APPENDIX F

Memorandum on upgrades to Pokeno Roading Network

MEMORANDUM



To Milan Covic

From Gareth Bellamy

Subject Proposed GULL Service station – Gt South Road Pokeno

File

Date 8th April 2021

This memo provides Waikato District Council's Roading Team's notes and comments of Council's proposed works and upgrades in the vicinity of the Proposed GULL service Station Great South Road Pokeno. These notes are to be read in conjunction with the Proposal's ITA, Grey Matter peer review and all other planning documentation.

Gull New Zealand Limited (the Applicant) propose to develop a 24-hour service station at 68-72 Great South Road, Pokeno. Great South Rd is classified as an Arterial Road, Pokeno Rd is classified as a Primary collector, however the reclassification of Pokeno Rd will upgrade it to an Arterial following completion of the 4-lane upgrade 2021.

Waikato District Council has planned road works that are likely to impact on the development/ vice versa should the development go ahead. These proposed works include intersection upgrades and planned new roads to the east of Gt South Road.

The proposed GULL site is located between unformed Church St and formed Market St, approx. 40m south of the intersection of Gt South Road and Pokeno Rd.

The Applicant's ITA has been peer reviewed by Grey Matter, this memo provides information to supplement and provides additional information relating to the wider growth context.

Pokeno Growth and Road planning

The rapid growth of Pokeno has been very challenging for Waikato District Council to plan infrastructure to support the development scale and pace.

In Feb 2016 Waikato District Council engaged BECA Consultants to undertake traffic modelling of the intersections centred around Pokeno Rd and Gt South Road as these intersections were considered most affected by the current growth areas. The report is appended to this memo.

The report identified recommended intersection transformations as a result of the rapid growth in the area. The following intersections were identified for changes.

- Munro Rd/Pokeno Rd Intersection transformational from Tee Intersection Urban fringe Roundabout
- Helenslee Rd/Pokeno Rd Intersection transformational from Tee Intersection to Signalisation (4 lane)

- Hitchen Rd/Pokeno Rd transformational from tee intersection to Signalisation (4 lane)
- Pokeno Rd /Gt South Rd Intersection Transformational from Tee Intersection to 2 lane Roundabout (4 lane)

The report was reviewed in Feb. 2017 to consider additional sub-divisions in application and a plan change application west of Helenslee Rd which added a further >2400 lots. The review included interim intervention options to consider available funding in the 2018/2021 LTP and planning for the next Long-Term Plan (current review).

Following the review, the detailed design of Pokeno Rd (Great South Road intersection to bridge on Pokeno Rd) has been completed and construction to commence May 2021. The design includes upgrades of Pokeno Rd from just west of Great South Road intersection and includes Hitchen Rd and Helenslee Rd intersection signalisation and 4-lane of Pokeno Rd.

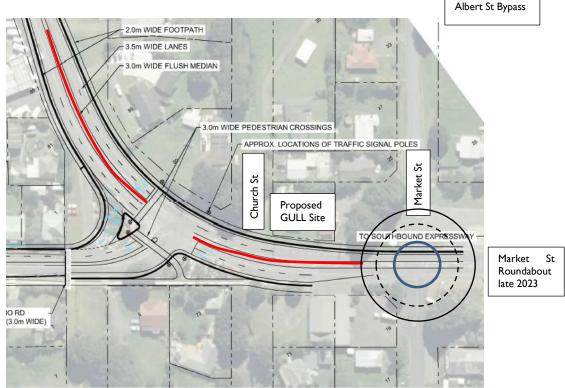
Gt South Rd/ Pokeno Rd Intersection

A review of the BECA report's recommendation was undertaken and the recommended 2-lane roundabout was not possible due to boundary constraints. A revised design for signalisation of Great South Rd and Pokeno Rd is the preferred option. This is currently in preliminary design stage (scheme design was provided to the applicant), detailed design is being undertaken by WSP and delivery is due December 2021, construction forecast for July 2023. The project is included in Waikato District Council's LTP 2021-2024.

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ROADING		2022	2023	2024
Growth 8PR70001	I have a state of the state of		040.070	050 504
	Area wide pavement rehabilitation	208,800	246,079	258,531
7MI70516	Hills road minor improvements			
7MI72008	Helenslee road minor improvements		1,031,000	
7MI72015	Dean road/great south road minor improvements			
7MI73035	Dean road minor improvements			
7MI73048	Fraser road minor improvements			
7MI73078	Huia road minor improvements			
7MI73132	Pokeno road minor improvements		670,150	
7MI73167	Whangarata road minor improvements			
7MI73310	Great south road, Pokeno minor improvements		1,237,200	
7NR70005	District wide contribution to developments for new roads	2,000,000	2,062,000	2,123,860
7NR70413	Rangitahi south road new roads			
7RE70176	Gordonton road improvements	1,750,000		
7RE70472	Saulbrey road roundabout		206,200	
7RE73120	Munro road & bridge upgrade			
8RE70013	Safety improvements associated with rehabs	20,000	20,620	21,239
7RI73046	Ford street resilience improvements		128,875	
7RI73078	Huia road resilience improvements	125,000		
7RI73120	Munro road resilience improvements	125,000		
7PO72011	Close ford/great south road intersection + cul-de-sac		115,936	
7PO72013	Razorback off ramp intersection upgrade		52,581	
7PO72014	Helenslee/pokeno signals		206,200	
7PO72015	Dean road/great south road intersection upgrade		123,720	
7PO72018	Hitchen road bridge	23,494		
7PO73062	Helenslee road Pokeno structure plan	40,353		
7PO73120	Munro road Pokeno structure plan	109,448		
7PO73132	Pokeno road Pokeno structure plan	428,385		
7PO73310	Great south road Pokeno structure plan	23,485		
Total for Growth		4.853.965	6,100,561	2,403,630

The signalisation design includes part 4 lane (merging to 2 lanes) with a raised median island that separates traffic and runs from the traffic signals towards Market St.



Extract from WSP Scheme design plan - Signalisation 2023

A roundabout is planned at Market St Intersection and Great South Road will be 4 laned between Pokeno Rd and Market St with a solid median. As part of the Signalisation works, the median island will extend past the 2 lane merge point and will then extend fully as part of the Market St /Great South Rd/Pokeno upgrade (roundabout) also planned for 2023

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Level Of Service (LOS)		2022	2023	2024
7BC70084	Glen Murray road 133 bridge			
7MI70035	Te Kauwhata road minor improvements			
7MI70162	Tahuna road minor improvements			371,676
7MI70186	Lake road minor improvements	1,650,000		
7MI70189	River road minor improvements			796,448
7MI70223	Whitikahu road minor improvements			796,448
7MI70242	Piako road minor improvements		386,625	
7MI70244	Puketaha road minor improvements			
7MI70281	Tauwhare road minor improvements			
7MI70516	Hills road minor improvements			
7MI70638	Newcastle street minor improvements			
7MI70821	Tregoweth lane minor improvements			
7MI71403	Bow street minor improvements			637,158
7MI72015	Dean road/great south road minor improvements			
7MI73035	Dean road minor improvements			
7MI73048	Fraser road minor improvements			
7MI73060	Harrisville road minor improvements		1,216,580	
7MI73078	Huia road minor improvements			
7MI73106	Mangatangi road minor improvements		360,850	
7MI73110	Masters road minor improvements			
7MI73113	Mill road minor improvements			1,592,895
7MI73132	Pokeno road minor improvements		670,150	398,224
7MI73141	Ridge road minor improvements			
7MI73167	Whangarata road minor improvements			
7MI73310	Great south road, Pokeno minor improvements		824,800	
7MI73316	Buckland road minor improvements			
8MI70189	River road minor improvements		309,300	
8MI73060	Harrisville road minor improvements			119,467
BMI73316	Buckland road minor improvements			106,193
8FP70001	District wide footpath cycleway improvement programme	1,000,000	1,031,000	1,061,930
7EW70002	Emergency works - future events	400,000	412,400	424,772
7EW70002 7NR70148	Emergency works - future events McKvie road Huntly SH1 south facing ramps	400,000	412,400	

Extract page 10 of the Public Draft LTP 2021-2024- Great South Road Market/pokeno rdImprovements (Roundabout)

The Proposed GULL Site will be affected by the intersection upgrades (4 lane merge and median island) as only left in/left out movements will be possible.

Gt South Rd will be 4 lanes between Pokeno Rd and Market St in stages.

- Stage I as part of the Pokeno Rd intersection upgrade in 2023 and will include partial 4 lanes from the signals either side of the intersection with an island median, merging to 2 lanes before Market St.
- Stage 2 of the 4 lanes will be undertaken as part of the Market St roundabout project is forecast to be constructed later in 2023.

The median island is to provide safe separation of traffic flows and prevent unsafe crossing of vehicles at the merge point.

Pedestrian Safety

The proposed intersection upgrade includes formation of pedestrian footpaths on both sides of Great South Rd. The proposed GULL site has 2 access points, these are shown to have over sized widths to allow for swept paths of delivery tankers. The oversized entrances will impact on the safety of pedestrians and will clash with formation of Church St and subsequent pedestrian crossing locations. The oversized access points are considered a safety risk to pedestrians as smaller vehicles entering/exiting will likely "cut corners" especially the southern point.

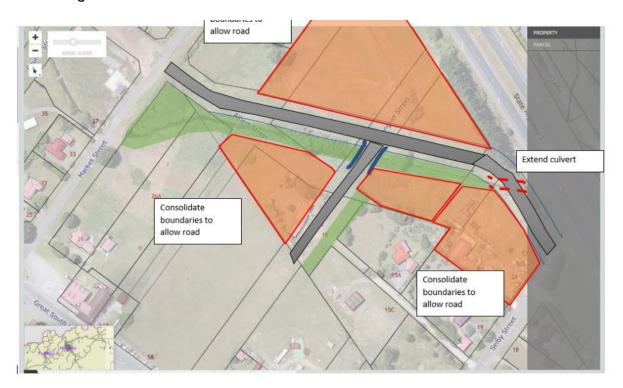


Figure 4: Fuel delivery tanker left turn manoeuvres, from left lane start position (Gray Matter, 18 March 2021)

Future roads to the east of Gt South Road

BECA were engaged in 2018 to undertake assessments of possible bypass routes on the east side of Great South Rd. These included assessments of the existing formed Market St, unformed Albert St, formed in part Wellington St (formed as part of the Countdown store) and part formed Selby St.

The forming of Albert St from the formed Market St to Selby St is the planned bypass route which will follow the natural features and property acquisition/parcel boundary changes for the new alignment is underway. A Schematic showing the amended road corridors following the existing stream. Church St will connect to Albert St.



Church St

Church St is to be formed and connected to future Albert St bypass

The formation of Church St conflicts with the GULL Proposal, the proximity of the left out of Church St to the entry into the proposal will be for the best part cojoined, and result in conflicting traffic movements.

The planned signalisation and intersection upgrade at Pokeno Rd/Great South Rd will impact on the currently unformed Church Rd and future access will be restricted to left in left out (LILO).

Another development proposal has been received at 80 Great South Road, where access directly onto Gt south road is not supported by Council due to the planned intersection upgrades. Council staff have been working with the developer at 80 Great South Road to have access via the currently unformed Church St. An agreement in principle with the developer to form Church Rd to council urban road standards to a point at the furthest most point on eastern boundary of the lot. This road will be further formed to connect to the Albert St Bypass.

Traffic generation Spot Discount Days

Council Roading Staff and Peer Reviewer have concerns that the traffic data provided does not fully represent actual operations of GULL sites and the effects of GULL's popular spot discount sales.

GULL is known to attract significant customers on spot discount days, which are advertised at short notice through its alerts and social media, these sale days are known to result in significant congestion and queues onto the local roads.

At the proposed location, queues onto the Gt south road will have significant safety and efficiency effects on this major intersection and adjoining road network. The site is extremely confined for the type of operation and has limited on-site space to accommodate no more than 2 vehicles at each pump at the most optimum situation. The service station will also have to close for the most part when Tanker delivery operations are undertaken.

Summary

Council's Roading Staff consider,

- The GULL Application will have adverse safety and efficiency effects on the impending new road formations on Church St and Intersection Upgrades at Pokeno rd and Market St Intersections.
- The site is confined and there is potential for queuing onto the Great South Rd especially during busy days/sales or during tanker deliveries.
- The entry and exits conflict with planned pedestrian facilities as part of the Intersection Upgrades.
- The proposed entry conflicts with the formation of Church Street
- The traffic generation provided in the ITA underestimates the operational use when compared to other GULL sites.
- The traffic issues as a result of discount days experienced regularly at other GULL sites has not been considered.