



KiwiRail Regional Freight Hub

Original Photo Lisa Rimmer | 50mm | DSLR Nikon D700 | 12:34pm 16 June 2021 | N 5536613 E 1823806 (NZTM)

Reading distance for correct scale: 400mm | Viewpoint Elevation: 46m :

Field of View Approximately 110 ° horizontal (across 2 x A3 pages)

Viewpoint 23 - 11 Sangsters Road

Figure 03

Page 2 of 2 page spread.

Context Photograph Methodology Statement

- Photos were taken with a fixed lens on DSLR camera. Locations were fixed using a handheld GPS unit with accuracy of 5m. Reference points in the landscape were also located to assist referencing of photo to digital terrain model.
- A sequence of photos was taken from each viewpoint and stitched to form panoramas. Photos were overlapped by approximately 30% and edges cropped prior to stitching to eliminate edge distortion.
- The time and weather when the photo was taken was entered to the programme in order to replicate lighting conditions.
- The completed photomontage is presented over two pages:
 - The photos are produced to replicate correct scale at the nominated reading distance (in this case 400mm).
 - Each photomontage is printed across two facing pages to illustrate a field of view of approximately 110° at a reading distance of 400mm. This approximates the field of human binocular vision. (But not peripheral vision which extends to approximately 200°)

Notes on use of Context Photographs:

- The Context Photographs are a useful tool but they cannot not precisely reproduce real life for the following reasons:
 - 2D Photography flattens an image compared to binocular vision.
 - Photography is static, whereas the human vision can scan and remember information.
 - Photographs are passive, whereas the eye seeks out detail.
 - The human eye can see more contrast than can be reproduced through photography.
 - Physical resolution of photography and printing is less than that of the human eye.

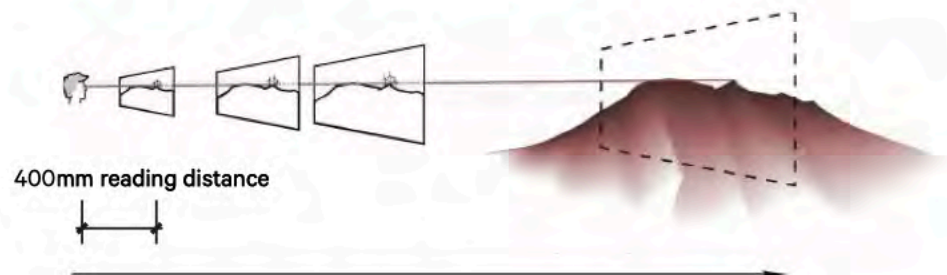


Figure 01: The relationship between reading distance and real life scale.

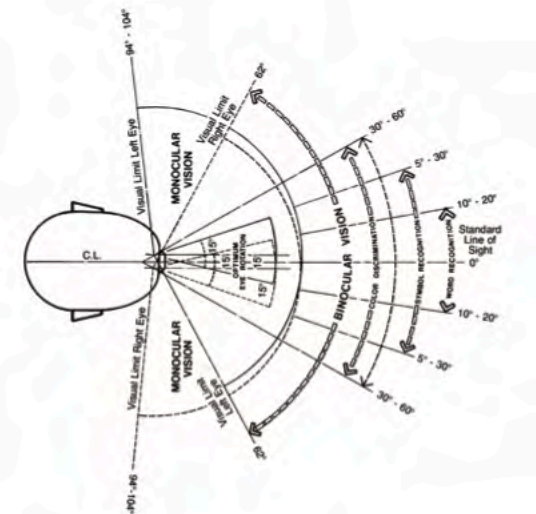


Figure 02: Binocular vision is approximately 124°. Field of view is approximately 110° across 2 x A3 pages at correct scale image for 400mm reading distance (vertical field of view is approximately 33°)

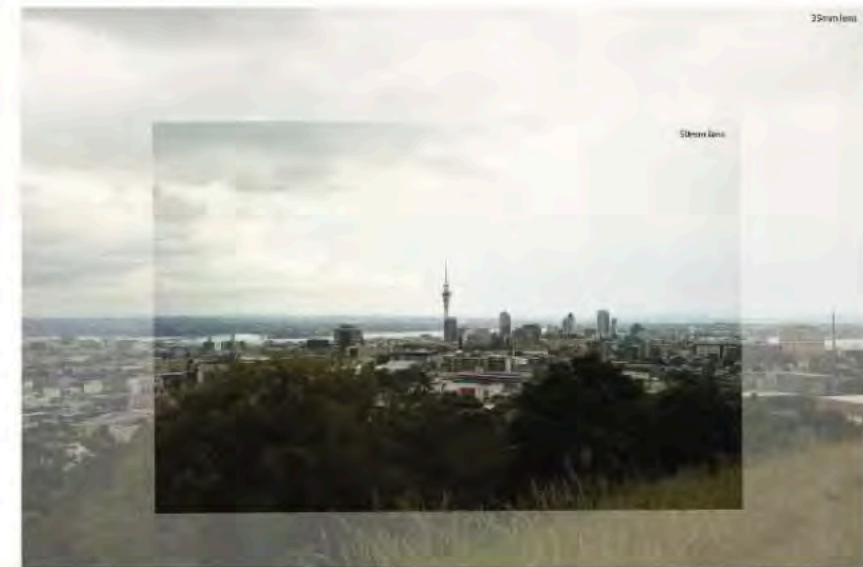


Figure 03: Comparison of 35mm lens and 50mm lens

Two images from the same location. With 35mm and 50mm lenses perspective is influenced by field of view, not by lens focal length. The overlaid portion is identical.

Figure 04

TAB 13 - PNITI SHORT

Indicative Timing

Short Term

Legend



Airport



KiwiRail Hub



Indicative Bridge Location



Industrial Growth



Residential Growth



Possible KiwiRail Hub new locations

✖ 50Max Bridge Upgrades

TBD KiwiRail Freight Hub NoR (Planning phase)

Potential fast-tracked Safety Improvements (LCLR)

Ashhurst Improvements

SH3 Te Ahu a Turanga

Kairanga Bunnythorpe – SH3/54 to SH54/Milson Line, bridge upgrades and KB/Roberts improvements

No.1 Line/ Rongotea Road Potential for fast-tracked Safety Improvements

North East Industrial



CBD Safer Speeds Review

SH3 Safety Improvements

No.1 Line/ Rongotea Road Potential for fast-tracked Safety Improvements

Longburn Industrial

Linton Army Camp

COMPLETE (not shown):

- Manawatu transport system strategy, including modelling
- Early delivery: Safety Improvements – SH and Local Roads
- KiwiRail Freight Hub Notice of Requirement

PLANNING & DELIVERY UNDERWAY:

- Land use programme
- Safety Improvements – longer term SH and Local Roads
- Enabling Streets for People including Safer Speeds Review
- Palmerston North Eastern Access
- East West Access Improvements (Accessing the KiwiRail Freight Hub and the NEIZ)

Programme Upgrades



New roads



Sub option



Upgrade roads



Sub option



Speed changes



Cycleways



Major / minor intersection upgrades

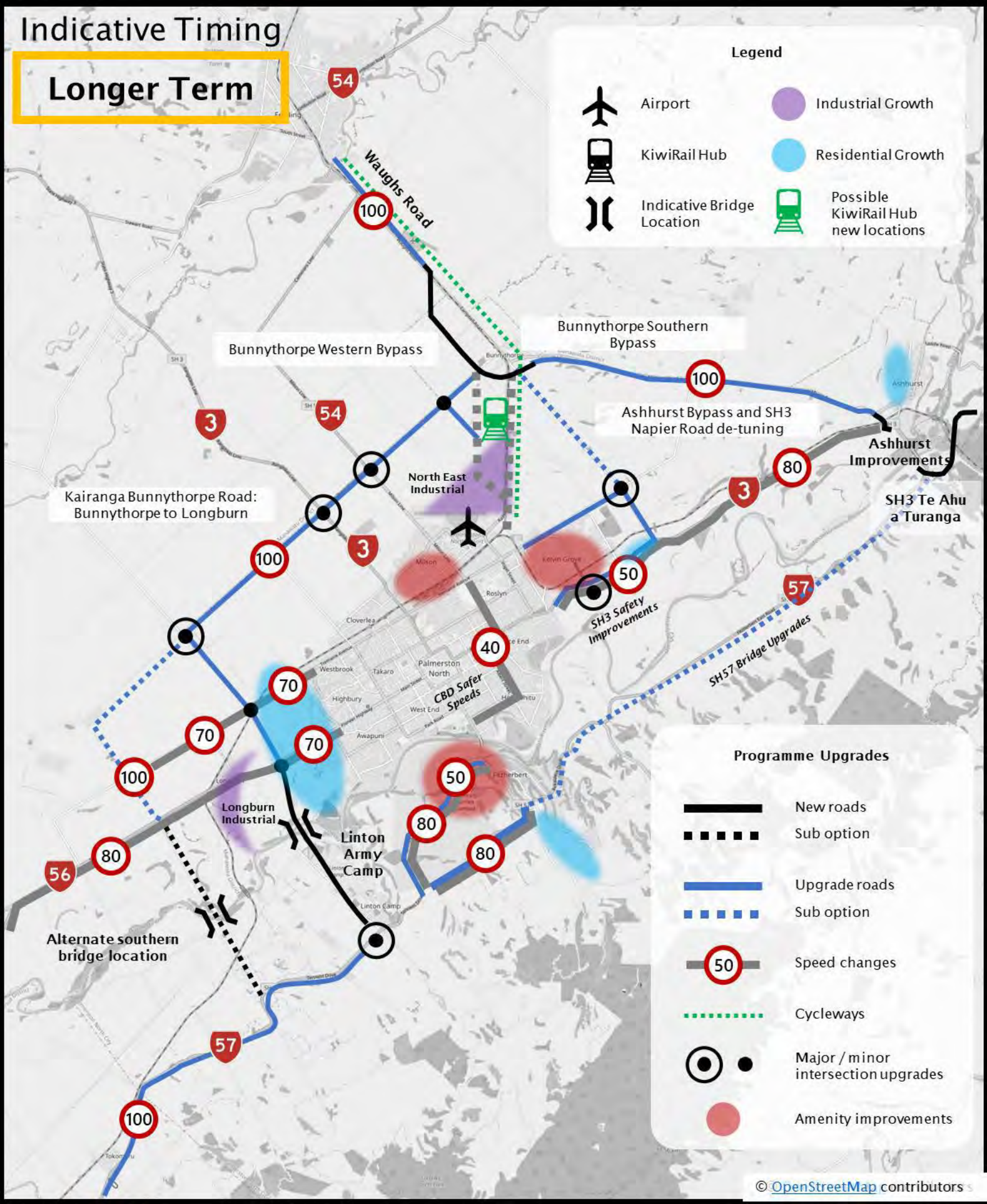


Amenity improvements

TAB 14 - PNITI LONG

Indicative Timing

Longer Term



TAB 15 - DO MINIMUM SCENARIO

5.29 These Do Minimum scenario improvements are shown schematically in Figure 4 below.

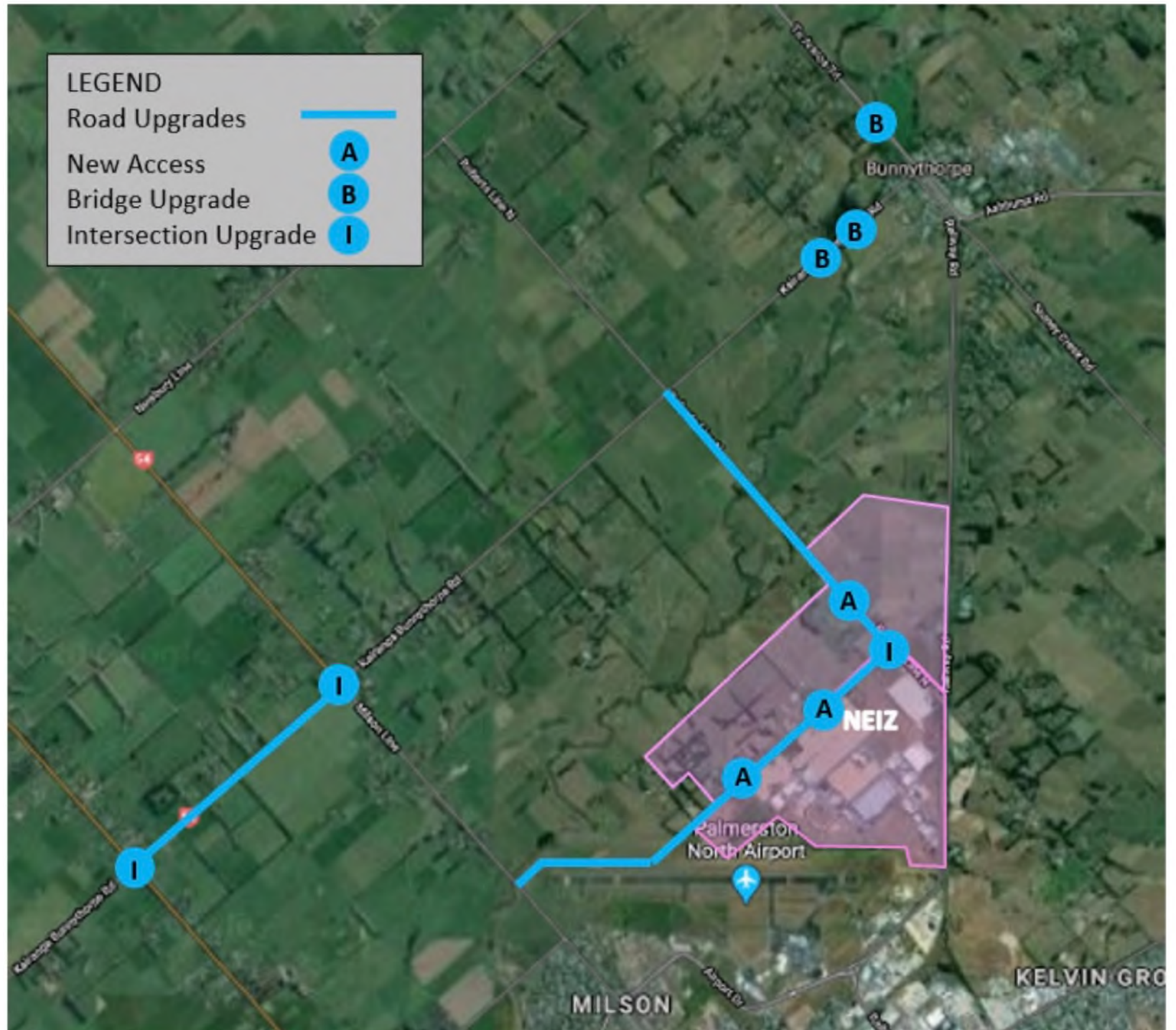


Figure 4: Do Minimum Road Network

TAB 16 - PRIMARY FREIGHT ROUTES

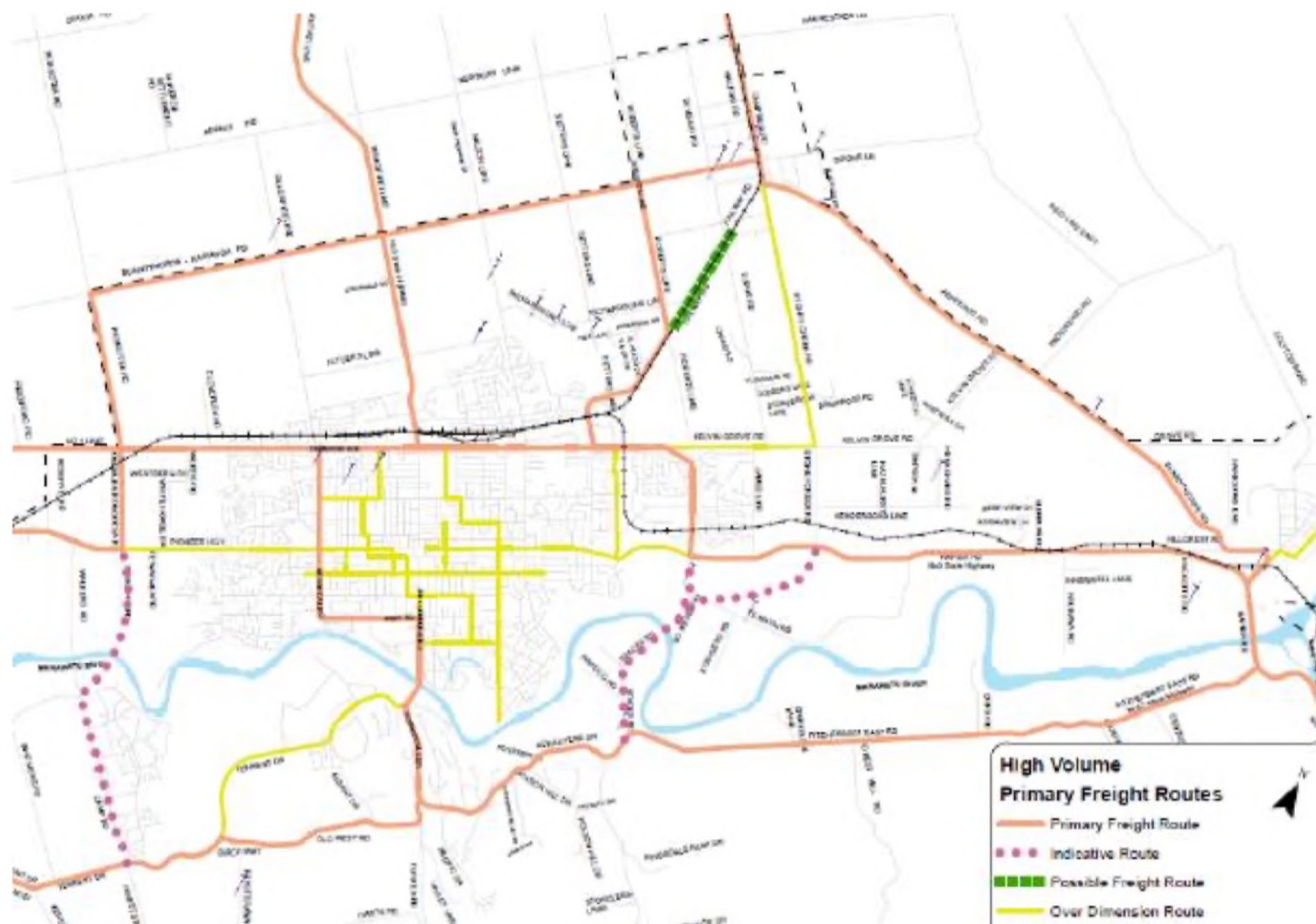
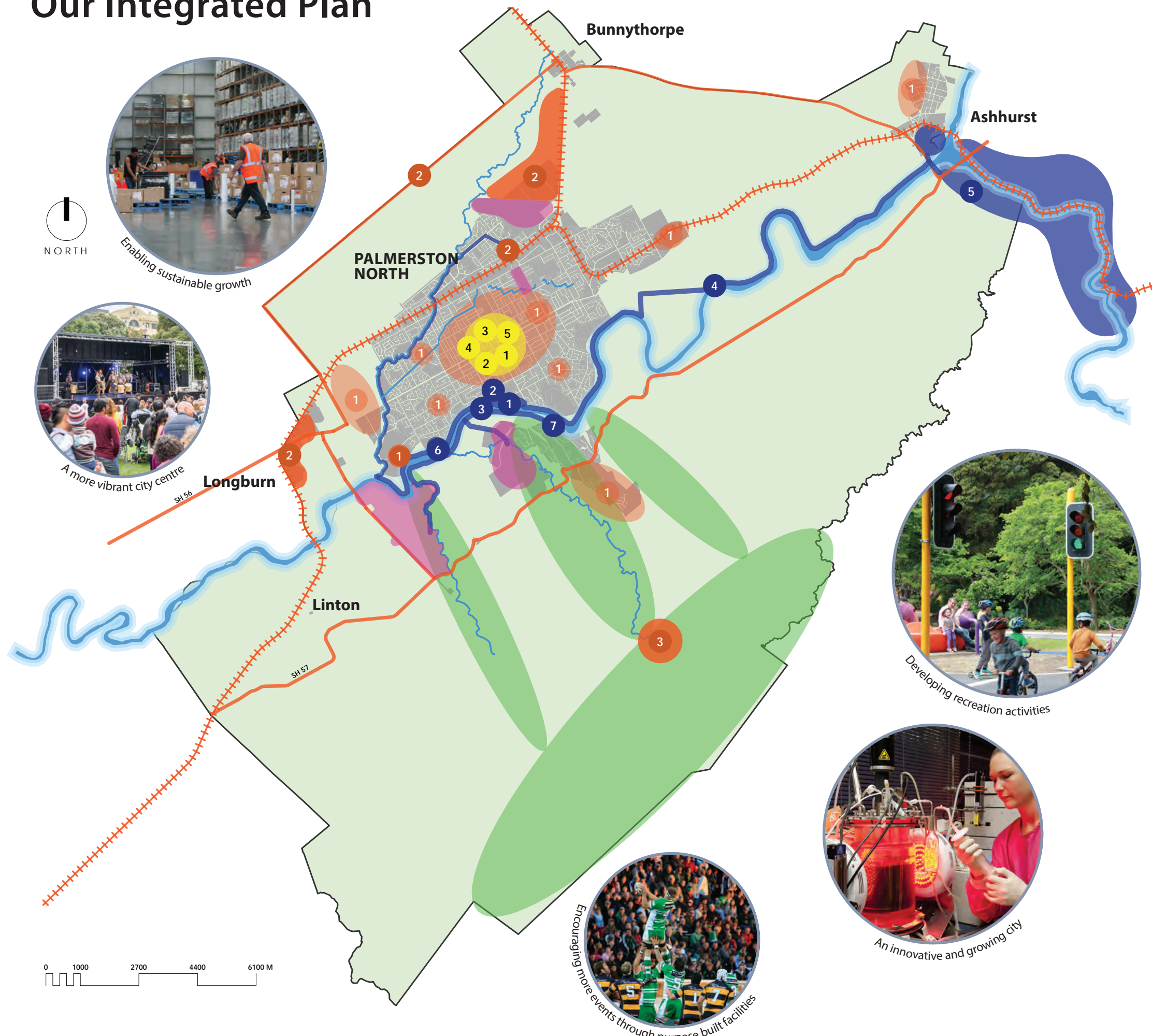


Figure 1 – Primary Freight Routes (PNSTP)

TAB 17 - SPATIAL PLAN

Our Integrated Plan



Mapping the Future

Sustainable Growth (Industrial)

1. **Nature Calls:** Wastewater Treatment Plant Upgrade
2. **Central NZ Distribution Hub:** Regional Freight Ring Road, Regional Freight Hub, Airport, North East Industrial Zone Longburn

Sustainable Growth (Residential)

1. Whakarongo, Aokautere, Kakatangiata, Ashhurst and Urban Intensification (minor dwellings, infill, multi-unit and apartments)

City Centre Transformation

1. **Streets for People:** City Centre Streetscape Plan
2. **Civic & Cultural Precinct Masterplan** (Te Manawa & Library)
3. **Central Energy Trust Arena**
4. **Heritage Protection Package***
5. **City Centre Business Improvement District (BID)***

Manawatū River Network

1. Central Energy Trust Wildbase Recovery Centre
2. Victoria Esplanade Masterplan & Projects
3. He Ara Kotahi Bridge & Shared Pathway
4. Manawatū River Shared Pathway (Ashhurst to City)
5. Te Apiti Biodiversity & Recreation
6. Ahimate Park (Waitoetoe Park)
7. Te Motu o Poutoa (Anzac Park)

City-wide Partners:

Rangitāne, Central Economic Development Agency (CEDA), Central & Local Government, Massey University, Research & Food HQ, NZ Defence, Mid Central DHB, PN Airport

Manawatū River & Tributaries

Biodiversity Corridors

Urban Areas

Rail

Regional Freight Ring Road

City Boundary