Preliminary Options Assessment
Level Crossing Removal Project
Station Street and Eel Race Road, Carrum Frankston Line
September 2016
Making Melbourne’s roads and rail safer and less congested

The Victorian Government is removing 50 dangerous and congested level crossings, including at Station Street and Eel Race Road in Carrum.

Removing these crossings will improve safety, deliver benefits to the transport network and create thousands of jobs.

The Level Crossing Removal Authority (LXRA) is undertaking detailed planning and community consultation on the best way to remove these crossings. As part of this work, the LXRA has identified two options that will be considered further.

Community feedback has been vital in helping us understand what is important in each area including the community’s vision for the long-term future of Carrum.

We are now asking for community feedback on the Station Street and Eel Race Road, Carrum level crossings. For information on the options under consideration for other level crossing removals on the Frankston line please visit our website: levelcrossings.vic.gov.au where you will find a feedback form, as we are keen to receive your feedback on these options.

Project benefits

The Level Crossing Removal Project will deliver many benefits to those who live and travel along the Frankston line:

- **More reliable roads and rail**
  By improving traffic flow, particularly along and in-between McLeod Road and the Nepean Highway, by enabling trains to run more often and more reliably.

- **Improved safety**
  By separating rail and road traffic along the Frankston line, including important bus routes.

- **Boosting the economy**
  By creating thousands of jobs during construction.

- **Better connected communities**
  By reuniting and revitalising communities in Melbourne’s south east through removing level crossings, creating public spaces and providing opportunities for new pedestrian and bicycle connections.

- **Unlock opportunities**
  By enhancing and creating vibrant areas for retail and residential growth.

What’s the plan for the Station Street and Eel Race Road level crossings?

We investigated multiple options for removing the Station Street and Eel Race Road, Carrum level crossings and have identified two of these options for further consideration. We do not yet have a Recommended Option.

These two crossings are being considered as one site. This is the case for two reasons:

- The proximity of the two level crossings – i.e. how close they are to each other (within 850m).
- The train stabling (train parking) at Carrum, which affects access into and out of Carrum.

In addition, there are a number of elements at this site, such as community feedback about a second road crossing for Carrum. Road options can be quicker and cheaper to build, but often require land acquisition, which is the case here.

A tunnel under the Patterson River, which was suggested by some members of the community, is also not under consideration. We have done preliminary investigations and this option is not practical because the depth required to tunnel under the river would significantly increase the length of the tunnel. Tunnelling is also a significantly higher cost than the other options we have investigated.

Road over the rail and road under the rail are also no longer being considered for Carrum. Road options can be quicker and cheaper to build, but often require land acquisition, which is the case here. Road options generally work better in less built-up areas.

Booing the economy

- By improving traffic flow, particularly along and in-between McLeod Road and the Nepean Highway, by enabling trains to run more often and more reliably.

- The train stabling (train parking) at Carrum, which affects access into and out of Carrum.

- An average of 210 trains each day travel this line - no more boom gates will mean no more waiting for trains!

Unlock opportunities

- By enhancing and creating vibrant areas for retail and residential growth.

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- An average of 210 trains each day travel this line - no more boom gates will mean no more waiting for trains!
Connecting Station Street over the Patterson River

During our community engagement between February and June 2016 we received overwhelming feedback about connecting both sides of Station Street at the Patterson River. This would avoid the need to ‘dog leg’ across the rail line from Station Street to access Carrum and Patterson Lakes. We have therefore investigated this option, which would allow the closure of the level crossing near Mascot Avenue. There is more information on pages 18 and 19.

Station Street

- Option 1 - lower the rail line into a trench and build a new Station Street bridge at the current road level. No longer under consideration because of the impact to the Patterson River
- Option 2 - raise the rail line to go over Station Street and retain the existing road level at Station Street. No longer under consideration because of strong community preference for access to the Nepean Highway via an extended McLeod Road
- Option 3 - lower Station Street and Nepean Highway under the rail line, with the rail line remaining at its current level. No longer under consideration because of major property acquisition requirements
- Option 4 - raise Station Street and Nepean Highway over the rail line, with the rail line remaining at its current level. No longer under consideration because of major property acquisition requirements

Eel Race Road

- Option 5 - lower the rail line into a trench and build a new Eel Race Road bridge at the current road level. No longer under consideration because of the proximity of Eel Race Road to Station Street, which means the design for both crossings must be the same
- Option 6 - raise the rail line to go over Eel Race Road and retain the existing road level. Under active consideration
- Option 7 - lower Eel Race Road and Nepean Highway under the rail line, with the rail line remaining at its current level. No longer under consideration because of major property acquisition requirements
- Option 8 - raise Eel Race Road and Nepean Highway over the rail line, with the rail line remaining at its current level. No longer under consideration because of major property acquisition requirements
- Option 9 - Eel Race Road closure (with rail over) - Under active consideration
- Option 10 - McLeod Road extension (with rail over) - Extend McLeod Road to intersect with the Nepean Highway, with the rail line raised to go over the road. Under active consideration
- Option 11 - McLeod Road extension (with rail under) - Extend McLeod Road to intersect with the Nepean Highway, with the rail line lowered to go under the new road extension. No longer under consideration because of impact to the Patterson River

McLeod Road extension

Option 11 - McLeod Road extension (with rail under) - Extend McLeod Road to intersect with the Nepean Highway, with the rail line lowered to go under the new road extension. No longer under consideration because of impact to the Patterson River

Considering this information, and the proximity of the two crossings to each other, we are left with two options:

Option 1: Rail bridge over road at McLeod Road and close Eel Race Road
- McLeod Road extended to Nepean Highway, with rail bridge over road
- Existing Station Street level crossing closed

Option 2: Rail bridge over road at McLeod Road and Eel Race Road
- McLeod Road extended to Nepean Highway, with rail bridge over road (Station Street closed at crossing)
- Rail over road at Eel Race Road

We undertook initial investigations to determine the practicality of all options, taking into account a range of criteria. This led to some options being set aside and no further investigation undertaken. However, where options were considered practical, we are continuing with detailed investigations. We do not yet have a recommended solution.

Based on these investigations, we will further explore options 1 and 2 above, seeking community input into these options, as well as continuing with engineering and technical studies as we work towards a Recommended Option in late 2016/early 2017. We will build a new station at Carrum as part of this project. Station design will be considered during the second half of 2016 and refined during the tender process in 2017. Communities will have the chance to provide feedback on station design.

Train stabling

There is currently stabling, or parking, for six trains at Carrum. The stabling is a further complicating factor in our investigations for removing the Station Street and Eel Race Road level crossings. We received feedback from local residents during our consultation earlier this year that the stabling is noisy and visually unappealing. There is strong community preference from residents for the stabling to be relocated elsewhere on the Frankston line.

As part of our technical and engineering investigations we have looked at the implications of maintaining the stabling. Put simply, in order to remove the Station Street and Eel Race Road level crossings and extend McLeod Road to the Nepean Highway we have two options:

- Move access to the stabling to the southern end, which will reduce capacity and also require closure of Eel Race Road
- Relocate the stabling elsewhere on the Frankston line

Both of these scenarios are under consideration and we are keen to hear from the local community.

We are continuing our investigations into an alternative location for the stabling but have not yet confirmed a suitable site. Therefore we need to continue investigations into option 1 and option 2 above, so we have a scenario for being able to maintain the stabling or relocate it if a suitable alternative location can be found.
Understanding the different options

There are a number of important factors to consider when selecting a design option for level crossing removal. At each level crossing, experts conduct a range of engineering and other assessments to help determine the most appropriate option for each specific location.

There are several options for removing a level crossing to separate the road and rail line (also known as a grade separation). The most common options include:

- lowering the rail line under the road (rail under the road)
- building a road bridge over the rail (rail bridge over the road)
- lowering the road under the rail line (road under the rail)
- building a road bridge over the rail line (road over the rail).

Other less common options may include realigning roads and crossing points to improve traffic flow and local connections and partially lowering the road and raising the rail line, known as a hybrid option.

There are examples of all these designs across Melbourne, Australia and all over the world.

Assessing and selecting a design

Design options for level crossing removals are assessed and developed by teams of experts including engineers, construction specialists and architects. Information we receive through community consultation is used, along with all the other factors under consideration, to help assess, select and then refine designs. We also draw on the expertise of the construction industry, with options tested and refined through the tender process with bidding teams.

Developing a design to remove each level crossing depends on the characteristics of each site, the benefits and impacts of each design option and information provided by the community, stakeholders and local councils.

Technical considerations

We conduct a range of engineering and other assessments to determine what is technically possible at each location. See page 21 for details of our required technical investigations.

Community considerations

Throughout the development of design options, we seek the views of the community and stakeholders on what is important in the local area. We use the information we gather through this consultation to assess the potential benefits of the design, as well as the likely impacts and how we can mitigate these.

Community and stakeholder feedback helps us refine the options to make sure the design can best meet local needs. This feedback is one of a number of inputs into this assessment.

Other important considerations

We take a range of other factors into account:

- construction and operational safety considerations
- the impact on residents and other properties, both during construction and after the project is finished (for example, through visual amenity)
- implications for local businesses
- any potential compulsory land acquisition
- impact to road traffic and rail operations
- the urban setting and existing land uses, including opportunities to revitalise areas through improved urban design
- overall cost and value for money
- potential development and growth in the area
- the site’s location on the transport network, both in terms of other level crossings being removed on the same rail line and the network as a whole.

All of these factors are assessed and considered in detail, and all play a part in the process for which design is chosen. No single factor is decisive in how a design is selected, but all factors are important and need to be balanced in terms of what is best for each site and for the overall Level Crossing Removal Project.

What does rail under the road look like?

A rail under the road solution is the second most commonly used design for grade separations in Melbourne. Eighty three of Melbourne’s 260 grade separations (32%) have been built using this design. Trenching is generally used to lower the line at single sites.

Digging trenches typically presents greater engineering challenges and also creates large open cuts which are difficult to cross over.

Benefits

- Reduced visual impact.

Challenges

- Ground conditions, water tables and proximity to major utilities may make the project difficult to build.
- A large trench physically divides the local area.
- A large trench requires significant tree removal and offers limited opportunity for replanting.
- Limited opportunities for pedestrians to cross the rail line.

What it means in construction

- Increased rail service disruption with longer closure of rail lines.
- Greater impacts on the local community through noise, dust and truck movements.
- Ground conditions including a high water table can impact design construction.
- Major utilities such as sewerage and water could be impacted.

What does a rail bridge over the road look like?

A rail bridge over the road solution is the most commonly used design for grade separations in Melbourne. Ninety eight of Melbourne’s 260 grade separations (38%) have been built using this design.

There are two main variations of the rail bridge over the road design. The most common is a single bridge, built mostly on an embankment or retaining walls. A less common solution is a longer continuous elevated viaduct.

Benefits

- Allows people to travel by foot, bike, bus or car from one side to the other, removing the divide between communities or suburbs.
- Can open up public space under the structure, reconnecting communities and creating opportunities for improvements including shops, car parks, plazas, playgrounds and parks.
- Less impact on vegetation and mature trees, and large trees can be planted along the rail line for privacy and screening.
- Averts the amenity impact of long, fenced, open concrete trenches through suburbs.

Challenges

- Could have an overshadowing effect on homes and businesses.
- Could change the views in the local area because of the bridge.

What it means in construction

- Typically less disruption during construction.
- Access to houses/shops and roads would generally be the same.

WHERE WE ARE DOING THIS
Main and Furlong Roads, St Albans
Blackburn Road, Blackburn
Heatherdale Road, Mitcham
Mountain Highway and Scoresby Road, Bayswater
Burke Road, Glen Iris
North Road, Ormond
McKinnon Road, McKinnon
Centre Road, Bentleigh

WHERE THIS HAS BEEN DONE BEFORE
Springvale Road, Springvale
Mitcham Road, Mitcham
Springvale Road, Nunawading

WHERE WE ARE DOING THIS
Kororoit Creek Road, Altona
Caulfield to Dandenong, Cranbourne–Pakenham line

WHERE THIS HAS BEEN DONE BEFORE
Carlisle Street, Balaclava
Glenferrie Road, Glenferrie
Victoria Street, North Richmond
Numerous examples from around the world, including Vancouver, Singapore, Miami and Sydney.
Criteria for assessing the options

Removing a level crossing is complex and a number of elements need to be considered to find the best overall solution to meet the individual needs of each location and community.

In the first instance, we evaluated all options against the Victorian Government’s Level Crossing Removal Program benefits, then we did a Key Impact Assessment to evaluate all options using a range of desktop studies and preliminary technical investigations. We are now at the Preliminary Assessment stage.

### Key Impact Assessment

**Stanton Street**

<table>
<thead>
<tr>
<th>Criteria to meet</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4</th>
<th>Option 5</th>
<th>Option 6</th>
<th>Option 7</th>
<th>Option 8</th>
<th>Option 9</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>Impact to retail and activity centre</td>
<td>No impact to retail centre</td>
<td>No impact to retail centre</td>
<td>Retail centre impacted by property acquisition</td>
<td>Retail centre impacted by property acquisition</td>
<td>Less traffic along Station Street if Station Street not connected over Patterson River</td>
<td>Less traffic along Station Street if Station Street not connected over Patterson River</td>
<td>Less traffic along Patterson River</td>
<td>Less traffic along Patterson River</td>
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<tr>
<td>Ability for the design to comply with design standards</td>
<td>Unacceptable impact to Patterson River</td>
<td>Can comply with design standards</td>
<td>Can comply with design standards</td>
<td>Can comply with design standards</td>
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<td>Can comply with design standards</td>
<td>Can comply with design standards</td>
<td>Can comply with design standards</td>
</tr>
<tr>
<td>Future proofing (includes transport and urban growth)</td>
<td>Provides areas for development/public use under and around corridor</td>
<td>Provides areas for development/public use under and around corridor</td>
<td>Minimal development opportunities in corridor</td>
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<td>Options cost comparison</td>
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<tr>
<td>OVERALL ASSESSMENT OUTCOME</td>
<td>No longer under consideration</td>
<td>No longer under consideration</td>
<td>No longer under consideration</td>
<td>No longer under consideration</td>
<td>Under active consideration</td>
<td>No longer under consideration</td>
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</table>

**Eel Race Road**

<table>
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<th>Criteria to meet</th>
<th>Option 5</th>
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<th>Option 8</th>
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<td>No impact to retail centre</td>
<td>No impact to retail centre</td>
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<tr>
<td>Ability for the design to comply with design standards</td>
<td>Does not comply due to proximity to Station Street site. Must be the same solution at Eel Race Road</td>
<td>Can comply with design standards</td>
<td>Can comply with design standards</td>
<td>Can comply with design standards</td>
<td>Can comply with design standards</td>
</tr>
<tr>
<td>Future proofing (includes transport and urban growth)</td>
<td>Opportunities for retail/residential development</td>
<td>Opportunities for retail/residential development</td>
<td>Major opportunities for retail/residential development</td>
<td>Major opportunities for retail/residential development</td>
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</table>

* Considering situation where Station Street not connected via Patterson River road bridge
* Additional development opportunities available when stabling is relocated

Why a rail under the road design will not work

**Patterson River**

Minimum clearance would be 1.5m which is too low for boats to pass through. Additionally, constructing a new rail bridge would require a 6 month (approx) rail shutdown.
Options no longer under consideration – road under the rail and rail under the road

While we’ve considered a range of options to remove the level crossings, it’s important to understand why we haven’t pursued any rail under road options. This is primarily because these options would not be able to return to ground level before the Patterson River. Road under and road over the rail options would require significant property acquisition.

Road options can be quicker and cheaper to build, but often require land acquisition, as is the case here. Road options generally work better in less built up areas.

**Station Street: rail under the road**

**Station Street: rail bridge over the road**

**McLeod Road: rail under the road**

**Eel Race Road: rail under the road**

**Station Street: road under the rail**

**Station Street: road over the rail**

**Eel Race Road: road under the rail**

**Eel Race Road: road over the rail**

* Impacted property - will need to be acquired or partially acquired for this option

Artists impressions only
How did we assess each option still under active consideration?

This criteria in the table below and in the map page are based on current site-specific engineering and technical investigations and what we told us was important to you about your local area during our community engagement between February and June 2016. Further investigations are underway and along with community feedback will help determine the final decision.

Design outcomes

Considerations after the level crossing is removed

### Preliminary Examination

<table>
<thead>
<tr>
<th>Property acquisition</th>
<th>Look &amp; Feel</th>
<th>Permanent use open space (includes community infrastructure elements)</th>
<th>Cycling &amp; walking</th>
<th>Local access and connections</th>
<th>Technical considerations (including ground conditions, site constraints, utilities, network of construction side)</th>
<th>Integrated development opportunity</th>
</tr>
</thead>
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</tr>
<tr>
<td>No property acquisition required</td>
<td>Visual impact and event damping</td>
<td>Does not preclude future removal of Mascot Avenue level crossing</td>
<td>Opportunity for new paths and greater connections, improving pedestrian access to the beach and shops</td>
<td>Design allows for consideration of Station Street extension over Patterson River</td>
<td>Ongoing maintenance required such as graffiti removal</td>
<td>Greater opportunity for urban residential development with the station working process</td>
</tr>
<tr>
<td>No property acquisition required</td>
<td>Greater visual impact and greater connection, improving pedestrian access to the beach and shops</td>
<td>No net loss of car parking at the station</td>
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### Design outcomes

**Recommended Option.**

February and June 2016. Further investigations are underway and along with community feedback will help determine the final decision.

### What will Carrum look like after construction?

Station Street and Eel Race Road (no access from Eel Race Rd to Nepean Hwy): after construction, rail bridge over the road

### What will cause Carrum to look like after construction?

Station Street and Eel Race Road (Eel Race Road open under rail): after construction, rail bridge over the road

### Help us evaluate the design options

**On the table below, we will tell you that we have graded the various criteria:**

- Low benefits
- Medium benefits
- High benefits
- Low impacts
- Medium impacts
- High impacts

**Please tell us:**

What's important to you – did we get our key considerations right?

Anything else to tell us – are there any gaps in our knowledge?

Too much, not enough or just right – have we got the number of pluses and minuses right?
How did we assess each preliminary option?

<table>
<thead>
<tr>
<th>Preliminary Assessment</th>
<th>How do we assess each preliminary option?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key considerations/ criteria to meet</td>
<td>Red bridge over the road – Eel Race Road closed (estimated 2017) or Patterson River closed (in late 2016) for extended period to enable the various criteria.</td>
</tr>
<tr>
<td>Construction impacts</td>
<td>Station Street and Eel Race Road (no access from Eel Race Rd to Nepean Hw): construction impacts, rail bridge over the road (bridge structure can be constructed here).</td>
</tr>
<tr>
<td>Environment - flora &amp; fauna</td>
<td>Major vegetation removal required: replanting of large areas possible.</td>
</tr>
<tr>
<td>Site for station car parks</td>
<td>Walkers Rd and Kalimna St: pedestrian access extended to Nepean Highway.</td>
</tr>
</tbody>
</table>

### Disruption during construction

- The closure of Eel Race Road will vary depending on which option for the removal of the station car parks and Eel Race Road level crossings is selected as the Recommended Option.
- The station car parks may be closed for the entire construction period of up to 18 months for either solution.

### What will Carrum look like during construction?

Using level crossing removal at North, Centre and McKinnon tracks elsewhere on the Frankston line, the rail bridge over the rail solution for Station Street and Eel Race Road, Carrum would involve approximately:
- Approximately two months of rail shutdowns, plus additional weekend shutdowns.
- Minor road and lane closures.
- A four-month station closure and closure of station car parks for up to 18 months (or for the full duration of works).

Along the Cranbourne–Dandenong line, where an extended level crossing solution will remove nine consecutive level crossings, much of the raised bridge structure can be constructed without disrupting train services. This is not possible along large parts of the Frankston line, because of the narrow rail corridor.

Each option has benefits and disadvantages and technical questions that need to be answered before we are able to provide the Victorian Government and the community with a Recommended Option for removing the level crossing. Following community feedback, we intend to provide a Recommended Option in late 2016/early 2017.

### What do I need to know about construction impacts?
New Station Street road bridge

As part of the project, we are also investigating the opportunity to extend Station Street over the Patterson River. This will improve road connections within the local area and also ensure businesses along Station Street continue to have vehicle traffic passing through the area.

Options under active consideration

Rail bridge over the road

8m is approximate structure height at its highest point from the ground.

Rail bridge over the road: Eel Race Road closed

Rail bridge over the road at McLeod Road and Eel Race Road

Car parking - closed for construction

Local access to Station Street only for vehicles, pedestrians and cyclists

Existing pedestrian walkway closed during construction

No parking in this area after construction - see right

No net loss of parking.

Existing pedestrian walkway closed during construction

Local access to Station Street only for vehicles, pedestrians and cyclists

After construction

During construction

Artist impressions only
To fully understand how each design option will either benefit or impact the area, we need to undertake many technical investigations. These can take some time, are still underway and are vital to ensure the best solution is developed for each site.

Further information about our technical investigations is available in the Technical Investigations and Existing Conditions Report for Station Street and Eel Race Road, Carrum which is available on our website at www.levelcrossings.vic.gov.au

- **Noise monitoring** – recording noise levels along the rail line to be used to model noise from design options.
- **Traffic modelling and monitoring** – model traffic flows will change.
- **Technical Investigations and Existing Conditions Report** – assessing the design options and traffic flows along the rail line to be used to model noise from design options.
- **Noise monitoring** – recording noise levels along the rail line to be used to model noise from design options.
- **Traffic modelling and monitoring** – model traffic flows will change.
- **Technical Investigations and Existing Conditions Report** – assessing the design options and traffic flows along the rail line to be used to model noise from design options.

- **Geotechnical site investigations** – sampling what the soil is made up of, its strengths and stability and how this will affect design options.
- **Hydrology** – looking at existing surface waterflows and the potential impacts on drainage and flood risk from removing the level crossing.
- **Hydrogeology** – assessing the distribution and movement of groundwater within the soil.
- **Visual assessment** – assessing how the design options fit within the region.
- **Overshadowing analysis** – looking at any overshadowing from design options.
- **Property title survey** – confirming property title boundaries and who owns the land.
- **European cultural heritage** – identifying the relevant heritage controls that apply to sites within or immediately adjacent to an investigation area. Primarily affects Cheltenham and Balcombe Road, Mentone.
- **Indigenous cultural heritage** – a Cultural Heritage Management Plan will be undertaken for the entire investigation area between Cheltenham and Frankston.

- **Flora and fauna studies** – recording the important plants and animals in each area.
- **Feature surveys** – identifying which suburbs commuters travel from to their station to determine the best location in which to locate commuter car parking during and after construction.
- **Traffic assessment** – observing how many vehicles use an area, how traffic flows along local roads, where vehicles come from and travel to and also modelling how traffic flows will change.

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- **Flora and fauna studies** – recording the important plants and animals in each area.
- **Feature surveys** – identifying which suburbs commuters travel from to their station to determine the best location in which to locate commuter car parking during and after construction.
- **Traffic assessment** – observing how many vehicles use an area, how traffic flows along local roads, where vehicles come from and travel to and also modelling how traffic flows will change.
What we’ve heard from you - early 2016 community input

Hundreds of local residents and traders attended our March community information sessions in nearby Seaford and Chelsea, and we received almost 1,000 comments about Carrum on our Social Pinpoint online engagement tool.

Community members provided us with some detailed feedback about what you value in your area and what’s important to you. Here’s a summary of what we heard:

• Many of you are keen to see both sides of Station Street connected by building a second road bridge across the Patterson River to improve road connections.
• People want to see McLeod Road connected to the Nepean Highway.
• You are interested in what may happen to the stabling (train parking).
• Many people said they saw no need for the Eel Race Road crossing to be removed or were happy for it to be closed.

We have had, and will continue to have, regular meetings with Kingston and Frankston City Councils and other key stakeholders as we continue to work towards finding the best way to remove the Station Street and Eel Race Road level crossings. The boom gates are down for an average of 49 minutes at Station Street and 21 minutes at Eel Race Road in the morning peak 7am-9am.

Community feedback has been vital in helping us understand what is important in each area.

And how we’ve heard it

Community engagement snapshot – February to June 2016

- 10 community pop-ups at stations and a shopping centre
- 9 community feedback sessions, more than 3,000 hand written pieces of feedback
- More than 7,200 separate comments on Social Pinpoint
- 65,000 newsletters distributed - first edition to residents and businesses
- 20,000 flyers distributed to raise awareness of the project
- 20 council meetings and workshops
- More than 1,000 businesses doorknocked across 7 locations in late 2015 and early 2016
- 7 workshops with community groups
- Nearly 3,000 people participated in our Community Sentiment Survey
- More than 1,600 homes door knocked
**What stage are we at?**

**Early 2016 Key Impact Assessment**
Each option is evaluated against key criteria, such as whether it requires significant property acquisition and would have a negative impact on communities.

**Mid-2016 Preliminary Assessment**
Investigations at this stage help us gain an understanding of each area and tell us what additional detailed investigations are needed as we further refine our options for each site.

**Detailed Investigations**
We undertake detailed technical investigations at this stage.

**Late 2016/early 2017 Detailed Assessment and Design Option Recommendation**
A recommended option for each site will be provided to the Victorian Government for consideration and approval, subject to the planning approval process.

**2017 Tender Process**
We will seek a construction partner to remove the level crossings.

**2018-2022 Construction**
We will remove the level crossings.

**2022 Completion**
Once construction is finished we will do one more round of assessment to see if the benefits identified at the Benefits Assessment stage and as part of the Recommended Option have been achieved.

**How your feedback helps us at each stage**

- **2015 Benefits Assessment**
  Options are evaluated against the Victorian Government’s Level Crossing Removal Project benefits – will it improve safety, reduce congestion and improve connectivity?

- **2016 Key Impact Assessment**
  Community input at this stage helps us understand what is important to local communities.

- **2016 Preliminary Assessment**
  We seek your feedback on the design options. This helps us determine the Recommended Option for each level crossing site.

- **2017 Detailed Assessment**
  We will ask you to tell us if there is anything else we need to include before we seek a construction tender.

- **2018 Tender Process**
  We will keep you updated throughout this process.

- **2022 Completion**
  We will also seek your feedback on how things are working and if there is anything we can do to make the construction phase easier for you.

- **Completion**
  We will ask you to tell us how we did and what lessons can be learned.
Next steps

We are happy to talk through any questions you may have. We encourage you to attend a Community Information Session (see next page for dates and locations) where you can talk with us in person.

We are eager to know what you think about:
• the Key Impact Assessment we have made on which options to continue investigating
• the Preliminary Assessment we made for each design option.

We have a comprehensive feedback form (available in hard copy and online) in which we ask you a series of questions that will give us a good insight into your thoughts and suggestions on each of the options for removing the Station Street and Eel Race Road, Carrum level crossings. We will consider your input alongside the further technical and engineering work that we need to do.

If you are interested in the potential new bridge over Patterson River, connecting Station Street and the closure of Mascot Avenue please visit our website to provide feedback.

Feedback forms are available at our community sessions and online at levelcrossings.vic.gov.au. We can also post or email one to you if you prefer. Just let us know.

We understand that not everyone will be able to attend a session. We are also happy to have a telephone conversation with you or answer your questions via email.

What about station design?

We will build new stations at five of the level crossing removal sites - at Cheltenham, Mentone, Edithvale, Bonbeach and Carrum. We will not have information about station design during this stage of our community engagement as this level of detail is yet to be developed.

However, we are keen to hear how you would like the stations and the crossing areas to look once the project is complete so we can build this into the Recommended Option we come back to you with in late 2016/early 2017.

Community Information Sessions

We are providing a range of opportunities for you to learn more about these options and will be hosting a number of community sessions. We have listened to your feedback from March 2016 and we will have sessions that run later in the evening to accommodate people who don’t get home from work until mid-evening.

Only the Carrum sessions are listed here. You can find the dates for all sessions on our website: levelcrossings.vic.gov.au.

You will be presented with a range of information including maps, plans and technical information on both options and we will be seeking your feedback.

Community Information Sessions

Community Information Sessions are open to all community members. No RSVP required, simply drop in at any time. These sessions will be similar in format to the community sessions we held in March, with specific and detailed information on display and an opportunity to talk with our project team. These information sessions will focus on specific crossings.

This is your opportunity to find out more. Please attend one of the following:

Community Information Sessions
Patterson River Golf Club, The Fairway, Bonbeach
Tuesday 27 September, 6.30pm - 9.30pm
Tuesday 18 October, 6.30pm - 9.30pm

Your feedback

How your feedback helps with our assessment process

Community considerations
At each development stage we need your input. What’s important to you? Are there gaps in our knowledge?

Environmental considerations
For example:
• Proximity to Port Phillip Bay
• Loss of trees and bushes

Technical considerations
For example:
• Utilities along and below the road and rail line
• Extent of disruption during construction
• Ground conditions and natural features
• Narrow rail corridor

We consider all of these factors when we are making assessments on the potential solutions at each location and as we move towards a Recommended Option for each level crossing removal. Usually, no single factor is decisive in selecting a design, rather there is a combination of factors and an assessment of how each benefits or impacts the local area. We want to find the solution that best meets the needs of each specific site.

Simply call us on 1800 762 667 or send us an email at contact@levelcrossings.vic.gov.au
Level crossing removal projects on the Frankston line

The LXRA was established by the Victorian Government to oversee the removal of 50 dangerous and congested level crossings throughout Melbourne by 2022. Removing these crossings will transform the way people live, work and travel across Melbourne.

There are 30 level crossings on the Frankston line. Eleven crossings, including Station Street and Eel Race Road, Carrum, will be removed by the LXRA. Three crossings were recently removed at North Road, Ormond, McKinnon Road, McKinnon and Centre Road, Bentleigh. At the same time, and in addition to Station Street and Eel Race Road, Carrum, we are in the next phase of planning for the removal of the following crossings between Cheltenham and Frankston:

- Balcombe Road, Mentone
- Charman Road and Park Road, Cheltenham
- Edithvale Road, Edithvale
- Station Street/Bondi Road, Bonbeach
- Seaford Road, Seaford
- Skye/Overton Road, Frankston

Removing 50 level crossings will reduce congestion, allow more trains to run and get Victorians home safer and sooner.