



Rolleston Access Improvements Project

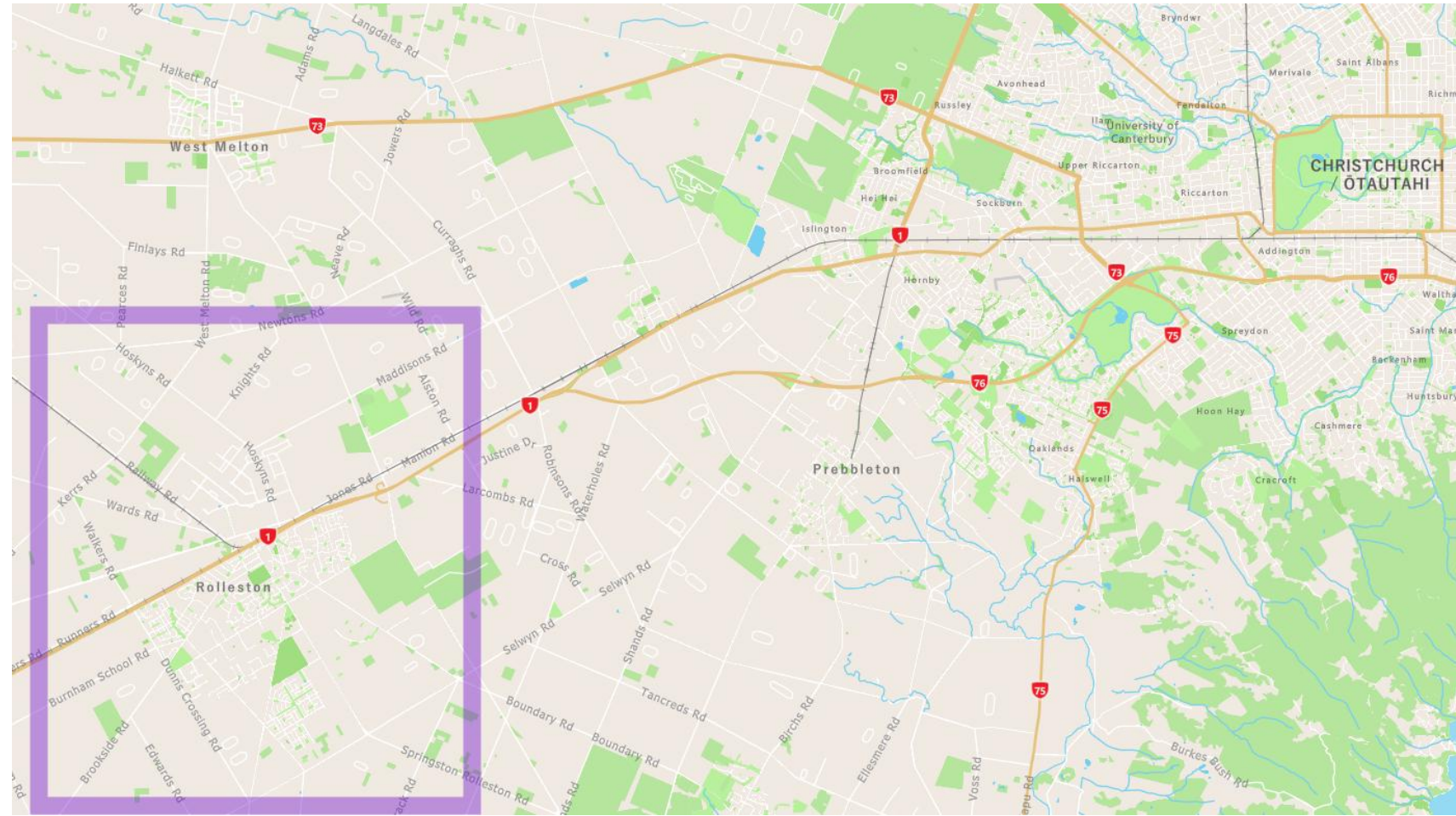
ALEX LUMSDON | BECA

SEPTEMBER 2025

Introduction

Rolleston is situated 22km southwest of Christchurch and is accessible via SH1.

Originally a small railway junction, Rolleston has expanded rapidly and is one of the largest growing townships in New Zealand.

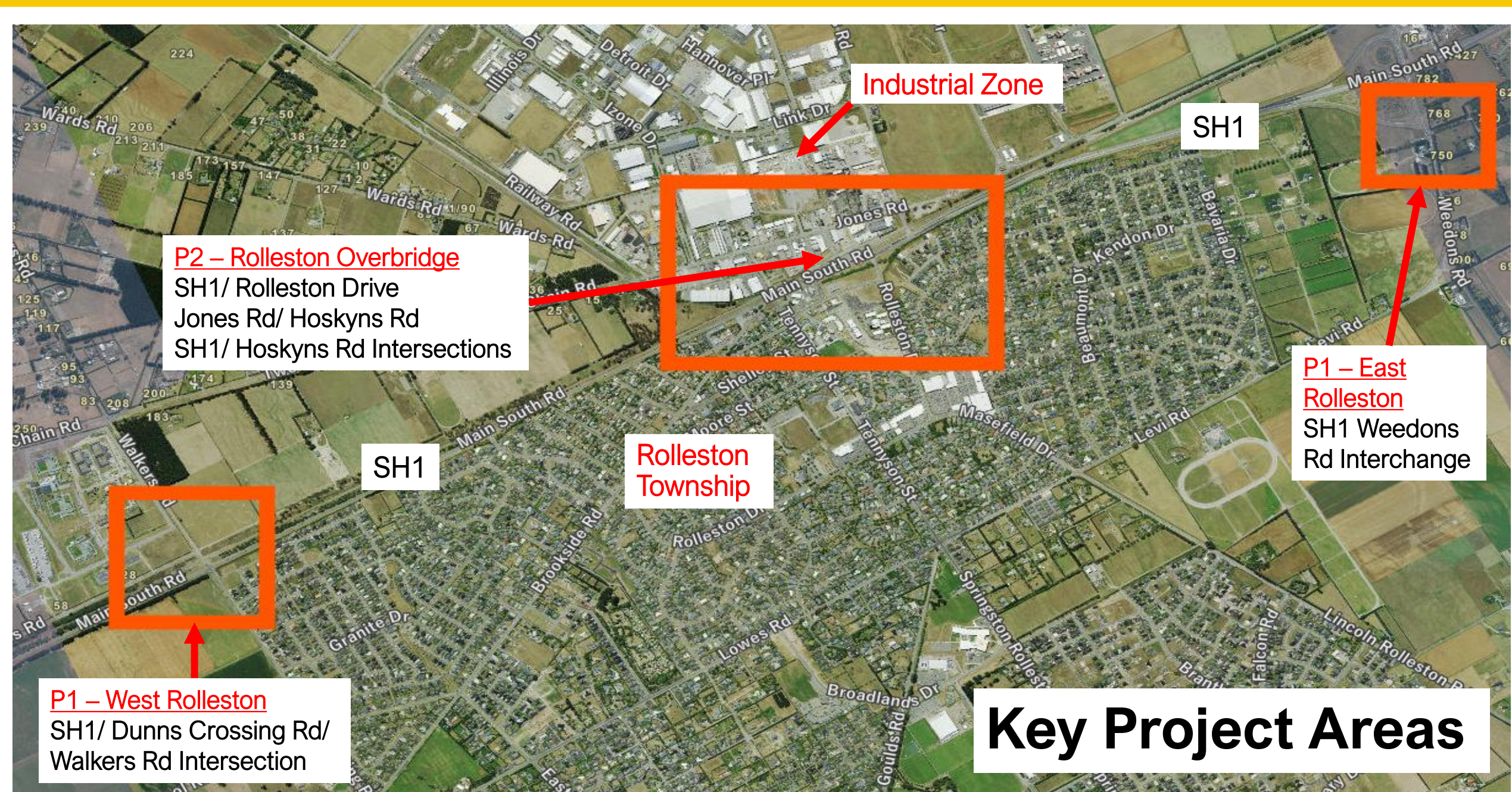


Background

- Project commenced in January 2024.
- 18 months and 16 disciplines.
- Transitioning from pre-implementation to implementation.

The project is being delivered in two packages:

- Rolleston West (Package 1)
- Rolleston Central (Package 2)
- Rolleston East (Package 1)



P2 – Rolleston Overbridge
SH1/ Rolleston Drive
Jones Rd/ Hoskyns Rd
SH1/ Hoskyns Rd Intersections

SH1

**Rolleston
Township**

Industrial Zone

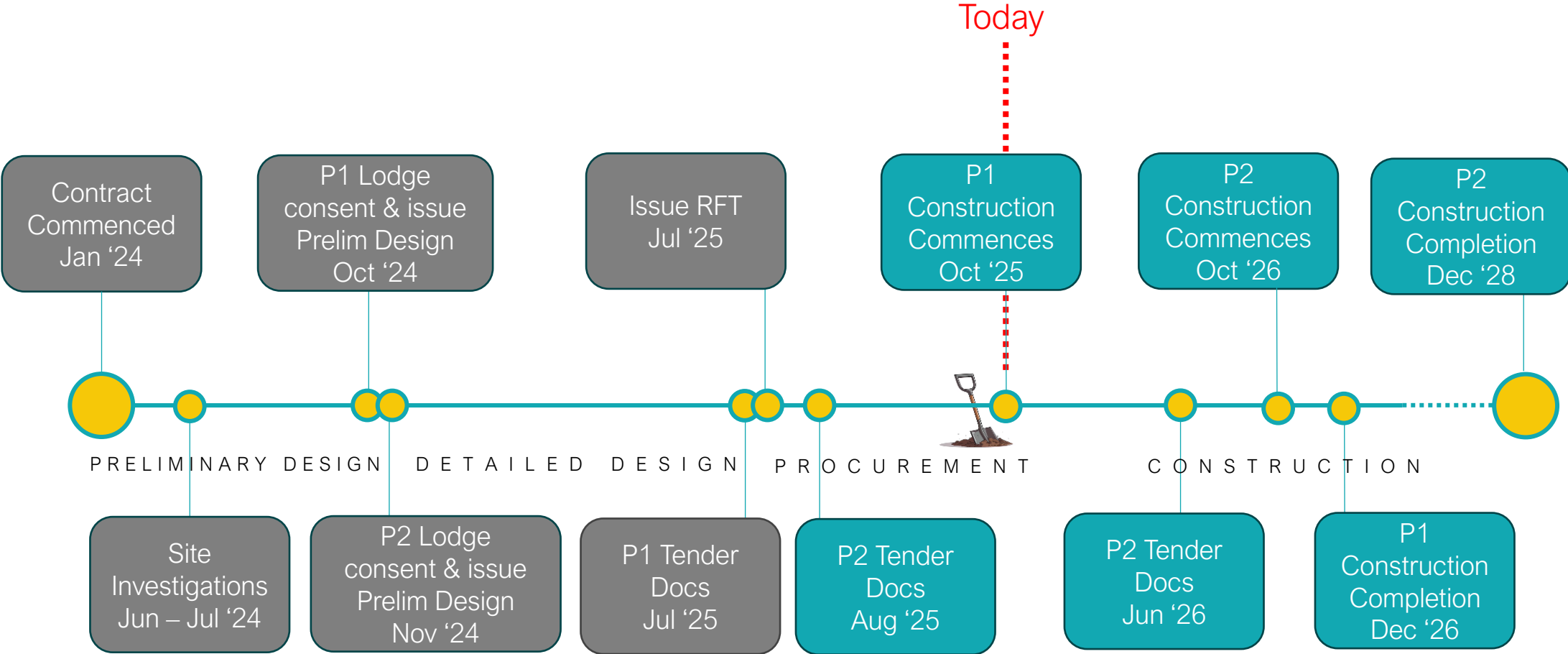
SH1

**P1 – East
Rolleston**
SH1 Weedons
Rd Interchange

P1 – West Rolleston
SH1/ Dunns Crossing Rd/
Walkers Rd Intersection

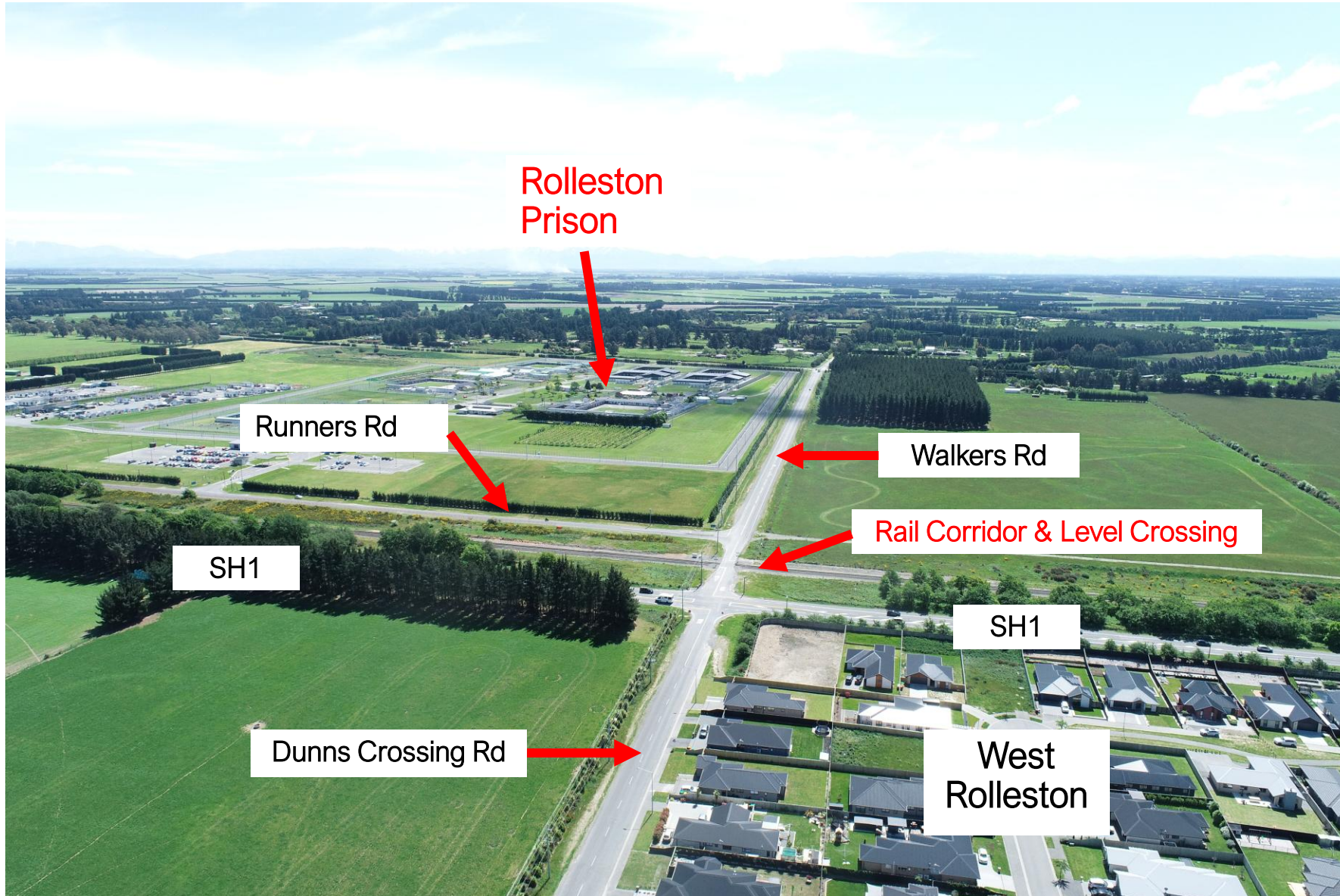
Key Project Areas

Design Delivery & Programme



Area 1 – Key Challenges

SH1/ Dunns Crossing Road/ Walkers Road Intersection

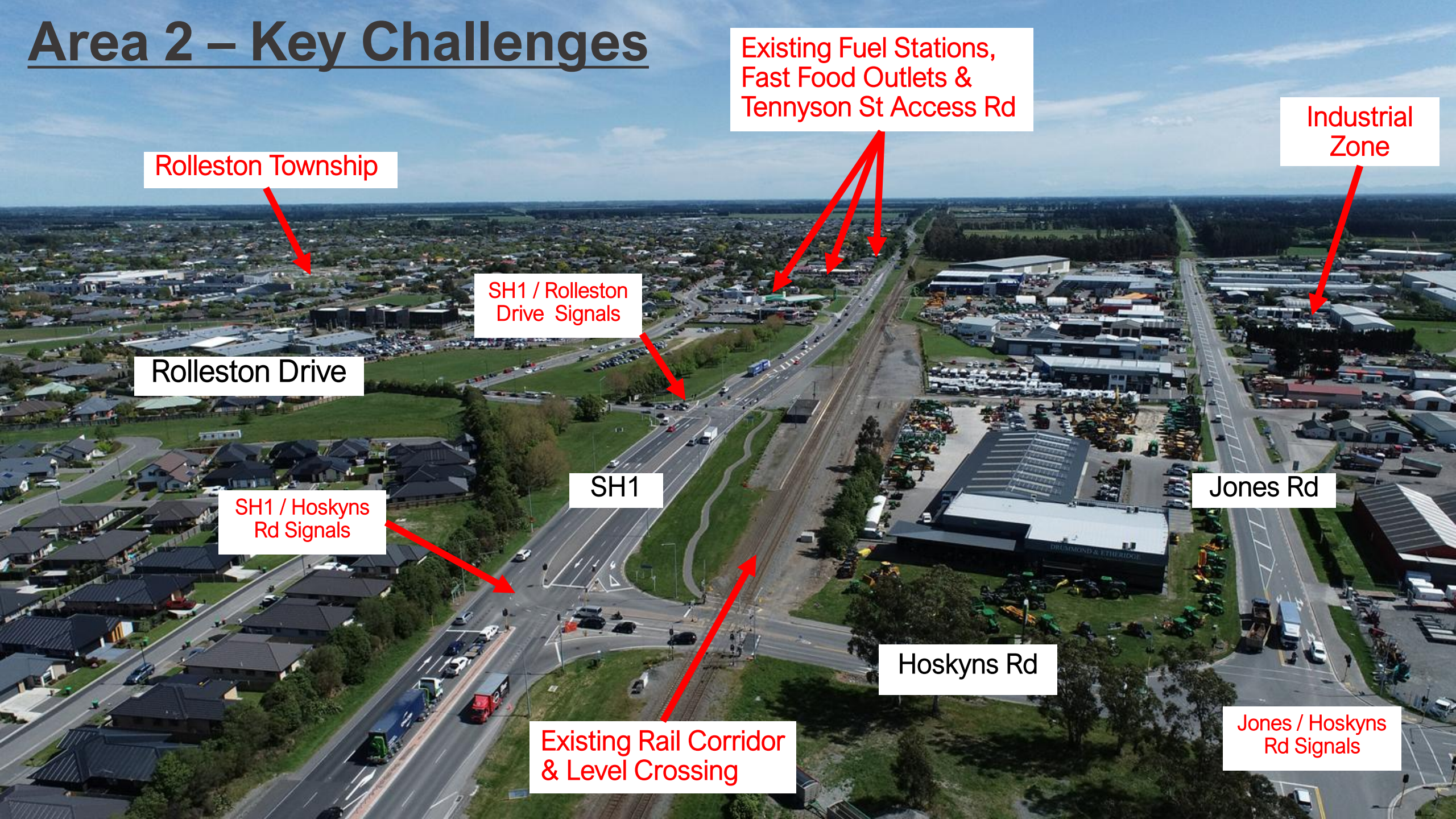


Currently a stop controlled intersection with an intersection speed zone treatment currently in place.

Adjacent rail corridor and level crossing.

Intersection is a high crash risk and has been for several years.

Area 2 – Key Challenges



Rolleston Township

SH1 / Rolleston
Drive Signals

Rolleston Drive

SH1 / Hoskyns
Rd Signals

SH1

Existing Fuel Stations,
Fast Food Outlets &
Tennyson St Access Rd

Industrial
Zone

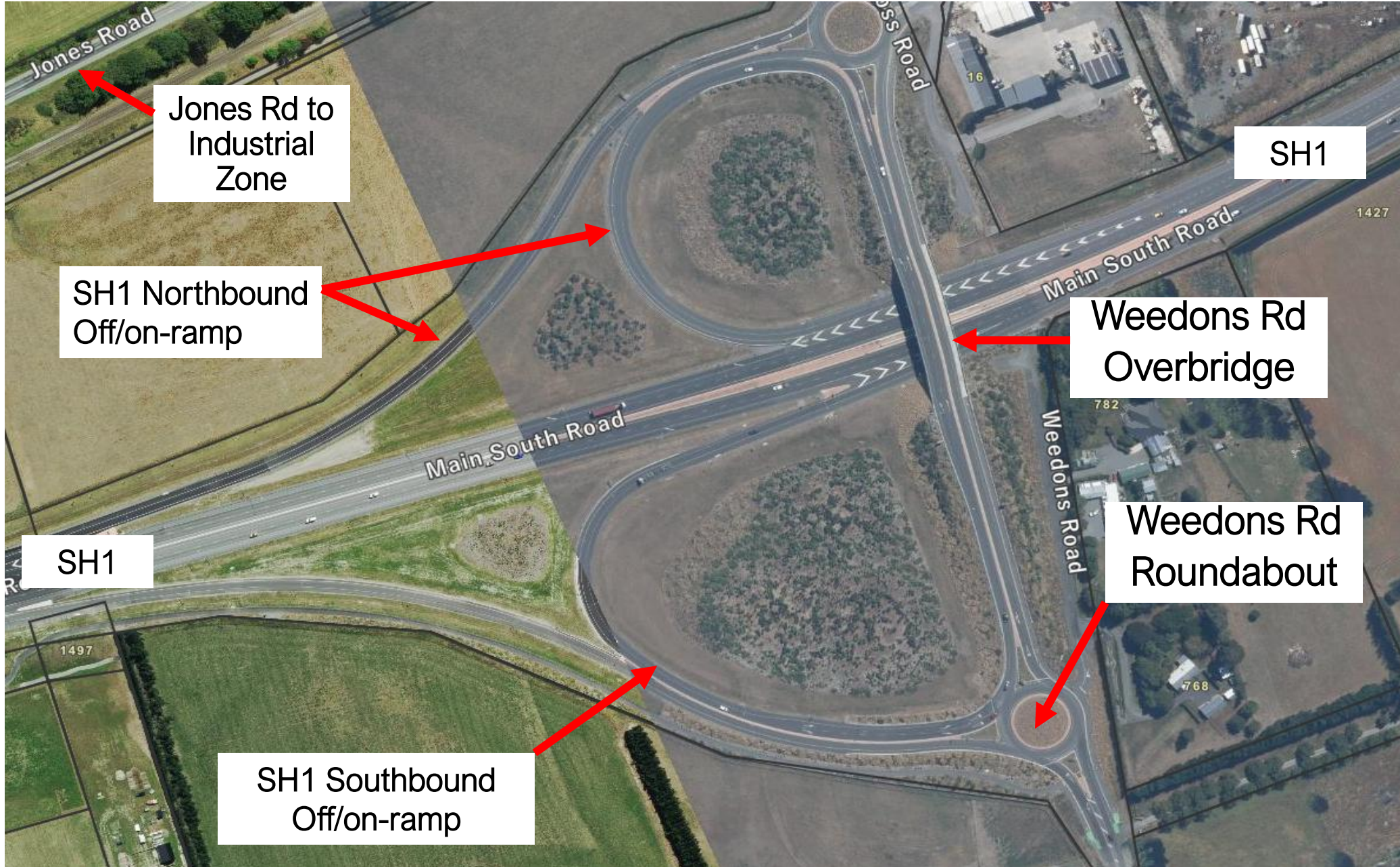
Jones Rd

Hoskyns Rd

Existing Rail Corridor
& Level Crossing

Jones / Hoskyns
Rd Signals

Area 3 – Key Challenges

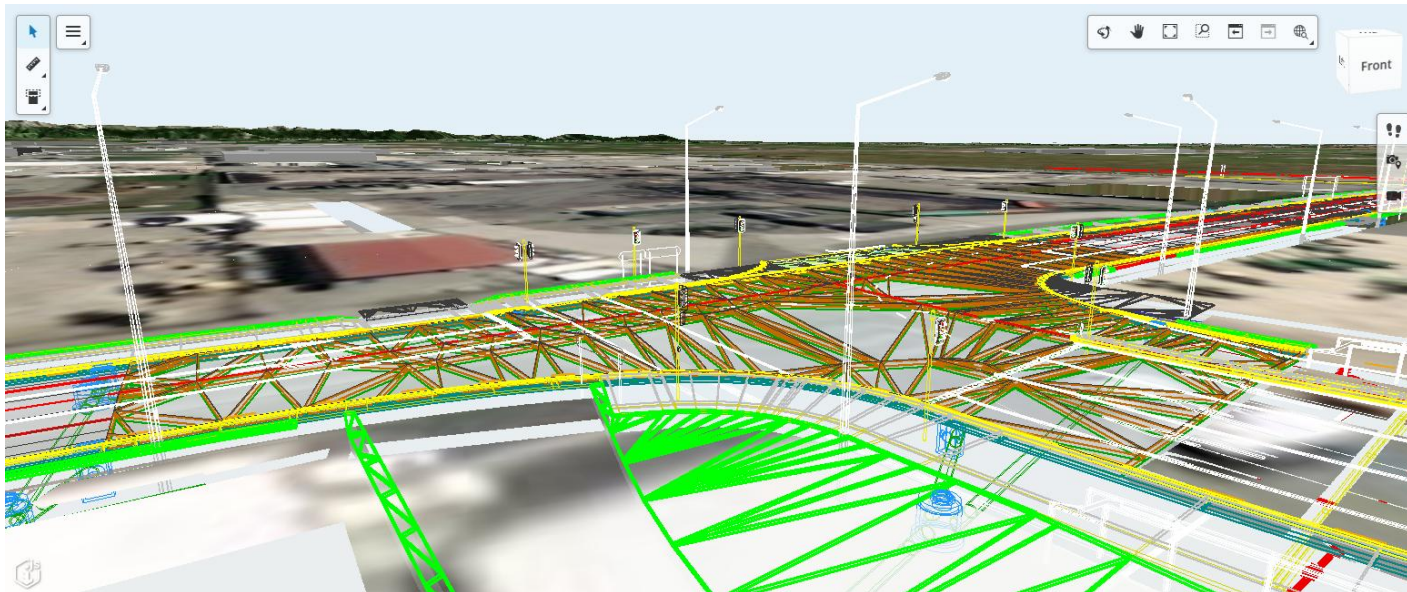


Main interchange for freight to industrial zone (via Jones Rd).

Local access to Rolleston South and Eastern areas (via Levi Rd).

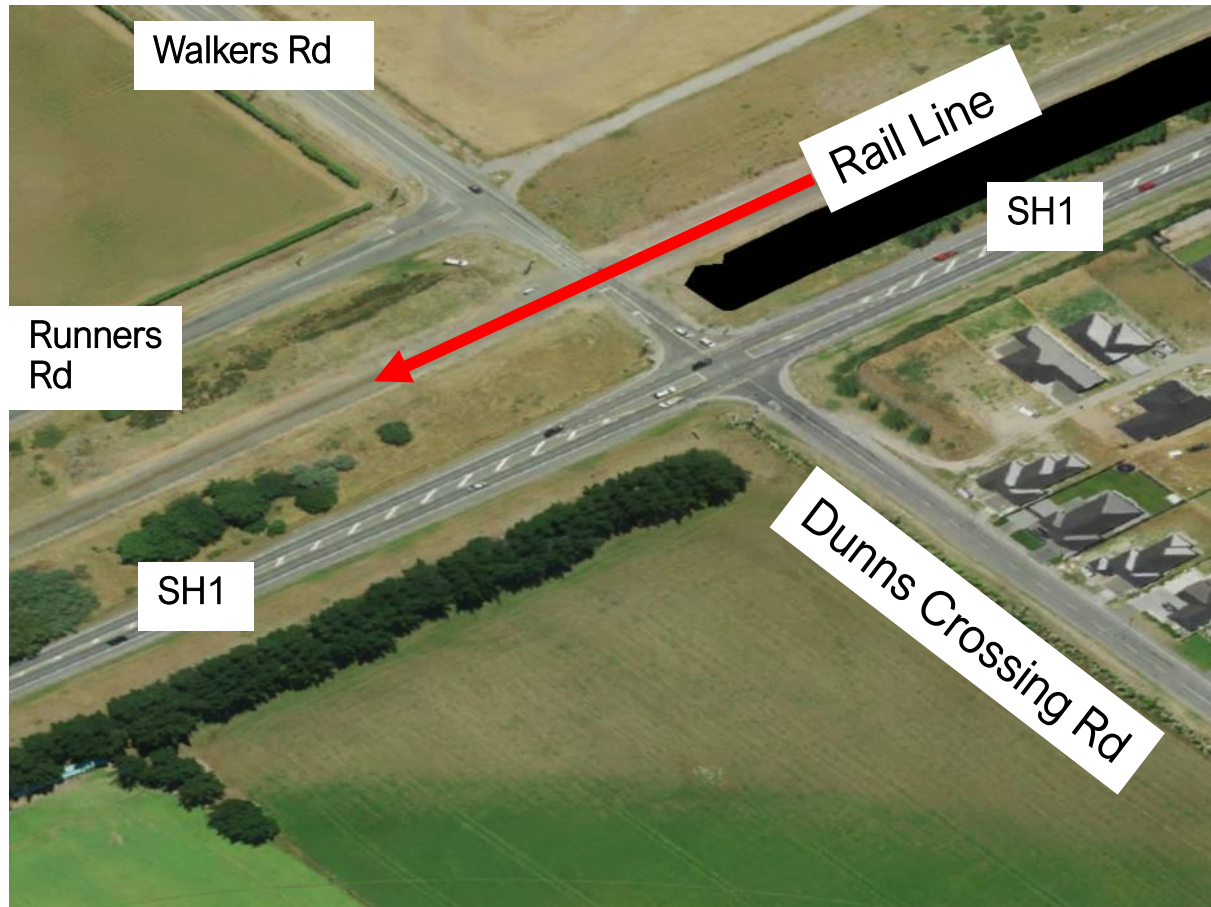
Key Risks

- **Land** – property purchase, brownfield site
- **KiwiRail** – design approval process and constrained by site access
- **NZTA & Selwyn District Council** – approvals, coordination with State Highways and Local Road works.
- **Utilities** – Deeds of Grant, design, coordination

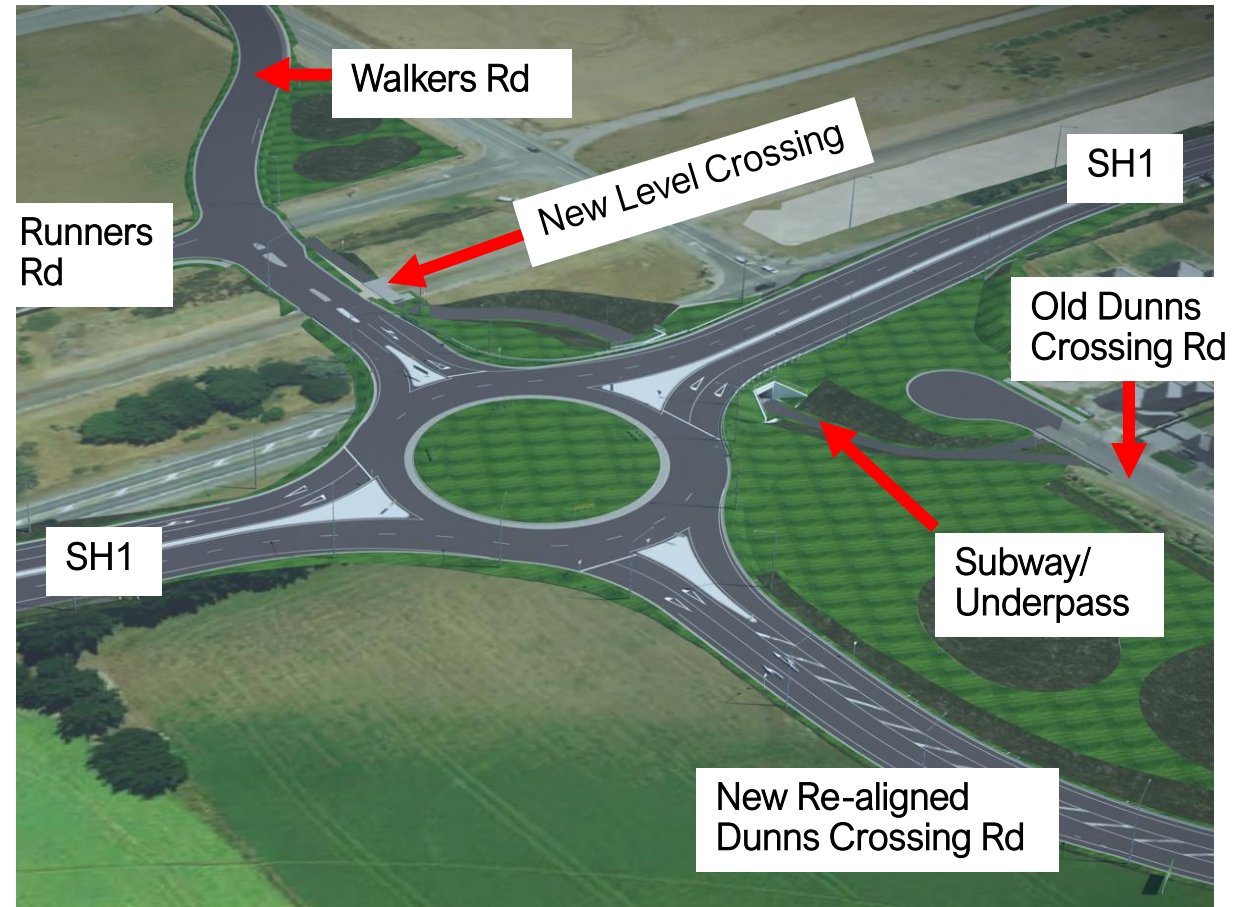


Area 1 – Proposed Roundabout & Subway

SH1/ Dunns Crossing Road/ Walkers Road Intersection



BEFORE
DESIGN



PROPOSED
DESIGN



New Signalised T-intersection
Rolleston Drive Extension/ Jones Rd

Signalised Upgrade
Jones Rd/ Hoskyns Rd

Jones Rd

Overbridge
Rolleston Drive Extension

Upgraded Level Crossing
Hoskyns Rd

Northbound
On-ramp

SH1

SH1 Service Lane

SH1

Southbound Exit

Decommissioned Traffic Signals
SH1/ Hoskyns Rd

Kidman St

New Signalised T-intersection
Rolleston Drive/ Kidman St

Rolleston Drive

Area 2 – Proposed Design

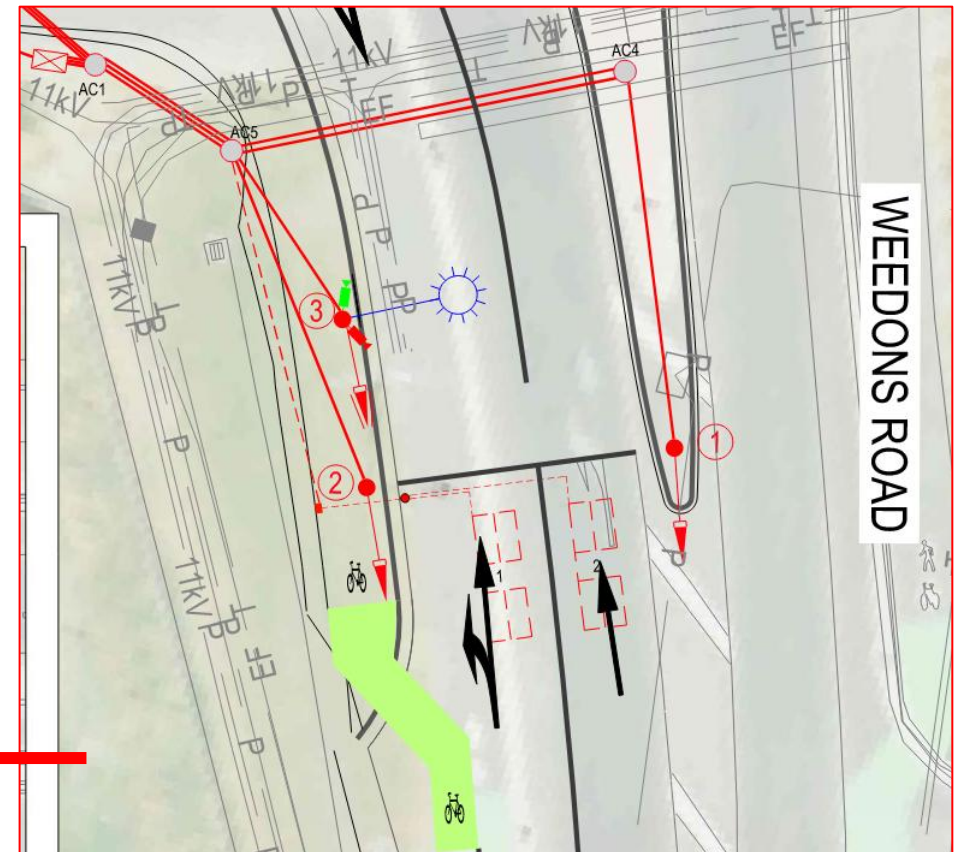
Area 3 – SH1 Weedons Interchange

Ramp Metered Queue Detection Signals



SH1 Southbound Off-ramp

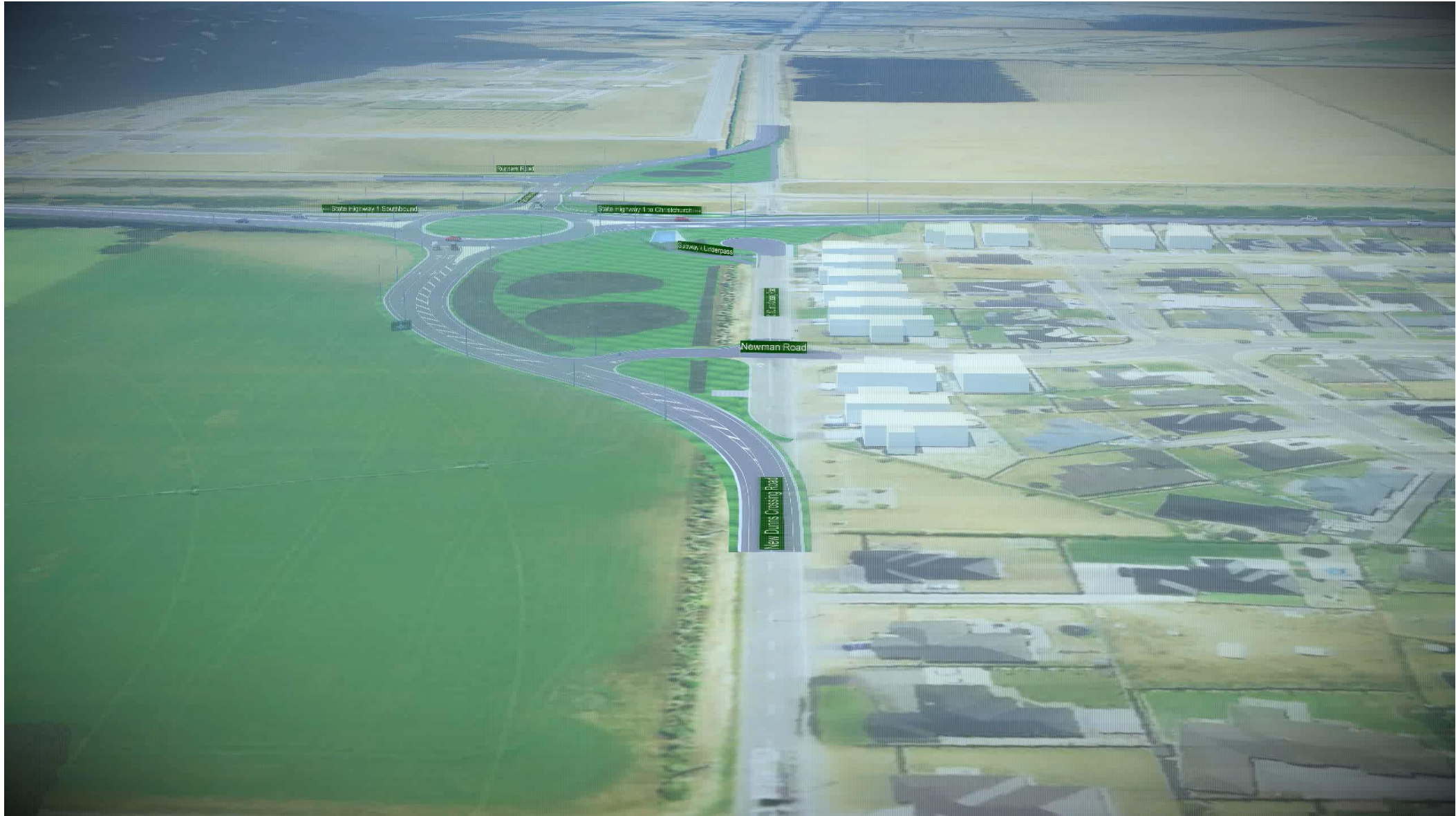
- 1 x above-ground detector (positioned 125m back)
- 2 x in-ground inductive loops (positioned 50m back)



Ramp Meter Signal Layout

South Approach – Weedons Roundabout (from Rolleston)

Proposed Visuals – Package 1



Proposed Visuals – Package 2





Thank you!