
Selwyn District Plan - Transport Components Integrated Transport Assessments

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1. Introduction

This Technical Note outlines the findings of a review of the initial draft Selwyn District Plan High Trip Generator (HTG) provisions. This includes the rule, requirements and matters of discretion. The review has considered the preferred option developed in the District Plan Transport Baseline Review (Abley, 2018), and how this has been translated into the draft provisions.

A Workshop was held with Council staff on 15 August 2019 to discuss initial review findings and recommendations outlined in draft Technical Note (12 August 2019). Following the workshop an email to SDC staff outlining updated recommendations was circulated for feedback.

This Technical Note is structured as follows:

1. Introduction
2. Baseline Review
3. Draft Provisions
 - 3.1. Draft Policies
 - 3.2. Draft Rule
 - 3.3. Draft Matters for Discretion
4. Recommendations

Appendix A – ITA threshold scenario testing.

2. Baseline Review

The Abley District Plan Transport Baseline Review (DW009 - Transport, 2018) reviewed HTG rules around the country and developed several options. Option 6 – Require ITAs based on scale of activity (thresholds) was the recommended option. An extract from the Baseline Report describing the option is included below.

Option 6 description

The initial threshold would be whether the activity is considered a 'High trip generating' (HTG) activity based on total trips generated per day converted to a unit of measurement such as floor area or number of dwellings. Any further thresholds would be effects based. It is therefore important to consider the possible range of transport effects and how these might be captured by the ITA process.

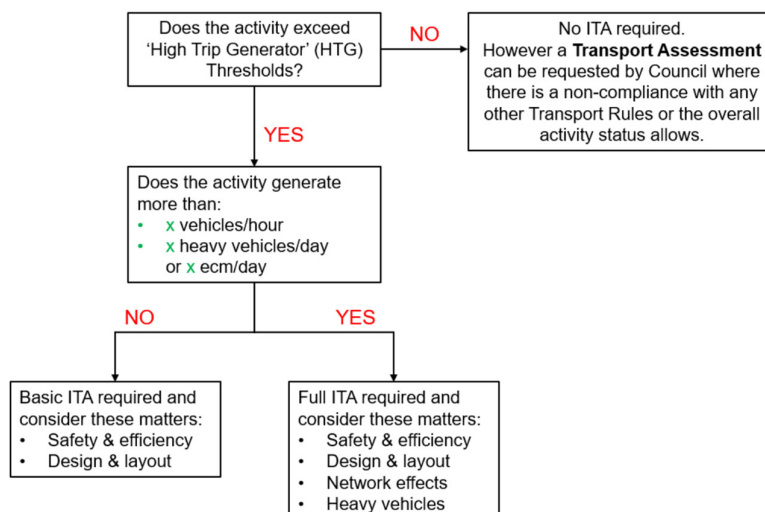
Assessment matters to capture the effects are considered appropriate. The CCC uses this approach and has 6 assessment matters, 2 of which are for non-permitted activities. The matters for non-permitted activities relate to the policy framework and accessibility of the site, as the zone rules have not anticipated these activities.

The following four assessment matters are proposed (with names similar to CCC):

1. Network effects (network related)
2. Heavy vehicles (infrastructure related)
3. Safety and efficiency (site related)
4. Design and layout (site related)

The key to setting the thresholds is whether SDC consider traffic to be a peak hour issue or an 'across the day' issue. We understand that a HTG in Selwyn would generally not be associated with a peak hour issue (but there are exceptions such as schools). However the 'network effects' assessment matter could be a peak hour issue, likewise the 'heavy vehicles' assessment matter would be triggered by a certain number of heavy vehicles per day. Alternatively, equivalent car movements could be used for the infrastructure related threshold.

The proposed process is outlined below. The difference between a 'basic' and a 'full' ITA is the assessment matters that are required to be considered. This is considered a clear and simple approach, acknowledging that the issue of non-permitted activities still needs to be considered in the next phase. If the high trip generating rule is not triggered but another Transport rule aside from the HTG rule is not met Council can continue to use its discretion to ask for a Transport Assessment. Furthermore, in the case of a plan change/ODP, NOR or subdivision resource consent Council will continue to have the discretion to ask for a Transport Assessment as they do currently.



Discussion

The preferred option aligns to some extent with the Christchurch District Plan. However, the Christchurch approach includes another layer in the flow chart that asks “*Is the activity otherwise permitted in the zone where it is located?*”. If the answer is no, these additional matters of discretion are added: “*accessibility of the location*” and “*strategic framework*”.

It was concluded for Selwyn that activities that are not anticipated in a particular zone will need to undergo assessment which should address the relevant policies so an ITA could be used (or requested by Council) to assess the transport effects of that activity. It doesn't matter what size the activity is and the scope of the ITA should be tailored to the activity and the zone.

Essentially the preferred option was designed to simplify the process acknowledging that activities not permitted in the zone will be captured by other provisions in the District Plan.

3. Draft provisions

The draft provisions include:

- Policy TRANS-P3
- Rule TRANS-R6
- Matters for discretion TRANS-MAT1.1, MAT4.5 and MAT9.1-9.5

3.1 Draft policies

Policy TRANS-P3 - High traffic generating activities

Require Integrated Transport Assessments to assess the effects of high trip generating activities on the surrounding land transport network to:

1. *Require high trip generating activities to maintain the safety and efficiency of land transport infrastructure or and the strategic transport network by ensuring there is sufficient capacity in the land transport network before they establish;*
2. *Identify any effects arising from high trip generating activities on levels of amenity that characterise the area in which it is proposed to establish and operate;*
3. *Establish whether the high trip generating activity can be supported by active transport modes, including accessibility to safe and convenient walking and cycling connections and public transport, including access for people whose mobility is restricted; and*
4. *Determine the need for any land transport infrastructure and strategic transport network renewals and improvements to ensure the high trip generating activity integrates with funded improvements to the network and the timing aligns with capacity.*

An Integrated Transport Assessment is defined as: Means a report prepared by a suitably qualified and experienced expert to: (a) Consider the impact of development proposals on land transport infrastructure and the strategic transport network; and (b) Evaluate the effectiveness of any mitigation measures or upgrade works to integrate high traffic generating activities into the network.

Discussion:

It is important that the policy aligns with the intent of the rule and the matters of discretion. Policies 1, 3 and 4 are aligned with the recommended HTG rule and transport matters of discretion.

Policy 2 relates to amenity. This cannot be included as a transport matter as the ITA would then involve experts other than transport to assess the effects. This approach was initially proposed in the Christchurch District Plan but then excluded for that reason. If this policy is to remain it requires consideration outside of the ITA.

It is recommended that the definition be amended as shown below:

An Integrated Transport Assessment is defined as: Means a report prepared by a suitably qualified and experienced expert to: (a) Consider the impact of development proposals on land transport infrastructure and the strategic transport network; and (b) Evaluate the effectiveness of any mitigation measures or upgrade works to integrate high traffic generating activities into the transport network and systems.

3.2 Draft rule

TRAN-R6 -High trip generating activities and thresholds

TRAN-R6.1. All activities and changes in use that fail to satisfy the permitted HTGA thresholds in [Table 1 - HTGA thresholds and ITA requirements](#) require an ITA to assess the effects of HTGA. The ITA is to be prepared by a suitably qualified and experienced traffic specialist and lodged with SDC for approval.

a. **Activity status where compliance not achieved:**

b. N/A

Matters for discretion

TRAN-R6.2. Matters to which the exercise of discretion under [TRAN-R6.2](#) is restricted to:

c. **Basic ITA requirements**

- a. [TRAN-MAT1.1](#) positive effect
- b. [TRAN-MAT9.1](#) network safety and efficiency
- c. [TRAN-MAT9.2](#) design and layout

d. **Full ITA requirements**

- a. [TRAN-MAT1.1](#) positive effect
- b. [TRAN-MAT9.1](#) network safety and efficiency
- c. [TRAN-MAT9.2](#) design and layout
- d. [TRAN-MAT9.3](#) Travel Management Plans
- e. [TRAN-MAT9.4](#) amenity
- f. [TRAN-MAT9.5](#) mitigation
- g. [TRAN-MAT4.3](#) consultation with road controlling authority

e. **Notification:** Any application arising from [TRAN-R6.1](#) shall not be subject to public notification. Absent their written approval, notice shall only be served on NZTA where the HTGA access a State Highway or the road controlling authority where the HTGA accessed any other road.

Activities list

Table 1 as referred to in the Rule includes a large range of activities. The requirement should be refined to those activities that are likely to be developed of a scale that would classify them as high trip generating activities (HTGAs).

Table 1 should also include a catch all activity set at the trip generation threshold, potentially called “*Mixed use and all other activities (not covered by the above)*”. CCC has also taken this approach.

The activities currently listed in Table 1 has been reviewed and classified as one of the following:

- Unlikely to be a HTGA but if large would be captured under “mixed use and all other activities”
- One-off large scale activities that are covered by “Other activities”
- Activities covered by Health Care Services
- Activities covered by Residential Activities
- Activities covered by Industrial Activities
- Activities covered by other processes
- Activities that should be included in Table 1

The following was discussed at the workshop:

Unlikely to be a HTGA but if large would be captured under ‘Mixed use and all other activities’

- Camping ground
- Free range poultry farming
- Service station, garage and workshops
- Rural selling place
- Rural service

One-off large scale activities that are covered by ‘Mixed use and all other activities’

- Community or recreation facility
- Correction facility
- Emergency service facility
- Public transport facility
- Port
- Research
- Spiritual facility
- Mining
- Quarrying

Covered by Health Care Services

- Health care facility
- Integrated health care facility
- Hospital

Covered by Residential Activities

- Comprehensive Development or Residential Units
- Retirement villages
- Supported residential accommodation
- Visitor accommodation

Covered by Industrial Activities

- Intensive indoor primary production

- Rural industry
- Storage and warehouse activities
- Quarrying?

Activities covered by other processes

- Designated sites in APP x - Designations
- General construction
- Knowledge (no definition??)
- Subdivision
- Temporary

Activities that should be included in Table 1 as they are likely to be HTGAs of interest in terms of the effects

- Educational (Pre-school and schools)
- Health care
- Industrial (excluding warehousing and distribution)
- Warehousing and distribution
- Office
- Residential
- Retail – shops and supermarkets
- Retail - large format and bulk goods
- Mixed use or other activities

Defining the thresholds for activities

'Vehicle Trips' are the industry standard for quantifying traffic generation of an activity. A 'vehicle trip' is a single journey to or from a particular site by a person or persons within a motor vehicle. Vehicle trips are the same as vehicle movements.

Industry standard vehicle trip rates are available for a range of activities in NZTA Research Report 453 - Trips and parking related to land use (2011). The vehicle trip rates can then be converted to a floor area or other scale based value, such as roll of a school, to reflect a per hour or daily trip threshold that would trigger an ITA. In the case of Selwyn the thresholds of 50 vehicle trips per hour (basic ITA) and 120 vehicle trips per day (full ITA) were adopted. These are the thresholds that have been adopted in the adjacent Christchurch District Plan and were tested for sensitivity in the scenarios developed for various activities and it was concluded they were also appropriate for Selwyn District.

The use of equivalent car movements per day (ecm/day⁽¹⁾) was discussed at the workshop, as this is currently used for the scale of activities rules in the Townships and Rural Chapters of the Operative Plan. Applying the ecm/day approach can overstate the traffic volume and is generally more appropriate in an asset management context. Using ecm/day as the basis for defining the thresholds in the HTG rule may therefore capture activities that are not considered HTG activities in terms of transport effects on the road network.

The HTG rule allows Council to consider the impacts created by a high volume of traffic associated with one activity/development, regardless of zone and road formation type. Heavy vehicles are assessed on the fact they are heavy vehicles, not how many equivalent car movements that might equate to. The Rural Activities Rule uses road formation type, access from certain hierarchy roads and traffic movements based on equivalent car movements (ecm) as the methods to capture activities that need further assessment. It is recommended that if SDC wish to continue to capture the impact of rural activities as per Operative Rule 9.13 that it should be retained. If that rule is removed the HTG rule will not be able to reflect road formation matters and heavy traffic volumes will be based on actual volumes of heavy vehicles not ecms.

⁽¹⁾ ecm conversions: 1 car to and from the property=2 equivalent car movements, 1 truck to and from the property=6 equivalent car movements, 1 truck and trailer to and from the property =12 equivalent car movements

Workshop outcomes

Discussion at the workshop resulted in the following changes to the recommended activities list above:

- Add **'tertiary education'** – there is not an industry trip rate² for tertiary so the CCC rate is recommended.
- Add **'service stations'** - service stations are measured per 'filling point' – there is an industry rate for this activity.

A number of other activities were suggested at the workshop however activities that don't have industry accepted trip generation rates that can then be converted to a floor area or other proxy cannot be included. All activities that could be high trip generators will be captured by the *"mixed use or other activity not covered above"* category.

A range of scenarios were tested as shown in Appendix A. This illustrates which activities are based on peak hour trips and which are based on daily trips. These scenarios were shared with SDC staff to ensure they were robust and no feedback to the contrary was forthcoming.

In terms of the heavy vehicle volume thresholds, it is recommended that 250 heavy vehicle trips/day threshold (as per CCC) is adopted. This equates to 125 heavy vehicles coming and going from a site. Advice from SDC was sought on any existing sites where the main trip generation is heavy vehicles and where their volume is considered to generate impacts that require assessment. However, no examples were provided to enable this threshold to be refined.

An exclusion to the HTG rule if an ITA had been previously undertaken was discussed at the workshop. The wording for this could be as per the CCC *"If an Integrated Transport Assessment has already been approved for the site as part of a granted resource consent, then these rules do not apply to any development that is within the scope of that Integrated Transport Assessment and in accordance with the resource consent, unless the resource consent has lapsed."*

It was also suggested that a previous ITA for a zoning process might also make the activity exempt from the HTG rule. However, this is not considered appropriate as zoning processes can cover a large area of land and the associated ITA will cover the scale of traffic for that area but not for each site as these will not have been defined at that stage. As the sites have not been designed at that stage either, then the assessment of aspects such as safety cannot be made. On that basis it is recommended that an ITA for a Zone Plan Change cannot exempt a site that is considered to be a high trip generating activity. CCC also do not include Plan Change ITAs in their exclusions.

The resulting table is shown below and includes the basis for the threshold value and the time of day that the threshold relates to. Note that these values have been rounded from the raw values to make the table easier to read.

Activity	Basic ITA	Full ITA	Basis for values	Time of day
Education - Preschool	40 Children	90 Children	NZTA RR 453:2011	Peak hour
Education - Schools	70 Students	170 Students	NZTA RR 453:2011	Peak hour
Education - Tertiary	250 FTE students	750 FTE students	CCC District Plan	Peak hour
Industrial	5000 m2 GFA	12000 m2 GFA	NZTA RR 453:2011	Peak hour
Warehousing and Distribution	6500 m2 GFA	25000 m2 GFA	NZTA RR 453:2011	Daily
Health Care	300 m2 GFA	1200 m2 GFA	NZTA RR 453:2011	Daily
Office	2000 m2 GFA	4800 m2 GFA	NZTA RR 453:2011	Peak hour
Residential	50 Residential Unit	120 Residential Unit	NZTA RR 453:2011	Peak hour
Retail - shops, supermarkets	250 m2 GLFA	900 m2 GLFA	NZTA RR 453:2011	Daily
Retail - large format and bulk goods	550 m2 GLFA	2200 m2 GLFA	NZTA RR 453:2011	Daily
Service Stations	2 Filling points	6 Filling points	NZTA RR 453:2011	Peak hour
Mixed use or other activities not covered above	50 vehicles/peak hour	120 vehicles/peak hour	CCC District Plan	
	250 heavy veh trips/day	1000 vehicles/day	CCC District Plan	
	whichever is the greatest of above	whichever is the greatest of above		

² Industry rates are outlined in [NZTA Research Report 453](#)

3.3 Matters for discretion

Discussion

The following table outlines the matters for discretion as recommended in the Baseline Report and the DRAFT matters.

Baseline recommendation	DRAFT Provisions (June 2019)	Recommended matters
Basic ITA <ul style="list-style-type: none"> Safety and efficiency Design and layout 	Basic ITA <ul style="list-style-type: none"> Positive effects Safety and efficiency Design and layout 	Basic ITA <ul style="list-style-type: none"> Safety and efficiency Design and layout
Full ITA <ul style="list-style-type: none"> Safety and efficiency Design and layout Network impacts Heavy vehicles 	Full ITA <ul style="list-style-type: none"> Positive effects Safety and efficiency Design and layout Travel Management Plans Amenity Mitigation Consultation with road controlling authority 	Full ITA <ul style="list-style-type: none"> Safety and efficiency Design and layout Network impacts Heavy vehicles

The draft provisions are not aligned with the baseline recommendations. Each of the DRAFT matters were discussed at the workshop and then refined post workshop.

Positive Effects - It is not clear from the description of that matter what it relates to.

Travel Management Plans - Based on the description of the matter we assume that Travel Management Plans (TMP) is intended to be the Network Impacts matter but there has been confusion of over what a TMP is. This matter does not require a TMP to explain the network effects, this is done within the ITA. A Travel Plan is a workplace/school travel plan that might be developed as a mitigation that provides solutions to workplace transport issues. It would include making clear choices for employees/students journeys to work/school and how this will be managed, for example providing car sharing schemes.

Amenity – This cannot be included as a transport matter as the ITA would then involve experts other than transport to assess the effects. This approach was initially proposed in the Christchurch District Plan but then excluded for that reason.

Mitigation – This is not a matter. Mitigation is an outcome of issues that arise from the assessment of the matters and will be outlined in the ITA.

Consultation with road controlling authority – This is a matter that applies to a number of transport requirements and will be documented in the ITA with respect to those requirements. It does not need to be a matter of discretion in relation to high trip generation itself. Any effects in relation to the HTGA will be raised in the ITA and be discussed with the RCA through that process. We question if this a matter or just a process aspect for all other requirements where this matter is sought.

Heavy vehicles – This has not been included as a matter, this needs to be added.

The recommended matters are included below and were distributed for SDC staff comment following the workshop. These matters are as per the Christchurch District Plan for consistency.

Recommended matters for discretion:

~~TRAN-MAT1.1. Any positive effects~~

~~TRAN-MAT4.3 The outcome of consultation with the road controlling authority.~~

TRAN-MAT9 – High Trip Generating Activities

TRAN-MAT9.1. The safety and efficiency - Whether the provision of access and on-site manoeuvring area associated with the activity, including vehicle loading and servicing deliveries, affects the safety, efficiency, accessibility (including for people whose mobility is restricted) of the site, and the transport network (including considering the road classification of the frontage road).

TRAN-MAT9.2. Design and layout: Whether the design and layout of the proposed activity maximises opportunities, to the extent practicable, for travel other than by private car, including providing safe and convenient access for travel by such modes.

TRAN-MAT9.3. ~~The provision of a Travel Management Plan confirms the number, pattern and/or timing of traffic movements.~~ Network effects - Having particular regard to the level of additional traffic generated by the activity and whether measures are proposed to adequately mitigate the actual or potential effects on the transport network arising from the anticipated trip generation (for all transport modes) from the proposed activity, including consideration of cumulative effects with other activities in the vicinity, proposed infrastructure, and construction work associated with the activity.

~~TRAN-MAT9.4. Whether any adverse effects on existing amenity values will arise as a result of the anticipated traffic movements.~~

~~TRAN-MAT9.5. Whether appropriate mitigation has been provided to integrate the HTGA into the network and the location where it is to establish, and the timing of the development aligns with funded improvements to the network where capacity upgrades are required to the land transport network~~

TRAN-MAT9.4. Heavy vehicles: For activities that will generate more than 250 heavy vehicle trips per day, whether there are any effects from these trips and how they might be mitigated.

4. Recommendations

It is recommended that the draft HTG rule is amended to reflect the findings of this Technical Note.

It is noted the definition issues raised in the draft Tech Note have been resolved through the parallel work on the Parking provisions, however a final check will be required before adopting the recommended table below.

As noted in the Baseline Review some Councils have developed ITA report guidelines to accompany the District Plan. This may be something that SDC could consider to ensure the reports meet their expectations, however the industry is now familiar with the level of detail required in ITAs.

- Policies** – Adopt policies 1, 3 and 4 as per the draft. Policy 2 relates to amenity, as this cannot be included as a transport matter in the ITA, this policy would either require consideration under a separate rule or separate assessment report.
- Rule** – Adopt the table below and the associated exclusion outlined in Section 3.2.




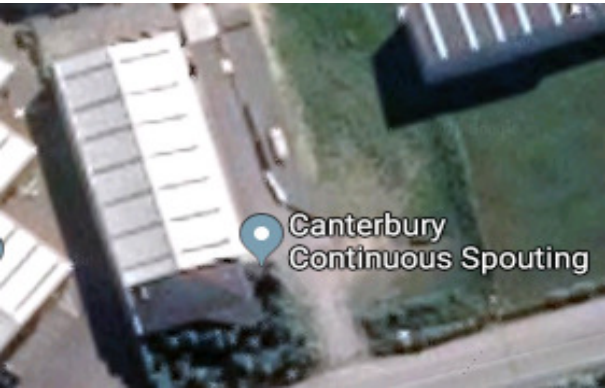

Activity	Basic ITA	Full ITA
Education - Preschool	40 Children	90 Children
Education - Schools	70 Students	170 Students
Education - Tertiary	250 FTE students	750 FTE students
Industrial	5000 m2 GFA	12000 m2 GFA
Warehousing and Distribution	6500 m2 GFA	25000 m2 GFA
Health Care	300 m2 GFA	1200 m2 GFA
Office	2000 m2 GFA	4800 m2 GFA
Residential	50 Residential Unit	120 Residential Unit
Retail - shops, supermarkets	250 m2 GLFA	900 m2 GLFA
Retail - large format and bulk goods	550 m2 GLFA	2200 m2 GLFA
Service Stations	2 Filling points	6 Filling points
Mixed use or other activities not covered above	50 vehides/peak hour 250 heavy veh trips/day	120 vehides/peak hour 1000 vehides/day
	whichever is the greatest of above	whichever is the greatest of above







- Matters for discretion** – Adopt the matters as outlined in Section 3.3.



Appendix A – ITA scenario testing

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ITA Threshold testing scenarios

				Thresholds		
Activity	Example	Approx. Scale	Unit	Basic threshold	Full threshold	Requirement
Education - Preschool	The Cats Pyjamas		70 children	40	90	Basic
						
Education - Schools	Lemonwood Grove School		192 students	70	170	Full
						
	Rolleston College		430 students	70	170	Full
						
Industrial	Continuous Spouting IZONE	1620 m2 GFA		5000	12000	No ITA
						
	Westland Milk Products	18000 m2 GFA		5000	12000	Full
						

Activity	Example	Approx. Scale	Unit	Thresholds		
				Basic threshold	Full threshold	Requirement
Warehousing and Distribution	The Warehouse Distribution centre IZONE	33000	m2 GFA	6500	25000	Full
						
Health Care	Rolleston Health Care	500	m2 GFA	300	1200	Basic
						
Office	SDC Office	4200	m2 GFA	2000	4800	Basic
						
Residential	Falcons Landing	600	units	50	120	Full
	The Boulevard Village (retirement)	59	units	50	120	Basic
Retail - shops, supermarkets	Countdown Rolleston	4500	m2 GFA	250	900	Full
						
	Four Square Darfield - new build	1100	m2 GFA	250	900	Full
						
	Lincoln block of shops/cafes	2500	m2 GFA	250	900	Full
						

				Thresholds		
Activity	Example	Approx. Scale	Unit	Basic threshold	Full threshold	Requirement
Retail - large format and bulk gc	Warehouse Rolleston	5600	m2 GFA	550	2200	Full
						
Service stations	BP Rolleston	16	Filling points	2	6	Full
						
	BP West Melton	6	Filling points	2	6	Full
	