



# Vaughans Road – Proposed Safety Improvements Update

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# Purpose

- The **aim of this workshop** is to update the Local Board regarding:
  - Progress on the safety and operational improvements to Vaughans Road.
  - Current cost estimate of the proposal.
  - Additional sites enabled by the Local Board Capital Transport Fund contribution.
  - Results of the Safe Systems Stage 2 audit.
  - Next steps in the design and delivery process including public engagement.
  - Endorsement from the Local Board on the proposal.







# Investigation

## Prioritisation

- Vaughans Road was divided into 24 sections made up of bends, crests/dips and straights.
- A scoring tool was then developed to assign a risk rating for each section based on: length, curve radius, visibility, vertical geometry and width.
- This method allowed us to prioritise the available funding for the highest risk sections. Priority was generally given to bends, crests, and other narrow sections along Vaughans Road.
- Multiple site visits and drive-overs were conducted to get a driver's perspective and to determine the optimum combination of sections to be upgraded.
- Opportunities for localised repairs were also considered





# Safety and operational improvements

## Localised widening on narrow sections of the road including bends and crests



- Upgrade area consists of five 5 sections.

- **Site 1: Intersection of Vaughans Road and Okura River Road.** Proposal to widen the road, provide a flush median and localised patch repairs.
- **Site 2: 59–69 Vaughans Road.** Proposal to widen the road and provide a flush median.
- **Site 3: 94–96 Vaughans Road.** Proposal to widen the road, provide a flush median and new retaining wall on south side.
- **Site 4: 124–159 Vaughans Road.** Proposal to provide localised passing bays. This is the lowest priority of the five prioritised sites.
- **Site 5: 173–189 Vaughans Road.** Proposal to widen the road, provide a flush median and adjust levels of the road.

- Scheme design cost estimate: \$2,000,032.73 (including pavement repairs).

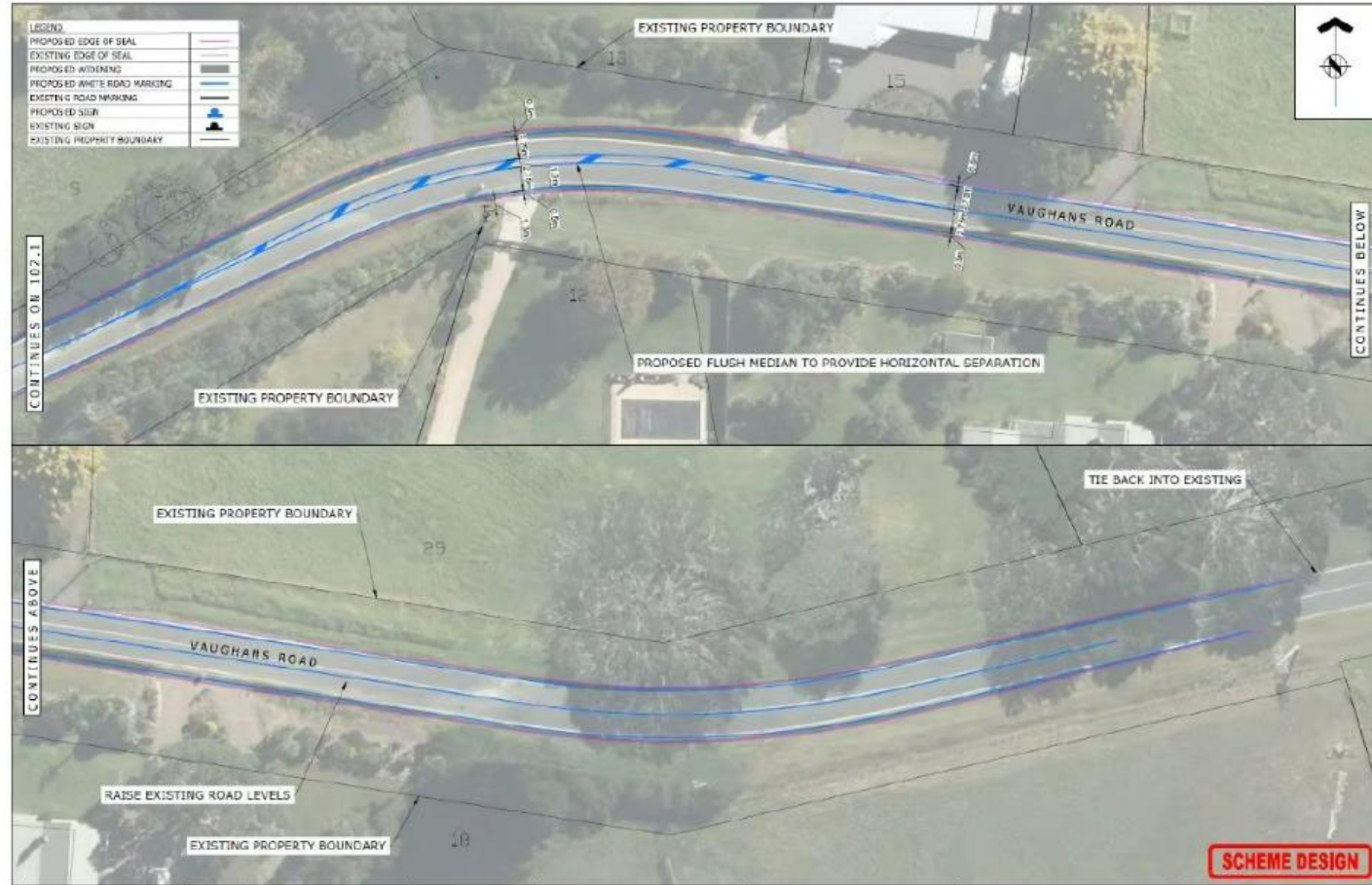




# Site 1: Intersection with Okura River Rd

## Widening, flush median and localised repair

- Existing layout characterised by tight and narrow corner approaching the Okura River Rd intersection, with limited forward visibility.
- Moderate crest outside 18 limiting forward visibility.
- Proposal:**
  - Fit 1m flush median within widened 5.5m road.
  - 0.5m shoulders to provide separation around the blind corner.
  - Localised patch repairs where required





# Site 2: 59–69 Vaughans Road

## Widening with flush median, horizontal separation over crest of road

- Existing layout has fairly abrupt localised widening outside #65 Vaughans Road which leads into a narrow crest curve causing limited forward visibility.
- Proposal:**
  - Widening to fit a 1m flush median with 2.75m lanes and 0.5m shoulders.
  - Existing road levels will remain but horizontal separation will be created over the crest.





# Site 3: 94 –96 Vaughans Road

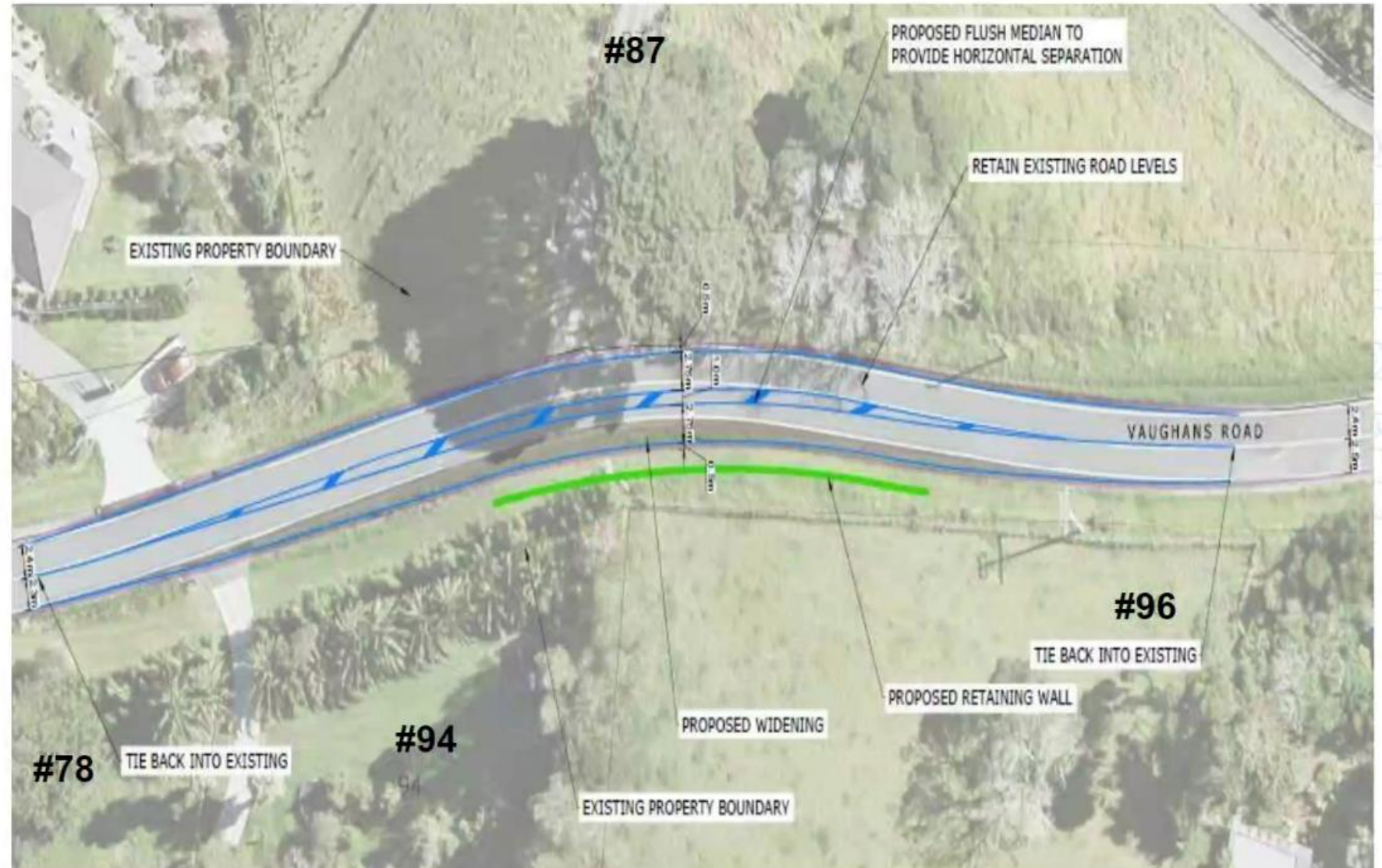
## Widening, flush median and new retaining wall

- Narrow crest curve causing significant limited forward visibility.



- **Proposal:**

- Widening to fit a 1m flush median with 2.75m lanes and 0.5m shoulders.
- Existing road levels will remain, but horizontal separation will be created over the crest.
- A new retaining wall will be constructed on the southern side of the road due to the widening on the steep slope.





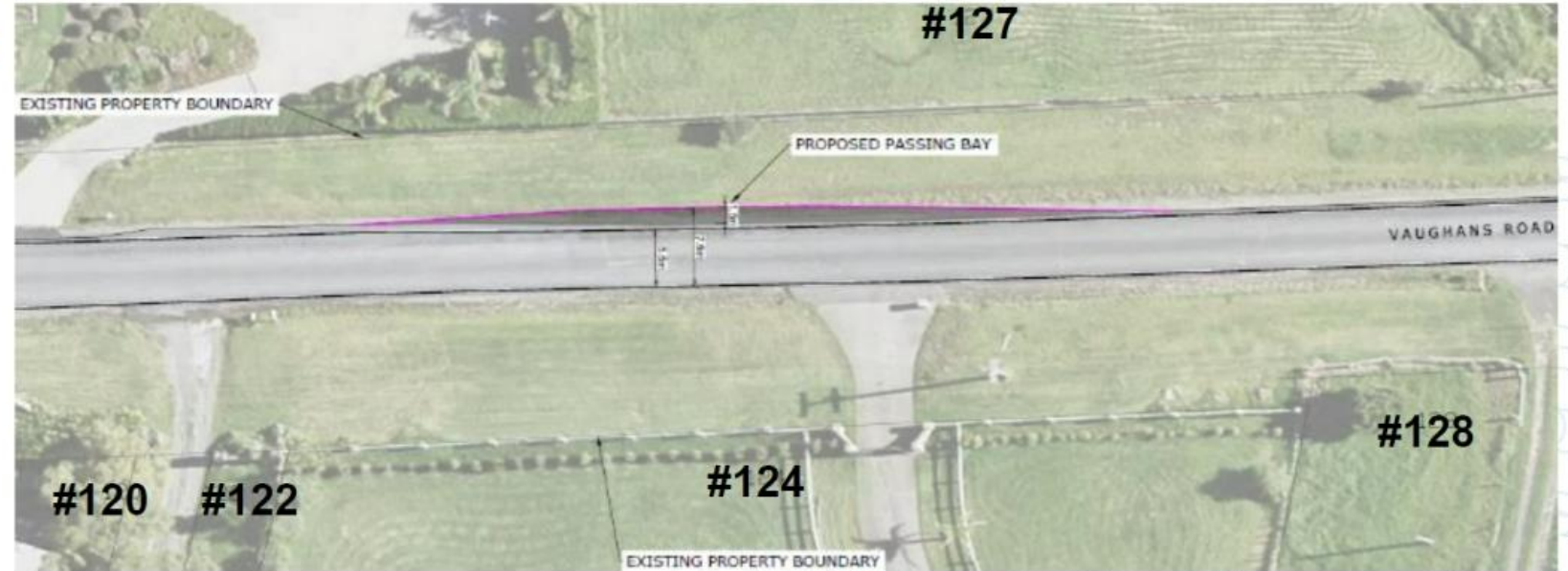
# Site 4: 124–159 Vaughans Road

## Two localised passing bays (lowest priority site)

- This is a long straight section of road with good forward visibility. It is quite narrow in some areas and accessibility and safety can be an issue when larger vehicles are involved. There is an existing vehicle bay/widening at the Ridgelea Rd intersection.

- **Proposal:**

- Two localised passing bays at 124 / 127 Vaughans Road and 151–159 Vaughans Road, respectively.
- The location and extent of the passing bays may still need to be revised based on refined cost estimates.

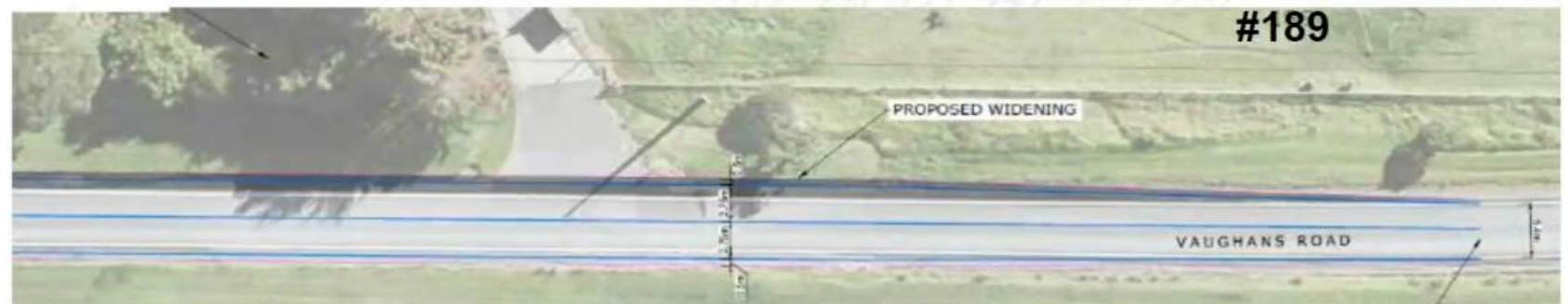
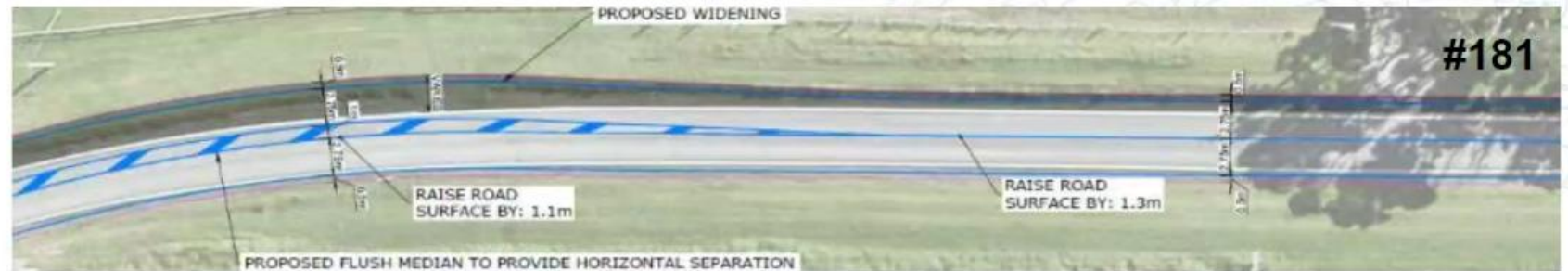
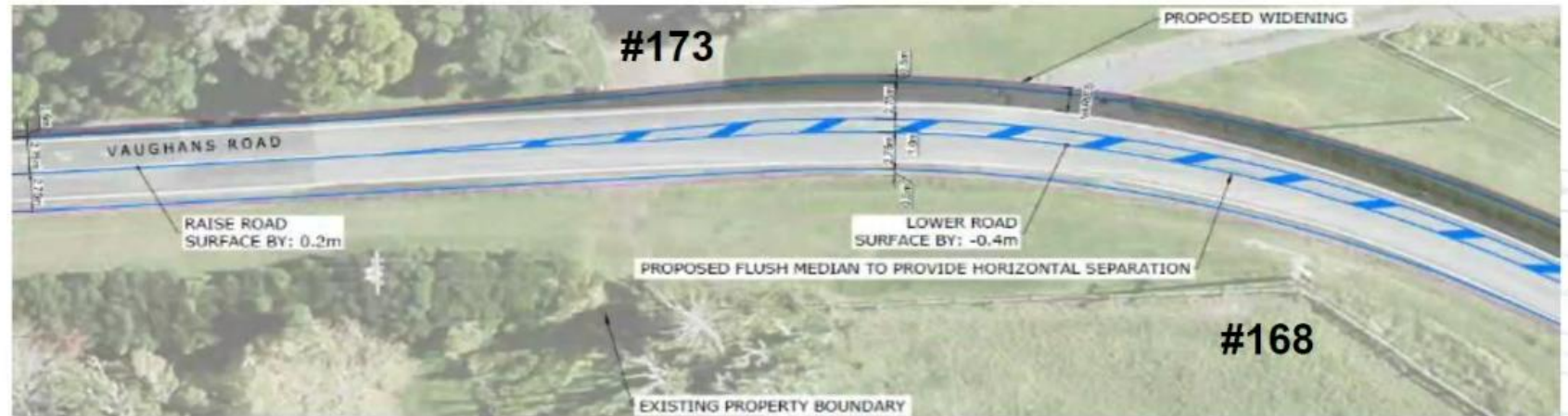




# Site 5: 173–189 Vaughans Road

## Widening, flush median, level adjustment

- Narrow bend with a moderate crest which significantly limits forward visibility.
- **Proposal:**
  - Widening on northern side to fit a 1m flush median with 2.75m lanes and 0.5m shoulders to provide separation around the blind corner.
  - Levels at the crest on the bend to be adjusted to improve forward visibility.





# Local Board Transport Capital Fund

**Additional sites enabled with LBTCF contribution of \$591,241**



- Two additional sites:
  - **Site 6: Between #15 and #59 Vaughans Road** i.e. upgrading the sections between Site 1 and 2. Proposal to widen the road, provide a flush median and localised patch repairs.
  - **Site 7: 110–120 Vaughans Road.** Proposal to Reduce crest curve along the straight section.
  - **Scheme design cost estimate: \$600,000.**

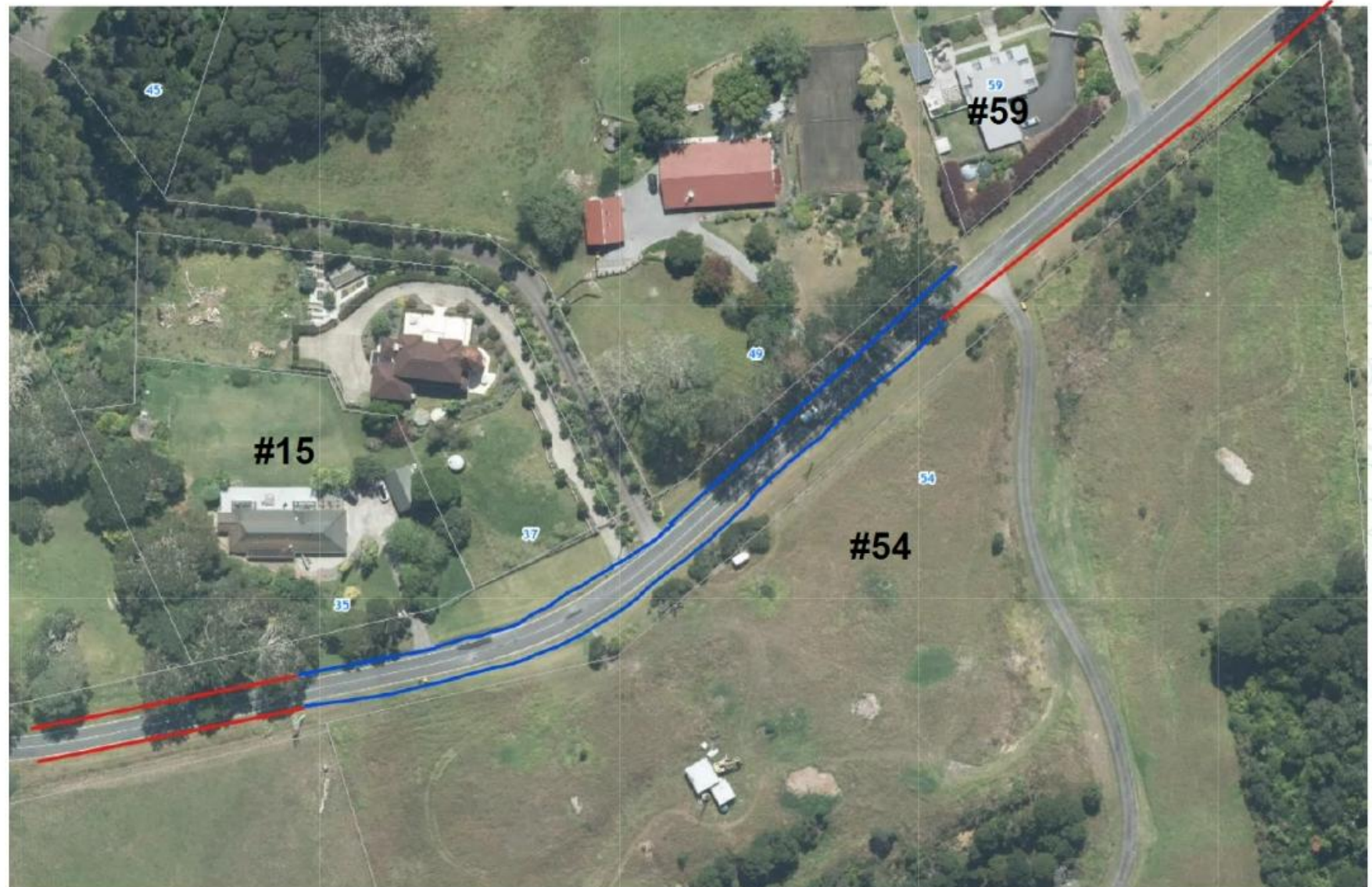




# LBTCF enabled sites

## Site 6: Between #15 and #59 Vaughans Road

- Existing layout characterised by tight and narrow corner approaching the Okura River Rd intersection, with limited forward visibility.
- **Proposal:**
  - Widening to fit a 1m flush median with 2.75m lanes and 0.5m shoulders.
  - Existing road levels will remain but horizontal separation will be created over the crest.
  - Estimate: \$200,000

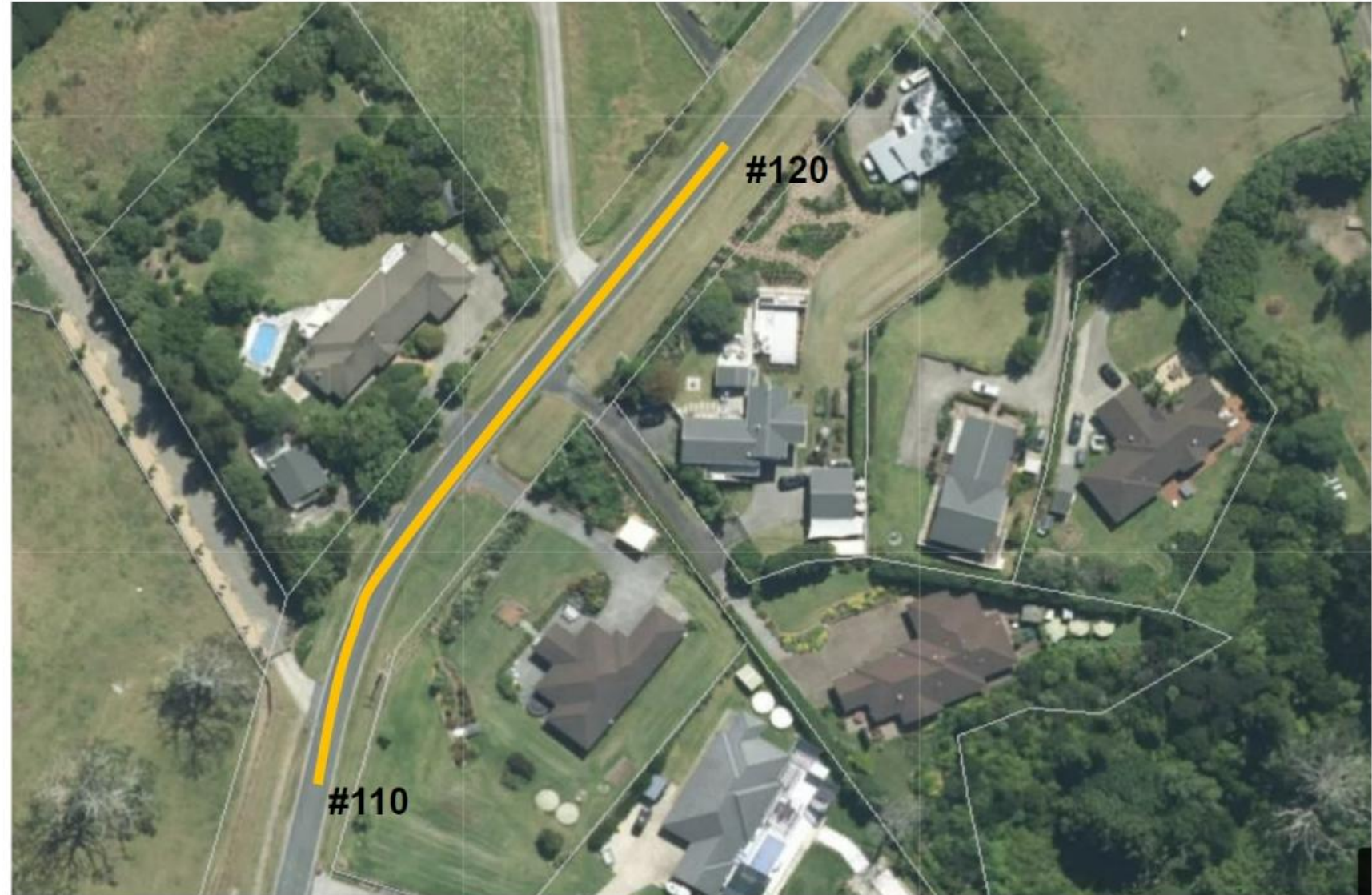




# LBTCF enabled sites

## Site 7: From 110–120 Vaughans Rd

- Crest curve causing limited forward visibility.
- **Proposal:**
  - Flattening the crest curve along the straight section through earthworks to aid forward visibility. No widening will be undertaken.
  - Estimate: \$400,000





# Safe Systems Audit (SSA)

## Stage 2 findings

- Four issues raised by the Safety Audit Team (SAT) were assigned risk ratings. In general, the recommendations of the Safety Audit Team can all be addressed.

Concern	Risk	Mitigation
<b>Lack of super-elevation on curves:</b> SAT observed that many curves along the Vaughans Road corridor lacked super-elevation, posing a potential risk for motorists.	Minor	Super-elevation will be checked on curves that we are widening.
<b>Pavement Failure:</b> SAT observed multiple pavement defects throughout the length of the corridor.	Moderate	Maintenance to be included as part of the works. It has been estimated that 50% of total proposed area will require pavement rehab
<b>Aggregate Migration:</b> SAT observed that aggregate migration is taking place on the driveway of 175 Vaughans Road, which is unsealed.	Moderate	Driveway to be partially resealed.
<b>Ineffective lane markings at intersection:</b> SAT recommended that the upgraded lane geometry at the Vaughans Road / Okura River Road be reinforced with physical means.	Significant	Flexi-posts originally intended at the intersection could not be installed due to access issues for #2 Vaughans Road. These will be re-considered.





# Next Steps

## Feedback and timeline

- Local Board to provide feedback on proposed plan and direction on where they would like to spend the additional LBCTF funds.
- Timeline:
  - **Consultation**
    - Internal consultation with internal AT departments to be closed by May 2025.
    - External consultation with local community, stakeholders and Local Board planned for June/July 2025.
  - **Delivery**
    - Funding of \$2 million (Community Initiated Programme) and \$591,241 (Local Board Capital Transport Fund) is available between 1<sup>st</sup> July 2025 and 30<sup>th</sup> June 2026.
    - Delivery is dependent on public feedback and any consequent design changes required potentially. The temporary closure will remain until construction
  - **Post-construction monitoring plan**
    - Dependent on consultation outcome and finalised design.
    - Generally focused on undertaking speed and volume surveys, safety reviews, pavement inspections and considering and responding to customer feedback

