16 September 2022

Matamata Piako District Council PO Box 266 Te Aroha Attn Todd Whittaker



Gray Matter Ltd 2 Alfred Street PO Box 14178 Hamilton, 3252 Tel: 07 853 8997

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Dear Todd

CALCUTTA PLAN CHANGE: INITIAL TRANSPORTATION REVIEW UPDATE

1. Background and Summary

As requested, we have carried out a transportation review of a request for a private plan change (PPC) by Calcutta Farms Ltd. The application relates to re-zoning land from rural to industrial.

This review is based on the Industrial Zone Change Integrated Transport Assessment, Calcutta Farms Ltd prepared by BBO (V4, 8 July 2022) and proposed transportation plan change provisions (2 August 2022). Our review includes:

- Project description overview of proposal
- Planning policy provisions comments on the proposals consistency with current transport and objectives and policies at a national, regional and local level.
- Review of the ITA considering the requirements of the MPDC District Plan

We are familiar with the general area from our work for Council on the Rockford Street property, but have not yet undertaken a site visit to the site or the SH24/ Broadway/ Tower Road roundabout.

We completed an initial review¹ of the earlier ITA² prepared by BBO. Since our initial review further information has been provided. This letter is an update to our initial review based on the updated ITA and additional information provided by BBO.

From a transport planning perspective, the transport connections and proposed upgrades generally appear appropriate. Some matters will need to be resolved as part of the detailed design, e.g. walking and cycling connections long the overland flow paths and tracking at the roundabouts.

The ITA lacks detail on the future ownership and maintenance of the landscape buffer and there is a risk that Waka Kotahi or MPDC may need to maintain this asset. It is unclear how public access will be maintained to the path. This may be addressed elsewhere within the application.

The proposed infrastructure upgrades are considered appropriate. However, we have concerns that the traffic volume threshold/trigger for improvements to the SH24 / Tower Road / Burwood Road roundabout is unclear and requires ongoing monitoring of traffic volumes. More detail is required to ensure that this trigger and the corresponding plan provisions is appropriate and easy to interpret.

¹ Calcutta Plan Change: Initial Transportation Review, 8 February2022

² Industrial Zone Change Integrated Transport Assessment, Calcutta Farms Ltd prepared by BBO (V2, 5 November 2021)

2. Proposal Description

The proposal is to establish an industrial zone on the southern side of SH24 east of the current Matamata urban area. The plan change area is shown in the figure below.



Figure 1: Proposed Development Area Plan

The plan change includes a new collector road connecting to SH24 via a new roundabout. This road provides for future connectivity to the area south-west of the site which is anticipated for residential development. An internal network is shown utilising cul-de-sac for property access.

The ITA anticipates that the proposed rezoning will generate approximately 560 trips per peak hour and approximately 4,000 to 4,300 trips per day with 20% HCV (i.e. based on surveyed intersection counts and estimated AADT obtained from Mobile Road at Garland Street intersection). The trip generation assessment appears to be reasonable.

3. Planning Policy Provisions in Relation to Transport

The site is zoned rural and adjacent to land already identified by MPDC for urban development as part of the Banks Road to Mangawhero Structure Plan. The proposal is largely consistent with national, regional and local transport objectives and policies.

SH24 is a regionally significant corridor (RPS, Map 6-1) and careful consideration is required to understand the impacts of industrial development given its current rural form and that the proposed provisions do not require urbanisation of the corridor.

From a transport planning perspective, the location and transport connections generally appear appropriate and provide good links to significant transport corridors. The ITA relies on changes in speed limit to mitigate effects. Implementing speed limit changes is beyond the control of the Requester but the Requester has engaged with Waka Kotahi to discuss the impacts of this.

Attachment A includes a detailed assessment of the proposal against transport policy provisions, including:

- National Government Policy Statement;
- Regional Regional Policy Statement, Passenger Transport Plan; and
- Local District Plan.

4. ITA Review

4.1. ITA Review

In general, the ITA provides an assessment based on efficiency effects. There is no detailed assessment of safety effects at the affected intersections. We are concerned about the effects on pedestrians and cyclists from introducing additional lanes at the SH24/ Broadway/ Tower Road roundabout.

In our initial review we sought further information as listed out below. Since the further information request the applicant has made changes to the proposal and subsequently updated the ITA to provide the information required. Our comments on whether the ITA now satisfies the information requested are summarised in the table below.

Information Request	Reason for requiring further information	Comments
Provide an assessment of safety effects from the proposed changes at the SH24/ Broadway/ Tower Road roundabout.	Dual lane roundabouts can be challenging for pedestrians and cyclists and no specific consideration of these users has been provided. Reducing the central island could also result in higher circulating speeds at the roundabout.	Satisfied. The updated plans include RSPs on the approaches to manage approach speeds. The RSPs will provide a safe space for pedestrians to cross. Further refinement to the design is required at consenting/detailed design stage. The final design of the roundabout will be subject to detailed design approvals including a safety audit.
Provide assessment of impact on manoeuvring at the Tower Road angle car parks	Effects on parking supply and adjacent landowners needs to be understood	Satisfied. Commentary provided in the ITA. The concept design has been amended to provide additional manoeuvring space at the angled parking bays.
Confirm property impact at 1A Mangawhero Road and if confirm if acquisition has been agreed with the owner.	Effects on adjacent landowners needs to be understood	Satisfied. This is no longer an issue. The roundabout concept design has been altered to avoid acquisition of land at 1A Mangawhero Road.
Provide vehicle tracking for movements at the SH24/Broadway/Tower Road roundabout for all options.	Unclear if vehicles can simultaneously complete manoeuvres at the roundabout.	Satisfied. Vehicle tracking provided. However, further refinement during detailed design required to ensure that there is sufficient clearance between vehicle bodies and kerbs.
Review the proposed local road cross-section to remove the flush median and provided dedicated parking lanes on both sides of the road.	The purpose of a flush median on a local road is unclear. Cross-section should maximise potential for future on-street parking.	Satisfied. The updated cross section for the local road includes on-street parking on both sides instead of a flush median.
Confirm whether the proposed overland flow paths will provide facilities to support walking and cycling.	Access to and connectivity within the area would be enhanced if these overland flow paths also include facilities to support walking and cycling.	Not satisfied - can be addressed at detailed design The response identifies that there is an opportunity. However, the exact location of any walking and cycling paths within the overland flow paths will be provided at the time of subdivision. We consider it would be prudent to identify walking and cycling connections at plan change stage.

Information Request	Reason for requiring further information	Comments
Confirm whether the path in the eastern stormwater swale is to be 1.5m or 3m wide.	The width of the path within the swale is described as both 1.5m and 3m wide.	Satisfied
Provide evidence of consultation with Waka Kotahi regarding vesting of land east of the site to provide the proposed shared path.	Consultation is required to confirm whether the proposed shared path and vesting of land are supported by Waka Kotahi.	Not satisfied The shared path will run through private property owned by Calcutta although the response indicates that this will be maintained by Calcutta. Having a shared path within private property is undesirable.
Provide evidence of consultation with WRC related to PT access to the proposed development and preferred locations for future bus stops.	Consultation is required to confirm whether the anticipated changes to public transport routes are supported by WRC	Satisfied Consultation with WRC complete. No immediate plans to extend existing services to the plan change area. WRC keen to work with MPDC and Calcutta to ensure future services can be provided.
Confirm how maintenance vehicle access will be provided to the stormwater devices shown on the DAP. (More detail may be provided in the stormwater assessment, but we have not reviewed that information)	The stormwater devices are remote from the proposed road network, and it is unclear how the RITS requirements will be achieved.	Not satisfied - can be addressed at detail design Safety between pedestrians and maintenance vehicles using the path will need to be addressed at detailed design stage.

Table 1: Request for Further Information

4.2. Speed Management

The current posted speed on SH26 is 100km/h. Megamaps identifies the Safe and Appropriate Speed (SAAS) as 80km/h based on the current land use. The ITA states that the speed limit will change to 80km/h if the rezoning is approved.

Any change to the speed limit requires a bylaw process and public consultation by Waka Kotahi. Waka Kotahi³ carried out public engagement on speed management in late-2021. The speed review engagement summary report⁴ states that most of the community supports reducing the speed limits along various sections of SH24-SH29-SH29A and there is a desire to see more consistent speeds. The ITA states "As such, the conclusions and recommendations in this assessment, as well as the design of the roundabout access, are based on the SAAS for this section of SH24 (i.e. 80 km/h). This may need to be reviewed once there has been confirmation from Waka Kotahi as to what the speed limit on SH24 will be changed to".

No further information is provided on when this posted speed limit is likely to change to 80km/h from the existing 100km/h posted speed limit.

4.3. Effects at the SH24/ Tower Road/ Broadway Roundabout

The assessment of delays at the SH24/ Broadway/ Tower Road roundabout appears reasonable. The approach to providing the minimum upgrade is acceptable as it addresses the efficiency effects of the proposal at this intersection. The proposal is not required to address existing deficiencies. The proposed layout is shown in the figure below.

The proposal decreases the width of the central island roundabout which may result in increased circulating speeds increasing the likelihood and severity of crashes. Typically, dual lane roundabouts can be challenging

³ https://nzta.govt.nz/projects/sh24-sh29-sh29a-speed-review/

^{4 &}lt;u>https://www.nzta.govt.nz/assets/projects/sh24-sh29-sh29a-speed-review/SH24-SH29-and-SH29A-speed-review-engagement-summary-report.pdf</u>

for pedestrians. The proposal includes raised safety platforms on the approaches to provide speed management on the roundabout approaches and minimise the risk of conflict between pedestrians.



Figure 2: Proposed SH24/Tower Road/Burwood Road Roundabout Concept

The vehicle tracking provided indicates that at some locations the clearance envelope crosses kerbs and that a semi-trailer will need to track over the central island to complete right turn movements. The semi-trailer is considered to be the design vehicle for this intersection, and appropriate clearance to kerbs should be provided for. There appears to be scope to refine the design during the detailed design phase to ensure that sufficient clearance between vehicles and kerb can be achieved. This could be achieved by adjusting the central island shape to suit the vehicle tracking. The final design will be subject to detailed design approval by Waka Kotahi and reviewed through a road safety audit.

The ITA (section 7.1.5) indicates that the proposed roundabout upgrades are required when the SH24 (Mangawhero Road) approach reaches 1,570 trips per peak hour during PM peak. It is unclear how this trigger will be included within the plan provisions. This trigger represents the cumulative traffic arising from a number of consented developments but their timing is uncertain. A tigger based on traffic volumes requires on-going monitoring and it is unclear who would be responsible for that. Similarly, it is unclear whether exceeding the threshold don a single day triggers the upgrade or whether it needs to be exceeded for a longer period (e.g. over a 5-day period. Providing a trigger directly related to the development (i.e. at a substage or number of lots) would be easier to administer.

In summary, the proposed intersection upgrade is acceptable, but more detail is required to ensure that the trigger and the corresponding plan provisions is appropriate and easy to administer.

4.4. Proposed Cross-Sections

4.4.1. Collector Cross-Section

The proposed collector road cross-section is broadly aligned with the District Plan. The departures being provision of a flush median and recessed parking. Provision of a flush median will allow development of turning lanes at intersections and better provide for right turns at individual property accesses. Recessed parking is preferred to assist with speed management in the long-term where the collector road is likely to provide access to development south of the site. The proposed collector cross-section is considered acceptable.

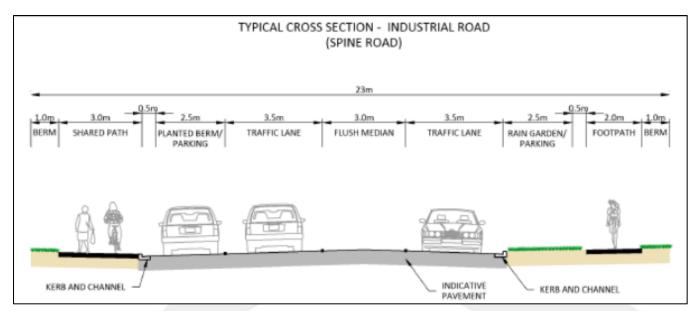


Figure 3: Proposed Collector Road

4.4.2. Local Road Cross-Section

The proposed local road cross-section includes 2.5m wide parking bays on both sides of the road and two 3.5m wide lanes. No on-road cycle facilities are provided. The ITA states that the "wide road reserve can safely accommodate cyclist on road". The lack of on-road cyclist facilities is partially offset by the provision of an off-road walking and cycling network. We consider the proposed local cross section to be acceptable.

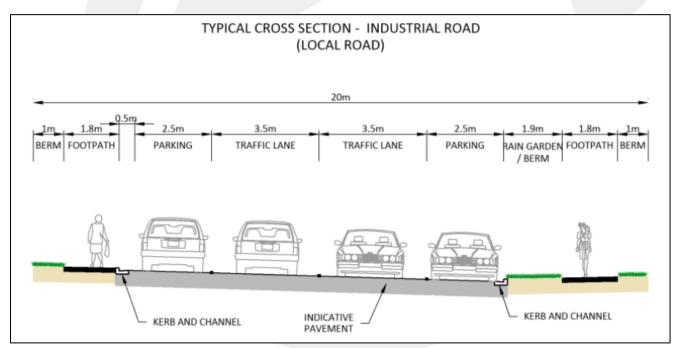


Figure 4: Proposed Local Road Cross Section

4.5. Proposed SH24 Roundabout

Waka Kotahi will be the road controlling authority for the proposed roundabout and they will require detailed design reviews and safety audits prior to construction. We have reviewed the concept design for the proposed SH24 roundabout, and it appears reasonable noting that refinement of the cycling facilities and speed management on the approaches will need to be completed as the design is developed further.

4.6. Walking and Cycling Connectivity

The proposal includes:

- = A 3m shared path west of the proposed roundabout connecting to a new raised safety platform on SH24.
- Off-road cycle facilities through the proposed roundabout.
- A 1.5m wide footpath east of the proposed roundabout, continuing through the eastern stormwater swale. The width of the path within the swale is described as both 1.5m and 3m wide.
- = A 3m shared path within the western stormwater swale/ landscape buffer.
- Shared path on one side of the collector road
- Footpaths on both sides of all internal roads.

The Development Area Plan shows overland flow paths from the internal road network to the proposed swales. Access and connectivity would be enhanced if this also included walking and cycling facilities.

The proposal includes a pedestrian refuge island on SH24. The ITA states that Waka Kotahi have confirmed that the pedestrian crossing arrangement shown in the image below is acceptable.

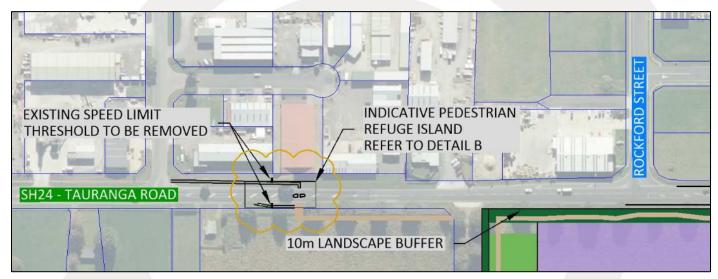


Figure 5: Pedestrian facilities along SH24 (extract from SH24 Roundabout Access Overall Plan, 146930-02-0221 Rev B)

The Applicant proposes that the landscape buffer and shared path along SH24 is owned and maintained by the Applicant. It is unclear what ownership structure will be in place and how it will fund maintenance activities. It is also unclear how public access will be maintained. There is a risk that Waka Kotahi or MPDC will inherit ownership and maintenance of the landscape buffer. We understand that where the speed limit on a state highway is less than 70km/h, the Waka Kotahi is only responsible for maintenance of the carriageway with the local council responsible for maintenance of berm and footpaths etc.

4.7. Public Transport

The ITA states that the closest bus stops are located at 15 Burwood Road and 14 Tower Road. The ITA recommends that as the proposed industrial zone develops opportunities to provide public transport opportunities are explored with Waikato Regional Council (WRC).

The ITA includes an option for providing a future public transport service to service the proposed plan change area. The proposed route is shown in the figure below. We understand that BBO have consulted with WRC regarding the potential bus route and at this stage WRC would not support an extension of bus services to the plan change but were keen to work with MPDC and Calcutta to ensure infrastructure allows for future stops when the service expansion becomes viable.



Figure 6: Proposed Bus Route

4.8. Access to Stormwater Management Devices

The stormwater devices shown on the DAP are remote from the proposed road network. It is unclear how the RITS requirements for maintenance vehicle access will be provided. More detail may be provided in the stormwater assessment, but we have not reviewed that information. This could be addressed as the detailed design is developed.

5. Proposed Plan Change Provisions

5.1. Recommended Infrastructure in ITA

The ITA includes recommendations for transportation infrastructure to mitigate the effects of the proposed plan change. The proposed mitigation is summarised in the table below.

	ВВО	Gray Matter Comments		
No.	Infrastructure When?		Delivered By	
1	3-arm roundabout on SH24 for access to the plan change site.	Before any industrial activity in the plan change site generates traffic accessing SH24	The Applicant	Appears reasonable

	ВВС	Summary of Staging		Gray Matter Comments
2	lane approaches (refer to Appendix D, drawing 146930-02- 0234). equates to existing surveyed counts plus the consented baseline traffic volumes. (Refer to Figure 11 and Figure 19)		The Applicant	Having trigger specific to an approach leg will require regular monitoring and surveys. There is uncertainty over what time period the count should be completed, i,e if the threshold is exceeded on a single day is the upgrade required? It would be easier to monitor if it was directly related to the development i.e. prior to stage X or prior to the development of X lots.
3	Construction of walking and cycling facilities within the plan change site as well as on SH24	Before any industrial activity in the plan change site generates traffic accessing SH24	The Applicant	Appears reasonable

Table 2: ITA recommended infrastructure

5.2. Proposed Plan Provisions Review

The proposed transportation related plan change provisions are summarised in Section 9.5.4 (Transportation) and Section 9.5.5. We have reviewed the provisions and our comments are summarised in the table below.

The plan provisions do not include triggers which specifies the development threshold that triggers these improvements. We recommend that the plan provision includes triggers for these works. The final trigger thresholds for works will need to be confirmed and included in the District Plan

No.	Proposed Provision	Comment							
9.54 Transportation Works									
Subdivision and development within the CDAP shall incorporate the following transportation works.									
a)	Upgrade of the SH24/Tower Road/Burwood Road roundabout to incorporate dual lane approaches. This involves the addition of left turn lanes on Mangawhero Road (SH24), Tower Road and Broadway Road approaches, and right turn lane on Burwood Road approach.	The plan provisions will need to include a trigger for when this roundabout is required. As the roundabout is subject to traffic arising from a number of developments, determining a trigger which is easily measurable may be difficult.							
b)	Construct a roundabout on SH24 that provides access into the CDAP, in the location set out in the CDAP	More clarity is required as to when the roundabout will be constructed. We prefer that the roundabout is constructed as part of the initial site development.							
c)	Provide a north-south Collector Road that connects the roundabout to the land to the south and in a manner that is in general accordance with the Figure 1 cross-section.	Acceptable – expect that collector road will be progressively constructed as the development is staged.							
d) Provide internal Local Road connections radiating off the Collector Road that are in general accordance with the Figure 2 cross-section.		Acceptable							
	9.55 Waking and (Cycling							
	Subdivision and development within the CDAP shall provide for an integrated walking and cycling network including connections to external amenities and corridors. The network shall include but not be limited to:								
a)	A 3m wide shared path, along the site's frontage from the new roundabout to a point approximately 115m west of the north-western point of the site, and with a raised safety platform zebra crossing at that location.	Provision does not match the proposed pedestrian crossing layout. The provision should be updated to match revised pedestrian crossing arrangement. More clarity on staging and timing is required.							

b))	A 3m wide shared path along the Collector Road, as shown in Figure 1.	More clarity on staging and timing is required.
		3m wide shared paths along the stormwater	
C	;)	swale and landscape buffers as shown on the CDAP	More clarity on staging and timing is required.

Table 3: Proposed Plan Provisions

6. Conclusion

From a transport planning perspective, the transport connections and proposed upgrades generally appear appropriate. Some matters will need to be resolved as part of the detailed design, e.g. walking and cycling connections long the overland flow paths and tracking at the roundabouts.

The ITA lacks detail on the future ownership and maintenance of the landscape buffer and there is a risk that Waka Kotahi or MPDC may need to maintain this asset. This may be addressed elsewhere within the application.

The proposed infrastructure upgrades described in Table 2 above are considered appropriate. However, we have concerns that the traffic volume threshold/trigger for improvements to the SH24 / Tower Road / Burwood Road roundabout is unclear and requires ongoing monitoring of traffic volumes. More detail is required to ensure that this trigger and the corresponding plan provisions is appropriate and easy to administer. We recommend that the proposed plan change provisions outline the triggers for the proposed internal transport network and proposed intersection improvements. The final trigger thresholds for works will need to be confirmed and included in the District Plan

If you have any questions, please do not hesitate to contact us.

Yours sincerely

Vinish Prakash

Transportation Engineer

AJ Black

Alastair Black

Senior Transportation Engineer

Attachment A: Transport Planning Policy Assessment National

The Government Policy Statement on Land Transport (GPS) 2021 has four strategic priorities:

- A transport system where no-one is killed or seriously injured;
- = Improving freight connections for economic development;
- Providing people with better transport options; and
- Developing a low carbon transport system that support emissions reductions while improving safety and inclusive access.

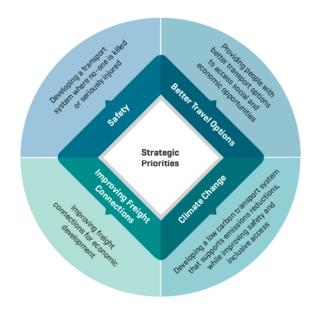
These strategic priorities are supported by the Transport Outcomes Framework which has five key outcomes:

- Inclusive Access;
- Healthy and safe people;
- Environmental sustainability;
- Resilience and security; and
- Economic prosperity.

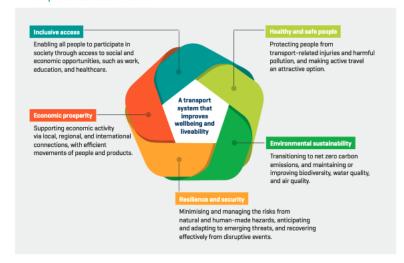
The proposed plan change is generally consistent with the GPS as it:

- Lies within an area identified for urban development.
- Provides access to key strategic corridors.
- Includes provision for walking, cycling, although more detail is required on facilities provided.
- Provides more than one link to the network, supporting resilience.

Considering the 10 year context (2021/22-2030/31), the Government has identified four strategic priorities for land transport investment to best contribute to improving our communities' wellbeing and liveability:



Transport Outcomes Framework



Regional

The Waikato Regional Policy Statement has a strong focus on integrated management, including the integrated relationship between land use and development, and the transport infrastructure network⁵.

Objective/Policy	Extract	Comment/relevance				
Objectives for development of the built environment	3.12 e) include recognising and protecting the value and long-term benefits of regionally significant infrastructure.	Provides links to arterial road network. SH24 is identified as Regionally Significant Infrastructure. Proposed roundabout will provide more clearly defined urban/rural threshold				
Policy 6.1 Planned and co- ordinated subdivision, use and development	ordinated subdivision, use 6.1.8 (c) multi-modal transport links and connectivity, both within the area of new urban					
Policy 6.3 Co-ordinating growth and infrastructure	 Management of the built environment ensures: a) the nature, timing and sequencing of new development is co-ordinated with the development, funding, implementation and operation of transport and other infrastructure, in order to: i) optimise the efficient and affordable provision of both the development and the infrastructure; ii) maintain or enhance the operational effectiveness, viability and safety of existing and planned infrastructure; iii) protect investment in existing infrastructure; and iv) ensure new development does not occur until provision for appropriate infrastructure necessary to service the development is in place; 	Relatively consistent				
6.3.1 Plan provisions	Regional and district plans shall include provisions that provide for a long-term strategic approach to the integration of land use and infrastructure and that give effect to Policy 6.3, including by ensuring as appropriate that: a) roading patterns and design support the use of public transport; b) walking and cycling facilities are integrated with developments; c) the different transport modes are well connected; d) industry is located where there is good access to strategic transport networks and road, rail or freight hubs;	Support for active mode could be enhanced by including connection through the overland flow paths. To be addressed at detailed design stage.				

⁵ Issue 1.4 (i)

Objective/Policy	Extract	Comment/relevance		
Policy 6.6 Significant infrastructure and energy resources	 Management of the built environment ensures particular regard is given to: a. that the effectiveness and efficiency of existing and planned regionally significant infrastructure is protected; b. the benefits that can be gained from the development and use of regionally significant infrastructure and energy resources, recognising and providing for the particular benefits of renewable electricity generation, electricity transmission, and municipal water supply; and c. the locational and technical practicalities associated with renewable electricity generation and the technical and operational requirements of the electricity transmission network. 	Relatively consistent, although more clarity required on: - How shared path beyond the site will be implemented Pedestrian and cycle safety at dual lane roundabout		
6.6.1 Implementation Methods	6.6.1 Implementation Regional and district plans shall include provisions that give effect to Policy 6.6, and in			
Policy 6.15 Density targets for Future Proof area	" seek to achieve compact urban environments that support existing commercial centres, multi-modal transport options, and allow people to live, work and play within their local area."	Industrial development remote from existing residential development and likely to rely on private motor vehicle		
6A Development principles	New development should: a) support existing urban areas in preference to creating new ones; b) occur in a manner that provides clear delineation between urban areas and rural areas; c) make use of opportunities for urban intensification and redevelopment to minimise the need for urban development in greenfield areas; d) not compromise the safe, efficient and effective operation and use of existing and planned infrastructure, including transport infrastructure, and should allow for future infrastructure needs, including maintenance and upgrading, where these can be anticipated; e) connect well with existing and planned development and infrastructure;	Relatively consistent, although more clarity required on how the existing SH24 roundabout will be impacted.		

Local

The proposal is broadly consistent with the policies and objectives of the Matamata Piako Operative District Plan (as summarised in the table below). Details of the required further information are provided in Section 4.

Outco	Outcome Sought (Objectives)		ons (Policies)	Comment	
Trans	Transportation				
O1	The strategic importance of significant transport infrastructure is recognised.	P1	Subdivision, use and development shall be managed to recognise, enable, and protect: The primary function of significant transport infrastructure as inter-regional connectors; and The local, regional, and national benefits of significant transport infrastructure	External connections are provided. Provides access to a Regionally Significant Road. Roundabout considered appropriate.	
O2	A safe, efficient, integrated, and environmentally sustainable transport network that ensures our social, economic, and cultural wellbeing	P2	The District's road hierarchy shall recognise and manage significant road corridors as the highest order of road	Provides access to a Regionally Significant Road with internal collector connection to future growth area	
О3	The avoidance, remediation or mitigation of the adverse effects of transportation	P3	Subdivision, use and development shall enable a safe, integrated, efficient, and well-connected transport network that provides for all modes of passenger and freight transport in a manner that: • Ensures land-use and transportation successfully interface with each other; • Manages the adverse environmental effects of the network, and the effects of other activities on the network (i.e. reverse-sensitivity effects); • Considers the transport needs of an ageing population; and: • Ensures route security across all modes of travel.	Appears appropriate, the proposal minimises the efficiency effects at the SH24 roundabout by upgrading to dual lanes. The safety risks associated with the dual lane roundabout is minimised by the use of RSPs on the roundabout approaches.	
O4	To ensure that those activities that place demands on the roading network contribute fairly to any works considered necessary to meet those demands	P4	The road network shall be hierarchical, differentiating between roads according to their primary function thereby assisting in the planning and management of the network and surrounding land-uses.	The internal road hierarchy appears to be appropriate, although cul-de-sacs are generally not preferred.	
O5	To protect residential amenity from the effects of excessive traffic generation and on-street parking on residential streets	P5	To ensure that access points and intersections meet safe sightline and spacing standards for the class of road within the hierarchy and are formed to appropriate design standards	Cross sections are appropriate for the form and function of the internal roads.	
O6	To maximise safety and convenience for pedestrians and vehicular traffic on all sites	P6	To manage the location of subdivision and land use activities to avoid compromising road intersection and railway level crossing safety sightlines	Appears appropriate, although more clarity required on how the existing SH24 roundabout will be impacted.	

Outco	ome Sought (Objectives)	Soluti	ons (Policies)	Comment
Trans	portation			
07	Provision for parking and loading is adequate to ensure the safety and efficiency of the road network, without stifling development or leading to inefficient use of land	P7	To ensure that the safety and efficiency of the state highways and district road networks are not compromised by proposed subdivision and/or development and the cumulative effect of subdivision and/or development.	Appears appropriate, although more details on safety of walking and cycling at proposed roundabout required at detailed design/ consenting
	To encourage the provision of alternative transportation networks where it is clearly demonstrated that the provision of such	P8	To promote appropriate roading connections within and between land being subdivided to ensure our towns are well connected.	Only provides two connections to the wider network.
	networks will positively benefit and enhance the environment and community which they serve	P9	To implement measures to avoid, or mitigate reverse- sensitivity effects on land near significant transport infrastructure, and at the Matamata airport.	Consistent – subject to review of proposed plan provisions
	P P	P10	To ensure that traffic safety is maintained by carefully managing the location and design of any signs visible from state highway and District roads.	Consistent
		P11	Subdivision, use and development shall be managed in a way that takes into account the planning and availability of funding for transport infrastructure.	Consistent
O8		P12	To ensure that subdivision and development takes into account the existing and proposed capacity and design of the transportation networks and that any adverse effects are avoided, remedied or mitigated	Consistent -The proposal includes improvements at the Tower Road/Burwood Road/SH24 intersection and a roundabout at the development access.
		P13	To manage unrelated through traffic on local roads to maintain and enhance the amenity values of the locality.	Consistent, noting future residential to the south may change this
		P14	To require landscaping within the transportation facilities or corridors where appropriate.	Landscape buffer to SH24 proposed. Long-term ownership and maintenance responsibilities are unclear.
		P15	To avoid dust and noise nuisance by requiring formation, sealing and screening of parking and loading areas and access ways in residential, business and Industrial zones and Kaitiaki (Conservation) zones that adjoin an urban area	Consistent
		P16	Parking and loading facilities must be designed to ensure safe manoeuvring of vehicles and safe movement of pedestrians and cyclists	Can align. Careful consideration of pedestrian/cyclist/ shared path and vehicle interactions at vehicle crossings is required

Outcome Sought (Objectives)	Soluti	ons (Policies)	Comment	
Transportation				
	P17	Outside "shopping frontage" areas, development shall provide adequate parking and loading facilities on-site, for foreseeable future needs	N/A - no shopping frontage area proposed in plan change area.	
	P18	Within "shopping frontage" areas in the town centres: Provision for parking and loading shall avoid adverse effects on the safety and efficiency of the road network; while: The requirement for on-site parking and loading must not unnecessarily constrain development, or result in development that is not in keeping with the character of the town centre	N/A	
	P19	To enhance the amenity value of the central business area of Te Aroha, Matamata, and Morrinsville by ensuring that such areas are not congested by service delivery activities and a lack of adequate parking	N/A	
	P20	To establish and maintain service lanes and public carparks which assist in reducing traffic congestion on surrounding streets.	Can align. Review as part of future consents	
	P21	To encourage alternative transport modes by making provision for cycleways and walkways	Proposal includes provisions for a shared path within the development, shared path along the site frontage and a pedestrian refuge island on SH 24.	
	P22	To provide for the transportation needs of an ageing population and the mobility impaired	Can align, although limited impact for proposed industrial land use	
	P23	To require the retention of all roads, including paper roads, where alternative public access to the District's rivers is not available	N/A	