

Submission on Notified Proposal for Plan, Change or Variation

Clause 6 of Schedule 1, Resource Management Act 1991

To: Timaru District Council

Name of submitter:

Harvey Norman Properties (N.Z.) Limited

.....
[State full name]

This is a submission on the following proposed plan or on a change proposed to the following plan or on the following proposed variation to a proposed plan or on the following proposed variation to a change to an existing plan) (the 'proposal'):

Timaru District Council Proposed District Plan

.....
[State the name of proposed or existing plan and (where applicable) change or variation].

I ~~could~~/could not* gain an advantage in trade competition through this submission.

[*Select one.]

***I ~~am~~/~~am not~~† directly affected by an effect of the subject matter of the submission that—**

(a) adversely affects the environment; and

(b) does not relate to trade competition or the effects of trade competition.

[*Delete or strike through entire paragraph if you could not gain an advantage in trade competition through this submission.]

[†Select one.]

The specific provisions of the proposal that my submission relates to are: [Give details]

.....
Please refer to attached letter.

My submission is: [Include whether you support or oppose the specific provisions or wish to have them amended; and reasons for your views]

[If your submission relates to a proposed plan prepared or changed using the collaborative planning process, you must indicate the following:

- Where you consider that the proposed plan or change fails to give effect to a consensus position and therefore how it should be modified; or
- In the case that your submission addresses a point on which the collaborative group did not reach a consensus position, how that provision in the plan should be modified.]

.....
Please refer to attached letter

.....
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I seek the following decision from the local authority: *[Give precise details as this is the only part of your submission that will be summarised in the summary of decisions requested]*

Please refer to attached letter.
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.....

I wish (or do not wish) † to be heard in support of my submission.

*[*In the case of a submission made on a proposed planning instrument that is subject to a streamlined planning process, you need only indicate whether you wish to be heard if the direction specifies that a hearing will be held.]*
[†Select one.]

***If others make a similar submission, I will consider presenting a joint case with them at a hearing.**

*[*Delete if you would not consider presenting a joint case.]*

Yes

Signature of submitter (or person authorised to sign on behalf of submitter)

[A signature is not required if you make your submission by electronic means]

Date 12 December 2022

Electronic address for service of submitter: michael.treacy@hainesplanning.co.nz

Telephone: (09) 883 2031

Postal address (or alternative method of service under s352 of the Act):

PO Box 90842, Victoria Street West

Contact person: *[name and designation, if applicable]* Michael Treacy (Associate, Haines Planning)

Note to person making submission

1. If you are making a submission to the Environmental Protection Authority, you should use form 16B. If you are a person who could gain an advantage in trade competition through the submission, your right to make a submission may be limited by clause 6(4) of Part 1 of Schedule 1 of the Resource Management Act 1991.
2. Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least 1 of the following applies to the submission (or part of the submission):
 - It is frivolous or vexatious:
 - It discloses no reasonable or relevant case:
 - It would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
 - It contains offensive language:
 - It is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialist knowledge or skill to give expert advice on the matter.

HAINES PLANNING

SUBMISSION ON THE PROPOSED DISTRICT PLAN (TIMARU)

BY HARVEY NORMAN PROPERTIES (N.Z.) LIMITED

INTRODUCTION

1. Harvey Norman Properties (N.Z.) Limited ("Harvey Norman"), c/- Haines Planning Consultants Limited at the address for service below, makes this submission on the Timaru District Council's ("the Council") Proposed District Plan ("PDP").
2. Harvey Norman is a household name and a market leader in the retailing of electrical, computer, furniture, entertainment and bedding goods. It owns and operates large format retail ("LFR") centres, smaller outlets and warehouses throughout Australasia and internationally. Domestically, Harvey Norman has a presence in all major urban and provincial centres.
3. Within Timaru, Harvey Norman owns and operates a LFR store from its landholding at 226 Evans Street, Oceanview ("the Site"). The Site measures almost 9ha and is located between Evans Street (SH1) and Old North Road. The eastern portion of the Site, which fronts onto Evans Street, is occupied by commercial activities, including the Harvey Norman store and warehouse, PGG Wrightson and a transport depot. The balance of the Site, comprising approximately 5ha, is undeveloped. The location of the Site is identified in **Attachment 1**.
4. Harvey Norman has a resource consent (No. 102.2014.147), which was granted on 2 July 2015, to redevelop and expand the existing retail and commercial activities on the Site from 3,300m² to 6,550m². This consent has a 10 year lapse period and has not yet been given effect to. On 4 August 2022 a variation to this existing resource consent was approved (reference 102.2014.147.2) to provide for a less intensive scheme and associated changes to site layout. A copy of the approved site plan is included in **Attachment 2**. In summary, the consent provides for an expansion of the existing Harvey Norman store to 4,385m², the existing transport building being demolished and replaced by a new building with two retail tenancies (955m² and 1,210m²) and an on-site warehouse for Harvey Norman (1,895m²).

5. The Site presently has a split zoning arrangement under the Operative District Plan (“ODP”). The eastern portion of the Site occupied by the commercial activities is zoned Industrial L, while the western, vacant portion is zoned Residential 1 (see **Attachment 3**).
6. Taitarakihi Creek extends along the southern boundary of the Site. The land either side of the Creek is zoned Recreation 2 and is subject to an Environment Canterbury designation for the purpose of soil conservation and river control.
7. A NZTA designation also extends along the SH1 frontage of the Site.
8. The PDP maintains the existing industrial / residential split zoning pattern, with the eastern portion of the Site proposed to be zoned General Industrial Zone (“GIZ”) and the western portion of the Site proposed to be zoned General Residential Zone (“GRZ”). This is illustrated in **Figure 1** below. The Site is also identified as being located within a Flood Assessment Area and Liquefaction Area. Please refer to **Attachment 4 and 5** for the zoning and overlay maps.

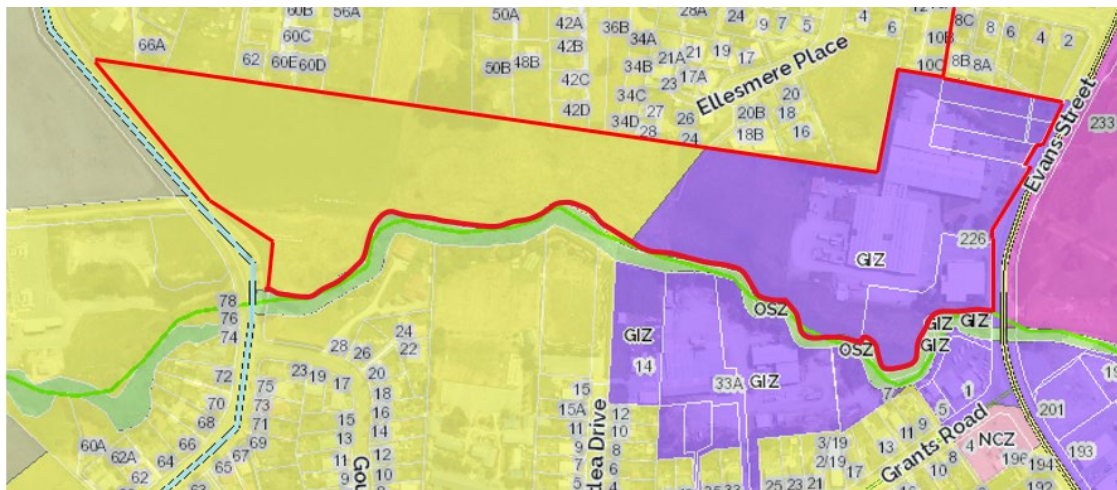


Figure 1: Proposed zoning

9. The Taitarakihi Creek environs has been zoned Open Space and includes an Esplanade Provision and Public Access Provision.
10. The Environment Canterbury and NZTA designations have also been carried through into the PDP.

GENERAL FEEDBACK

11. Harvey Norman acknowledges and appreciates the work that the Council has put into developing the PDP.

12. Harvey Norman has identified a number of notified PDP provisions which are included in this submission, with associated reasons and requested amendments (refer **Attachment 6**). For those provisions which it opposes, Harvey Norman considers that the requested amendments will better promote the purpose and principles of the Resource Management Act 1991 ("RMA").
13. Harvey Norman reserves the right to revise its position in response to other submissions or changes to the notified provisions.
14. Harvey Norman confirms that it:
 - a. could not gain an advantage in trade competition through this submission;
 - b. wishes to be heard in support of this submission; and
 - c. would consider presenting a joint case with any other party seeking similar relief.
15. Harvey Norman agrees to participate in mediation or other alternative dispute resolution, and would be pleased to discuss the content of this submission with Council staff, as required.



Michael Treacy

On behalf of Harvey Norman Properties (N.Z.) Limited

Date: 13 December 2022

Address for Service: Harvey Norman Properties (N.Z.) Limited
C/- Haines Planning Consultants Limited
PO Box 90842, Victoria Street West
AUCKLAND 1142

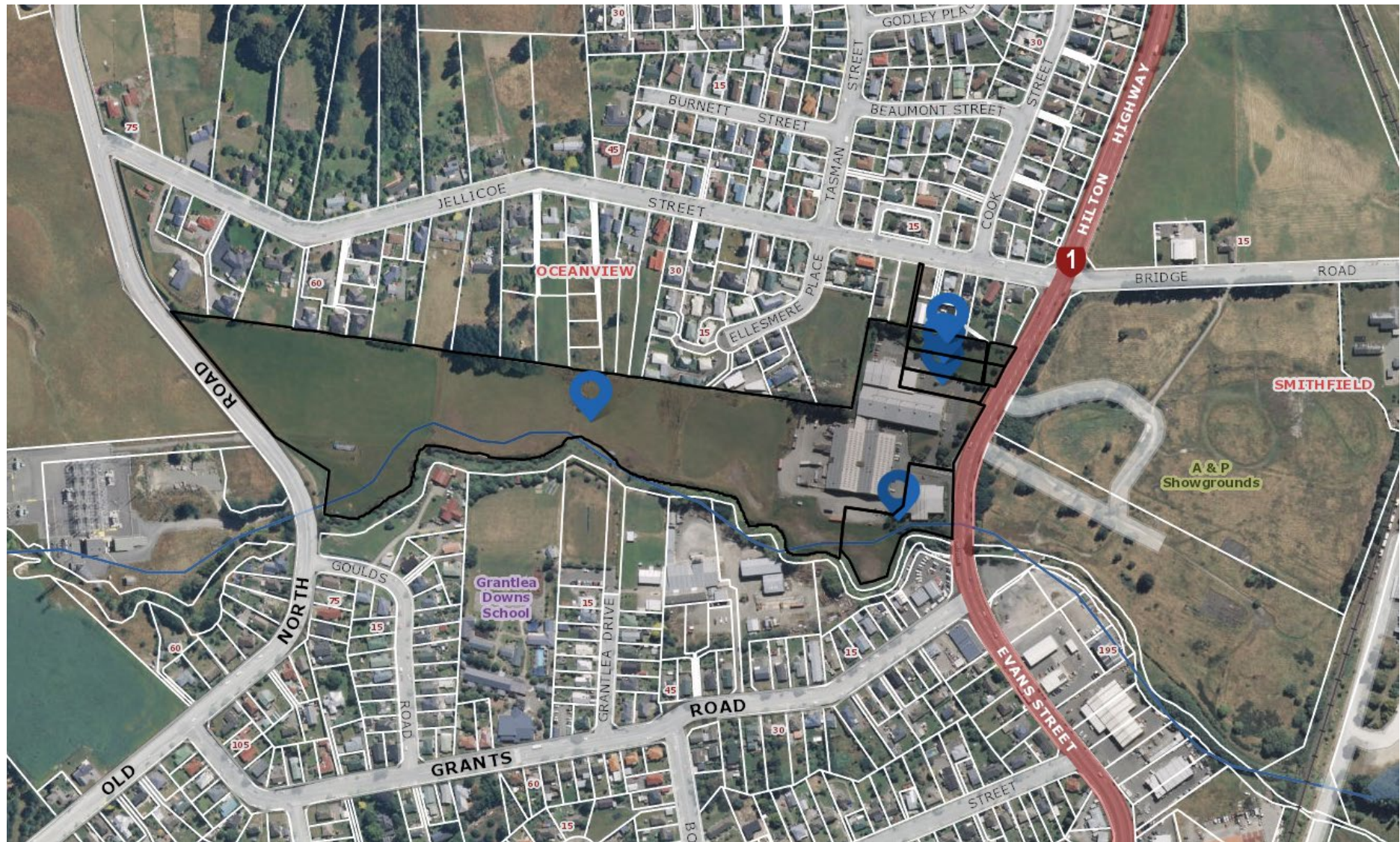
Attention: Michael Treacy

Telephone: (09) 883 2031

Email: michael.treacy@hainesplanning.co.nz

■ **Attachment 1**

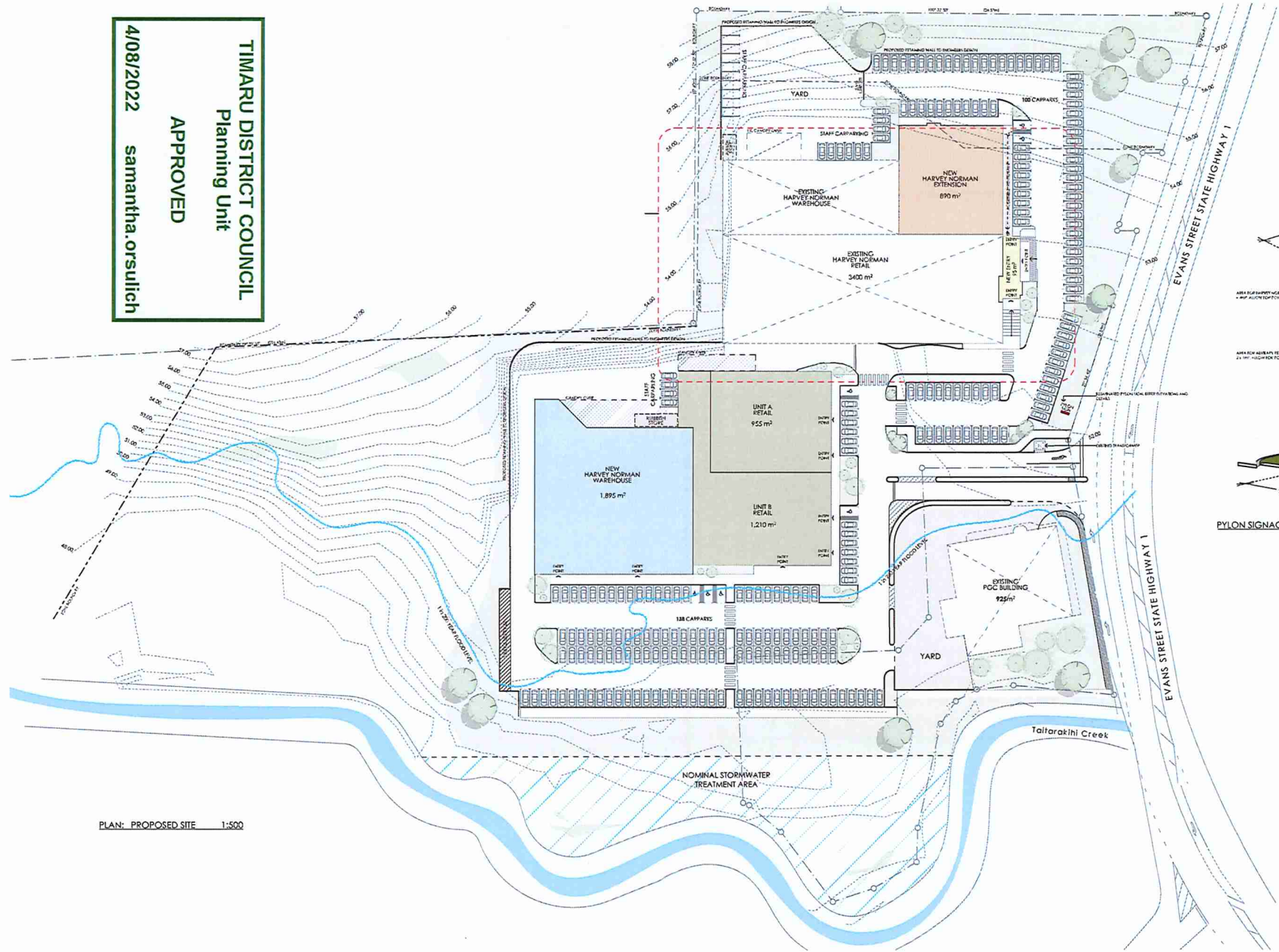
Site Location



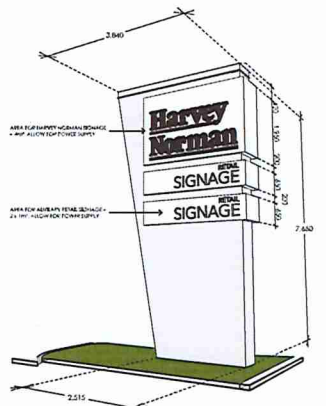
■ **Attachment 2**

Approved Site Plan

TIMARU DISTRICT COUNCIL
 Planning Unit
APPROVED
 4/08/2022 samantha.orsulich



PLAN: PROPOSED SITE 1:500



PYLON SIGNAGE 1:50



LOT 1 DP 55789, LOT 2 DP 55789
 LOT 1 DP 22842, LOT 3 DP 6986, LOT 4 DP 6986
 SH - EVANS STREET, TIMARU,
 SOUTH CANTERBURY

SITE AREA: 119,275 m²

EXISTING HARVEY NORMAN RETAIL: 3,400 m²
 NEW HARVEY NORMAN RETAIL: 890 m²
 NEW HARVEY NORMAN ENTRY: 95 m²

TOTAL HARVEY NORMAN RETAIL: 4,385 m²

NEW WAREHOUSE: 1,895 m²

AUXILIARY TENANCIES:
 UNIT A: 955 m²
 UNIT B: 1,210 m²

EXISTING PGC BUILDING: 925 m²

TOTAL PROPOSED GFA: 9,370 m²

PROPOSED VISITOR CAR PARKS: 238
 PROPOSED STAFF CAR PARKS: 24

TOTAL CAR PARKS: 262

PLAN TO BE READ IN CONJUNCTION WITH STANTEC TRANSPORTATION REPORT

RMA ISSUE

NO.	REV.	DATE	DESCRIPTION

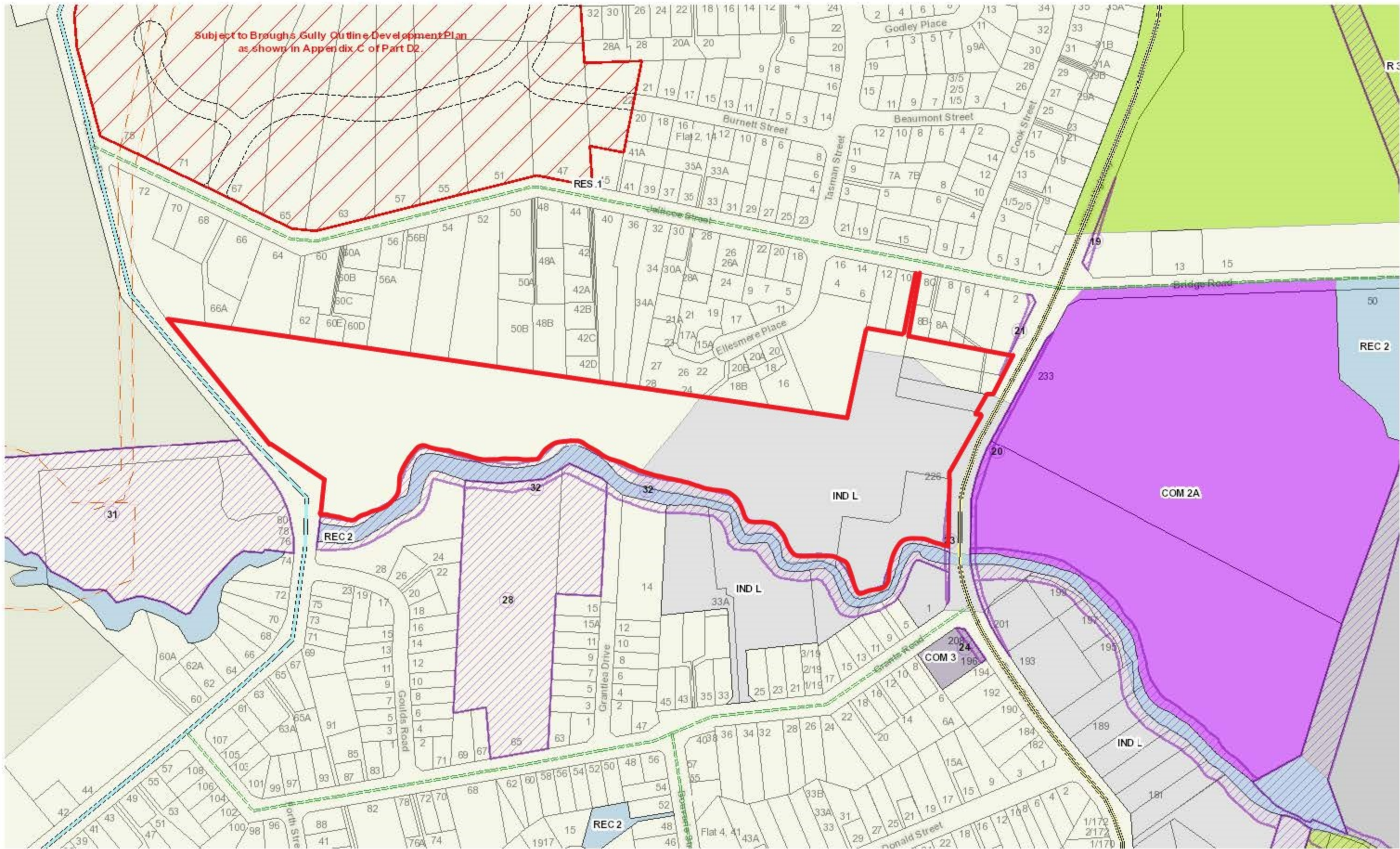


PROJECT NAME		DATE		SCALE	
RMA DEVELOPMENT		HARVEY NORMAN TIMARU		PROPOSED SITE PLAN	
PROJECT NO.	RESOURCE CONSENT	DATE	STATUS	SCALE	REVISION

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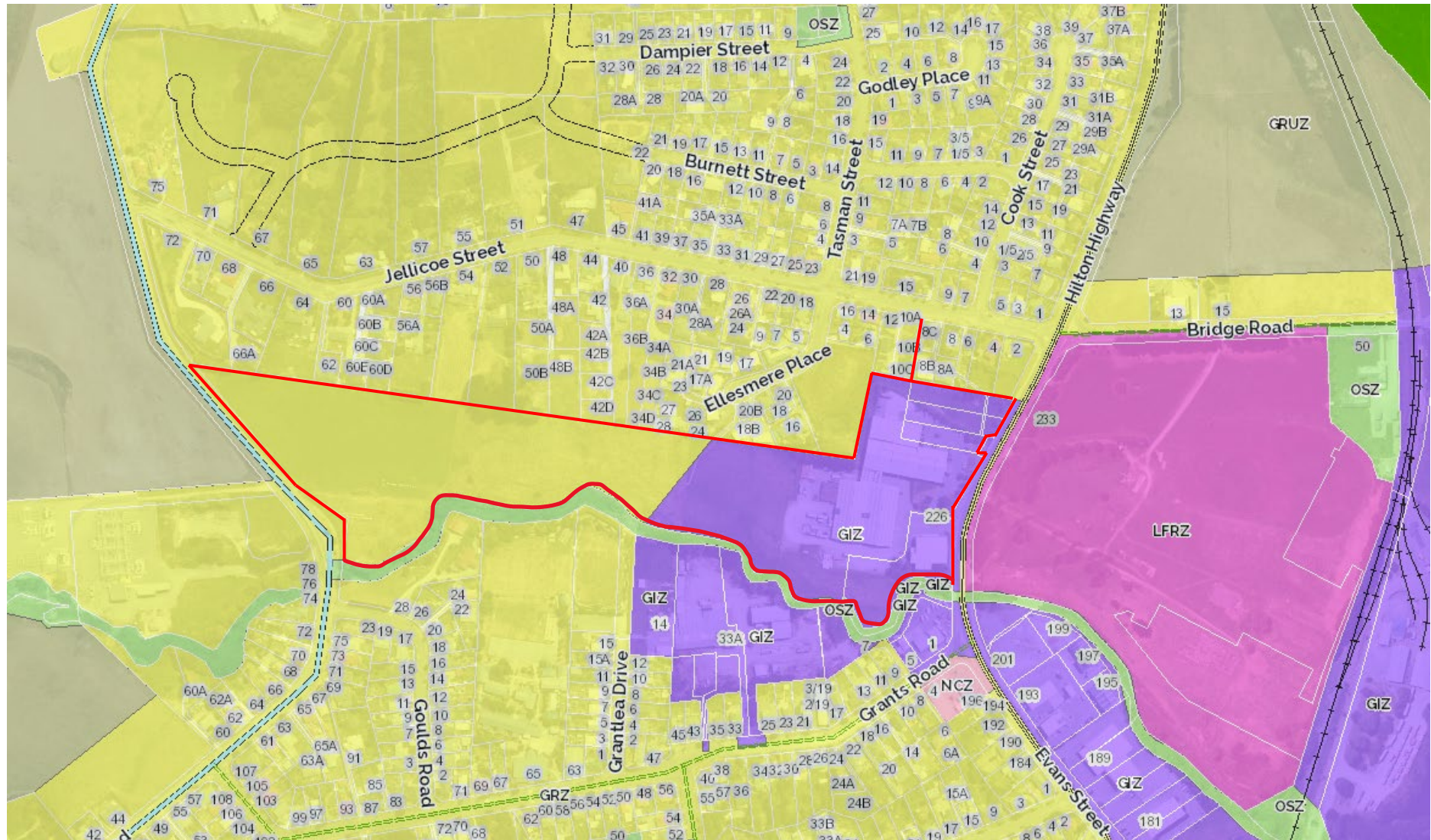
■ **Attachment 3**

Operative District Plan Zoning



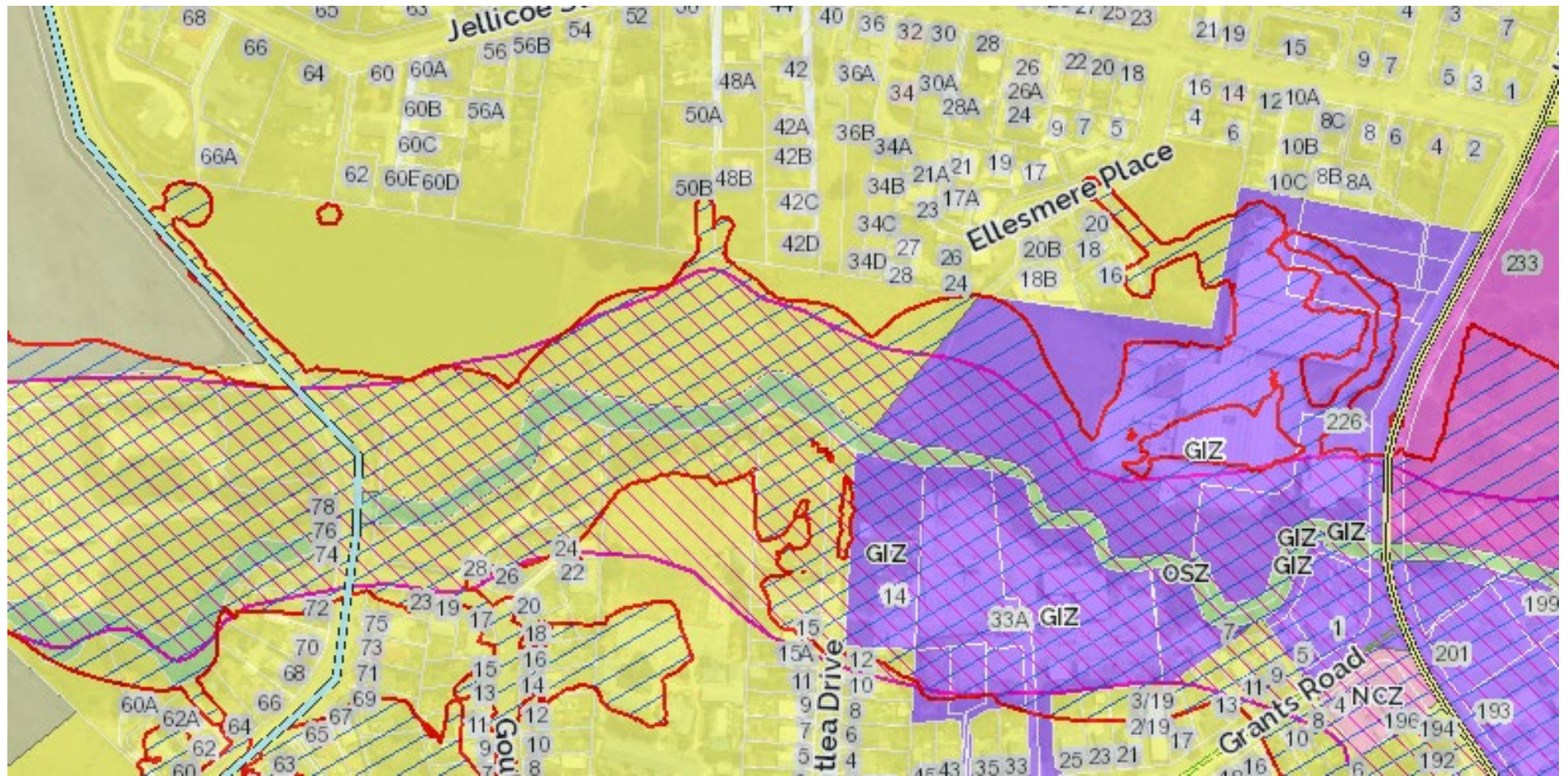
■ **Attachment 4**

Proposed District Plan Zoning



■ **Attachment 5**

Proposed District Plan
Overlays



Flood Assessment Area

Liquefaction Areas



■ **Attachment 6**

Submissions Points Table

Specific Submission Points

#	Provision	Support/ Oppose	Reasons	Relief sought
Planning Maps				
1.	General Industrial Zone ("GIZ") within the eastern portion of the Site at 226 Evans Street.	Oppose	<p>The eastern portion of the Site presently contains a Harvey Norman large format retail store, PGG Wrightson (an agricultural supply business) and a transport depot. Harvey Norman also has an existing consent to expand their existing store and redevelop the transport depot to accommodate two retail tenancies, each with a GFA of approximately 1,000m² GFA.</p> <p>The GIZ is applied to areas of the District that primarily contain industrial activities. The Large Format Retail Zone ("LFRZ") provides for retail activities that require larger floor or yard areas. Retail and commercial use of this part of the Site is therefore likely to continue throughout and beyond the life of the new plan. That being the base, it is both desirable, from a plan administration perspective, and logical for this part of the Site to be re-zoned to a Commercial zoning to better reflect its current consented and likely future uses.</p> <p>A LFR zone would recognise, and align with, the existing and future activities on the Site.</p>	Rezone the eastern portion of the Site to LFRZ. The extent of the sought LFR zone is illustrated in Annexure 1 to this table.
2.	General Residential Zone ("GRZ") within the western portion of the Site at 226 Evans Street.	Support in Part	The GRZ zone is appropriate within the western portion of the Site. However, an extension of this zone further eastward would further recognise the existing and resource consented environment, and provide for residential activities.	Locate the GRZ zone further eastward to align with the consented extent of the Harvey Norman Warehouse (refer to Annexure 1). It is recommended that the new boundary line should extend up to within 5m of the consented 'boundary' line to provide opportunity for amenity buffer planting between the two zones.

#	Provision	Support/ Oppose	Reasons	Relief sought
3.	LFRZ of the former A & P Showgrounds site (233 Evans Street) located on the opposite side of Evans Street.	Support	This zone is appropriate for the intended future development of this property.	Retain as notified.
4.	Flood Assessment Area	Oppose	The approach taken to map known natural hazard risks is supported, however, the extent of the Flood Assessment Area extends further across the Site than required. This does not take into account the construction of culvert upgrades at State Highway 1 and the addition of three culverts (proposed and soon to be built) at the Main North railway line.	Reduce the extent of the Flood Assessment Area. Harvey Norman has engaged PDP Consultants to undertake a site-specific flood assessment which more accurately demonstrates the extent of the Site that will be impacted by a 1 in 200 year (0.5% AEP flood event). This assessment is included as Annexure 2 and includes a site plan of the flood extent (figure A4 within the report). The Flood Assessment Area overlay should reflect this flood extent.
5.	Extent of Public Access Provision	Support in part	The Open Space zone over the Taitarakahi Creek is supported, as is the inclusion of the Public Access Provision within this. However, the public access needs to be contained within the Open Space Zone.	Realign the public access provision to be fully contained within the Open Space zone.
Part 1: Introduction and General Provisions (Definitions)				
6.	Definition – Commercial Activity means any activity trading in goods, equipment or services. It includes any ancillary activity to the commercial activity (for example administrative or head offices).	Support	This definition is clear and appropriate.	Retain as notified.
7.	Definition – Flood Assessment Area means areas that are highly likely to be subject to flooding and inundation but which require site specific assessment to determine the level of risk to people and property.	Support	This definition is clear and appropriate.	Retain as notified.
8.	Definition - Large Format Retail Activities means any individual retail tenancy with a GFA greater than 450 square metres.	Support	This definition is clear and consistent with the industry standard.	Retain as notified.

#	Provision	Support/ Oppose	Reasons	Relief sought
9.	Definition - Retail activity means any activity that involves the display or offer for sale or hire to the public of goods, merchandise or equipment and any ancillary work rooms. It includes general retail, large format retail, and trade and yard based retail, but excludes service stations.	Support	This definition is clear and appropriate.	Retain as notified.
10.	Definition - Trade supplier means a retail activity that involves the sale of wholesale goods to businesses, as well as limited retail sales to the general public, which fall into the following categories: <ul style="list-style-type: none"> a. automotive and marine suppliers; b. building suppliers; c. catering equipment suppliers; d. farming and agricultural suppliers; e. garden and patio suppliers; f. hire premises (except hire or loan of books, video, DVD and other similar home entertainment items); g. industrial clothing and safety equipment suppliers; h. landscape suppliers; and i. office furniture, equipment and systems suppliers. 	Support	This definition is clear and appropriate.	Retain as notified.
11.	Add new Definition – Drive-through restaurant		There is presently no definition for drive-through restaurant in the Proposed Plan and it would currently be captured under the definition of food and beverage activity. A specific definition is sought for this activity as it is considered to be one that is appropriate in the LFRZ, but it needs to be defined separately from the other food and beverage activities that are not considered suitable within this zone.	Include a definition for Drive-through restaurant as follows: <i>“ Any land and/or building on or in which food and beverages are prepared, served and sold to the public inclusive of a facility designed to serve customers in their vehicles, for the consumption on or off the premises and may include an</i>

#	Provision	Support/ Oppose	Reasons	Relief sought
				<i>ancillary cafe and/or playground area".</i>
Part 2: District-Wide Matters (including Strategic Direction, Energy, Infrastructure and Transport, Hazards and Risks, Historical and Cultural Values, Natural Environment Values, Subdivision, General District-Wide Matters)				
Strategic Direction				
12.	SD-07 Centres The District's city and town centres: <ol style="list-style-type: none"> i. are maintained and enhanced as vibrant, attractive community focal points, providing a high level of amenity and opportunities for social interaction; ii. are the primary focus for retail, office and other commercial activity; iii. provide for the highest density of business, residential and visitor accommodation, and for intensification opportunities. 	Support in part	Generally support this objective and the recognition that out-of-town-centre development can reduce the viability of the centre. In the case of Timaru it has been established through the Operative District Plan by way of Environment Court Consent Order that LFR activities (subject to certain conditions) will enable the people and communities of the District to provide for their social, economic and cultural well being in a way and at a rate that complements the Timaru CBD. Therefore, the commercial LFRZ "hub" at Showgrounds Hill needs to be suitably recognised in the Proposed District Plan as a focus for complementary retail and commercial activity. The currently worded objective does not focus on the proposed LFRZ and should be re-worded accordingly.	Amend the objective to reflect the commercial 'LFR' zone and its ability to function as a complementary hub for retail and commercial activity within the Timaru urban area.
NH – Natural Hazards				
13.	Standard NH-S1 Flood Risk Certificate Flood Assessment Areas Overlay <ol style="list-style-type: none"> 1. A Flood Risk Certificate is issued by Council (that is valid for 3 years from the date of issue) which specifies: <ol style="list-style-type: none"> a. the flood event risk level for specific land, being: <ol style="list-style-type: none"> i. land not subject to flooding in a 0.5% AEP flood event, or ii. land subject to flooding in a 0.5% AEP flood event, or iii. land within a High Hazard area; iv. or for sea water inundation, land subject to flooding in a 1% AEP storm 	Support in part	The requirement to obtain a Flood Risk Certificate if natural hazard sensitive activities, earthworks, or a subdivision is proposed in a Flood Assessment Area is supported. However, the process to apply for, and obtain, the Flood Risk Certificate is unclear. In particular, what are the timeframes for getting this approved and what information would the council need from the applicant? What is the assessment process that the Council goes through? Would failure to receive the Certificate make a subdivision application a non-complying activity under Rule NH-R8?	Amend the proposed provisions to clarify the process of applying for and obtaining a Flood Risk Certificate.

#	Provision	Support/ Oppose	Reasons	Relief sought
	<p>surge event, coupled with sea level rise based on an Representative Concentration Pathway 8.5 climate change scenario; and</p> <p>b. where 1(a)(ii) above identifies that the specific land is subject to flooding in a 0.5% AEP rainfall event, the minimum finished floor level for any new building or structure (or part thereof) on the specific land to provide at least 250mm freeboard above the flood level in a 0.5% AEP flood event; and</p> <p>c. whether the specific land is located within an overland flow path.</p> <p>2. The AEP flood event risk level, minimum floor levels, stopbank risk and overland flow path locations are to be determined by reference to:</p> <p>a. The most up to date models, maps and data held by Timaru District Council and Canterbury Regional Council; and</p> <p>b. Any information held by, or provided to, Timaru District Council or Canterbury Regional Council that relates to flood risk for the specific land.</p>			
	<i>SUB - Subdivision</i>			
14.	<p>SUB-R3 Subdivision not listed in SUB-R1 and SUB-R2 Activity status: Restricted Discretionary Where: RDIS-1 SUB-S2 – SUB-S7 are complied with; and RDIS-2 SUB-S1 is complied with (otherwise non-complying).</p>	Support	Agree with the reasons set out in the s32 evaluation.	Retain as notified
15.	SUB-S1 Allotment sizes and dimensions	Support	Agree with the reasons set out in the s32 evaluation.	Retain as notified

#	Provision	Support/ Oppose	Reasons	Relief sought
	<ol style="list-style-type: none"> 1. Allotments must have a minimum net site area of 450m² in area; and 2. allotments must have a minimum dimension that can accommodate a circle with a 15m diameter, clear of any vehicle access, surface water body or boundary setback 			
16.	<p>SUB-S8 Esplanade reserves and strips</p> <ol style="list-style-type: none"> 1. Where land is subdivided adjoining the coast, or any river listed in SCHED-12 – Esplanade Provisions , unless otherwise specified in the schedule, an esplanade reserve, esplanade strip or access strip (at Council’s discretion) must be provided along the margins of the coast/river, with a minimum width of: <ol style="list-style-type: none"> a. 5m where an allotment(s) of 4ha or more is created; b. 10m where an allotment(s) of less than 4ha is created; 	Support	Agree with the reasons set out in the s32 evaluation.	Retain as notified.
Part 3: Area Specific Matters (including Large Format and General Industrial Zones)				
17.	<p>LFRZ – Large Format Retail Zone Introduction</p> <p>The Large Format Retail Zone is applied to the former A & P Showgrounds site, located in the north-east of Timaru township. This zone provides for retail activities that require larger floor or yard areas. This recognises the difficulties associated with locating this type of development in other commercial centres within the District, which primarily focus on smaller-scale retail and convenience activities. While the zone is intended to support and complement the overall retail offering of the District, the nature and timing of development within the zone needs to be managed carefully to avoid undermining the purpose, function and amenity values of the City Centre Zone.</p>	Support in Part	The Zone is currently only applied to one site in Timaru, being the former A&P Showgrounds site, and the introduction reflects this. It is submitted that the Harvey Norman Site should also be LFRZ. The site-specific reference for the zone should therefore be amended to reflect the already consented / established LFR activities on the Harvey Norman site.	Include the Harvey Norman Site (226 Evans Street) within the text of the LFRZ Introduction, or remove the site-specific reference.
	Objectives			

#	Provision	Support/ Oppose	Reasons	Relief sought
18.	<p>LFRZ-O1: Purpose of the LFRZ</p> <p>The Large Format Retail Zone primarily provides for large format retail, trade suppliers and other ancillary activities that support these large scale retail activities, which are developed in a way that:</p> <ol style="list-style-type: none"> 1. are of a size and scale that do not undermine the purpose, function and amenity values of the City Centre Zone; and 2. is undertaken in a comprehensive manner and avoids significant adverse effects on infrastructure. 	Support	Agree with the reasons set out in the s32 evaluation.	Retain as notified.
19.	<p>LFRZ-O2: Character and qualities of the LFRZ</p> <p>The Large Format Retail Zone:</p> <ol style="list-style-type: none"> 1. accommodates large numbers of people, high traffic movements and requires large car-parking areas; and 2. is well integrated with public transport, walking and cycling connections; and 3. contains buildings that have large gross floor areas; and 4. is developed in accordance with good urban design principles, while recognising the functional needs of activities; and 5. enhances the amenity, biodiversity and cultural values within and adjacent to Taitarakahi Creek as well as its flood-carrying capacity. 	Support	Agree with the reasons set out in the s32 evaluation.	Retain as notified.
	Policies			
20.	<p>LFRZ-P1: Large format retail and trade suppliers</p> <p>Enable large format retail, trade suppliers and ancillary activities that ensure that Timaru remains the district's key retail and commercial centre, while avoiding the establishment of retail activities that, due to their timing, nature or scale, could undermine the purpose, function or amenity values of the City Centre Zone.</p>	Support	Agree with the reasons set out in the s32 evaluation.	Retain as notified.

#	Provision	Support/ Oppose	Reasons	Relief sought
21.	<p>LFRZ-P2 Scale and location of built form</p> <p>Maintain the amenity values of the surrounding area and adjoining sites, by requiring:</p> <ol style="list-style-type: none"> 1. buildings to be setback from road boundaries, to reduce the visual effects of the bulk of buildings within the zone; and 2. buildings to be setback from the boundary of PREC5 - Te Aitarakihi precinct, to: <ol style="list-style-type: none"> a. minimise any dominance effects arising from the location and bulk of buildings; and b. minimise any adverse privacy effects on the adjacent sites. 3. development to be consistent with the APP9 - Large format retail design guidelines. 	Support	Agree with the reasons set out in the s32 evaluation.	Retain as notified.
22.	<p>LFRZ-P3 Effects on values of Taitarakihi Creek</p> <p>Maintain and enhance the amenity, biodiversity and cultural values associated with Taitarakihi Creek, and its capacity as a floodway.</p>	Support	Agree with the reasons set out in the s32 evaluation.	Retain as notified.
23.	<p>LFRZ-P4 Pre-development conditions – Roading and fencing</p> <p>Avoid land-use activities being open for business and available to the public within the Large Format Retail Zone, prior to:</p> <ol style="list-style-type: none"> 1. the construction and operation of a signalized intersection at Grants Road and State Highway 1; and 2. the zone being fenced along the rail corridor in a manner that deters trespassers. 	Oppose	This policy is site-specific and should not apply to the extended LFRZ sought for the Harvey Norman Site.	If this policy is to be retained, it needs to specifically reference the A&P showgrounds site. Otherwise delete this provision, which seems unnecessary insofar as it reads like a resource consent condition.
24.	<p>LFRZ-P5 Other retail activities and staging of large format retail</p> <p>Avoid the development of:</p> <ol style="list-style-type: none"> 1. restaurants; and 2. any commercial activity (excluding large format retail) that is not ancillary to the primary large format retail activity; and 	Support in part	As detailed within this submission, staging thresholds are unnecessary with respect to the rezoning of the Harvey Norman Site as LFRZ.	Add the following words at the end of point (3), “within the A&P showgrounds site”.

#	Provision	Support/ Oppose	Reasons	Relief sought
	<p>3. retail activities that do not comply with the staging thresholds,</p> <p>unless the activity, either individually or cumulatively, will not undermine the purpose, function and amenity values of the City Centre Zone.</p>			
25.	<p>LFRZ-P6 Other activities Only allow other activities to establish and operate within the Large Format Retail Zone where they:</p> <ol style="list-style-type: none"> 1. are compatible with the purpose, character and qualities of the zone; and 2. are of a scale or nature that would not undermine the purpose, function and amenity values of the City Centre Zone; 3. ensure that the Timaru City Centre remains the focal point for commercial activities. 	Support	Agree with the reasons set out in the s32 evaluation.	Retain as notified.
	Rules			
26.	<p>LFRZ-R1 Large format retail Activity status: Permitted Where: PER-1: LFRZ-S4 is complied with; (otherwise RDA) PER-2: LFRZ- S5 and LFRZ-S6 is complied with (otherwise NC).</p>	Support in part	The permitted activity status of large format retail activities is supported. However, as noted below, Standards LFRZ-S5 and LFRZ-S6 are opposed. The permitted activity status of large format retail activities should not be subject to these Standards in their currently drafted form.	<p>Delete PER-2 or make it site-specific to the A&P Showgrounds site, to read as follows:</p> <p>"PER-2: LFRZ- S5 and LFRZ-S6 is complied with <i>at the A&P showgrounds site</i>".</p>
27.	<p>LFRZ-R2 Trade Supplier Activity status: Permitted Where: PER-1: LFRZ-S4 is complied with; (otherwise RDA) and PER-2: LFRZ- S5 and LFRZ-S6 is complied with (otherwise NC).</p> <p><i>Note: any associated building and structure must be constructed in accordance with LFR-R9 .</i></p>	Support in part	The permitted activity status of Trade Supplier activities is supported. However, as noted below, Standards LFRZ-S5 and LFRZ-S6 are opposed. The permitted activity status of Trade Suppliers should not be subject to these Standards in their currently drafted form.	<p>Delete PER-2 or make it site-specific to the A&P Showgrounds site, to read as follows:</p> <p>"PER-2: LFRZ- S5 and LFRZ-S6 is complied with <i>at the A&P showgrounds site</i>".</p>

#	Provision	Support/ Oppose	Reasons	Relief sought
28.	<p>LFRZ-R5 Offices Activity status: Permitted Where: PER-1: Any ancillary office must:</p> <ol style="list-style-type: none"> 1. occupy no more than 15% of the combined gross floor area of buildings on the site, or 2. for yard-based activities be no larger than 250m²; and (otherwise D) <p>PER-2: The office is ancillary to a permitted activity; and PER-3: LFRZ-S4 is complied with; and PER-4: LFRZ- S5 and LFRZ-S6 is complied with.</p> <p>Activity status where compliance not achieved with PER-3: Restricted Discretionary Activity status where compliance not achieved with PER-1: Discretionary Activity status where compliance not achieved with PER-3 or PER-4: Non-complying</p>	Support in part	<p>There is a drafting error whereby non-compliance with PER-3 is identified as both a restricted discretionary and non-complying activity.</p> <p>The permitted activity status of Offices is supported. However, as noted below, Standards LFRZ-S5 and LFRZ-S6 are opposed. The permitted activity status of Offices should not be subject to these Standards in their currently drafted form.</p>	<p>The activity status for non-compliance with PER-3 should be restricted discretionary based on the drafting of LFRZ-S4, which sets out the matters of discretion. The reference to non-complying should be for PER-2 which would be supported.</p> <p>Delete PER-4 or make it site-specific to the A&P Showgrounds site, to read as follows: “PER-4: LFRZ- S5 and LFRZ-S6 is complied with <i>at the A&P showgrounds site</i>”.</p>
29.	<p>LFRZ-R6 Cafes Activity status: Permitted Where: PER-1: Any café does not exceed 150m² in gross floor area; (otherwise NC) and PER-2: There are not more than two cafes located within the zone; (otherwise NC) and PER-3: LFRZ-S4 is complied with; (otherwise RDA) and PER-4: LFRZ- S5 and LFRZ-S6 is complied with (otherwise NC).</p>	Support in part	<p>Zoning of the Harvey Norman Site as LFR increases the area of land that could possibly contain a café. It is also separated from the A&P showgrounds site by Evans Street (SH1).</p> <p>The permitted activity status of Cafes is supported. However, as noted below, Standards LFRZ-S5 and LFRZ-S6 are opposed. The permitted activity status of Cafes should not be subject to these Standards in their currently drafted form.</p>	<p>Increase the number of cafes by one in the LFRZ on the western side of Evans Street (SH1) and requested by the submitter to reflect the increase in land area that is LFRZ.</p> <p>Delete PER-4 or make it site-specific to the A&P Showgrounds site, to read as follows: “PER-4: LFRZ- S5 and LFRZ-S6 is complied with <i>at the A&P showgrounds site</i>”.</p>

#	Provision	Support/ Oppose	Reasons	Relief sought
30.	Add new Permitted Activity: Drive-through restaurants		<p>Drive-through restaurants are a commercial activity not specified in the LFRZ chapter and would therefore be assessed as a non-complying activity under Rule LFRZ-R12.</p> <p>A drive-through restaurant would be an appropriate activity within the proposed LFRZ on the western side of Evans Street (SH1) as it would complement the large format retail activities and would not detract from the function or vitality of the town centre. The Harvey Norman site is ideally located to contain a drive-through restaurant given its location on an arterial road and with easy vehicle access.</p>	Add new permitted activity rule for drive-through restaurants to be provided for on the western side of Evans Street (SH1) within the proposed LFRZ requested by the submitter.
31.	Add new permitted activity: Service Stations		<p>Service stations are a commercial activity not specified in the LFRZ chapter and would therefore be assessed as a non-complying activity under Rule LFRZ-R12.</p> <p>A service station would be an appropriate activity within the proposed LFRZ on the western side of Evans Street (SH1) as it would complement the large format retail activities and would not detract from the function or vitality of the town centre. The Harvey Norman site is ideally located to contain a service station given its location on an arterial road and with easy vehicle access.</p>	Add new permitted activity rule for service stations to be provided for on the western side of Evans Street (SH1) within the LFRZ requested by the submitter.
32.	LFRZ-R9 Buildings and Structures Activity status: Restricted Discretionary Where: RDIS-1: The building or structure is associated with or ancillary to a permitted activity; and RDIS-2: LFRZ-S1, LFRZ-S2 and LFRZ-S4 are complied with; and RDIS-3: LFRZ-S3 and LFRZ-S5 are complied with (otherwise NC).	Support in part	The restricted discretionary activity status for buildings is supported. However, as noted below, Standard LFRZ-S5 is opposed. The restricted discretionary activity status of buildings should not be subject to this Standard in its currently drafted form.	Amend RDIS-3 by removing the reference to LFRZ-S5, as this Standard is specific to the A&P Showgrounds site.

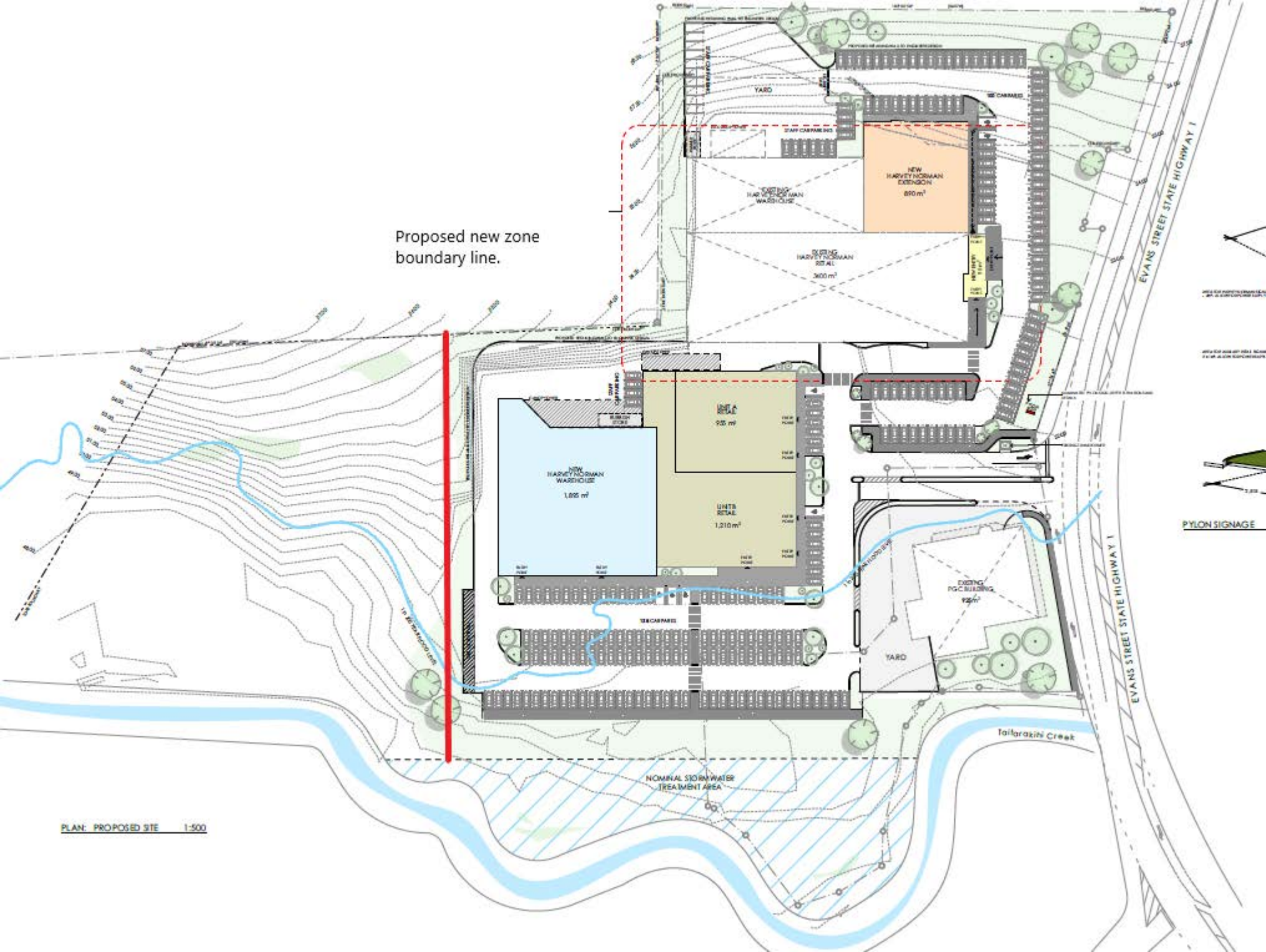
#	Provision	Support/ Oppose	Reasons	Relief sought
33.	LRRZ-R10 Commercial activities not otherwise specified in this chapter Activity status: Non-complying	Support	Agree with the reasons set out in the s32 evaluation.	Retain as notified.
	Standards			
34.	LFRZ-S1 Height of buildings and structures Buildings and structures including additions and alterations to buildings and structures must not exceed a maximum height of 10m measured from existing ground level.	Support	The proposed Standard is considered reasonable.	Retain as notified.
35.	LFRZ-S2 Height in relation to boundary Buildings and structures must be contained within a building envelope defined by recession planes from points 2.5m above ground level at the boundaries of the site when the site boundary adjoins an Open space and Recreation Zone or a Residential Zone. The method for determining recession planes and any permitted projection is described in APP8 – Recession Planes.	Support	The proposed Standard is considered reasonable.	Retain as notified.
36.	LFRZ-S3 Setbacks Any building must be setback a minimum of 5m from the road boundary, or from the boundary of any designation that is for the purpose of road widening. Activity status where compliance not achieved: Non-complying	Support	The proposed Standard is considered reasonable.	Retain as notified.
37.	LFRZ-S4 Goods Storage Any outdoor storage areas, except for the display of goods for retail sale, must be fully screened by a fence of not less than 2m in height so that it is not visible from adjoining sites and roads.	Support	The proposed Standard is considered reasonable.	Retain as notified.
38.	LFRZ-S5 Development staging thresholds	Oppose in part	This Standard is specific to the A&P Showgrounds site and does not reflect the consent that has been granted on the	If this standard is to remain, it needs to be re-worded to be

#	Provision	Support/ Oppose	Reasons	Relief sought
	<ol style="list-style-type: none"> 1. Development open to the public prior to 1 July 2028 must not in aggregate exceed 10,000m² of gross floor area for all retail activities, excluding trade suppliers; and 2. Development open to the public prior to 1 July 2033 must not in aggregate exceed 15,000m² of gross floor area for all retail activities, excluding trade suppliers; and 3. Development open to the public prior to 1 July 2038 must not in aggregate exceed 20,000m² of gross floor area for all retail activities, excluding trade suppliers; and 4. Development open to the public after 1 July 2038 must not in aggregate exceed 34,000m² of gross floor area for all retail activities, excluding trade suppliers <p>Activity status where compliance not achieved: Non-complying</p>		Harvey Norman Site for three retail units. The rationale for staging of the A&P showgrounds site is supported, but the Harvey Norman Site should not be captured by it.	specific to the A&P Showgrounds site only.
39.	<p>LFRZ-S6 Opening of business Land use activity must not open for business prior to:</p> <ol style="list-style-type: none"> 1. the Grants Road/State Highway 1 signalised intersection to the site being constructed and operational; or 2. a fence of not less than 1.8m in height being building along the boundary of the site where it abuts the rail corridor <p>Activity status where compliance not achieved: Non-complying</p>	Oppose	This Standard is specific to the A&P Showgrounds site and is unnecessary with respect to the LFRZ rezoning request for the Harvey Norman Site. Refer comments in 22 above.	If this standard is to remain, it needs to be re-worded to be specific to the A&P Showgrounds site and should not apply to the subject Site.
Part 4: Appendices and Schedules				
40.	APP9 – Large Format Retail Design Guidelines			
41.	1. Buildings should have active frontages to public parking areas and streets with entrance and window elements	Support in part	This guideline seems more appropriate for small retail shops, not LFR buildings and showrooms which are	Amend the guideline as follows:

#	Provision	Support/ Oppose	Reasons	Relief sought
	forming at least 50% of the surface area of any ground floor building façade. The height of window elements should relate to pedestrian scale.		generally taller. Providing the proposed extent of window elements is therefore not practical or feasible. The amount of glazing required should reflect the scale and nature of LFR buildings.	1. Buildings should have active frontages to public parking areas and streets with entrance and window elements forming at least 50% of the surface area of any ground floor building façade measured from a point 3m below the roofline...
42.	6. Where visible from the street and/or reserve, concrete panelling is to include some detail relief, patterned or other.	Support in part	Need to specify that this provision relates to visibility from public streets and reserves.	Amend the guideline as follows: 6. Where visible from the a public street and/or reserve...
43.	9. All buildings should be constructed from the following: a. Glass b. Composite aluminium cladding c. Blockwork, in a stacked or decorative pattern with architectural character d. Concrete panel, where taken full height must show some form of simple relief to break up the edifice e. Colour steel, zincalume or trapezoidal wall claddings to warehouse/workshop walls only, above the 2m dado height only f. Ceramic or porcelain tile g. Solid plaster work h. Folded metal proprietary cladding i. Stone j. Decorative finishes such as louvers, etc.	Support in part	There is no mention of timber or cross laminated timber (CLT). This material should be included.	Amend the guideline by adding in another sub-point (k): Timber and / or cross laminated timber.
44.	11. All paving should be of the following materials: a. Cobblestone type paving b. Asphalt c. Concrete with the aggregate exposed d. Concrete, with or without trowel or broom finish to yard areas only e. Ceramic or porcelain tiles at pedestrian entranceways, etc.	Support in part	Concrete, with or without trowel or broom finish should not be limited to yard areas as it is also appropriate for footpaths and driveways.	Amend clause (d) as follows: d. Concrete, with or without trowel or broom finish to yard areas only.

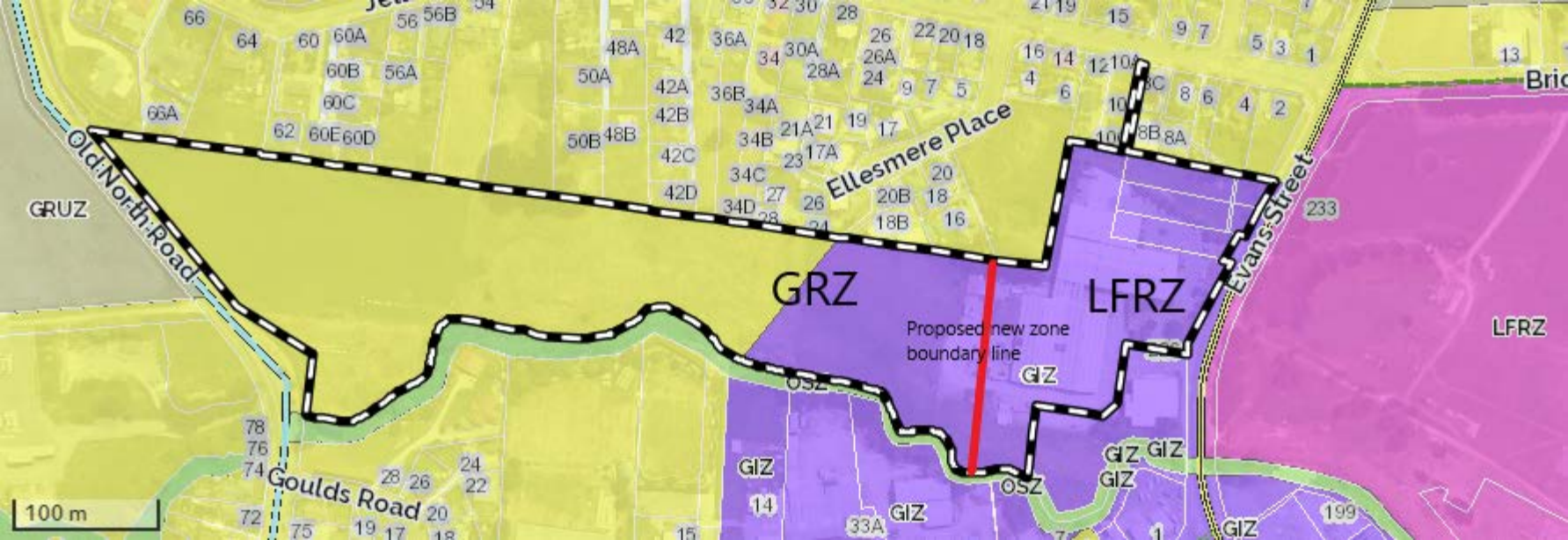
■ **Annexure 1**

Proposed Rezoning Plans



Proposed new zone boundary line.

PYLON SIGNAGE



■ **Annexure 2**

Flood Assessment



9 December 2022

❖ Doug Murray
Harvey Norman
Supa Centa, Ronwood Ave
Manukau 2104
AUCKLAND 1010

TIMARU DISTRICT COUNCIL FLOOD ASSESSMENT AREAS

1.0 Introduction

Pattle Delamore Partners (PDP) has been engaged by Harvey Norman to review the background information that Timaru District Council (TDC) have used to define the “flood assessment areas” identified by the proposed district plan. Further, PDP has been engaged to delineate the flood hazard area for the Harvey Norman site, located adjacent to Taitarakihi Creek using the most recently available PDP model results (updated August 2022¹), details of which, are available in our earlier report “Flooding Effects – Harvey Norman Site (Timaru)”. The site location is presented in Figure A1, Appendix A.

All vertical elevations referenced in this report (unless otherwise specified) are relative to the Lyttelton Vertical Datum 1937.

2.0 Flood assessment area

The delineated flood assessment areas are provided in the online maps and via the TDC REST server². The proposed district plan³ defines a flood assessment area as:

“means areas that are highly likely to be subject to flooding and inundation but which require site specific assessment to determine the level of risk to people and property.”

The flood assessment area for the Taitarakihi Creek catchment is presented in Figure A2, Appendix A. There are a number of reports and sources which have been reviewed to identify the basis for this delineation including:

- ❖ Washdyke & Taitarakihi Creek Flood Plain Management (ECan 1998). This report is referenced in the metadata of the flood assessment area. This report was prepared by R J Connell and provides a predicted 500YR flood extent for the Taitarakihi Creek (reproduced in Figure A3, Appendix A). Flood elevations of approximately 5.25 m are predicted from the railway to the state highway bridge and the eastern half of the Harvey Norman site. It is noted that this extent is significantly less than the flood assessment areas presented by TDC and therefore it appears not much weight was given to this report;

¹ PDP (August 2022): Flooding Effects – Harvey Norman Site (Timaru)

² https://gis.timaru.govt.nz/arcgis/rest/services/Public/Stormwater_Discharge_Application/MapServer/4

³ <https://timaru.isoplan.co.nz/> as at 2/12/2022



- ∴ A number of background and assessment reports are provided on the proposed district plan website. For natural hazards, a total of nine reports are provided but none appeared relevant to or consistent with the flood assessment areas defined for Taitarakihi Creek; and,
- ∴ Conversations with TDC staff revealed that the personnel responsible for delineating the Taitarakihi Creek flood assessment areas have left the council. It appears the primary basis for the delineation of this extent was derived from models prepared by WSP. The next section of this report provides commentary on these WSP reports.

2.1 WSP Models

Sarah Dodson (WSP) has provided the documentation for which the Taitarakihi Creek flood assessment areas were predominantly derived from. The flood assessment area is based on a report produced in September 2021, titled "Timaru District Interim Pipe Capacity and Urban Flood Hazard Mapping Timaru, Washdyke, Temuka and Pleasant Point". Personal communication with TDC⁴ indicates that this report provided the base layer which, according to WSP, was adjusted using the following methodology:

"The criteria for creating the flood assessment area was adjusted following a meeting between WSP and Drainage and Water on 1st March 2022 with the agreed criteria being:

1. *Before adding freeboard, remove flooding less than 100mm depth (previously 50mm) and remaining flooding areas less than 30m² (aligns with consent limit for new buildings).*
2. *After adding 250mm freeboard, identify areas where underlying flood extent is less than 5% of the freeboard extent. Crop freeboard in these areas to be the flood extent plus a 5m buffer.*
3. *Apply a buffer (5 m either side) to the mapped overland flow paths.*
4. *Create a Flood Assessment Area by combining:*
 1. *freeboard extent*
 2. *overland flow path (with buffer)*
 3. *ECan flood assessment area (based on ECan river flooding).*

The WSP report states that:

"For areas with existing models, models were utilised to produce flood mapping for the 0.5% and 0.2% AEP storm events. Model results for these areas are presented in place of the rain on grid methodology".

The 0.5% Annual Exceedance Probability (AEP) event was reportedly employed to generate the flood assessment areas. This event includes an allowance for climate change out to 2090 as per MfE (2008)⁵. The 0.5% AEP is equivalent to a 200YR event.

The WSP report references an existing model for Taitarakihi Creek and therefore it is inferred that the detailed Taitarakihi Creek model was employed as the basis for the delineation of the flood assessment areas rather than the rain on grid methodology (rapid flood hazard assessment). Confirmation⁶ of this assumption has been sought from WSP and TDC but was not available at the time of writing this report.

The WSP model of Taitarakihi Creek appears to have been constructed according to standard practices. In summary:

- ∴ The rainfall has been derived from the High Intensity Rainfall Design for Timaru District report and applied as a nested storm profile. Whilst a nested storm is not always applicable to Canterbury conditions, this is broadly appropriate for the derivation of flood assessment areas; and,

⁴ Email from Grant Hall (TDC) to Ben Throssell (PDP) on 6 Dec 2022

⁵ Climate Change Effect and Impacts Assessment - A guidance manual for Local Government in New Zealand" by the Ministry for the Environment (MfE, 2008)

⁶ Email from Ben Throssell (PDP) to Grant Hall (TDC) and Sarah Dodson (WSP) on 6 Dec 2022

- ∴ The roughness values are not presented but they are unlikely to have a large impact on model results; and,
- ∴ The digital elevation model has been obtained from LIDAR.

The WSP model is a snapshot of the Taitarakihi Creek in its present-day condition. For this model, the key flooding constraints are the restriction of flow at SH1 and the railway. At these locations, the capacity of the current culverts restricts the discharge of water, causing it to pond and back up behind the rail embankment. As part of the A&P showgrounds development, the culverts at the railway will be upgraded which will alleviate this hydraulic constraint. Further, we understand that the SH1 culverts are also being upgraded. The proposed stormwater infrastructure upgrades include constructing three new culverts (2000 x 2100 mm, rectangular) beneath the Main Trunk Railway Line while also retaining the existing culvert (1860 mm, arch) and upsizing the existing culvert crossing at SH1 (6000 x 2000 mm, rectangular).

We understand that WSP are currently updating their model of Taitarakihi Creek to include planned culvert upgrades at the railway and SH1. We have updated our model (August 2022) to incorporate the planned culvert upgrades and therefore the PDP model can be employed to understand how the flood assessment area will be affected by the imminent culvert upgrades.

2.2 PDP model definition of flood assessment area

Flood assessment areas in the proposed Timaru District Plan are defined as depths greater than 100 mm and areas greater than 30 m² for the 200YR event. The 200YR event modelled by PDP employs the same 2090 scenario as employed by WSP. A freeboard of 250 mm is then added to this flood level elevation to obtain a final delineation for the flood assessment area. The flood assessment areas have been determined using the latest PDP model results (August 2022). The main difference between this model and the WSP model is the inclusion of the railway and SH1 culvert upgrades which we understand are either underway or imminent.

The flood assessment areas as determined by the PDP model and the WSP model are presented in Figure A4, Appendix A. Note that the PDP extent has only been derived for the section of the Taitarakihi Creek that is adjacent to the Harvey Norman block. Also shown are three cross sections from which elevations and flood assessment area extents have been extracted. These profiles are presented in Figure 1.

Figure 1 shows the three sections extracted from the LIDAR and the extents of the flood assessment area as provided by TDC and as determined by the most recent PDP model (August 2022). In all cases, the extent of the flood assessment area is comparatively less when derived using the PDP model. This is expected given the PDP model includes the latest culvert upgrades.

Figure 1 also shows that the hydraulic grade between XS3 and XS2 for the TDC extent is flat, a variation in water level elevation of less than 100 mm between the cross sections. Both cross sections show a water level elevation of around 7 m. This indicates that the flood assessment area and therefore flood level is downstream controlled. Essentially, the lack of conveyance capacity downstream, beneath the SH1 and railway is causing water to pond behind the rail embankment, resulting in a flat hydraulic grade. For the PDP flood extent, the variation in water level elevation is around 800 mm between the cross sections. This indicates that the control is the hydraulic conveyance capacity of the Taitarakihi Creek.

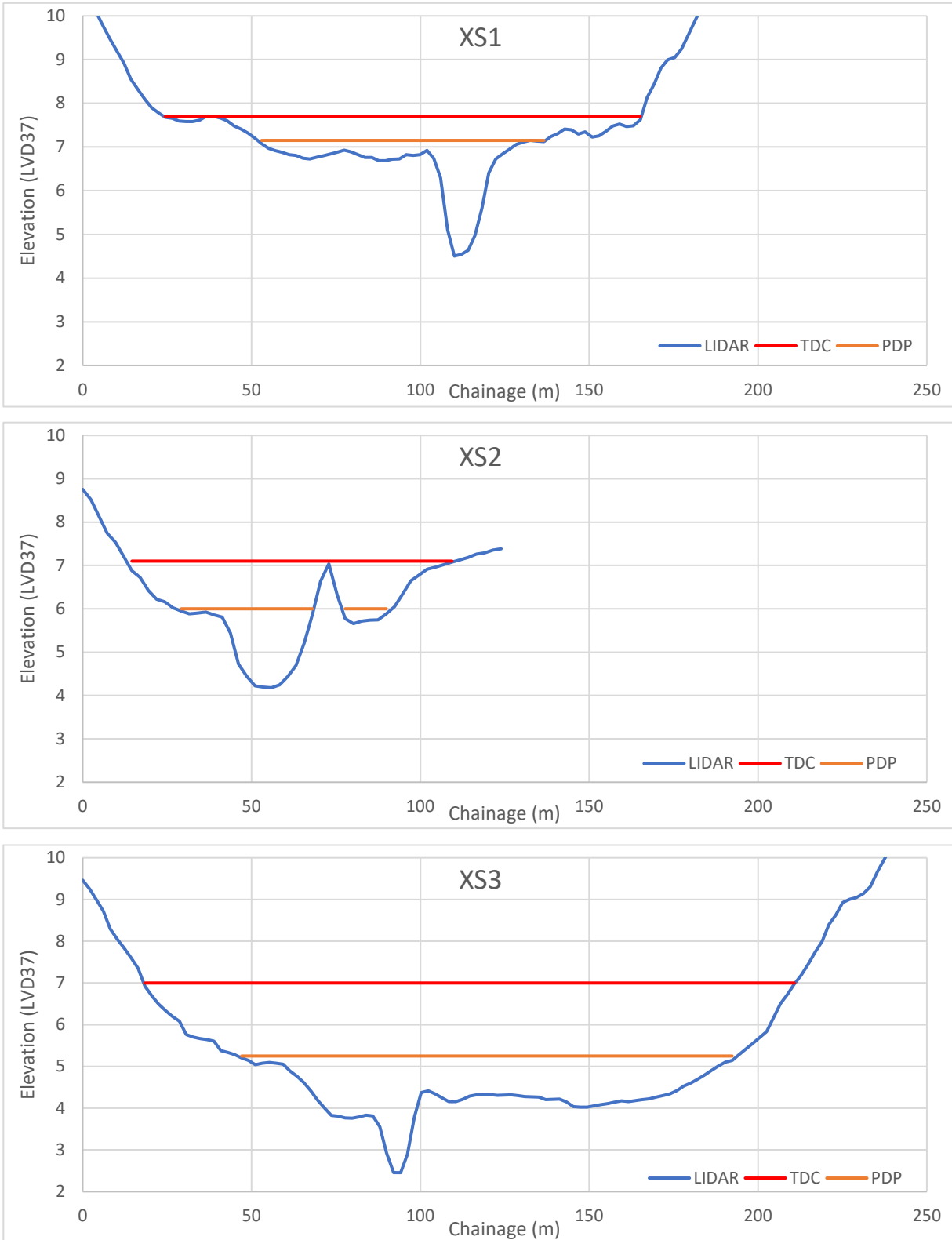


Figure 1: Cross sections showing LIDAR elevation, the flood assessment area as provided by TDC and the flood assessment area if the most recent PDP model was employed. XS1 (near Old North Road) is shown at the top, XS2 is shown in the middle and XS3 (approximately 250 m upstream of SH1) is shown at the bottom. Delineations have been drawn true left to true right and are presented in Figure A4, Appendix A.

3.0 Flood hazard (PDP model)

The ECan Regional Policy Statement (RPS) defines areas of high flood hazard as areas where either the depth is greater than 1 m or areas where the product of depth and velocity is greater than one for a 500YR event⁷, with the effects of climate change accounted for. The RPS states that development in high hazard areas should be avoided. This definition uses a different standard than the definition in the proposed Timaru District Plan which uses the 200YR event (including an allowance for climate change) to define 'the flood assessment area'.

The PDP model (August 2022) does not include a 500YR event at this stage. The 200YR event is the largest modelled and the areas of high flood hazard classification associated with this event are presented in Figure A5, Appendix A.

Figure A5, Appendix A shows that the majority of the site is not classified as high hazard. There is a reasonably large area of high hazard located adjacent to Taitarakihi Creek, this area is a localised depression which fills in flood events.

4.0 Conclusions

The flood assessment areas for Taitarakihi Creek have reportedly been generated from the WSP Taitarakihi Creek model. The WSP model reflects the current state of the catchment but as noted, culvert upgrades at SH1 and the railway are either underway or planned for the near future. These culvert upgrades will significantly reduce the extent of the flood assessment areas as demonstrated by the August 2022 PDP model update.

Areas of high flood hazard, have been identified using the updated PDP model, for a 200YR event. High hazard areas as defined by the ECan RPS use a 500YR event and we recommend that the 500YR event is included in the model to accurately determine the areas of high flood hazard. Much of the Harvey Norman site is free of the high hazard classification. There is a reasonable high hazard extent located adjacent to the Taitarakihi Creek which is a localised depression that fills with water during extreme events.

⁷ Policy 11.3.1 of the RPS (<https://www.ecan.govt.nz/document/download?uri=4218008>)

5.0 Limitations

This report has been prepared by Pattle Delamore Partners Limited (PDP) on the basis of information provided by Doug Murray and others (not directly contracted by PDP for the work), including Environment Canterbury, Timaru District Council, WSP and Land Information New Zealand. PDP has not independently verified the provided information and has relied upon it being accurate and sufficient for use by PDP in preparing the report. PDP accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the provided information.

This report has been prepared by PDP on the specific instructions of Doug Murray for the limited purposes described in the report. PDP accepts no liability if the report is used for a different purpose or if it is used or relied on by any other person. Any such use or reliance will be solely at their own risk.

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Yours faithfully

PATTLE DELAMORE PARTNERS LIMITED

Prepared by



Ben Throssell
Senior Engineer

Approved by



Bas Veendrick
Technical Director

Appendix A: Figures

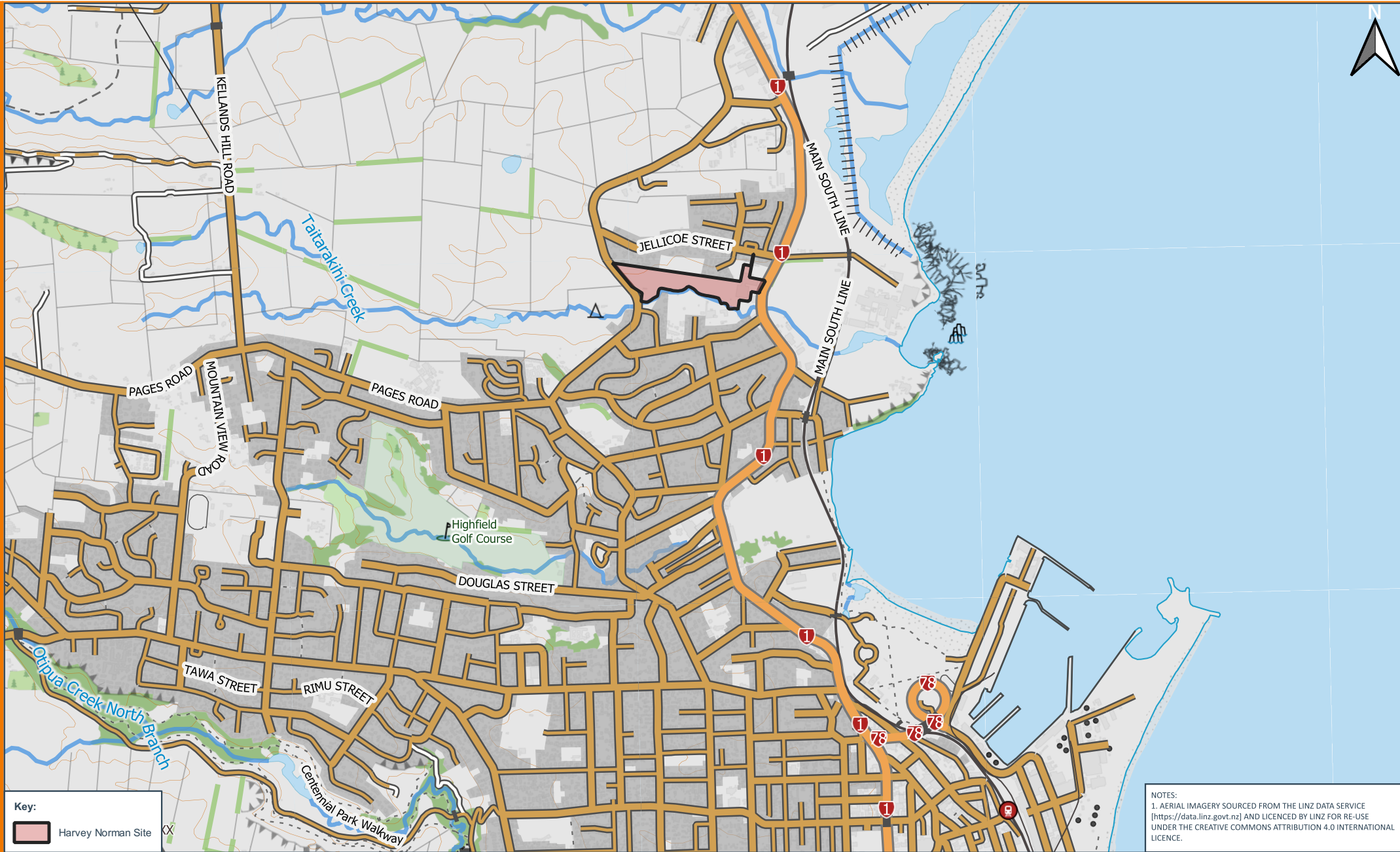
Figure A1: Site Location

Figure A2: Flood assessment areas

Figure A3: ECan 1988 500YR flood extent

Figure A4: Cross section profiles and flood assessment areas

Figure A5: Flood hazard



Key:

Harvey Norman Site

NOTES:
 1. AERIAL IMAGERY SOURCED FROM THE LINZ DATA SERVICE [https://data.linz.govt.nz] AND LICENCED BY LINZ FOR RE-USE UNDER THE CREATIVE COMMONS ATTRIBUTION 4.0 INTERNATIONAL LICENCE.



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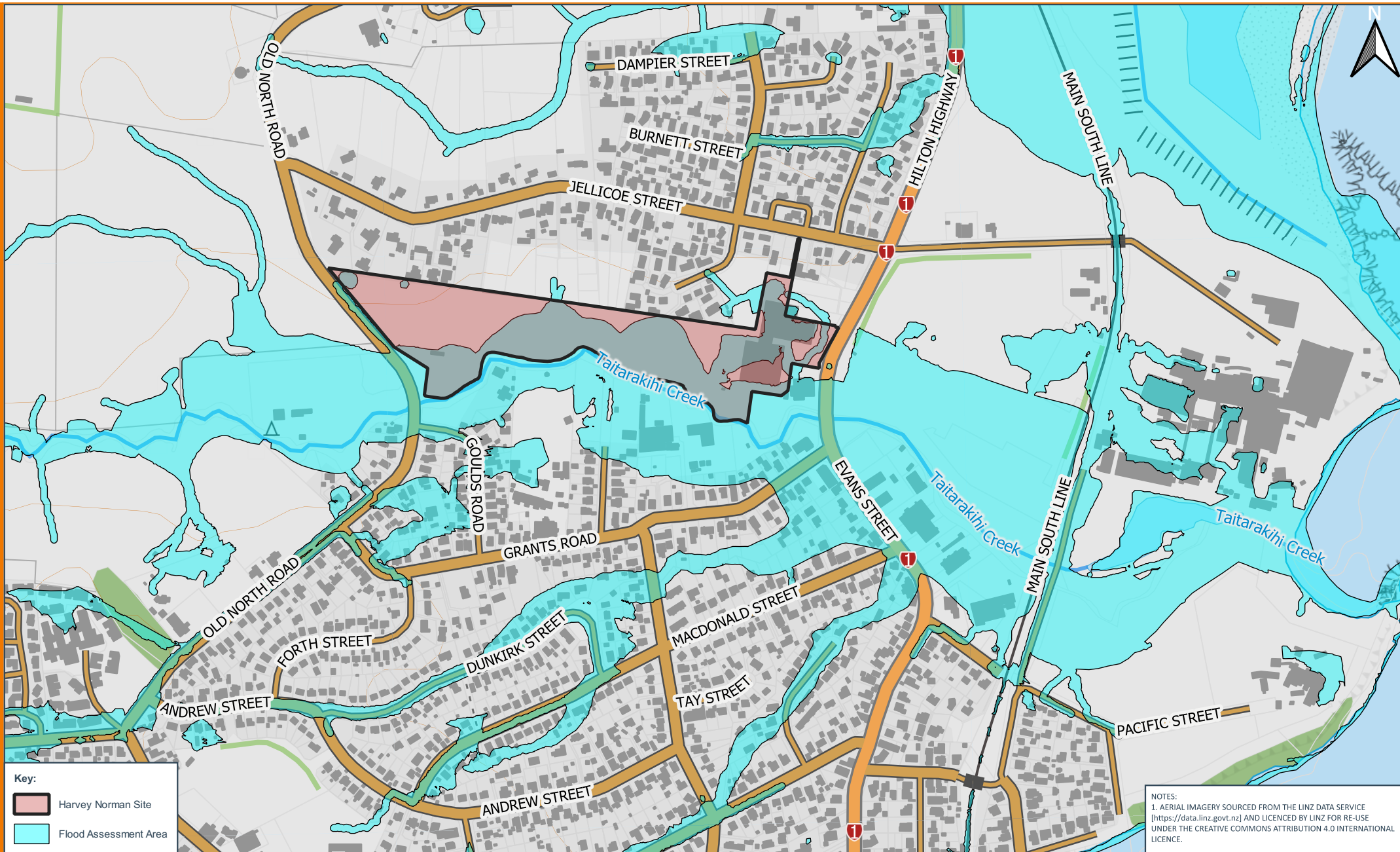
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FIGURE
FIGURE A1: SITE LOCATION

PROJECT
 REVIEW OF TDC FLOOD ASSESSMENT AREAS



Key:

- Harvey Norman Site
- Flood Assessment Area

NOTES:
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100 200 m
 METRES
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FIGURE
FIGURE A2: TDC FLOOD ASSESSMENT AREA

PROJECT
 REVIEW OF TDC FLOOD ASSESSMENT AREAS



NOTE

Water velocities outside the creek are generally less than 0.5m/s.

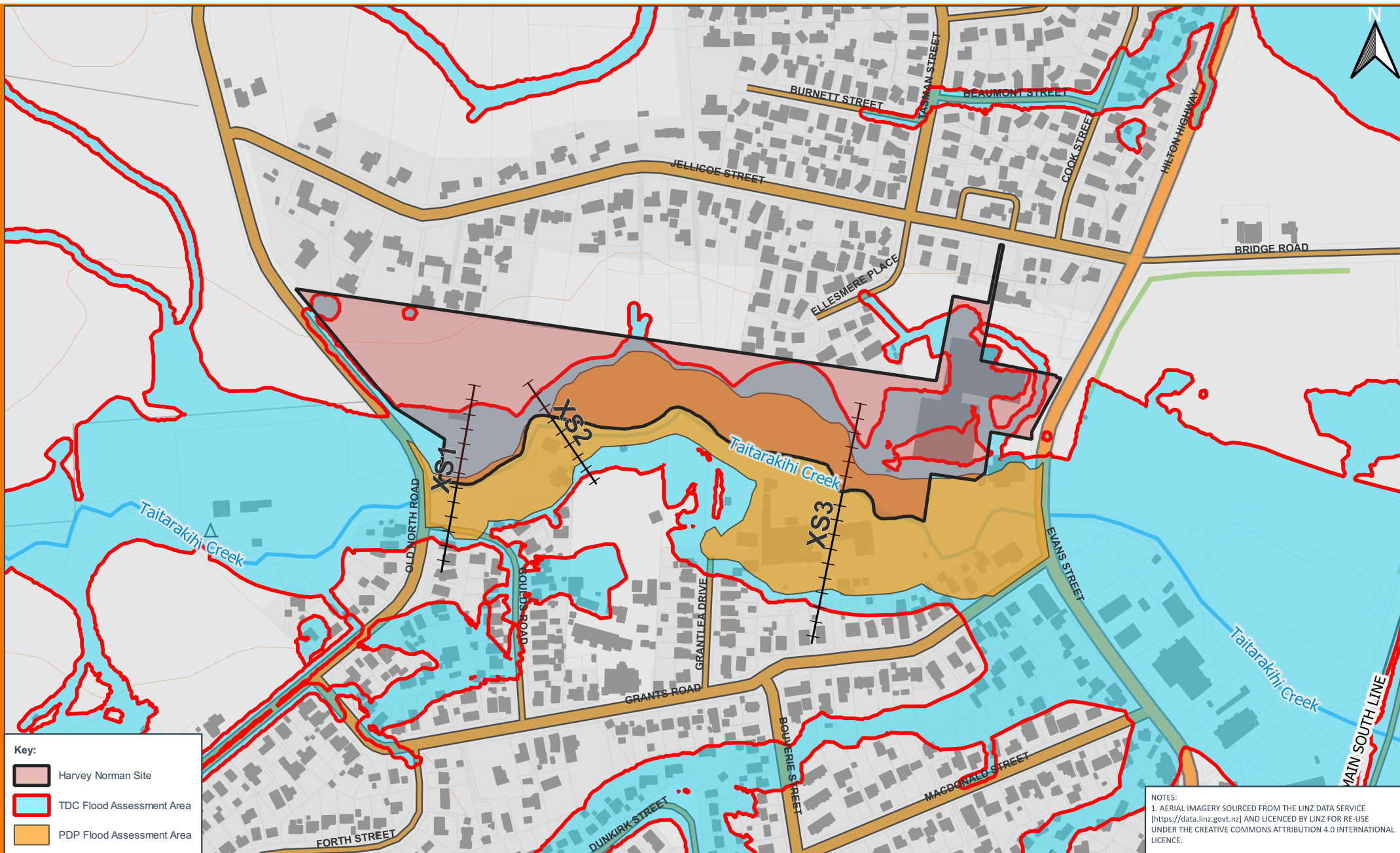
Where stopbanks exist velocities up to 1.0m/s could be expected for about 20m below a stopbank breach.

Between the railway line and State Highway One and immediately above Old North Road, water is ponded and velocities are less than 0.1m/s.



AMENDMENTS PLAN ORIGIN COORDS E 368975 N 647170 E 370098 N 646370	AERIAL PHOTO BASE SHEET INSPECTED RECORDED COMPILED CHECKED RECOMMENDED	SCCB 10,005.001 R. Connell R. Connell J. Muir	2/87 11/88 11/88 1/89	APPROVED R S KEYS CHIEF ENGINEER	SOUTH CANTERBURY CATCHMENT BOARD	CATCH No. 699 0400 FILE No. 27/7 SURV DATA 3562M/03 OF 3 SHEETS
					Figure viii (b) – TAITARAKIHI CREEK EXTENT OF FLOODING – 500 YEAR EVENT	

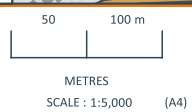
FIGURE A3: PREDICTED 500YR FLOOD EXTENT, OBTAINED FROM ECAN 1988



Key:

- Harvey Norman Site
- TDC Flood Assessment Area
- PDP Flood Assessment Area

NOTES:
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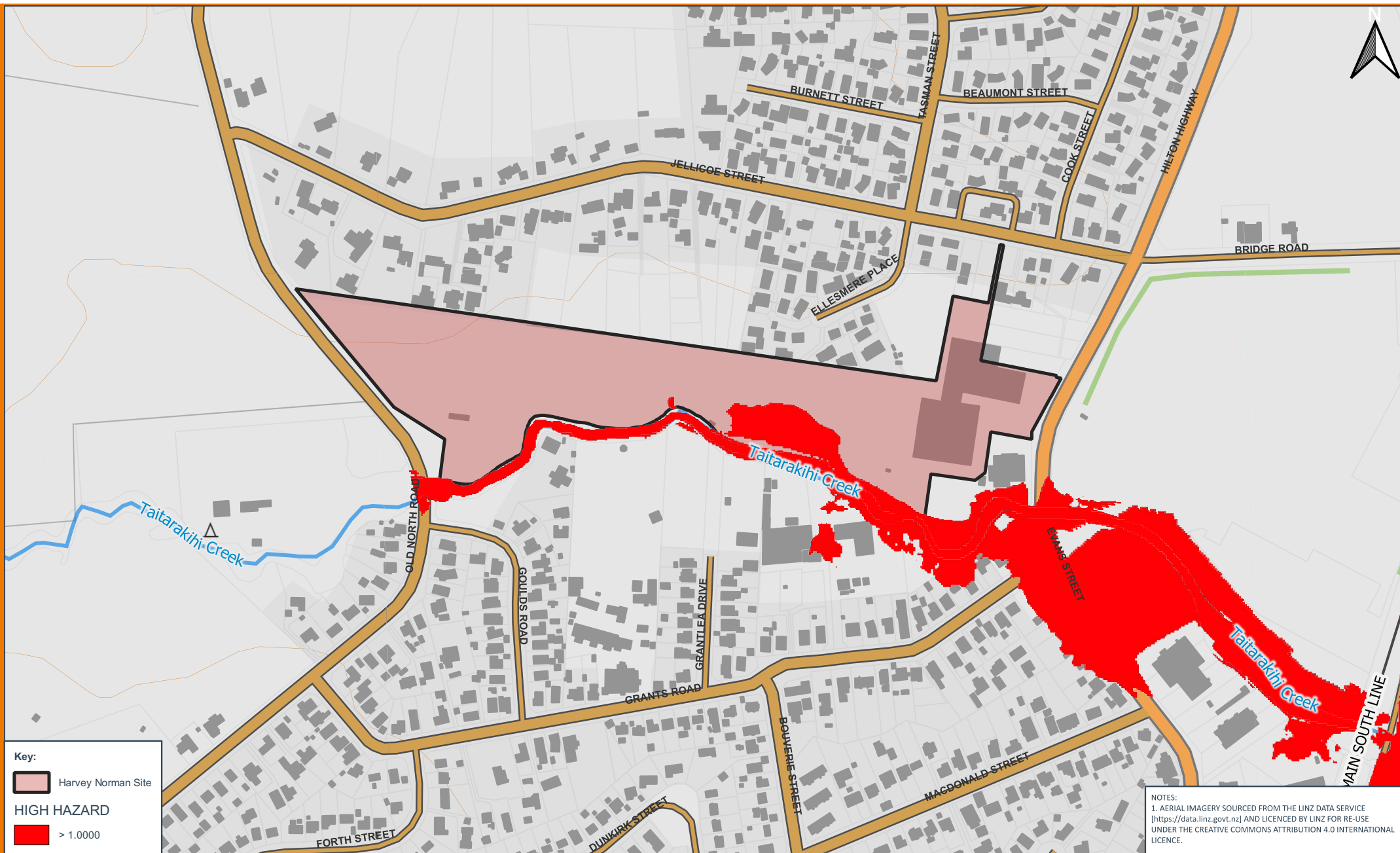
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FIGURE
FIGURE A4: EXTRACTED CROSS SECTION LOCATIONS AND FLOOD ASSESSMENT AREAS

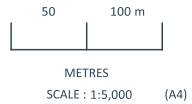
PROJECT
 REVIEW OF TDC FLOOD ASSESSMENT AREAS



Key:

- Harvey Norman Site
- HIGH HAZARD**
- > 1.0000

NOTES:
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FIGURE
FIGURE A5: AREAS OF HIGH FLOOD HAZARD AS DEFINED BY THE RPS (D>1 OR D*V>1)

PROJECT
 REVIEW OF TDC FLOOD ASSESSMENT AREAS