec-24	02-Jan-25	-36	231	0%
ST1-1540	Reservoir Lowering - Stage 1 - Lowering - Drawdown to RL93 - Commence Pumping	0	03-Mar-25		04-May-24		-122	118	0%



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

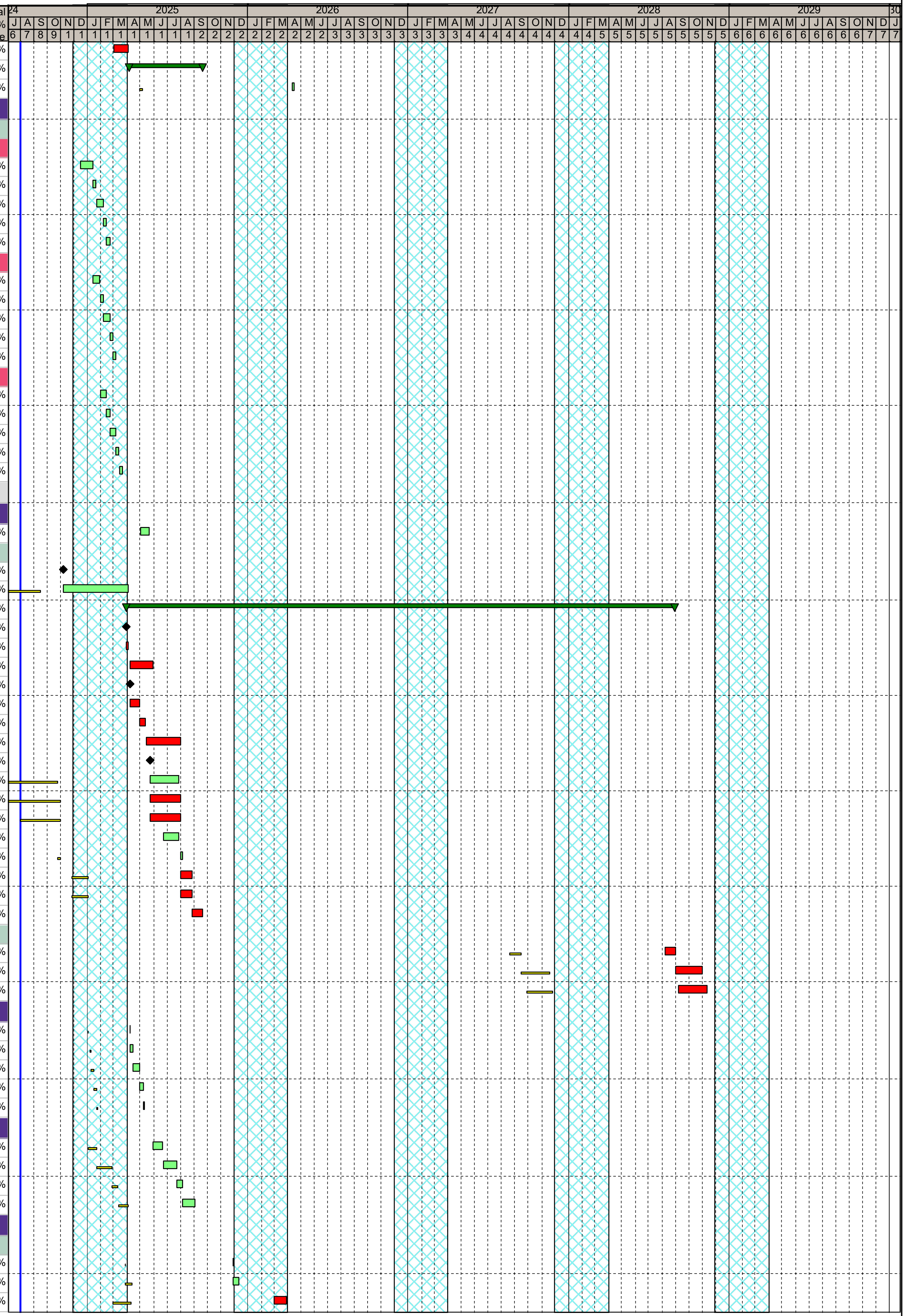
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST1-1560	Reservoir Lowering - Stage 1 - Lowering - Drawdown to RL93 - Using Pumps Only	33	03-Mar-25	04-Apr-25	04-May-24	15-Jun-24	-112	118	0%
ST1-1320	Reservoir Lowering - Stage 1 - Lowering - (maintenance lowering only)	168	05-Apr-25	19-Sep-25	16-Jun-24	01-Jan-25	-261	1525	0%
ST1-1500	Reservoir Lowering - Stage 1 - Lowering - Decommission Lowering System	5	13-Apr-26	17-Apr-26	29-Apr-25	06-May-25	-212	583	0%
Utilities Relocation / Protection		35	17-Dec-24	21-Mar-25	20-Feb-24	17-May-24	-139	153	
Northern Interconnector Pipeline (NIP)		35	17-Dec-24	21-Mar-25	20-Feb-24	17-May-24	-139	153	
NIP - Left Bank - Concrete Encase		23	17-Dec-24	20-Feb-25	20-Feb-24	12-Apr-24	-143	159	
ST0-NIP-1000	Utilities Relocation - NIP - Left Bank - Conc Encase - Detailed Excavation	10	17-Dec-24	13-Jan-25	20-Feb-24	04-Mar-24	-192	214	0%
ST0-NIP-1020	Utilities Relocation - NIP - Left Bank - Conc Encase - Install Pipeline Temp Protection	5	14-Jan-25	20-Jan-25	05-Mar-24	11-Mar-24	-192	224	0%
ST0-NIP-1040	Utilities Relocation - NIP - Left Bank - Conc Encase - FRP Encasement	10	21-Jan-25	05-Feb-25	12-Mar-24	26-Mar-24	-192	224	0%
ST0-NIP-1060	Utilities Relocation - NIP - Left Bank - Conc Encase - Cure + Strip Form	7	06-Feb-25	12-Feb-25	27-Mar-24	02-Apr-24	-316	368	0%
ST0-NIP-1080	Utilities Relocation - NIP - Left Bank - Conc Encase - Inital Backfill to Trench Encasement	5	13-Feb-25	20-Feb-25	08-Apr-24	12-Apr-24	-195	224	0%
NIP - Right Bank - Concrete Retaining Structure		22	14-Jan-25	06-Mar-25	05-Mar-24	02-May-24	-140	156	
ST0-NIP-2000	Utilities Relocation - NIP - Right Bank - Conc Retain Struct - Detailed Excavation	10	14-Jan-25	29-Jan-25	05-Mar-24	19-Mar-24	-192	214	0%
ST0-NIP-2020	Utilities Relocation - NIP - Right Bank - Conc Retain Struct - Install Pipeline Temp Protection	5	30-Jan-25	05-Feb-25	20-Mar-24	26-Mar-24	-192	220	0%
ST0-NIP-2040	Utilities Relocation - NIP - Right Bank - Conc Retain Struct - FRP Encasement	10	06-Feb-25	20-Feb-25	27-Mar-24	17-Apr-24	-192	220	0%
ST0-NIP-2060	Utilities Relocation - NIP - Right Bank - Conc Retain Struct - Cure + Strip Form	7	21-Feb-25	27-Feb-25	18-Apr-24	24-Apr-24	-309	361	0%
ST0-NIP-2080	Utilities Relocation - NIP - Right Bank - Conc Retain Struct - Inital Backfill to Trench Encasement	5	28-Feb-25	06-Mar-25	26-Apr-24	02-May-24	-192	219	0%
NIP - Centre Pier - Concrete Strengthrning		22	30-Jan-25	21-Mar-25	20-Mar-24	17-May-24	-139	153	
ST0-NIP-3000	Utilities Relocation - NIP - Centre Pier - Conc Strengthen - Detailed Excavation	10	30-Jan-25	12-Feb-25	20-Mar-24	10-Apr-24	-192	214	0%
ST0-NIP-3020	Utilities Relocation - NIP - Centre Pier - Conc Strengthen - Install Pipeline Temp Support + Protection	5	13-Feb-25	20-Feb-25	11-Apr-24	17-Apr-24	-192	214	0%
ST0-NIP-3040	Utilities Relocation - NIP - Centre Pier - Conc Strengthen - FRP Pad Footing + Blade Pier	10	21-Feb-25	06-Mar-25	18-Apr-24	02-May-24	-192	214	0%
ST0-NIP-3060	Utilities Relocation - NIP - Centre Pier - Conc Strengthen - Cure + Strip Form	7	07-Mar-25	13-Mar-25	03-May-24	09-May-24	-308	354	0%
ST0-NIP-3080	Utilities Relocation - NIP - Centre Pier - Conc Strengthen - Inital Backfill to Pad Footing	5	14-Mar-25	21-Mar-25	10-May-24	17-May-24	-193	214	0%
STAGE 2 - TEMPORARY WORKS		640	07-Nov-24	10-Nov-28	15-Apr-24	26-Nov-27	-151	0	
Temporary Upstream Coffer Dam		640	07-Nov-24	10-Nov-28	15-Apr-24	26-Nov-27	-151	0	
ST0-PRO-C-002-3540	Procurement - Sheet Piling Supply - Deliver to Site	15	01-May-25	22-May-25	15-Apr-24	19-Apr-24	-265	81	0%
Construct - Temporary Upstream Coffer Dam		606	07-Nov-24	29-Aug-28	20-Apr-24	13-Sep-27	-152	0	
ST2-CD-1040	Coffer Dam - Temporary Upstream - Rock Material - Available to Commence On Site Stockpile	0	07-Nov-24		02-May-24		-122	164	0%
ST2-CD-1080	Coffer Dam - Temporary Upstream - Rock Material - Stockpile On Site	90	07-Nov-24	03-Apr-25	02-May-24	16-Sep-24	-122	164	0%
ST2-CD-2060	Coffer Dam - Temporary Upstream - Ongoing Dewatering Between Coffer Dam and Main Dam FOR SRA SE TAS 1150D TASK	1248	31-Mar-25	29-Aug-28	31-Oct-24	13-Sep-27	-351	0	0%
ST2-CD-1060	Coffer Dam - Temporary Upstream - Piling Equipment - Commence Mobilise to Site	0	31-Mar-25		22-May-24		-196	73	0%
ST2-CD-1220	Coffer Dam - Temporary Upstream - Piling Equipment - Mobilise to Site	5	31-Mar-25	04-Apr-25	22-May-24	18-Jun-24	-182	73	0%
ST2-CD-1100	Coffer Dam - Temporary Upstream - Right Abutment Rockfill to central Spillway Section	30	07-Apr-25	29-May-25	20-May-24	02-Jul-24	-203	73	0%
ST2-CD-1120	Coffer Dam - Temporary Upstream - Regulator Approvals Granted + Piling Equip Mob to Site Complete	0	07-Apr-25		20-Jun-24		-181	73	0%
ST2-CD-2140	Coffer Dam - Temporary Upstream - Sheet Piling Works - LHE Abutment Piles	10	07-Apr-25	29-Apr-25				73	0%
ST2-CD-2120	Coffer Dam - Temporary Upstream - Left Abutment Rockfill	8	30-Apr-25	13-May-25				73	0%
ST2-CD-2180	Coffer Dam - Temporary Upstream - Sheet Piling Works - Spillway From LHE	55	14-May-25	31-Jul-25				73	0%
ST2-CD-1020	Coffer Dam - Temporary Upstream - Sheet Piles, Tie Bars - Available On Site	0	23-May-25		20-Apr-24		-245	76	0%
ST2-CD-1140	Coffer Dam - Temporary Upstream - Sheet Piling Works - Spillway From RHE	45	23-May-25	28-Jul-25	20-Jun-24	25-Oct-24	-166	76	0%
ST2-CD-1160	Coffer Dam - Temporary Upstream - Rockfill - Between Piles	48	23-May-25	31-Jul-25	20-Jun-24	01-Nov-24	-164	73	0%
ST2-CD-1180	Coffer Dam - Temporary Upstream - Rockfill and Rockbag Installation - Downstream Side	48	23-May-25	31-Jul-25	02-Aug-24	01-Nov-24	-164	73	0%
ST2-CD-2160	Coffer Dam - Temporary Upstream - Sheet Piling Works - Single Sheets Along RHE	25	23-Jun-25	28-Jul-25				100	0%
ST2-CD-1240	Coffer Dam - Temporary Upstream - Dewater Between Coffer Dam and Main Dam	5	01-Aug-25	05-Aug-25	26-Oct-24	30-Oct-24	-279	134	0%
ST2-CD-2080	Coffer Dam - Temporary Upstream - Capping Concrete (Incl Reinforcement) High Pile Area	15	01-Aug-25	26-Aug-25	27-Nov-24	02-Jan-25	-151	73	0%
ST2-CD-1200	Coffer Dam - Temporary Upstream - Capping Concrete (Incl Reinforcement) (Low Flow Channel)	15	01-Aug-25	26-Aug-25	27-Nov-24	02-Jan-25	-151	73	0%
ST2-CD-2200	Coffer Dam - Temporary Upstream - Contingency for Flood/Overtopping Only	24	27-Aug-25	19-Sep-25				118	0%
Deconstruct + Remove - Temporary Upstream Coffer Dam		61	07-Aug-28	10-Nov-28	19-Aug-27	26-Nov-27	-213	0	
ST2-CD-2000	Coffer Dam - Temporary Upstream - Deconstruct - Cut + Demolish Concrete Fill	16	07-Aug-28	31-Aug-28	19-Aug-27	15-Sep-27	-214	0	0%
ST2-CD-2020	Coffer Dam - Temporary Upstream - Deconstruct - Remove Rockfill + Tie Bars + Extract Piles	40	01-Sep-28	31-Oct-28	16-Sep-27	18-Nov-27	-214	0	0%
ST2-CD-2040	Coffer Dam - Temporary Upstream - Deconstruct - Remove Downstream Spillway	40	08-Sep-28	10-Nov-28	27-Sep-27	26-Nov-27	-213	0	0%
Spoil Disposal Area		17	07-Apr-25	09-May-25	02-Jan-25	24-Jan-25	-63	204	
ST2-1020	Temp Works - Spoil Disposal - Under Bund - Strip	2	07-Apr-25	08-Apr-25	02-Jan-25	03-Jan-25	-63	204	0%
ST2-1040	Temp Works - Spoil Disposal - Under Bund - Remove & Replace	4	09-Apr-25	14-Apr-25	06-Jan-25	09-Jan-25	-63	204	0%
ST2-1080	Temp Works - Spoil Disposal - Bund - Construct Foundation (geofab/clay/geofab)	4	15-Apr-25	29-Apr-25	10-Jan-25	15-Jan-25	-63	204	0%
ST2-1100	Temp Works - Spoil Disposal - Bund - Construct	5	30-Apr-25	07-May-25	16-Jan-25	22-Jan-25	-63	204	0%
ST2-1120	Temp Works - Spoil Disposal - Bund - Place Rock to Bund	2	08-May-25	09-May-25	23-Jan-25	24-Jan-25	-63	204	0%
EDG Upstream + Down Stream Cut Off Wall		62	30-May-25	02-Sep-25	02-Jan-25	03-Apr-25	-93	146	
ST2-EDG-1000	Temp Works - Upstream - Access (4m Wide x 175m Long)	15	30-May-25	20-Jun-25	02-Jan-25	22-Jan-25	-93	146	0%
ST2-EDG-1020	Temp Works - Upstream - Install Sheet Pile Cut Off Wall from Right Embankment 175m @ RL92.2	21	23-Jun-25	22-Jul-25	23-Jan-25	25-Feb-25	-93	146	0%
ST2-EDG-1040	Temp Works - Upstream - Install Sheet Pile Cut Of Wall from Left Embankment 75m @ RL92.2	10	23-Jul-25	05-Aug-25	26-Feb-25	11-Mar-25	-93	146	0%
ST2-EDG-1060	Temp Works - Down Stream - Install Sheet Pile Tail Water Protection Cut Of Wall 125m @ RL92.2	16	06-Aug-25	02-Sep-25	12-Mar-25	03-Apr-25	-93	146	0%
Spillway Demolition / Working Platform - 24/7 Operations No Weather Impacts		57	28-Nov-25	06-May-26	28-Feb-25	17-May-25	-152	1	
Phase 1 - Relieve Training Walls		45	28-Nov-25	01-Apr-26	28-Feb-25	12-Apr-25	-152	1	
ST2-1600	Spillway Demolition - Phase 1 - Demolition Apply + Approval Granted	1	28-Nov-25	28-Nov-25	28-Mar-25	28-Mar-25	-245	113	0%
ST2-1580	Spillway Demolition - Phase 1 - Mobilise Equip - 24/7	14	29-Nov-25	12-Dec-25	29-Mar-25	11-Apr-25	-245	113	0%
ST2-1620	Spillway Demolition - Phase 1 - Re-Lowering the reservoir to RL93. inc the pond bet UCD/Spillway reduced fm 42d to 30d	30	01-Mar-26	30-Mar-26	28-Feb-25	10-Apr-25	-173	1	0%



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03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

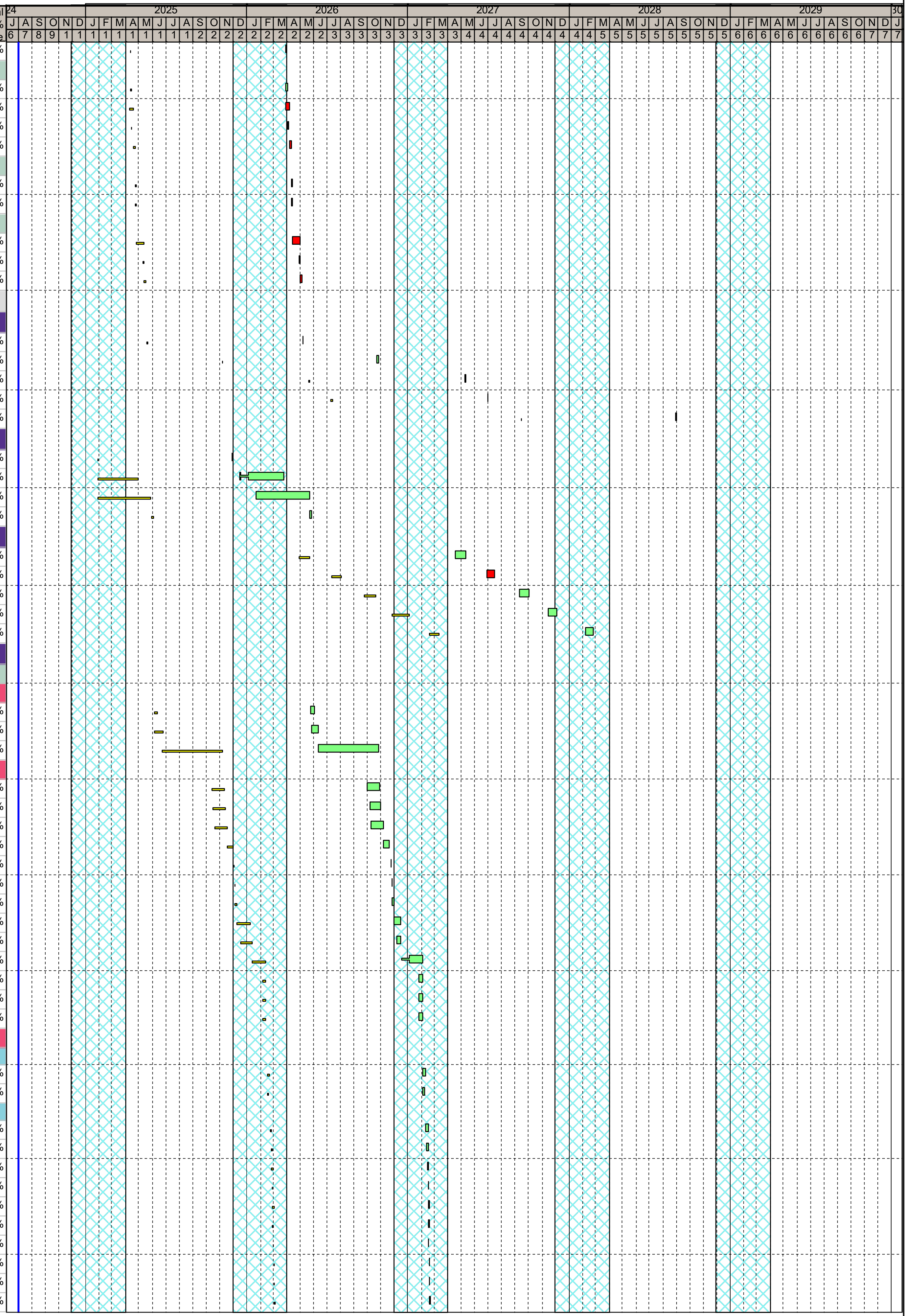
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST2-1340	Spillway Demolition - Phase 1 - Partially Excavate Right & Left Earthfill Embankments [5m wide slots] - 24/7	2	31-Mar-26	01-Apr-26	12-Apr-25	12-Apr-25	-354	5	0%
Phase 2 - Construct 30m Slot		12	31-Mar-26	11-Apr-26	11-Apr-25	22-Apr-25	-354	1	
ST2-1360	Spillway Demolition - Phase 2 - 30m Notch - Excavate / Saw Cut / Demolish	3	31-Mar-26	02-Apr-26	12-Apr-25	14-Apr-25	-353	5	0%
ST2-1260	Spillway Demolition - Phase 2 - Spillway Work Platform - Temp Works - Install Sheet Piling - 24/7	8	31-Mar-26	07-Apr-26	11-Apr-25	18-Apr-25	-354	1	0%
ST2-1380	Spillway Demolition - Phase 2 - 30m Notch - Place Blinding to Foundation	2	03-Apr-26	04-Apr-26	14-Apr-25	15-Apr-25	-354	5	0%
ST2-1400	Spillway Demolition - Phase 2 - 30m Notch - Construct Spillway Working Platform incl Connection + Flood Barrier	4	08-Apr-26	11-Apr-26	19-Apr-25	22-Apr-25	-354	1	0%
Phase 3 - Excavation Stage 1		3	12-Apr-26	14-Apr-26	23-Apr-25	25-Apr-25	-354	1	
ST2-1420	Spillway Demolition - Phase 3 - Remainder of Width - Excavate / Saw Cut / Demolish 24/7	2	12-Apr-26	13-Apr-26	23-Apr-25	24-Apr-25	-354	1	0%
ST2-1440	Spillway Demolition - Phase 3 - Remainder of Width - Demolition of Training Walls Above Bench Height	2	13-Apr-26	14-Apr-26	24-Apr-25	25-Apr-25	-354	1	0%
Phase 4 - Excavation Stage 2 + Works Platform		22	15-Apr-26	06-May-26	26-Apr-25	17-May-25	-354	1	
ST2-1500	Spillway Demolition - Phase 4 - Beyond Extents - Excavate / Saw Cut / Demolish 24/7	17	15-Apr-26	01-May-26	26-Apr-25	12-May-25	-354	1	0%
ST2-1520	Spillway Demolition - Phase 4 - Beyond Extents - Demolition of Training Walls Lower Footing + 2 Pipe Struct	2	30-Apr-26	01-May-26	11-May-25	12-May-25	-354	1	0%
ST2-1560	Spillway Demolition - Phase 4 - Beyond Extents - Construct Spillway Working Platform (800mm Gravel Hardstand)	5	02-May-26	06-May-26	13-May-25	17-May-25	-354	1	0%
STAGE 3 - DAM CONSTRUCTION		520	28-Nov-25	23-Mar-29	31-Oct-24	07-Apr-28	-151	113	
Spillway Diversion Staging		379	07-May-26	31-Aug-28	19-May-25	15-Sep-27	-151	0	
ST3-LF-1000	Dam Construct - Low Flow Flood - Stage 1 - Setup for Flow Across Cell 2 + Cell 3	2	07-May-26	08-May-26	19-May-25	20-May-25	-216	35	0%
ST3-LF-1020	Dam Construct - Low Flow Flood - Stage 2 - Setup for Reduced Flow Across Cell 3	2	23-Oct-26	26-Oct-26	06-Nov-25	07-Nov-25	-216	34	0%
ST3-LF-1040	Dam Construct - Low Flow Flood - Stage 3a - Setup for Flow Across Cell 2	2	11-May-27	12-May-27	21-May-26	22-May-26	-216	124	0%
ST3-LF-1100	Dam Construct - Low Flow Flood - Stage 3b - Setup for Flow Across Cell 1 + Cell 2	2	30-Jun-27	01-Jul-27	10-Jul-26	13-Jul-26	-217	262	0%
ST3-LF-1080	Dam Construct - Low Flow Flood - Stage 4 - Setup for Flow Across Cell 4	2	30-Aug-28	31-Aug-28	14-Sep-27	15-Sep-27	-351	0	0%
Trials - Mass Concrete + Embankment + Hydro-Demolition		69	28-Nov-25	27-May-26	29-Jan-25	02-Jun-25	-156	132	
ST3-TR-5080	Dam Construct - Stage 3 - Trials - Undertake Hydro-Demolition Trial	1	28-Nov-25	28-Nov-25	29-Jan-25	29-Jan-25	-194	64	0%
ST3-TR-5100	Dam Construct - Stage 3 - Trials - Undertake Embankment Trial Placement	56	16-Dec-25	25-Mar-26	29-Jan-25	29-Apr-25	-205	187	0%
ST3-TR-5040	Dam Construct - Stage 3 - Trials - Undertake Mass Concrete Trial Placement [28d prior]	75	22-Jan-26	22-May-26	29-Jan-25	28-May-25	-220	187	0%
ST3-TR-5060	Dam Construct - Stage 3 - Trials - Record Temperatures of Mass Concrete [5d]	5	23-May-26	27-May-26	29-May-25	02-Jun-25	-359	300	0%
Foundation Grouting		197	19-Apr-27	25-Feb-28	30-Apr-26	12-Mar-27	-215	83	
ST3-FG-1000	Foundation Grout - Cell 1 - Prep + Grout (Mass Conc RL84)	15	19-Apr-27	12-May-27	30-Apr-26	22-May-26	-216	119	0%
ST3-FG-1080	Foundation Grout - Cell 5 - Prep + Grout (Mass Conc RL88)	15	28-Jun-27	16-Jul-27	13-Jul-26	03-Aug-26	-214	0	0%
ST3-FG-1020	Foundation Grout - Cell 2 - Prep + Grout (Mass Conc RL84)	15	10-Sep-27	01-Oct-27	25-Sep-26	19-Oct-26	-215	169	0%
ST3-FG-1040	Foundation Grout - Cell 3 - Prep + Grout (Mass Conc RL84)	15	15-Nov-27	03-Dec-27	27-Nov-26	04-Jan-27	-215	126	0%
ST3-FG-1060	Foundation Grout - Cell 4 - Prep + Grout (Mass Conc RL88)	15	07-Feb-28	25-Feb-28	19-Feb-27	12-Mar-27	-215	57	0%
Cell Construction		273	26-May-26	06-Feb-28	05-Jun-25	18-Feb-27	-154	57	
Cell 1 - Left Hand Side		140	26-May-26	17-Apr-27	05-Jun-25	29-Apr-26	-153	90	
Piling		101	26-May-26	26-Oct-26	05-Jun-25	07-Nov-25	-216	34	
ST3-C1-1000	Cell Construct - LHS - Cell 1 - Piling - Setout Piling Template & Mobilise Rig	5	26-May-26	02-Jun-26	05-Jun-25	12-Jun-25	-216	34	0%
ST3-C1-1020	Cell Construct - LHS - Cell 1 - Piling - FRP Guidewall	12	27-May-26	12-Jun-26	06-Jun-25	24-Jun-25	-216	34	0%
ST3-C1-1040	Cell Construct - LHS - Cell 1 - Piling - Excavate + Pour Piles [1 rig between softhard 6&6]	90	11-Jun-26	26-Oct-26	23-Jun-25	07-Nov-25	-216	34	0%
Excavate + Capping Beam		48	01-Oct-26	03-Feb-27	14-Oct-25	13-Feb-26	-155	47	
ST3-C1-3140	Cell Construct - LHS - Cell 1 - Excav - Local	18	01-Oct-26	28-Oct-26	14-Oct-25	11-Nov-25	-216	72	0%
ST3-C1-3100	Cell Construct - LHS - Cell 1 - Excav - Breakback Secant Piles	18	07-Oct-26	30-Oct-26	16-Oct-25	13-Nov-25	-216	72	0%
ST3-C1-3080	Cell Construct - LHS - Cell 1 - Concrete - FRP Capping Beam	18	09-Oct-26	06-Nov-26	20-Oct-25	17-Nov-25	-216	72	0%
ST3-C1-3120	Cell Construct - LHS - Cell 1 - Concrete - Cure Capping Beam (14 dy strength gain prior to excav)	14	07-Nov-26	20-Nov-26	18-Nov-25	01-Dec-25	-354	123	0%
ST3-C1-3160	Cell Construct - LHS - Cell 1 - Excav - Install Corner Bracing	2	23-Nov-26	24-Nov-26	02-Dec-25	03-Dec-25	-217	71	0%
ST3-C1-2000	Cell Construct - LHS - Cell 1 - Excav - Strip Working Platform	1	25-Nov-26	25-Nov-26	04-Dec-25	04-Dec-25	-217	71	0%
ST3-C1-3000	Cell Construct - LHS - Cell 1 - Excav - Free Dig Excavation	3	26-Nov-26	30-Nov-26	05-Dec-25	09-Dec-25	-217	71	0%
ST3-C1-3200	Cell Construct - LHS - Cell 1 - Excav - Free Dig + Clam Shell Excavation	10	01-Dec-26	15-Dec-26	10-Dec-25	09-Jan-26	-217	71	0%
ST3-C1-3180	Cell Construct - LHS - Cell 1 - Excav - Hydro Blast Secant Piles	7	07-Dec-26	16-Dec-26	17-Dec-25	12-Jan-26	-217	71	0%
ST3-C1-3020	Cell Construct - LHS - Cell 1 - Excav - Foundation Detail Excavation	21	17-Dec-26	02-Feb-27	13-Jan-26	12-Feb-26	-217	71	0%
ST3-C1-3220	Cell Construct - LHS - Cell 1 - Excav - Foundation Preparation	6	25-Jan-27	03-Feb-27	06-Feb-26	13-Feb-26	-217	71	0%
ST3-C1-3040	Cell Construct - LHS - Cell 1 - Concrete - Place Dental Concrete	6	25-Jan-27	03-Feb-27	06-Feb-26	13-Feb-26	-217	71	0%
ST3-C1-3060	Cell Construct - LHS - Cell 1 - Excav - Inspection, Mapping + Approval to Commence with Mass Concrete	6	25-Jan-27	03-Feb-27	06-Feb-26	13-Feb-26	-217	71	0%
Mass Concrete		27	04-Feb-27	17-Apr-27	16-Feb-26	29-Apr-26	-153	90	
Cell Preparation		5	04-Feb-27	10-Feb-27	16-Feb-26	20-Feb-26	-217	71	
ST3-C1-CP-5020	Cell Construct - LHS - Mass Conc - Cell 1 - Install 250 Supercast Water Stop to Joint & Upstream Alignment	5	04-Feb-27	10-Feb-27	16-Feb-26	20-Feb-26	-217	71	0%
ST3-C1-CP-5000	Cell Construct - LHS - Mass Conc - Cell 1 - Fix Reo Cage to Upstream Alignment of Cell	3	04-Feb-27	08-Feb-27	16-Feb-26	18-Feb-26	-217	73	0%
Makeup Pours		4	11-Feb-27	21-Feb-27	24-Feb-26	06-Mar-26	-153	52	
ST3-C1-MP-5000	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Form & Prep - Pour 1	3	11-Feb-27	15-Feb-27	24-Feb-26	26-Feb-26	-217	71	0%
ST3-C1-MP-5060	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Form & Prep - Pour 2	3	12-Feb-27	16-Feb-27	25-Feb-26	27-Feb-26	-217	71	0%
ST3-C1-MP-5120	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Form & Prep - Pour 3	3	15-Feb-27	17-Feb-27	26-Feb-26	02-Mar-26	-217	71	0%
ST3-C1-MP-5020	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Pour - Pour 1	1	16-Feb-27	16-Feb-27	27-Feb-26	27-Feb-26	-217	71	0%
ST3-C1-MP-5180	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Form & Prep - Pour 4	3	16-Feb-27	18-Feb-27	27-Feb-26	03-Mar-26	-217	71	0%
ST3-C1-MP-5040	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Cure - Pour 1	2	17-Feb-27	18-Feb-27	28-Feb-26	01-Mar-26	-354	117	0%
ST3-C1-MP-5080	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Pour - Pour 2	1	17-Feb-27	17-Feb-27	02-Mar-26	02-Mar-26	-217	71	0%
ST3-C1-MP-5100	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Cure - Pour 2	2	18-Feb-27	19-Feb-27	03-Mar-26	04-Mar-26	-352	117	0%
ST3-C1-MP-5140	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Pour - Pour 3	1	18-Feb-27	18-Feb-27	03-Mar-26	03-Mar-26	-217	72	0%
ST3-C1-MP-5160	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Cure - Pour 3	2	19-Feb-27	20-Feb-27	04-Mar-26	05-Mar-26	-352	117	0%



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

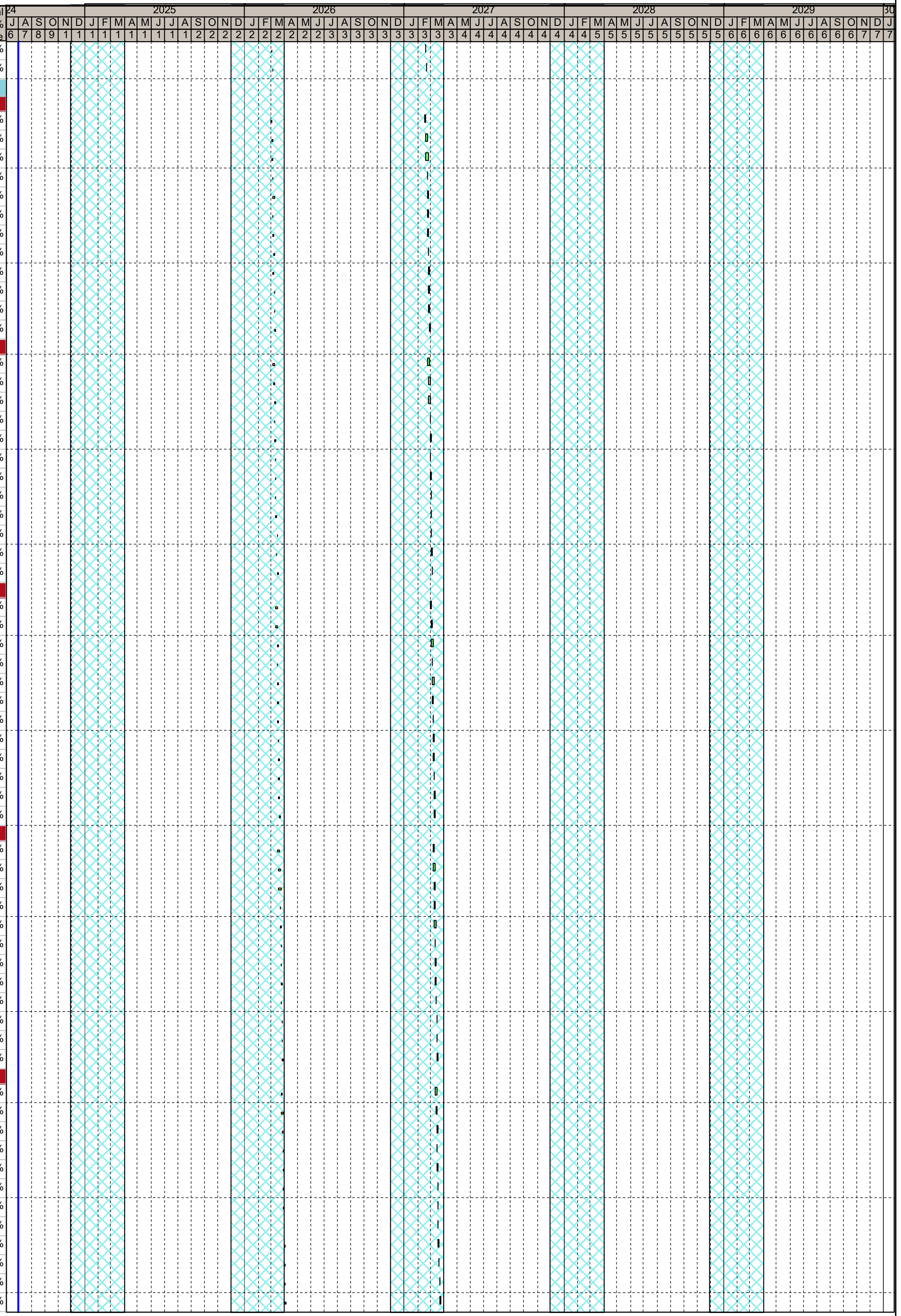
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST3-C1-MP-5200	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Pour - Pour 4	1	19-Feb-27	19-Feb-27	04-Mar-26	04-Mar-26	-217	74	0%
ST3-C1-MP-5220	Cell Construct - LHS - Mass Conc - Cell 1 - Makeup - Cure - Pour 4	2	20-Feb-27	21-Feb-27	05-Mar-26	06-Mar-26	-352	120	0%
Mass Pours		21	17-Feb-27	17-Apr-27	02-Mar-26	29-Apr-26	-153	90	
Lift 1 - Pours 1 to 4		4	17-Feb-27	28-Feb-27	02-Mar-26	12-Mar-26	-154	89	
ST3-C1-MA-6000	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 1	3	17-Feb-27	19-Feb-27	02-Mar-26	04-Mar-26	-217	71	0%
ST3-C1-MA-6060	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 2	3	18-Feb-27	23-Feb-27	03-Mar-26	05-Mar-26	-217	71	0%
ST3-C1-MA-6120	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 3	3	19-Feb-27	24-Feb-27	04-Mar-26	06-Mar-26	-217	71	0%
ST3-C1-MA-6020	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 1	1	23-Feb-27	23-Feb-27	05-Mar-26	05-Mar-26	-217	71	0%
ST3-C1-MA-6180	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 4	3	23-Feb-27	25-Feb-27	05-Mar-26	09-Mar-26	-217	71	0%
ST3-C1-MA-6080	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 2	1	24-Feb-27	24-Feb-27	06-Mar-26	06-Mar-26	-217	71	0%
ST3-C1-MA-6040	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 1	2	24-Feb-27	25-Feb-27	06-Mar-26	07-Mar-26	-355	117	0%
ST3-C1-MA-6140	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 3	1	25-Feb-27	25-Feb-27	09-Mar-26	09-Mar-26	-217	71	0%
ST3-C1-MA-6100	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 2	2	25-Feb-27	26-Feb-27	07-Mar-26	08-Mar-26	-355	117	0%
ST3-C1-MA-6160	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 3	2	26-Feb-27	27-Feb-27	10-Mar-26	11-Mar-26	-353	192	0%
ST3-C1-MA-6200	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 4	1	26-Feb-27	26-Feb-27	10-Mar-26	10-Mar-26	-217	71	0%
ST3-C1-MA-6220	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 4	2	27-Feb-27	28-Feb-27	11-Mar-26	12-Mar-26	-353	192	0%
Lift 2 - Pours 5 to 8		5	24-Feb-27	06-Mar-27	06-Mar-26	18-Mar-26	-154	90	
ST3-C1-MA-6240	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 5	3	24-Feb-27	26-Feb-27	06-Mar-26	10-Mar-26	-217	71	0%
ST3-C1-MA-6300	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 6	3	25-Feb-27	01-Mar-27	09-Mar-26	11-Mar-26	-217	71	0%
ST3-C1-MA-6360	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 7	3	26-Feb-27	02-Mar-27	10-Mar-26	12-Mar-26	-217	71	0%
ST3-C1-MA-6260	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 5	1	01-Mar-27	01-Mar-27	11-Mar-26	11-Mar-26	-217	71	0%
ST3-C1-MA-6420	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 8	3	01-Mar-27	03-Mar-27	11-Mar-26	13-Mar-26	-217	71	0%
ST3-C1-MA-6320	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 6	1	02-Mar-27	02-Mar-27	12-Mar-26	12-Mar-26	-217	71	0%
ST3-C1-MA-6280	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 5	2	02-Mar-27	03-Mar-27	12-Mar-26	13-Mar-26	-355	190	0%
ST3-C1-MA-6380	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 7	1	03-Mar-27	03-Mar-27	13-Mar-26	13-Mar-26	-217	120	0%
ST3-C1-MA-6340	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 6	2	03-Mar-27	04-Mar-27	13-Mar-26	14-Mar-26	-355	117	0%
ST3-C1-MA-6440	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 8	1	04-Mar-27	04-Mar-27	16-Mar-26	16-Mar-26	-217	120	0%
ST3-C1-MA-6400	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 7	2	04-Mar-27	05-Mar-27	14-Mar-26	15-Mar-26	-355	192	0%
ST3-C1-MA-6460	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 8	2	05-Mar-27	06-Mar-27	17-Mar-26	18-Mar-26	-353	192	0%
Lift 3 - Pours 9 to 12		5	02-Mar-27	12-Mar-27	12-Mar-26	22-Mar-26	-156	91	
ST3-C1-MA-6480	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 9	3	02-Mar-27	04-Mar-27	12-Mar-26	16-Mar-26	-217	71	0%
ST3-C1-MA-6540	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 10	3	03-Mar-27	05-Mar-27	13-Mar-26	17-Mar-26	-217	71	0%
ST3-C1-MA-6600	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 11	3	04-Mar-27	08-Mar-27	16-Mar-26	18-Mar-26	-217	120	0%
ST3-C1-MA-6500	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 9	1	05-Mar-27	05-Mar-27	17-Mar-26	17-Mar-26	-217	120	0%
ST3-C1-MA-6660	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 12	3	05-Mar-27	09-Mar-27	17-Mar-26	19-Mar-26	-217	120	0%
ST3-C1-MA-6520	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 9	2	06-Mar-27	07-Mar-27	18-Mar-26	19-Mar-26	-353	192	0%
ST3-C1-MA-6560	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 10	1	08-Mar-27	08-Mar-27	18-Mar-26	18-Mar-26	-217	71	0%
ST3-C1-MA-6620	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 11	1	09-Mar-27	09-Mar-27	19-Mar-26	19-Mar-26	-217	120	0%
ST3-C1-MA-6580	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 10	2	09-Mar-27	10-Mar-27	19-Mar-26	20-Mar-26	-355	190	0%
ST3-C1-MA-6680	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 12	1	10-Mar-27	10-Mar-27	20-Mar-26	20-Mar-26	-217	120	0%
ST3-C1-MA-6640	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 11	2	10-Mar-27	11-Mar-27	20-Mar-26	21-Mar-26	-355	193	0%
ST3-C1-MA-6700	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 12	2	11-Mar-27	12-Mar-27	21-Mar-26	22-Mar-26	-355	193	0%
Lift 4 - Pours 13 to 16		5	08-Mar-27	18-Mar-27	18-Mar-26	29-Mar-26	-156	92	
ST3-C1-MA-6720	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 13	3	08-Mar-27	10-Mar-27	18-Mar-26	20-Mar-26	-217	120	0%
ST3-C1-MA-6780	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 14	3	09-Mar-27	11-Mar-27	19-Mar-26	24-Mar-26	-217	120	0%
ST3-C1-MA-6840	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 15	3	10-Mar-27	12-Mar-27	20-Mar-26	25-Mar-26	-217	120	0%
ST3-C1-MA-6740	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 13	1	11-Mar-27	11-Mar-27	24-Mar-26	24-Mar-26	-217	120	0%
ST3-C1-MA-6900	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 16	3	11-Mar-27	15-Mar-27	24-Mar-26	26-Mar-26	-217	120	0%
ST3-C1-MA-6800	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 14	1	12-Mar-27	12-Mar-27	25-Mar-26	25-Mar-26	-217	120	0%
ST3-C1-MA-6760	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 13	2	12-Mar-27	13-Mar-27	25-Mar-26	26-Mar-26	-352	193	0%
ST3-C1-MA-6820	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 14	2	13-Mar-27	14-Mar-27	26-Mar-26	27-Mar-26	-352	193	0%
ST3-C1-MA-6860	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 15	1	15-Mar-27	15-Mar-27	26-Mar-26	26-Mar-26	-217	120	0%
ST3-C1-MA-6880	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 15	2	16-Mar-27	17-Mar-27	27-Mar-26	28-Mar-26	-354	193	0%
ST3-C1-MA-6920	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 16	1	16-Mar-27	16-Mar-27	27-Mar-26	27-Mar-26	-217	120	0%
ST3-C1-MA-6940	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 16	2	17-Mar-27	18-Mar-27	28-Mar-26	29-Mar-26	-354	193	0%
Lift 5 - Pours 17 to 20		5	12-Mar-27	25-Mar-27	25-Mar-26	04-Apr-26	-155	93	
ST3-C1-MA-6960	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 17	3	12-Mar-27	16-Mar-27	25-Mar-26	27-Mar-26	-217	120	0%
ST3-C1-MA-7020	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 18	3	15-Mar-27	17-Mar-27	26-Mar-26	30-Mar-26	-217	120	0%
ST3-C1-MA-7080	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 19	3	16-Mar-27	18-Mar-27	27-Mar-26	31-Mar-26	-217	120	0%
ST3-C1-MA-6980	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 17	1	17-Mar-27	17-Mar-27	30-Mar-26	30-Mar-26	-217	120	0%
ST3-C1-MA-7120	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 20	3	17-Mar-27	19-Mar-27	30-Mar-26	01-Apr-26	-217	120	0%
ST3-C1-MA-7000	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 17	2	18-Mar-27	19-Mar-27	31-Mar-26	01-Apr-26	-352	193	0%
ST3-C1-MA-7040	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 18	1	18-Mar-27	18-Mar-27	31-Mar-26	31-Mar-26	-217	120	0%
ST3-C1-MA-7100	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 19	1	19-Mar-27	19-Mar-27	01-Apr-26	01-Apr-26	-217	120	0%
ST3-C1-MA-7060	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 18	2	19-Mar-27	20-Mar-27	01-Apr-26	02-Apr-26	-352	193	0%
ST3-C1-MA-7140	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 19	2	20-Mar-27	21-Mar-27	02-Apr-26	03-Apr-26	-352	193	0%
ST3-C1-MA-7160	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 20	1	23-Mar-27	23-Mar-27	02-Apr-26	02-Apr-26	-217	120	0%
ST3-C1-MA-7180	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 20	2	24-Mar-27	25-Mar-27	03-Apr-26	04-Apr-26	-355	194	0%



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03-May-...	LMDIP - Progressed DD:03/05/24		
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Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

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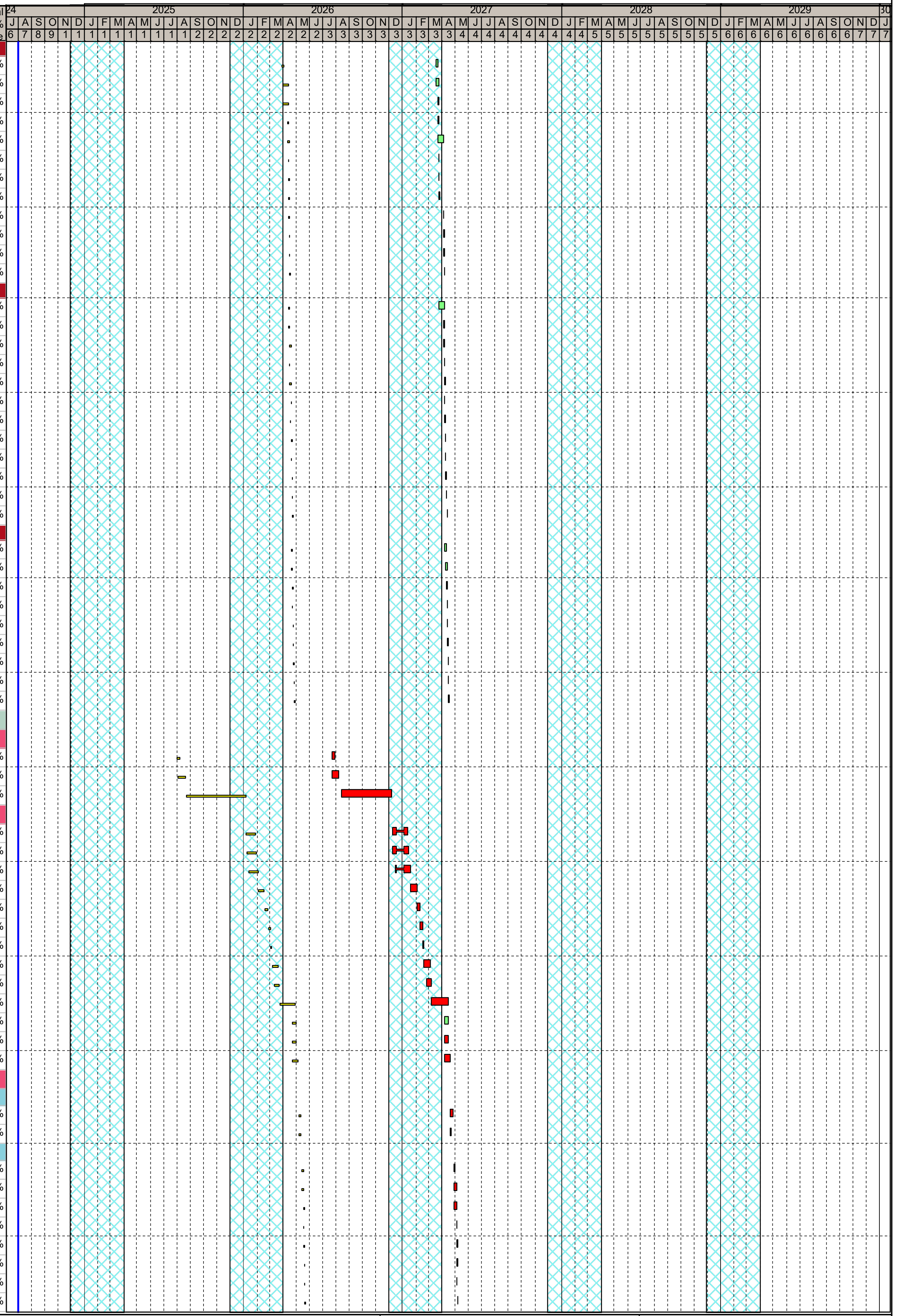
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
Lift 6 - Pours 21 to 24		4	18-Mar-27	08-Apr-27	31-Mar-26	18-Apr-26	-154	94	
ST3-C1-MA-7200	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 21	3	18-Mar-27	23-Mar-27	31-Mar-26	02-Apr-26	-217	120	0%
ST3-C1-MA-7260	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 22	3	19-Mar-27	24-Mar-27	01-Apr-26	13-Apr-26	-217	120	0%
ST3-C1-MA-7320	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 23	3	23-Mar-27	25-Mar-27	02-Apr-26	14-Apr-26	-217	120	0%
ST3-C1-MA-7220	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 21	1	24-Mar-27	24-Mar-27	13-Apr-26	13-Apr-26	-217	120	0%
ST3-C1-MA-7380	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 24	3	24-Mar-27	05-Apr-27	13-Apr-26	15-Apr-26	-217	120	0%
ST3-C1-MA-7280	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 22	1	25-Mar-27	25-Mar-27	14-Apr-26	14-Apr-26	-217	120	0%
ST3-C1-MA-7240	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 21	2	25-Mar-27	26-Mar-27	14-Apr-26	15-Apr-26	-345	194	0%
ST3-C1-MA-7300	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 22	2	26-Mar-27	27-Mar-27	15-Apr-26	16-Apr-26	-345	194	0%
ST3-C1-MA-7340	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 23	1	05-Apr-27	05-Apr-27	15-Apr-26	15-Apr-26	-217	120	0%
ST3-C1-MA-7400	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 24	1	06-Apr-27	06-Apr-27	16-Apr-26	16-Apr-26	-217	120	0%
ST3-C1-MA-7360	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 23	2	06-Apr-27	07-Apr-27	16-Apr-26	17-Apr-26	-355	186	0%
ST3-C1-MA-7420	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 24	2	07-Apr-27	08-Apr-27	17-Apr-26	18-Apr-26	-355	189	0%
Lift 7 - Pours 25 to 28		5	25-Mar-27	14-Apr-27	14-Apr-26	24-Apr-26	-153	92	
ST3-C1-MA-7440	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 25	3	25-Mar-27	06-Apr-27	14-Apr-26	16-Apr-26	-217	120	0%
ST3-C1-MA-7500	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 26	3	05-Apr-27	07-Apr-27	15-Apr-26	17-Apr-26	-217	120	0%
ST3-C1-MA-7560	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 27	3	06-Apr-27	08-Apr-27	16-Apr-26	20-Apr-26	-217	120	0%
ST3-C1-MA-7460	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 25	1	07-Apr-27	07-Apr-27	17-Apr-26	17-Apr-26	-217	120	0%
ST3-C1-MA-7620	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 28	3	07-Apr-27	09-Apr-27	17-Apr-26	21-Apr-26	-217	120	0%
ST3-C1-MA-7520	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 26	1	08-Apr-27	08-Apr-27	20-Apr-26	20-Apr-26	-217	120	0%
ST3-C1-MA-7480	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 25	2	08-Apr-27	09-Apr-27	18-Apr-26	19-Apr-26	-355	188	0%
ST3-C1-MA-7540	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 26	2	09-Apr-27	10-Apr-27	21-Apr-26	22-Apr-26	-353	187	0%
ST3-C1-MA-7580	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 27	1	09-Apr-27	09-Apr-27	21-Apr-26	21-Apr-26	-217	120	0%
ST3-C1-MA-7600	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 27	2	10-Apr-27	11-Apr-27	22-Apr-26	23-Apr-26	-353	186	0%
ST3-C1-MA-7640	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 28	1	12-Apr-27	12-Apr-27	22-Apr-26	22-Apr-26	-217	123	0%
ST3-C1-MA-7660	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 28	2	13-Apr-27	14-Apr-27	23-Apr-26	24-Apr-26	-355	186	0%
Lift 8 - Pours 29 to 31		5	08-Apr-27	17-Apr-27	20-Apr-26	29-Apr-26	-153	90	
ST3-C1-MA-7680	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 29	3	08-Apr-27	12-Apr-27	20-Apr-26	22-Apr-26	-217	120	0%
ST3-C1-MA-7740	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 30	3	09-Apr-27	13-Apr-27	21-Apr-26	23-Apr-26	-217	120	0%
ST3-C1-MA-7800	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Form & Prep - Pour 31	3	12-Apr-27	14-Apr-27	22-Apr-26	24-Apr-26	-217	120	0%
ST3-C1-MA-7700	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 29	1	13-Apr-27	13-Apr-27	23-Apr-26	23-Apr-26	-217	122	0%
ST3-C1-MA-7760	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 30	1	14-Apr-27	14-Apr-27	24-Apr-26	24-Apr-26	-217	121	0%
ST3-C1-MA-7720	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 29	2	14-Apr-27	15-Apr-27	24-Apr-26	25-Apr-26	-355	185	0%
ST3-C1-MA-7780	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 30	2	15-Apr-27	16-Apr-27	25-Apr-26	26-Apr-26	-355	184	0%
ST3-C1-MA-7820	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Pour - Pour 31	1	15-Apr-27	15-Apr-27	27-Apr-26	27-Apr-26	-217	120	0%
ST3-C1-MA-7840	Cell Construct - LHS - Mass Conc - Cell 1 - Mass - Cure - Pour 31	2	16-Apr-27	17-Apr-27	28-Apr-26	29-Apr-26	-353	183	0%
Cell 5 - Right Hand Side		146	22-Jul-26	26-Jun-27	01-Aug-25	11-Jul-26	-152	0	
Piling		89	22-Jul-26	07-Dec-26	01-Aug-25	05-Jan-26	-216	1	
ST3-C5-1000	Cell Construct - RHS - Cell 5 - Piling - Setout Piling Template & Mobilise Rig	5	22-Jul-26	29-Jul-26	01-Aug-25	07-Aug-25	-216	1	0%
ST3-C5-1020	Cell Construct - RHS - Cell 5 - Piling - FRP Guidewall	11	23-Jul-26	07-Aug-26	04-Aug-25	21-Aug-25	-216	1	0%
ST3-C5-1040	Cell Construct - RHS - Cell 5 - Piling - Excavate + Pour Piles [1 rig between soft/hard 6&6]	77	13-Aug-26	07-Dec-26	22-Aug-25	05-Jan-26	-216	1	0%
Excavate + Capping Beam		45	08-Dec-26	19-Apr-27	06-Jan-26	06-May-26	-152	1	
ST3-C5-3140	Cell Construct - RHS - Cell 5 - Excav - Local	15	08-Dec-26	13-Jan-27	06-Jan-26	28-Jan-26	-216	1	0%
ST3-C5-3100	Cell Construct - RHS - Cell 5 - Excav - Breakback Secant Piles	15	10-Dec-26	15-Jan-27	08-Jan-26	30-Jan-26	-216	1	0%
ST3-C5-3080	Cell Construct - RHS - Cell 5 - Concrete - FRP Capping Beam	15	15-Dec-26	19-Jan-27	12-Jan-26	03-Feb-26	-216	1	0%
ST3-C5-3120	Cell Construct - RHS - Cell 5 - Concrete - Cure Capping Beam (14 dy strength gain prior to excav)	14	20-Jan-27	02-Feb-27	04-Feb-26	17-Feb-26	-350	1	0%
ST3-C5-3160	Cell Construct - RHS - Cell 5 - Excav - Install Corner Bracing	6	03-Feb-27	10-Feb-27	18-Feb-26	26-Feb-26	-214	1	0%
ST3-C5-2000	Cell Construct - RHS - Cell 5 - Excav - Strip Working Platform	3	11-Feb-27	15-Feb-27	27-Feb-26	03-Mar-26	-214	1	0%
ST3-C5-3000	Cell Construct - RHS - Cell 5 - Excav - Free Dig Excavation	3	16-Feb-27	18-Feb-27	04-Mar-26	06-Mar-26	-214	1	0%
ST3-C5-3200	Cell Construct - RHS - Cell 5 - Excav - Free Dig + Clam Shell Excavation	10	19-Feb-27	05-Mar-27	09-Mar-26	20-Mar-26	-214	1	0%
ST3-C5-3180	Cell Construct - RHS - Cell 5 - Excav - Hydro Blast Secant Piles	8	25-Feb-27	08-Mar-27	12-Mar-26	24-Mar-26	-214	1	0%
ST3-C5-3020	Cell Construct - RHS - Cell 5 - Excav - Foundation Detail Excavation	21	09-Mar-27	15-Apr-27	25-Mar-26	30-Apr-26	-214	1	0%
ST3-C5-3220	Cell Construct - RHS - Cell 5 - Excav - Foundation Preparation	8	07-Apr-27	16-Apr-27	22-Apr-26	01-May-26	-214	2	0%
ST3-C5-3060	Cell Construct - RHS - Cell 5 - Excav - Inspection + Approval to Commence with Mass Concrete	8	07-Apr-27	16-Apr-27	22-Apr-26	01-May-26	-214	1	0%
ST3-C5-3040	Cell Construct - RHS - Cell 5 - Concrete - Place Dental Concrete	8	08-Apr-27	19-Apr-27	23-Apr-26	06-May-26	-214	1	0%
Mass Concrete		34	20-Apr-27	26-Jun-27	07-May-26	11-Jul-26	-152	0	
Cell Preparation		5	20-Apr-27	27-Apr-27	07-May-26	13-May-26	-214	1	
ST3-C5-CP-5020	Cell Construct - RHS - Mass Conc - Cell 5 - Install 250 Supercast Water Stop to Joint & Upstream Alignment	5	20-Apr-27	27-Apr-27	07-May-26	13-May-26	-214	1	0%
ST3-C5-CP-5000	Cell Construct - RHS - Mass Conc - Cell 5 - Fix Reo Cage to Upstream Alignment of Cell	3	20-Apr-27	22-Apr-27	07-May-26	11-May-26	-214	3	0%
Makeup Pours		5	28-Apr-27	12-May-27	14-May-26	24-May-26	-151	2	
ST3-C5-MP-5000	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Form & Prep - Pour 1	3	28-Apr-27	30-Apr-27	14-May-26	18-May-26	-214	1	0%
ST3-C5-MP-5060	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Form & Prep - Pour 2	3	29-Apr-27	05-May-27	15-May-26	19-May-26	-214	1	0%
ST3-C5-MP-5120	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Form & Prep - Pour 3	3	30-Apr-27	06-May-27	18-May-26	20-May-26	-214	1	0%
ST3-C5-MP-5020	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Pour - Pour 1	1	05-May-27	05-May-27	19-May-26	19-May-26	-214	1	0%
ST3-C5-MP-5180	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Form & Prep - Pour 4	3	05-May-27	07-May-27	19-May-26	21-May-26	-214	1	0%
ST3-C5-MP-5040	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Cure - Pour 1	2	06-May-27	07-May-27	20-May-26	21-May-26	-351	4	0%
ST3-C5-MP-5080	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Pour - Pour 2	1	06-May-27	06-May-27	20-May-26	20-May-26	-214	1	0%
ST3-C5-MP-5100	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Cure - Pour 2	2	07-May-27	08-May-27	21-May-26	22-May-26	-351	4	0%



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

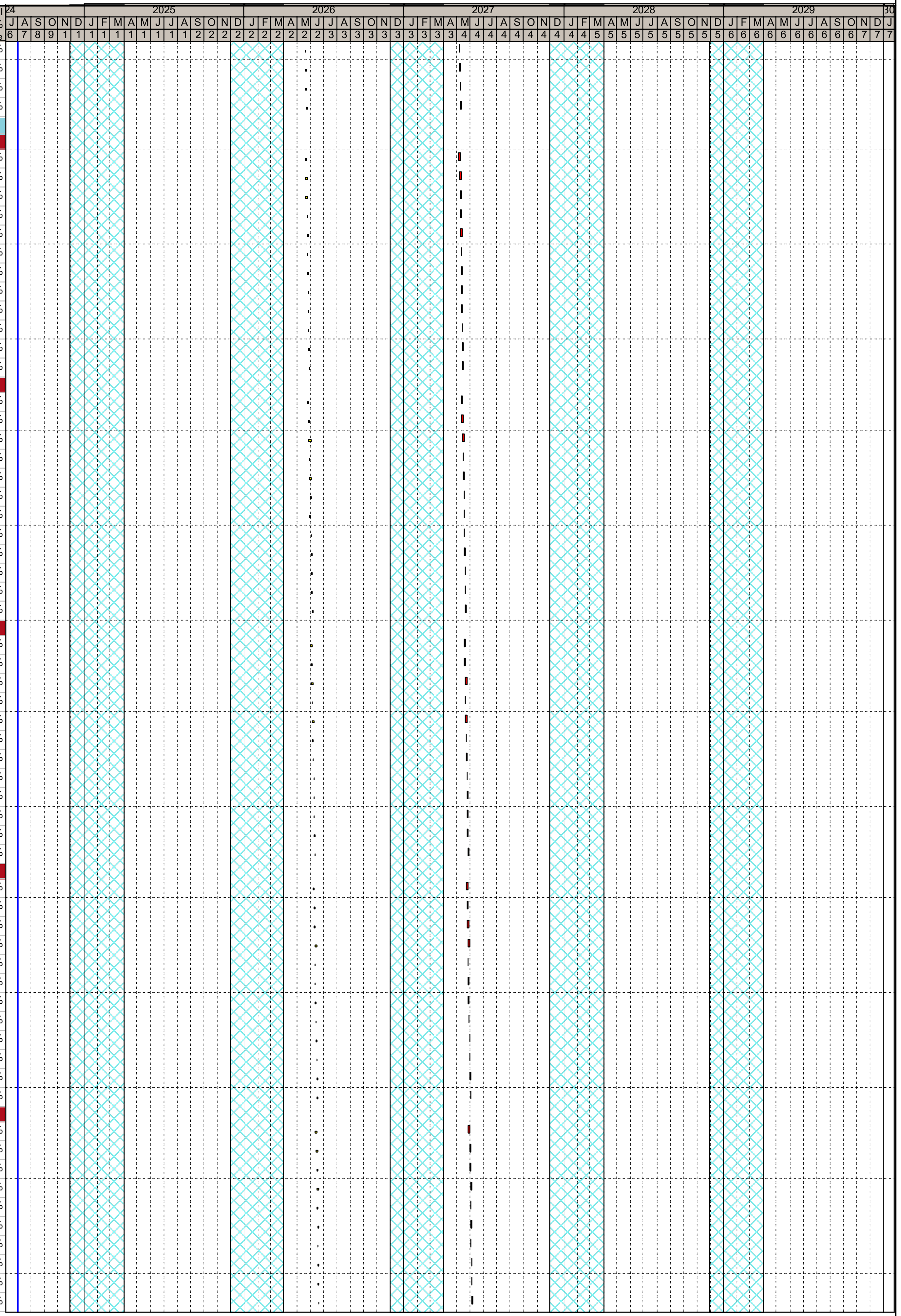
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST3-C5-MP-5140	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Pour - Pour 3	1	07-May-27	07-May-27	21-May-26	21-May-26	-214	1	0%
ST3-C5-MP-5160	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Cure - Pour 3	2	08-May-27	09-May-27	22-May-26	23-May-26	-351	4	0%
ST3-C5-MP-5200	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Pour - Pour 4	1	10-May-27	10-May-27	22-May-26	22-May-26	-214	1	0%
ST3-C5-MP-5220	Cell Construct - RHS - Mass Conc - Cell 5 - Makeup - Cure - Pour 4	2	11-May-27	12-May-27	23-May-26	24-May-26	-353	4	0%
Mass Pours		28	06-May-27	26-Jun-27	20-May-26	11-Jul-26	-152	0	
Lift 1 - Pours 1 to 4		5	06-May-27	16-May-27	20-May-26	30-May-26	-150	3	
ST3-C5-MA-6000	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 1	3	06-May-27	10-May-27	20-May-26	22-May-26	-214	1	0%
ST3-C5-MA-6060	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 2	3	07-May-27	11-May-27	21-May-26	25-May-26	-214	1	0%
ST3-C5-MA-6120	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 3	3	10-May-27	12-May-27	22-May-26	26-May-26	-214	1	0%
ST3-C5-MA-6020	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 1	1	11-May-27	11-May-27	25-May-26	25-May-26	-214	1	0%
ST3-C5-MA-6160	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 4	3	11-May-27	13-May-27	25-May-26	27-May-26	-214	1	0%
ST3-C5-MA-6080	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 2	1	12-May-27	12-May-27	26-May-26	26-May-26	-214	1	0%
ST3-C5-MA-6040	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 1	2	12-May-27	13-May-27	26-May-26	27-May-26	-351	4	0%
ST3-C5-MA-6140	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 3	1	13-May-27	13-May-27	27-May-26	27-May-26	-214	1	0%
ST3-C5-MA-6100	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 2	2	13-May-27	14-May-27	27-May-26	28-May-26	-351	4	0%
ST3-C5-MA-6200	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 4	1	14-May-27	14-May-27	28-May-26	28-May-26	-214	1	0%
ST3-C5-MA-6180	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 3	2	14-May-27	15-May-27	28-May-26	29-May-26	-351	4	0%
ST3-C5-MA-6220	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 4	2	15-May-27	16-May-27	29-May-26	30-May-26	-351	4	0%
Lift 2 - Pours 5 to 8		6	12-May-27	22-May-27	26-May-26	06-Jun-26	-152	2	
ST3-C5-MA-6240	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 5	3	12-May-27	14-May-27	26-May-26	28-May-26	-214	1	0%
ST3-C5-MA-6300	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 6	3	13-May-27	17-May-27	27-May-26	29-May-26	-214	1	0%
ST3-C5-MA-6360	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 7	3	14-May-27	18-May-27	28-May-26	02-Jun-26	-214	1	0%
ST3-C5-MA-6260	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 5	1	17-May-27	17-May-27	29-May-26	29-May-26	-214	1	0%
ST3-C5-MA-6420	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 8	3	17-May-27	19-May-27	29-May-26	03-Jun-26	-214	1	0%
ST3-C5-MA-6320	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 6	1	18-May-27	18-May-27	02-Jun-26	02-Jun-26	-214	1	0%
ST3-C5-MA-6280	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 5	2	18-May-27	19-May-27	30-May-26	31-May-26	-353	4	0%
ST3-C5-MA-6380	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 7	1	19-May-27	19-May-27	03-Jun-26	03-Jun-26	-214	1	0%
ST3-C5-MA-6340	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 6	2	19-May-27	20-May-27	03-Jun-26	04-Jun-26	-350	4	0%
ST3-C5-MA-6440	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 8	1	20-May-27	20-May-27	04-Jun-26	04-Jun-26	-214	1	0%
ST3-C5-MA-6400	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 7	2	20-May-27	21-May-27	04-Jun-26	05-Jun-26	-350	4	0%
ST3-C5-MA-6460	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 8	2	21-May-27	22-May-27	05-Jun-26	06-Jun-26	-350	4	0%
Lift 3 - Pours 9 to 12		7	18-May-27	28-May-27	02-Jun-26	12-Jun-26	-152	2	
ST3-C5-MA-6480	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 9	3	18-May-27	20-May-27	02-Jun-26	04-Jun-26	-214	1	0%
ST3-C5-MA-6540	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 10	3	19-May-27	21-May-27	03-Jun-26	05-Jun-26	-214	1	0%
ST3-C5-MA-6600	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 11	3	20-May-27	24-May-27	04-Jun-26	08-Jun-26	-214	1	0%
ST3-C5-MA-6500	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 9	1	21-May-27	21-May-27	05-Jun-26	05-Jun-26	-214	1	0%
ST3-C5-MA-6660	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 12	3	21-May-27	25-May-27	05-Jun-26	09-Jun-26	-214	1	0%
ST3-C5-MA-6520	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 9	2	22-May-27	23-May-27	06-Jun-26	07-Jun-26	-350	4	0%
ST3-C5-MA-6560	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 10	1	24-May-27	24-May-27	08-Jun-26	08-Jun-26	-214	1	0%
ST3-C5-MA-6620	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 11	1	25-May-27	25-May-27	09-Jun-26	09-Jun-26	-214	1	0%
ST3-C5-MA-6580	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 10	2	25-May-27	26-May-27	09-Jun-26	10-Jun-26	-350	4	0%
ST3-C5-MA-6680	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 12	1	26-May-27	26-May-27	10-Jun-26	10-Jun-26	-214	1	0%
ST3-C5-MA-6640	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 11	2	26-May-27	27-May-27	10-Jun-26	11-Jun-26	-350	4	0%
ST3-C5-MA-6700	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 12	2	27-May-27	28-May-27	11-Jun-26	12-Jun-26	-350	4	0%
Lift 4 - Pours 13 to 16		7	24-May-27	03-Jun-27	08-Jun-26	18-Jun-26	-152	2	
ST3-C5-MA-6720	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 13	3	24-May-27	26-May-27	08-Jun-26	10-Jun-26	-214	1	0%
ST3-C5-MA-6780	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 14	3	25-May-27	27-May-27	09-Jun-26	11-Jun-26	-214	1	0%
ST3-C5-MA-6840	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 15	3	26-May-27	28-May-27	10-Jun-26	12-Jun-26	-214	1	0%
ST3-C5-MA-6900	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 16	3	27-May-27	31-May-27	11-Jun-26	15-Jun-26	-214	1	0%
ST3-C5-MA-6740	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 13	1	27-May-27	27-May-27	11-Jun-26	11-Jun-26	-214	1	0%
ST3-C5-MA-6800	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 14	1	28-May-27	28-May-27	12-Jun-26	12-Jun-26	-214	1	0%
ST3-C5-MA-6760	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 13	2	28-May-27	29-May-27	12-Jun-26	13-Jun-26	-350	4	0%
ST3-C5-MA-6820	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 14	2	29-May-27	30-May-27	13-Jun-26	14-Jun-26	-350	4	0%
ST3-C5-MA-6860	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 15	1	31-May-27	31-May-27	15-Jun-26	15-Jun-26	-214	1	0%
ST3-C5-MA-6920	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 16	1	01-Jun-27	01-Jun-27	16-Jun-26	16-Jun-26	-214	1	0%
ST3-C5-MA-6880	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 15	2	01-Jun-27	02-Jun-27	16-Jun-26	17-Jun-26	-350	4	0%
ST3-C5-MA-6940	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 16	2	02-Jun-27	03-Jun-27	17-Jun-26	18-Jun-26	-350	4	0%
Lift 5 - Pours 17 to 20		7	28-May-27	09-Jun-27	12-Jun-26	24-Jun-26	-152	2	
ST3-C5-MA-6960	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 17	3	28-May-27	01-Jun-27	12-Jun-26	16-Jun-26	-214	1	0%
ST3-C5-MA-7020	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 18	3	31-May-27	02-Jun-27	15-Jun-26	17-Jun-26	-214	1	0%
ST3-C5-MA-7080	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 19	3	01-Jun-27	03-Jun-27	16-Jun-26	18-Jun-26	-214	1	0%
ST3-C5-MA-7140	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 20	3	02-Jun-27	04-Jun-27	17-Jun-26	19-Jun-26	-214	1	0%
ST3-C5-MA-6980	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 17	1	02-Jun-27	02-Jun-27	17-Jun-26	17-Jun-26	-214	1	0%
ST3-C5-MA-7000	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 17	2	03-Jun-27	04-Jun-27	18-Jun-26	19-Jun-26	-350	4	0%
ST3-C5-MA-7040	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 18	1	03-Jun-27	03-Jun-27	18-Jun-26	18-Jun-26	-214	1	0%
ST3-C5-MA-7100	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 19	1	04-Jun-27	04-Jun-27	19-Jun-26	19-Jun-26	-214	1	0%
ST3-C5-MA-7060	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 18	2	04-Jun-27	05-Jun-27	19-Jun-26	20-Jun-26	-350	4	0%
ST3-C5-MA-7120	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 19	2	05-Jun-27	06-Jun-27	20-Jun-26	21-Jun-26	-350	4	0%



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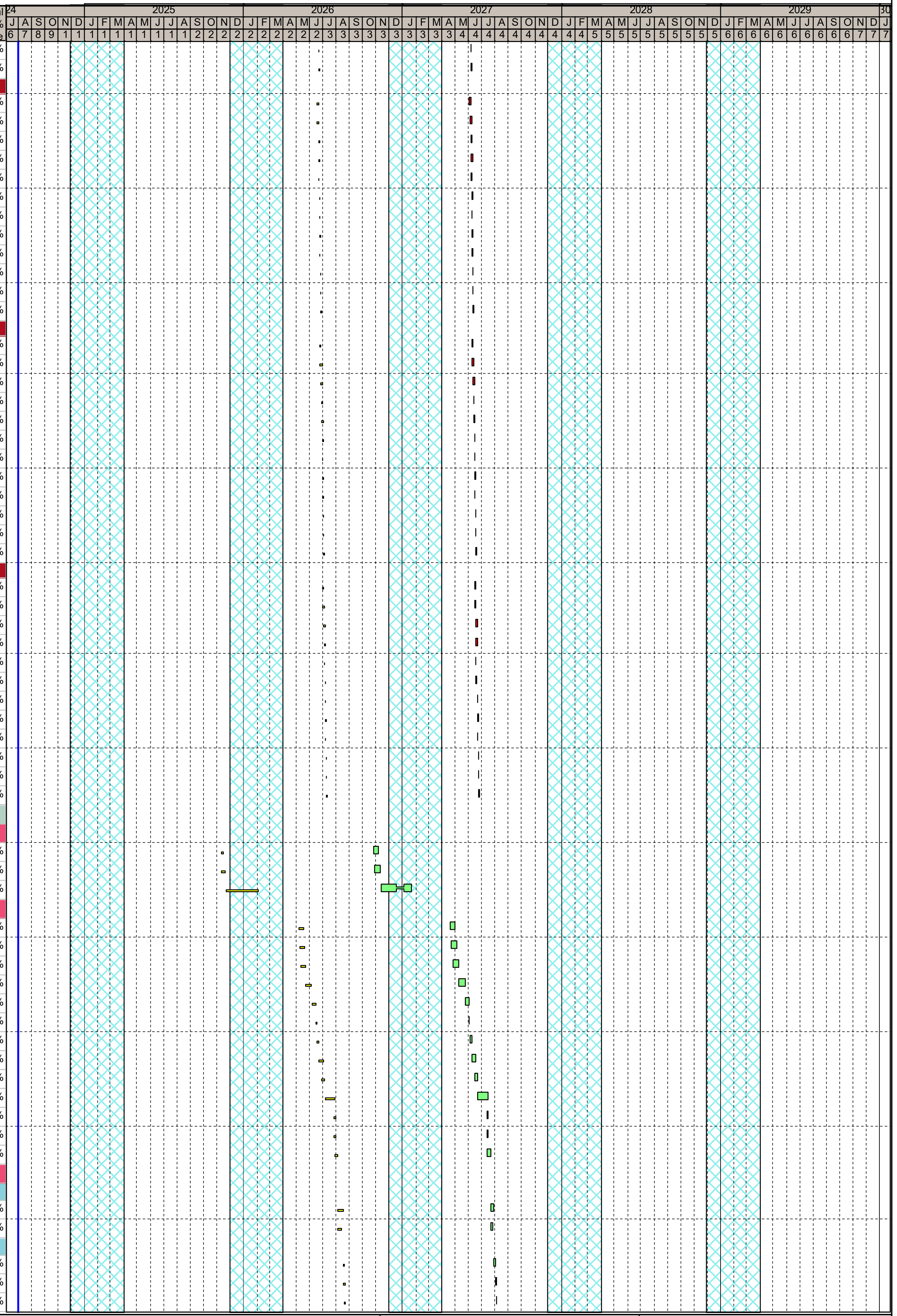
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST3-C5-MA-7160	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 20	1	07-Jun-27	07-Jun-27	22-Jun-26	22-Jun-26	-214	1	0%
ST3-C5-MA-7180	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 20	2	08-Jun-27	09-Jun-27	23-Jun-26	24-Jun-26	-350	4	0%
Lift 6 - Pours 21 to 24		6	03-Jun-27	13-Jun-27	18-Jun-26	28-Jun-26	-152	3	
ST3-C5-MA-7200	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 21	3	03-Jun-27	07-Jun-27	18-Jun-26	22-Jun-26	-214	1	0%
ST3-C5-MA-7260	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 22	3	04-Jun-27	08-Jun-27	19-Jun-26	23-Jun-26	-214	1	0%
ST3-C5-MA-7320	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 23	3	07-Jun-27	09-Jun-27	22-Jun-26	24-Jun-26	-214	1	0%
ST3-C5-MA-7380	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 24	3	08-Jun-27	10-Jun-27	23-Jun-26	25-Jun-26	-214	1	0%
ST3-C5-MA-7220	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 21	1	08-Jun-27	08-Jun-27	23-Jun-26	23-Jun-26	-214	1	0%
ST3-C5-MA-7240	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 21	2	09-Jun-27	10-Jun-27	24-Jun-26	25-Jun-26	-350	4	0%
ST3-C5-MA-7280	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 22	1	09-Jun-27	09-Jun-27	24-Jun-26	24-Jun-26	-214	1	0%
ST3-C5-MA-7300	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 22	2	10-Jun-27	11-Jun-27	25-Jun-26	26-Jun-26	-350	4	0%
ST3-C5-MA-7340	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 23	1	10-Jun-27	10-Jun-27	25-Jun-26	25-Jun-26	-214	1	0%
ST3-C5-MA-7360	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 23	2	11-Jun-27	12-Jun-27	26-Jun-26	27-Jun-26	-350	4	0%
ST3-C5-MA-7400	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 24	1	11-Jun-27	11-Jun-27	26-Jun-26	26-Jun-26	-214	1	0%
ST3-C5-MA-7420	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 24	2	12-Jun-27	13-Jun-27	27-Jun-26	28-Jun-26	-350	4	0%
Lift 7 - Pours 25 to 28		6	09-Jun-27	19-Jun-27	24-Jun-26	05-Jul-26	-153	2	
ST3-C5-MA-7440	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 25	3	09-Jun-27	11-Jun-27	24-Jun-26	26-Jun-26	-214	1	0%
ST3-C5-MA-7500	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 26	3	10-Jun-27	14-Jun-27	25-Jun-26	30-Jun-26	-214	1	0%
ST3-C5-MA-7560	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 27	3	11-Jun-27	15-Jun-27	26-Jun-26	01-Jul-26	-214	1	0%
ST3-C5-MA-7460	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 25	1	14-Jun-27	14-Jun-27	30-Jun-26	30-Jun-26	-214	1	0%
ST3-C5-MA-7620	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 28	3	14-Jun-27	16-Jun-27	30-Jun-26	02-Jul-26	-214	1	0%
ST3-C5-MA-7480	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 25	2	15-Jun-27	16-Jun-27	01-Jul-26	02-Jul-26	-349	8	0%
ST3-C5-MA-7520	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 26	1	15-Jun-27	15-Jun-27	01-Jul-26	01-Jul-26	-214	1	0%
ST3-C5-MA-7540	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 26	2	16-Jun-27	17-Jun-27	02-Jul-26	03-Jul-26	-349	7	0%
ST3-C5-MA-7580	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 27	1	16-Jun-27	16-Jun-27	02-Jul-26	02-Jul-26	-214	1	0%
ST3-C5-MA-7600	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 27	2	17-Jun-27	18-Jun-27	03-Jul-26	04-Jul-26	-349	6	0%
ST3-C5-MA-7640	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 28	1	17-Jun-27	17-Jun-27	03-Jul-26	03-Jul-26	-214	1	0%
ST3-C5-MA-7660	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 28	2	18-Jun-27	19-Jun-27	04-Jul-26	05-Jul-26	-349	5	0%
Lift 8 - Pours 29 to 32		6	15-Jun-27	26-Jun-27	01-Jul-26	11-Jul-26	-152	0	
ST3-C5-MA-7680	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 29	3	15-Jun-27	17-Jun-27	01-Jul-26	03-Jul-26	-214	1	0%
ST3-C5-MA-7740	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 30	3	16-Jun-27	18-Jun-27	02-Jul-26	06-Jul-26	-214	1	0%
ST3-C5-MA-7800	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 31	3	17-Jun-27	22-Jun-27	03-Jul-26	07-Jul-26	-214	1	0%
ST3-C5-MA-7860	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Form & Prep - Pour 32	3	18-Jun-27	23-Jun-27	06-Jul-26	08-Jul-26	-214	1	0%
ST3-C5-MA-7700	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 29	1	18-Jun-27	18-Jun-27	06-Jul-26	06-Jul-26	-214	4	0%
ST3-C5-MA-7720	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 29	2	19-Jun-27	20-Jun-27	07-Jul-26	08-Jul-26	-347	7	0%
ST3-C5-MA-7760	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 30	1	22-Jun-27	22-Jun-27	07-Jul-26	07-Jul-26	-214	3	0%
ST3-C5-MA-7780	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 30	2	23-Jun-27	24-Jun-27	08-Jul-26	09-Jul-26	-350	3	0%
ST3-C5-MA-7820	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 31	1	23-Jun-27	23-Jun-27	08-Jul-26	08-Jul-26	-214	2	0%
ST3-C5-MA-7840	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 31	2	24-Jun-27	25-Jun-27	09-Jul-26	10-Jul-26	-350	2	0%
ST3-C5-MA-7880	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Pour - Pour 32	1	24-Jun-27	24-Jun-27	09-Jul-26	09-Jul-26	-214	1	0%
ST3-C5-MA-7900	Cell Construct - RHS - Mass Conc - Cell 5 - Mass - Cure - Pour 32	2	25-Jun-27	26-Jun-27	10-Jul-26	11-Jul-26	-350	1	0%
Cell 2 - Lefthand Spillway Stage 2		137	27-Oct-26	09-Sep-27	10-Nov-25	24-Sep-26	-151	117	
Piling		47	27-Oct-26	20-Jan-27	10-Nov-25	04-Feb-26	-216	34	
ST3-C2-1000	Cell Construct - LH Spillway - Cell 2 - Stage 2 - Piling - Setout Piling Template & Mobilise Rig	5	27-Oct-26	05-Nov-26	10-Nov-25	14-Nov-25	-216	34	0%
ST3-C2-1020	Cell Construct - LH Spillway - Cell 2 - Stage 2 - Piling - FRP Guidewall	8	28-Oct-26	11-Nov-26	11-Nov-25	20-Nov-25	-216	34	0%
ST3-C2-1040	Cell Construct - LH Spillway - Cell 2 - Stage 2 - Piling - Excavate & Pour Piles [1 rig between softhard 6&6]	38	12-Nov-26	20-Jan-27	21-Nov-25	04-Feb-26	-216	34	0%
Excavate + Capping Beam		47	20-Apr-27	22-Jul-27	07-May-26	05-Aug-26	-152	119	
ST3-C2-3140	Cell Construct - LH Spillway - Cell 2 - Excav - Local	8	20-Apr-27	30-Apr-27	07-May-26	18-May-26	-214	171	0%
ST3-C2-3100	Cell Construct - LH Spillway - Cell 2 - Excav - Breakback Secant Piles	8	22-Apr-27	06-May-27	11-May-26	20-May-26	-214	171	0%
ST3-C2-3080	Cell Construct - LH Spillway - Cell 2 - Concrete - FRP Capping Beam	8	27-Apr-27	10-May-27	13-May-26	22-May-26	-214	171	0%
ST3-C2-3120	Cell Construct - LH Spillway - Cell 2 - Concrete - Cure Capping Beam (14 dy strength gain prior to excav)	14	11-May-27	24-May-27	23-May-26	05-Jun-26	-353	274	0%
ST3-C2-3160	Cell Construct - LH Spillway - Cell 2 - Excav - Install Corner Bracing	7	25-May-27	02-Jun-27	08-Jun-26	16-Jun-26	-215	171	0%
ST3-C2-2000	Cell Construct - LH Spillway - Cell 2 - Excav - Strip Working Platform	1	03-Jun-27	03-Jun-27	17-Jun-26	17-Jun-26	-215	171	0%
ST3-C2-3000	Cell Construct - LH Spillway - Cell 2 - Excav - Free Dig Excavation	3	04-Jun-27	08-Jun-27	18-Jun-26	22-Jun-26	-215	171	0%
ST3-C2-3200	Cell Construct - LH Spillway - Cell 2 - Excav - Free Dig + Clam Shell Excavation	8	09-Jun-27	18-Jun-27	23-Jun-26	03-Jul-26	-215	171	0%
ST3-C2-3180	Cell Construct - LH Spillway - Cell 2 - Excav - Hydro Blast Secant Piles	5	15-Jun-27	22-Jun-27	30-Jun-26	06-Jul-26	-215	171	0%
ST3-C2-3020	Cell Construct - LH Spillway - Cell 2 - Excav - Foundation Detail Excavation	17	23-Jun-27	15-Jul-27	07-Jul-26	30-Jul-26	-215	171	0%
ST3-C2-3220	Cell Construct - LH Spillway - Cell 2 - Excav - Foundation Preparation	4	13-Jul-27	16-Jul-27	28-Jul-26	31-Jul-26	-215	172	0%
ST3-C2-3060	Cell Construct - LH Spillway - Cell 2 - Excav - Inspection + Approval to Commence with Mass Concrete	4	13-Jul-27	16-Jul-27	28-Jul-26	31-Jul-26	-215	171	0%
ST3-C2-3040	Cell Construct - LH Spillway - Cell 2 - Concrete - Place Dental Concrete	6	14-Jul-27	22-Jul-27	29-Jul-26	05-Aug-26	-215	171	0%
Mass Concrete		25	23-Jul-27	09-Sep-27	06-Aug-26	24-Sep-26	-151	117	
Cell Preparation		5	23-Jul-27	29-Jul-27	06-Aug-26	17-Aug-26	-215	171	
ST3-C2-CP-5020	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Install 250 Supercast Water Stop to Joint & Upstream Alignment	5	23-Jul-27	29-Jul-27	06-Aug-26	17-Aug-26	-215	171	0%
ST3-C2-CP-5000	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Fix Reo Cage to Upstream Alignment of Cell	3	23-Jul-27	27-Jul-27	06-Aug-26	13-Aug-26	-215	173	0%
Makeup Pours		5	30-Jul-27	07-Aug-27	18-Aug-26	26-Aug-26	-151	121	
ST3-C2-MP-5000	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Makeup - Form & Prep - Pour 1	3	30-Jul-27	03-Aug-27	18-Aug-26	20-Aug-26	-215	171	0%
ST3-C2-MP-5060	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Makeup - Form & Prep - Pour 2	3	02-Aug-27	04-Aug-27	19-Aug-26	21-Aug-26	-215	171	0%
ST3-C2-MP-5020	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Makeup - Pour - Pour 1	1	04-Aug-27	04-Aug-27	21-Aug-26	21-Aug-26	-215	171	0%



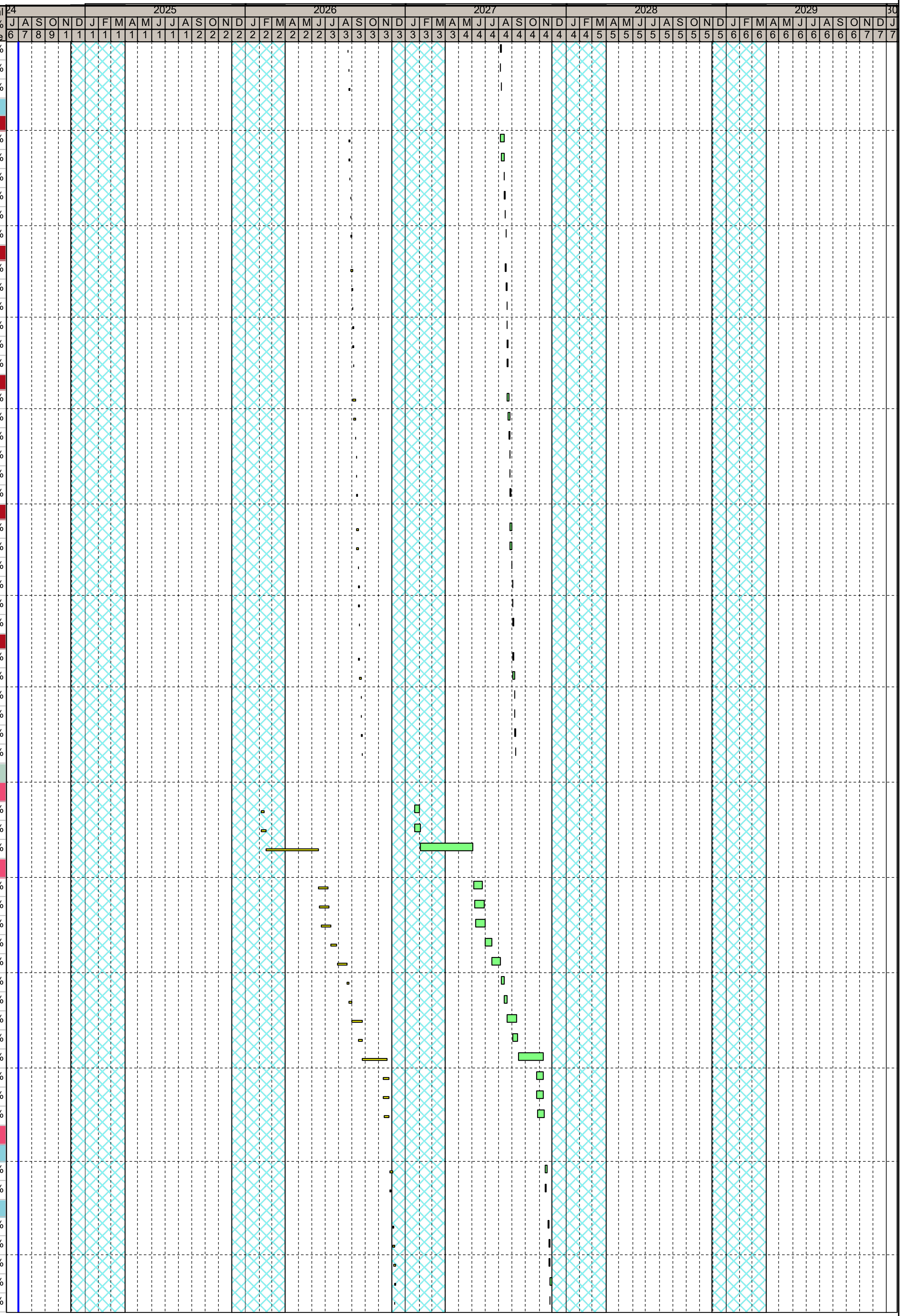
Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST3-C2-MP-5040	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Makeup - Cure - Pour 1	2	05-Aug-27	06-Aug-27	22-Aug-26	23-Aug-26	-348	290	0%
ST3-C2-MP-5080	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Makeup - Pour - Pour 2	1	05-Aug-27	05-Aug-27	24-Aug-26	24-Aug-26	-215	171	0%
ST3-C2-MP-5100	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Makeup - Cure - Pour 2	2	06-Aug-27	07-Aug-27	25-Aug-26	26-Aug-26	-346	290	0%
Mass Pours		18	05-Aug-27	09-Sep-27	24-Aug-26	24-Sep-26	-151	117	
Lift 1 - Pours 1 to 2		6	05-Aug-27	18-Aug-27	24-Aug-26	30-Aug-26	-154	120	
ST3-C2-MA-6000	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Form & Prep - Pour 1	3	05-Aug-27	12-Aug-27	24-Aug-26	26-Aug-26	-215	171	0%
ST3-C2-MA-6060	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Form & Prep - Pour 2	3	06-Aug-27	13-Aug-27	25-Aug-26	27-Aug-26	-215	171	0%
ST3-C2-MA-6020	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Pour - Pour 1	1	13-Aug-27	13-Aug-27	27-Aug-26	27-Aug-26	-215	171	0%
ST3-C2-MA-6040	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Cure - Pour 1	2	14-Aug-27	15-Aug-27	28-Aug-26	29-Aug-26	-351	288	0%
ST3-C2-MA-6080	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Pour - Pour 2	1	16-Aug-27	16-Aug-27	28-Aug-26	28-Aug-26	-215	171	0%
ST3-C2-MA-6100	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Cure - Pour 2	2	17-Aug-27	18-Aug-27	29-Aug-26	30-Aug-26	-353	286	0%
Lift 2 - Pours 3 to 4		4	16-Aug-27	22-Aug-27	28-Aug-26	05-Sep-26	-151	121	
ST3-C2-MA-6120	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Form & Prep - Pour 3	3	16-Aug-27	18-Aug-27	28-Aug-26	01-Sep-26	-215	171	0%
ST3-C2-MA-6180	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Form & Prep - Pour 4	3	17-Aug-27	19-Aug-27	31-Aug-26	02-Sep-26	-215	171	0%
ST3-C2-MA-6140	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Pour - Pour 3	1	19-Aug-27	19-Aug-27	02-Sep-26	02-Sep-26	-215	171	0%
ST3-C2-MA-6200	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Pour - Pour 4	1	20-Aug-27	20-Aug-27	03-Sep-26	03-Sep-26	-215	171	0%
ST3-C2-MA-6160	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Cure - Pour 3	2	20-Aug-27	21-Aug-27	03-Sep-26	04-Sep-26	-351	288	0%
ST3-C2-MA-6220	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Cure - Pour 4	2	21-Aug-27	22-Aug-27	04-Sep-26	05-Sep-26	-351	288	0%
Lift 3 - Pours 5 to 6		4	20-Aug-27	28-Aug-27	03-Sep-26	12-Sep-26	-151	120	
ST3-C2-MA-6240	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Form & Prep - Pour 5	3	20-Aug-27	24-Aug-27	03-Sep-26	08-Sep-26	-215	171	0%
ST3-C2-MA-6300	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Form & Prep - Pour 6	3	23-Aug-27	25-Aug-27	04-Sep-26	09-Sep-26	-215	171	0%
ST3-C2-MA-6260	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Pour - Pour 5	1	25-Aug-27	25-Aug-27	09-Sep-26	09-Sep-26	-215	171	0%
ST3-C2-MA-6320	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Pour - Pour 6	1	26-Aug-27	26-Aug-27	10-Sep-26	10-Sep-26	-215	171	0%
ST3-C2-MA-6280	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Cure - Pour 5	2	26-Aug-27	27-Aug-27	10-Sep-26	11-Sep-26	-350	286	0%
ST3-C2-MA-6340	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Cure - Pour 6	2	27-Aug-27	28-Aug-27	11-Sep-26	12-Sep-26	-350	288	0%
Lift 4 - Pours 7 to 8		5	26-Aug-27	03-Sep-27	10-Sep-26	18-Sep-26	-151	119	
ST3-C2-MA-6360	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Form & Prep - Pour 7	3	26-Aug-27	30-Aug-27	10-Sep-26	14-Sep-26	-215	171	0%
ST3-C2-MA-6420	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Form & Prep - Pour 8	3	27-Aug-27	31-Aug-27	11-Sep-26	15-Sep-26	-215	171	0%
ST3-C2-MA-6380	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Pour - Pour 7	1	31-Aug-27	31-Aug-27	15-Sep-26	15-Sep-26	-215	171	0%
ST3-C2-MA-6440	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Pour - Pour 8	1	01-Sep-27	01-Sep-27	16-Sep-26	16-Sep-26	-215	171	0%
ST3-C2-MA-6400	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Cure - Pour 7	2	01-Sep-27	02-Sep-27	16-Sep-26	17-Sep-26	-350	287	0%
ST3-C2-MA-6460	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Cure - Pour 8	2	02-Sep-27	03-Sep-27	17-Sep-26	18-Sep-26	-350	286	0%
Lift 5 - Pours 9 to 10		5	01-Sep-27	09-Sep-27	16-Sep-26	24-Sep-26	-151	117	
ST3-C2-MA-6480	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Form & Prep - Pour 9	3	01-Sep-27	03-Sep-27	16-Sep-26	18-Sep-26	-215	171	0%
ST3-C2-MA-6540	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Form & Prep - Pour 10	3	02-Sep-27	06-Sep-27	17-Sep-26	21-Sep-26	-215	171	0%
ST3-C2-MA-6500	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Pour - Pour 9	1	06-Sep-27	06-Sep-27	21-Sep-26	21-Sep-26	-215	172	0%
ST3-C2-MA-6560	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Pour - Pour 10	1	07-Sep-27	07-Sep-27	22-Sep-26	22-Sep-26	-215	171	0%
ST3-C2-MA-6520	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Cure - Pour 9	2	07-Sep-27	08-Sep-27	22-Sep-26	23-Sep-26	-350	284	0%
ST3-C2-MA-6580	Cell Construct - LH Spillway - Mass Conc - Cell 2 - Mass - Cure - Pour 10	2	08-Sep-27	09-Sep-27	23-Sep-26	24-Sep-26	-350	283	0%
Cell 4 - Righthand Spillway		165	21-Jan-27	06-Feb-28	05-Feb-26	18-Feb-27	-154	37	
Piling		83	21-Jan-27	03-Jun-27	05-Feb-26	16-Jun-26	-216	34	
ST3-C4-1000	Cell Construct - RH Spillway - Cell 4 - Piling - Setout Piling Template & Mobilise Rig	6	21-Jan-27	01-Feb-27	05-Feb-26	12-Feb-26	-216	34	0%
ST3-C4-1020	Cell Construct - RH Spillway - Cell 4 - Piling - FRP Guidewall	7	22-Jan-27	03-Feb-27	06-Feb-26	16-Feb-26	-216	34	0%
ST3-C4-1040	Cell Construct - RH Spillway - Cell 4 - Piling - Excavate + Pour Piles [1 rig between soft/hard 6&6]	75	04-Feb-27	03-Jun-27	17-Feb-26	16-Jun-26	-216	34	0%
Excavate + Capping Beam		80	04-Jun-27	12-Nov-27	17-Jun-26	24-Nov-26	-153	35	
ST3-C4-3140	Cell Construct - RH Spillway - Cell 4 - Excav - Local	15	04-Jun-27	25-Jun-27	17-Jun-26	08-Jul-26	-216	57	0%
ST3-C4-3100	Cell Construct - RH Spillway - Cell 4 - Excav - Breakback Secant Piles	15	08-Jun-27	29-Jun-27	19-Jun-26	10-Jul-26	-216	57	0%
ST3-C4-3080	Cell Construct - RH Spillway - Cell 4 - Concrete - FRP Capping Beam	15	10-Jun-27	01-Jul-27	23-Jun-26	14-Jul-26	-216	57	0%
ST3-C4-3120	Cell Construct - RH Spillway - Cell 4 - Concrete - Cure Capping Beam (14 dy strength gain prior to excav)	14	02-Jul-27	15-Jul-27	15-Jul-26	28-Jul-26	-352	88	0%
ST3-C4-3160	Cell Construct - RH Spillway - Cell 4 - Excav - Install Corner Bracing	14	16-Jul-27	05-Aug-27	29-Jul-26	20-Aug-26	-217	55	0%
ST3-C4-2000	Cell Construct - RH Spillway - Cell 4 - Excav - Strip Working Platform	2	06-Aug-27	12-Aug-27	21-Aug-26	24-Aug-26	-217	55	0%
ST3-C4-3000	Cell Construct - RH Spillway - Cell 4 - Excav - Free Dig Excavation	5	13-Aug-27	19-Aug-27	25-Aug-26	31-Aug-26	-217	55	0%
ST3-C4-3200	Cell Construct - RH Spillway - Cell 4 - Excav - Free Dig + Clam Shell Excavation	16	20-Aug-27	10-Sep-27	01-Sep-26	23-Sep-26	-217	55	0%
ST3-C4-3180	Cell Construct - RH Spillway - Cell 4 - Excav - Hydro Blast Secant Piles	7	03-Sep-27	13-Sep-27	16-Sep-26	24-Sep-26	-217	55	0%
ST3-C4-3020	Cell Construct - RH Spillway - Cell 4 - Excav - Foundation Detail Excavation	36	14-Sep-27	10-Nov-27	25-Sep-26	20-Nov-26	-217	55	0%
ST3-C4-3220	Cell Construct - RH Spillway - Cell 4 - Excav - Foundation Preparation	9	27-Oct-27	11-Nov-27	11-Nov-26	23-Nov-26	-217	56	0%
ST3-C4-3060	Cell Construct - RH Spillway - Cell 4 - Excav - Inspection + Approval to Commence with Mass Concrete	9	27-Oct-27	11-Nov-27	11-Nov-26	23-Nov-26	-217	55	0%
ST3-C4-3040	Cell Construct - RH Spillway - Cell 4 - Concrete - Place Dental Concrete	9	28-Oct-27	12-Nov-27	12-Nov-26	24-Nov-26	-217	55	0%
Mass Concrete		30	15-Nov-27	06-Feb-28	25-Nov-26	18-Feb-27	-154	37	
Cell Preparation		5	15-Nov-27	19-Nov-27	25-Nov-26	01-Dec-26	-217	55	
ST3-C4-CP-5020	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Install 250 Supercast Water Stop to Joint & Upstream Alignment	5	15-Nov-27	19-Nov-27	25-Nov-26	01-Dec-26	-217	55	0%
ST3-C4-CP-5000	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Fix Reo Cage to Upstream Alignment of Cell	3	15-Nov-27	17-Nov-27	25-Nov-26	27-Nov-26	-217	57	0%
Makeup Pours		6	22-Nov-27	02-Dec-27	02-Dec-26	12-Dec-26	-154	46	
ST3-C4-MP-5000	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Form & Prep - Pour 1	3	22-Nov-27	24-Nov-27	02-Dec-26	04-Dec-26	-217	55	0%
ST3-C4-MP-5060	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Form & Prep - Pour 2	3	23-Nov-27	25-Nov-27	03-Dec-26	07-Dec-26	-217	55	0%
ST3-C4-MP-5120	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Form & Prep - Pour 3	3	24-Nov-27	26-Nov-27	04-Dec-26	08-Dec-26	-217	55	0%
ST3-C4-MP-5180	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Form & Prep - Pour 4	3	25-Nov-27	29-Nov-27	07-Dec-26	09-Dec-26	-217	55	0%
ST3-C4-MP-5020	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Pour - Pour 1	1	25-Nov-27	25-Nov-27	07-Dec-26	07-Dec-26	-217	75	0%



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

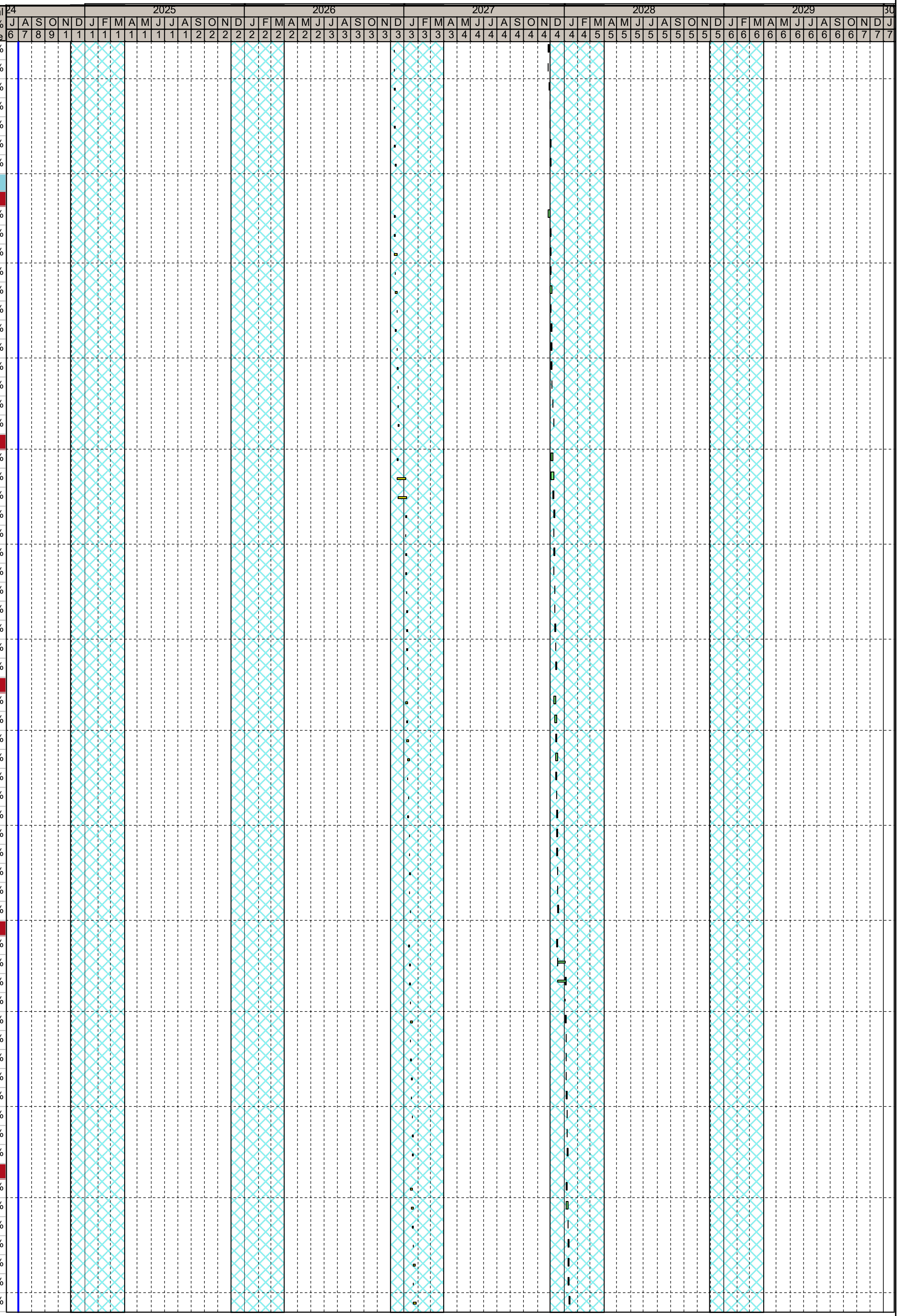
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST3-C4-MP-5040	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Cure - Pour 1	2	26-Nov-27	27-Nov-27	08-Dec-26	09-Dec-26	-353	128	0%
ST3-C4-MP-5080	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Pour - Pour 2	1	26-Nov-27	26-Nov-27	08-Dec-26	08-Dec-26	-217	74	0%
ST3-C4-MP-5100	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Cure - Pour 2	2	27-Nov-27	28-Nov-27	09-Dec-26	10-Dec-26	-353	127	0%
ST3-C4-MP-5140	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Pour - Pour 3	1	29-Nov-27	29-Nov-27	09-Dec-26	09-Dec-26	-217	73	0%
ST3-C4-MP-5200	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Pour - Pour 4	1	30-Nov-27	30-Nov-27	10-Dec-26	10-Dec-26	-217	72	0%
ST3-C4-MP-5160	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Cure - Pour 3	2	30-Nov-27	01-Dec-27	10-Dec-26	11-Dec-26	-355	124	0%
ST3-C4-MP-5220	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Makeup - Cure - Pour 4	2	01-Dec-27	02-Dec-27	11-Dec-26	12-Dec-26	-355	123	0%
Mass Pours		24	26-Nov-27	06-Feb-28	08-Dec-26	18-Feb-27	-154	37	
Lift 1 - Pours 1 to 4		7	26-Nov-27	09-Dec-27	08-Dec-26	19-Dec-26	-156	44	
ST3-C4-MA-6000	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 1	3	26-Nov-27	30-Nov-27	08-Dec-26	10-Dec-26	-217	55	0%
ST3-C4-MA-6060	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 2	3	29-Nov-27	01-Dec-27	09-Dec-26	11-Dec-26	-217	55	0%
ST3-C4-MA-6120	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 3	3	30-Nov-27	02-Dec-27	10-Dec-26	15-Dec-26	-217	55	0%
ST3-C4-MA-6020	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 1	1	01-Dec-27	01-Dec-27	11-Dec-26	11-Dec-26	-217	73	0%
ST3-C4-MA-6180	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 4	3	01-Dec-27	03-Dec-27	11-Dec-26	16-Dec-26	-217	55	0%
ST3-C4-MA-6080	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 2	1	02-Dec-27	02-Dec-27	15-Dec-26	15-Dec-26	-217	72	0%
ST3-C4-MA-6040	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 1	2	02-Dec-27	03-Dec-27	12-Dec-26	13-Dec-26	-355	125	0%
ST3-C4-MA-6140	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 3	1	03-Dec-27	03-Dec-27	16-Dec-26	16-Dec-26	-217	71	0%
ST3-C4-MA-6100	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 2	2	03-Dec-27	04-Dec-27	16-Dec-26	17-Dec-26	-352	124	0%
ST3-C4-MA-6160	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 3	2	04-Dec-27	05-Dec-27	17-Dec-26	18-Dec-26	-352	123	0%
ST3-C4-MA-6200	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 4	1	07-Dec-27	07-Dec-27	17-Dec-26	17-Dec-26	-217	70	0%
ST3-C4-MA-6220	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 4	2	08-Dec-27	09-Dec-27	18-Dec-26	19-Dec-26	-355	119	0%
Lift 2 - Pours 5 to 8		7	02-Dec-27	15-Dec-27	15-Dec-26	09-Jan-27	-156	42	
ST3-C4-MA-6240	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 5	3	02-Dec-27	07-Dec-27	15-Dec-26	17-Dec-26	-217	55	0%
ST3-C4-MA-6300	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 6	3	03-Dec-27	08-Dec-27	16-Dec-26	04-Jan-27	-217	55	0%
ST3-C4-MA-6360	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 7	3	07-Dec-27	09-Dec-27	17-Dec-26	05-Jan-27	-217	55	0%
ST3-C4-MA-6420	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 8	3	08-Dec-27	10-Dec-27	04-Jan-27	06-Jan-27	-217	55	0%
ST3-C4-MA-6260	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 5	1	08-Dec-27	08-Dec-27	04-Jan-27	04-Jan-27	-217	72	0%
ST3-C4-MA-6280	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 5	2	09-Dec-27	10-Dec-27	05-Jan-27	06-Jan-27	-338	121	0%
ST3-C4-MA-6320	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 6	1	09-Dec-27	09-Dec-27	05-Jan-27	05-Jan-27	-217	71	0%
ST3-C4-MA-6380	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 7	1	10-Dec-27	10-Dec-27	06-Jan-27	06-Jan-27	-217	70	0%
ST3-C4-MA-6340	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 6	2	10-Dec-27	11-Dec-27	06-Jan-27	07-Jan-27	-338	120	0%
ST3-C4-MA-6400	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 7	2	11-Dec-27	12-Dec-27	07-Jan-27	08-Jan-27	-338	119	0%
ST3-C4-MA-6440	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 8	1	13-Dec-27	13-Dec-27	07-Jan-27	07-Jan-27	-217	69	0%
ST3-C4-MA-6460	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 8	2	14-Dec-27	15-Dec-27	08-Jan-27	09-Jan-27	-340	116	0%
Lift 3 - Pours 9 to 12		5	09-Dec-27	19-Dec-27	05-Jan-27	15-Jan-27	-154	43	
ST3-C4-MA-6480	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 9	3	09-Dec-27	13-Dec-27	05-Jan-27	07-Jan-27	-217	55	0%
ST3-C4-MA-6540	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 10	3	10-Dec-27	14-Dec-27	06-Jan-27	08-Jan-27	-217	55	0%
ST3-C4-MA-6600	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 11	3	13-Dec-27	15-Dec-27	07-Jan-27	11-Jan-27	-217	55	0%
ST3-C4-MA-6660	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 12	3	14-Dec-27	16-Dec-27	08-Jan-27	12-Jan-27	-217	55	0%
ST3-C4-MA-6500	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 9	1	14-Dec-27	14-Dec-27	08-Jan-27	08-Jan-27	-217	69	0%
ST3-C4-MA-6560	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 10	1	15-Dec-27	15-Dec-27	11-Jan-27	11-Jan-27	-217	68	0%
ST3-C4-MA-6520	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 9	2	15-Dec-27	16-Dec-27	09-Jan-27	10-Jan-27	-340	118	0%
ST3-C4-MA-6580	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 10	2	16-Dec-27	17-Dec-27	12-Jan-27	13-Jan-27	-338	117	0%
ST3-C4-MA-6620	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 11	1	16-Dec-27	16-Dec-27	12-Jan-27	12-Jan-27	-217	67	0%
ST3-C4-MA-6640	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 11	2	17-Dec-27	18-Dec-27	13-Jan-27	14-Jan-27	-338	116	0%
ST3-C4-MA-6680	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 12	1	17-Dec-27	17-Dec-27	13-Jan-27	13-Jan-27	-217	66	0%
ST3-C4-MA-6720	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 12	2	18-Dec-27	19-Dec-27	14-Jan-27	15-Jan-27	-338	115	0%
Lift 4 - Pours 13 to 16		3	15-Dec-27	09-Jan-28	11-Jan-27	21-Jan-27	-154	41	
ST3-C4-MA-6700	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 13	3	15-Dec-27	17-Dec-27	11-Jan-27	13-Jan-27	-217	55	0%
ST3-C4-MA-6780	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 14	3	16-Dec-27	04-Jan-28	12-Jan-27	14-Jan-27	-217	55	0%
ST3-C4-MA-6840	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 15	3	17-Dec-27	05-Jan-28	13-Jan-27	15-Jan-27	-217	55	0%
ST3-C4-MA-6740	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 13	1	04-Jan-28	04-Jan-28	14-Jan-27	14-Jan-27	-217	68	0%
ST3-C4-MA-6900	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 16	3	04-Jan-28	06-Jan-28	14-Jan-27	18-Jan-27	-217	55	0%
ST3-C4-MA-6800	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 14	1	05-Jan-28	05-Jan-28	15-Jan-27	15-Jan-27	-217	67	0%
ST3-C4-MA-6760	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 13	2	05-Jan-28	06-Jan-28	15-Jan-27	16-Jan-27	-355	108	0%
ST3-C4-MA-6860	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 15	1	06-Jan-28	06-Jan-28	18-Jan-27	18-Jan-27	-217	66	0%
ST3-C4-MA-6820	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 14	2	06-Jan-28	07-Jan-28	16-Jan-27	17-Jan-27	-355	107	0%
ST3-C4-MA-6920	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 16	1	07-Jan-28	07-Jan-28	19-Jan-27	19-Jan-27	-217	65	0%
ST3-C4-MA-6880	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 15	2	07-Jan-28	08-Jan-28	19-Jan-27	20-Jan-27	-353	106	0%
ST3-C4-MA-6940	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 16	2	08-Jan-28	09-Jan-28	20-Jan-27	21-Jan-27	-353	105	0%
Lift 5 - Pours 17 to 20		6	05-Jan-28	19-Jan-28	15-Jan-27	31-Jan-27	-156	38	
ST3-C4-MA-6960	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 17	3	05-Jan-28	07-Jan-28	15-Jan-27	19-Jan-27	-217	55	0%
ST3-C4-MA-7020	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 18	3	06-Jan-28	10-Jan-28	18-Jan-27	20-Jan-27	-217	55	0%
ST3-C4-MA-6980	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 17	1	10-Jan-28	10-Jan-28	20-Jan-27	20-Jan-27	-217	65	0%
ST3-C4-MA-7040	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 18	1	11-Jan-28	11-Jan-28	21-Jan-27	21-Jan-27	-217	64	0%
ST3-C4-MA-7080	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 19	3	11-Jan-28	13-Jan-28	21-Jan-27	25-Jan-27	-217	55	0%
ST3-C4-MA-7000	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 17	2	11-Jan-28	12-Jan-28	21-Jan-27	22-Jan-27	-355	106	0%
ST3-C4-MA-7140	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 20	3	12-Jan-28	14-Jan-28	22-Jan-27	28-Jan-27	-217	55	0%



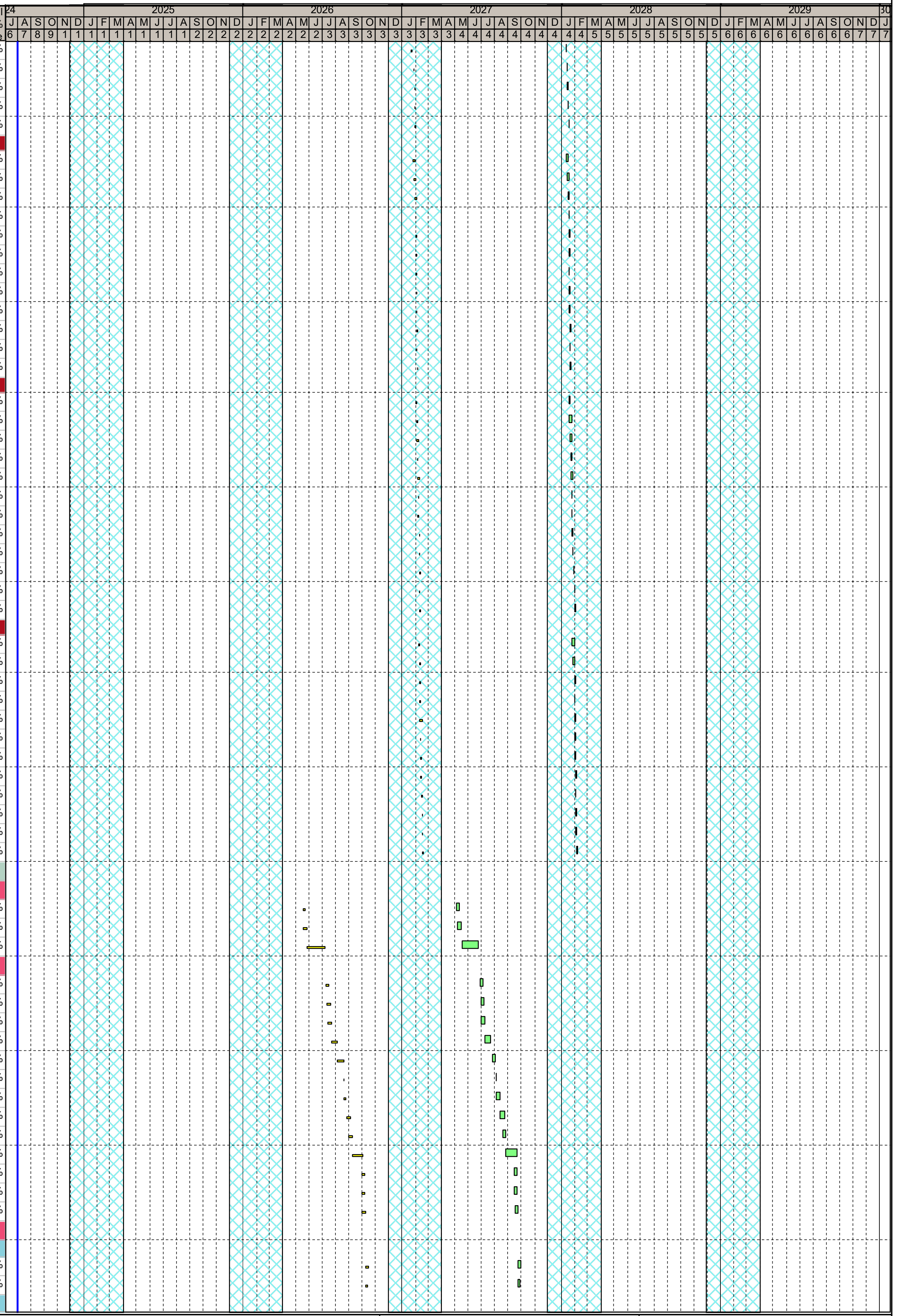
Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST3-C4-MA-7060	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 18	2	12-Jan-28	13-Jan-28	22-Jan-27	23-Jan-27	-355	105	0%
ST3-C4-MA-7100	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 19	1	14-Jan-28	14-Jan-28	28-Jan-27	28-Jan-27	-217	61	0%
ST3-C4-MA-7120	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 19	2	15-Jan-28	16-Jan-28	29-Jan-27	30-Jan-27	-351	102	0%
ST3-C4-MA-7160	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 20	1	17-Jan-28	17-Jan-28	29-Jan-27	29-Jan-27	-217	60	0%
ST3-C4-MA-7180	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 20	2	18-Jan-28	19-Jan-28	30-Jan-27	31-Jan-27	-353	99	0%
Lift 6 - Pours 21 to 24		4	13-Jan-28	23-Jan-28	25-Jan-27	06-Feb-27	-154	39	
ST3-C4-MA-7200	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 21	3	13-Jan-28	17-Jan-28	25-Jan-27	29-Jan-27	-217	55	0%
ST3-C4-MA-7260	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 22	3	14-Jan-28	18-Jan-28	28-Jan-27	01-Feb-27	-217	55	0%
ST3-C4-MA-7320	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 23	3	17-Jan-28	19-Jan-28	29-Jan-27	02-Feb-27	-217	55	0%
ST3-C4-MA-7220	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 21	1	18-Jan-28	18-Jan-28	01-Feb-27	01-Feb-27	-217	62	0%
ST3-C4-MA-7380	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 24	3	18-Jan-28	20-Jan-28	01-Feb-27	03-Feb-27	-217	55	0%
ST3-C4-MA-7240	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 21	2	19-Jan-28	20-Jan-28	02-Feb-27	03-Feb-27	-351	105	0%
ST3-C4-MA-7280	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 22	1	19-Jan-28	19-Jan-28	02-Feb-27	02-Feb-27	-217	61	0%
ST3-C4-MA-7340	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 23	1	20-Jan-28	20-Jan-28	03-Feb-27	03-Feb-27	-217	60	0%
ST3-C4-MA-7300	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 22	2	20-Jan-28	21-Jan-28	03-Feb-27	04-Feb-27	-351	104	0%
ST3-C4-MA-7360	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 23	2	21-Jan-28	22-Jan-28	04-Feb-27	05-Feb-27	-351	103	0%
ST3-C4-MA-7400	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 24	1	21-Jan-28	21-Jan-28	04-Feb-27	04-Feb-27	-217	59	0%
ST3-C4-MA-7440	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 24	2	22-Jan-28	23-Jan-28	05-Feb-27	06-Feb-27	-351	102	0%
Lift 7 - Pours 25 to 28		5	19-Jan-28	02-Feb-28	02-Feb-27	12-Feb-27	-155	36	
ST3-C4-MA-7420	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 25	3	19-Jan-28	21-Jan-28	02-Feb-27	04-Feb-27	-217	55	0%
ST3-C4-MA-7500	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 26	3	20-Jan-28	24-Jan-28	03-Feb-27	05-Feb-27	-217	55	0%
ST3-C4-MA-7540	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 27	3	21-Jan-28	25-Jan-28	04-Feb-27	08-Feb-27	-217	55	0%
ST3-C4-MA-7460	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 25	1	24-Jan-28	24-Jan-28	05-Feb-27	05-Feb-27	-217	61	0%
ST3-C4-MA-7620	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 28	3	24-Jan-28	28-Jan-28	05-Feb-27	09-Feb-27	-217	55	0%
ST3-C4-MA-7520	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 26	1	25-Jan-28	25-Jan-28	08-Feb-27	08-Feb-27	-217	60	0%
ST3-C4-MA-7480	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 25	2	25-Jan-28	26-Jan-28	06-Feb-27	07-Feb-27	-353	102	0%
ST3-C4-MA-7560	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 26	2	26-Jan-28	27-Jan-28	09-Feb-27	10-Feb-27	-351	101	0%
ST3-C4-MA-7580	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 27	1	28-Jan-28	28-Jan-28	09-Feb-27	09-Feb-27	-217	59	0%
ST3-C4-MA-7600	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 27	2	29-Jan-28	30-Jan-28	10-Feb-27	11-Feb-27	-353	98	0%
ST3-C4-MA-7640	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 28	1	31-Jan-28	31-Jan-28	10-Feb-27	10-Feb-27	-217	58	0%
ST3-C4-MA-7660	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 28	2	01-Feb-28	02-Feb-28	11-Feb-27	12-Feb-27	-355	95	0%
Lift 8 - Pours 29 to 32		4	25-Jan-28	06-Feb-28	08-Feb-27	18-Feb-27	-154	37	
ST3-C4-MA-7680	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 29	3	25-Jan-28	31-Jan-28	08-Feb-27	10-Feb-27	-217	55	0%
ST3-C4-MA-7740	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 30	3	28-Jan-28	01-Feb-28	09-Feb-27	11-Feb-27	-217	55	0%
ST3-C4-MA-7800	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 31	3	31-Jan-28	02-Feb-28	10-Feb-27	12-Feb-27	-217	55	0%
ST3-C4-MA-7700	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 29	1	01-Feb-28	01-Feb-28	11-Feb-27	11-Feb-27	-217	58	0%
ST3-C4-MA-7860	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Form & Prep - Pour 32	3	01-Feb-28	03-Feb-28	11-Feb-27	15-Feb-27	-217	55	0%
ST3-C4-MA-7760	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 30	1	02-Feb-28	02-Feb-28	12-Feb-27	12-Feb-27	-217	57	0%
ST3-C4-MA-7720	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 29	2	02-Feb-28	03-Feb-28	12-Feb-27	13-Feb-27	-355	97	0%
ST3-C4-MA-7780	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 30	2	03-Feb-28	04-Feb-28	13-Feb-27	14-Feb-27	-355	96	0%
ST3-C4-MA-7820	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 31	1	03-Feb-28	03-Feb-28	15-Feb-27	15-Feb-27	-217	56	0%
ST3-C4-MA-7840	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 31	2	04-Feb-28	05-Feb-28	16-Feb-27	17-Feb-27	-353	95	0%
ST3-C4-MA-7880	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Pour - Pour 32	1	04-Feb-28	04-Feb-28	16-Feb-27	16-Feb-27	-217	55	0%
ST3-C4-MA-7900	Cell Construct - RH Spillway - Mass Conc - Cell 4 - Mass - Cure - Pour 32	2	05-Feb-28	06-Feb-28	17-Feb-27	18-Feb-27	-353	94	0%
Cell 3 - Lefthand Spillway Stage 1		96	06-May-27	13-Nov-27	18-May-26	26-Nov-26	-153	85	
Piling		36	06-May-27	25-Jun-27	18-May-26	08-Jul-26	-216	124	
ST3-C3-1000	Cell Construct - LH Spillway - Cell 3 - Piling - Setout Piling Template & Mobilise Rig	5	06-May-27	12-May-27	18-May-26	22-May-26	-216	124	0%
ST3-C3-1020	Cell Construct - LH Spillway - Cell 3 - Piling - FRP Guidewall	7	07-May-27	17-May-27	19-May-26	27-May-26	-216	124	0%
ST3-C3-1040	Cell Construct - LH Spillway - Cell 3 - Piling - Excavate + Pour Piles [1 rig between soft/hard 6&6]	28	18-May-27	25-Jun-27	28-May-26	08-Jul-26	-216	124	0%
Excavate + Capping Beam		46	28-Jun-27	23-Sep-27	09-Jul-26	08-Oct-26	-153	83	
ST3-C3-3140	Cell Construct - LH Spillway - Cell 3 - Excav - Local	6	28-Jun-27	05-Jul-27	09-Jul-26	16-Jul-26	-216	124	0%
ST3-C3-3100	Cell Construct - LH Spillway - Cell 3 - Excav - Breakback Secant Piles	6	30-Jun-27	07-Jul-27	13-Jul-26	20-Jul-26	-216	124	0%
ST3-C3-3080	Cell Construct - LH Spillway - Cell 3 - Concrete - FRP Capping Beam	6	02-Jul-27	09-Jul-27	15-Jul-26	22-Jul-26	-216	124	0%
ST3-C3-3120	Cell Construct - LH Spillway - Cell 3 - Concrete - Cure Capping Beam (14 dy strength gain prior to excav)	14	10-Jul-27	23-Jul-27	23-Jul-26	05-Aug-26	-352	208	0%
ST3-C3-3160	Cell Construct - LH Spillway - Cell 3 - Excav - Install Corner Bracing	7	26-Jul-27	03-Aug-27	06-Aug-26	19-Aug-26	-216	125	0%
ST3-C3-2000	Cell Construct - LH Spillway - Cell 3 - Excav - Strip Working Platform	1	04-Aug-27	04-Aug-27	20-Aug-26	20-Aug-26	-216	125	0%
ST3-C3-3000	Cell Construct - LH Spillway - Cell 3 - Excav - Free Dig Excavation	3	05-Aug-27	12-Aug-27	21-Aug-26	25-Aug-26	-216	125	0%
ST3-C3-3200	Cell Construct - LH Spillway - Cell 3 - Excav - Free Dig + Clam Shell Excavation	8	13-Aug-27	24-Aug-27	26-Aug-26	04-Sep-26	-216	125	0%
ST3-C3-3180	Cell Construct - LH Spillway - Cell 3 - Excav - Hydro Blast Secant Piles	5	19-Aug-27	25-Aug-27	01-Sep-26	08-Sep-26	-216	125	0%
ST3-C3-3020	Cell Construct - LH Spillway - Cell 3 - Excav - Foundation Detail Excavation	18	26-Aug-27	21-Sep-27	09-Sep-26	02-Oct-26	-216	125	0%
ST3-C3-3220	Cell Construct - LH Spillway - Cell 3 - Excav - Foundation Preparation	4	16-Sep-27	22-Sep-27	30-Sep-26	07-Oct-26	-216	126	0%
ST3-C3-3060	Cell Construct - LH Spillway - Cell 3 - Excav - Inspection + Approval to Commence with Mass Concrete	4	16-Sep-27	22-Sep-27	30-Sep-26	07-Oct-26	-216	125	0%
ST3-C3-3040	Cell Construct - LH Spillway - Cell 3 - Concrete - Place Dental Concrete	4	17-Sep-27	23-Sep-27	01-Oct-26	08-Oct-26	-216	125	0%
Mass Concrete		22	24-Sep-27	13-Nov-27	09-Oct-26	26-Nov-26	-153	85	
Cell Preparation		5	24-Sep-27	30-Sep-27	09-Oct-26	15-Oct-26	-216	125	
ST3-C3-CP-5020	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Install 250 Supercast Water Stop to Joint & Upstream Alignment	5	24-Sep-27	30-Sep-27	09-Oct-26	15-Oct-26	-216	125	0%
ST3-C3-CP-5000	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Fix Reo Cage to Upstream Alignment of Cell	3	24-Sep-27	28-Sep-27	09-Oct-26	13-Oct-26	-216	127	0%
Makeup Pours		4	01-Oct-27	13-Oct-27	16-Oct-26	24-Oct-26	-154	85	



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

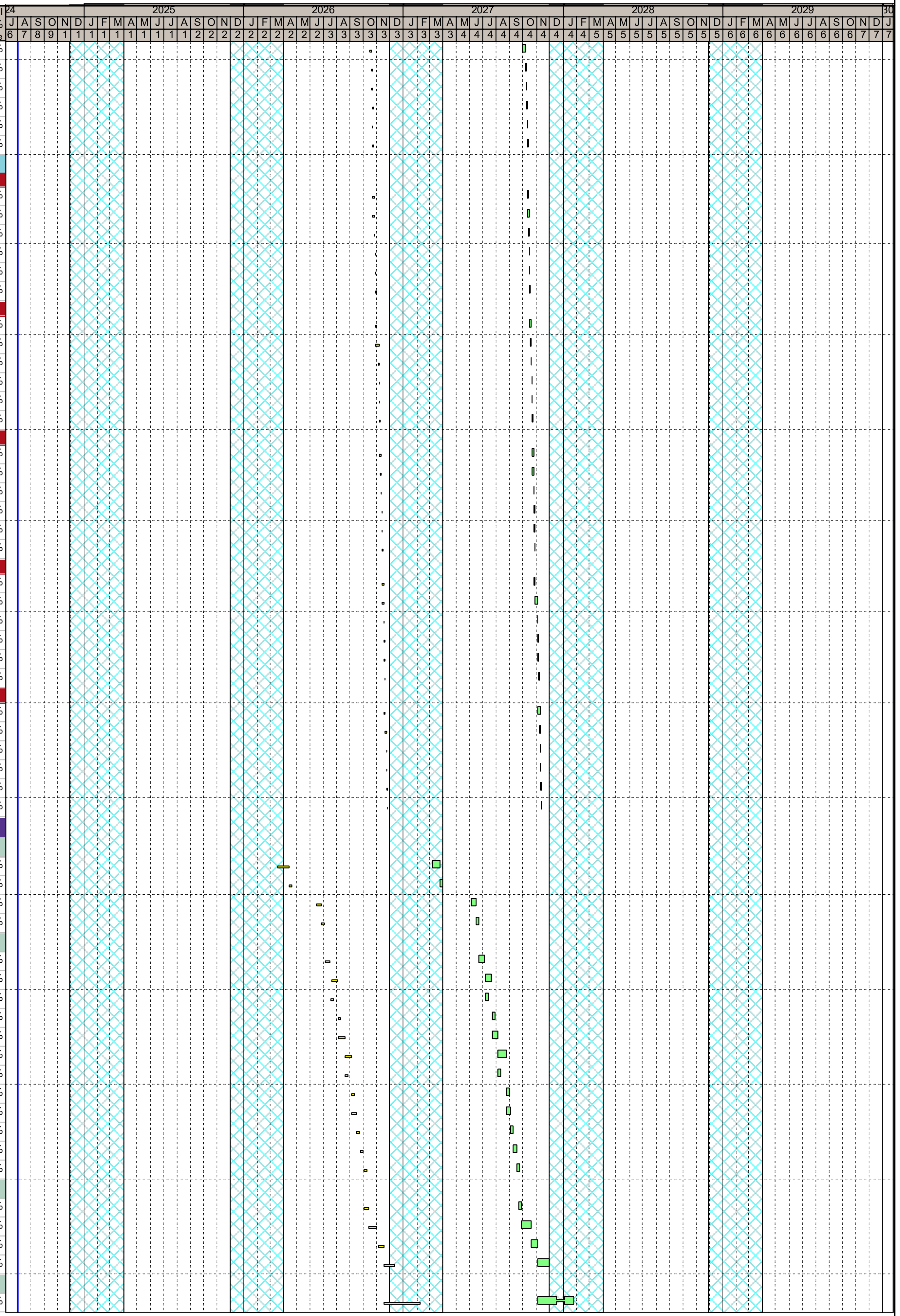
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST3-C3-MP-5000	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Makeup - Form & Prep - Pour 1	3	01-Oct-27	07-Oct-27	16-Oct-26	20-Oct-26	-216	125	0%
ST3-C3-MP-5060	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Makeup - Form & Prep - Pour 2	3	06-Oct-27	08-Oct-27	19-Oct-26	21-Oct-26	-216	125	0%
ST3-C3-MP-5020	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Makeup - Pour - Pour 1	1	08-Oct-27	08-Oct-27	21-Oct-26	21-Oct-26	-216	125	0%
ST3-C3-MP-5040	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Makeup - Cure - Pour 1	2	09-Oct-27	10-Oct-27	22-Oct-26	23-Oct-26	-352	218	0%
ST3-C3-MP-5080	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Makeup - Pour - Pour 2	1	11-Oct-27	11-Oct-27	22-Oct-26	22-Oct-26	-216	125	0%
ST3-C3-MP-5100	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Makeup - Cure - Pour 2	2	12-Oct-27	13-Oct-27	23-Oct-26	24-Oct-26	-354	216	0%
Mass Pours		16	11-Oct-27	13-Nov-27	22-Oct-26	26-Nov-26	-153	85	
Lift 1 - Pours 1 to 2		3	11-Oct-27	17-Oct-27	22-Oct-26	30-Oct-26	-152	87	
ST3-C3-MA-6000	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Form & Prep - Pour 1	3	11-Oct-27	13-Oct-27	22-Oct-26	26-Oct-26	-216	125	0%
ST3-C3-MA-6060	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Form & Prep - Pour 2	3	12-Oct-27	14-Oct-27	23-Oct-26	27-Oct-26	-216	125	0%
ST3-C3-MA-6020	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Pour - Pour 1	1	14-Oct-27	14-Oct-27	27-Oct-26	27-Oct-26	-216	125	0%
ST3-C3-MA-6040	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Cure - Pour 1	2	15-Oct-27	16-Oct-27	28-Oct-26	29-Oct-26	-352	218	0%
ST3-C3-MA-6080	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Pour - Pour 2	1	15-Oct-27	15-Oct-27	28-Oct-26	28-Oct-26	-216	125	0%
ST3-C3-MA-6100	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Cure - Pour 2	2	16-Oct-27	17-Oct-27	29-Oct-26	30-Oct-26	-352	218	0%
Lift 2 - Pours 3 to 4		5	15-Oct-27	23-Oct-27	28-Oct-26	08-Nov-26	-154	86	
ST3-C3-MA-6120	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Form & Prep - Pour 3	3	15-Oct-27	19-Oct-27	28-Oct-26	30-Oct-26	-216	125	0%
ST3-C3-MA-6180	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Form & Prep - Pour 4	3	18-Oct-27	20-Oct-27	29-Oct-26	05-Nov-26	-216	125	0%
ST3-C3-MA-6140	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Pour - Pour 3	1	20-Oct-27	20-Oct-27	05-Nov-26	05-Nov-26	-216	125	0%
ST3-C3-MA-6200	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Pour - Pour 4	1	21-Oct-27	21-Oct-27	06-Nov-26	06-Nov-26	-216	125	0%
ST3-C3-MA-6160	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Cure - Pour 3	2	21-Oct-27	22-Oct-27	06-Nov-26	07-Nov-26	-349	216	0%
ST3-C3-MA-6220	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Cure - Pour 4	2	22-Oct-27	23-Oct-27	07-Nov-26	08-Nov-26	-349	219	0%
Lift 3 - Pours 5 to 6		5	21-Oct-27	29-Oct-27	06-Nov-26	14-Nov-26	-153	86	
ST3-C3-MA-6240	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Form & Prep - Pour 5	3	21-Oct-27	25-Oct-27	06-Nov-26	10-Nov-26	-216	125	0%
ST3-C3-MA-6300	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Form & Prep - Pour 6	3	22-Oct-27	26-Oct-27	09-Nov-26	11-Nov-26	-216	125	0%
ST3-C3-MA-6260	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Pour - Pour 5	1	26-Oct-27	26-Oct-27	11-Nov-26	11-Nov-26	-216	125	0%
ST3-C3-MA-6320	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Pour - Pour 6	1	27-Oct-27	27-Oct-27	12-Nov-26	12-Nov-26	-216	125	0%
ST3-C3-MA-6280	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Cure - Pour 5	2	27-Oct-27	28-Oct-27	12-Nov-26	13-Nov-26	-349	217	0%
ST3-C3-MA-6340	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Cure - Pour 6	2	28-Oct-27	29-Oct-27	13-Nov-26	14-Nov-26	-349	219	0%
Lift 4 - Pours 7 to 8		3	27-Oct-27	07-Nov-27	12-Nov-26	20-Nov-26	-151	86	
ST3-C3-MA-6360	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Form & Prep - Pour 7	3	27-Oct-27	29-Oct-27	12-Nov-26	16-Nov-26	-216	125	0%
ST3-C3-MA-6420	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Form & Prep - Pour 8	3	28-Oct-27	04-Nov-27	13-Nov-26	17-Nov-26	-216	125	0%
ST3-C3-MA-6380	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Pour - Pour 7	1	04-Nov-27	04-Nov-27	17-Nov-26	17-Nov-26	-216	125	0%
ST3-C3-MA-6440	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Pour - Pour 8	1	05-Nov-27	05-Nov-27	18-Nov-26	18-Nov-26	-216	125	0%
ST3-C3-MA-6400	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Cure - Pour 7	2	05-Nov-27	06-Nov-27	18-Nov-26	19-Nov-26	-352	215	0%
ST3-C3-MA-6460	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Cure - Pour 8	2	06-Nov-27	07-Nov-27	19-Nov-26	20-Nov-26	-352	214	0%
Lift 5 - Pours 9 to 10		5	05-Nov-27	13-Nov-27	18-Nov-26	26-Nov-26	-153	85	
ST3-C3-MA-6480	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Form & Prep - Pour 9	3	05-Nov-27	09-Nov-27	18-Nov-26	20-Nov-26	-216	125	0%
ST3-C3-MA-6540	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Form & Prep - Pour 10	3	08-Nov-27	10-Nov-27	19-Nov-26	23-Nov-26	-216	125	0%
ST3-C3-MA-6500	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Pour - Pour 9	1	10-Nov-27	10-Nov-27	23-Nov-26	23-Nov-26	-216	126	0%
ST3-C3-MA-6560	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Pour - Pour 10	1	11-Nov-27	11-Nov-27	24-Nov-26	24-Nov-26	-216	125	0%
ST3-C3-MA-6520	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Cure - Pour 9	2	11-Nov-27	12-Nov-27	24-Nov-26	25-Nov-26	-352	214	0%
ST3-C3-MA-6580	Cell Construct - LH Spillway - Mass Conc - Cell 3 - Mass - Cure - Pour 10	2	12-Nov-27	13-Nov-27	25-Nov-26	26-Nov-26	-352	213	0%
Outlet Tower Works		142	09-Mar-27	24-Jan-28	19-Mar-26	08-Feb-27	-154	20	
Retaining Wall / Access Road		46	09-Mar-27	22-Jun-27	19-Mar-26	03-Jul-26	-154	24	
ST3-OTW-1020	Outlet Tower - Retaining Wall / Access Rd - FRP Slab	12	09-Mar-27	25-Mar-27	19-Mar-26	14-Apr-26	-217	71	0%
ST3-OTW-1040	Outlet Tower - Retaining Wall / Access Rd - Cure - Slab	7	26-Mar-27	01-Apr-27	15-Apr-26	21-Apr-26	-345	115	0%
ST3-OTW-1060	Outlet Tower - Retaining Wall / Access Rd - FRP Retaining Wall & Stub Walls	8	04-Jun-27	15-Jun-27	17-Jun-26	26-Jun-26	-216	34	0%
ST3-OTW-1080	Outlet Tower - Retaining Wall / Access Rd - Cure - Retaining Wall & Stub Walls	7	16-Jun-27	22-Jun-27	27-Jun-26	03-Jul-26	-354	50	0%
Tower Concrete		49	23-Jun-27	24-Sep-27	06-Jul-26	08-Oct-26	-154	23	
ST3-OTW-1100	Outlet Tower - Concrete - Tower Structure - FRP Lift 1	10	23-Jun-27	06-Jul-27	06-Jul-26	17-Jul-26	-216	32	0%
ST3-OTW-1300	Outlet Tower - Concrete - Tower Structure - FRP Lift 2	10	07-Jul-27	21-Jul-27	20-Jul-26	03-Aug-26	-216	32	0%
ST3-OTW-1120	Outlet Tower - Concrete - Tower Structure - Cure Lift 1	7	07-Jul-27	13-Jul-27	18-Jul-26	24-Jul-26	-354	50	0%
ST3-OTW-1320	Outlet Tower - Concrete - Tower Structure - Cure Lift 2	7	22-Jul-27	28-Jul-27	04-Aug-26	10-Aug-26	-352	49	0%
ST3-OTW-1340	Outlet Tower - Concrete - Tower Structure - FRP Lift 3	10	22-Jul-27	04-Aug-27	04-Aug-26	20-Aug-26	-216	32	0%
ST3-OTW-1140	Outlet Tower - Concrete - Tower Structure - FRP Lift 4	10	05-Aug-27	23-Aug-27	21-Aug-26	03-Sep-26	-216	32	0%
ST3-OTW-1360	Outlet Tower - Concrete - Tower Structure - Cure Lift 3	7	05-Aug-27	11-Aug-27	21-Aug-26	27-Aug-26	-349	50	0%
ST3-OTW-1160	Outlet Tower - Concrete - Tower Structure - Cure Lift 4	7	24-Aug-27	30-Aug-27	04-Sep-26	10-Sep-26	-354	49	0%
ST3-OTW-1380	Outlet Tower - Concrete - Control Room Structure - FRP Lift 5	7	24-Aug-27	01-Sep-27	04-Sep-26	15-Sep-26	-216	32	0%
ST3-OTW-1400	Outlet Tower - Concrete - Control Room Structure - Cure Lift 5	7	02-Sep-27	08-Sep-27	16-Sep-26	22-Sep-26	-351	49	0%
ST3-OTW-1420	Outlet Tower - Concrete - Parapet Structure - FRP Lift 6	7	09-Sep-27	17-Sep-27	23-Sep-26	01-Oct-26	-216	32	0%
ST3-OTW-1440	Outlet Tower - Concrete - Parapet Structure - Cure Lift 6	7	18-Sep-27	24-Sep-27	02-Oct-26	08-Oct-26	-351	54	0%
Tower Structure		45	21-Sep-27	29-Nov-27	02-Oct-26	10-Dec-26	-216	32	
ST3-OTW-1180	Outlet Tower - Structure Works - Steel Structure Incl 15m length of Stairs	6	21-Sep-27	28-Sep-27	02-Oct-26	13-Oct-26	-216	32	0%
ST3-OTW-1200	Outlet Tower - Structure Works - Steel Structure floor Grating incl 28m of Handrail	13	29-Sep-27	19-Oct-27	14-Oct-26	30-Oct-26	-216	32	0%
ST3-OTW-1220	Outlet Tower - Structure Works - Misc Steel	9	20-Oct-27	04-Nov-27	05-Nov-26	17-Nov-26	-216	32	0%
ST3-OTW-1240	Outlet Tower - Structure Works - Pipe Work DN750 Steel Outlet Pipe	17	05-Nov-27	29-Nov-27	18-Nov-26	10-Dec-26	-216	32	0%
Mechanical / Electrical Works		45	05-Nov-27	24-Jan-28	18-Nov-26	08-Feb-27	-216	32	
ST3-OTW-1260	Outlet Tower - Fitout - Mechanical - Install	45	05-Nov-27	24-Jan-28	18-Nov-26	08-Feb-27	-216	32	0%



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Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

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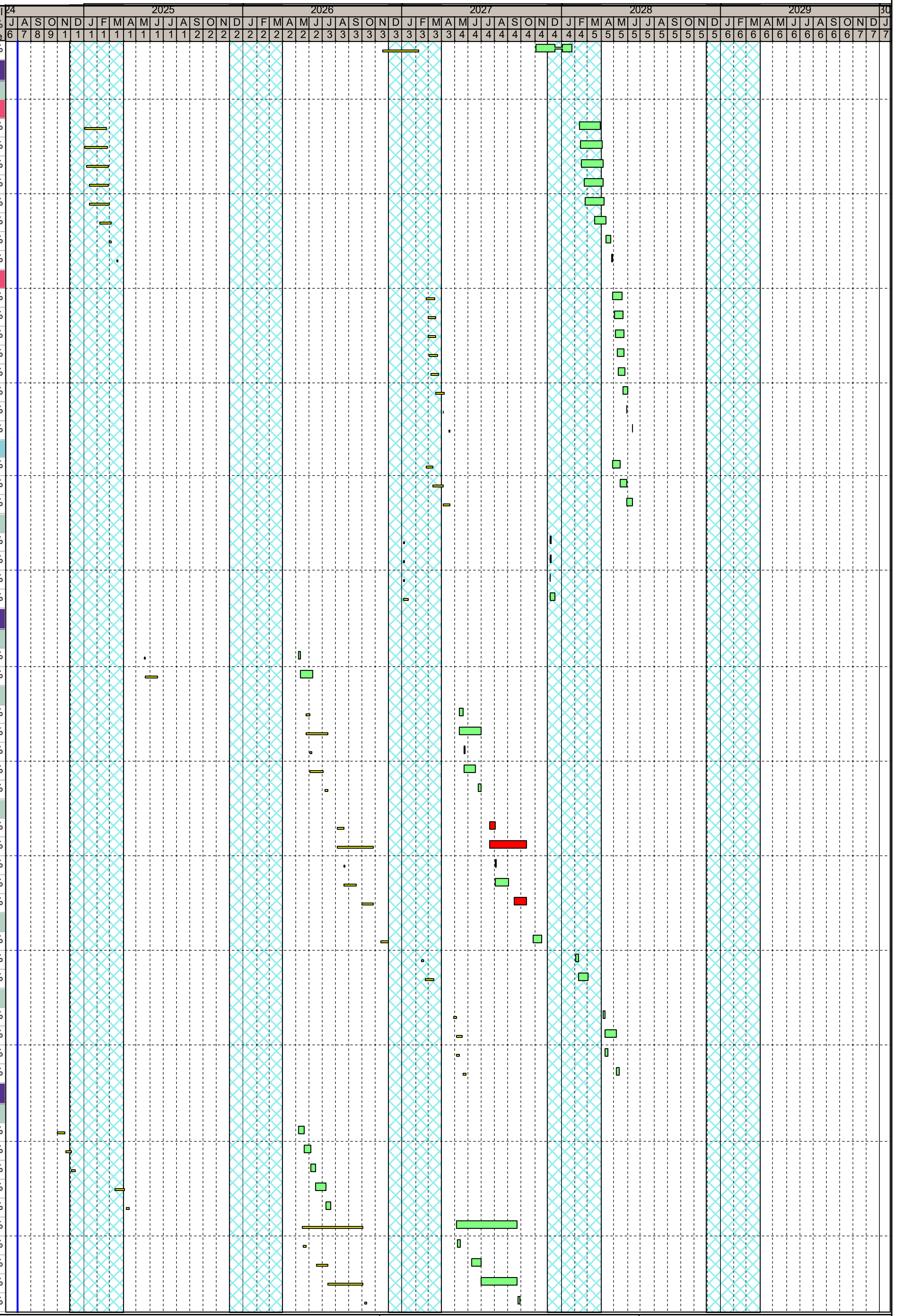
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST3-OTW-1280	Outlet Tower - Fitout - Electrical - Install	45	05-Nov-27	24-Jan-28	18-Nov-26	08-Feb-27	-216	32	0%
Erosion Protection Works		111	07-Dec-27	13-Jun-28	02-Jan-25	19-Apr-27	-261	33	
Erosion Protection		76	11-Feb-28	13-Jun-28	02-Jan-25	19-Apr-27	-261	33	
Erosion Protection - Stage 1 (70%)		46	11-Feb-28	27-Apr-28	02-Jan-25	18-Mar-25	-695	33	
ST3-EP-1660	Erosion Protection - Stage 1 (70%) - Excavate Foundation	34	11-Feb-28	31-Mar-28	02-Jan-25	21-Feb-25	-699	33	0%
ST3-EP-1680	Erosion Protection - Stage 1 (70%) - Prepare Foundation (spread duration)	34	15-Feb-28	04-Apr-28	03-Jan-25	24-Feb-25	-700	33	0%
ST3-EP-1700	Erosion Protection - Stage 1 (70%) - Place Geotextile (spread duration)	34	16-Feb-28	05-Apr-28	06-Jan-25	25-Feb-25	-700	33	0%
ST3-EP-1720	Erosion Protection - Stage 1 (70%) - Place & Compact Zone 2C (spread duration)	30	23-Feb-28	06-Apr-28	13-Jan-25	26-Feb-25	-700	33	0%
ST3-EP-1740	Erosion Protection - Stage 1 (70%) - Place & Compact Zone 3D (bedding material) (spread duration)	30	24-Feb-28	07-Apr-28	14-Jan-25	27-Feb-25	-700	33	0%
ST3-EP-1760	Erosion Protection - Stage 1 (70%) - Place & Compact Zone 3C	18	17-Mar-28	12-Apr-28	06-Feb-25	04-Mar-25	-700	33	0%
ST3-EP-1780	Erosion Protection - Stage 1 (70%) - Place & Compact Zone 3B	2	13-Apr-28	24-Apr-28	28-Feb-25	03-Mar-25	-703	33	0%
ST3-EP-1800	Erosion Protection - Stage 1 (70%) - Place Pavement Capping	2	26-Apr-28	27-Apr-28	18-Mar-25	18-Mar-25	-695	33	0%
Erosion Protection - Stage 2 (30%)		30	28-Apr-28	13-Jun-28	26-Feb-27	19-Apr-27	-261	33	
ST3-EP-1120	Erosion Protection - Stage 2 (30%) - Excavate Foundation	14	28-Apr-28	19-May-28	26-Feb-27	17-Mar-27	-261	33	0%
ST3-EP-1180	Erosion Protection - Stage 2 (30%) - Prepare Foundation (spread duration)	14	03-May-28	22-May-28	01-Mar-27	18-Mar-27	-261	39	0%
ST3-EP-1280	Erosion Protection - Stage 2 (30%) - Place Geotextile (spread duration)	14	04-May-28	23-May-28	02-Mar-27	19-Mar-27	-261	39	0%
ST3-EP-1500	Erosion Protection - Stage 2 (30%) - Place & Compact Zone 2C (spread duration)	13	08-May-28	24-May-28	04-Mar-27	23-Mar-27	-261	39	0%
ST3-EP-1560	Erosion Protection - Stage 2 (30%) - Place & Compact Zone 3D (bedding material) (spread duration)	13	10-May-28	26-May-28	08-Mar-27	25-Mar-27	-261	39	0%
ST3-EP-1600	Erosion Protection - Stage 2 (30%) - Place & Compact Zone 3C	8	22-May-28	01-Jun-28	18-Mar-27	07-Apr-27	-261	39	0%
ST3-EP-1580	Erosion Protection - Stage 2 (30%) - Place & Compact Zone 3B	2	30-May-28	31-May-28	05-Apr-27	05-Apr-27	-262	40	0%
ST3-EP-1640	Erosion Protection - Stage 2 (30%) - Place Pavement Capping	2	12-Jun-28	13-Jun-28	19-Apr-27	19-Apr-27	-261	33	0%
Stormwater		30	28-Apr-28	13-Jun-28	26-Feb-27	19-Apr-27	-261	33	
ST3-EP-1100	Erosion Protection - RHS - New Stormwater - Bed & Lay Pipe	10	28-Apr-28	15-May-28	26-Feb-27	11-Mar-27	-261	33	0%
ST3-EP-1140	Erosion Protection - RHS - New Stormwater - Encase Pipe	10	16-May-28	30-May-28	12-Mar-27	05-Apr-27	-261	33	0%
ST3-EP-1160	Erosion Protection - RHS - New Stormwater - Place Rip Rap	10	31-May-28	13-Jun-28	06-Apr-27	19-Apr-27	-261	33	0%
Demolition		8	07-Dec-27	16-Dec-27	05-Jan-27	14-Jan-27	-215	134	
ST3-EP-1020	Erosion Protect - Excavate & Demolish - Existing Stormwater Structure	2	07-Dec-27	08-Dec-27	05-Jan-27	06-Jan-27	-215	140	0%
ST3-EP-1040	Erosion Protect - Demolish - V Notch Wier Outlet Structure	2	07-Dec-27	08-Dec-27	05-Jan-27	06-Jan-27	-215	140	0%
ST3-EP-1060	Erosion Protect - Demolish - Existing Right Spillway Wall	1	07-Dec-27	07-Dec-27	05-Jan-27	05-Jan-27	-215	141	0%
ST3-EP-1080	Erosion Protect - Demolish - Existing Six Mile Creek Bridge Structure	8	07-Dec-27	16-Dec-27	05-Jan-27	14-Jan-27	-215	134	0%
Spillway Works		323	07-May-26	12-May-28	19-May-25	26-May-27	-154	89	
Spillway Geotech Investigation Works		23	07-May-26	09-Jun-26	19-May-25	19-Jun-25	-216	34	
ST3-SP-3000	Spillway - Geotech Works - Mobilise to Site	3	07-May-26	11-May-26	19-May-25	21-May-25	-216	34	0%
ST3-SP-3020	Spillway - Geotech Works - Undertake Geotech Investigations + Report	20	12-May-26	09-Jun-26	22-May-25	19-Jun-25	-216	34	0%
Left Spillway Wall		28	13-May-27	01-Jul-27	25-May-26	13-Jul-26	-154	140	
ST3-SP-1080	Spillway - Left Wall - FRP - Spillway Wall Slab	7	13-May-27	21-May-27	25-May-26	03-Jun-26	-216	201	0%
ST3-SP-1240	Spillway - Left Wall - Slab - Ground Water Dewatering Period	50	13-May-27	01-Jul-27	25-May-26	13-Jul-26	-353	327	0%
ST3-SP-1100	Spillway - Left Wall - Cure - Spillway Wall Slab	3	22-May-27	24-May-27	04-Jun-26	06-Jun-26	-352	320	0%
ST3-SP-1120	Spillway - Left Wall - FRP - Spillway Wall	20	24-May-27	18-Jun-27	04-Jun-26	02-Jul-26	-216	201	0%
ST3-SP-1140	Spillway - Left Wall - Cure - Spillway Wall	7	25-Jun-27	01-Jul-27	07-Jul-26	13-Jul-26	-353	327	0%
Right Spillway Wall		43	20-Jul-27	12-Oct-27	04-Aug-26	27-Oct-26	-152	0	
ST3-SP-1000	Spillway - Right Wall - FRP - Spillway Wall Slab	10	20-Jul-27	02-Aug-27	04-Aug-26	20-Aug-26	-214	0	0%
ST3-SP-3040	Spillway - Right Wall - Slab - Ground Water Dewatering Period (24hr)	253	20-Jul-27	12-Oct-27	04-Aug-26	27-Oct-26	-1012	0	0%
ST3-SP-1020	Spillway - Right Wall - Cure - Spillway Wall Slab	3	03-Aug-27	05-Aug-27	21-Aug-26	23-Aug-26	-347	15	0%
ST3-SP-1040	Spillway - Right Wall - FRP - Spillway Wall	20	03-Aug-27	02-Sep-27	21-Aug-26	18-Sep-26	-214	8	0%
ST3-SP-1060	Spillway - Right Wall - Cure - Spillway Wall	28	15-Sep-27	12-Oct-27	30-Sep-26	27-Oct-26	-350	0	0%
Apron & End Sills		73	28-Oct-27	02-Mar-28	13-Nov-26	15-Mar-27	-217	143	
ST3-LO-1060	Spillway - Lower Ogee - Construct End Sills - Lower Ogee RL84.0	12	28-Oct-27	17-Nov-27	13-Nov-26	30-Nov-26	-216	158	0%
ST3-UL-1020	Spillway - Upper Labyrinth - Construct End Sills - Upper Labyrinth RL89.5	5	03-Feb-28	09-Feb-28	15-Feb-27	19-Feb-27	-217	143	0%
ST3-UL-1120	Spillway - FRP Apron Slab	15	10-Feb-28	02-Mar-28	23-Feb-27	15-Mar-27	-217	143	0%
Spillway Dividing Wall		12	05-Apr-28	12-May-28	28-Apr-27	26-May-27	-154	89	
ST3-SP-1160	Spillway - Dividing Wall - FRP - Spillway Wall Slab	4	05-Apr-28	10-Apr-28	28-Apr-27	05-May-27	-216	121	0%
ST3-SP-1200	Spillway - Dividing Wall - FRP - Spillway Wall Slab	10	11-Apr-28	05-May-28	06-May-27	19-May-27	-216	121	0%
ST3-SP-1180	Spillway - Dividing Wall - Cure - Spillway Wall Slab	7	11-Apr-28	17-Apr-28	06-May-27	12-May-27	-341	195	0%
ST3-SP-1220	Spillway - Dividing Wall - Cure - Spillway Wall Slab	7	06-May-28	12-May-28	20-May-27	26-May-27	-352	182	0%
Left Embankment Works		238	07-May-26	08-Oct-27	31-Oct-24	20-Oct-26	-153	140	
Earthworks		238	07-May-26	08-Oct-27	31-Oct-24	20-Oct-26	-153	140	
ST3-LEM-EW-1000	Left Embankment - Earthworks - Access - Install + Commission Entry at Sth end as per EMB-031	10	07-May-26	20-May-26	31-Oct-24	18-Nov-24	-330	373	0%
ST3-LEM-EW-1020	Left Embankment - Earthworks - Preparation - NIP Removed + Backfilled as per EMB-031	10	21-May-26	04-Jun-26	19-Nov-24	03-Dec-24	-330	373	0%
ST3-LEM-EW-1040	Left Embankment - Earthworks - Access - Install Temporary Road 'F'	7	05-Jun-26	15-Jun-26	04-Dec-24	12-Dec-24	-330	373	0%
ST3-LEM-EW-1060	Left Embankment - Earthworks - Bulk Excavation	17	16-Jun-26	09-Jul-26	12-Mar-25	04-Apr-25	-281	373	0%
ST3-LEM-EW-1080	Left Embankment - Earthworks - Place Upstream Erosion Protection	7	10-Jul-26	20-Jul-26	07-Apr-25	15-Apr-25	-281	373	0%
ST3-LEM-EW-1240	Left Embankment - Earthworks - Ground Water Dewatering period during Embankment Construction	140	06-May-27	22-Sep-27	16-May-26	02-Oct-26	-355	323	0%
ST3-LEM-EW-1100	Left Embankment - Earthworks - Ground Improvement Hardstand	6	07-May-27	14-May-27	18-May-26	25-May-26	-217	200	0%
ST3-LEM-EW-1140	Left Embankment - Earthworks - Construct + Temporary Cover Filter Trench	16	09-Jun-27	01-Jul-27	19-Jun-26	13-Jul-26	-217	198	0%
ST3-LEM-EW-1160	Left Embankment - Earthworks - Embankment Construction	54	02-Jul-27	22-Sep-27	14-Jul-26	02-Oct-26	-217	198	0%
ST3-LEM-EW-1180	Left Embankment - Roadworks - Crest Road Pavement	4	23-Sep-27	28-Sep-27	07-Oct-26	12-Oct-26	-217	198	0%



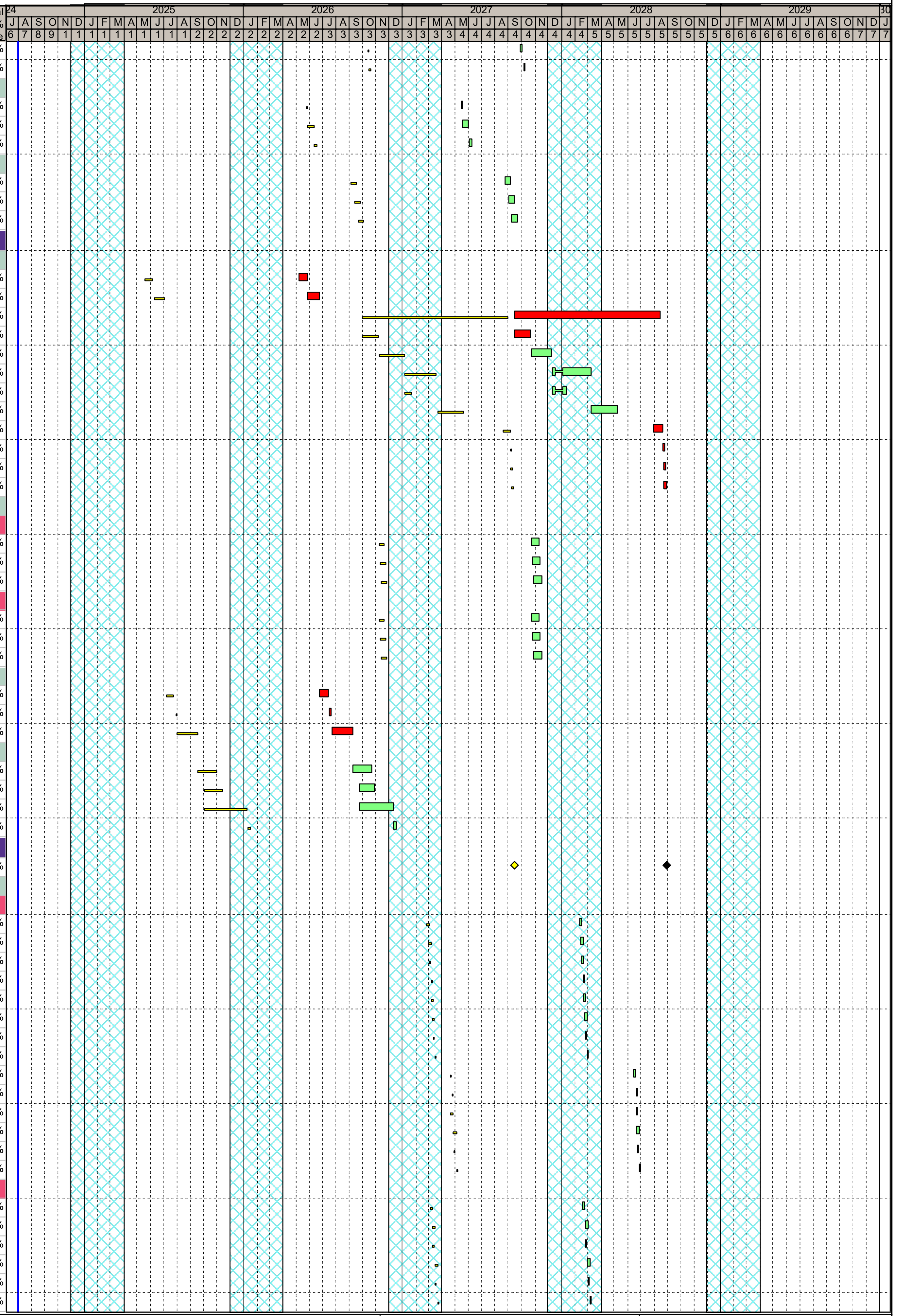
Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST3-LEM-EW-1200	Left Embankment - Roadworks - Crest Road Guardrail	3	29-Sep-27	01-Oct-27	13-Oct-26	15-Oct-26	-217	198	0%
ST3-LEM-EW-1220	Left Embankment - Roadworks - Crest Road - Sealing + Finishes	3	06-Oct-27	08-Oct-27	16-Oct-26	20-Oct-26	-217	198	0%
Shear Wall		14	17-May-27	08-Jun-27	26-May-26	18-Jun-26	-155	139	
ST3-LEM-1060	Left Embankment - Shear Wall - Excavate	2	17-May-27	18-May-27	26-May-26	27-May-26	-217	200	0%
ST3-LEM-1080	Left Embankment - Shear Wall - Pour Concrete	10	19-May-27	01-Jun-27	28-May-26	11-Jun-26	-217	200	0%
ST3-LEM-1100	Left Embankment - Shear Wall - Cure	7	02-Jun-27	08-Jun-27	12-Jun-26	18-Jun-26	-355	324	0%
Drainage Works		20	25-Aug-27	22-Sep-27	04-Sep-26	02-Oct-26	-217	198	
ST3-LEM-OTW-DR-1000	Left Embankment - Outlet Tower - Access Rd - Drainage Works - Drain L01 - Excavate	10	25-Aug-27	07-Sep-27	04-Sep-26	18-Sep-26	-217	198	0%
ST3-LEM-OTW-DR-1020	Left Embankment - Outlet Tower - Access Rd - Drainage Works - Drain L01 - Lay + Backfill	10	01-Sep-27	14-Sep-27	14-Sep-26	25-Sep-26	-217	198	0%
ST3-LEM-OTW-DR-1080	Left Embankment - Outlet Tower - Access Rd - Drainage Works - Drain L01 - Install Pits	10	08-Sep-27	22-Sep-27	21-Sep-26	02-Oct-26	-217	198	0%
Right Embankment Works		378	07-May-26	29-Aug-28	19-May-25	13-Sep-27	-152	0	
Earthworks		378	07-May-26	29-Aug-28	19-May-25	13-Sep-27	-152	0	
ST3-REM-EW-1080	Right Embankment - Earthworks - Bulk Excavation - Stage 1	15	07-May-26	27-May-26	19-May-25	06-Jun-25	-216	1	0%
ST3-REM-EW-1100	Right Embankment - Earthworks - Ground Improvement Hardstand	19	28-May-26	24-Jun-26	10-Jun-25	04-Jul-25	-216	1	0%
ST3-REM-EW-1360	Right Embankment - Earthworks - Ground Water Dewatering period during Embankment Construction (24hr)	965	15-Sep-27	15-Aug-28	30-Sep-26	30-Aug-27	-1012	-1	0%
ST3-REM-EW-1180	Right Embankment - Earthworks - Bulk Excavation - Stage 2 (2 Crews)	25	15-Sep-27	22-Oct-27	30-Sep-26	06-Nov-26	-217	0	0%
ST3-REM-EW-1200	Right Embankment - Earthworks - Cut Down Shear Walls + Cap Cut Off Wall	30	25-Oct-27	09-Dec-27	09-Nov-26	05-Jan-27	-217	55	0%
ST3-REM-EW-1260	Right Embankment - Earthworks - Embankment Construction - Portion C1 190-258 (Multi Chimney)	50	10-Dec-27	08-Mar-28	06-Jan-27	19-Mar-27	-217	55	0%
ST3-REM-EW-1280	Right Embankment - Earthworks - Embankment Construction - Portion C2 190-258 (Multi Chimney)	12	10-Dec-27	11-Jan-28	06-Jan-27	21-Jan-27	-217	93	0%
ST3-REM-EW-1240	Right Embankment - Earthworks - Embankment Construction - Portion B 99-190 (Single Chimney)	34	09-Mar-28	09-May-28	23-Mar-27	20-May-27	-217	55	0%
ST3-REM-EW-1220	Right Embankment - Earthworks - Embankment Construction - Portion A 60-99 (No Upstream Rockfill)	12	31-Jul-28	21-Aug-28	19-Aug-27	06-Sep-27	-213	0	0%
ST3-REM-EW-1300	Right Embankment - Roadworks - Crest Road Pavement	5	21-Aug-28	25-Aug-28	06-Sep-27	09-Sep-27	-214	0	0%
ST3-REM-EW-1320	Right Embankment - Roadworks - Crest Road Guardrail	5	22-Aug-28	28-Aug-28	07-Sep-27	10-Sep-27	-214	0	0%
ST3-REM-EW-1340	Right Embankment - Roadworks - Crest Road - Sealing + Finishes	4	24-Aug-28	29-Aug-28	08-Sep-27	13-Sep-27	-214	0	0%
Drainage Works		14	25-Oct-27	16-Nov-27	09-Nov-26	26-Nov-26	-217	155	
Drain W01 Seepage		14	25-Oct-27	16-Nov-27	09-Nov-26	26-Nov-26	-217	155	
ST3-REM-DR-1000	Right Embankment - Drainage Works - Drain W01 - Excavate	10	25-Oct-27	10-Nov-27	09-Nov-26	20-Nov-26	-217	155	0%
ST3-REM-DR-1020	Right Embankment - Drainage Works - Drain W01 - Lay + Backfill	10	27-Oct-27	12-Nov-27	11-Nov-26	24-Nov-26	-217	155	0%
ST3-REM-DR-1080	Right Embankment - Drainage Works - Drain W01 - Install Pits	10	29-Oct-27	16-Nov-27	13-Nov-26	26-Nov-26	-217	155	0%
Drain R01 Surface		14	25-Oct-27	16-Nov-27	09-Nov-26	26-Nov-26	-217	155	
ST3-REM-DR-2000	Right Embankment - Drainage Works - Drain R01 - Excavate	10	25-Oct-27	10-Nov-27	09-Nov-26	20-Nov-26	-217	155	0%
ST3-REM-DR-2020	Right Embankment - Drainage Works - Drain R01 - Lay + Backfill	10	27-Oct-27	12-Nov-27	11-Nov-26	24-Nov-26	-217	155	0%
ST3-REM-DR-2080	Right Embankment - Drainage Works - Drain R01 - Install Pits	10	29-Oct-27	16-Nov-27	13-Nov-26	26-Nov-26	-217	155	0%
Cutoff Wall		48	25-Jun-26	08-Sep-26	08-Jul-25	17-Sep-25	-216	1	
ST3-REM-1060	Right Embankment - Cut Off Wall - FRP Guide Wall for Cut Off Wall Construction	12	25-Jun-26	13-Jul-26	08-Jul-25	23-Jul-25	-216	1	0%
ST3-REM-1120	Right Embankment - Cut Off Wall - Excavate	3	17-Jul-26	21-Jul-26	29-Jul-25	31-Jul-25	-216	1	0%
ST3-REM-1140	Right Embankment - Cut Off Wall - Pour Concrete	30	22-Jul-26	08-Sep-26	01-Aug-25	17-Sep-25	-216	1	0%
Shear Wall		47	09-Sep-26	18-Dec-26	18-Sep-25	16-Jan-26	-153	116	
ST3-REM-1020	Right Embankment - Shear Wall - Install Guide Wall for Shear Walls Construction	30	09-Sep-26	22-Oct-26	18-Sep-25	31-Oct-25	-216	162	0%
ST3-REM-1080	Right Embankment - Shear Wall - Excavate	25	23-Sep-26	29-Oct-26	02-Oct-25	12-Nov-25	-216	162	0%
ST3-REM-1100	Right Embankment - Shear Wall - Pour Concrete	52	24-Sep-26	11-Dec-26	03-Oct-25	09-Jan-26	-216	162	0%
ST3-REM-1160	Right Embankment - Shear Wall - Cure	7	12-Dec-26	18-Dec-26	10-Jan-26	16-Jan-26	-336	270	0%
Lower Ogee		141	28-Oct-27	18-Sep-28	13-Nov-26	03-Oct-27	-151	24	
ST3-LO-1200	Lower Ogee - Commence Impoundment Works	0	30-Aug-28		14-Sep-27		-351	0	0%
Mass Concrete		123	07-Dec-27	18-Sep-28	05-Jan-27	03-Oct-27	-151	24	
Mass Concrete - Monolith A		62	11-Feb-28	30-Jun-28	26-Feb-27	07-May-27	-189	27	
ST3-C1-7840	Lower Ogee - Mass Concrete - Form & Pour - Lift 1 [RL83.5] - A	4	11-Feb-28	16-Feb-28	26-Feb-27	03-Mar-27	-215	94	0%
ST3-C1-7880	Lower Ogee - Mass Concrete - Form & Pour - Lift 2 - A	4	15-Feb-28	21-Feb-28	02-Mar-27	08-Mar-27	-215	97	0%
ST3-C1-7860	Lower Ogee - Mass Concrete - Cure - Lift 1 - A	3	17-Feb-28	19-Feb-28	04-Mar-27	06-Mar-27	-350	152	0%
ST3-C1-7900	Lower Ogee - Mass Concrete - Cure - Lift 2 - A	3	21-Feb-28	23-Feb-28	08-Mar-27	10-Mar-27	-350	155	0%
ST3-C1-7920	Lower Ogee - Mass Concrete - Form & Pour - Lift 3 - A	4	21-Feb-28	24-Feb-28	08-Mar-27	11-Mar-27	-215	97	0%
ST3-C1-7960	Lower Ogee - Mass Concrete - Form & Pour - Lift 4 [RL89.5] - A	4	22-Feb-28	29-Feb-28	10-Mar-27	15-Mar-27	-214	98	0%
ST3-C1-7940	Lower Ogee - Mass Concrete - Cure - Lift 3 - A	3	25-Feb-28	27-Feb-28	12-Mar-27	14-Mar-27	-350	155	0%
ST3-C1-7980	Lower Ogee - Mass Concrete - Cure - Lift 4 - A	3	29-Feb-28	02-Mar-28	16-Mar-27	18-Mar-27	-350	157	0%
ST3-C1-8000	Lower Ogee - Mass Concrete - Form & Pour - Lift 5 - A	4	14-Jun-28	19-Jun-28	20-Apr-27	23-Apr-27	-261	33	0%
ST3-C1-8020	Lower Ogee - Mass Concrete - Cure - Lift 5 - A	3	20-Jun-28	22-Jun-28	24-Apr-27	26-Apr-27	-423	49	0%
ST3-C1-8040	Lower Ogee - Mass Concrete - Form & Pour - Lift 6 - A	4	20-Jun-28	23-Jun-28	21-Apr-27	27-Apr-27	-264	34	0%
ST3-C1-8080	Lower Ogee - Mass Concrete - Form & Pour - Lift 7 [RL95.6] - A	4	21-Jun-28	27-Jun-28	27-Apr-27	05-May-27	-262	35	0%
ST3-C1-8060	Lower Ogee - Mass Concrete - Cure - Lift 6 - A	3	24-Jun-28	26-Jun-28	28-Apr-27	30-Apr-27	-423	55	0%
ST3-C1-8100	Lower Ogee - Mass Concrete - Cure - Lift 7 - A	3	28-Jun-28	30-Jun-28	05-May-27	07-May-27	-420	55	0%
Mass Concrete - Monolith B		61	18-Feb-28	05-Jul-28	05-Mar-27	12-May-27	-189	28	
ST3-C1-7520	Lower Ogee - Mass Concrete - Form & Pour - Lift 1 [RL83.5] - B	4	18-Feb-28	23-Feb-28	05-Mar-27	10-Mar-27	-215	94	0%
ST3-C1-7560	Lower Ogee - Mass Concrete - Form & Pour - Lift 2 - B	4	24-Feb-28	01-Mar-28	11-Mar-27	16-Mar-27	-215	94	0%
ST3-C1-7540	Lower Ogee - Mass Concrete - Cure - Lift 1 - B	3	24-Feb-28	26-Feb-28	11-Mar-27	13-Mar-27	-350	152	0%
ST3-C1-7600	Lower Ogee - Mass Concrete - Form & Pour - Lift 3 - B	4	29-Feb-28	06-Mar-28	16-Mar-27	23-Mar-27	-214	96	0%
ST3-C1-7580	Lower Ogee - Mass Concrete - Cure - Lift 2 - B	3	02-Mar-28	04-Mar-28	17-Mar-27	19-Mar-27	-351	151	0%
ST3-C1-7620	Lower Ogee - Mass Concrete - Cure - Lift 3 - B	3	06-Mar-28	08-Mar-28	23-Mar-27	25-Mar-27	-349	151	0%



Date	Revision	Checked	Approved
03-May-...	LMDIP - Progressed DD:03/05/24		
31-Jul-24	LMDIP - Progressed DD:31/07/24		

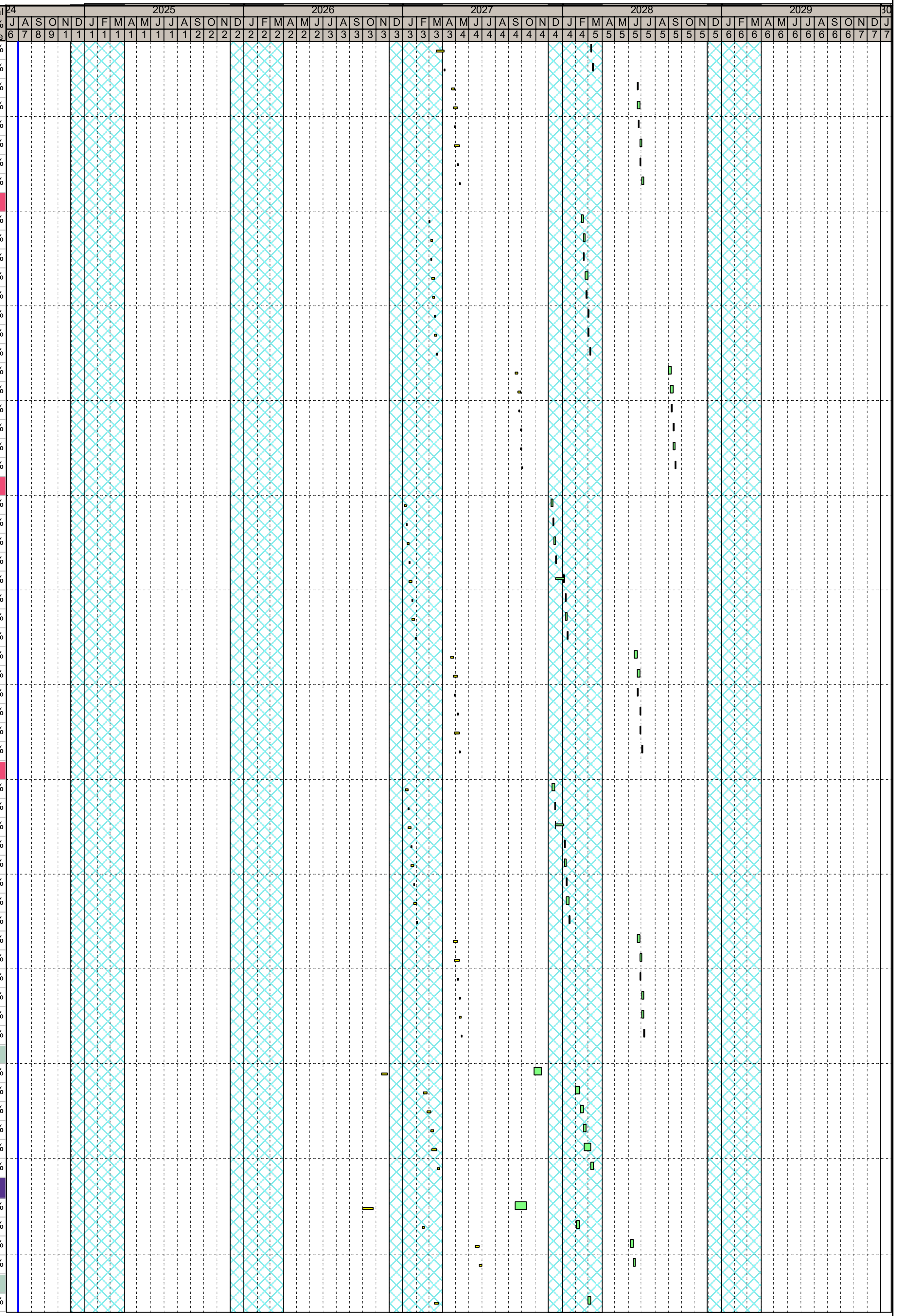
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST3-C1-7640	Lower Ogee - Mass Concrete - Form & Pour - Lift 4 [RL89.5] - B	4	06-Mar-28	09-Mar-28	19-Mar-27	05-Apr-27	-215	94	0%
ST3-C1-7660	Lower Ogee - Mass Concrete - Cure - Lift 4 - B	3	10-Mar-28	12-Mar-28	05-Apr-27	07-Apr-27	-340	151	0%
ST3-C1-7680	Lower Ogee - Mass Concrete - Form & Pour - Lift 5 - B	4	20-Jun-28	23-Jun-28	22-Apr-27	28-Apr-27	-263	33	0%
ST3-C1-7720	Lower Ogee - Mass Concrete - Form & Pour - Lift 6 - B	4	21-Jun-28	27-Jun-28	27-Apr-27	05-May-27	-262	35	0%
ST3-C1-7700	Lower Ogee - Mass Concrete - Cure - Lift 5 - B	3	24-Jun-28	26-Jun-28	29-Apr-27	01-May-27	-422	55	0%
ST3-C1-7760	Lower Ogee - Mass Concrete - Form & Pour - Lift 7 [RL95.6] - B	4	27-Jun-28	03-Jul-28	30-Apr-27	10-May-27	-262	36	0%
ST3-C1-7740	Lower Ogee - Mass Concrete - Cure - Lift 6 - B	3	28-Jun-28	30-Jun-28	05-May-27	07-May-27	-420	55	0%
ST3-C1-7780	Lower Ogee - Mass Concrete - Cure - Lift 7 - B	3	03-Jul-28	05-Jul-28	10-May-27	12-May-27	-420	55	0%
Mass Concrete - Monolith C		101	14-Feb-28	18-Sep-28	01-Mar-27	03-Oct-27	-151	24	
ST3-C1-7200	Lower Ogee - Mass Concrete - Form & Pour - Lift 1 [RL83.5] - C	4	14-Feb-28	17-Feb-28	01-Mar-27	04-Mar-27	-215	94	0%
ST3-C1-7240	Lower Ogee - Mass Concrete - Form & Pour - Lift 2 - C	4	18-Feb-28	23-Feb-28	05-Mar-27	10-Mar-27	-215	94	0%
ST3-C1-7220	Lower Ogee - Mass Concrete - Cure - Lift 1 - C	3	18-Feb-28	20-Feb-28	05-Mar-27	07-Mar-27	-350	151	0%
ST3-C1-7280	Lower Ogee - Mass Concrete - Form & Pour - Lift 3 - C	4	22-Feb-28	29-Feb-28	09-Mar-27	15-Mar-27	-215	96	0%
ST3-C1-7260	Lower Ogee - Mass Concrete - Cure - Lift 2 - C	3	24-Feb-28	26-Feb-28	11-Mar-27	13-Mar-27	-350	152	0%
ST3-C1-7300	Lower Ogee - Mass Concrete - Cure - Lift 3 - C	3	29-Feb-28	02-Mar-28	15-Mar-27	17-Mar-27	-351	153	0%
ST3-C1-7320	Lower Ogee - Mass Concrete - Form & Pour - Lift 4 [RL89.5] - C	4	29-Feb-28	03-Mar-28	15-Mar-27	18-Mar-27	-215	96	0%
ST3-C1-7340	Lower Ogee - Mass Concrete - Cure - Lift 4 - C	3	04-Mar-28	06-Mar-28	19-Mar-27	21-Mar-27	-351	153	0%
ST3-C1-7360	Lower Ogee - Mass Concrete - Form & Pour - Lift 5 - C	4	01-Sep-28	06-Sep-28	16-Sep-27	22-Sep-27	-214	12	0%
ST3-C1-7400	Lower Ogee - Mass Concrete - Form & Pour - Lift 6 - C	4	05-Sep-28	12-Sep-28	21-Sep-27	27-Sep-27	-214	14	0%
ST3-C1-7380	Lower Ogee - Mass Concrete - Cure - Lift 5 - C	3	07-Sep-28	09-Sep-28	23-Sep-27	25-Sep-27	-350	19	0%
ST3-C1-7420	Lower Ogee - Mass Concrete - Cure - Lift 6 - C	3	12-Sep-28	14-Sep-28	27-Sep-27	29-Sep-27	-351	24	0%
ST3-C1-7440	Lower Ogee - Mass Concrete - Form & Pour - Lift 7 [RL95.] - C	4	12-Sep-28	15-Sep-28	27-Sep-27	30-Sep-27	-214	14	0%
ST3-C1-7460	Lower Ogee - Mass Concrete - Cure - Lift 7 - C	3	16-Sep-28	18-Sep-28	01-Oct-27	03-Oct-27	-351	53	0%
Mass Concrete - Monolith D		84	07-Dec-27	03-Jul-28	05-Jan-27	12-May-27	-188	26	
ST3-C1-6880	Lower Ogee - Mass Concrete - Form & Pour - Lift 1 [RL83.5] - D	4	07-Dec-27	10-Dec-27	05-Jan-27	08-Jan-27	-215	129	0%
ST3-C1-6900	Lower Ogee - Mass Concrete - Cure - Lift 1 - D	3	11-Dec-27	13-Dec-27	09-Jan-27	11-Jan-27	-336	219	0%
ST3-C1-6920	Lower Ogee - Mass Concrete - Form & Pour - Lift 2 - D	4	13-Dec-27	16-Dec-27	11-Jan-27	14-Jan-27	-215	130	0%
ST3-C1-6940	Lower Ogee - Mass Concrete - Cure - Lift 2 - D	3	17-Dec-27	19-Dec-27	15-Jan-27	17-Jan-27	-336	220	0%
ST3-C1-6960	Lower Ogee - Mass Concrete - Form & Pour - Lift 3 - D	4	17-Dec-27	06-Jan-28	15-Jan-27	20-Jan-27	-215	130	0%
ST3-C1-6980	Lower Ogee - Mass Concrete - Cure - Lift 3 - D	3	07-Jan-28	09-Jan-28	21-Jan-27	23-Jan-27	-351	205	0%
ST3-C1-7000	Lower Ogee - Mass Concrete - Form & Pour - Lift 4 [RL89.5] - D	4	07-Jan-28	12-Jan-28	21-Jan-27	28-Jan-27	-215	131	0%
ST3-C1-7020	Lower Ogee - Mass Concrete - Cure - Lift 4 - D	3	13-Jan-28	15-Jan-28	29-Jan-27	31-Jan-27	-349	205	0%
ST3-C1-7040	Lower Ogee - Mass Concrete - Form & Pour - Lift 5 - D	4	15-Jun-28	20-Jun-28	21-Apr-27	27-Apr-27	-261	35	0%
ST3-C1-7080	Lower Ogee - Mass Concrete - Form & Pour - Lift 6 - D	4	20-Jun-28	27-Jun-28	27-Apr-27	05-May-27	-261	34	0%
ST3-C1-7060	Lower Ogee - Mass Concrete - Cure - Lift 5 - D	3	21-Jun-28	23-Jun-28	28-Apr-27	30-Apr-27	-420	54	0%
ST3-C1-7100	Lower Ogee - Mass Concrete - Cure - Lift 6 - D	3	27-Jun-28	29-Jun-28	05-May-27	07-May-27	-419	52	0%
ST3-C1-7120	Lower Ogee - Mass Concrete - Form & Pour - Lift 7 [RL95.6] - D	4	27-Jun-28	30-Jun-28	30-Apr-27	10-May-27	-262	32	0%
ST3-C1-7140	Lower Ogee - Mass Concrete - Cure - Lift 7 - D	3	01-Jul-28	03-Jul-28	10-May-27	12-May-27	-418	52	0%
Mass Concrete - Monolith E		85	09-Dec-27	09-Jul-28	07-Jan-27	16-May-27	-188	27	
ST3-C1-6560	Lower Ogee - Mass Concrete - Form & Pour - Lift 1 [RL83.5] - E	4	09-Dec-27	14-Dec-27	07-Jan-27	12-Jan-27	-215	131	0%
ST3-C1-6580	Lower Ogee - Mass Concrete - Cure - Lift 1 - E	3	15-Dec-27	17-Dec-27	13-Jan-27	15-Jan-27	-336	222	0%
ST3-C1-6600	Lower Ogee - Mass Concrete - Form & Pour - Lift 2 - E	4	15-Dec-27	04-Jan-28	13-Jan-27	18-Jan-27	-215	131	0%
ST3-C1-6620	Lower Ogee - Mass Concrete - Cure - Lift 2 - E	3	05-Jan-28	07-Jan-28	19-Jan-27	21-Jan-27	-351	207	0%
ST3-C1-6640	Lower Ogee - Mass Concrete - Form & Pour - Lift 3 - E	4	05-Jan-28	10-Jan-28	19-Jan-27	25-Jan-27	-215	131	0%
ST3-C1-6660	Lower Ogee - Mass Concrete - Cure - Lift 3 - E	3	11-Jan-28	13-Jan-28	25-Jan-27	27-Jan-27	-351	207	0%
ST3-C1-6680	Lower Ogee - Mass Concrete - Form & Pour - Lift 4 - E	4	11-Jan-28	17-Jan-28	25-Jan-27	01-Feb-27	-215	131	0%
ST3-C1-6700	Lower Ogee - Mass Concrete - Cure - Lift 4 [RL89.5] - E	3	17-Jan-28	19-Jan-28	02-Feb-27	04-Feb-27	-349	210	0%
ST3-C1-6720	Lower Ogee - Mass Concrete - Form & Pour - Lift 5 - E	4	21-Jun-28	27-Jun-28	27-Apr-27	05-May-27	-262	33	0%
ST3-C1-6760	Lower Ogee - Mass Concrete - Form & Pour - Lift 6 - E	4	27-Jun-28	03-Jul-28	30-Apr-27	10-May-27	-262	32	0%
ST3-C1-6740	Lower Ogee - Mass Concrete - Cure - Lift 5 - E	3	28-Jun-28	30-Jun-28	05-May-27	07-May-27	-420	51	0%
ST3-C1-6780	Lower Ogee - Mass Concrete - Cure - Lift 6 - E	3	03-Jul-28	05-Jul-28	10-May-27	12-May-27	-420	50	0%
ST3-C1-6800	Lower Ogee - Mass Concrete - Form & Pour - Lift 7 [RL95.6] - E	4	03-Jul-28	06-Jul-28	10-May-27	13-May-27	-262	32	0%
ST3-C1-6820	Lower Ogee - Mass Concrete - Cure - Lift 7 - E	3	07-Jul-28	09-Jul-28	14-May-27	16-May-27	-420	51	0%
Upstream Face, Crest & Downstream Slope		53	28-Oct-27	13-Mar-28	13-Nov-26	26-Mar-27	-156	112	
ST3-LO-1040	Lower Ogee - Construct Grout Curtain	10	28-Oct-27	15-Nov-27	13-Nov-26	26-Nov-26	-216	222	0%
ST3-LO-1080	Lower Ogee - Upstream Face - Breakback Secant Piles RL88.0	7	02-Feb-28	10-Feb-28	16-Feb-27	25-Feb-27	-215	33	0%
ST3-LO-1160	Lower Ogee - Basin Slot - FRP	6	11-Feb-28	18-Feb-28	26-Feb-27	05-Mar-27	-215	105	0%
ST3-LO-1180	Lower Ogee - Basin Slot - Cure	7	19-Feb-28	25-Feb-28	06-Mar-27	12-Mar-27	-350	167	0%
ST3-LO-1000	Lower Ogee - Upstream Face + Crest + Downstream Slope - FRP	10	21-Feb-28	06-Mar-28	08-Mar-27	19-Mar-27	-215	105	0%
ST3-LO-1020	Lower Ogee - Upstream Face + Crest + Downstream Slope - Cure	7	07-Mar-28	13-Mar-28	20-Mar-27	26-Mar-27	-353	169	0%
Upper Labyrinth		114	15-Sep-27	16-Jun-28	30-Sep-26	30-Jun-27	-153	71	
ST3-UL-1040	Upper Labyrinth - Install Foundation Drain	16	15-Sep-27	11-Oct-27	30-Sep-26	23-Oct-26	-215	139	0%
ST3-UL-1000	Upper Labyrinth - Construct Grout Curtain	5	03-Feb-28	09-Feb-28	15-Feb-27	19-Feb-27	-217	69	0%
ST3-UL-1140	Upper Labyrinth - Supply and Install Fish Pool Wall	6	05-Jun-28	12-Jun-28	16-Jun-27	24-Jun-27	-216	94	0%
ST3-UL-1160	Upper Labyrinth - Gravity Drain, Incl 300mm dia Drain Flap	4	13-Jun-28	16-Jun-28	25-Jun-27	30-Jun-27	-216	94	0%
Slab		18	29-Feb-28	07-Apr-28	15-Mar-27	30-Apr-27	-154	39	
ST3-UL-1200	Upper Labyrinth - Slab - FRP Slab - A	6	29-Feb-28	07-Mar-28	15-Mar-27	23-Mar-27	-215	57	0%



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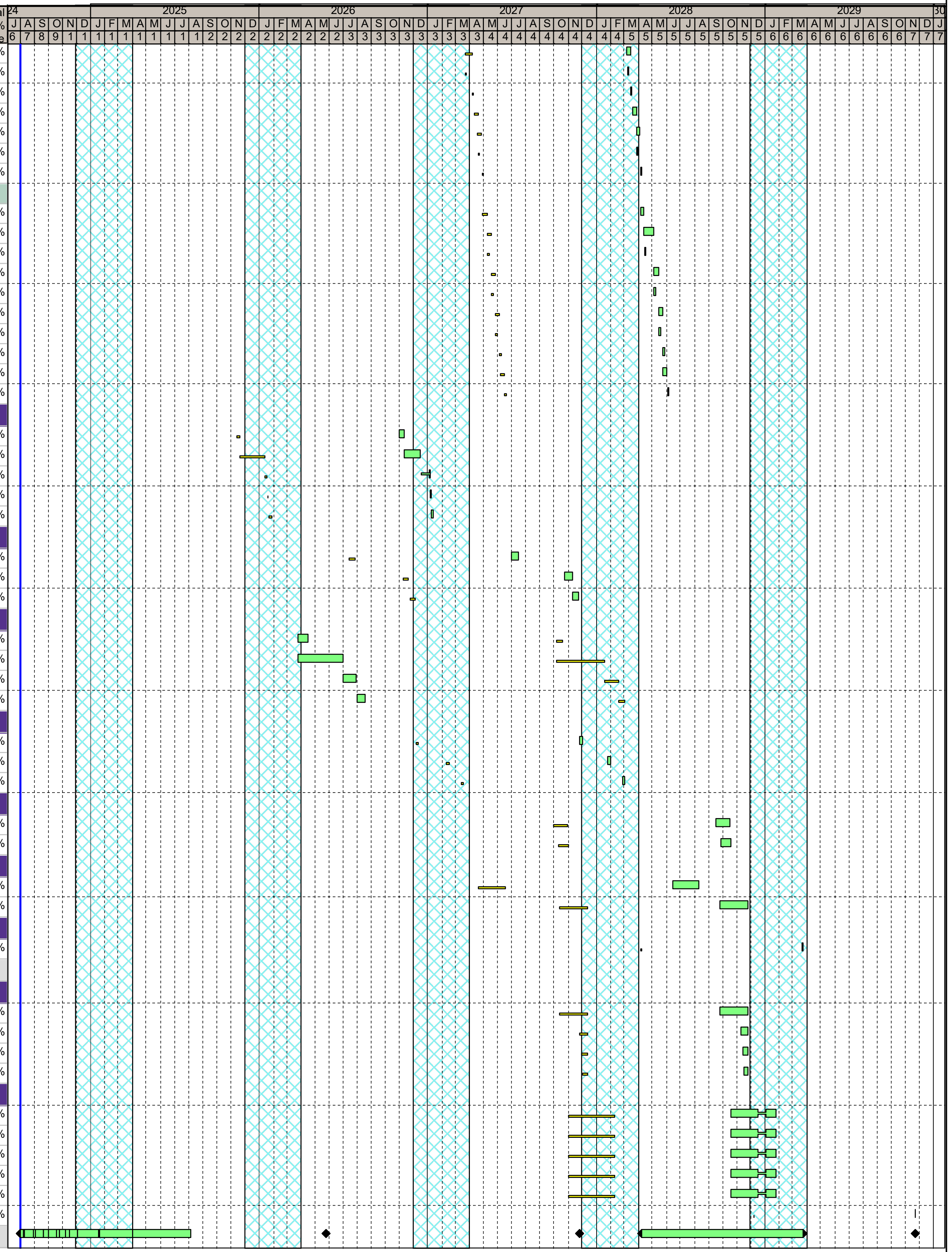
Rev D including Agreed Changes with Seqwater - Currently Incorporating Design and Approvals Programme

P11383-PST-TOC-P2-5a-8
LMDIP Report Layout
TASK filter: Works to Complete.

JOHN HOLLAND

DD/20240731 LMDIP-001 - CPA Programme For Approval Rev D Inc Design and Approvals

Activity ID	Activity Name	Original Duration	Start	Finish	CPABL Start	CPABL Finish	Variance Between CPA BL Finish	Total Float	Physical % Complete
ST3-UL-1280	Upper Labyrinth - Slab - FRP Slab - C	6	07-Mar-28	14-Mar-28	23-Mar-27	07-Apr-27	-215	57	0%
ST3-UL-1220	Upper Labyrinth - Slab - Cure - Slab - A	3	08-Mar-28	10-Mar-28	24-Mar-27	26-Mar-27	-350	101	0%
ST3-UL-1300	Upper Labyrinth - Slab - Cure - Slab - C	3	15-Mar-28	17-Mar-28	08-Apr-27	10-Apr-27	-342	94	0%
ST3-UL-1240	Upper Labyrinth - Slab - FRP Slab - B	6	20-Mar-28	28-Mar-28	12-Apr-27	19-Apr-27	-216	55	0%
ST3-UL-1320	Upper Labyrinth - Slab - FRP Slab - D	6	28-Mar-28	04-Apr-28	19-Apr-27	27-Apr-27	-216	55	0%
ST3-UL-1260	Upper Labyrinth - Slab - Cure - Slab - B	3	29-Mar-28	31-Mar-28	20-Apr-27	22-Apr-27	-344	99	0%
ST3-UL-1340	Upper Labyrinth - Slab - Cure - Slab - D	3	05-Apr-28	07-Apr-28	28-Apr-27	30-Apr-27	-343	92	0%
Walls		25	05-Apr-28	06-Jun-28	28-Apr-27	19-Jun-27	-153	62	
ST3-UL-2000	Upper Labyrinth - Walls - FRP Walls - A	7	05-Apr-28	13-Apr-28	28-Apr-27	10-May-27	-216	55	0%
ST3-UL-2020	Upper Labyrinth - Walls - FRP Walls - C	7	13-Apr-28	04-May-28	10-May-27	18-May-27	-216	55	0%
ST3-UL-2040	Upper Labyrinth - Walls - Cure - Walls - A	4	14-Apr-28	17-Apr-28	11-May-27	14-May-27	-339	103	0%
ST3-UL-2080	Upper Labyrinth - Walls - FRP Walls - B	7	05-May-28	15-May-28	19-May-27	27-May-27	-216	55	0%
ST3-UL-2060	Upper Labyrinth - Walls - Cure - Walls - C	4	05-May-28	08-May-28	19-May-27	22-May-27	-352	82	0%
ST3-UL-2100	Upper Labyrinth - Walls - FRP Walls - D	7	15-May-28	23-May-28	27-May-27	04-Jun-27	-216	55	0%
ST3-UL-2120	Upper Labyrinth - Walls - Cure - Walls - B	4	16-May-28	19-May-28	28-May-27	31-May-27	-354	143	0%
ST3-UL-2140	Upper Labyrinth - Walls - Cure - Walls - D	4	24-May-28	27-May-28	05-Jun-27	08-Jun-27	-354	94	0%
ST3-UL-2160	Upper Labyrinth - Walls - FRP Walls - E	7	24-May-28	02-Jun-28	07-Jun-27	15-Jun-27	-216	55	0%
ST3-UL-2180	Upper Labyrinth - Walls - Cure - Walls - E	4	03-Jun-28	06-Jun-28	16-Jun-27	19-Jun-27	-353	84	0%
Saddle Dam Works		39	30-Oct-26	13-Jan-27	13-Nov-25	28-Jan-26	-216	416	
ST3-SD-1000	Saddle Dam - Excavate Guide Wall	5	30-Oct-26	10-Nov-26	13-Nov-25	19-Nov-25	-216	416	0%
ST3-SD-1020	Saddle Dam - FRP Guide Wall	25	11-Nov-26	16-Dec-26	20-Nov-25	13-Jan-26	-216	416	0%
ST3-SD-1040	Saddle Dam - Excavate	3	17-Dec-26	05-Jan-27	14-Jan-26	16-Jan-26	-216	416	0%
ST3-SD-1060	Saddle Dam - Foundation Treatment	2	06-Jan-27	07-Jan-27	19-Jan-26	20-Jan-26	-216	416	0%
ST3-SD-1080	Saddle Dam - Place & Compact Zone 4	4	08-Jan-27	13-Jan-27	21-Jan-26	28-Jan-26	-216	416	0%
Dam Instrumentation		94	02-Jul-27	24-Nov-27	14-Jul-26	04-Dec-26	-217	163	
ST3-DI-1000	Dam Instrumentation - Construct Seepage Weirs + Drainage Left Embankment	10	02-Jul-27	15-Jul-27	14-Jul-26	28-Jul-26	-217	198	0%
ST3-DI-1040	Dam Instrumentation - Construct Seepage Weirs + Drainage Right Embankment	10	25-Oct-27	10-Nov-27	09-Nov-26	20-Nov-26	-217	159	0%
ST3-DI-1020	Dam Instrumentation - Install Instrumentation	10	11-Nov-27	24-Nov-27	23-Nov-26	04-Dec-26	-217	163	0%
SEQWater Permanent Facilities		90	26-Mar-26	18-Aug-26	06-Oct-27	03-Mar-28	346	735	
ST3-PF-1000	Permanent Facilities - Earthworks - Clean Up + Prepare Area	10	26-Mar-26	16-Apr-26	06-Oct-27	19-Oct-27	346	735	0%
ST3-PF-1020	Permanent Facilities - Building - Construct Permanent Works	60	26-Mar-26	01-Jul-26	06-Oct-27	18-Jan-28	346	735	0%
ST3-PF-1160	Permanent Facilities - Fitout - Systems - Install	20	02-Jul-26	30-Jul-26	19-Jan-28	17-Feb-28	346	735	0%
ST3-PF-1180	Permanent Facilities - Fitout - Systems - Test + Commission	10	31-Jul-26	18-Aug-26	18-Feb-28	03-Mar-28	346	735	0%
Pre-Commissioning		60	25-Nov-27	03-Mar-28	07-Dec-26	19-Mar-27	-233	122	
ST3-PCO-1020	Commission - Dam Instrumentation	5	25-Nov-27	01-Dec-27	07-Dec-26	11-Dec-26	-236	177	0%
ST3-PCO-1000	Commission - Outlet Tower Works	5	25-Jan-28	01-Feb-28	09-Feb-27	15-Feb-27	-234	34	0%
ST3-PCO-1040	Commission - Ogee Basin Drainage	5	28-Feb-28	03-Mar-28	15-Mar-27	19-Mar-27	-233	122	0%
Commissioning		32	16-Sep-28	17-Oct-28	01-Oct-27	01-Nov-27	-351	24	
ST3-COM-1000	Commissioning - Performance Monitoring [30d]	30	16-Sep-28	15-Oct-28	01-Oct-27	30-Oct-27	-351	24	0%
ST3-COM-1020	Commissioning - Develop + Submit Commissioning Reports	21	27-Sep-28	17-Oct-28	12-Oct-27	01-Nov-27	-351	24	0%
Demobilisation		107	14-Jun-28	24-Nov-28	20-Apr-27	13-Dec-27	-213	67	
ST3-DEM-1000	Demobilise - Remove Temporary Sheet Piling	40	14-Jun-28	10-Aug-28	20-Apr-27	17-Jun-27	-261	57	0%
ST3-DEM-1020	Demobilise - Demobilise from Site	40	25-Sep-28	24-Nov-28	13-Oct-27	13-Dec-27	-213	67	0%
Hand Over Inspections		2	22-Mar-29	23-Mar-29	06-Apr-28	07-Apr-28	-232	0	
ST3-HOI-1000	Hand Over Inspections - Undertake Preliminary Inspections prior to Practical Completion	2	22-Mar-29	23-Mar-29	06-Apr-28	07-Apr-28	-232	0	0%
STAGE 4 - REINSTATEMENT AND CLOSE OUT		186	25-Sep-28	22-Nov-29	13-Oct-27	07-Dec-28	-152	0	
Reinstatement		29	25-Sep-28	24-Nov-28	13-Oct-27	13-Dec-27	-151	156	
ST4-1000	Reinstate - Remove & Reinstate Temporary Facilities	40	25-Sep-28	24-Nov-28	13-Oct-27	13-Dec-27	-213	67	0%
ST4-1140	Reinstate - Contour & Cap Spoil Disposal Area	12	09-Nov-28	24-Nov-28	26-Nov-27	13-Dec-27	-231	240	0%
ST4-1160	Reinstate - Remove & Reinstate Access Roads	10	13-Nov-28	24-Nov-28	30-Nov-27	13-Dec-27	-231	240	0%
ST4-1120	Reinstate - Contour & Rehabilitate Scout Camp Borrow Area	8	15-Nov-28	24-Nov-28	02-Dec-27	13-Dec-27	-231	240	0%
Close Out		175	18-Oct-28	22-Nov-29	02-Nov-27	07-Dec-28	-152	0	
ST4-1020	Close Out - Develop & Submit - As-Built Drawings	60	18-Oct-28	24-Jan-29	02-Nov-27	09-Feb-28	-233	41	0%
ST4-1040	Close Out - Develop & Submit - As-Built Survey	60	18-Oct-28	24-Jan-29	02-Nov-27	09-Feb-28	-233	41	0%
ST4-1060	Close Out - Develop & Submit - Punch List	60	18-Oct-28	24-Jan-29	02-Nov-27	09-Feb-28	-233	41	0%
ST4-1080	Close Out - Develop & Submit - Completion Report	60	18-Oct-28	24-Jan-29	02-Nov-27	09-Feb-28	-233	41	0%
ST4-1100	Close Out - Develop & Submit - Final As-Constructed Programme	60	18-Oct-28	24-Jan-29	02-Nov-27	09-Feb-28	-233	41	0%
ST4-1180	Close Out - Undertake Handover Inspections prior to Project Closeout	1	22-Nov-29	22-Nov-29	07-Dec-28	07-Dec-28	-350	0	0%
Programme Changes		867	03-Jul-24 A	22-Nov-29				0	



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JOHN HOLLAND

Appendix D

John Holland Heavy Vehicle Data

LAKE MACDONALD DAM IMPROVEMENT PROJECT - HV VOLUME STUDY

WORKS	TRUCK TYPE	UNIT	QUANTITY	TOTAL NO OF HV	START DATE	END DATE	MONTHS	NUMBER OF WEEKS	DAYS OF WORK	TOTAL WORK DAYS	DAILY NO OF HV - TWO WAY	START TIME	END TIME	SCHOOL RESTRICTED	DAILY HOURS	HOURLY FLOW (TWO-WAY)	HOURLY FLOW (TWO-WAY) ROUNDED	ROUTE	SITE ACCESS
GENERAL SITE RUNNING																			
Daily Deliveries - Consumables etc	Rigid Truck 15t	no	2	2	01-Mar-25	22-Nov-29	57.57	246.71	5	1234	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Daily Deliveries - Consumables etc	Semi Trailer	no	1	1	01-Mar-25	22-Nov-29	57.57	246.71	5	1234	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Cooroy Noosa Rd/Elm/LMD	Collwood Rd
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	57.57	246.71	5	1234	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	57.57	246.71	5	1234	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Cooroy Noosa Rd/Elm/LMD	Collwood Rd
PHASE 1 SITE SET UP - EARLY WORKS																			
P&E Mobilisation - TGS	Semi trailer	no	10	10	21-Oct-24	06-Nov-24	0.53	2.29	5	11	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Hardstands and Laydown Areas	Truck and Trailer 30t	t	14,000	467	01-Nov-24	10-Feb-25	3.37	14.43	5	72	14	6:30:00 AM	5:00:00 PM	NO	10.50	1.33	2	Bruce/Elm/LMD	Collwood Rd
Hardstands and Laydown Areas	Truck and Trailer 30t	t	1,000	34	01-Nov-24	10-Feb-25	3.37	14.43	5	72	2	6:30:00 AM	5:00:00 PM	NO	10.50	0.19	1	Bruce/Elm/LMD	Hardstand 3
Site Facility Set up and mobilisation -TGS	Semi trailer	no	50	50	19-Nov-24	20-Dec-24	1.03	4.43	5	22	6	6:30:00 AM	5:00:00 PM	YES	7.83	0.77	1	Bruce/Elm/LMD	Collwood Rd
Haul and Access Roads	Truck and Trailer 30t	t	4,765	159	19-Nov-24	10-Feb-25	2.77	11.86	5	59	6	6:30:00 AM	5:00:00 PM	NO	10.50	0.57	1	Bruce/Elm/LMD	Collwood Rd
Tree removal subcontractor - TGS	Semi trailer	no	20	20	01-Nov-24	10-Dec-24	1.30	5.57	5	28	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Reservoir lowering - material deliveries - TGS (20M TRAILER)	Semi trailer	no	15	15	10-Dec-24	20-Jan-25	1.37	5.86	5	29	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Reservoir lowering - pipe welding mobilisation - TGS	Semi trailer	no	10	10	05-Dec-24	10-Dec-24	0.17	0.71	5	4	6	6:30:00 AM	5:00:00 PM	YES	7.83	0.77	1	Bruce/Elm/LMD	Collwood Rd
UPSTREAM COFFERDAM																			
P&E Mobilisation	Semi trailer	no	15	15	01-Mar-25	01-Apr-25	1.03	4.43	5	22	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	01-Apr-25	1.03	4.43	5	22	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Hardstand 3
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	01-Mar-25	01-Apr-25	1.03	4.43	5	22	6	6:30:00 AM	5:00:00 PM	YES	7.83	0.77	1	Bruce/Elm/LMD	Collwood Rd
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	01-Mar-25	01-Apr-25	1.03	4.43	5	22	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Hardstand 3
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	01-Feb-25	01-Sep-25	7.07	30.29	5	151	22	6:30:00 AM	5:00:00 PM	NO	10.50	2.10	3	Bruce/Elm/LMD	Collwood Rd
Rock deliveries	Truck and Trailer 30t	t	8,597	287	01-Feb-25	01-Sep-25	7.07	30.29	5	151	4	6:30:00 AM	5:00:00 PM	NO	10.50	0.38	1	Bruce/Elm/LMD	Hardstand 3
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	4.10	17.57	5	88	10	6:30:00 AM	5:00:00 PM	NO	10.50	0.95	1	Bruce/Elm/LMD	Collwood Rd
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	4.10	17.57	5	88	10	6:30:00 AM	5:00:00 PM	NO	10.50	0.95	1	Bruce/Elm/LMD	Hardstand 3
P&E Demobilisation	Semi trailer	no	15	15	27-Sep-25	19-Oct-25	0.73	3.14	5	16	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
P&E Demobilisation	Semi trailer	no	5	5	27-Sep-25	19-Oct-25	0.73	3.14	5	16	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Hardstand 3
PHASE 2 SITE SET UP																			
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	10-Mar-25	0.30	1.29	5	6	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Hardstands and Laydown Areas	Truck and Trailer 30t	t	8,773	293	01-Mar-25	15-Apr-25	1.50	6.43	5	32	20	6:30:00 AM	5:00:00 PM	NO	10.50	1.90	2	Bruce/Elm/LMD	Collwood Rd
Haul and Access Roads	Truck and Trailer 30t	t	2,000	67	01-Mar-25	15-Apr-25	1.50	6.43	5	32	6	6:30:00 AM	5:00:00 PM	NO	10.50	0.57	1	Bruce/Elm/LMD	Collwood Rd
Fencing subcontractor	Semi trailer	no	50	50	02-May-25	15-Jun-25	1.47	6.29	5	31	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Collwood Rd
Batch plant establishment	Semi trailer	no	25	25	24-Jun-25	25-Jul-25	1.03	4.43	5	22	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Collwood Rd
P&E Demobilisation	Semi trailer	no	15	15	15-May-25	25-Jul-25	2.37	10.14	5	51	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
U/S AND D/S CUT OFF WALL																			
P&E Mobilisation	Semi trailer	no	3	3	10-Jun-25	22-Jun-25	0.40	1.71	5	9	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Sheetpiling - Subcontractor	Semi trailer	no	25	25	23-Jun-25	02-Sep-25	2.37	10.14	5	51	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
P&E Demobilisation	Semi trailer	no	3	3	02-Sep-25	20-Sep-25	0.60	2.57	5	13	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
SPILLWAY DEMOLITION/WORKING PLATFORM																			
P&E Mobilisation	Semi trailer	no	12	12	15-Feb-26	01-Mar-26	0.47	2.00	5	10	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Collwood Rd
Working platform material deliveries	Truck and Trailer 30t	t	1,500	50	20-Mar-26	23-Apr-26	1.13	4.86	6	29	4	6:30:00 AM	5:00:00 PM	NO	10.50	0.38	1	Bruce/Elm/LMD	Collwood Rd
P&E Demobilisation	Semi trailer	no	12	12	06-May-26	15-May-26	0.30	1.29	5	6	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Collwood Rd
DAM CONSTRUCTION																			
Geotechnical Investigation Subcontractor - Mob	Semi trailer	no	3	3	01-May-26	06-May-26	0.17	0.71	5	4	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Geotechnical Investigation Subcontractor - Demob	Semi trailer	no	3	3	26-May-26	02-Jun-26	0.23	1.00	5	5	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Secant Piling Subcontractor - Mob	Semi trailer	no	30	30	15-May-26	02-Jun-26	0.60	2.57	5	13	6	6:30:00 AM	5:00:00 PM	YES	7.83	0.77	1	Bruce/Elm/LMD	Collwood Rd
Secant Piling Subcontractor - Demob	Semi trailer	no	30	30	03-Jun-27	15-Jun-27	0.40	1.71	5	9	8	6:30:00 AM	5:00:00 PM	YES	7.83	1.02	2	Bruce/Elm/LMD	Collwood Rd
Secant Piling Subcontractor - Cage Deliveries	Semi trailer	no	260	260	15-May-26	01-Apr-27	10.70	45.86	5	229	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Collwood Rd
Secant Piling Subcontractor - Concrete deliveries	6m3 agitator	m3	8,610	1,435	20-May-26	08-Jun-27	12.80	54.86	5	274	12	6:30:00 AM	5:00:00 PM	NO	10.50	1.14	2	Cooroy Noosa Rd/Elm/LMD	Collwood Rd
Cell excavation - Mob	Semi trailer	no	12	12	01-Sep-26	15-Sep-26	0.47	2.00	5	10	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Collwood Rd
Cell excavation - Demob	Semi trailer	no	12	12	23-Oct-27	05-Nov-27	0.43	1.86	5	9	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Collwood Rd
Capping beam - Reo deliveries	Semi trailer	t	325	16	15-Sep-26	06-Apr-27	6.77	29.00	5	145	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Capping beam - Concrete deliveries	6m3 agitator	m3	1,140	190	10-Oct-26	06-Aug-27	10.00	42.86	5	214	2	6:30:00 AM	5:00:00 PM	NO	10.50	0.19	1	Cooroy Noosa Rd/Elm/LMD	Collwood Rd
Mass concrete - Mob	Semi trailer	no	25	25	05-Jan-27	01-Feb-27	0.90	3.86	5	19	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Collwood Rd
Mass concrete - Cement and flyash for batch plant	Cement Silo - 50t	t	6,294	126	05-Jan-27	01-Apr-28	15.07	64.57	5	323	2	6:30:00 AM	5:00:00 PM	NO	10.50	0.19	1	Bruce/Elm/LMD	Collwood Rd
Mass concrete - Aggregate and sand	Truck and Trailer 30t	t	59,514	1,984	05-Jan-27	01-Apr-28	15.07	64.57	5	323	14	6:30:00 AM	5:00:00 PM	NO	10.50	1.33	2	Bruce/Elm/LMD	Collwood Rd
Mass concrete - Demob	Semi trailer	no	25	25	17-Jan-28	01-Apr-28	2.50	10.71	5	54	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Foundation Grouting SC - Mob	Semi trailer	no	12	12	20-Mar-27	05-Apr-27	0.53	2.29	5	11	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Collwood Rd
Foundation Grouting SC - Demob	Semi trailer	no	12	12	10-Feb-28	20-Feb-28	0.33	1.43	5	7	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Collwood Rd
OUTLET TOWER WORKS																			
FRP - Reo deliveries	Semi trailer	t	38	2	15-Feb-27	01-Mar-27	0.47	2.00	5	10	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
FRP - Concrete delieveries	6m3 agitator	m3	331	56	15-Mar-27	24-Sep-27	6.43	27.57	5	138	2	6:30:00 AM	5:00:00 PM	NO	10.50	0.19	1	Bruce/Elm/LMD	Collwood Rd
M&E Deliverables	Semi trailer	no	30	30	01-Sep-27	01-Nov-27	2.03	8.71	5	44	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
EROSION PROTECTION																			
Material deliveries	Truck and Trailer 30t	t	34,254	1,142	01-Feb-28	15-Jul-28	5.50	23.57	5	118	20	6:30:00 AM	5:00:00 PM	NO	10.50	1.90	2	Bruce/Elm/LMD	Collwood Rd
SPILLWAY WORKS																			
FRP - Reo Deliveries	Semi trailer	t	500	25	02-May-27	02-May-28	12.20	52.29	5	261	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
FRP - Concrete delieveries	6m3 agitator	m3	2,499	417	02-May-27	02-May-28	12.20	52.29	5	261	4	6:30:00 AM	5:00:00 PM	NO	10.50	0.38	1	Cooroy Noosa Rd/Elm/LMD	Collwood Rd
LEFT EMBANKMENT																			
Material Deliveries	Truck and Trailer 30t	t	26,497	884	02-May-27	17-Oct-27	5.60	24.0	5	120	16	6:30:00 AM	5:00:00 PM	YES	7.83	2.04	3	Bruce/Elm/LMD	Hardstand 3
Shear walls	6m3 agitator	m3	443	74	11-May-27	01-Jul-27	1.70	7.3	5	36	6	6:30:00 AM	5:00:00 PM	NO	10.50	0.57	1	Cooroy Noosa Rd/Elm/LMD	Hardstand 3
RIGHT EMBANKMENT																			
Material Deliveries	Truck and Trailer 30t	t	37,398	1,247	07-Dec-27	30-Aug-28	8.90	38.1	5	191	14	6:30:00 AM	5:00:00 PM	YES	7.83	1.79	2	Bruce/Elm/LMD	Collwood Rd
Cut off walls and shear walls	6m3 agitator	m3	3,339	557	08-Jun-26	17-Jan-27	7.43	31.9	5	159	8	6:30:00 AM	5:00:00 PM	NO	10.50	0.76	1	Cooroy Noosa Rd/Elm/LMD	Collwood Rd
LOWER OGEE																			
FRP - Reo deliveries	Semi trailer	t	1,103	55	04-Jan-28	02-Jun-28	5.00	21.4	5	107	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
FRP - Concrete delieveries	6m3 agitator	m3	5,514	919	02-Feb-28	02-Aug-28	6.07	26.0	5	130	16	6:30:00 AM	5:00:00 PM	NO	10.50	1.52	2	Cooroy Noosa Rd/Elm/LMD	Collwood Rd
UPPER LABYRINTH																			
FRP - Reo deliveries	Semi trailer	t	566	28	02-Sep-27	03-Jun-28	9.17	39.3	5	196	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
FRP - Concrete delieveries	6m3 agitator	m3	2,830	472	02-Sep-27	03-Jun-28	9.17	39.3	5	196	6	6:30:00 AM	5:00:00 PM	NO	10.50	0.57	1	Cooroy Noosa Rd/Elm/LMD	Collwood Rd
SADDLE DAM																			
FRP - Concrete delieveries	6m3 agitator	m3	402	67	02-Nov-26	21-Dec-26	1.63	7.0	5	35	4	6:30:00 AM	5:00:00 PM	NO	10.50	0.38	1	Cooroy Noosa Rd/Elm/LMD	Collwood Rd
SEQWATER PERMANENT FACILITIES																			
Building SC - Covered under main site facilities	Semi trailer	no	25	25	06-Sep-27	03-Feb-28	5.00	21.4	5	107	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
REMOVAL OF UCD																			
P&E Demobilisation	Semi trailer	no	15	15	01-Aug-28	07-Aug-28	0.20	0.9	5	4	8	6:30:00 AM	5:00:00 PM	YES	7.83	1.02	2	Bruce/Elm/LMD	Collwood Rd
P&E Demobilisation	Semi trailer	no	5	5	01-Aug-28	07-Aug-28	0.20	0.9	5	4	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Hardstand 3
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	07-Aug-28	10-Jan-29	5.20	22.3	5	111	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	07-Aug-28	10-Jan-29	5.20	22.3	5	111	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Hardstand 3
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	07-Aug-28	28-Feb-29	6.83	29.3	5	146	24	6:30:00 AM	5:00:00 PM	YES	7.83	3.06	4	Bruce/Elm/LMD	Collwood Rd
Rock deliveries	Truck and Trailer 30t	t	8,597	287	07-Aug-28	28-Feb-29	6.83	29.3	5	146	4	6:30:00 AM	5:00:00 PM	YES	7.83	0.51	1	Bruce/Elm/LMD	Hardstand 3
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	6.83	29.3	5	146	6	6:30:00 AM	5:00:00 PM	YES	7.83	0.77	1	Bruce/Elm/LMD	Collwood Rd
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	6.83	29.3	5	146	6	6:30:00 AM	5:00:00 PM	YES	7.83	0.77	1	Bruce/Elm/LMD	Hardstand 3
P&E Demobilisation	Semi trailer	no	15	15	05-Nov-28	28-Feb-29	3.83	16.4	5	82	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
P&E Demobilisation	Semi trailer	no	5	5	05-Nov-28	28-Feb-29	3.83	16.4	5	82	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Hardstand 3
DEMOBILISATION																			
Site Demob	Semi trailer	no	50	50	28-Jan-29	22-Nov-29	9.93	42.6	5	213	2	6:30:00 AM	5:00:00 PM	YES	7.83	0.26	1	Bruce/Elm/LMD	Collwood Rd
Total Daily HV Volume (two-way)				**17,074**															

LAKE MACDONALD DAM IMPROVEMENT PROJECT - HV VOLUME STUDY

							2024				2025								
							NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
							01-Nov-24	01-Dec-24	01-Jan-25	01-Feb-25	01-Mar-25	01-Apr-25	01-May-25	01-Jun-25	01-Jul-25	01-Aug-25	01-Sep-25	01-Oct-25	01-Nov-25
WORKS	**TRUCK TYPE**	**UNIT**	**QUANTITY**	**TOTAL NO OF HV**	***START DATE***	***END DATE***													
GENERAL SITE RUNNING																			
Daily Deliveries - Consumables etc	Rigid Truck 15t	no	2	2	01-Mar-25	22-Nov-29	0	0	0	0	2	2	2	2	2	2	2	2	2
Daily Deliveries - Consumables etc	Semi Trailer	no	1	1	01-Mar-25	22-Nov-29	0	0	0	0	2	2	2	2	2	2	2	2	2
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	0	0	0	0	2	2	2	2	2	2	2	2	2
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	0	0	0	0	2	2	2	2	2	2	2	2	2
PHASE 1 SITE SET UP - EARLY WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation - TGS	Semi trailer	no	10	10	21-Oct-24	06-Nov-24	2	0	0	0	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	14,000	467	01-Nov-24	10-Feb-25	14	14	14	14	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	1,000	34	01-Nov-24	10-Feb-25	2	2	2	2	0	0	0	0	0	0	0	0	0
Site Facility Set up and mobilisation -TGS	Semi trailer	no	50	50	19-Nov-24	20-Dec-24	6	6	0	0	0	0	0	0	0	0	0	0	0
Haul and Access Roads	Truck and Trailer 30t	t	4,765	159	19-Nov-24	10-Feb-25	6	6	6	6	0	0	0	0	0	0	0	0	0
Tree removal subcontractor - TGS	Semi trailer	no	20	20	01-Nov-24	10-Dec-24	2	2	0	0	0	0	0	0	0	0	0	0	0
Reservoir lowering - material deliveries - TGS (20M TRAILER)	Semi trailer	no	15	15	10-Dec-24	20-Jan-25	0	2	2	0	0	0	0	0	0	0	0	0	0
Reservoir lowering - pipe welding mobilisation - TGS	Semi trailer	no	10	10	05-Dec-24	10-Dec-24	0	6	0	0	0	0	0	0	0	0	0	0	0
UPSTREAM COFFERDAM							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	15	15	01-Mar-25	01-Apr-25	0	0	0	0	2	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	01-Apr-25	0	0	0	0	2	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	01-Mar-25	01-Apr-25	0	0	0	0	6	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	01-Mar-25	01-Apr-25	0	0	0	0	2	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	01-Feb-25	01-Sep-25	0	0	0	22	22	22	22	22	22	22	0	0	0
Rock deliveries	Truck and Trailer 30t	t	8,597	287	01-Feb-25	01-Sep-25	0	0	0	4	4	4	4	4	4	4	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	0	0	0	0	0	0	10	10	10	10	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	0	0	0	0	0	0	10	10	10	10	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	27-Sep-25	19-Oct-25	0	0	0	0	0	0	0	0	0	0	2	2	0
P&E Demobilisation	Semi trailer	no	5	5	27-Sep-25	19-Oct-25	0	0	0	0	0	0	0	0	0	0	2	2	0
PHASE 2 SITE SET UP							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	10-Mar-25	0	0	0	0	2	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	8,773	293	01-Mar-25	15-Apr-25	0	0	0	0	18	18	0	0	0	0	0	0	0
Haul and Access Roads	Truck and Trailer 30t	t	2,000	67	01-Mar-25	15-Apr-25	0	0	0	0	6	6	0	0	0	0	0	0	0
Fencing subcontractor	Semi trailer	no	50	50	02-May-25	15-Jun-25	0	0	0	0	0	0	4	4	0	0	0	0	0
Batch plant establishment	Semi trailer	no	25	25	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0	4	4	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	15-May-25	25-Jul-25	0	0	0	0	0	0	2	2	2	0	0	0	0
U/S AND D/S CUT OFF WALL							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	3	3	10-Jun-25	22-Jun-25	0	0	0	0	0	0	0	2	0	0	0	0	0
Sheetpiling - Subcontractor	Semi trailer	no	25	25	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0	2	2	2	2	0	0
P&E Demobilisation	Semi trailer	no	3	3	02-Sep-25	20-Sep-25	0	0	0	0	0	0	0	0	0	0	2	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	12	12	15-Feb-26	01-Mar-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Working platform material deliveries	Truck and Trailer 30t	t	1,500	50	20-Mar-26	23-Apr-26	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	12	12	06-May-26	15-May-26	0	0	0	0	0	0	0	0	0	0	0	0	0
DAM CONSTRUCTION							0	0	0	0	0	0	0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor - Mob	Semi trailer	no	3	3	01-May-26	06-May-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor - Demob	Semi trailer	no	3	3	26-May-26	02-Jun-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Mob	Semi trailer	no	30	30	15-May-26	02-Jun-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Demob	Semi trailer	no	30	30	03-Jun-27	15-Jun-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Cage Deliveries	Semi trailer	no	260	260	15-May-26	01-Apr-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Concrete deliveries	6m3 agitator	m3	8,610	1,435	20-May-26	08-Jun-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Cell excavation - Mob	Semi trailer	no	12	12	01-Sep-26	15-Sep-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Cell excavation - Demob	Semi trailer	no	12	12	23-Oct-27	05-Nov-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Capping beam - Reo deliveries	Semi trailer	t	325	16	15-Sep-26	06-Apr-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Capping beam - Concrete deliveries	6m3 agitator	m3	1,140	190	10-Oct-26	06-Aug-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Mob	Semi trailer	no	25	25	05-Jan-27	01-Feb-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Cement and flyash for batch plant	Cement Silo - 50t	t	6,294	126	05-Jan-27	01-Apr-28	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Aggregate and sand	Truck and Trailer 30t	t	59,514	1,984	05-Jan-27	01-Apr-28	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Demob	Semi trailer	no	25	25	17-Jan-28	01-Apr-28	0	0	0	0	0	0	0	0	0	0	0	0	0
Foundation Grouting SC - Mob	Semi trailer	no	12	12	20-Mar-27	05-Apr-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Foundation Grouting SC - Demob	Semi trailer	no	12	12	10-Feb-28	20-Feb-28	0	0	0	0	0	0	0	0	0	0	0	0	0
OUTLET TOWER WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	38	2	15-Feb-27	01-Mar-27	0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	331	56	15-Mar-27	24-Sep-27	0	0	0	0	0	0	0	0	0	0	0	0	0
M&E Deliverables	Semi trailer	no	30	30	01-Sep-27	01-Nov-27	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION PROTECTION							0	0	0	0	0	0	0	0	0	0	0	0	0
Material deliveries	Truck and Trailer 30t	t	34,254	1,142	01-Feb-28	15-Jul-28	0	0	0	0	0	0	0	0	0	0	0	0	0
SPILLWAY WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo Deliveries	Semi trailer	t	500	25	02-May-27	02-May-28	0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	2,499	417	02-May-27	02-May-28	0	0	0	0	0	0	0	0	0	0	0	0	0
LEFT EMBANKMENT							0	0	0	0	0	0	0	0	0	0	0	0	0
Material Deliveries	Truck and Trailer 30t	t	26,497	884	02-May-27	17-Oct-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Shear walls	6m3 agitator	m3	443	74	11-May-27	01-Jul-27	0	0	0	0	0	0	0	0	0	0	0	0	0
RIGHT EMBANKMENT							0	0	0	0	0	0	0	0	0	0	0	0	0
Material Deliveries	Truck and Trailer 30t	t	37,398	1,247	07-Dec-27	30-Aug-28	0	0	0	0	0	0	0	0	0	0	0	0	0
Cut off walls and shear walls	6m3 agitator	m3	3,339	557	08-Jun-26	17-Jan-27	0	0	0	0	0	0	0	0	0	0	0	0	0
LOWER OGEE							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	1,103	55	04-Jan-28	02-Jun-28	0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	5,514	919	02-Feb-28	02-Aug-28	0	0	0	0	0	0	0	0	0	0	0	0	0
UPPER LABYRINTH							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	566	28	02-Sep-27	03-Jun-28	0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	2,830	472	02-Sep-27	03-Jun-28	0	0	0	0	0	0	0	0	0	0	0	0	0
SADDLE DAM							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	402	67	02-Nov-26	21-Dec-26	0	0	0	0	0	0	0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES							0	0	0	0	0	0	0	0	0	0	0	0	0
Building SC - Covered under main site facilities	Semi trailer	no	25	25	06-Sep-27	03-Feb-28	0	0	0	0	0	0	0	0	0	0	0	0	0
REMOVAL OF UCD							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	01-Aug-28	07-Aug-28	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	01-Aug-28	07-Aug-28	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	07-Aug-28	10-Jan-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	07-Aug-28	10-Jan-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	8,597	287	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	05-Nov-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	05-Nov-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
DEMOBILISATION							0	0	0	0	0	0	0	0	0	0	0	0	0
Site Demob	Semi trailer	no	50	50	28-Jan-29	22-Nov-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily HV Volume (two-way)				**17,074**			**32**	**38**	**24**	**48**	**72**	**58**	**60**	**68**	**62**	**56**	**16**	**12**	**8**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - HV VOLUME STUDY

2026

WORKS	TRUCK TYPE	UNIT	QUANTITY	TOTAL NO OF HV	*START DATE*	*END DATE*	DEC 01-Dec-25	JAN 01-Jan-26	FEB 01-Feb-26	MAR 01-Mar-26	APR 01-Apr-26	MAY 01-May-26	JUN 01-Jun-26	JUL 01-Jul-26	AUG 01-Aug-26	SEP 01-Sep-26	OCT 01-Oct-26	NOV 01-Nov-26	DEC 01-Dec-26
GENERAL SITE RUNNING																			
Daily Deliveries - Consumables etc	Rigid Truck 15t	no	2	2	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
Daily Deliveries - Consumables etc	Semi Trailer	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
PHASE 1 SITE SET UP - EARLY WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation - TGS	Semi trailer	no	10	10	21-Oct-24	06-Nov-24	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	14,000	467	01-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	1,000	34	01-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Facility Set up and mobilisation -TGS	Semi trailer	no	50	50	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0	0	0	0	0	0	0
Haul and Access Roads	Truck and Trailer 30t	t	4,765	159	19-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Tree removal subcontractor - TGS	Semi trailer	no	20	20	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0	0	0	0	0	0	0
Reservoir lowering - material deliveries - TGS (20M TRAILER)	Semi trailer	no	15	15	10-Dec-24	20-Jan-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Reservoir lowering - pipe welding mobilisation - TGS	Semi trailer	no	10	10	05-Dec-24	10-Dec-24	0	0	0	0	0	0	0	0	0	0	0	0	0
UPSTREAM COFFERDAM							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	15	15	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	01-Feb-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	8,597	287	01-Feb-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	27-Sep-25	19-Oct-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	27-Sep-25	19-Oct-25	0	0	0	0	0	0	0	0	0	0	0	0	0
PHASE 2 SITE SET UP							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	10-Mar-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	8,773	293	01-Mar-25	15-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Haul and Access Roads	Truck and Trailer 30t	t	2,000	67	01-Mar-25	15-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Fencing subcontractor	Semi trailer	no	50	50	02-May-25	15-Jun-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Batch plant establishment	Semi trailer	no	25	25	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	15-May-25	25-Jul-25	0	0	0	0	0	0	0	0	0	0	0	0	0
U/S AND D/S CUT OFF WALL							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	3	3	10-Jun-25	22-Jun-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpiling - Subcontractor	Semi trailer	no	25	25	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	3	3	02-Sep-25	20-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	12	12	15-Feb-26	01-Mar-26	0	0	4	0	0	0	0	0	0	0	0	0	0
Working platform material deliveries	Truck and Trailer 30t	t	1,500	50	20-Mar-26	23-Apr-26	0	0	0	6	6	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	12	12	06-May-26	15-May-26	0	0	0	0	0	4	0	0	0	0	0	0	0
DAM CONSTRUCTION							0	0	0	0	0	0	0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor - Mob	Semi trailer	no	3	3	01-May-26	06-May-26	0	0	0	0	0	2	0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor - Demob	Semi trailer	no	3	3	26-May-26	02-Jun-26	0	0	0	0	0	2	2	0	0	0	0	0	0
Secant Piling Subcontractor - Mob	Semi trailer	no	30	30	15-May-26	02-Jun-26	0	0	0	0	0	6	6	0	0	0	0	0	0
Secant Piling Subcontractor - Demob	Semi trailer	no	30	30	03-Jun-27	15-Jun-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Cage Deliveries	Semi trailer	no	260	260	15-May-26	01-Apr-27	0	0	0	0	0	4	4	4	4	4	4	4	4
Secant Piling Subcontractor - Concrete deliveries	6m3 agitator	m3	8,610	1,435	20-May-26	08-Jun-27	0	0	0	0	0	12	12	12	12	12	12	12	12
Cell excavation - Mob	Semi trailer	no	12	12	01-Sep-26	15-Sep-26	0	0	0	0	0	0	0	0	0	4	0	0	0
Cell excavation - Demob	Semi trailer	no	12	12	23-Oct-27	05-Nov-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Capping beam - Reo deliveries	Semi trailer	t	325	16	15-Sep-26	06-Apr-27	0	0	0	0	0	0	0	0	0	2	2	2	2
Capping beam - Concrete deliveries	6m3 agitator	m3	1,140	190	10-Oct-26	06-Aug-27	0	0	0	0	0	0	0	0	0	0	2	2	2
Mass concrete - Mob	Semi trailer	no	25	25	05-Jan-27	01-Feb-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Cement and flyash for batch plant	Cement Silo - 50t	t	6,294	126	05-Jan-27	01-Apr-28	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Aggregate and sand	Truck and Trailer 30t	t	59,514	1,984	05-Jan-27	01-Apr-28	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Demob	Semi trailer	no	25	25	17-Jan-28	01-Apr-28	0	0	0	0	0	0	0	0	0	0	0	0	0
Foundation Grouting SC - Mob	Semi trailer	no	12	12	20-Mar-27	05-Apr-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Foundation Grouting SC - Demob	Semi trailer	no	12	12	10-Feb-28	20-Feb-28	0	0	0	0	0	0	0	0	0	0	0	0	0
OUTLET TOWER WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	38	2	15-Feb-27	01-Mar-27	0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	331	56	15-Mar-27	24-Sep-27	0	0	0	0	0	0	0	0	0	0	0	0	0
M&E Deliverables	Semi trailer	no	30	30	01-Sep-27	01-Nov-27	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION PROTECTION							0	0	0	0	0	0	0	0	0	0	0	0	0
Material deliveries	Truck and Trailer 30t	t	34,254	1,142	01-Feb-28	15-Jul-28	0	0	0	0	0	0	0	0	0	0	0	0	0
SPILLWAY WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo Deliveries	Semi trailer	t	500	25	02-May-27	02-May-28	0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	2,499	417	02-May-27	02-May-28	0	0	0	0	0	0	0	0	0	0	0	0	0
LEFT EMBANKMENT							0	0	0	0	0	0	0	0	0	0	0	0	0
Material Deliveries	Truck and Trailer 30t	t	26,497	884	02-May-27	17-Oct-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Shear walls	6m3 agitator	m3	443	74	11-May-27	01-Jul-27	0	0	0	0	0	0	0	0	0	0	0	0	0
RIGHT EMBANKMENT							0	0	0	0	0	0	0	0	0	0	0	0	0
Material Deliveries	Truck and Trailer 30t	t	37,398	1,247	07-Dec-27	30-Aug-28	0	0	0	0	0	0	0	0	0	0	0	0	0
Cut off walls and shear walls	6m3 agitator	m3	3,339	557	08-Jun-26	17-Jan-27	0	0	0	0	0	0	8	8	8	8	8	8	8
LOWER OGEE							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	1,103	55	04-Jan-28	02-Jun-28	0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	5,514	919	02-Feb-28	02-Aug-28	0	0	0	0	0	0	0	0	0	0	0	0	0
UPPER LABYRINTH							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	566	28	02-Sep-27	03-Jun-28	0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	2,830	472	02-Sep-27	03-Jun-28	0	0	0	0	0	0	0	0	0	0	0	0	0
SADDLE DAM							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	402	67	02-Nov-26	21-Dec-26	0	0	0	0	0	0	0	0	0	0	0	4	4
SEQWATER PERMANENT FACILITIES							0	0	0	0	0	0	0	0	0	0	0	0	0
Building SC - Covered under main site facilities	Semi trailer	no	25	25	06-Sep-27	03-Feb-28	0	0	0	0	0	0	0	0	0	0	0	0	0
REMOVAL OF UCD							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	01-Aug-28	07-Aug-28	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	01-Aug-28	07-Aug-28	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	07-Aug-28	10-Jan-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	07-Aug-28	10-Jan-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	8,597	287	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	05-Nov-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	05-Nov-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
DEMOBILISATION							0	0	0	0	0	0	0	0	0	0	0	0	0
Site Demob	Semi trailer	no	50	50	28-Jan-29	22-Nov-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily HV Volume (two-way)				**17,074**			**8**	**8**	**12**	**14**	**14**	**38**	**40**	**32**	**32**	**38**	**36**	**40**	**40**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - HV VOLUME STUDY

WORKS	TRUCK TYPE	UNIT	QUANTITY	TOTAL NO OF HV	START DATE	END DATE	2027												
							JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
							01-Jan-27	01-Feb-27	01-Mar-27	01-Apr-27	01-May-27	01-Jun-27	01-Jul-27	01-Aug-27	01-Sep-27	01-Oct-27	01-Nov-27	01-Dec-27	01-Jan-28
GENERAL SITE RUNNING																			
Daily Deliveries - Consumables etc	Rigid Truck 15t	no	2	2	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
Daily Deliveries - Consumables etc	Semi Trailer	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
PHASE 1 SITE SET UP - EARLY WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation - TGS	Semi trailer	no	10	10	21-Oct-24	06-Nov-24	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	14,000	467	01-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	1,000	34	01-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Facility Set up and mobilisation -TGS	Semi trailer	no	50	50	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0	0	0	0	0	0	0
Haul and Access Roads	Truck and Trailer 30t	t	4,765	159	19-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Tree removal subcontractor - TGS	Semi trailer	no	20	20	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0	0	0	0	0	0	0
Reservoir lowering - material deliveries - TGS (20M TRAILER)	Semi trailer	no	15	15	10-Dec-24	20-Jan-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Reservoir lowering - pipe welding mobilisation - TGS	Semi trailer	no	10	10	05-Dec-24	10-Dec-24	0	0	0	0	0	0	0	0	0	0	0	0	0
UPSTREAM COFFERDAM							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	15	15	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	01-Feb-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	8,597	287	01-Feb-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	27-Sep-25	19-Oct-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	27-Sep-25	19-Oct-25	0	0	0	0	0	0	0	0	0	0	0	0	0
PHASE 2 SITE SET UP							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	10-Mar-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	8,773	293	01-Mar-25	15-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Haul and Access Roads	Truck and Trailer 30t	t	2,000	67	01-Mar-25	15-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Fencing subcontractor	Semi trailer	no	50	50	02-May-25	15-Jun-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Batch plant establishment	Semi trailer	no	25	25	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	15-May-25	25-Jul-25	0	0	0	0	0	0	0	0	0	0	0	0	0
U/S AND D/S CUT OFF WALL							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	3	3	10-Jun-25	22-Jun-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpiling - Subcontractor	Semi trailer	no	25	25	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	3	3	02-Sep-25	20-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilaition	Semi trailer	no	12	12	15-Feb-26	01-Mar-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Working platform material deliveries	Truck and Trailer 30t	t	1,500	50	20-Mar-26	23-Apr-26	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	12	12	06-May-26	15-May-26	0	0	0	0	0	0	0	0	0	0	0	0	0
DAM CONSTRUCTION							0	0	0	0	0	0	0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor - Mob	Semi trailer	no	3	3	01-May-26	06-May-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor - Demob	Semi trailer	no	3	3	26-May-26	02-Jun-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Mob	Semi trailer	no	30	30	15-May-26	02-Jun-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Demob	Semi trailer	no	30	30	03-Jun-27	15-Jun-27	0	0	0	0	0	8	0	0	0	0	0	0	0
Secant Piling Subcontractor - Cage Deliveries	Semi trailer	no	260	260	15-May-26	01-Apr-27	4	4	4	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Concrete deliveries	6m3 agitator	m3	8,610	1,435	20-May-26	08-Jun-27	12	12	12	12	12	12	0	0	0	0	0	0	0
Cell excavation - Mob	Semi trailer	no	12	12	01-Sep-26	15-Sep-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Cell excavation - Demob	Semi trailer	no	12	12	23-Oct-27	05-Nov-27	0	0	0	0	0	0	0	0	0	4	4	0	0
Capping beam - Reo deliveries	Semi trailer	t	325	16	15-Sep-26	06-Apr-27	2	2	2	2	0	0	0	0	0	0	0	0	0
Capping beam - Concrete deliveries	6m3 agitator	m3	1,140	190	10-Oct-26	06-Aug-27	2	2	2	2	2	2	2	2	0	0	0	0	0
Mass concrete - Mob	Semi trailer	no	25	25	05-Jan-27	01-Feb-27	4	0	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Cement and flyash for batch plant	Cement Silo - 50t	t	6,294	126	05-Jan-27	01-Apr-28	2	2	2	2	2	2	2	2	2	2	2	2	2
Mass concrete - Aggregate and sand	Truck and Trailer 30t	t	59,514	1,984	05-Jan-27	01-Apr-28	12	12	12	12	12	12	12	12	12	12	12	12	12
Mass concrete - Demob	Semi trailer	no	25	25	17-Jan-28	01-Apr-28	0	0	0	0	0	0	0	0	0	0	0	0	2
Foundation Grouting SC - Mob	Semi trailer	no	12	12	20-Mar-27	05-Apr-27	0	0	4	4	0	0	0	0	0	0	0	0	0
Foundation Grouting SC - Demob	Semi trailer	no	12	12	10-Feb-28	20-Feb-28	0	0	0	0	0	0	0	0	0	0	0	0	0
OUTLET TOWER WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	38	2	15-Feb-27	01-Mar-27	0	2	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	331	56	15-Mar-27	24-Sep-27	0	0	2	2	2	2	2	2	2	0	0	0	0
M&E Deliverables	Semi trailer	no	30	30	01-Sep-27	01-Nov-27	0	0	0	0	0	0	0	0	2	2	0	0	0
EROSION PROTECTION							0	0	0	0	0	0	0	0	0	0	0	0	0
Material deliveries	Truck and Trailer 30t	t	34,254	1,142	01-Feb-28	15-Jul-28	0	0	0	0	0	0	0	0	0	0	0	0	0
SPILLWAY WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo Deliveries	Semi trailer	t	500	25	02-May-27	02-May-28	0	0	0	0	2	2	2	2	2	2	2	2	2
FRP - Concrete delieveries	6m3 agitator	m3	2,499	417	02-May-27	02-May-28	0	0	0	0	4	4	4	4	4	4	4	4	4
LEFT EMBANKMENT							0	0	0	0	0	0	0	0	0	0	0	0	0
Material Deliveries	Truck and Trailer 30t	t	26,497	884	02-May-27	17-Oct-27	0	0	0	0	16	16	16	16	16	16	0	0	0
Shear walls	6m3 agitator	m3	443	74	11-May-27	01-Jul-27	0	0	0	0	4	4	0	0	0	0	0	0	0
RIGHT EMBANKMENT							0	0	0	0	0	0	0	0	0	0	0	0	0
Material Deliveries	Truck and Trailer 30t	t	37,398	1,247	07-Dec-27	30-Aug-28	0	0	0	0	0	0	0	0	0	0	0	14	14
Cut off walls and shear walls	6m3 agitator	m3	3,339	557	08-Jun-26	17-Jan-27	8	0	0	0	0	0	0	0	0	0	0	0	0
LOWER OGEE							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	1,103	55	04-Jan-28	02-Jun-28	0	0	0	0	0	0	0	0	0	0	0	0	2
FRP - Concrete delieveries	6m3 agitator	m3	5,514	919	02-Feb-28	02-Aug-28	0	0	0	0	0	0	0	0	0	0	0	0	0
UPPER LABYRINTH							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	566	28	02-Sep-27	03-Jun-28	0	0	0	0	0	0	0	0	2	2	2	2	2
FRP - Concrete delieveries	6m3 agitator	m3	2,830	472	02-Sep-27	03-Jun-28	0	0	0	0	0	0	0	0	6	6	6	6	6
SADDLE DAM							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	402	67	02-Nov-26	21-Dec-26	0	0	0	0	0	0	0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES							0	0	0	0	0	0	0	0	0	0	0	0	0
Building SC - Covered under main site facilities	Semi trailer	no	25	25	06-Sep-27	03-Feb-28	0	0	0	0	0	0	0	0	2	2	2	2	2
REMOVAL OF UCD							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	01-Aug-28	07-Aug-28	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	01-Aug-28	07-Aug-28	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	07-Aug-28	10-Jan-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	07-Aug-28	10-Jan-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	8,597	287	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	05-Nov-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	05-Nov-28	28-Feb-29	0	0	0	0	0	0	0	0	0	0	0	0	0
DEMOBILISATION							0	0	0	0	0	0	0	0	0	0	0	0	0
Site Demob	Semi trailer	no	50	50	28-Jan-29	22-Nov-29	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Daily HV Volume (two-way)				**17,074**			**54**	**44**	**48**	**44**	**64**	**72**	**48**	**48**	**58**	**60**	**42**	**52**	**56**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - HV VOLUME STUDY

							2028												
							FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB
							01-Feb-28	01-Mar-28	01-Apr-28	01-May-28	01-Jun-28	01-Jul-28	01-Aug-28	01-Sep-28	01-Oct-28	01-Nov-28	01-Dec-28	01-Jan-29	01-Feb-29
WORKS	**TRUCK TYPE**	**UNIT**	**QUANTITY**	**TOTAL NO OF HV**	***START DATE***	***END DATE***													
GENERAL SITE RUNNING																			
Daily Deliveries - Consumables etc	Rigid Truck 15t	no	2	2	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
Daily Deliveries - Consumables etc	Semi Trailer	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2	2	2	2	2
PHASE 1 SITE SET UP - EARLY WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation - TGS	Semi trailer	no	10	10	21-Oct-24	06-Nov-24	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	14,000	467	01-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	1,000	34	01-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Facility Set up and mobilisation -TGS	Semi trailer	no	50	50	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0	0	0	0	0	0	0
Haul and Access Roads	Truck and Trailer 30t	t	4,765	159	19-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Tree removal subcontractor - TGS	Semi trailer	no	20	20	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0	0	0	0	0	0	0
Reservoir lowering - material deliveries - TGS (20M TRAILER)	Semi trailer	no	15	15	10-Dec-24	20-Jan-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Reservoir lowering - pipe welding mobilisation - TGS	Semi trailer	no	10	10	05-Dec-24	10-Dec-24	0	0	0	0	0	0	0	0	0	0	0	0	0
UPSTREAM COFFERDAM							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	15	15	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	01-Feb-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	8,597	287	01-Feb-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	27-Sep-25	19-Oct-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	27-Sep-25	19-Oct-25	0	0	0	0	0	0	0	0	0	0	0	0	0
PHASE 2 SITE SET UP							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	10-Mar-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	8,773	293	01-Mar-25	15-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Haul and Access Roads	Truck and Trailer 30t	t	2,000	67	01-Mar-25	15-Apr-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Fencing subcontractor	Semi trailer	no	50	50	02-May-25	15-Jun-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Batch plant establishment	Semi trailer	no	25	25	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	15-May-25	25-Jul-25	0	0	0	0	0	0	0	0	0	0	0	0	0
U/S AND D/S CUT OFF WALL							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	3	3	10-Jun-25	22-Jun-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheetpiling - Subcontractor	Semi trailer	no	25	25	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	3	3	02-Sep-25	20-Sep-25	0	0	0	0	0	0	0	0	0	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	12	12	15-Feb-26	01-Mar-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Working platform material deliveries	Truck and Trailer 30t	t	1,500	50	20-Mar-26	23-Apr-26	0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	12	12	06-May-26	15-May-26	0	0	0	0	0	0	0	0	0	0	0	0	0
DAM CONSTRUCTION							0	0	0	0	0	0	0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor - Mob	Semi trailer	no	3	3	01-May-26	06-May-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor - Demob	Semi trailer	no	3	3	26-May-26	02-Jun-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Mob	Semi trailer	no	30	30	15-May-26	02-Jun-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Demob	Semi trailer	no	30	30	03-Jun-27	15-Jun-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Cage Deliveries	Semi trailer	no	260	260	15-May-26	01-Apr-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Concrete deliveries	6m3 agitator	m3	8,610	1,435	20-May-26	08-Jun-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Cell excavation - Mob	Semi trailer	no	12	12	01-Sep-26	15-Sep-26	0	0	0	0	0	0	0	0	0	0	0	0	0
Cell excavation - Demob	Semi trailer	no	12	12	23-Oct-27	05-Nov-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Capping beam - Reo deliveries	Semi trailer	t	325	16	15-Sep-26	06-Apr-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Capping beam - Concrete deliveries	6m3 agitator	m3	1,140	190	10-Oct-26	06-Aug-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Mob	Semi trailer	no	25	25	05-Jan-27	01-Feb-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Cement and flyash for batch plant	Cement Silo - 50t	t	6,294	126	05-Jan-27	01-Apr-28	2	2	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Aggregate and sand	Truck and Trailer 30t	t	59,514	1,984	05-Jan-27	01-Apr-28	12	12	0	0	0	0	0	0	0	0	0	0	0
Mass concrete - Demob	Semi trailer	no	25	25	17-Jan-28	01-Apr-28	2	2	0	0	0	0	0	0	0	0	0	0	0
Foundation Grouting SC - Mob	Semi trailer	no	12	12	20-Mar-27	05-Apr-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Foundation Grouting SC - Demob	Semi trailer	no	12	12	10-Feb-28	20-Feb-28	4	0	0	0	0	0	0	0	0	0	0	0	0
OUTLET TOWER WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	38	2	15-Feb-27	01-Mar-27	0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	331	56	15-Mar-27	24-Sep-27	0	0	0	0	0	0	0	0	0	0	0	0	0
M&E Deliverables	Semi trailer	no	30	30	01-Sep-27	01-Nov-27	0	0	0	0	0	0	0	0	0	0	0	0	0
EROSION PROTECTION							0	0	0	0	0	0	0	0	0	0	0	0	0
Material deliveries	Truck and Trailer 30t	t	34,254	1,142	01-Feb-28	15-Jul-28	20	20	20	20	20	20	0	0	0	0	0	0	0
SPILLWAY WORKS							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo Deliveries	Semi trailer	t	500	25	02-May-27	02-May-28	2	2	2	2	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	2,499	417	02-May-27	02-May-28	4	4	4	4	0	0	0	0	0	0	0	0	0
LEFT EMBANKMENT							0	0	0	0	0	0	0	0	0	0	0	0	0
Material Deliveries	Truck and Trailer 30t	t	26,497	884	02-May-27	17-Oct-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Shear walls	6m3 agitator	m3	443	74	11-May-27	01-Jul-27	0	0	0	0	0	0	0	0	0	0	0	0	0
RIGHT EMBANKMENT							0	0	0	0	0	0	0	0	0	0	0	0	0
Material Deliveries	Truck and Trailer 30t	t	37,398	1,247	07-Dec-27	30-Aug-28	14	14	14	14	14	14	14	0	0	0	0	0	0
Cut off walls and shear walls	6m3 agitator	m3	3,339	557	08-Jun-26	17-Jan-27	0	0	0	0	0	0	0	0	0	0	0	0	0
LOWER OGEE							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	1,103	55	04-Jan-28	02-Jun-28	2	2	2	2	2	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	5,514	919	02-Feb-28	02-Aug-28	14	14	14	14	14	14	14	0	0	0	0	0	0
UPPER LABYRINTH							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	566	28	02-Sep-27	03-Jun-28	2	2	2	2	2	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	2,830	472	02-Sep-27	03-Jun-28	6	6	6	6	6	0	0	0	0	0	0	0	0
SADDLE DAM							0	0	0	0	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	402	67	02-Nov-26	21-Dec-26	0	0	0	0	0	0	0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES							0	0	0	0	0	0	0	0	0	0	0	0	0
Building SC - Covered under main site facilities	Semi trailer	no	25	25	06-Sep-27	03-Feb-28	2	0	0	0	0	0	0	0	0	0	0	0	0
REMOVAL OF UCD							0	0	0	0	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	01-Aug-28	07-Aug-28	0	0	0	0	0	0	8	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	01-Aug-28	07-Aug-28	0	0	0	0	0	0	4	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	07-Aug-28	10-Jan-29	0	0	0	0	0	0	2	2	2	2	2	2	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	07-Aug-28	10-Jan-29	0	0	0	0	0	0	2	2	2	2	2	2	0
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	07-Aug-28	28-Feb-29	0	0	0	0	0	0	22	22	22	22	22	22	22
Rock deliveries	Truck and Trailer 30t	t	8,597	287	07-Aug-28	28-Feb-29	0	0	0	0	0	0	4	4	4	4	4	4	4
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	0	0	0	0	0	0	6	6	6	6	6	6	6
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	0	0	0	0	0	0	6	6	6	6	6	6	6
P&E Demobilisation	Semi trailer	no	15	15	05-Nov-28	28-Feb-29	0	0	0	0	0	0	0	0	0	2	2	2	2
P&E Demobilisation	Semi trailer	no	5	5	05-Nov-28	28-Feb-29	0	0	0	0	0	0	0	0	0	2	2	2	2
DEMOBILISATION							0	0	0	0	0	0	0	0	0	0	0	0	0
Site Demob	Semi trailer	no	50	50	28-Jan-29	22-Nov-29	0	0	0	0	0	0	0	0	0	0	0	2	2
Total Daily HV Volume (two-way)				**17,074**			**94**	**88**	**72**	**72**	**66**	**56**	**90**	**50**	**50**	**54**	**54**	**56**	**52**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - HV VOLUME STUDY

							2029								
							MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
							01-Mar-29	01-Apr-29	01-May-29	01-Jun-29	01-Jul-29	01-Aug-29	01-Sep-29	01-Oct-29	01-Nov-29
WORKS	**TRUCK TYPE**	**UNIT**	**QUANTITY**	**TOTAL NO OF HV**	***START DATE***	***END DATE***									
GENERAL SITE RUNNING															
Daily Deliveries - Consumables etc	Rigid Truck 15t	no	2	2	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2
Daily Deliveries - Consumables etc	Semi Trailer	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2
Daily Deliveries - Fuel	Fuel Truck	no	1	1	01-Mar-25	22-Nov-29	2	2	2	2	2	2	2	2	2
PHASE 1 SITE SET UP - EARLY WORKS							0	0	0	0	0	0	0	0	0
P&E Mobilisation - TGS	Semi trailer	no	10	10	21-Oct-24	06-Nov-24	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	14,000	467	01-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	1,000	34	01-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0
Site Facility Set up and mobilisation -TGS	Semi trailer	no	50	50	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0	0	0
Haul and Access Roads	Truck and Trailer 30t	t	4,765	159	19-Nov-24	10-Feb-25	0	0	0	0	0	0	0	0	0
Tree removal subcontractor - TGS	Semi trailer	no	20	20	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0	0	0
Reservoir lowering - material deliveries - TGS (20M TRAILER)	Semi trailer	no	15	15	10-Dec-24	20-Jan-25	0	0	0	0	0	0	0	0	0
Reservoir lowering - pipe welding mobilisation - TGS	Semi trailer	no	10	10	05-Dec-24	10-Dec-24	0	0	0	0	0	0	0	0	0
UPSTREAM COFFERDAM							0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	15	15	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	01-Mar-25	01-Apr-25	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	01-Feb-25	01-Sep-25	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	8,597	287	01-Feb-25	01-Sep-25	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	01-May-25	01-Sep-25	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	27-Sep-25	19-Oct-25	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	27-Sep-25	19-Oct-25	0	0	0	0	0	0	0	0	0
PHASE 2 SITE SET UP							0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	5	5	01-Mar-25	10-Mar-25	0	0	0	0	0	0	0	0	0
Hardstands and Laydown Areas	Truck and Trailer 30t	t	8,773	293	01-Mar-25	15-Apr-25	0	0	0	0	0	0	0	0	0
Haul and Access Roads	Truck and Trailer 30t	t	2,000	67	01-Mar-25	15-Apr-25	0	0	0	0	0	0	0	0	0
Fencing subcontractor	Semi trailer	no	50	50	02-May-25	15-Jun-25	0	0	0	0	0	0	0	0	0
Batch plant establishment	Semi trailer	no	25	25	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	15-May-25	25-Jul-25	0	0	0	0	0	0	0	0	0
U/S AND D/S CUT OFF WALL							0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	3	3	10-Jun-25	22-Jun-25	0	0	0	0	0	0	0	0	0
Sheetpiling - Subcontractor	Semi trailer	no	25	25	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	3	3	02-Sep-25	20-Sep-25	0	0	0	0	0	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM							0	0	0	0	0	0	0	0	0
P&E Mobilisation	Semi trailer	no	12	12	15-Feb-26	01-Mar-26	0	0	0	0	0	0	0	0	0
Working platform material deliveries	Truck and Trailer 30t	t	1,500	50	20-Mar-26	23-Apr-26	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	12	12	06-May-26	15-May-26	0	0	0	0	0	0	0	0	0
DAM CONSTRUCTION							0	0	0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor - Mob	Semi trailer	no	3	3	01-May-26	06-May-26	0	0	0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor - Demob	Semi trailer	no	3	3	26-May-26	02-Jun-26	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Mob	Semi trailer	no	30	30	15-May-26	02-Jun-26	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Demob	Semi trailer	no	30	30	03-Jun-27	15-Jun-27	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Cage Deliveries	Semi trailer	no	260	260	15-May-26	01-Apr-27	0	0	0	0	0	0	0	0	0
Secant Piling Subcontractor - Concrete deliveries	6m3 agitator	m3	8,610	1,435	20-May-26	08-Jun-27	0	0	0	0	0	0	0	0	0
Cell excavation - Mob	Semi trailer	no	12	12	01-Sep-26	15-Sep-26	0	0	0	0	0	0	0	0	0
Cell excavation - Demob	Semi trailer	no	12	12	23-Oct-27	05-Nov-27	0	0	0	0	0	0	0	0	0
Capping beam - Reo deliveries	Semi trailer	t	325	16	15-Sep-26	06-Apr-27	0	0	0	0	0	0	0	0	0
Capping beam - Concrete deliveries	6m3 agitator	m3	1,140	190	10-Oct-26	06-Aug-27	0	0	0	0	0	0	0	0	0
Mass concrete - Mob	Semi trailer	no	25	25	05-Jan-27	01-Feb-27	0	0	0	0	0	0	0	0	0
Mass concrete - Cement and flyash for batch plant	Cement Silo - 50t	t	6,294	126	05-Jan-27	01-Apr-28	0	0	0	0	0	0	0	0	0
Mass concrete - Aggregate and sand	Truck and Trailer 30t	t	59,514	1,984	05-Jan-27	01-Apr-28	0	0	0	0	0	0	0	0	0
Mass concrete - Demob	Semi trailer	no	25	25	17-Jan-28	01-Apr-28	0	0	0	0	0	0	0	0	0
Foundation Grouting SC - Mob	Semi trailer	no	12	12	20-Mar-27	05-Apr-27	0	0	0	0	0	0	0	0	0
Foundation Grouting SC - Demob	Semi trailer	no	12	12	10-Feb-28	20-Feb-28	0	0	0	0	0	0	0	0	0
OUTLET TOWER WORKS							0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	38	2	15-Feb-27	01-Mar-27	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	331	56	15-Mar-27	24-Sep-27	0	0	0	0	0	0	0	0	0
M&E Deliverables	Semi trailer	no	30	30	01-Sep-27	01-Nov-27	0	0	0	0	0	0	0	0	0
EROSION PROTECTION							0	0	0	0	0	0	0	0	0
Material deliveries	Truck and Trailer 30t	t	34,254	1,142	01-Feb-28	15-Jul-28	0	0	0	0	0	0	0	0	0
SPILLWAY WORKS							0	0	0	0	0	0	0	0	0
FRP - Reo Deliveries	Semi trailer	t	500	25	02-May-27	02-May-28	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	2,499	417	02-May-27	02-May-28	0	0	0	0	0	0	0	0	0
LEFT EMBANKMENT							0	0	0	0	0	0	0	0	0
Material Deliveries	Truck and Trailer 30t	t	26,497	884	02-May-27	17-Oct-27	0	0	0	0	0	0	0	0	0
Shear walls	6m3 agitator	m3	443	74	11-May-27	01-Jul-27	0	0	0	0	0	0	0	0	0
RIGHT EMBANKMENT							0	0	0	0	0	0	0	0	0
Material Deliveries	Truck and Trailer 30t	t	37,398	1,247	07-Dec-27	30-Aug-28	0	0	0	0	0	0	0	0	0
Cut off walls and shear walls	6m3 agitator	m3	3,339	557	08-Jun-26	17-Jan-27	0	0	0	0	0	0	0	0	0
LOWER OGEE							0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	1,103	55	04-Jan-28	02-Jun-28	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	5,514	919	02-Feb-28	02-Aug-28	0	0	0	0	0	0	0	0	0
UPPER LABYRINTH							0	0	0	0	0	0	0	0	0
FRP - Reo deliveries	Semi trailer	t	566	28	02-Sep-27	03-Jun-28	0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	2,830	472	02-Sep-27	03-Jun-28	0	0	0	0	0	0	0	0	0
SADDLE DAM							0	0	0	0	0	0	0	0	0
FRP - Concrete delieveries	6m3 agitator	m3	402	67	02-Nov-26	21-Dec-26	0	0	0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES							0	0	0	0	0	0	0	0	0
Building SC - Covered under main site facilities	Semi trailer	no	25	25	06-Sep-27	03-Feb-28	0	0	0	0	0	0	0	0	0
REMOVAL OF UCD							0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	01-Aug-28	07-Aug-28	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	01-Aug-28	07-Aug-28	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	50	50	07-Aug-28	10-Jan-29	0	0	0	0	0	0	0	0	0
Sheetpile, tie-bar and waler deliveries	Semi trailer	no	20	20	07-Aug-28	10-Jan-29	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	48,714	1,624	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0
Rock deliveries	Truck and Trailer 30t	t	8,597	287	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0
Rock bag deliveries	Truck and Trailer 30t	no	1,477	369	07-Aug-28	28-Feb-29	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	15	15	05-Nov-28	28-Feb-29	0	0	0	0	0	0	0	0	0
P&E Demobilisation	Semi trailer	no	5	5	05-Nov-28	28-Feb-29	0	0	0	0	0	0	0	0	0
DEMOBILISATION							0	0	0	0	0	0	0	0	0
Site Demob	Semi trailer	no	50	50	28-Jan-29	22-Nov-29	2	2	2	2	2	2	2	2	2
Total Daily HV Volume (two-way)				**17,074**			**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - HV VOLUME STUDY

			2024		2025													
			NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB
			01-Nov-24	01-Dec-24	01-Jan-25	01-Feb-25	01-Mar-25	01-Apr-25	01-May-25	01-Jun-25	01-Jul-25	01-Aug-25	01-Sep-25	01-Oct-25	01-Nov-25	01-Dec-25	01-Jan-26	01-Feb-26
Summaries	maximum	average																
6m3 agitator - NO - Bruce/Elm/LMD	2.0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6m3 agitator - NO - Cooroy Noosa Rd/Elm/LMD	26.0	6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cement Silo - 50t - NO - Bruce/Elm/LMD	2.0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel Truck - YES - Bruce/Elm/LMD	2.0	1.6	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2
Fuel Truck - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2
Rigid Truck 15t - YES - Bruce/Elm/LMD	2.0	1.6	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2
Semi trailer - NO - Bruce/Elm/LMD	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Semi trailer - YES - Bruce/Elm/LMD	18.0	5.2	10	16	2	0	14	0	6	14	8	2	8	4	0	0	0	4
Semi Trailer - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2
Truck and Trailer 30t - NO - Bruce/Elm/LMD	50.0	10.1	22	22	22	48	50	50	46	46	46	46	0	0	0	0	0	0
Truck and Trailer 30t - YES - Bruce/Elm/LMD	52.0	7.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**94.0**	**36.3**	32	38	24	48	72	58	60	68	62	56	16	12	8	8	8	12
Rolling 3-month average - total volumes (two-way)	**84.7**	**36.4**	**17.0**	**24.0**	**31.3**	**36.7**	**48.0**	**59.3**	**63.3**	**62.0**	**63.3**	**62.0**	**44.7**	**28.0**	**12.0**	**9.3**	**8.0**	**9.3**
Reduced during school hrs - northern route	0.0																	
6m3 agitator - NO - Bruce/Elm/LMD	2.0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cement Silo - 50t - NO - Bruce/Elm/LMD	2.0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Semi trailer - NO - Bruce/Elm/LMD	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck and Trailer 30t - NO - Bruce/Elm/LMD	50.0	10.1	22	22	22	48	50	50	46	46	46	46	0	0	0	0	0	0
Sub-total	**50.0**	**10.8**	22	22	22	48	50	50	46	46	46	46	0	0	0	0	0	0
rolling 3month average	**49.3**	**11.0**	**11.0**	**14.7**	**22.0**	**30.7**	**40.0**	**49.3**	**48.7**	**47.3**	**46.0**	**46.0**	**30.7**	**15.3**	**0.0**	**0.0**	**0.0**	**0.0**
Reduced during school hrs - eastern route																		
6m3 agitator - NO - Cooroy Noosa Rd/Elm/LMD	26.0	6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total	26.0	6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rolling 3-month average - total volumes (two-way)	**24.7**	**6.9**	**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**	**0.0**	**0.0**	**0.0**
Restricted during school hrs - northern route	0.0																	
Fuel Truck - YES - Bruce/Elm/LMD	2.0	1.6	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2
Rigid Truck 15t - YES - Bruce/Elm/LMD	2.0	1.6	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2
Semi trailer - YES - Bruce/Elm/LMD	18.0	5.2	10	16	2	0	14	0	6	14	8	2	8	4	0	0	0	4
Truck and Trailer 30t - YES - Bruce/Elm/LMD	52.0	7.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total	**0.0**	**0.0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rolling 3-month average - total volumes (two-way)	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**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														
Restricted during school hrs - eastern route	0.0																	
Fuel Truck - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2
Semi Trailer - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2
Sub-total	4.0	3.3	0	0	0	0	4	4	4	4	4	4	4	4	4	4	4	4
Rolling 3-month average - total volumes (two-way)	**4.0**	**3.3**	**0.0**	**0.0**	**0.0**	**0.0**	**1.3**	**2.7**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**
Total	62.0	21.1	22	38	22	48	54	54	50	50	50	50	4	4	4	4	4	4
Rolling 3-month average - total volumes (two-way)	**57.3**	**21.2**	**12.0**	**20.7**	**27.3**	**36.0**	**41.3**	**52.0**	**52.7**	**51.3**	**50.0**	**50.0**	**34.7**	**19.3**	**4.0**	**4.0**	**4.0**	**4.0**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - HV VOLUME STUDY

			2026															20
			MAR 01-Mar-26	APR 01-Apr-26	MAY 01-May-26	JUN 01-Jun-26	JUL 01-Jul-26	AUG 01-Aug-26	SEP 01-Sep-26	OCT 01-Oct-26	NOV 01-Nov-26	DEC 01-Dec-26	JAN 01-Jan-27	FEB 01-Feb-27	MAR 01-Mar-27	APR 01-Apr-27	MAY 01-May-27	JUN 01-Jun-27
Summaries	maximum	average																
6m3 agitator - NO - Bruce/Elm/LMD	2.0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2
6m3 agitator - NO - Cooroy Noosa Rd/Elm/LMD	26.0	6.9	0	0	12	20	20	20	20	22	26	26	22	14	14	14	22	22
Cement Silo - 50t - NO - Bruce/Elm/LMD	2.0	0.4	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2
Fuel Truck - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Fuel Truck - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Rigid Truck 15t - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Semi trailer - NO - Bruce/Elm/LMD	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Semi trailer - YES - Bruce/Elm/LMD	18.0	5.2	0	0	18	12	4	4	10	6	6	6	10	8	10	6	2	10
Semi Trailer - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Truck and Trailer 30t - NO - Bruce/Elm/LMD	50.0	10.1	6	6	0	0	0	0	0	0	0	0	12	12	12	12	12	12
Truck and Trailer 30t - YES - Bruce/Elm/LMD	52.0	7.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16
Total	**94.0**	**36.3**	14	14	38	40	32	32	38	36	40	40	54	44	48	44	64	72
Rolling 3-month average - total volumes (two-way)	**84.7**	**36.4**	**11.3**	**13.3**	**22.0**	**30.7**	**36.7**	**34.7**	**34.0**	**35.3**	**38.0**	**38.7**	**44.7**	**46.0**	**48.7**	**45.3**	**52.0**	**60.0**
Reduced during school hrs - northern route	0.0																	
6m3 agitator - NO - Bruce/Elm/LMD	2.0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2
Cement Silo - 50t - NO - Bruce/Elm/LMD	2.0	0.4	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2
Semi trailer - NO - Bruce/Elm/LMD	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck and Trailer 30t - NO - Bruce/Elm/LMD	50.0	10.1	6	6	0	0	0	0	0	0	0	0	12	12	12	12	12	12
Sub-total	**50.0**	**10.8**	6	6	0	0	0	0	0	0	0	0	14	14	16	16	16	16
rolling 3month average	**49.3**	**11.0**	**2.0**	**4.0**	**4.0**	**2.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**4.7**	**9.3**	**14.7**	**15.3**	**16.0**	**16.0**
Reduced during school hrs - eastern route																		
6m3 agitator - NO - Cooroy Noosa Rd/Elm/LMD	26.0	6.9	0	0	12	20	20	20	20	22	26	26	22	14	14	14	22	22
Sub-total	26.0	6.9	0	0	12	20	20	20	20	22	26	26	22	14	14	14	22	22
Rolling 3-month average - total volumes (two-way)	**24.7**	**6.9**	**0.0**	**0.0**	**4.0**	**10.7**	**17.3**	**20.0**	**20.0**	**20.7**	**22.7**	**24.7**	**24.7**	**20.7**	**16.7**	**14.0**	**16.7**	**19.3**
Restricted during school hrs - northern route	0.0																	
Fuel Truck - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Rigid Truck 15t - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Semi trailer - YES - Bruce/Elm/LMD	18.0	5.2	0	0	18	12	4	4	10	6	6	6	10	8	10	6	2	10
Truck and Trailer 30t - YES - Bruce/Elm/LMD	52.0	7.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16
Sub-total	**0.0**	**0.0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rolling 3-month average - total volumes (two-way)	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Restricted during school hrs - eastern route	0.0																	
Fuel Truck - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Semi Trailer - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Sub-total	4.0	3.3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Rolling 3-month average - total volumes (two-way)	**4.0**	**3.3**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**
Total	62.0	21.1	10	10	16	24	24	24	24	26	30	30	40	32	34	34	42	42
Rolling 3-month average - total volumes (two-way)	**57.3**	**21.2**	**6.0**	**8.0**	**12.0**	**16.7**	**21.3**	**24.0**	**24.0**	**24.7**	**26.7**	**28.7**	**33.3**	**34.0**	**35.3**	**33.3**	**36.7**	**39.3**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - HV VOLUME STUDY

			27												2028				
			JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
			01-Jul-27	01-Aug-27	01-Sep-27	01-Oct-27	01-Nov-27	01-Dec-27	01-Jan-28	01-Feb-28	01-Mar-28	01-Apr-28	01-May-28	01-Jun-28	01-Jul-28	01-Aug-28	01-Sep-28	01-Oct-28	01-Nov-28
Summaries	maximum	average																	
6m3 agitator - NO - Bruce/Elm/LMD	2.0	0.2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6m3 agitator - NO - Cooroy Noosa Rd/Elm/LMD	26.0	6.9	6	6	10	10	10	10	10	24	24	24	24	20	14	14	0	0	0
Cement Silo - 50t - NO - Bruce/Elm/LMD	2.0	0.4	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0
Fuel Truck - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Fuel Truck - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Rigid Truck 15t - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Semi trailer - NO - Bruce/Elm/LMD	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Semi trailer - YES - Bruce/Elm/LMD	18.0	5.2	2	2	8	12	10	6	10	14	8	6	6	4	0	16	4	4	8
Semi Trailer - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Truck and Trailer 30t - NO - Bruce/Elm/LMD	50.0	10.1	12	12	12	12	12	12	12	32	32	20	20	20	20	0	0	0	0
Truck and Trailer 30t - YES - Bruce/Elm/LMD	52.0	7.0	16	16	16	16	0	14	14	14	14	14	14	14	14	52	38	38	38
Total	**94.0**	**36.3**	48	48	58	60	42	52	56	94	88	72	72	66	56	90	50	50	54
Rolling 3-month average - total volumes (two-way)	**84.7**	**36.4**	**61.3**	**56.0**	**51.3**	**55.3**	**53.3**	**51.3**	**50.0**	**67.3**	**79.3**	**84.7**	**77.3**	**70.0**	**64.7**	**70.7**	**65.3**	**63.3**	**51.3**
Reduced during school hrs - northern route	0.0																		
6m3 agitator - NO - Bruce/Elm/LMD	2.0	0.2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cement Silo - 50t - NO - Bruce/Elm/LMD	2.0	0.4	2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0
Semi trailer - NO - Bruce/Elm/LMD	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck and Trailer 30t - NO - Bruce/Elm/LMD	50.0	10.1	12	12	12	12	12	12	12	32	32	20	20	20	20	0	0	0	0
Sub-total	**50.0**	**10.8**	16	16	16	14	14	14	14	34	34	20	20	20	20	0	0	0	0
rolling 3month average	**49.3**	**11.0**	**16.0**	**16.0**	**16.0**	**15.3**	**14.7**	**14.0**	**14.0**	**20.7**	**27.3**	**29.3**	**24.7**	**20.0**	**20.0**	**13.3**	**6.7**	**0.0**	**0.0**
Reduced during school hrs - eastern route																			
6m3 agitator - NO - Cooroy Noosa Rd/Elm/LMD	26.0	6.9	6	6	10	10	10	10	10	24	24	24	24	20	14	14	0	0	0
Sub-total	26.0	6.9	6	6	10	10	10	10	10	24	24	24	24	20	14	14	0	0	0
Rolling 3-month average - total volumes (two-way)	**24.7**	**6.9**	**16.7**	**11.3**	**7.3**	**8.7**	**10.0**	**10.0**	**10.0**	**14.7**	**19.3**	**24.0**	**24.0**	**22.7**	**19.3**	**16.0**	**9.3**	**4.7**	**0.0**
Restricted during school hrs - northern route	0.0																		
Fuel Truck - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Rigid Truck 15t - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Semi trailer - YES - Bruce/Elm/LMD	18.0	5.2	2	2	8	12	10	6	10	14	8	6	6	4	0	16	4	4	8
Truck and Trailer 30t - YES - Bruce/Elm/LMD	52.0	7.0	16	16	16	16	0	14	14	14	14	14	14	14	14	52	38	38	38
Sub-total	**0.0**	**0.0**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rolling 3-month average - total volumes (two-way)	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Restricted during school hrs - eastern route	0.0																		
Fuel Truck - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Semi Trailer - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Sub-total	4.0	3.3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Rolling 3-month average - total volumes (two-way)	**4.0**	**3.3**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**
Total	62.0	21.1	26	26	30	28	28	28	28	62	62	48	48	44	38	18	4	4	4
Rolling 3-month average - total volumes (two-way)	**57.3**	**21.2**	**36.7**	**31.3**	**27.3**	**28.0**	**28.7**	**28.0**	**28.0**	**39.3**	**50.7**	**57.3**	**52.7**	**46.7**	**43.3**	**33.3**	**20.0**	**8.7**	**4.0**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - HV VOLUME STUDY

									2029					
			DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
			01-Dec-28	01-Jan-29	01-Feb-29	01-Mar-29	01-Apr-29	01-May-29	01-Jun-29	01-Jul-29	01-Aug-29	01-Sep-29	01-Oct-29	01-Nov-29
Summaries	maximum	average												
6m3 agitator - NO - Bruce/Elm/LMD	2.0	0.2	0	0	0	0	0	0	0	0	0	0	0	0
6m3 agitator - NO - Cooroy Noosa Rd/Elm/LMD	26.0	6.9	0	0	0	0	0	0	0	0	0	0	0	0
Cement Silo - 50t - NO - Bruce/Elm/LMD	2.0	0.4	0	0	0	0	0	0	0	0	0	0	0	0
Fuel Truck - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2
Fuel Truck - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2
Rigid Truck 15t - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2
Semi trailer - NO - Bruce/Elm/LMD	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
Semi trailer - YES - Bruce/Elm/LMD	18.0	5.2	8	10	6	2	2	2	2	2	2	2	2	2
Semi Trailer - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2
Truck and Trailer 30t - NO - Bruce/Elm/LMD	50.0	10.1	0	0	0	0	0	0	0	0	0	0	0	0
Truck and Trailer 30t - YES - Bruce/Elm/LMD	52.0	7.0	38	38	38	0	0	0	0	0	0	0	0	0
Total	**94.0**	**36.3**	54	56	52	10	10	10	10	10	10	10	10	10
Rolling 3-month average - total volumes (two-way)	**84.7**	**36.4**	**52.7**	**54.7**	**54.0**	**39.3**	**24.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**	**10.0**
Reduced during school hrs - northern route	0.0													
6m3 agitator - NO - Bruce/Elm/LMD	2.0	0.2	0	0	0	0	0	0	0	0	0	0	0	0
Cement Silo - 50t - NO - Bruce/Elm/LMD	2.0	0.4	0	0	0	0	0	0	0	0	0	0	0	0
Semi trailer - NO - Bruce/Elm/LMD	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0
Truck and Trailer 30t - NO - Bruce/Elm/LMD	50.0	10.1	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total	**50.0**	**10.8**	0	0	0	0	0	0	0	0	0	0	0	0
rolling 3month average	**49.3**	**11.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Reduced during school hrs - eastern route														
6m3 agitator - NO - Cooroy Noosa Rd/Elm/LMD	26.0	6.9	0	0	0	0	0	0	0	0	0	0	0	0
Sub-total	26.0	6.9	0	0	0	0	0	0	0	0	0	0	0	0
Rolling 3-month average - total volumes (two-way)	**24.7**	**6.9**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Restricted during school hrs - northern route	0.0													
Fuel Truck - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2
Rigid Truck 15t - YES - Bruce/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2
Semi trailer - YES - Bruce/Elm/LMD	18.0	5.2	8	10	6	2	2	2	2	2	2	2	2	2
Truck and Trailer 30t - YES - Bruce/Elm/LMD	52.0	7.0	38	38	38	0	0	0	0	0	0	0	0	0
Sub-total	**0.0**	**0.0**	0	0	0	0	0	0	0	0	0	0	0	0
Rolling 3-month average - total volumes (two-way)	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Restricted during school hrs - eastern route	0.0													
Fuel Truck - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2
Semi Trailer - YES - Cooroy Noosa Rd/Elm/LMD	2.0	1.6	2	2	2	2	2	2	2	2	2	2	2	2
Sub-total	4.0	3.3	4	4	4	4	4	4	4	4	4	4	4	4
Rolling 3-month average - total volumes (two-way)	**4.0**	**3.3**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**
Total	62.0	21.1	4	4	4	4	4	4	4	4	4	4	4	4
Rolling 3-month average - total volumes (two-way)	**57.3**	**21.2**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**

Appendix E

John Holland Personal Data

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

	Classification	Weekly paid hours	Number	Start Date	End Date	Total Days	Days of Week	Total Work Days	Arrival Time	Departure Time	2024			
											NOV	DEC	JAN	FEB
											01-Nov-24	01-Dec-24	01-Jan-25	01-Feb-25
Project Staff (white collar)							5		6:00- 6:30 AM	6:00- 6:30 PM	29	29	30	32
Project Workforce (blue collar)							5		5:30- 6:30 AM	5:00- 6:00 PM	4	4	4	4
GENERAL LABOUR														
Mark Omeley - Leading Hand	CW4	48	1	21-Oct-24	22-Nov-29	265.43	5	1327	6:00- 6:30 AM	5:00- 5:15 PM	1	1	1	1
Peter Eisman - Carpenter	CW4	48	1	21-Oct-24	22-Nov-29	265.43	5	1327	6:00- 6:30 AM	5:00- 5:15 PM	1	1	1	1
Concretor 1	CW4	48	1	01-Nov-24	22-Nov-29	263.86	5	1319	6:00- 6:30 AM	5:00- 5:15 PM	1	1	1	1
Plant Operator 1	CW5	48	1	01-Nov-24	22-Nov-29	263.86	5	1319	6:00- 6:30 AM	5:00- 5:15 PM	1	1	1	1
Fish survey and salvage	SC	48	2	15-Jan-25	22-Nov-29	253.14	5	1266	6:00- 6:30 AM	5:00- 5:15 PM	0	0	2	2
Rigger	CW4	48	1	05-Jan-26	05-Jan-29	156.57	5	783	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Crane Operator	CW5	48	1	05-Jan-26	05-Jan-29	156.57	5	783	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Batch Plant Operator	SC	48	2	09-Aug-25	05-Jan-29	177.86	5	889	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
PHASE 1 SITE SET UP - EARLY WORKS											0	0	0	0
Plant Operator - Wet hire	SC	48	3	01-Nov-24	15-Feb-25	15.14	5	76	6:00- 6:30 AM	5:00- 5:15 PM	3	3	3	3
Site facilities subcontractor	SC	48	4	19-Nov-24	20-Dec-24	4.43	5	22	6:00- 6:30 AM	5:00- 5:15 PM	4	4	0	0
Crane Operator - Wet hire	SC	48	1	19-Nov-24	20-Dec-24	4.43	5	22	6:00- 6:30 AM	5:00- 5:15 PM	1	1	0	0
Tree removal subcontractor	SC	48	4	01-Nov-24	10-Dec-24	5.57	5	28	6:00- 6:30 AM	5:00- 5:15 PM	4	4	0	0
Reservoir lowering - subcontractor	SC	48	4	10-Dec-24	20-Feb-25	10.29	5	51	6:00- 6:30 AM	5:00- 5:15 PM	0	4	4	4
UPSTREAM COFFERDAM											0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	06-Apr-25	19-Oct-25	28.00	5	140	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Wet hire	SC	48	8	01-Apr-25	19-Oct-25	28.71	5	144	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Dry hire	CW4	48				0.00	5	0	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Structural worker, Concretor	SC	48	10	04-Aug-25	19-Oct-25	10.86	5	54	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
PHASE 2 SITE SET UP											0	0	0	0
Fencing subcontractor	SC	48	8	02-May-25	15-Jun-25	6.29	5	31	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Batch plant establishment	SC	48	4	24-Jun-25	25-Jul-25	4.43	5	22	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
U/S AND D/S CUT OFF WALL											0	0	0	0
Sheetpiling - Subcontractor	SC	48	6	23-Jun-25	02-Sep-25	10.14	5	51	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM											0	0	0	0
Plant Operator - Wet hire	SC	48	5	20-Mar-26	15-May-26	8.00	5	40	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Welder	SC	48	2	20-Mar-26	15-May-26	8.00	5	40	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Wet hire - n/s	SC	48	5	20-Mar-26	15-May-26	8.00	5	40	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
DAM CONSTRUCTION											0	0	0	0
Geotechnical Investigation Subcontractor	SC	48	6	06-May-26	02-Jun-26	3.86	5	19	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Secant Piling Subcontractor	SC	48	12	02-Jun-26	15-Jun-27	54.00	5	270	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant operator - cell excavation - wet hire	SC	48	6	15-Sep-26	23-Oct-27	57.57	5	288	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Capping beam - FRP	CW4	48	12	21-Sep-25	06-Jul-27	93.29	5	466	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Mass concrete - concretor	CW4	48	12	16-Jan-27	17-Jan-28	52.29	5	261	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Foundation Grouting SC	SC	48	8	05-Apr-27	10-Feb-28	44.43	5	222	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
OUTLET TOWER WORKS						0.00	5	0	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
FRP - Subcontractor	SC	48	8	19-Feb-27	07-Sep-27	28.57	5	143	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Crane Operator - Wet hire	SC	48	1	01-Sep-27	10-Nov-27	10.00	5	50	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Rigger/dogman	SC	48	3	01-Sep-27	10-Nov-27	10.00	5	50	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Mechanical Fitter	SC	48	4	17-Oct-27	07-Jan-28	11.71	5	59	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Electrician	SC	48	6	17-Oct-27	07-Jan-28	11.71	5	59	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
EROSION PROTECTION											0	0	0	0
Plant Operator - Wet hire	SC	48	6	05-Dec-27	27-May-28	24.86	5	124	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Dry hire	CW4	48				0.00	5	0	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
SPILLWAY WORKS											0	0	0	0
FRP - Subcontractor	SC	48	16	26-Apr-27	25-Apr-28	52.14	5	261	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Crane Operator - Wet hire	SC	48	1	26-Apr-27	25-Apr-28	52.14	5	261	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Rigger/dogman	SC	48	2	26-Apr-27	25-Apr-28	52.14	5	261	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
LEFT EMBANKMENT											0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Feb-26	06-Oct-27	83.57	5	418	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Dry hire	CW4	48				0.00	5	0	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
FRP - Subcontractor	SC	48	6	02-Apr-26	02-May-26	4.29	5	21	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

	Classification	Weekly paid hours	Number	Start Date	End Date	Total Days	Days of Week	Total Work Days	Arrival Time	Departure Time	2024			
											NOV	DEC	JAN	FEB
											01-Nov-24	01-Dec-24	01-Jan-25	01-Feb-25
Crane Operator - Wet hire	SC	48	1	02-Apr-26	02-May-26	4.29	5	21	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Rigger/dogman	SC	48	2	02-Apr-26	02-May-26	4.29	5	21	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
RIGHT EMBANKMENT						0.00	5	0	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Wet hire	SC	48	8	30-Aug-27	14-Aug-28	50.00	5	250	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Dry hire	CW4					0.00	5	0	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
FRP - Subcontractor	SC	48	6	08-Jun-26	16-Dec-26	27.29	5	136	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Crane Operator - Wet hire	SC	48	1	08-Jun-26	16-Dec-26	27.29	5	136	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Rigger/dogman	SC	48	2	08-Jun-26	16-Dec-26	27.29	5	136	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
LOWER OGEE											0	0	0	0
FRP - Subcontractor	SC	48	12	24-Jan-28	21-Jun-28	21.29	5	106	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Crane Operator - Wet hire	SC	48	1	24-Jan-28	21-Jun-28	21.29	5	106	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Rigger/dogman	SC	48	2	24-Jan-28	21-Jun-28	21.29	5	106	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
UPPER LABYRINTH											0	0	0	0
FRP - Subcontractor	SC	48	12	29-Aug-27	30-May-28	39.29	5	196	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Crane Operator - Wet hire	SC	48	1	29-Aug-27	30-May-28	39.29	5	196	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Rigger/dogman	SC	48	2	29-Aug-27	30-May-28	39.29	5	196	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
SADDLE DAM											0	0	0	0
Plant Operator - Wet hire	SC	48	8	16-Oct-26	20-Dec-26	9.29	5	46	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Dry hire	CW4	48				0.00	5	0	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
FRP - Subcontractor	SC	48	6	23-Oct-26	12-Dec-26	7.14	5	36	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Crane Operator - Wet hire	SC	48	1	23-Oct-26	12-Dec-26	7.14	5	36	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Rigger/dogman	SC	48	2	23-Oct-26	12-Dec-26	7.14	5	36	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
DAM INSTRUMENTATION											0	0	0	0
Electrician - SC	SC	48	4	24-Oct-27	08-Nov-27	2.14	5	11	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Wet hire	SC	48	2	15-Jun-27	23-Oct-27	18.57	5	93	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Dry hire	CW4	48				0.00	5	0	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
SEQWATER PERMANENT FACILITIES											0	0	0	0
Building SC	SC	48	8	06-Sep-27	03-Feb-28	21.43	5	107	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
COMMISSIONING / PRECOMMISSIONING											0	0	0	0
Mechanical Fitter	SC	48	4	09-Nov-27	30-Sep-28	46.57	5	233	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Electrician	SC	48	4	09-Nov-27	30-Sep-28	46.57	5	233	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
REMOVAL OF UCD											0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	24-Jul-28	24-Oct-28	13.14	5	66	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Wet hire	SC	48	8	24-Jul-28	24-Oct-28	13.14	5	66	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Dry hire	CW4	48				0.00	5	0	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
DEMOBILISATION											0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Nov-28	22-Nov-29	51.29	5	256	6:00- 6:30 AM	5:00- 5:15 PM	0	0	0	0
Plant Operator - Dry hire	CW4	48									0	0	0	0
TOTAL PROJECT WORKFORCE			47								**16**	**20**	**13**	**13**
Sub-Contractor Personal (blue collar)			34								**12**	**16**	**9**	**9**
TOTAL WORKFORCE+STAFF+SUBCONTRACTORS			71								**45**	**49**	**43**	**45**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

	Classification	Weekly paid hours	Number	Start Date	End Date	2025 MAR 01-Mar-25	APR 01-Apr-25	MAY 01-May-25	JUN 01-Jun-25	JUL 01-Jul-25	AUG 01-Aug-25	SEP 01-Sep-25
Project Staff (white collar)						31	30	30	30	31	31	31
Project Workforce (blue collar)						4	4	4	4	4	4	16
GENERAL LABOUR												
Mark Omeley - Leading Hand	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Peter Eisman - Carpenter	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Concretor 1	CW4	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Plant Operator 1	CW5	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Fish survey and salvage	SC	48	2	15-Jan-25	22-Nov-29	2	2	2	2	2	2	2
Rigger	CW4	48	1	05-Jan-26	05-Jan-29	0	0	0	0	0	0	0
Crane Operator	CW5	48	1	05-Jan-26	05-Jan-29	0	0	0	0	0	0	0
Batch Plant Operator	SC	48	2	09-Aug-25	05-Jan-29	0	0	0	0	0	2	2
PHASE 1 SITE SET UP - EARLY WORKS						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	3	01-Nov-24	15-Feb-25	0	0	0	0	0	0	0
Site facilities subcontractor	SC	48	4	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Tree removal subcontractor	SC	48	4	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0
Reservoir lowering - subcontractor	SC	48	4	10-Dec-24	20-Feb-25	0	0	0	0	0	0	0
UPSTREAM COFFERDAM						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	06-Apr-25	19-Oct-25	0	12	12	12	12	12	12
Plant Operator - Wet hire	SC	48	8	01-Apr-25	19-Oct-25	0	8	8	8	8	8	8
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
Structural worker, Concretor	SC	48	10	04-Aug-25	19-Oct-25	0	0	0	0	0	10	10
PHASE 2 SITE SET UP						0	0	0	0	0	0	0
Fencing subcontractor	SC	48	8	02-May-25	15-Jun-25	0	0	8	8	0	0	0
Batch plant establishment	SC	48	4	24-Jun-25	25-Jul-25	0	0	0	4	4	0	0
U/S AND D/S CUT OFF WALL						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	6	23-Jun-25	02-Sep-25	0	0	0	6	6	6	6
SPILLWAY DEMOLITION/WORKING PLATFORM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Welder	SC	48	2	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Plant Operator - Wet hire - n/s	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
DAM CONSTRUCTION						0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor	SC	48	6	06-May-26	02-Jun-26	0	0	0	0	0	0	0
Secant Piling Subcontractor	SC	48	12	02-Jun-26	15-Jun-27	0	0	0	0	0	0	0
Plant operator - cell excavation - wet hire	SC	48	6	15-Sep-26	23-Oct-27	0	0	0	0	0	0	0
Capping beam - FRP	CW4	48	12	21-Sep-25	06-Jul-27	0	0	0	0	0	0	12
Mass concrete - concretor	CW4	48	12	16-Jan-27	17-Jan-28	0	0	0	0	0	0	0
Foundation Grouting SC	SC	48	8	05-Apr-27	10-Feb-28	0	0	0	0	0	0	0
OUTLET TOWER WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	8	19-Feb-27	07-Sep-27	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Rigger/dogman	SC	48	3	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
Electrician	SC	48	6	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
EROSION PROTECTION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	6	05-Dec-27	27-May-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SPILLWAY WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	16	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
LEFT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Feb-26	06-Oct-27	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	02-Apr-26	02-May-26	0	0	0	0	0	0	0

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

						2025						
						MAR	APR	MAY	JUN	JUL	AUG	SEP
						01-Mar-25	01-Apr-25	01-May-25	01-Jun-25	01-Jul-25	01-Aug-25	01-Sep-25
	Classification	Weekly paid hours	Number	Start Date	End Date							
Crane Operator - Wet hire	SC	48	1	02-Apr-26	02-May-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	02-Apr-26	02-May-26	0	0	0	0	0	0	0
RIGHT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	30-Aug-27	14-Aug-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4					0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
LOWER OGEE						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
UPPER LABYRINTH						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	29-Aug-27	30-May-28	0	0	0	0	0	0	0
SADDLE DAM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	16-Oct-26	20-Dec-26	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
DAM INSTRUMENTATION						0	0	0	0	0	0	0
Electrician - SC	SC	48	4	24-Oct-27	08-Nov-27	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	2	15-Jun-27	23-Oct-27	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES						0	0	0	0	0	0	0
Building SC	SC	48	8	06-Sep-27	03-Feb-28	0	0	0	0	0	0	0
COMMISSIONING / PRECOMMISSIONING						0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	0	0	0
Electrician	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	0	0	0
REMOVAL OF UCD						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
DEMOBILISATION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Nov-28	22-Nov-29	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
TOTAL PROJECT WORKFORCE			47			**6**	**26**	**34**	**44**	**36**	**44**	**56**
Sub-Contractor Personal (blue collar)			34			**2**	**22**	**30**	**40**	**32**	**40**	**40**
TOTAL WORKFORCE+STAFF+SUBCONTRACTORS			71			**37**	**56**	**64**	**74**	**67**	**75**	**87**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

	Classification	Weekly paid hours	Number	Start Date	End Date	OCT 01-Oct-25	NOV 01-Nov-25	DEC 01-Dec-25	JAN 01-Jan-26	FEB 01-Feb-26	MAR 01-Mar-26	APR 01-Apr-26
Project Staff (white collar)						31	31	34	34	33	33	35
Project Workforce (blue collar)						16	16	16	18	18	18	18
GENERAL LABOUR												
Mark Omeley - Leading Hand	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Peter Eisman - Carpenter	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Concretor 1	CW4	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Plant Operator 1	CW5	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Fish survey and salvage	SC	48	2	15-Jan-25	22-Nov-29	2	2	2	2	2	2	2
Rigger	CW4	48	1	05-Jan-26	05-Jan-29	0	0	0	1	1	1	1
Crane Operator	CW5	48	1	05-Jan-26	05-Jan-29	0	0	0	1	1	1	1
Batch Plant Operator	SC	48	2	09-Aug-25	05-Jan-29	2	2	2	2	2	2	2
PHASE 1 SITE SET UP - EARLY WORKS						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	3	01-Nov-24	15-Feb-25	0	0	0	0	0	0	0
Site facilities subcontractor	SC	48	4	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Tree removal subcontractor	SC	48	4	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0
Reservoir lowering - subcontractor	SC	48	4	10-Dec-24	20-Feb-25	0	0	0	0	0	0	0
UPSTREAM COFFERDAM						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	06-Apr-25	19-Oct-25	12	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	01-Apr-25	19-Oct-25	8	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
Structural worker, Concretor	SC	48	10	04-Aug-25	19-Oct-25	10	0	0	0	0	0	0
PHASE 2 SITE SET UP						0	0	0	0	0	0	0
Fencing subcontractor	SC	48	8	02-May-25	15-Jun-25	0	0	0	0	0	0	0
Batch plant establishment	SC	48	4	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0
U/S AND D/S CUT OFF WALL						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	6	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	5	5
Welder	SC	48	2	20-Mar-26	15-May-26	0	0	0	0	0	2	2
Plant Operator - Wet hire - n/s	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	5	5
DAM CONSTRUCTION						0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor	SC	48	6	06-May-26	02-Jun-26	0	0	0	0	0	0	0
Secant Piling Subcontractor	SC	48	12	02-Jun-26	15-Jun-27	0	0	0	0	0	0	0
Plant operator - cell excavation - wet hire	SC	48	6	15-Sep-26	23-Oct-27	0	0	0	0	0	0	0
Capping beam - FRP	CW4	48	12	21-Sep-25	06-Jul-27	12	12	12	12	12	12	12
Mass concrete - concretor	CW4	48	12	16-Jan-27	17-Jan-28	0	0	0	0	0	0	0
Foundation Grouting SC	SC	48	8	05-Apr-27	10-Feb-28	0	0	0	0	0	0	0
OUTLET TOWER WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	8	19-Feb-27	07-Sep-27	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Rigger/dogman	SC	48	3	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
Electrician	SC	48	6	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
EROSION PROTECTION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	6	05-Dec-27	27-May-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SPILLWAY WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	16	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
LEFT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Feb-26	06-Oct-27	0	0	0	0	8	8	8
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	02-Apr-26	02-May-26	0	0	0	0	0	0	6

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

	Classification	Weekly paid hours	Number	Start Date	End Date	OCT 01-Oct-25	NOV 01-Nov-25	DEC 01-Dec-25	JAN 01-Jan-26	FEB 01-Feb-26	MAR 01-Mar-26	APR 01-Apr-26
Crane Operator - Wet hire	SC	48	1	02-Apr-26	02-May-26	0	0	0	0	0	0	1
Rigger/dogman	SC	48	2	02-Apr-26	02-May-26	0	0	0	0	0	0	2
RIGHT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	30-Aug-27	14-Aug-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4					0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
LOWER OGEE						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
UPPER LABYRINTH						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	29-Aug-27	30-May-28	0	0	0	0	0	0	0
SADDLE DAM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	16-Oct-26	20-Dec-26	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
DAM INSTRUMENTATION						0	0	0	0	0	0	0
Electrician - SC	SC	48	4	24-Oct-27	08-Nov-27	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	2	15-Jun-27	23-Oct-27	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES						0	0	0	0	0	0	0
Building SC	SC	48	8	06-Sep-27	03-Feb-28	0	0	0	0	0	0	0
COMMISSIONING / PRECOMMISSIONING						0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	0	0	0
Electrician	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	0	0	0
REMOVAL OF UCD						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
DEMOBILISATION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Nov-28	22-Nov-29	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
TOTAL PROJECT WORKFORCE			47			**50**	**20**	**20**	**22**	**30**	**42**	**51**
Sub-Contractor Personal (blue collar)			34			**34**	**4**	**4**	**4**	**12**	**24**	**33**
TOTAL WORKFORCE+STAFF+SUBCONTRACTORS			71			**81**	**51**	**54**	**56**	**63**	**75**	**86**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

						2026						
						MAY	JUN	JUL	AUG	SEP	OCT	NOV
						01-May-26	01-Jun-26	01-Jul-26	01-Aug-26	01-Sep-26	01-Oct-26	01-Nov-26
	Classification	Weekly paid hours	Number	Start Date	End Date							
Project Staff (white collar)						35	35	35	36	36	36	36
Project Workforce (blue collar)						18	18	18	18	18	18	18
GENERAL LABOUR												
Mark Omeley - Leading Hand	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Peter Eisman - Carpenter	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Concretor 1	CW4	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Plant Operator 1	CW5	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Fish survey and salvage	SC	48	2	15-Jan-25	22-Nov-29	2	2	2	2	2	2	2
Rigger	CW4	48	1	05-Jan-26	05-Jan-29	1	1	1	1	1	1	1
Crane Operator	CW5	48	1	05-Jan-26	05-Jan-29	1	1	1	1	1	1	1
Batch Plant Operator	SC	48	2	09-Aug-25	05-Jan-29	2	2	2	2	2	2	2
PHASE 1 SITE SET UP - EARLY WORKS						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	3	01-Nov-24	15-Feb-25	0	0	0	0	0	0	0
Site facilities subcontractor	SC	48	4	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Tree removal subcontractor	SC	48	4	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0
Reservoir lowering - subcontractor	SC	48	4	10-Dec-24	20-Feb-25	0	0	0	0	0	0	0
UPSTREAM COFFERDAM						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	06-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	01-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
Structural worker, Concretor	SC	48	10	04-Aug-25	19-Oct-25	0	0	0	0	0	0	0
PHASE 2 SITE SET UP						0	0	0	0	0	0	0
Fencing subcontractor	SC	48	8	02-May-25	15-Jun-25	0	0	0	0	0	0	0
Batch plant establishment	SC	48	4	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0
U/S AND D/S CUT OFF WALL						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	6	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	5	20-Mar-26	15-May-26	5	0	0	0	0	0	0
Welder	SC	48	2	20-Mar-26	15-May-26	2	0	0	0	0	0	0
Plant Operator - Wet hire - n/s	SC	48	5	20-Mar-26	15-May-26	5	0	0	0	0	0	0
DAM CONSTRUCTION						0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor	SC	48	6	06-May-26	02-Jun-26	6	6	0	0	0	0	0
Secant Piling Subcontractor	SC	48	12	02-Jun-26	15-Jun-27	0	12	12	12	12	12	12
Plant operator - cell excavation - wet hire	SC	48	6	15-Sep-26	23-Oct-27	0	0	0	0	6	6	6
Capping beam - FRP	CW4	48	12	21-Sep-25	06-Jul-27	12	12	12	12	12	12	12
Mass concrete - concretor	CW4	48	12	16-Jan-27	17-Jan-28	0	0	0	0	0	0	0
Foundation Grouting SC	SC	48	8	05-Apr-27	10-Feb-28	0	0	0	0	0	0	0
OUTLET TOWER WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	8	19-Feb-27	07-Sep-27	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Rigger/dogman	SC	48	3	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
Electrician	SC	48	6	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
EROSION PROTECTION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	6	05-Dec-27	27-May-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SPILLWAY WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	16	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
LEFT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Feb-26	06-Oct-27	8	8	8	8	8	8	8
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	02-Apr-26	02-May-26	6	0	0	0	0	0	0

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

						2026						
						MAY	JUN	JUL	AUG	SEP	OCT	NOV
						01-May-26	01-Jun-26	01-Jul-26	01-Aug-26	01-Sep-26	01-Oct-26	01-Nov-26
	Classification	Weekly paid hours	Number	Start Date	End Date							
Crane Operator - Wet hire	SC	48	1	02-Apr-26	02-May-26	1	0	0	0	0	0	0
Rigger/dogman	SC	48	2	02-Apr-26	02-May-26	2	0	0	0	0	0	0
RIGHT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	30-Aug-27	14-Aug-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4					0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	08-Jun-26	16-Dec-26	0	6	6	6	6	6	6
Crane Operator - Wet hire	SC	48	1	08-Jun-26	16-Dec-26	0	1	1	1	1	1	1
Rigger/dogman	SC	48	2	08-Jun-26	16-Dec-26	0	2	2	2	2	2	2
LOWER OGEE						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
UPPER LABYRINTH						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	29-Aug-27	30-May-28	0	0	0	0	0	0	0
SADDLE DAM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	16-Oct-26	20-Dec-26	0	0	0	0	0	8	8
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	23-Oct-26	12-Dec-26	0	0	0	0	0	6	6
Crane Operator - Wet hire	SC	48	1	23-Oct-26	12-Dec-26	0	0	0	0	0	1	1
Rigger/dogman	SC	48	2	23-Oct-26	12-Dec-26	0	0	0	0	0	2	2
DAM INSTRUMENTATION						0	0	0	0	0	0	0
Electrician - SC	SC	48	4	24-Oct-27	08-Nov-27	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	2	15-Jun-27	23-Oct-27	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES						0	0	0	0	0	0	0
Building SC	SC	48	8	06-Sep-27	03-Feb-28	0	0	0	0	0	0	0
COMMISSIONING / PRECOMMISSIONING						0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	0	0	0
Electrician	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	0	0	0
REMOVAL OF UCD						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
DEMOBILISATION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Nov-28	22-Nov-29	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
TOTAL PROJECT WORKFORCE			47			**57**	**57**	**51**	**51**	**57**	**74**	**74**
Sub-Contractor Personal (blue collar)			34			**39**	**39**	**33**	**33**	**39**	**56**	**56**
TOTAL WORKFORCE+STAFF+SUBCONTRACTORS			71			**92**	**92**	**86**	**87**	**93**	**110**	**110**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

						20						
						DEC	JAN	FEB	MAR	APR	MAY	JUN
						01-Dec-26	01-Jan-27	01-Feb-27	01-Mar-27	01-Apr-27	01-May-27	01-Jun-27
	Classification	Weekly paid hours	Number	Start Date	End Date							
Project Staff (white collar)						36	36	36	36	36	34	34
Project Workforce (blue collar)						18	30	30	30	30	30	30
GENERAL LABOUR												
Mark Omeley - Leading Hand	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Peter Eisman - Carpenter	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Concretor 1	CW4	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Plant Operator 1	CW5	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Fish survey and salvage	SC	48	2	15-Jan-25	22-Nov-29	2	2	2	2	2	2	2
Rigger	CW4	48	1	05-Jan-26	05-Jan-29	1	1	1	1	1	1	1
Crane Operator	CW5	48	1	05-Jan-26	05-Jan-29	1	1	1	1	1	1	1
Batch Plant Operator	SC	48	2	09-Aug-25	05-Jan-29	2	2	2	2	2	2	2
PHASE 1 SITE SET UP - EARLY WORKS						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	3	01-Nov-24	15-Feb-25	0	0	0	0	0	0	0
Site facilities subcontractor	SC	48	4	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Tree removal subcontractor	SC	48	4	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0
Reservoir lowering - subcontractor	SC	48	4	10-Dec-24	20-Feb-25	0	0	0	0	0	0	0
UPSTREAM COFFERDAM						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	06-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	01-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
Structural worker, Concretor	SC	48	10	04-Aug-25	19-Oct-25	0	0	0	0	0	0	0
PHASE 2 SITE SET UP						0	0	0	0	0	0	0
Fencing subcontractor	SC	48	8	02-May-25	15-Jun-25	0	0	0	0	0	0	0
Batch plant establishment	SC	48	4	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0
U/S AND D/S CUT OFF WALL						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	6	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Welder	SC	48	2	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Plant Operator - Wet hire - n/s	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
DAM CONSTRUCTION						0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor	SC	48	6	06-May-26	02-Jun-26	0	0	0	0	0	0	0
Secant Piling Subcontractor	SC	48	12	02-Jun-26	15-Jun-27	12	12	12	12	12	12	12
Plant operator - cell excavation - wet hire	SC	48	6	15-Sep-26	23-Oct-27	6	6	6	6	6	6	6
Capping beam - FRP	CW4	48	12	21-Sep-25	06-Jul-27	12	12	12	12	12	12	12
Mass concrete - concretor	CW4	48	12	16-Jan-27	17-Jan-28	0	12	12	12	12	12	12
Foundation Grouting SC	SC	48	8	05-Apr-27	10-Feb-28	0	0	0	0	8	8	8
OUTLET TOWER WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	8	19-Feb-27	07-Sep-27	0	0	8	8	8	8	8
Crane Operator - Wet hire	SC	48	1	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Rigger/dogman	SC	48	3	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
Electrician	SC	48	6	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
EROSION PROTECTION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	6	05-Dec-27	27-May-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SPILLWAY WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	16	26-Apr-27	25-Apr-28	0	0	0	0	16	16	16
Crane Operator - Wet hire	SC	48	1	26-Apr-27	25-Apr-28	0	0	0	0	1	1	1
Rigger/dogman	SC	48	2	26-Apr-27	25-Apr-28	0	0	0	0	2	2	2
LEFT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Feb-26	06-Oct-27	8	8	8	8	8	8	8
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	02-Apr-26	02-May-26	0	0	0	0	0	0	0

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

												20
						DEC	JAN	FEB	MAR	APR	MAY	JUN
						01-Dec-26	01-Jan-27	01-Feb-27	01-Mar-27	01-Apr-27	01-May-27	01-Jun-27
	Classification	Weekly paid hours	Number	Start Date	End Date							
Crane Operator - Wet hire	SC	48	1	02-Apr-26	02-May-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	02-Apr-26	02-May-26	0	0	0	0	0	0	0
RIGHT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	30-Aug-27	14-Aug-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4					0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	08-Jun-26	16-Dec-26	6	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	08-Jun-26	16-Dec-26	1	0	0	0	0	0	0
Rigger/dogman	SC	48	2	08-Jun-26	16-Dec-26	2	0	0	0	0	0	0
LOWER OGEE						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
UPPER LABYRINTH						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	29-Aug-27	30-May-28	0	0	0	0	0	0	0
SADDLE DAM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	16-Oct-26	20-Dec-26	8	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	23-Oct-26	12-Dec-26	6	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	23-Oct-26	12-Dec-26	1	0	0	0	0	0	0
Rigger/dogman	SC	48	2	23-Oct-26	12-Dec-26	2	0	0	0	0	0	0
DAM INSTRUMENTATION						0	0	0	0	0	0	0
Electrician - SC	SC	48	4	24-Oct-27	08-Nov-27	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	2	15-Jun-27	23-Oct-27	0	0	0	0	0	0	2
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES						0	0	0	0	0	0	0
Building SC	SC	48	8	06-Sep-27	03-Feb-28	0	0	0	0	0	0	0
COMMISSIONING / PRECOMMISSIONING						0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	0	0	0
Electrician	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	0	0	0
REMOVAL OF UCD						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
DEMOBILISATION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Nov-28	22-Nov-29	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
TOTAL PROJECT WORKFORCE			47			**74**	**60**	**68**	**68**	**95**	**95**	**97**
Sub-Contractor Personal (blue collar)			34			**56**	**30**	**38**	**38**	**65**	**65**	**67**
TOTAL WORKFORCE+STAFF+SUBCONTRACTORS			71			**110**	**96**	**104**	**104**	**131**	**129**	**131**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

	Classification	Weekly paid hours	Number	Start Date	End Date	27 JUL 01-Jul-27	AUG 01-Aug-27	SEP 01-Sep-27	OCT 01-Oct-27	NOV 01-Nov-27	DEC 01-Dec-27	JAN 01-Jan-28
Project Staff (white collar)						34	34	34	29	29	29	29
Project Workforce (blue collar)						30	18	18	18	18	18	18
GENERAL LABOUR												
Mark Omeley - Leading Hand	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Peter Eisman - Carpenter	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Concretor 1	CW4	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Plant Operator 1	CW5	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Fish survey and salvage	SC	48	2	15-Jan-25	22-Nov-29	2	2	2	2	2	2	2
Rigger	CW4	48	1	05-Jan-26	05-Jan-29	1	1	1	1	1	1	1
Crane Operator	CW5	48	1	05-Jan-26	05-Jan-29	1	1	1	1	1	1	1
Batch Plant Operator	SC	48	2	09-Aug-25	05-Jan-29	2	2	2	2	2	2	2
PHASE 1 SITE SET UP - EARLY WORKS						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	3	01-Nov-24	15-Feb-25	0	0	0	0	0	0	0
Site facilities subcontractor	SC	48	4	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Tree removal subcontractor	SC	48	4	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0
Reservoir lowering - subcontractor	SC	48	4	10-Dec-24	20-Feb-25	0	0	0	0	0	0	0
UPSTREAM COFFERDAM						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	06-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	01-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
Structural worker, Concretor	SC	48	10	04-Aug-25	19-Oct-25	0	0	0	0	0	0	0
PHASE 2 SITE SET UP						0	0	0	0	0	0	0
Fencing subcontractor	SC	48	8	02-May-25	15-Jun-25	0	0	0	0	0	0	0
Batch plant establishment	SC	48	4	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0
U/S AND D/S CUT OFF WALL						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	6	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Welder	SC	48	2	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Plant Operator - Wet hire - n/s	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
DAM CONSTRUCTION						0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor	SC	48	6	06-May-26	02-Jun-26	0	0	0	0	0	0	0
Secant Piling Subcontractor	SC	48	12	02-Jun-26	15-Jun-27	0	0	0	0	0	0	0
Plant operator - cell excavation - wet hire	SC	48	6	15-Sep-26	23-Oct-27	6	6	6	6	0	0	0
Capping beam - FRP	CW4	48	12	21-Sep-25	06-Jul-27	12	0	0	0	0	0	0
Mass concrete - concretor	CW4	48	12	16-Jan-27	17-Jan-28	12	12	12	12	12	12	12
Foundation Grouting SC	SC	48	8	05-Apr-27	10-Feb-28	8	8	8	8	8	8	8
OUTLET TOWER WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	8	19-Feb-27	07-Sep-27	8	8	8	0	0	0	0
Crane Operator - Wet hire	SC	48	1	01-Sep-27	10-Nov-27	0	0	1	1	1	0	0
Rigger/dogman	SC	48	3	01-Sep-27	10-Nov-27	0	0	3	3	3	0	0
Mechanical Fitter	SC	48	4	17-Oct-27	07-Jan-28	0	0	0	4	4	4	4
Electrician	SC	48	6	17-Oct-27	07-Jan-28	0	0	0	6	6	6	6
EROSION PROTECTION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	6	05-Dec-27	27-May-28	0	0	0	0	0	6	6
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SPILLWAY WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	16	26-Apr-27	25-Apr-28	16	16	16	16	16	16	16
Crane Operator - Wet hire	SC	48	1	26-Apr-27	25-Apr-28	1	1	1	1	1	1	1
Rigger/dogman	SC	48	2	26-Apr-27	25-Apr-28	2	2	2	2	2	2	2
LEFT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Feb-26	06-Oct-27	8	8	8	8	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	02-Apr-26	02-May-26	0	0	0	0	0	0	0

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

						27						
						JUL	AUG	SEP	OCT	NOV	DEC	JAN
						01-Jul-27	01-Aug-27	01-Sep-27	01-Oct-27	01-Nov-27	01-Dec-27	01-Jan-28
	Classification	Weekly paid hours	Number	Start Date	End Date							
Crane Operator - Wet hire	SC	48	1	02-Apr-26	02-May-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	02-Apr-26	02-May-26	0	0	0	0	0	0	0
RIGHT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	30-Aug-27	14-Aug-28	0	8	8	8	8	8	8
Plant Operator - Dry hire	CW4					0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
LOWER OGEE						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	24-Jan-28	21-Jun-28	0	0	0	0	0	0	12
Crane Operator - Wet hire	SC	48	1	24-Jan-28	21-Jun-28	0	0	0	0	0	0	1
Rigger/dogman	SC	48	2	24-Jan-28	21-Jun-28	0	0	0	0	0	0	2
UPPER LABYRINTH						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	29-Aug-27	30-May-28	0	12	12	12	12	12	12
Crane Operator - Wet hire	SC	48	1	29-Aug-27	30-May-28	0	1	1	1	1	1	1
Rigger/dogman	SC	48	2	29-Aug-27	30-May-28	0	2	2	2	2	2	2
SADDLE DAM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	16-Oct-26	20-Dec-26	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
DAM INSTRUMENTATION						0	0	0	0	0	0	0
Electrician - SC	SC	48	4	24-Oct-27	08-Nov-27	0	0	0	4	4	0	0
Plant Operator - Wet hire	SC	48	2	15-Jun-27	23-Oct-27	2	2	2	2	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES						0	0	0	0	0	0	0
Building SC	SC	48	8	06-Sep-27	03-Feb-28	0	0	8	8	8	8	8
COMMISSIONING / PRECOMMISSIONING						0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	4	4	4
Electrician	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	4	4	4
REMOVAL OF UCD						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
DEMOBILISATION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Nov-28	22-Nov-29	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
TOTAL PROJECT WORKFORCE			47			**85**	**96**	**108**	**114**	**106**	**104**	**119**
Sub-Contractor Personal (blue collar)			34			**55**	**78**	**90**	**96**	**88**	**86**	**101**
TOTAL WORKFORCE+STAFF+SUBCONTRACTORS			71			**119**	**130**	**142**	**143**	**135**	**133**	**148**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

						2028						
						FEB	MAR	APR	MAY	JUN	JUL	AUG
						01-Feb-28	01-Mar-28	01-Apr-28	01-May-28	01-Jun-28	01-Jul-28	01-Aug-28
	Classification	Weekly paid hours	Number	Start Date	End Date							
Project Staff (white collar)						29	29	15	14	13	12	9
Project Workforce (blue collar)						6	6	6	6	6	6	6
GENERAL LABOUR												
Mark Omeley - Leading Hand	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Peter Eisman - Carpenter	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Concretor 1	CW4	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Plant Operator 1	CW5	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Fish survey and salvage	SC	48	2	15-Jan-25	22-Nov-29	2	2	2	2	2	2	2
Rigger	CW4	48	1	05-Jan-26	05-Jan-29	1	1	1	1	1	1	1
Crane Operator	CW5	48	1	05-Jan-26	05-Jan-29	1	1	1	1	1	1	1
Batch Plant Operator	SC	48	2	09-Aug-25	05-Jan-29	2	2	2	2	2	2	2
PHASE 1 SITE SET UP - EARLY WORKS						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	3	01-Nov-24	15-Feb-25	0	0	0	0	0	0	0
Site facilities subcontractor	SC	48	4	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Tree removal subcontractor	SC	48	4	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0
Reservoir lowering - subcontractor	SC	48	4	10-Dec-24	20-Feb-25	0	0	0	0	0	0	0
UPSTREAM COFFERDAM						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	06-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	01-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
Structural worker, Concretor	SC	48	10	04-Aug-25	19-Oct-25	0	0	0	0	0	0	0
PHASE 2 SITE SET UP						0	0	0	0	0	0	0
Fencing subcontractor	SC	48	8	02-May-25	15-Jun-25	0	0	0	0	0	0	0
Batch plant establishment	SC	48	4	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0
U/S AND D/S CUT OFF WALL						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	6	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Welder	SC	48	2	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Plant Operator - Wet hire - n/s	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
DAM CONSTRUCTION						0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor	SC	48	6	06-May-26	02-Jun-26	0	0	0	0	0	0	0
Secant Piling Subcontractor	SC	48	12	02-Jun-26	15-Jun-27	0	0	0	0	0	0	0
Plant operator - cell excavation - wet hire	SC	48	6	15-Sep-26	23-Oct-27	0	0	0	0	0	0	0
Capping beam - FRP	CW4	48	12	21-Sep-25	06-Jul-27	0	0	0	0	0	0	0
Mass concrete - concretor	CW4	48	12	16-Jan-27	17-Jan-28	0	0	0	0	0	0	0
Foundation Grouting SC	SC	48	8	05-Apr-27	10-Feb-28	8	0	0	0	0	0	0
OUTLET TOWER WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	8	19-Feb-27	07-Sep-27	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Rigger/dogman	SC	48	3	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
Electrician	SC	48	6	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
EROSION PROTECTION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	6	05-Dec-27	27-May-28	6	6	6	6	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SPILLWAY WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	16	26-Apr-27	25-Apr-28	16	16	16	0	0	0	0
Crane Operator - Wet hire	SC	48	1	26-Apr-27	25-Apr-28	1	1	1	0	0	0	0
Rigger/dogman	SC	48	2	26-Apr-27	25-Apr-28	2	2	2	0	0	0	0
LEFT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Feb-26	06-Oct-27	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	02-Apr-26	02-May-26	0	0	0	0	0	0	0

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

	Classification	Weekly paid hours	Number	Start Date	End Date	FEB	MAR	APR	MAY	JUN	JUL	AUG
						2028						
						01-Feb-28	01-Mar-28	01-Apr-28	01-May-28	01-Jun-28	01-Jul-28	01-Aug-28
Crane Operator - Wet hire	SC	48	1	02-Apr-26	02-May-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	02-Apr-26	02-May-26	0	0	0	0	0	0	0
RIGHT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	30-Aug-27	14-Aug-28	8	8	8	8	8	8	8
Plant Operator - Dry hire	CW4					0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
LOWER OGEE						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	24-Jan-28	21-Jun-28	12	12	12	12	12	0	0
Crane Operator - Wet hire	SC	48	1	24-Jan-28	21-Jun-28	1	1	1	1	1	0	0
Rigger/dogman	SC	48	2	24-Jan-28	21-Jun-28	2	2	2	2	2	0	0
UPPER LABYRINTH						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	29-Aug-27	30-May-28	12	12	12	12	0	0	0
Crane Operator - Wet hire	SC	48	1	29-Aug-27	30-May-28	1	1	1	1	0	0	0
Rigger/dogman	SC	48	2	29-Aug-27	30-May-28	2	2	2	2	0	0	0
SADDLE DAM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	16-Oct-26	20-Dec-26	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
DAM INSTRUMENTATION						0	0	0	0	0	0	0
Electrician - SC	SC	48	4	24-Oct-27	08-Nov-27	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	2	15-Jun-27	23-Oct-27	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES						0	0	0	0	0	0	0
Building SC	SC	48	8	06-Sep-27	03-Feb-28	8	0	0	0	0	0	0
COMMISSIONING / PRECOMMISSIONING						0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	09-Nov-27	30-Sep-28	4	4	4	4	4	4	4
Electrician	SC	48	4	09-Nov-27	30-Sep-28	4	4	4	4	4	4	4
REMOVAL OF UCD						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	24-Jul-28	24-Oct-28	0	0	0	0	0	12	12
Plant Operator - Wet hire	SC	48	8	24-Jul-28	24-Oct-28	0	0	0	0	0	8	8
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
DEMOBILISATION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Nov-28	22-Nov-29	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
TOTAL PROJECT WORKFORCE			47			**97**	**81**	**81**	**62**	**41**	**46**	**46**
Sub-Contractor Personal (blue collar)			34			**91**	**75**	**75**	**56**	**35**	**40**	**40**
TOTAL WORKFORCE+STAFF+SUBCONTRACTORS			71			**126**	**110**	**96**	**76**	**54**	**58**	**55**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

	Classification	Weekly paid hours	Number	Start Date	End Date	SEP 01-Sep-28	OCT 01-Oct-28	NOV 01-Nov-28	DEC 01-Dec-28	JAN 01-Jan-29	FEB 01-Feb-29	MAR 01-Mar-29
Project Staff (white collar)						7	7	7	7	7	7	7
Project Workforce (blue collar)						6	6	14	14	14	12	12
GENERAL LABOUR												
Mark Omeley - Leading Hand	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Peter Eisman - Carpenter	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Concretor 1	CW4	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Plant Operator 1	CW5	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Fish survey and salvage	SC	48	2	15-Jan-25	22-Nov-29	2	2	2	2	2	2	2
Rigger	CW4	48	1	05-Jan-26	05-Jan-29	1	1	1	1	1	0	0
Crane Operator	CW5	48	1	05-Jan-26	05-Jan-29	1	1	1	1	1	0	0
Batch Plant Operator	SC	48	2	09-Aug-25	05-Jan-29	2	2	2	2	2	0	0
PHASE 1 SITE SET UP - EARLY WORKS						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	3	01-Nov-24	15-Feb-25	0	0	0	0	0	0	0
Site facilities subcontractor	SC	48	4	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Tree removal subcontractor	SC	48	4	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0
Reservoir lowering - subcontractor	SC	48	4	10-Dec-24	20-Feb-25	0	0	0	0	0	0	0
UPSTREAM COFFERDAM						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	06-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	01-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
Structural worker, Concretor	SC	48	10	04-Aug-25	19-Oct-25	0	0	0	0	0	0	0
PHASE 2 SITE SET UP						0	0	0	0	0	0	0
Fencing subcontractor	SC	48	8	02-May-25	15-Jun-25	0	0	0	0	0	0	0
Batch plant establishment	SC	48	4	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0
U/S AND D/S CUT OFF WALL						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	6	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Welder	SC	48	2	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Plant Operator - Wet hire - n/s	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
DAM CONSTRUCTION						0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor	SC	48	6	06-May-26	02-Jun-26	0	0	0	0	0	0	0
Secant Piling Subcontractor	SC	48	12	02-Jun-26	15-Jun-27	0	0	0	0	0	0	0
Plant operator - cell excavation - wet hire	SC	48	6	15-Sep-26	23-Oct-27	0	0	0	0	0	0	0
Capping beam - FRP	CW4	48	12	21-Sep-25	06-Jul-27	0	0	0	0	0	0	0
Mass concrete - concretor	CW4	48	12	16-Jan-27	17-Jan-28	0	0	0	0	0	0	0
Foundation Grouting SC	SC	48	8	05-Apr-27	10-Feb-28	0	0	0	0	0	0	0
OUTLET TOWER WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	8	19-Feb-27	07-Sep-27	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Rigger/dogman	SC	48	3	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
Electrician	SC	48	6	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
EROSION PROTECTION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	6	05-Dec-27	27-May-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SPILLWAY WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	16	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
LEFT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Feb-26	06-Oct-27	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	02-Apr-26	02-May-26	0	0	0	0	0	0	0

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

	Classification	Weekly paid hours	Number	Start Date	End Date	SEP 01-Sep-28	OCT 01-Oct-28	NOV 01-Nov-28	DEC 01-Dec-28	JAN 01-Jan-29	FEB 01-Feb-29	MAR 01-Mar-29
Crane Operator - Wet hire	SC	48	1	02-Apr-26	02-May-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	02-Apr-26	02-May-26	0	0	0	0	0	0	0
RIGHT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	30-Aug-27	14-Aug-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4					0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
LOWER OGEE						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
UPPER LABYRINTH						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	29-Aug-27	30-May-28	0	0	0	0	0	0	0
SADDLE DAM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	16-Oct-26	20-Dec-26	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
DAM INSTRUMENTATION						0	0	0	0	0	0	0
Electrician - SC	SC	48	4	24-Oct-27	08-Nov-27	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	2	15-Jun-27	23-Oct-27	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES						0	0	0	0	0	0	0
Building SC	SC	48	8	06-Sep-27	03-Feb-28	0	0	0	0	0	0	0
COMMISSIONING / PRECOMMISSIONING						0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	09-Nov-27	30-Sep-28	4	0	0	0	0	0	0
Electrician	SC	48	4	09-Nov-27	30-Sep-28	4	0	0	0	0	0	0
REMOVAL OF UCD						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	24-Jul-28	24-Oct-28	12	12	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	24-Jul-28	24-Oct-28	8	8	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
DEMOBILISATION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Nov-28	22-Nov-29	0	0	8	8	8	8	8
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
TOTAL PROJECT WORKFORCE			47			**38**	**30**	**18**	**18**	**18**	**14**	**14**
Sub-Contractor Personal (blue collar)			34			**32**	**24**	**4**	**4**	**4**	**2**	**2**
TOTAL WORKFORCE+STAFF+SUBCONTRACTORS			71			**45**	**37**	**25**	**25**	**25**	**21**	**21**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

						2029						
						APR	MAY	JUN	JUL	AUG	SEP	OCT
						01-Apr-29	01-May-29	01-Jun-29	01-Jul-29	01-Aug-29	01-Sep-29	01-Oct-29
	Classification	Weekly paid hours	Number	Start Date	End Date							
Project Staff (white collar)						7	7	7	7	7	7	7
Project Workforce (blue collar)						12	12	12	12	12	12	12
GENERAL LABOUR												
Mark Omeley - Leading Hand	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Peter Eisman - Carpenter	CW4	48	1	21-Oct-24	22-Nov-29	1	1	1	1	1	1	1
Concretor 1	CW4	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Plant Operator 1	CW5	48	1	01-Nov-24	22-Nov-29	1	1	1	1	1	1	1
Fish survey and salvage	SC	48	2	15-Jan-25	22-Nov-29	2	2	2	2	2	2	2
Rigger	CW4	48	1	05-Jan-26	05-Jan-29	0	0	0	0	0	0	0
Crane Operator	CW5	48	1	05-Jan-26	05-Jan-29	0	0	0	0	0	0	0
Batch Plant Operator	SC	48	2	09-Aug-25	05-Jan-29	0	0	0	0	0	0	0
PHASE 1 SITE SET UP - EARLY WORKS						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	3	01-Nov-24	15-Feb-25	0	0	0	0	0	0	0
Site facilities subcontractor	SC	48	4	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	19-Nov-24	20-Dec-24	0	0	0	0	0	0	0
Tree removal subcontractor	SC	48	4	01-Nov-24	10-Dec-24	0	0	0	0	0	0	0
Reservoir lowering - subcontractor	SC	48	4	10-Dec-24	20-Feb-25	0	0	0	0	0	0	0
UPSTREAM COFFERDAM						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	06-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	01-Apr-25	19-Oct-25	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
Structural worker, Concretor	SC	48	10	04-Aug-25	19-Oct-25	0	0	0	0	0	0	0
PHASE 2 SITE SET UP						0	0	0	0	0	0	0
Fencing subcontractor	SC	48	8	02-May-25	15-Jun-25	0	0	0	0	0	0	0
Batch plant establishment	SC	48	4	24-Jun-25	25-Jul-25	0	0	0	0	0	0	0
U/S AND D/S CUT OFF WALL						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	6	23-Jun-25	02-Sep-25	0	0	0	0	0	0	0
SPILLWAY DEMOLITION/WORKING PLATFORM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Welder	SC	48	2	20-Mar-26	15-May-26	0	0	0	0	0	0	0
Plant Operator - Wet hire - n/s	SC	48	5	20-Mar-26	15-May-26	0	0	0	0	0	0	0
DAM CONSTRUCTION						0	0	0	0	0	0	0
Geotechnical Investigation Subcontractor	SC	48	6	06-May-26	02-Jun-26	0	0	0	0	0	0	0
Secant Piling Subcontractor	SC	48	12	02-Jun-26	15-Jun-27	0	0	0	0	0	0	0
Plant operator - cell excavation - wet hire	SC	48	6	15-Sep-26	23-Oct-27	0	0	0	0	0	0	0
Capping beam - FRP	CW4	48	12	21-Sep-25	06-Jul-27	0	0	0	0	0	0	0
Mass concrete - concretor	CW4	48	12	16-Jan-27	17-Jan-28	0	0	0	0	0	0	0
Foundation Grouting SC	SC	48	8	05-Apr-27	10-Feb-28	0	0	0	0	0	0	0
OUTLET TOWER WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	8	19-Feb-27	07-Sep-27	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Rigger/dogman	SC	48	3	01-Sep-27	10-Nov-27	0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
Electrician	SC	48	6	17-Oct-27	07-Jan-28	0	0	0	0	0	0	0
EROSION PROTECTION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	6	05-Dec-27	27-May-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SPILLWAY WORKS						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	16	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	26-Apr-27	25-Apr-28	0	0	0	0	0	0	0
LEFT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Feb-26	06-Oct-27	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	02-Apr-26	02-May-26	0	0	0	0	0	0	0

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

	Classification	Weekly paid hours	Number	Start Date	End Date	2029 APR 01-Apr-29	MAY 01-May-29	JUN 01-Jun-29	JUL 01-Jul-29	AUG 01-Aug-29	SEP 01-Sep-29	OCT 01-Oct-29
Crane Operator - Wet hire	SC	48	1	02-Apr-26	02-May-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	02-Apr-26	02-May-26	0	0	0	0	0	0	0
RIGHT EMBANKMENT						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	30-Aug-27	14-Aug-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4					0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	08-Jun-26	16-Dec-26	0	0	0	0	0	0	0
LOWER OGEE						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	24-Jan-28	21-Jun-28	0	0	0	0	0	0	0
UPPER LABYRINTH						0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	12	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	29-Aug-27	30-May-28	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	29-Aug-27	30-May-28	0	0	0	0	0	0	0
SADDLE DAM						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	16-Oct-26	20-Dec-26	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
FRP - Subcontractor	SC	48	6	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Crane Operator - Wet hire	SC	48	1	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
Rigger/dogman	SC	48	2	23-Oct-26	12-Dec-26	0	0	0	0	0	0	0
DAM INSTRUMENTATION						0	0	0	0	0	0	0
Electrician - SC	SC	48	4	24-Oct-27	08-Nov-27	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	2	15-Jun-27	23-Oct-27	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
SEQWATER PERMANENT FACILITIES						0	0	0	0	0	0	0
Building SC	SC	48	8	06-Sep-27	03-Feb-28	0	0	0	0	0	0	0
COMMISSIONING / PRECOMMISSIONING						0	0	0	0	0	0	0
Mechanical Fitter	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	0	0	0
Electrician	SC	48	4	09-Nov-27	30-Sep-28	0	0	0	0	0	0	0
REMOVAL OF UCD						0	0	0	0	0	0	0
Sheetpiling - Subcontractor	SC	48	12	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	24-Jul-28	24-Oct-28	0	0	0	0	0	0	0
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
DEMOBILISATION						0	0	0	0	0	0	0
Plant Operator - Wet hire	SC	48	8	28-Nov-28	22-Nov-29	8	8	8	8	8	8	8
Plant Operator - Dry hire	CW4	48				0	0	0	0	0	0	0
TOTAL PROJECT WORKFORCE			47			**14**	**14**	**14**	**14**	**14**	**14**	**14**
Sub-Contractor Personal (blue collar)			34			**2**	**2**	**2**	**2**	**2**	**2**	**2**
TOTAL WORKFORCE+STAFF+SUBCONTRACTORS			71			**21**	**21**	**21**	**21**	**21**	**21**	**21**

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

	Classification	Weekly paid hours	Number	Start Date	End Date	NOV 01-Nov-29
Project Staff (white collar)						2
Project Workforce (blue collar)						12
GENERAL LABOUR						
Mark Omeley - Leading Hand	CW4	48	1	21-Oct-24	22-Nov-29	1
Peter Eisman - Carpenter	CW4	48	1	21-Oct-24	22-Nov-29	1
Concretor 1	CW4	48	1	01-Nov-24	22-Nov-29	1
Plant Operator 1	CW5	48	1	01-Nov-24	22-Nov-29	1
Fish survey and salvage	SC	48	2	15-Jan-25	22-Nov-29	2
Rigger	CW4	48	1	05-Jan-26	05-Jan-29	0
Crane Operator	CW5	48	1	05-Jan-26	05-Jan-29	0
Batch Plant Operator	SC	48	2	09-Aug-25	05-Jan-29	0
PHASE 1 SITE SET UP - EARLY WORKS						0
Plant Operator - Wet hire	SC	48	3	01-Nov-24	15-Feb-25	0
Site facilities subcontractor	SC	48	4	19-Nov-24	20-Dec-24	0
Crane Operator - Wet hire	SC	48	1	19-Nov-24	20-Dec-24	0
Tree removal subcontractor	SC	48	4	01-Nov-24	10-Dec-24	0
Reservoir lowering - subcontractor	SC	48	4	10-Dec-24	20-Feb-25	0
UPSTREAM COFFERDAM						0
Sheetpiling - Subcontractor	SC	48	12	06-Apr-25	19-Oct-25	0
Plant Operator - Wet hire	SC	48	8	01-Apr-25	19-Oct-25	0
Plant Operator - Dry hire	CW4	48				0
Structural worker, Concretor	SC	48	10	04-Aug-25	19-Oct-25	0
PHASE 2 SITE SET UP						0
Fencing subcontractor	SC	48	8	02-May-25	15-Jun-25	0
Batch plant establishment	SC	48	4	24-Jun-25	25-Jul-25	0
U/S AND D/S CUT OFF WALL						0
Sheetpiling - Subcontractor	SC	48	6	23-Jun-25	02-Sep-25	0
SPILLWAY DEMOLITION/WORKING PLATFORM						0
Plant Operator - Wet hire	SC	48	5	20-Mar-26	15-May-26	0
Welder	SC	48	2	20-Mar-26	15-May-26	0
Plant Operator - Wet hire - n/s	SC	48	5	20-Mar-26	15-May-26	0
DAM CONSTRUCTION						0
Geotechnical Investigation Subcontractor	SC	48	6	06-May-26	02-Jun-26	0
Secant Piling Subcontractor	SC	48	12	02-Jun-26	15-Jun-27	0
Plant operator - cell excavation - wet hire	SC	48	6	15-Sep-26	23-Oct-27	0
Capping beam - FRP	CW4	48	12	21-Sep-25	06-Jul-27	0
Mass concrete - concretor	CW4	48	12	16-Jan-27	17-Jan-28	0
Foundation Grouting SC	SC	48	8	05-Apr-27	10-Feb-28	0
OUTLET TOWER WORKS						0
FRP - Subcontractor	SC	48	8	19-Feb-27	07-Sep-27	0
Crane Operator - Wet hire	SC	48	1	01-Sep-27	10-Nov-27	0
Rigger/dogman	SC	48	3	01-Sep-27	10-Nov-27	0
Mechanical Fitter	SC	48	4	17-Oct-27	07-Jan-28	0
Electrician	SC	48	6	17-Oct-27	07-Jan-28	0
EROSION PROTECTION						0
Plant Operator - Wet hire	SC	48	6	05-Dec-27	27-May-28	0
Plant Operator - Dry hire	CW4	48				0
SPILLWAY WORKS						0
FRP - Subcontractor	SC	48	16	26-Apr-27	25-Apr-28	0
Crane Operator - Wet hire	SC	48	1	26-Apr-27	25-Apr-28	0
Rigger/dogman	SC	48	2	26-Apr-27	25-Apr-28	0
LEFT EMBANKMENT						0
Plant Operator - Wet hire	SC	48	8	28-Feb-26	06-Oct-27	0
Plant Operator - Dry hire	CW4	48				0
FRP - Subcontractor	SC	48	6	02-Apr-26	02-May-26	0

LAKE MACDONALD DAM IMPROVEMENT PROJECT - PERSONNEL PLAN

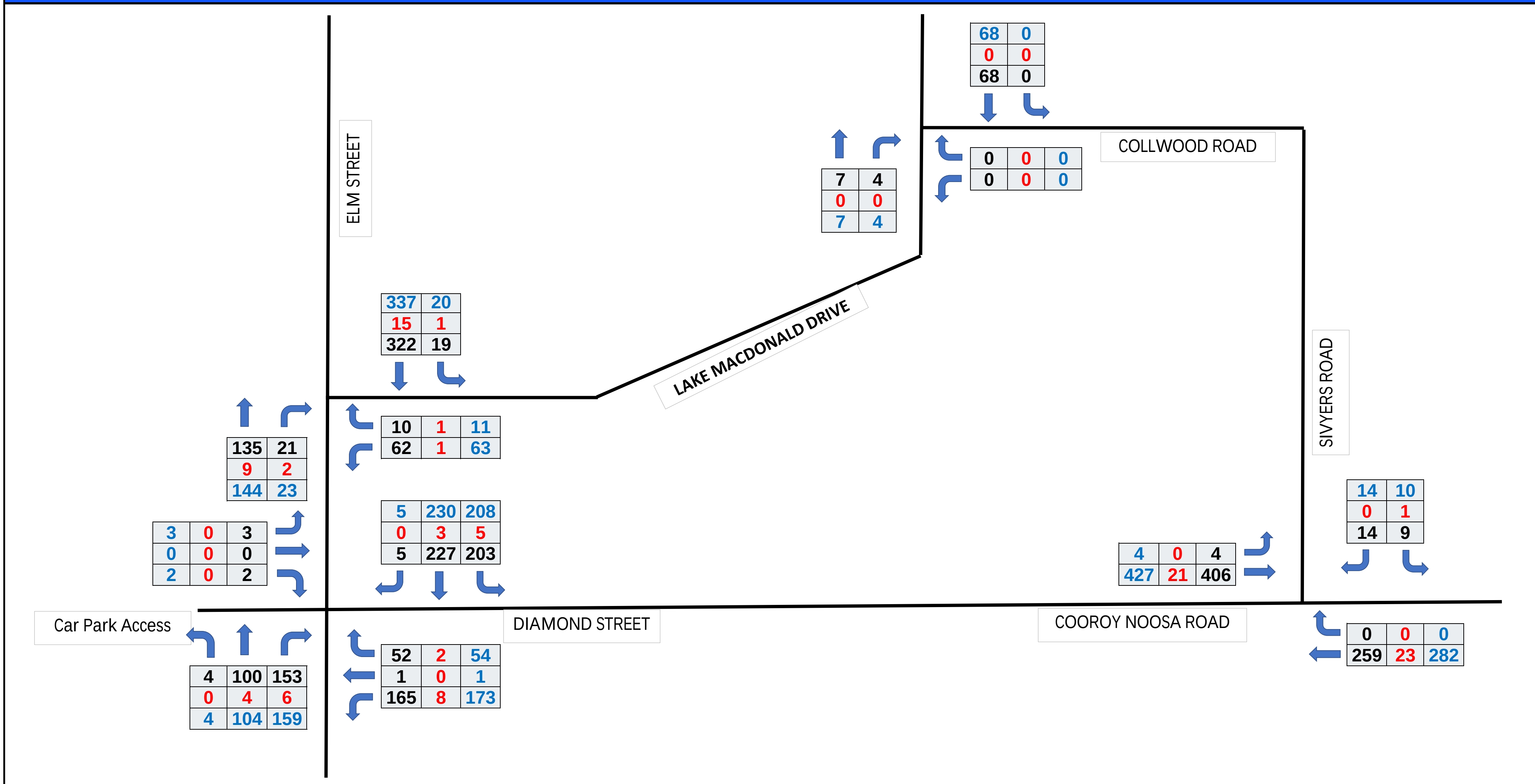
	Classification	Weekly paid hours	Number	Start Date	End Date	NOV 01-Nov-29
Crane Operator - Wet hire	SC	48	1	02-Apr-26	02-May-26	0
Rigger/dogman	SC	48	2	02-Apr-26	02-May-26	0
RIGHT EMBANKMENT						0
Plant Operator - Wet hire	SC	48	8	30-Aug-27	14-Aug-28	0
Plant Operator - Dry hire	CW4					0
FRP - Subcontractor	SC	48	6	08-Jun-26	16-Dec-26	0
Crane Operator - Wet hire	SC	48	1	08-Jun-26	16-Dec-26	0
Rigger/dogman	SC	48	2	08-Jun-26	16-Dec-26	0
LOWER OGEE						0
FRP - Subcontractor	SC	48	12	24-Jan-28	21-Jun-28	0
Crane Operator - Wet hire	SC	48	1	24-Jan-28	21-Jun-28	0
Rigger/dogman	SC	48	2	24-Jan-28	21-Jun-28	0
UPPER LABYRINTH						0
FRP - Subcontractor	SC	48	12	29-Aug-27	30-May-28	0
Crane Operator - Wet hire	SC	48	1	29-Aug-27	30-May-28	0
Rigger/dogman	SC	48	2	29-Aug-27	30-May-28	0
SADDLE DAM						0
Plant Operator - Wet hire	SC	48	8	16-Oct-26	20-Dec-26	0
Plant Operator - Dry hire	CW4	48				0
FRP - Subcontractor	SC	48	6	23-Oct-26	12-Dec-26	0
Crane Operator - Wet hire	SC	48	1	23-Oct-26	12-Dec-26	0
Rigger/dogman	SC	48	2	23-Oct-26	12-Dec-26	0
DAM INSTRUMENTATION						0
Electrician - SC	SC	48	4	24-Oct-27	08-Nov-27	0
Plant Operator - Wet hire	SC	48	2	15-Jun-27	23-Oct-27	0
Plant Operator - Dry hire	CW4	48				0
SEQWATER PERMANENT FACILITIES						0
Building SC	SC	48	8	06-Sep-27	03-Feb-28	0
COMMISSIONING / PRECOMMISSIONING						0
Mechanical Fitter	SC	48	4	09-Nov-27	30-Sep-28	0
Electrician	SC	48	4	09-Nov-27	30-Sep-28	0
REMOVAL OF UCD						0
Sheetpiling - Subcontractor	SC	48	12	24-Jul-28	24-Oct-28	0
Plant Operator - Wet hire	SC	48	8	24-Jul-28	24-Oct-28	0
Plant Operator - Dry hire	CW4	48				0
DEMOBILISATION						0
Plant Operator - Wet hire	SC	48	8	28-Nov-28	22-Nov-29	8
Plant Operator - Dry hire	CW4	48				0
TOTAL PROJECT WORKFORCE			47			**14**
Sub-Contractor Personal (blue collar)			34			**2**
TOTAL WORKFORCE+STAFF+SUBCONTRACTORS			71			**16**

Appendix F

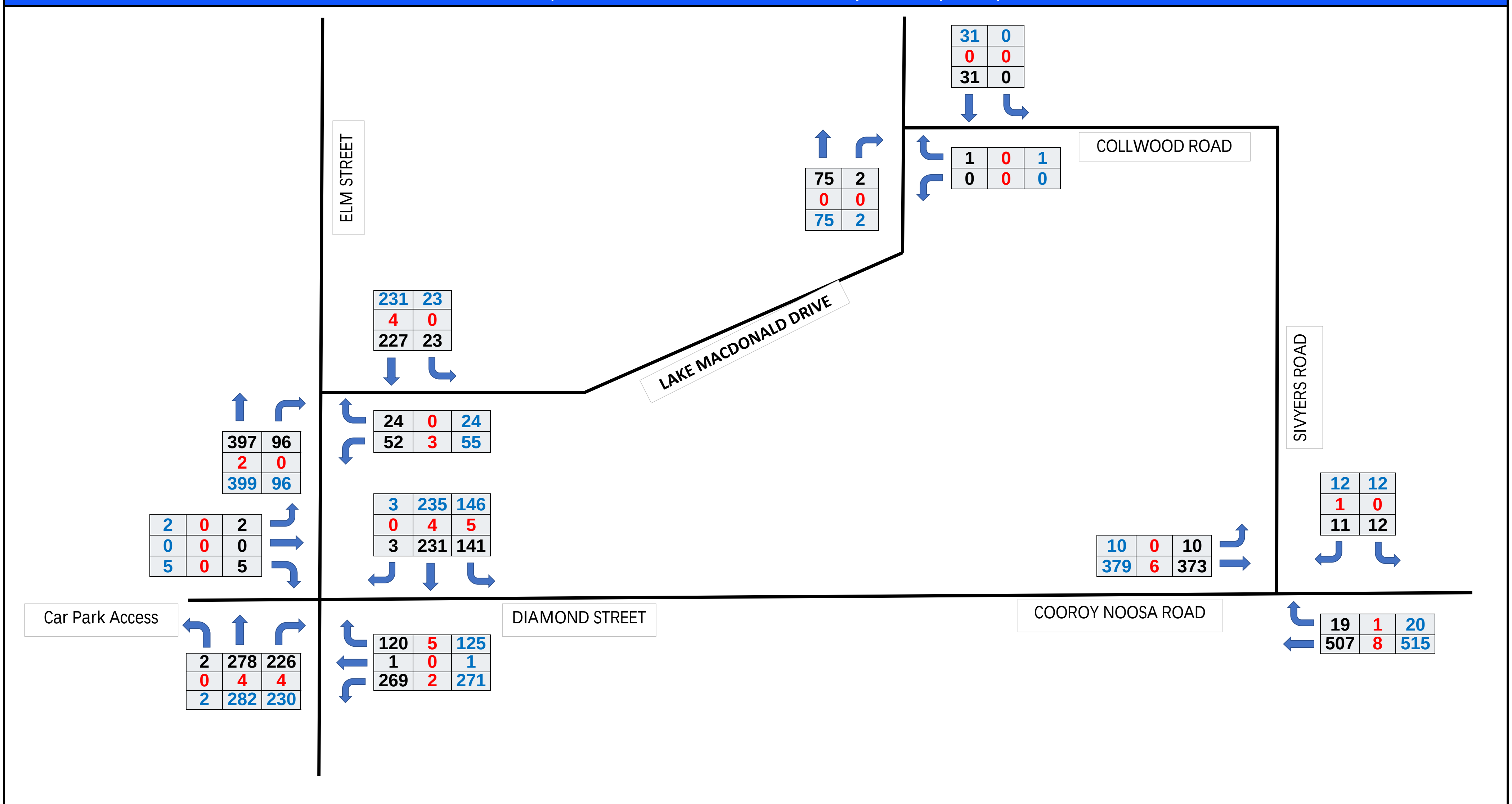
Traffic Flow Diagrams

F-1 2028 Base – Without Project Traffic Flow Diagrams

2023 AND 2024 BASE - 6AM TO 7AM TRAFFIC VOLUMES (based volumes for LV worker analysis time period)



2023 AND 2024 BASE - 500PM TO 600PM TRAFFIC VOLUMES (based volumes for LV worker analysis time period)



Comments

Lake MacDonald Drive intersections with Collwood Road and Elm Street - traffic data sourced from 2023 surveys
Cooroy Nooisa Road and Sivyers Road intersection / Elm Street and Diamond Street - traffic source from 2024 surveys

KEY

0	Light vehicles
0	Heavy vehicles
0	Total vehicles

PROJECT	DESIGN	CHECK	APPROVE
Lake MacDonald Dam Upgrade	TC	AB	HS

(PROJECT MANAGEMENT)

CLIENT	I/R	DATE	DESCRIPTION
Seqwater	A	16/09/2024	Draft v.1 TIA
	B	2/10/2024	TIA rev A
	C	31/10/2024	TIA rev B

(ISSUE / REVISION)

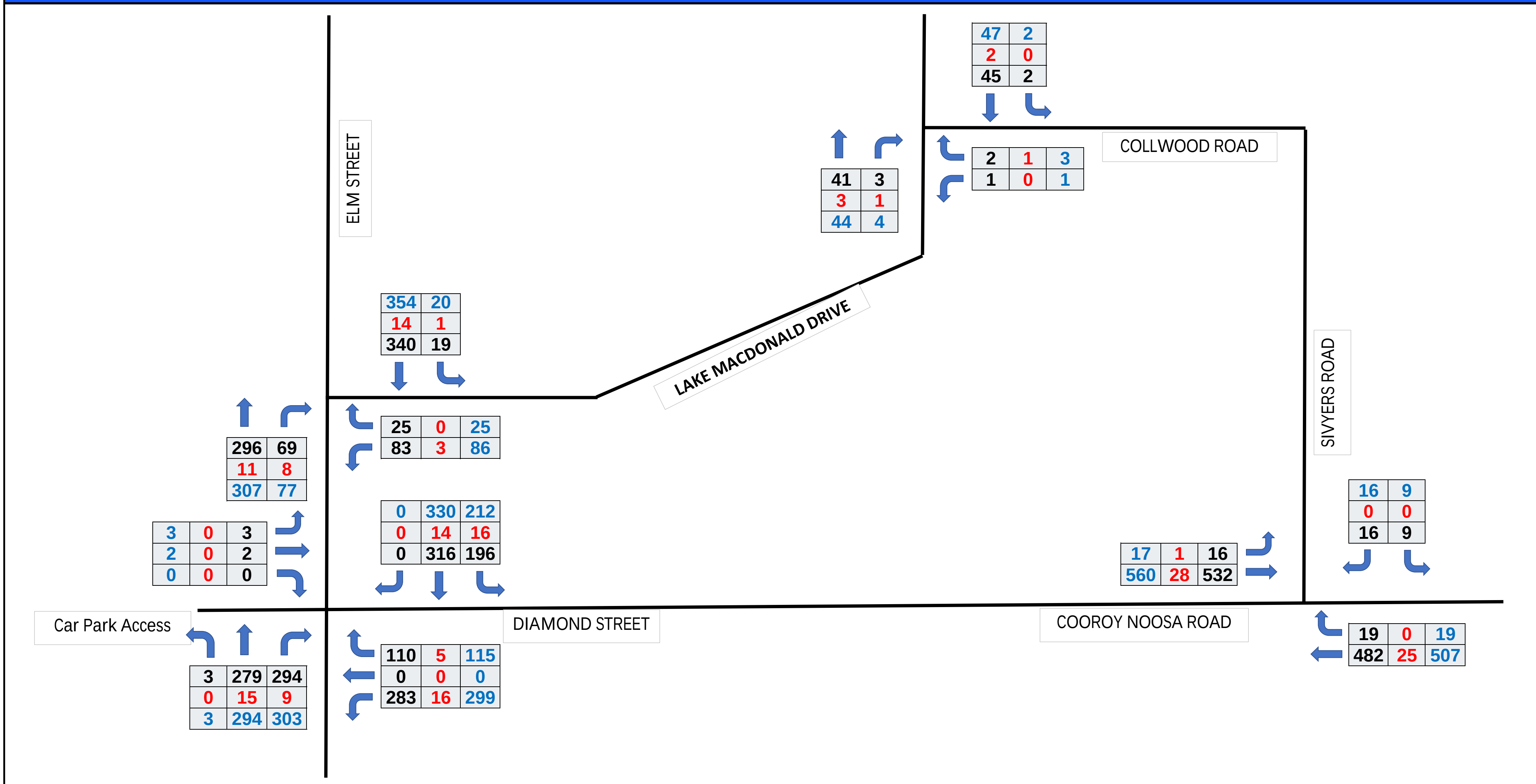
smec
an SJ company

PROJECT NUMBER
30035740

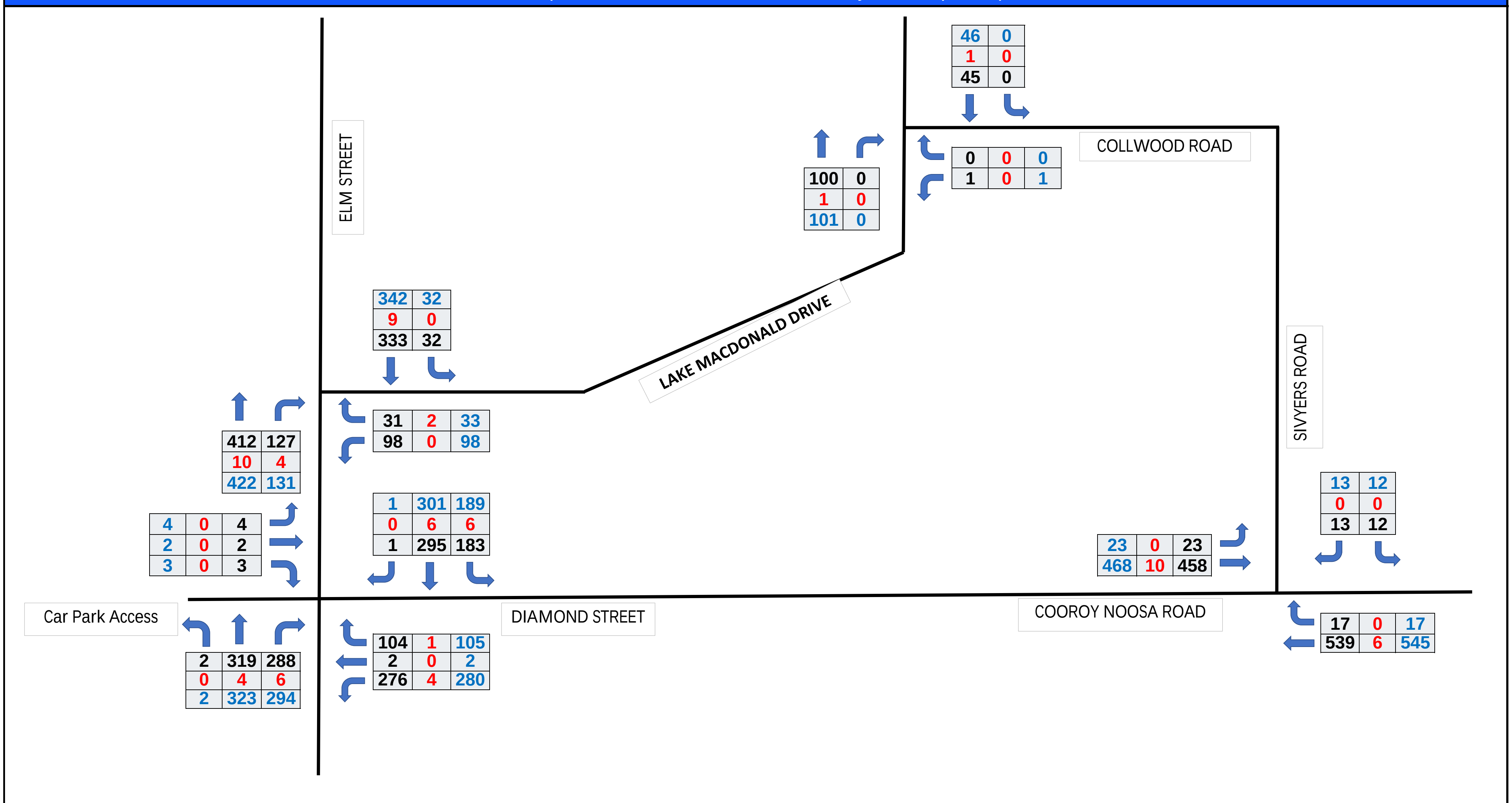
SHEET TITLE
2023 Base Traffic Demands
AM and PM Peak Periods
(base for LV worker anlaysis)

SHEET NUMBER
30035740_TFD_001

2023 AND 2024 BASE - 1015AM TO 1115AM TRAFFIC VOLUMES (based volumes for HV vehicle analysis time period)



2023 AND 2024 BASE - 400PM TO 500PM TRAFFIC VOLUMES (based volumes for HV vehicle analysis time period)



Comments

Lake MacDonald Drive intersections with Collwood Road and Elm Street - traffic data sourced from 2023 surveys
Cooroy Noosa Road and Sivyers Road intersection / Elm Street and Diamond Street - traffic source from 2024 surveys

KEY

0	Light vehicles
0	Heavy vehicles
0	Total vehicles

PROJECT	PROJECT MANAGEMENT			PROJECT NUMBER
	DESIGN	CHECK	APPROVE	30035740
Lake MacDonald Dam Upgrade	TC	AB	HS	SHEET TITLE
CLIENT	ISSUE / REVISION			2023 Base Traffic Demands AM and PM Peak Periods (base for HV const. veh anlaysis)
Seqwater				SHEET NUMBER
				30035740_TFD_001

I/R	DATE	DESCRIPTION
A	16/09/2024	Draft v.1 TIA
B	2/10/2024	TIA rev A
C	31/10/2024	TIA rev B

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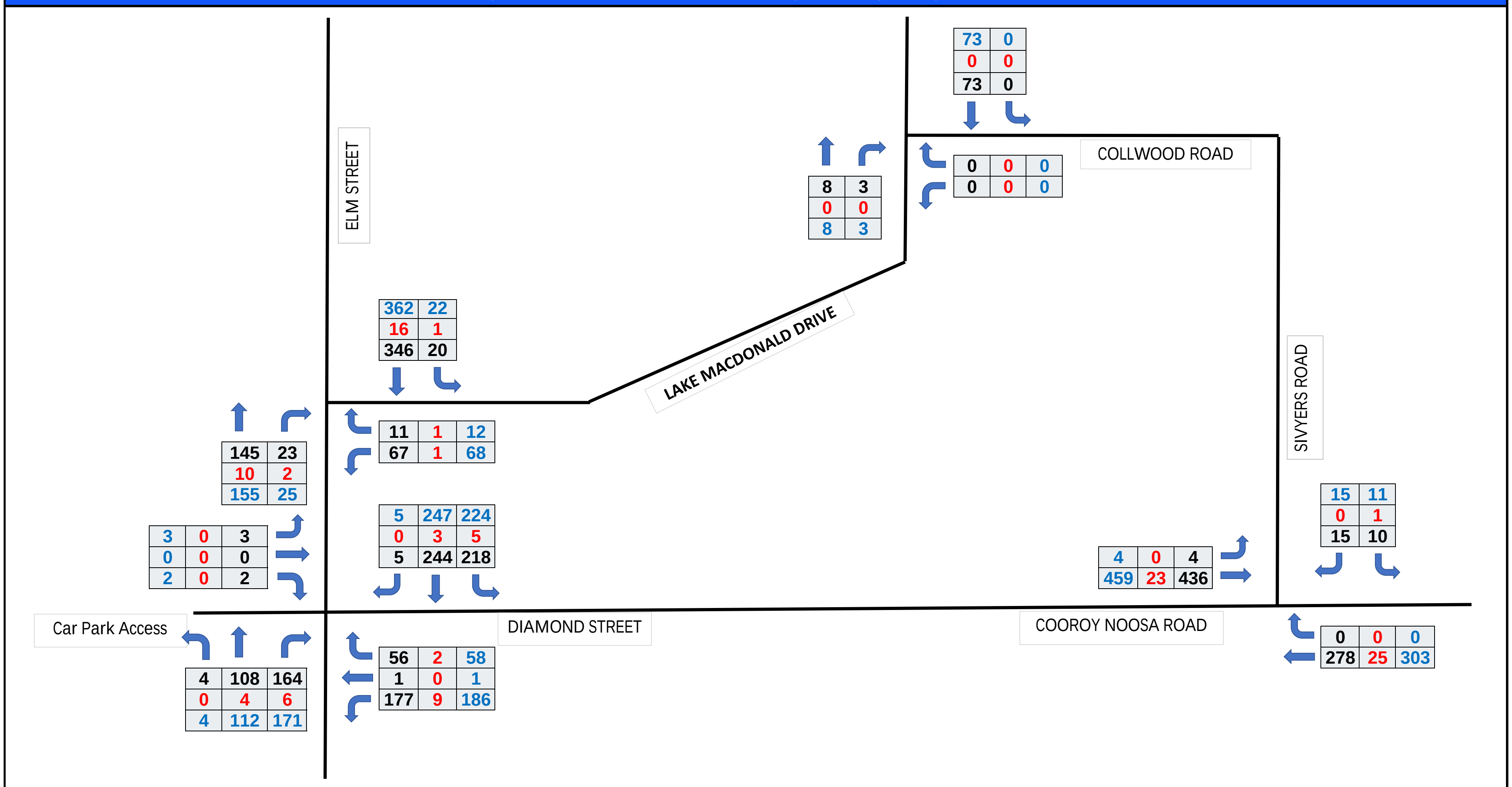
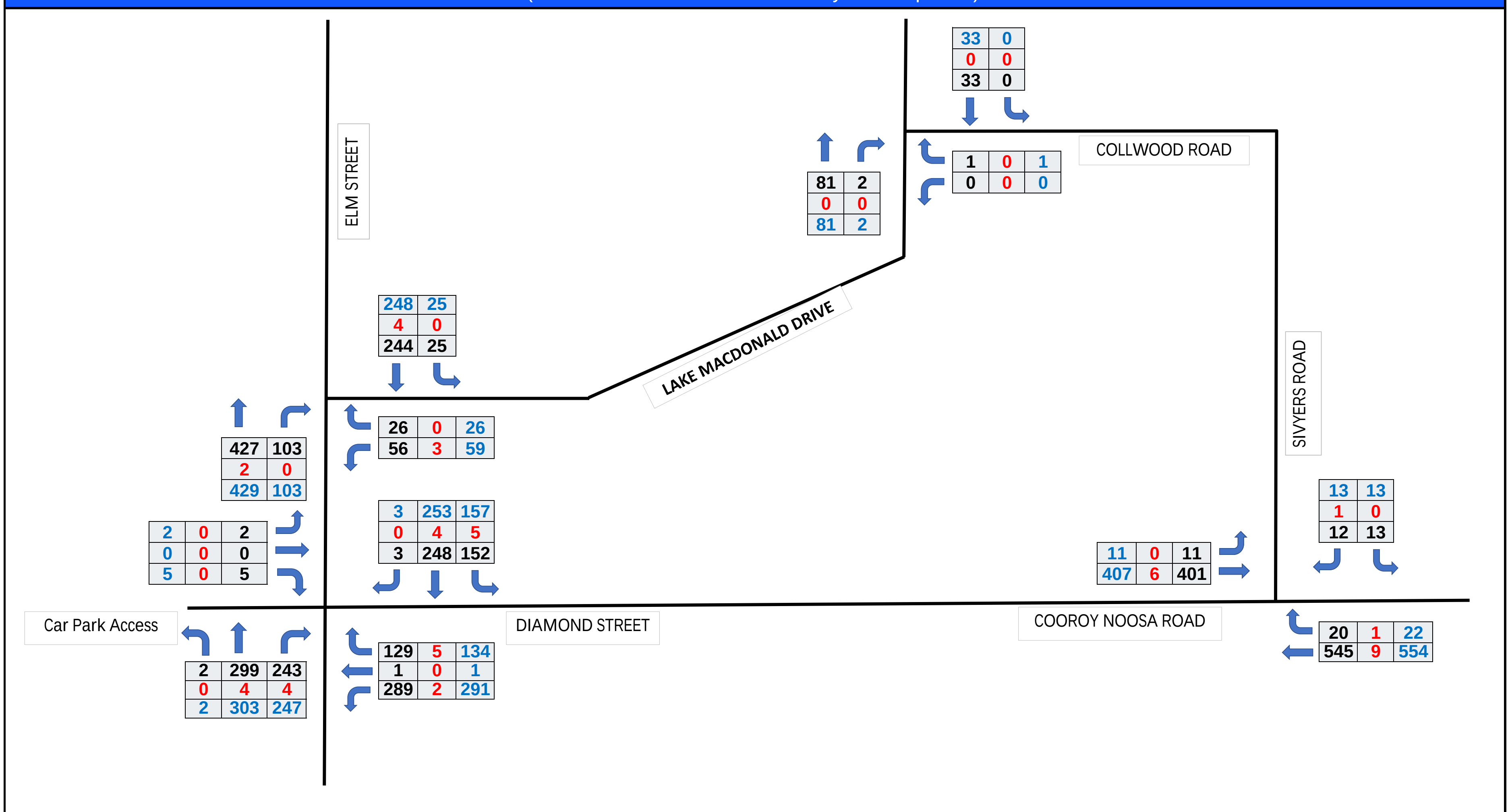
2028 FUTURE BASE - 6AM TO 7AM TRAFFIC VOLUMES (based volumes for LV worker analysis time period)



2028 FUTURE BASE - 500PM TO 600PM TRAFFIC VOLUMES (based volumes for LV worker analysis time period)



Comments

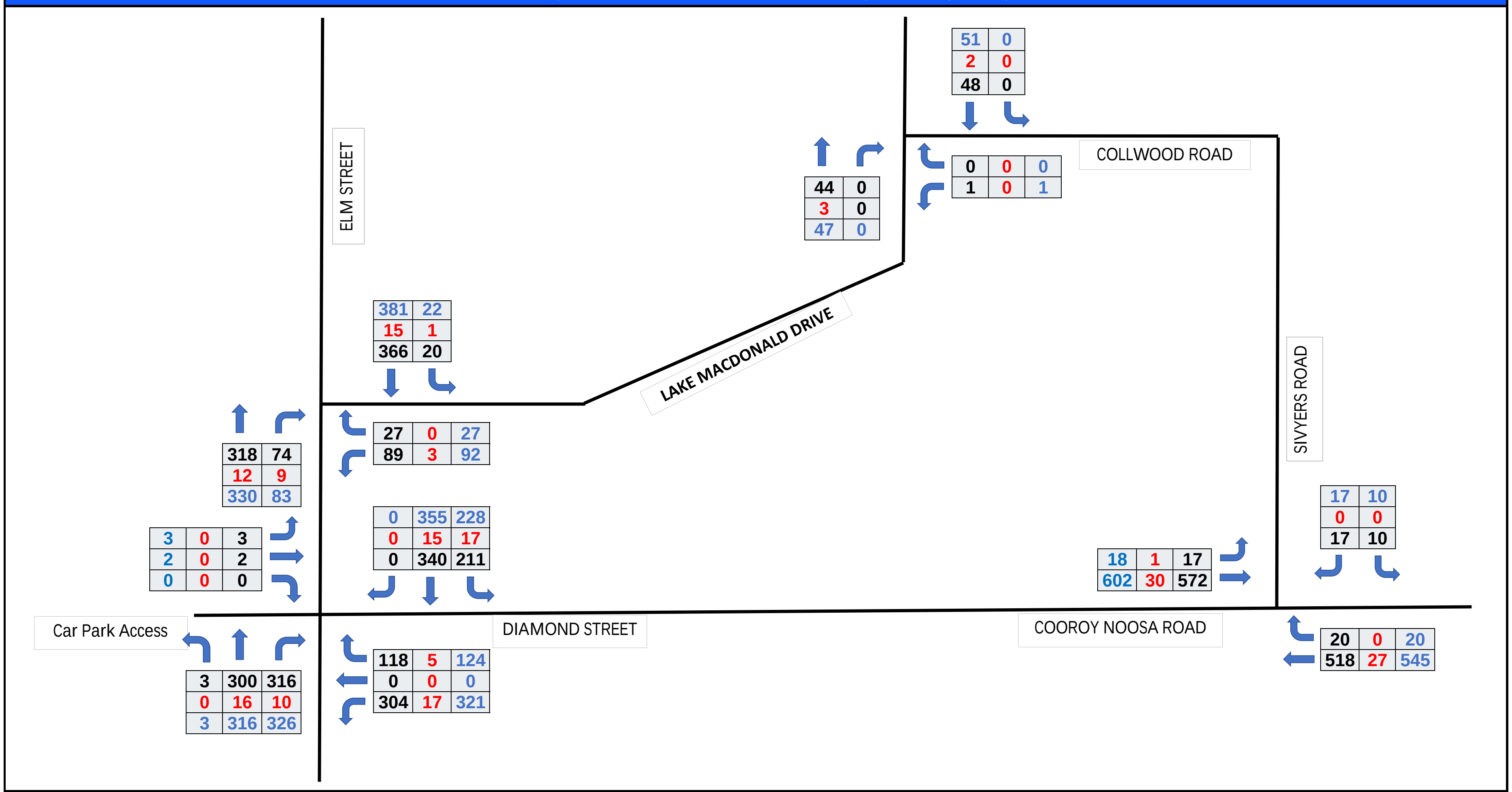
Compound Growth Factor of 1.5% per year applied to survey data tp derive 2028 future base demands

KEY

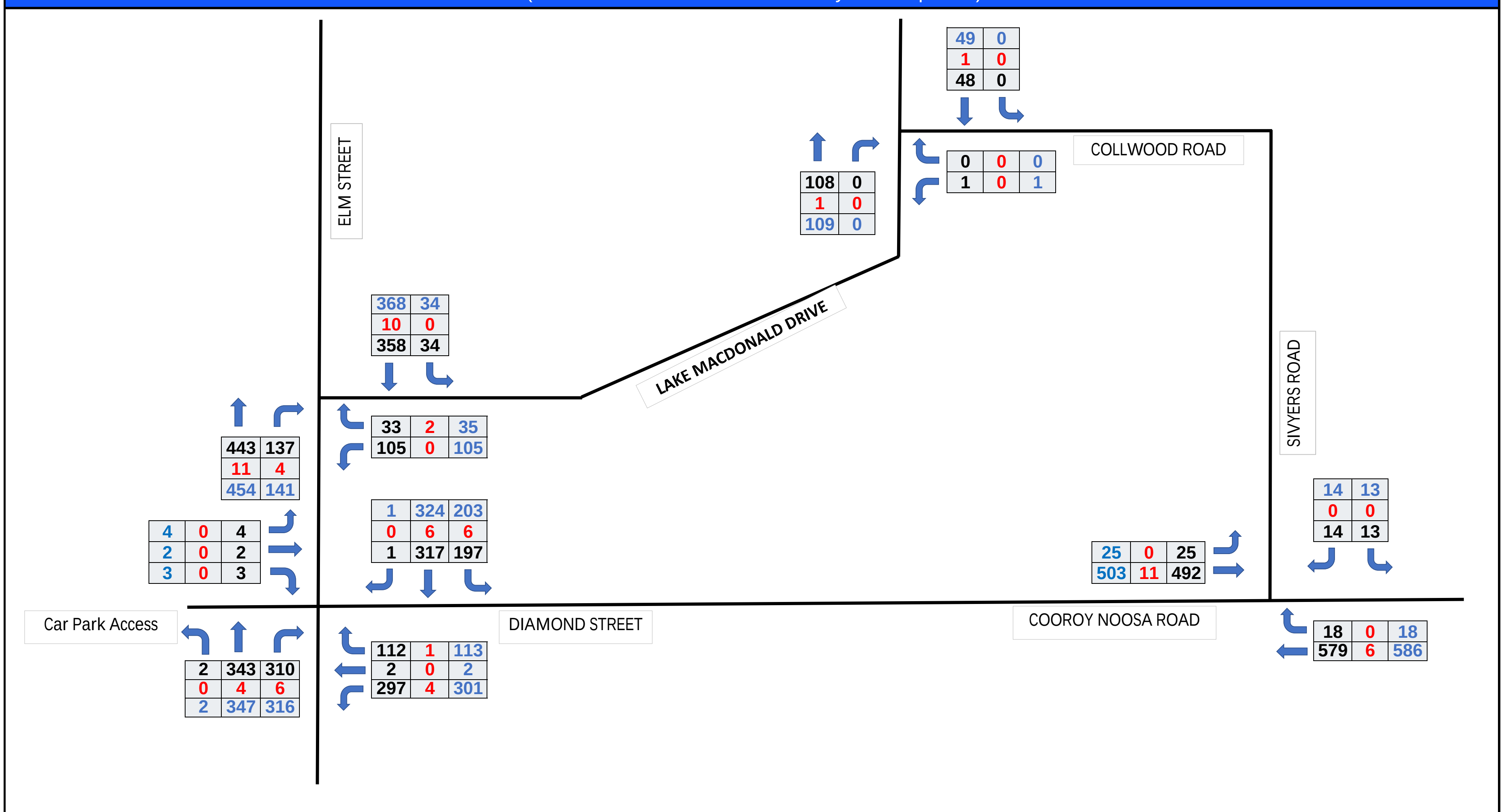
0	Light vehicles
0	Heavy vehicles
0	Total vehicles

PROJECT	PROJECT MANAGEMENT				PROJECT NUMBER
	DESIGN	CHECK	APPROVE		30035740
Lake MacDonald Dam Upgrade	TC	AB	HS	smec an SJ company	SHEET TITLE
					2028 Future Base Traffic Demands AM and PM Peak Periods (base for LV worker anlaysis)
CLIENT	ISSUE / REVISION				SHEET NUMBER
Seqwater	I/R	DATE	DESCRIPTION		30035740_TFD_003
	A	16/09/2024	Draft v.1 TIA		
	B	2/10/2024	TIA rev A		
	C	31/10/2024	TIA rev B		

2028 FUTURE BASE - 1015AM TO 1115AM TRAFFIC VOLUMES (based volumes for HV vehicle analysis time period)



2028 FUTURE BASE - 400PM TO 500PM TRAFFIC VOLUMES (based volumes for HV vehicle analysis time period)



Comments

Compound Growth Factor of 1.5% per year applied to survey data tp derive 2028 future base demands

KEY

0	Light vehicles
0	Heavy vehicles
0	Total vehicles

PROJECT	PROJECT MANAGEMENT			PROJECT NUMBER
	DESIGN	CHECK	APPROVE	30035740
Lake MacDonald Dam Upgrade	TC	AB	HS	SHEET TITLE: 2028 Future Base Traffic Demands AM and PM Peak Periods (base for HV const. veh anlaysis)

CLIENT	ISSUE / REVISION		
	I/R	DATE	DESCRIPTION
Seqwater	A	16/09/2024	Draft v.1 TIA
	B	2/10/2024	TIA rev A
	C	31/10/2024	TIA rev B

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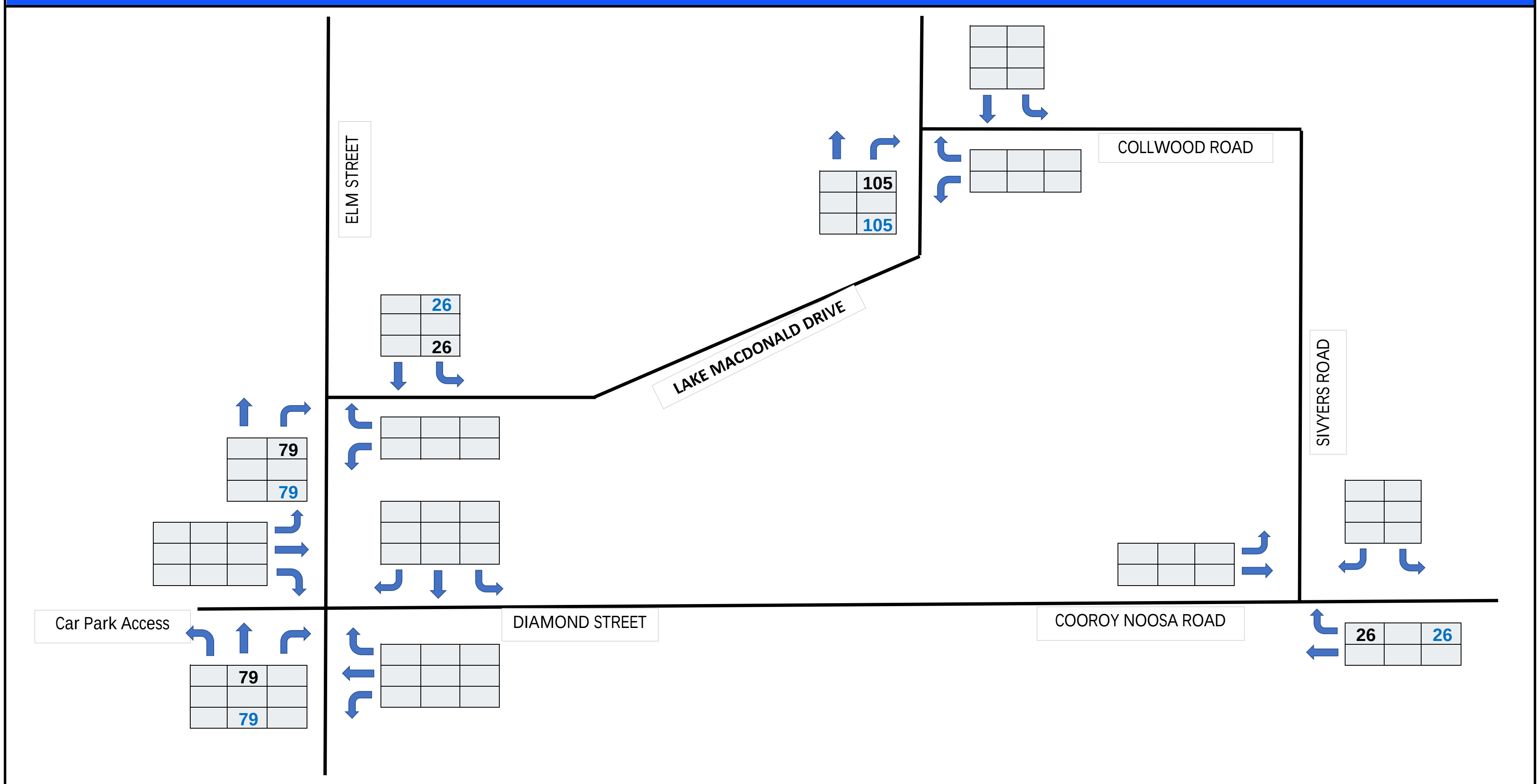
SHEET NUMBER

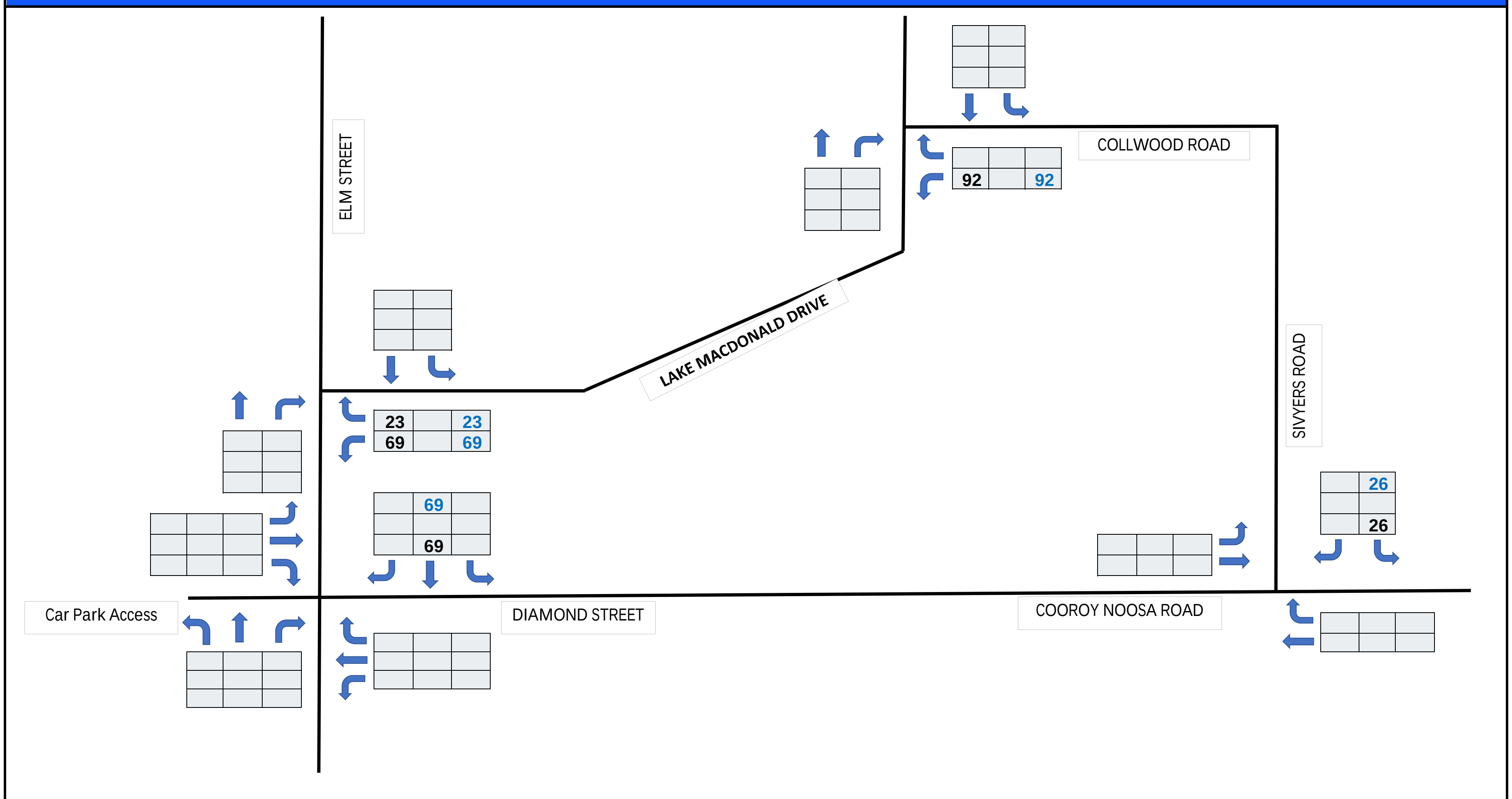
30035740_TFD_004

F-2 2028 With Project Traffic Flow Diagrams

2028 CONSTRUCTION TRAFFIC - WORKER LV ARRIVALS - 6AM TO 7AM TRAFFIC VOLUMES



2028 CONSTRUCTION TRAFFIC - WORKER LV DEPARTURES - 500PM TO 600PM TRAFFIC VOLUMES



Comments

KEY
0 Light vehicles
0 Heavy vehicles
0 Total vehicles

PROJECT	PROJECT MANAGEMENT			PROJECT NUMBER
Lake MacDonald Dam Upgrade	DESIGN	CHECK	APPROVE	30035740
	TC	AB	HS	

CLIENT	ISSUE / REVISION		
Seqwater	I/R	DATE	DESCRIPTION
	A	16/09/2024	Draft v.1 TIA
	B	2/10/2024	TIA rev A
	C	31/10/2024	TIA rev B

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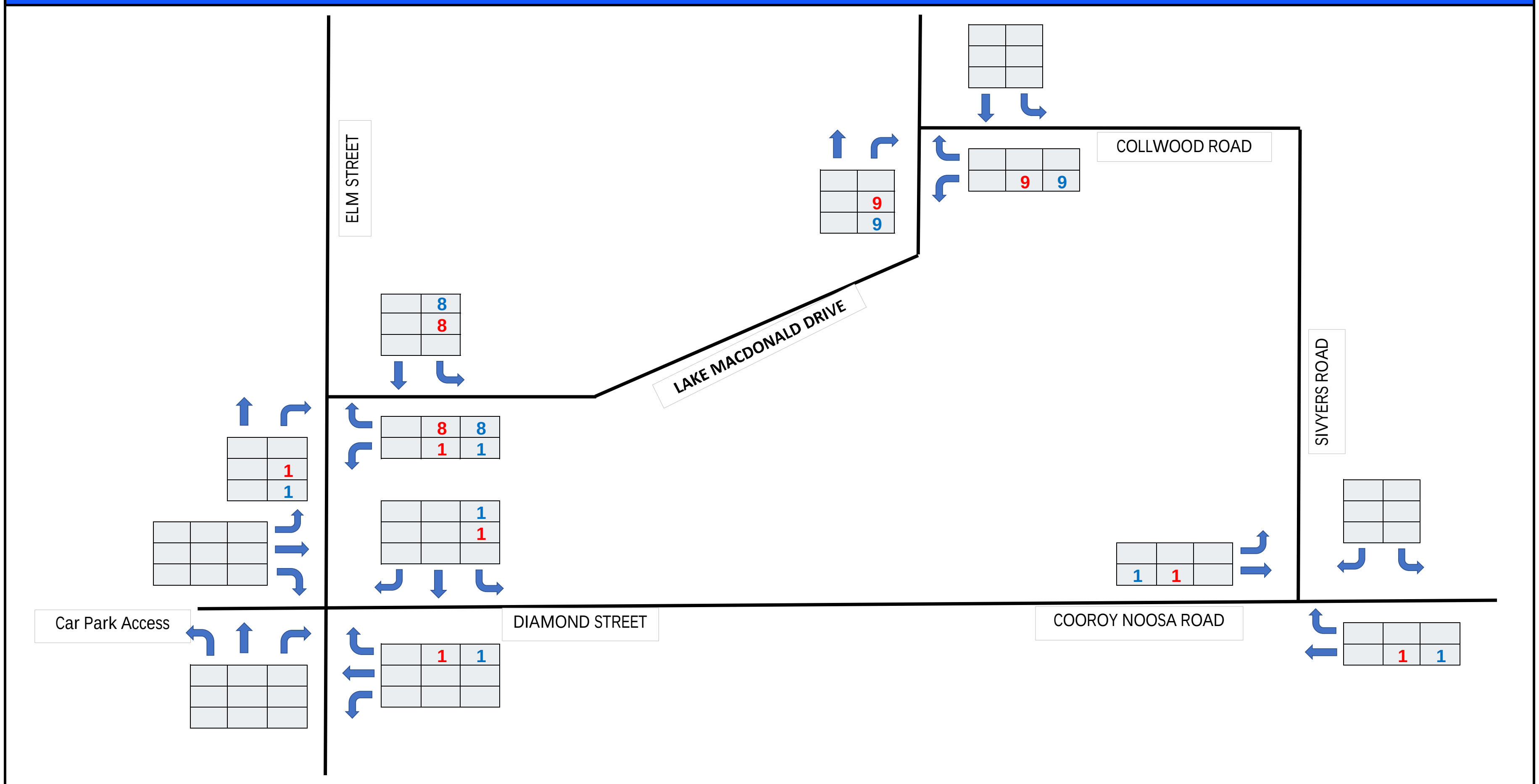
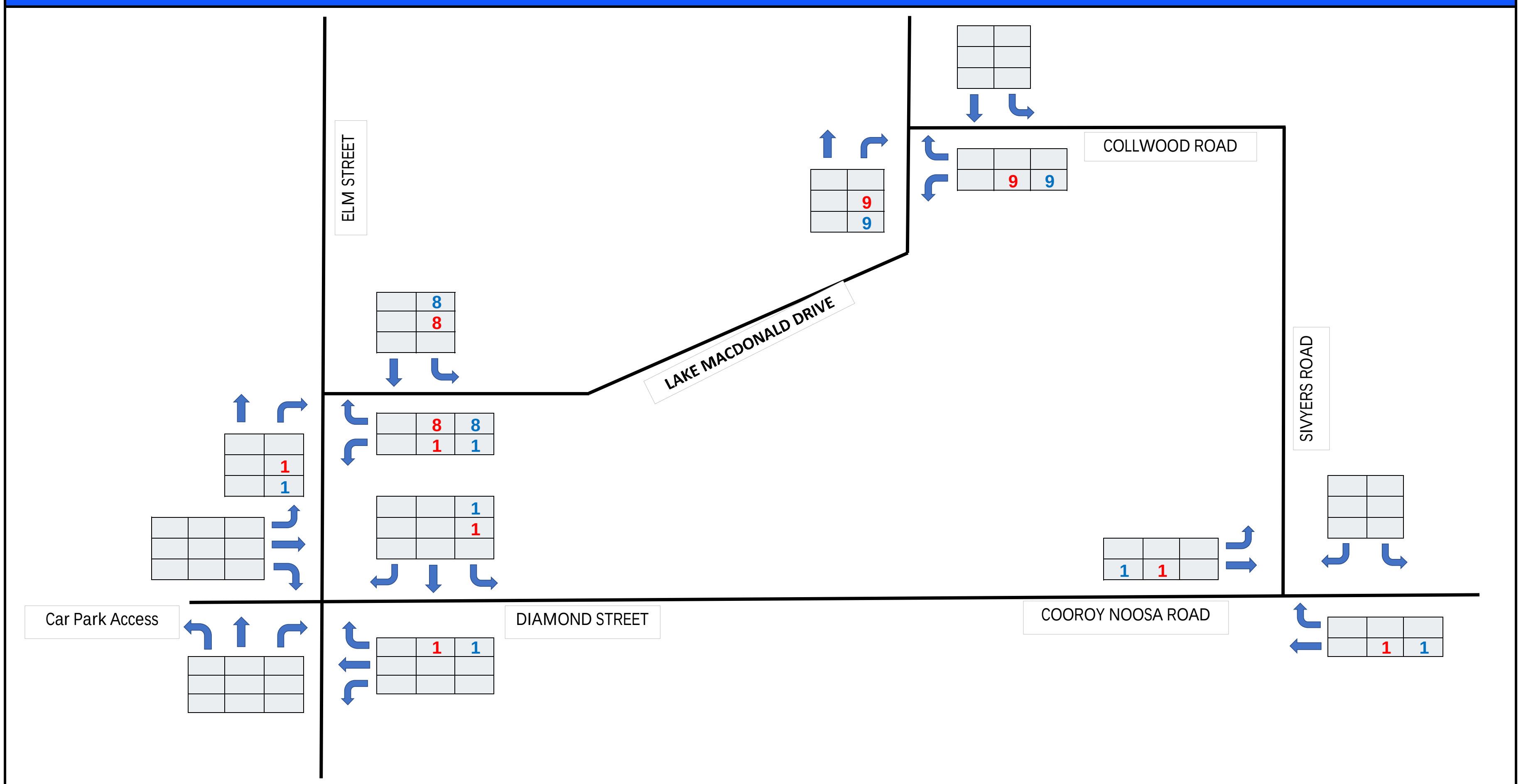
SHEET TITLE
2028 Construction Worker (LV) Traffic Demands
AM and PM Peak Periods

SHEET NUMBER
30035740_TFD_005

2028 CONSTRUCTION HEAVY VEHICLE TRAFFIC - 1015AM TO 1115AM



2028 CONSTRUCTION HEAVY VEHICLE TRAFFIC - 400PM TO 500PM TRAFFIC VOLUMES



Comments

KEY	
0	Light vehicles
0	Heavy vehicles
0	Total vehicles

PROJECT	PROJECT MANAGEMENT		
	DESIGN	CHECK	APPROVE
Lake MacDonald Dam Upgrade	TC	AB	HS

CLIENT	ISSUE / REVISION		
	I/R	DATE	DESCRIPTION
Seqwater	A	16/09/2024	Draft v.1 TIA
	B	2/10/2024	TIA rev A
	C	31/10/2024	TIA rev B

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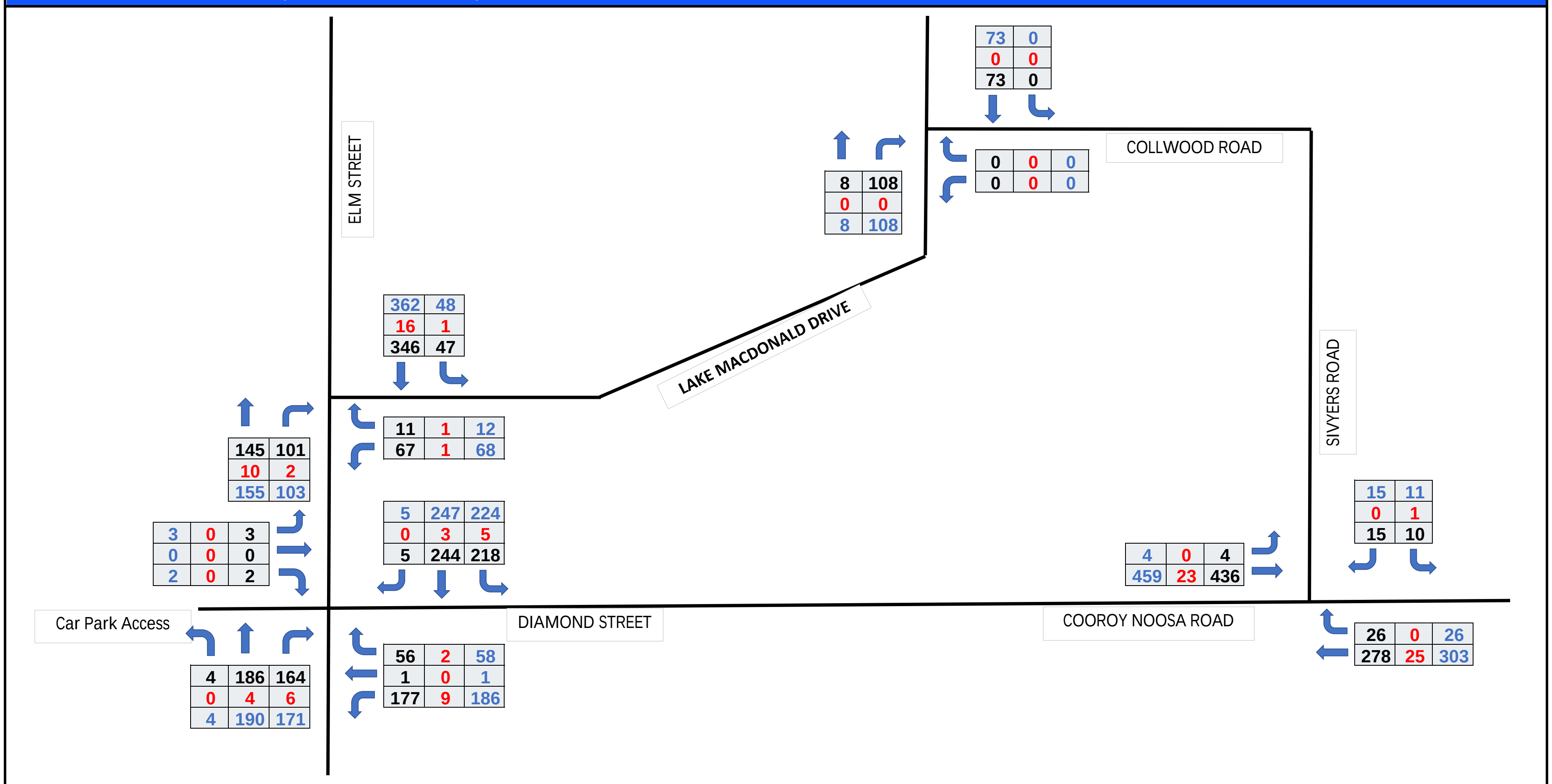
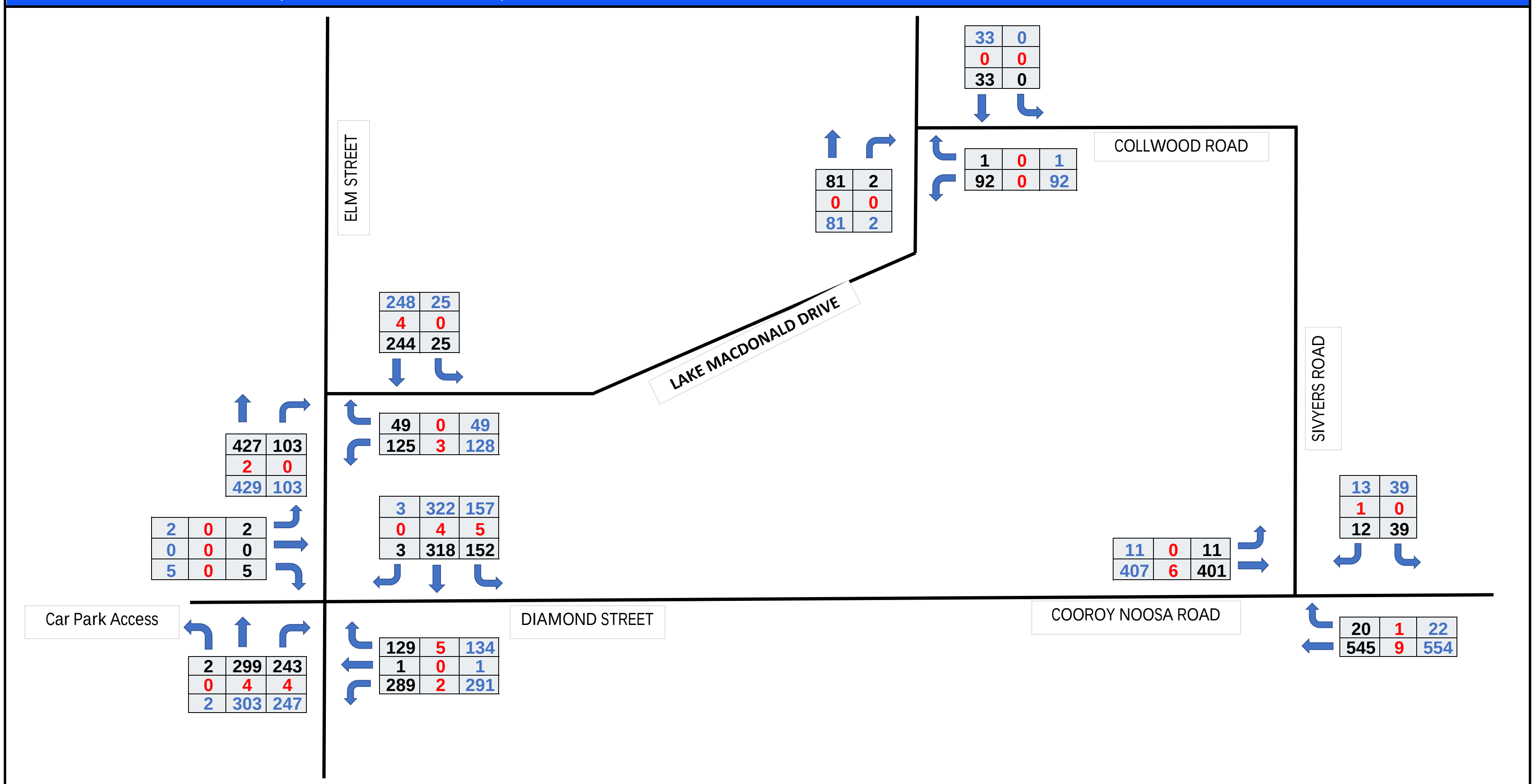
PROJECT NUMBER
30035740
SHEET TITLE
2028 Construction Traffic (HV) Traffic Demands AM and PM Peak Periods
SHEET NUMBER
30035740_TFD_006

2028 FUTURE BASE WITH DEV (LV WORKER ARRIVAL) - 6AM TO 7AM TRAFFIC VOLUMES



2028 FUTURE BASE WITH DEV (LV WORKER DEPARTURE) - 500PM TO 600PM TRAFFIC VOLUME



Comments

KEY	
0	Light vehicles
0	Heavy vehicles
0	Total vehicles

PROJECT

Lake MacDonald Dam Upgrade

CLIENT

Seqwater

PROJECT MANAGEMENT

DESIGN	CHECK	APPROVE
TC	AB	HS

ISSUE / REVISION

I/R	DATE	DESCRIPTION
A	16/09/2024	Draft v.1 TIA
B	2/10/2024	TIA rev A
C	31/10/2024	TIA rev B

smec an SJ company

PROJECT NUMBER

30035740

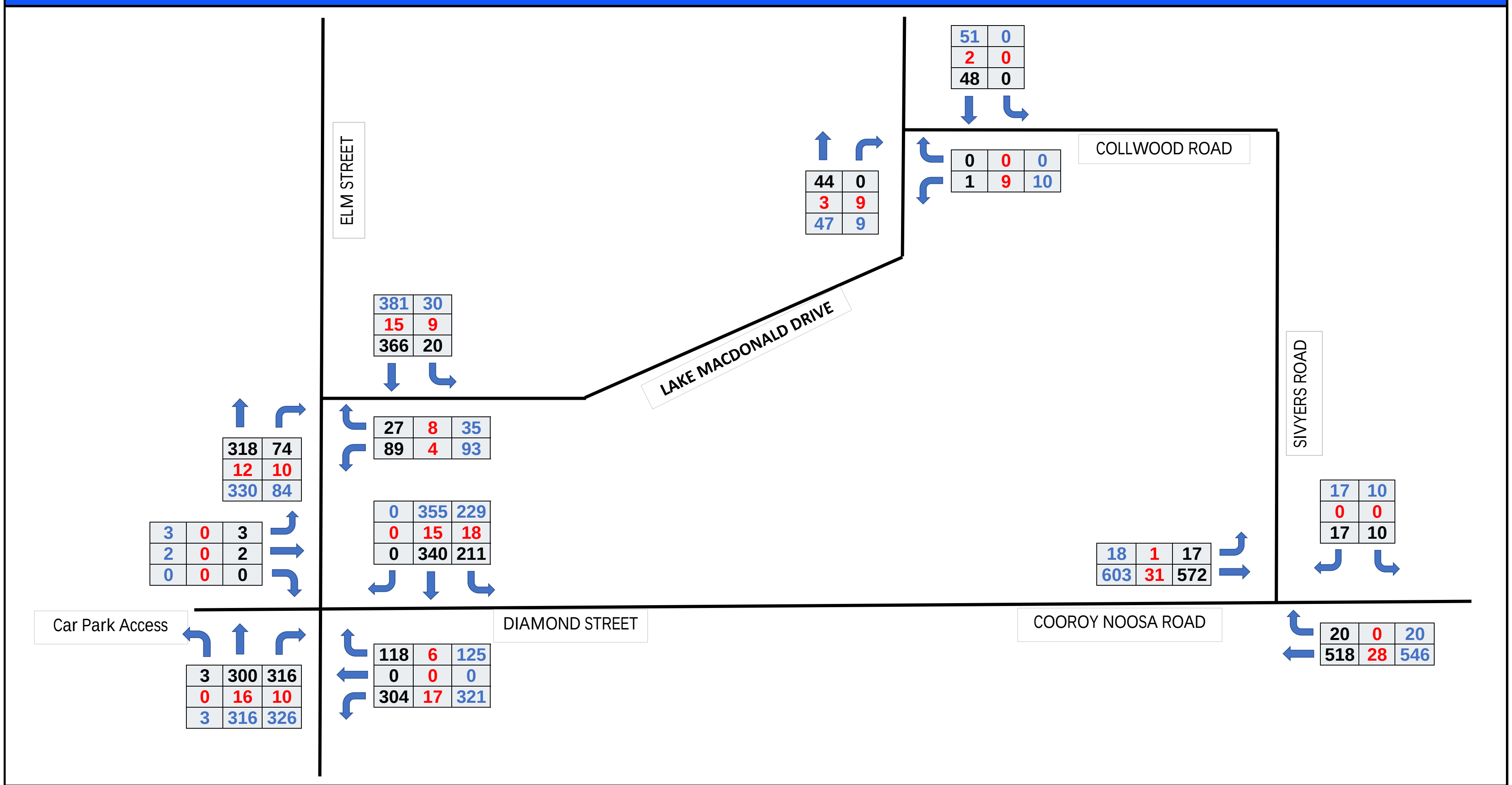
SHEET TITLE

2028 Future Base with Dev (LV) Traffic Demands
AM and PM Peak Periods

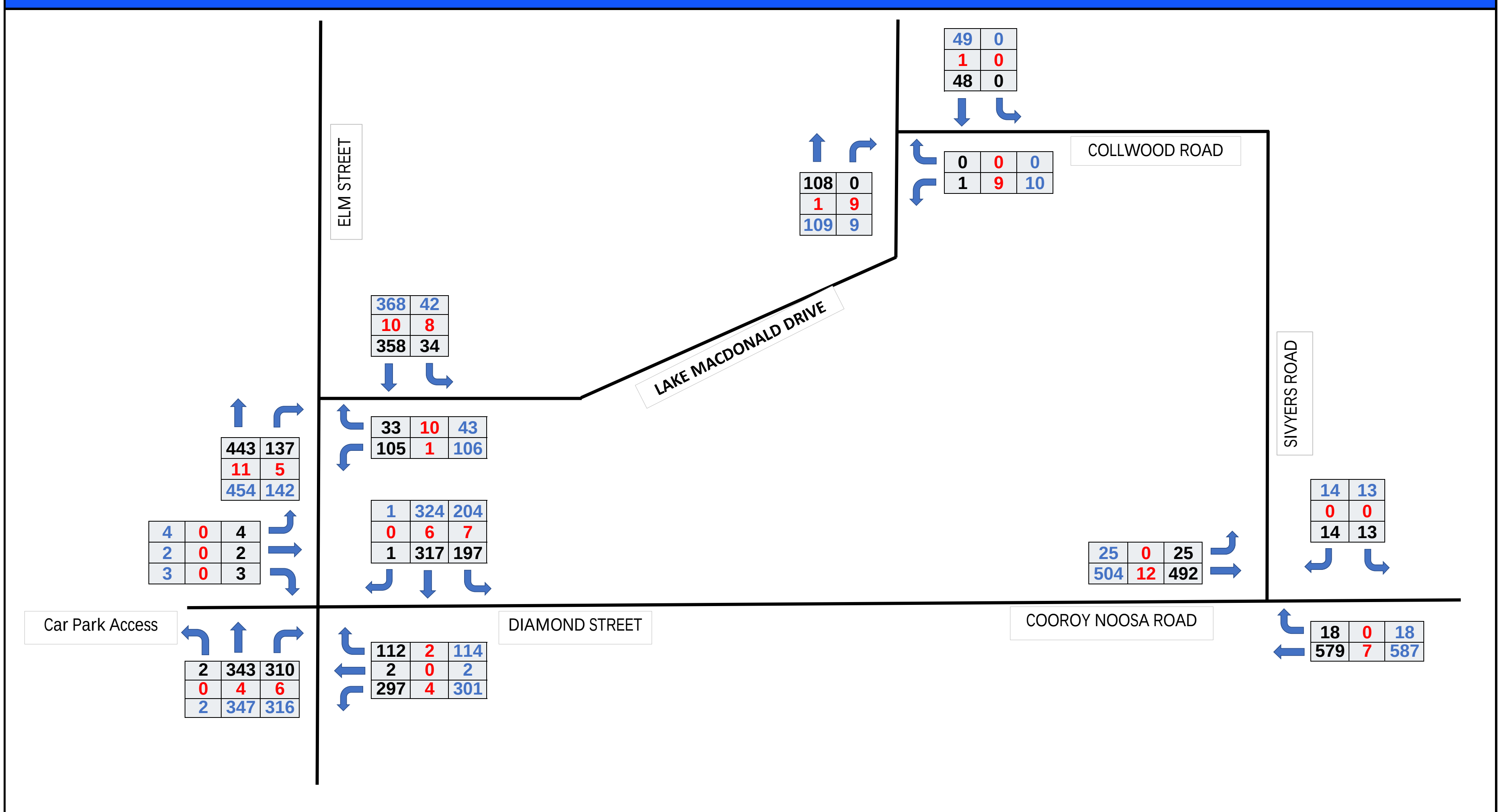
SHEET NUMBER

30035740_TFD_007

2028 FUTURE BASE WITH CONSTRUCTION HEAVY VEHICLE TRAFFIC - 1015AM TO 1115AM



2028 FUTURE BASE WITH CONSTRUCTION HEAVY VEHICLE TRAFFIC - 400PM TO 500PM TRAFFIC VOLUMES



Comments

KEY

0	Light vehicles
0	Heavy vehicles
0	Total vehicles

PROJECT	PROJECT MANAGEMENT			PROJECT NUMBER
	DESIGN	CHECK	APPROVE	30035740
Lake MacDonald Dam Upgrade	TC	AB	HS	SHEET TITLE: 2028 Future Base with Dev (HV) Traffic Demands AM and PM Peak Periods
CLIENT	ISSUE / REVISION			SHEET NUMBER
Seqwater	I/R	DATE	DESCRIPTION	30035740_TFD_008
	A	16/09/2024	Draft v.1 TIA	
	B	2/10/2024	TIA rev A	
	C	31/10/2024	TIA rev B	

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Appendix G

SIDRA Results including intersection layouts

G-1 2028 Base – Without Project SIDRA results

USER REPORT FOR SITE

Project: SIDRA Models_04-11-24

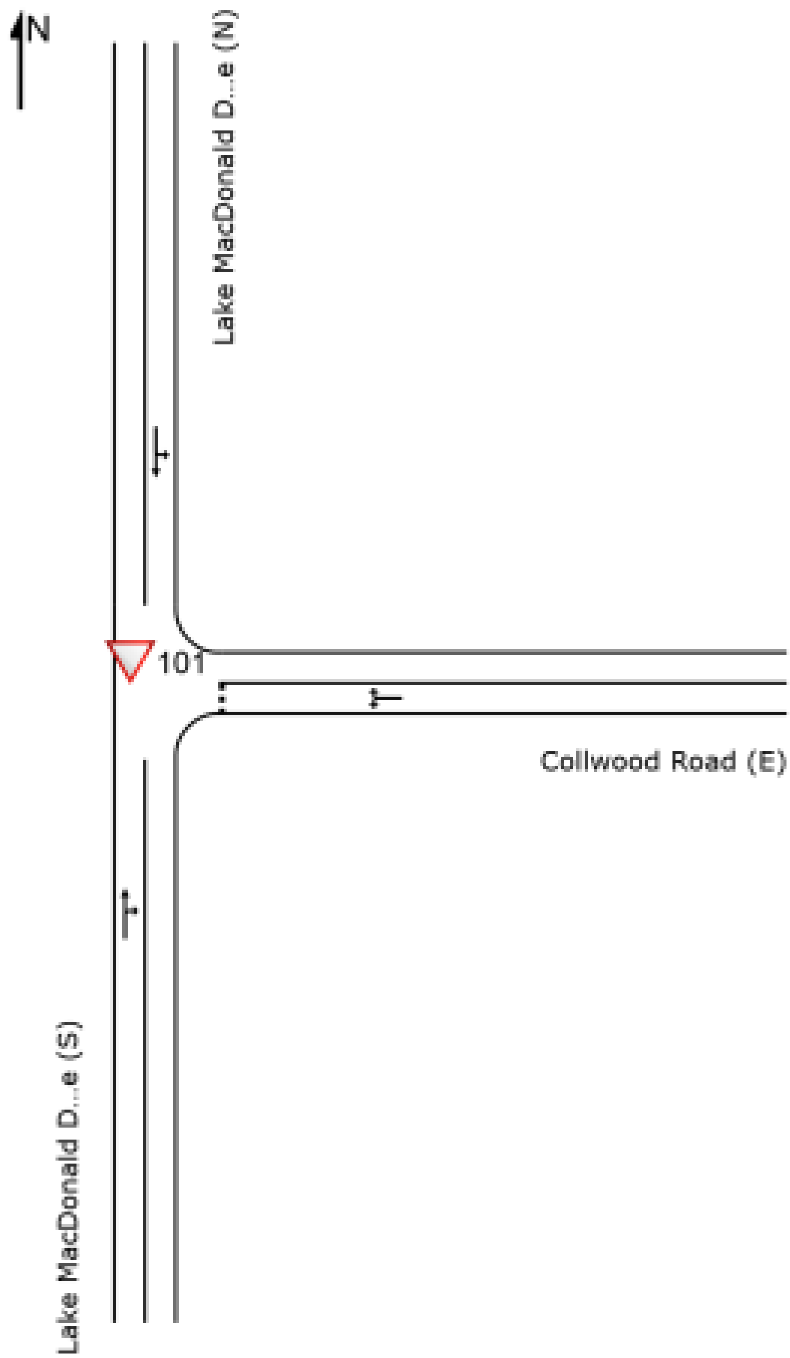
Output produced by SIDRA INTERSECTION Version: 9.1.6.228 **Template: Unsignalised**

Site: 101 [1A - Lake MD & Collwood Rd Priority_2028 Base_AM 6-7am (LV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lake MacDonald Drive (S)															
2	T1	All MCs	8	0.0	8	0.0	0.006	0.1	LOS A	0.0	0.1	0.09	0.18	0.09	65.4
3	R2	All MCs	3	0.0	3	0.0	0.006	5.7	LOS A	0.0	0.1	0.09	0.18	0.09	43.4
Approach			11	0.0	11	0.0	0.006	1.6	NA	0.0	0.1	0.09	0.18	0.09	59.8
East: Collwood Road (E)															
4	L2	All MCs	1	0.0	1	0.0	0.001	0.1	LOS A	0.0	0.0	0.12	0.11	0.12	41.0
6	R2	All MCs	1	0.0	1	0.0	0.001	0.8	LOS A	0.0	0.0	0.12	0.11	0.12	46.1
Approach			2	0.0	2	0.0	0.001	0.5	LOS A	0.0	0.0	0.12	0.11	0.12	43.4
North: Lake MacDonald Drive (N)															
7	L2	All MCs	1	0.0	1	0.0	0.039	7.0	LOS A	0.0	0.0	0.00	0.31	0.00	42.3
8	T1	All MCs	73	0.0	73	0.0	0.039	2.0	LOS A	0.0	0.0	0.00	0.31	0.00	75.5
Approach			74	0.0	74	0.0	0.039	2.1	NA	0.0	0.0	0.00	0.31	0.00	75.1
All Vehicles			87	0.0	87	0.0	0.039	2.0	NA	0.0	0.1	0.01	0.29	0.01	72.2

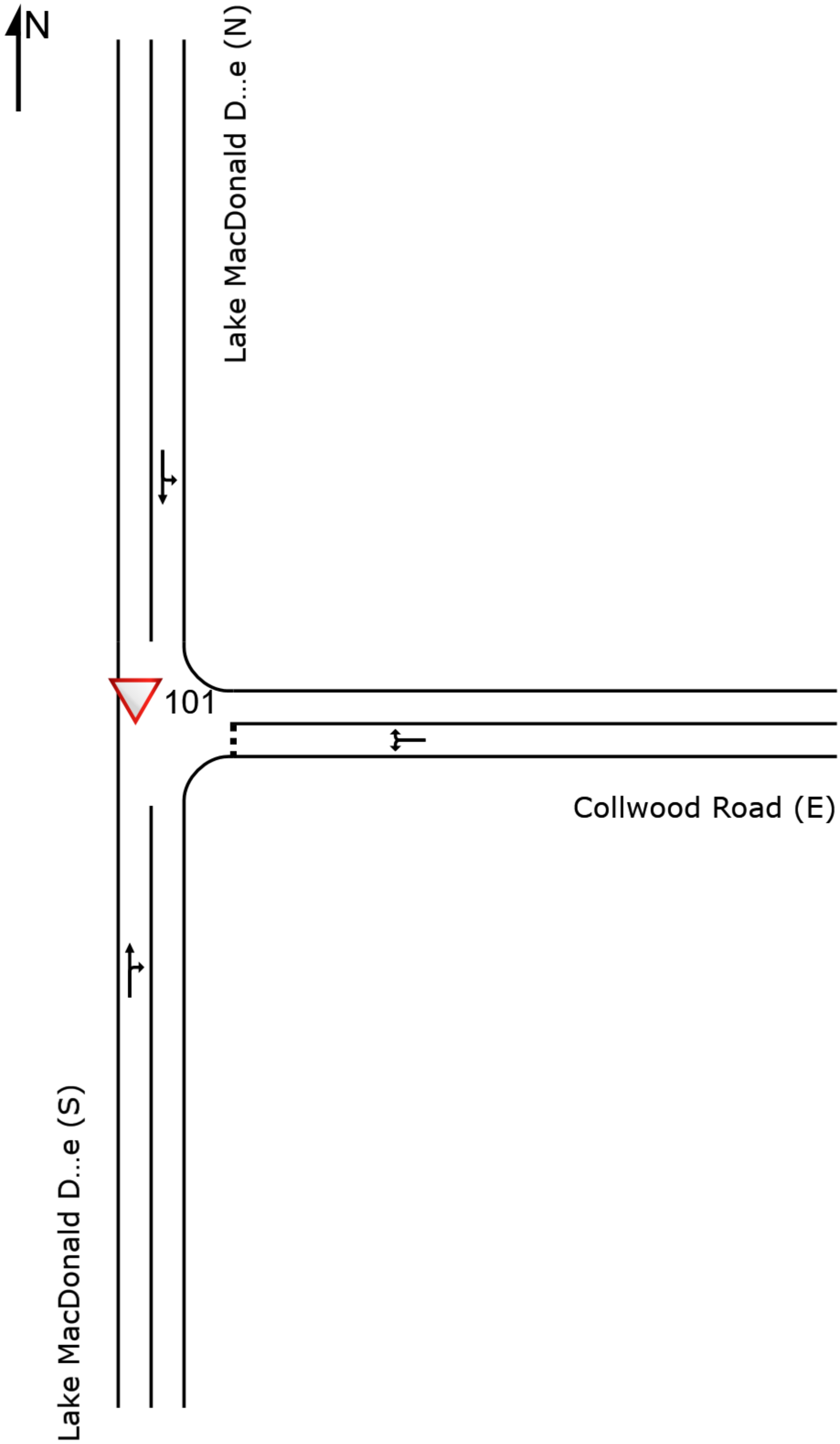
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [1B - Lake MD & Collwood Rd Priority_2028 Base_PM 5-6pm (LV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Lake MacDonald Drive (S)															
2	T1	All MCs	81	0.0	81	0.0	0.043	0.0	LOS A	0.0	0.1	0.01	0.02	0.01	67.5
3	R2	All MCs	2	0.0	2	0.0	0.043	5.5	LOS A	0.0	0.1	0.01	0.02	0.01	45.0
Approach			83	0.0	83	0.0	0.043	0.1	NA	0.0	0.1	0.01	0.02	0.01	67.0
East: Collwood Road (E)															
4	L2	All MCs	1	0.0	1	0.0	0.001	0.1	LOS A	0.0	0.0	0.10	0.10	0.10	41.1
6	R2	All MCs	1	0.0	1	0.0	0.001	0.9	LOS A	0.0	0.0	0.10	0.10	0.10	46.2
Approach			2	0.0	2	0.0	0.001	0.5	LOS A	0.0	0.0	0.10	0.10	0.10	43.5
North: Lake MacDonald Drive (N)															
7	L2	All MCs	1	0.0	1	0.0	0.018	7.0	LOS A	0.0	0.0	0.00	0.32	0.00	42.3
8	T1	All MCs	33	0.0	33	0.0	0.018	2.0	LOS A	0.0	0.0	0.00	0.32	0.00	75.4
Approach			34	0.0	34	0.0	0.018	2.2	NA	0.0	0.0	0.00	0.32	0.00	74.4
All Vehicles			119	0.0	119	0.0	0.043	0.7	NA	0.0	0.1	0.01	0.10	0.01	68.6

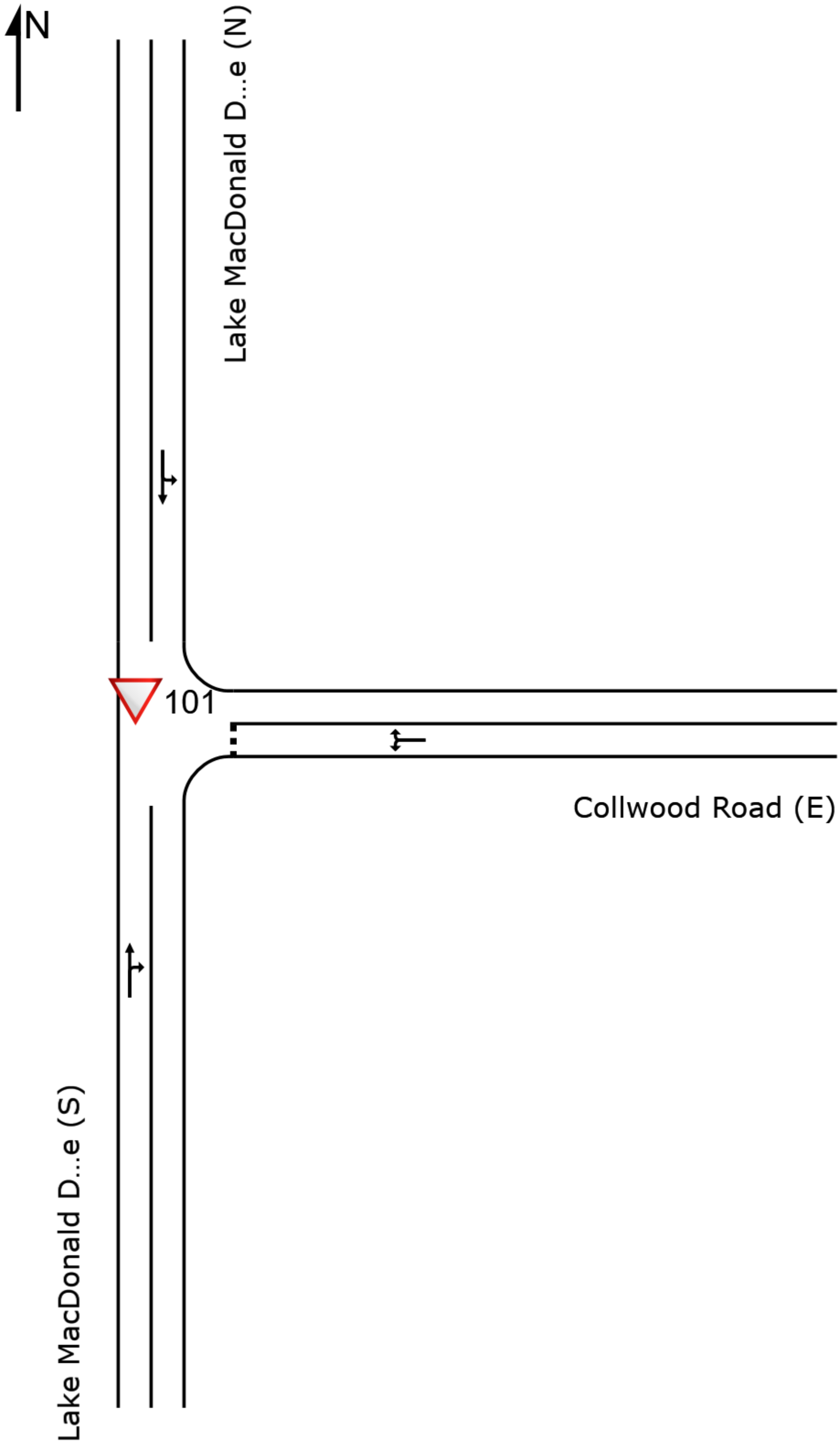
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [1C - Lake MD & Collwood Rd Priority_2028 Base_AM 1015-1115am (HV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Lake MacDonald Drive (S)															
2	T1	All MCs	47	6.4	47	6.4	0.026	0.0	LOS A	0.0	0.0	0.01	0.01	0.01	67.4
3	R2	All MCs	1	0.0	1	0.0	0.026	5.5	LOS A	0.0	0.0	0.01	0.01	0.01	45.0
Approach			48	6.3	48	6.3	0.026	0.1	NA	0.0	0.0	0.01	0.01	0.01	66.9
East: Collwood Road (E)															
4	L2	All MCs	1	0.0	1	0.0	0.001	0.1	LOS A	0.0	0.0	0.11	0.10	0.11	41.0
6	R2	All MCs	1	0.0	1	0.0	0.001	0.9	LOS A	0.0	0.0	0.11	0.10	0.11	46.2
Approach			2	0.0	2	0.0	0.001	0.5	LOS A	0.0	0.0	0.11	0.10	0.11	43.4
North: Lake MacDonald Drive (N)															
7	L2	All MCs	1	0.0	1	0.0	0.027	7.0	LOS A	0.0	0.0	0.00	0.31	0.00	57.7
8	T1	All MCs	50	4.0	50	4.0	0.027	2.0	LOS A	0.0	0.0	0.00	0.31	0.00	75.4
Approach			51	3.9	51	3.9	0.027	2.1	NA	0.0	0.0	0.00	0.31	0.00	75.1
All Vehicles			101	5.0	101	5.0	0.027	1.1	NA	0.0	0.0	0.01	0.17	0.01	70.4

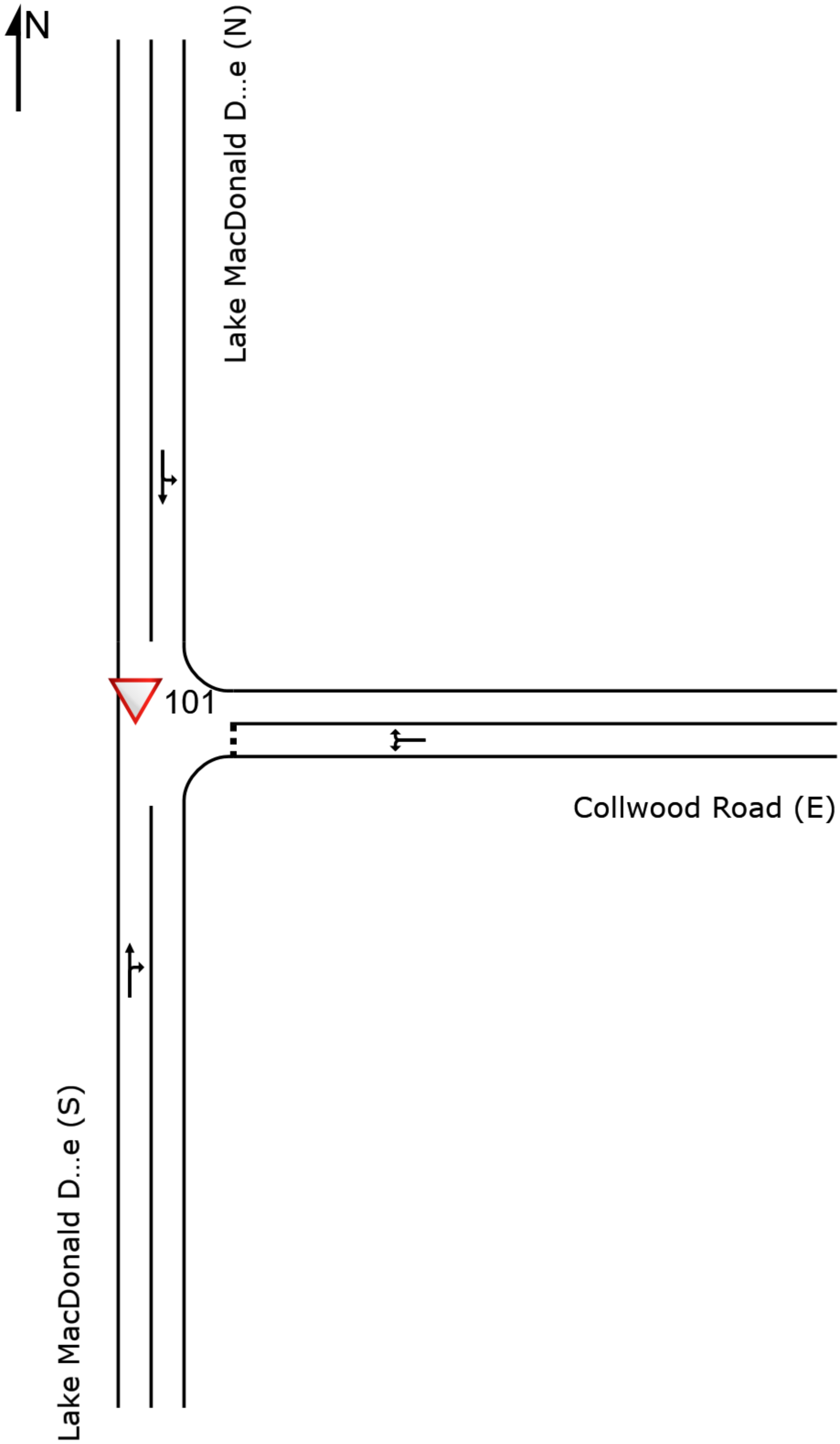
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [1D - Lake MD & Collwood Rd Priority_2028 Base_PM 4-5pm (HV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Lake MacDonald Drive (S)															
2	T1	All MCs	109	0.9	109	0.9	0.058	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	67.6
3	R2	All MCs	1	0.0	1	0.0	0.058	5.5	LOS A	0.0	0.0	0.00	0.01	0.00	45.1
Approach			110	0.9	110	0.9	0.058	0.1	NA	0.0	0.0	0.00	0.01	0.00	67.4
East: Collwood Road (E)															
4	L2	All MCs	1	0.0	1	0.0	0.001	0.1	LOS A	0.0	0.0	0.12	0.11	0.12	41.0
6	R2	All MCs	1	0.0	1	0.0	0.001	0.9	LOS A	0.0	0.0	0.12	0.11	0.12	46.1
Approach			2	0.0	2	0.0	0.001	0.5	LOS A	0.0	0.0	0.12	0.11	0.12	43.4
North: Lake MacDonald Drive (N)															
7	L2	All MCs	1	0.0	1	0.0	0.026	7.0	LOS A	0.0	0.0	0.00	0.32	0.00	57.7
8	T1	All MCs	49	2.0	49	2.0	0.026	2.0	LOS A	0.0	0.0	0.00	0.32	0.00	75.4
Approach			50	2.0	50	2.0	0.026	2.1	NA	0.0	0.0	0.00	0.32	0.00	75.2
All Vehicles			162	1.2	162	1.2	0.058	0.7	NA	0.0	0.0	0.00	0.10	0.00	69.3

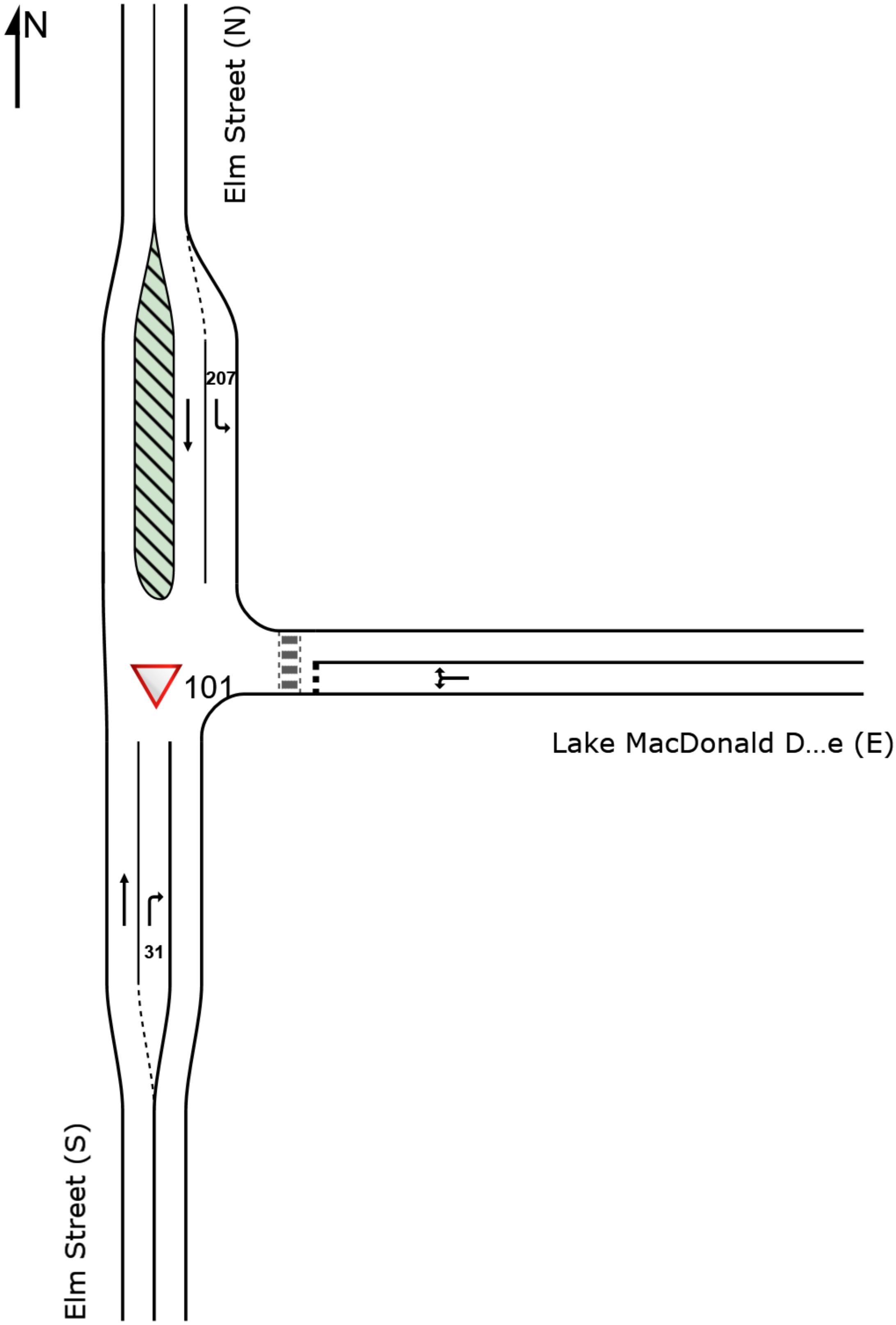
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [2A - Elm Street & Lake MD Priority_2028 Base_AM 6-7am (LV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Elm Street (S)															
2	T1	All MCs	155	6.5	155	6.5	0.084	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
3	R2	All MCs	25	8.0	25	8.0	0.028	7.5	LOS A	0.1	0.8	0.44	0.65	0.44	50.8
Approach			180	6.7	180	6.7	0.084	1.1	NA	0.1	0.8	0.06	0.09	0.06	58.5
East: Lake MacDonald Drive (E)															
4	L2	All MCs	68	1.5	68	1.5	0.108	7.7	LOS A	0.4	3.0	0.50	0.70	0.50	50.7
6	R2	All MCs	12	8.3	12	8.3	0.108	12.9	LOS B	0.4	3.0	0.50	0.70	0.50	50.4
Approach			80	2.5	80	2.5	0.108	8.5	LOS A	0.4	3.0	0.50	0.70	0.50	50.6
North: Elm Street (N)															
7	L2	All MCs	21	4.8	21	4.8	0.012	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	52.7
8	T1	All MCs	362	4.4	362	4.4	0.194	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			383	4.4	383	4.4	0.194	0.4	NA	0.0	0.0	0.00	0.03	0.00	59.5
All Vehicles			643	4.8	643	4.8	0.194	1.6	NA	0.4	3.0	0.08	0.13	0.08	57.9

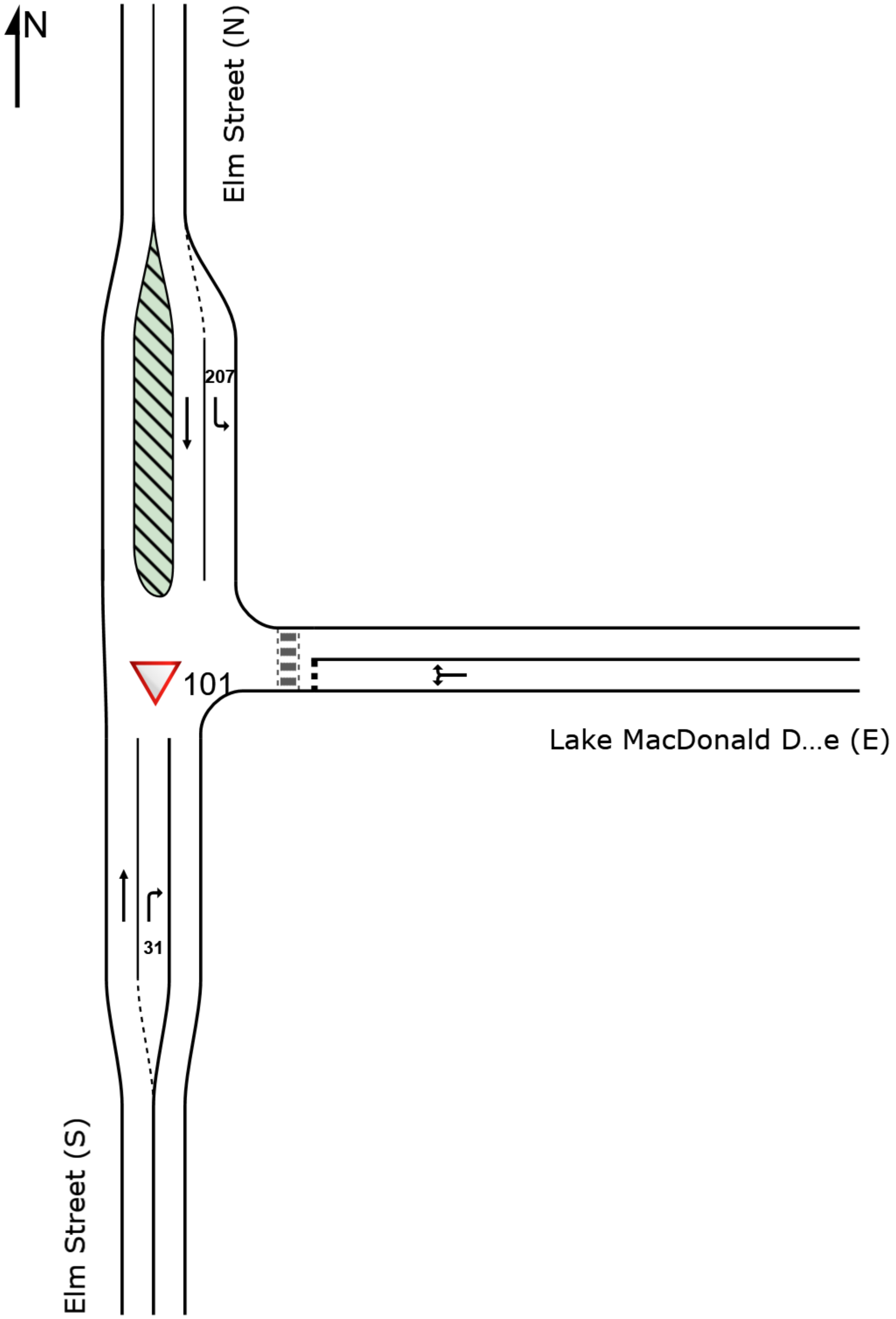
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [2B - Elm Street & Lake MD Priority_2028 Base_PM 5-6pm (LV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Elm Street (S)															
2	T1	All MCs	429	0.5	429	0.5	0.224	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	103	0.0	103	0.0	0.094	6.7	LOS A	0.4	2.6	0.37	0.63	0.37	51.6
Approach			532	0.4	532	0.4	0.224	1.3	NA	0.4	2.6	0.07	0.12	0.07	58.1
East: Lake MacDonald Drive (E)															
4	L2	All MCs	59	5.1	59	5.1	0.142	7.0	LOS A	0.6	4.0	0.55	0.68	0.55	49.5
6	R2	All MCs	26	0.0	26	0.0	0.142	17.0	LOS C	0.6	4.0	0.55	0.68	0.55	49.7
Approach			85	3.5	85	3.5	0.142	10.0	LOS B	0.6	4.0	0.55	0.68	0.55	49.5
North: Elm Street (N)															
7	L2	All MCs	25	0.0	25	0.0	0.014	5.5	LOS A	0.0	0.0	0.00	0.58	0.00	52.9
8	T1	All MCs	248	1.6	248	1.6	0.131	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			273	1.5	273	1.5	0.131	0.5	NA	0.0	0.0	0.00	0.05	0.00	59.2
All Vehicles			890	1.0	890	1.0	0.224	1.9	NA	0.6	4.0	0.10	0.15	0.10	57.5

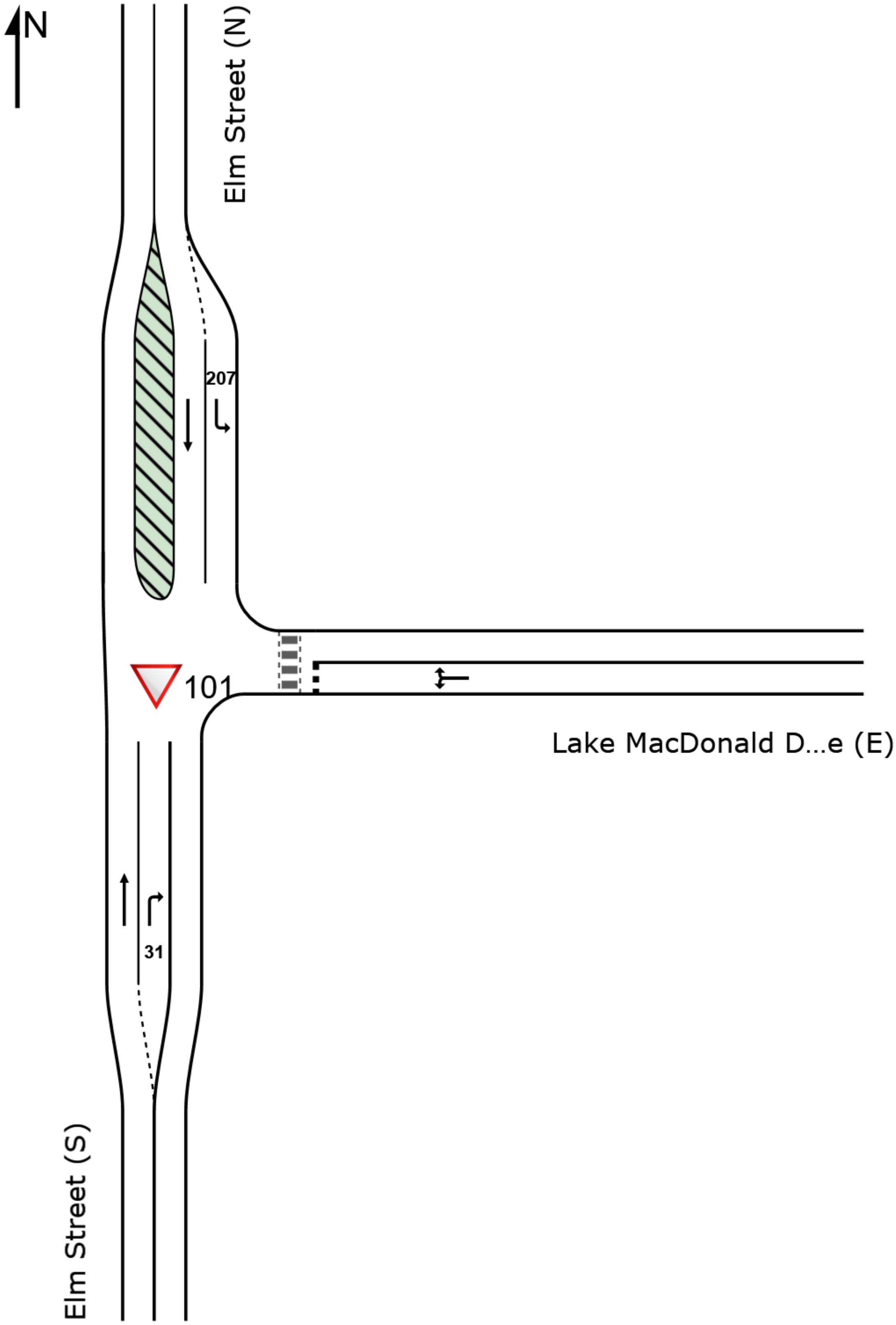
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [2B - Elm Street & Lake MD Priority_2028 Base_AM 1015-1115am (HV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance																
Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Elm Street (S)															
2	T1	All MCs	330	3.6	330	3.6	0.176	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	83	10.8	83	10.8	0.097	8.0	LOS A	0.4	2.9	0.47	0.70	0.47	50.4
Approach			413	5.1	413	5.1	0.176	1.6	NA	0.4	2.9	0.09	0.14	0.09	57.7
East: Lake MacDonald Drive (E)															
4	L2	All MCs	92	3.3	92	3.3	0.199	8.1	LOS A	0.8	5.7	0.59	0.76	0.59	49.4
6	R2	All MCs	27	0.0	27	0.0	0.199	17.9	LOS C	0.8	5.7	0.59	0.76	0.59	49.5
Approach			119	2.5	119	2.5	0.199	10.3	LOS B	0.8	5.7	0.59	0.76	0.59	49.4
North: Elm Street (N)															
7	L2	All MCs	21	4.8	21	4.8	0.012	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	52.7
8	T1	All MCs	381	3.9	381	3.9	0.204	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			402	4.0	402	4.0	0.204	0.3	NA	0.0	0.0	0.00	0.03	0.00	59.5
All Vehicles			934	4.3	934	4.3	0.204	2.2	NA	0.8	5.7	0.12	0.17	0.12	57.2

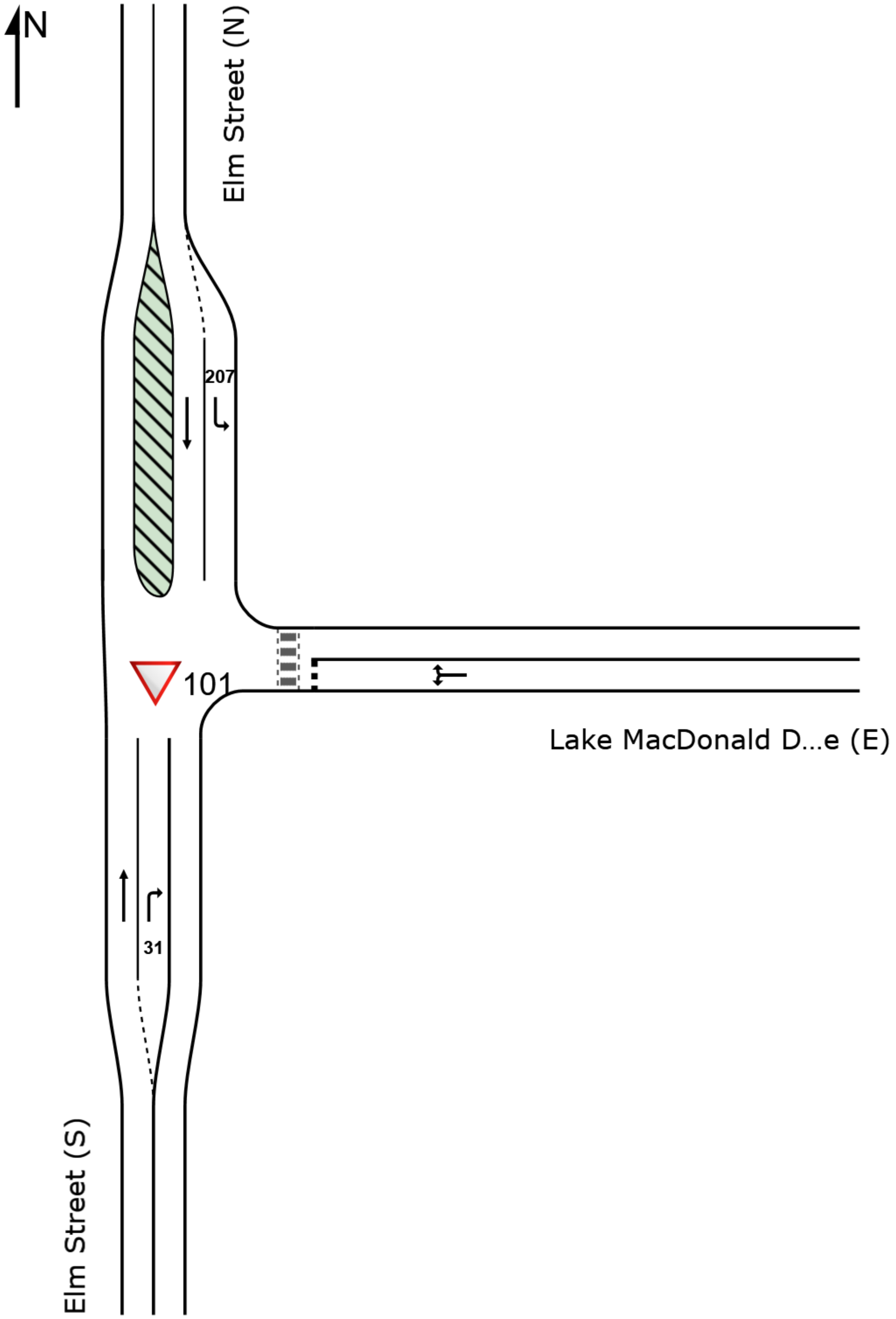
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [2B - Elm Street & Lake MD Priority_2028 Base_PM 4-5pm (HV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Elm Street (S)															
2	T1	All MCs	454	2.4	454	2.4	0.240	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	141	2.8	141	2.8	0.154	7.7	LOS A	0.6	4.4	0.48	0.71	0.48	50.8
Approach			595	2.5	595	2.5	0.240	1.9	NA	0.6	4.4	0.11	0.17	0.11	57.5
East: Lake MacDonald Drive (E)															
4	L2	All MCs	105	0.0	105	0.0	0.300	8.6	LOS A	1.3	9.5	0.68	0.83	0.80	47.4
6	R2	All MCs	35	5.7	35	5.7	0.300	28.4	LOS D	1.3	9.5	0.68	0.83	0.80	47.2
Approach			140	1.4	140	1.4	0.300	13.6	LOS B	1.3	9.5	0.68	0.83	0.80	47.4
North: Elm Street (N)															
7	L2	All MCs	34	0.0	34	0.0	0.019	5.5	LOS A	0.0	0.0	0.00	0.58	0.00	52.9
8	T1	All MCs	368	2.7	368	2.7	0.195	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			402	2.5	402	2.5	0.195	0.5	NA	0.0	0.0	0.00	0.05	0.00	59.2
All Vehicles			1137	2.4	1137	2.4	0.300	2.8	NA	1.3	9.5	0.14	0.21	0.16	56.6

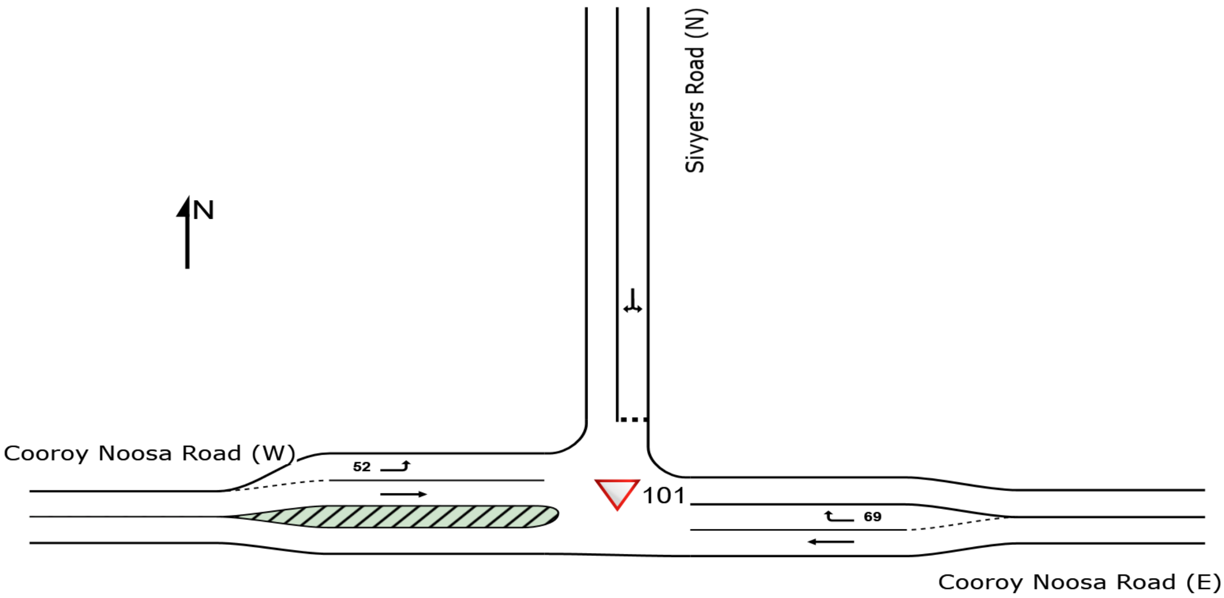
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [3A - Cooroy Noosa Rd & Sivyers Rd Prority_2028 Base_AM 6-7am (LV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance																
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Cooroy Noosa Road (E)															
5	T1	All MCs	303	8.3	303	8.3	0.162	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
6	R2	All MCs	1	0.0	1	0.0	0.001	8.7	LOS A	0.0	0.0	0.47	0.60	0.47	59.6
Approach			304	8.2	304	8.2	0.162	0.1	NA	0.0	0.0	0.00	0.00	0.00	79.8
North: Sivyers Road (N)															
7	L2	All MCs	11	9.1	11	9.1	0.058	9.1	LOS A	0.2	1.4	0.60	0.80	0.60	53.6
9	R2	All MCs	15	0.0	15	0.0	0.058	15.2	LOS C	0.2	1.4	0.60	0.80	0.60	55.8
Approach			26	3.8	26	3.8	0.058	12.6	LOS B	0.2	1.4	0.60	0.80	0.60	54.8
West: Cooroy Noosa Road (W)															
10	L2	All MCs	4	0.0	4	0.0	0.002	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	64.6
11	T1	All MCs	459	5.0	459	5.0	0.242	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			463	5.0	463	5.0	0.242	0.1	NA	0.0	0.0	0.00	0.01	0.00	79.7
All Vehicles			793	6.2	793	6.2	0.242	0.5	NA	0.2	1.4	0.02	0.03	0.02	78.6

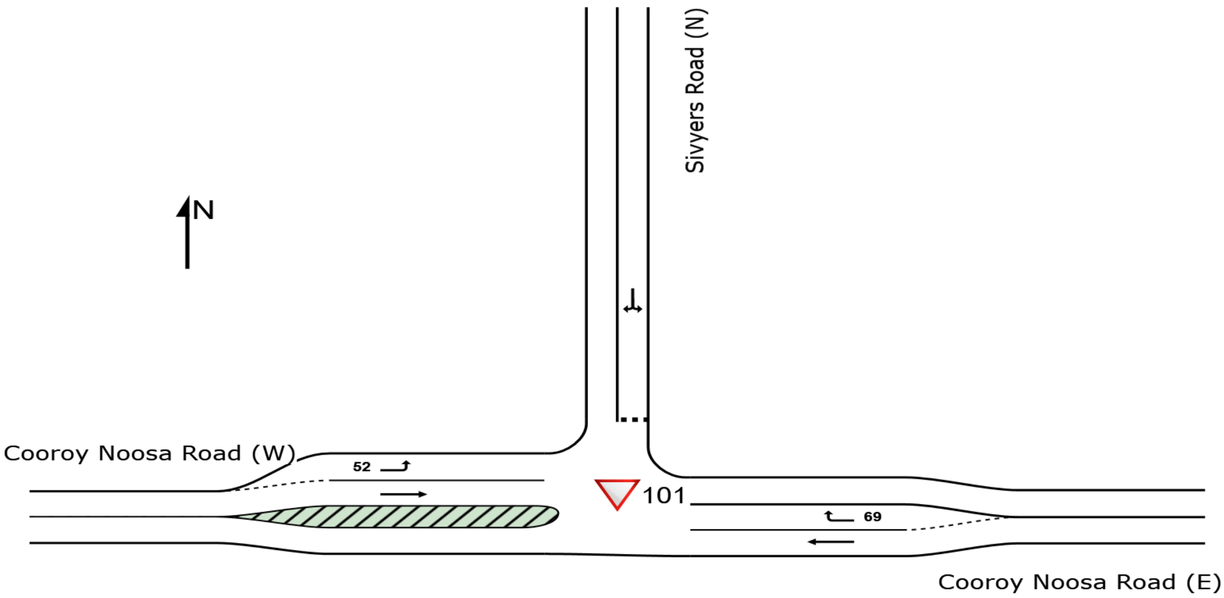
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [3B - Cooroy Noosa Rd & Sivyers Rd Prority_2028 Base_PM 5-6pm (LV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Cooroy Noosa Road (E)															
5	T1	All MCs	554	1.6	554	1.6	0.284	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
6	R2	All MCs	21	4.8	21	4.8	0.024	8.8	LOS A	0.1	0.6	0.45	0.67	0.45	58.2
Approach			575	1.7	575	1.7	0.284	0.4	NA	0.1	0.6	0.02	0.02	0.02	78.7
North: Sivyers Road (N)															
7	L2	All MCs	13	0.0	13	0.0	0.079	8.2	LOS A	0.2	1.8	0.66	0.82	0.66	53.1
9	R2	All MCs	13	7.7	13	7.7	0.079	23.6	LOS C	0.2	1.8	0.66	0.82	0.66	51.5
Approach			26	3.8	26	3.8	0.079	15.9	LOS C	0.2	1.8	0.66	0.82	0.66	52.3
West: Cooroy Noosa Road (W)															
10	L2	All MCs	11	0.0	11	0.0	0.006	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	64.6
11	T1	All MCs	407	1.5	407	1.5	0.210	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach			418	1.4	418	1.4	0.210	0.2	NA	0.0	0.0	0.00	0.02	0.00	79.4
All Vehicles			1019	1.7	1019	1.7	0.284	0.7	NA	0.2	1.8	0.03	0.04	0.03	78.0

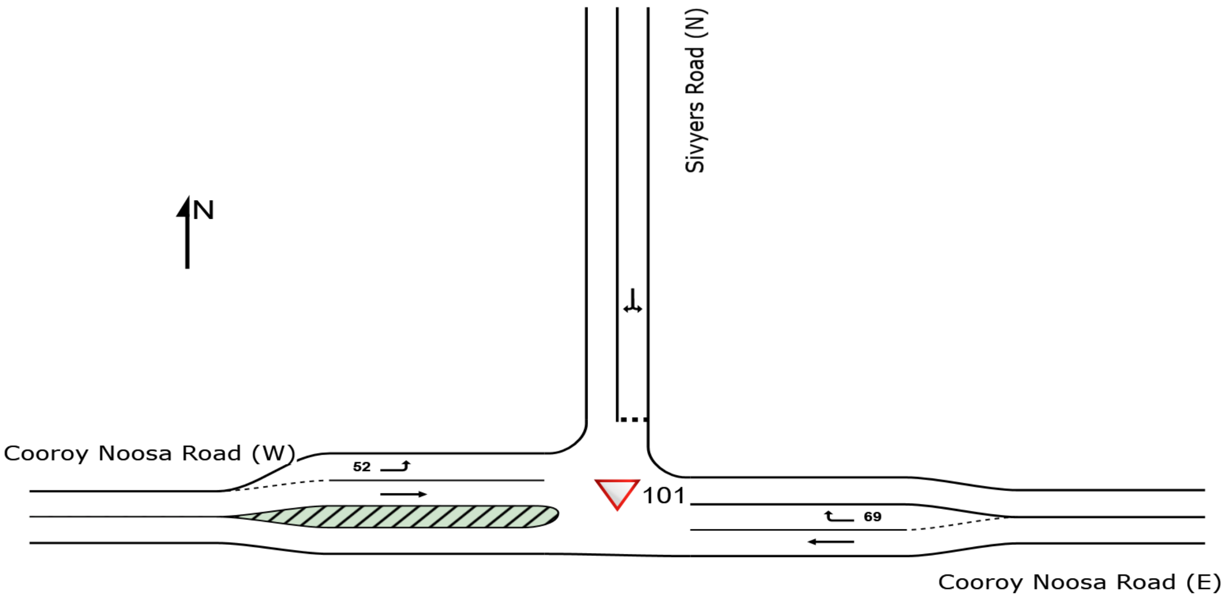
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [3B - Cooroy Noosa Rd & Sivyers Rd Prority_2028 Base_AM 1015-1115am (HV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Cooroy Noosa Road (E)															
5	T1	All MCs	545	5.0	545	5.0	0.286	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
6	R2	All MCs	20	0.0	20	0.0	0.029	10.2	LOS B	0.1	0.7	0.55	0.75	0.55	58.2
Approach			565	4.8	565	4.8	0.286	0.4	NA	0.1	0.7	0.02	0.03	0.02	78.8
North: Sivyers Road (N)															
7	L2	All MCs	10	0.0	10	0.0	0.120	9.9	LOS A	0.4	2.7	0.80	0.92	0.80	49.0
9	R2	All MCs	17	0.0	17	0.0	0.120	28.5	LOS D	0.4	2.7	0.80	0.92	0.80	49.0
Approach			27	0.0	27	0.0	0.120	21.6	LOS C	0.4	2.7	0.80	0.92	0.80	49.0
West: Cooroy Noosa Road (W)															
10	L2	All MCs	18	5.6	18	5.6	0.010	7.0	LOS A	0.0	0.0	0.00	0.63	0.00	62.8
11	T1	All MCs	602	5.0	602	5.0	0.317	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			620	5.0	620	5.0	0.317	0.3	NA	0.0	0.0	0.00	0.02	0.00	79.1
All Vehicles			1212	4.8	1212	4.8	0.317	0.8	NA	0.4	2.7	0.03	0.04	0.03	77.9

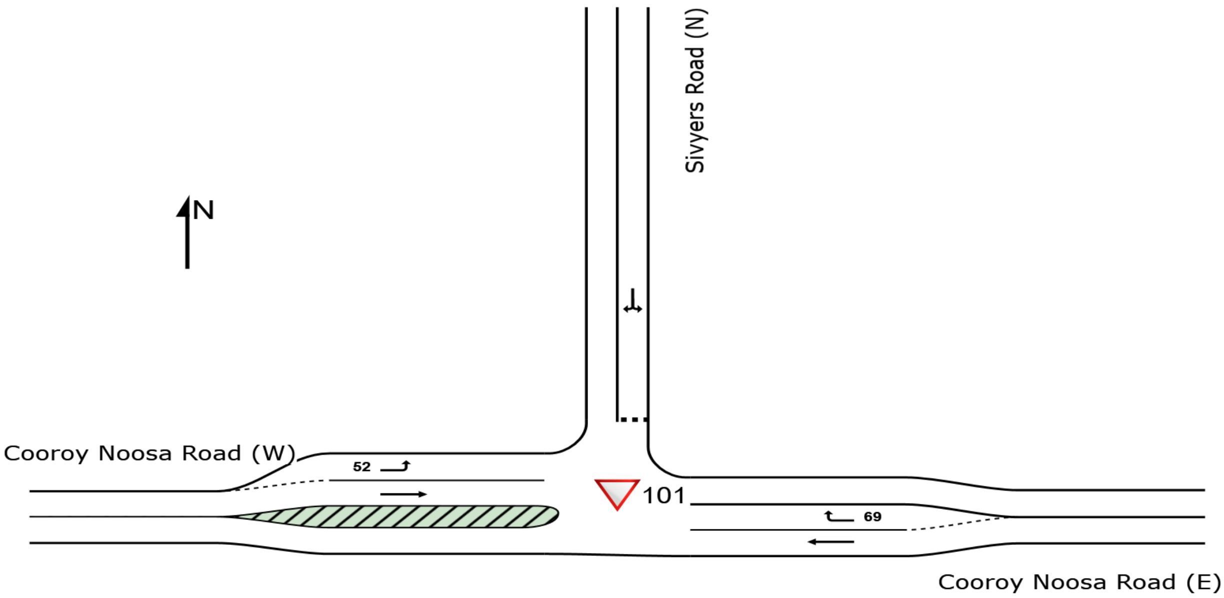
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [3B - Cooroy Noosa Rd & Sivyers Rd Prority_2028 Base_AM 4-5pm (HV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Cooroy Noosa Road (E)															
5	T1	All MCs	585	1.0	585	1.0	0.299	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
6	R2	All MCs	18	0.0	18	0.0	0.023	9.3	LOS A	0.1	0.6	0.50	0.70	0.50	59.0
Approach			603	1.0	603	1.0	0.299	0.3	NA	0.1	0.6	0.02	0.02	0.02	79.0
North: Sivyers Road (N)															
7	L2	All MCs	13	0.0	13	0.0	0.091	8.9	LOS A	0.3	2.1	0.72	0.89	0.72	52.0
9	R2	All MCs	14	0.0	14	0.0	0.091	25.1	LOS D	0.3	2.1	0.72	0.89	0.72	52.0
Approach			27	0.0	27	0.0	0.091	17.3	LOS C	0.3	2.1	0.72	0.89	0.72	52.0
West: Cooroy Noosa Road (W)															
10	L2	All MCs	25	0.0	25	0.0	0.013	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	64.6
11	T1	All MCs	503	2.2	503	2.2	0.260	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			528	2.1	528	2.1	0.260	0.4	NA	0.0	0.0	0.00	0.03	0.00	78.9
All Vehicles			1158	1.5	1158	1.5	0.299	0.7	NA	0.3	2.1	0.02	0.05	0.02	78.0

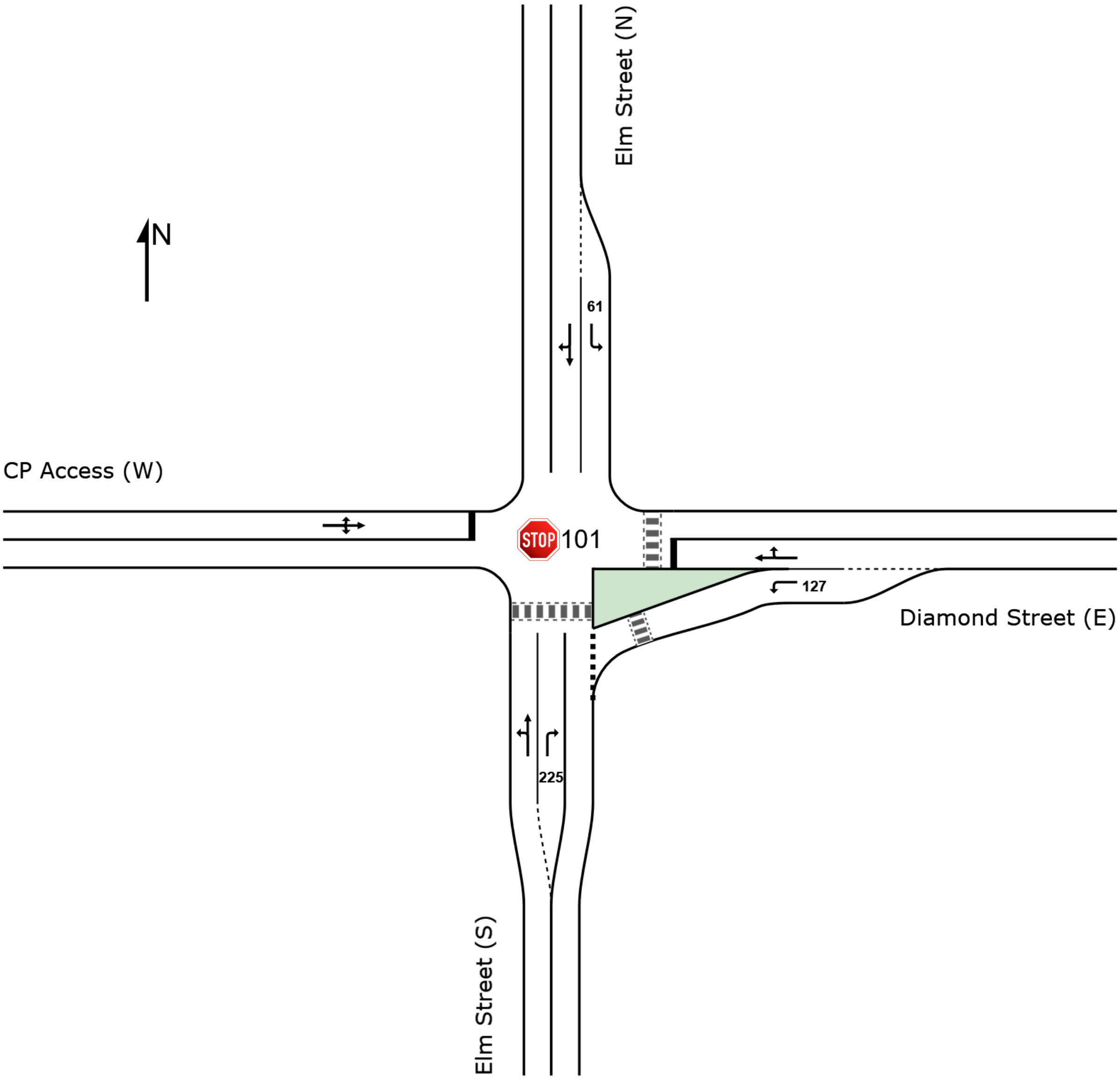
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [4A - Elm St, Diamond St and CP Priority_2028 Base_AM 6-7am (LV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Stop (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Elm Street (S)															
1	L2	All MCs	4	0.0	4	0.0	0.061	4.6	LOS A	0.0	0.0	0.00	0.02	0.00	27.5
2	T1	All MCs	112	3.6	112	3.6	0.061	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	49.9
3	R2	All MCs	170	3.5	170	3.5	0.198	7.2	LOS A	0.8	5.9	0.52	0.70	0.52	44.4
Approach			286	3.5	286	3.5	0.198	4.4	NA	0.8	5.9	0.31	0.42	0.31	46.1
East: Diamond Street (E)															
4	L2	All MCs	186	4.8	186	4.8	0.148	5.6	LOS A	0.6	4.5	0.36	0.55	0.36	45.2
5	T1	All MCs	1	0.0	1	0.0	0.150	15.8	LOS C	0.5	3.8	0.64	1.00	0.64	34.1
6	R2	All MCs	58	3.4	58	3.4	0.150	14.9	LOS B	0.5	3.8	0.64	1.00	0.64	40.7
Approach			245	4.5	245	4.5	0.150	7.8	LOS A	0.6	4.5	0.43	0.66	0.43	44.1
North: Elm Street (N)															
7	L2	All MCs	223	2.2	223	2.2	0.121	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	45.6
8	T1	All MCs	247	1.2	247	1.2	0.130	0.0	LOS A	0.0	0.2	0.01	0.01	0.01	49.9
9	R2	All MCs	5	0.0	5	0.0	0.130	4.6	LOS A	0.0	0.2	0.01	0.01	0.01	43.3
Approach			475	1.7	475	1.7	0.130	2.2	NA	0.0	0.2	0.01	0.25	0.01	47.8
West: CP Access (W)															
10	L2	All MCs	3	0.0	3	0.0	0.010	4.4	LOS A	0.0	0.2	0.42	0.79	0.42	35.0
11	T1	All MCs	1	0.0	1	0.0	0.010	14.0	LOS B	0.0	0.2	0.42	0.79	0.42	36.2
12	R2	All MCs	2	0.0	2	0.0	0.010	8.8	LOS A	0.0	0.2	0.42	0.79	0.42	36.1
Approach			6	0.0	6	0.0	0.010	7.5	LOS A	0.0	0.2	0.42	0.79	0.42	35.6
All Vehicles			1012	2.9	1012	2.9	0.198	4.2	NA	0.8	5.9	0.20	0.40	0.20	46.3

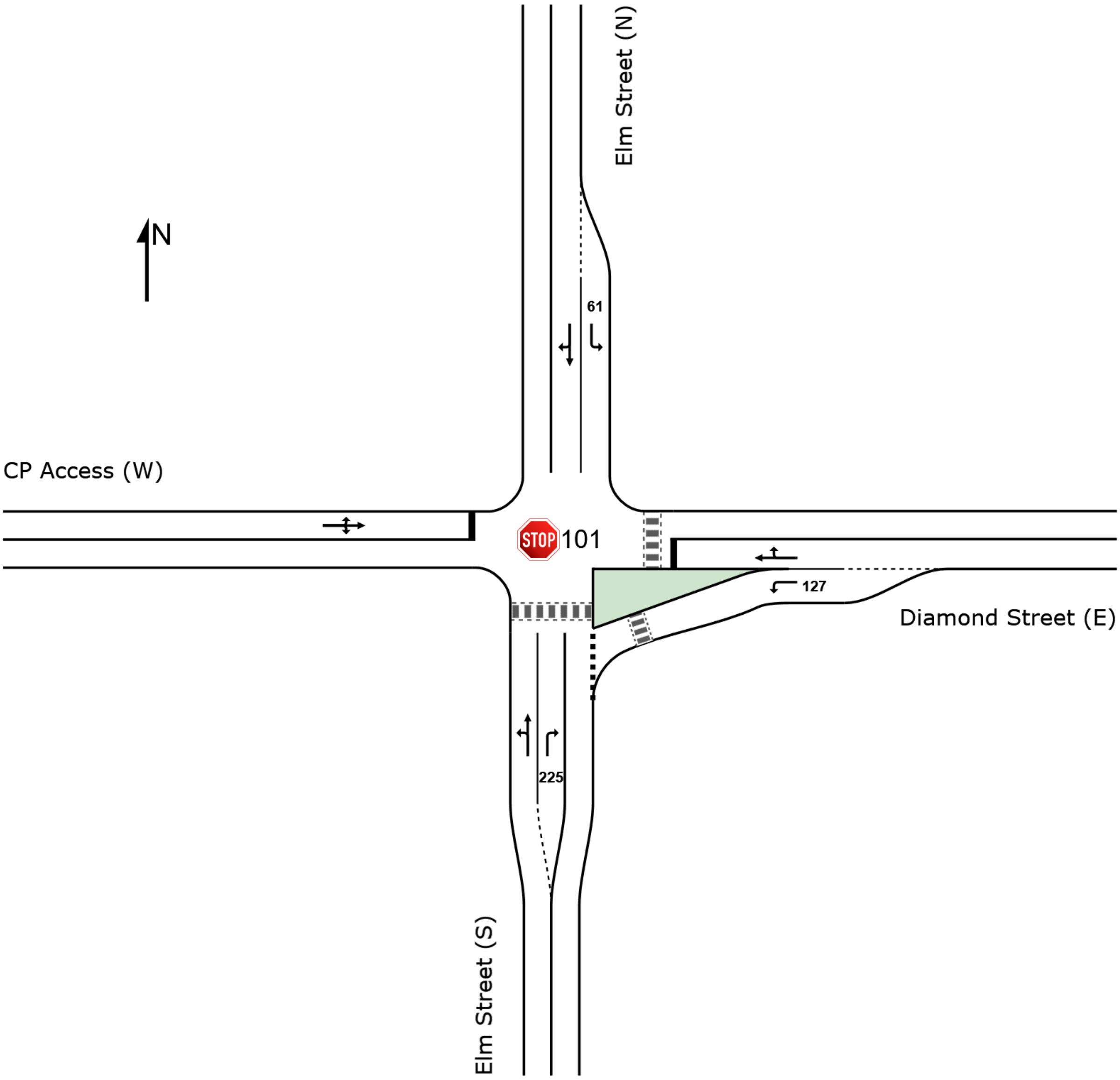
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [4A - Elm St, Diamond St and CP Priority_2028 Base_PM 5-6pm (LV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Stop (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Elm Street (S)															
1	L2	All MCs	2	0.0	2	0.0	0.159	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	27.5
2	T1	All MCs	303	1.3	303	1.3	0.159	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	All MCs	247	1.6	247	1.6	0.265	6.9	LOS A	1.2	8.3	0.51	0.68	0.51	44.6
Approach			552	1.4	552	1.4	0.265	3.1	NA	1.2	8.3	0.23	0.31	0.23	47.2
East: Diamond Street (E)															
4	L2	All MCs	291	0.7	291	0.7	0.227	5.6	LOS A	1.0	7.2	0.39	0.57	0.39	45.2
5	T1	All MCs	1	0.0	1	0.0	0.504	27.9	LOS D	2.3	16.7	0.84	1.13	1.26	28.9
6	R2	All MCs	134	3.7	134	3.7	0.504	26.0	LOS D	2.3	16.7	0.84	1.13	1.26	36.1
Approach			426	1.6	426	1.6	0.504	12.1	LOS B	2.3	16.7	0.53	0.75	0.66	42.0
North: Elm Street (N)															
7	L2	All MCs	157	3.2	157	3.2	0.086	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	45.6
8	T1	All MCs	252	1.6	252	1.6	0.132	0.0	LOS A	0.0	0.2	0.01	0.01	0.01	49.9
9	R2	All MCs	3	0.0	3	0.0	0.132	5.0	LOS A	0.0	0.2	0.01	0.01	0.01	43.3
Approach			412	2.2	412	2.2	0.132	1.8	NA	0.0	0.2	0.01	0.21	0.01	48.2
West: CP Access (W)															
10	L2	All MCs	2	0.0	2	0.0	0.022	5.3	LOS A	0.1	0.5	0.63	0.89	0.63	32.4
11	T1	All MCs	1	0.0	1	0.0	0.022	19.9	LOS C	0.1	0.5	0.63	0.89	0.63	33.8
12	R2	All MCs	5	0.0	5	0.0	0.022	13.0	LOS B	0.1	0.5	0.63	0.89	0.63	33.7
Approach			8	0.0	8	0.0	0.022	11.9	LOS B	0.1	0.5	0.63	0.89	0.63	33.4
All Vehicles			1398	1.7	1398	1.7	0.504	5.5	NA	2.3	16.7	0.26	0.41	0.30	45.6

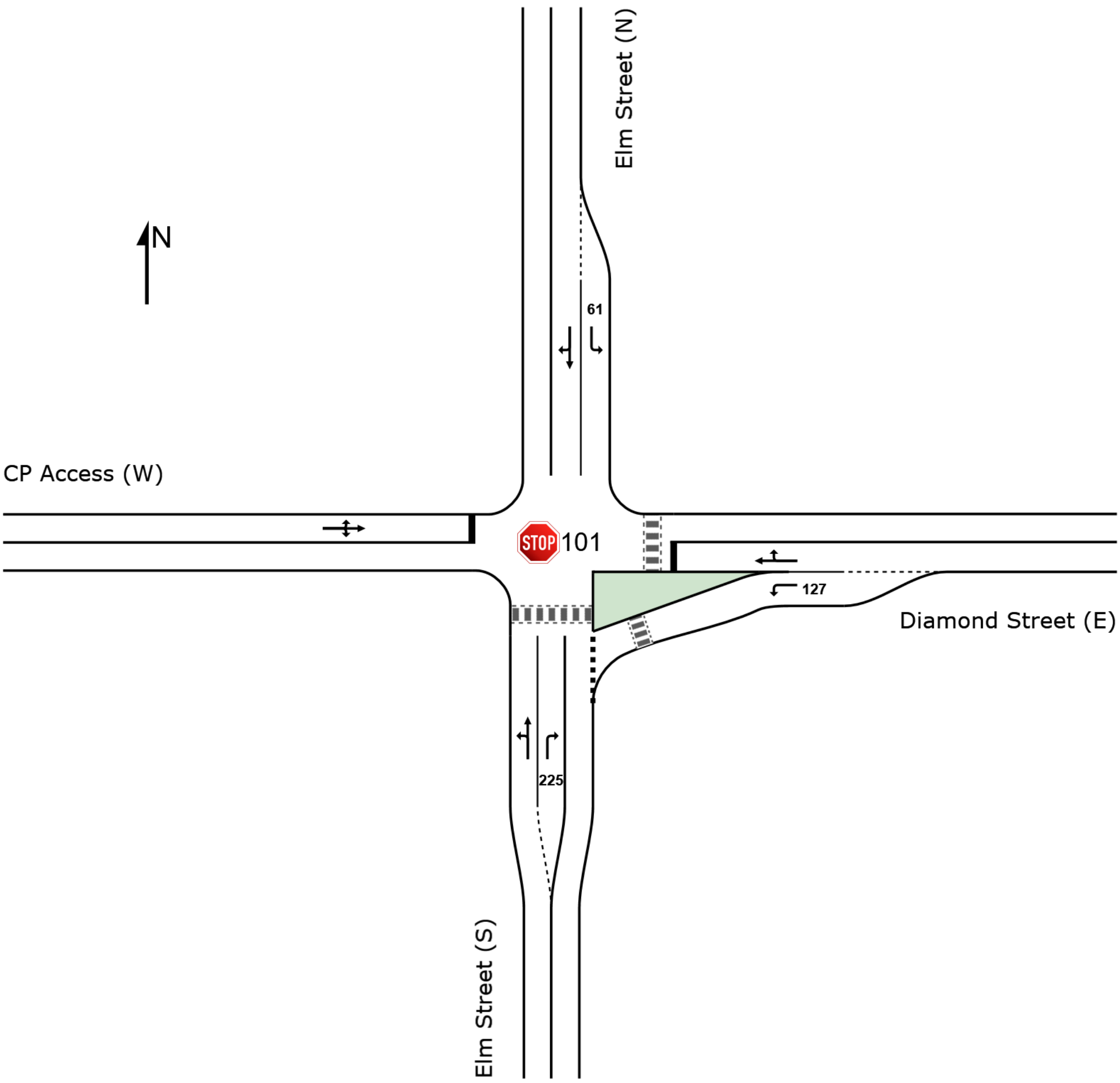
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [4A - Elm St, Diamond St and CP Priority_2028 Base_AM 1015-1115 (HV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Stop (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Elm Street (S)															
1	L2	All MCs	3	0.0	3	0.0	0.170	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	27.5
2	T1	All MCs	316	5.1	316	5.1	0.170	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	49.9
3	R2	All MCs	326	3.1	326	3.1	0.445	10.0	LOS B	2.6	18.9	0.65	0.91	0.92	42.9
Approach			645	4.0	645	4.0	0.445	5.1	NA	2.6	18.9	0.33	0.46	0.46	45.9
East: Diamond Street (E)															
4	L2	All MCs	321	5.3	321	5.3	0.290	6.4	LOS A	1.3	9.5	0.48	0.63	0.48	44.9
5	T1	All MCs	1	0.0	1	0.0	0.737	52.3	LOS F	3.6	26.2	0.95	1.26	1.84	21.8
6	R2	All MCs	123	4.1	123	4.1	0.737	49.2	LOS E	3.6	26.2	0.95	1.26	1.84	29.1
Approach			445	4.9	445	4.9	0.737	18.3	LOS C	3.6	26.2	0.61	0.81	0.86	39.3
North: Elm Street (N)															
7	L2	All MCs	228	7.5	228	7.5	0.129	4.7	LOS A	0.0	0.0	0.00	0.53	0.00	45.6
8	T1	All MCs	355	4.2	355	4.2	0.186	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	50.0
9	R2	All MCs	1	0.0	1	0.0	0.186	4.7	LOS A	0.0	0.1	0.00	0.00	0.00	43.4
Approach			584	5.5	584	5.5	0.186	1.8	NA	0.0	0.1	0.00	0.21	0.00	48.1
West: CP Access (W)															
10	L2	All MCs	3	0.0	3	0.0	0.023	5.4	LOS A	0.1	0.5	0.73	0.84	0.73	30.0
11	T1	All MCs	2	0.0	2	0.0	0.023	33.0	LOS D	0.1	0.5	0.73	0.84	0.73	31.4
12	R2	All MCs	1	0.0	1	0.0	0.023	17.8	LOS C	0.1	0.5	0.73	0.84	0.73	31.4
Approach			6	0.0	6	0.0	0.023	16.7	LOS C	0.1	0.5	0.73	0.84	0.73	30.7
All Vehicles			1680	4.8	1680	4.8	0.737	7.5	NA	3.6	26.2	0.29	0.47	0.41	44.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

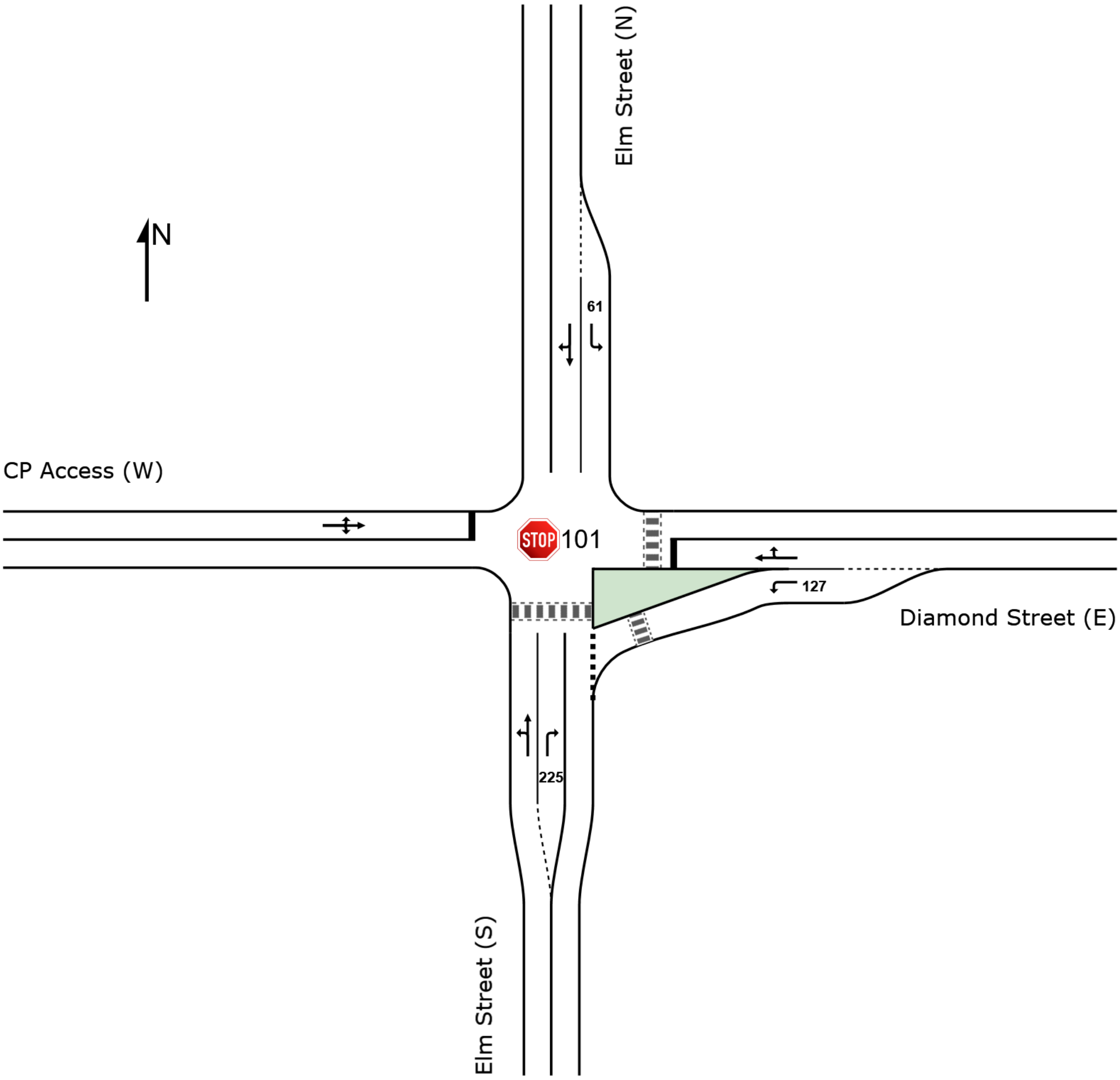
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [4A - Elm St, Diamond St and CP Priority_2028 Base_PM 4-5pm (HV hr) (Site Folder: Future 2028 Base SIDRA Models)]

New Site
Site Category: (None)
Stop (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Elm Street (S)															
1	L2	All MCs	2	0.0	2	0.0	0.181	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	27.5
2	T1	All MCs	347	1.2	347	1.2	0.181	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	All MCs	316	1.9	316	1.9	0.391	8.8	LOS A	2.2	15.6	0.61	0.83	0.78	43.6
Approach			665	1.5	665	1.5	0.391	4.2	NA	2.2	15.6	0.29	0.40	0.37	46.5
East: Diamond Street (E)															
4	L2	All MCs	301	1.3	301	1.3	0.254	6.0	LOS A	1.1	8.0	0.44	0.61	0.44	45.1
5	T1	All MCs	2	0.0	2	0.0	0.587	40.6	LOS E	2.6	18.5	0.91	1.15	1.43	25.3
6	R2	All MCs	113	0.9	113	0.9	0.587	35.9	LOS E	2.6	18.5	0.91	1.15	1.43	32.7
Approach			416	1.2	416	1.2	0.587	14.3	LOS B	2.6	18.5	0.57	0.76	0.72	41.0
North: Elm Street (N)															
7	L2	All MCs	203	3.0	203	3.0	0.111	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	45.6
8	T1	All MCs	323	1.9	323	1.9	0.167	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	50.0
9	R2	All MCs	1	0.0	1	0.0	0.167	4.7	LOS A	0.0	0.1	0.00	0.00	0.00	43.4
Approach			527	2.3	527	2.3	0.167	1.8	NA	0.0	0.1	0.00	0.20	0.00	48.2
West: CP Access (W)															
10	L2	All MCs	4	0.0	4	0.0	0.031	5.5	LOS A	0.1	0.7	0.69	0.88	0.69	30.9
11	T1	All MCs	2	0.0	2	0.0	0.031	30.0	LOS D	0.1	0.7	0.69	0.88	0.69	32.3
12	R2	All MCs	3	0.0	3	0.0	0.031	17.3	LOS C	0.1	0.7	0.69	0.88	0.69	32.2
Approach			9	0.0	9	0.0	0.031	14.9	LOS B	0.1	0.7	0.69	0.88	0.69	31.7
All Vehicles			1617	1.7	1617	1.7	0.587	6.1	NA	2.6	18.5	0.27	0.43	0.34	45.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

G-2 2028 With Project SIDRA results

USER REPORT FOR SITE

Project: SIDRA Models_04-11-24

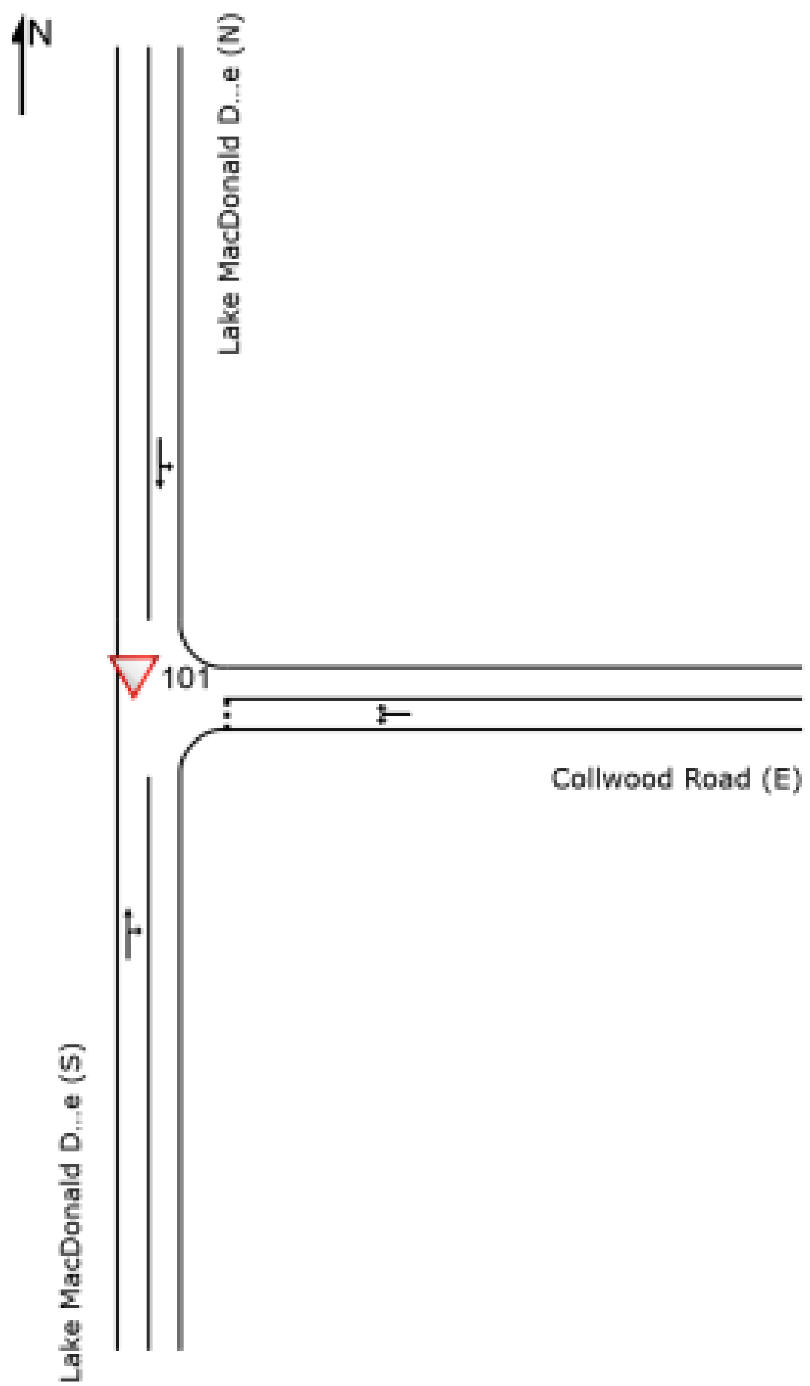
Output produced by SIDRA INTERSECTION Version: 9.1.6.228 **Template: Unsignalised**

Site: 101 [1A - Lake MD & Collwood Rd Priority_2028 Base with Dev LVs_AM 6-7am (LV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Lake MacDonald Drive (S)															
2	T1	All MCs	8	0.0	8	0.0	0.068	0.2	LOS A	0.3	2.2	0.17	0.53	0.17	61.2
3	R2	All MCs	108	0.0	108	0.0	0.068	5.7	LOS A	0.3	2.2	0.17	0.53	0.17	40.4
Approach			116	0.0	116	0.0	0.068	5.4	NA	0.3	2.2	0.17	0.53	0.17	41.9
East: Collwood Road (E)															
4	L2	All MCs	1	0.0	1	0.0	0.001	0.1	LOS A	0.0	0.0	0.15	0.12	0.15	40.9
6	R2	All MCs	1	0.0	1	0.0	0.001	1.0	LOS A	0.0	0.0	0.15	0.12	0.15	46.0
Approach			2	0.0	2	0.0	0.001	0.6	LOS A	0.0	0.0	0.15	0.12	0.15	43.3
North: Lake MacDonald Drive (N)															
7	L2	All MCs	1	0.0	1	0.0	0.039	7.0	LOS A	0.0	0.0	0.00	0.31	0.00	42.3
8	T1	All MCs	73	0.0	73	0.0	0.039	2.0	LOS A	0.0	0.0	0.00	0.31	0.00	75.5
Approach			74	0.0	74	0.0	0.039	2.1	NA	0.0	0.0	0.00	0.31	0.00	75.1
All Vehicles			192	0.0	192	0.0	0.068	4.0	NA	0.3	2.2	0.11	0.44	0.11	53.7

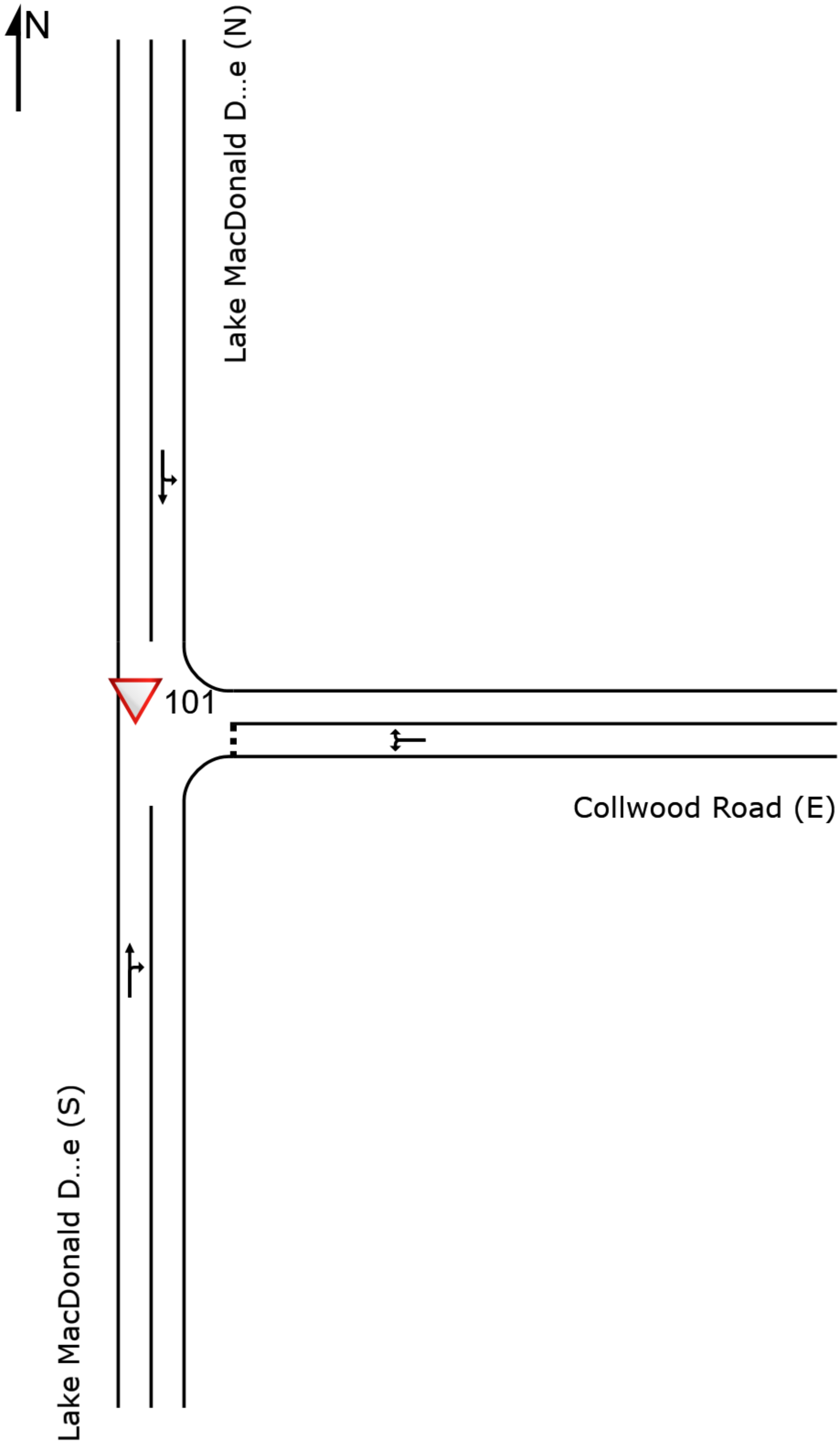
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [1B - Lake MD & Collwood Rd Priority_2028 Base with Dev LVs_PM 5-6pm (LV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Lake MacDonald Drive (S)															
2	T1	All MCs	81	0.0	81	0.0	0.043	0.0	LOS A	0.0	0.1	0.01	0.02	0.01	67.5
3	R2	All MCs	2	0.0	2	0.0	0.043	5.5	LOS A	0.0	0.1	0.01	0.02	0.01	45.0
Approach			83	0.0	83	0.0	0.043	0.1	NA	0.0	0.1	0.01	0.02	0.01	67.0
East: Collwood Road (E)															
4	L2	All MCs	92	0.0	92	0.0	0.045	0.1	LOS A	0.2	1.5	0.10	0.02	0.10	41.1
6	R2	All MCs	1	0.0	1	0.0	0.045	0.9	LOS A	0.2	1.5	0.10	0.02	0.10	46.3
Approach			93	0.0	93	0.0	0.045	0.1	LOS A	0.2	1.5	0.10	0.02	0.10	41.2
North: Lake MacDonald Drive (N)															
7	L2	All MCs	1	0.0	1	0.0	0.018	7.0	LOS A	0.0	0.0	0.00	0.32	0.00	42.3
8	T1	All MCs	33	0.0	33	0.0	0.018	2.0	LOS A	0.0	0.0	0.00	0.32	0.00	75.4
Approach			34	0.0	34	0.0	0.018	2.2	NA	0.0	0.0	0.00	0.32	0.00	74.4
All Vehicles			210	0.0	210	0.0	0.045	0.4	NA	0.2	1.5	0.05	0.07	0.05	56.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

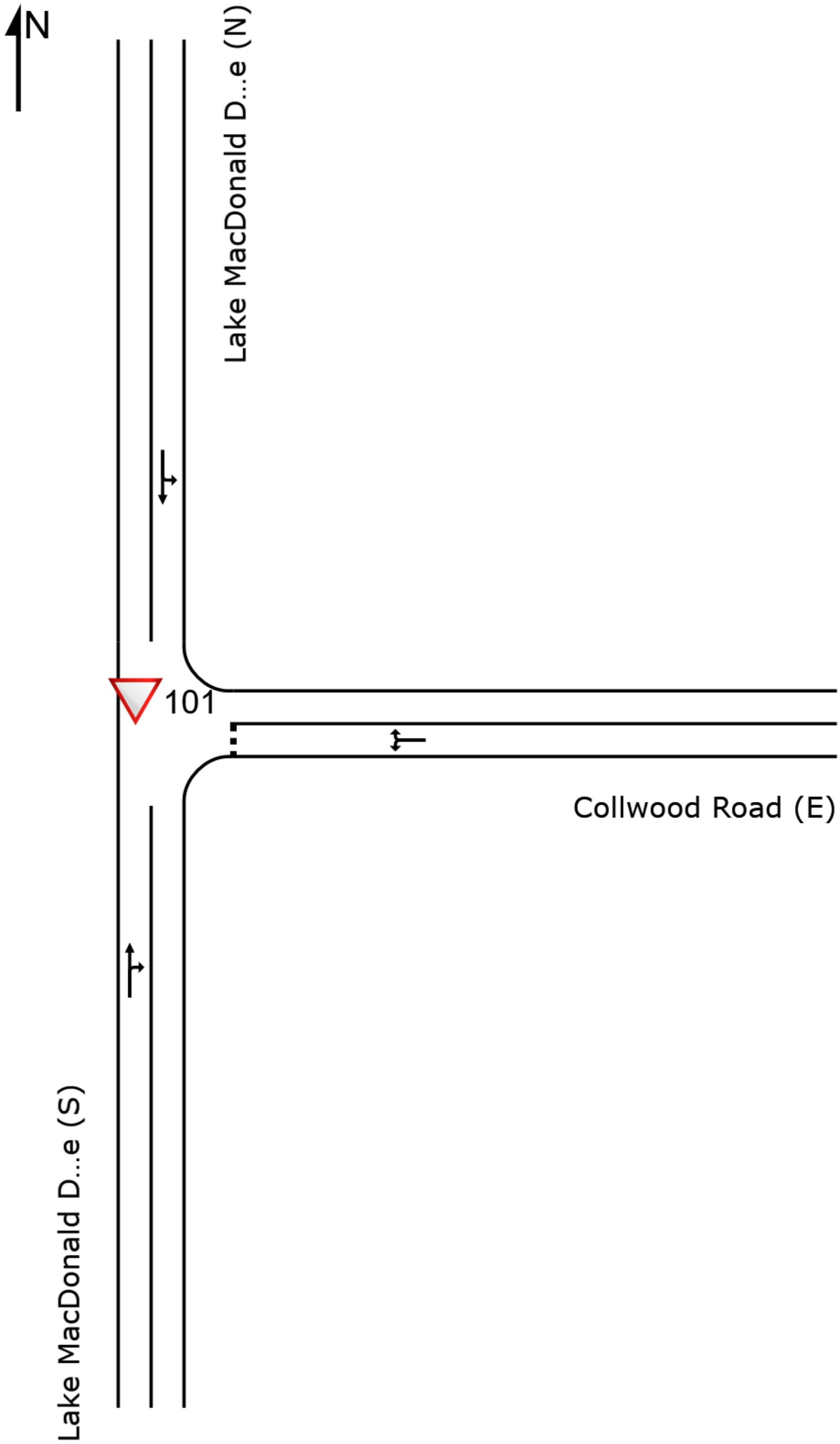
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [1C - Lake MD & Collwood Rd Priority_2028 Base_with Dev HVs_AM 1015-1115am (HV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Lake MacDonald Drive (S)															
2	T1	All MCs	47	6.4	47	6.4	0.036	0.1	LOS A	0.1	0.8	0.08	0.11	0.08	65.7
3	R2	All MCs	9	100.0	9	100.0	0.036	7.1	LOS A	0.1	0.8	0.08	0.11	0.08	43.8
Approach			56	21.4	56	21.4	0.036	1.2	NA	0.1	0.8	0.08	0.11	0.08	62.5
East: Collwood Road (E)															
4	L2	All MCs	10	90.0	10	90.0	0.008	0.2	LOS A	0.0	0.4	0.15	0.06	0.15	37.5
6	R2	All MCs	1	0.0	1	0.0	0.008	0.9	LOS A	0.0	0.4	0.15	0.06	0.15	46.0
Approach			11	81.8	11	81.8	0.008	0.3	LOS A	0.0	0.4	0.15	0.06	0.15	38.1
North: Lake MacDonald Drive (N)															
7	L2	All MCs	1	0.0	1	0.0	0.027	7.0	LOS A	0.0	0.0	0.00	0.31	0.00	57.7
8	T1	All MCs	50	4.0	50	4.0	0.027	2.0	LOS A	0.0	0.0	0.00	0.31	0.00	75.4
Approach			51	3.9	51	3.9	0.027	2.1	NA	0.0	0.0	0.00	0.31	0.00	75.1
All Vehicles			118	19.5	118	19.5	0.036	1.5	NA	0.1	0.8	0.05	0.20	0.05	65.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

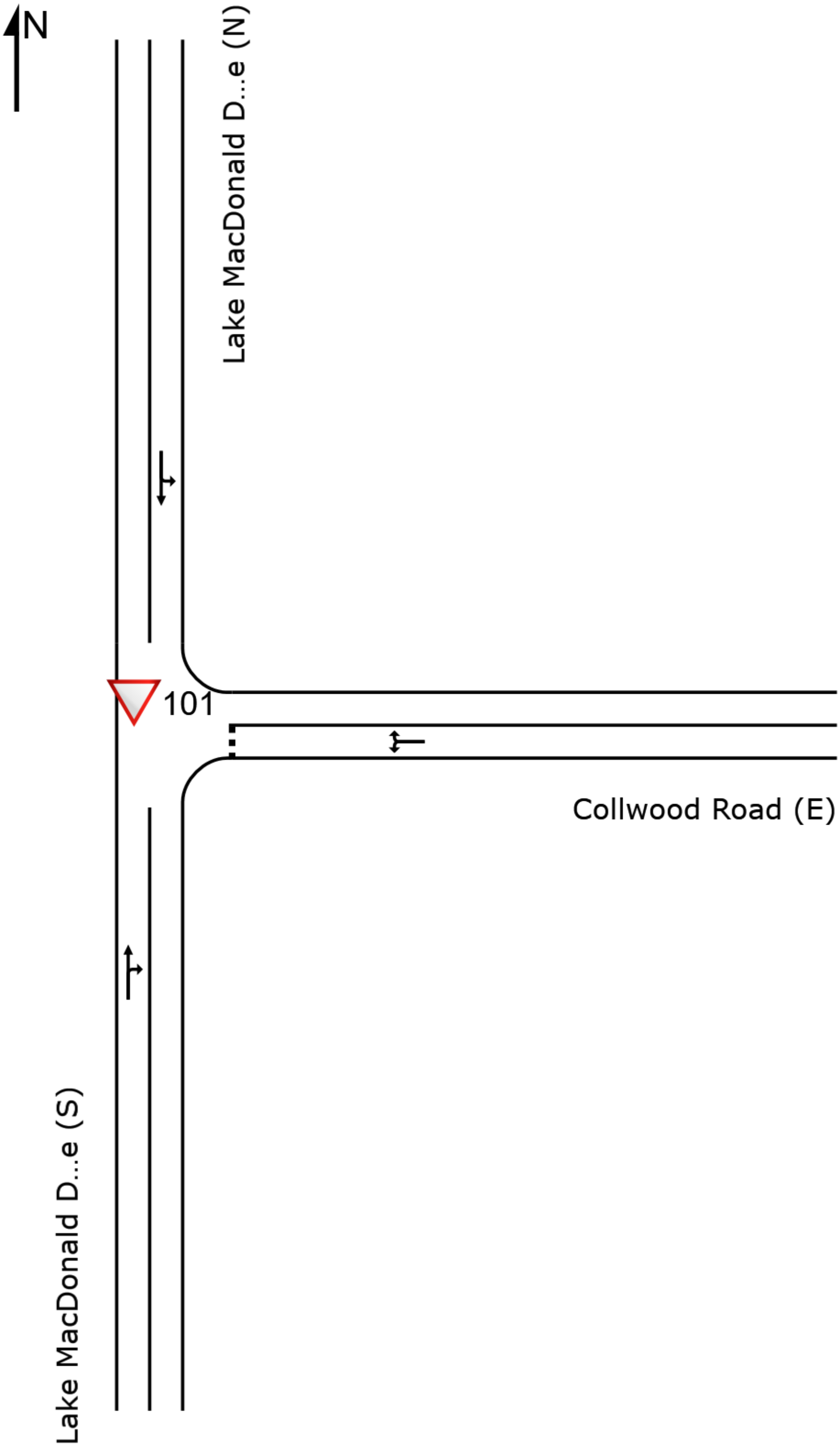
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [1D - Lake MD & Collwood Rd Priority_2028 Base with Dev HVs_PM 4-5pm (HV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Lake MacDonald Drive (S)															
2	T1	All MCs	109	0.9	109	0.9	0.069	0.0	LOS A	0.1	0.7	0.04	0.05	0.04	66.8
3	R2	All MCs	9	100.0	9	100.0	0.069	6.9	LOS A	0.1	0.7	0.04	0.05	0.04	44.4
Approach			118	8.5	118	8.5	0.069	0.6	NA	0.1	0.7	0.04	0.05	0.04	65.3
East: Collwood Road (E)															
4	L2	All MCs	10	90.0	10	90.0	0.008	0.2	LOS A	0.0	0.4	0.15	0.05	0.15	37.5
6	R2	All MCs	1	0.0	1	0.0	0.008	1.0	LOS A	0.0	0.4	0.15	0.05	0.15	46.0
Approach			11	81.8	11	81.8	0.008	0.3	LOS A	0.0	0.4	0.15	0.05	0.15	38.1
North: Lake MacDonald Drive (N)															
7	L2	All MCs	1	0.0	1	0.0	0.026	7.0	LOS A	0.0	0.0	0.00	0.32	0.00	57.7
8	T1	All MCs	49	2.0	49	2.0	0.026	2.0	LOS A	0.0	0.0	0.00	0.32	0.00	75.4
Approach			50	2.0	50	2.0	0.026	2.1	NA	0.0	0.0	0.00	0.32	0.00	75.2
All Vehicles			179	11.2	179	11.2	0.069	1.0	NA	0.1	0.7	0.04	0.13	0.04	65.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

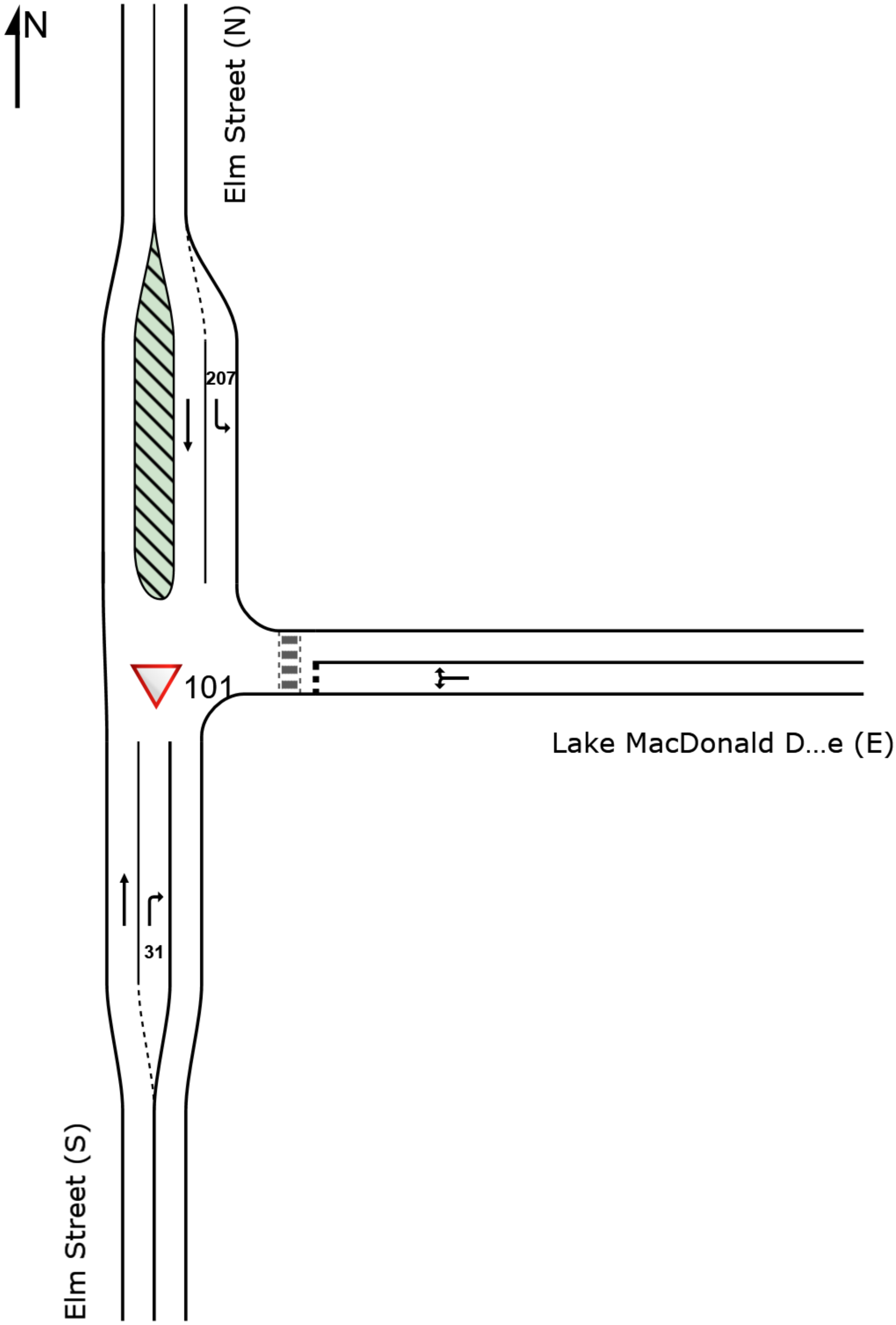
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [2A - Elm Street & Lake MD Priority_2028 Base with Dev LVs_AM 6-7am (LV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Elm Street (S)															
2	T1	All MCs	155	6.5	155	6.5	0.084	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	60.0
3	R2	All MCs	103	1.9	103	1.9	0.113	7.6	LOS A	0.4	3.2	0.47	0.70	0.47	50.9
Approach			258	4.7	258	4.7	0.113	3.1	NA	0.4	3.2	0.19	0.28	0.19	56.0
East: Lake MacDonald Drive (E)															
4	L2	All MCs	68	1.5	68	1.5	0.112	7.7	LOS A	0.4	3.1	0.51	0.71	0.51	50.5
6	R2	All MCs	12	8.3	12	8.3	0.112	14.9	LOS B	0.4	3.1	0.51	0.71	0.51	50.2
Approach			80	2.5	80	2.5	0.112	8.8	LOS A	0.4	3.1	0.51	0.71	0.51	50.4
North: Elm Street (N)															
7	L2	All MCs	48	2.1	48	2.1	0.027	5.6	LOS A	0.0	0.0	0.00	0.58	0.00	52.8
8	T1	All MCs	362	4.4	362	4.4	0.194	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			410	4.1	410	4.1	0.194	0.7	NA	0.0	0.0	0.00	0.07	0.00	59.0
All Vehicles			748	4.1	748	4.1	0.194	2.4	NA	0.4	3.2	0.12	0.21	0.12	56.9

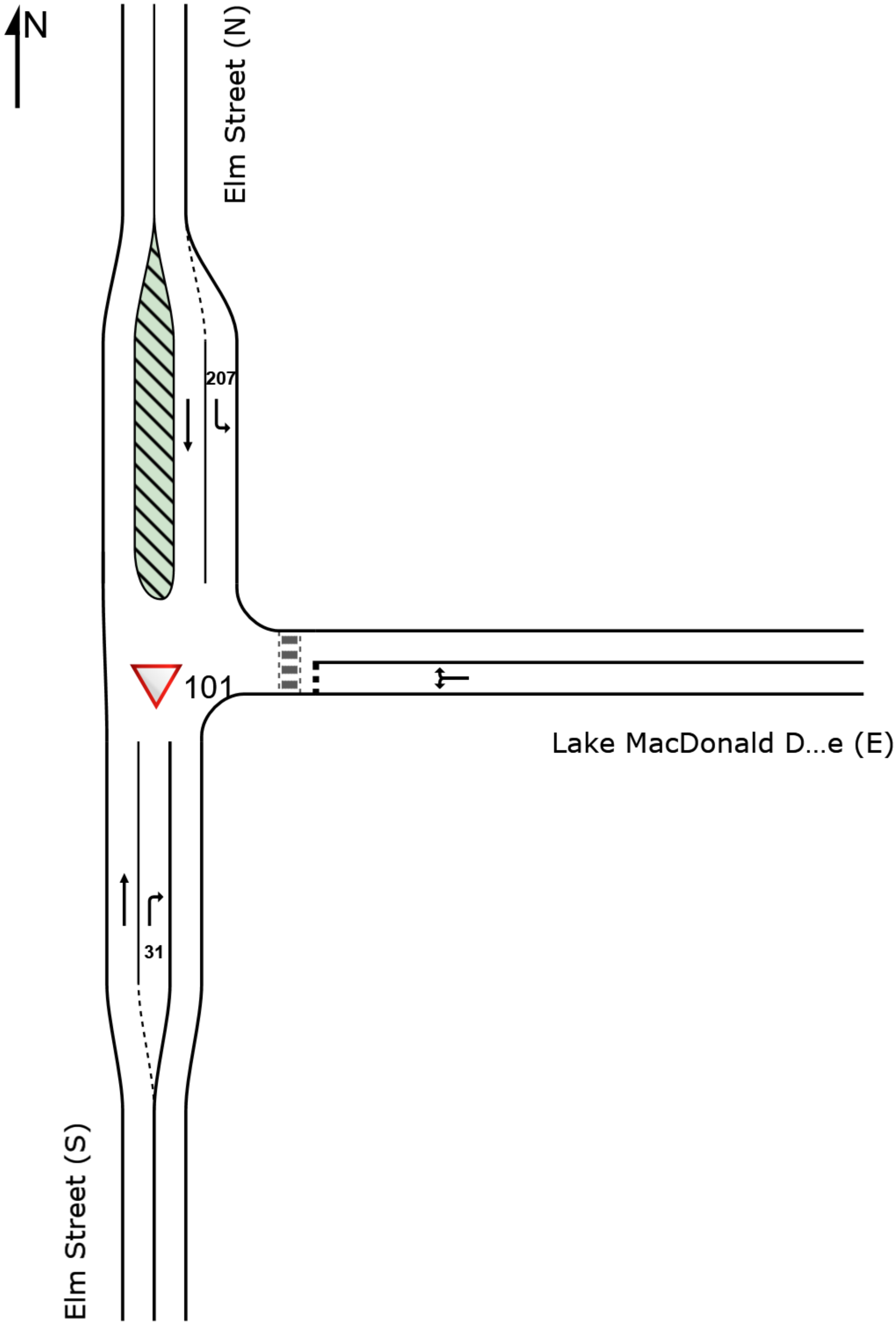
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

▽ Site: 101 [2B - Elm Street & Lake MD Priority_2028 Base with Dev LVs_PM 5-6pm (LV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Elm Street (S)															
2	T1	All MCs	429	0.5	429	0.5	0.224	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	103	0.0	103	0.0	0.094	6.7	LOS A	0.4	2.6	0.37	0.63	0.37	51.6
Approach			532	0.4	532	0.4	0.224	1.3	NA	0.4	2.6	0.07	0.12	0.07	58.1
East: Lake MacDonald Drive (E)															
4	L2	All MCs	128	2.3	128	2.3	0.282	7.2	LOS A	1.3	9.0	0.58	0.70	0.60	49.4
6	R2	All MCs	49	0.0	49	0.0	0.282	18.6	LOS C	1.3	9.0	0.58	0.70	0.60	49.4
Approach			177	1.7	177	1.7	0.282	10.4	LOS B	1.3	9.0	0.58	0.70	0.60	49.4
North: Elm Street (N)															
7	L2	All MCs	25	0.0	25	0.0	0.014	5.5	LOS A	0.0	0.0	0.00	0.58	0.00	52.9
8	T1	All MCs	248	1.6	248	1.6	0.131	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			273	1.5	273	1.5	0.131	0.5	NA	0.0	0.0	0.00	0.05	0.00	59.2
All Vehicles			982	0.9	982	0.9	0.282	2.7	NA	1.3	9.0	0.14	0.21	0.15	56.6

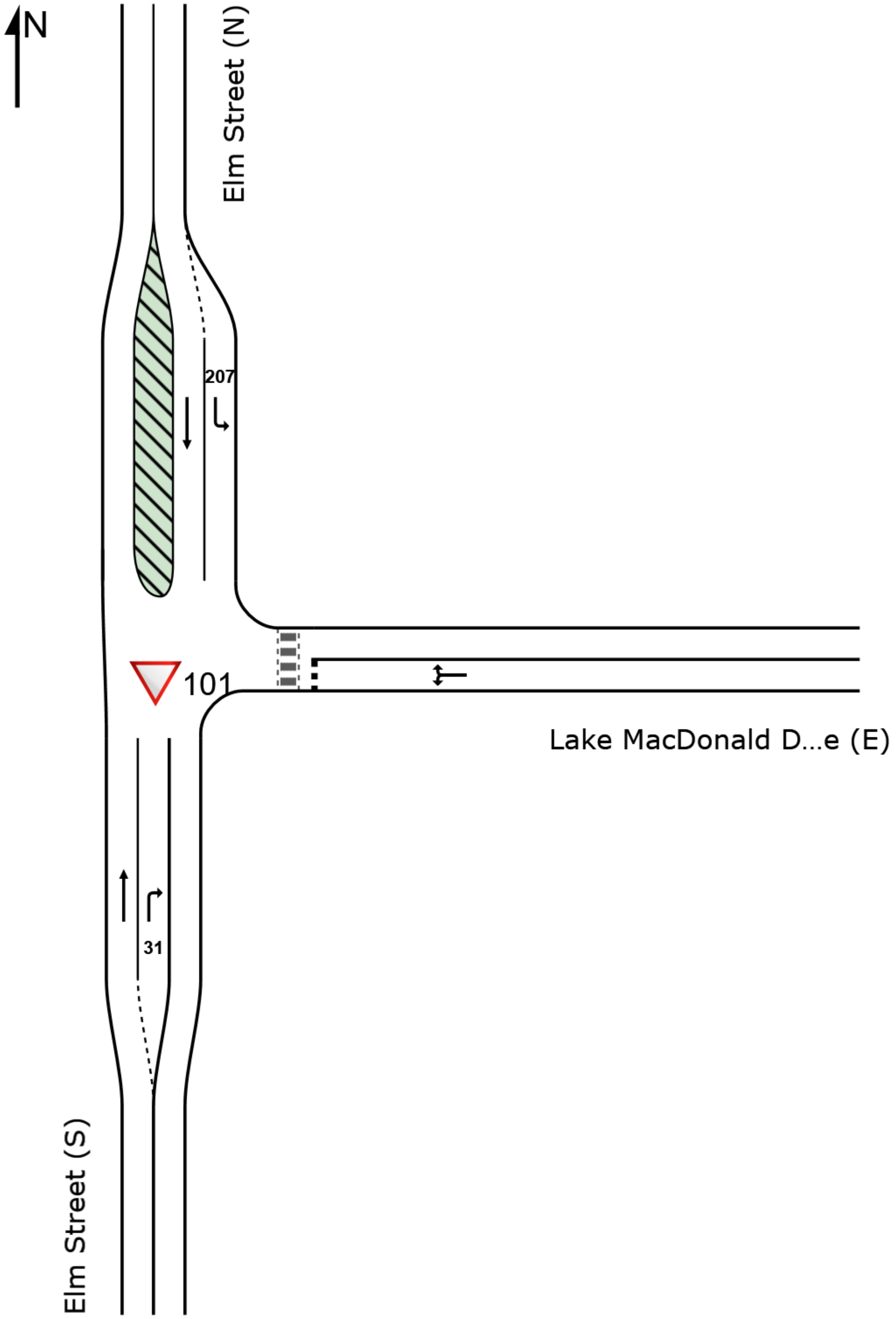
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [2B - Elm Street & Lake MD Priority_2028 Base with Dev HVs_AM 1015-1115am (HV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance																
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Elm Street (S)															
2	T1	All MCs	330	3.6	330	3.6	0.176	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	84	11.9	84	11.9	0.101	8.1	LOS A	0.4	3.0	0.48	0.71	0.48	50.3
Approach			414	5.3	414	5.3	0.176	1.7	NA	0.4	3.0	0.10	0.14	0.10	57.7
East: Lake MacDonald Drive (E)															
4	L2	All MCs	93	4.3	93	4.3	0.281	8.8	LOS A	1.2	9.0	0.66	0.83	0.76	47.3
6	R2	All MCs	35	22.9	35	22.9	0.281	26.1	LOS D	1.2	9.0	0.66	0.83	0.76	46.7
Approach			128	9.4	128	9.4	0.281	13.5	LOS B	1.2	9.0	0.66	0.83	0.76	47.1
North: Elm Street (N)															
7	L2	All MCs	29	31.0	29	31.0	0.019	5.9	LOS A	0.0	0.0	0.00	0.57	0.00	51.6
8	T1	All MCs	381	3.9	381	3.9	0.204	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			410	5.9	410	5.9	0.204	0.5	NA	0.0	0.0	0.00	0.04	0.00	59.2
All Vehicles			952	6.1	952	6.1	0.281	2.7	NA	1.2	9.0	0.13	0.19	0.14	56.6

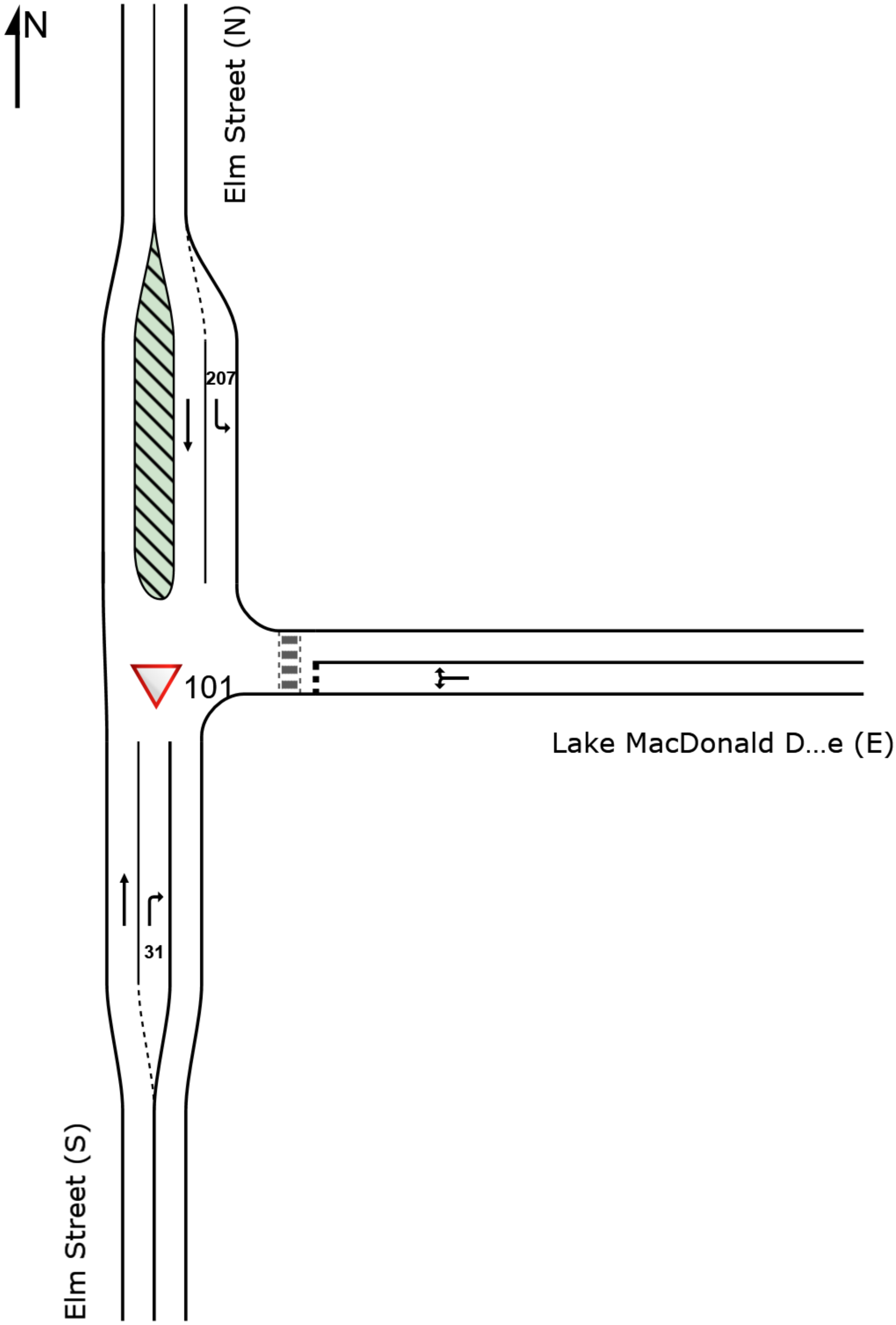
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [2B - Elm Street & Lake MD Priority_2028 Base with Dev HVs_PM 4-5pm (HV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Elm Street (S)															
2	T1	All MCs	454	2.4	454	2.4	0.240	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
3	R2	All MCs	142	3.5	142	3.5	0.158	7.8	LOS A	0.6	4.6	0.48	0.72	0.48	50.7
Approach			596	2.7	596	2.7	0.240	1.9	NA	0.6	4.6	0.12	0.17	0.12	57.4
East: Lake MacDonald Drive (E)															
4	L2	All MCs	106	0.9	106	0.9	0.433	10.6	LOS B	2.1	15.6	0.77	0.96	1.13	44.0
6	R2	All MCs	43	23.3	43	23.3	0.433	41.6	LOS E	2.1	15.6	0.77	0.96	1.13	43.3
Approach			149	7.4	149	7.4	0.433	19.5	LOS C	2.1	15.6	0.77	0.96	1.13	43.8
North: Elm Street (N)															
7	L2	All MCs	42	19.0	42	19.0	0.026	5.8	LOS A	0.0	0.0	0.00	0.57	0.00	52.1
8	T1	All MCs	368	2.7	368	2.7	0.195	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach			410	4.4	410	4.4	0.195	0.6	NA	0.0	0.0	0.00	0.06	0.00	59.0
All Vehicles			1155	3.9	1155	3.9	0.433	3.7	NA	2.1	15.6	0.16	0.23	0.21	55.7

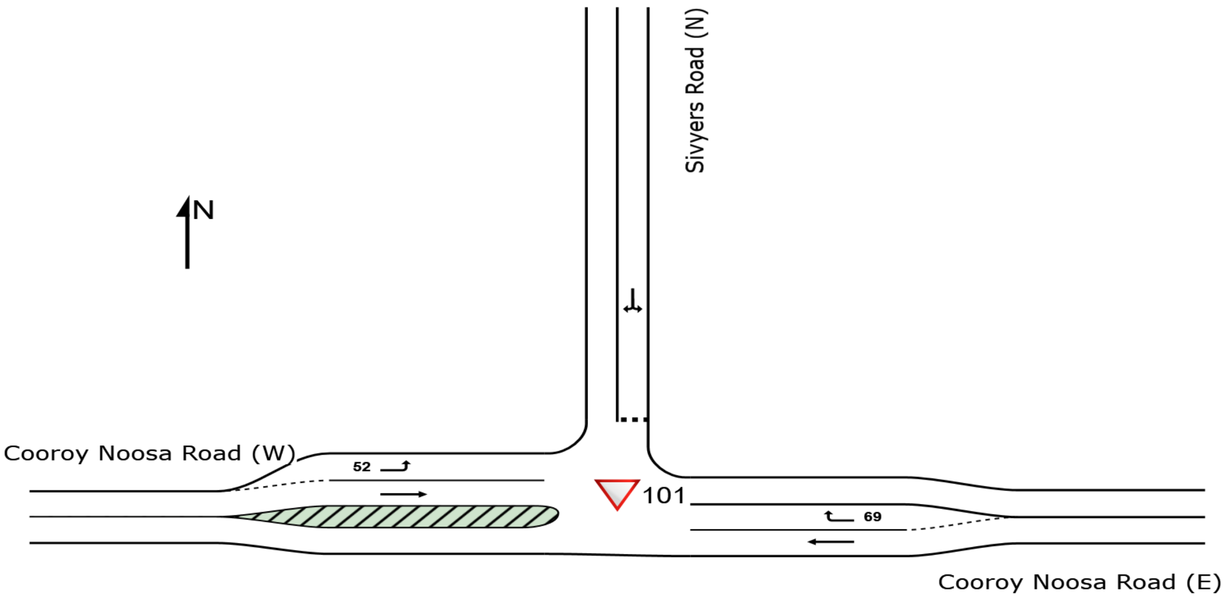
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [3A - Cooroy Noosa Rd & Sivyers Rd Prority_2028 Base with Dev LVs_AM 6-7am (LV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Cooroy Noosa Road (E)															
5	T1	All MCs	303	8.3	303	8.3	0.162	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
6	R2	All MCs	26	0.0	26	0.0	0.030	8.9	LOS A	0.1	0.8	0.48	0.70	0.48	59.4
Approach			329	7.6	329	7.6	0.162	0.7	NA	0.1	0.8	0.04	0.05	0.04	77.8
North: Sivyers Road (N)															
7	L2	All MCs	11	9.1	11	9.1	0.059	9.1	LOS A	0.2	1.5	0.61	0.81	0.61	53.4
9	R2	All MCs	15	0.0	15	0.0	0.059	15.7	LOS C	0.2	1.5	0.61	0.81	0.61	55.6
Approach			26	3.8	26	3.8	0.059	12.9	LOS B	0.2	1.5	0.61	0.81	0.61	54.6
West: Cooroy Noosa Road (W)															
10	L2	All MCs	4	0.0	4	0.0	0.002	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	64.6
11	T1	All MCs	459	5.0	459	5.0	0.242	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			463	5.0	463	5.0	0.242	0.1	NA	0.0	0.0	0.00	0.01	0.00	79.7
All Vehicles			818	6.0	818	6.0	0.242	0.8	NA	0.2	1.5	0.03	0.05	0.03	77.8

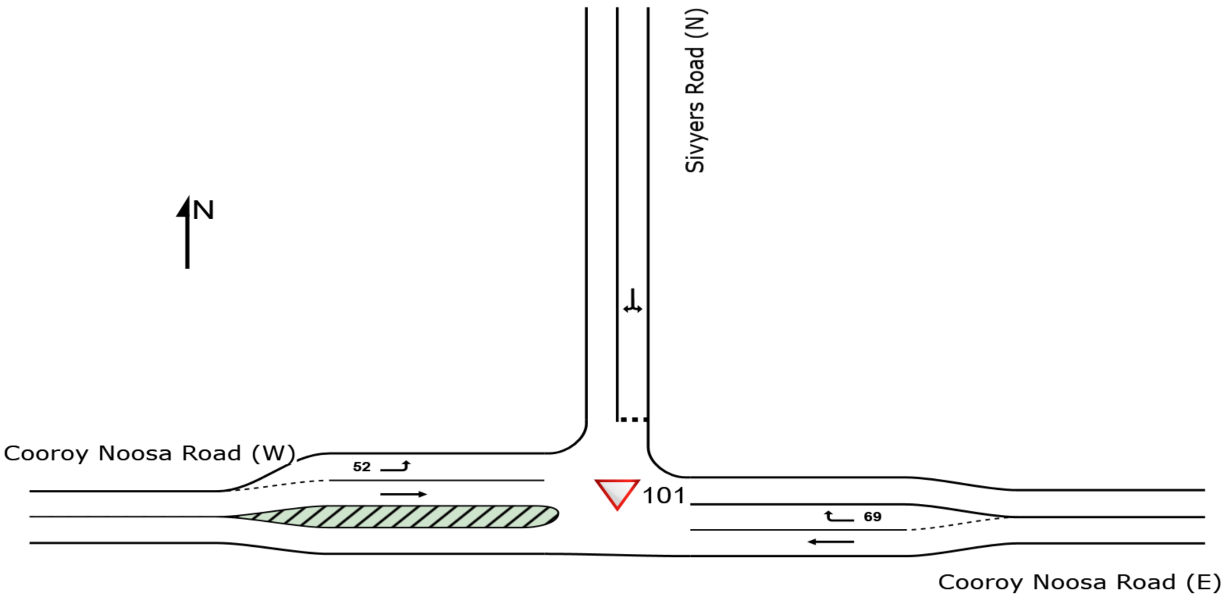
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [3B - Cooroy Noosa Rd & Sivyers Rd Prority_2028 Base with Dev LVs_PM 5-6pm (LV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Cooroy Noosa Road (E)															
5	T1	All MCs	554	1.6	554	1.6	0.284	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
6	R2	All MCs	21	4.8	21	4.8	0.024	8.8	LOS A	0.1	0.6	0.45	0.67	0.45	58.2
Approach			575	1.7	575	1.7	0.284	0.4	NA	0.1	0.6	0.02	0.02	0.02	78.7
North: Sivyers Road (N)															
7	L2	All MCs	39	0.0	39	0.0	0.109	8.3	LOS A	0.4	2.6	0.59	0.78	0.59	56.0
9	R2	All MCs	13	7.7	13	7.7	0.109	24.3	LOS C	0.4	2.6	0.59	0.78	0.59	54.2
Approach			52	1.9	52	1.9	0.109	12.3	LOS B	0.4	2.6	0.59	0.78	0.59	55.5
West: Cooroy Noosa Road (W)															
10	L2	All MCs	11	0.0	11	0.0	0.006	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	64.6
11	T1	All MCs	407	1.5	407	1.5	0.210	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach			418	1.4	418	1.4	0.210	0.2	NA	0.0	0.0	0.00	0.02	0.00	79.4
All Vehicles			1045	1.6	1045	1.6	0.284	0.9	NA	0.4	2.6	0.04	0.06	0.04	77.4

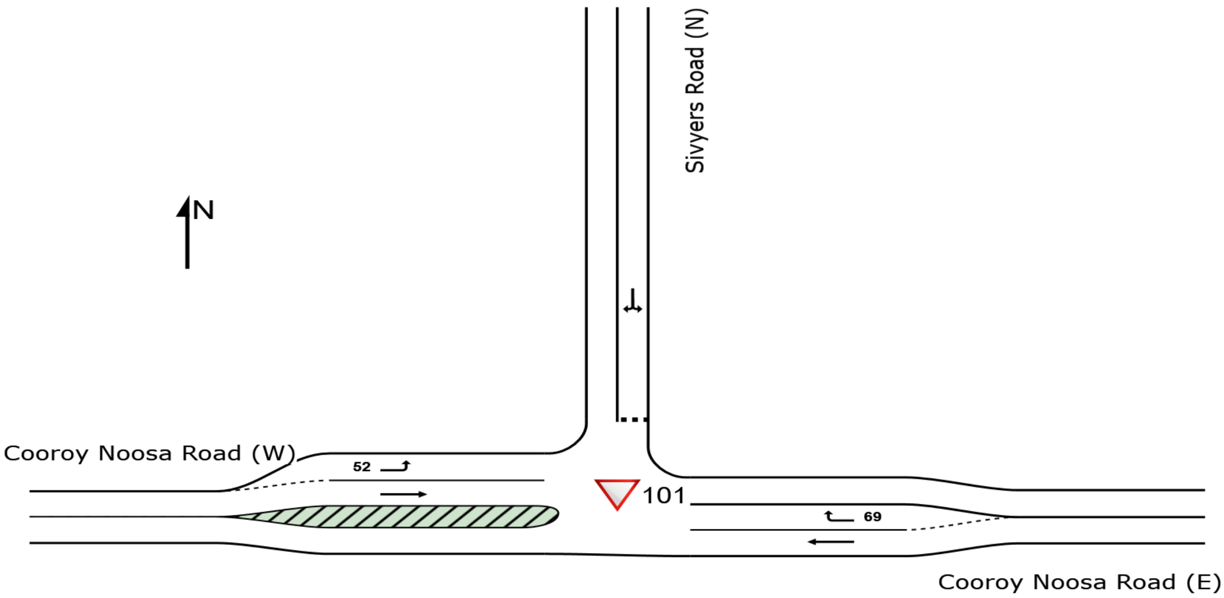
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [3B - Cooroy Noosa Rd & Sivyers Rd Prority_2028 Base with Dev HVs_AM 1015-1115am (HV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Cooroy Noosa Road (E)															
5	T1	All MCs	546	5.1	546	5.1	0.286	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
6	R2	All MCs	20	0.0	20	0.0	0.029	10.2	LOS B	0.1	0.7	0.55	0.75	0.55	58.2
Approach			566	4.9	566	4.9	0.286	0.4	NA	0.1	0.7	0.02	0.03	0.02	78.8
North: Sivyers Road (N)															
7	L2	All MCs	10	0.0	10	0.0	0.121	9.9	LOS A	0.4	2.7	0.80	0.92	0.80	48.9
9	R2	All MCs	17	0.0	17	0.0	0.121	28.7	LOS D	0.4	2.7	0.80	0.92	0.80	49.0
Approach			27	0.0	27	0.0	0.121	21.7	LOS C	0.4	2.7	0.80	0.92	0.80	48.9
West: Cooroy Noosa Road (W)															
10	L2	All MCs	18	5.6	18	5.6	0.010	7.0	LOS A	0.0	0.0	0.00	0.63	0.00	62.8
11	T1	All MCs	603	5.1	603	5.1	0.318	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			621	5.2	621	5.2	0.318	0.3	NA	0.0	0.0	0.00	0.02	0.00	79.1
All Vehicles			1214	4.9	1214	4.9	0.318	0.8	NA	0.4	2.7	0.03	0.04	0.03	77.9

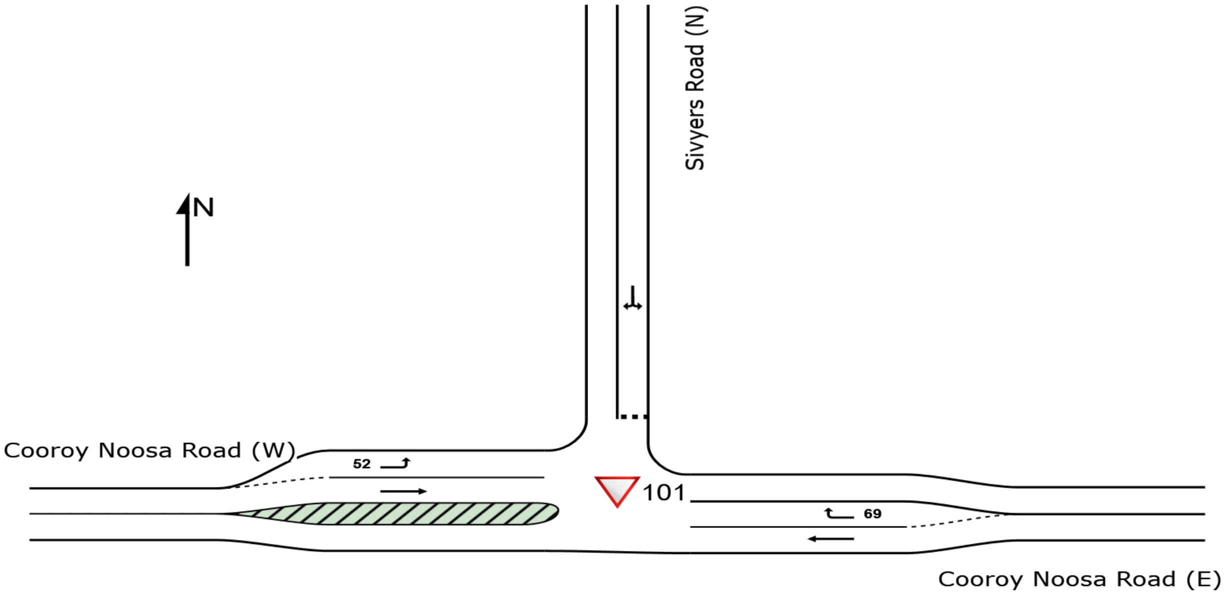
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [3B - Cooroy Noosa Rd & Sivyers Rd Prority_2028 Base with Dev HVs_AM 4-5pm (HV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Give-Way (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Cooroy Noosa Road (E)															
5	T1	All MCs	586	1.2	586	1.2	0.300	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
6	R2	All MCs	18	0.0	18	0.0	0.023	9.3	LOS A	0.1	0.6	0.50	0.70	0.50	59.0
Approach			604	1.2	604	1.2	0.300	0.3	NA	0.1	0.6	0.02	0.02	0.02	79.0
North: Sivyers Road (N)															
7	L2	All MCs	13	0.0	13	0.0	0.092	9.0	LOS A	0.3	2.1	0.72	0.89	0.72	51.9
9	R2	All MCs	14	0.0	14	0.0	0.092	25.3	LOS D	0.3	2.1	0.72	0.89	0.72	52.0
Approach			27	0.0	27	0.0	0.092	17.4	LOS C	0.3	2.1	0.72	0.89	0.72	52.0
West: Cooroy Noosa Road (W)															
10	L2	All MCs	25	0.0	25	0.0	0.013	6.9	LOS A	0.0	0.0	0.00	0.63	0.00	64.6
11	T1	All MCs	504	2.4	504	2.4	0.261	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			529	2.3	529	2.3	0.261	0.4	NA	0.0	0.0	0.00	0.03	0.00	78.9
All Vehicles			1160	1.6	1160	1.6	0.300	0.8	NA	0.3	2.1	0.02	0.05	0.02	78.0

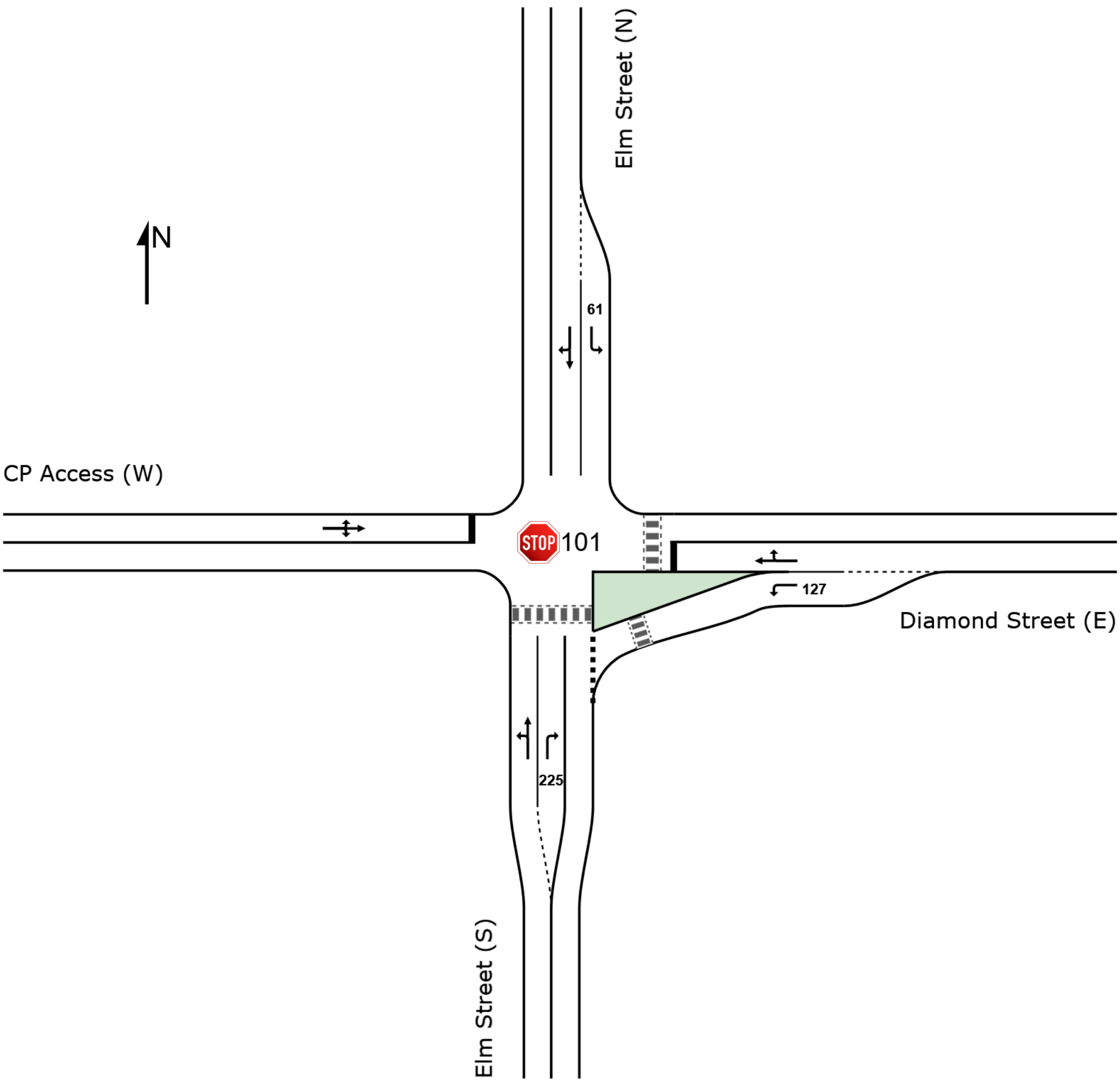
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [4A - Elm St, Diamond St and CP Priority_2028 Base with Dev LVs_AM 6-7am (LV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Stop (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh.	Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Elm Street (S)															
1	L2	All MCs	4	0.0	4	0.0	0.101	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	27.5
2	T1	All MCs	190	2.1	190	2.1	0.101	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	49.9
3	R2	All MCs	170	3.5	170	3.5	0.198	7.2	LOS A	0.8	5.9	0.52	0.70	0.52	44.4
Approach			364	2.7	364	2.7	0.198	3.4	NA	0.8	5.9	0.24	0.33	0.24	46.8
East: Diamond Street (E)															
4	L2	All MCs	186	4.8	186	4.8	0.148	5.6	LOS A	0.6	4.5	0.36	0.55	0.36	45.2
5	T1	All MCs	1	0.0	1	0.0	0.168	17.5	LOS C	0.6	4.2	0.69	1.00	0.69	33.4
6	R2	All MCs	58	3.4	58	3.4	0.168	16.3	LOS C	0.6	4.2	0.69	1.00	0.69	40.1
Approach			245	4.5	245	4.5	0.168	8.2	LOS A	0.6	4.5	0.44	0.66	0.44	43.9
North: Elm Street (N)															
7	L2	All MCs	223	2.2	223	2.2	0.121	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	45.6
8	T1	All MCs	247	1.2	247	1.2	0.130	0.0	LOS A	0.0	0.3	0.02	0.01	0.02	49.9
9	R2	All MCs	5	0.0	5	0.0	0.130	4.8	LOS A	0.0	0.3	0.02	0.01	0.02	43.2
Approach			475	1.7	475	1.7	0.130	2.2	NA	0.0	0.3	0.01	0.25	0.01	47.8
West: CP Access (W)															
10	L2	All MCs	3	0.0	3	0.0	0.011	4.7	LOS A	0.0	0.3	0.50	0.79	0.50	34.5
11	T1	All MCs	1	0.0	1	0.0	0.011	15.9	LOS C	0.0	0.3	0.50	0.79	0.50	35.8
12	R2	All MCs	2	0.0	2	0.0	0.011	9.8	LOS A	0.0	0.3	0.50	0.79	0.50	35.7
Approach			6	0.0	6	0.0	0.011	8.3	LOS A	0.0	0.3	0.50	0.79	0.50	35.2
All Vehicles			1090	2.7	1090	2.7	0.198	4.0	NA	0.8	5.9	0.19	0.38	0.19	46.5

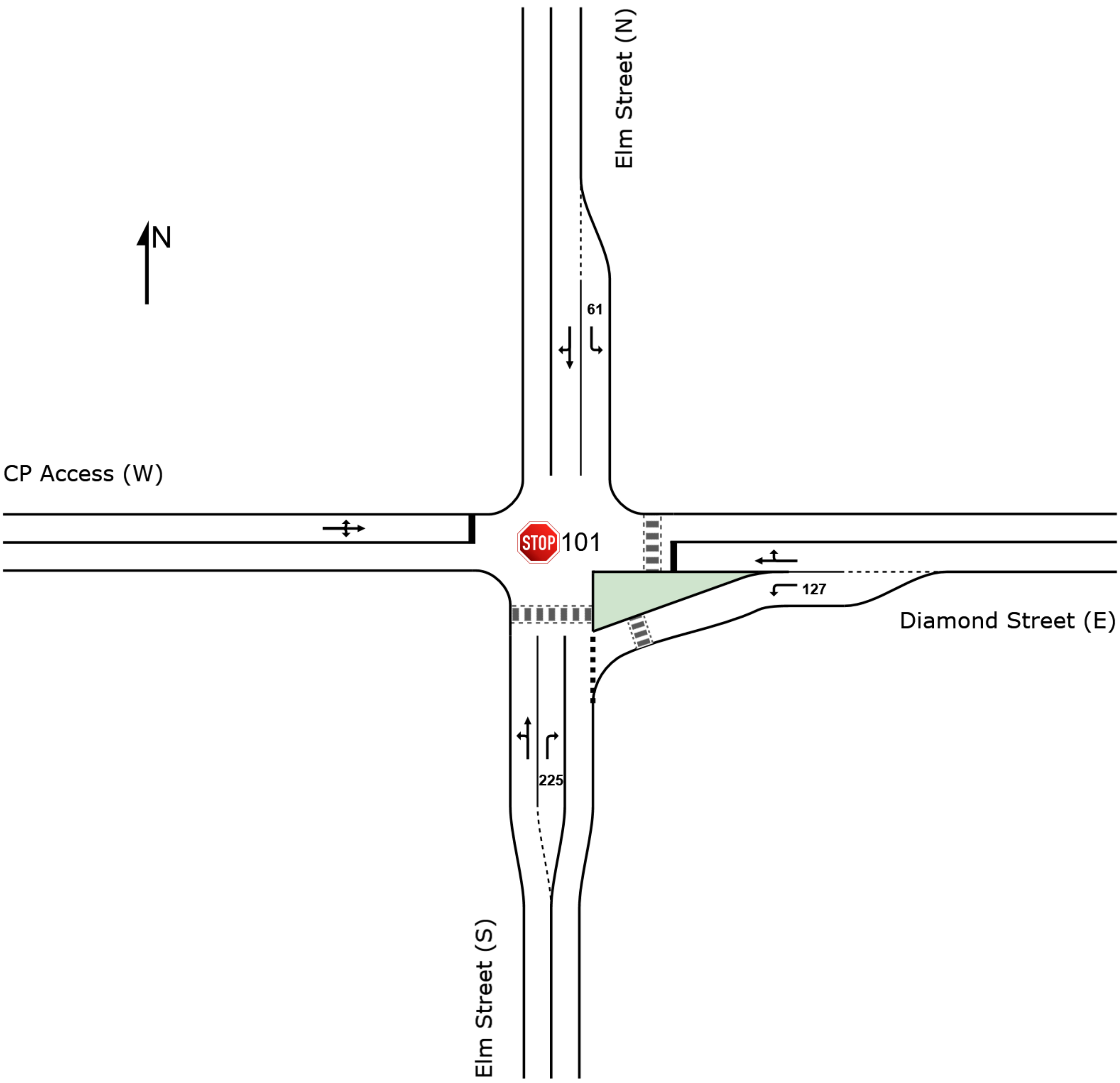
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [4A - Elm St, Diamond St and CP Priority_2028 Base with Dev LVs_PM 5-6pm (LV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Stop (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance																
Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Elm Street (S)																
1	L2	All MCs	2	0.0	2	0.0	0.159	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	27.5
2	T1	All MCs	303	1.3	303	1.3	0.159	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	All MCs	247	1.6	247	1.6	0.288	7.6	LOS A	1.3	9.4	0.55	0.74	0.59	44.2
Approach			552	1.4	552	1.4	0.288	3.4	NA	1.3	9.4	0.25	0.33	0.26	47.0
East: Diamond Street (E)																
4	L2	All MCs	291	0.7	291	0.7	0.244	6.0	LOS A	1.1	7.6	0.44	0.60	0.44	45.1
5	T1	All MCs	1	0.0	1	0.0	0.574	33.0	LOS D	2.7	19.4	0.88	1.17	1.41	27.1
6	R2	All MCs	134	3.7	134	3.7	0.574	30.7	LOS D	2.7	19.4	0.88	1.17	1.41	34.4
Approach			426	1.6	426	1.6	0.574	13.8	LOS B	2.7	19.4	0.58	0.78	0.75	41.2
North: Elm Street (N)																
7	L2	All MCs	157	3.2	157	3.2	0.086	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	45.6
8	T1	All MCs	322	1.2	322	1.2	0.167	0.0	LOS A	0.0	0.2	0.01	0.01	0.01	49.9
9	R2	All MCs	3	0.0	3	0.0	0.167	4.9	LOS A	0.0	0.2	0.01	0.01	0.01	43.3
Approach			482	1.9	482	1.9	0.167	1.5	NA	0.0	0.2	0.01	0.18	0.01	48.4
West: CP Access (W)																
10	L2	All MCs	2	0.0	2	0.0	0.024	5.3	LOS A	0.1	0.6	0.65	0.90	0.65	31.7
11	T1	All MCs	1	0.0	1	0.0	0.024	22.6	LOS C	0.1	0.6	0.65	0.90	0.65	33.1
12	R2	All MCs	5	0.0	5	0.0	0.024	14.5	LOS B	0.1	0.6	0.65	0.90	0.65	33.1
Approach			8	0.0	8	0.0	0.024	13.2	LOS B	0.1	0.6	0.65	0.90	0.65	32.8
All Vehicles			1468	1.6	1468	1.6	0.574	5.9	NA	2.7	19.4	0.27	0.41	0.32	45.5

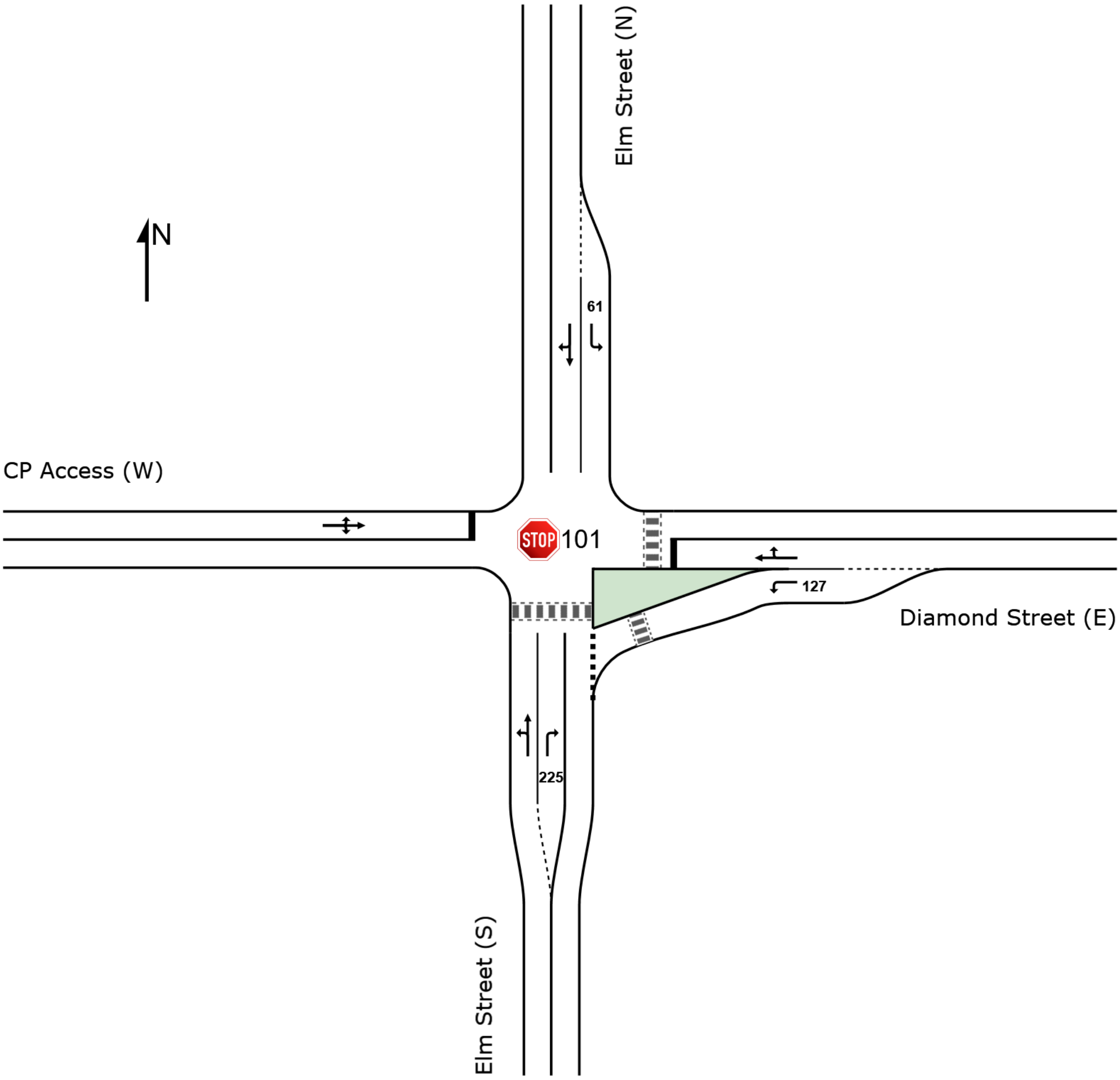
Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [4A - Elm St, Diamond St and CP Priority_2028 Base with Dev HVs_AM 1015-1115 (HV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Stop (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Elm Street (S)															
1	L2	All MCs	3	0.0	3	0.0	0.170	4.6	LOS A	0.0	0.0	0.00	0.01	0.00	27.5
2	T1	All MCs	316	5.1	316	5.1	0.170	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	49.9
3	R2	All MCs	326	3.1	326	3.1	0.446	10.1	LOS B	2.6	18.9	0.65	0.92	0.92	42.9
Approach			645	4.0	645	4.0	0.446	5.1	NA	2.6	18.9	0.33	0.47	0.46	45.9
East: Diamond Street (E)															
4	L2	All MCs	321	5.3	321	5.3	0.290	6.4	LOS A	1.3	9.5	0.48	0.63	0.48	44.9
5	T1	All MCs	1	0.0	1	0.0	0.759	54.4	LOS F	3.8	27.7	0.95	1.29	1.93	21.2
6	R2	All MCs	124	4.8	124	4.8	0.759	51.7	LOS F	3.8	27.7	0.95	1.29	1.93	28.4
Approach			446	5.2	446	5.2	0.759	19.1	LOS C	3.8	27.7	0.61	0.82	0.89	38.9
North: Elm Street (N)															
7	L2	All MCs	229	7.9	229	7.9	0.130	4.7	LOS A	0.0	0.0	0.00	0.53	0.00	45.6
8	T1	All MCs	355	4.2	355	4.2	0.186	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	50.0
9	R2	All MCs	1	0.0	1	0.0	0.186	4.7	LOS A	0.0	0.1	0.00	0.00	0.00	43.4
Approach			585	5.6	585	5.6	0.186	1.8	NA	0.0	0.1	0.00	0.21	0.00	48.1
West: CP Access (W)															
10	L2	All MCs	3	0.0	3	0.0	0.024	5.4	LOS A	0.1	0.5	0.73	0.84	0.73	30.0
11	T1	All MCs	2	0.0	2	0.0	0.024	33.1	LOS D	0.1	0.5	0.73	0.84	0.73	31.4
12	R2	All MCs	1	0.0	1	0.0	0.024	17.8	LOS C	0.1	0.5	0.73	0.84	0.73	31.4
Approach			6	0.0	6	0.0	0.024	16.7	LOS C	0.1	0.5	0.73	0.84	0.73	30.7
All Vehicles			1682	4.9	1682	4.9	0.759	7.7	NA	3.8	27.7	0.29	0.47	0.42	44.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

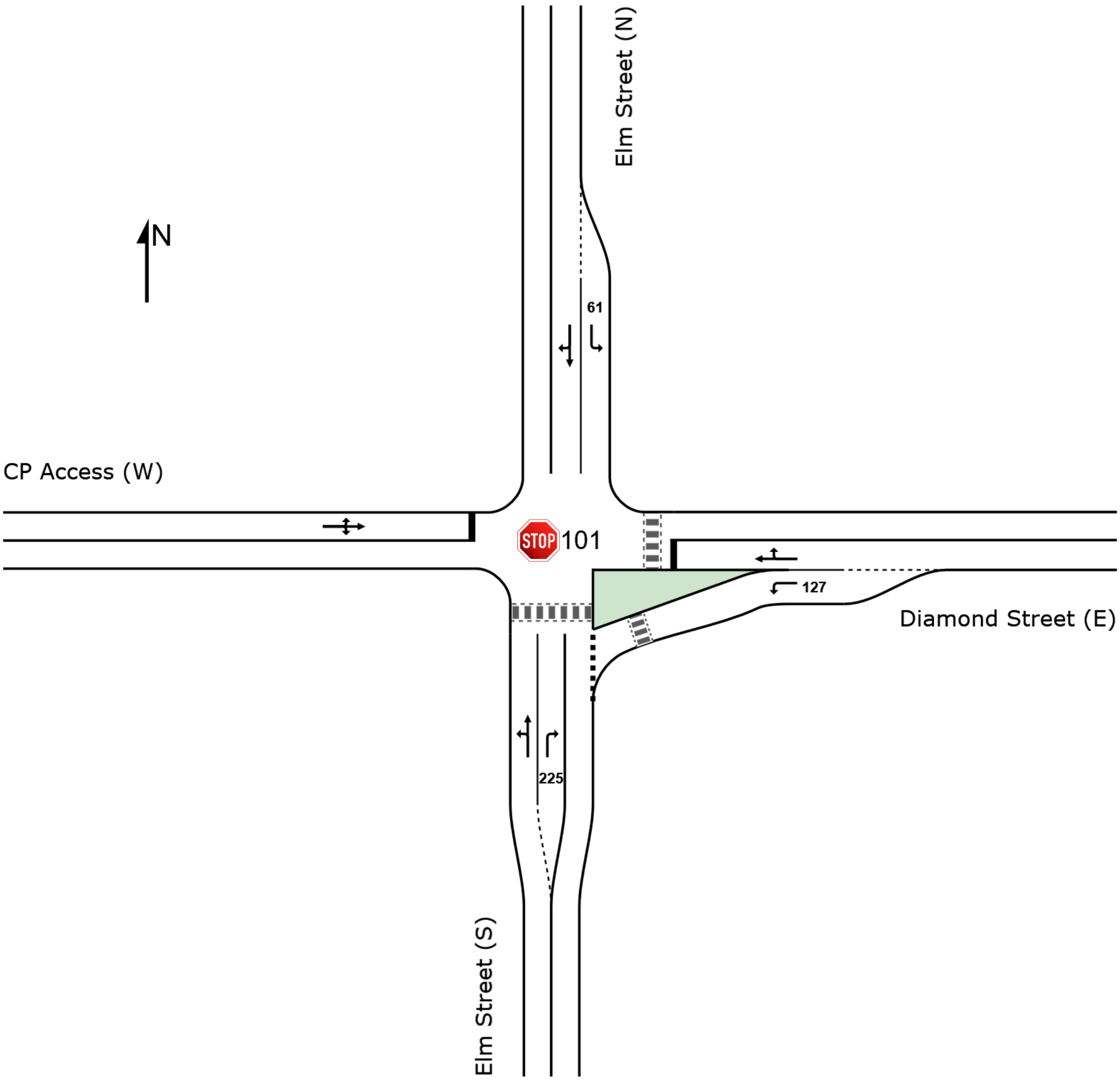
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Site: 101 [4A - Elm St, Diamond St and CP Priority_2028 Base with Dev HVs_PM 4-5pm (HV hr) (Site Folder: Future 2028 Base with Dev_SIDRA Models)]

New Site
Site Category: (None)
Stop (Two-Way)

Site Layout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



Vehicle Movement Performance

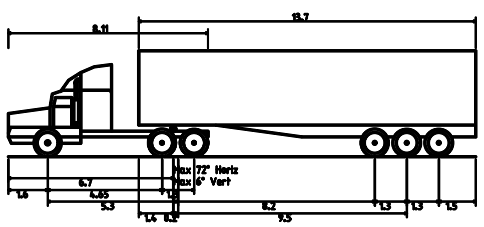
Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Elm Street (S)															
1	L2	All MCs	2	0.0	2	0.0	0.181	4.6	LOS A	0.0	0.0	0.00	0.00	0.00	27.5
2	T1	All MCs	347	1.2	347	1.2	0.181	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	All MCs	316	1.9	316	1.9	0.392	8.8	LOS A	2.2	15.6	0.61	0.83	0.78	43.6
Approach			665	1.5	665	1.5	0.392	4.2	NA	2.2	15.6	0.29	0.40	0.37	46.5
East: Diamond Street (E)															
4	L2	All MCs	301	1.3	301	1.3	0.254	6.0	LOS A	1.1	8.0	0.44	0.61	0.44	45.1
5	T1	All MCs	2	0.0	2	0.0	0.606	41.5	LOS E	2.7	19.3	0.91	1.17	1.47	24.9
6	R2	All MCs	114	1.8	114	1.8	0.606	37.3	LOS E	2.7	19.3	0.91	1.17	1.47	32.3
Approach			417	1.4	417	1.4	0.606	14.7	LOS B	2.7	19.3	0.57	0.76	0.73	40.8
North: Elm Street (N)															
7	L2	All MCs	204	3.4	204	3.4	0.112	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	45.6
8	T1	All MCs	323	1.9	323	1.9	0.167	0.0	LOS A	0.0	0.1	0.00	0.00	0.00	50.0
9	R2	All MCs	1	0.0	1	0.0	0.167	4.7	LOS A	0.0	0.1	0.00	0.00	0.00	43.4
Approach			528	2.5	528	2.5	0.167	1.8	NA	0.0	0.1	0.00	0.20	0.00	48.2
West: CP Access (W)															
10	L2	All MCs	4	0.0	4	0.0	0.031	5.5	LOS A	0.1	0.7	0.70	0.88	0.70	30.9
11	T1	All MCs	2	0.0	2	0.0	0.031	30.1	LOS D	0.1	0.7	0.70	0.88	0.70	32.3
12	R2	All MCs	3	0.0	3	0.0	0.031	17.3	LOS C	0.1	0.7	0.70	0.88	0.70	32.2
Approach			9	0.0	9	0.0	0.031	14.9	LOS B	0.1	0.7	0.70	0.88	0.70	31.7
All Vehicles			1619	1.8	1619	1.8	0.606	6.2	NA	2.7	19.3	0.27	0.43	0.34	45.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).
Two-Way Sign Control Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Appendix H

Swept Path Assessment

H-1 Lake Macdonald Drive / Collwood Road



Prime mover and semi-trailer (19 m)

Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

NOT FOR CONSTRUCTION

SCALE 1:250 2.5 0 5 10

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VEHICLE TURN PATHS
LAKE MACDONALD DRIVE / COLLWOOD ROAD
PRIME MOVER AND SEMI-TRAILER (19m)

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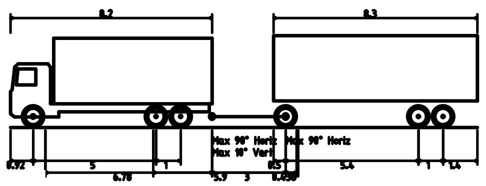

Truck & Dog	
Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	9.600m

NOT FOR CONSTRUCTION

SCALE 1:250 2.5 0 5 10

VEHICLE TURN PATHS
LAKE MACDONALD DRIVE / COLLWOOD ROAD
TRUCK AND DOG

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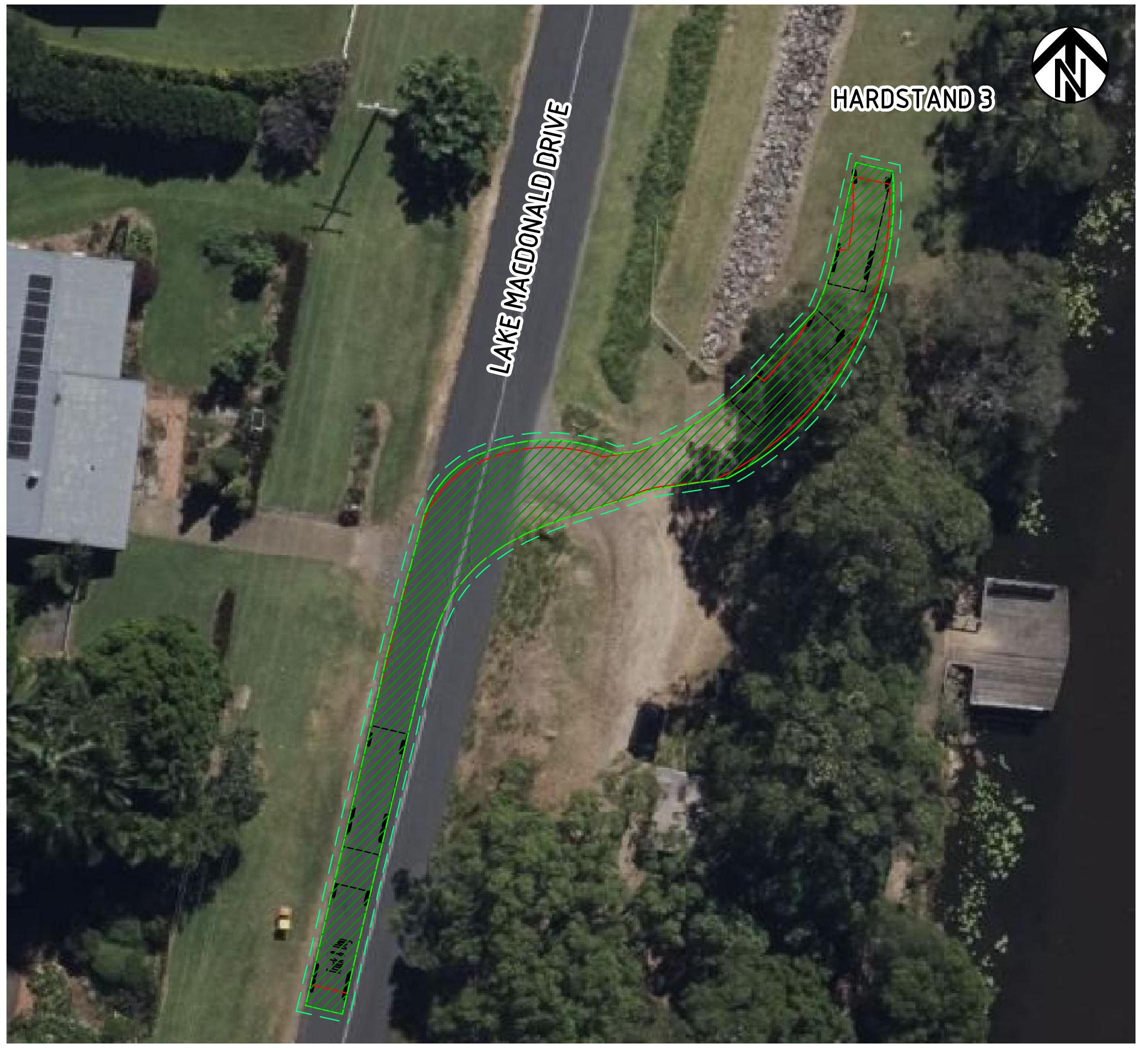
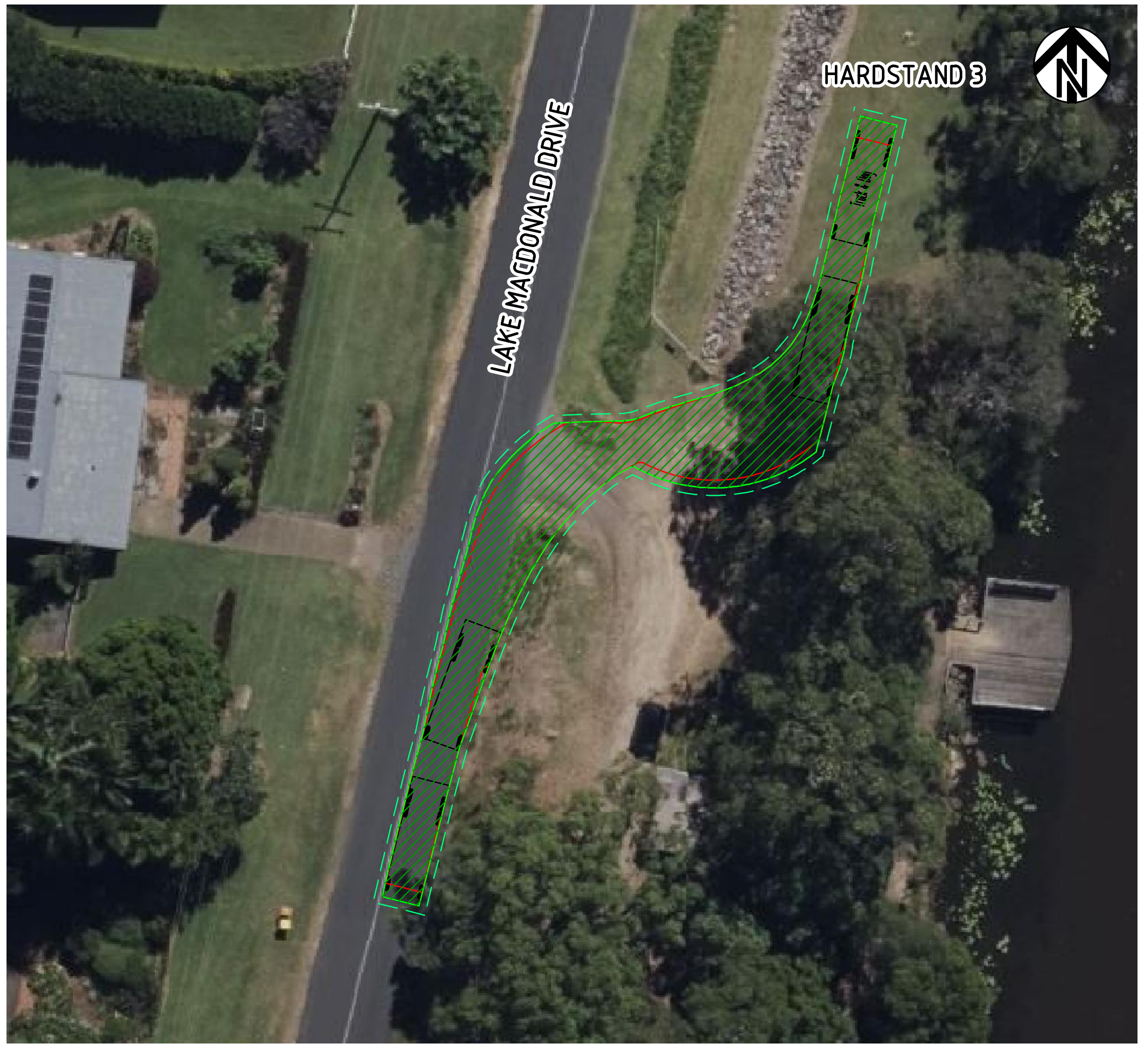
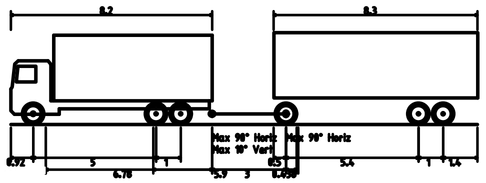
H-2 Lake Macdonald Drive / Hardstand Area 3







Truck & Dog	
Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	9.600m

NOT FOR CONSTRUCTION

SCALE 1:250 2.5 0 5 10

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VEHICLE TURN PATHS
LAKE MACDONALD DRIVE / HARDSTAND 3
TRUCK AND DOG

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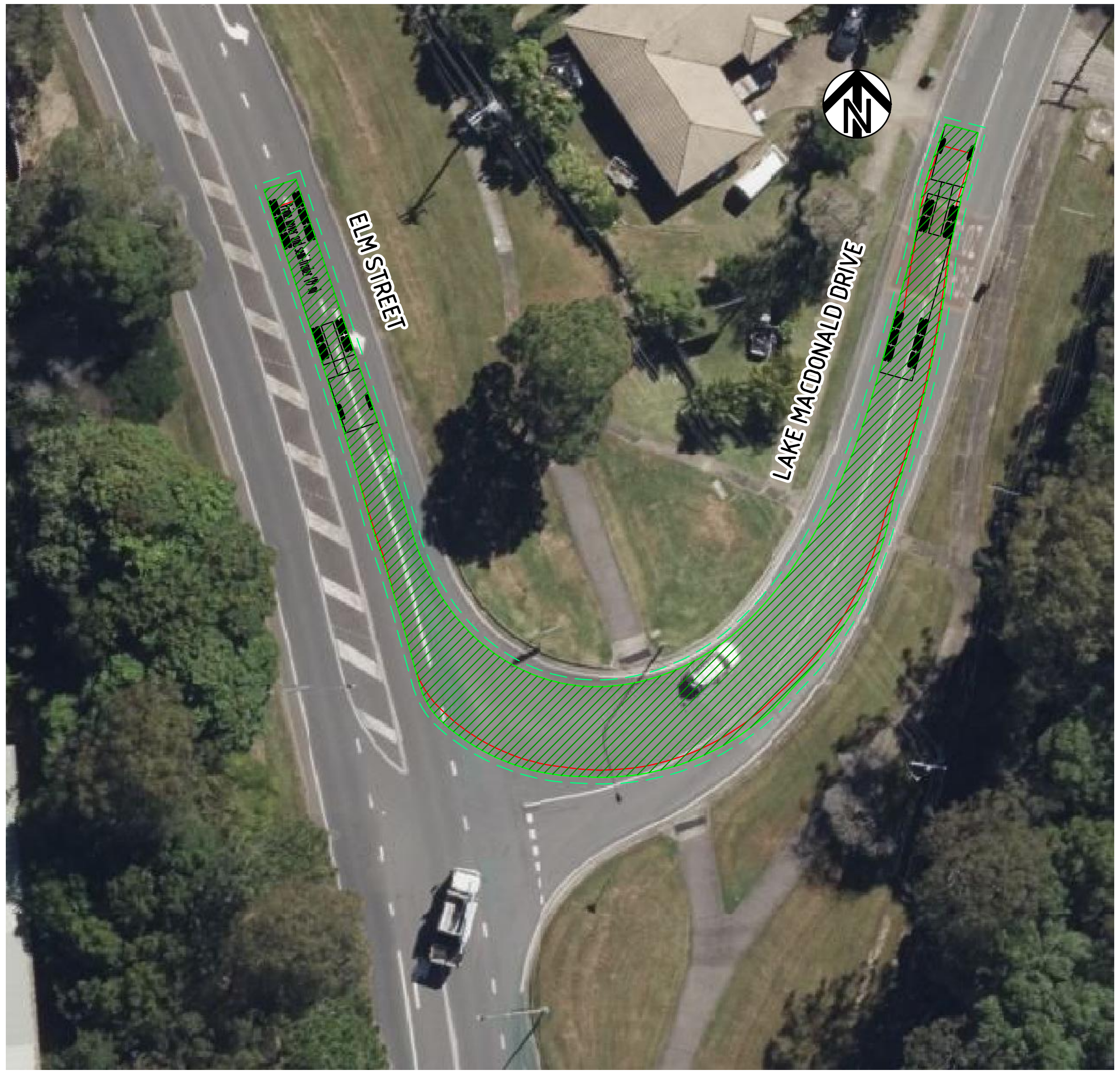
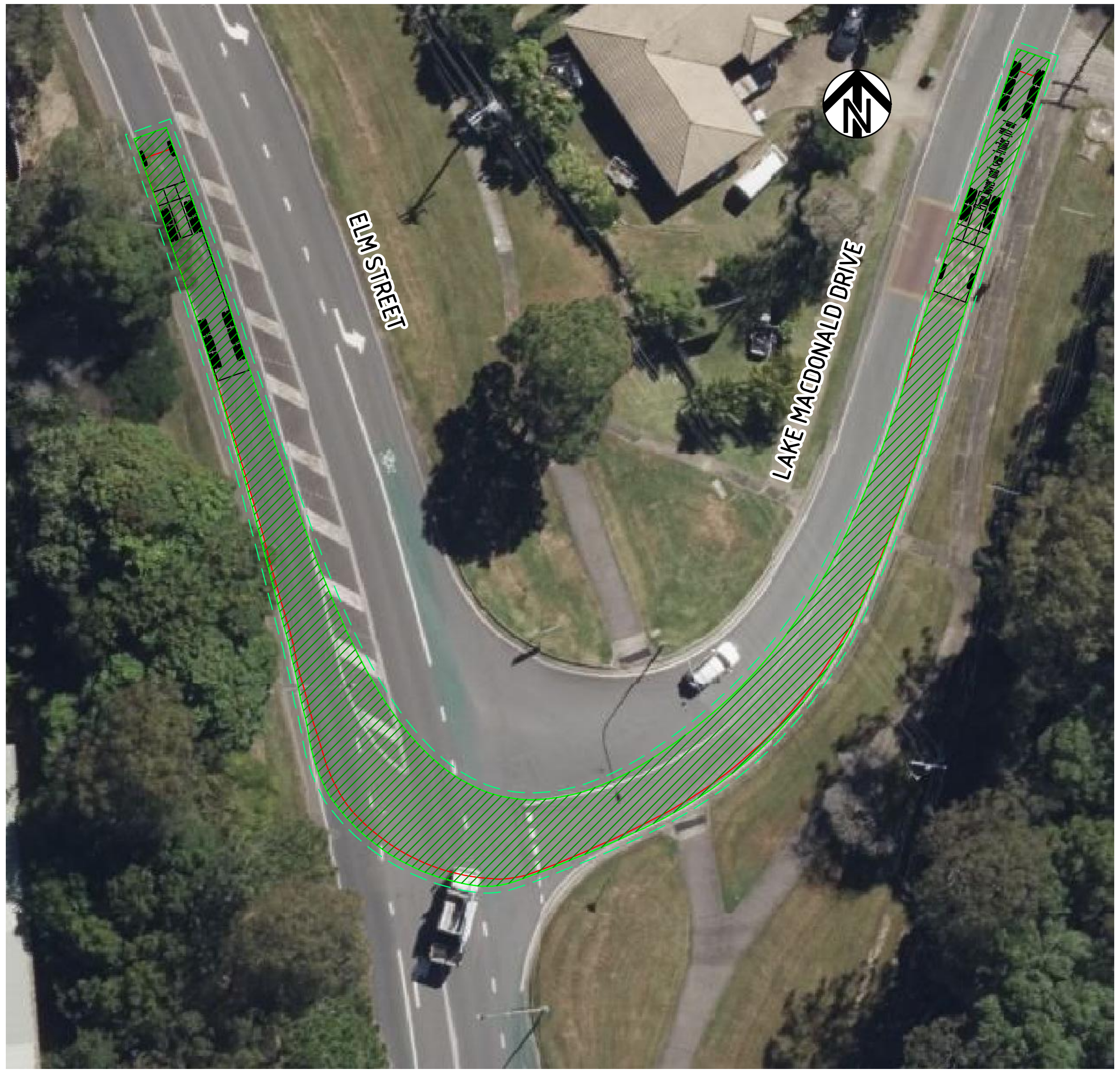
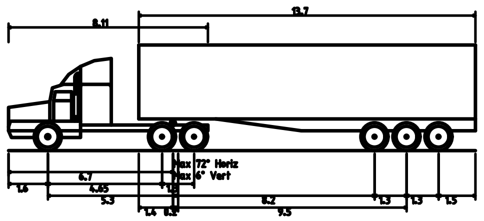
H-3 Elm Street / Lake Macdonald Drive







Prime mover and semi-trailer (19 m)	
Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.540m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

NOT FOR CONSTRUCTION

SCALE 1:250 2.5 0 5 10

VEHICLE TURN PATHS
ELM STREET / LAKE MACDONALD DRIVE
PRIME MOVER AND SEMI-TRAILER (19m)

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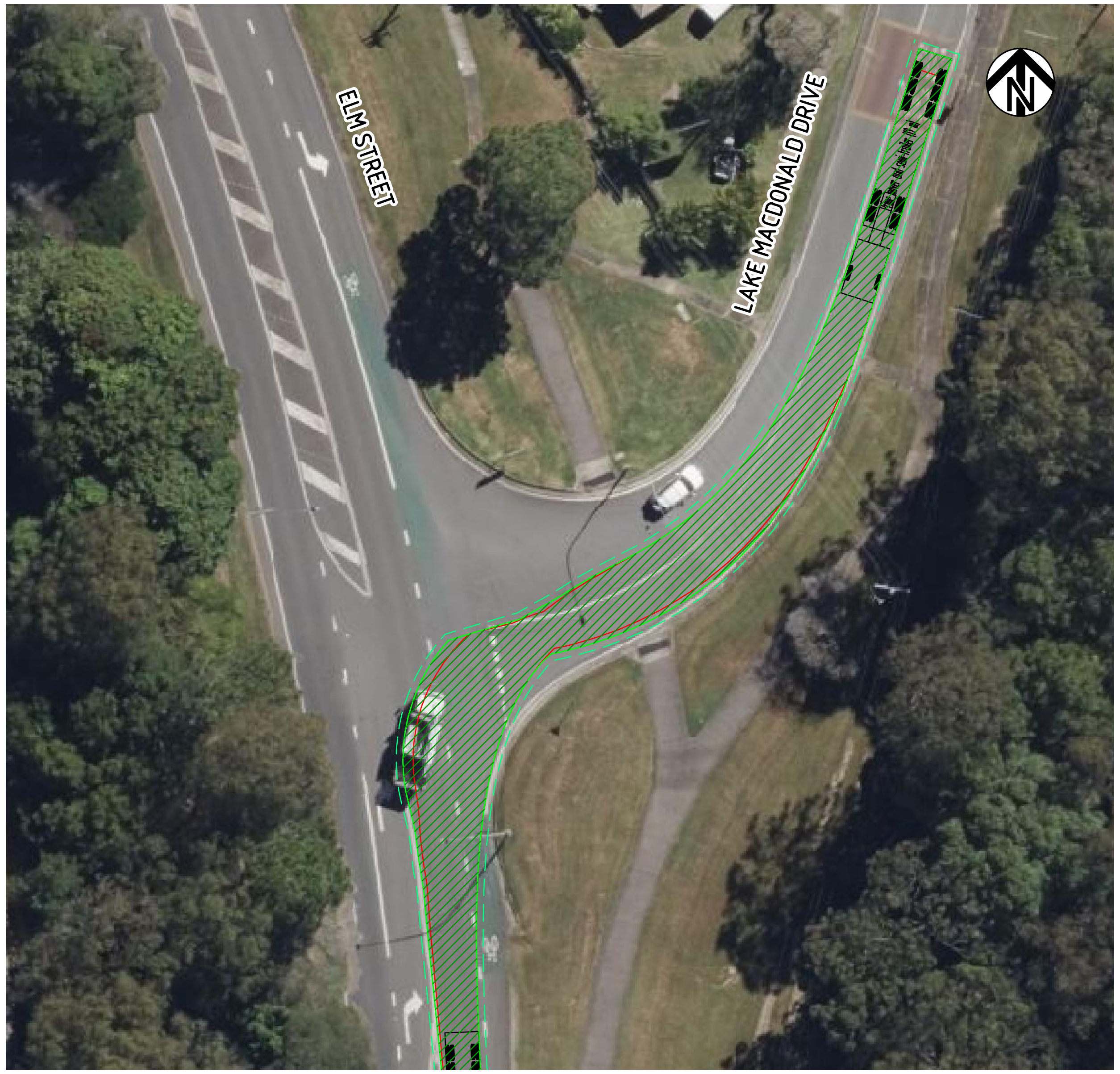

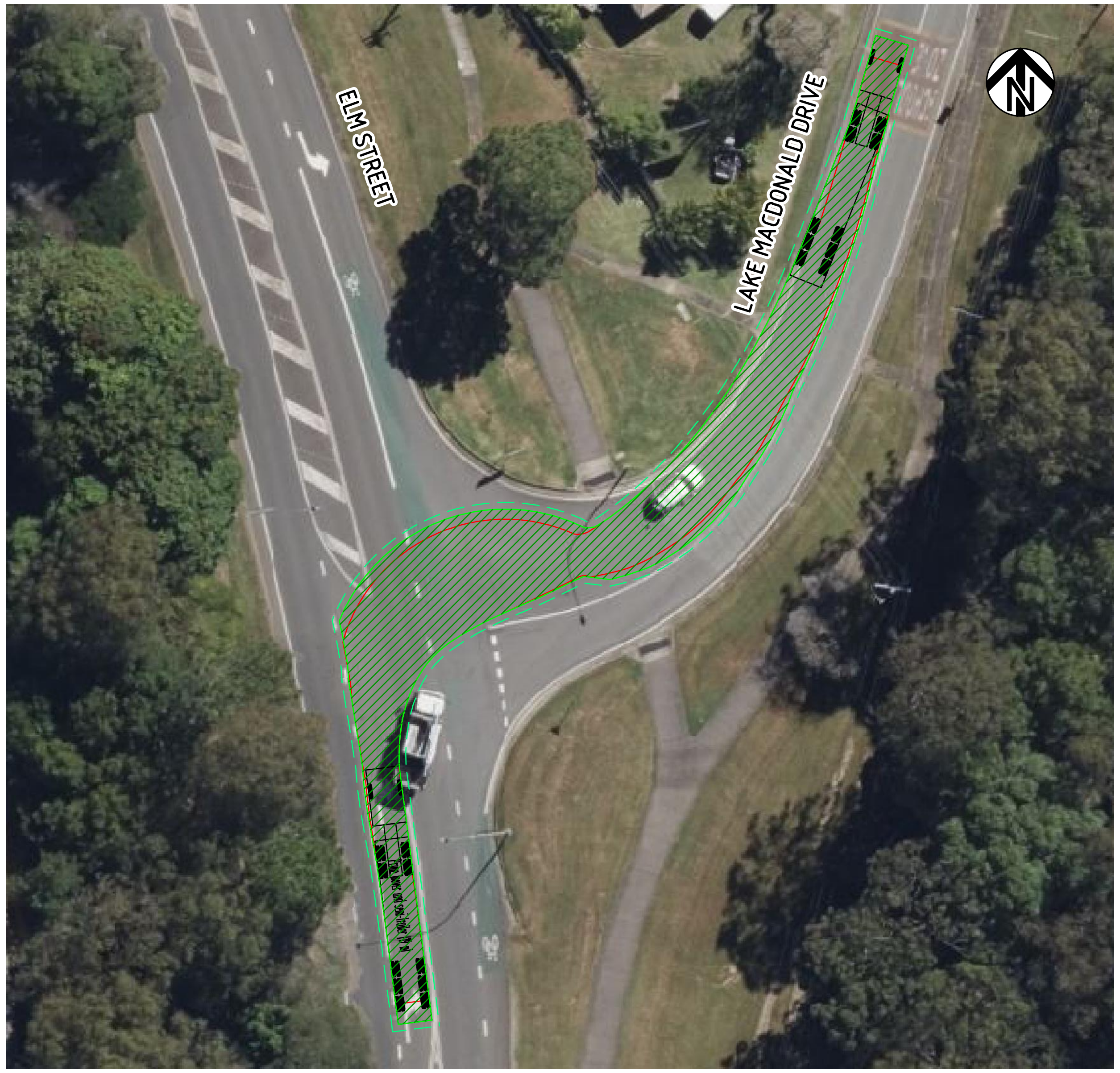

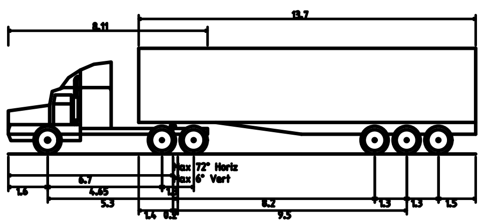

Prime mover and semi-trailer (19 m)

Overall Length	19.000m
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Overall Body Height	4.300m
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NOT FOR CONSTRUCTION

SCALE 1:250 2.5 0 5 10

VEHICLE TURN PATHS
ELM STREET / LAKE MACDONALD DRIVE
PRIME MOVER AND SEMI-TRAILER (19m)

INFORMATION DOCUMENT

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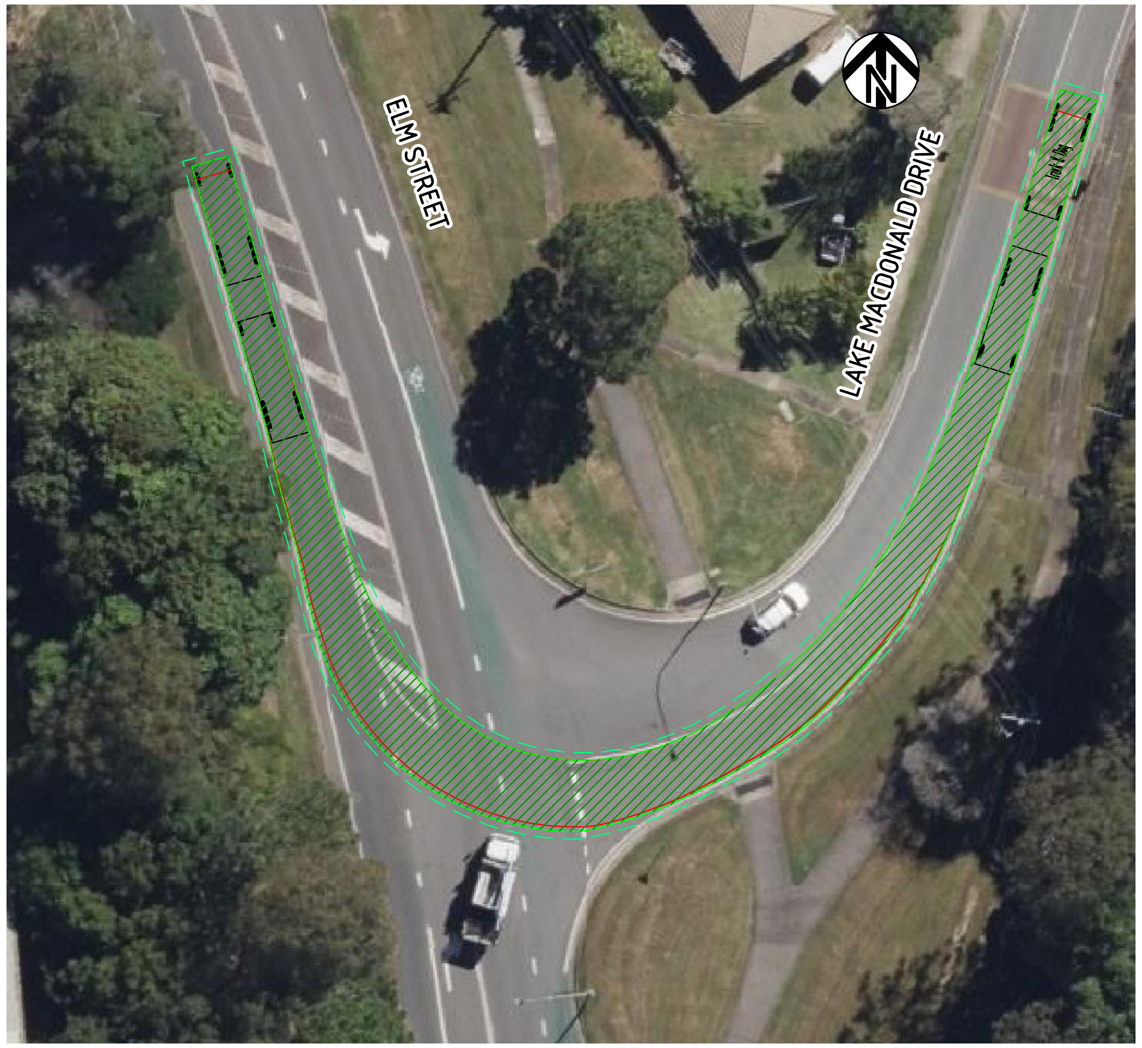

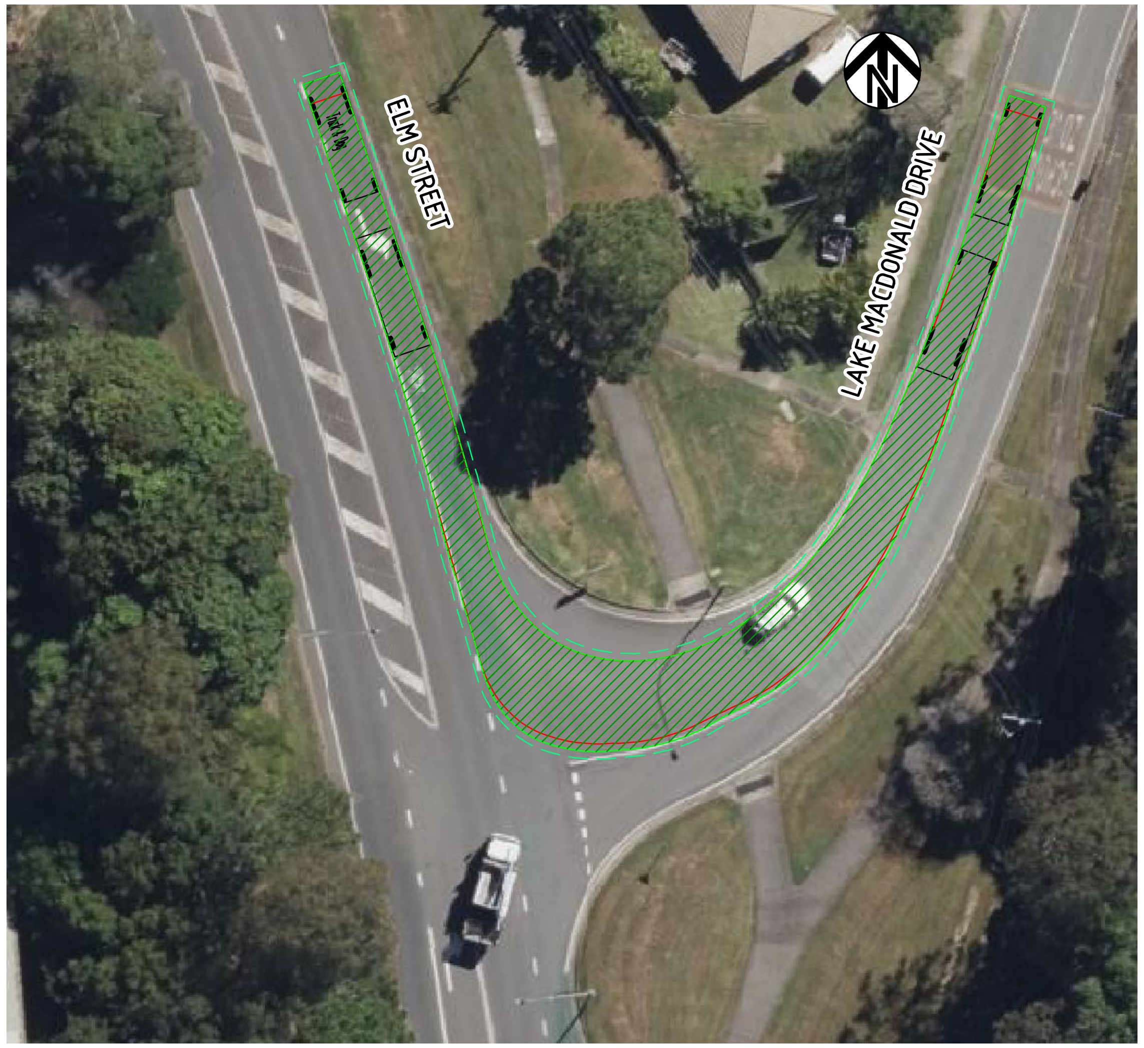

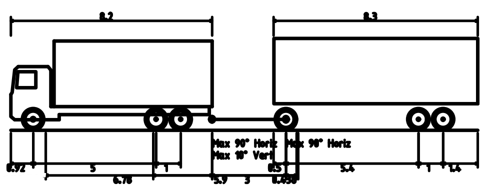

Truck & Dog	
Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	3.738m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	9.600m

NOT FOR CONSTRUCTION

SCALE 1:250

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VEHICLE TURN PATHS
ELM STREET / LAKE MACDONALD DRIVE
TRUCK AND DOG

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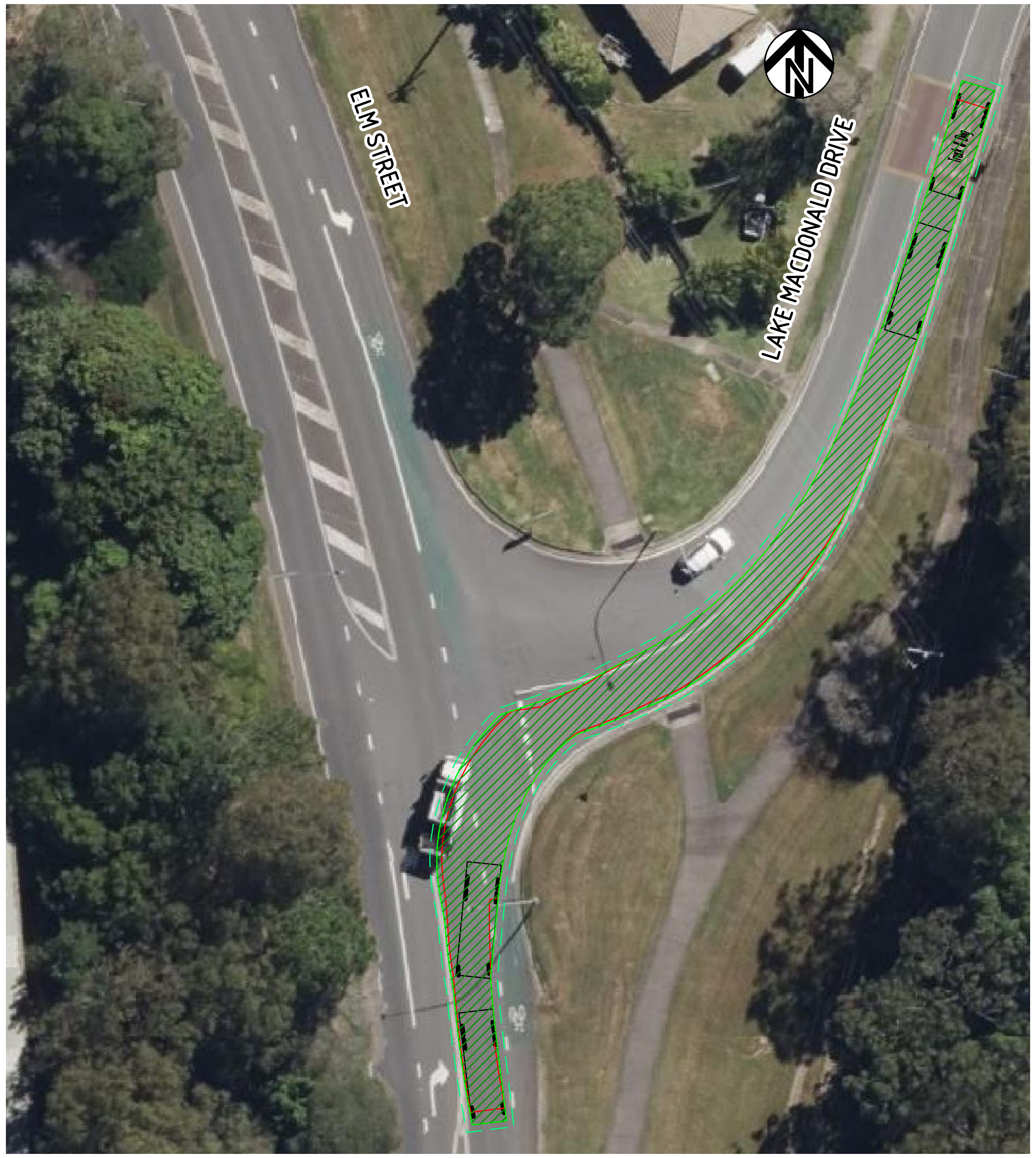

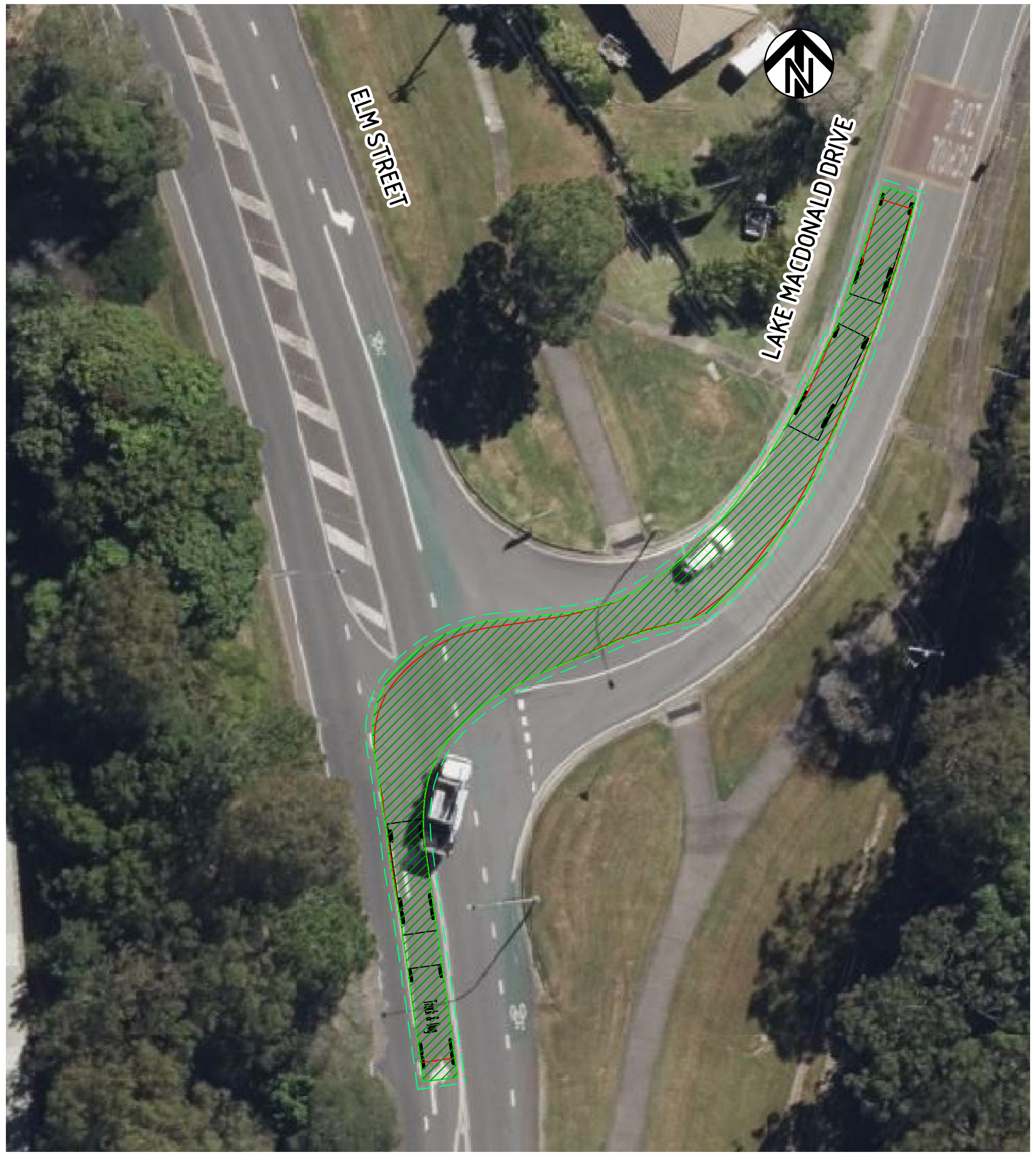

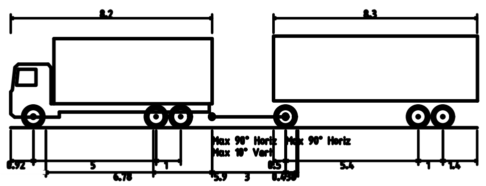

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VEHICLE TURN PATHS
ELM STREET / LAKE MACDONALD DRIVE
TRUCK AND DOG

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Appendix C

Road Safety Audit (SMEC), November 2024

Road Safety Audit Report

Lake Macdonald Dam Improvement Project – Road Safety Audit

Prepared for: Seqwater
6 November 2024
Client Reference No. LMDIP-05806-ROD-TRR-REP-00002

SMEC INTERNAL REF. 30035740

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Document Control

Document Type	Road Safety Audit Report
Project Title	Lake Macdonald Dam Improvement Project – Road Safety Audit
Project Number	30035740
File Location	X:\Projects\300357\30035740\100 Concept-Feasibility\Traffic\Deliverables\RSA_Nov2024
Revision Number	5

Revision History

Revision No.	Date	Prepared By	Reviewed By	Approved for Issue By
1	24/09/2020	Anthony Gao (TMR Senior RSA)	Michael Compton (TMR Senior RSA)	Anthony Burke
2	1/12/2020	Anthony Gao (TMR Senior RSA)	Michael Compton (TMR Senior RSA)	Anthony Burke
3	11/12/2020	Anthony Gao (TMR Senior RSA)	Michael Compton (TMR Senior RSA)	Anthony Burke
4	4/10/2024	Michael Compton (TMR Senior RSA)	Dave Bekker (TMR Senior RSA)	Anthony Burke
5	6/11/2024	Michael Compton (TMR Senior RSA)	Dave Bekker (TMR Senior RSA)	Anthony Burke

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Seqwater	6/11/2024	1

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Contents

Appendices

Figures

Tables

1. Introduction

1.1 Background

Seqwater requires investigation and an assessment of the traffic impacts, associated with the Lake Macdonald Dam Improvement Project (LMDIP), on Lake Macdonald Drive and local traffic intersections associated with transport routes.

Access roads must be investigated and assessed for traffic impact, road safety and the condition, so as to meet obligations and conditions imposed on Seqwater for the LMDIP project, by the Coordinator General.

1.2 Scope of Works and Study Area

1.2.1 In Scope

The purpose of this task is to present the findings of a Road Safety Audit (RSA) on the existing conditions of various roads and intersections within Cooroy and Lake Macdonald which are anticipated to be used by development traffic associated with the LMDIP. Specifically:

- Determine the effect the proposed increased light and heavy vehicle traffic during construction will have on the road safety of all road users (including public transport, pedestrians, persons with a disability, and cyclists) along the proposed light and heavy vehicle routes.
- Identify road safety issues that are currently present along the proposed light and heavy vehicle routes.
- Assess the road safety of the proposed reduced speed environment associated with the Collwood Drive (also known as Noosa Water Treatment Plant (NWTP) Access Road).

1.2.2 Study Area

The study area for the scope of works in this project was illustrated in **Figure 1–1** and broken down as follows:

- 4.3km section of Lake Macdonald Drive from the intersection with Cooroy Connection Road (also known as Elm Street north of Myall Street) to the intersection with Collwood Drive.
- 5.6km section of Cooroy Connection Road (Elm Street) from Lake Macdonald Drive to the Bruce Highway Exit 237 (Cooroy Bypass northern interchange).
- 1.3km section of Cooroy Connection Road (Elm Street) from Lake Macdonald Drive to, and including, the intersection with Myall Street (staff access only route).
- 4.9km section of Sivyers Road, Gumboil Road and Collwood Road from Cooroy - Noosa Road to the alternate NWTP Access (staff access only route).
- Intersection of Cooroy Connection Road / Lake Macdonald Drive.
- Intersection of Cooroy - Noosa Road / Sivyers Road.
- Intersection of Lake Macdonald Drive / Collwood Road.
- Intersection of Lake Macdonald Drive / Swift Drive.

An alternative to the above routes from the east is via Swift Drive which is an additional 3km. Whilst it is signed as a route to the Noosa Botanical Gardens just south of the site, this route has not been included in this assessment.

The Coordinator General has identified locations of concern with regards to safety for roads users. The identified locations of concern are, but shall not be limited to, the following:

- Cooroy State School - 59 Cooroy Connection Road, Cooroy QLD 4563.
- Noosa Beverages (Noosa Natural Spring Water and Wimmers) - 271 Lake Macdonald Drive, Cooroy, QLD, 4563.

- Noosa Botanical Gardens/Perch Park
- School Bus route along Lake Macdonald Drive.
- Milestones Early Learning Cooroy - 16 Lake Macdonald Drive, Cooroy, QLD ,4563.

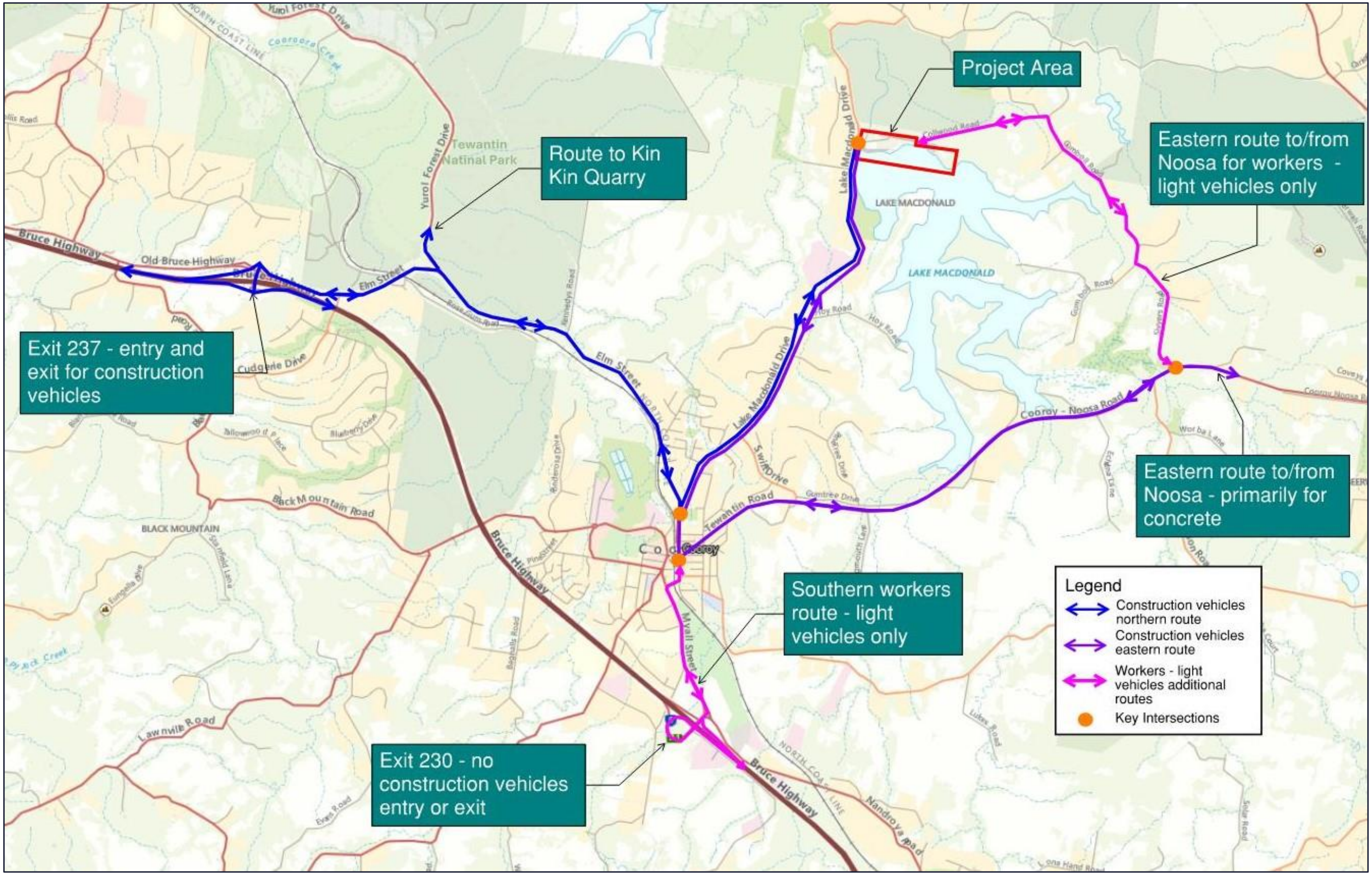


Figure 1–1: Road Safety Audit Study Area

2. Existing Conditions and Issues

All observations and deficiencies have been identified and listed in this section with recommended corrective actions within **Section 5** of this report. This RSA has been undertaken by accredited Road Safety Auditors from SMEC. The auditors have reviewed all available documentation from a completely independent perspective.

The RSA was carried out in accordance with the Austroads' **Guide to Road Safety Part 6A: Implementing Road Safety Audits (2019)** as part of the process for ensuring that safety elements are fully considered in current and future design works for the area.

The general issues and deficiencies for the subject roads are summarised in the following sections and supplemented by mapped locations in Appendix A. In addition, images taken during the RSA for following sections and intersections as follows:

- Cooroy Connection Road include in **Appendix B**
- Lake Macdonald Drive include in **Appendix C**
- Sivyers Road Intersection include in **Appendix D**.

2.1 Cooroy Connection Road

Cooroy Connection Road (Elm Street) is classified as a major road with a posted speed limit of 50km/h from Myall Street to the Cooroy Train Station and 60km/h along for the remainder of the subject area. It is noted that the section of road reduced to 40km/h during the school peak period, 7.00 - 9.00 am and 2.00 - 4.00 pm. It is a two-lane two-way road with Auxiliary Left Turn (AUL) and short Channelised Right Turn (CHR) turning lanes at the intersection with Lake Macdonald Drive.

2.1.1 Cooroy Connection Road / Myall Street Intersection

Myall Street transitions into Cooroy Connection Road on a small radius horizontal curve with a CHR and AUL into the minor road. There are narrow raised traffic islands separating opposing traffic on all legs of the intersection. There is a narrow bridge over the North Coast Rail line 70m east of the intersection. The intersection is well lit and has road lighting on all approaches. A summary of the issues at the intersection is provided below and illustrated in **Figure 2–1**:

- The radius of the horizontal curve is too small for the operating speed of intersection.
- There are no on road provisions for cyclists through the intersection.
- There is minimal storage to the CHR into the minor road which can obstruct through movements during peak periods.
- The position of the CHR obstructs sight distance of through movements for vehicles stopped on the minor road.
- There are multiple property accesses in close proximity to the intersection on the western side of Myall Street.
- Pavement markings are deteriorated on the southern approach to the intersection and the edge line is worn on the inside of the horizontal curve.
- The barrier terminal located on the inside of the curve is located close to the traffic lane and does not achieve compliant shy line offset.
- Nose to kerb parking north of the intersection creates unsafe reversing movements into traffic with poor visibility.
- The bridge over the rail line has narrow shoulders (<0.5 m).
- Guardrail is not connected to the bridge barrier at two locations and will not shield an errant vehicle from the bridge parapets during a crash. The fishtail connection on the eastern departure is a superseded design and does not comply with current standards.

- Vegetation growth encroaches into the road shoulder at the horizontal curve to the east of the intersection which obstructs sight distance to vehicles and signage.
- There are unprotected light poles and a steep embankment slope to the inside of the horizontal curve to the east of the intersection.
- It was observed that some vehicles wanting to head east towards Cooroy Connection Road from Myall Street (south approach), choose to turn left and used the Maple / Myall roundabout to turn around and then head eastwards towards Cooroy Connection Road. This route appeared quicker due to delays in the right tun movement from Myall Street into Cooroy Connection Road.

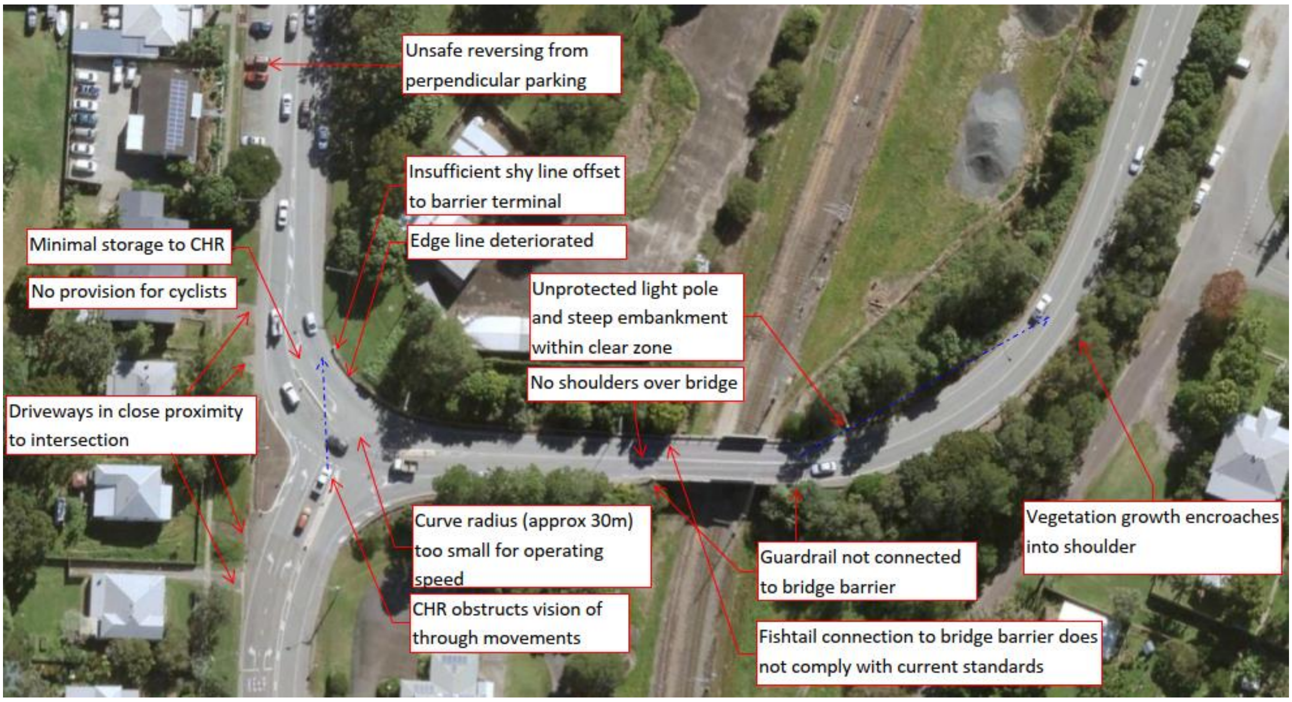


Figure 2–1: Existing Issues – Myall Street / Cooroy Connection Road Intersection

2.1.2 Cooroy Connection Road – Myall Street to Lake Macdonald Drive

This section of Cooroy Connection Road contains unsignalised intersection with Cedar Street, Opal Street, Diamond Lane, Diamond Street (Cooroy – Noosa Road), Pearl Lane and Pearl Street. There are shops and a service station located on the eastern side of Cooroy Connection Road and access to the Cooroy Train Station carpark opposite the Diamond Street intersection. Bus stops in each direction and a pedestrian crossing is located between Opal Street and Diamond Lane. A signalised pedestrian crossing is located north of Pearl Street.

A summary of the issues at this location is provided below and illustrated in **Figure 2–2**:

- There are multiple breaks in the double barrier line to permit turn movements between Cedar Street and Opal Street resulting in poor and inconsistent delineation of Cooroy Connection Road.
- There are no dedicated on-road provisions for cyclists through this section.
- There is no provision for pedestrians crossing Diamond Street.
- Pedestrian ramps are misaligned at the carpark access and to the crossing at Pearl Street. This is particularly dangerous for visually impaired pedestrians.
- Vehicles turning left onto Cooroy Connection Road from Diamond Street have a poor observation angle of oncoming traffic. Motorists watching for a gap in traffic will not be watching for pedestrians at the crossing located 25m from the merge.
- Right-in movement appear to be permitted into the train station car park from Cooroy Connection Road. There is a risk of rear-end crashes due to the lack of CHR.
- The northbound exit from the carpark has a poor observation angle of oncoming traffic.

- The AUL into Diamond Street obstructs sight distance for vehicles turning right onto Cooroy Connection Road.
- Multiple school bus stops on the northbound shoulder between Pearl Street and Sapphire Street. This area also functions as transit stop to catch connecting routes.

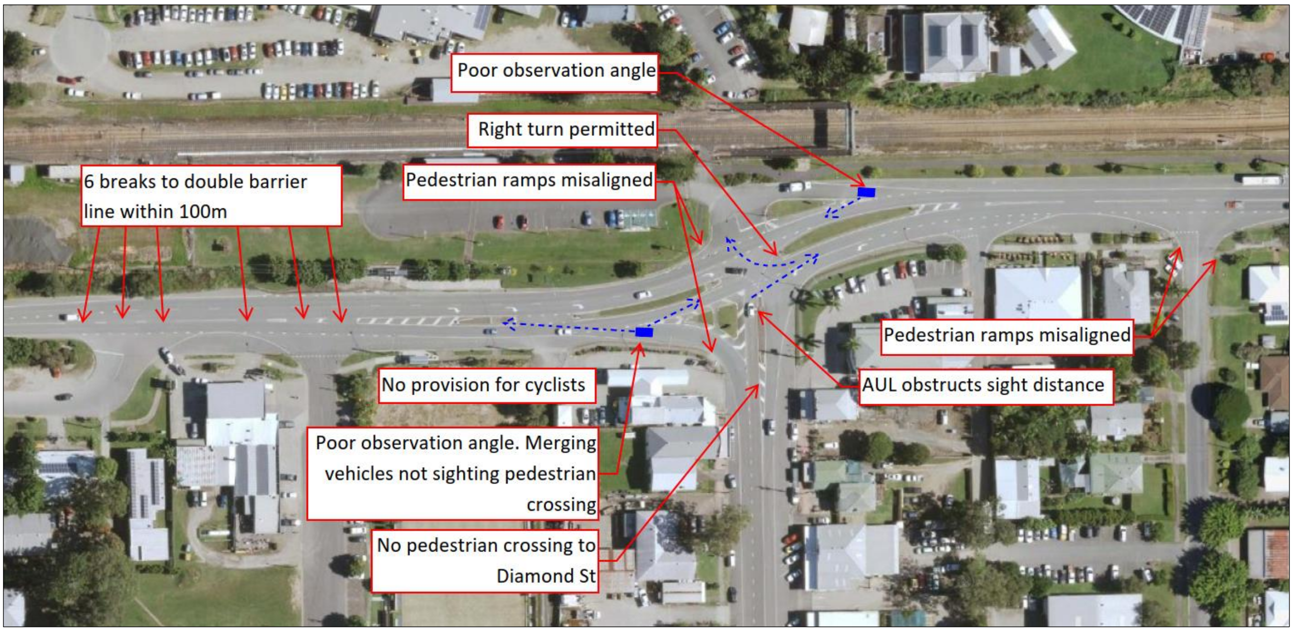


Figure 2–2: Existing Issues – Cooroy Connection Road/Myall Street to Lake Macdonald Drive

2.1.3 Cooroy Connection Road – Lake Macdonald Drive to Gem Street

This section of Cooroy Connection Road contains the Cooroy State School on the western side and multiple private accesses on the eastern side. The school carpark is accessible via a slip lane in the northern direction. The two-lane exit is stop controlled and permits right-out movements. There is approximately 100m of w-beam guardrail separating the school carpark from Cooroy Connection Road. Angle to kerb parking is provided north of the school carpark on the western side of Cooroy Connection Road. An additional lane is provided in the southern direction of travel which becomes an AUL trap lane into Lake Macdonald Drive.

A summary of the issues at this location is provided below and illustrated in **Figure 2–3**:

- A fence and load limit sign are located immediately behind the approach barrier terminal in the northbound direction. This road furniture is within deflection zone of the barrier and will become a debris hazard in the event of a crash.
- The continuity line is deteriorated past the school carpark exit.
- Dual turn lanes to the carpark exit obstruct vision of oncoming traffic when both lanes are utilised.
- Angle to kerb parking north of the school creates unsafe reversing movements into traffic with poor visibility.
- Power poles are located within the clear zone on the eastern side of Cooroy Connection Road.
- There are multiple driveways in close proximity to each other on the eastern side of Cooroy Connection Road (opposite the school) with unsafe turning movements (right in / right out).

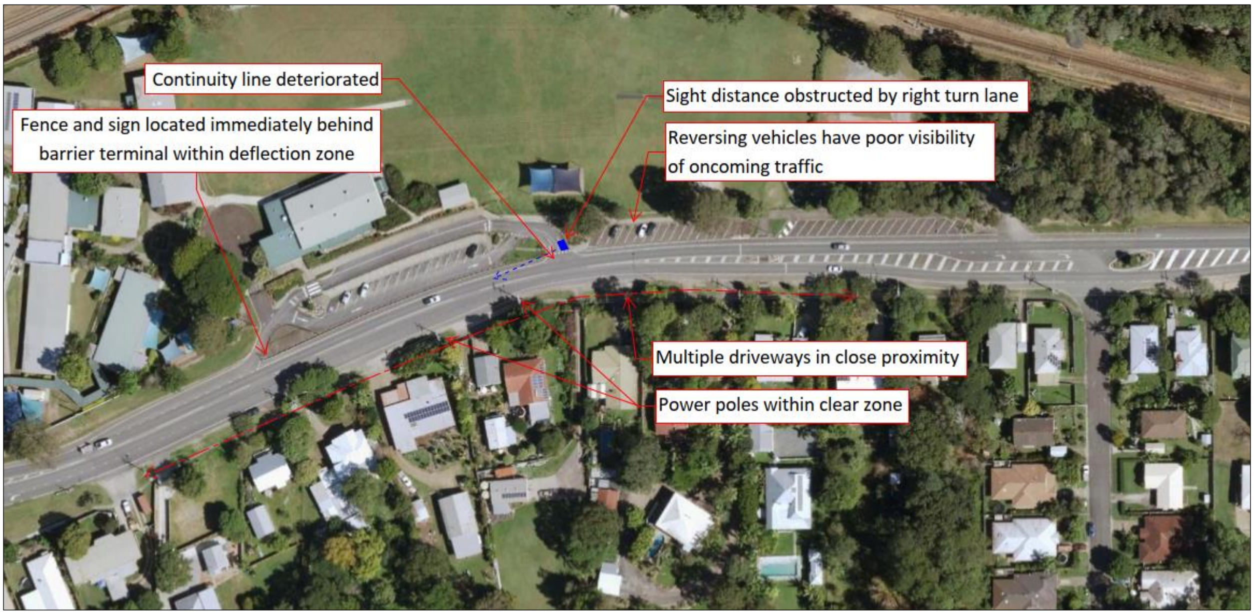


Figure 2–3: Existing Issues – Cooroy Connection Road – Lake Macdonald Drive to Gem Street

2.1.4 Cooroy Connection Road – Gem Street to Bruce Highway Interchange

This 5.5km section of Cooroy Connection Road is a two-lane two-way road which is predominantly posted at 80km/h. The speed is reduced to 60km/h on immediate approach to the interchange. The section has intersections with Lamonts Road, Kennedys Road, Yurol Forest Drive, Rose Gum Road, and Cudgerie Drive. There are two bridge crossings for the Six Mile Creek (left branch) and the heavy rail line. A recreational horse trail crosses Cooroy Connection Road adjacent to the railway bridge.
A summary of the issues at this location is provided below and illustrated in Figure 2 4:

- Isolated sections of Cooroy Connection Road have narrow shoulders (0.2 – 0.5m) with minimal opportunity for recovery of an errant vehicle. Lack of shoulder width is also a notable risk to cyclists.
- There are substandard curve horizontal curves (as indicated by presence of Chevron Alignment Markers (CAMS) south of the bridge over the Six Mile Creek (left branch) and in the vicinity of the Kennedys Road intersection.
- Mature vegetation (large trees) is located in close proximity to the carriageway at multiple locations. Of path crashes in the vicinity of fixed hazards have the potential to be high severity.
- Similar to the above, there is a steep drop-off and culvert located south of the Yurol Forest Drive which is unprotected.
- The existing bridge over the rail line appears to be in poor condition. Guardrail attachments to bridge barrier do not meet current design standards.
- There is a crest curve in the vicinity of Pearsons Road which reduces visibility in both directions. Stopping Sight Distance is potentially lost at this location.

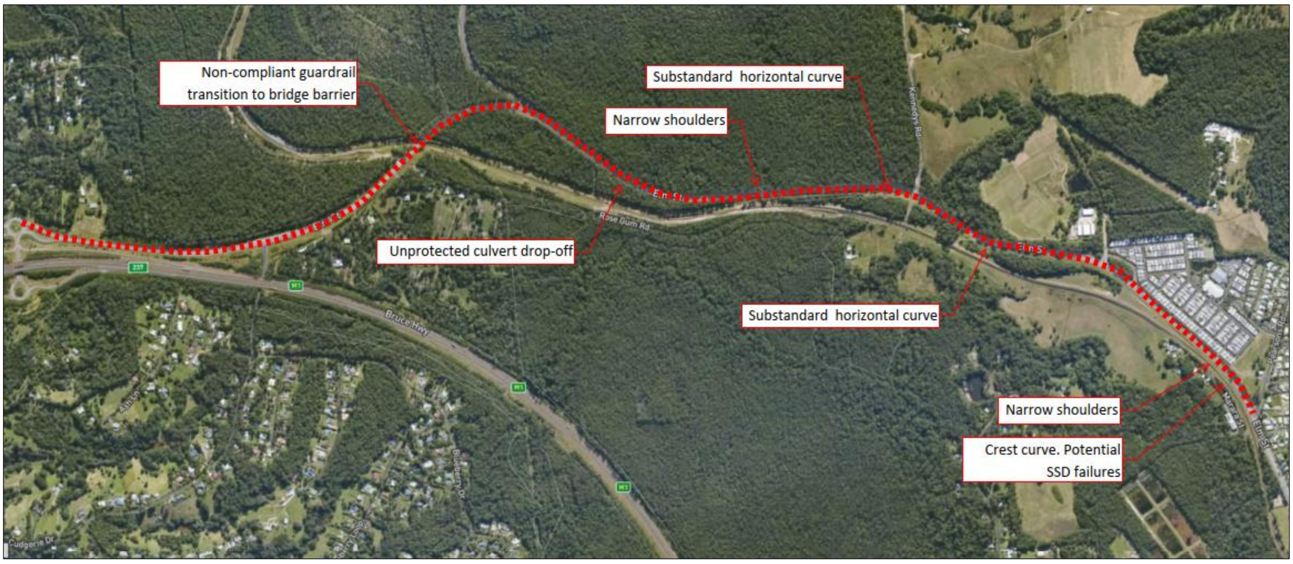


Figure 2–4: Existing Issues – Cooroy Connection Road (from Gem Street) to Brice Highway Interchange

2.2 Lake Macdonald Drive

Lake Macdonald Drive is predominantly a two-lane two-way road with 3.0m wide lanes. The posted speed increases from 60km/h to 80km/h just before the road passes Lake Ridge Court from the north and reduces back to 60km/h at the northern approach to the Lake Macdonald Drive / Wilgee Court / Dianella Court intersection, where it remains until the road ends at the Cooroy Connection Road intersection. Lake Macdonald Drive briefly expands to two lanes to accommodate right hand turns into Swift Drive and Blue Wren Place in Auxiliary Right Turn configurations. QLD Globe identifies Lake Macdonald Drive as a B-Double route from Cooroy Connection Road to ~220m north of the Swift Drive intersection.

2.2.1 School Bus Route

A school bus route travels along Lake Macdonald Drive, locally know as Route S731 (referred to as 792 on Translink's website, with two services per day between 7:20 - 8:05am and between 3:05 - 3:40pm. Bus stops located at the following locations along the section of interest:

- Blue Wren Pace
- Racehorse Lane
- Liane Drive
- North of Collwood Road
- Hamilton Road.

This service travels further north and south on Myall Street and Elm Street. It is noted a bus stop with significant school student transfers is located on the western side of Elm Street (northbound) opposite Pearl Street which is within the 40km/hr school zone. A turn-around facility used by buses is located immediately north of the mid-block signalised crossing at Sapphire Street.

2.2.2 Cooroy Connection Road / Lake Macdonald Drive Intersection

The intersection is located on a large radius horizontal curve to Cooroy Connection Road and has CHR(s) and AUL turn treatments. The Lake Macdonald Drive approach is on a vertical grade. There is a footpath on the eastern side of Cooroy Connection Road with a crossing of Lake Macdonald Drive approximately 13m east of the intersection. A summary of the issues at the intersection is provided below and illustrated in **Figure 2–5**:

- The CHR into Lake Macdonald Drive has minimal storage (~20m).
- Green surface treatment to the cycle lane through the intersection is deteriorated.

- The steep grade of the minor road approach will increase gap acceptance time requirement for vehicles joining Cooroy Connection Road.
- Light pole is missing on the southbound departure from the intersection.
- The crest on Cooroy Connection Road, north of the intersection obstructs sight distance. Safe intersection sight distance (SISD) is potentially not achieved for cars although may be acceptable for trucks with increased object height criteria.
- Lane width of Lake Macdonald Drive narrows on approach to the intersection which impacts the swept path for long vehicles turning in and out of the intersection.
- Low hanging vegetation growth to the inside of the horizontal curve on Cooroy Connection Road encroaches into the shoulder and traffic lane.
- The AUL into Lake Macdonald Drive functions as a trap lane with no warning other than two turn arrows in the last 50m of its 200m overall length.
- The turn path for right-out movements of Lake Macdonald Drive appears to cross the chevron on Cooroy Connection Road.

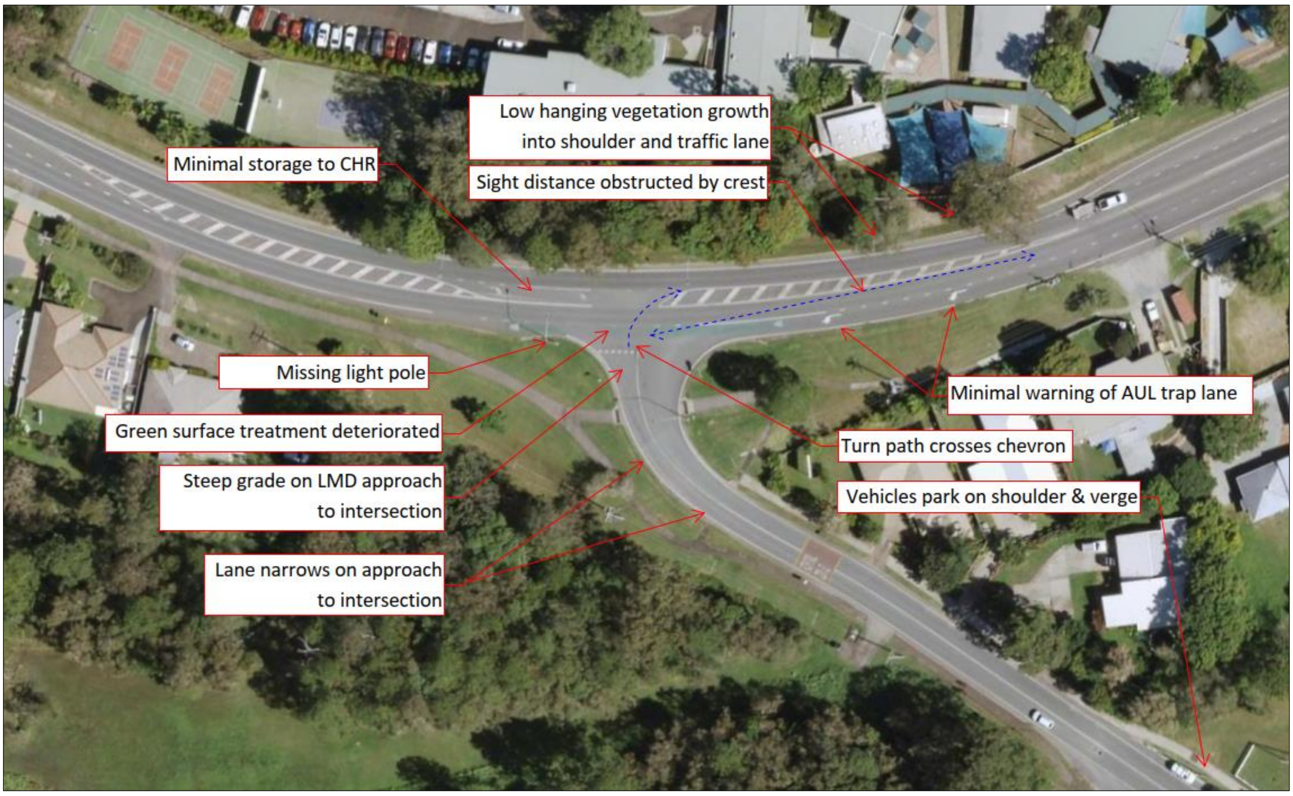


Figure 2–5: Existing Issues – Cooroy Connection Road / Lake Macdonald Drive Intersection

2.2.3 Milestones Early Learning Cooroy

The Milestone Early Learning centre is located on Lake Macdonald Drive, 120m north of the Cooroy Connection Road intersection. The centre has a single access which permits all movements. The issues in the vicinity of the centre are listed below:

- Vehicles park within the shoulder and verge in the northbound direction. There is minimal separation to traffic for motorists entering / existing vehicles.
- Parallel parking in the southbound direction is not easily accessible. Motorists are likely to make U-turns to access the car parks when travelling to the centre from Cooroy Connection Road.

2.2.4 Swift Drive Intersection

The intersection is located on a straight section of Lake Macdonald Drive with a horizontal curve and crest located north of the intersection. There are two lanes in the northbound direction at the intersection to allow for right-in movements. A summary of the issues at the intersection is provided and illustrated in **Figure 2–6**:

- There are not protected turn treatments at the intersection (CHR/AUL).
- There is a steep embankment slope on the north-eastern corner of the intersection without barrier protection.
- The street sign name is not visible on the northern approach due to overgrown vegetation.
- The footpath on the eastern side of Lake Macdonald Drive terminates into traffic on Swift Drive with no opposing connection.
- There is no flag lighting at the intersection. It is potentially warranted based off turn volumes.

Figure 2–6: Existing Issues – Swift Drive Intersection

2.2.5 Noosa Beverages Facility

The Noosa Beverages facility is located on the western side of Lake Macdonald Drive approximately 500m north of Hoy Road. The facility has two accesses located on the outside of a large radius horizontal curve. There is additional pavement widening to the outside of the curve and an AUL to the northern most access point. A large bank of culverts is located immediately north of the second access to the facility. The issues in the vicinity of the facility are summarised below and illustrated in **Figure 2–7**:

- The intended operation of the accesses is unclear and not signposted. The AUL is provided to typical location of an exit.
- There is no edge line to the inside of the horizontal curve.
- Standard culvert headwalls are installed to culverts beneath the accesses. Sloping headwalls are preferable when perpendicular to traffic.
- Guardrail provided to the bank of culverts does not comply with design criteria for minimum length and hazard free zone.

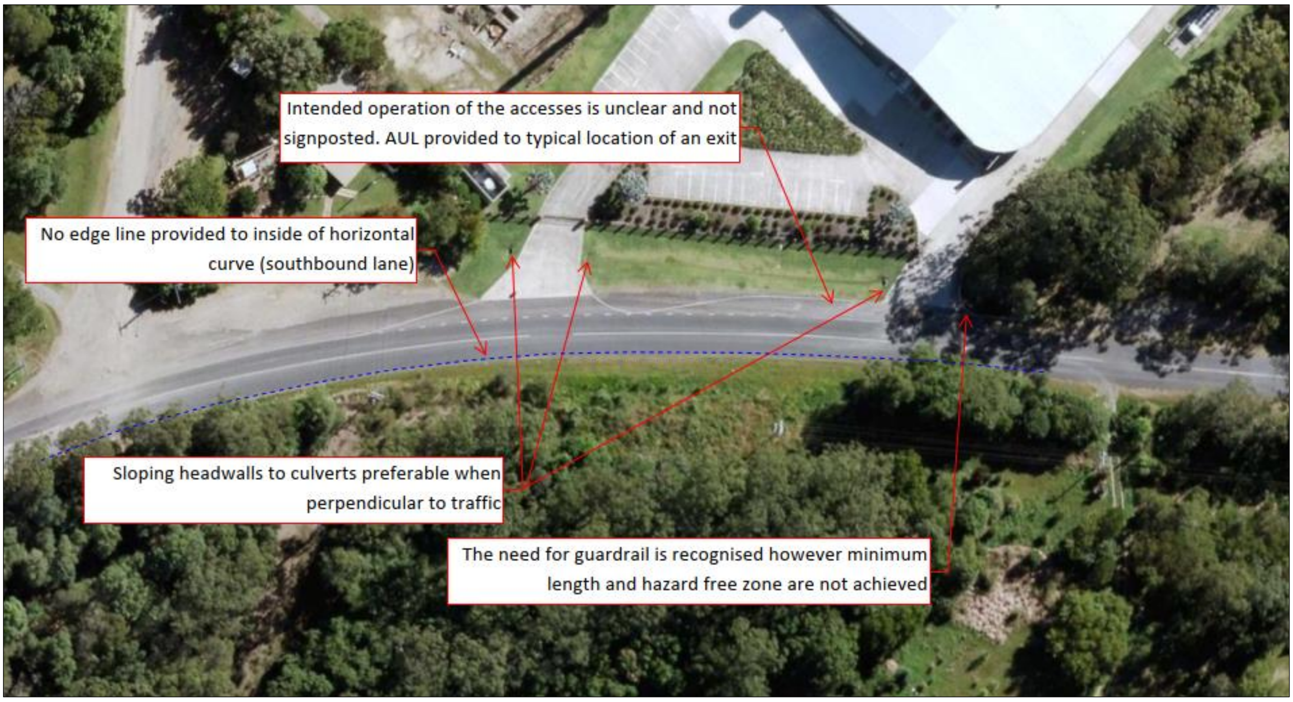


Figure 2–7: Existing Issues – Noosa Beverages Facility

2.2.6 Noosa Botanic Gardens

The Noosa Botanic gardens are located on the eastern side of Lake Macdonald Drive approximately 700m north of the Noosa Beverages Facility. The main access is located on a straight section of Lake Macdonald Drive, with the exist located 230 m south and a single lane access located 110m to the north. There are numerous residential properties with driveways on the western side of Lake Macdonald Drive opposite the gardens. The issues in the vicinity of the gardens are summarised below and illustrated in **Figure 2–8:**

- The northernmost access to the gardens is only wide enough for a single vehicle but not clearly signposted as an entry or exit.
- SISD from the northern approach is likely not achieved to the main and northern access due to large trees.
- Large trees surrounding the accesses are hazards within the clear zone.
- There is no give way line or continuity line to the main access.
- The single lane exit from the gardens has a poor observation angle to oncoming traffic.
- There is no edge line or Raised Retroreflective Pavement Markers (RRPM's) to Lake Macdonald Drive near the gardens.
- Headwalls to culverts beneath driveways (~0.5m from pavement) on the western side of Lake Macdonald Drive are hazards within clear zone.

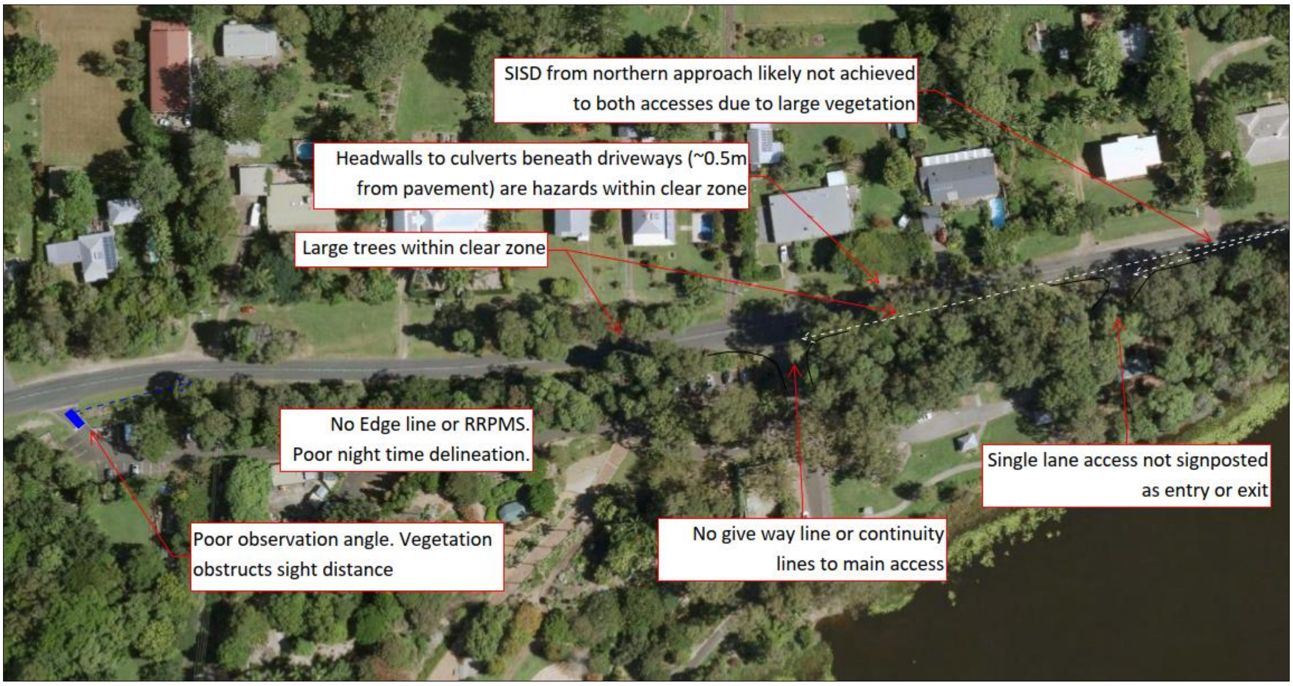


Figure 2–8: Existing Issues – Noosa Botanic Gardens

2.2.7 Collwood Road (Noosa Water Treatment Plant (NWTP) Access)

Collwood Road serves as the western approach to the Lake Macdonald dam site and is a standard access treatment with additional through widening for left out movements. The posted speed limit on the northern approach to the intersection of 80km/h and 60km/h on the southern approach to the intersection.

Kookaburra Park is located on the north-eastern side of the intersection and is a small recreational area with toilet facilities. A large gravel verge area is located on the south-eastern side of the intersection and appears to be infrequently used for U-turn movements. There are numerous residential properties with driveways on the western side of Lake Macdonald Drive, opposite the NWTP Access.

It is also noted that the Noosa Biosphere Trail Network runs along Lake Macdonald Drive from the boat ramp past Collwood Drive and continues to the north, however, no wayfinding signage was observed. Existing signage designates a walker and horse crossing covering a length of approximately 350m which includes at the apex of the curve. Dirt tracks were present on the eastern verge leading to/from Trial 7 as shown in **Figure 2–9.**

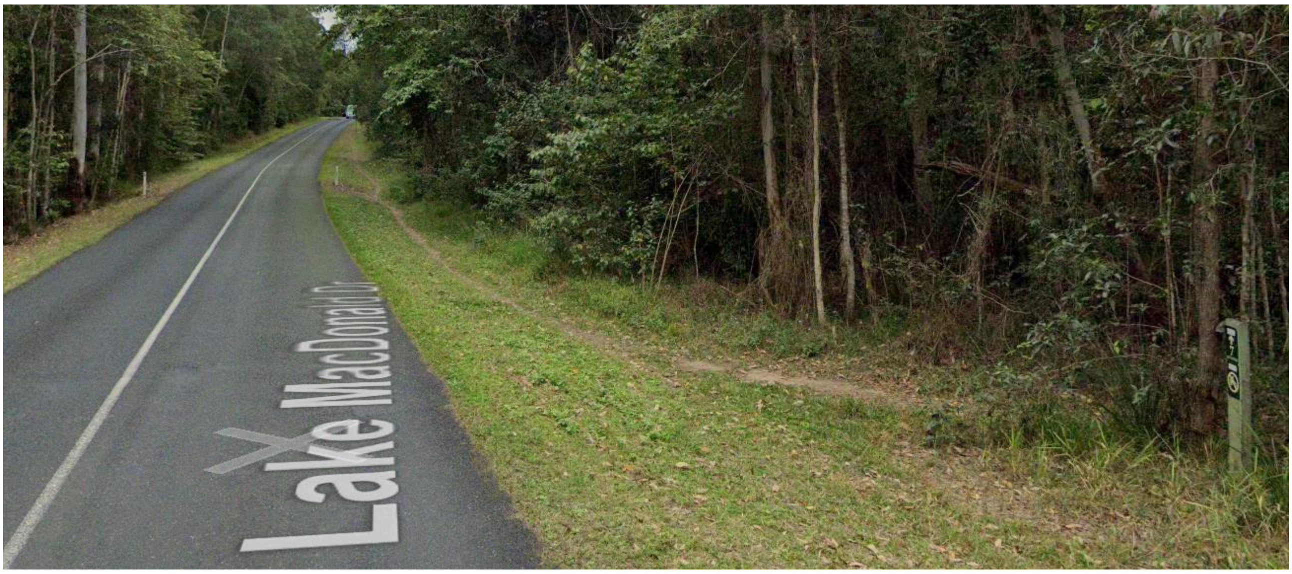


Figure 2–9: Lake Macdonald Drive – Noosa Biosphere Trail Network use of verge

A summary of the issues at the intersection is provided below and illustrated in **Figure 2–10**:

- Power poles are located within the clear zone on the western side of Lake Macdonald Drive.
- There is no give way line or continuity line to the NWTP Access.
- A large tree and signage placement on the northern eastern side of the intersection obstructs sight distance to the north.
- The break in barrier line at the intersection appears to be misaligned with turn paths.
- Change in regulatory speed is located at the intersection. This should typically be located before or after an intersection.
- Lake Macdonald Drive at this location has minimal road edge guideposts and no RRPM’s.
- The intersection has no lighting and poor night-time delineation.

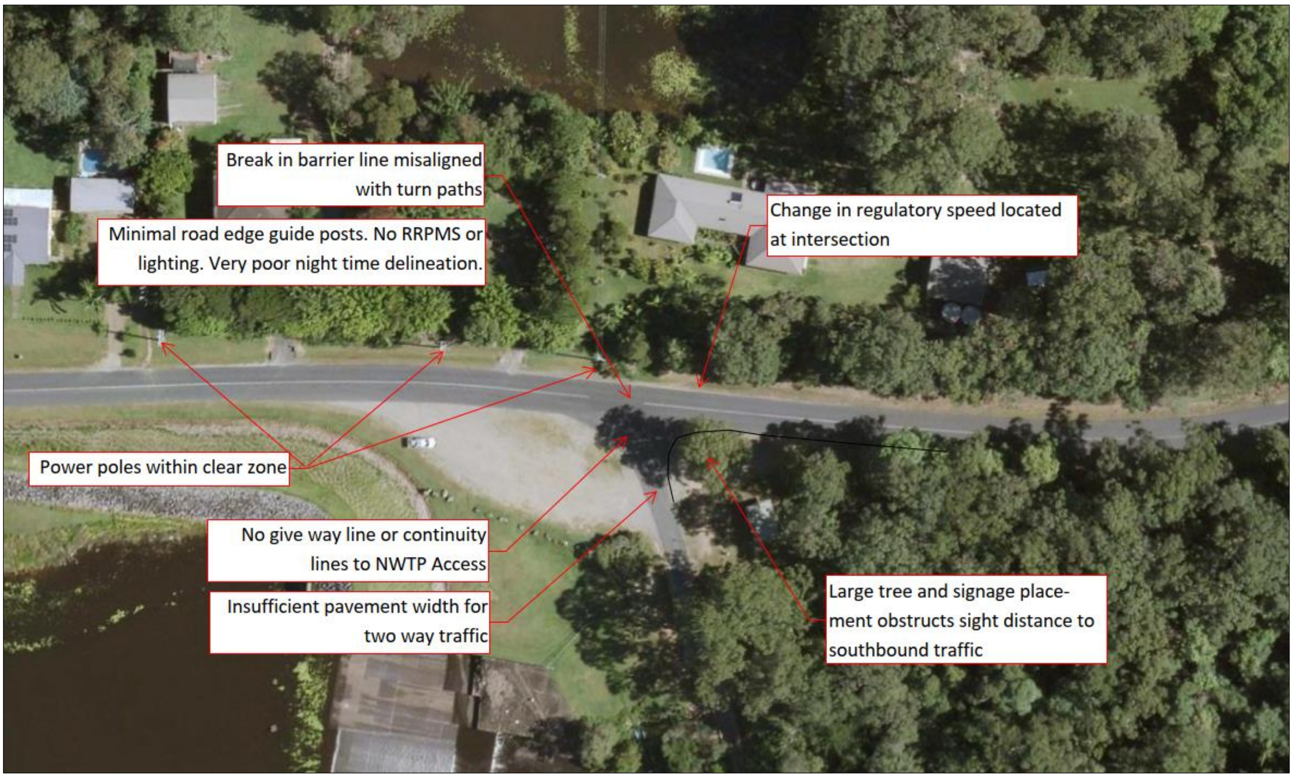


Figure 2–10: Existing Issues – NWTP Access Intersection

2.2.8 Lake Macdonald Drive - General / midblock issues

- Long sections of Lake Macdonald Drive do not have edge line. It is often difficult to identify the edge of pavement due to debris and vegetation.
- Lake Macdonald Drive generally has poor night-time visibility due to lack of RRPM’s.
- Vegetation growth frequently overhangs into the traffic lanes and could potentially be struck by large vehicles.
- There are low hanging overhead wires at multiple locations.
- Vegetation growth frequently obstructs sight distance to property accesses.
- Common hazards within clear zone; headwalls to culverts beneath driveways and trees of various size
- Redundant pavement markings (double barrier line and edge line) are still visible to the horizontal curve ~400m north of the Noosa Beverages facility. New double barrier line at this location is warped by pavement damage.

2.3 Cooroy – Noosa Road

2.3.1 Sivyers Road Intersection

Cooroy – Noosa Road is a two-lane two-way state controlled arterial road with a posted speed limit of 100km/h past Sivyers Road. The road forms part of the Principal Cycle Network. The intersection has an AUL and CHR for turn movements into Sivyers Road. There is a bus stop located on the eastern departure side. A bridge over a fish hatchery watercourse is located 110 m west of the intersection. A summary of the issues at the intersection is provided below and illustrated in **Figure 2–11**:

- The position of the AUL obstructs sight distance to oncoming traffic for vehicles exiting Sivyers Road.
- There are no cycle lanes through the intersection and shoulder width narrows at the bridge.
- Overgrown vegetation on approach to the AUL is discouraging to diverging vehicles.
- Shoulder width appears to narrow at the end of the AUL.
- Existing kerb is damaged, and a larger section has broken away.
- There is no signage identification to the bus stop.
- W-beam fishtail connections to bridge barrier are a superseded design and do not comply with current standards.
- The existing footpath terminates abruptly near the Tinbeerwah School Park.
- Road edge guideposts to the AUL are damaged and misaligned.
- Turn volumes potentially warrant flag lighting to the intersection.

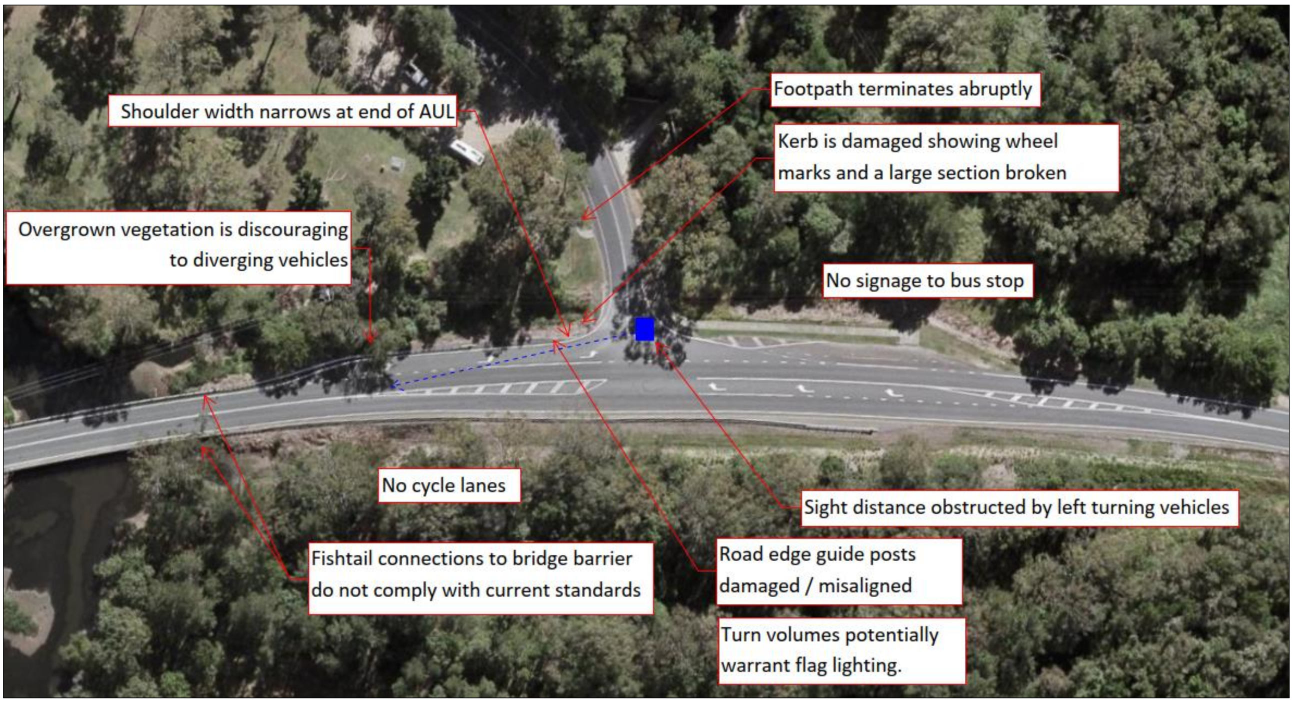


Figure 2–11: Existing Issues – Sivyers Road Intersection

2.4 Sivyers Road – Light Vehicles Only Route

Sivyers Road is a two-lane two-way road which provides access between Cooroy - Noosa Road and the Noosa Water Treatment Plant via Gumboil Road and Collwood Road. Sivyers Road is posted at 70km/h and transitions to 60km/h at the intersection with Gumboil Road. It is a rural residential route which traverses dense vegetation. The majority of the route is sealed with the exception of the final 1km section on Collwood Road. A summary of the issues at this location is provided below and illustrated in Figure 2–12:

- Incorrect warning signage is provided at the intersection of Sivyers Road and Gumboil Road. Both approaches warn of a T-intersection which should be a W2-9 Intersection on curve sign considering the priority route.
- The roadway narrows on Gumboil Road on approach to the transition to Collwood Road. Linemarking is also omitted for this section.
- Dense vegetation including mature trees along the majority of the route are fixed hazards in close proximity to the roadway.
- The roadway is narrow to the unsealed section on Collwood Road. Opposing vehicles would be required to slow and pull into the verge to pass one another.
- There are concealed driveways along the majority of the route. Visibility is often obstructed to driveways by vegetation and road geometry.
- Similarly, there is a notable crest curve south of Cooks Road where SSD is likely not achieved in both directions. There are driveways located on the crest with poor visibility. It is noted that warning signage is in place.

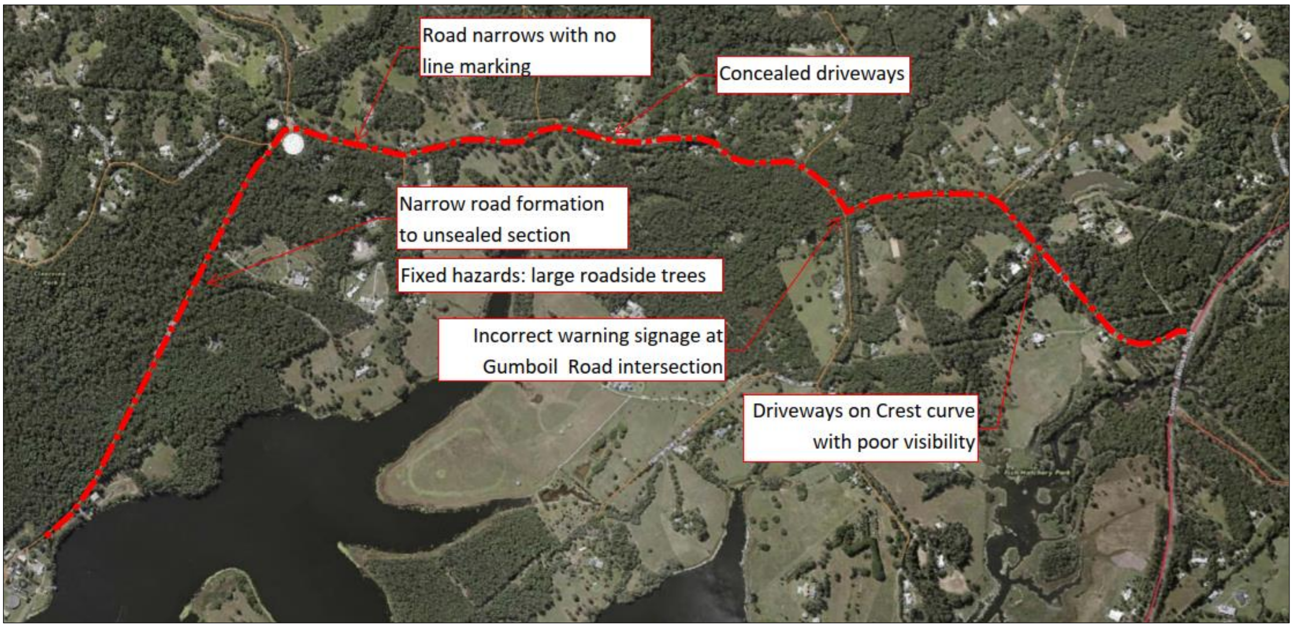


Figure 2–12 : Existing Issues – Sivyers Road route

3. Crash History

A review of the crash history over the past 5-years for both construction vehicles and workers routes has been undertaken with data provided from TMR Webcrash with dates as follows and mapped in **Figure 3–1**:

- Fatal crashes: 1 December 2018 to 30 April 2024.
- Non-fatal casualty (hospitalisation, medical treatment and minor injury) crashes: 1 December 2018 to 30 November 2023.

Table 3–1, **Table 3–2** and **Table 3–3** summarise the crashes by severity for Atmospheric Condition, Year DCA code. The summarises show Rear End Crashed (DCA Codes 301, 302,303) are the predominant crash type which are mostly with lower severity types followed by Head On crashes with higher severities. Figure 3–7 contains the Definition for Coding Accidents (DCA) Code Matrix used in this assessment

Table 3–1: Study Area – Crash Severity / Crash Conditions

Severity	Atmospheric Condition		No. of Crashes
	Clear	Raining	
Fatal	1		**1**
Hospitalisation	13	3	**16**
Medical treatment	17	1	**18**
Minor injury	4		**4**
Total	**35**	**4**	**39**

Table 3–2: Study Area – Crash Severity / Year

Severity	Crash Year						No. of Crashes
	2018	2019	2020	2021	2022	2023	
Fatal			1				**1**
Hospitalisation		5	2	1	4	4	**16**
Medical treatment	1	4	3	3	6	1	**18**
Minor injury				**2**	**1**	**1**	**4**
Total	**1**	**9**	**6**	**6**	**11**	**6**	**39**

Table 3–3: Study Area - Crash Definition for Coding Accidents (DCA) Codes

DCA	Description	Severity				No. of Crashes
		Fatal	Hospitalisation	Medical treatment	Minor injury	
3	Pedn: Far Side Vehicle Hit From Left			1		**1**
9	Pedn: Hit While Boarding/Alighting			1		**1**
104	Vehs Adjacent Approach: Thru-Right		1	1		**2**
201	Vehs Opposite Approach: Head On	1	4	1		**6**
202	Vehs Opposite Approach: Thru-Right		1	1	1	**3**
300	Vehs Same Direction: Other		1			**1**
301	Vehs Same Direction: Rear End			1	2	**3**

DCA	Description	Severity				No. of Crashes
		Fatal	Hospitalisation	Medical treatment	Minor injury	
302	Vehs Same Direction: Left Rear		1	2		**3**
303	Vehs Same Direction: Right Rear			4		**4**
308	Vehs Same Direction: Right Turn S/Swipe			1		**1**
408	Vehs Manoeuvring: Entering From Footway			1		**2**
506	Vehs Overtaking: Overtake-Right Turn		1	1		**2**
701	Off Path-Straight: Left Off Cway				1	**1**
703	Off Path-Straight: Left Off Cway Hit Obj		1			**1**
705	Off Path-Straight: Out Of Control On Cway		1			**1**
803	Off Path-Curve: Off Cway Rt Bend Hit Obj		1	2		**3**
804	Off Path-Curve: Off Cway Lt Bend Hit Obj		2	1		**3**
806	Vehicle Left-Turning At I/S (Or Driveway)		1			**1**
Total		**1**	**16**	**18**	**4**	**39**

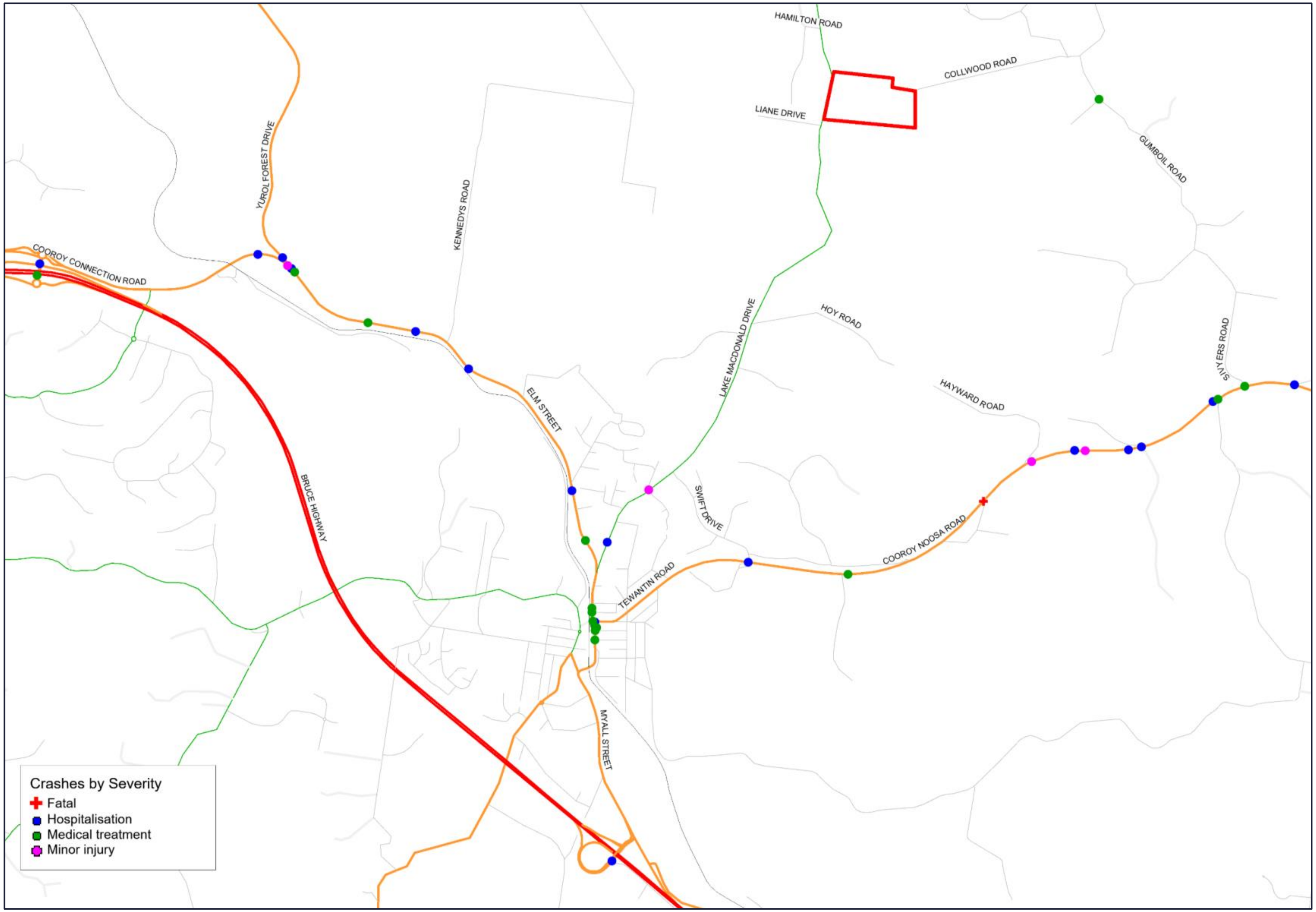


Figure 3–1: Study Areas – Crash by Severity

3.1 Cooroy Connection Road

3.1.1 Southern Section

The crashes recorded on the Cooroy Connection Road section are primarily clustered beteeen Opal Street and Pearl Street, nine in total. Two other crashes were recorded beween Lake Macdonald Drive and Pearsons of which one inlcuded a hit pedestrian duing the PM pick-up period. If mapped accurately this was located at the drop and go exit and not at the supervised crossing.No accidents were record ateh the Myall Sreet intesection.

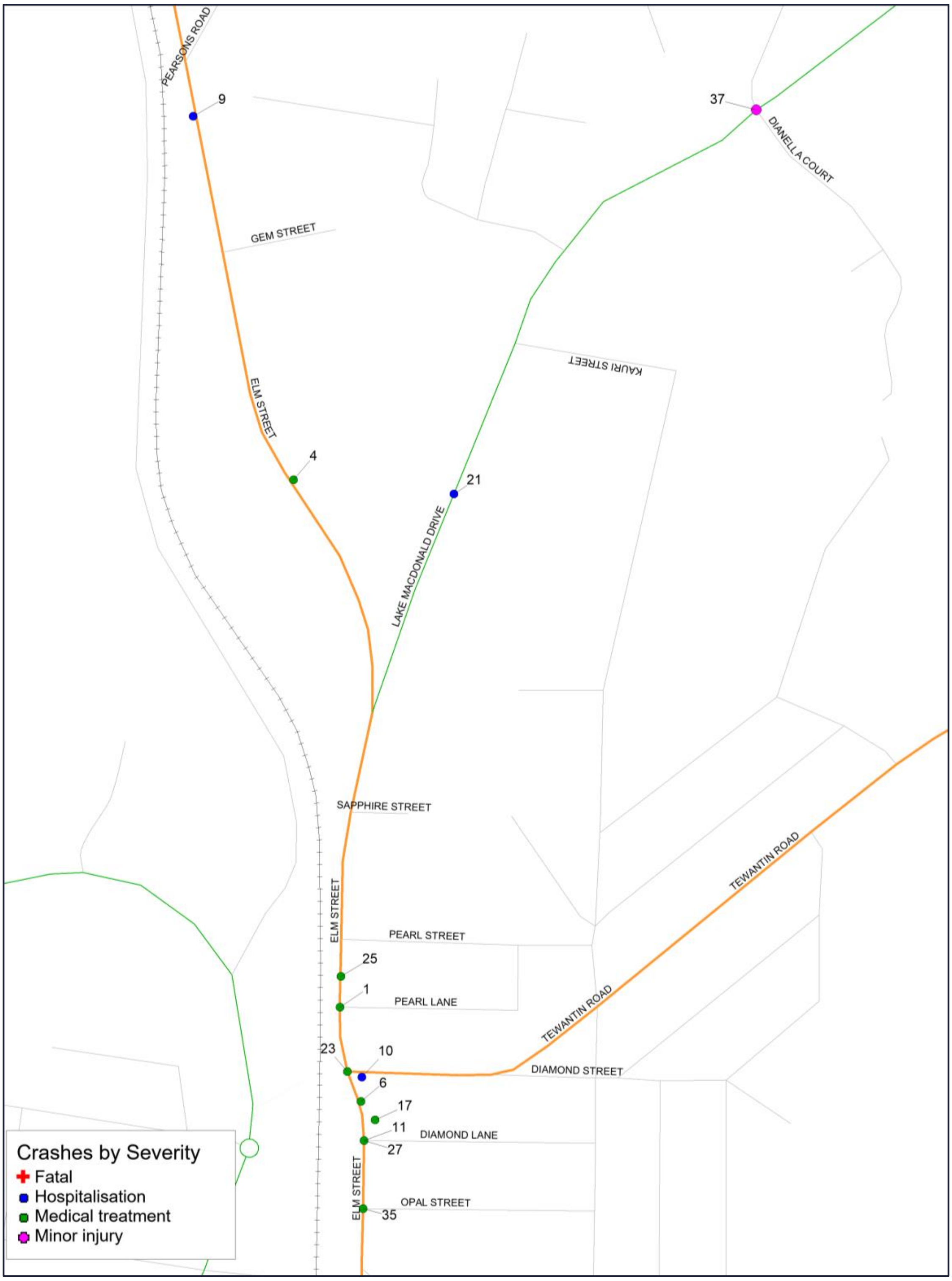


Figure 3–2: Cooroy Connection Road (South) – Crash Locations by Severity

Table 3–4: Cooroy Connection Road (South) – Crash Severity / Atmospheric Conditions

Severity	Atmospheric Condition		No. of Crashes
	Clear	Raining	
Hospitalisation	8	1	**9**
Medical treatment	2		**2**
Total	**10**	**1**	**11**

Table 3–5: Cooroy Connection Road (South) – Crash Severity / Year

Severity	Crash Nature						No. of Crashes
	2018	2019	2020	2021	2022	2023	
Medical treatment		2					**2**
Hospitalisation	1	2	1	1	3	1	**9**
Total	**1**	**4**	**1**	**1**	**3**	**1**	**11**

Table 3–6: Cooroy Connection Road (South) - Crash Definition for Coding Accidents (DCA) Codes

DCA	Description	Severity		No. of Crashes
		Hospitalisation	Medical treatment	
3	Pedn: Far Side Vehicle Hit From Left	1		**1**
9	Pedn: Hit While Boarding/Alighting	1		**1**
104	Vehs Adjacent Approach: Thru-Right	1	1	**2**
202	Vehs Opposite Approach: Thru-Right	1		**1**
302	Vehs Same Direction: Left Rear	2		**2**
303	Vehs Same Direction: Right Rear	1		**1**
308	Vehs Same Direction: Right Turn S/Swipe	1		**1**
408	Vehs Manoeuvring: Entering From Footway	1	1	**2**
Total		**9**	**2**	**2**

3.1.2 Northern Section

Crashes for the northern section of Cooroy Connection Road are primarily clustered around the intersection with Yurol Forest Drive. The predominant crash types are 'Vehs Opposite Approach' crashed of DCA code 202 (Thru–Right) and 201 (Head On). The former is likely attributed to the priority-controlled intersections along the route. Head on crashes may be attributed to overtaking manoeuvres where such movements are permitted in linemarking.

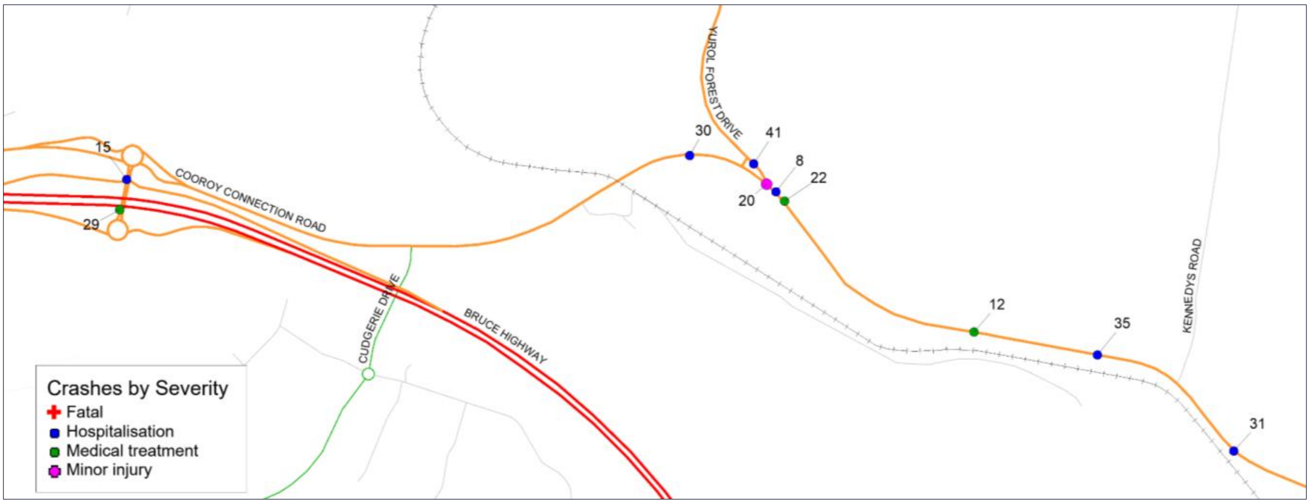


Figure 3–3: Cooroy Connection Road (North) – Crash Locations by Severity

Table 3–7: Cooroy Connection Road (North) – Crash Severity / Atmospheric Conditions

Severity	Atmospheric Condition
	Clear
Hospitalisation	7
Medical treatment	3
Minor injury	1
Total	**11**

Table 3–8: Cooroy Connection Road (North) – Crash Severity / Year

Severity	Crash Nature						No. of Crashes
	2018	2019	2020	2021	2022	2023	
Hospitalisation		1	1		3	2	**7**
Medical treatment			1	1	1		**3**
Minor injury				1			**1**
Total	**0**	**1**	**2**	**2**	**4**	**2**	**11**

Table 3–9: Cooroy Connection Road (North) - Crash Definition for Coding Accidents (DCA) Codes

DCA	Description	Severity			No. of Crashes
		Hospitalisation	Medical treatment	Minor injury	
201	Vehs Opposite Approach: Head On	3			**3**
202	Vehs Opposite Approach: Thru-Right	1		1	**2**
300	Vehs Same Direction: Other	1			**1**
301	Vehs Same Direction: Rear End		1		**1**
302	Vehs Same Direction: Left Rear	1			**1**
506	Vehs Overtaking: Overtake-Right Turn		1		**1**
804	Off Path-Curve: Off Cway Lt Bend Hit Obj	1	1		**2**
Total		**7**	**3**	**1**	**11**

3.2 Lake Macdonald Drive

The subject area of Lake Macdonland has a very low crash rate considering its 4.3km length. A total of two crashes have been recorded with no predominant crash type. There are no recorded crashes in the vacinity of the Milestones Early Learning Centre, Noosa Beverages facility or Noosa Botanical Gardens. Similarly, there are no recorded crashes at the Swift Drive intersection or NWTP Access intersection.

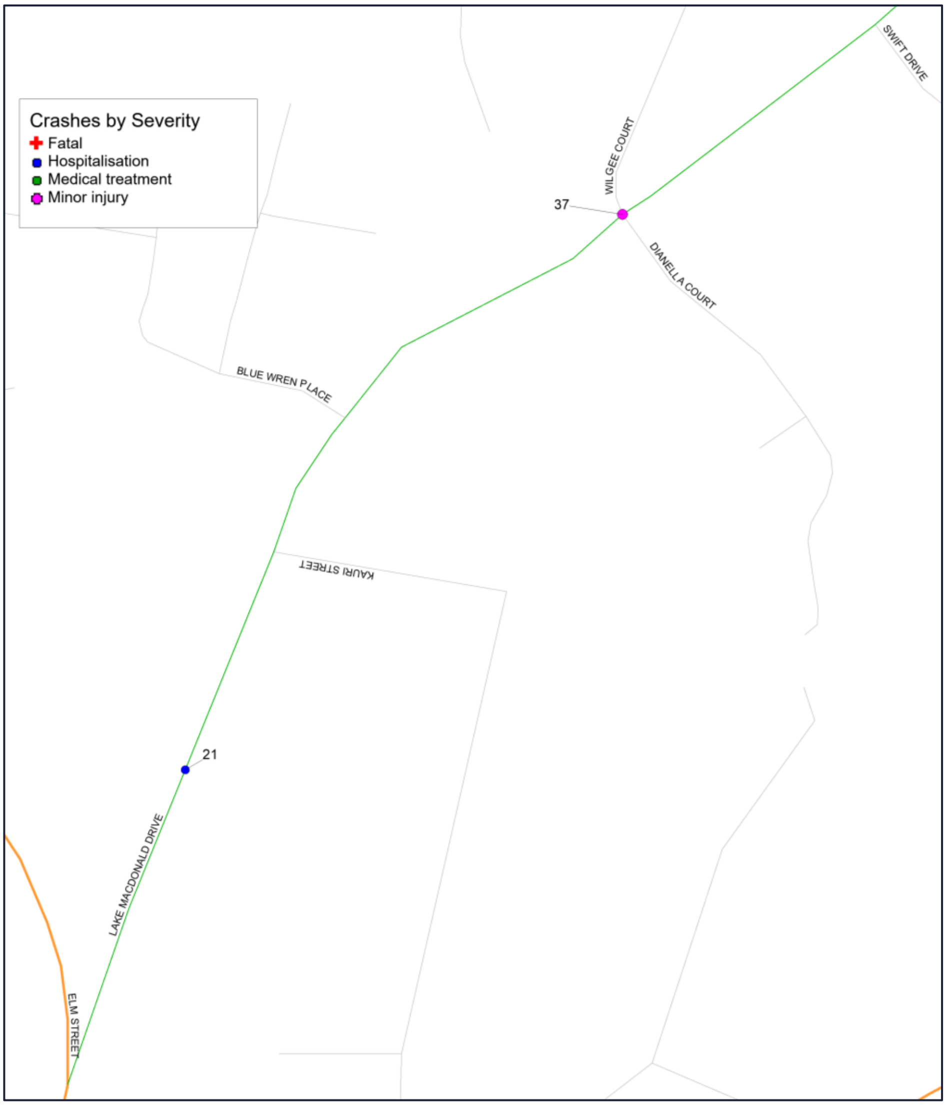


Figure 3–4: Lake Macdonald Drive – Crash Locations

Table 3–10: Lake Macdonald Drive – Crash Severity / Atmospheric Conditions

Severity	Atmospheric Condition		No. of Crashes
	Clear	Raining	
Hospitalisation		1	**1**
Minor injury	1		**1**
Total	**1**	**1**	**2**

Table 3–11: Lake Macdonald Drive – Crash Severity / Year

Severity	Crash Nature						No. of Crashes
	2018	2019	2020	2021	2022	2023	
Hospitalisation				1			**1**
Minor injury						1	**1**
Total	**0**	**0**	**0**	**1**	**0**	**1**	**2**

Table 3–12: Lake Macdonald Drive – Crash Definition for Coding Accidents (DCA) Codes

DCA	Description	Severity		No. of Crashes
		Hospitalisation	Minor injury	
506	Vehs Overtaking: Overtake-Right Turn		**1**	**1**
705	Off Path-Straight: Out Of Control On Cway	1		**2**
Total		**1**	**1**	**2**

3.3 Cooroy – Noosa Road

The Cooroy – Noosa Road has a total of 14 recorded crashes including the only fatal in the study area. The predominant crash type is DCA 301 and 302 'rear-end' crashes which are likely attributed to the lack of a right turn treatment. Three crashes are recorded as Head On which were the three most western crashes between Swift Drive and Fig Tree Lane.
The Cooroy - Noosa Road / Sivyers Road intersection recorded two rear end crashes which were prior to the line-marking upgrade of a basic auxiliary right turn competed in late 2022.

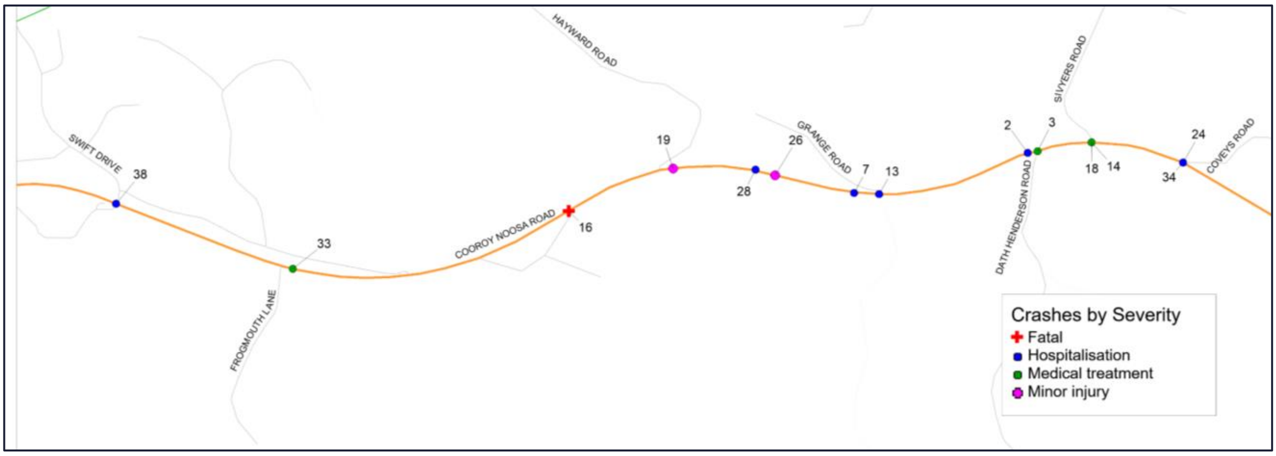


Figure 3–5: Cooroy – Noosa Road – Crash Locations by Severity

Table 3–13: Cooroy – Noosa Road – Crash Severity / Atmospheric Conditions

Severity	Atmospheric Condition		No. of Crashes
	Clear	Raining	
Fatal	1		**1**
Hospitalisation	4	2	**6**
Medical treatment	5		**5**
Minor injury	2		**2**
Total	**12**	**2**	**14**

Table 3–14: Cooroy – Noosa Road – Crash Severity / Year

Severity	Crash Nature						No. of Crashes
	2018	2019	2020	2021	2022	2023	
Fatal			1				**1**
Hospitalisation		2	1		1	2	**6**
Medical treatment		1	1	1	2		**5**
Minor injury				1	1		**2**
Total	0	3	3	2	4	2	14

Table 3–15: Cooroy – Noosa Road – Crash Definition for Coding Accidents (DCA) Codes

DCA	Description	Severity				No. of Crashes
		Fatal	Hospitalisation	Medical treatment	Minor injury	
201	Vehs Opposite Approach: Head On	1	1	1		**3**
301	Vehs Same Direction: Rear End				2	**2**
303	Vehs Same Direction: Right Rear			3		**3**
701	Off Path-Straight: Left Off Cway		1			**1**
703	Off Path-Straight: Left Off Cway Hit Obj		1			**1**
803	Off Path-Curve: Off Cway Rt Bend Hit Obj		1	1		**2**
804	Off Path-Curve: Off Cway Lt Bend Hit Obj		1			**1**
806	Vehicle Left-Turning At I/S (Or Driveway)		1			**1**
Total		**1**	**6**	**5**	**2**	**14**

3.4 Eastern Light Vehicles Route

The Sivyers Route is comprised of Sivyers Road, Gumboil Road and Collwood Drive (east). There is only one crashes record presumably due to the low traffic volumes.

The accident was a single vehicle crash with Medical treatment severity and DCA of 803 (Off Path-Curve: Off Cway Rt Bend Hit Obj) at the intersection of Figbird Court and Gumboil Road.

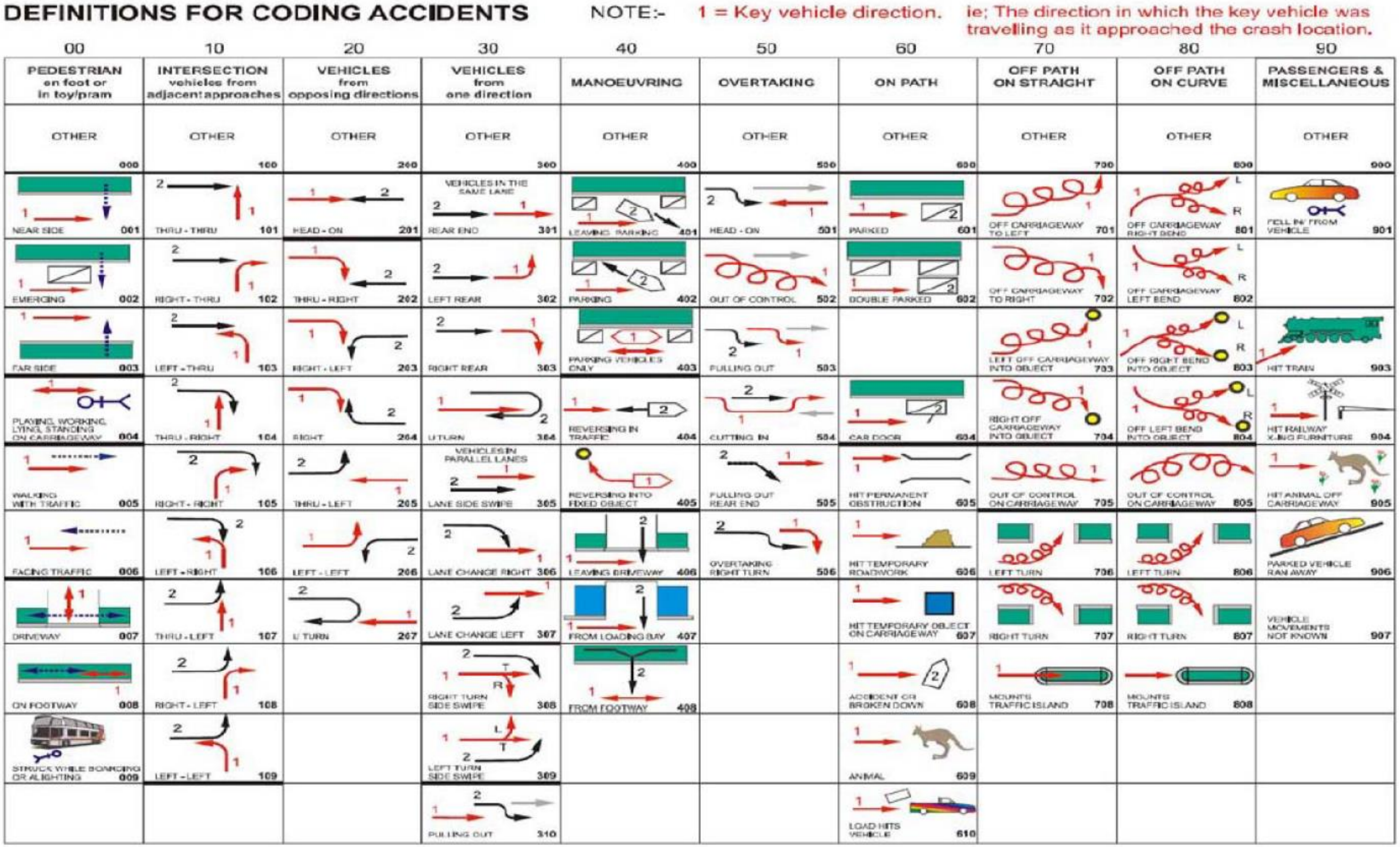


Figure 3–6: DCA Codes

4. Road Safety Audit Details

4.1 Road Safety Audit

Road Safety Auditing is a formalised procedure which can be applied to all phases of a road project or to an existing road system. The Auditor must be independent of the designer or the construction contractor so that the design is viewed with “fresh eyes”. The purpose of the audit is not to rate the project design or the construction, but rather to identify any road safety concerns for all road users.
In reviewing the safety aspects of a road, the reporting procedure is not intended as a redesign or construction defect process, but to outline road safety issues and establish a basis upon which ongoing works may produce an acceptable solution to the safety problem.
The objectives of a Road Safety Audit are to:

- Review the operational site, proposed design and background information and form conclusions about the safety performance and accident potential for the road.
- Evaluate the operational site and the proposed design in terms of interaction with its surrounds and nearby roads and to visualise potential impediments and conflicts for road users.
- Identify and report on aspects of the proposed design that may result in unnecessary or unreasonable hazards for all road users.

4.2 Auditors and Audit Process

This audit was undertaken by Anthony Gao and Michael Compton, who are experienced Road Safety Auditors employed SMEC Australia Pty Ltd. The Road Safety Audit considered the existing conditions of the subject area described in **Section 1.2**. The site inspection component included a day and night audit undertaken on the 15 and 16 September 2020. A subsequent site inspection to account for the additional scope was undertaken on the 25 September 2024.

The Audit Finding Table in **Section 5** of this report will record the decision-making process. In this Road Safety Audit report the term ‘designers’ includes all who are involved in setting the terms of reference, design requirements, and design philosophy. The auditors have followed the procedures set out in Austroads’ *Guide to Road Safety, Part 6A: Implementing Road Safety Audit Third Edition (2019)*.

4.3 Previous Audits

Revision 4 of this report constitutes an update to the previous Road Safety Audits undertaken by SMEC. The auditors are not aware of any other Road Safety Audits (design or existing) undertaken on for the subject area.

4.4 Design Criteria

The following engineering standards are used as reference:

- Austroads, Guide to Road Design - Part 3: Geometric Design
- Austroads, Guide to Road Design - Part 4A: Unsignalised and Signalised Intersections
- Austroads, Guide to Road Design - Part 6: Roadside Design, Safety and Barriers
- Austroads, Guide to Road Design - Part 6A: Paths for Walking and Cycling
- Austroads, Guide to Road Safety - Part 6: Managing Road Safety Audit
- Austroads, Guide to Road Safety, Part 6A: Implementing Road Safety Audits
- TMR, Road Planning and Design Manual 2nd Edition
- TMR, Manual of Uniform Traffic Control Devices
- TMR, Traffic and Road Use Management Manual

- TMR, Supplement to Austroads Guide to Road Design - Part 3: Geometric Design
- TMR, Supplement to Austroads Guide to Road Design - Part 4A: Unsignalised and Signalised Intersections
- TMR, Supplement to Austroads Guide to Road Design - Part 6: Roadside Design, Safety and Barriers.

The assumed design criteria for Cooroy Connection Road, Lake Macdonald Drive (LMD) and Cooroy - Noosa Road (NCR) has been adopted from Austroads and the TMR Road Planning and Design Manual and is summarised in **Table 4–1**.

Table 4–1: Design Criteria

Criteria	Value
Road Environment	Urban – Elm St (south) Rural – Elm St (north) / LDM / NCR / Sivyers / Swift
Posted Speed	40km/h – Elm St (school zone)
	50km/h - Swift
	60km/h – Elm St / LMD
	80km/h – LMD / NCR / Elm St (north)
Design Speed	100km/h – NCR
	70km/h – Elm St (south) / LMD / Sivyers / Swift
	90km/h – Elm St (north) / LMD / NCR
Sight Distance Reaction Time adopted	110km/h – NCR
	2.0s – Elm St / LMD / Sivyers / Swift
Stopping Sight Distance (SSD)	92.0m – Car (V = 70km/h) 105.0m – Truck (V = 70km/h)
	139.0m – Car (V = 90km/h) 160.0m – Truck (V = 90km/h)
	209.0m – Car (V = 110km/h) 241.0m – Truck (V = 110km/h)
Safe Intersection Sight Distance (SISD)	151.0m – Car (V = 70km/h) 164.0m – Truck (V = 70km/h)
	214.0m – Car (V = 90km/h) 235.0m – Truck (V = 90km/h)
	272.0m – Car (V = 110km/h) 332.0m – Truck (V = 110km/h)
Minimum Gap Sight Distance – based on 5 seconds critical gap acceptance time	97.0m (V = 70km/h)
	125.0m (V = 90km/h)
	153.0m (V = 110km/h)
Hazard Clear Zone (LMD: 90km/h - AADT < 1500)	5.5m (1:6 and flatter) 7.5m (1:4 to 1:5)

4.5 Risk Classification Methodology

4.5.1 Risk Assessment System

Identified issues and deficiencies have been rated in order of importance based on estimated crash frequency, crash severity and level of risk in accordance with *RTA's Accident Reduction Guide, Part 2: Road Safety Audits*

(August 2005). These criteria are also provided within Austroads Guide to Road Safety Part 6A – Implementing Road Safety Audits.

4.5.2 Crash Frequency

The probable frequency of an incident or crash occurring has been estimated for each issue listed in the Road Safety Audit findings based on the options listed in **Table 4–2**.

Table 4–2: Crash Frequency Context

Frequency	Description
Frequent	There are likely to be two or more occurrences of this type of accident in a year.
Probable	There is likely to be one occurrence of this type of accident in a year.
Occasional	There is likely to be one occurrence of this type of accident in a three-year period.
Improbable	There is likely to be one occurrence of this type of accident in a ten-year period.

4.5.3 Crash Severity

The severity of a crash identified in the Road Safety Audit is assessed based on the options listed in **Table 4–3**.

Table 4–3: Crash Severity Context

Severity	Description	Examples of Incident
Catastrophic	Likely multiple deaths	• High speed, multi-vehicle crash on freeway • Car runs into crowded bus stop • Bus and petrol tanker collide • Collapse of a bridge or tunnel
Serious	The crash is likely to result in death or serious injury	• High/medium speed vehicle collision • High/medium speed collision with a fixed object • Pedestrian/cyclist hit by a vehicle at high/medium speed
Minor	The crash is likely to result in minor injury or major property damage	• Low speed vehicle collision • Pedestrian/cyclist fall with no head injury • Low speed rear end collision in a slip lane
Limited	Likely trivial injury or property damage only	• Minor vehicle collision, property damage only • Car reverses into post • Pedestrian/cyclist hits fixed object resulting in minor injury

4.5.4 Treatment Approach

Table 4–4 defines the suggested treatment approach based on the resultant risk rating allocated for each of the identified hazards.

Table 4–4: Treatment Approach

Risk Rating	Suggested Treatment Approach
Intolerable	Must be corrected.
High	Should be corrected or the risk significantly reduced, even if the treatment costs is high.
Medium	Should be corrected or the risk significantly reduced, if the treatment cost is moderate, but not high.
Low	Should be corrected or the risk reduced if the treatment cost is low.

4.5.5 Level of Risk

Deficiencies are rated for their importance per a tiered system based on the matrix in **Table 4–5**.

Table 4–5: Risk Matrix

	Frequent	Probable	Occasional	Improbable
CATASTROPHIC	**Intolerable**	**Intolerable**	**Intolerable**	**High**
SERIOUS	**Intolerable**	**Intolerable**	**High**	**Medium**
MINOR	**Intolerable**	**High**	**Medium**	**Low**
LIMITED	**High**	**Medium**	**Low**	**Low**

5. Audit Findings

Table 5–1: 1: Cooroy Connection Road – Audit Findings

ID	PHOTO REFERENCE	AUDIT FINDINGS	RISK CLASIFFICATION	SUGGESTED ACTION	RESPONSE
Cooroy Connection Road					
5.1.1	n/a	Myall Street Intersection Although there is no recent crash history at the intersection, the current configuration of the Elm St / Myall St intersection is not considered operationally safe as evidenced by the numerous issues identified in **Section 2.1.1**. Not a project HV route.	Frequent Minor INTOLERABLE	Specific recommendations are detailed below (from 5.1.2 onwards) however it is recommended that TMR and Noosa Shire Council investigate a long-term strategy to address operational safety of the intersection. Signalisation would likely be preferable to a roundabout due to the constrained corridor and proximity of private accesses.	
5.1.2	n/a	Myall Street Intersection The intersection is an approved B-Double route in QLDGlobe, however the position of the raised traffic islands likely conflict with the turn path of a 25.0 m vehicle. There is a risk of damage to road furniture conflict between light and heavy vehicles for right turn movements onto Cooroy Connection Road. Not a project HV route.	**Probable** **Minor** **HIGH**	As above	
5.1.3	n/a	Cooroy Connection Road – Myall Street to Lake Macdonald Drive There are multiple operational safety issues at the Diamond Street (Cooroy Noosa Road) Intersection as noted at **Section 2.1.2** which cannot be resolved without significant works to the intersection. Signalisation of the intersection will resolve the majority of issues including safe pedestrian movements, poor observation angles and right turn permissions into the train station car park.	**Probable** **Minor** **HIGH**	It is recommended TMR investigate signalisation of the Diamond Street / Cooroy Connection Road intersection.	
5.1.4	n/a	Cooroy Connection Road – Myall Street to Lake Macdonald Drive Elm St is on the Principal Cycle Network but has minimal on road provisions for cyclists. There are opportunities on the existing pavement to line mark a cycle lane at high-risk locations (i.e. through intersections) to reduce the risk of conflict between vehicles and cyclists.	**Occasional** **Serious** **HIGH**	Consider appropriate cycle lane facilities through intersections where pavement width permits; Opal Street, Diamond Street CHL, Pearl Street, Pearl Lane, and Sapphire Street.	

Audit Findings

ID	PHOTO REFERENCE	AUDIT FINDINGS	RISK CLASIFFICATION	SUGGESTED ACTION	RESPONSE
5.1.5	B7	Cooroy Connection Road – Lake Macdonald Drive to Gem Street Continuity line is deteriorated at the carpark exit of the Cooroy State School. Vehicles are likely to creep forward past the stop line to gain clear visibility at this location therefore it is important the traffic lane is clearly delineated.	**Occasional** **Serious** **HIGH**	Reinstate the continuity line to the carpark exit.	
5.1.6	n/a	Northern section The presence of roadside hazards (culvert and steep embankments) is noted on Cooroy Connection Road between Kennedys Road and Yurol Forest Drive. Off path crashes in the vicinity of hazards have potential to be high severity.	**Occasional** **Serious** **HIGH**	Undertake a roadside hazard assessment for the subject road section and apply suitable safety barrier treatments to shield hazards.	
5.1.7	B14	Intersection with Kennedys Road Pavement on the minor road approach is in poor condition. Gravel / debris is currently being tracked onto the major road which obscures line marking and inhibits traction. This has the potential to contribute to frequency of crashes at the intersection.	**Occasional** **Serious** **HIGH**	Remove damaged pavement on Kennedys Road and reconstruct full depth pavement for the minor road approach (e.g. 50m).	

Table 5-2: Lake Macdonald Drive – Audit Findings

ID	PHOTO REFERENCE	AUDIT FINDINGS	RISK CLASIFFICATION	SUGGESTED ACTION	RESPONSE
Lake Macdonald Drive					
5.2.1	C1 C2	Cooroy Connection Road / Lake Macdonald Drive intersection The AUL into Lake Macdonald Drive operates as a trap lane with minimal advanced warning. There is a risk of vehicles suddenly merging into the through lane which is exacerbated by poor visibility of the intersection due to a crest on the northern approach.	**Probable** **Minor** **HIGH**	Provide additional turn arrows to the AUL to delineate its operation as a trap lane. The arrows should be visible on the opposing side of the crest on the northern approach to the intersection. If the number of turning vehicles is anticipated to obscure the pavement arrows, then an R2-9 (left lane must turn left) sign should be installed.	
5.2.2	C5 C6	Cooroy Connection Road / Lake Macdonald Drive intersection Low hanging vegetation to the inside of the horizontal curve on Elm St encroaches into the shoulder and traffic lane. There is a risk of cyclist shying away from vegetation into the traffic lane in addition to large vehicles striking the vegetation	**Occasional** **Serious** **HIGH**	Undertake vegetation clearing to the inside of the horizontal curve to ensure growth does not encroach into the road shoulder and is not at risk of being struck by a large vehicle.	
5.2.3	C7	Cooroy Connection Road / Lake Macdonald Drive intersection Green surface treatment and cyclist pavement markings are deteriorated at the intersection. This is a high-risk location for cyclists, and it is important motorists are alerted to their presence on the road.	**Occasional** **Serious** **HIGH**	Reinstate cyclist pavement markings through the intersection.	
5.2.4	n/a	Cooroy Connection Road / Lake Macdonald Drive intersection Lighting pole is damaged / missing to the southbound departure from the intersection. The light pole should be reinstated to improve night time visibility.	**Occasional** **Minor** **MEDIUM**	Reinstate the missing light pole to the southbound departure from the intersection.	
5.2.5	C8	Swift Drive intersection There is no protected right-hand turn treatment at the intersection. The current two-lane treatment creates a risk of rear-end crashes for motorist unfamiliar with the intended operation. The existing pavement width would facilitate installation of a channelised right turn (CHR)	**Occasional** **Serious** **HIGH**	Linemark the intersection to provide a channelised right turn (CHR) into Swift Drive.	

ID	PHOTO REFERENCE	AUDIT FINDINGS	RISK CLASIFFICATION	SUGGESTED ACTION	RESPONSE
5.2.6	C10	Swift Drive intersection Pavement markings (cyclist markings) are deteriorated at the intersection. The intersection also has poor night-time delineation due to a lack of RRPM's.	Improbable Serious MEDIUM	Reinstate pavement markings and provide RRPMs to clearly delineate the intersection if workers are anticipated to travel through the intersection at night.	
5.2.7	C15	Noosa Beverages Facility There is no edge line to the inside of the horizontal curve outside the facility or RRPM's to the double barrier line. Both markings are warranted at this location in accordance with the MUTCT Part 2.	Improbable Serious MEDIUM	Reinstate edge line to the inside of the horizontal curve at the Noosa Beverages Facility	
5.2.8	C16	NWTP Access Intersection The access has insufficient pavement width to support two-way traffic increasing the risk of head-on crashes.	Occasional Serious HIGH	Intersection upgrade to the NTWP Access should include sufficient pavement width to support two-way traffic of the for the largest anticipated construction vehicle. It is noted the access will be within the works zone with a 40km/h speed limit and active traffic controllers holding exiting vehicle to give priority to entering vehicles which is an appropriate control.	
5.2.9	C17	NWTP Access Intersection A change in regulatory speed (60km/h to 80km/h) is located at the intersection and obscures visibility on the northern approach in addition to drawing driver attention away from the intersection. Relocating the sign further north will address these issues in addition to improving safety at the intersection and horizontal curve north of the intersection due to the lower operating speed.	Occasional Serious HIGH	Relocate the change in regulatory speed signage (60km/h to 80km/h) approximately 240m north of the intersection.	
5.2.10	C18	NWTP Access Intersection The intersection has minimal delineation with only a dividing line to Lake Macdonald Drive. There are no RRPM's, edge lines, continuity line or give way line.	Improbable Serious MEDIUM	Intersection upgrade to the NWTP Access should install pavement markings in accordance with MUTCD Part 2. Flag lighting should also be provided if night-time traffic movements are anticipated as part of the dam upgrade.	
5.2.11	C24, C25 C26, C27 C28, C29	Lake Macdonald Drive - General Vegetation growth frequently overhangs into the traffic lanes and could potentially be struck by large vehicles.	Improbable Serious MEDIUM	It is recommended an audit of vertical clearances to overhead cables and vegetation is undertaken for the length of Lake Macdonald drive. The minimum	

ID	PHOTO REFERENCE	AUDIT FINDINGS	RISK CLASIFFICATION	SUGGESTED ACTION	RESPONSE
	C30	Similarly, there are low hanging overhead wires at several locations which may be a hazard.		clearance for Lake Macdonald drive should be 4.6 m in accordance with **AGRD Part 3 Section 8.2.4**.	
5.2.12	n/a	Lake Macdonald Drive - General Lake Macdonald Drive generally has poor night-time delineation due to a lack of RRPM's. The majority of exiting line marking consists of dividing lines and edge lines. In accordance with the MUTCD Part 2, RRPM's should be spaced at 24.0 m intervals for dividing lines on unlit roads and at 24.0 – 36.0 m intervals on edge lines.	**Improbable** **Serious** **MEDIUM**	Reinstate RRPM's to Lake Macdonald Drive to provide appropriate intervals (per **MUTCD Part 2**) if workers are anticipated to be travelling at night.	
5.2.13	C26 C27	Lake Macdonald Drive - General Redundant pavement markings (double barrier line and edge line) are still visible to the horizontal curve ~400m north of the Noosa Beverages facility. New double barrier line at this location is warped by pavement damage	**Improbable** **Serious** **MEDIUM**	Reseal pavement and reinstate line marking to the horizontal curve or remove redundant pavement markings via mechanical methods (abrasive blasting) to leave no visible trace of redundant markings.	
5.2.14	n/a	Hamilton Road Intersection Visibility to the north is obstructed by vegetation at the intersection. A lack of sight distance has potential to increase the frequency of intersection crashes.	**Occasional** **Serious** **HIGH**	Undertake vegetation clearing on the northbound departure of the intersection to improve visibility to the north	

Table 5-3: Sivyers Road– Audit Findings

ID	DRAWING REFERENCE	AUDIT FINDINGS	RISK CLASIFFICATION	SUGGESTED ACTION	RESPONSE
Sivyers Road Intersection					
5.3.1	D1	Intersection with Cooroy - Noosa Road Vegetation is overgrown and overhangs into the AUL which can be potentially discouraging for diverging vehicles and restricts deceleration distance.	**Improbable** **Serious** **MEDIUM**	Cut back vegetation growth to be clear of the AUL diverge.	
5.3.2	D4	Intersection with Cooroy - Noosa Road The existing kerb to the western side of Sivyers Road is damaged and a large section broken away. Additionally, road edge guideposts to the AUL are damaged / misaligned. This road furniture should be replaced to provide motorists a clear visual indication of the edge of pavement as there is a steep embankment located behind the kerb.	**Occasional** **Serious** **HIGH**	Replace the kerb and road edge guideposts to the AUL and corner of Sivyers Road.	

ID	DRAWING REFERENCE	AUDIT FINDINGS	RISK CLASIFFICATION	SUGGESTED ACTION	RESPONSE
5.3.3	n/a	Intersection with Cooroy - Noosa Road The intersection has poor night-time delineation due to damaged road edge guideposts. Flag lighting could potentially be warranted if night-time traffic movements are anticipated as part of the dam upgrade.	**Improbable** **Serious** **MEDIUM**	Consider providing flag lighting to the intersection if night-time traffic is anticipated as part of the dam upgrade project.	
5.3.4	D6	Incorrect warning signage is provided at the intersection of Sivyers Road and Gumboil Road. Both approaches warn of a T-intersection which should be a W2-9 Intersection on curve sign. The current arrangement has the potential to cause driver confusion at the intersection.	**Occasional** **Minor** **MEDIUM**	Remove the current intersection warning signs on both approaches to Gumboil Road and replace with the W2-9 Intersection on curve signs	
5.3.5	D7	Line marking is omitted where the road narrows on Gumboil Road on approach to the transition to Collwood Road. It appears to be removed as part of pavement resurfacing but has not been reinstated. A single barrier line should be reinstated (as a minimum) to reduce the risk of head on crashes	**Occasional** **Minor** **MEDIUM**	Provide a single barrier line where line marking has been removed on Gumboil Road on approach to the transition to Collwood Road	

6. Recommendation

The RSA for the existing conditions of the roads associated with the LMDIP has identified a number of safety matters for consideration. These matters and associated mitigation actions have been discussed and documented in **Section 5** and **Appendix A** of this report.

The RSA has considered the potential impacts associated with construction traffic for the LMDIP and identified limitations for consideration in development of the Traffic Management Plan (TMP) and associated controls/mitigations for implementation. A key outcome from the RSA is that the TMP for construction works should limit construction traffic through the Myall Street intersection.

It is understood the LMDIP does not rely on asset owners completing the suggested actions to accommodate construction traffic. The responsibility for the selection and implementation of the recommendation's rests with the asset owners, and they should decide the appropriate actions for the identified issues and select the appropriate remedial measures.

The matters have been discussed in the attached form and suggested actions have been made. The suggested actions are not intended to be the only possible actions, rather, as a guide for remedial action.

7. Conclusion Statement

This RSA was carried out by the auditors on the information made available and supplemented by site inspections.

Every effort was made to ensure that all safety issues were considered, however, the auditors do not guarantee that every issue was identified. The safety audit findings in **Section 5** are the opinion and judgement of the auditors.

The RSA has been carried out for the sole purpose of identifying existing conditions of the roads associated with the LMDIP which could present a safety risk for all road users.

Dave Bekker
Senior Road Safety Auditor, SMEC

Michael Compton
Senior Road Safety Auditor, SMEC

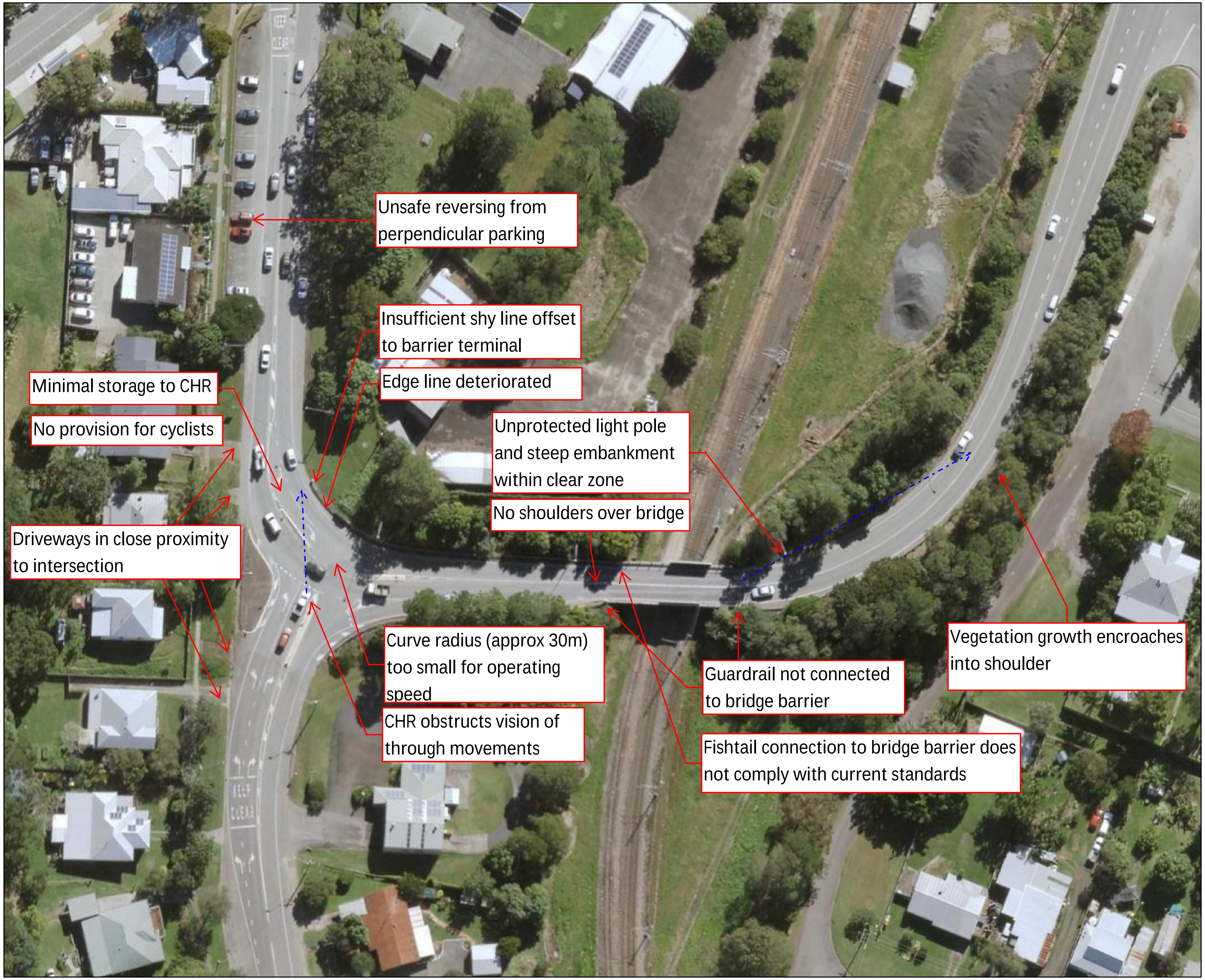
Appendix A

Deficiency Maps

MYALL STREET / ELM STREET INTERSECTION

26°25'10"S 152°54'34"E

26°25'7"S 152°54'42"E



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26°25'13"S 152°54'45"E

A product of Queensland Globe

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Scale: 1:860

Printed at: A3
Print date: 17/9/2020
Datum: Geocentric Datum of Australia 1994
Projection: Web Mercator EPSG 102100

For more information, visit https://qldglobe.information.qld.gov.au/helpinfo/Contact-us.html

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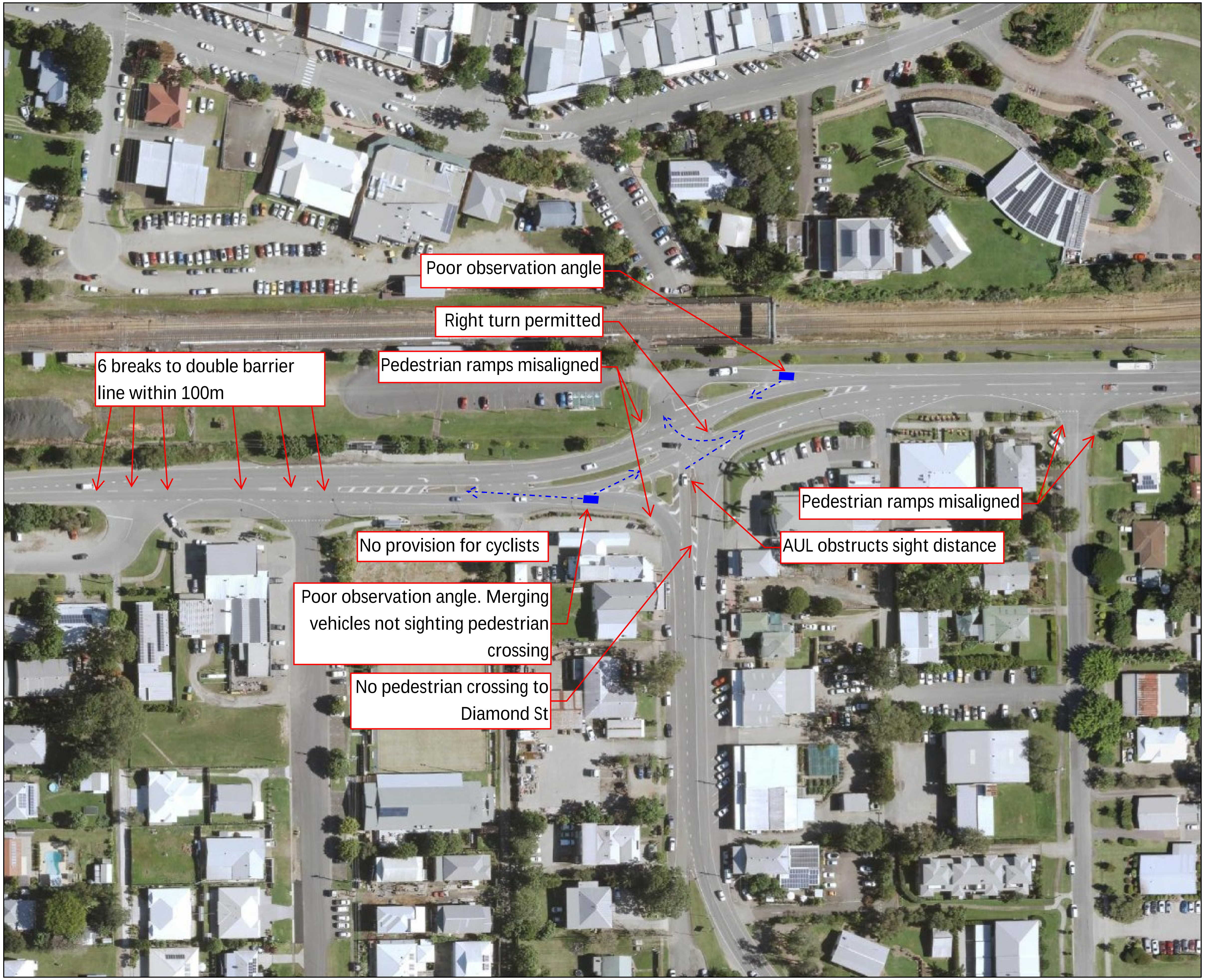
ELM STREET SHOPPING AREA

26°25'8"S 152°54'36"E

26°24'54"S 152°54'36"E



26°25'8"S 152°54'48"E

26°24'55"S 152°54'48"E

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Queensland Globe

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Scale: 1:1436

Printed at: A3

Print date: 18/9/2020

Datum: Geocentric Datum of Australia 1994

Projection: Web Mercator EPSG 102100

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ELM STREET / LAKE MACDONALD DRIVE INTERSECTION

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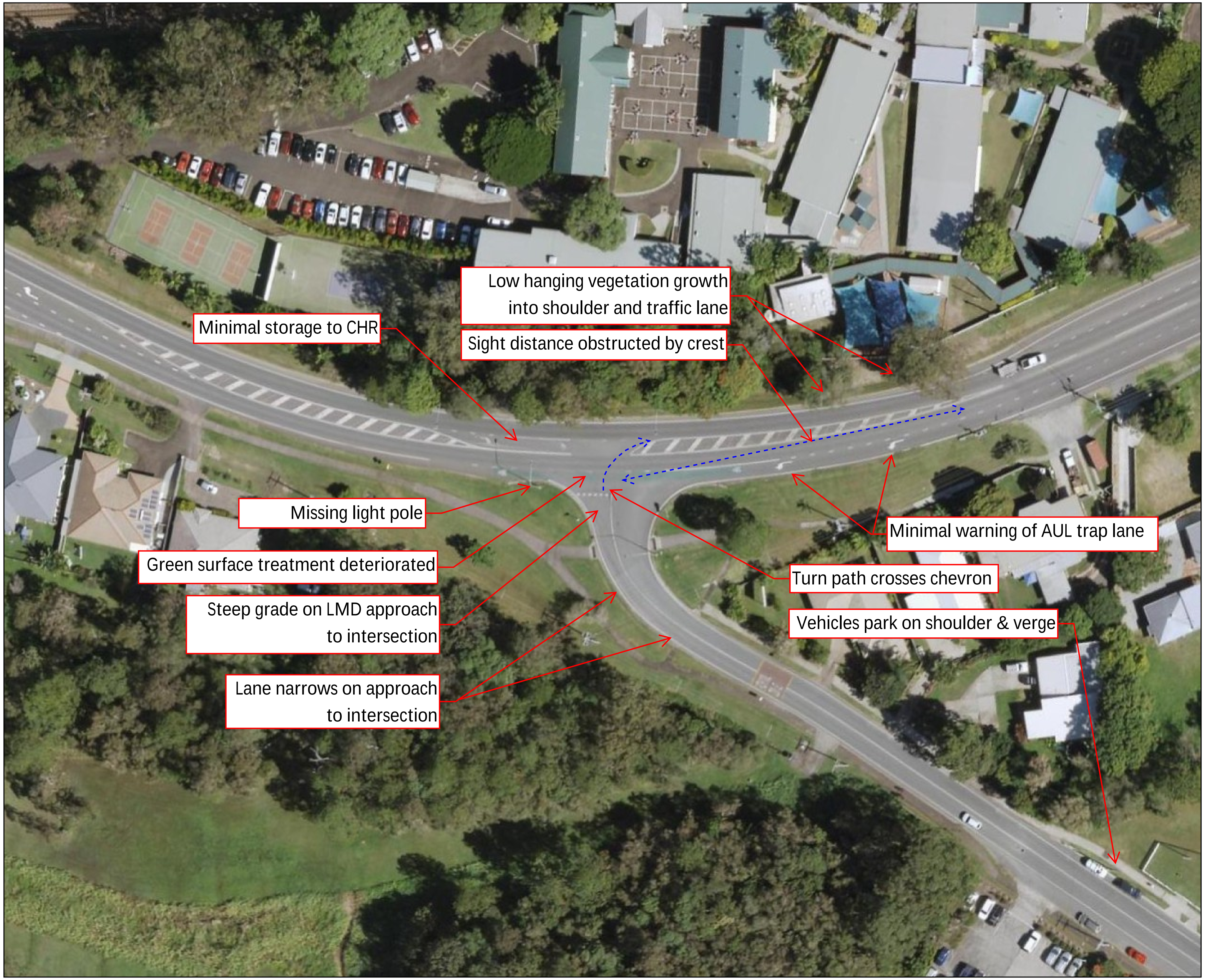
26°24'51"S 152°54'40"E

26°24'42"S 152°54'38"E



26°24'49"S 152°54'47"E

26°24'41"S 152°54'45"E

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Printed at: A3
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ELM STREET / COOROY STATE SCHOOL

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26°24'46"S 152°54'33"E

26°24'32"S 152°54'30"E

26°24'44"S 152°54'45"E

26°24'30"S 152°54'42"E

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LAKE MACDONALD DRIVE / SWIFT DRIVE INTERSECTION

26°24'24"S 152°54'57"E

26°24'19"S 152°55'4"E

26°24'29"S 152°55'1"E

26°24'24"S 152°55'8"E

A product of Queensland Globe

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Scale: 1:862

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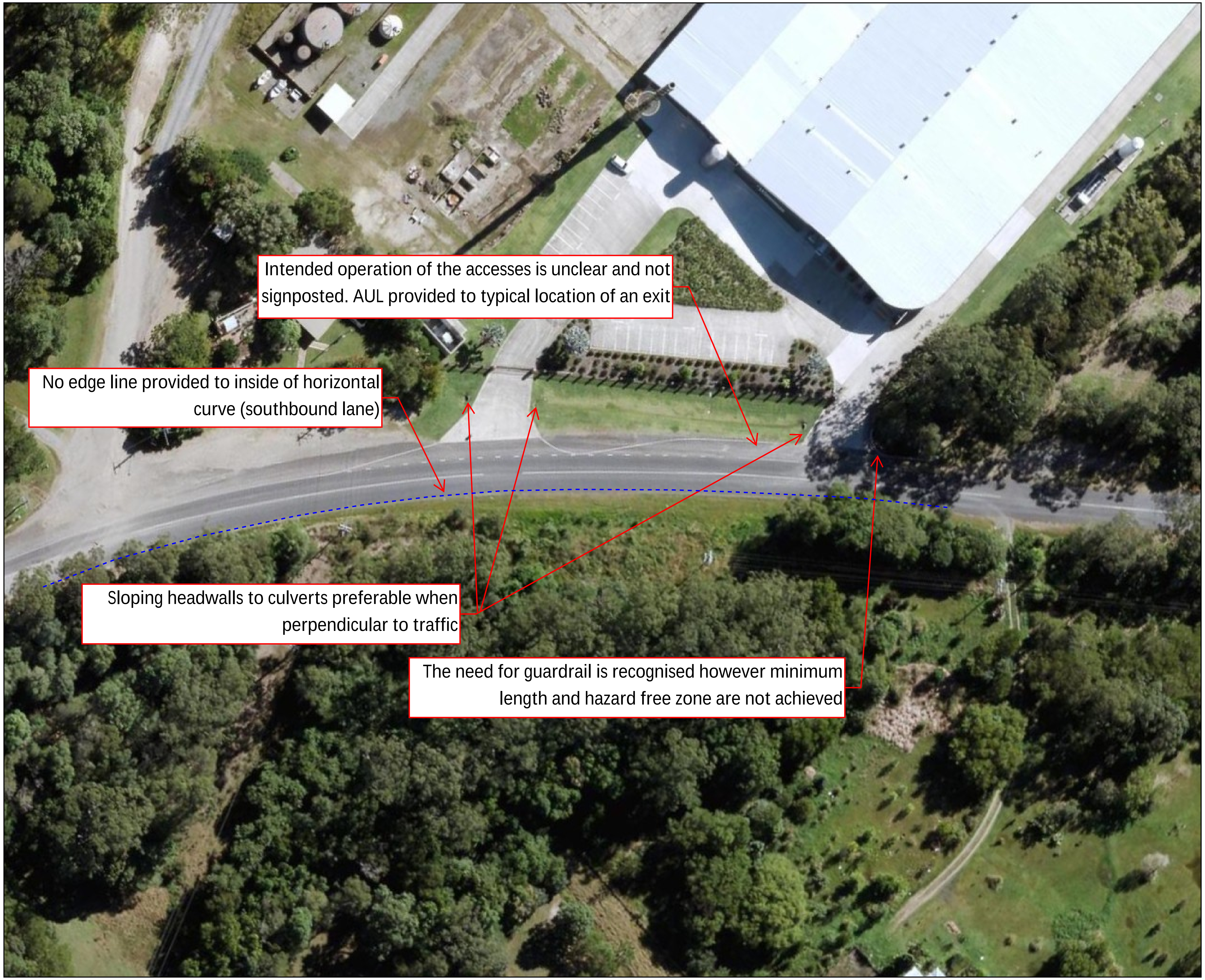
LAKE MACDONALD DRIVE - NOOSA BEVARAGES

26°23'35"S 152°55'27"E

26°23'30"S 152°55'34"E



26°23'40"S 152°55'31"E

26°23'35"S 152°55'39"E

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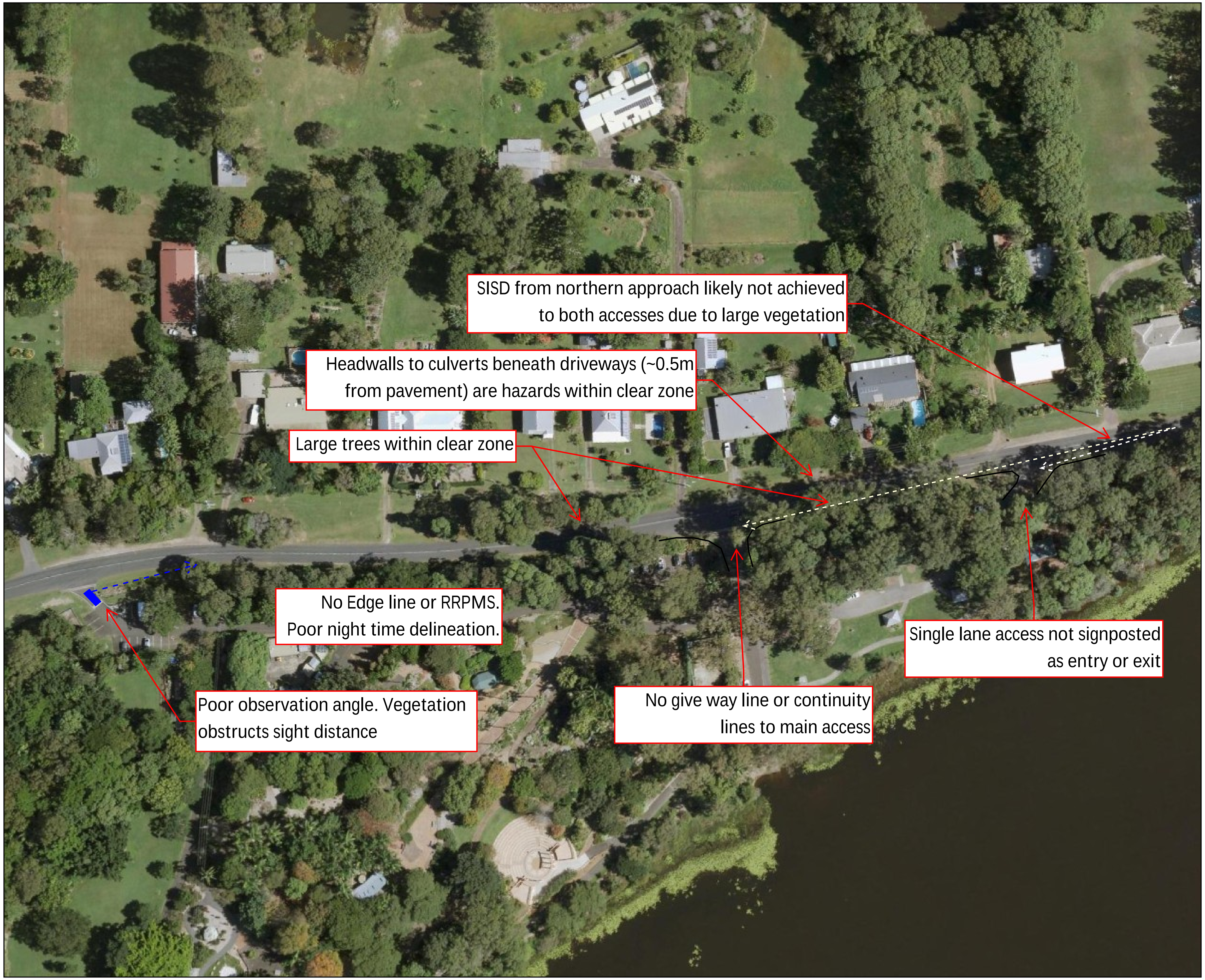
LAKE MACDONALD DRIVE - NOOSA BOTANIC GARDENS

26°23'15"S 152°55'35"E

26°23'1"S 152°55'38"E



26°23'16"S 152°55'47"E

26°23'3"S 152°55'50"E

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Scale: 1:1436

Printed at: A3
Print date: 17/9/2020
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LAKE MACDONALD DRIVE - COLLWOOD ROAD INTERSECTION

26°22'54"S 152°55'41"E

26°22'46"S 152°55'43"E

26°22'55"S 152°55'48"E

26°22'47"S 152°55'50"E

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Scale: 1:864

Printed at: A3
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Datum: Geocentric Datum of Australia 1994
Projection: Web Mercator EPSG 102100

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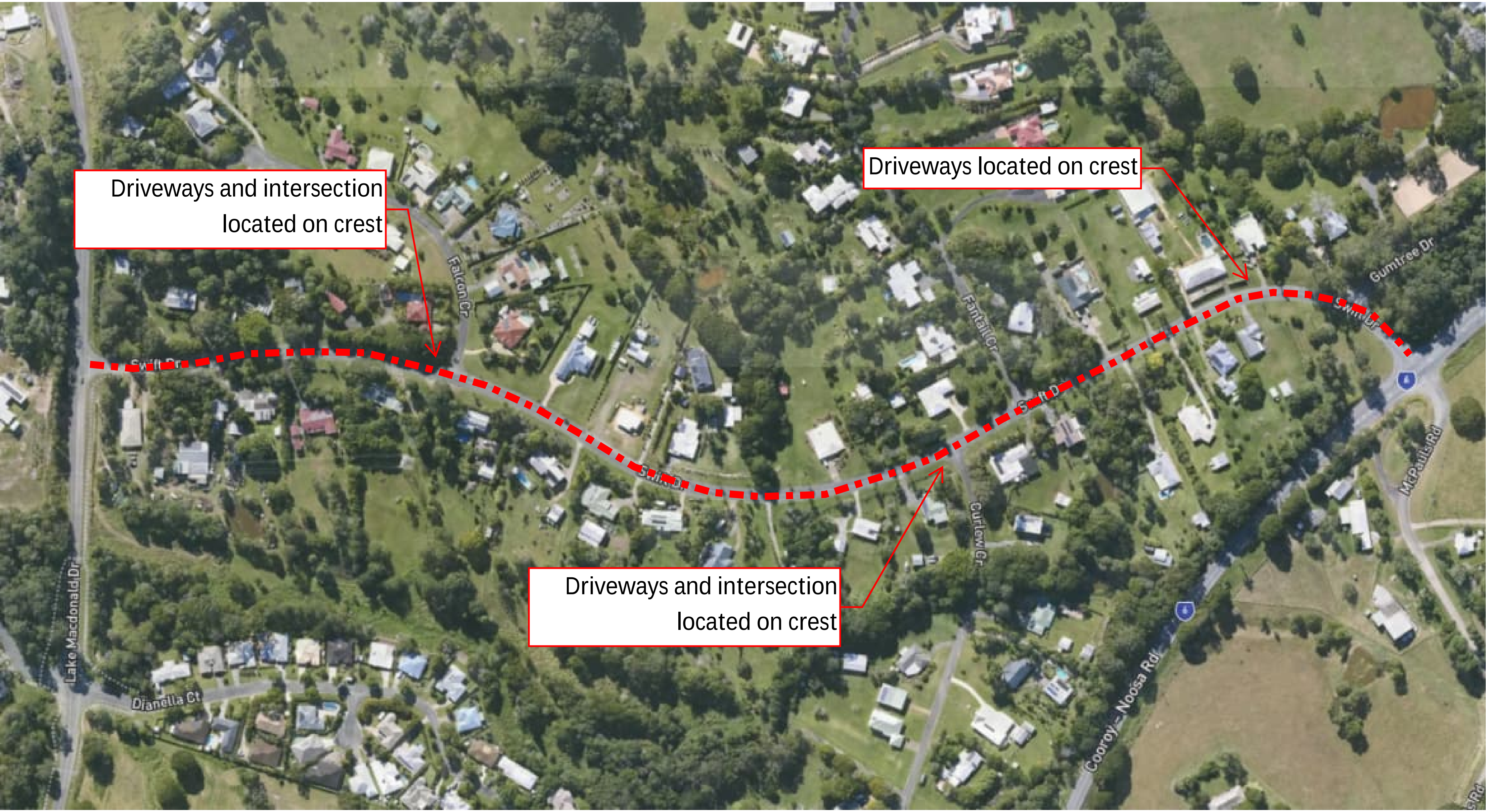
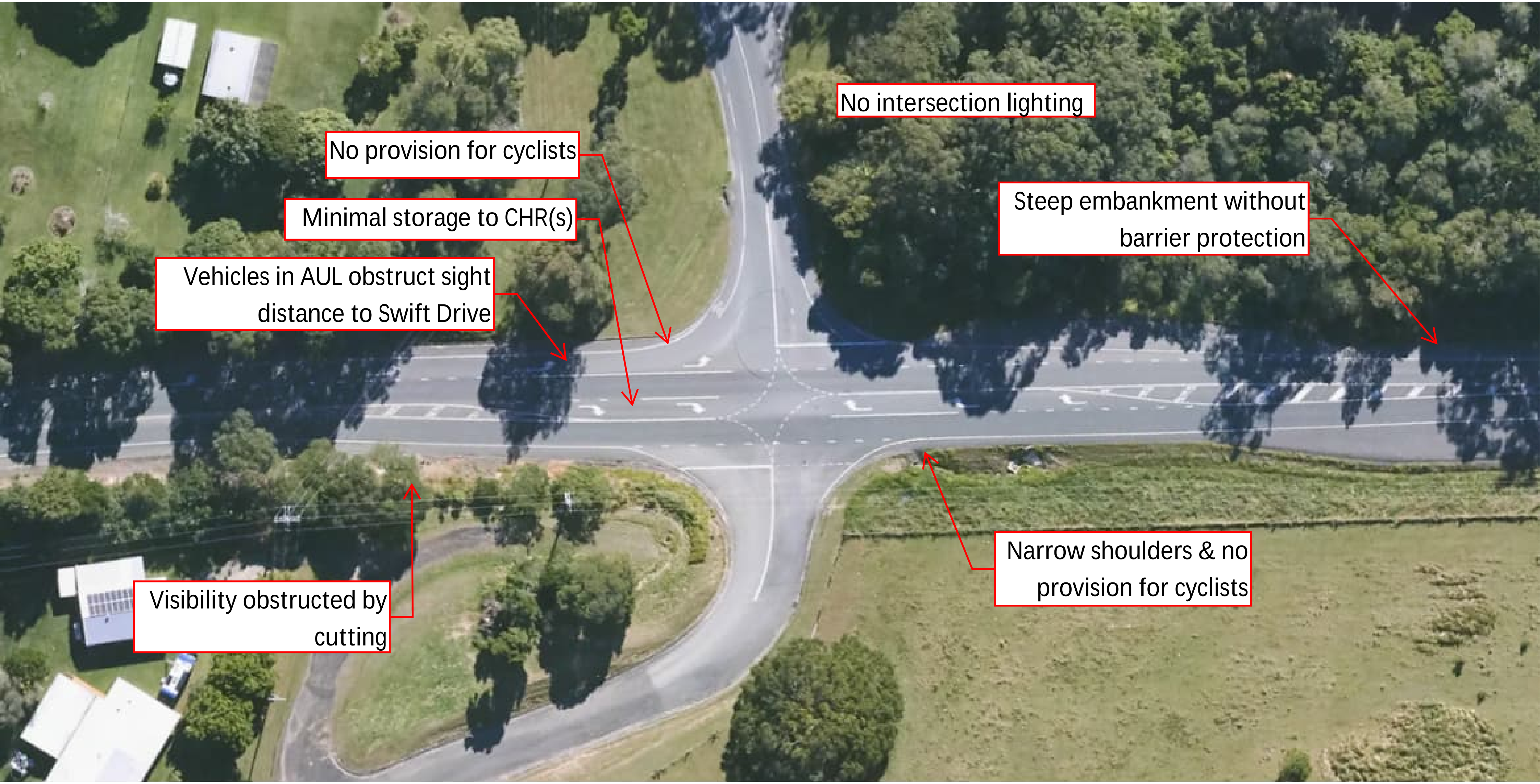


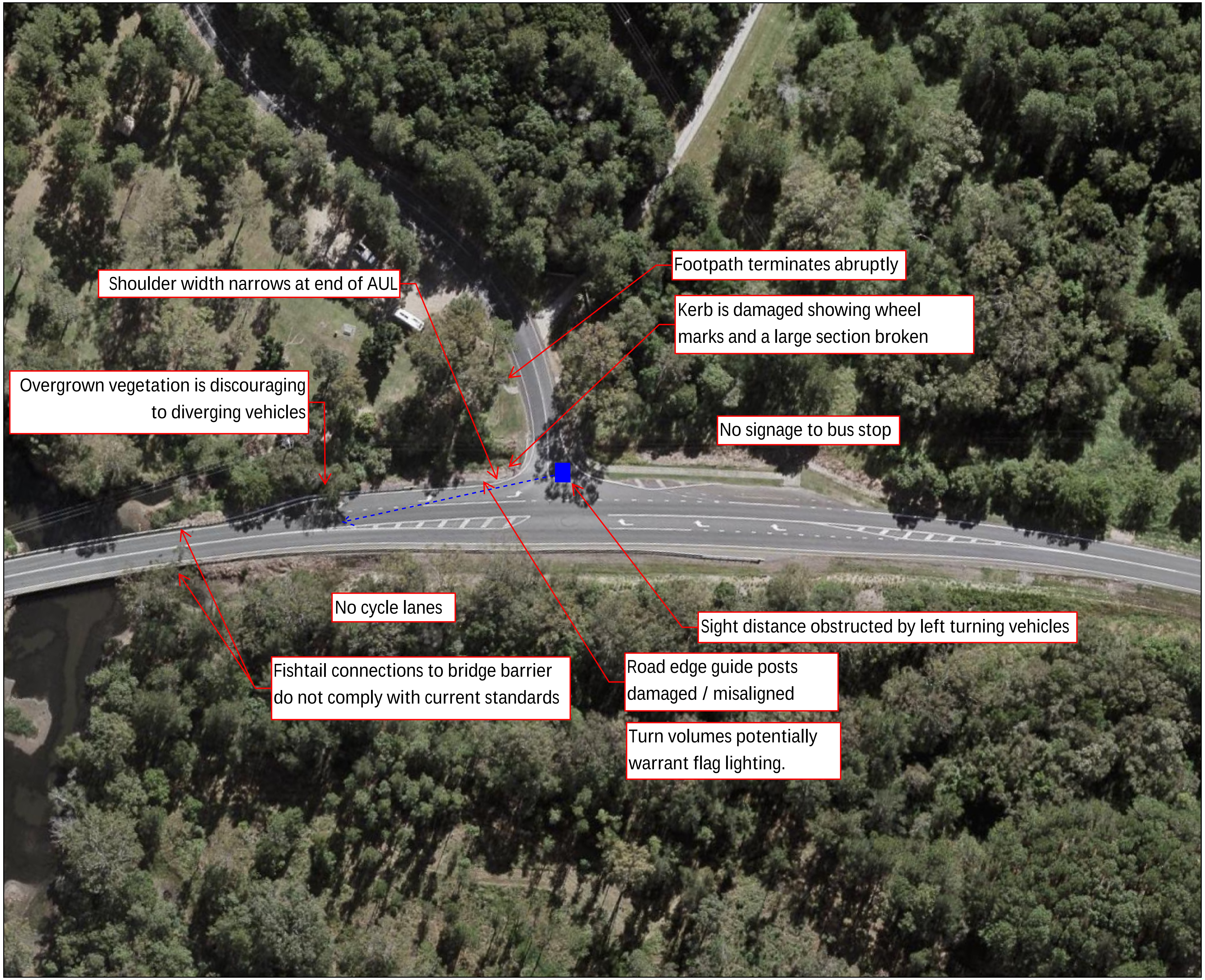
Driveways and intersection located on crest
Driveways located on crest
Driveways and intersection located on crest
Swift Dr
Falcon Cr
Fantail Cr
Curlew Cr
Gumtree Dr
McPaul's Rd
Cooroy – Noosa Rd
Lake Macdonald Dr
Dianella Ct


No intersection lighting
No provision for cyclists
Minimal storage to CHR(s)
Steep embankment without barrier protection
Vehicles in AUL obstruct sight distance to Swift Drive
Narrow shoulders & no provision for cyclists
Visibility obstructed by cutting

NOOSA COOROY ROAD / SIVYERS ROAD INTERSECTION

26°24'0"S 152°57'33"E

26°23'58"S 152°57'44"E



26°24'7"S 152°57'36"E

26°24'5"S 152°57'46"E

A product of Queensland Globe

Legend located on next page

N

0 25 metres

Scale: 1:987

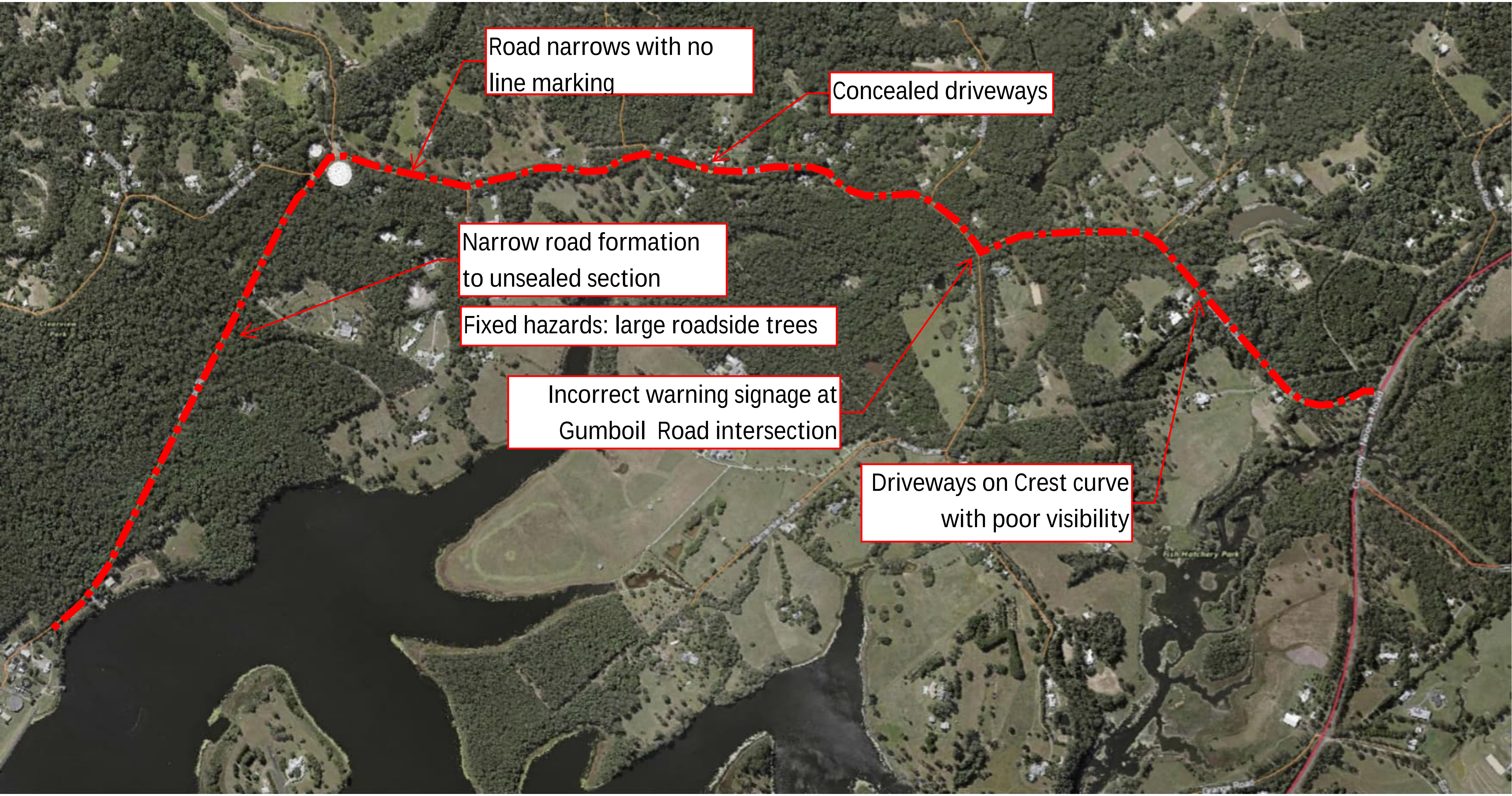
Printed at: A3

Print date: 1/10/2024

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit https://qldglobe.information.qld.gov.au/help-info/Contact-us.html

Queensland Government
Department of Resources


Road narrows with no line marking
Concealed driveways
Narrow road formation to unsealed section
Fixed hazards: large roadside trees
Incorrect warning signage at Gumboil Road intersection
Driveways on Crest curve with poor visibility

Appendix B

Site Photos - Cooroy Connection Road

Photo - B1 – Myall St southern approach

Photo – B2 - Myall St / Elm St intersection

Photo – B3 - Myall St / Elm St intersection

Photo – B4 - Myall St northern approach

Photo – B7 – Elm St at Cooroy State School looking south

Photo – B8 – Elm St school carpark exit

Photo – B9 – Elm St school carpark entrance

Photo – B10 – Elm St driveways opposite school carpark

Photo – B11 – Elm St school crossing looking north

Photo – B12 – Elm St school crossing looking south

Photo – B13 – Elm St driveways and power poles opposite school carpark

Photo – B14 – Elm St / Kennedys Road intersection looking north

Photo – B15 – Elm St / Kennedys Road intersection looking south

Appendix C

Site Photos - Lake Macdonald Drive

Photo - C1 – LMD / Elm St intersection looking towards school

Photo – C2 - Elm St northern approach to LMD

Photo – C3 – LMD approach to Elm St

Photo – C4 – LMD / Elm St intersection

Photo – C5 – Elm St southern approach to LMD

Photo – C6 – Elm St southern approach to LMD

Photo – C7 – LMD / Elm St Intersection

Photo – C8 – LMD southern approach to Swift Drive

Photo – C9 – Swift Dr intersection looking north

Photo – C10 – Swift Dr intersection looking south

Photo – C11 – Swift Dr approach to LMD

Photo – C12 – LMD Noosa Beverages facility looking north

Photo – C13 – LMD Noosa Beverages facility looking south

Photo – C14 – LMD Noosa Beverages barrier to culverts

Photo – C15 – LMD northbound at Noosa Beverages facility

Photo – C16 – NWTP Access Road

Photo – C17 – LMD / NWTP Access intersection looking north

Photo – C18 – LMD / NWTP Access intersection looking south

Photo – C19 – LMD Noosa Botanic Gardens main access looking south

Photo – C20 - LMD Noosa Botanic Gardens main access looking north

Photo – C21 - LMD Noosa Botanic Gardens northern access looking south

Photo – C22 - LMD Noosa Botanic Gardens main exit

Photo – C23 - LMD Noosa Botanic Gardens main exit looking north

Photo – C24 – LMD northbound at Kauiri street (vegetation)

Photo – C25 – LMD southbound at botanic gardens exit (vegetation & overhead wires)

Photo – C26 - LMD southbound between Noosa beverages and botanic gardens (vegetation & redundant pavement markings)

Photo – C27 - LMD southbound between Noosa beverages and botanic gardens (double barrier line and stay wire)

Photo – C28 - LMD southbound at Hoy Road intersection (vegetation)

Photo – C29 - LMD southbound at Lake Ridge interaction (stay wire)

Photo – C30 - LMD southbound near Pine Tree Drive (vegetation @ crest)

Photo – C31 - LMD northbound horse crossing at northern extent of study area

Appendix D

Site Photos - Sivyers Road

Photo - D1 – NCR western approach to Sivyers Road

Photo – D2 – Sivyers Road Intersection

Photo – D3 – Sivyers Road approach to NCR

Photo – D4 – Sivyers Road Intersection damaged kerb

Photo – D5 – Sivyers Road Intersection looking east

Photo – D6 – Sivyers Road approach to Gumboil Road

Photo – D7 – Gumboil Road approach to Collwood Road

Photo – D8 – Collwood Road

Appendix D

Dilapidation Assessment (SMEC) June November 2024

SMEC INTERNAL REF. 30035740

Dilapidation report

Lake Macdonald Dam Improvement Project

Client Reference No. LMDIP-05327-GNL-TRR-REP-00001
Prepared for: Seqwater
15 May 2024

Through our specialist expertise, we deliver advanced infrastructure solutions for our clients and partners.

Leveraging our 70-year history of delivering nation-building infrastructure, we provide technical expertise and advanced engineering services to resolve complex challenges.

Through our network of global specialists collaborating with local partners, we connect you with the best teams and capabilities to deliver innovative and sustainable solutions.

We're redefining exceptional

Document Control

Document Type	Dilapidation report
Project Title	Lake Macdonald Dam Improvement Project
Project Number	30035740
File Location	\\filer.nasuni.local\smecanz\Projects\300357\30035740\100 Concept-Feasibility\Traffic\Dilap report\30035740 - RPT - Dilap - 14052024.docx
Revision Number	0

Revision History

Revision No.	Date	Prepared By	Reviewed By	Approved for Issue By
A	15 May 2024	D'Arcy Newton, Dave Bekker	Kade Westaway	CP Soin
0	25 June 2024	D'Arcy Newton, Dave Bekker	Kade Westaway	CP Soin

Issue Register

Distribution List	Date Issued	Number of Copies
Seqwater	15 May 2024	1
Seqwater	25 June 2024	1

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Signature	

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Abbreviations

Abbreviation	Definition
GTIA	Guide to Traffic Impact Assessment (December 2018)
LMDIP	Lake Macdonald Dam Improvement Project
NSC	Noosa Shire Council
NWTP	Noosa Water Treatment Plant
PIA	Pavement Impact Assessment
PN	Guide to Traffic Impact Assessment Practice Note: Pavement Impact Assessment (December 2018)
RIA	Road Impact Assessment
SAR	Standard Axle Repetition. A measure defining the cumulative damaging effect to the pavement of the actual traffic, it is expressed in terms of the equivalent number of 80kN axles passing over the pavement up to the design horizon for varying damage exponents.
SAR4	A SAR derived with a damage exponent of 4 to assess the overall pavement damage to a granular pavement with thin bituminous surfacing. SAR4 can also be expressed as Equivalent Standard Axles (ESA)
SAR5	A SAR derived with a damage exponent of 5 to assess the asphalt fatigue to a pavement containing one or more asphalt layers.
TIA	Traffic Impact Assessment
TMR	The Department of Transport and Main Roads
TARS	Traffic Analysis and Reporting System

1. Introduction

1.1 Background

Seqwater requires investigation and assessment of the traffic impacts, associated with the Lake Macdonald Dam Improvement Project (LMDIP), on access routes to the site.

Lake Macdonald Drive must be investigated and assessed for current condition, so as to meet obligations and conditions imposed on Seqwater for the LMDIP by the Coordinator General.

A pre-construction dilapidation report is required to record the current condition of road assets.

The main route to site is from Elm Street, in the township of Cooroy, onto Lake Macdonald Drive and heads north, passing through a number of intersecting roads continuing alongside Lake Macdonald Dam, before finishing in the community of Ringtail Creek.

The alternate route to site is from Noosa Cooroy Road onto Sivyers Road and heads north and becomes Gumboil Road and then Collwood Road and on to the Seqwater gate.

1.2 Project History

A Road Impact Assessment (RIA) was undertaken in December 2020. The Coordinator General's report dated May 2019, resulted in several actions for further investigation:

- Heavy vehicles will **not be permitted** to utilise Sivyers Road to access the site.
- All heavy vehicles will utilise Noosa Water Treatment Plant (NWTP) Access Road via Lake Macdonald Drive to access the site

1.3 Scope of Works

1.3.1 Scope of Works

The scope of works for this report was to update to the previous Pre-Construction Dilapidation Survey.

Visual pavement assessment of pavement condition shall be undertaken in accordance with TMR's **Manual Pavement Rehabilitation** and Austroads' **AGPT05 – Pavement Evaluation and Treatment Design** and shall include, but not be limited to, the following:

- Visually identify and map defects and/or pavement distress, including photograph/s of all observations
- Identify the causes/mechanisms of any observed pavement distress, if any, along the proposed heavy vehicle route
- Video footage of the pavement, mapped against road chainages and/or global navigation satellite systems (GNSS) coordinates

Level 1 inspection of all culverts, regardless of size, and structures transversely crossing Lake Macdonald Drive, in accordance with TMR's **Structures Inspection Manual**. All written structure reports shall include, but not be limited to, the attending inspector's observations, with regards to the general state of the structure, and an assessment of the condition of the asset at the time of the visual inspection.

1.3.2 Project Study Area

The primary study area for the scope of works for this project was determined by the need to meet the coordinator generals' conditions for the project.

An additional area to be included in the pavement assessment was requested by Seqwater. The area included Elm Street between Lake Macdonald Drive and Yurol Forest Drive.

The total study area is shown in Figure 1-1 and detailed as follows:

- Primary study area:

  - The 0.9 km section of Elm Street from, and including, the intersection with Myall Street to the intersection with Lake Macdonald Drive:
    i. The northern most extent shall be 50 m North of the intersection with Lake Macdonald Drive
    ii. The southernmost extent shall be 50 m South of the intersection with Myall Street.
  - The 4.3 km section of Lake Macdonald Drive from, and including, the intersection of Elm Street to the intersection of The NWTP Access Road
  - The 4.5 km section of Sivyers Road / Gumboil Road / Collwood Road from the Noosa Cooroy Road to the Seqwater gate
- Additional study area:
  - The 3.6 km section of Elm Street from, and including, the intersection with Lake Macdonald Drive to the intersection with Yurol Forest Drive.

Figure 1-1: Study Area with Key Locations Identified

1.4 Stakeholders

Whilst Lake Macdonald Dam is owned and operated by Seqwater, the road network is a combination of state controlled (TMR) and local government assets. State controlled road assets are illustrated below in Figure 1-2, with all remaining roads being assets of NSC. It should also be noted that the Elm Street Rail Overpass is also a state-controlled asset.

Figure 1-2: State Controlled Roads surrounding Lake Macdonald

1.5 Project Data

In order to complete the full scope of works for this project, SMEC commissioned Drains Kleen to conduct the visual inspection of the culverts.

2. Pre-Construction Dilapidation Survey

As previously noted in Section 1.3.2, the scope of works for dilapidation survey was to be conducted within the study area identified by the Coordinator General (Primary Scope) as well as an area additionally identified by Seqwater (Additional Scope). This section is broken down into the three types of pre-construction dilapidation survey and further broken down into Primary and Additional Scope where applicable.

2.1 Pavement Conditions

While completing defect mapping of the road sections, observations were recorded on the general condition of the pavement across the subject area. These observations are summarised in Table 2-1 below. The individual defect reports are provided in Appendix A. It is noted that the distress mechanisms outlined in the defect reports describe typical causes of the defects observed and are not site-specific failure mechanisms.

Table 2-1: General Observations Based on Visual Assessment

ROAD SECTION	GENERAL OBSERVATIONS
Elm Street (Primary scope)	**South of Rail Overpass and Myall Street Intersection:** The pavement across this area is in poor condition, containing multiple cracks, surface defects and patches. Cracking is present throughout and likely attributable to aging, oxidised and hardened asphalt, settlement associated with the embankment and bridge, moisture ingress and inadequate pavement strength. **North of Rail Overpass to Lake Macdonald Drive:** From east of the rail overpass bridge to Lake Macdonald Drive intersection, the pavement was observed to have an asphalt surfacing and be generally in fair condition, with the development of lots of minor defects. The eastern approach to the rail overpass was observed to be in poor condition due to the turning movements onto the bridge. Cracking is present throughout and likely attributable to aging, oxidised and hardened asphalt, settlement associated with the embankment and bridge, moisture ingress and inadequate pavement strength.
Elm Street (Additional scope)	**Lake Macdonald Drive to Pearsons Road:** The pavement is in fair condition worsening towards Pearsons Road. There are locations of significant cracking, rutting and edge drops throughout. **Pearsons Road to Lamonts Road** This section of pavement is in good condition with few minor defects. **Lamonts Road to Yurol Forest Drive:** The pavement is moderate to poor condition throughout and can be split into two distinct sections. The southern portion has moderate to severe rutting and shoving and the wheel paths appear to have been water or sand blasted to treat the severe flushing present during the inspection. The northern section is generally in better condition however has sections of severe cracking, which is particularly evident close to Yurol Forest Drive.
Lake Macdonald Drive (Primary scope)	**Elm Street to Kauri Street:** The asphalt surfaced road section contained a multitude of surface defects with history of maintenance patching over large areas. Many defects across this section were cracks considered attributable to ageing, oxidised and hardened asphalt surface with both moisture ingress and deformation ensuing. An area near the intersection with Elm Street has new asphalt surfacing, the treatment undertaken is unknown. **Kauri Street to Swift Drive** This section is in fair to moderate condition. This section contained cracking, surface defects, rutting and patches. The condition of the pavement worsened towards Swift Drive. Stripping was observed within the wheel paths with ravelling along the centre lines. This area contained regions of both expedient and reconstruction patching. **Swift Drive to Hoy Road:** Sprayed seal surfacing across most of this road section with some small areas of asphalt surfacing. Based on visual observations, it is evident the pavement has history of resurfacing/resealing treatments. The sprayed seals are generally in fair condition; however, flushing of varying severity is present across large

ROAD SECTION	GENERAL OBSERVATIONS
	lengths and some locations are suffering from stone loss. Between Swift Drive and Robin Place conditions worsened most notably the cracking, ravelling and patches. Other prominent defects include edge drops. **Hoy Road to Collwood Road:** Pavement appears in good conditions. Just north of Hoy Road pavement worsens due to the industrial nature of the area along with the high posted speed limit causing longer or heavier braking zones. Edge drops and flushing of varying severity was recorded along this segment too.
Sivyers Road (Primary scope)	Spray sealed section of pavement in fair condition. Defects concentrated north of Cooks Road; this section was accessible to walk along hence greater level of detail is captured in the assessment. This section contained various defects including patching, cracks, depressions, potholes and edge drops.
Gumboil Road (Primary scope)	Spray sealed section of pavement in moderate condition. This section contains a variety of defects mainly consisting polishing, flushing, rutting, cracking and edge drop off. Stone loss was noted around corners due to the turning movements of the traffic.
Collwood Road (Primary scope)	**Gumboil Road to Clearview Drive:** Short section of sealed pavement. Pavement in relatively good condition. Minor depressions and edge breaks were the main defects within this section. **Clearview Drive to Water Treatment Plant:** This road is unsealed granular pavement. The road is in good condition. The severity of defects was contained to the start and end of the road section being mainly depressions or potholes. Minor rutting, loose material and pooling water in the table drains were seen throughout this section.

2.2 Culverts Conditions

The culverts identified within the study area and inspected as part of the pre-construction dilapidation survey are illustrated below in Figure 2-1.

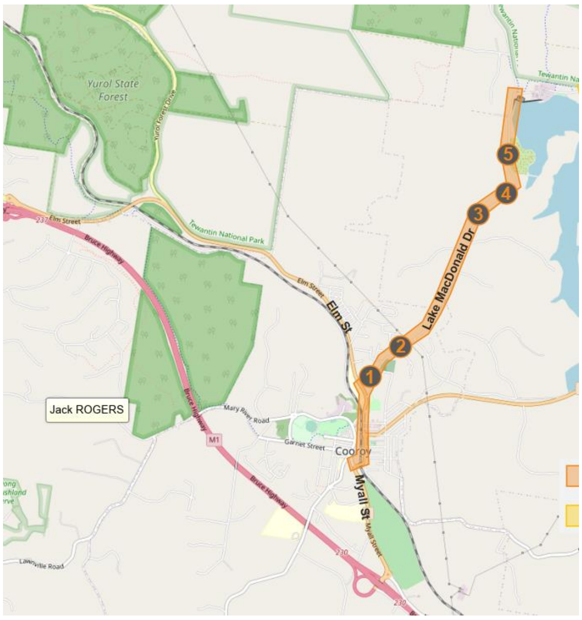

Figure 2-1: Location of Stormwater Culverts along Lake Macdonald Drive and Sivyers Road

2.2.1 Dilapidation Survey Summary

A summary of the assessment survey for each stormwater culvert in the primary scope is provided Table 2-2.

Drain Kleen's Assessment Survey provides chainage lengths from the start of survey which identify the position of any defects/issues detected along the pipe. Screenshot photographs with time stamps of the recorded video and Inclination (Altitude vs Asset Length) graphs are also provided within the detailed reports contained in Appendix B.

Table 2-2: Culvert Survey Summary for Lake Macdonald Drive

SECTION NUMBER "Nr."	LOCATION (NO.)	PIPE ASSET ID	PIPE DIAMETER (mm)	INSPECTION LENGTH (m)	COMMENTS
16	Lake MacDonald Drive (1)	1/1 - 1/2 (Cell 1)	850	18.46	No defect noted.
15		1/1 - 1/2 (Cell 2)	850	4.08	At CH4.08: Inspection (survey) abandoned, roots
14		1/1 - 1/2 (Cell 3)	850	18.23	No defect noted.
13		1/1 - 1/2 (Cell 4)	850	17.89	At CH14.58: A connecting conduit is projecting into the conduit being inspected and is obstructing the cross sectional area at 11 o'clock, magnitude of intrusion: 10%
9	Lake MacDonald Drive (2)	2/1 - 2/2 (Cell 1)	1050	38.78	No defect noted.
8		2/1 - 2/2 (Cell 2)	1050	38.86	At CH31.85: Circumferential cracking, width: 3mm from 11 o'clock to 1 o'clock
7		2/1 - 2/2 (Cell 3)	1050	39.09	No defect noted.
10		2/3 - 2/1	600	17.17	At CH1.54: Defective seal joint, other defect from 11 o'clock to 1 o'clock, 10 / Rubber ring intruding
11		2/4 - 2/1	750	2.91	At CH2.05: Obstruction, a fragment of conduit material is lying in the invert, Obstruction: 30% from 4 o'clock to 8 o'clock At CH2.91: Inspection (survey) abandoned, obstruction / Debris that can potentially roll the camera.
4	Lake MacDonald Drive (3)	3/1 - 3/2 (Cell 1)	1050	10.36	At CH1.29: Joint displaced longitudinally, 30mm
5		3/1 - 3/2 (Cell 2)	1050	10.19	No defect noted.
6		3/1 - 3/2 (Cell 3)	1050	10.04	No defect noted.
1	Lake MacDonald Drive (4)	4/1 - 4/2 (Cell 1)	1050	8.91	No defect noted.
2		4/1 - 4/2 (Cell 2)	1050	8.81	No defect noted.
3		4/1 - 4/2 (Cell 3)	1050	8.90	No defect noted.
12	Lake MacDonald Drive (5)	5/1-5/2	375	15.98	At CH15.98: Obstruction, a fragment of conduit material is lying in the invert, Obstruction: 90% from 12 o'clock to 12 o'clock Inspection (survey) abandoned, Debris

3. Recommendations

As part of this commission, SMEC has conducted a Pre-construction Dilapidation Survey to verify the current conditions of existing road assets impacted by LMDIP. The following outcomes have been determined:

- The existing pavement condition is poor at various locations and heavy vehicle trips generated by the development are expected to increase the rate of deterioration.
- Further investigation is recommended for:
  - Noosa Regional Council's planned pavement maintenance activities for Lake Macdonald Drive – Seqwater to action
  - Noosa Regional Council's planned pavement upgrades to Lake Macdonald Drive – Seqwater to action
  - A potential maintenance strategy for the road section to be adopted during the construction of the LMDIP – Seqwater to engage Noosa Regional Council
  - Consideration to a monetary contribution in light of the above works and their timing.
- Defects have been observed as part of the culvert component of the dilapidation surveys. The defects appear to have degraded from the previous assessment conducted in 2020. Further structural assessment is recommended on culvert location 2 and 5.

Appendix A

Pre-Construction Pavement Dilapidation Survey Report

Appendix B

Pre-Construction Culvert Dilapidation Survey Report

dRAINS kLEEN
18/24 Hoopers Road, Kunda Park Q 4556
Tel. 07 5370 9970
admin@drainskleen.com.au

Table of Contents

Project name	Project number	Project date
Lake Macdonald Drive_ Cooroy - Stormwater		**24/04/2024**

dRAINS kLEEN
18/24 Hoopers Road, Kunda Park Q 4556
Tel. 07 5370 9970
admin@drainskleen.com.au

Section Inspection - 24/04/2024 - 4/1 - 4/2 Cell 1

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
24/04/2024	**9:39 AM**	**Not known**	**4/1 - 4/2 Cell 1**	**1**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**4/1**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**4/2**	Inspected Length [m]	**8.91 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**1050mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**1,050 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment

1:78	m+	Code	Observation Text	MPEG	Photo	Grade
4/2						
	0.00	STO	Start node, outfall, Nodename:, 4/2	00:00:00	4_1 - 4_2 Cell 1_c69eb7b	
	0.00	WLFC	Water flow at constant depth, clear water, 5-10%	00:00:26	4_1 - 4_2 Cell 1_6f95ff89	
	8.91	FHO	Finish node, outfall or culvert headwall, Nodename:, 4/1	00:02:14	4_1 - 4_2 Cell 1_3ea5e7	
4/1						

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	0	0.0	0.0	0.0	1

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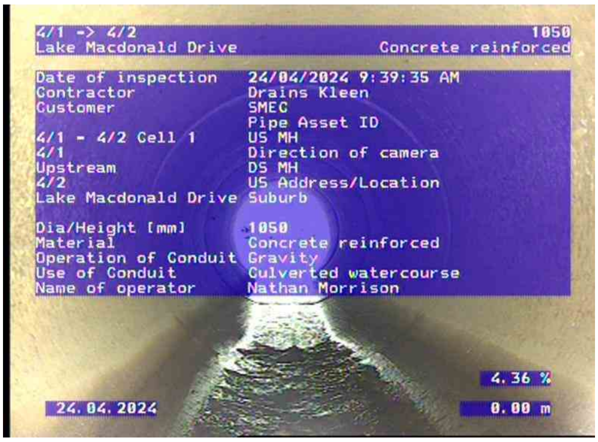
Section Pictures - 24/04/2024 - 4/1 - 4/2 Cell 1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**4/1 - 4/2 Cell 1**	**01**



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Start node, outfall, Nodename:, 4/2

4_1 - 4_2 Cell 1_6f95ff89-e45c-4f78-8709-0537e6c4e9f2_20240424_094005_448.jpg, 00:00:26, 0.00
Water flow at constant depth, clear water, 5-10%

4_1 - 4_2 Cell 1_3ea5e7df-6218-4776-8545-337a54757971_20240424_094220_035.jpg, 00:02:14, 8.91
Finish node, outfall or culvert headwall, Nodename:, 4/1

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Section Pictures - 24/04/2024 - 4/1 - 4/2 Cell 1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**4/1 - 4/2 Cell 1**	**01**

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Finish node, outfall or culvert headwall, Nodename:, 4/1

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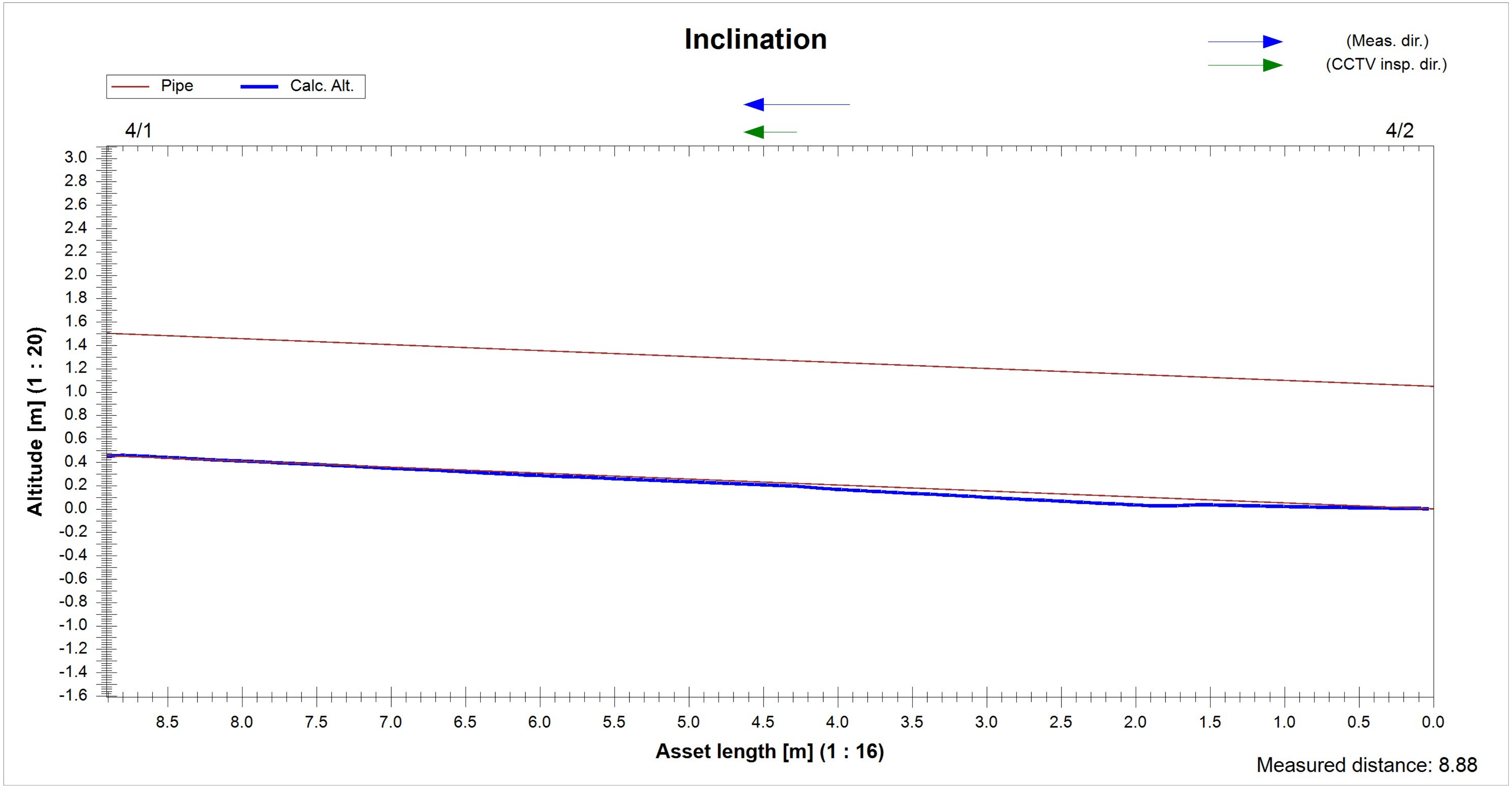
Section Inclination - 24/04/2024 - 4/1 - 4/2 Cell 1

Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
4/1 - 4/2 Cell 1	24/04/2024	9:39 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	8.88 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	1,050 mm	1,050 mm	4/1	4/2	0.000 m	0.453 m	-5.098 %



dRAINS kLEEN
18/24 Hoopers Road, Kunda Park Q 4556
Tel. 07 5370 9970
admin@drainskleen.com.au

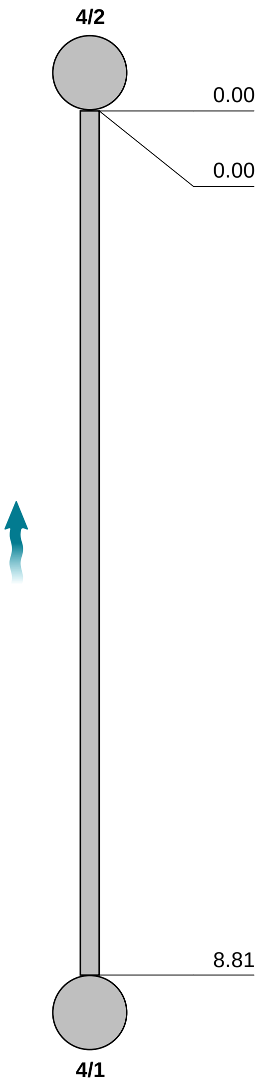
Section Inspection - 24/04/2024 - 4/1 - 4/2 Cell 2

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
24/04/2024	**9:47 AM**	**Not known**	**4/1 - 4/2 Cell 2**	**2**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**4/1**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**4/2**	Inspected Length [m]	**8.81 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**1050mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**1,050 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment

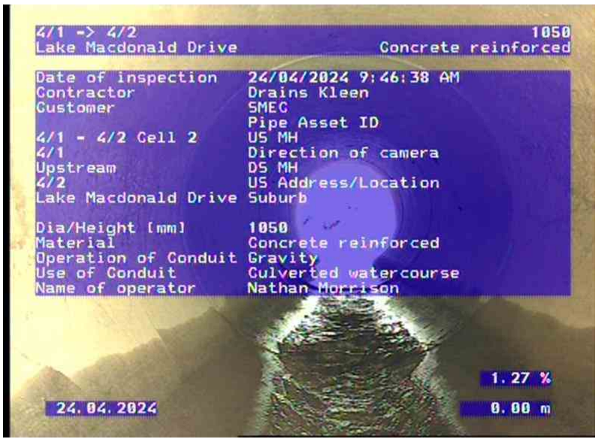


1:77	m+	Code	Observation Text	MPEG	Photo	Grade
	0.00	STO	Start node, outfall, Nodename:, 4/2	00:00:00	4_1 - 4_2 Cell 2_1fe43cc	
	0.00	WLFC	Water flow at constant depth, clear water, 5-10%	00:02:19	4_1 - 4_2 Cell 2_e55d97	
	8.81	FHO	Finish node, outfall or culvert headwall, Nodename:, 4/1	00:02:06	4_1 - 4_2 Cell 2_c844cb1	

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	0	0.0	0.0	0.0	1

Section Pictures - 24/04/2024 - 4/1 - 4/2 Cell 2

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**4/1 - 4/2 Cell 2**	**01**



4_1 - 4_2 Cell 2_1fe43cc9-2832-45f9-93bf-78ad820e8ff5_20240424_094751_150.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 4/2

4_1 - 4_2 Cell 2_bede4aa5-5651-4fa8-9f86-d1aff9e45858_20240424_094813_212.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 4/2

4_1 - 4_2 Cell 2_e55d978f-50f5-4c67-be36-7efd81cc6663_20240424_094806_225.jpg, 00:02:19, 0.00
Water flow at constant depth, clear water, 5-10%

4_1 - 4_2 Cell 2_c844cb11-5f29-4f25-ab18-430cc67b7112_20240424_095006_083.jpg, 00:02:06, 8.81
Finish node, outfall or culvert headwall, Nodename:, 4/1

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Section Pictures - 24/04/2024 - 4/1 - 4/2 Cell 2

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**4/1 - 4/2 Cell 2**	**01**

4_1 - 4_2 Cell 2_ea51bd68-376a-4215-b1be-d10920ef9117_20240424_095012_960.jpg, 00:02:06, 8.81
Finish node, outfall or culvert headwall, Nodename:, 4/1

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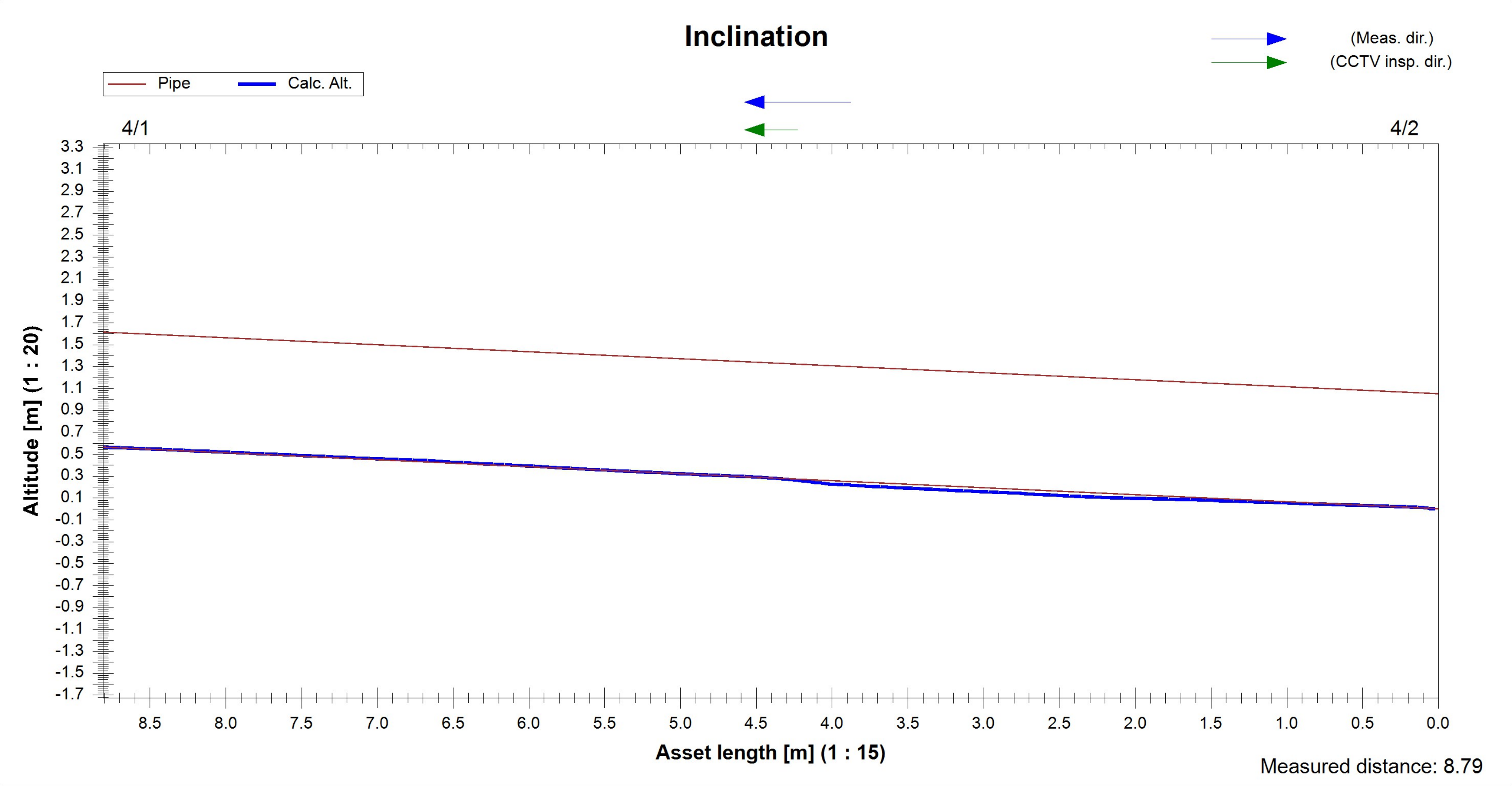
Section Inclination - 24/04/2024 - 4/1 - 4/2 Cell 2

Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
4/1 - 4/2 Cell 2	24/04/2024	9:47 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	8.79 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	1,050 mm	1,050 mm	4/1	4/2	0.000 m	0.562 m	-6.395 %



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Section Inspection - 24/04/2024 - 4/1 - 4/2 Cell 3

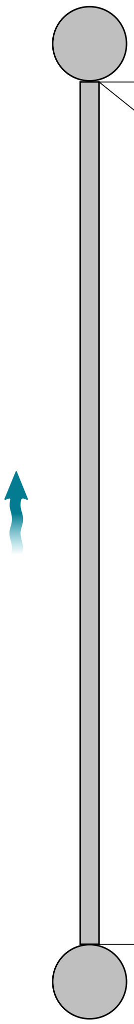
Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
24/04/2024	**9:59 AM**	**Not known**	**4/1 - 4/2 Cell 3**	**3**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**4/1**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**4/2**	Inspected Length [m]	**8.90 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**1050mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**1,050 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment

4/2



4/1

1:78	m+	Code	Observation Text	MPEG	Photo	Grade
	0.00	STO	Start node, outfall, Nodename:, 4/2	00:00:00	4_1 - 4_2 Cell 3_504602f	
	0.00	WLFC	Water flow at constant depth, clear water, 5-10%	00:00:02	4_1 - 4_2 Cell 3_3b7979	
	8.90	FHO	Finish node, outfall or culvert headwall, Nodename:, 4/1	00:01:59	4_1 - 4_2 Cell 3_6201f6d	

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	0	0.0	0.0	0.0	1

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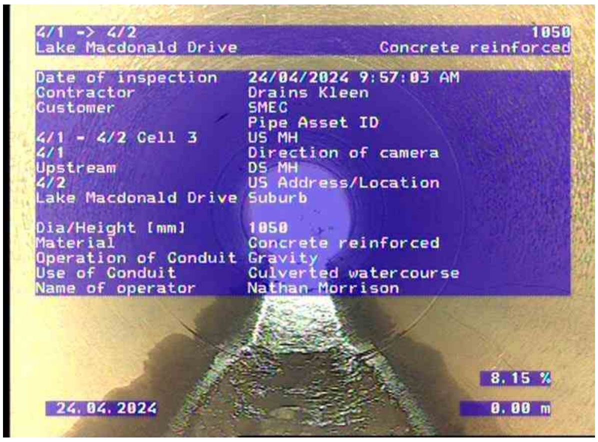
Section Pictures - 24/04/2024 - 4/1 - 4/2 Cell 3

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**4/1 - 4/2 Cell 3**	**01**



4_1 - 4_2 Cell 3_504602f2-ec77-4afe-b316-94b853c2ddcb_20240424_095941_050.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 4/2

4_1 - 4_2 Cell 3_422e5fee-57f5-4d31-b0d1-149f7b8521fa_20240424_100000_907.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 4/2

4_1 - 4_2 Cell 3_3b79792d-69dd-41a0-b4d9-bdcdc20e0baa_20240424_095954_164.jpg, 00:00:02, 0.00
Water flow at constant depth, clear water, 5-10%

4_1 - 4_2 Cell 3_6201f6dc-468c-4f89-9773-0a5f82df0d45_20240424_100150_845.jpg, 00:01:59, 8.90
Finish node, outfall or culvert headwall, Nodename:, 4/1

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Section Pictures - 24/04/2024 - 4/1 - 4/2 Cell 3

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**4/1 - 4/2 Cell 3**	**01**

4_1 - 4_2 Cell 3_576dcea7-81d5-4fa2-88b3-2f83c77c54dd_20240424_100158_742.jpg, 00:01:59, 8.90
Finish node, outfall or culvert headwall, Nodename:, 4/1

Section Inclination - 24/04/2024 - 4/1 - 4/2 Cell 3

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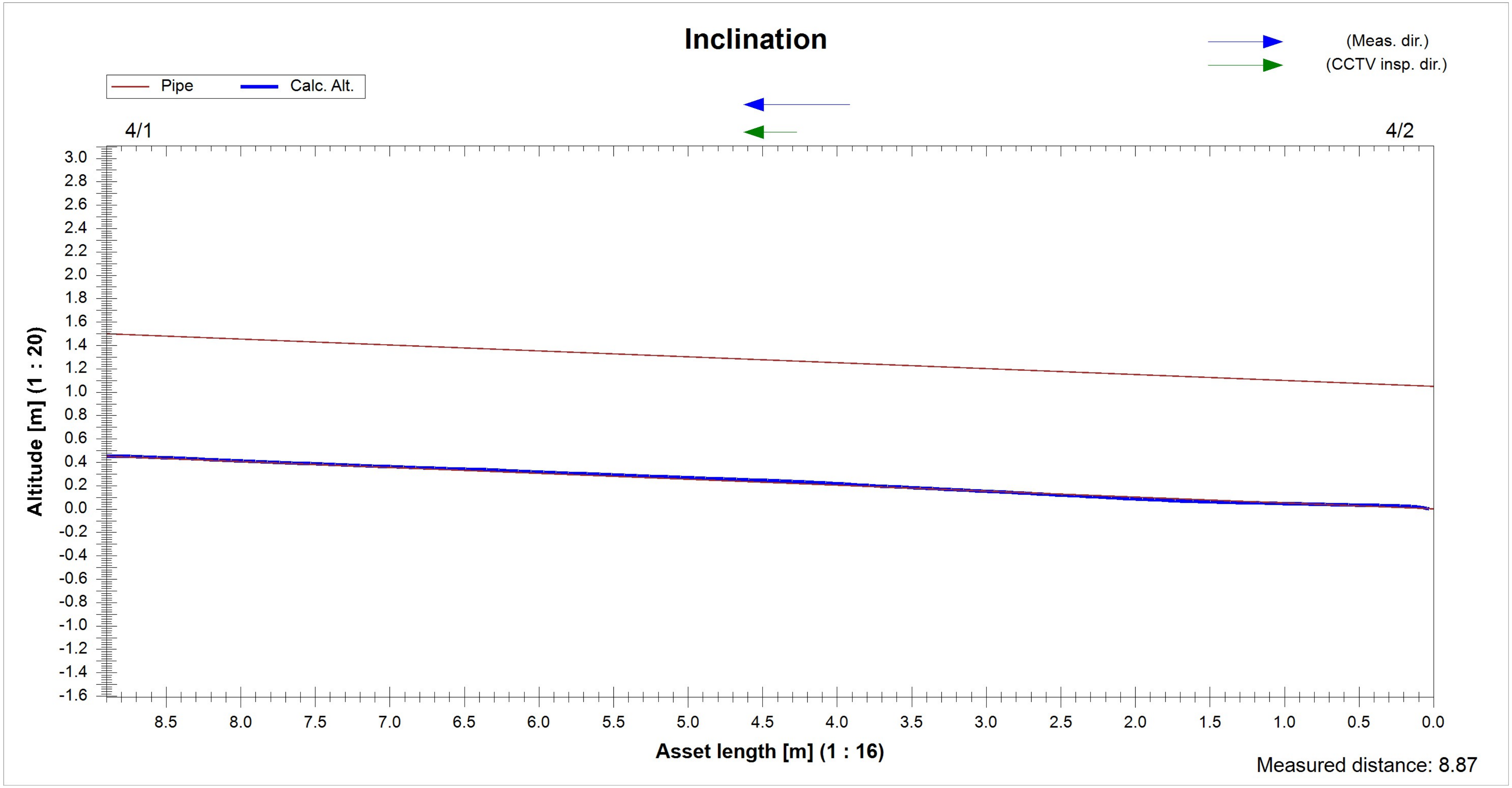
Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
4/1 - 4/2 Cell 3	24/04/2024	9:59 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	8.87 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	1,050 mm	1,050 mm	4/1	4/2	0.000 m	0.449 m	-5.059 %



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Section Inspection - 24/04/2024 - 3/1 - 3/2 - Cell 1

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
24/04/2024	**10:31 AM**	**Not known**	**3/1 - 3/2 - Cell 1**	**4**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**3/1**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**3/2**	Inspected Length [m]	**10.36 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**1050mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**1,050 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment

1:91	m+	Code	Observation Text	MPEG	Photo	Grade
3/2						
	0.00	STO	Start node, outfall, Nodename:, 3/2	00:00:00	3_1 - 3_2 - Cell 1_df9c479	
	0.00	WLFC	Water flow at constant depth, clear water, 25-30%	00:02:01	3_1 - 3_2 - Cell 1_ab481d	
	1.29	JDL	Joint displaced longitudinaly, 30mm	00:01:59	3_1 - 3_2 - Cell 1_f8be3da	1
	10.36	FHMS	Finish node, maintenance shaft, Nodename:, 3/1	00:05:06	3_1 - 3_2 - Cell 1_a45970	
3/1						

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	1	2.0	0.2	2.0	1

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Section Pictures - 24/04/2024 - 3/1 - 3/2 - Cell 1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**3/1 - 3/2 - Cell 1**	**01**

3_1 - 3_2 - Cell 1_df9c4794-3a3b-4113-b7ac-f9793832b84f_20240424_103106_663.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 3/2

3_1 - 3_2 - Cell 1_039adf28-21e0-40d8-ae8c-4a75cd2c48a2_20240424_103128_061.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 3/2

3_1 - 3_2 - Cell 1_ab481d91-d299-434b-a778-8ff6e3f17661_20240424_103121_417.jpg, 00:02:01, 0.00
Water flow at constant depth, clear water, 25-30%

3_1 - 3_2 - Cell 1_f8be3da5-eda9-4ccf-a533-3defc61499f9_20240424_103414_685.jpg, 00:01:59, 1.29
Joint displaced longitudinaly, 30mm

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Section Pictures - 24/04/2024 - 3/1 - 3/2 - Cell 1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**3/1 - 3/2 - Cell 1**	**01**

3_1 - 3_2 - Cell 1_2f84f8bc-1114-4e81-9b90-c08f8c10d849_20240424_103408_893.jpg, 00:01:59, 1.29
Joint displaced longitudinaly, 30mm

3_1 - 3_2 - Cell 1_a45970ec-97f6-4a0a-bca7-1176a6670dec_20240424_103744_437.jpg, 00:05:06, 10.36
Finish node, maintenance shaft, Nodename:, 3/1

3_1 - 3_2 - Cell 1_d1ed8beb-233b-4654-8358-00bf4b5eb269_20240424_103759_387.jpg, 00:05:06, 10.36
Finish node, maintenance shaft, Nodename:, 3/1

Section Inclination - 24/04/2024 - 3/1 - 3/2 - Cell 1

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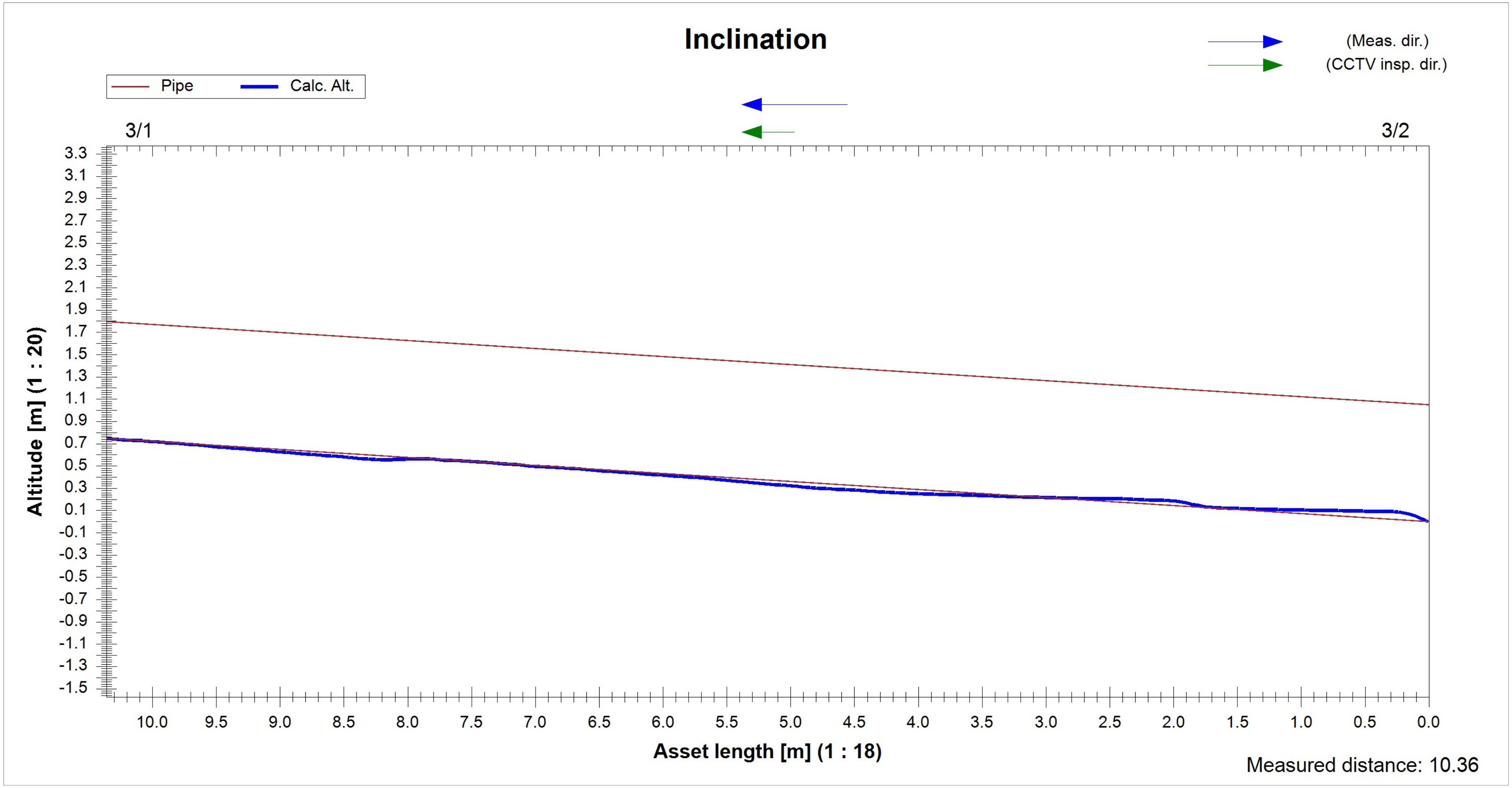
Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
3/1 - 3/2 - Cell 1	24/04/2024	10:31 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	10.36 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	1,050 mm	1,050 mm	3/1	3/2	0.000 m	0.745 m	-7.193 %



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Section Inspection - 24/04/2024 - 3/1 - 3/2 - Cell 2

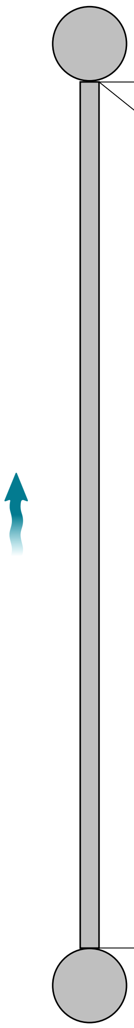
Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
24/04/2024	**10:41 AM**	**Not known**	**3/1 - 3/2 - Cell 2**	**5**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**3/1**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**3/2**	Inspected Length [m]	**10.19 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**1050mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**1,050 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment

1:89	m+	Code	Observation Text	MPEG	Photo	Grade
3/2						
	0.00	STO	Start node, outfall, Nodename:, 3/2	00:00:00	3_1 - 3_2 - Cell 2_0ba9a4	
	0.00	WLFC	Water flow at constant depth, clear water, 25-30%	00:05:10	3_1 - 3_2 - Cell 2_719351	
	10.19	FHO	Finish node, outfall or culvert headwall, Nodename:, 3/1	00:02:49	3_1 - 3_2 - Cell 2_269f589	
3/1						



STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	0	0.0	0.0	0.0	1

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Section Pictures - 24/04/2024 - 3/1 - 3/2 - Cell 2

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**3/1 - 3/2 - Cell 2**	**01**

3_1 - 3_2 - Cell 2_0ba9a478-6fd8-4049-b6b4-21e8cf5a3460_20240424_104119_363.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 3/2

3_1 - 3_2 - Cell 2_3e0cd378-1d7d-4aad-a996-888887e9f4d6_20240424_104144_625.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 3/2

3_1 - 3_2 - Cell 2_71935116-06d8-4d1f-a8dd-5544854fd5aa_20240424_104139_033.jpg, 00:05:10, 0.00
Water flow at constant depth, clear water, 25-30%

3_1 - 3_2 - Cell 2_269f589e-1a88-48eb-b3f9-9a544e0b6942_20240424_104643_450.jpg, 00:02:49, 10.19
Finish node, outfall or culvert headwall, Nodename:, 3/1

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Section Pictures - 24/04/2024 - 3/1 - 3/2 - Cell 2

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**3/1 - 3/2 - Cell 2**	**01**

3_1 - 3_2 - Cell 2_1804c0d9-0605-4d9e-a3de-5fe80ce37c4c_20240424_104652_117.jpg, 00:02:49, 10.19
Finish node, outfall or culvert headwall, Nodename:, 3/1

Section Inclination - 24/04/2024 - 3/1 - 3/2 - Cell 2

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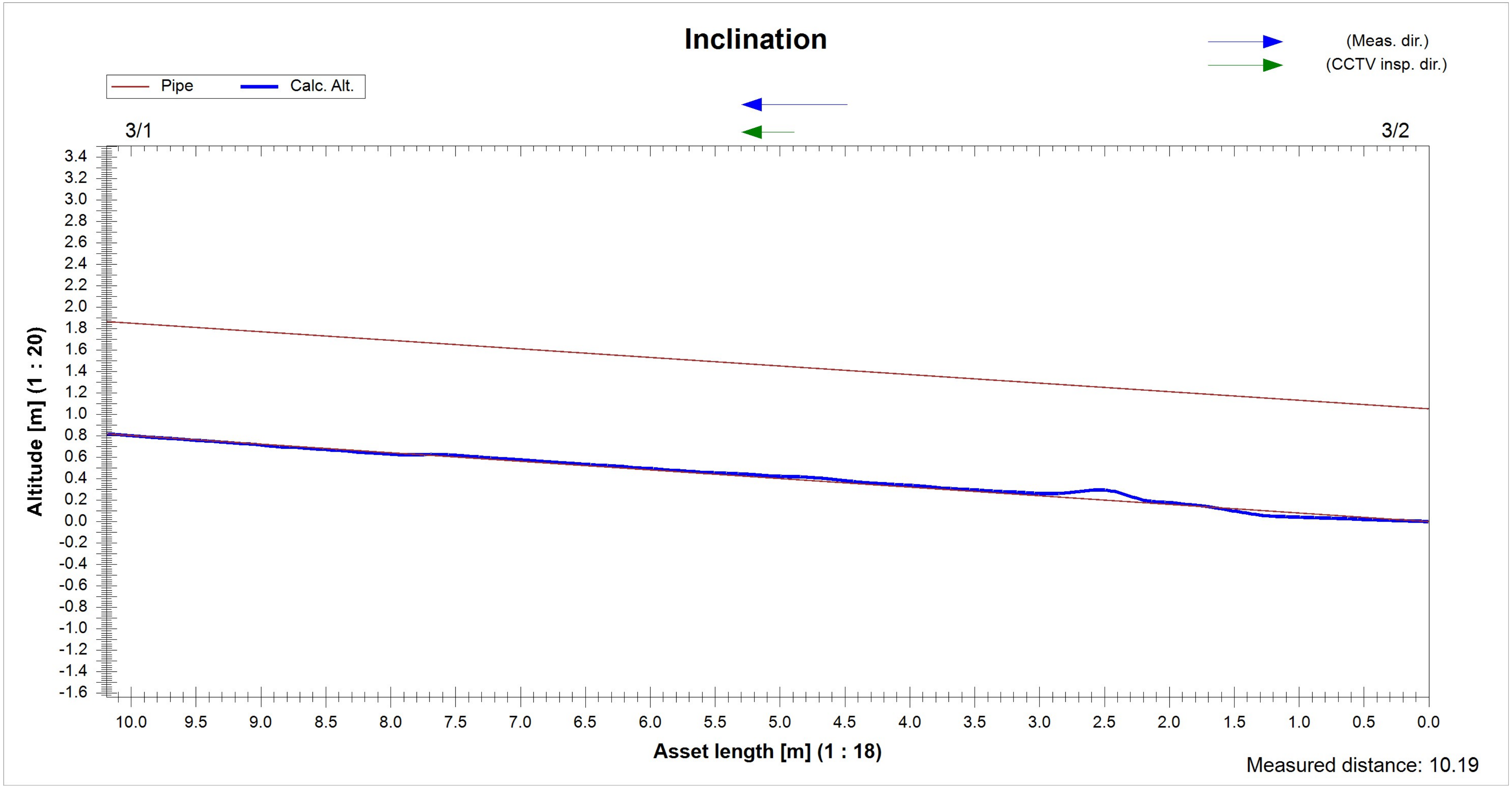
Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
3/1 - 3/2 - Cell 2	24/04/2024	10:41 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	10.19 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	1,050 mm	1,050 mm	3/1	3/2	0.000 m	0.817 m	-8.016 %



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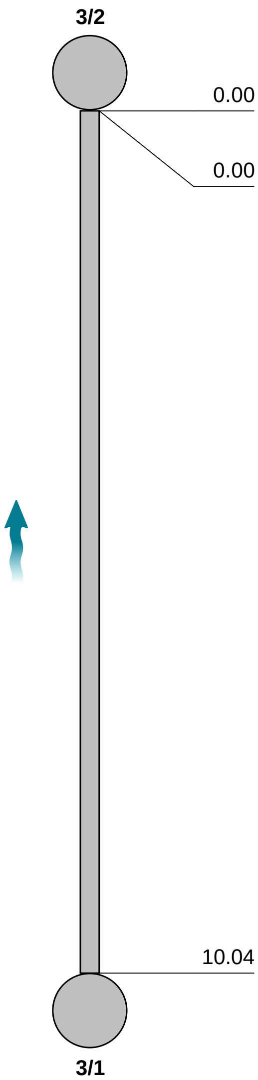
Section Inspection - 24/04/2024 - 3/1 - 3/2 - Cell 3

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
24/04/2024	**10:53 AM**	**Not known**	**3/1 - 3/2 - Cell 3**	**6**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**3/1**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**3/2**	Inspected Length [m]	**10.04 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**1050mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**1,050 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment



1:88	m+	Code	Observation Text	MPEG	Photo	Grade
	0.00	STO	Start node, outfall, Nodename:, 3/2	00:00:00	3_1 - 3_2 - Cell 3_245f649	
	0.00	WLFC	Water flow at constant depth, clear water, 25-30%	00:02:51	3_1 - 3_2 - Cell 3_615ffff4-	
	10.04	FHO	Finish node, outfall or culvert headwall, Nodename:, 3/1	00:02:54	3_1 - 3_2 - Cell 3_ff04e12	

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	0	0.0	0.0	0.0	1

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Section Pictures - 24/04/2024 - 3/1 - 3/2 - Cell 3

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**3/1 - 3/2 - Cell 3**	**01**

3_1 - 3_2 - Cell 3_245f6496-0b32-46f3-a121-4ea2089243bf_20240424_105351_214.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 3/2

3_1 - 3_2 - Cell 3_a69dfb98-e9a9-4111-9e46-cf77ce8c35eb_20240424_105415_983.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 3/2

3_1 - 3_2 - Cell 3_615ffff4-1fd9-43ac-b5ff-f5e7569a0583_20240424_105409_850.jpg, 00:02:51, 0.00
Water flow at constant depth, clear water, 25-30%

3_1 - 3_2 - Cell 3_ff04e121-eedc-4ef8-a133-ca8a44ba08b2_20240424_105700_116.jpg, 00:02:54, 10.04
Finish node, outfall or culvert headwall, Nodename:, 3/1

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Section Pictures - 24/04/2024 - 3/1 - 3/2 - Cell 3

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**3/1 - 3/2 - Cell 3**	**01**

3_1 - 3_2 - Cell 3_cf0c07ba-8c6a-46c2-827a-89e4587fb964_20240424_105801_039.jpg, 00:02:54, 10.04
Finish node, outfall or culvert headwall, Nodename:, 3/1

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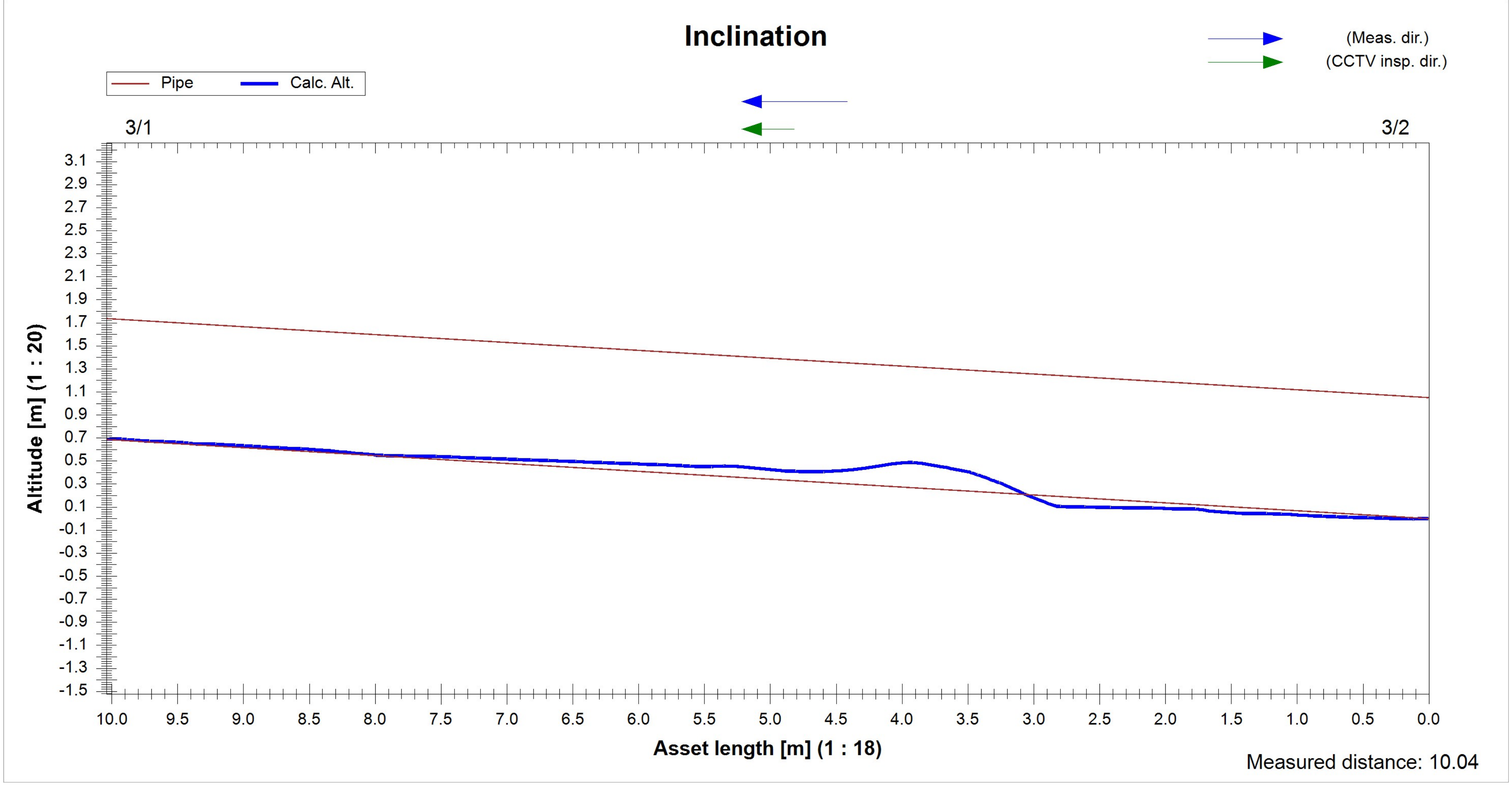
Section Inclination - 24/04/2024 - 3/1 - 3/2 - Cell 3

Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
3/1 - 3/2 - Cell 3	24/04/2024	10:53 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	10.04 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	1,050 mm	1,050 mm	3/1	3/2	0.000 m	0.687 m	-6.846 %



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Section Inspection - 24/04/2024 - 2/1 - 2/2 Cell 3

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
24/04/2024	**11:41 AM**	**Not known**	**2/1 - 2/2 Cell 3**	**7**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**2/1**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Downstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**2/2**	Inspected Length [m]	**39.09 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**1050mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**1,050 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment

1:340	m+	Code	Observation Text	MPEG	Photo	Grade
2/1						
	0.00	STO	Start node, outfall, Nodename:, 2/1	00:00:00	2_1 - 2_2 Cell 3_000855	
	0.00	WLN	No water flow	00:02:56	2_1 - 2_2 Cell 3_a75225	
	39.09	FHO	Finish node, outfall or culvert headwall, Nodename:, 2/2	00:07:18	2_1 - 2_2 Cell 3_80a4a4	
2/2						

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	0	0.0	0.0	0.0	1

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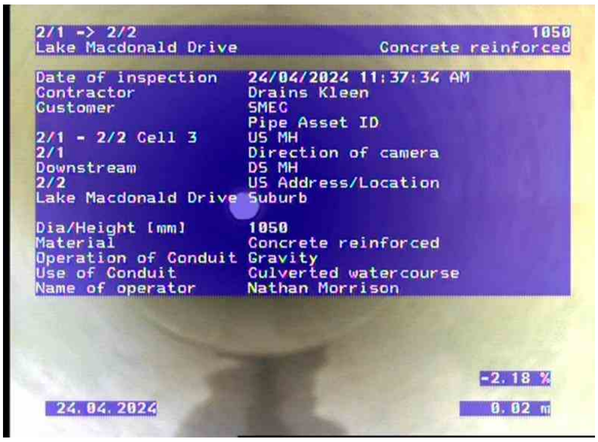
Section Pictures - 24/04/2024 - 2/1 - 2/2 Cell 3

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**2/1 - 2/2 Cell 3**	**01**



2_1 - 2_2 Cell 3_0008559f-db03-467b-ba0b-8e16a5e9c837_20240424_114113_771.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 2/1

2_1 - 2_2 Cell 3_72ac2262-c176-418e-8dd9-36ee645c996b_20240424_114137_278.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 2/1

2_1 - 2_2 Cell 3_a752255d-f454-4d6d-b0c6-c04c6ebcb8f4_20240424_114127_778.jpg, 00:02:56, 0.00
No water flow

2_1 - 2_2 Cell 3_80a4a4d2-9d31-41c0-bd17-d7a7cca1e8c8_20240424_114842_412.jpg, 00:07:18, 39.09
Finish node, outfall or culvert headwall, Nodename:, 2/2

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Section Pictures - 24/04/2024 - 2/1 - 2/2 Cell 3

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**2/1 - 2/2 Cell 3**	**01**

2_1 - 2_2 Cell 3_1c1cb582-7f6d-4580-a8de-7c1c029199d5_20240424_114849_642.jpg, 00:07:18, 39.09
Finish node, outfall or culvert headwall, Nodename:, 2/2

Section Inclination - 24/04/2024 - 2/1 - 2/2 Cell 3

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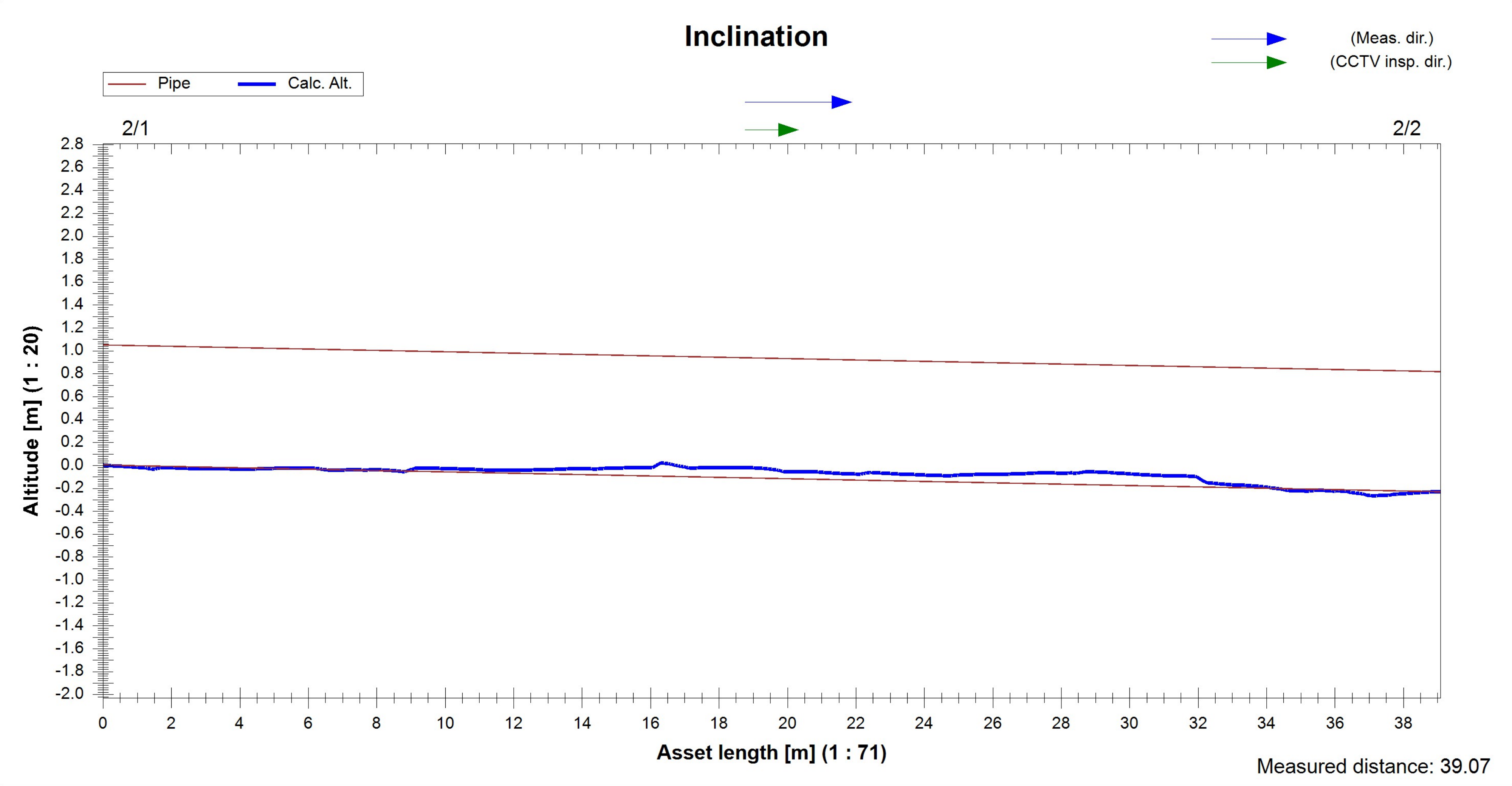
Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
2/1 - 2/2 Cell 3	24/04/2024	11:41 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Downstream	39.07 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	1,050 mm	1,050 mm	2/1	2/2	0.000 m	-0.232 m	-0.593 %



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Section Inspection - 24/04/2024 - 2/1 - 2/2 Cell 2

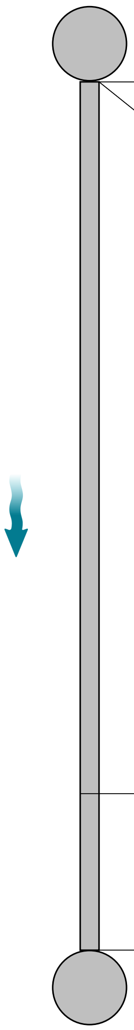
Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
24/04/2024	**11:57 AM**	**Not known**	**2/1 - 2/2 Cell 2**	**8**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**2/1**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Downstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**2/2**	Inspected Length [m]	**38.86 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**1050mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**1,050 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment

2/1



2/2

1:338	m+	Code	Observation Text	MPEG	Photo	Grade
	0.00	STO	Start node, outfall, Nodename:, 2/1	00:00:00	2_1 - 2_2 Cell 2_905127	
	0.00	WLN	No water flow	00:07:21	2_1 - 2_2 Cell 2_89b86f4	
	31.85	CC	Circumferential cracking, width: 3mm from 11 o'clock to 1 o'clock	00:05:52	2_1 - 2_2 Cell 2_85ac084	2
	38.86	FHO	Finish node, outfall or culvert headwall, Nodename:, 2/2	00:07:43	2_1 - 2_2 Cell 2_8e924e	

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	5.0	0.1	5.0	2	0	0.0	0.0	0.0	1

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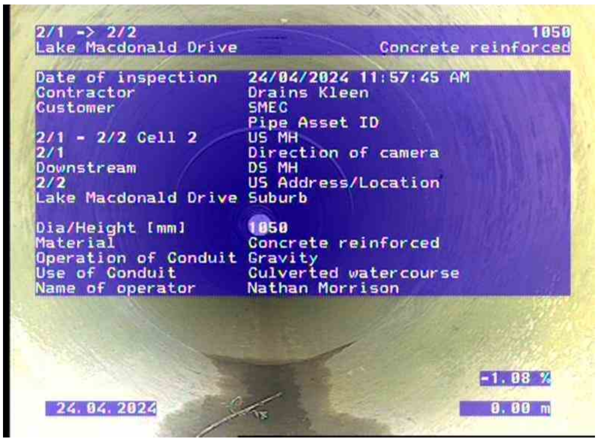
Section Pictures - 24/04/2024 - 2/1 - 2/2 Cell 2

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**2/1 - 2/2 Cell 2**	**01**



2_1 - 2_2 Cell 2_9051278f-8802-491a-b56c-18220a4a34d2_20240424_115751_079.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 2/1

2_1 - 2_2 Cell 2_c32c7fbb-b23a-4601-9b22-3c8a486c6525_20240424_115811_312.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 2/1

2_1 - 2_2 Cell 2_89b86f4b-22f9-42e9-b804-ccacaa5acc33_20240424_115803_081.jpg, 00:07:21, 0.00
No water flow

2_1 - 2_2 Cell 2_85ac0849-cb47-4ceb-a2f5-b8a0598a1dc4_20240424_120524_504.jpg, 00:05:52, 31.85
Circumferential cracking, width: 3mm from 11 o'clock to 1 o'clock

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Section Pictures - 24/04/2024 - 2/1 - 2/2 Cell 2

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**2/1 - 2/2 Cell 2**	**01**

2_1 - 2_2 Cell
2_bba9656c-f1a2-4805-add4-5486ef99945f_20240424_12054
2_123.jpg, 00:05:52, 31.85
Circumferential cracking, width: 3mm from 11 o'clock to 1 o'clock

2_1 - 2_2 Cell
2_8e924e5a-ca61-473f-a9c9-19484fa48435_20240424_1206
58_788.jpg, 00:07:43, 38.86
Finish node, outfall or culvert headwall, Nodename:, 2/2

2_1 - 2_2 Cell
2_000b3c67-19b6-43c3-b7e8-8d1f7171a040_20240424_1207
05_321.jpg, 00:07:43, 38.86
Finish node, outfall or culvert headwall, Nodename:, 2/2

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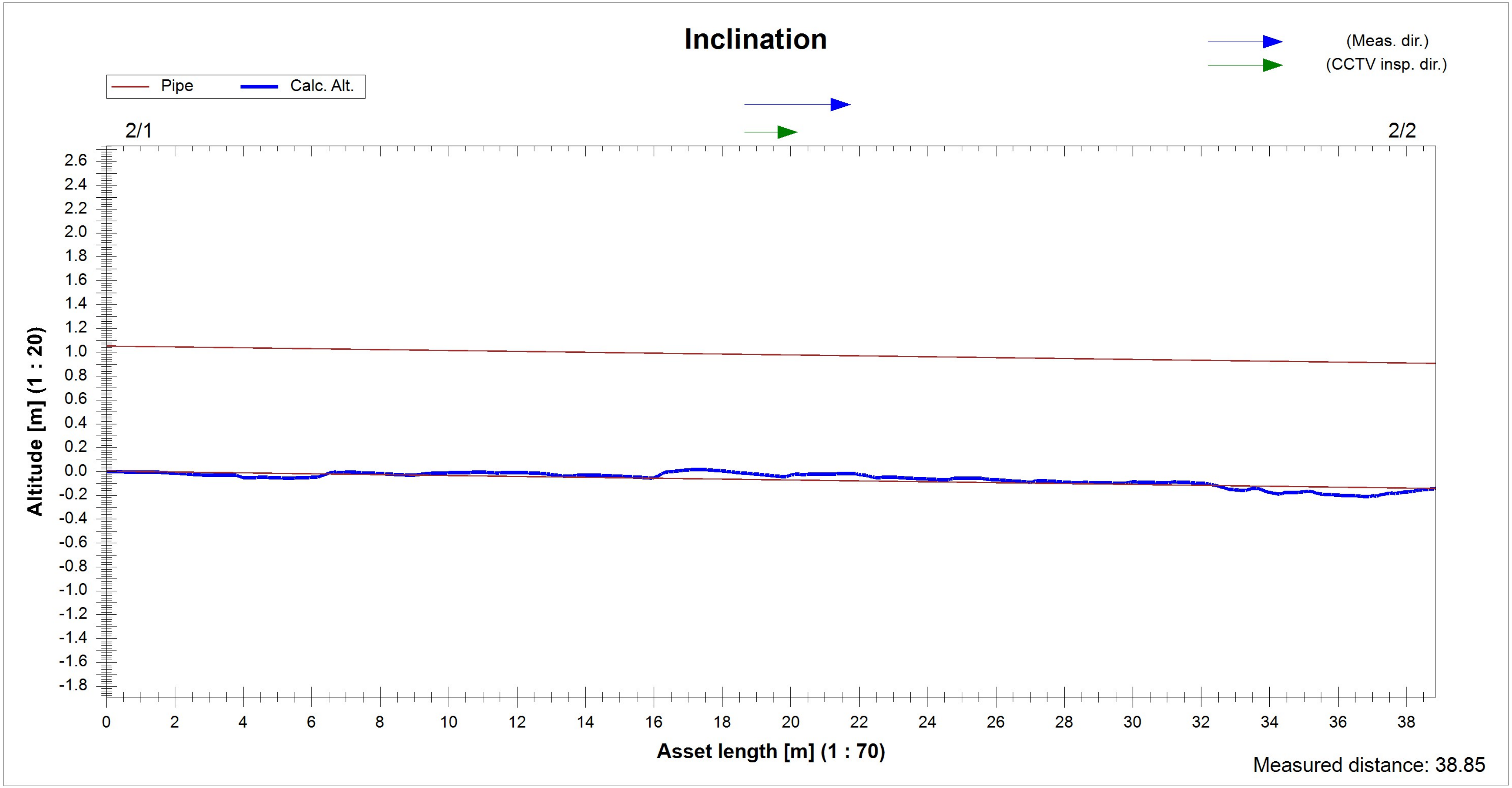
Section Inclination - 24/04/2024 - 2/1 - 2/2 Cell 2

Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
2/1 - 2/2 Cell 2	24/04/2024	11:57 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Downstream	38.85 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	1,050 mm	1,050 mm	2/1	2/2	0.000 m	-0.145 m	-0.373 %



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Section Inspection - 24/04/2024 - 2/1 - 2/2 Cell1

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
24/04/2024	**12:26 PM**	**Not known**	**2/1 - 2/2 Cell1**	**9**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**2/1**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Downstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**2/2**	Inspected Length [m]	**38.78 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**1050mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**1,050 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment

1:338	m+	Code	Observation Text	MPEG	Photo	Grade
2/1						
	0.00	WLFC	Water flow at constant depth, clear water, 10-15%	00:00:00	2_1 - 2_2 Cell1_67a442ab-600	
	0.00	STO	Start node, outfall, Nodename:, 2/1	00:00:56	2_1 - 2_2 Cell1_fa552026-e66b	
	38.78	FHO	Finish node, outfall or culvert headwall, Nodename:, 2/2	00:05:14	2_1 - 2_2 Cell1_23707fb3-e4d	
2/2						

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	0	0.0	0.0	0.0	1

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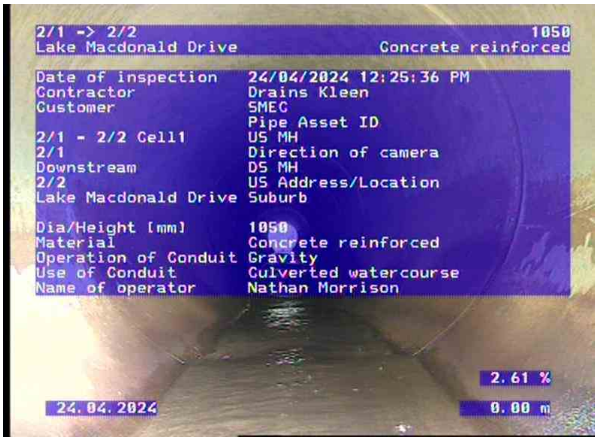
Section Pictures - 24/04/2024 - 2/1 - 2/2 Cell1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**2/1 - 2/2 Cell1**	**01**

2_1 - 2_2
Cell1_67a442ab-600e-46d0-aa91-bdb9339e0bdd_20240424_122617_396.jpg, 00:00:00, 0.00
Water flow at constant depth, clear water, 10-15%



2_1 - 2_2
Cell1_fa552026-e66b-4508-87f4-c0717d419d28_20240424_122602_547.jpg, 00:00:56, 0.00
Start node, outfall, Nodename:, 2/1

2_1 - 2_2
Cell1_759bd580-af9a-4eef-a8a6-0e71e96bf144_20240424_122626_576.jpg, 00:00:56, 0.00
Start node, outfall, Nodename:, 2/1

2_1 - 2_2
Cell1_23707fb3-e4d3-4047-b352-7b3b6f19f1ca_20240424_123137_225.jpg, 00:05:14, 38.78
Finish node, outfall or culvert headwall, Nodename:, 2/2

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Section Pictures - 24/04/2024 - 2/1 - 2/2 Cell1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**24/04/2024**	**2/1 - 2/2 Cell1**	**01**

2_1 - 2_2
Cell1_55737fda-f347-466c-94b3-96f3b8b963b7_20240424_12
3146_482.jpg, 00:05:14, 38.78
Finish node, outfall or culvert headwall, Nodename:, 2/2

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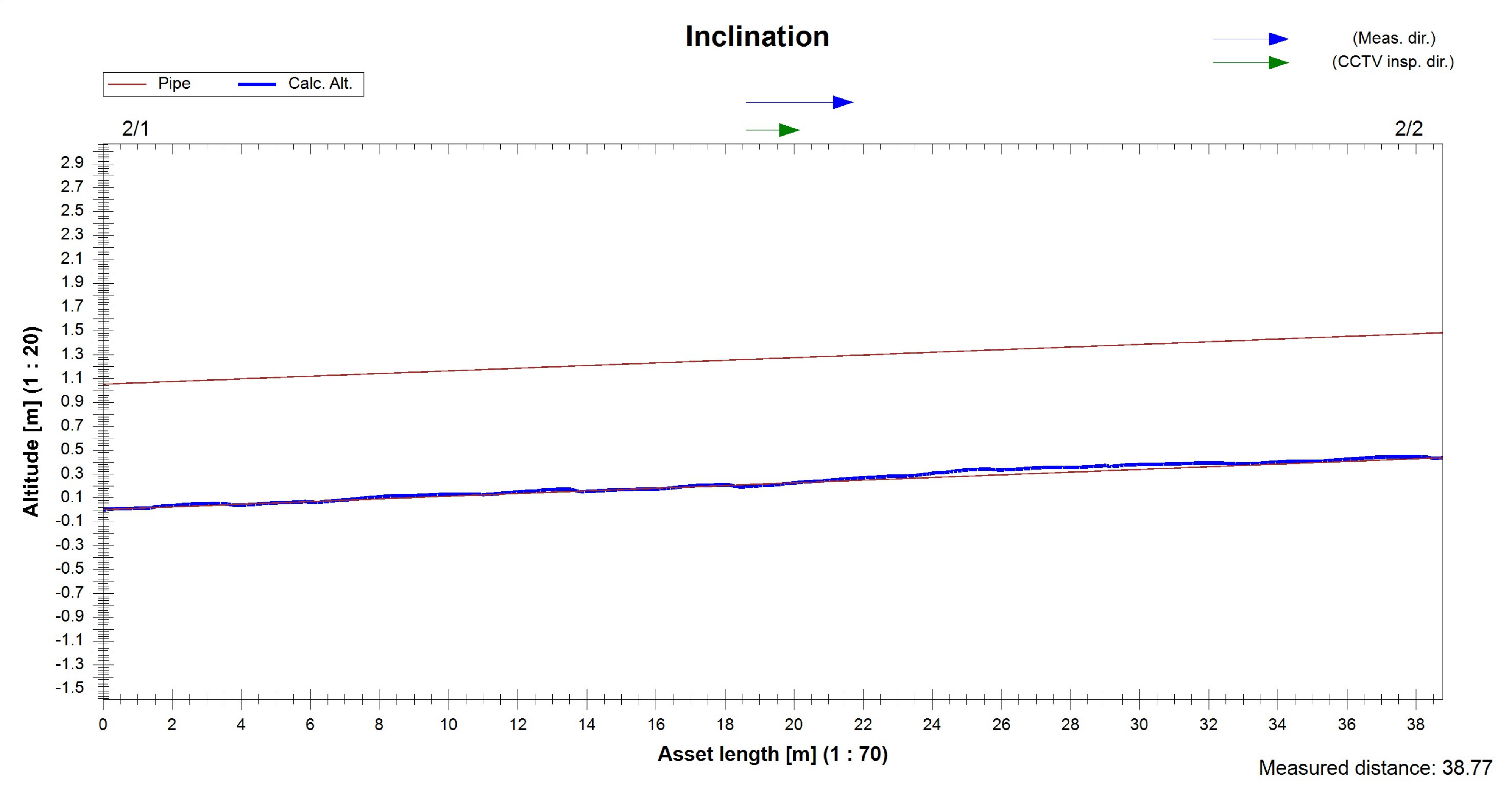
Section Inclination - 24/04/2024 - 2/1 - 2/2 Cell1

Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
2/1 - 2/2 Cell1	24/04/2024	12:26 PM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Downstream	38.77 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	1,050 mm	1,050 mm	2/1	2/2	0.000 m	0.435 m	1.121 %



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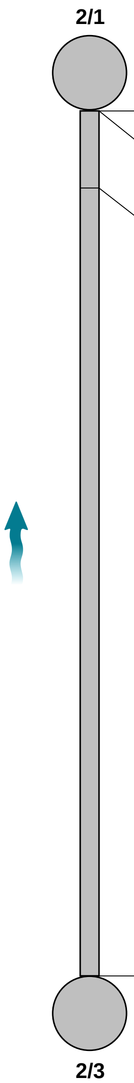
Section Inspection - 26/04/2024 - 2/3 - 2/1

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
26/04/2024	**7:07 AM**	**Not known**	**2/3 - 2/1**	**10**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**2/3**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**2/1**	Inspected Length [m]	**17.17 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**600mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**600 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment



1:150	m+	Code	Observation Text	MPEG	Photo	Grade
	0.00	STO	Start node, outfall, Nodename:, 2/3	00:00:00	2_1 - 2_3_383b 100a-81a9	
	0.00	WLFC	Water flow at constant depth, clear water, 5-10%	00:00:00		
	1.54	JDSZ	Defective seal joint, other defect from 11 o'clock to 1 o'clock, 10 / Ruber ring intruding	00:01:47	2_1 - 2_3_738b b45b-ae57	
	17.17	FHMH	Finish node, maintenance hole, Nodename:, 2/1	00:04:35	2_1 - 2_3_0a8b e152-dc59	

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	0	0.0	0.0	0.0	1

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Section Pictures - 26/04/2024 - 2/3 - 2/1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**2/3 - 2/1**	**01**

2_1 -
2_3_383b100a-81a9-4cdd-9320-4255eae387b2_20240426_070756_691.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 2/3

2_1 -
2_3_738bb45b-ae57-49dd-99ef-64ae6b56c4e2_20240426_071136_769.jpg, 00:01:47, 1.54
Defective seal joint, other defect from 11 o'clock to 1 o'clock, 10 / Ruber ring intruding

2_1 -
2_3_203cc5ac-d298-46ae-9246-7047cce1013e_20240426_071151_107.jpg, 00:01:47, 1.54
Defective seal joint, other defect from 11 o'clock to 1 o'clock, 10 / Ruber ring intruding

2_1 -
2_3_0a8be152-dc59-4d24-8dd8-5f1c43c2d0cb_20240426_071435_748.jpg, 00:04:35, 17.17
Finish node, maintenance hole, Nodename:, 2/1

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Section Pictures - 26/04/2024 - 2/3 - 2/1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**2/3 - 2/1**	**01**

2_1 -
2_3_6964741c-4e9e-4ea5-a89e-e86c670c41b5_20240426_071442_017.jpg, 00:04:35, 17.17
Finish node, maintenance hole, Nodename:, 2/1

Section Inclination - 26/04/2024 - 2/3 - 2/1

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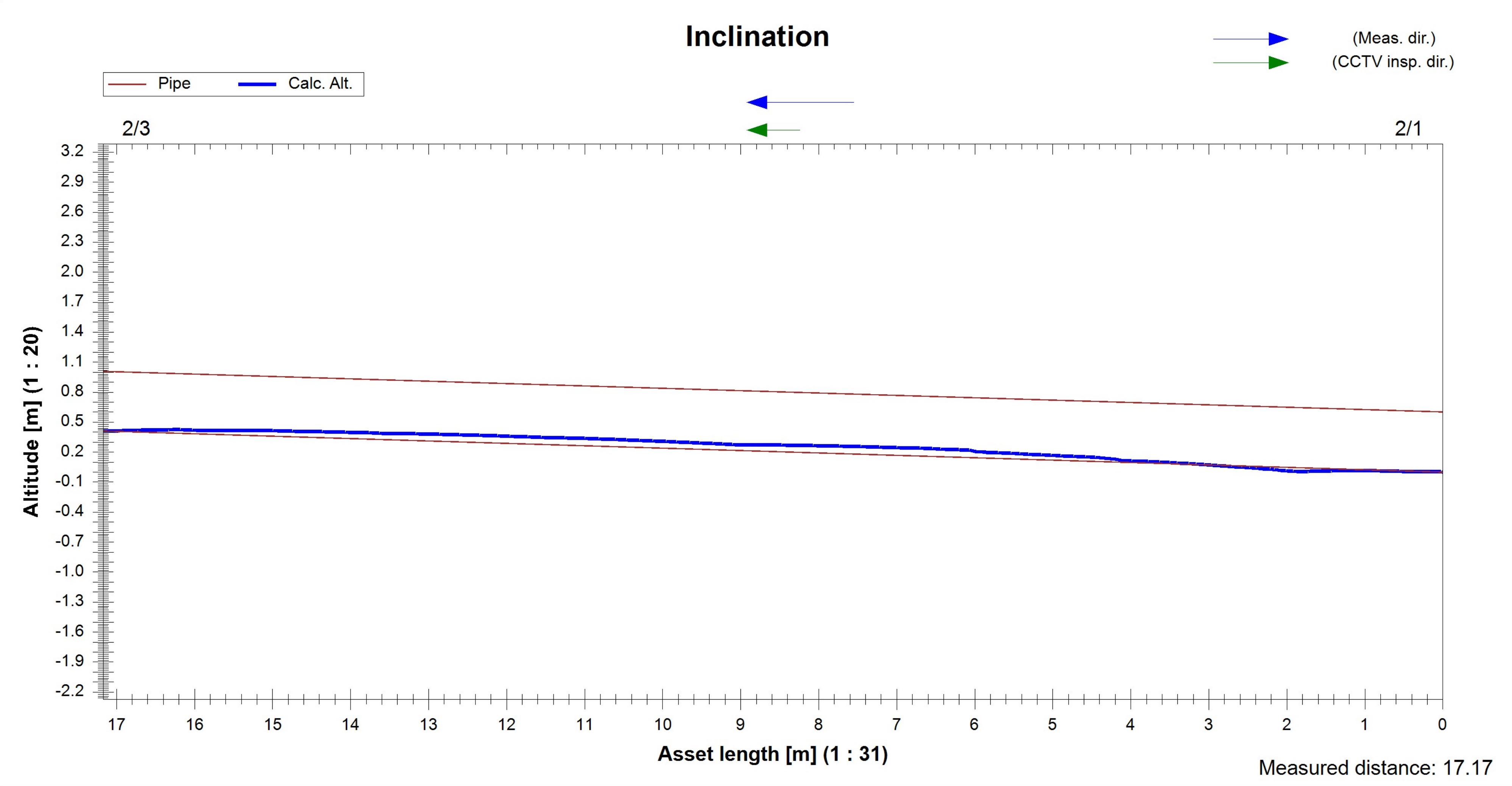
Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
2/3 - 2/1	26/04/2024	7:07 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	17.17 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	600 mm	600 mm	2/3	2/1	0.000 m	0.407 m	-2.372 %



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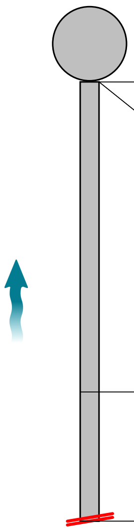
Section Inspection - 26/04/2024 - 2/4 - 2/1

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
26/04/2024	**7:54 AM**	**Not known**	**2/4 - 2/1**	**11**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**2/4**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**2/1**	Inspected Length [m]	**2.91 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**750mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**750 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment



1:50	m+	Code	Observation Text	MPEG	Photo	Grade
2/1						
	0.00	STO	Start node, outfall, Nodename:, 2/1	00:00:00	2_4 - 2_1_2562f e9f-b6b7-4	
	0.00	WLN	No water flow	00:04:40	2_4 - 2_1_fa9f0 cda-13c1-	
	2.05	OBM	Obstruction, a fragment of conduit material is lying in the invert, Obstruction: 30% from 4 o'clock to 8 o'clock	00:01:02	2_4 - 2_1_7496 85e2-404d	4
	2.91	SAOB	Inspection (survey) abandoned, obstruction / Debris that can potentially roll the camera.	00:00:00	2_4 - 2_1_1735c e5b-3327-	

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	1	40.0	13.8	40.0	5

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Section Pictures - 26/04/2024 - 2/4 - 2/1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**2/4 - 2/1**	**01**

2_4 -
2_1_2562fe9f-b6b7-42c6-88dd-a6927e20f78c_20240426_074215_425.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 2/1

2_4 -
2_1_9b73907b-2aa5-4d59-9a0e-79835fbfd845_20240426_074242_784.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 2/1

2_4 -
2_1_fa9f0cda-13c1-4f25-9121-261339ab7785_20240426_074232_782.jpg, 00:04:40, 0.00
No water flow

2_4 -
2_1_749685e2-404d-48d9-8fb2-240d9fb93eb5_20240426_075604_491.jpg, 00:01:02, 2.05
Obstruction, a fragment of conduit material is lying in the invert, Obstruction: 30% from 4 o'clock to 8 o'clock

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Section Pictures - 26/04/2024 - 2/4 - 2/1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**2/4 - 2/1**	**01**

2_4 - 2_1_1735ce5b-3327-4d9d-8c58-74e402fbfbf2_20240426_075813_323.jpg, 00:00:00, 2.91
Inspection (survey) abandoned, obstruction / Debris that can potentially roll the camera.

2_4 - 2_1_6563917a-7d79-4a84-a4e5-60ca6bdb787b_20240426_075823_323.jpg, 00:00:00, 2.91
Inspection (survey) abandoned, obstruction / Debris that can potentially roll the camera.

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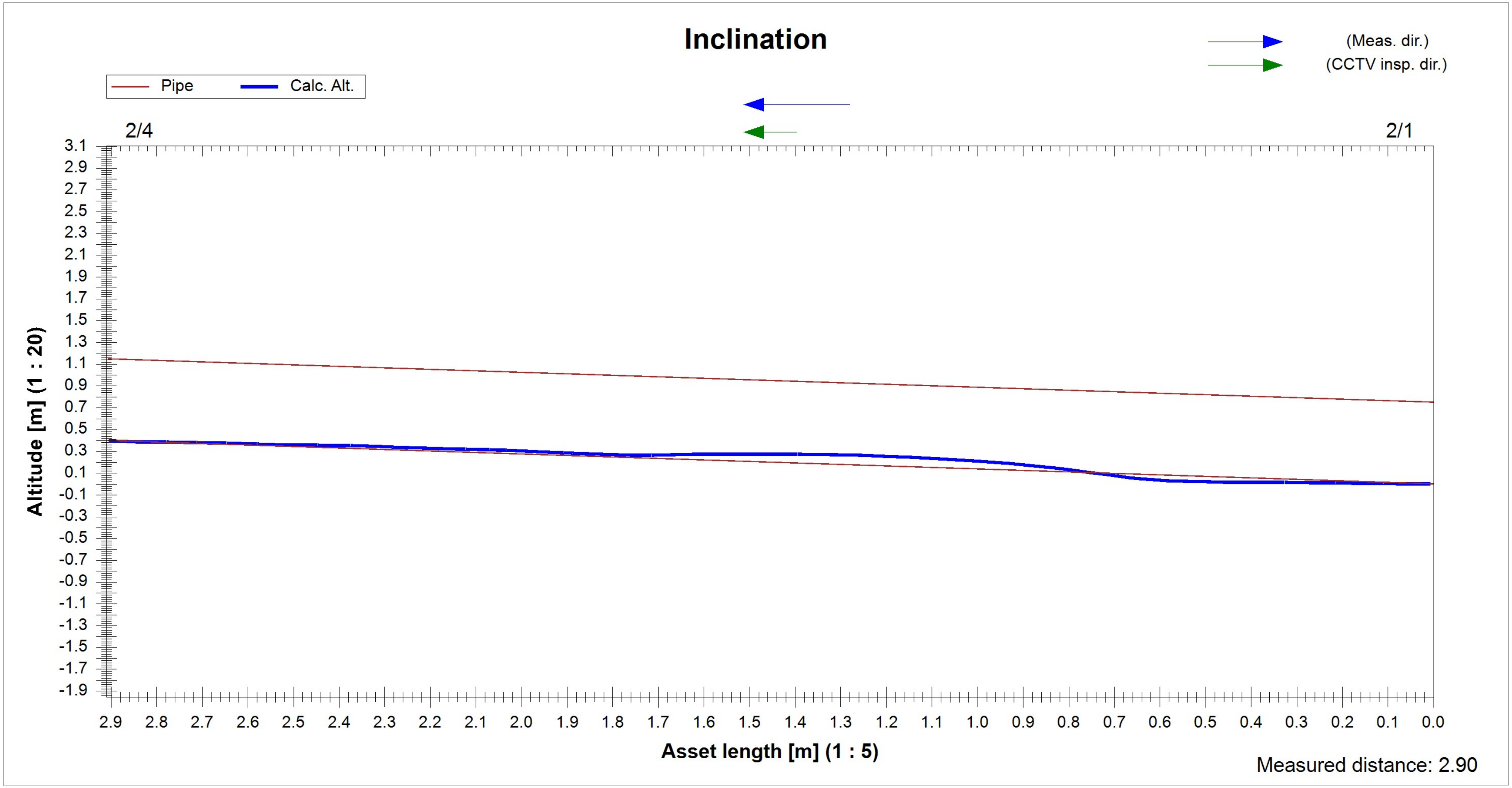
Section Inclination - 26/04/2024 - 2/4 - 2/1

Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
2/4 - 2/1	26/04/2024	7:54 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	2.90 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	750 mm	750 mm	2/4	2/1	0.000 m	0.396 m	-13.670 %



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Section Inspection - 26/04/2024 - 5/1 - 5/2

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
26/04/2024	**8:40 AM**	**Not known**	**5/1 - 5/2**	**12**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**5/1**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**5/2**	Inspected Length [m]	**15.98 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**375mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**375 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Polypropylene**	Flow control	**No measures taken**

General comment

1:139	m+	Code	Observation Text	MPEG	Photo	Grade
5/2						
	0.00	STO	Start node, outfall, Nodename:, 5/2	00:00:00	26_04_2024 8_22_52	
	0.00	WLN	No water flow	00:00:28	26_04_2024 8_22_52	
	15.98	OBM	Obstruction, a fragment of conduit material is lying in the invert, Obstruction: 90% from 12 o'clock to 12 o'clock	00:03:27	26_04_2024 8_22_52	5
	15.98	SAD	Inspection (survey) abandoned, Debris	00:03:38	26_04_2024 8_22_52	

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	1	80.0	5.0	80.0	5

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Section Pictures - 26/04/2024 - 5/1 - 5/2

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**5/1 - 5/2**	**01**

26_04_2024 8_22_52 AM_be95ee8e-566c-466d-9593-f3167932561f_20240426_084045_312.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 5/2

26_04_2024 8_22_52 AM_9a606db8-f2cb-42eb-96d4-b6e76ee27170_20240426_084136_610.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 5/2

26_04_2024 8_22_52 AM_bae828b9-1f93-46bb-9f45-17c287996867_20240426_084118_649.jpg, 00:00:28, 0.00
No water flow

26_04_2024 8_22_52 AM_851956f6-66e5-4728-80f1-8926bc59381a_20240426_084523_234.jpg, 00:03:27, 15.98
Obstruction, a fragment of conduit material is lying in the invert, Obstruction: 90% from 12 o'clock to 12 o'clock

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Section Pictures - 26/04/2024 - 5/1 - 5/2

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**5/1 - 5/2**	**01**

26_04_2024 8_22_52 AM_c272ed5b-279c-47be-b4bc-64129c27f82b_20240426_084550_659.jpg, 00:03:38, 15.98
Inspection (survey) abandoned, Debris

26_04_2024 8_22_52 AM_dda51199-5855-4b17-9a32-fb9081e8b465_20240426_084609_246.jpg, 00:03:38, 15.98
Inspection (survey) abandoned, Debris

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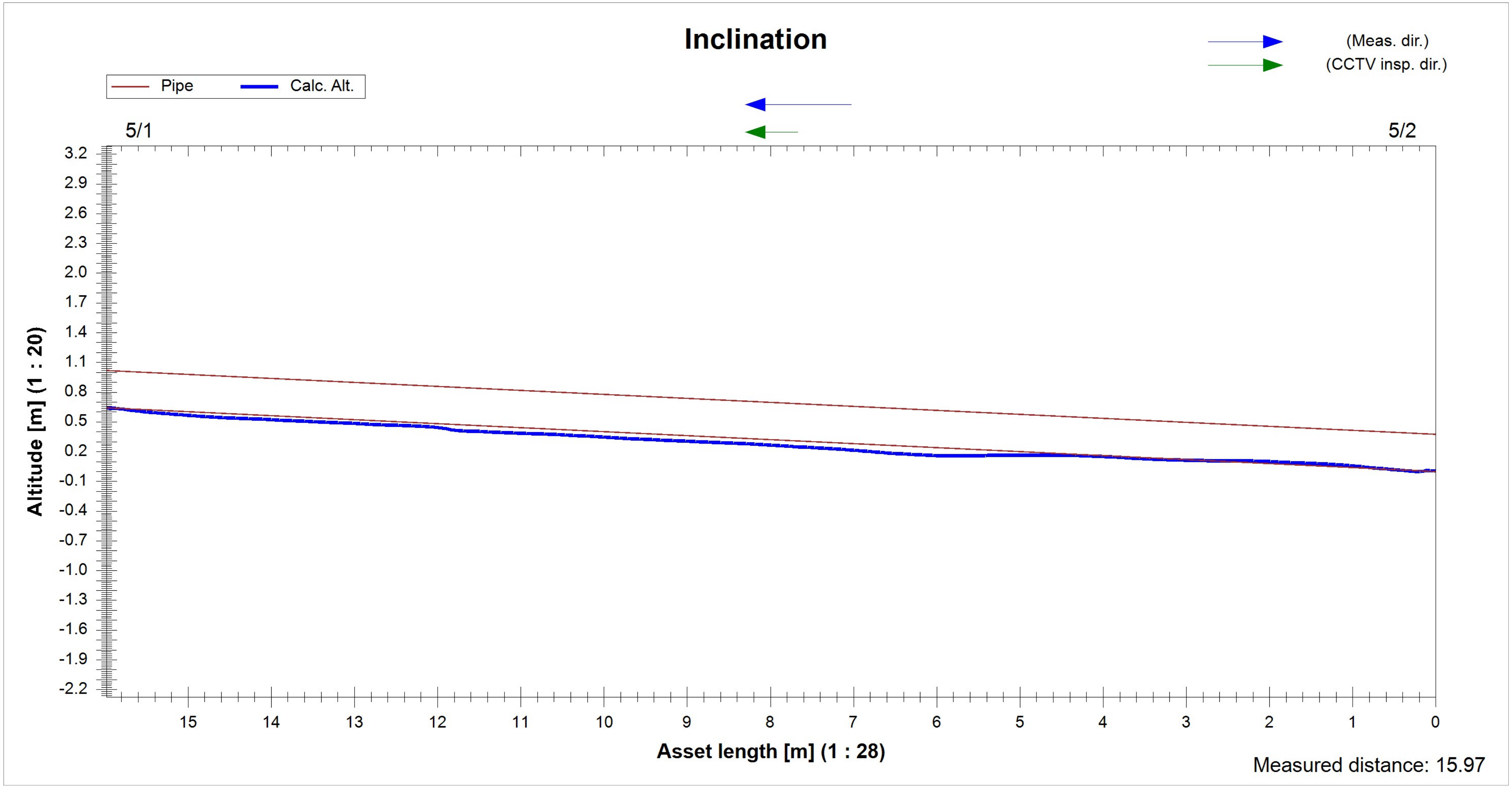
Section Inclination - 26/04/2024 - 5/1 - 5/2

Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
5/1 - 5/2	26/04/2024	8:40 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	15.97 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	375 mm	375 mm	5/1	5/2	0.000 m	0.639 m	-4.002 %



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Section Inspection - 26/04/2024 - 1/1 - 1/2 Cell 4

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
26/04/2024	**9:40 AM**	**Not known**	**1/1 - 1/2 Cell 4**	**13**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**1/2**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**1/1**	Inspected Length [m]	**17.89 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**850mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**850 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment

1:156	m+	Code	Observation Text	MPEG	Photo	Grade
1/1	0.00	STO	Start node, outfall, Nodename:, 1/1	00:00:00	1_1 - 1_2 Cell 4_3cf5f3d	
	0.00	WLFT	Water flow at constant depth, turbid or discoloured water, 5-10%	00:03:42	1_1 - 1_2 Cell 4_0f6969a	
	14.58	CI	A connecting conduit is projecting into the conduit being inspected and is obstructing the cross sectional area at 11 o'clock, magnitude of intrusion: 10%	00:02:56	1_1 - 1_2 Cell 4_764713	3
1/2	17.89	FHO	Finish node, outfall or culvert headwall, Nodename:, 1/2	00:04:03	1_1 - 1_2 Cell 4_e2193b	

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	1	10.0	0.6	10.0	3

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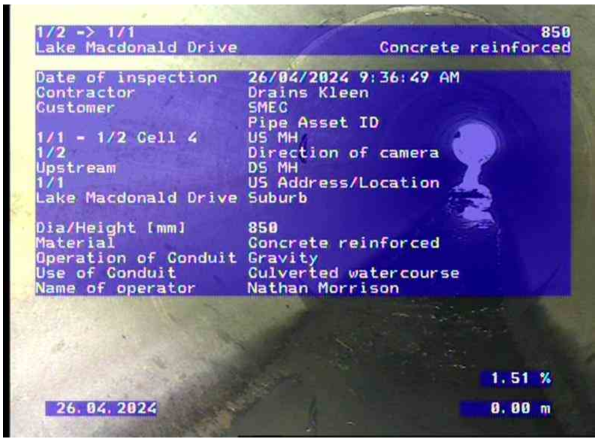
Section Pictures - 26/04/2024 - 1/1 - 1/2 Cell 4

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**1/1 - 1/2 Cell 4**	**01**



1_1 - 1_2 Cell 4_3cf5f3d6-08b3-492f-a173-49692d2512e6_20240426_094101_043.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 1/1

1_1 - 1_2 Cell 4_8f9e614b-e4a3-45f0-97f5-8abc50403735_20240426_094121_979.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 1/1

1_1 - 1_2 Cell 4_0f6969ae-0066-4f55-8ec5-ea5ccd4cf33f_20240426_094112_760.jpg, 00:03:42, 0.00
Water flow at constant depth, turbid or discoloured water, 5-10%

1_1 - 1_2 Cell 4_76471371-4ba9-4f95-b474-439aa25672c5_20240426_094526_319.jpg, 00:02:56, 14.58
A connecting conduit is projecting into the conduit being inspected and is obstructing the cross sectional area at 11 o'clock, magnitude of intrusion: 10%

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Section Pictures - 26/04/2024 - 1/1 - 1/2 Cell 4

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**1/1 - 1/2 Cell 4**	**01**

1_1 - 1_2 Cell 4_f2fb7427-fe52-4cd0-8dd6-b48f2985f44d_20240426_094557_017.jpg, 00:02:56, 14.58
A connecting conduit is projecting into the conduit being inspected and is obstructing the cross sectional area at 11 o'clock, magnitude of intrusion: 10%

1_1 - 1_2 Cell 4_e2193b9b-bf7a-4ed6-82c0-4c72f7207cec_20240426_094641_742.jpg, 00:04:03, 17.89
Finish node, outfall or culvert headwall, Nodename:, 1/2

1_1 - 1_2 Cell 4_d89406c3-4778-433f-99d8-33a7cd619975_20240426_094647_343.jpg, 00:04:03, 17.89
Finish node, outfall or culvert headwall, Nodename:, 1/2

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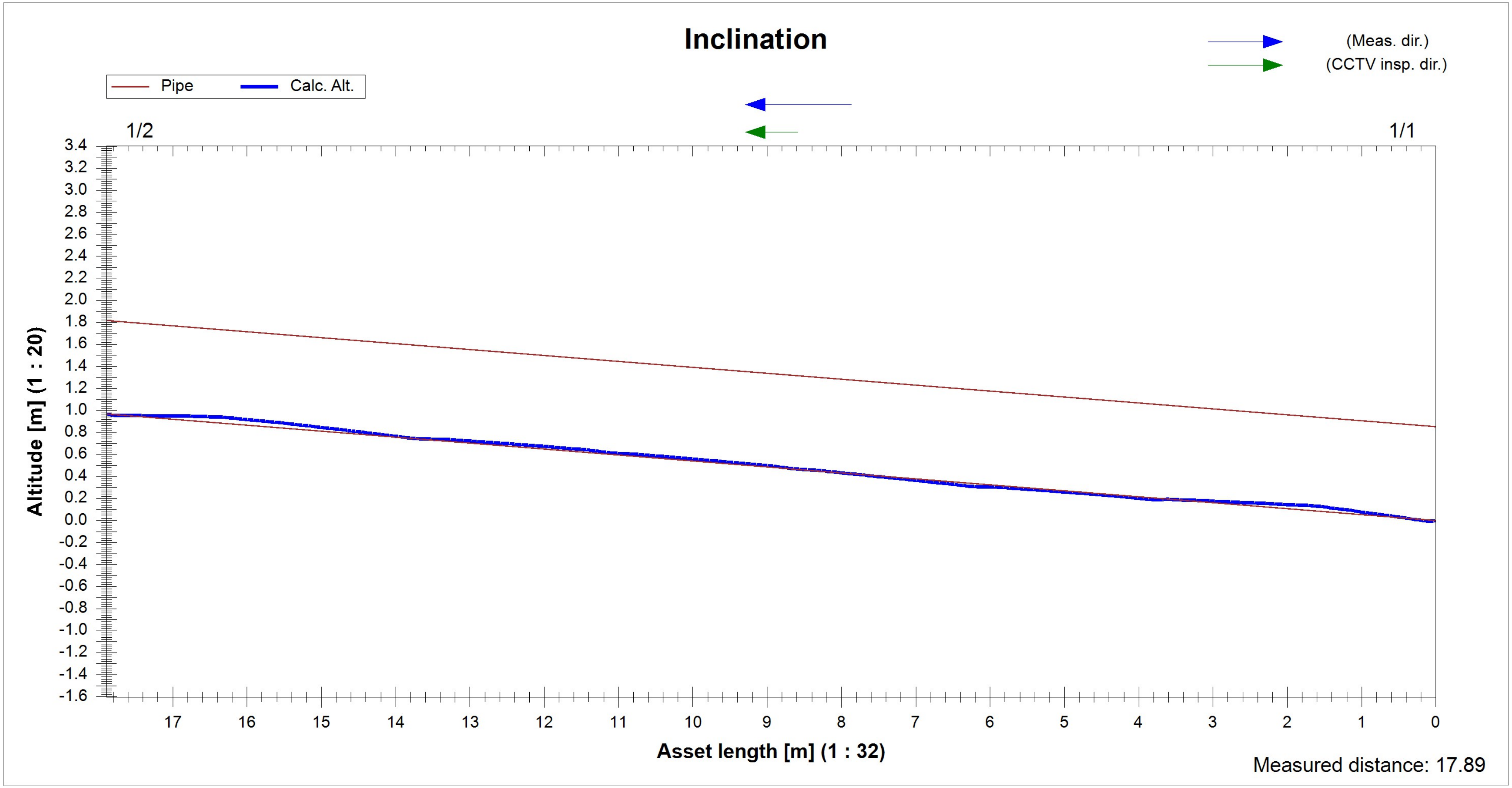
Section Inclination - 26/04/2024 - 1/1 - 1/2 Cell 4

Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
1/1 - 1/2 Cell 4	26/04/2024	9:40 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	17.89 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	850 mm	850 mm	1/2	1/1	0.000 m	0.965 m	-5.392 %



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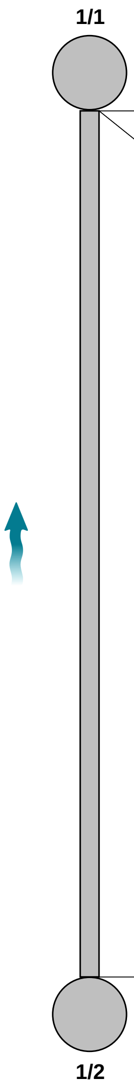
Section Inspection - 26/04/2024 - 1/1 - 1/2 Cell 3

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
26/04/2024	**9:52 AM**	**Not known**	**1/1 - 1/2 Cell 3**	**14**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**1/2**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**1/1**	Inspected Length [m]	**18.23 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**850mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**850 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment



1:159	m+	Code	Observation Text	MPEG	Photo	Grade
	0.00	STO	Start node, outfall, Nodename:, 1/1	00:00:00	1_1 - 1_2 Cell 3_c9c1f9b	
	0.00	WLFT	Water flow at constant depth, turbid or discoloured water, 5-10%	00:00:48	1_1 - 1_2 Cell 3_eac104e	
	18.23	FHO	Finish node, outfall or culvert headwall, Nodename:, 1/2	00:03:41	1_1 - 1_2 Cell 3_9a6ceec	

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	0	0.0	0.0	0.0	1

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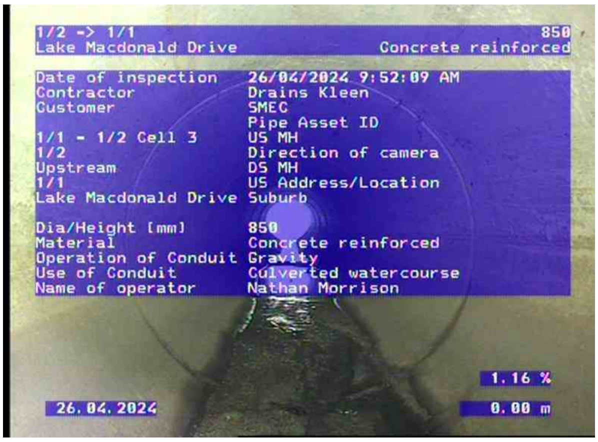
Section Pictures - 26/04/2024 - 1/1 - 1/2 Cell 3

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**1/1 - 1/2 Cell 3**	**01**



1_1 - 1_2 Cell 3_c9c1f9ba-ba91-47c2-bfcf-24c9255014d5_20240426_095234_448.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 1/1

1_1 - 1_2 Cell 3_05fa39da-03b4-4356-8627-a232f7acafa6_20240426_095302_347.jpg, 00:00:00, 0.00
Start node, outfall, Nodename:, 1/1

1_1 - 1_2 Cell 3_eac104ed-42a9-4f7f-bb99-572fa3a19dd6_20240426_095253_014.jpg, 00:00:48, 0.00
Water flow at constant depth, turbid or discoloured water, 5-10%

1_1 - 1_2 Cell 3_9a6ceec7-240f-4a80-baf2-87e399ed962b_20240426_095626_794.jpg, 00:03:41, 18.23
Finish node, outfall or culvert headwall, Nodename:, 1/2

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Section Pictures - 26/04/2024 - 1/1 - 1/2 Cell 3

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**1/1 - 1/2 Cell 3**	**01**

1_1 - 1_2 Cell
3_11f0297a-a79e-4078-a225-a43b211c4a70_20240426_0956
31_642.jpg, 00:03:41, 18.23
Finish node, outfall or culvert headwall, Nodename:, 1/2

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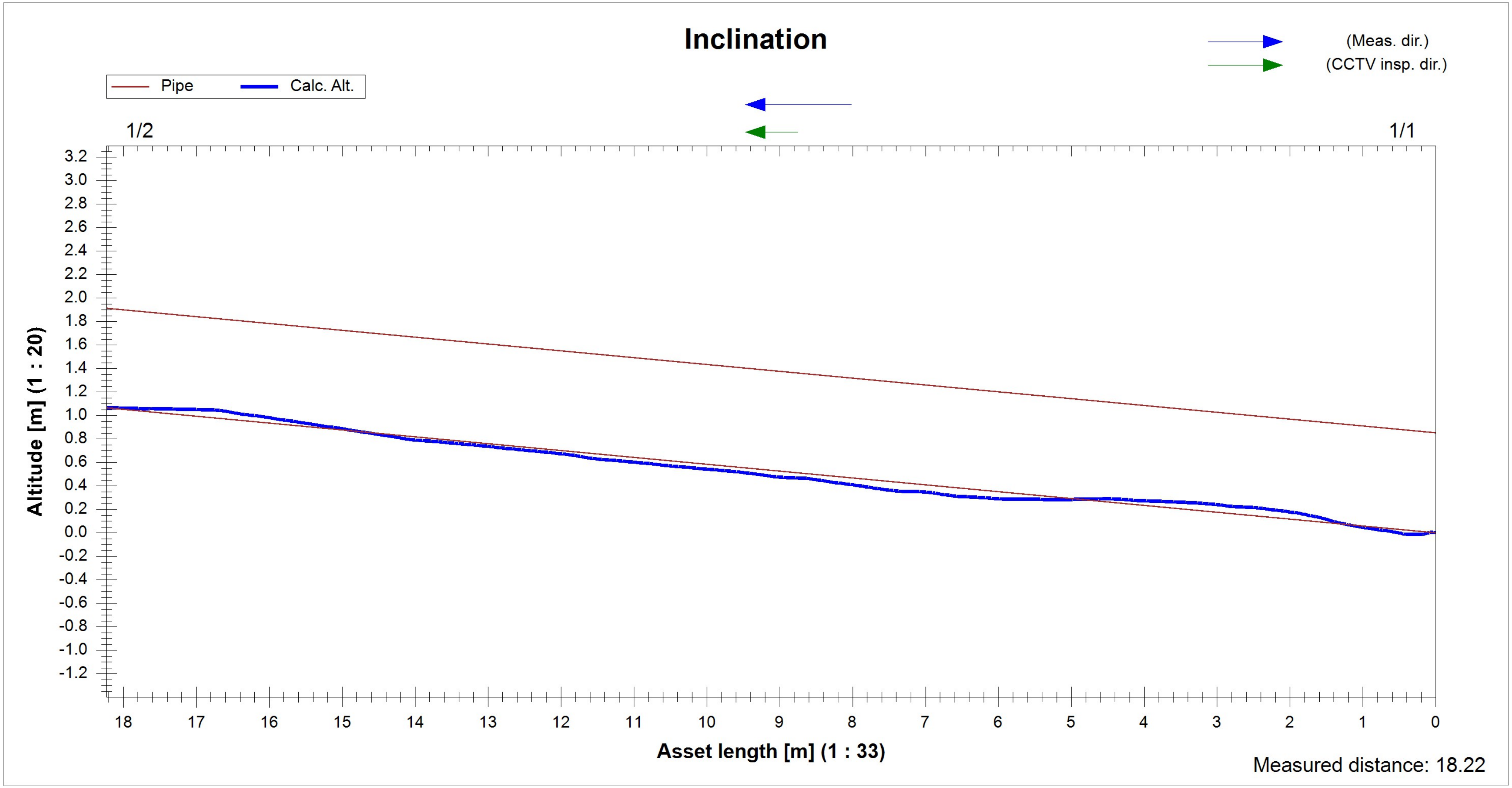
Section Inclination - 26/04/2024 - 1/1 - 1/2 Cell 3

Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
1/1 - 1/2 Cell 3	26/04/2024	9:52 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	18.22 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	850 mm	850 mm	1/2	1/1	0.000 m	1.063 m	-5.832 %



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Section Inspection - 26/04/2024 - 1/1 - 1/2 Cell 2

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
26/04/2024	**10:02 AM**	**Not known**	**1/1 - 1/2 Cell 2**	**15**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**1/2**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**1/1**	Inspected Length [m]	**4.08 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**850mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**850 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment

1:50	m+	Code	Observation Text	MPEG	Photo	Grade
1/1						
	0.00	WLFT	Water flow at constant depth, turbid or discoloured water, <5%	00:00:00	1_1 - 1_2 Cell 2_74386af	
	0.00	STO	Start node, outfall, Nodename:, 1/1	00:03:44	1_1 - 1_2 Cell 2_4f91da0	
	4.08	SAR	Inspection (survey) abandoned, roots	00:02:45	1_1 - 1_2 Cell 2_0a0738c	

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	0	0.0	0.0	0.0	1

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Section Pictures - 26/04/2024 - 1/1 - 1/2 Cell 2

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**1/1 - 1/2 Cell 2**	**01**

1_1 - 1_2 Cell 2_74386afc-de13-40a4-bef5-6f6096272da5_20240426_100313_156.jpg, 00:00:00, 0.00
Water flow at constant depth, turbid or discoloured water, <5%

1_1 - 1_2 Cell 2_4f91da03-4f36-4b80-aad7-cb2e834a9a5a_20240426_100259_911.jpg, 00:03:44, 0.00
Start node, outfall, Nodename:, 1/1

1_1 - 1_2 Cell 2_5a786572-a4a0-4d51-9104-d952af4f29f4_20240426_100319_619.jpg, 00:03:44, 0.00
Start node, outfall, Nodename:, 1/1

1_1 - 1_2 Cell 2_0a0738c9-849c-4f30-976c-7a948ba4a9a8_20240426_100653_990.jpg, 00:02:45, 4.08
Inspection (survey) abandoned, roots

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Section Pictures - 26/04/2024 - 1/1 - 1/2 Cell 2

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**1/1 - 1/2 Cell 2**	**01**

1_1 - 1_2 Cell 2_7db9e099-99f8-4d82-93d8-eda72c7b2f0b_20240426_100728_882.jpg, 00:02:45, 4.08
Inspection (survey) abandoned, roots

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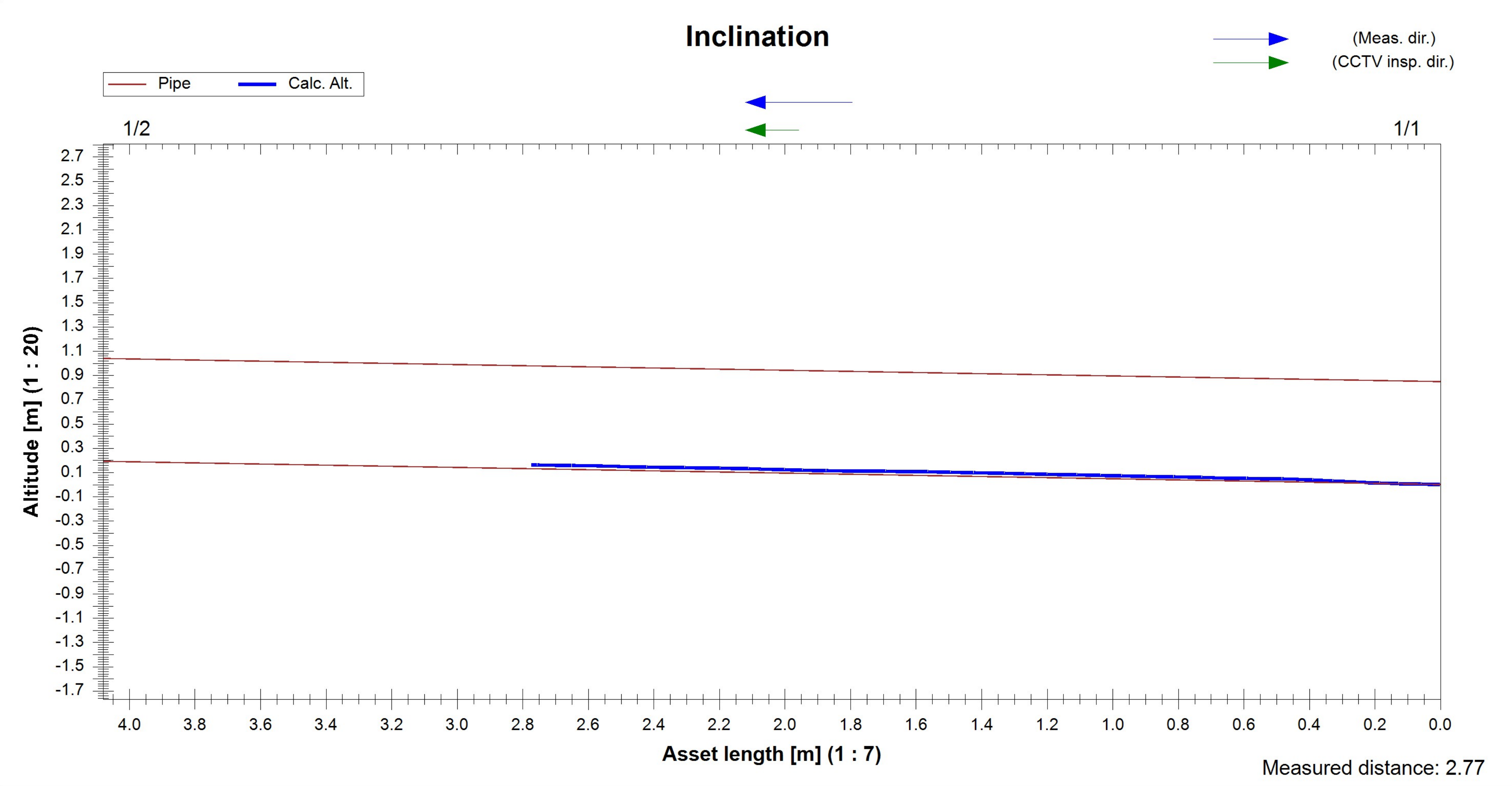
Section Inclination - 26/04/2024 - 1/1 - 1/2 Cell 2

Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
1/1 - 1/2 Cell 2	26/04/2024	10:02 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	2.77 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	850 mm	850 mm	1/2	1/1	0.000 m	0.160 m	-5.762 %



dRAINS kLEEN
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Tel. 07 5370 9970
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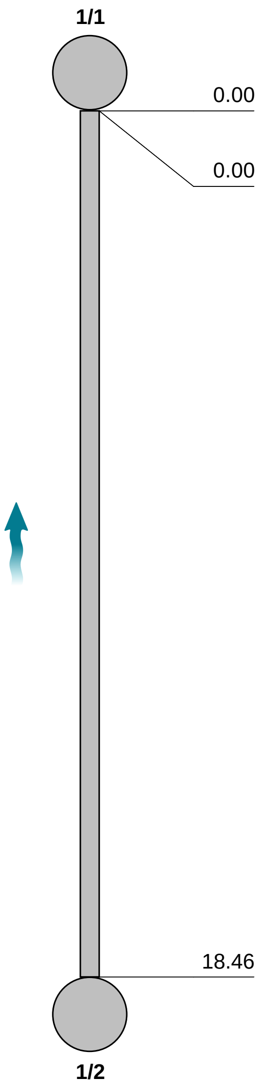
Section Inspection - 26/04/2024 - 1/1 - 1/2 Cell 1

Date of inspection	Time of inspection	Land ownership	Pipe Asset ID	Nr.
26/04/2024	**10:10 AM**	**Not known**	**1/1 - 1/2 Cell 1**	**16**
Project name	Camera Serial Number	Coding Standard	Name of operator	Job ID
Lake Macdonald Drive_ Cooroy - Stormwater	**5601217 - 5610495**	**WSA 2020**	**Nathan Morrison**	**01**

Suburb	**Cooroy**	US MH	**1/2**	Unit Length	**0.00 m**
Address	**Lake Macdonald Drive**	Direction	**Upstream**	GIS length	**0.00 m**
Location type	**In a road**	DS MH	**1/1**	Inspected Length [m]	**18.46 m**
Operation	**Gravity**	Use	**Culverted watercourse**	Year Laid	

Profile	**850mm**	Purpose of inspection	**Routine inspection of condition**
Lining material		Method of inspection	**Inspection by means of a remotely controlled television camera passed through the**
Lining type		Precipitation	
Dia/Height	**850 mm**	Cleaning	**The conduit was not cleaned prior to the inspection**
Material	**Concrete reinforced**	Flow control	**No measures taken**

General comment



1:161	m+	Code	Observation Text	MPEG	Photo	Grade
	0.00	STO	Start node, outfall, Nodename:, 1/1	00:00:00	1_1 - 1_2 Cell 1_b5c71df	
	0.00	WLFT	Water flow at constant depth, turbid or discoloured water, <5%	00:02:49	1_1 - 1_2 Cell 1_ea0275c	
	18.46	FHO	Finish node, outfall or culvert headwall, Nodename:, 1/2	00:03:08	1_1 - 1_2 Cell 1_7cd64ad	

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1	0	0.0	0.0	0.0	1

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Section Pictures - 26/04/2024 - 1/1 - 1/2 Cell 1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**1/1 - 1/2 Cell 1**	**01**

1_1 - 1_2 Cell
1_b5c71dfe-1ee8-402a-8d35-fee3d04c57cc_20240426_101024_895.jpg, 00:00:00, 0.00
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1_1 - 1_2 Cell
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Start node, outfall, Nodename:, 1/1

1_1 - 1_2 Cell
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Water flow at constant depth, turbid or discoloured water, <5%

1_1 - 1_2 Cell
1_7cd64ad7-af2b-4e3c-9965-f9439f6bfca7_20240426_101404_188.jpg, 00:03:08, 18.46
Finish node, outfall or culvert headwall, Nodename:, 1/2

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Section Pictures - 26/04/2024 - 1/1 - 1/2 Cell 1

Suburb	Address/Location		Pipe Asset ID	Job ID
Cooroy	**Lake Macdonald Drive**	**26/04/2024**	**1/1 - 1/2 Cell 1**	**01**

1_1 - 1_2 Cell 1_4677b9d4-6e8f-40a3-afa6-6d251f1fb8f4_20240426_101414_650.jpg, 00:03:08, 18.46
Finish node, outfall or culvert headwall, Nodename:, 1/2

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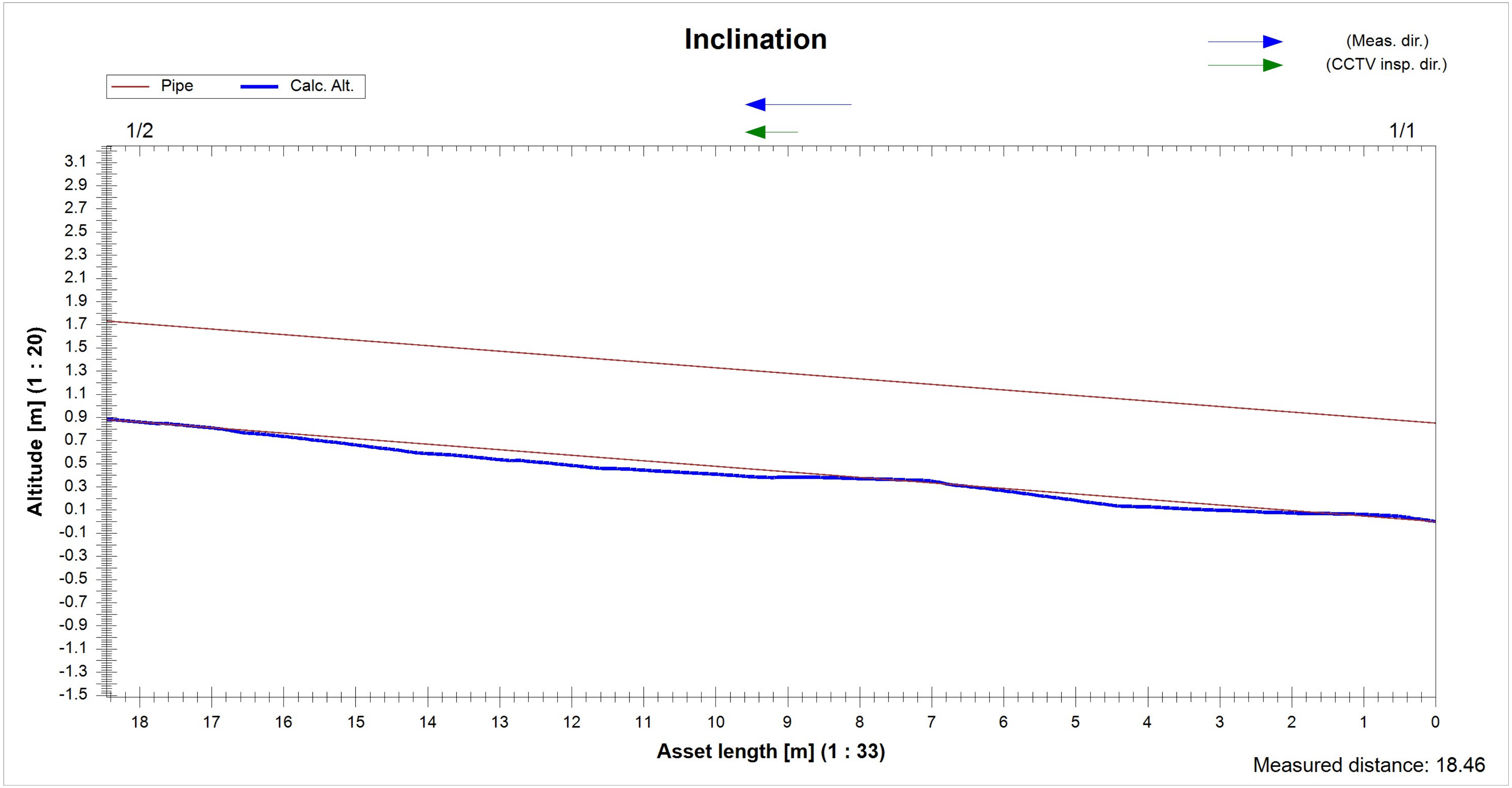
Section Inclination - 26/04/2024 - 1/1 - 1/2 Cell 1

Pipe Asset ID	Date	Time	Name of operator	Suburb	Address/Location	Inspection Direction	Inspected Length
1/1 - 1/2 Cell 1	26/04/2024	10:10 AM	Nathan Morrison	Cooroy	Lake Macdonald Drive	Upstream	18.46 m
Shape	**Dia/Height**	**Width**	**US MH**	**DS MH**	**Start altitude**	**End altitude**	**Measured Inc**
	850 mm	850 mm	1/2	1/1	0.000 m	0.882 m	-4.778 %



Appendix E

Pavement Impact Assessment Extract (Dec 2020)

Member of the Surbana Jurong Group

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Traffic Impact Analysis

Lake Macdonald Dam Upgrade

Reference No. VP191458
Prepared for Seqwater
8 December 2020

SMEC INTERNAL REF. 30033740

Document Control

Document:	Traffic Impact Analysis
File Location:	\\aubnfsv006\highways$\Projects\30033740 Lake McDonald Dam TIA\140 Reporting\Main Summary Report
Project Name:	Lake Macdonald Dam Upgrade
Project Number:	30033740
Revision Number:	1

Revision History

Revision No.	Date	Prepared by	Reviewed by	Approved for Issue by
1	8 December 2020	Jack Rogers	Anthony Burke (RPEQ #20190)	Anthony Burke (RPEQ # 20190)

Issue Register

Distribution List	Date Issued	Number of Copies
Seqwater	8 December 2020	1

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2 Project Data

Table 2-1 details all project data inputs supplied by Seqwater.

Table 2-1: Project Data Supplied by Seqwater

Date Supplied	Item Name	Item Description
12 August 2020	Lake Macdonald Dam Safety Upgrade Program	Programs all activities anticipated for the project
	Lake Macdonald Detailed Design - Quantities Estimate and Materials Balance Memorandum (AECOM, 2019)	Memorandum by AECOM discussing the quantities estimate and materials balance for the Safety Upgrade Program
	Construction Management Plan – LMDU Project	Construction Management Plan Revision C issued 28 March 2020 Commercial in Confidence
	Traffic Management Plan – Lake Macdonald Damn Upgrade Project	Traffic Management Plan Revision B issued 26 March 2020 Commercial in Confidence
23 August 2020	NWTP Access Road and Bridge Upgrade Drawings	Comprised of Bridge General Arrangements, Civil Plans, and Water Infrastructure Plans developed by Aurecon
	NWTP Access Road and Bridge Upgrade Reference Design Report	Prepared by Aurecon
	NTO Bridge – Reference Design Stage 2 Road Safety Audit	Prepared by Aurecon
03 September 2020	Seqwater and NSC Email Correspondence – NWTP – Access Road and Bridge Design	Between Sawyer Webb and Colin Thompson
13 October 2020	Seqwater Construction Traffic Flows	Updated construction traffic by stage and month throughout the five construction stages (Stage 0 to Stage 4)

In order to complete the full scope of works for this project, SMEC commissioned Austraffic to conduct the following traffic surveys/counts:

- All movements classified intersection counts 6.00 am to 6.00 pm at:
  - Intersection of Elm Street/Lake Macdonald Drive
  - Intersection of The NWTP Access Road/Lake Macdonald Drive
- 24hr tube counts for one week including daily peak profile and vehicle classes on Lake Macdonald Drive approximately 200m South of The NWTP Access Road.

Intersection counts were collected on 1 September 2020 whilst the tube count was collected between Saturday 29 August 2020 and Friday 4 September 2020.

Based on TMR Traffic Analysis and Reporting System (TARS) data for 2019 the week chosen for surveys averaged 99 % of the 2019 AADT for the Elm St segment encompassing the intersection with Lake Macdonald Drive, as illustrated below in Figure 2-1. Therefore in 2020 the week surveyed is likely representative of a typical week of traffic in the study area. As the surveys were collected during September of 2020, traffic is unlikely to have been impacted by COVID-19 given the minimal restrictions in place for QLD residents during this time.

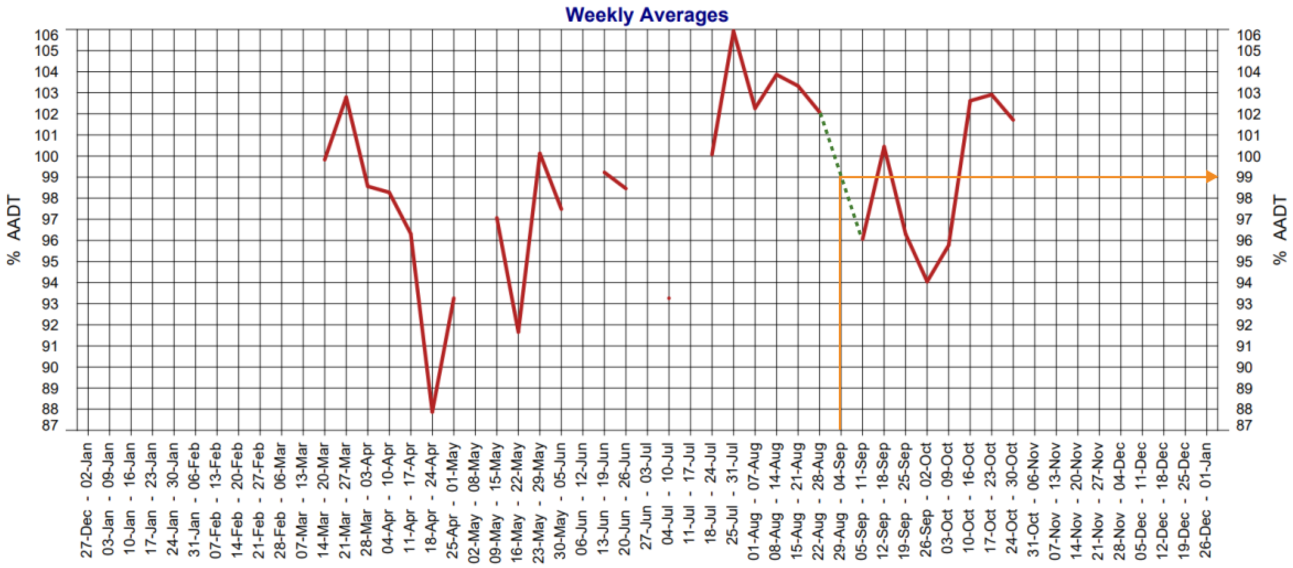

Figure 2-1: TMR TARS Average Weekly AADT in 2019 for Segment Site 21130 (Elm Street encompassing the intersection with Lake Macdonald Drive)

3 Task 2: Road Impact Assessment

3.1 Pavement Impact Assessment

3.1.1 Pavement Condition

A detailed visual inspection of the existing pavement was undertaken on the subject section on Thursday 24th September 2020. Observations of the general condition of the pavement and its defects were made throughout Lake Macdonald Drive and are summarised below in Table 3-1.

Table 3-1: General observations of existing pavement based on visual assessment

Lake Macdonald Drive Road Sections	General Observations
Elm Street to Kauri Street	The asphalt surfaced road section contained a multitude of surface defects with history of maintenance patching over large areas. Most defects across this section were cracks considered attributable to an ageing, oxidised and hardened asphalt surface with both moisture ingress and deformation ensuing. This section is expected to require renewal or extensive routine maintenance in the near future (with or without development).
Kauri Street to Dianella Court	This section is in fair condition with a microsurfacing treatment potentially undertaken relatively recently. Stone loss and stripping of the surfacing treatment is evident at some locations and expedient patches concentrated across some areas.
Dianella Court Intersection	Asphalt surfacing generally in good condition however cracking was present throughout, thought to be attributable to environmental factors.
Dianella Court to Swift Road (including Swift Road Intersection)	The asphalt surfaced road section contains cracking distress across the majority, predominantly crocodile cracking. The cracking was considered attributable to an ageing, oxidised and hardened asphalt surface. This section is expected to require renewal or extensive routine maintenance in the near future (with or without development). Small section of road with microsurfacing treatment near Dianella Court.
Swift Road to NWTP Access Road:	Sprayed seal surfacing across the majority of this road section with some small areas of asphalt surfacing. Based on visual observations, it is evident the pavement has history of resurfacing/resealing treatments. The sprayed seals are generally in fair to good condition however flushing of varying severity is present across large lengths and some locations are suffering from stone loss. Other prominent defects include edge drops and localised areas containing expedient patches.

3.1.2 Pavement Type

Further to Section 3.1.2, limited information of the pavement history and existing pavement configuration at Lake Macdonald Drive was available at the time of this report. Pavement types have been assumed to be either sprayed seal on granular or asphalt on granular across the extents detailed in Table 3-2 below. SAR load damage exponents for each pavement type are also provided.

Table 3-2: Lake Macdonald Drive existing pavement types and load damage exponent

Start Chainage (m)	End Chainage (m)	Approximate Length (m)	Surfacing	SAR Damage exponent
0	317	317	Asphalt	5
317	628	311	Sprayed Seal / Microsurfacing	4
628	733	105	Asphalt	5

Start Chainage (m)	End Chainage (m)	Approximate Length (m)	Surfacing	SAR Damage exponent
733	812	79	Sprayed Seal / Microsurfacing	4
812	999	187	Asphalt	5
999	4239	3240	Sprayed Seal	4

3.1.3 Development Impact on Pavement

3.1.3.1 Existing Pavement Surface

The existing pavement surface condition varies across Lake Macdonald Drive. With consideration to the development generated traffic derived and corresponding impact on the existing pavement surface, the following commentary is provided:

- There are multiple sections of asphalt surfacing with extensive cracking and a history of patching. The increase in trafficking at these locations can be expected to further the rate of deterioration of the surfacing, resulting in further cracking and additional potholes. Notwithstanding, based on visual assessment and extent of existing surface defects, it would be reasonable to conclude the surfacing has reached the end of its useful life at these locations and/or underlying pavement condition is contributing to surface distress in some instances
- For sections of asphalt surfacing with extensive cracking, deterioration will be further accelerated in periods during and shortly following rain events given the increased passes of heavy vehicles
- Where existing flushing is a function of poor quality base, severity of flushing may increase
- Existing edge breaks will be exacerbated should vehicles regularly traverse the pavement edge
- Increased quantity and severity of turning and braking movements on Lake Macdonald Drive at the dam entrance are likely to induce stress on the existing sprayed seal greater than that which it was originally designed for. Depending on properties of the existing sprayed seal (e.g. binder type) these increased stress may lead to defects such as stone loss, potholes, flushing and cracking.

3.1.3.2 5% SARs Threshold Assessment

Table 3-3 below provides a summary of the derived proportion of development traffic against the base case traffic. The results show in all three years of heavy vehicle trafficking associated with the LMDU construction works, the development Standard Axel Repetition (SAR) scenario exceeds 5% of the base case SARs in both directions of travel.

Table 3-3: Lake Macdonald Drive pavement impact trigger analysis summary

Damage Exponent	Direction	2021		2022		2023	
		North Bound	South Bound	North Bound	South Bound	North Bound	South Bound
SAR4	Background	19,835	10,580	20,032	10,685	20,228	10,790
	Development	6,384	765	28,060	3,249	23,151	2,696
	Percentage	**32.2 %**	**7.2 %**	**140.1 %**	**30.4 %**	**114.5 %**	**25.0 %**
SAR5	Background	21,391	11,427	21,603	11,540	21,815	11,653
	Development	6,887	589	30,149	2,509	24,848	2,079
	Percentage	**32.2 %**	**5.2 %**	**139.6 %**	**21.7 %**	**113.9 %**	**17.8 %**

3.1.4 Mitigation Works

3.1.4.1 Initial Works

The existing pavement condition is poor at various locations and heavy vehicle trips generated by the development are expected to increase the rate of deterioration. The necessity for initial works will depend on various factors and consultation with NSC is recommended in this regard to establish:

- NSC's planned pavement maintenance activities for Lake Macdonald Drive
- NSC's planned pavement upgrades to Lake Macdonald Drive
- A potential maintenance strategy for the road section to be adopted during the construction of the LMDU
- Consideration to a monetary contribution in light of the above works and their timing.

Based on the existing pavement condition (terminal at some locations) it is recommended the above discussions are progressed in earnest to ensure the pavement condition along Lake Macdonald Drive can be effectively managed during the construction of the dam upgrade.

3.1.5 Monetary Contribution

3.1.5.1 Marginal Cost Rate

At the time of preparing this report, no information was available for derivation of a marginal cost rate specific to expenditure on Lake Macdonald Drive. In the absence of such information, marginal cost data was requested from TMR's Road Asset Data department for the Cooroy Connection Road between Myall Street and the Old Bruce Highway (TMR chainage 0 km to 7.92 km). This road section contained both Sprayed Seal on Granular (GN) and Asphalt (AC) pavement types. The average value for each pavement type was derived and is summarised in Table 3-4 below.

Table 3-4: Average marginal cost rate for each pavement type

Surface	Total Length	Damage Exponent (SAR)	Average Marginal Cost
Sprayed Seal (GN)	3630	4	5.25 cents per SAR4-km
Asphalt (AC)	609	5	5.33 cents per SAR5-km

3.1.5.2 Contribution Amount

The contribution amount was calculated based on the marginal cost rates and the yearly development SAR volumes, applied to the length of each pavement type over the impact assessment area. The corresponding contribution amounts are summarised in Table 3-5 below.

Table 3-5: Contribution cost calculation summary

Chainage (m)			Surfacing Type	Damage Exponent (SAR)	Marginal Cost (Cents / SAR-km)	Year	Contribution Amount (AUD)		
Start	End	Length (m)					North Bound	South Bound	Total
0	317	317	Asphalt (AC)	5	5.33	2021	116.37	9.95	126.32
						2022	509.39	42.38	551.78
						2023	419.84	35.13	454.98
						Sub-total	**1,045.61**	**87.47**	**1,133.07**
317	628	311	Sprayed Seal (GN)	4	5.25	2021	104.24	12.50	116.74
						2022	458.16	53.05	511.21
						2023	378.00	44.01	422.02
						Sub-total	**940.40**	**109.57**	**1,049.97**

Chainage (m)			Surfacing Type	Damage Exponent (SAR)	Marginal Cost (Cents / SAR-km)	Year	Contribution Amount (AUD)		
Start	End	Length (m)					North Bound	South Bound	Total
628	733	105	Asphalt (AC)	5	5.33	2021	38.55	3.30	41.84
						2022	168.73	14.04	182.77
						2023	139.06	11.64	150.70
						Sub-total	**346.34**	**28.97**	**375.31**
733	812	79	Sprayed Seal (GN)	4	5.25	2021	26.48	3.17	29.65
						2022	116.38	13.48	129.86
						2023	96.02	11.18	107.20
						Sub-total	**238.88**	**27.83**	**266.71**
812	999	187	Asphalt (AC)	5	5.33	2021	68.65	5.87	74.52
						2022	300.49	25.00	325.50
						2023	247.67	20.73	268.39
						Sub-total	**616.81**	**51.60**	**668.41**
999	4239	3240	Sprayed Seal (GN)	4	5.25	2021	1,085.98	130.20	1,216.18
						2022	4,773.08	552.72	5,325.80
						2023	3,938.04	458.54	4,396.58
						Sub-total	**9,797.11**	**1,141.46**	**10,938.57**
								Total Contribution	**14,432.04**

3.1.6 PIA Conclusion

This PIA has undertaken an assessment of base case and development traffic loading along Lake Macdonald Drive, and identified road sections where a 5% threshold is exceeded (impact assessment area). For the impact assessment area, monetary contributions have been calculated in accordance with the TMR's GTIA and Guide to Traffic Impact Assessment Practice Note: Pavement Impact Assessment (PN) as a means to offsetting the impacts on the pavement which result from the development.

Using the 'marginal cost methodology' outlined in the GTIA and PN, a total development contribution for Lake Macdonald Drive was calculated to be $14,432.04 (AUD).

3.1.7 PIA Recommendations

3.1.7.1 Additional Actions

SMEC recommend the following actions are taken to finalise the PIA:

- Following award of the construction contract, Seqwater review the Contractor's CMP and proposed traffic routes for any signification variations to the input parameters adopted in this PIA. In particular, careful consideration should be given to the presumptive heavy vehicle types, volumes and axle load configurations
- Seqwater note the following for discussion with NC:
  - The methodology adopted for assessing the pavement impact as per the GTIA and PN

  - The base case traffic parameters adopted. Most notably the annual average daily heavy vehicle volume, annual average heavy vehicle linear growth rate and the derived heavy vehicle load distribution characteristics
  - The adopted marginal cost rates. Marginal cost rate values should be relative to the marginal cost of road-wear on Lake Macdonald Drive as a result of heavy vehicles with consideration to each pavement type and the local climate and soil conditions as well as the overall strength of the pavement. In line with the GTIA, the marginal cost rate should be derived relative to a 50-year life cycle for the pavement and typical pavement costings include maintenance, rehabilitation and reconstruction.
- Seqwater consult with NSC on regarding delivery of routine pavement maintenance activities along Lake Macdonald Drive in the time prior to and during the development.

3.1.7.2 Additional Mitigation Measures

Notwithstanding above, it is highlighted to Seqwater that additional mitigation measures can be adopted during construction to minimise the potential impact on the pavement during construction of the project. These may include but are not limited to:

- Undertaking visual pavement assessments at selective points in the construction programme as a means to identifying early signs of an increased rate of deterioration or pavement failure
- Installation of shaker grids at site exit points from construction activities
- Consult with the construction Contractor on limiting heavy vehicle volumes during and immediately following periods of inclement weather
- Development of strategy for delivery of routine maintenance activities and agreed intervention levels.

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Road Impact Assessment

Lake Macdonald Dam Upgrade

Reference No. VP191458
Prepared for Seqwater
4 December 2020

SMEC INTERNAL REF. 30033740

Document Control

Document:	Road Impact Assessment
File Location:	\\aubnfsv006.sjgroup.local\Highways$\Projects\30033740 Lake McDonald Dam TIA\140 Reporting\Task 2 Traffic Impact Assessment
Project Name:	Lake Macdonald Dam Upgrade
Project Number:	30033740
Revision Number:	2

Revision History

Revision No.	Date	Prepared by	Reviewed by	Approved for Issue by
1	30/09/2020	Jack Rogers Samy Bajracharya	Sheridan Tanzer Sam Sawtell	Anthony Burke (RPEQ # 20190)
2	04/12/2020	Jack Rogers Samy Bajracharya	Sheridan Tanzer Sam Sawtell	Anthony Burke (RPEQ # 20190)

Issue Register

Distribution List	Date Issued	Number of Copies
Seqwater	4 December 2020	1

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1 Introduction

1.1 Background

Seqwater requires investigation and an assessment of the traffic impacts, associated with the Lake Macdonald Dam Upgrade, on Lake Macdonald Drive and local traffic intersections associated with transport routes.

Lake Macdonald Drive must be investigated and assessed for traffic impact, road safety and the condition, so as to meet obligations and conditions imposed on Seqwater for the Lake Macdonald Dam Upgrade project, by the Coordinator General.

Lake Macdonald Drive starts at the intersection with Elm Street in the township of Cooroy and heads north, passing through a number of intersecting roads continuing alongside Lake Macdonald Dam, before finishing in the community of Ringtail Creek.

1.2 Project History

A Traffic Impact Assessment (TIA) was undertaken on 25 January 2019 as part Impact Assessment Report for the Six Mile Creek Dam Safety Upgrade project. The Coordinator General's report dated May 2019, resulted in several actions for further investigation:

- Road Impact Assessment (RIA) to include a Pavement Impact Assessment (PIA) in addition to the TIA
- Heavy vehicles will **not be permitted** to utilise Sivyers Road to access the site.

Consequently, it was recommended that the TIA be revised under the assumption that all heavy vehicles would utilising Noosa Water Treatment Plant (NWTP) Access Road via Lake Macdonald Drive to access the site. This new RIA would form the basis of discussion with impacted stakeholders.

1.3 Scope of Road Impact Assessment

This RIA has been undertaken in accordance with the Department of Transport and Main Roads (TMR) **Guide to Traffic Impact Assessments** and consideration of the requirements of the Coordinator General's report as follows:

- Gather and review previous traffic studies and historical designs
- Establish a desktop pavement condition for assessment (refer Pavement Impact Assessment for details)
- Assess traffic for base case (without project) and associated impacts with construction works for project case
- Develop understanding of light and heavy vehicle traffic generation, traffic distribution and traffic routes associated with construction works
- Identify locations where the increase in heavy vehicle traffic will exceed 5% of the base traffic in either direction along Lake Macdonald Drive, including all intersections, in accordance with TMR's **Guide to Traffic Impact Assessments**.

Noted, that the elements relating to the Pavement Impact Assessment to establish pavement condition, are presented in an accompany technical report.

The focus of the TIA is of the 4.3km section of Lake Macdonald Drive from the intersection of Elm Street to the intersection of Noosa Water Treatment Plant (NWTP) Access Road with the two key intersections being assessed as illustrated in Figure 1-1:

- Intersection of Lake Macdonald and NWTP Access Road
- Intersection of Elm Street and Lake Macdonald Drive.

Figure 1-1: RIA Study Area

2 Pavement Impact Assessment

2.1 Terms and Acronyms

Table 2-1 below outlines the relevant terms and acronyms adopted within this Pavement Impact Assessment (Applicable Section 2 Only).

Table 2-1: List of Terms and Acronyms

Term / Acronym	Definition
AADT	Annual Average Daily Traffic. Used to inform traffic volumes over the assessment period.
AGPT02	Austroads Guide to Pavement Technology Part 2: Pavement Structural Design (2017)
Austroads	The association of Australian and New Zealand road transport and traffic agencies whose purpose is to contribute to the achievement of improved road transport outcomes.
Base Traffic	The traffic volume without development traffic also referred to as “background” traffic.
CMP	Construction Management Plan. The CMP for this project was supplied by Seqwater and is specific to the Lake Macdonald Dam Upgrade project.
COVID-19	Coronavirus disease 2019. Highly contagious respiratory and vascular disease, and the cause of the COVID-19 pandemic, currently ongoing at the time of this report.
Design Horizon Year	For pavement works, the earliest year for which the asset should be designed to operate under its practical capacity.
Design Traffic	The cumulative traffic, often expressed in terms of HVAGs or ESA, predicted to use a road or bridge over the structural design life of the pavement.
Development	The construction of the Lake Macdonald Dam Upgrade project.
Development Traffic	Additional traffic required to complete construction of the Lake Macdonald Dam Upgrade project.
DF	Direction Factor. Used to proportion traffic volume by direction.
ESA	Equivalent Standard Axle. A measure defining the cumulative damaging effect to the pavement of the design traffic. It is expressed in terms of the equivalent number of 80kN axles passing over the pavement up to the design horizon. ESA can also be expressed as SAR4.
GTIA	TMR Guide to Traffic Impact Assessment (December 2018)
HVs	Heavy Vehicles
HVAG	Heavy Vehicle Axle Group. Used in traffic calculations to assess the number of axle groups per heavy vehicle and assess SAR values per HV.
Impact Assessment Area	Lake Macdonald Drive from Elm Street to the entrance of Lake Macdonald Dam (as determined from 5% SAR thresholds – refer to Section 2.8.2 of this Technical Note)
Impact Assessment Period	The time period when the development’s impacts are compared to the base case impacts for offsets determination purposes
Impact Mitigation Period	The time period after the opening year for which a development’s impacts and mitigation measures are the responsibility of the development
LDF	Lane Distribution Factor. Used to proportion traffic volume by lane.

Term / Acronym	Definition
NC	Noosa Council
NHVR	National Heavy Vehicle Regulator
PIA	Pavement Impact Assessment
PDS	TMR Pavement Design Supplement (July 2018)
PN	TMR Guide to Traffic Impact Assessment Practice Note: Pavement Impact Assessment (December 2018)
SAR	Standard Axle Repetition. A measure defining the cumulative damaging effect to the pavement of the actual traffic, it is expressed in terms of the equivalent number of 80kN axles passing over the pavement up to the design horizon for varying damage exponents.
SAR4	A SAR derived with a damage exponent of 4 to assess the overall pavement damage to a granular pavement with thin bituminous surfacing. SAR4 can also be expressed as Equivalent Standard Axles (ESA)
SAR5	A SAR derived with a damage exponent of 5 to assess the asphalt fatigue to a pavement containing one or more asphalt layers.
SAR-km	Standard Axle Repetition kilometre. A unit used when determining the marginal cost of road-wear in accordance with the procedures set out in the GTIA.
TARS	TMR Traffic Analysis and Reporting System
TIA	Traffic Impact Assessment
TLD	Traffic Load Distribution. The TLD classifies heavy vehicle movements by axle group type and for each axle group type, the proportion of axles by load magnitude to the nearest 10 kN.
TMR	Queensland Department of Transport and Main Roads
Traffic Distribution	The presumptive heavy vehicle types (classified in accordance with NHVR specifications) required to transports the people, product and goods required for construction of the Lake Macdonald Dam Upgrade project (refer to Section 2.7.2 of this Technical Note).
Traffic Generation	The presumptive heavy vehicle volumes required along the Traffic Route to transport the people, products and goods required to complete construction of the Lake Macdonald Dam Upgrade project (refer to Section 2.7.3 of this Technical Note).
Traffic Route	Lake Macdonald Drive within the limits prescribed in **Error! Reference source not found.** above. It i s noted the route choice has been determined by Seqwater in this instance and evaluation of alternative routes is outside the scope of this Technical Note.

2.2 Scope

2.2.1 Background

In the context of this project, the GTIA sets out a mitigation hierarchy which prioritises development strategies that avoid or reduce worsening the pavement condition of Lake Macdonald Drive as a result of the impacts of development traffic caused by the Lake Macdonald Drive Upgrade.

If impacts cannot be avoided and options to reduce impacts have been exhausted, then strategies shall be developed to specifically manage the impacts to maintain the existing characteristics of the road transport network.

If avoidance, reduction and management cannot prevent worsening of the characteristics of Lake Macdonald Drive, then strategies (including programs and works) and / or monetary contributions to programs or works shall be identified and implemented to mitigate the impacts of a proposed development so that the existing characteristics of the network are maintained.

With respect to above, this Technical Note provides assessment of the development's impact on the pavement across the impact assessment area and establish these strategies (including derivation of monetary contributions).

Figure 2-1 illustrates the preferred mitigation hierarchy for dealing with traffic impacts of development.

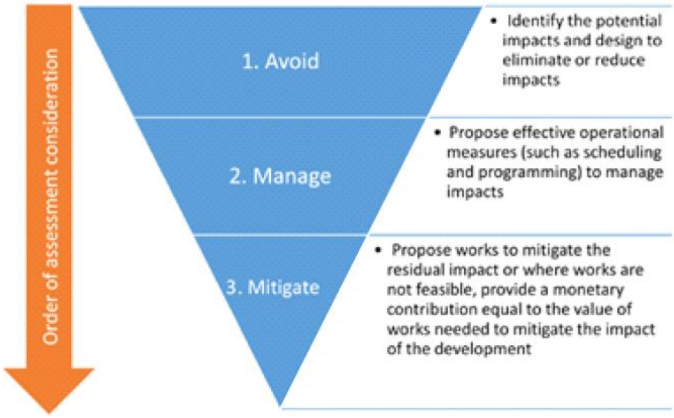

Figure 2-1: Mitigation framework

2.3 Scope of this Technical Note

The scope of this Technical Note relates specifically to the assessment of pavement impacts as a result of the Project and evaluation of mitigation measures specific to the pavement along Lake Macdonald Drive with due consideration to the mitigation hierarchy outlined in Section 2.2.1 above. The scope can be further summarised by Step 3 to Step 5 from Figure 7.5.1 of the GTIA (reproduced below in Figure 2-2).

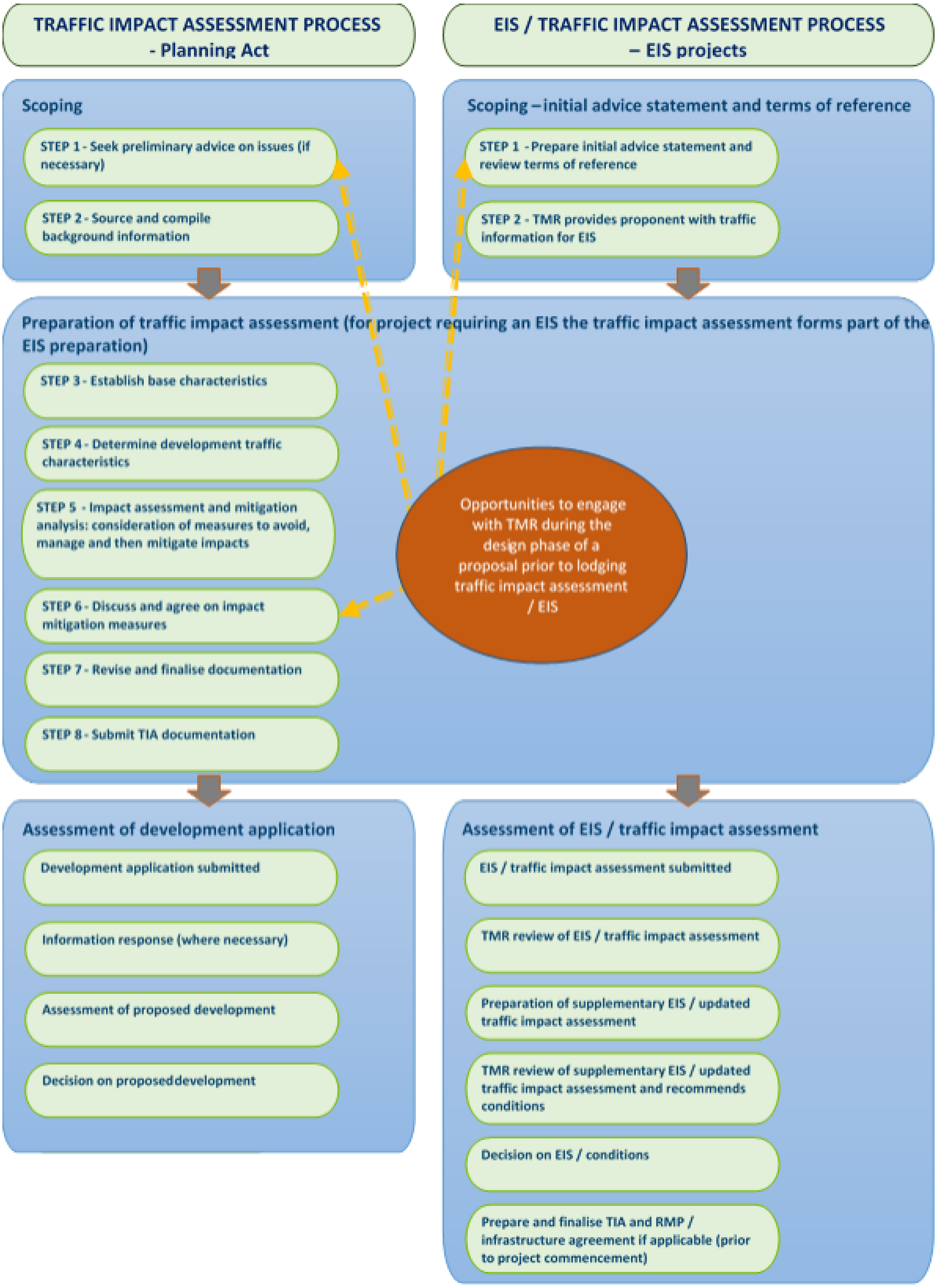

Figure 2-2: GTIA Figure 7-5-1, Typical traffic impact assessment process for Planning Act developments and EIS developments

2.4 Methodology

2.4.1 Guidelines and Reference Documents

The following guidelines and reference documents have been used in preparation of this Technical Note:

- Austroads Guide to Pavement Technology – Part 2: Pavement Structural Design (AGPT02), 2017
- TMR Guideline to Traffic Impact Assessment (GTIA), December 2018
- TMR Guideline to Traffic Impact Assessment Practice Note: Pavement Impact Assessment (PN), December 2018.

2.4.2 Impact Assessment Area

The impact assessment area for the PIA will be defined as all road sections of Lake Macdonald Drive (refer to Figure 1-1) where the development SARs exceeds 5% of the base traffic in either direction on the road section's SARs in the year of opening of each stage.

2.4.3 Impact Mitigation Period

Figure 6.5 of the GTIA provides a visual representation of the temporal aspects of impact assessment and mitigation (refer to Figure 2-3 below). Based on the project brief by Seqwater, it is SMEC's understanding that this assessment is limited to pavement impacts resulting only from the construction phase of the Lake Macdonald Dam Upgrade. Impact of heavy vehicles over the operational phase of the dam has not be considered in this assessment based on advice from Seqwater that heavy vehicle movements will be equal to or less than the existing required through the operation and maintenance of the dam.

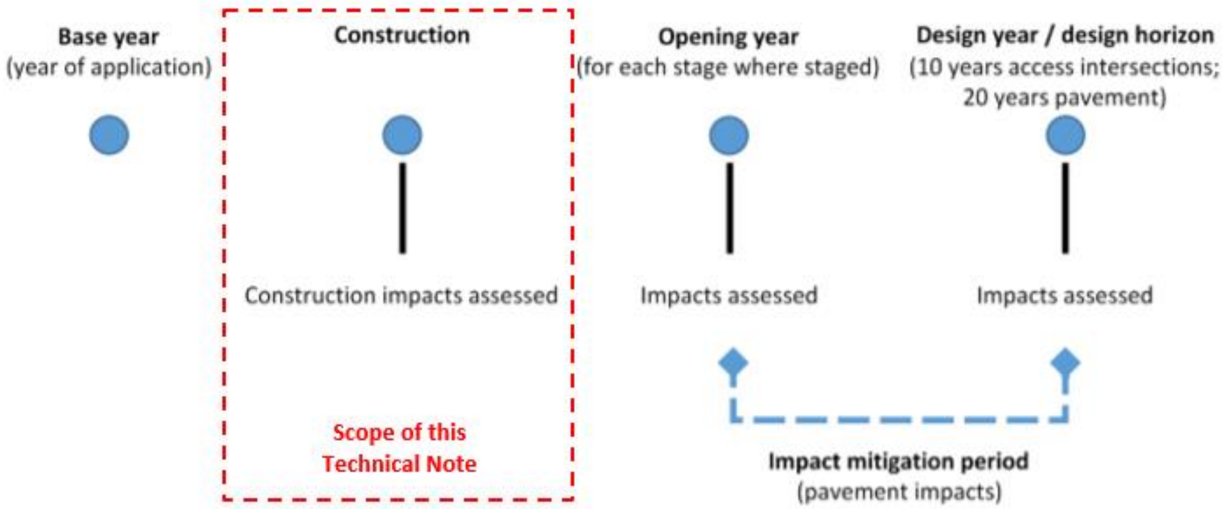

Figure 2-3: Development impact assessment mitigation period

2.4.4 Noosa Council (Local Government Road Authority)

Lake Macdonald Drive is a local government road within the Noosa Council (NC) area. This PIA has been undertaken in accordance with TMR guidelines as per the project brief. Recommendations for this consultation are provided in Section 2.10.2 of this Technical Note.

2.4.5 Contribution Assessment

The marginal cost method was adopted for the contribution assessment based on the procedure put forward in the GTIA, as follows:

1. Determination of the road links proposed to be affected by traffic generated by the development of the Lake Macdonald Dam Upgrade
2. Calculation of the existing SARs for each road link proposed to be affected by traffic generated by the development (base case). Current data on traffic volumes (AADT) and composition (percentage heavy vehicles) were calculated based on project specific traffic surveys inclusive of heavy vehicle classifications
3. Determination of the number and types of vehicles that will be generated by the development construction phase and the calculation of SARs for the development scenario

4. Determination of the road links where the development scenario SARs exceeds 5% of the base case SARs in either direction on the road link in the year of opening of each stage. The road links where the 5% threshold is exceeded was adopted as the impact assessment area for the pavement assessment
5. Identification of the relevant marginal cost rate per SAR-km, in this instance from reviewing marginal cost rates for the Cooroy Connection Road provided by TMR. Calculation of the contribution required to offset pavement impacts using the following formula:

$$Pavement\ contribution = \sum_{i=1}^{n} [(C + O)_i \times MC_i \times L_i]$$

where,

i	is each road segment triggered
C	is the construction period in SARs
O	is the operational period in SARs for the impact mitigation period
MC	is the relevant marginal cost (cents per SAR-km
L	is the length of road section in km
n	is the number of road segments triggered in the impact assessment area.

2.4.6 Assumptions, Unknowns and Limitations

SMEC have noted the following key assumptions, unknowns and limitations raised in preparation of this Technical Note:

- Heavy vehicles have been assumed to be fully loaded on entry to site (northbound towards Lake Macdonald) and travelling unloaded on exit from site (southbound towards Cooroy) for the development traffic. It should therefore be noted, no allowance for back-loading has been considered
- This pavement impact assessment was undertaken during the COVID-19 pandemic. The SMEC project team undertaking the TIA have advised the heavy vehicles volumes recorded during the traffic survey are not likely to be heavily impacted by the pandemic and therefore, the effects of COVID-19 were assumed negligible in the base case traffic calculations
- TMR TARS data from the Cooroy Connection Road was analysed to consider heavy vehicle annual growth rates. No consistent trend was established and a presumptive value of 1% (linear annual growth) was adopted following consultation with the SMEC project team undertaking the TIA for the project
- TMR's 'presumptive TLD' was adopted to assess load parameters of the base case heavy vehicle distribution for the purpose of determining SAR values per heavy vehicle pass
- The development traffic volumes are based on the construction traffic estimate provided by Seqwater and material volumes outlined in the supplied CMP. Where a discrepancy was identified, the more conservative value was adopted
- A presumptive heavy vehicle distribution for the development was derived using assumptions based on the CMP and engineering judgement. This involved using materials (e.g. concrete mix designs) and assumed heavy vehicle types (e.g. truck and dog) likely to be used to import each material required
- In the absence of specific values from NC, the contribution assessment was based on the average marginal cost rates for each pavement type provided by TMR for the Cooroy Connection Road between Myrtle Road and the Old Bruce Highway roundabout
- As a result of the limited pavement history information available at the time of this report, the existing pavement at Lake Macdonald Drive has been assumed to be an unbound granular base pavement with either sprayed seal or asphalt surfacing. The extent of each surfacing type was based on visual observations made during the dilapidation survey.

The above points have been communicated to Seqwater and their confirmation provided these assumptions are sound based on current available information. In any instance where these are considered no longer sound, SMEC should be advised and necessary changes to the PIA assessed.

2.5 Existing Pavement

2.5.1 Pavement History

Request for information on the existing pavement were directed to NC via email. In response to a request, John Hollingworth (Noosa Council Works Supervisor) provided the following statement via email to Anthony Burke (SMEC) on 22 September 2020:

"…the surface has many variation and difficult to give a detailed report without running a measuring wheel. Mostly asphalt from the start to the crest of the hill past Swift Dr with on seal section between Blue Wren Pl and Dianella Ct which is in poor condition. Most of the rest up to the start of the Botanical Gardens has had recon or rehab work carried out in the last 17 yrs."

No additional information or commentary was provided on the original design or type of rehabilitation.

Based on the information made available, limited conclusions can be made on the original pavement versus actual conditions and visual observations made during the dilapidation survey have been used to inform parameters in the PIA which relate to the existing pavement characteristics.

2.5.2 Pavement Condition

A detailed visual inspection of the existing pavement was undertaken on the subject section on Thursday 24th September 2020. Observations of the general condition of the pavement and its defects were made throughout Lake Macdonald Drive and are summarised below in Table 2-2. Further information on the condition of the existing pavement is detailed in SMEC's dilapidation survey report.

Table 2-2: General observations of existing pavement based on visual assessment

Lake Macdonald Drive Road Sections	General Observations
Elm Street to Kauri Street	The asphalt surfaced road section contained a multitude of surface defects with history of maintenance patching over large areas. Most defects across this section were cracks considered attributable to an ageing, oxidised and hardened asphalt surface with both moisture ingress and deformation ensuing. This section is expected to require renewal or extensive routine maintenance in the near future (with or without development).
Kauri Street to Dianella Court	This section is in fair condition with a microsurfacing treatment potentially undertaken relatively recently. Stone loss and stripping of the surfacing treatment is evident at some locations and expedient patches concentrated across some areas.
Dianella Court Intersection	Asphalt surfacing generally in good condition however cracking was present throughout, thought to be attributable to environmental factors.
Dianella Court to Swift Road (including Swift Road Intersection)	The asphalt surfaced road section contains cracking distress across the majority, predominantly crocodile cracking. The cracking was considered attributable to an ageing, oxidised and hardened asphalt surface. This section is expected to require renewal or extensive routine maintenance in the near future (with or without development). Small section of road with microsurfacing treatment near Dianella Court.
Swift Road to Noosa Water Treatment Plant Access:	Sprayed seal surfacing across the majority of this road section with some small areas of asphalt surfacing. Based on visual observations, it is evident the pavement has history of resurfacing/resealing treatments. The sprayed seals are generally in fair to good condition however flushing of varying severity is present across large lengths and some locations are suffering from stone loss. Other prominent defects include edge drops and localised areas containing expedient patches.

2.5.3 Pavement Type

Further to Section 2.5.1, limited information of the pavement history and existing pavement configuration at Lake Macdonald Drive was available at the time of this report. Pavement types have been assumed to be either sprayed seal on granular or asphalt on granular across the extents detailed in Table 2-3 below. SAR load damage exponents for each pavement type are also provided.

Table 2-3: Lake Macdonald Drive existing pavement types and load damage exponent

Start Chainage (m)	End Chainage (m)	Approximate Length (m)	Surfacing	SAR Damage exponent
0	317	317	Asphalt	5
317	628	311	Sprayed Seal / Microsurfacing	4
628	733	105	Asphalt	5
733	812	79	Sprayed Seal / Microsurfacing	4
812	999	187	Asphalt	5
999	4239	3240	Sprayed Seal	4

2.6 Background Traffic (Base Case)

2.6.1 Source Data

The following traffic data was provided for the background traffic calculations for the pavement impact assessment:

- Austraffic Video Intersection Counts at Elm Street and Lake Macdonald Drive intersection light and heavy vehicle volumes from 6:00 to 18:00 (12-hour counts) on Tuesday, 1 September 2020
- Austraffic Video Intersection Counts at Lake Macdonald Drive and NWTP Access Road intersection light and heavy vehicle volumes from 6:00 to 18:00 (12-hour counts) on Tuesday, 1 September 2020
- Austraffic Tube Counts at Lake Macdonald Drive, 200m south of NWTP Access Road 13-bin volumes and 24-hour counts from Saturday, 29 August 2020 to Friday, 4 September 2020.

Each dataset was considered for the purpose of deriving average annual heavy vehicle volumes for calculation of base case (background) traffic for the PIA. The following comments are provided in this regard:

- In this instance, intersections counts were not considered representative due to potential errors in converting from 12 hour to AADT and adoption of a presumptive heavy vehicle distribution. In comparison, tube counts provided 7 day daily average volumes with 12 BIN vehicle classifications which more accurately inform the annual average and TLD analysis
- The effect of both seasonal fluctuations and the COVID-19 environment on the accuracy of the tube counts were discussed with the SMEC traffic team undertaking the TIA and it was concluded the 7-day averages were representative and fit for purpose in determining background heavy vehicle volumes over the assessment period
- It is noted the location of the tube counts were 200m south of the NWTP Access Road and there is potential that heavy vehicle volumes associated with the Wimmers soft drink factory may not have been captured. In comparing weekday 12 hour volumes from the tube counts to the weekday 12 hour intersection count at Elm Street, it was found heavy vehicle volumes fluctuated in both directions, with a minor increase in one direction and a minor decrease in the other and a difference in two-way traffic of less than 10%.

Based on the above observations and following consultation with the SMEC project team undertaking the TIA, it was considered appropriate to proceed on the premise of the tube counts being fit for purpose in regard to completing the PIA.

2.6.2 Heavy Vehicle Volumes (Year of Tube Count Survey)

The sum of the 24-hour 7-day heavy vehicle tube counts were divided by 7 to find the average daily heavy vehicle volume. These values were adopted for base case traffic calculations in the PIA. A summary of the average daily heavy vehicle counts in each direction is summarised in Table 2-4 below. A full copy of the traffic count survey results (including light vehicles) is provided in Appendix A.

Table 2-4: Lake MacDonald 7-day Average Daily Heavy Vehicle Counts by Austroads Vehicle Class

Austroads Vehicle Class	3	4	5	6	7	8	9	10	11	12	Total
Northbound	43.1	1.6	0.9	1.4	2.0	0.4	0.6	0.1	0.1	0.0	50.4
Southbound	24.4	1.1	0.9	0.4	0.7	0.1	0.1	0.0	0.0	0.0	27.9
Both Directions	67.6	2.7	1.7	1.9	2.7	0.6	0.7	0.1	0.1	0.0	78.3

2.6.3 Heavy Vehicle Growth Rate

Heavy vehicle growth rates were assessed for nearby TMR TARS sites on the Cooroy Connection Road (Elm Street) for the purpose of establishing a heavy vehicle annual linear growth rate for the background traffic on Lake Macdonald Drive. The results of this analysis are included in Appendix B.

It is evident from the analysis that no consistent growth trend is present across each dataset. In the absence of this, the SMEC project team undertaking the TIA were consulted and a presumptive heavy vehicle annual linear growth rate of 1% has been adopted in calculation of the Lake Macdonald Drive base case traffic calculation.

2.6.4 Traffic Load Distribution

Data to inform the load characteristics of existing heavy vehicles travelling along Lake Macdonald Drive was not available. In the absence of this data, TMR Weigh in Motion (WiM) data was considered. “Method 3” outlined in the TMR PDS was adopted. “Method 3” uses presumptive class-specific TLDs combined with project specific classified vehicle counts (e.g. heavy vehicle classifications provided in Table 2-4).

The resultant TLD was assessed for both directions of traffic and heavy vehicle characteristics such as number of HVAGs and SAR were derived. Load characteristics specific to each heavy vehicle class and both the northbound and southbound direction summarised in Table 2-5 and Table 2-6 respectively. Detailed calculations relating to SAR values are provided in Appendix C.

Table 2-5: Lake Macdonald TLD for northbound direction

Lake Macdonald Drive (Northbound)		**Weigh-in-Motion data based on selected WIM site details**									
		3	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
NHVAG	**2.11**	2.00	2.00	2.00	3.00	3.05	3.08	3.03	4.00	5.09	7.16
ESA / HVAG	**0.51**	0.45	1.07	1.24	0.26	0.70	0.79	1.04	1.19	1.00	0.97
ESA / HV	**1.07**	0.89	2.14	2.48	0.78	2.12	2.43	3.14	4.74	5.10	6.94
Heavy Vehicle Distribution		43.1	1.6	0.9	1.4	2.0	0.4	0.6	0.1	0.1	0.0
		86%	3%	2%	3%	4%	1%	1%	0%	0%	0%
EHV For Vehicle Class Groupings		2			3				4		5
Volume for Grouping		46			4				0		0
Grouping Percentage of Total		91%			9%				1%		0%
Weighted E_{HV}	**2.1**										

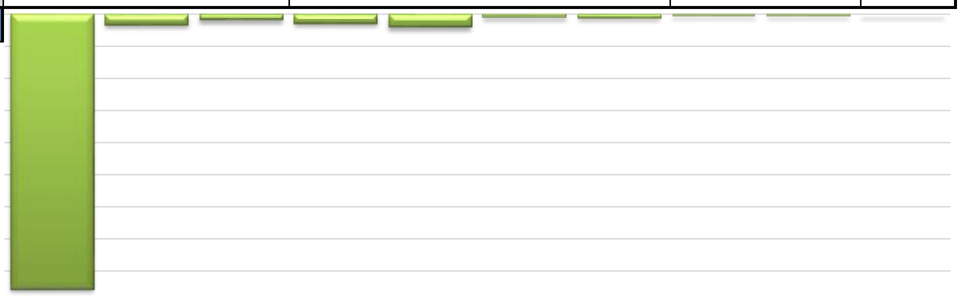

Table 2-6: Lake Macdonald TLD for southbound direction

Lake Macdonald Drive (Southbound)		Weigh-in-Motion data based on selected WIM site details									
		3	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
NHVAG	**2.05**	2.00	2.00	2.00	3.00	3.05	3.08	3.03	4.00	5.09	7.16
ESA / HVAG	**0.51**	0.45	1.07	1.24	0.26	0.70	0.79	1.04	1.19	1.00	0.97
ESA / HV	**1.04**	0.89	2.14	2.48	0.78	2.12	2.43	3.14	4.74	5.10	6.94
Heavy Vehicle Distribution		24.4	1.1	0.9	0.4	0.7	0.1	0.1	0.0	0.0	0.0
		88%	4%	3%	2%	3%	1%	1%	0%	0%	0%
EHV For Vehicle Class Groupings		2			3				4		5
Volume for Grouping		26			1				0		0
Grouping Percentage of Total		95%			5%				0%		0%
Weighted E_{HV}	**2.1**										

2.6.5 Background Traffic Calculation

The input parameters and outputs for the base case traffic are summarised below in Table 2-7. Detailed calculations are included in Appendix I.

Table 2-7: Lake MacDonald background traffic (base case SAR) summary

Variable		Northbound	Southbound	Source
AADT (Year of Count)		705	685	Austraffic 2020 Tube Counts at Lake Macdonald Drive, 200m south of NWTP Access Road
% HVs		7.09	4.09	Austraffic 2020 Tube Counts at Lake Macdonald Drive, 200m south of NWTP Access Road
Year of Traffic Count		2020	2020	Austraffic 2020 Tube Counts at Lake Macdonald Drive, 200m south of NWTP Access Road
Growth Rate (%)		1.0	1.0	Advised by SMEC Traffic Team. Assumed to be average annual linear growth.
Construction Period		2021 - 2023	2021 - 2023	Construction Traffic Estimate
DF		1.0	1.0	One-way traffic
LDF		1.0	1.0	AGPT02 Table 7.3
N_{HVAG}		2.11	2.05	Calculated from TMR CTLD Spreadsheet
SAR4/HVAG		0.51	0.50	Calculated in accordance with AGPT02 based on TLD from TMR CTLD Spreadsheet.
SAR5/HVAG		0.55	0.54	Calculated in accordance with AGPT02 based on TLD from TMR CTLD Spreadsheet.
Annual Background Traffic (SAR4)	**2021**	1.98×10^4	1.06×10^4	Calculated
	2022	2.00×10^4	1.07×10^4	Calculated
	2023	2.02×10^4	1.08×10^4	Calculated

Variable		Northbound	Southbound	Source
Annual Background Traffic (SAR5)	**2021**	2.14 x 10^4	1.14 x 10^4	Calculated
	2022	2.16 x 10^4	1.15 x 10^4	Calculated
	2023	2.18 x 10^4	1.17 x 10^4	Calculated

2.7 Development Traffic (Trip Generation)

2.7.1 Source Data

2.7.1.1 Construction Traffic Estimate Spreadsheet

A construction traffic estimate spreadsheet was provided by Seqwater (refer to Appendix D) giving a summary of the construction program schedule and corresponding monthly heavy vehicle volumes for key construction activities as part of the Lake Macdonald Dam Upgrade project. The construction stages were split into the following construction activities:

- Concrete production (Mass Concrete & Structural Concrete)
- Embankment production (Rock fill and filter import)
- D/S Erosion protection (Rock fill and filter import)
- Other (General works).

Table 2-8 summarises the number of heavy vehicles specified for each construction activity in the construction traffic estimate spreadsheet.

Table 2-8: Construction traffic estimate spreadsheet heavy vehicle summary

Construction Activity	Activity Duration for Nominated Volume (Total Months)	Monthly Heavy Vehicle Volume (One-way)	Monthly Heavy Vehicle Volume (Two-way)
General Works	18	22	44
	14	44	88
Mass Concrete Works	9	220	440
Structural Concrete Works	25	88	176
Rock Fill and Filter Import	7	198	396
	7	396	792
	Total HV	**9,350**	**18,700**

It is to be noted the spreadsheet provided only shows the total number of heavy vehicles and does not specify the heavy vehicle distribution (types). This is discussed further in Section 2.7.2 below.

2.7.1.2 Construction Management Plan (CMP)

A CMP supplied by Seqwater (refer to Appendix E) provides a detailed description of the implementation and conduction of site management responsibilities during the construction of the Lake Macdonald Dam Upgrade. Further, the CMP provides concrete mix designs and quantities and some indication of typical heavy vehicles used across the site as well as the types of concrete mix designs and estimated quantities of materials required for each mix design. These values are summarised in Table 2-9 and Table 2-10 below. These materials were associated with the works activities for production of structural and mass concrete and have been used to inform estimates of heavy vehicle volumes required to import each material.

Table 2-9: Estimated quantities of concrete mix

Concrete Mix Description	Estimated Quantity (m^3)
N20MPa Concrete	36,734
N32MPa Concrete	10,469
Piling Mix Concrete	24,122
Stabilised Fill Material	7,684
Total	79,009

Table 2-10: Estimated quantities for anticipated mix designs in kg/m^3

Description	32MPa Concrete	20MPa Concrete	Piling Mix Concrete	Stabilised Sand
Cement	277	206	337	124
Ash	93	89	113	41
20mm Aggregate	715	675	0	0
10mm Aggregate	355	360	705	0
7mm Aggregate	0	0	210	0
Coarse Sand	630	630	490	1,000
Fine Sand	270	270	400	650
WRDA	1.665	1.328	0	0
Daratard	0.74	0.59	1.350	0
AEA	0	0.05	0	0.3
Mira VL 12	0	0	2.475	0
Water	183	180	185	260

2.7.2 Heavy Vehicle Distribution

2.7.2.1 General

For each work activity outlined in Seqwater's construction traffic estimate spreadsheet, a heavy vehicle distribution has been assigned based on work activities described in the CMP and using engineering judgement. These are summarised in the sections below. Further details are provided in Appendix F.

For each vehicle type, load parameters were derived in accordance with NHVR guidelines and general mass limits. These calculations are summarised in Section 2.7.4 of this Technical Note.

2.7.2.2 General Construction Works

The heavy vehicle distribution for general works were derived through consideration to Section 6.10 of the CMP as follows:

- 7m^3 Concrete Agitator (4-axle twin steer rigid truck)
- Fuel Truck (3-axle rigid truck)
- 9T Tray Flatbed hiab Truck (3-axle semi-trailer)
- Water Truck (3-axle rigid truck)

In addition to above, it was also assumed a 3-axle semi-trailer would also be required to mobilise earthmoving equipment to and from the site.

2.7.2.3 Mass Concrete and Structural Concrete Works

The assumed heavy vehicle types for importing concrete materials to the site are summarised in Table 2-11 below relative to each material type prescribed in the nominated concrete mix designs.

Table 2-11: Heavy Vehicles for Importing Materials for Mass and Structural Concrete

Material Description	Vehicle Type
Cement	6-axle semi-trailer (Austroads Class 9)
Ash	6-axle semi-trailer (Austroads Class 9)
20mm Aggregate	3-axle truck and 4-axle dog trailer
10mm Aggregate	3-axle truck and 4-axle dog trailer
7mm Aggregate	3-axle truck and 4-axle dog trailer
Coarse Sand	3-axle truck and 4-axle dog trailer
Fine Sand	3-axle truck and 4-axle dog trailer
WRDA	6-axle semi-trailer (Austroads Class 9)
Daratard	6-axle semi-trailer (Austroads Class 9)
AEA	6-axle semi-trailer (Austroads Class 9)
Mira VL 12	6-axle semi-trailer (Austroads Class 9)

2.7.2.4 Rock Fill and Filter Import

It was assumed all rock fill and filter is imported to the site by a 3-axle truck and 4-axle dog trailer.

2.7.2.5 Workforce Bus Loading

A 2-axle rigid passenger bus has been considered for transportation of the workforce to and from the site each day.

2.7.3 Heavy Vehicle Volumes

2.7.3.1 General Construction Works

The total volumes put forward by Seqwater in their construction traffic estimate spreadsheet were adopted for this activity (refer to Table 2-8 for average monthly volumes).

2.7.3.2 Mass Concrete and Structural Concrete Works

In the first instance, heavy vehicle volumes for these activities were derived from material quantity estimates specific to each concrete mix design as summarised in Table 2-9 and Table 2-10 above and the maximum payload of each heavy vehicle type (in accordance with NHVR general mass limits) assumed to be importing each material (refer to Section 2.7.2.3). Adopting this methodology, heavy vehicle volumes were derived as summarised in Table 2-12 below.

These volumes vary to the estimates provided by Seqwater (in this instance SMEC's values were higher). In considering appropriate volumes to adopt in the PIA, it is noted the calculation of SARs are inherently linked to heavy vehicle types and payloads. Accordingly, in the absence of further details of vehicle types corresponding to volumes provided by Seqwater, the SMEC derived volumes for these work activities were adopted in the PIA.

Table 2-12: Heavy vehicle volumes for mass and structural concrete works

Vehicle Description and Load				
Vehicle	Maximum Payload (Tonnes)	Material	Total Vehicles (One-way)	Vehicle Distribution (%)
6-axle semi-trailer	26.5	Cement	702	10.62%
		Ash	263	3.98%
3-axle truck and 4-axle dog trailer	24	20 mm Aggregates	1,345	20.36%
		10 mm Aggregates	1,415	21.41%
		7 mm Aggregates	211	3.19%
		Coarse Sand	1,732	26.21%
		Fine Sand	933	14.12%
6-axle semi-trailer	26.5	WRDA	2	0.04%
		Daratard	2	0.04%
		AEA	0	0.00%
		Mira VL 12	2	0.03%
		Total	**6,607**	**100%**

It is to be noted the above calculations have not allowed for bulking effects of materials. It is recommended the bulking effect and accuracy of the construction estimates are reassessed once a Contractor is engaged for the project and the influence of these on development volumes can be better understood.

2.7.3.3 Rock and Filter Import

The volumes put forward by Seqwater in their construction traffic estimate spreadsheet were adopted for this activity (refer to Table 2-8 for average monthly volumes).

2.7.3.4 Workforce Transport

It is understood the workforce for the construction of the dam upgrade will be transported to site via bus for each day of works. To account for this in the PIA, 24 monthly (one-way) passes of a 2-axle rigid passenger buses have been accounted over the entire construction period.

2.7.4 Heavy Vehicle Volume Summary by Heavy Vehicle Type

A summary of the heavy vehicle volume in each direction calculated based on the assumptions made in Section 2.7.2 and Section 2.7.3 are summarised below in Table 2-13. The distribution of these volumes by month and vehicle type is provided in Appendix G, in a format similar to the original programme in the construction traffic estimate spreadsheet provided by Seqwater (refer Appendix D).

Table 2-13: Development Heavy Vehicle Volume Summary (One-way)

ID	Vehicle Description	Purpose	Vehicle Class		Year			
			Austroads	NHVR	2021	2022	2023	Total
1	4-axle twin steer rigid truck (Concrete Agitator)	Delivering of concrete for minor works	5	1E	16	0	12	28

ID	Vehicle Description	Purpose	Vehicle Class		Year			
			Austroads	NHVR	2021	2022	2023	Total
2	3-axle rigid truck (Water Truck)	Delivery of water	4	1B	29	51	51	131
3	3-axle rigid truck (Fuel Truck)	Delivery of fuel to the site	4	1B	42	88	80	210
4	3-axle rigid truck (Hiab)	Delivery of general goods and equipment	3	1A	84	136	138	358
5	3-axle truck and 4-axle dog trailer	Import of rock fill, aggregates, and sand	10	3E	989	4,787	4,017	9,793
6	6-axle semi-trailer	Delivering of cement, ash and general equipment and products	9	2E	174	651	432	1,257
7	2-axle rigid (Small passenger bus)	Movement of workforce to and from site each day	3	1A	216	288	264	768
				Total Heavy Vehicle Count	**1,550**	**6,002**	**4,994**	**12,545**

2.7.5 SAR4 and SAR5 Loading

Table 2-14 summarises SAR values for a single pass of each heavy vehicle type considered in the PIA, for both unloaded and loaded scenarios. Detailed calculations inclusive of adopted axle configurations and axle loads for each heavy vehicle type are included in Appendix F.

Table 2-14: Development Traffic Heavy Vehicle SAR Calculation Summary

ID	Vehicle Description	Vehicle Class		SAR4 / pass		SAR5 / pass	
		Austroads	NHVR	Loaded	Unloaded	Loaded	Unloaded
1	4-axle twin steer rigid truck (Concrete Agitator)	5	1E	3.80	0.48	4.50	0.39
2	3-axle rigid truck (Water Truck)	4	1B	3.58	0.50	4.16	0.41
3	3-axle rigid truck (Fuel Truck)	4	1B	3.58	0.50	4.16	0.41
4	3-axle rigid truck (Hiab)	3	1A	3.00	0.54	3.32	0.43
5	3-axle truck and 4-axle dog trailer	10	3E	5.00	0.57	5.32	0.44
6	6-axle semi-trailer	9	2E	4.93	0.51	5.61	0.41
7	2-axle rigid (Small passenger bus)	3	1A	0.10	0.02	0.05	0.01

2.7.6 Development Total SAR Volumes

The total yearly SAR4 and SAR5 exponential load damage factors calculated based on Table 2-12 and Table 2-13 above is summarised in Table 2-15 below. Total monthly SAR4 and SAR5 values by vehicle type and construction activity are provided in Appendix H.

Table 2-15: Total yearly development SAR4 and SAR5

Total Development Traffic	Number of Heavy Vehicles				SAR4				SAR5			
	2021	2022	2023	Yearly Total	2021	2022	2023	Yearly Total	2021	2022	2023	Yearly Total
Northbound (Loaded)	1,550	6,002	4,994	12,545	6,384	28,060	23,151	57,596	6,888	30,149	24,848	61,885
Southbound (Unloaded)	1,550	6,002	4,994	12,545	765	3,249	2,696	6,711	589	2,509	2,079	5,177
Project Total	3,099	12,004	9,988	25,091	7,150	31,310	25,847	64,307	7,476	32,657	26,928	67,061

2.8 Development Impact on Pavement

2.8.1 Existing Pavement Surface

The existing pavement surface condition varies across Lake Macdonald Drive (refer to Section 2.5.2 of this Technical Note). With consideration to the development generated traffic derived in Section 2.7 of this Technical Note and corresponding impact on the existing pavement surface, the following commentary is provided:

- There are multiple sections of asphalt surfacing with extensive cracking and a history of patching. The increase in trafficking at these locations can be expected to further the rate of deterioration of the surfacing, resulting in further cracking and additional potholes. Notwithstanding, based on visual assessment and extent of existing surface defects, it would be reasonable to conclude the surfacing has reached the end of its useful life at these locations and/or underlying pavement condition is contributing to surface distress in some instances
- For sections of asphalt surfacing with extensive cracking, deterioration will be further accelerated in periods during and shortly following rain events given the increased passes of heavy vehicles
- Where existing flushing is a function of poor quality base, severity of flushing may increase
- Existing edge breaks will be exacerbated should vehicles regularly traverse the pavement edge
- Increased quantity and severity of turning and braking movements on Lake Macdonald Drive at the dam entrance are likely to induce stress on the existing sprayed seal greater than that which it was originally designed for. Depending on properties of the existing sprayed seal (e.g. binder type) these increased stress may lead to defects such as stone loss, potholes, flushing and cracking.

2.8.2 5% SARs Threshold Assessment

Table 2-16 and Figure 2-4 to Figure 2-7 below provides a summary of the derived proportion of development traffic against the base case traffic. The results show in all three years of heavy vehicle trafficking associated with the Lake Macdonald Dam Upgrade construction works, the development SAR scenario exceeds 5% of the base case SARs in both directions of travel.

Table 2-16: Lake Macdonald Drive pavement impact trigger analysis summary

Damage Exponent	Direction	2021		2022		2023	
		North Bound	South Bound	North Bound	South Bound	North Bound	South Bound
SAR4	Background	19,835	10,580	20,032	10,685	20,228	10,790
	Development	6,384	765	28,060	3,249	23,151	2,696
	Percentage	**32.2 %**	**7.2 %**	**140.1 %**	**30.4 %**	**114.5 %**	**25.0 %**
SAR5	Background	21,391	11,427	21,603	11,540	21,815	11,653
	Development	6,887	589	30,149	2,509	24,848	2,079

Damage Exponent	Direction	2021		2022		2023	
		North Bound	South Bound	North Bound	South Bound	North Bound	South Bound
	Percentage	**32.2 %**	**5.2 %**	**139.6 %**	**21.7 %**	**113.9 %**	**17.8 %**

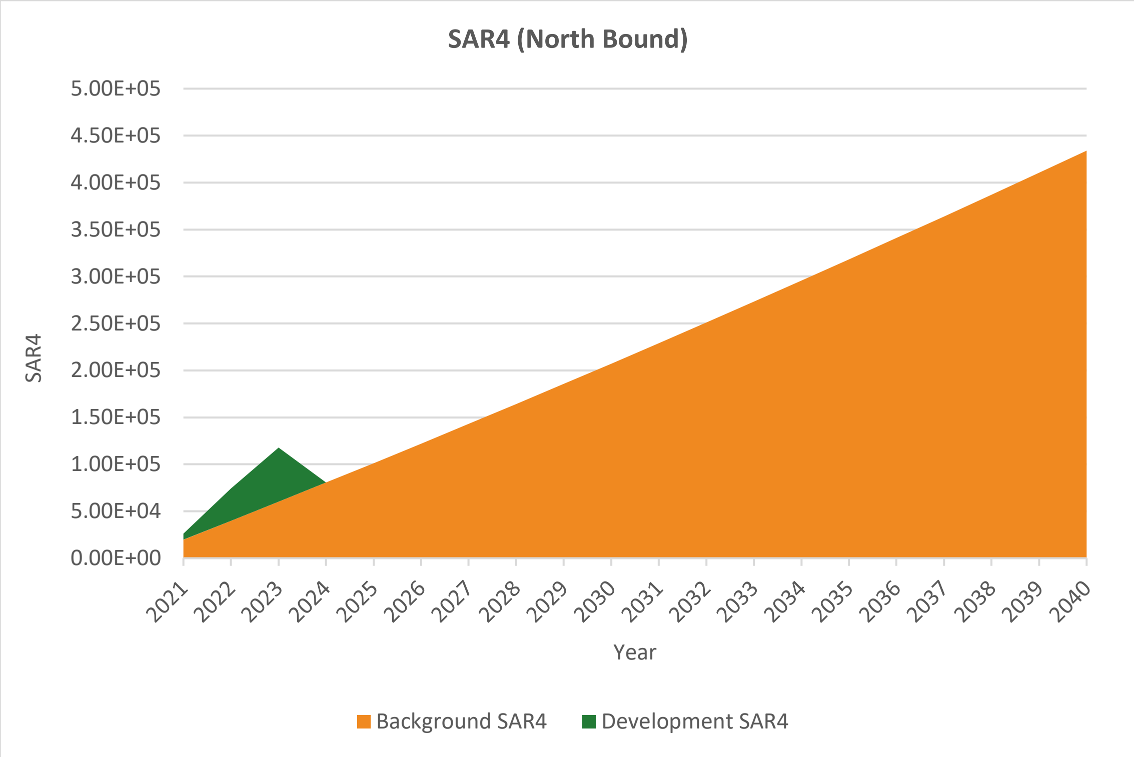

Figure 2-4: Total north bound background and development SAR4 comparison (stacked chart)

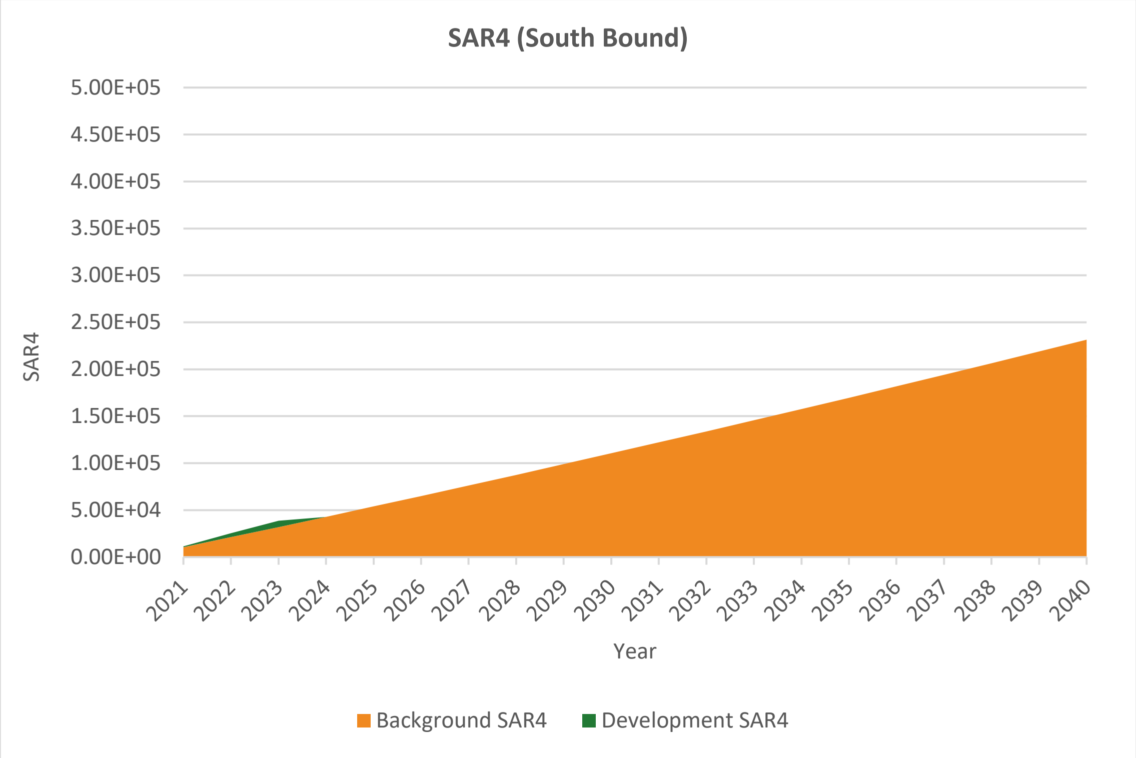

Figure 2-5: Total south bound background and development SAR4 comparison (stacked chart)

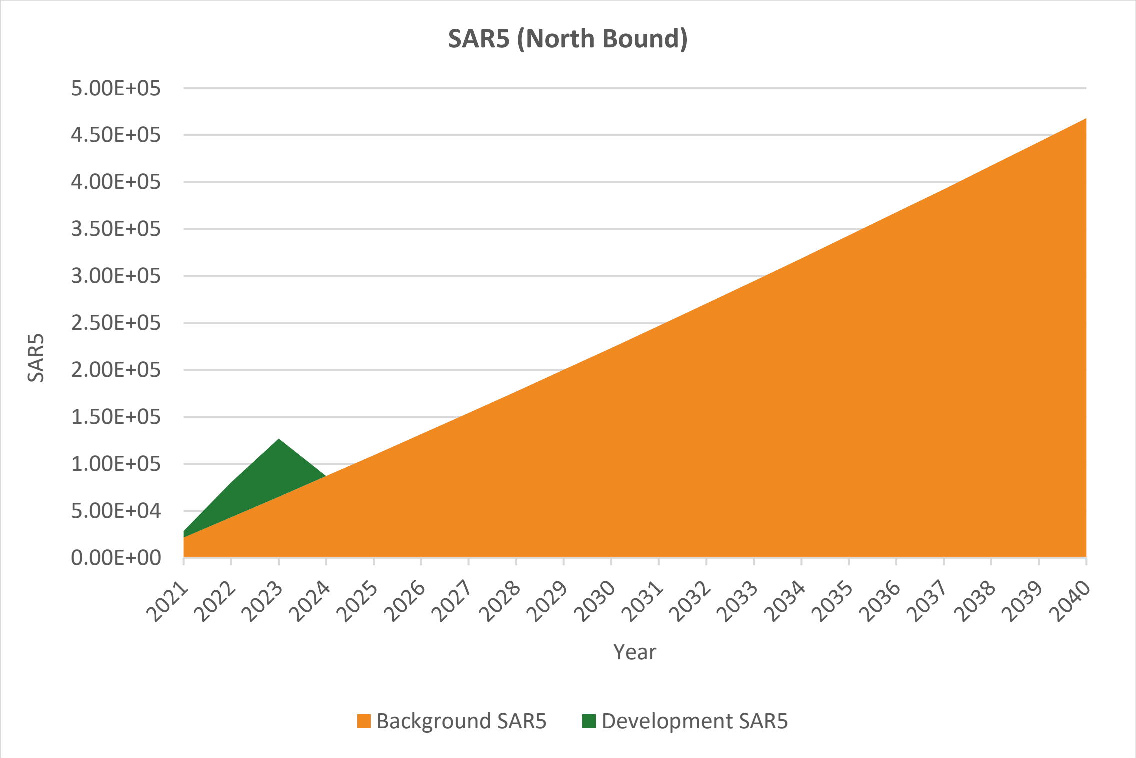

Figure 2-6: Total north bound background and development SAR5 comparison (stacked chart)

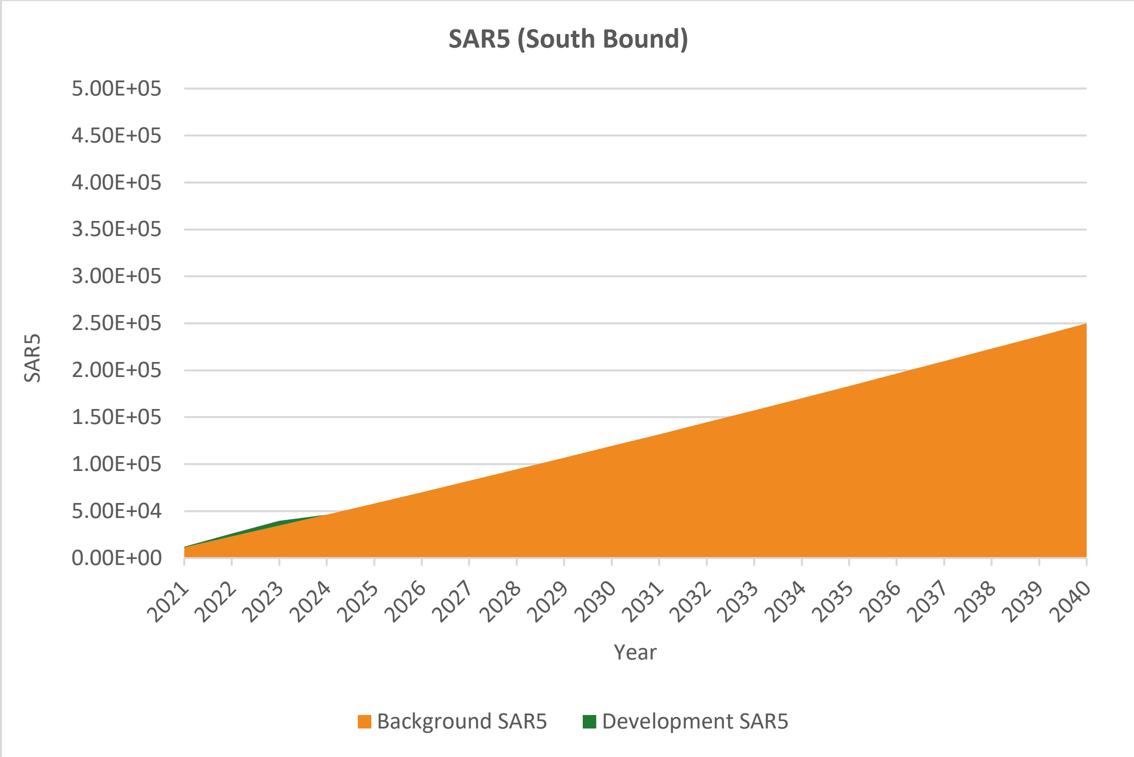

Figure 2-7: Total south bound background and development SAR5 comparison (stacked chart)

2.8.3 Pavement Impact Assessment Area

Based on Table 8-1, the impact assessment area for the PIA can be defined as both directions of Lake Macdonald from Elm Street to the Noosa Water Treatment Plant Access (as per Figure 1-1).

2.9 Mitigation Works

2.9.1 Initial Works

The existing pavement condition is poor at various locations and heavy vehicle trips generated by the development are expected to increase the rate of deterioration (refer Section 2.8.1 of this Technical Note). The necessity for initial works will depend on various factors and consultation with NC is recommended in this regard to establish:

- NC's planned pavement maintenance activities for Lake Macdonald Drive
- NC's planned pavement upgrades to Lake Macdonald Drive
- A potential maintenance strategy for the road section to be adopted during the construction of the Lake Macdonald Dam Upgrade
- Consideration to a monetary contribution in light of the above works and their timing.

Based on the existing pavement condition (terminal at some locations) it is recommended the above discussions are progressed in earnest to ensure the pavement condition along Lake Macdonald Drive can be effectively managed during the construction of the dam upgrade.

2.9.2 Monetary Contribution

2.9.2.1 Marginal Cost Rate

At the time of preparing this report, no information was available for derivation of a marginal cost rate specific to expenditure on Lake Macdonald Drive. In the absence of such information, marginal cost data was requested from TMR's Road Asset Data department for the Cooroy Connection Road between Myall Street and the Old Bruce Highway (TMR chainage 0 km to 7.92 km). This road section contained both Sprayed Seal on Granular (GN) and Asphalt (AC) pavement types. The average value for each pavement type was derived and is summarised in Table 2-17 below. Appendix J provides a copy of the marginal rates supplied by TMR.

Table 2-17: Average marginal cost rate for each pavement type

Surface	Total Length	Damage Exponent (SAR)	Average Marginal Cost
Sprayed Seal (GN)	3630	4	5.25 cents per SAR4-km
Asphalt (AC)	609	5	5.33 cents per SAR5-km

2.9.2.2 Contribution Amount

The contribution amount was calculated based on the marginal cost rates (refer to Section 2.9.2.1) and the yearly development SAR volumes (refer to Section 2.7.6), applied to the length of each pavement type (refer to Section 2.5.3) over the impact assessment area. The corresponding contribution amounts are summarised in Table 2-18 below. Further details are provided in Appendix K.

Table 2-18: Contribution cost calculation summary

Chainage (m)			Surfacing Type	Damage Exponent (SAR)	Marginal Cost (Cents / SAR-km)	Year	Contribution Amount (AUD)		
Start	End	Length (m)					North Bound	South Bound	Total
0	317	317	Asphalt (AC)	5	5.33	2021	116.37	9.95	126.32
						2022	509.39	42.38	551.78
						2023	419.84	35.13	454.98
						Sub-total	**1,045.61**	**87.47**	**1,133.07**
317	628	311	Sprayed Seal (GN)	4	5.25	2021	104.24	12.50	116.74
						2022	458.16	53.05	511.21
						2023	378.00	44.01	422.02
						Sub-total	**940.40**	**109.57**	**1,049.97**
628	733	105	Asphalt (AC)	5	5.33	2021	38.55	3.30	41.84
						2022	168.73	14.04	182.77
						2023	139.06	11.64	150.70
						Sub-total	**346.34**	**28.97**	**375.31**
733	812	79	Sprayed Seal (GN)	4	5.25	2021	26.48	3.17	29.65
						2022	116.38	13.48	129.86
						2023	96.02	11.18	107.20
						Sub-total	**238.88**	**27.83**	**266.71**
812	999	187	Asphalt (AC)	5	5.33	2021	68.65	5.87	74.52
						2022	300.49	25.00	325.50
						2023	247.67	20.73	268.39
						Sub-total	**616.81**	**51.60**	**668.41**

Chainage (m)			Surfacing Type	Damage Exponent (SAR)	Marginal Cost (Cents / SAR-km)	Year	Contribution Amount (AUD)		
Start	End	Length (m)					North Bound	South Bound	Total
999	4239	3240	Sprayed Seal (GN)	4	5.25	2021	1,085.98	130.20	1,216.18
						2022	4,773.08	552.72	5,325.80
						2023	3,938.04	458.54	4,396.58
						Sub-total	**9,797.11**	**1,141.46**	**10,938.57**
								Total Contribution	**14,432.04**

2.10 Conclusions and Recommendations

2.10.1 Conclusion

This Technical Note has undertaken an assessment of base case and development traffic loading along Lake Macdonald Drive, and identified road sections where a 5% threshold is exceeded (impact assessment area). For the impact assessment area, monetary contributions have been calculated in accordance with the GTIA and PN as a means to offsetting the impacts on the pavement which result from the development.

Using the 'marginal cost methodology' outlined in the GTIA and PN, a total development contribution for Lake Macdonald Drive was calculated to be $14,432.04 (AUD).

2.10.2 Recommendations

2.10.2.1 Additional Actions

SMEC recommend the following actions are taken to finalise the PIA:

- Following award of the construction contract, Seqwater review the Contractor's CMP and proposed traffic routes for any signification variations to the input parameters adopted in this PIA. In particular, careful consideration should be given to the presumptive heavy vehicle types, volumes and axle load configurations outlined in Section 2.7 of this Technical Note
- Seqwater note the following for discussion with NC:
  - The methodology adopted for assessing the pavement impact as per the GTIA PN
  - The base case traffic parameters adopted as per Section 2.6 of this Technical Note. Most notably the annual average daily heavy vehicle volume, annual average heavy vehicle linear growth rate and the derived heavy vehicle load distribution characteristics
  - The adopted marginal cost rates. Marginal cost rate values should be relative to the marginal cost of road-wear on Lake Macdonald Drive as a result of heavy vehicles with consideration to each pavement type and the local climate and soil conditions as well as the overall strength of the pavement. In line with the GTIA, the marginal cost rate should be derived relative to a 50-year life cycle for the pavement and typical pavement costings include maintenance, rehabilitation and reconstruction.
- Seqwater consult with NC on regarding delivery of routine pavement maintenance activities along Lake Macdonald Drive in the time prior to and during the development.

2.10.2.2 Additional Mitigation Measures

Notwithstanding above, it is highlighted to Seqwater that additional mitigation measures can be adopted during construction to minimise the potential impact on the pavement during construction of the project. These may include but are not limited to:

- Undertaking visual pavement assessments at selective points in the construction programme as a means to identifying early signs of an increased rate of deterioration or pavement failure
- Installation of shaker grids at site exit points from construction activities

- Consult with the construction Contractor on limiting heavy vehicle volumes during and immediately following periods of inclement weather
- Development of strategy for delivery of routine maintenance activities and agreed intervention levels.

Appendix A Background Traffic: Lake Macdonald Drive Traffic Counts

AUTOMATIC VEHICLE CLASSIFICATION AND SPEED SURVEY
SUMMARY OF RESULTS - **Northbound**

Client: SMEC
Road: Lake MacDonald Drive
Survey Location: 200m south of Collwood Road (60kmh)
Suburb: Cooroy
Survey Period: Sat 29 Aug 20 to Fri 04 Sep 20
Speed Limit: 60
Austraffic Reference: 16942
GCCC Reference: 1

TRAFFIC VOLUME / CLASSIFICATION DATA

DAY	DAILY TRAFFIC BY AUSTROAD CLASSES														Motor	
	1	2	3	4	5	6	7	8	9	10	11	12	13	Total	cycle	Bicycle
Saturday, August 29, 2020	606	13	40	1	0	0	1	0	1	1	0	0	0	663	5	3
Sunday, August 30, 2020	484	27	20	0	0	0	4	0	1	0	0	0	0	536	7	8
Monday, August 31, 2020	659	14	36	5	1	1	5	0	0	0	0	0	0	721	3	0
Tuesday, September 01, 2020	682	19	56	0	3	3	2	0	1	0	0	0	0	766	9	2
Wednesday, September 02, 2020	676	19	51	3	1	5	0	1	0	0	0	0	0	756	6	4
Thursday, September 03, 2020	650	24	44	0	0	1	1	1	0	0	0	0	1	722	9	0
Friday, September 04, 2020	685	27	55	2	1	0	1	1	1	0	1	0	0	774	12	5
Average Daily Volume	635	20	43.1	1.6	0.9	1.4	2.0	0.4	0.6	0.1	0.1	0.0	0.1	**705**	7	3
% of Vehicles by Class	90.0%	2.9%	6.1%	0.2%	0.1%	0.2%	0.3%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	**100.0%**	1.0%	0.4%

AUTOMATIC VEHICLE CLASSIFICATION AND SPEED SURVEY
SUMMARY OF RESULTS - **Southbound**

Client: SMEC
Road: Lake MacDonald Drive
Survey Location: 200m south of Collwood Road (60kmh)
Suburb: Cooroy
Survey Period: Sat 29 Aug 20 to Fri 04 Sep 20
Speed Limit: 60
Austraffic Reference: 16942
GCCC Reference: 1

TRAFFIC VOLUME / CLASSIFICATION DATA

DAY	DAILY TRAFFIC BY AUSTROAD CLASSES														Motor	
	1	2	3	4	5	6	7	8	9	10	11	12	13	Total	cycle	Bicycle
Saturday, August 29, 2020	584	20	16	0	0	1	0	0	0	0	0	0	0	621	2	3
Sunday, August 30, 2020	464	26	14	0	0	0	0	0	0	0	0	0	0	504	10	5
Monday, August 31, 2020	658	17	27	3	1	0	3	0	0	0	0	0	0	709	2	0
Tuesday, September 01, 2020	693	21	31	1	3	0	0	0	1	0	0	0	0	750	9	2
Wednesday, September 02, 2020	694	19	29	1	2	2	1	0	0	0	0	0	0	748	5	0
Thursday, September 03, 2020	643	22	27	0	0	0	1	1	0	0	0	0	0	694	8	0
Friday, September 04, 2020	704	32	27	3	0	0	0	0	0	0	0	0	0	766	11	6
Average Daily Volume	634	22	24.4	1.1	0.9	0.4	0.7	0.1	0.1	0.0	0.0	0.0	0.0	**685**	7	2
% of Vehicles by Class	92.6%	3.3%	3.6%	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**100.0%**	1.0%	0.3%

Appendix B Background Traffic: Growth Rate Analysis

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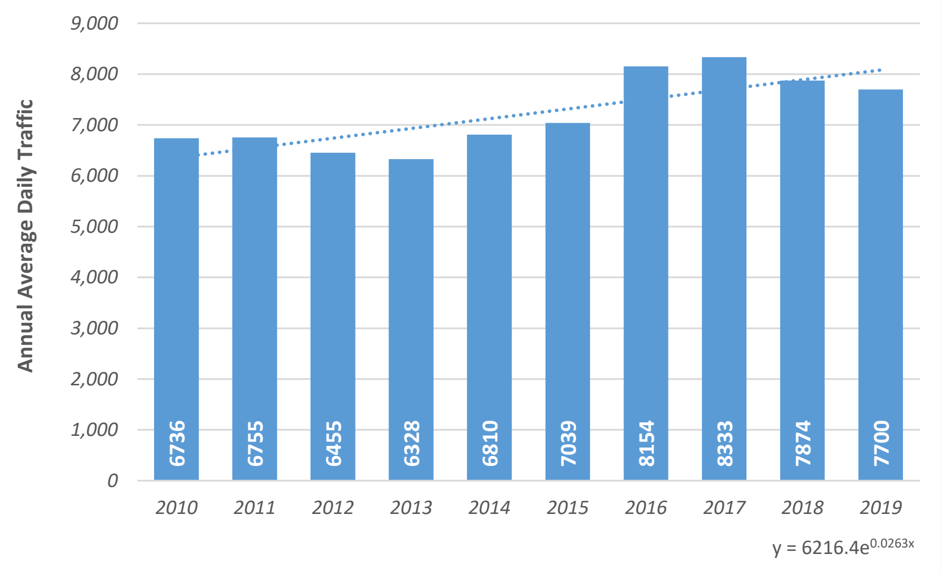
TMR HISTORICAL TRAFFIC CENSUS DATA
GROWTH RATE ASSESSMENT

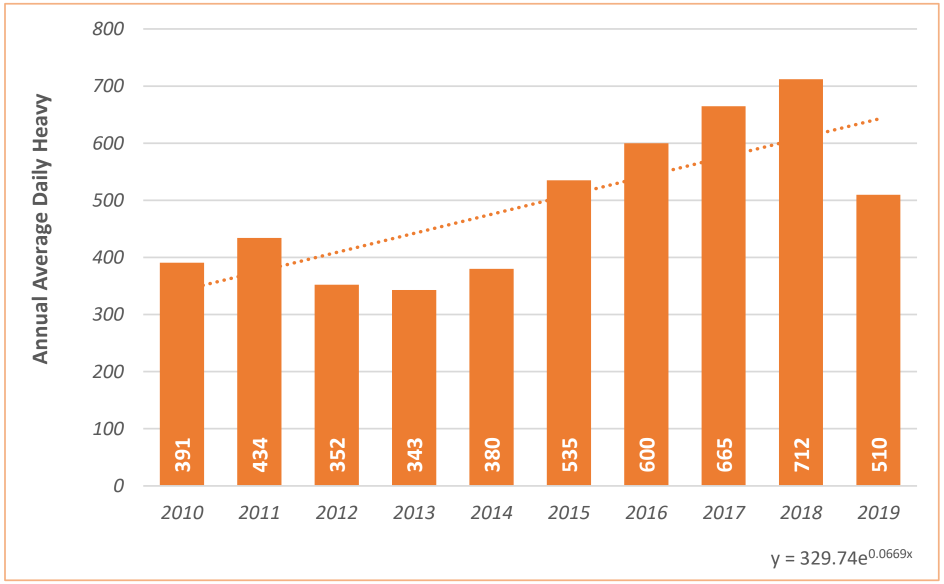
TMR Site ID	**20050**
Road Name	COOROY CONNECTION ROAD
Description	Rd 145 - North of Pearsons Rd

Longitude	152.9091302
Latitude	-26.40537118
Report Date	Wednesday, 11 November 2020

Historical Data

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AADT	6,736	6,755	6,455	6,328	6,810	7,039	8,154	8,333	7,874	7,700
Heavy Vehicles	391	434	352	343	380	535	600	665	712	510
% HV	5.8%	6.4%	5.5%	5.4%	5.6%	7.6%	7.4%	8.0%	9.0%	6.6%

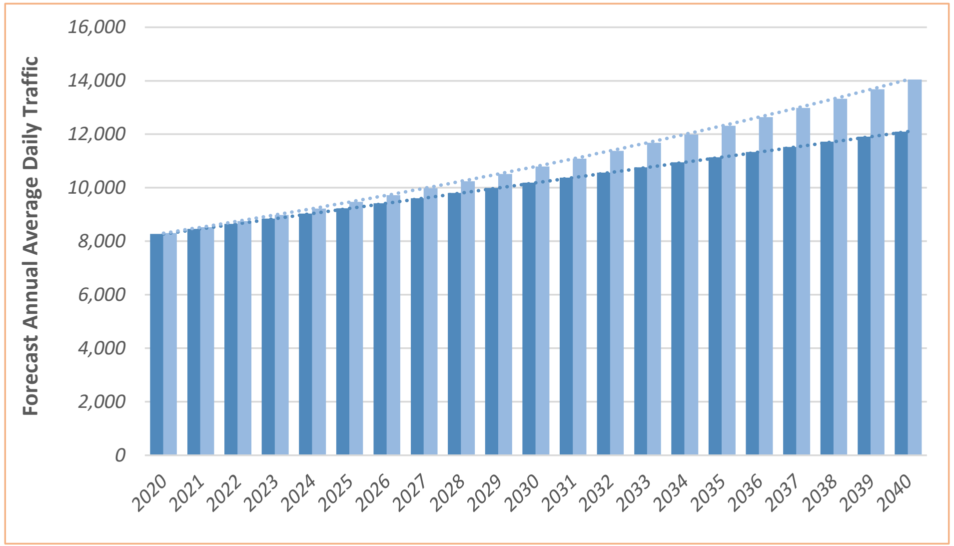


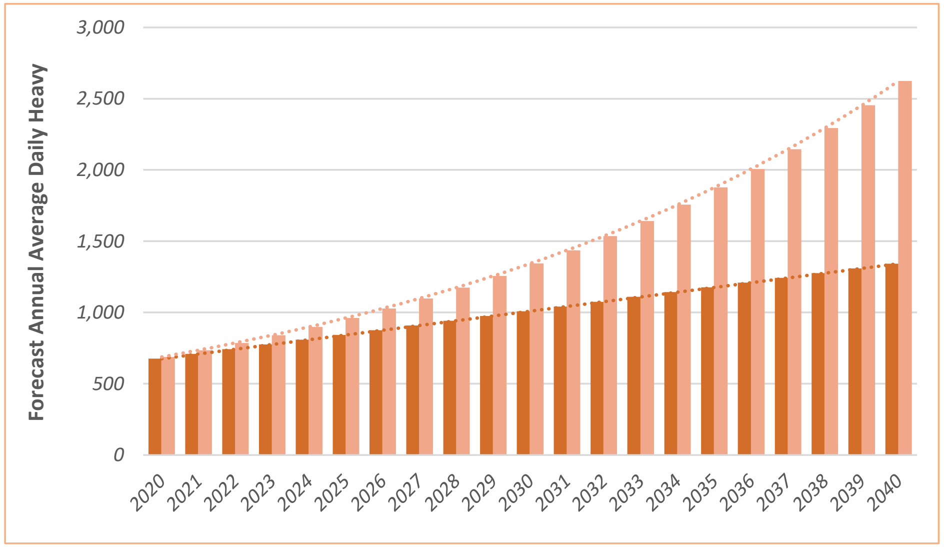


Growth Rate Analysis

Time Period	2010 - 2019	2011 - 2019	2012 - 2019	2013 - 2019	2014 - 2019	2015 - 2019	2016 - 2019	2017 - 2019	2018 - 2019
Time Period (years)	9	8	7	6	5	4	3	2	1
Linear AADT	1.6%	1.7%	2.8%	3.6%	2.6%	2.3%	-1.9%	-3.8%	-2.2%
Linear Heavy Vehicle	3.4%	2.2%	6.4%	8.1%	6.8%	-1.2%	-5.0%	-11.7%	-28.4%
Compound AADT	1.5%	1.7%	2.6%	3.3%	2.5%	2.3%	-1.9%	-3.9%	-2.2%
Compound Heavy Vehicle	3.0%	2.0%	5.4%	6.8%	6.1%	-1.2%	-5.3%	-12.4%	-28.4%

Regression Chart



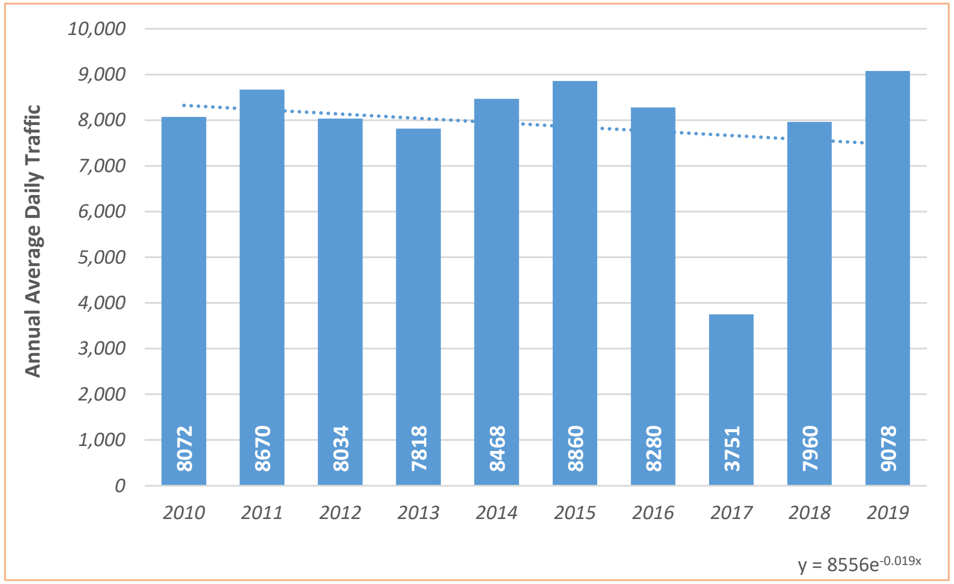


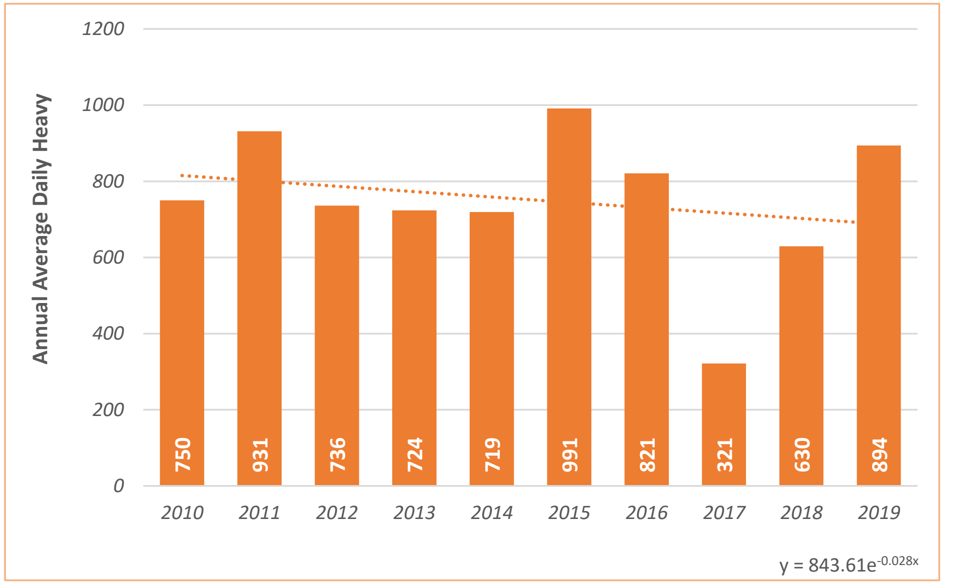
TMR HISTORICAL TRAFFIC CENSUS DATA
GROWTH RATE ASSESSMENT

TMR Site ID	**20049**		**Longitude**	152.9125186
Road Name	COOROY CONNECTION ROAD		**Latitude**	-26.42792787
Description	100m South of Ferrels Rd		**Report Date**	Wednesday, 11 November 2020

Historical Data

Year	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
AADT	8,072	8,670	8,034	7,818	8,468	8,860	8,280	3,751	7,960	9,078
Heavy Vehicles	750	931	736	724	719	991	821	321	630	894
% HV	9.3%	10.7%	9.2%	9.3%	8.5%	11.2%	9.9%	8.6%	7.9%	9.9%

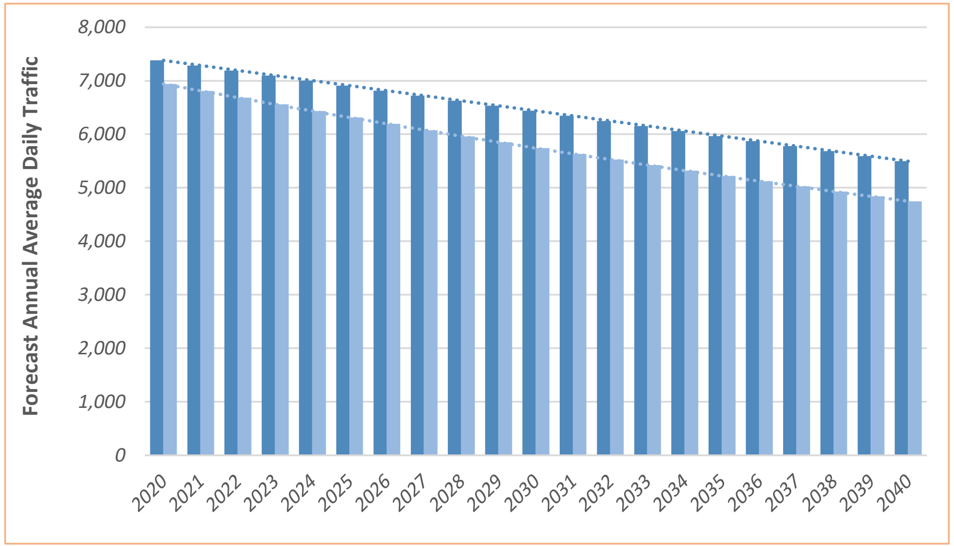


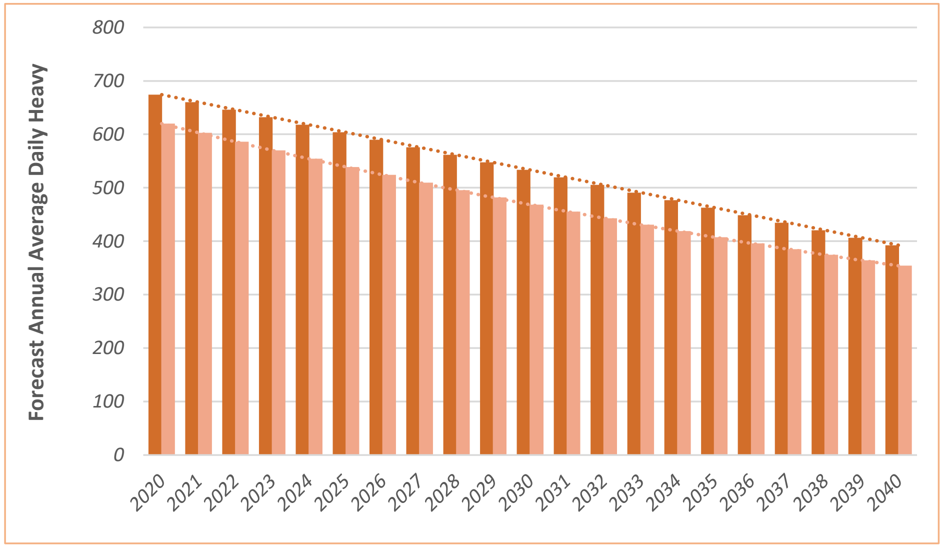


Growth Rate Analysis

Time Period	2010 - 2019	2011 - 2019	2012 - 2019	2013 - 2019	2014 - 2019	2015 - 2019	2016 - 2019	2017 - 2019	2018 - 2019
Time Period (years)	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**
Linear AADT	1.4%	0.6%	1.9%	2.7%	1.4%	0.6%	3.2%	71.0%	14.0%
Linear Heavy Vehicle	2.1%	-0.5%	3.1%	3.9%	4.9%	-2.5%	3.0%	89.2%	42.0%
Compound AADT	1.3%	0.6%	1.8%	2.5%	1.4%	0.6%	3.1%	55.6%	14.0%
Compound Heavy Vehicle	2.0%	-0.5%	2.8%	3.6%	4.5%	-2.5%	2.9%	66.9%	42.0%

Regression Chart





Member of the Surbana Jurong Group

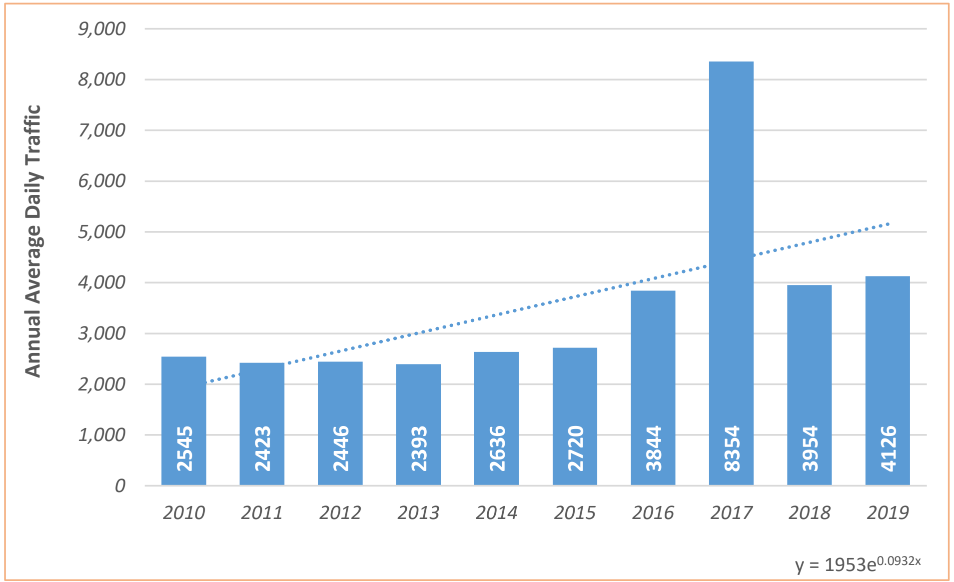
TMR HISTORICAL TRAFFIC CENSUS DATA
GROWTH RATE ASSESSMENT

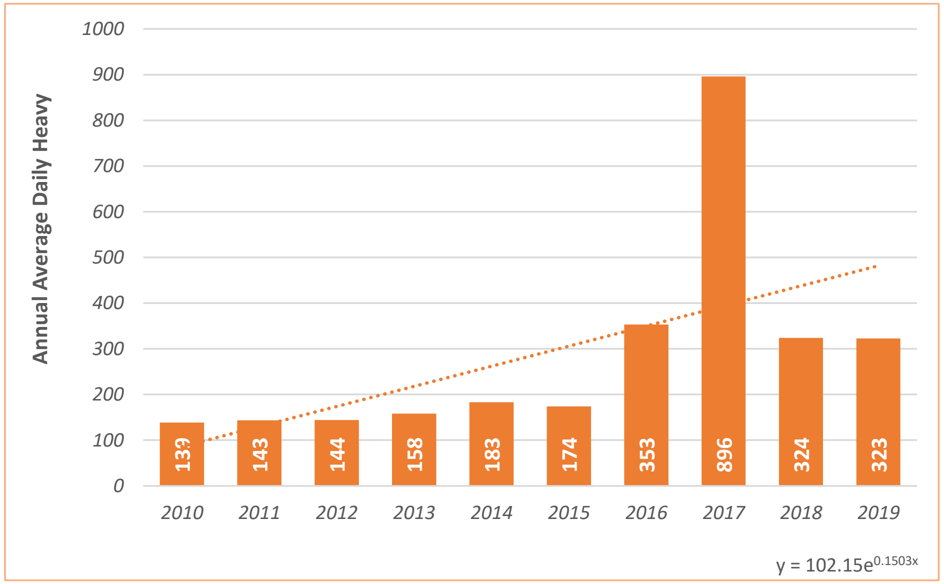
TMR Site ID	**21266**
Road Name	COOROY CONNECTION ROAD
Description	145 - 30m South of Railway Overpass

Longitude	152.8840604
Latitude	-26.39245743
Report Date	Wednesday, 11 November 2020

Historical Data

Year	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
AADT	2,545	2,423	2,446	2,393	2,636	2,720	3,844	8,354	3,954	4,126
Heavy Vehicles	139	143	144	158	183	174	353	896	324	323
% HV	5.5%	5.9%	5.9%	6.6%	7.0%	6.4%	9.2%	10.7%	8.2%	7.8%

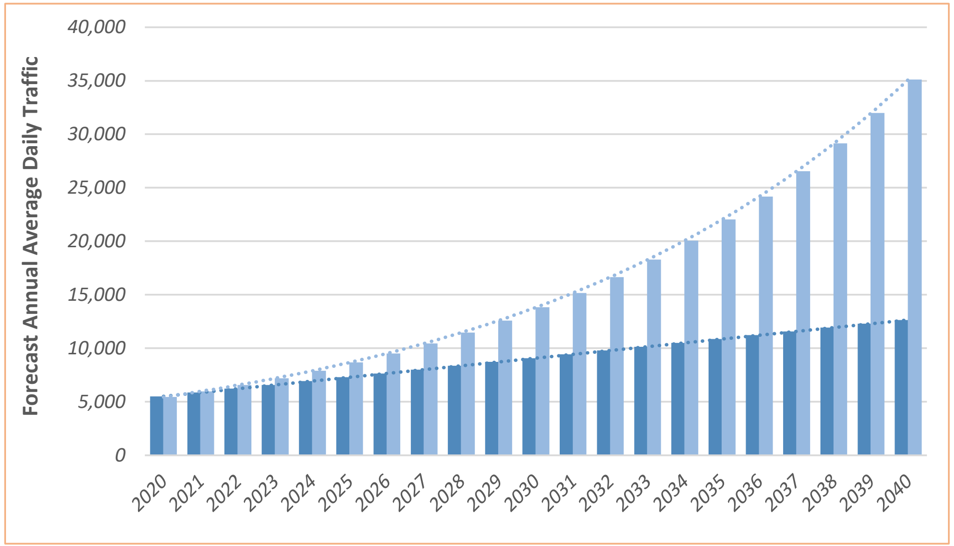


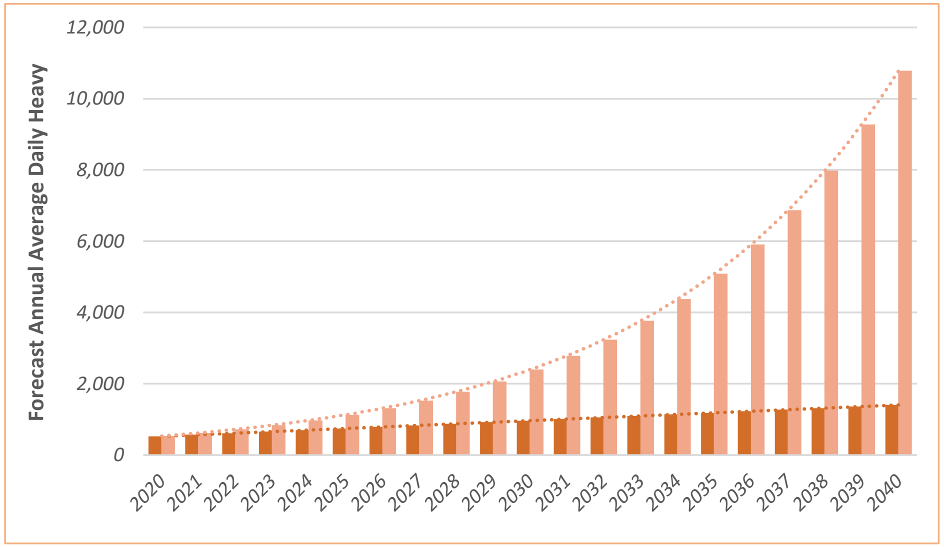


Growth Rate Analysis

Time Period	2010 - 2019	2011 - 2019	2012 - 2019	2013 - 2019	2014 - 2019	2015 - 2019	2016 - 2019	2017 - 2019	2018 - 2019
Time Period (years)	9	8	7	6	5	4	3	2	1
Linear AADT	6.9%	8.8%	9.8%	12.1%	11.3%	12.9%	2.4%	-25.3%	4.4%
Linear Heavy Vehicle	14.7%	15.6%	17.7%	17.3%	15.2%	21.3%	-2.9%	-32.0%	-0.5%
Compound AADT	5.5%	6.9%	7.8%	9.5%	9.4%	11.0%	2.4%	-29.7%	4.4%
Compound Heavy Vehicle	9.8%	10.7%	12.2%	12.6%	12.0%	16.7%	-3.0%	-40.0%	-0.5%

Regression Chart





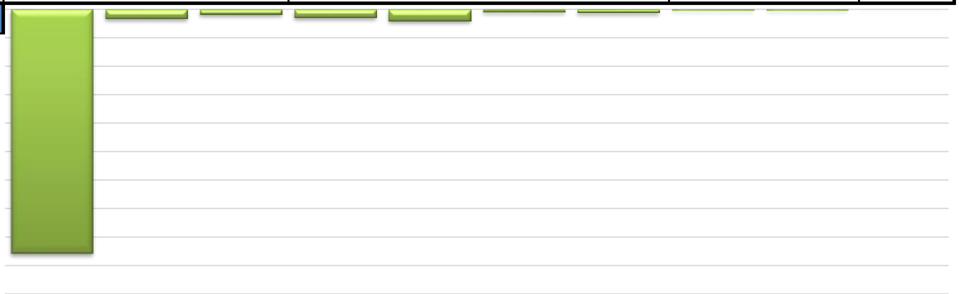
Appendix C Background Traffic: Traffic Load Distribution Analysis with SAR Values

SMEC
Member of the Surbana Jurong Group

WEIGH-IN-MOTION SUMMARY
(FROM TMR CLASS SPECIFIC TRAFFIC LOAD DISTRIBUTIONS)

Project Number	30033740
Project Name	Lake Macdonald Dam Upgrade (Seqwater)
Road Name	Lake Macdonald Drive
Revision	A
Date	Wednesday, 14 October 2020
Prepared By	Samy Bajracharya
Verified By	Sam Sawtell

Lake Macdonald Drive (Northbound)		Weigh-in-Motion data based on selected WIM site details									
		3	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
NHVAG	**2.11**	2.00	2.00	2.00	3.00	3.05	3.08	3.03	4.00	5.09	7.16
ESA / HVAG	**0.51**	0.45	1.07	1.24	0.26	0.70	0.79	1.04	1.19	1.00	0.97
ESA / HV	**1.07**	0.89	2.14	2.48	0.78	2.12	2.43	3.14	4.74	5.10	6.94
Heavy Vehicle Distribution		43.1	1.6	0.9	1.4	2.0	0.4	0.6	0.1	0.1	0.0
		86%	3%	2%	3%	4%	1%	1%	0%	0%	0%
EHV For Vehicle Class Groupings		2			3				4		5
Volume for Grouping		46			4				0		0
Grouping Percentage of Total		91%			9%				1%		0%
Weighted E_{HV}	2.1										



Lake Macdonald Drive (Southbound)		Weigh-in-Motion data based on selected WIM site details									
		3	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
NHVAG	**2.05**	2.00	2.00	2.00	3.00	3.05	3.08	3.03	4.00	5.09	7.16
ESA / HVAG	**0.51**	0.45	1.07	1.24	0.26	0.70	0.79	1.04	1.19	1.00	0.97
ESA / HV	**1.04**	0.89	2.14	2.48	0.78	2.12	2.43	3.14	4.74	5.10	6.94
Heavy Vehicle Distribution		24.4	1.1	0.9	0.4	0.7	0.1	0.1	0.0	0.0	0.0
		88%	4%	3%	2%	3%	1%	1%	0%	0%	0%
EHV For Vehicle Class Groupings		2			3				4		5
Volume for Grouping		26			1				0		0
Grouping Percentage of Total		95%			5%				0%		0%
Weighted E_{HV}	2.1										

SMEC
Member of the Surbana Jurong Group

TRAFFIC LOAD DISTRIBUTION
WEIGH-IN-MOTION ANALYSIS

Project Number	30033740
Project Name	Lake Macdonald Upgrade (Seqwater)
Road Name	Lake Macdonald Drive Northbound (Noosa Shire Council)
Revision	A
Date	Wednesday, 11 November 2020
Prepared By	Sam Sawtell
Verified By	Pablo Balmaceda

Axle Group Load (kN)	Axle Group Type Load Distribution					
	SAST %	SADT %	TAST %	TADT %	TRDT %	QADT %
10	0.03451	0.81269	0.00216	0.63493	0.17610	2.50113
20	5.90705	1.63210	0.02284	2.87691	0.15871	0.73087
30	37.06749	17.91252	0.34274	3.89244	0.52990	2.13781
40	25.74413	23.48910	1.64906	4.82003	2.13546	2.73566
50	17.22201	19.12371	4.37734	7.51099	5.78085	2.45192
60	10.18327	14.66041	8.76816	10.85095	8.15356	2.01384
70	3.03054	8.85116	14.39646	11.49810	10.76821	2.06040
80	0.62284	5.94196	15.88254	10.29520	9.68622	2.23914
90	0.18815	3.66612	16.43914	7.33903	6.26314	2.63094
100	0.00000	2.07067	13.54025	5.63573	4.52335	3.45468
110	0.00000	1.01306	11.10223	5.12408	3.78000	3.36733
120	0.00000	0.44214	6.38314	4.57016	3.03458	2.22417
130	0.00000	0.23609	3.09797	4.57543	2.87002	1.83155
140	0.00000	0.10653	1.67429	4.07547	2.74806	1.41345
150	0.00000	0.04087	1.08732	3.72715	2.90569	1.24626
160	0.00000	0.00059	0.75565	3.80601	3.39847	1.37844
170	0.00000	0.00027	0.47871	3.24843	3.84228	1.29147
180	0.00000	0.00003	0.00000	2.48787	4.59310	1.59002
190	0.00000	0.00000	0.00000	1.39042	5.13923	1.79157
200	0.00000	0.00000	0.00000	0.70145	5.59687	1.90719
210	0.00000	0.00000	0.00000	0.39887	5.04780	2.31601
220	0.00000	0.00000	0.00000	0.20845	3.38484	2.18750
230	0.00000	0.00000	0.00000	0.12651	2.19558	2.23809
240	0.00000	0.00000	0.00000	0.07694	1.28679	1.98229
250	0.00000	0.00000	0.00000	0.05201	0.77960	1.70179
260	0.00000	0.00000	0.00000	0.03720	0.48651	1.61200
270	0.00000	0.00000	0.00000	0.02213	0.27407	1.41170
280	0.00000	0.00000	0.00000	0.01185	0.17672	1.50565
290	0.00000	0.00000	0.00000	0.00449	0.10125	1.73890
300	0.00000	0.00000	0.00000	0.00060	0.06208	1.40511
310	0.00000	0.00000	0.00000	0.00008	0.04421	1.40745
320	0.00000	0.00000	0.00000	0.00006	0.02639	1.42306
330	0.00000	0.00000	0.00000	0.00003	0.01793	1.95299
340	0.00000	0.00000	0.00000	0.00000	0.01163	1.33161
350	0.00000	0.00000	0.00000	0.00000	0.00740	1.52707
360	0.00000	0.00000	0.00000	0.00000	0.00516	2.43465
370	0.00000	0.00000	0.00000	0.00000	0.00339	3.14663
380	0.00000	0.00000	0.00000	0.00000	0.00252	3.80315
390	0.00000	0.00000	0.00000	0.00000	0.00138	4.81131
400	0.00000	0.00000	0.00000	0.00000	0.00095	5.05328
410	0.00000	0.00000	0.00000	0.00000	0.00000	4.50970
420	0.00000	0.00000	0.00000	0.00000	0.00000	3.24933
430	0.00000	0.00000	0.00000	0.00000	0.00000	2.43005
440	0.00000	0.00000	0.00000	0.00000	0.00000	1.33871
450	0.00000	0.00000	0.00000	0.00000	0.00000	0.99372
460	0.00000	0.00000	0.00000	0.00000	0.00000	0.55973
470	0.00000	0.00000	0.00000	0.00000	0.00000	0.56304
480	0.00000	0.00000	0.00000	0.00000	0.00000	0.36765
490	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
500	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL	100	100	100	100	100	100
Proportion of Each Axle Group	46.7%	45.7%	0.8%	5.8%	1.0%	0.0%

Damage Type	Damage Exponent	Damage Index	Value
Overall Damage	4	ESA/HVAG	0.51
Fatigue of Asphalt	5	SAR5/HVAG	0.55
Rutting and shape loss	7	SAR7/HVAG	0.78
Fatigue of cemented materials	12	SAR512/HVAG	4.42

Damage Type	Damage Exponent	Damage Index	Value
Fatigue of Asphalt	5	SAR5/ESA	1.08
Rutting and shape loss	7	SAR7/ESA	1.55
Fatigue of cemented materials	12	SAR512/ESA	8.74

TRAFFIC LOAD DISTRIBUTION
WEIGH-IN-MOTION ANALYSIS

Project Number	30033740
Project Name	Lake Macdonald Upgrade (Seqwater)
Road Name	Lake Macdonald Drive Southbound (Noosa Shire Council)
Revision	A
Date	Friday, 6 November 2020
Prepared By	Sam Sawtell
Verified By	Pablo Balmaceda

Axle Group Load (kN)	Axle Group Type Load Distribution					
	SAST %	SADT %	TAST %	TADT %	TRDT %	QADT %
10	0.02640	0.49442	0.00113	0.44723	0.09722	0.74365
20	5.76319	1.15427	0.01709	2.08381	0.25042	0.74169
30	37.62898	17.87872	0.32478	3.15870	0.68904	2.66064
40	26.19842	23.94407	1.63332	5.02294	1.46507	3.23135
50	17.12580	19.32301	4.38079	8.05749	4.35785	2.59192
60	9.59215	14.66147	8.78552	11.00702	8.35890	1.58243
70	2.85702	8.90468	14.45093	11.45976	10.86937	1.43817
80	0.61649	5.99780	15.91046	10.65395	10.70020	1.45058
90	0.19154	3.68101	16.47618	7.64450	7.02197	1.43112
100	0.00000	2.09034	13.52900	5.93319	5.13149	1.79958
110	0.00000	1.03030	11.05804	5.43738	4.38538	1.73412
120	0.00000	0.45096	6.37114	4.75582	3.41728	1.11800
130	0.00000	0.24103	3.09193	4.62623	3.14666	0.77482
140	0.00000	0.10703	1.66816	3.98570	2.90908	0.63427
150	0.00000	0.03998	1.08267	3.56603	2.88030	0.50074
160	0.00000	0.00061	0.74801	3.55051	3.14993	0.62503
170	0.00000	0.00028	0.47085	2.96255	3.31562	0.42066
180	0.00000	0.00003	0.00000	2.30045	3.92775	0.60874
190	0.00000	0.00000	0.00000	1.38611	4.38868	0.69835
200	0.00000	0.00000	0.00000	0.76705	4.97820	0.70163
210	0.00000	0.00000	0.00000	0.46559	4.69182	0.83723
220	0.00000	0.00000	0.00000	0.25986	3.19600	0.84563
230	0.00000	0.00000	0.00000	0.16880	2.34093	1.08598
240	0.00000	0.00000	0.00000	0.10749	1.50148	0.91258
250	0.00000	0.00000	0.00000	0.07573	1.01870	0.87226
260	0.00000	0.00000	0.00000	0.05651	0.70491	1.14170
270	0.00000	0.00000	0.00000	0.03380	0.40626	1.12549
280	0.00000	0.00000	0.00000	0.01809	0.29192	1.54121
290	0.00000	0.00000	0.00000	0.00661	0.15053	2.06054
300	0.00000	0.00000	0.00000	0.00085	0.08751	1.73882
310	0.00000	0.00000	0.00000	0.00011	0.06785	1.72043
320	0.00000	0.00000	0.00000	0.00007	0.03680	1.81243
330	0.00000	0.00000	0.00000	0.00006	0.02485	2.68630
340	0.00000	0.00000	0.00000	0.00000	0.01517	1.81840
350	0.00000	0.00000	0.00000	0.00000	0.00937	2.19080
360	0.00000	0.00000	0.00000	0.00000	0.00703	3.51077
370	0.00000	0.00000	0.00000	0.00000	0.00327	4.74561
380	0.00000	0.00000	0.00000	0.00000	0.00318	5.85730
390	0.00000	0.00000	0.00000	0.00000	0.00111	7.58891
400	0.00000	0.00000	0.00000	0.00000	0.00087	8.00764
410	0.00000	0.00000	0.00000	0.00000	0.00000	7.20719
420	0.00000	0.00000	0.00000	0.00000	0.00000	5.21595
430	0.00000	0.00000	0.00000	0.00000	0.00000	3.90560
440	0.00000	0.00000	0.00000	0.00000	0.00000	2.13346
450	0.00000	0.00000	0.00000	0.00000	0.00000	1.58801
460	0.00000	0.00000	0.00000	0.00000	0.00000	0.88555
470	0.00000	0.00000	0.00000	0.00000	0.00000	0.90534
480	0.00000	0.00000	0.00000	0.00000	0.00000	0.57137
490	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
500	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
TOTAL	100	100	100	100	100	100
Proportion of Each Axle Group	46.7%	45.7%	0.8%	5.8%	1.0%	0.0%

Damage Type	Damage Exponent	Damage Index	Value
Overall Damage	4	ESA/HVAG	0.50
Fatigue of Asphalt	5	SAR5/HVAG	0.54
Rutting and shape loss	7	SAR7/HVAG	0.78
Fatigue of cemented materials	12	SAR512/HVAG	4.62

Damage Type	Damage Exponent	Damage Index	Value
Fatigue of Asphalt	5	SAR5/ESA	1.08
Rutting and shape loss	7	SAR7/ESA	1.56
Fatigue of cemented materials	12	SAR512/ESA	9.20

Appendix D Construction Schedule with Total Heavy Vehicle Volumes (Seqwater)

		Stage 0 - Pre Construction				Stage 1 - Reservoir Lowering					Stage 2 - Temporary Works			Stage 3 - Dam Construction																									Stage 4 - Rehabilitation			Total
Vehicle Type	**period**	**Nov-20**	**Dec-20**	**Jan-21**	**Feb-21**	**Mar-21**	**Apr-21**	**May-21**	**Jun-21**	**Jul-21**	**Aug-21**	**Sep-21**	**Oct-21**	**Nov-21**	**Dec-21**	**Jan-22**	**Feb-22**	**Mar-22**	**Apr-22**	**May-22**	**Jun-22**	**Jul-22**	**Aug-22**	**Sep-22**	**Oct-22**	**Nov-22**	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	
General construction traffic		440	440	440	440	880	880	880	880	880	880	880	880	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	880	880	880	440	440	440	51,480
LGVs	per month						88	88	88	88	88	88	88	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176							4,488
Concrete production	per month										88	88	88	88	88	88	88	88	308	308	308	308	308	308	88	88	88	88	88	308	308	308	88	88	88							4,180
Embankment production	per month											198	198												396	396	396	396	396	396	396											3,168
D/S erosion protection	per month																				198	198										198	198	198								990
Other	per month						22	22	22	22	22	44	44	22	22	22	22	22	22	22	44	44	22	22	44	44	44	44	44	44	44	44	44	44	22	22	22	22				
Total vehicles (one way)	per month	440	440	440	440	880	880	880	880	880	880	880	880	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	880	880	880	440	440	440	51,480
Total LGVs	per month	0	0	0	0	0	88	88	88	88	88	88	88	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176	0	0	0	0	0	0	4,488
Total HGVs	**per month**	**0**	**0**	**0**	**0**	**0**	**22**	**22**	**22**	**22**	**110**	**330**	**330**	**110**	**110**	**110**	**110**	**110**	**330**	**330**	**550**	**550**	**330**	**330**	**528**	**528**	**528**	**528**	**528**	**748**	**748**	**550**	**330**	**330**	**110**	**22**	**22**	**22**	**0**	**0**	**0**	**9,350**
Total vehicles (two way)	per month	880	880	880	880	1,760	1,760	1,760	1,760	1,760	1,760	1,760	1,760	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	3,520	1,760	1,760	1,760	880	880	880	102,960
Total LGV trips	per month	0	0	0	0	0	176	176	176	176	176	176	176	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	0	0	0	0	0	0	8,976
Total HGV trips	**per month**	**0**	**0**	**0**	**0**	**0**	**44**	**44**	**44**	**44**	**220**	**660**	**660**	**220**	**220**	**220**	**220**	**220**	**660**	**660**	**1,100**	**1,100**	**660**	**660**	**1,056**	**1,056**	**1,056**	**1,056**	**1,056**	**1,496**	**1,496**	**1,100**	**660**	**660**	**220**	**44**	**44**	**44**	**0**	**0**	**0**	**18,700**

Legend

- mass concrete
- structural concrete
- import rock fill (embankment)

Assumptions

Work days per week	6	days per week
Hours per day	8	hrs
weeks per month	4	weeks
work hours per month	192	
work hours per month - xmas shutdown assuming 3 work weeks	144	

		Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24
Total HGV trips																										**Xmas Shutdown**															
Total HGV trips	per hour	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	1.1	3.4	3.4	1.1	1.1	1.1	1.1	1.1	3.4	3.4	5.7	5.7	3.4	3.4	5.5	5.5	7.3	7.3	5.5	**7.8**	**7.8**	5.7	3.4	3.4	1.1	0.2	0.2	0.2	0.0	0.0	0.0
Total HGV trips	per day	0.0	0.0	0.0	0.0	0.0	1.8	1.8	1.8	1.8	9.2	27.5	27.5	9.2	9.2	9.2	9.2	9.2	27.5	27.5	45.8	45.8	27.5	27.5	44.0	44.0	58.7	58.7	44.0	**62.3**	**62.3**	45.8	27.5	27.5	9.2	1.8	1.8	1.8	0.0	0.0	0.0

TMR 145 Cooroy-Connection Road - HCV's (Daily Two Way)

0 to 1.96 (Myall to Diamond)	893	
1.96 to 3.09 (Diamond to Lake Mcdo Not available	510	Assumed based on 3.09 to 6.03 (Lake Mcdonald to Yurol Forest)
3.09 to 6.03 (Lake Mcdonald to Yurol Forest)	510	
6.03 to 7.9.2 (Yurol Forest to End)	323	

>= %5 Check (Daily)	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24
0 to 1.96 (Myall to Diamond)	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.2%	1.0%	3.1%	3.1%	1.0%	1.0%	1.0%	1.0%	1.0%	3.1%	3.1%	**5.1%**	**5.1%**	3.1%	3.1%	4.9%	4.9%	**6.6%**	**6.6%**	4.9%	**7.0%**	**7.0%**	**5.1%**	3.1%	3.1%	1.0%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%
1.96 to 3.09 (Diamond to Lake Mcdonald)	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%	0.4%	0.4%	1.8%	**5.4%**	**5.4%**	1.8%	1.8%	1.8%	1.8%	1.8%	**5.4%**	**5.4%**	**9.0%**	**9.0%**	**5.4%**	**5.4%**	**8.6%**	**8.6%**	**11.5%**	**11.5%**	**8.6%**	**12.2%**	**12.2%**	**9.0%**	**5.4%**	**5.4%**	1.8%	0.4%	0.4%	0.4%	0.0%	0.0%	0.0%
3.09 to 6.03 (Lake Mcdonald to Yurol Forest)	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%	0.4%	0.4%	1.8%	**5.4%**	**5.4%**	1.8%	1.8%	1.8%	1.8%	1.8%	**5.4%**	**5.4%**	**9.0%**	**9.0%**	**5.4%**	**5.4%**	**8.6%**	**8.6%**	**11.5%**	**11.5%**	**8.6%**	**12.2%**	**12.2%**	**9.0%**	**5.4%**	**5.4%**	1.8%	0.4%	0.4%	0.4%	0.0%	0.0%	0.0%
6.03 to 7.9.2 (Yurol Forest to End)	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.6%	0.6%	0.6%	2.8%	**8.5%**	**8.5%**	2.8%	2.8%	2.8%	2.8%	2.8%	**8.5%**	**8.5%**	**14.2%**	**14.2%**	**8.5%**	**8.5%**	**13.6%**	**13.6%**	**18.2%**	**18.2%**	**13.6%**	**19.3%**	**19.3%**	**14.2%**	**8.5%**	**8.5%**	2.8%	0.6%	0.6%	0.6%	0.0%	0.0%	0.0%

Lake Mcdonald Drive

	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24
HCV's (Daily)	90																																							
> %5 Check (Daily)	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	2.0%	2.0%	2.0%	**10.2%**	**30.6%**	**30.6%**	**10.2%**	**10.2%**	**10.2%**	**10.2%**	**10.2%**	**30.6%**	**30.6%**	**50.9%**	**50.9%**	**30.6%**	**30.6%**	**48.9%**	**48.9%**	**65.2%**	**65.2%**	**48.9%**	**69.3%**	**69.3%**	**50.9%**	**30.6%**	**30.6%**	**10.2%**	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%

Appendix G Development Traffic: Presumptive Heavy Vehicle Volumes by Type

Development Heavy Vehicle Volumes by Construction Activity Per Month

Legend						2020		2021												2022												2023												2024		
Activity	ID	Vehicle Type	Purpose	Direction	Load Condition	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	TOTAL
General works	4	3-axle rigid truck (Hiab)	General Works	North Bound	Loaded	0	0	0	0	0	6	6	8	8	8	16	16	8	8	8	8	8	8	8	16	16	8	8	16	16	16	16	16	16	16	16	16	16	8	6	6	6	0	0	0	358
				South Bound	Unloaded	0	0	0	0	0	6	6	8	8	8	16	16	8	8	8	8	8	8	8	16	16	8	8	16	16	16	16	16	16	16	16	16	16	8	6	6	6	0	0	0	358
	6	3-axle semi-trailer	Earthmoving Equipment	North Bound	Loaded	0	0	0	0	0	8	8	5	5	7	12	12	7	7	7	7	7	6	6	10	10	5	5	12	12	12	12	12	12	12	12	12	12	7	8	8	8	0	0	0	285
				South Bound	Unloaded	0	0	0	0	0	8	8	5	5	7	12	12	7	7	7	7	7	6	6	10	10	5	5	12	12	12	12	12	12	12	12	12	12	7	8	8	8	0	0	0	285
	3	3-axle rigid truck (Fuel Truck)	General Works	North Bound	Loaded	0	0	0	0	0	2	2	3	3	4	10	10	4	4	4	4	4	5	5	12	12	6	6	10	10	10	10	10	10	10	10	10	10	4	2	2	2	0	0	0	210
				South Bound	Unloaded	0	0	0	0	0	2	2	3	3	4	10	10	4	4	4	4	4	5	5	12	12	6	6	10	10	10	10	10	10	10	10	10	10	4	2	2	2	0	0	0	210
	2	3-axle rigid truck (Water Truck)	General Works	North Bound	Loaded	0	0	0	0	0	2	2	2	2	3	6	6	3	3	3	3	3	3	3	6	6	3	3	6	6	6	6	6	6	6	6	6	6	3	2	2	2	0	0	0	131
				South Bound	Unloaded	0	0	0	0	0	2	2	2	2	3	6	6	3	3	3	3	3	3	3	6	6	3	3	6	6	6	6	6	6	6	6	6	6	3	2	2	2	0	0	0	131
	1	4-axle twin steer rigid truck (Concrete Agitator)	Concrete Works	North Bound	Loaded	0	0	0	0	0	4	4	4	4	0	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	4	4	0	0	0	28
				South Bound	Unloaded	0	0	0	0	0	4	4	4	4	0	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	4	4	0	0	0	28
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*44*	*44*	*44*	*44*	*44*	*88*	*88*	*44*	*44*	*44*	*44*	*44*	*44*	*44*	*88*	*88*	*44*	*44*	*88*	*88*	*88*	*88*	*88*	*88*	*88*	*88*	*88*	*88*	*44*	*44*	*44*	*44*	*0*	*0*	*0*	*2024*
Mass concrete	5	3-axle truck and 4-axle dog trailer	Aggregates	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156	156	156	156	156	156	0	0	0	0	0	156	156	156	0	0	0	0	0	0	0	0	0	1407
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156	156	156	156	156	156	0	0	0	0	0	156	156	156	0	0	0	0	0	0	0	0	0	1407
	6	3-axle semi-trailer	Cement	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	0	0	0	0	0	37	37	37	0	0	0	0	0	0	0	0	0	332
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	37	37	37	37	37	0	0	0	0	0	37	37	37	0	0	0	0	0	0	0	0	0	332
	6	3-axle semi-trailer	Ash	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	14	14	14	14	0	0	0	0	0	14	14	14	0	0	0	0	0	0	0	0	0	125
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	14	14	14	14	0	0	0	0	0	14	14	14	0	0	0	0	0	0	0	0	0	125
	5	3-axle truck and 4-axle dog trailer	Sand	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	140	140	140	140	140	0	0	0	0	0	140	140	140	0	0	0	0	0	0	0	0	0	1262
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	140	140	140	140	140	0	0	0	0	0	140	140	140	0	0	0	0	0	0	0	0	0	1262
	6	3-axle semi-trailer	Admixtures	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4	0.4	0.4	0.4	0.4	0	0	0	0	0	0.4	0.4	0.4	0	0	0	0	0	0	0	0	0	3
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.4	0.4	0.4	0.4	0.4	0	0	0	0	0	0.4	0.4	0.4	0	0	0	0	0	0	0	0	0	3
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*696*	*696*	*696*	*696*	*696*	*696*	*0*	*0*	*0*	*0*	*0*	*696*	*696*	*696*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*6260*
Structural concrete	5	3-axle truck and 4-axle dog trailer	Aggregates	North Bound	Loaded	0	0	0	0	0	0	0	0	0	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	0	0	0	0	0	0	1564
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	63	0	0	0	0	0	0	1564
	6	3-axle semi-trailer	Cement	North Bound	Loaded	0	0	0	0	0	0	0	0	0	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	0	0	0	0	0	0	369
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	0	0	0	0	0	0	369
	6	3-axle semi-trailer	Ash	North Bound	Loaded	0	0	0	0	0	0	0	0	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0	0	0	0	0	0	138
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0	0	0	0	0	0	138
	5	3-axle truck and 4-axle dog trailer	Sand	North Bound	Loaded	0	0	0	0	0	0	0	0	0	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	0	0	0	0	0	0	1403
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	0	0	0	0	0	0	1403
	6	3-axle semi-trailer	Admixtures	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0	4
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0	4
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*278*	*0*	*0*	*0*	*0*	*0*	*0*	*6955*
Rock fill and filter import (embankment)	5	3-axle truck and 4-axle dog trailer	Rock Fill	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	198	198	0	0	0	0	0	0	0	198	198	0	0	396	396	396	396	396	396	396	198	198	198	0	0	0	0	0	0	0	4158
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	198	198	0	0	0	0	0	0	0	198	198	0	0	396	396	396	396	396	396	396	198	198	198	0	0	0	0	0	0	0	4158
					Sub-Total	0	0	0	0	0	0	0	0	0	0	396	396	0	0	0	0	0	0	0	396	396	0	0	792	792	792	792	792	792	792	396	396	396	0	0	0	0	0	0	0	8316
Workforce	7	2-axle rigid (Small passenger bus)	Workforce	Both	Loaded	0	0	0	0	0	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	0	0	0	1536
				-	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Sub-Total	0	0	0	0	0	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	0	0	0	1536
NORTH BOUND HEAVY VEHICLE VOLUME TOTAL BY MONTH						0	0	0	0	0	46	46	46	46	185	405	405	185	185	185	185	185	533	533	753	753	533	533	603	603	603	603	603	951	951	753	405	405	185	46	46	46	0	0	0	12545
SOUTH BOUND HEAVY VEHICLE VOLUME TOTAL BY MONTH						0	0	0	0	0	46	46	46	46	185	405	405	185	185	185	185	185	533	533	753	753	533	533	603	603	603	603	603	951	951	753	405	405	185	46	46	46	0	0	0	12545
PROJECT HEAVY VEHICLE VOLUME TOTAL BY MONTH						0	0	0	0	0	92	92	92	92	370	810	810	370	370	370	370	370	1066	1066	1506	1506	1066	1066	1206	1206	1206	1206	1206	1902	1902	1506	810	810	370	92	92	92	0	0	0	25091
CHECK						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
NORTH BOUND HEAVY VEHICLE TOTAL BY YEAR						0		1550												6002												4994												0		12545
SOUTH BOUND HEAVY VEHICLE TOTAL BY YEAR						0		1550												6002												4994												0		12545
PROJECT HEAVY VEHICLE TOTAL BY YEAR						0		3099												12004												9988												0		25091

SAR4 Total for Development Traffic Per Month

Legend						2020		2021												2022												2023												2024		
Activity	ID	Vehicle Type	Purpose	Direction	Load Condition	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	TOTAL
General works	4	3-axle rigid truck (Hiab)	General Works	North Bound	Loaded	0	0	0	0	0	18	18	24	24	24	48	48	24	24	24	24	24	24	24	48	48	24	24	48	48	48	48	48	48	48	48	48	48	24	18	18	18	0	0	0	1074
				South Bound	Unloaded	0	0	0	0	0	3	3	4	4	4	9	9	4	4	4	4	4	4	4	9	9	4	4	9	9	9	9	9	9	9	9	9	9	4	3	3	3	0	0	0	193
	6	3-axle semi-trailer	Earthmoving Equipment	North Bound	Loaded	0	0	0	0	0	39	39	25	25	35	59	59	35	35	35	35	35	30	30	49	49	25	25	59	59	59	59	59	59	59	59	59	59	35	39	39	39	0	0	0	1406
				South Bound	Unloaded	0	0	0	0	0	4	4	3	3	4	6	6	4	4	4	4	4	3	3	5	5	3	3	6	6	6	6	6	6	6	6	6	6	4	4	4	4	0	0	0	146
	3	3-axle rigid truck (Fuel Truck)	General Works	North Bound	Loaded	0	0	0	0	0	7	7	11	11	14	36	36	14	14	14	14	14	18	18	43	43	21	21	36	36	36	36	36	36	36	36	36	36	14	7	7	7	0	0	0	752
				South Bound	Unloaded	0	0	0	0	0	1	1	1	1	2	5	5	2	2	2	2	2	2	2	6	6	3	3	5	5	5	5	5	5	5	5	5	5	2	1	1	1	0	0	0	105
	2	3-axle rigid truck (Water Truck)	General Works	North Bound	Loaded	0	0	0	0	0	7	7	7	7	11	21	21	11	11	11	11	11	11	11	21	21	11	11	21	21	21	21	21	21	21	21	21	21	11	7	7	7	0	0	0	469
				South Bound	Unloaded	0	0	0	0	0	1	1	1	1	1	3	3	1	1	1	1	1	1	1	3	3	1	1	3	3	3	3	3	3	3	3	3	3	1	1	1	1	0	0	0	65
	1	4-axle twin streer rigid truck (Concrete Agitator)	Concrete Works	North Bound	Loaded	0	0	0	0	0	15	15	15	15	0	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	15	15	0	0	0	106
				South Bound	Unloaded	0	0	0	0	0	2	2	2	2	0	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	2	2	0	0	0	13
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*98*	*98*	*93*	*93*	*95*	*187*	*187*	*95*	*95*	*95*	*95*	*95*	*94*	*94*	*185*	*185*	*92*	*92*	*187*	*187*	*187*	*187*	*187*	*187*	*187*	*187*	*187*	*187*	*95*	*98*	*98*	*98*	*0*	*0*	*0*	*4330*
Mass concrete	5	3-axle truck and 4-axle dog trailer	Aggregates	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	781	781	781	781	781	781	0	0	0	0	0	781	781	781	0	0	0	0	0	0	0	0	0	7029
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	0	0	0	0	0	90	90	90	0	0	0	0	0	0	0	0	0	807
	6	3-axle semi-trailer	Cement	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182	182	182	182	182	182	0	0	0	0	0	182	182	182	0	0	0	0	0	0	0	0	0	1639
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	19	19	19	19	19	0	0	0	0	0	19	19	19	0	0	0	0	0	0	0	0	0	171
	6	3-axle semi-trailer	Ash	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	68	68	68	68	68	0	0	0	0	0	68	68	68	0	0	0	0	0	0	0	0	0	614
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	7	7	7	7	0	0	0	0	0	7	7	7	0	0	0	0	0	0	0	0	0	64
	5	3-axle truck and 4-axle dog trailer	Sand	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	701	701	701	701	701	701	0	0	0	0	0	701	701	701	0	0	0	0	0	0	0	0	0	6305
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	80	80	80	80	80	0	0	0	0	0	80	80	80	0	0	0	0	0	0	0	0	0	724
	6	3-axle semi-trailer	Admixtures	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	0	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0	17
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1930*	*1930*	*1930*	*1930*	*1930*	*1930*	*0*	*0*	*0*	*0*	*0*	*1930*	*1930*	*1930*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*17371*
Structural concrete	5	3-axle truck and 4-axle dog trailer	Aggregates	North Bound	Loaded	0	0	0	0	0	0	0	0	0	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	0	0	0	0	0	0	7810
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	0	0	0	0	0	0	896
	6	3-axle semi-trailer	Cement	North Bound	Loaded	0	0	0	0	0	0	0	0	0	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	0	0	0	0	0	0	1821
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	0	0	0	0	0	0	190
	6	3-axle semi-trailer	Ash	North Bound	Loaded	0	0	0	0	0	0	0	0	0	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	0	0	0	0	0	0	683
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	71
	5	3-axle truck and 4-axle dog trailer	Sand	North Bound	Loaded	0	0	0	0	0	0	0	0	0	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	0	0	0	0	0	0	7006
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	0	0	0	0	0	0	804
	6	3-axle semi-trailer	Admixtures	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0	0	0	0	0	0	19
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	2
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*0*	*0*	*0*	*0*	*0*	*0*	*19301*
Import rock fill (embankment)	5	3-axle truck and 4-axle dog trailer	Rock Fill	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	989	989	0	0	0	0	0	0	0	989	989	0	0	1978	1978	1978	1978	1978	1978	1978	989	989	989	0	0	0	0	0	0	0	20770
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	114	114	0	0	0	0	0	0	0	114	114	0	0	227	227	227	227	227	227	227	114	114	114	0	0	0	0	0	0	0	2384
					Sub-Total	0	0	0	0	0	0	0	0	0	0	1103	1103	0	0	0	0	0	0	0	1103	1103	0	0	2205	2205	2205	2205	2205	2205	2205	1103	1103	1103	0	0	0	0	0	0	0	23153
Workforce	7	2-axle rigid (Small passenger bus)	Workforce	Both	Loaded	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	0	151
				-	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Sub-Total	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	0	151
NORTH BOUND SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	89	89	84	84	780	1849	1849	780	780	780	780	780	2512	2512	3581	3581	2511	2511	2838	2838	2838	2838	2838	4572	4572	3583	1849	1849	780	89	89	89	0	0	0	57596
SOUTH BOUND SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	14	14	14	14	92	217	217	92	92	92	92	92	289	289	413	413	289	289	331	331	331	331	331	527	527	413	217	217	92	14	14	14	0	0	0	6711
PROJECT SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	103	103	98	98	872	2067	2067	872	872	872	872	872	2801	2801	3994	3994	2799	2799	3169	3169	3169	3169	3169	5099	5099	3997	2067	2067	872	103	103	103	0	0	0	64307
CHECK						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
NORTH BOUND SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY YEAR						0		6384												28060												23151												0		57596
SOUTH BOUND SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY YEAR						0		765												3249												2696												0		6711
PROJECT SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY YEAR						0		7150												31310												25847												0		64307

SAR5 Total for Development Traffic Per Month

Legend						2020		2021												2022												2023												2024		
Activity	ID	Vehicle Type	Purpose	Direction	Load Condition	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	TOTAL
General works	4	3-axle rigid truck (Hiab)	General Works	North Bound	Loaded	0	0	0	0	0	20	20	27	27	27	53	53	27	27	27	27	27	27	27	53	53	27	27	53	53	53	53	53	53	53	53	53	53	27	20	20	20	0	0	0	1189
				South Bound	Unloaded	0	0	0	0	0	3	3	3	3	3	7	7	3	3	3	3	3	3	3	7	7	3	3	7	7	7	7	7	7	7	7	7	7	3	3	3	3	0	0	0	153
	6	3-axle semi-trailer	Earthmoving Equipment	North Bound	Loaded	0	0	0	0	0	45	45	28	28	39	67	67	39	39	39	39	39	34	34	56	56	28	28	67	67	67	67	67	67	67	67	67	67	39	45	45	45	0	0	0	1600
				South Bound	Unloaded	0	0	0	0	0	3	3	2	2	3	5	5	3	3	3	3	3	2	2	4	4	2	2	5	5	5	5	5	5	5	5	5	5	3	3	3	3	0	0	0	117
	3	3-axle rigid truck (Fuel Truck)	General Works	North Bound	Loaded	0	0	0	0	0	8	8	12	12	17	42	42	17	17	17	17	17	21	21	50	50	25	25	42	42	42	42	42	42	42	42	42	42	17	8	8	8	0	0	0	874
				South Bound	Unloaded	0	0	0	0	0	1	1	1	1	2	4	4	2	2	2	2	2	2	2	5	5	2	2	4	4	4	4	4	4	4	4	4	4	2	1	1	1	0	0	0	85
	2	3-axle rigid truck (Water Truck)	General Works	North Bound	Loaded	0	0	0	0	0	8	8	8	8	12	25	25	12	12	12	12	12	12	12	25	25	12	12	25	25	25	25	25	25	25	25	25	25	12	8	8	8	0	0	0	545
				South Bound	Unloaded	0	0	0	0	0	1	1	1	1	1	2	2	1	1	1	1	1	1	1	2	2	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	1	0	0	0	53
	1	4-axle twin streer rigid truck (Concrete Agitator)	Concrete Works	North Bound	Loaded	0	0	0	0	0	18	18	18	18	0	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	18	18	0	0	0	126
				South Bound	Unloaded	0	0	0	0	0	2	2	2	2	0	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	2	2	0	0	0	11
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*108*	*108*	*102*	*102*	*104*	*205*	*205*	*104*	*104*	*104*	*104*	*104*	*103*	*103*	*202*	*202*	*101*	*101*	*205*	*205*	*205*	*205*	*205*	*205*	*205*	*205*	*205*	*205*	*104*	*108*	*108*	*108*	*0*	*0*	*0*	*4754*
Mass concrete	5	3-axle truck and 4-axle dog trailer	Aggregates	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	831	831	831	831	831	831	0	0	0	0	0	831	831	831	0	0	0	0	0	0	0	0	0	7480
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	69	69	69	69	69	0	0	0	0	0	69	69	69	0	0	0	0	0	0	0	0	0	621
	6	3-axle semi-trailer	Cement	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	207	207	207	207	207	207	0	0	0	0	0	207	207	207	0	0	0	0	0	0	0	0	0	1866
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	15	15	15	15	0	0	0	0	0	15	15	15	0	0	0	0	0	0	0	0	0	137
	6	3-axle semi-trailer	Ash	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	78	78	78	78	78	0	0	0	0	0	78	78	78	0	0	0	0	0	0	0	0	0	699
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6	6	6	6	0	0	0	0	0	6	6	6	0	0	0	0	0	0	0	0	0	51
	5	3-axle truck and 4-axle dog trailer	Sand	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	746	746	746	746	746	746	0	0	0	0	0	746	746	746	0	0	0	0	0	0	0	0	0	6710
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	62	62	62	62	62	0	0	0	0	0	62	62	62	0	0	0	0	0	0	0	0	0	557
	6	3-axle semi-trailer	Admixtures	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.1	2.1	2.1	2.1	2.1	2.1	0	0	0	0	0	2.1	2.1	2.1	0	0	0	0	0	0	0	0	0	19
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0.2	0.2	0.2	0	0	0	0	0	0	0	0	0	1
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2016*	*2016*	*2016*	*2016*	*2016*	*2016*	*0*	*0*	*0*	*0*	*0*	*2016*	*2016*	*2016*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*18142*
Structural concrete	5	3-axle truck and 4-axle dog trailer	Aggregates	North Bound	Loaded	0	0	0	0	0	0	0	0	0	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	0	0	0	0	0	0	8311
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	0	0	0	0	0	0	690
	6	3-axle semi-trailer	Cement	North Bound	Loaded	0	0	0	0	0	0	0	0	0	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	0	0	0	0	0	0	2073
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0	0	0	0	0	0	152
	6	3-axle semi-trailer	Ash	North Bound	Loaded	0	0	0	0	0	0	0	0	0	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	0	0	0	0	0	0	777
				South Bound	Unloaded	0	0	0	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	2	2	2	2	0	0	0	0	0	0	57
	5	3-axle truck and 4-axle dog trailer	Sand	North Bound	Loaded	0	0	0	0	0	0	0	0	0	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	0	0	0	0	0	0	7456
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	0	0	0	0	0	0	619
	6	3-axle semi-trailer	Admixtures	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0	0	0	0	0	0	21
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	2
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*0*	*0*	*0*	*0*	*0*	*0*	*20158*
Import rock fill (embankment)	5	3-axle truck and 4-axle dog trailer	Rock Fill	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	1053	1053	0	0	0	0	0	0	0	1053	1053	0	0	2105	2105	2105	2105	2105	2105	2105	1053	1053	1053	0	0	0	0	0	0	0	22103
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	87	87	0	0	0	0	0	0	0	87	87	0	0	175	175	175	175	175	175	175	87	87	87	0	0	0	0	0	0	0	1834
					Sub-Total	0	0	0	0	0	0	0	0	0	0	1140	1140	0	0	0	0	0	0	0	1140	1140	0	0	2280	2280	2280	2280	2280	2280	2280	1140	1140	1140	0	0	0	0	0	0	0	23937
Workforce	7	2-axle rigid (Small passenger bus)	Workforce	Both	Loaded	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	2	2	2	2	2	2	2	2	2	2	2	0	0	0	71
				-	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Sub-Total	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	2	2	2	2	2	2	2	2	2	2	2	0	0	0	71
NORTH BOUND SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	101	101	95	95	842	1986	1986	842	842	842	842	842	2704	2704	3847	3847	2703	2703	3039	3039	3039	3039	3039	4903	4903	3850	1986	1986	842	101	101	101	0	0	0	61885
SOUTH BOUND SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	10	10	10	10	71	168	168	71	71	71	71	71	223	223	319	319	223	223	255	255	255	255	255	407	407	319	168	168	71	10	10	10	0	0	0	5177
PROJECT SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	111	111	105	105	913	2154	2154	913	913	913	913	913	2927	2927	4167	4167	2926	2926	3294	3294	3294	3294	3294	5309	5309	4170	2154	2154	913	111	111	111	0	0	0	67061
CHECK						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
NORTH BOUND SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY YEAR						0		6888												30149												24848												0		61885
SOUTH BOUND SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY YEAR						0		589												2509												2079												0		5177
PROJECT SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY YEAR						0		7476												32657												26928												0		67061

Appendix H Development Traffic: Presumptive Heavy Vehicle SAR Volumes

SAR4 Total for Development Traffic Per Month

Legend						2020		2021												2022												2023												2024		
Activity	ID	Vehicle Type	Purpose	Direction	Load Condition	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	TOTAL
General works	4	3-axle rigid truck (Hiab)	General Works	North Bound	Loaded	0	0	0	0	0	18	18	24	24	24	48	48	24	24	24	24	24	24	24	48	48	24	24	48	48	48	48	48	48	48	48	48	48	24	18	18	18	0	0	0	1074
				South Bound	Unloaded	0	0	0	0	0	3	3	4	4	4	9	9	4	4	4	4	4	4	4	9	9	4	4	9	9	9	9	9	9	9	9	9	9	4	3	3	3	0	0	0	193
	6	3-axle semi-trailer	Earthmoving Equipment	North Bound	Loaded	0	0	0	0	0	39	39	25	25	35	59	59	35	35	35	35	35	30	30	49	49	25	25	59	59	59	59	59	59	59	59	59	59	35	39	39	39	0	0	0	1406
				South Bound	Unloaded	0	0	0	0	0	4	4	3	3	4	6	6	4	4	4	4	4	3	3	5	5	3	3	6	6	6	6	6	6	6	6	6	6	4	4	4	4	0	0	0	146
	3	3-axle rigid truck (Fuel Truck)	General Works	North Bound	Loaded	0	0	0	0	0	7	7	11	11	14	36	36	14	14	14	14	14	18	18	43	43	21	21	36	36	36	36	36	36	36	36	36	36	14	7	7	7	0	0	0	752
				South Bound	Unloaded	0	0	0	0	0	1	1	1	1	2	5	5	2	2	2	2	2	2	2	6	6	3	3	5	5	5	5	5	5	5	5	5	5	2	1	1	1	0	0	0	105
	2	3-axle rigid truck (Water Truck)	General Works	North Bound	Loaded	0	0	0	0	0	7	7	7	7	11	21	21	11	11	11	11	11	11	11	21	21	11	11	21	21	21	21	21	21	21	21	21	21	11	7	7	7	0	0	0	469
				South Bound	Unloaded	0	0	0	0	0	1	1	1	1	1	3	3	1	1	1	1	1	1	1	3	3	1	1	3	3	3	3	3	3	3	3	3	3	1	1	1	1	0	0	0	65
	1	4-axle twin streer rigid truck (Concrete Agitator)	Concrete Works	North Bound	Loaded	0	0	0	0	0	15	15	15	15	0	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	15	15	0	0	0	106
				South Bound	Unloaded	0	0	0	0	0	2	2	2	2	0	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	2	2	0	0	0	13
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*98*	*98*	*93*	*93*	*95*	*187*	*187*	*95*	*95*	*95*	*95*	*95*	*94*	*94*	*185*	*185*	*92*	*92*	*187*	*187*	*187*	*187*	*187*	*187*	*187*	*187*	*187*	*187*	*95*	*98*	*98*	*98*	*0*	*0*	*0*	*4330*
Mass concrete	5	3-axle truck and 4-axle dog trailer	Aggregates	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	781	781	781	781	781	781	0	0	0	0	0	781	781	781	0	0	0	0	0	0	0	0	0	7029
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90	90	90	0	0	0	0	0	90	90	90	0	0	0	0	0	0	0	0	0	807
	6	3-axle semi-trailer	Cement	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182	182	182	182	182	182	0	0	0	0	0	182	182	182	0	0	0	0	0	0	0	0	0	1639
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	19	19	19	19	19	0	0	0	0	0	19	19	19	0	0	0	0	0	0	0	0	0	171
	6	3-axle semi-trailer	Ash	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	68	68	68	68	68	0	0	0	0	0	68	68	68	0	0	0	0	0	0	0	0	0	614
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	7	7	7	7	0	0	0	0	0	7	7	7	0	0	0	0	0	0	0	0	0	64
	5	3-axle truck and 4-axle dog trailer	Sand	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	701	701	701	701	701	701	0	0	0	0	0	701	701	701	0	0	0	0	0	0	0	0	0	6305
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	80	80	80	80	80	0	0	0	0	0	80	80	80	0	0	0	0	0	0	0	0	0	724
	6	3-axle semi-trailer	Admixtures	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	0	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0	17
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1930*	*1930*	*1930*	*1930*	*1930*	*1930*	*0*	*0*	*0*	*0*	*0*	*1930*	*1930*	*1930*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*17371*
Structural concrete	5	3-axle truck and 4-axle dog trailer	Aggregates	North Bound	Loaded	0	0	0	0	0	0	0	0	0	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	312	0	0	0	0	0	0	7810
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	0	0	0	0	0	0	896
	6	3-axle semi-trailer	Cement	North Bound	Loaded	0	0	0	0	0	0	0	0	0	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	73	0	0	0	0	0	0	1821
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	0	0	0	0	0	0	190
	6	3-axle semi-trailer	Ash	North Bound	Loaded	0	0	0	0	0	0	0	0	0	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	0	0	0	0	0	0	683
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0	71
	5	3-axle truck and 4-axle dog trailer	Sand	North Bound	Loaded	0	0	0	0	0	0	0	0	0	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	0	0	0	0	0	0	7006
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	0	0	0	0	0	0	804
	6	3-axle semi-trailer	Admixtures	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0	0	0	0	0	0	19
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	2
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*772*	*0*	*0*	*0*	*0*	*0*	*0*	*19301*
Import rock fill (embankment)	5	3-axle truck and 4-axle dog trailer	Rock Fill	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	989	989	0	0	0	0	0	0	0	989	989	0	0	1978	1978	1978	1978	1978	1978	1978	989	989	989	0	0	0	0	0	0	0	20770
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	114	114	0	0	0	0	0	0	0	114	114	0	0	227	227	227	227	227	227	227	114	114	114	0	0	0	0	0	0	0	2384
					Sub-Total	0	0	0	0	0	0	0	0	0	0	1103	1103	0	0	0	0	0	0	0	1103	1103	0	0	2205	2205	2205	2205	2205	2205	2205	1103	1103	1103	0	0	0	0	0	0	0	23153
Workforce	7	2-axle rigid (Small passenger bus)	Workforce	Both	Loaded	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	0	151
				-	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Sub-Total	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	0	151
NORTH BOUND SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	89	89	84	84	780	1849	1849	780	780	780	780	780	2512	2512	3581	3581	2511	2511	2838	2838	2838	2838	2838	4572	4572	3583	1849	1849	780	89	89	89	0	0	0	57596
SOUTH BOUND SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	14	14	14	14	92	217	217	92	92	92	92	92	289	289	413	413	289	289	331	331	331	331	331	527	527	413	217	217	92	14	14	14	0	0	0	6711
PROJECT SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	103	103	98	98	872	2067	2067	872	872	872	872	872	2801	2801	3994	3994	2799	2799	3169	3169	3169	3169	3169	5099	5099	3997	2067	2067	872	103	103	103	0	0	0	64307
CHECK						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
NORTH BOUND SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY YEAR						0		6384												28060												23151												0		57596
SOUTH BOUND SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY YEAR						0		765												3249												2696												0		6711
PROJECT SAR4 TOTAL GRANULAR EXPONENTIAL LOAD DAMAGE BY YEAR						0		7150												31310												25847												0		64307

SAR5 Total for Development Traffic Per Month

Legend						2020		2021												2022												2023												2024		
Activity	ID	Vehicle Type	Purpose	Direction	Load Condition	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	TOTAL
General works	4	3-axle rigid truck (Hiab)	General Works	North Bound	Loaded	0	0	0	0	0	20	20	27	27	27	53	53	27	27	27	27	27	27	27	53	53	27	27	53	53	53	53	53	53	53	53	53	53	27	20	20	20	0	0	0	1189
				South Bound	Unloaded	0	0	0	0	0	3	3	3	3	3	7	7	3	3	3	3	3	3	3	7	7	3	3	7	7	7	7	7	7	7	7	7	7	3	3	3	3	0	0	0	153
	6	3-axle semi-trailer	Earthmoving Equipment	North Bound	Loaded	0	0	0	0	0	45	45	28	28	39	67	67	39	39	39	39	39	34	34	56	56	28	28	67	67	67	67	67	67	67	67	67	67	39	45	45	45	0	0	0	1600
				South Bound	Unloaded	0	0	0	0	0	3	3	2	2	3	5	5	3	3	3	3	3	2	2	4	4	2	2	5	5	5	5	5	5	5	5	5	5	3	3	3	3	0	0	0	117
	3	3-axle rigid truck (Fuel Truck)	General Works	North Bound	Loaded	0	0	0	0	0	8	8	12	12	17	42	42	17	17	17	17	17	21	21	50	50	25	25	42	42	42	42	42	42	42	42	42	42	17	8	8	8	0	0	0	874
				South Bound	Unloaded	0	0	0	0	0	1	1	1	1	2	4	4	2	2	2	2	2	2	2	5	5	2	2	4	4	4	4	4	4	4	4	4	4	2	1	1	1	0	0	0	85
	2	3-axle rigid truck (Water Truck)	General Works	North Bound	Loaded	0	0	0	0	0	8	8	8	8	12	25	25	12	12	12	12	12	12	12	25	25	12	12	25	25	25	25	25	25	25	25	25	25	12	8	8	8	0	0	0	545
				South Bound	Unloaded	0	0	0	0	0	1	1	1	1	1	2	2	1	1	1	1	1	1	1	2	2	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	1	0	0	0	53
	1	4-axle twin streer rigid truck (Concrete Agitator)	Concrete Works	North Bound	Loaded	0	0	0	0	0	18	18	18	18	0	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	18	18	0	0	0	126
				South Bound	Unloaded	0	0	0	0	0	2	2	2	2	0	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	2	2	0	0	0	11
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*108*	*108*	*102*	*102*	*104*	*205*	*205*	*104*	*104*	*104*	*104*	*104*	*103*	*103*	*202*	*202*	*101*	*101*	*205*	*205*	*205*	*205*	*205*	*205*	*205*	*205*	*205*	*205*	*104*	*108*	*108*	*108*	*0*	*0*	*0*	*4754*
Mass concrete	5	3-axle truck and 4-axle dog trailer	Aggregates	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	831	831	831	831	831	831	0	0	0	0	0	831	831	831	0	0	0	0	0	0	0	0	0	7480
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	69	69	69	69	69	0	0	0	0	0	69	69	69	0	0	0	0	0	0	0	0	0	621
	6	3-axle semi-trailer	Cement	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	207	207	207	207	207	207	0	0	0	0	0	207	207	207	0	0	0	0	0	0	0	0	0	1866
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15	15	15	15	15	0	0	0	0	0	15	15	15	0	0	0	0	0	0	0	0	0	137
	6	3-axle semi-trailer	Ash	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	78	78	78	78	78	0	0	0	0	0	78	78	78	0	0	0	0	0	0	0	0	0	699
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6	6	6	6	0	0	0	0	0	6	6	6	0	0	0	0	0	0	0	0	0	51
	5	3-axle truck and 4-axle dog trailer	Sand	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	746	746	746	746	746	746	0	0	0	0	0	746	746	746	0	0	0	0	0	0	0	0	0	6710
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	62	62	62	62	62	0	0	0	0	0	62	62	62	0	0	0	0	0	0	0	0	0	557
	6	3-axle semi-trailer	Admixtures	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.1	2.1	2.1	2.1	2.1	2.1	0	0	0	0	0	2.1	2.1	2.1	0	0	0	0	0	0	0	0	0	19
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0.2	0.2	0.2	0.2	0	0	0	0	0	0.2	0.2	0.2	0	0	0	0	0	0	0	0	0	1
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2016*	*2016*	*2016*	*2016*	*2016*	*2016*	*0*	*0*	*0*	*0*	*0*	*2016*	*2016*	*2016*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*18142*
Structural concrete	5	3-axle truck and 4-axle dog trailer	Aggregates	North Bound	Loaded	0	0	0	0	0	0	0	0	0	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	332	0	0	0	0	0	0	8311
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	0	0	0	0	0	0	690
	6	3-axle semi-trailer	Cement	North Bound	Loaded	0	0	0	0	0	0	0	0	0	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	0	0	0	0	0	0	2073
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0	0	0	0	0	0	152
	6	3-axle semi-trailer	Ash	North Bound	Loaded	0	0	0	0	0	0	0	0	0	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	0	0	0	0	0	0	777
				South Bound	Unloaded	0	0	0	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	2	2	2	2	0	0	0	0	0	0	57
	5	3-axle truck and 4-axle dog trailer	Sand	North Bound	Loaded	0	0	0	0	0	0	0	0	0	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	298	0	0	0	0	0	0	7456
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	0	0	0	0	0	0	619
	6	3-axle semi-trailer	Admixtures	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0	0	0	0	0	0	21
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	2
					Sub-Total	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*806*	*0*	*0*	*0*	*0*	*0*	*0*	*20158*
Import rock fill (embankment)	5	3-axle truck and 4-axle dog trailer	Rock Fill	North Bound	Loaded	0	0	0	0	0	0	0	0	0	0	1053	1053	0	0	0	0	0	0	0	1053	1053	0	0	2105	2105	2105	2105	2105	2105	2105	1053	1053	1053	0	0	0	0	0	0	0	22103
				South Bound	Unloaded	0	0	0	0	0	0	0	0	0	0	87	87	0	0	0	0	0	0	0	87	87	0	0	175	175	175	175	175	175	175	87	87	87	0	0	0	0	0	0	0	1834
					Sub-Total	0	0	0	0	0	0	0	0	0	0	1140	1140	0	0	0	0	0	0	0	1140	1140	0	0	2280	2280	2280	2280	2280	2280	2280	1140	1140	1140	0	0	0	0	0	0	0	23937
Workforce	7	2-axle rigid (Small passenger bus)	Workforce	Both	Loaded	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	2	2	2	2	2	2	2	2	2	2	2	0	0	0	71
				-	Unloaded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Sub-Total	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	2	2	2	2	2	2	2	2	2	2	2	0	0	0	71
NORTH BOUND SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	101	101	95	95	842	1986	1986	842	842	842	842	842	2704	2704	3847	3847	2703	2703	3039	3039	3039	3039	3039	4903	4903	3850	1986	1986	842	101	101	101	0	0	0	61885
SOUTH BOUND SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	10	10	10	10	71	168	168	71	71	71	71	71	223	223	319	319	223	223	255	255	255	255	255	407	407	319	168	168	71	10	10	10	0	0	0	5177
PROJECT SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY MONTH						0	0	0	0	0	111	111	105	105	913	2154	2154	913	913	913	913	913	2927	2927	4167	4167	2926	2926	3294	3294	3294	3294	3294	5309	5309	4170	2154	2154	913	111	111	111	0	0	0	67061
CHECK						Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
NORTH BOUND SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY YEAR						0		6888												30149												24848												0		61885
SOUTH BOUND SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY YEAR						0		589												2509												2079												0		5177
PROJECT SAR5 TOTAL ASPHALT EXPONENTIAL LOAD DAMAGE BY YEAR						0		7476												32657												26928												0		67061

Appendix I Traffic Loading Summary and SAR Threshold Assessment

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Pavement Traffic Loading - Background Traffic (Base)

Project Number	30032559		**Road Name**	Lake Macdonald Drive		**Prepared By**	Samy Bajracharya		**Date**	Tuesday, 20 October 2020
Project Name	Lake Macdonald Dam Upgrade		**Revision**	A		**Verified By**	Sam Sawtell			

Lake Macdonald Drive - 200m south of Collwood Road (Northbound)

Design Year	Calender Year	Annual Growth Rate	AADT	Heavy Vehicle %	Direction Factor	Lane Distribution Factor	NHVAG	SAR4 / HVAG	SAR5 / HVAG	SAR12 / HVAG	Annual Growth (HVAG)	Annual Number HV		HVAG		SAR4		SAR5		SAR12	
												Annual	Cumulative	Annual	Cumulative	Annual	Cumulative	Annual	Cumulative	Annual	Cumulative
Year of Traffic Count	2020		705	7.09%	1.00	1.00	2.11	0.51	0.55	4.42		1.83E+04		3.85E+04		1.96E+04		2.12E+04		1.70E+05	
1	2021	1.0%	712	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	1.84E+04	1.84E+04	3.89E+04	3.89E+04	19835.21325	1.98E+04	2.14E+04	2.14E+04	1.72E+05	1.72E+05
2	2022	1.0%	719	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	1.86E+04	3.70E+04	3.93E+04	7.82E+04	2.00E+04	3.99E+04	2.16E+04	4.30E+04	1.74E+05	3.46E+05
3	2023	1.0%	726	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	1.88E+04	5.58E+04	3.97E+04	1.18E+05	2.02E+04	6.01E+04	2.18E+04	6.48E+04	1.75E+05	5.21E+05
4	2024	1.0%	733	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	1.90E+04	7.48E+04	4.00E+04	1.58E+05	2.04E+04	8.05E+04	2.20E+04	8.68E+04	1.77E+05	6.98E+05
5	2025	1.0%	740	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	1.92E+04	9.40E+04	4.04E+04	1.98E+05	2.06E+04	1.01E+05	2.22E+04	1.09E+05	1.79E+05	8.77E+05
6	2026	1.0%	747	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	1.93E+04	1.13E+05	4.08E+04	2.39E+05	2.08E+04	1.22E+05	2.24E+04	1.32E+05	1.80E+05	1.06E+06
7	2027	1.0%	754	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	1.95E+04	1.33E+05	4.12E+04	2.80E+05	2.10E+04	1.43E+05	2.27E+04	1.54E+05	1.82E+05	1.24E+06
8	2028	1.0%	761	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	1.97E+04	1.53E+05	4.16E+04	3.22E+05	2.12E+04	1.64E+05	2.29E+04	1.77E+05	1.84E+05	1.42E+06
9	2029	1.0%	768	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	1.99E+04	1.72E+05	4.20E+04	3.64E+05	2.14E+04	1.86E+05	2.31E+04	2.00E+05	1.86E+05	1.61E+06
10	2030	1.0%	776	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	2.01E+04	1.93E+05	4.24E+04	4.06E+05	2.16E+04	2.07E+05	2.33E+04	2.23E+05	1.87E+05	1.80E+06
11	2031	1.0%	783	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	2.03E+04	2.13E+05	4.27E+04	4.49E+05	2.18E+04	2.29E+05	2.35E+04	2.47E+05	1.89E+05	1.98E+06
12	2032	1.0%	790	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	2.04E+04	2.33E+05	4.31E+04	4.92E+05	2.20E+04	2.51E+05	2.37E+04	2.71E+05	1.91E+05	2.18E+06
13	2033	1.0%	797	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	2.06E+04	2.54E+05	4.35E+04	5.36E+05	2.22E+04	2.73E+05	2.39E+04	2.95E+05	1.92E+05	2.37E+06
14	2034	1.0%	804	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	2.08E+04	2.75E+05	4.39E+04	5.80E+05	2.24E+04	2.96E+05	2.41E+04	3.19E+05	1.94E+05	2.56E+06
15	2035	1.0%	811	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	2.10E+04	2.96E+05	4.43E+04	6.24E+05	2.26E+04	3.18E+05	2.44E+04	3.43E+05	1.96E+05	2.76E+06
16	2036	1.0%	818	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	2.12E+04	3.17E+05	4.47E+04	6.68E+05	2.28E+04	3.41E+05	2.46E+04	3.68E+05	1.97E+05	2.95E+06
17	2037	1.0%	825	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	2.14E+04	3.38E+05	4.51E+04	7.14E+05	2.30E+04	3.64E+05	2.48E+04	3.92E+05	1.99E+05	3.15E+06
18	2038	1.0%	832	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	2.15E+04	3.60E+05	4.54E+04	7.59E+05	2.32E+04	3.87E+05	2.50E+04	4.17E+05	2.01E+05	3.35E+06
19	2039	1.0%	839	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	2.17E+04	3.81E+05	4.58E+04	8.05E+05	2.34E+04	4.10E+05	2.52E+04	4.43E+05	2.03E+05	3.56E+06
20	2040	1.0%	846	7.09%	1.00	1.00	2.11	0.51	0.55	4.42	3.851E+02	2.19E+04	**4.03E+05**	4.62E+04	**8.51E+05**	2.36E+04	**4.34E+05**	2.54E+04	**4.68E+05**	2.04E+05	**3.76E+06**

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Pavement Traffic Loading - Background Traffic (Base)

Project Number	30032559	**Road Name**	Lake Macdonald Drive	**Prepared By**	Samy Bajracharya	**Date**	Tuesday, 20 October 2020
Project Name	Lake Macdonald Dam Upgrade	**Revision**	A	**Verified By**	Sam Sawtell		

Lake Macdonald Drive - 200m south of Collwood Road (Southbound)

Design Year	Calender Year	Annual Growth Rate	AADT	Heavy Vehicle %	Direction Factor	Lane Distribution Factor	NHVAG	SAR4 / HVAG	SAR5 / HVAG	SAR12 / HVAG	Annual Growth (HVAG)	Annual Number HV		HVAG		SAR4		SAR5		SAR12	
												Annual	Cumulative	Annual	Cumulative	Annual	Cumulative	Annual	Cumulative	Annual	Cumulative
Year of Traffic Count	2020		685	4.09%	1.00	1.00	2.05	0.50	0.54	4.62		1.02E+04		2.10E+04		1.05E+04		1.13E+04		9.68E+04	
1	2021	1.0%	692	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.03E+04	1.03E+04	2.12E+04	2.12E+04	1.06E+04	1.06E+04	1.14E+04	1.14E+04	9.78E+04	9.78E+04
2	2022	1.0%	699	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.04E+04	2.07E+04	2.14E+04	4.25E+04	1.07E+04	2.13E+04	1.15E+04	2.30E+04	9.87E+04	1.96E+05
3	2023	1.0%	706	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.05E+04	3.13E+04	2.16E+04	6.41E+04	1.08E+04	3.21E+04	1.17E+04	3.46E+04	9.97E+04	2.96E+05
4	2024	1.0%	712	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.06E+04	4.19E+04	2.18E+04	8.59E+04	1.09E+04	4.29E+04	1.18E+04	4.64E+04	1.01E+05	3.97E+05
5	2025	1.0%	719	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.07E+04	5.26E+04	2.20E+04	1.08E+05	1.10E+04	5.39E+04	1.19E+04	5.83E+04	1.02E+05	4.98E+05
6	2026	1.0%	726	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.08E+04	6.35E+04	2.22E+04	1.30E+05	1.11E+04	6.51E+04	1.20E+04	7.03E+04	1.03E+05	6.01E+05
7	2027	1.0%	733	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.09E+04	7.44E+04	2.24E+04	1.53E+05	1.12E+04	7.63E+04	1.21E+04	8.24E+04	1.04E+05	7.05E+05
8	2028	1.0%	740	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.10E+04	8.54E+04	2.26E+04	1.75E+05	1.13E+04	8.76E+04	1.22E+04	9.46E+04	1.05E+05	8.09E+05
9	2029	1.0%	747	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.11E+04	9.66E+04	2.28E+04	1.98E+05	1.14E+04	9.90E+04	1.23E+04	1.07E+05	1.06E+05	9.15E+05
10	2030	1.0%	754	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.12E+04	1.08E+05	2.30E+04	2.21E+05	1.15E+04	1.11E+05	1.24E+04	1.19E+05	1.06E+05	1.02E+06
11	2031	1.0%	760	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.13E+04	1.19E+05	2.33E+04	2.44E+05	1.16E+04	1.22E+05	1.26E+04	1.32E+05	1.07E+05	1.13E+06
12	2032	1.0%	767	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.14E+04	1.31E+05	2.35E+04	2.68E+05	1.17E+04	1.34E+05	1.27E+04	1.45E+05	1.08E+05	1.24E+06
13	2033	1.0%	774	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.15E+04	1.42E+05	2.37E+04	2.91E+05	1.18E+04	1.46E+05	1.28E+04	1.57E+05	1.09E+05	1.35E+06
14	2034	1.0%	781	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.17E+04	1.54E+05	2.39E+04	3.15E+05	1.19E+04	1.58E+05	1.29E+04	1.70E+05	1.10E+05	1.46E+06
15	2035	1.0%	788	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.18E+04	1.66E+05	2.41E+04	3.39E+05	1.20E+04	1.70E+05	1.30E+04	1.83E+05	1.11E+05	1.57E+06
16	2036	1.0%	795	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.19E+04	1.77E+05	2.43E+04	3.64E+05	1.22E+04	1.82E+05	1.31E+04	1.96E+05	1.12E+05	1.68E+06
17	2037	1.0%	801	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.20E+04	1.89E+05	2.45E+04	3.88E+05	1.23E+04	1.94E+05	1.32E+04	2.10E+05	1.13E+05	1.79E+06
18	2038	1.0%	808	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.21E+04	2.01E+05	2.47E+04	4.13E+05	1.24E+04	2.06E+05	1.33E+04	2.23E+05	1.14E+05	1.91E+06
19	2039	1.0%	815	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.22E+04	2.14E+05	2.49E+04	4.38E+05	1.25E+04	2.19E+05	1.35E+04	2.36E+05	1.15E+05	2.02E+06
20	2040	1.0%	822	4.09%	1.00	1.00	2.05	0.50	0.54	4.62	2.10E+02	1.23E+04	**2.26E+05**	2.51E+04	**4.63E+05**	1.26E+04	**2.32E+05**	1.36E+04	**2.50E+05**	1.16E+05	**2.14E+06**

Pavement Loading SAR Comparison

Project Number	30032559	Road Name	Lake Macdonald Drive	Prepared By	Samy Bajracharya	Date	Tuesday, 20 October 2020
Project Name	Lake Macdonald Dam Upgrade	Revision	A	Verified By	Sam Sawtell		

Lake Macdonald Drive - 200m south of Collwood Road (North Bound)

Design Year	Calender Year	Annual Number HV							SAR4							SAR5						
		Background	Background Cumulative	Development	Development Cumulative	Proportion	Total	Total Cumaltive	Background	Background Cumulative	Development	Development Cumulative	Proportion	Total	Total Cumaltive	Background	Background Cumulative	Development	Development Cumulative	Proportion	Total	Total Cumaltive
Year of Traffic Count	2020	1.83E+04																				
1	2021	1.84E+04	1.84E+04	1.55E+03	1.55E+03	8.4%	2.00E+04	2.00E+04	1.98E+04	1.98E+04	6.38E+03	6.38E+03	32.2%	2.62E+04	2.62E+04	2.14E+04	2.14E+04	6.89E+03	6.89E+03	32.2%	2.83E+04	2.83E+04
2	2022	1.86E+04	3.70E+04	6.00E+03	7.55E+03	32.2%	2.46E+04	4.46E+04	2.00E+04	3.99E+04	2.81E+04	3.44E+04	140.1%	4.81E+04	7.43E+04	2.16E+04	4.30E+04	3.01E+04	3.70E+04	139.6%	5.18E+04	8.00E+04
3	2023	1.88E+04	5.58E+04	4.99E+03	1.25E+04	26.6%	2.38E+04	6.84E+04	2.02E+04	6.01E+04	2.32E+04	5.76E+04	114.5%	4.34E+04	1.18E+05	2.18E+04	6.48E+04	2.48E+04	6.19E+04	113.9%	4.67E+04	1.27E+05
4	2024	1.90E+04	7.48E+04			0.0%	1.90E+04	8.74E+04	2.04E+04	8.05E+04			0.0%	2.04E+04	1.38E+05	2.20E+04	8.68E+04			0.0%	2.20E+04	1.49E+05
5	2025	1.92E+04	9.40E+04			0.0%	1.92E+04	1.07E+05	2.06E+04	1.01E+05			0.0%	2.06E+04	1.59E+05	2.22E+04	1.09E+05			0.0%	2.22E+04	1.71E+05
6	2026	1.93E+04	1.13E+05			0.0%	1.93E+04	1.26E+05	2.08E+04	1.22E+05			0.0%	2.08E+04	1.80E+05	2.24E+04	1.32E+05			0.0%	2.24E+04	1.93E+05
7	2027	1.95E+04	1.33E+05			0.0%	1.95E+04	1.45E+05	2.10E+04	1.43E+05			0.0%	2.10E+04	2.01E+05	2.27E+04	1.54E+05			0.0%	2.27E+04	2.16E+05
8	2028	1.97E+04	1.53E+05			0.0%	1.97E+04	1.65E+05	2.12E+04	1.64E+05			0.0%	2.12E+04	2.22E+05	2.29E+04	1.77E+05			0.0%	2.29E+04	2.39E+05
9	2029	1.99E+04	1.72E+05			0.0%	1.99E+04	1.85E+05	2.14E+04	1.86E+05			0.0%	2.14E+04	2.43E+05	2.31E+04	2.00E+05			0.0%	2.31E+04	2.62E+05
10	2030	2.01E+04	1.93E+05			0.0%	2.01E+04	2.05E+05	2.16E+04	2.07E+05			0.0%	2.16E+04	2.65E+05	2.33E+04	2.23E+05			0.0%	2.33E+04	2.85E+05
11	2031	2.03E+04	2.13E+05			0.0%	2.03E+04	2.25E+05	2.18E+04	2.29E+05			0.0%	2.18E+04	2.87E+05	2.35E+04	2.47E+05			0.0%	2.35E+04	3.09E+05
12	2032	2.04E+04	2.33E+05			0.0%	2.04E+04	2.46E+05	2.20E+04	2.51E+05			0.0%	2.20E+04	3.09E+05	2.37E+04	2.71E+05			0.0%	2.37E+04	3.33E+05
13	2033	2.06E+04	2.54E+05			0.0%	2.06E+04	2.66E+05	2.22E+04	2.73E+05			0.0%	2.22E+04	3.31E+05	2.39E+04	2.95E+05			0.0%	2.39E+04	3.56E+05
14	2034	2.08E+04	2.75E+05			0.0%	2.08E+04	2.87E+05	2.24E+04	2.96E+05			0.0%	2.24E+04	3.53E+05	2.41E+04	3.19E+05			0.0%	2.41E+04	3.81E+05
15	2035	2.10E+04	2.96E+05			0.0%	2.10E+04	3.08E+05	2.26E+04	3.18E+05			0.0%	2.26E+04	3.76E+05	2.44E+04	3.43E+05			0.0%	2.44E+04	4.05E+05
16	2036	2.12E+04	3.17E+05			0.0%	2.12E+04	3.29E+05	2.28E+04	3.41E+05			0.0%	2.28E+04	3.99E+05	2.46E+04	3.68E+05			0.0%	2.46E+04	4.30E+05
17	2037	2.14E+04	3.38E+05			0.0%	2.14E+04	3.51E+05	2.30E+04	3.64E+05			0.0%	2.30E+04	4.22E+05	2.48E+04	3.92E+05			0.0%	2.48E+04	4.54E+05
18	2038	2.15E+04	3.60E+05			0.0%	2.15E+04	3.72E+05	2.32E+04	3.87E+05			0.0%	2.32E+04	4.45E+05	2.50E+04	4.17E+05			0.0%	2.50E+04	4.79E+05
19	2039	2.17E+04	3.81E+05			0.0%	2.17E+04	3.94E+05	2.34E+04	4.10E+05			0.0%	2.34E+04	4.68E+05	2.52E+04	4.43E+05			0.0%	2.52E+04	5.05E+05
20	2040	2.19E+04	4.03E+05			0.0%	2.19E+04	4.16E+05	2.36E+04	4.34E+05			0.0%	2.36E+04	4.92E+05	2.54E+04	4.68E+05			0.0%	2.54E+04	5.30E+05
		4.0E+05		**1.3E+04**		**3.1%**			**4.3E+05**		**5.8E+04**		**13.3%**			**4.7E+05**		**6.2E+04**		**13.2%**		

Lake Macdonald Drive - 200m south of Collwood Road (South Bound)

Design Year	Calender Year	Annual Number HV							SAR4							SAR5						
		Background	Background Cumulative	Development	Development Cumulative	Proportion	Total	Total Cumaltive	Background	Background Cumulative	Development	Development Cumulative	Proportion	Total	Total Cumaltive	Background	Background Cumulative	Development	Development Cumulative	Proportion	Total	Total Cumaltive
Year of Traffic Count	2020	1.02E+04																				
1	2021	1.03E+04	1.03E+04	1.55E+03	1.55E+03	15.0%	1.19E+04	1.19E+04	1.06E+04	1.06E+04	7.65E+02	7.65E+02	7.2%	1.13E+04	1.13E+04	1.14E+04	1.14E+04	5.89E+02	5.89E+02	5.2%	1.20E+04	1.20E+04
2	2022	1.04E+04	2.07E+04	6.00E+03	7.55E+03	57.6%	1.64E+04	2.83E+04	1.07E+04	2.13E+04	3.25E+03	4.01E+03	30.4%	1.39E+04	2.53E+04	1.15E+04	2.30E+04	2.51E+03	3.10E+03	21.7%	1.40E+04	2.61E+04
3	2023	1.05E+04	3.13E+04	4.99E+03	1.25E+04	47.4%	1.55E+04	4.38E+04	1.08E+04	3.21E+04	2.70E+03	6.71E+03	25.0%	1.35E+04	3.88E+04	1.17E+04	3.46E+04	2.08E+03	5.18E+03	17.8%	1.37E+04	3.98E+04
4	2024	1.06E+04	4.19E+04			0.0%	1.06E+04	5.44E+04	1.09E+04	4.29E+04			0.0%	1.09E+04	4.97E+04	1.18E+04	4.64E+04			0.0%	1.18E+04	5.16E+04
5	2025	1.07E+04	5.26E+04			0.0%	1.07E+04	6.52E+04	1.10E+04	5.39E+04			0.0%	1.10E+04	6.07E+04	1.19E+04	5.83E+04			0.0%	1.19E+04	6.34E+04
6	2026	1.08E+04	6.35E+04			0.0%	1.08E+04	7.60E+04	1.11E+04	6.51E+04			0.0%	1.11E+04	7.18E+04	1.20E+04	7.03E+04			0.0%	1.20E+04	7.54E+04
7	2027	1.09E+04	7.44E+04			0.0%	1.09E+04	8.69E+04	1.12E+04	7.63E+04			0.0%	1.12E+04	8.30E+04	1.21E+04	8.24E+04			0.0%	1.21E+04	8.75E+04
8	2028	1.10E+04	8.54E+04			0.0%	1.10E+04	9.80E+04	1.13E+04	8.76E+04			0.0%	1.13E+04	9.43E+04	1.22E+04	9.46E+04			0.0%	1.22E+04	9.98E+04
9	2029	1.11E+04	9.66E+04			0.0%	1.11E+04	1.09E+05	1.14E+04	9.90E+04			0.0%	1.14E+04	1.06E+05	1.23E+04	1.07E+05			0.0%	1.23E+04	1.12E+05
10	2030	1.12E+04	1.08E+05			0.0%	1.12E+04	1.20E+05	1.15E+04	1.11E+05			0.0%	1.15E+04	1.17E+05	1.24E+04	1.19E+05			0.0%	1.24E+04	1.25E+05
11	2031	1.13E+04	1.19E+05			0.0%	1.13E+04	1.32E+05	1.16E+04	1.22E+05			0.0%	1.16E+04	1.29E+05	1.26E+04	1.32E+05			0.0%	1.26E+04	1.37E+05
12	2032	1.14E+04	1.31E+05			0.0%	1.14E+04	1.43E+05	1.17E+04	1.34E+05			0.0%	1.17E+04	1.41E+05	1.27E+04	1.45E+05			0.0%	1.27E+04	1.50E+05
13	2033	1.15E+04	1.42E+05			0.0%	1.15E+04	1.55E+05	1.18E+04	1.46E+05			0.0%	1.18E+04	1.52E+05	1.28E+04	1.57E+05			0.0%	1.28E+04	1.63E+05
14	2034	1.17E+04	1.54E+05			0.0%	1.17E+04	1.66E+05	1.19E+04	1.58E+05			0.0%	1.19E+04	1.64E+05	1.29E+04	1.70E+05			0.0%	1.29E+04	1.75E+05
15	2035	1.18E+04	1.66E+05			0.0%	1.18E+04	1.78E+05	1.20E+04	1.70E+05			0.0%	1.20E+04	1.76E+05	1.30E+04	1.83E+05			0.0%	1.30E+04	1.88E+05
16	2036	1.19E+04	1.77E+05			0.0%	1.19E+04	1.90E+05	1.22E+04	1.82E+05			0.0%	1.22E+04	1.89E+05	1.31E+04	1.96E+05			0.0%	1.31E+04	2.02E+05
17	2037	1.20E+04	1.89E+05			0.0%	1.20E+04	2.02E+05	1.23E+04	1.94E+05			0.0%	1.23E+04	2.01E+05	1.32E+04	2.10E+05			0.0%	1.32E+04	2.15E+05
18	2038	1.21E+04	2.01E+05			0.0%	1.21E+04	2.14E+05	1.24E+04	2.06E+05			0.0%	1.24E+04	2.13E+05	1.33E+04	2.23E+05			0.0%	1.33E+04	2.28E+05
19	2039	1.22E+04	2.14E+05			0.0%	1.22E+04	2.26E+05	1.25E+04	2.19E+05			0.0%	1.25E+04	2.26E+05	1.35E+04	2.36E+05			0.0%	1.35E+04	2.42E+05
20	2040	1.23E+04	2.26E+05			0.0%	1.23E+04	2.38E+05	1.26E+04	2.32E+05			0.0%	1.26E+04	2.38E+05	1.36E+04	2.50E+05			0.0%	1.36E+04	2.55E+05
		2.3E+05		**1.3E+04**		**5.6%**			**2.3E+05**		**6.7E+03**		**2.9%**			**2.5E+05**		**5.2E+03**		**2.1%**		

Appendix J TMR Marginal Cost for Cooroy Connection Road

Average for Road Section:

GN	5.25	cents per SAR-km
AC	5.328	cents per SAR-km

Marginal cost data for sealed segments of the selected road sections

RoadName	ROAD_ SECTION_ID	SUPERSET_ CWAY	CARRIAGEWAY_ CODE	TDIST_ START	TDIST_ END	LENGTH	SEAL_ FLAG	MC_COSTING_ PAVEMENT_TYPE	MarginalCost
COOROY CONNECTION ROAD	145	1	2	0.000	0.100	0.100	sealed	AC	5.37
COOROY CONNECTION ROAD	145	3	3	0.000	0.100	0.100	sealed	AC	5.37
COOROY CONNECTION ROAD	145	1	2	0.100	0.145	0.045	sealed	AC	5.37
COOROY CONNECTION ROAD	145	3	3	0.100	0.145	0.045	sealed	AC	5.37
COOROY CONNECTION ROAD	145	1	2	0.145	0.200	0.055	sealed	AC	5.37
COOROY CONNECTION ROAD	145	3	3	0.145	0.200	0.055	sealed	AC	5.37
COOROY CONNECTION ROAD	145	1	2	0.200	0.205	0.005	sealed	AC	5.37
COOROY CONNECTION ROAD	145	3	3	0.200	0.245	0.045	sealed	AC	5.37
COOROY CONNECTION ROAD	145	1	1	0.205	0.300	0.095	sealed	AC	5.37
COOROY CONNECTION ROAD	145	1	1	0.300	0.400	0.100	sealed	AC	6.51
COOROY CONNECTION ROAD	145	1	1	0.400	0.500	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	0.500	0.600	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	0.600	0.700	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	0.700	0.800	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	0.800	0.900	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	0.900	1.000	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	1.000	1.100	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	1.100	1.200	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	1.200	1.300	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	1.300	1.400	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	1.400	1.500	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	1.500	1.600	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	1.600	1.700	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	1.700	1.800	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	1.800	1.900	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	1.900	2.000	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	2.000	2.100	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	2.100	2.200	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	2.200	2.300	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	2.300	2.400	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	2.400	2.500	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	2.500	2.600	0.100	sealed	AC	4.54
COOROY CONNECTION ROAD	145	1	1	2.600	2.700	0.100	sealed	AC	4.54
COOROY CONNECTION ROAD	145	1	1	2.700	2.800	0.100	sealed	AC	4.54
COOROY CONNECTION ROAD	145	1	1	2.800	2.900	0.100	sealed	AC	4.54
COOROY CONNECTION ROAD	145	1	1	2.900	3.000	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	3.000	3.100	0.100	sealed	AC	5.89
COOROY CONNECTION ROAD	145	1	1	3.100	3.200	0.100	sealed	AC	7.89
COOROY CONNECTION ROAD	145	1	1	3.500	3.600	0.100	sealed	AC	7.89
COOROY CONNECTION ROAD	145	1	1	3.600	3.700	0.100	sealed	AC	7.89
COOROY CONNECTION ROAD	145	1	1	3.700	3.800	0.100	sealed	AC	7.89
COOROY CONNECTION ROAD	145	1	1	3.800	3.900	0.100	sealed	AC	7.89
COOROY CONNECTION ROAD	145	1	1	3.900	4.000	0.100	sealed	AC	7.89
COOROY CONNECTION ROAD	145	1	1	5.400	5.500	0.100	sealed	AC	5.37
COOROY CONNECTION ROAD	145	1	1	5.500	5.600	0.100	sealed	AC	5.37
COOROY CONNECTION ROAD	145	1	1	5.600	5.700	0.100	sealed	AC	5.37
COOROY CONNECTION ROAD	145	1	1	5.700	5.800	0.100	sealed	AC	2.83
COOROY CONNECTION ROAD	145	1	1	5.800	5.900	0.100	sealed	AC	2.83
COOROY CONNECTION ROAD	145	1	1	5.900	6.000	0.100	sealed	AC	2.83
COOROY CONNECTION ROAD	145	1	1	6.000	6.100	0.100	sealed	AC	2.83
COOROY CONNECTION ROAD	145	1	1	6.100	6.200	0.100	sealed	AC	3.28
COOROY CONNECTION ROAD	145	1	1	6.200	6.300	0.100	sealed	AC	3.28
COOROY CONNECTION ROAD	145	1	1	6.400	6.500	0.100	sealed	AC	3.03
COOROY CONNECTION ROAD	145	1	1	6.500	6.600	0.100	sealed	AC	3.03
COOROY CONNECTION ROAD	145	1	1	6.600	6.610	0.010	sealed	AC	3.03
COOROY CONNECTION ROAD	145	1	1	6.610	6.700	0.090	sealed	AC	3.03
COOROY CONNECTION ROAD	145	1	1	6.700	6.800	0.100	sealed	AC	3.03
COOROY CONNECTION ROAD	145	1	1	6.800	6.900	0.100	sealed	AC	3.03
COOROY CONNECTION ROAD	145	1	1	6.900	7.000	0.100	sealed	AC	5.85
COOROY CONNECTION ROAD	145	1	1	7.000	7.100	0.100	sealed	AC	5.85
COOROY CONNECTION ROAD	145	1	1	3.200	3.300	0.100	sealed	GN	7.89
COOROY CONNECTION ROAD	145	1	1	3.300	3.400	0.100	sealed	GN	7.89
COOROY CONNECTION ROAD	145	1	1	3.400	3.500	0.100	sealed	GN	7.89
COOROY CONNECTION ROAD	145	1	1	4.000	4.100	0.100	sealed	GN	7.89
COOROY CONNECTION ROAD	145	1	1	4.100	4.200	0.100	sealed	GN	7.89
COOROY CONNECTION ROAD	145	1	1	4.200	4.300	0.100	sealed	GN	7.89
COOROY CONNECTION ROAD	145	1	1	4.300	4.400	0.100	sealed	GN	7.89
COOROY CONNECTION ROAD	145	1	1	4.400	4.500	0.100	sealed	GN	7.89
COOROY CONNECTION ROAD	145	1	1	4.500	4.600	0.100	sealed	GN	3.15
COOROY CONNECTION ROAD	145	1	1	4.600	4.700	0.100	sealed	GN	3.15
COOROY CONNECTION ROAD	145	1	1	4.700	4.800	0.100	sealed	GN	3.15
COOROY CONNECTION ROAD	145	1	1	4.800	4.900	0.100	sealed	GN	3.15
COOROY CONNECTION ROAD	145	1	1	4.900	5.000	0.100	sealed	GN	3.15
COOROY CONNECTION ROAD	145	1	1	5.000	5.100	0.100	sealed	GN	3.15
COOROY CONNECTION ROAD	145	1	1	5.100	5.200	0.100	sealed	GN	3.15
COOROY CONNECTION ROAD	145	1	1	5.200	5.300	0.100	sealed	GN	3.15
COOROY CONNECTION ROAD	145	1	1	5.300	5.400	0.100	sealed	GN	3.15
COOROY CONNECTION ROAD	145	1	1	6.300	6.400	0.100	sealed	GN	3.03

Appendix K Contribution Calculation Summary

SMEC
Member of the Surbana Jurong Group

Development Contribution Assessment

(Mariginal Cost Rate Method)

Project Number	30032559
Project Name	Lake Macdonald Dam Upgrade
Revision	A
Date	Wednesday, 4 November 2020

Road Name	Lake Macdonald Drive
Prepared By	Samy Bajracharya
Verified By	Sam Sawtell

Input Parameters

Chainage		Length (km)	Surface	Damage Exponent
Start	End			
0	0.317	0.317	Asphalt (AC)	5
0.317	0.628	0.311	Sprayed Seal (GN)	4
0.628	0.733	0.105	Asphalt (AC)	5
0.733	0.812	0.079	Sprayed Seal (GN)	4
0.812	0.999	0.187	Asphalt (AC)	5
0.999	4.239	3.24	Sprayed Seal (GN)	4

SAR	Total Length (km)	Mariginal Cost Rate	Cost Rate Unit
4	3.63	5.25	cents per SAR4-km
5	0.609	5.33	cents per SAR5-km
12	0	-	cents per SAR12-km

Development SAR Volumes

SAR4		
Year	North Bound	South Bound
2020		
2021	6,384	765
2022	28,060	3,249
2023	23,151	2,696
2024		

SAR5		
Year	North Bound	South Bound
2020		
2021	6,888	589
2022	30,149	2,509
2023	24,848	2,079
2024		

SAR12		
Year	North Bound	South Bound
2020		
2021		
2022		
2023		
2024		

Contribution Summary

Road Segment		Length (km)	Damage Exponent	Marginal Cost Rate (cents per SAR-km)	Year	Contribution Calculation		
Start Ch.	End Ch.					North Bound	South Bound	Total
0	0.317	0.317	5	5.33	2020	$ -	$ -	$ -
					2021	$ 116.37	$ 9.95	$ 126.32
					2022	$ 509.39	$ 42.38	$ 551.78
					2023	$ 419.84	$ 35.13	$ 454.98
					2024	$ -	$ -	$ -
					Sub-Total	**$ 1,045.61**	**$ 87.47**	***$ 1,133.07***
0.317	0.628	0.311	4	5.25	2020	$ -	$ -	$ -
					2021	$ 104.24	$ 12.50	$ 116.74
					2022	$ 458.16	$ 53.05	$ 511.21
					2023	$ 378.00	$ 44.01	$ 422.02
					2024	$ -	$ -	$ -
					Sub-Total	**$ 940.40**	**$ 109.57**	***$ 1,049.97***
0.628	0.733	0.105	5	5.33	2020	$ -	$ -	$ -
					2021	$ 38.55	$ 3.30	$ 41.84
					2022	$ 168.73	$ 14.04	$ 182.77
					2023	$ 139.06	$ 11.64	$ 150.70
					2024	$ -	$ -	$ -
					Sub-Total	**$ 346.34**	**$ 28.97**	***$ 375.31***
0.733	0.812	0.079	4	5.25	2020	$ -	$ -	$ -
					2021	$ 26.48	$ 3.17	$ 29.65
					2022	$ 116.38	$ 13.48	$ 129.86
					2023	$ 96.02	$ 11.18	$ 107.20
					2024	$ -	$ -	$ -
					Sub-Total	**$ 238.88**	**$ 27.83**	***$ 266.71***
0.812	0.999	0.187	5	5.33	2020	$ -	$ -	$ -
					2021	$ 68.65	$ 5.87	$ 74.52
					2022	$ 300.49	$ 25.00	$ 325.50
					2023	$ 247.67	$ 20.73	$ 268.39
					2024	$ -	$ -	$ -
					Sub-Total	**$ 616.81**	**$ 51.60**	***$ 668.41***
0.999	4.239	3.24	4	5.25	2020	$ -	$ -	$ -
					2021	$ 1,085.98	$ 130.20	$ 1,216.18
					2022	$ 4,773.08	$ 552.72	$ 5,325.80
					2023	$ 3,938.04	$ 458.54	$ 4,396.58
					2024	$ -	$ -	$ -
					Sub-Total	**$ 9,797.11**	**$ 1,141.46**	***$ 10,938.57***
							TOTAL CONTRIBUTION	**$ 14,432.04**

Appendix F

Noosa Shire Council Letter of No Objection

N

29 May 2024

Andrew Boucat
Senior Officer, Road Reserves
Noosa Council
PO Box 141
Tewantin QLD 4565

Dear Andrew,

RE: Letter of No Objection, Lake Macdonald Dam Improvement Project, Lake MacDonald Drive and Colwood Road

John Holland Queensland has commenced work on the Lake Macdonald Dam Improvement Project (LMDIP). The project, approved under the State Development and Public Works Organisation Act, requires works to be undertaken within the road reserves of Colwood Road and Lake Macdonald Dive from June 2024 for up to 5 years with the nature of the works being described below. The purpose of this correspondence is to seek a Letter of No Objection (LONO) from Council regarding these works. Please note that all works are consistent with the following approvals[1]:

- Six Mile Creek Dam Safety Upgrade project Coordinator-General's evaluation report on the impact assessment report (May 2019) and
- Six Mile Creek Dam Safety Upgrade, Queensland (EPBC 2017/ 8078)

Colwood Road:

The project is seeking to close Colwood Road at the location shown in Figure 1 in June 2024 for up to 5 years. Closure of the road at this location is required in order to:

- Install construction site exclusion fencing (i.e. to prevent public access to the construction area) including a gate across the existing formed road
- Enable clearing of vegetation and construction of permanent infrastructure in accordance with the Coordinator-Generals Environmental Report and other relevant approval conditions
- Allow an alternate (emergency) access point to the construction site

Lake Macdonald Drive

As shown in Figure 2, a portion of the existing dam structure has been constructed within the Lake Macdonald Drive road reserve. It is understood that this is a legacy issue as the dam was originally an asset of Noosa Council and later transferred to Seqwater without an adjustment of property boundaries.

Works in Lake Macdonald Drive will initially consist of:

- Erection of construction site exclusion fencing and water filled barriers (See Figures 2 to 4)
- Installation of lake lowering pump system and pipe-work
- Removal of selected vegetation adjacent to the road reserve
- Site access improvements

Later works will include

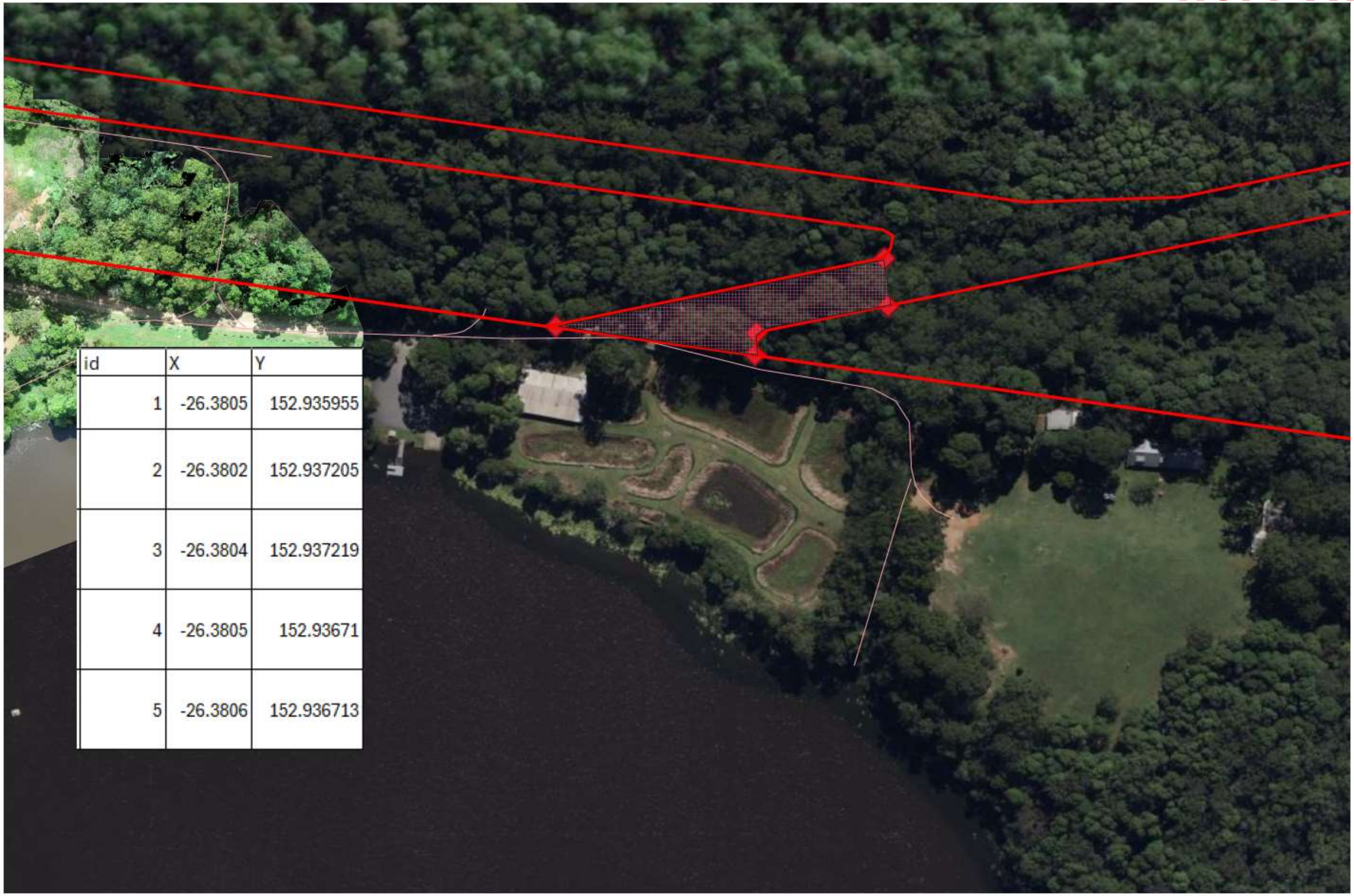
[1] Note that amendment applications are currently underway for both approvals, however these are not expected to impact activities within the affected road reserves

- Construction of temporary coffer-dam
- Reconstruction of dam wing-wall

Should Council require more detailed information to enable the LONO to be prepared, please contact Craig Thamm from Virid AU on craigt@virid.au or 0427406515.

Yours sincerely

Michael Partridge
Project Manager
John Holland
Lake Macdonald Dam Improvement Project



id	X	Y
1	-26.3805	152.935955
2	-26.3802	152.937205
3	-26.3804	152.937219
4	-26.3805	152.93671
5	-26.3806	152.936713

Figure 1: Colwood Road Works Limits

id	X	Y
1	-26.3825	152.928877
2	-26.3808	152.929253
3	-26.3806	152.929449
4	-26.3805	152.929449
5	-26.3805	152.929597
6	-26.3823	152.929159
7	-26.3823	152.929062
8	-26.3825	152.928971

Figure 2: Limit of Work Lake Macdonald Drive

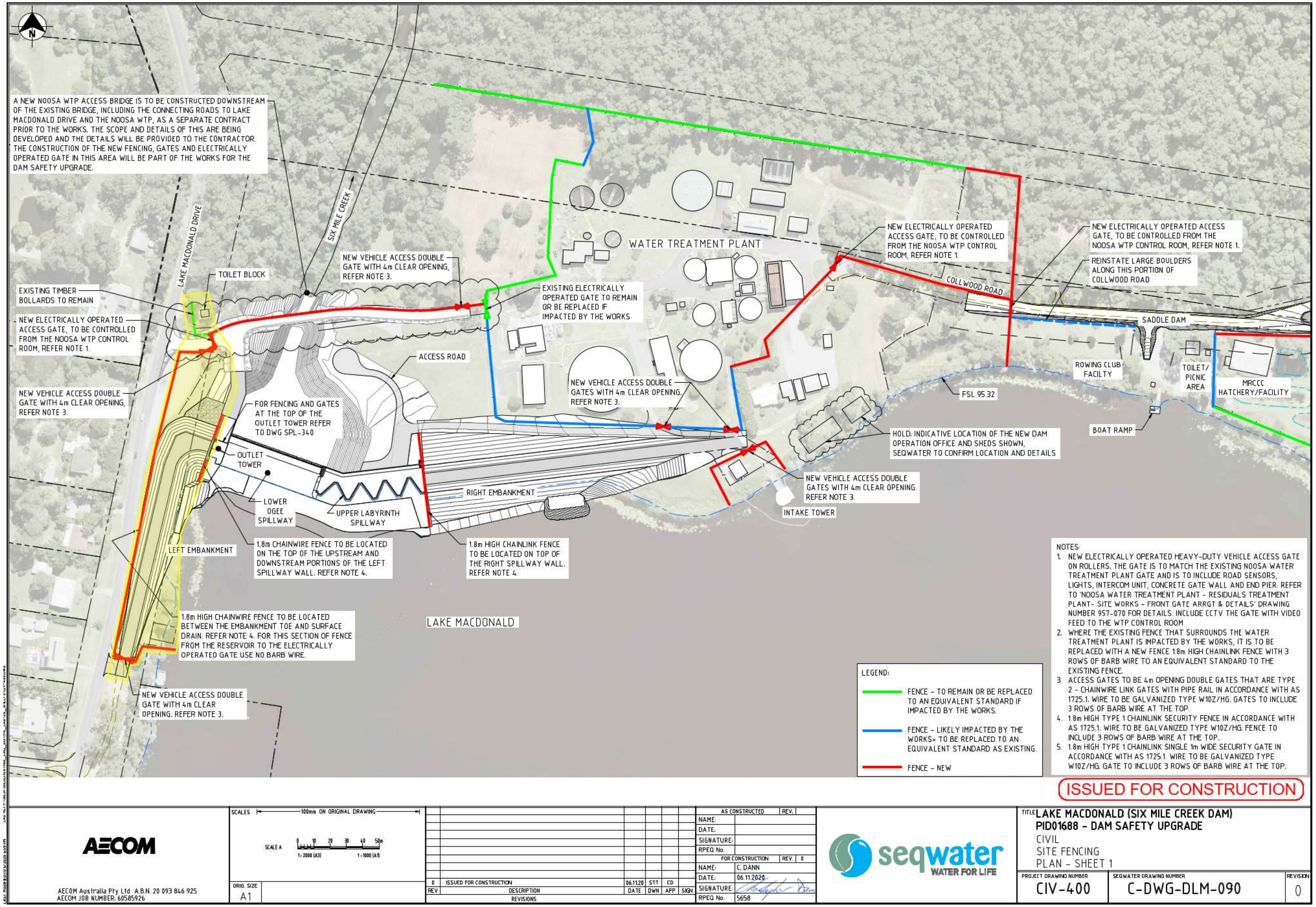


Figure 3: General Works Plan Lake Macdonald

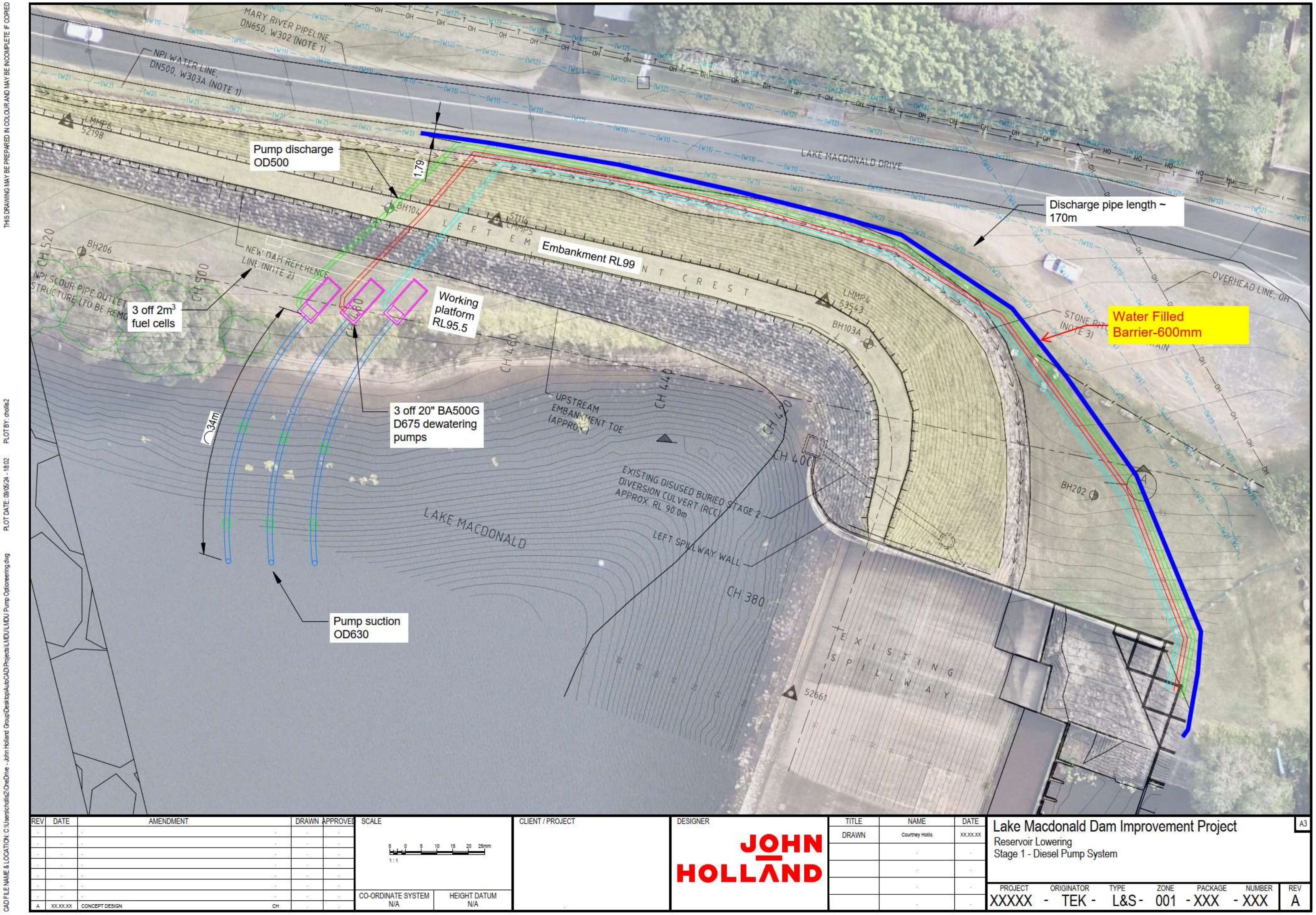


Figure 4: Lake Lowering pump system and Barrier Location

LETTER OF NO OBJECTION (LONO)

06/06/2024

Michael Partridge, Craig Thamm
John Holland
Level 3, 1000 Ann St,
Fortitude Valley QLD 4006
craigt@virid.au

Our Reference:	RM2024/13673 WO 0212085
You're Reference:	Lake Macdonald Dam Improvement Project, Lake MacDonald Drive and Colwood Road

Details of works:

Colwood Road:

The project is seeking to close Colwood Road at the location shown in Figure 1 in June 2024 for up to 5 years. Closure of the road at this location is required in order to:

- Install construction site exclusion fencing (i.e. to prevent public access to the construction area) including a gate across the existing formed road
- Enable clearing of vegetation and construction of permanent infrastructure in accordance with the Coordinator-Generals Environmental Report and other relevant approval conditions
- Allow an alternate (emergency) access point to the construction site

Lake Macdonald Drive

As shown in Figure 2, a portion of the existing dam structure has been constructed within the Lake Macdonald Drive road reserve. It is understood that this is a legacy issue as the dam was originally an asset of Noosa Council and later transferred to Seqwater without an adjustment of property boundaries.

Works in Lake Macdonald Drive will initially consist of:

- Erection of construction site exclusion fencing and water filled barriers (See Figures 2 to 4)
- Installation of lake lowering pump system and pipe-work
- Installation of temporary noise abatement barriers (if required – may be co-located with exclusion fencing)
- Removal of selected vegetation adjacent to the road reserve
- Site access improvements

Council Infrastructure Services has no objection to the proposed works.

This conditional approval is for 5 years commencing 6th June 2024. If any changes or extension to the timeframe are required, an application must be made to Council five days prior to LONO expiry.

Conditions are as follows:

1. All activities impacting the roadway should be MUTCD compliant with a copy of all site-specific MUTCD compliant pedestrian and traffic management to be provided to council if requested.

2. Council reserves the right to alter and reduce permitted working hours due to traffic congestion and public complaints at any time.
3. Reinstatement of all impacted areas is to be undertaken to their original condition and council satisfaction. In addition, any affected natural /vegetated areas within residential road reserve and approved compound area are to be reinstated with turf were suitable or 100mm of weed-free mulch in established garden areas to mitigate erosion impacts.
4. If works are to impact trees a tree protection zone (TPZ) should be established. Subsequently all forms of installation and excavations within the TPZ shall comply with AS 4970-2009 'Protection of trees on development sites. In addition, all excavations around tree protection zones must be vacuum excavated and tree roots protected with damp hessian until reinstatement. If tree removal is required, separate Council approval should be sought from Council's Parks Department
5. A letter drop with appropriate project communications if required to be undertaken to all/any business/residents affected. The information should include: property access disruptions, road lane closures and associated detours, park and footpath closures, outlining the proposed activities and disruption, access, duration, construction and noise-related activities of the proposed work and your contact details directing all enquiries to the applicant or their contractor and not Council. The Council may require proof of this advice.
6. The applicant is responsible for ensuring that no unlawful noise problems emanate from or are caused due to this work. 630 am is a suitable start time for all noise-related activities, with no noise-related activities permitted on Sundays or Public Holidays.

Please note that the commencement of these works indicates acceptance of the conditions.

Attached: Lake Macdonald Figures 1 – 4

Regards

Andrew Boucaut | Senior Officer, Road Reserves
Infrastructure Services
Phone: (07) 5329 6193
Mobile: 0466 453 746
andrew.boucaut@noosa.qld.gov.au | noosa.qld.gov.au

NOOSA Council

Appendix G

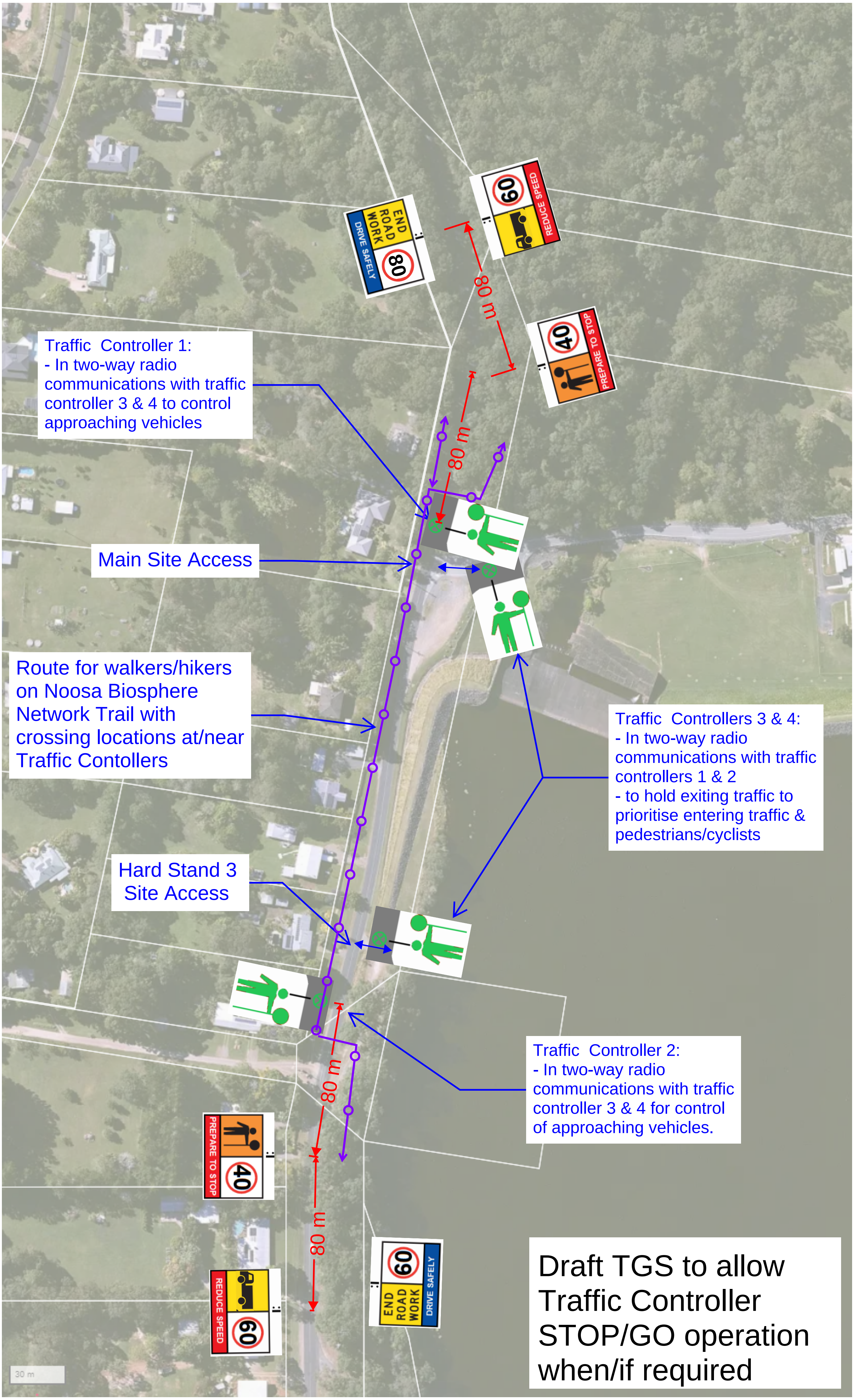
Traffic Guidance Scheme Concepts

G-1 Elm Street / Macdonald Drive Traffic Guidance Scheme Concept – Early Works Stage

Lake Macdonald Dam Improvement Project
Proposed Traffic Guidance for Early Works prior to intersection upgrades

Note: For semi-trailers as rigid trucks and truck and dogs swept paths are within road and have sufficient buffer width.

G-2 Macdonald Drive Traffic Guidance Scheme Concept – Main Works


Traffic Controller 1:
- In two-way radio communications with traffic controller 3 & 4 to control approaching vehicles
Main Site Access
Route for walkers/hikers on Noosa Biosphere Network Trail with crossing locations at/near Traffic Contollers
Hard Stand 3 Site Access
Traffic Controllers 3 & 4:
- In two-way radio communications with traffic controllers 1 & 2
- to hold exiting traffic to prioritise entering traffic & pedestrians/cyclists
Traffic Controller 2:
- In two-way radio communications with traffic controller 3 & 4 for control of approaching vehicles.
Draft TGS to allow Traffic Controller STOP/GO operation when/if required
END ROAD WORK
80
DRIVE SAFELY
60
REDUCE SPEED
40
PREPARE TO STOP
80 m
30 m

Appendix H

Stakeholder Liaison Meeting Minutes / Notes

H-1 Cooroy State School

Meeting 1/8/2024 5:32 pm (Australia/Brisbane)

Event Type	Meeting
Start Date	1/8/2024 5:32 pm
End Date	1/8/2024 5:32 pm
Sentiment	Positive

Summary	LMDIP: KL, MP and DJ attended.
	
	CSS: Lori McPherson (A/Principal), Karina Ramsay (Deputy Principal), Vonnie Mackenzie (Business Manager)
	
	* Provided project overview
	  * Newsletter
	  * Design and approvals
	  * Will meet again to discuss impacts (specifically traffic and dust) once we have more information
	* School engagement
	  * Fetes, events, education campaigns, site visits
	  * School to run a safety campaign re traffic/trucks etc
	  * P&C can run BBQs
	  * Project team can present to the P&C
	  * Discuss legacy options, sponsorships etc
	* CSS concerns
	  * Traffic, noise and dust impacts along Elm Street
	  * Peak drop off and pick up times: 7.45-9am and 2.50-4pm. NOTE: there was no request to restrict HVs through school zones during peak times.
	  * Buses queue along Elm Street and turnaround at intersection
	  * CSS previously engaged by Seqwater and discussed double glazing on prep building – is this still an option? Prep building is closest to the Elm Street intersection.
	  * School assessment week – generally week 7-8 of each term.
	* Next steps
	  * Project team to meet with CSS once we have more info about early works, traffic impacts and construction.

Stakeholder Comments	
Team Response	
Issues	Construction:Traffic(1), Construction:Noise(1), Construction:Dust(2), Construction:Vibration
Location	
Address	
Projects	Lake Macdonald Dam Safety Upgrade
Users	Daniela Jolly, Kristy Lankester
Properties	
Stakeholders	Lori McPherson, Karina Ramsay, Vonnie Mackenzie

Email - outgoing 5/8/2024 3:23 pm (Australia/Brisbane)

Event Type	Email - outgoing
Start Date	5/8/2024 3:23 pm
End Date	5/8/2024 3:23 pm
Sentiment	Neutral
Summary	KL sent follow up email after the meeting on 1/8/24.
Stakeholder Comments	From: Kristy Lankester-JHG Sent: Monday, August 5, 2024 10:11 AM To: lmcph21@eq.edu.au; khone5@eq.edu.au; vmack2@eq.edu.au Cc: Daniela Jolly <Daniela.Jolly@seqwater.com.au> Subject: LMDIP: contact details for project team Hi Lori, Karina and Vonnie, Thank you for taking the time last week to meet with myself, Michael Partridge (John Holland Project Manager) and Daniela Jolly (Seqwater Principal Community Engagement Advisor) to discuss the Lake Macdonald Dam Improvement Project (LMDIP) – click here to view the website. [https://www.seqwater.com.au/project/lake-macdonald-dam-improvement-project] We look forward to working closely with Cooroy State School and the local community while we work on LMDIP. As discussed, the project team is currently working through design and approvals. Once we have more information about early works and construction, we will be in touch to schedule another meeting and discuss in more detail. Please don’t hesitate to reach out in the meantime if you have any questions. We look forward to meeting again soon. Thanks, Kristy
Team Response	
Issues	General Enquiry:General Information, Construction:Traffic(1), Construction:Noise(1), Construction:Dust(2), Construction:Vibration
Location	
Address	
Projects	Lake Macdonald Dam Safety Upgrade
Users	Kristy Lankester
Properties	
Stakeholders	Karina Ramsay, Lori McPherson, Vonnie Mackenzie

Email - outgoing 9/9/2024 3:23 pm (Australia/Brisbane)

Event Type	Email - outgoing
Start Date	9/9/2024 3:23 pm
End Date	1/10/2024 4:44 pm
Sentiment	Neutral
Summary	KL sent email to clarify some traffic queries for the TMP development.
Stakeholder Comments	From: Kristy Lankester-JHG Sent: Monday, September 9, 2024 8:41 AM To: 'lmcph21@eq.edu.au' < lmcph21@eq.edu.au [mailto:lmcph21@eq.edu.au]>; 'khone5@eq.edu.au' < khone5@eq.edu.au [mailto:khone5@eq.edu.au]>; 'vmack2@eq.edu.au' < vmack2@eq.edu.au [mailto:vmack2@eq.edu.au]> Subject: RE: LMDIP: contact details for project team Good morning Lori, Karina and Vonnie, I hope you're all well. I have a couple of follow up queries from our meeting to help with our traffic management planning. 1. You spoke about the buses queuing along Elm Street and they turnaround at the intersection. Which intersection do they turnaround at? 2. Do you have a school specific traffic management plan? 3. Do you have any park and stride/ride locations (other than the pick-up/drop-off zone)? 4. Other than the pedestrian crossing near the oval, do you have teachers marshall areas during pick-up and drop-off? 5. Do parents display surnames in the windscreen of cars? I appreciate your assistance. Thanks, Kristy ******************** From: Kristy Lankester-JHG < Kristy.Lankester@jhg.com.au [mailto:Kristy.Lankester@jhg.com.au]> Sent: Tuesday, 1 October 2024 2:47 PM To: MCPHERSON, Lori (lmcph21) < lmcph21@eq.edu.au [mailto:lmcph21@eq.edu.au]>; RAMSAY, Karina (khone5) < khone5@eq.edu.au [mailto:khone5@eq.edu.au]>; MACKENZIE, Veronica (vmack2) < vmack2@eq.edu.au [mailto:vmack2@eq.edu.au]> Subject: LMDIP: traffic planning questions Hi ladies,

I hope you all enjoyed a well earned break!

I am just following up on the email below with a couple of questions to assist with our traffic planning. Can you please advise.

Thanks,

Kristy

****

From: RAMSAY, Karina (khone5) <khone5@eq.edu.au>
Sent: Tuesday, 1 October 2024 4:44 PM
To: Kristy Lankester-JHG <Kristy.Lankester@jhg.com.au>
Subject: RE: LMDIP: traffic planning questions

Hi Kristy

My apologies, please find information below:

1. You spoke about the buses queuing along Elm Street and they turnaround at the intersection. Which intersection do they turnaround at? The busses queue on the school side of Elm Street, with some going North down Elm Street and Lake Macdonald Drive. Others turn around at Sapphire Street and then head South to other surrounding areas of Cooroy.
2. Do you have a school specific traffic management plan? Not currently, the school drop off and pick up zone and adjacent car parking is managed by Noosa Council/Main Roads. There is a dirt over flow car park located at the Northern end of the school oval that is used on a daily basis, mostly in the afternoon.
3. Do you have any park and stride/ride locations (other than the pick-up/drop-off zone)? No. Some parents chose to drop/pick up their children from the Kauri Park entrance on Sapphire Street however this is only a handful of families. We do have another handful of families that (despite constant requests not to) park on the opposite side of Elm Street and cross the road rather than using the designated lolly pop crossing.
4. Other than the pedestrian crossing near the oval, do you have teachers marshall areas during pick-up and drop-off? The lolly pop crossing staff are employed by Department of Transport, we simply manage their time sheets, store goods etc. We marshal children at the undercover area at the Northern end of the Main Hall /road side of oval and at the bus stop at the Southern entry of the school.
5. Do parents display surnames in the windscreen of cars? No, our school staff that supervise the pick up/drop off zone are reasonably familiar with families and their cars that this has not been a strategy we have implemented.

Please let me know if there is anything further I can help with.

Kind Regards

Karina Ramsay

Deputy Principal

Cooroy State School

Team Response	
Issues	General Enquiry:General Information, Construction:Traffic(1), Construction:Noise(1), Construction:Dust(2), Construction:Vibration
Location	
Address	
Projects	Lake Macdonald Dam Safety Upgrade
Users	Kristy Lankester
Properties	
Stakeholders	Lori McPherson, Karina Ramsay, Vonnie Mackenzie

Email - outgoing 17/10/2024 3:23 pm (Australia/Brisbane)

Event Type	Email - outgoing
Start Date	17/10/2024 3:23 pm
End Date	17/10/2024 3:23 pm
Sentiment	Neutral
Summary	KL called and sent email with early works flyer to provide an update.
Stakeholder Comments	Good morning Lori, Karina and Vonnie, I am just touching base to keep you updated on project progress as we are commencing early works onsite in November 2024. Please see flyer attached with more information. Heavy vehicle movements are not anticipated to be high during these early works, but please don't hesitate to contact me if you have any concerns. Kind regards, Kristy
Team Response	
Issues	Community:Community consultation, General Enquiry:General Information, Construction:Traffic(1), Construction:Noise(1), Construction:Dust(2), Construction:Vibration
Location	
Address	
Projects	Lake Macdonald Dam Safety Upgrade
Users	Kristy Lankester
Properties	
Stakeholders	Lori McPherson, Karina Ramsay, Vonnie Mackenzie

H-2 Milestones Early Learning Centre

Call - outgoing 29/7/2024 2:52 pm (Australia/Brisbane)

Event Type	Call - outgoing
Start Date	29/7/2024 2:52 pm
End Date	7/8/2024 2:52 pm
Sentiment	- N/A -
Summary	KL called to schedule meeting and discuss upcoming works
Stakeholder Comments	29/7/24 - KL spoke to a staff member (name not provided) and advised the team would like to meet and discuss the project. Staff member advised she would pass the message and KLs contact details on to the childcare Director. 5/8/24 - KL called again and spoke to the same staff member who was sitting with the Director and reminded her. 7/8/24 - KH called KL. KL discussed the reason for the meeting and advised she would email some meeting time options. KH thanks KL for following up.
Team Response	
Issues	General Enquiry:General Information
Location	
Address	
Projects	Lake Macdonald Dam Safety Upgrade
Users	Kristy Lankester
Properties	
Stakeholders	Kellie Handley

Email - outgoing 7/8/2024 9:45 am (Australia/Brisbane)

Event Type	Email - outgoing
Start Date	7/8/2024 9:45 am
End Date	27/8/2024 7:53 am
Sentiment	- N/A -
Summary	KL emailed meeting options to discuss upcoming works

Stakeholder Comments

From: Kristy Lankester-JHG
Sent: Wednesday, August 7, 2024 9:45 AM
To: cooroy@milestones.com.au [mailto:cooroy@milestones.com.au]
Subject: Lake Macdonald Dam Improvement Project - team introduction

Hi Kelly,

Thanks for your time on the phone just now. As discussed, our team is working on the Lake Macdonald Dam Improvement Project (LMDIP) [https://www.seqwater.com.au/project/lake-macdonald-dam-improvement-project] for the next few years.

We would like to meet with you to talk through the upcoming project and provide you with a copy of our recent newsletter.

Please advise if any of the options below work for you (please suggest another if they're not suitable) and we can lock in a time for myself and our Project Manager to meet with you:

* Wed 14 August – after 2.30pm
* Friday 16 August – after 12.30pm
* Thursday 22 August – after 11am
* Friday 23 August – after 1pm.

I look forward to hearing from you.

Thanks,

Kristy

*****

From: Kristy Lankester-JHG
Sent: Thursday, August 15, 2024 8:35 AM
To: cooroy@milestones.com.au
Subject: RE: Lake Macdonald Dam Improvement Project - team introduction

Good morning Kelly,

Just following up to see if you'd like to schedule a meeting to discuss the Lake Macdonald project.

Thanks,

Kristy

******

From: Milestones Early Learning Cooroy < Cooroy@milestones.com.au [mailto:Cooroy@milestones.com.au]>
Sent: Wednesday, August 21, 2024 11:50:51 AM
To: Kristy Lankester-JHG < Kristy.Lankester@jhg.com.au [mailto:Kristy.Lankester@jhg.com.au]>

Subject: RE: Lake Macdonald Dam Improvement Project - team introduction

Hi Kristy,

I am so sorry I haven't replied to your email. Friday would suit me best for you to come in and have a chat about the Dam upgrade. Does that day and time still suit you?

Warm Regards

Kind regards,

Kellie Handley

Assistant Centre Manager

Milestones Early Learning Cooroy

t: (07) 5442 6205

e: cooroy@milestones.com.au [mailto:cooroy@milestones.com.au]

f: facebook.com/MilestonesCooroy [https://urldefense.com/v3/__http:/facebook.com/MilestonesCooroy__;!!MHMB8HWD!Vipw6n9QXFC_AV7J7hua2k-xMvHGxZv9RNcA1kzkqq3lKV4QwGeGcOUgK5dh1aF5UzcMaln8R3kZ7igYtwsqFTTmag$]

w: cooroy.milestones.com.au [https://urldefense.com/v3/__http:/cooroy.milestones.com.au__;!!MHMB8HWD!Vipw6n9QXFC_AV7J7hua2k-xMvHGxZv9RNcA1kzkqq3lKV4QwGeGcOUgK5dh1aF5UzcMaln8R3kZ7igYtwsRy6XQAw$]

****

From: Kristy Lankester-JHG < Kristy.Lankester@jhg.com.au [mailto:Kristy.Lankester@jhg.com.au]>
Sent: Friday, August 23, 2024 7:23 AM
To: Milestones Early Learning Cooroy < Cooroy@milestones.com.au [mailto:Cooroy@milestones.com.au]>
Subject: Re: Lake Macdonald Dam Improvement Project - team introduction

Hi Kellie,

I'm so sorry, our PM is no longer available today. I will get some dates and times from him for next week. Is there any time that you're not available?

Kristy

******

From: Kristy Lankester-JHG
Sent: Monday, August 26, 2024 7:19 AM
To: Milestones Early Learning Cooroy <Cooroy@milestones.com.au>
Subject: RE: Lake Macdonald Dam Improvement Project - team introduction

Good morning Kellie,

Do any of these time slots work for you?

* Tuesday 27 th – 9am-11am
* Wednesday 28 th – 9-10am

* Thursday 29 th – 2-5pm
* Friday 30 th – 1-5pm.

Thanks,

Kristy

*****

From: Milestones Early Learning Cooroy < Cooroy@milestones.com.au [mailto:Cooroy@milestones.com.au]>
Sent: Monday, August 26, 2024 2:05 PM
To: Kristy Lankester-JHG < Kristy.Lankester@jhg.com.au [mailto:Kristy.Lankester@jhg.com.au]>
Subject: RE: Lake Macdonald Dam Improvement Project - team introduction

Hi Kristy,

I can do the Thursday. 😊

*****

Great – lets lock in 3pm on Thursday.

Let me know if you need to change this time for any reason.

Thanks,

Kristy

Team Response	
Issues	General Enquiry:General Information
Location	
Address	
Projects	Lake Macdonald Dam Safety Upgrade
Users	Kristy Lankester
Properties	
Stakeholders	Kellie Handley

Meeting 29/8/2024 3:00 pm (Australia/Brisbane)

Event Type	Meeting
Start Date	29/8/2024 3:00 pm
End Date	29/8/2024 3:15 pm
Sentiment	Neutral
Summary	KL and MP (John Holland) met with KH to discuss the upcoming project.

Stakeholder Comments	* Provided project overview
	  * Newsletter
	  * Design and approvals
	  * Will meet again to discuss impacts (specifically traffic and dust) once we have more information
	  * Education campaigns (if suitable for day care - KH mentioned they've not been able to reintroduce excursions since covid, but happy to discuss options)
	* No major concerns. Understands traffic will increase, but not overly concerned about it.
	  * Peak drop off and pick up times: 8-9am and 2.30-5pm
	* Next steps
	  * Project team to meet with Milestones once we have more info about early works, traffic impacts and construction.

Team Response	
Issues	General Enquiry:General Information, Construction:Traffic(1)
Location	
Address	
Projects	Lake Macdonald Dam Safety Upgrade
Users	Kristy Lankester
Properties	16 Lake Macdonald Drive Cooroy Queensland
Stakeholders	Kellie Handley

Email - outgoing 17/10/2024 3:00 pm (Australia/Brisbane)

Event Type	Email - outgoing
Start Date	17/10/2024 3:00 pm
End Date	17/10/2024 3:15 pm
Sentiment	Neutral
Summary	KL called and emailed flyer to provide an update about early works.

Stakeholder Comments	Good morning Kellie, I am just touching base to keep you updated on project progress as we are commencing early works onsite in November 2024. Please see flyer attached with more information. Heavy vehicle movements are not anticipated to be high during these early works, but please don’t hesitate to contact me if you have any concerns. Kind regards, Kristy
Team Response	
Issues	Community:Community consultation, General Enquiry:General Information, Construction:Traffic(1)
Location	
Address	
Projects	Lake Macdonald Dam Safety Upgrade
Users	Kristy Lankester
Properties	16 Lake Macdonald Drive Cooroy Queensland
Stakeholders	Kellie Handley

H-3 Transport and Main Roads (including Translink)

Minutes

Meeting Name	Lake Macdonald Dam Improvement Project (LMDIP)		
Meeting Title	Briefing TMR on Project Updates		
Location	MS Teams		
Date	30 September 2024	**Time Zone**	AEST
Start Time	10:00am	**Finish Time**	11:00am
Minutes by	Anthony Burke	**Check by**	Dave Bekker

Welcome, Introduction of Attendees, Apologies & Meeting Agenda	
In Attendance	Anthony Burke (AB) – SMEC, Principal Traffic Engineer Dave Bekker (BD) – SMEC, Senior Associate Engineer Belinda Walker (BW) – Principal Engineer (Civil) | Corridor Management | North Coast Region Stuart Gardner (SG) – Manager (Road Safety) SEQ North Lauren Brunjes (LB) – A/Senior Advisor (Road Safety) | SEQ North Region Robyn Cahill (RC) – Translink, A/Manager (Passenger Transport Operations)
Apologies	Paul Duck – A/Regional Manager (Passenger Transport), Central Region

Minutes	Action by	Date
• Update on the project and timelines ○ AB outlined SMEC working on draft reports to Seqwater by end of next week for internal review followed by presentation to TMR and Noosa Shire Council late October prior to submission by 4 November 2024. ○ BW requested advance notice and lead time to meeting and review reports due to team resourcing. ○ AB to send meeting invitation with several days post sending draft reports. AB noted program has allowed for updates to any comments or queries during State Agency Referral Assessment (SAR) period.	AB	11 Nov 24
• SMEC Scope ○ AB noted SMEC completed Traffic Impact Assessment (TIA), Pavement Impact Assessment (PIA) and Road Safety Audit (RSA) in December 2020. New scope is using the latest information and details with John Holland now engaged as the contractor. Includes updates to TIA and RSA plus updating/new Traffic Management Plan (TMP) replacing draft John Holland TMP. Assessment includes swept paths at Elm Street/Lake Macdonald Drive and Lake Macdonald Drive / Site access (Collwood Road)	-	-

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TMR had no issues with proposed route with the expectation of the left turn into Lake Macdonald Drive for heavy vehicles
Whilst Coordinator-Generals (CG's) conditions including consideration of full 2hrs of 7-9am and 2-4pm, based on review of traffic data and school bus times, assessment is recommending reduced hours for heavy vehicles of 7:20 - 8:45am and 2:30 - 3:40pm. AB further noted from Seqwater liaison with Cooroy State School most concern is from the any noise and dust impacts.
TMR agreed it does not need to be the full 2 hrs in both AM and PM.
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TMR had no issues with proposed route provided worker traffic to and from site did not overlap with the school traffic peak.

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Any safety or operational issue

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AB confirmed assessment of swept path is within scope and based on aerial images confirms the issue. Accurate survey is required for design which is process but assessment will simply flag it and recommend upgrade as necessary.
AB requested for any as-con drawings which BW noted plans from 1978. Quality would not be sufficient for swept path swept path assessment.

AB noted similarly, the assessment is recommending an upgrade for basic auxiliary right (BAR) turn from Lake Macdonald Road into site (Collwood Rd).
No comments or issues on requirement of upgrade with basic right into site (Collwood Rd) from LMD.

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School bus details

AB noted from previous assessment and site inspection some level of details is known on times, routes and stop locations but requested map/figure of routes and stops including any informal stopping locations
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LB noted to undertake observations of school operations noted and provide advice and guidance to school on any traffic behaviourally issues.

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Next Meeting – Late October - TBC
</td><td>AB</td><td>11/10/2024</td></tr>
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Actions	Who	By
Send meeting invitation for review of reports	AB	11/10/2024

Actions	Who	By
Provide map/figure of routes and stops including any informal stopping locations	RC	11/10/2024
Undertake observations of school operations noted and provide advice and guidance to school on any traffic behaviourally issues	LB	TBC

Minutes

Meeting Name	Lake Macdonald Dam Improvement Project (LMDIP)		
Meeting Title	Briefing TMR on Early Works Environmental Management Plan		
Location	MS Teams		
Date	11 October 2024	**Time Zone**	AEST
Start Time	10:00am	**Finish Time**	10:30am
Minutes by	Anthony Burke	**Check by**	Daniel Stitt

Welcome, Introduction of Attendees, Apologies & Meeting Agenda	
In Attendance	Sarah Carroll (SC) – Seqwater, LMDIP Project Director Daniel Stitt (DS) – Seqwater, LMDIP Design Manager Luke Anderson (LA) – Seqwater, LMDIP Project Manager Jitesh Dass (JD) – Seqwater, LMDIP Project Officer Anthony Burke (AB) – SMEC, Principal Traffic Engineer David Edwards (DE) – SMEC, Senior Associate Engineer Belinda Walker (BW) – Principal Engineer (Civil) | Corridor Management | North Coast Region
Apologies	

Agenda	By	Time
Introductions	All	3 mins
Fly through animation of the project	DS	7 mins
Project Scope and Stages • Project Stage • Early Works Scope	DS	10 mins
Early Works Traffic Impacts • Heavy and Light Vehicle Movements • Site Work Hours • No upgrades proposed	AB	20 mins
Questions	Open	5 mins

Minutes	Action By	Date
Fly through animation of the project • DS played the project animation and commentary of works occurring	-	-

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Project Scope and Stages

- DS outlined the project stage and scope of works for the early works as per the slide which was focused on approvals, permits, procurement and site establishment internal to the site.
- Start Date 1 November 2024 to 28 February 2025.

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Early Works Traffic Impacts

- Site Work Hours
  - AB outlined site hours as per the Coordinator Generals conditions of Monday to Friday 6:30am to 6:30pm, and Saturday 6:30am to 4pm
- Heavy Vehicle Movements
  - AB summarised the overall project flows and detailed the early works heavy vehicle flows as per the slides of a peak of 26 semi-trailers per day two-way in December and peak of 20 truck and dog per day two-way in January. AB noted approximately half of the early works is in school term break and should be able to be restricted from school peaks when in term due to the low volumes.
  - AB outlined construction routes will be from the northern Bruce Highway interchange along Cooroy Connection Road/Elm Street to Laken Macdonald Drive. Southern interchange via Myall Street is not proposed given previous comments and concerns raised at Myall Street/Elm Street intersection.
  - No operational impacts in terms of intersection delays and level of service due to the very low increase in heavy vehicles.
- Light Vehicle Movements
  - AB outlined up to approximately 50 works would enter the site at the start of the day ~6:30 and staggered departure in the afternoon depending on if white collar or blue collar. This would be outside Elm Street which is dominated by the school pick up.

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Questions

- BW raised previous concerns of swept path of heavy vehicles at Elm Street / Lake Macdonald Road.
  - AB confirmed assessment of swept path is within scope and based on aerial images confirms the issue. However, do to the very low flows and timing, semi-trailers would be escorted with a pilot vehicle to control on coming vehicles, if required. Further, investigations are being undertaken to review any possible upgrade to reduce the swept path issue.
- BW queried if any marshalling area is proposed?
  - AB noted if any is required, then a possible location was found on Elm Street just before Kennedys Road.
  - BW noted that if proposed to be used, it will need a road corridor permit and also to be sealed to not damage the road shoulder/verge.
- BW requested any permits, or such required is sent as early as possible.
  - SC and DS noted the request.

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H-4 Noosa Shire Council

Minutes

Meeting Name	Lake Macdonald Dam Improvement Project (LMDIP)		
Meeting Title	Briefing NSC on Early Works Environmental Management Plan		
Location	MS Teams		
Date	23 October 2024	**Time Zone**	AEST
Start Time	10:00am	**Finish Time**	11:00am
Minutes by	Anthony Burke	**Check by**	Daniel Stitt
Attachments	Attachment A – Presentation Slides		

Welcome, Introduction of Attendees, Apologies & Meeting Agenda	
In Attendance	Daniel Stitt (DS) – Seqwater, LMDIP Design Manager Luke Anderson (LA) – Seqwater, LMDIP Project Manager Jitesh Dass (JD) – Seqwater, LMDIP Project Officer Anthony Burke (AB) – SMEC, Principal Traffic Engineer Dave Bekker (DB) – SMEC, Senior Associate Engineer Sawyer Webb (SW) – NSC, Technical Officer - Transport & Traffic Engineering Craig O'Brien (CO) – NSC, Technical Officer - Transport & Traffic Engineering
Apologies	

Agenda	By	Time
Introductions	All	3 mins
Fly through animation of the project	DS	7 mins
Update on Technical Assessments	AB	5 mins
Project Scope and Stages	DS	5 mins
Early Works Scope • Site works and working hours • Site layout	DS	5 mins
Early Works Traffic Impacts • Heavy Vehicle Movements • Light Vehicle Movements • Concept Traffic Guidance Schemes • No upgrades proposed	AB	20 mins
Questions	Open	15 mins

Minutes	Action By	Date
Fly through animation of the project • DS played the project animation and commentary of works occurring.	-	-
Update on Technical Assessments	-	-

• AB outlined team is working on updating the Traffic Impact Assessment (TIA), Road Safety Audit and Traffic Management Plan with the latest information from John Holland. • Gather more detailed information every day and refining key items such as working hours, school hours restrictions, routes, etc. and making sure consistent for all assessments. • TIA has focused on the peak construction period noted to be several months on mid-2028. SIDRA intersection analysis has included background growth to Late 2023 surveys collected and construction (light and heavies) applied. Overall due to low numbers, no operational issues identified in terms of level of service, delays and queueing. • Reports will be submitted to Office of Coordinator-General on 4 November and will present to key stakeholders (TMR and NSC) once submitted.		
Project Scope and Stages – refer to slides • DS outlined the project stage and scope of works for the early works as per the slide which was focused on approvals, permits, procurement and site establishment internal to the site. • Start Date 1 November 2024 to 28 February 2025.	-	-

Early Works Scope – refer to slides
• DS outlined the early site works and working hours
• DS presented the site layout and key elements
    ○ SW noted limited details on the EWEMP on hardstand 3 and requested if additional information can be included in the next version?
    ○ DS agreed yes and will action
	-	-

Early Works Traffic Impacts
• Heavy Vehicle Movements
    ○ AB summarised the overall project flows and detailed the early works heavy vehicle flows as per the slides of a peak of 26 semi-trailers per day two-way in December and peak of 20 truck and dog per day two-way in January. AB noted approximately half of the early works is in school term break and should be able to be restricted from school peaks when in term due to the low volumes.
    ○ AB continued that from the original submitted EWEMP, the number of heavy vehicle have reduced significantly as John Holland have been working on reducing impacts. Achieved by reducing tree clearing and mulching on site. Also pipe delivery has been reduced.
    ○ AB outlined construction routes will be from the northern Bruce Highway interchange along Cooroy Connection Road/Elm Street to Laken Macdonald Drive. Southern interchange via Myall Street is not proposed given previous comments and concerns raised at Myall Street/Elm Street intersection.
    ○ For the main works *only* for concrete deliveries, supply is likely to be from Noosa so routes will include Cooroy Noosa Road to Elm Street and north for right into Lake Macdonald Drive and reverse for existing. No expected issues swept path or capacity issues but will be confirmed in the TIA.
    ○ No operational impacts in terms of intersection delays and level of service due to the very low increase in heavy vehicles.
	-	-

- Light Vehicle Movements
  - AB outlined up to approximately 50 works would enter the site at the start of the day ~6:30 and staggered departure in the afternoon depending on if white collar or blue collar. This would be outside school AM and PM peaks.
  - Routes include Lake Macdonald Drive to head north and south, and some to the east via Sivyers Road.
- Concept Traffic Guidance Schemes (TGS's)
  - AB presented the concept TGS's for Lake Macdonald Drive at site access and Elm Street / Lake Macdonald Drive.
    - SW queried of these will be developed and signed off by appropriate qualified person? AB/LA confirmed yes these will be documents to full TGS standard and submitted as appropriate shortly.

Questions

- SW raised concerns of swept path of heavy vehicles at Elm Street / Lake Macdonald Road.
  - AB confirmed assessment of swept path is within scope and based on aerial images confirms the issue. Further, investigations are being undertaken to review any possible upgrade to reduce the swept path issue.
- SW requested TIA and TMP for the EWEMP.
  - AB noted that the TIA as mentioned earlier has focused on the main works during construction peak. As the early works has very low numbers, no operational issues expected. Flows along Lake Macdonald Drive by the site are also manageable under proposed Traffic Control as only 110 vehicles in peak direction and 30-40 vehicles in opposite duration.
  - LA further provided context that Seqwater under normal
- SW queried if the supply of quarry material has been confirmed.
  - LA responded, no not as yet.
- SW queried the number of spaces provided on site, controls and any
  - LA responded, sufficient car spaces are planned on site for the work force. John Holland has considered measures such as carpooling, however, they will enforce the number of spaces permitted on site per contractor through each contract. - -
  - LA continued shuttle buses had been considered but that pushes potential issues further away which are difficult to control.
- SW queried the Office of Coordinator-General condition for restricted movements during school peaks?
  - AB noted most heavy vehicles, they should not need to travel during school peaks noting SMEC have assessed flows and not the full 2hrs AM and PM proposed. During peak construction stages, reduced number of heavy vehicles per hour in the order of 1 every 10mins are being investigated so not to drag out the program. Further, in liaison with the school and day care they are most concerned with noise and dust impacts.
- SW further queried how truck movements will be controlled and enforced during these school times?
  - LA noted within the contracts for the main supplies, these times can be managed with start and finish times, breaks and

    holing on site. Further, for any deliveries received during these times John Holland can investigate penalties.
  - LA also added signage of approved routes and restrictions also scan be considered.
  - SW requested similar controls also for these early works to be added.
    - LA provided some context that these are permitted routes and the number of heavy vehicles are in the same order of magnitude as recent major capital works at the plant.
- SW queried the use of Kennedys Road which was mentioned in the previous meeting.
  - AB advised initial investigations had been undertaken which shows significant risks and constraints from an environment and potential flooding perspective such that Seqwater had advised SMEC its not a priority to progress to the next stage.
  - LA continued it will likely have limited follow-on benefits except to a few properties impacts to the program which is already under pressure to deliver the final project.
- SW final requested was that the EWEMP is updated with additional information presented and queries raised during meeting
  - DA to follow up and update EWEMP with more specifics.

<table>
<tr><th>Actions</th><th>By Whom</th><th>Timing</th></tr>
<tr><td>Pencil in meeting post 4 November for Main Works TIA and TMP presentation</td><td>AB</td><td>ASAPs</td></tr>
<tr><td>Add to next EWEMP</td><td rowspan="6">DS</td><td rowspan="6">TBC</td></tr>
<tr><td>- Additional details hardstand 3</td></tr>
<tr><td>- Details on parking within site and strategies to control</td></tr>
<tr><td>- Mitigation measured for restricting movements during school peaks - refer section 9.1.1 of current EWEMP</td></tr>
<tr><td>- Additional details of light and heavy vehicle numbers</td></tr>
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Actions	Who	By
Provide map/figure of routes and stops including any informal stopping locations	RC	11/10/2024
Undertake observations of school operations noted and provide advice and guidance to school on any traffic behaviourally issues	LB	TBC

an SJ company

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