REPORT

Tonkin+Taylor

Draft Construction Traffic Management Plan

Mount Munro Windfarm

Prepared for
Merdian Energy Limited
Prepared by
Tonkin & Taylor Ltd
Date
July 2024
Job Number
1016884.1000 v2.0

Together we create and sustain a better world
www.tonkintaylor.co.nz

Document control

Title: Draft Construction Traffic Management Plan					
Date	Version	Description	Prepared by:	Reviewed by:	Authorised by:
25/6/24	1.0	Draft V1	C Shields	J Dyer	
02/7/24	2.0	Updated following internal T+T review and Meridian comments	C Shields	J Dyer	N Peters

Distribution:

Merdian Energy Limited	1 PDF copy
Tonkin & Taylor Ltd (FILE)	1 PDF copy

Table of contents

Definitions

Abbreviation	Detail
CAR	Corridor Access Request
CEMP	Construction Environmental Plan
CMO	Compliance Monitoring Officer
CMO	Compliance Monitoring Officer (CMO)
CoPTTM	Code of Practice for Temporary Traffic Management[1]
CTM	Construction Traffic Manager
CTMP	Construction Traffic Management Plan
EED	Engineering Exception Decisions
GWRC	Greater Wellington Regional Council
HMWRC	Horizons Manawatu-Wanganui Regional Council
MDC	Masterton District Council
MOTSAM	Manual of Traffic Signs and Markings[2]
NZGTTM	New Zealand Guide To Traffic Management
NZTA	New Zealand Transport Agency - Waka Kotahi
PPE	Personal Protective Equipment
RCA	Road Controlling Authority
SH2	State Highway 2
SLG	Stakeholder Liaison Group
SSTMP	Site Specific Traffic Management Plan
STMS	Site Traffic Management Supervisor
TA	Transport Assessment
TCD	Traffic Control Devices manual
TDC	Tararua District Council
TMC	Traffic Management Coordinator
TMD	Traffic Management Diagram

[1] NZTA is developing a new approach to how temporary traffic management will be delivered on Aotearoa New Zealand's state highways and roads. The new guidance (NZGTTM) aligns with WorkSafe's Road Good Practice Guidelines (2022) and will be implemented from 2023 in stages to eventually replace CoPTTM.
[2] NZTA plan to archive the Manual of Traffic Signs and Road Marking (MOTSAM) after the publication of the Traffic Control Devices Manual Part 4 in 2024.

1 Background

1.1 Introduction

Meridian Energy Ltd (Meridian) will lead the contract for the Mount Munro Windfarm (the 'Project'). Meridian's application for the construction, operation and maintenance of the project was submitted to Horizons Manawatu-Wanganui Regional Council (HMWRC), Greater Wellington Regional Council (GWRC), Tararua District Council (TDC) and Masterton District Council (MDC), subsequently referred to as the 'Councils' in May and June 2023 and accepted as complete on 23 June 2023.

Tonkin & Taylor Ltd (T+T) have been engaged to provide a Draft Construction Traffic Management Plan (CTMP). Although a CTMP is not required to be submitted to support a resource consent application, Meridian have taken the initiative to prepare a Draft CTMP in the lead up to the Environment Court Hearing and to help inform emerging Draft Conditions CTM1 to 6.

This Draft CTMP outlines the standards and agreed approach and measures that will be taken to avoid, remedy, mitigate, minimise or manage the traffic effects associated with construction works for the duration of this Project.

The Draft CTMP has been based on the best available information from Meridian. It is noted however that resource consent has not yet been granted, a Contractor has not been appointed, construction methodology has not been finalised and a traffic management company has not yet been engaged. All traffic management measures included in the following CTMP have yet to be approved by the Council's or New Zealand Transport Agency (NZTA). As such, the methodology and management of effects described herein is indicative only and will be subject to amendment and refinement following detailed design and Contractor selection closer to the time of construction.

This draft CTMP deals with construction activity associated with:

- The main construction site accessed from SH2/Old Coach Road
- Construction activity associated with the Old Coach Road upgrade.
- The terminal substation site accessed from SH2/Kaiparoro Road.
- The transmission line accessed from SH2/Opaki-Kaiparoro Road (northern intersection) - noting heavy and light construction traffic will not be permitted to utilise Opaki-Kaiparoro Road to the south and east, beyond its intersection with Mount Munro Road.

Given the location of the construction vehicle activity, consultation and agreement of the Draft CTMP will be with the two road controlling authorities of TDC and NZTA. The Stakeholder Liaison Group appointed through consent conditions will also have the opportunity to provide feedback on this Draft CTMP prior to it being lodged with the Councils for certification.

1.2 Purpose

The purpose of this CTMP is to:

- Provide a fundamental structure and demonstrate the initial findings for the CTMP which will be developed prior to the commencement of any construction activities. The CTMP shall be implemented throughout the entire construction period and is intended to be the primary tool to inform the project's management of construction traffic effects.
- The CTMP will also establish a framework that can be used to support the development of any required future Site-Specific Traffic Management Plans (SSTMP's) and Corridor Access Requests (CAR), which would enable live physical works in the road corridor once approved by TDC/NZTA.

The Draft CTMP is informed and generally consistent with the following:

- Mount Munro Windfarm Port to Site Assessment Report - dated 8 July 2021.
- Traffic and Transportation Effects Assessment Report (TA) – dated 17 May 2023.
- S92 response and vehicle tracking drawings to transport-related Request for Information (RFI) – dated 31 August 2023.
- Update to Mount Munro Windfarm Port to Site Assessment Report – dated 7 September 2023.
- S92 response to transport-related RFI – dated 8 September 2023.
- S92 response to transport-related RFI – dated 16 February 2024.
- Statement of Evidence of Colin Shields - dated 24 May 2024.
- Statement of Evidence of Tom Anderson - dated 24 May 2024.
- Statement of Evidence of Nick Bowmar - dated 24 May 2024.

This Draft CTMP is consistent with the NZTA New Zealand Guide to Traffic Management (NZGTTM) and Code of Practice for Temporary Traffic Management (CoPTTM), noting that CoPTTM is proposed to be withdrawn in 2024.

The Draft CTMP describes the general measures required to reduce the impacts of construction traffic and maintain the safety of all road users and adjacent properties. This will entail the implementation of strategies to maintain, or minimise the impact on, traffic capacity and safety, while managing the effects on project delivery.

1.3 Philosophy

The following objectives have been set as a summary of the philosophy for the Draft CTMP:

- Maximise safety of the travelling public and site staff.
- Enable construction efficiencies.
- Minimise delays to the public and road users.
- Minimise disruption to property access.
- Ensure appropriate access for emergency vehicles.
- Inform the owners of neighbouring properties about potential impacts of the Project construction.
- Remediate and maintain the current condition of road assets where damage has been directly caused by construction activity.

This will be achieved by a high standard of:

- Planning construction traffic movement.
- Design of site access points and any required temporary traffic management (TTM).
- Maintenance of roads, signs and work sites.
- Effective communication between the Project team, neighbours/stakeholders and road users.

Monitoring will be an important aspect of the CTMP and will enable the evaluation of construction effects as the Project evolves. Given the duration of the project and the potential for changing conditions and environment, the CTMP will remain a live document to be updated when necessary. Updates will be made in future versions of the CTMP as the construction methodology is updated and/or where alternative measures have been identified.

1.4 Relationship to other plans

This Draft CTMP forms part of a comprehensive suite of environmental controls within the Construction Environmental Management Plan (CEMP) for the construction phase of the Project which is detailed in Draft Condition CM4 c) i. f.

The CTMP addresses the potential traffic effects associated with construction activities for the Project site.

1.5 Relevant Draft Consent Conditions

Draft Consent Conditions are attached in the Statement of Evidence of Mr Anderson. Of relevance and referred to in this Draft CTMP are:

- CTM1 (Construction Traffic Management) – site entrances.
- CTM2 Roading and Intersection Upgrades.
- CTM3 Pavement Impact Assessment and Maintenance.
- CTM5 Over-Dimension or Over-Weight loads.
- CTM6 CTMP.
- GA7 (General Accordance) Complaints Management.
- GA8 Incident Management and Reporting.
- SLG1 to 6 Stakeholder Liaison Group.
- CM4 c) i. f Construction Environmental Management Plan (CEMP).

1.6 Sequence of traffic management documents

Figure 1.1 below shows the typical relationship between the sequence of documents relating to temporary traffic management activities. It is important to note that the CTMP does not enable physical works to take place on the road corridor but rather sets the philosophy as to how temporary traffic management will be managed for the Project. Site Specific Traffic Management Plans (SSTMP's) and Corridor Access Requests (CAR) approved by TDC/NZTA would enable physical works to take place within the road corridor. These would be developed in accordance with the philosophy documented in this CTMP.

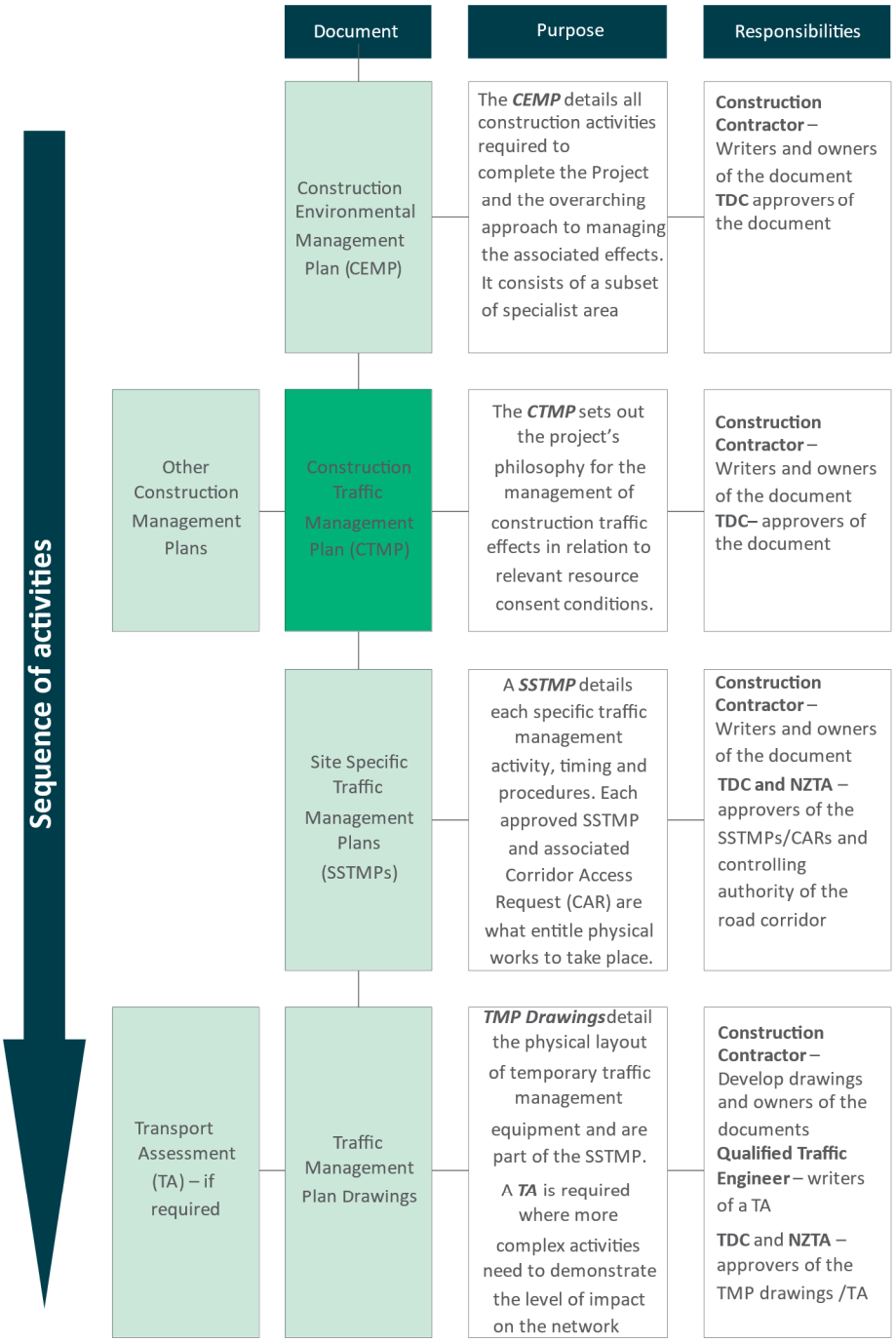

Figure 1.1: Sequence of activities for temporary traffic management related documents.

1.7 SSTMP planning

Traffic Management Plans (TMP) are required for all activities that vary the normal operating conditions of a road, irrespective of whether the activity is on a carriageway, on a footpath or on a road shoulder. A Site Specific Temporary Traffic Management Plan (SSTMP) is a document describing the nature and extent of Temporary Traffic Management (TTM) at a work site and how road users (including pedestrians and cyclists) will be managed by the use of TTM. These documents outline the TTM procedures to be implemented, to ensure the safety of both the public and Contractors is maintained throughout the duration of each construction activity.

Following programming of construction tasks, associated TTM requirements will be identified and SSTMPs prepared to ensure construction activity is conducted using an approved methodology, with agreed mitigation measures in place. There need not be a unique SSTMP for every construction activity, where appropriate generic SSTMPs can be used.

A Contractor undertaking work within the road corridor will need a Works Access Permit (WAP) by submitting a CAR application to TDC/NZTA. To obtain the WAP from TDC the Contractor will apply for a CAR through the 'Submitica ' website Sign in or sign up (b2clogin.com) with a SSTMP uploaded to this CAR application along with any supporting information required. TDC indicate that applications for a CAR should be made at least 20 days prior to works commencing at the site.

1.8 Performance standards

TDC indicate (in Corridor Access | Tararua District Council (tararuadc.govt.nz)) that all temporary traffic management must be completed in accordance with the Code of Practice for Temporary Traffic Management (CoPTTM). This document is due to be superseded by NZTA New Zealand Guide To Traffic Management (NZGTTM during 2024. In addition, the following standards and guidelines shall be adhered to in planning and implementing TTM during construction of the project:

- NZTA Traffic Controls Devices Manual (TCD).
- NZTA Manual of Traffic Signs and Markings (MOTSAM)[3].
- Austroads "Road Design" and "Traffic Management" guides.

The CTMP and any subsequent SSTMP's shall be consistent with the applicable version of the NZGTTM/CoPTTM. Where it is not possible to adhere to this standard, the CoPTTM prescribed Engineering Exception Decision (EED) process will be followed, which will include appropriate mitigation measures agreed with the Tararua Alliance Asset Manager/Traffic Management Controller who has authority to approve SSTMP and consider any associated EED. The EED will then be forwarded onto the NZTA National Office for approval.

TMP's must be prepared by a qualified Site Traffic Management Supervisor (STMS). The TMP is then included in a CAR application and submitted to TDC/NZTA by the STMS for approval. The Contractor should allow up to five working days for approval of a SSTMP.

1.9 Concurrent projects

There are no known interfacing roading projects in the vicinity of the proposed Project site at the time of developing the CTMP. This section will be reviewed and updated if any information emerges.

1.10 CTMP structure

The remainder of this document is structured as follows:

[3] NZTA plan to archive MOTSAM after the publication of the Traffic Control Devices Manual Part 4 in early 2024.

- Section 2 defines the roles and responsibilities that will apply for the project site.
- Section 3 outlines the project works and summary of construction activities.
- Section 4 summarises the existing conditions relevant to the project site.
- Section 5 details the CTMP management strategies required to mitigate the anticipated impacts of construction activity.
- Section 6 details the procedures that will apply for the operation and management, governance, development of SSTMPs, approvals and monitoring of the temporary traffic management throughout the life of the Project.
- Section 7 details key CTMP communications.
- Section 8 details the key review monitoring and update mechanisms of the Draft CTMP.

2 Roles and responsibilities

2.1 Defined roles and delegated level of responsibility

Specific roles and responsibilities relating to the implementation of this CTMP are detailed in Table 2.1 below:

Table 2.1: CTMP roles and responsibilities

Role	Responsibility
TDC	• Approval of SSTMP and CAR applications. • Auditing of temporary traffic management during site operations. • Advising network considerations on local roads administered by TDC, such as incidents, events, and other scheduled road works which could impact project works and TTM. • Certification of the CTMP. • Monitoring of compliance during site operations.
NZTA	• Approval of relevant Over Dimension permits. • Advising network considerations on State Highways, such as incidents, events, and other scheduled road works which could impact project works and TTM on routes used by construction traffic to the site. • Advising on State Highway network considerations such as other scheduled road works which could impact project works and TTM on routes used by construction traffic to the site. • Agreement of CTMP
Consent Holder	• Overall responsibility to ensure resource consent conditions and CTMP requirements are complied with.
Construction Manager	• Confirming site works are being undertaken in accordance with the construction methodologies and relevant management plans. • Responsible for delivering resources to ensure TTM is managed and maintained.
Construction Traffic Manager (CTM)/Traffic Management Coordinator (TMC)	• Responsible for establishing and maintaining safe processes for all temporary traffic management activities. • To ensure the Site is operated in accordance with the CTMP. • Responsible for coordinating all temporary traffic management activities for the Project. • Responsible for preparation, submission and coordination of all temporary traffic management plans for the Project. • Responsible for arranging any Transport Assessments (TA) that may be required for the SSTMP. • Responsible for the management of all temporary traffic site crew and operations. • Liaise with Road Controlling Authorities (RCA) throughout the process (in each of the preparation, submission and coordination phases) to ensure the best possible temporary traffic management result for each party (principals, RCA and Contractors). • Provide the approved SSTMP's to the site traffic management supervisor (STMS) to implement on site. • Arrange for pre-construction pavement surveys.

Role	Responsibility
	• Arrange regular meetings with the TDC Compliance Monitoring Officer (CMO) regarding upcoming works and permissions/approvals required. • Ensure that staff parking is appropriately managed. • To facilitate coordination meetings. • To respond to complaints and incidents. • To provide inductions and training for staff. • Ensure complaints and incidents register and write reports. • Manage the SSTMP process.
Site Traffic Management Supervisor (STMS)	• Responsible for onsite implementation, maintenance and removal of the approved SSTMPs in accordance with the requirements of NZGTTM/ CoPTTM. • Be onsite during attended periods and monitor traffic flows. • Provide feedback to the Construction Traffic Manager regarding how the SSTMP is operating and propose any amendments to improve traffic flow or safety. • Monitor the site at regular intervals (minimum of every 12 hours) to ensure that safety is maintained. • Prepare and submit SSTMP's and CAR's to road controlling authority for approval.
Traffic controllers (TC)	• Traffic Controllers are responsible for assisting the STMS with their responsibilities and in accordance with the requirements of NZGTTM/ CoPTTM.
Construction staff	• To create a safe working environment. • To operate the Site traffic and pedestrian management according to the CTMP.
Stakeholder Liaison Group (SLG) lead	• Lead and coordinate community and stakeholder engagement and communication processes. • Arrange pre-construction meetings with and notifications to stakeholders, as specified in Draft Condition SLG6.
External traffic engineers and planners	• The Project may draw on a wider group of experts to undertake TA's and assist with planning and review of SSTMP's and planned Temporary Traffic Management (TTM).

2.2 Contact details

The final CTMP will include contact details for key staff (role, name, phone number and email), along with the Project hotline, for general queries or complaints. Project contact details will be provided in the final CTMP and any further contact details will be provided in the Construction Environmental Management Plan.

2.3 Approvals

An internal approvals procedure will be implemented by the Contractor to address all relevant issues and provide necessary notice and consultation prior to application for the SSTMP.

The SSTMP shall be prepared and reviewed for compliance with NZGTTM/CoPTTM and issued to the approvals team of TDC. For TTM proposed on NZTA State Highways, the SSTMP will go to the NZTA Journey Manager for approval by the TMC (Traffic Management Co-ordinator). For TTM on local roads administered by TDC, the SSTMP will go to the relevant team at Tararua Alliance for approval.

All TTM applications will go to the following contact as appropriate (TBC in subsequent CTMP updates):

NZTA	TDC
Phone:	Phone:
Email:	Email:

3 Project Description

3.1 Summary of project

Full details of the site location, project description and proposed site access are provided in the TA and the statement of evidence of Colin Shields. In summary, Meridian proposes to develop, build and operate the Mount Munro wind farm, consisting of 20 turbines on an 8.9 km^2 site, approximately 4 kilometres south of Eketāhuna and 35 kilometres north of Masterton, as shown in Figure 3.1 below:

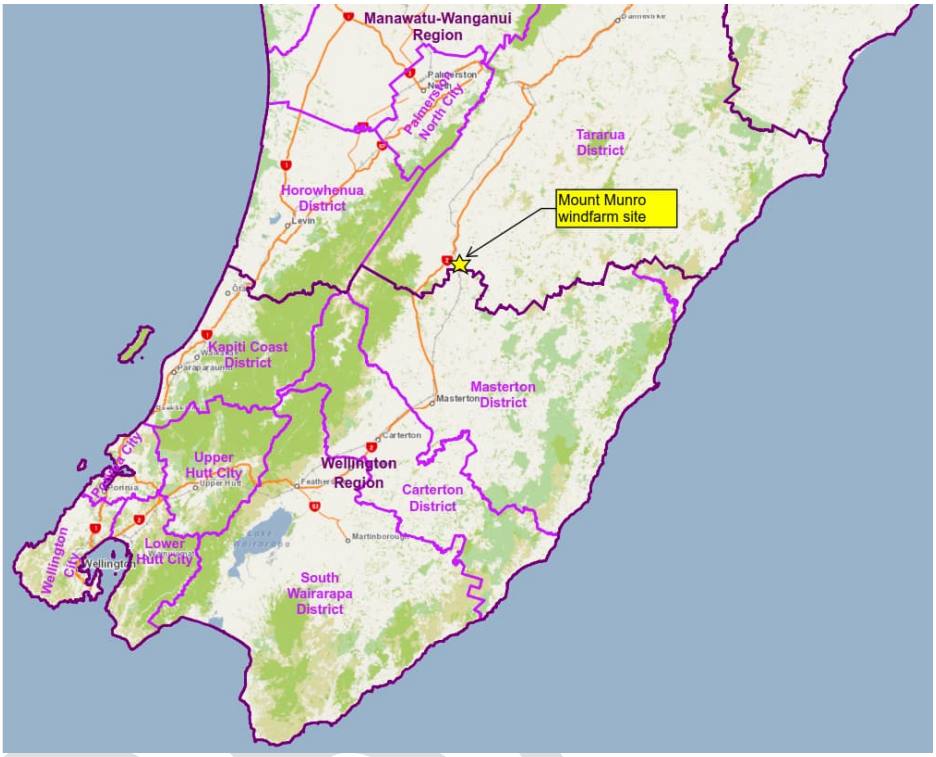

Figure 3.1: Project location.

The Site is located to the east of State Highway 2 (SH2) and is shown highlighted in pink in the site plan in Figure 3.2 below:

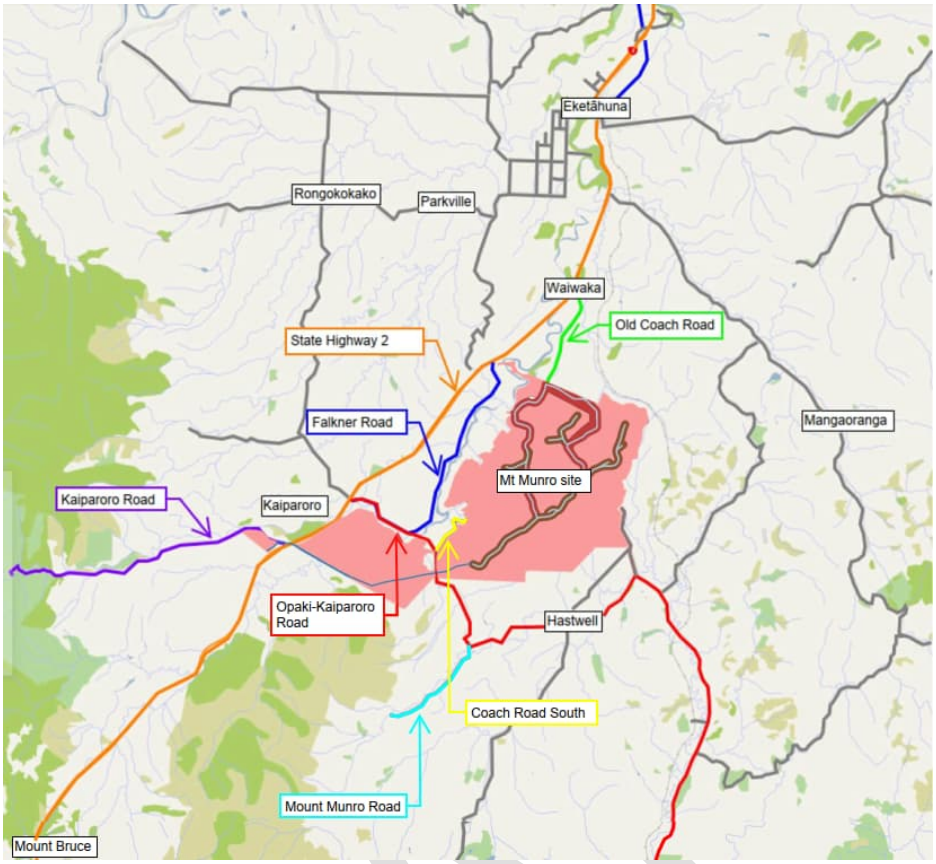

Figure 3.2: Mount Munro Site location.

The Site has road frontages to Opaki-Kaiparoro Road, Coach Road South, Falkner Road, Old Coach Road and SH2.

This Draft CTMP deals with construction activity associated with:

- The main construction site accessed from SH2/Old Coach Road and construction activity associated with upgrades to Old Coach Road.
- The terminal substation site accessed from SH2/Kaiparoro Road.
- The transmission line accessed from SH2/Opaki-Kaiparoro Road (northern intersection) - noting heavy and light construction traffic will not be permitted to utilise Opaki-Kaiparoro Road to the south and east, beyond its intersection with Mount Munro Road.

3.2 Construction programme

The statement of Evidence of Mr Bowmar includes a high-level/indicative timetable showing the anticipated sequencing and duration of the main construction activities for the project. The construction works will take less than three years to complete, with varying levels of intensity at different locations through that time. The final timetable could vary from the outline in Figure 3.3 below and will be confirmed as part of detailed design. However, the indicative programme represents the anticipated maximum overall construction period, barring unavoidable delays such as from a natural disaster or major supply chain interruptions.

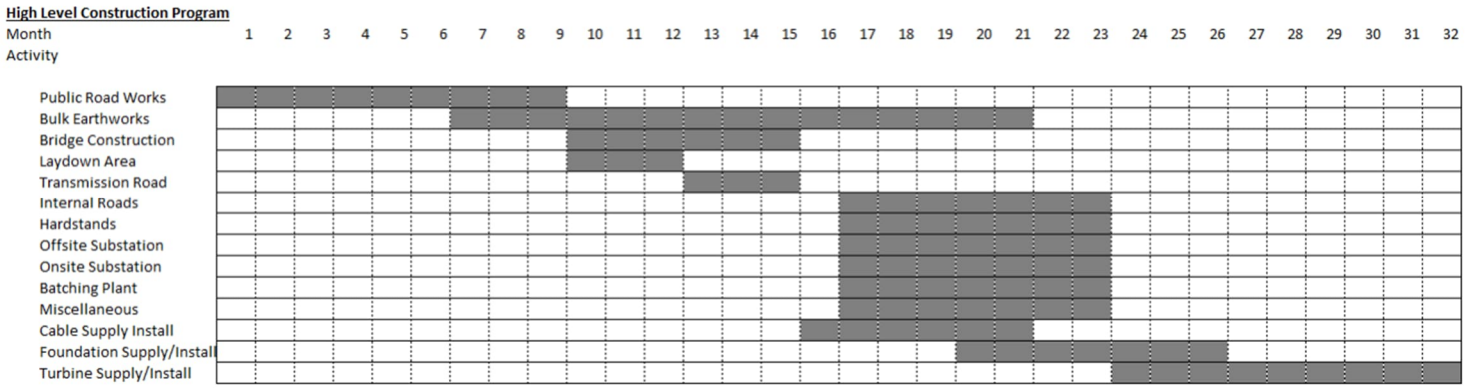

Figure 3.3: High level, indicative programme.

3.3 Construction traffic

There are two types of construction traffic generated. The first is traffic that is related to the delivery of materials or labour to the site and the second is related to constructability. The management of both forms of transport come under the control of the Contractor and are managed via briefings and training under the guidance of this CTMP and audited by Meridian. Activities that will generate traffic external to the Site can be broadly grouped into the following categories:

- Old Coach Road upgrade.
- Site establishment and bulk earthworks.
- Civils.
- Turbine installation.
- Electrical balance of plant including High Voltage cable deliveries and transmission related deliveries and Transformer.

The TA provides a detailed analysis of the traffic generation and timing of these activities. Figure 3.4 below replicates the profile of daily traffic generation that was derived from the preliminary work programme and traffic movements generated by each task (including the movement of Over-Dimension and Over-Weight loads):

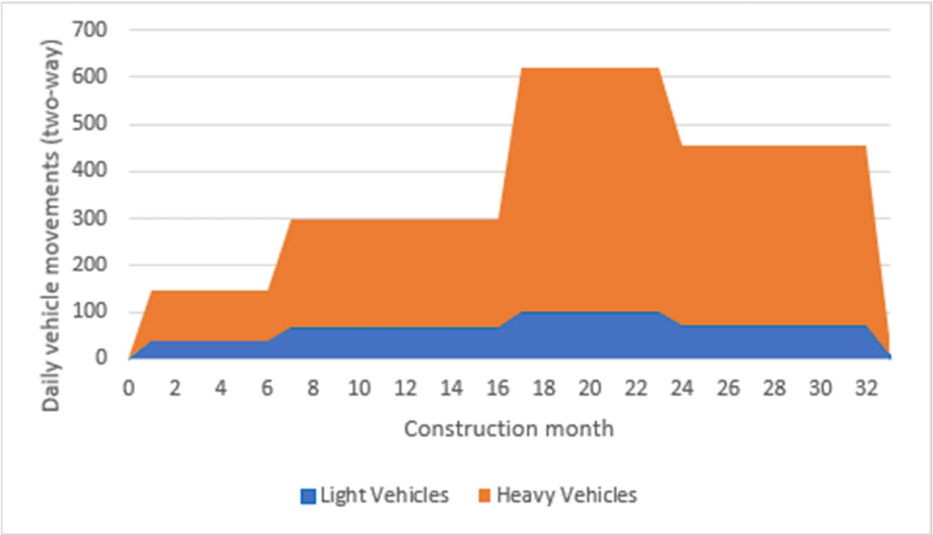

Figure 3.4: Profile of construction traffic flows generated by the Project.

This analysis indicates that the period of greatest activity is between months 17 and 23, when approximately 622 vehicle movements per day are anticipated. This period coincides when the transportation of material for the civils works is proposed. Daily construction traffic volumes will fluctuate depending on the number of activities and weather conditions e.g. a windy day could reduce numbers whereas a fine day could increase numbers.

As detailed in the TA, the construction traffic will consist of light vehicles (associated largely with construction workers) and heavy vehicles associated with road upgrade, earthworks and general civils work where the largest vehicle is anticipated to be a standard truck and trailer.

3.4 Over Dimension/Over Weight vehicles

There will also be infrequent transportation of turbine equipment (from either Napier or Wellington Ports, TBC in the final CTMP) which will likely require the use of an Over Weight/Dimension vehicle and a special vehicle permit. The Vehicle Dimensions and Mass Land Transport Rule (2016) establishes the guiding legislation regarding the movement of Over-Weight and Over-Dimension vehicles on New Zealand roads. Guidance and limitations are placed on vehicles transporting goods pertaining to their size and weight. Where any vehicle transporting goods exceeds any of the thresholds outlined in the document, a special vehicle permit application is required to be lodged.

Movement time restrictions may apply to any over-size or over-weight vehicles depending on the load type and its classification. Travel time restrictions may apply during public holiday periods and more generally during peak hours. These matters are assessed through the permit application which seeks to enable the legal movement of these vehicles, but usually restrictions for the route of travel are anticipated.

Any required bespoke SSTMPs and CARs will be developed once exact details of the vehicle and routing to be used is known, and (where relevant) Over-Dimension rules and associated permitting processes will need to be complied with. For overweight vehicles, a High Productivity Motor Vehicle (HPMV) mass permit is available through the NZTA Heavy Vehicle Permit Portal, outlining the conditions and restrictions for permitted vehicles greater than 44,000 kg mass (NZTA Heavy Vehicle Permit Portal).

Depending on the particular vehicle and trailer configuration selected by the Contractor, a number of particular controls are typically applied to the haulage of over-weight loads of this kind. These include details of:

- Arrangements for 'pilots' for the vehicle and signage to warn other drivers.
- Specification of the load and the route to be followed.
- The extent and duration of any necessary road closures.
- Imposition of maximum permissible travel speeds.
- Restrictions on some particular bridges, such as requiring other traffic to be stopped and the vehicle to travel at a crawl speed along the centre line of the bridge.
- Limitations on the hours of travel and regular stops to clear other traffic and minimise delays.
- Contingency plans for vehicle breakdown and emergencies.
- Arrangements for supervision to ensure compliance, and potentially pre/post inspections of the routes for damage.

It is expected that the exact nature of these controls will be developed and refined during the detailed design process, and this will include provision for co-ordination with stakeholders. All of the Over-Weight and Over-Dimension loads will be transported by experienced haulage firms using specialist vehicles.

3.5 Construction hours

As detailed in Draft Condition CN1, construction works associated with the upgrade of Old Coach Road, internal Project roads and the construction laydown and site administration area must only occur between the hours of 7.30am and 6.00pm, Monday to Saturday.

It should be noted though that there may be times when truck movements outside of these hours will be necessary (for example movement of Over Dimension vehicles). Any works outside the usual hours will be detailed in the final CTMP which will identify appropriate management and mitigation measures to be implemented and, if required, will be coordinated and programmed with TDC/NZTA.

4 Existing transport network conditions and proposed upgrades

Existing transport network conditions are detailed in the TA, Port To Site Assessments and Mr Shields's Evidence.

Proposed upgrades to Old Coach Road are currently being discussed with TDC.

5 Draft CTMP strategies

5.1 Background

This section sets out the general temporary traffic management strategies applicable to the construction including:

- Applied standards.
- Site specific CTMP management strategies

5.2 Applied standards

Temporary Traffic Management is governed by New Zealand legislation, in particular, the Land Transport Act 1998. Land Transport Rules made pursuant to that act, which relate to Temporary Traffic Management, include:

- Land Transport (Road User) Rule 2004.
- Land Transport Rule: Traffic Control Devices 2004.

The project shall adopt the following standards and guidelines insofar as they are relevant:

- NZGTTM/CoPTTM.
- NZTA Traffic Control Devices Manual.

This document and the SSTMP's shall be consistent with the applicable version of the NZGTTM/ CoPTTM. Where it is not possible to adhere to this standard, the CoPTTM's prescribed Engineering Exception Decision (EED) process will be followed. This will include appropriate mitigation measures that shall be agreed with the asset managers of TDC/NZTA.

Traffic and temporary warning signage shall conform to the standards specified in NZGTTM/ CoPTTM. All such specific signage will be clearly shown on plans to the approval of TDC/NZTA, as an integral part of the CTMP and any subsequent TMP.

5.3 Site Specific CTMP management strategies

This section summarises the CTMP management strategies that are applicable to mitigate the traffic effects of construction activities. The approach and measures will be discussed and agreed on and will be used to inform the construction site set-up, operations and development of any required SSTMP's.

The objectives of the CTMP are to:

- Ensure construction traffic movements on the transport network are appropriately managed.
- Provide for the safety of everyone at all times.
- Minimise disruption and maintain vehicle access to/from surrounding properties.
- Minimise disruption from construction traffic on the travelling public and road users along the identified sections of the construction routes.
- Seek to avoid full road closures and minimise any partial or managed closures.
- Manage integration with other construction projects.

Table 5.1 below, summarises the site specific CTMP management strategies that are applicable to the construction site to mitigate the traffic effects of construction activities:

Table 5.1: Site specific CTMP management strategies

Traffic management activity	General management strategies
General	• Construction driver education programmes will be implemented. • Any damage to the road corridor directly caused by heavy vehicles entering or exiting the construction site shall be repaired with a timeframe to be agreed with TDC/NZTA. This is addressed in Draft Condition CTM3. As indicated in Mr Shields evidence there are a number of issues that need to be resolved with TDC in the wording of this Condition including agreement on the type of surveys to be undertaken and the geographical extent of the surveys.
Construction vehicle movements, routes and hours of operation	• Truck routes and access locations are addressed in Draft Condition CTM1. • SH2 access to the internal transmission lines will be used by single unit trucks and not truck and trailer units. • Timing of construction movements is addressed in Draft Condition CN1. • At this stage it is not possible to indicate quarries to be used - this will be confirmed in the final CTMP and haulage routes will be identified. • Any works that may need to take place outside of the specified hours shall provide a report to TDC/NZTA, prior to the commencement of such work, detailing how the work will be carried out and why it is necessary. • Procedures shall be developed to ensure any potential spill of materials being transported to or from the site are contained. • Deliveries will be coordinated to minimise delivery trucks and large construction vehicles passing on Old Coach Road. • Any over dimension vehicle routes to be agreed with TDC and NZTA. • For overweight vehicles, a HPMV mass permit is available through the NZTA Heavy Vehicle Permit Portal, outlining the conditions and restrictions for permitted vehicles greater than 44,000 kg mass (NZTA Heavy Vehicle Permit Portal[4]). • During periods of unsafe wind speeds the Contractor will consider postponing truck movements.
TM signage	Signage helps with control of traffic. The following types of signage are proposed: • Road Controlling Authority regulatory standard signage and Information signage. • Health and Safety (H&S) signage. • Temporary traffic management (TTM) signage. All signs will be removed at the completion of construction of the wind farm. Regulatory signs As part of SSTMPs, regulatory signs will be installed including:

[4] https://hpmvpermits.nzta.govt.nz/

Traffic management activity	General management strategies
	• Signs warning of turning construction traffic to be placed on SH2 in advance of the Old Coach Road intersection for the duration of the construction period. • Temporary signs to be mounted warning of turning construction traffic on Old Coach Road and main construction accesses for the duration of the construction period. • Mounting of 'caution wide vehicles' supplementary plates to road narrowing signs between Eketāhuna and Masterton for the duration of the construction period. These signs will be agreed with TDC/NZTA in accordance with Part 4 of the Traffic Control Devices (TCD) manual, noting that TDC now replaces Manual of Traffic Signs and Markings (MOTSAM). The Contractor will position the signs in accordance with the detailed design drawings and TDC/NZTA traffic management requests. H&S signs Health and Safety Signage will be erected in accordance with the Health and Safety and Employment Act and associated New Zealand Standards in relation to the works. These signs are general warning signs in relation to work activities or hazards and will be used in various locations along the route. TTM signs As part of SSTMPs, temporary traffic management signs will comply with COPPTM/ NZGTTM. These will include temporary speed limit signs on SH2 approaches to the Old Coach Road intersection (70 Km/h) and on Old Coach Road (30 km/h). The signs and traffic control will be temporary in nature and will be managed by the contractor. Meridian's project engineer will undertake daily inspection and random audits of the signage to ensure it complies with the final approved CTMP. The SSTMP's will provide details of the STMS, contingency plans, time periods at each site, Engineering Exception Decisions eg where traffic management layouts that are more applicable to the site but do not completely comply with COPPTM/NZGTTM.
Driver induction and ongoing training	The STMS is responsible to undertake a site induction with all transport operators contracted to transport materials to the site. A 'Driver Awareness Plan' induction and any required ongoing training will cover (but not be limited to): • The routes of travel to and from site. • Permissible times of deliveries. • Requirement for and use of possible communication systems. • Requirements to abide by local speed restrictions for dust and detritus management. • Requirement for courteous driving. • Appropriate following distances. • Requirements to report hazards on the transport route. • Briefing to heavy vehicle drivers about the risks associated with high wind speeds.

Traffic management activity	General management strategies
	• Check rear view mirrors regularly and where safe to pull over, allow traffic behind to pass. • No overtaking on public roads unless this can be done safely. • Speed limit and strict adherence to 30km/h on Old Coach Road. The contractor will strictly monitor speeds of the construction workforce. • Priority to public traffic – On Old Coach Road, where road width allows, then construction traffic to safely pull over to allow the prioritisation of public/ local resident traffic to pass. • Protocols around other road users on Old Coach Road such as cyclists/pedestrians. This includes, all construction related activity to give way to pedestrian/cycle traffic, all traffic to reduce to 20km/h when passing pedestrian/cyclist and ensuring that at least 1.5 metres of separation between vehicles and cyclists/pedestrians. If this separation cannot be achieved, then the vehicle is to wait until a safe passing space is available or the rider signaled that it was safe to pass. Traffic Controllers to advise (via radio control) all contractor vehicles to advise of the presence of pedestrians/cyclists. • Safety briefings to truck drivers with regard to cyclists on adjacent roads on the Heartland Ride cycle route to ensure they are aware of an increased likelihood of cyclists along the roads and correct procedures for passing. • No unnecessary stopping and no idling outside private residences. • No stopping or parking in residents' driveways. • Reporting of any incidents/issues to the Contractor. • Drivers made aware to maintain clean public road surfaces throughout the construction period and report any dust/dirt tracking. • Headlights should be dipped (low beam) at all times if required. Signs will be installed within the site requiring that when vehicles headlights are used, they shall be dipped (low beam) at all times.
Safety and requirements of active mode users (pedestrians and cyclists)	There are no footpaths and no dedicated cycling infrastructure along the local roads around the Site. However, sections of Opaki-Kaiparoro Road and Falkner Road form part of the Tour Aotearoa 'Heartland Rides' on-road cycle network. If required a, SSTMP will be developed to provide measures for any active mode users through the site access to ensure they are escorted safely if needed. Driver education measures in relation to pedestrians and cyclists are described above.
Emergency vehicle access	• Emergency vehicle access will include provisions for Fire and Emergency Services New Zealand, NZ Police and St Johns. In the event access for an emergency vehicle was required, normal road prioritisation rules would prevail. • If requested by the emergency services, any vehicles within the site or blocking the construction access will be removed to provide for emergency vehicle access. Vehicles will not be moved unless load is secured and safe to move. • Emergency vehicles will have unrestricted access to the site for any emergencies that occur at ground level and when the site is attended. The emergency services will be notified of the appropriate contact for 24 hour site access prior to the works through the Construction Management Plan and SSTMP application processes.

Traffic management activity	General management strategies
Parking	Parking of construction staff and visitor private vehicles will occur within the designated site compound area. Temporary on road parking for light and heavy vehicles associated with the upgrade of Old Coach Road will be provided as required.
Site Security	A security gate/security hut will be established at the site access point to restrict any access outside of working hours or any unauthorised personnel from entering the site.
Buses	There are no scheduled buses or school buses on the roads surrounding the Site (except for a once a day, three days/week, bus service on SH2).
Refuse collection	Existing refuse collection for residents on Old Coach Road will be coordinated with the TTM team.
NZ Post	Liaison with NZ Post will be carried out to ensure access for deliveries is maintained.
Utility services eg PowerCo	Some limited disruption to utility services may occur but it is not foreseen that outside of these works there will be a need to restrict access to utility services. Planned maintenance access to be coordinated to avoid any planned access restrictions. Emergency access will be provided at all times.
Delay	• CoPTTM advises delays caused by the TTM are generally not permitted to be greater than 5 minutes in typical traffic conditions. All practical steps shall be undertaken to minimise traffic effects caused by construction activities or TTM measures. • The impact of TTM shall be considered in the SSTMP, including the calculation of the expected level of delay in order to satisfy that the impacts are understood. Where delays are deemed to be unacceptable, construction staging methodologies will be revised to reduce the duration or impact of the activity.
Vehicle Environmental Controls	Draft Condition AQM2 includes for dust controls within an Air Quality Management Plan. Specifically in relation to the CTMP, dust suppression and detritus control is to be provided by the Contractor. If earth worked materials are carried onto the surrounding road network (eg dropped from vehicles carting materials to and from site), the Contractor shall be responsible for cleaning and repairing the road back to its original condition. In doing this, the Contractor shall ensure that approved TTM measures are in place to undertake this work safely and that no materials are washed or swept into any stormwater drains or natural drainage systems. The Contractor shall take all practicable measures to minimise the discharge of dust and detritus from the site. These measures shall include, but not be limited to: • Training staff and Contractors on practices relating to minimising dust emissions, dust control and procedures for reporting and dealing with dust emissions if they arise. • Minimising the areas of exposed ground. • Mulching, re-grassing and/or planting of bare areas such as topsoil piles and completed batters as soon as reasonably practicable. • Using water and/or dust suppressants on all disturbed surfaces including roads when required.

Traffic management activity	General management strategies
	• Applying a speed restriction on all internal roads and not exceeding 30 Km/h at all times and erecting a sign at the entrance to the site advising of this. • Provision of wheel cleaning facilities including hoses, brooms and shovels or maintaining a contingency of sweeper equipment on call at all times to clean up material which may have been accidently spilt onto public roads. The Contractor is to adhere to any further guidance given by the Traffic Management Co-ordinator and/or TDC/NZTA in relation to dust suppression and removal of detritus material.
Private properties	Vehicle access will be maintained to private properties for residents at all times. Communications will be undertaken in accordance with the Stakeholder Liaison Group (SLG)Draft conditions. If changes to access are required, access plans for properties for residents will be developed and agreed upon. This process will be: • Sensitive receptor plan development – SLG lead to speak with all residents affected by upcoming works to determine if special access is required (e.g. frequent Ambulance visits, mobility access needs). • Plan developed to maintain access to properties. • Plan discussed with construction team and distributed to TTM team and emergency services. • Residents advised where and how to access site safely – this is during attended and unattended hours. Discussions with the occupants of affected properties will take place at least 48 hours in advance to identify: • Any times of day that are better than others for the work. • Any alternative routes that can be established. • Any need for shuttles etc. to or from transport on either side of the work area. These processes will avoid any unreasonable inconvenience to landowners and minimise disruption to private property access. Where work impacting on resident access has to occur over several days typically temporary metalled accesses will be provided to allow access overnight where there is a level difference between the access at the boundary and the road levels whilst Old Coach Road is being constructed.
Site Staff	All staff involved in the Project will attend a Project induction prior to the commencement of work to ensure a common basis for approaching their work. The induction will include environmental, health and safety and hazard management in relation to the Project area, along with temporary traffic control. Training will include the following: • Specific training will be provided to those involved in TTM as appropriate to their role and responsibilities. • Regular toolbox talks will provide a forum to reinforce and educate Project staff around specific temporary traffic control issues and actions during the Project.

Traffic management activity	General management strategies
	The STMS will also conduct briefings on-site prior to every TTM operation to identify hazards pertaining to the work site and controls to be implemented to protect the safety of Project staff and public.
Construction Traffic Speed enforcement	Monitoring of speeds of Construction staff during construction will be the responsibility of the STMS. The STMS will obtain feedback from the Traffic Controllers who are best to advise of any concerns in relation to speed. Should the STMS or Traffic Controllers suspect speed is an issue then there are two methods for monitoring and enforcement: • Floating car surveys (i.e. car following) or • Use of a radar gun. The STMS will record the registration plate of the offender and a formal warning process will occur. In the event that the same offence occurs twice for one person, that person will be expelled from the site unless the reason is based on an emergency situation.
Personal Protective Equipment (PPE)	As a minimum, all personnel working on site must wear a day or night compliant high visibility garment. Construction workers will therefore be clearly visible and will set a consistent high level of PPE and appearance across the site.
Other permits or approvals	• Over-Dimension and Over-Weight permits if applicable. • Approvals from road controlling authorities, such as approved CAR application.
Construction staff movements	• The Contractor will promote car-pooling amongst construction staff to minimise single vehicle staff movements.
Site access	• All temporary site accesses will be designed in accordance with relevant TDC/NZTA design standards (including sight lines, accessway widths and gradients). • Site Traffic Management Supervisor will safely manage the movements of construction traffic to and from the road network to ensure the safety of all road users is maintained. • Sites will be securely fenced to prevent public access. • Wheel wash facilities to be set up at each site exit point. • Site accesses will be formed and metalled, sealed for 20m from the legal road and fenced and gated.
Management of construction traffic	• Site Traffic Management Supervisor will safely manage the movements of construction traffic to and from the road network to ensure the safety of all road users is maintained and that construction vehicles can negotiate access and egress to avoid any queueing on the adjacent road network. • Site Traffic Management Supervisor will co-ordinate (for example via radio control) trucks accessing the sites to ensure that construction vehicles arriving and departing the sites can do safely. • The CTMP will implement a construction driver education programme given the close proximity to residential properties.

Traffic management activity	General management strategies
	• All final reinstatement and remedial works will be carried out at the completion of the project to ensure no damage to any of the reinstated works occurs. • Movements of specialised machinery or large turbine components will not occur on a day to day basis. Separate to the Resource Consent application, bespoke SSTMPs and CARs will be developed once exact details of the machinery and vehicles required is known. Agreement with TDC and NZTA will be required and Over-Dimension rules and associated permitting processes will need to be complied with.
Communications	• Communication campaigns should be undertaken in relation to traffic management activities throughout construction activities (including letter drops to affected residents, project signage, web based resources, etc.).
Management of stock movements	• For any movements of stock on Old Coach Road, the farmer/stock owner to advise of these movements to the Contractor with 24 hours' notice. This will be part of the Draft SLG conditions. • The Contractor will pause construction vehicle movements during pre-planned stock movements on Old Coach Road. • The Contractor will replace any fencing removed as part of the upgrade of Old Coach Road. • It is the responsibility of the land owner to ensure that suitable fencing to contain stock is in place on their land. • All drivers are to avoid the use of horns or rev engine when driving alongside stock.
Construction traffic noise measures	The Contractor will employ various measures to control construction noise including: • Observing any engine braking restrictions. • Forbidding the use of vehicle reversing squawkers. • Muffling of exhausts. • Ensuring all plant and equipment is well maintained to minimise any disturbance to local residents and livestock in the adjacent fields.
Clean Roads	Public roads will be maintained in a clean state to minimise any potential dirt tracking onto the road surfaces and subsequent effects such as sediment runoff, dust and loss of traction. The proposed management measures include: • Maintaining a contingency of implementing portable truck washes at all site access points • Twice daily formal monitoring and education of all construction staff/drivers to monitor for any material which may be accidently spilt onto public roads from construction traffic. • Maintaining a contingency of water carts and sweeper trucks on call at all times to clean up any material which may be accidently spilt onto public roads from construction traffic. • SLG lead to coordinate residents reporting to site staff of any tracked/spilt material for immediate clean up.

6 Temporary traffic management framework

6.1 Background

This section sets out the general operational procedures for temporary traffic management activities for the Project discussed in this CTMP.

6.2 Site specific traffic management plan development

SSTMP will be required for all work or physical controls that occur within the road corridor at the construction site. Where there is a need for a SSTMP, the following sections outline how a SSTMP can be developed.

A SSTMP would be prepared for discrete stages of work within the road corridor and will follow the format set out in NZGTTM/CoPTTM. The SSTMP will describe the measures to be implemented to manage the temporary traffic effects associated with the movement of construction traffic, or particular works.

The SSTMP will be submitted to and approved by TDC. The SSTMP's will be assessed by the Traffic Management Coordinator for compliance with NZGTTM/CoPTTM and the ability to avoid adverse effects on the travelling public.

During the development of each SSTMP, the Project personnel will liaise directly with TDC and NZTA to ensure that the overall concept of the TTM is acceptable to all parties. This will, in turn, assist with timely approvals of SSTMP's.

The general framework for the submission of a SSTMP is as follows:

- Initial liaison with internal Project personnel to determine scope of SSTMP.
- Depending on the projected disruption to traffic, consultation with road controlling authorities may be required immediately, otherwise the development of initial draft Traffic Management Diagrams (TMD) shall begin. Should a TA be required, the development of TA would start immediately.
- Liaison between internal Project personnel to confirm work areas shown on draft TMD's are correct and allow for the construction works to proceed.
- Consultation with road controlling authorities utilising the agreed draft TMD: This stage will allow TDC to determine if a TA is required, as well as notification from TDC of any other additional specific requirements. If a TA has been requested at this stage, this is when development of the TA would commence.
- Finalising of the SSTMP (and TA if required) as well as any other road controlling authorities' requirements and then submission to the respective road controlling authorities for official approval.
- Any further liaison with road controlling authorities as required.
- Receiving the approved SSTMP from road controlling authorities and dissemination to the wider Project team in preparation of implementation.

6.3 Site specific traffic management plan structure

The following four elements summarise the structure of a typical SSTMP:

- SSTMP Pro-forma - this is the text of the document, which outlines the requirements, methodologies and standards required in observing the SSTMP. Details included in each SSTMP Pro-forma will vary depending on the activity requiring traffic control.

- Engineering Exception Decisions (EED)- all applicable EED's will be appended to the SSTMP.
- CAD drawings - CAD drawings will be employed and will include all relevant road features that require consideration in managing the impacts of construction.
- Communications strategy - the communications strategy will outline the proposed strategy for informing the public of the works. This may include public notifications in local newspapers, advertisements, radio communications, flyer or posters, variable message signs strategies, or driver information signage installed.

A SSTMP template will be provided in the final CTMP.

6.4 Review and approvals

SSTMP once fully developed and ready for final approval, will be submitted to TDC. The 'Submitica ' website Sign in or sign up (b2clogin.com), will be used to submit and manage SSTMP's relevant to the Project.

Following submission of the SSTMP to TDC and NZTA, the Contractor will work with them to resolve any remaining issues prior to final approval. Most of these items should be covered off during the initial liaison period with TDC and NZTA while developing the SSTMP.

Any SSTMP or CAR obtained from TDC/NZTA will be forwarded to the compliance monitoring officer at TDC for record.

6.5 Monitoring and audits

The STMS will continuously monitor the site they are responsible for while works are ongoing. This will be recorded in the form of regular checks each day and will include any issues, and actions taken to rectify them.

The Contractor's Traffic Controller (TC) will conduct official audits, in compliance with NZGTTM/CoPTTM, specifically Section A8, on a weekly basis of the construction site. The TC will then discuss the results of these audits with the relevant STMS and ensure any issues are understood and rectified.

6.6 Training

Training in relation to temporary traffic management is outlined in Table 6.1 below:

Table 6.1: Temporary Traffic Management training

Qualification/Training	Description	Who
Project Induction	Initial induction.	All site staff.
Appropriate Site Safe accreditation	Demonstrate proficiency on site.	All site staff.
Toolbox talks	Regular meetings to highlight key messages or issues and receive feedback.	All site staff.
STMS Level 1	NZQA qualification to oversee site in live road environment.	Person responsible for temporary traffic management associated with the project.
Traffic Controller (TC)	NZQA qualification to assist with traffic management.	All staff undertaking temporary traffic management associated with the project.

7 Communications

7.1 Background

The following section outlines the key stakeholders affected by the traffic related activities for the proposed work. The Stakeholder Liaison Group Draft Conditions (SLG1 to 6) includes more details on the consultation and engagement process for key stakeholders where required.

7.2 Key stakeholders

This CTMP has been developed based on consultation carried out as part of the resource consent application with the following parties in relation to specific components of this CTMP.

Table 7.1 below identifies the key stakeholders (and specific issues) who will be engaged with prior to and during construction for traffic management related matters:

Table 7.1: Key stakeholders and issues to be discussed during the development of the Project

Key Stakeholder	Specific issues to be discussed
Tararua District Council	• CTMP, SSTMP, CAR and assessment of effects of construction activities.
NZTA	• CTMP, SSTMP, and assessment of effects of construction activities. • Over Dimension/Weight permitting
Owners and occupiers of neighbouring properties	• Keep residents informed of Project activities and progress and also to understand any specific access requirements and effects that residents they may be experiencing during the construction activity
Other stakeholders such as NZ Post Rural Delivery, utility service providers and emergency services	• Will be advised of the works, the period of construction and contact details in case of emergency

The CTMP will be updated based on any new information that emerges. Key themes and topics of relevance for the key stakeholders relating to traffic related construction activities include:

- Where construction related vehicle movements may impact normal operations of the key stakeholders.
- Any construction related activities that may impact upon the safety of key stakeholders at any time during the construction period of the Project.
- Communication of significant construction works and vehicle movements that may impact key stakeholders to ensure safety is maintained.

7.3 Special considerations

7.3.1 Special events

Special events are defined as construction activities that generate a major peak in construction traffic or a change in vehicle access that may require a further level of planning for traffic impacts. These are generally non-typical and occur very infrequently over the course of the construction programme. The CTMP will be updated to assess any special events to take into account for the duration of this Project.

7.3.2 Neighbour notifications – letter drop

Letter drops to residents along the construction areas will be undertaken to inform neighbours of information relating to the Project. This may include:

- Working hours.
- Estimated arrival/departure times of site personnel (separate to working hours).
- Periods of heavy vehicle activity.
- Night works if applicable.
- Significant changes in project activities.

As a minimum the letter will include:

- Project description and work programme and progress.
- Location of the changes.
- Reason for the changes.
- Expected duration (dates); and
- Project contact details and communication channel.

The Stakeholder Liaison Group lead shall arrange for letter drops to the neighbours as required throughout the project. In addition to the physical letter drop, an electronic copy of the letter should also be provided to the compliance monitoring officer for their reference and information.

As the works proceed along Old Coach Road regular contact will be maintained with the residents to ensure that they are aware of the nature and duration of the works occurring adjacent to their properties. Specifically, each resident will be given at least 1 weeks' notice by both letter drop and/or either visit to their property and/or phone call prior to any works prior to the road upgrading activities occurring in front of their properties.

Where the upgrade works will directly impact private entranceways, the property owners will be invited to attend a meeting at the entrance ways prior to works to discuss the nature and duration of the activities and methods to ensure that access to their properties is maintained throughout this period.

7.3.3 Incident response

In accordance with Draft Condition GA8 (Incident Management and Reporting), specific CTMP actions to be undertaken in the event of an incident are described below:

Scope

The Contractor will have necessary resources available to respond promptly in the event of a traffic incident or other emergency situation. The top priority will be the safety and wellbeing of everyone involved and then take any actions, working in conjunction with TDC, NZTA, NZ Police, FENZ and St Johns to minimise disruption or inconvenience, whilst keeping the incident or area isolated from members of the general public.

Extent

In the event of a traffic incident, the nominated site STMS and available crew will attend in the first instance and report to the Traffic Management Controller. The project will make available any mobile plant (e.g. water trucks, excavators etc) which can assist in the case of a serious incident. Any traffic management resource on site not immediately involved in critical works will be made available to assist as appropriate.

Emergencies and incident communications

An emergency action plan will be produced prior to implementation of any temporary traffic management activities. The Plan will outline procedures, requirements and responsibilities in the case of an emergency. In addition to this plan, each SSTMP will address specific requirements in the case of an emergency. Events that may require implementation of the emergency action plan include:

- Traffic accidents.
- Emergency services requiring access to or through the site.
- Natural disasters.
- Flooding.
- Unplanned construction events.
- Emergency works.
- Significant traffic congestion.
- Inclement weather.

In the event of a crash or significant incident, the Contractor will provide immediate assistance and where necessary, contact the emergency services. Full support to those organisations will be provided to manage traffic whilst the incident is being bought under control. An incident report will be completed for each incident or near-miss.

In an emergency event, the STMS must ensure the traffic management staff protect their personal safety, the safety for continuing public access through the site, then notify the necessary authority and then attend to the situation.

In the event that a representative of NZ Police requests a copy of the final CTMP for safety or emergency reasons, the Contractor will immediately comply with this request. In the event of an emergency or breakdown on site, the Contractor will endeavour to provide a clear passage for emergency vehicles or tow trucks to ensure that the disruption and delay to other motorists through the site is minimised.

Relevant teams at TDC/NZTA shall be advised of any incident at the worksite via email and/or phone call and then an incident report sent to TDC and any other appropriate parties within 48 hours of the incident. This will include:

- A description of the nature, timing and cause of the incident.
- An assessment of any adverse effects of the incident on the environment; and
- A description of any remedial and/or mitigation measures that have been, or will be, implemented as a result of the incident to prevent the incident reoccurring in the future.

Remedial action and/or mitigation measures described in the incident report must be implemented as soon as practicable of the incident report being provided to TDC/NZTA to ensure that they are not ongoing. This could also involve updates to the CTMP.

7.3.4 Complaints management

Any legitimate traffic complaints received will be taken seriously and matters raised shall be investigated and responded to as quickly as possible. The CTM will be responsible for complying with Draft Condition GA7 (Complaints Management). This will involve maintaining a register of any complaint received regarding the construction activities associated with this Project. The register will include:

- Contact details of the complainant.
- Nature and details of the complaint.
- Location, date and time of the complaint and the alleged event giving rise to the complaint.
- Weather conditions.
- Other activities in the area, unrelated to the Project, that may have contributed to the complaint.
- Description of any measures taken to respond to the complaint.

8 Review, monitoring and update

This Draft CTMP should be considered as a live document. It will be developed to become a final CTMP following review by the Contractor. The final CTMP will also be updated throughout the course of the project to reflect material changes to construction methods, site conditions or the natural environment and also to reflect Over Dimension and Over Weight vehicle movement traffic management. The Stakeholder Liaison Group (SLG) will also have an opportunity to provide feedback on the draft CTMP prior to it being finalised.

Table 8.1 outlines the temporary traffic monitoring to be undertaken during construction of this Project:

Table 8.1: CTMP monitoring programme

Monitoring activity	Frequency	Responsibility
Check method statement reflects requirements and requisite CTMP has been approved.	Prior to approving work packs	Construction Manager
Inspect temporary traffic management layout.	Every two hours when site is live	STMS
Documented check of all temporary traffic management.	Daily and as layouts change	STMS
Traffic management audit in accordance with NZGTTM/CoPTTM.	Monthly	Traffic Controller

TDC/NZTA may from time to time undertake random audits of the traffic management and the site condition rating form will be made available to the Project Team in accordance with NZGTTM/ COPTTM.

Approved CMTP and SSTMP's will be reviewed by the Contractor's Project Manager and STMS on a regular basis, to ensure that the documents remain relevant for use. Any changes to these plans will be recorded.

Monitoring of specific Construction traffic effects will also be undertaken including:

- Construction traffic movements (numbers /timing) –daily record summaries based on sign in records at the construction sites.
- Public Road Condition - Pavement Inspection Records as required under Draft Condition CTM3. . As indicated in Mr Shields evidence there are a number of issues that need to be resolved with TDC in the wording of this Condition including agreement on the type of surveys to be undertaken and the geographical extent of the surveys.
- Traffic delays - Traffic Controllers to audit and record any delays exceeding 5 minutes on Old Coach Road.
- Clean Roads -Contractor to undertake and record twice a day audits of road condition and any remedial action taken.
- Monitoring of construction traffic speeds by Traffic Controllers and any enforcement action taken.
- Review of incidents reported and remedial action undertaken.

Records of the above will be retained by the Contractor.

9 Applicability

This report has been prepared for the exclusive use of our client Merdian Energy Limited, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

We understand and agree that our client will submit this report to inform its applications for resource consents for the Mount Munro windfarm, and that parties to that consenting process will use this report for the purpose of understanding indicative traffic management measures, which will be subject to refinement and amendment following detailed design and Contractor selection.

Tonkin & Taylor Ltd
Environmental and Engineering Consultants

Report prepared by:

.....

Colin Shields
Senior Principal Transport Planner

Reviewed by:

.....

James Dyer
Principal Transport Planner

Authorised for Tonkin & Taylor Ltd by:

.....

Nick Peters
Project Director
COSH
\\ttgroup.local\corporate\christchurch\tt projects\1016884\1016884.1000\workingmaterial\transport\ctmp v2 010724\mount munro draft ctmp v2 010724.docx

www.tonkintaylor.co.nz