City of DAREBIN

the place to live

AGENDA

Council Meeting to be held
at Darebin Civic Centre,
350 High Street Preston
on Monday, 2 October 2017
at 6.00 pm.

Public question time will
commence shortly after 6.00 pm.

ACKNOWLEDGEMENT OF TRADITIONAL OWNERS AND ABORIGINAL AND TORRES STRAIT ISLANDER COMMUNITIES IN DAREBIN

Darebin City Council acknowledges the Wurundjeri people as the traditional owners and custodians of the land we now call Darebin and pays respect to their Elders, past, present and future.

Council pays respect to other Aboriginal and Torres Strait Islander communities in Darebin.

Council recognises, and pays tribute to, the diverse culture, resilience and heritage of Aboriginal and Torres Strait Islander people.

We acknowledge the leadership of Aboriginal and Torres Strait Islander communities and the right to self-determination in the spirit of mutual understanding and respect.

Italian
Questo è l'ordine del giorno della riunione del Consiglio Comunale di Darebin per la data che compare sulla prima pagina di questo documento. Se desiderate informazioni in lingua italiana sugli argomenti dell'ordine del giorno, siete pregati di chiamare la Linea Telefonica Multilingue del Comune al 8470 8888.

Greek
Αυτή είναι η ημερήσια διάταξη για τη συνεδρίαση του Δημοτικού Συμβουλίου Darebin, για την ημερομηνία που φαίνεται στο εξώφυλλο αυτού του εγγράφου. Αν θα θέλατε πληροφορίες στα Ελληνικά σχετικά με τα θέματα σ' αυτή την ημερήσια διάταξη, παρακαλούμε καλέστε την Πολυγλωσσική Τηλεφωνική Γραμμή του Δήμου στον αριθμό 8470 8888.

Chinese
這是一份戴瑞濱市議會議程表，其開會日期顯示於此文件之封面。如果您欲索取有關此議程表的中文資料，敬請致電 8470 8888 聯絡市議會的多語種電話專線。

Arabic
هذا هو جدول أعمال اجتماع مجلس بلدية داريبين والذي سيعقد في التاريخ الوارد في الصفحة الأولى من هذه الوثيقة. إذا أردت الحصول على مزيد من المعلومات في اللغة العربية حول المواضيع المذكورة في جدول الأعمال، فيرجى الاتصال برقم هاتف البلدية المتعدد اللغات 8470 8888

Macedonian
Ова е дневниот ред за состанокот на Општината на Градот Даребин, која ќе биде на датумот покажан на предната корица од овој документ. Ако Вие сакате некои информации на Македонски јазик, за предметите на овој дневен ред, Ве молиме повикајте ја Општинската Повеќејазична Телефонска Линија на 8470 8888.

Vietnamese
Đây là nghị trình cho cuộc họp của Hội đồng Thành phố Darebin; ngày họp có ghi ở trang bìa tài liệu này. Muốn biết thêm về chương trình nghị sự bằng Việt ngữ, xin gọi cho Đường dây Điện thoại Đa Ngôn ngữ của Hội đồng Thành phố qua số 8470 8888.

Bosnian
Ovo je dnevni red za sastanak Gradske općine Darebin čiji je datum održavanja naznačen na prvoj strani ovog dokumenta. Ako želite više informacija o tačkama ovog dnevnog reda na bosanskom jeziku, molimo nazovite općinsku višejezičnu telefonsku službu na 8470 8888.

Croatian
Ovo je dnevni red sastanka u Darebin City Council za dan koji je naveden na prednjem ovitku ovog dokumenta. Ako želite informacije o točkama ovog dnevnog reda na hrvatskom jeziku, molimo da nazovete Council Multilingual Telephone Line (Višejezičnu telefonsku liniju) na 8470 8888.

Portuguese
Esta é a pauta para a reunião da Câmara Municipal de Darebin a ser realizada na data que consta na capa deste documento. Se você deseja informação em Português sobre os itens desta pauta, por favor ligue para a Linha Telefônica Multilíngue da Câmara no 8470 8888.

Serbian
Ово је дневни ред за састанак Darebin City Council-a (Градско веће Darebin) који ће се одржати на дан који је наведен на насловној страни овог документа. Ако желите информације на српском о тачкама дневног реда, молимо вас да назовете Council Multilingual Telephone Line (Вишејезичку телефонску линију Већа), на 8470 8888.

Somali
Kuwani waa qodobada shirka lagaga wada hadli doono ee Degmada Degaanka Darebin ee taariikhda lagu xusey boga ugu sareeya ee qoraalkan. Haddii aad doonysid wararka ku saabsan qodobadan oo ku qoran Af-Somali, fadlan ka wac Khadka Taleefanka Afafka ee Golaha oo ah 8470 8888.

Table of Contents

Agenda

1. MEMBERSHIP

Cr. Kim Le Cerf (Mayor) (Chairperson)
Cr. Steph Amir
Cr. Gaetano Greco (Deputy Mayor)
Cr. Tim Laurence
Cr. Trent McCarthy
Cr. Lina Messina
Cr. Susanne Newton
Cr. Susan Rennie
Cr. Julie Williams

2. APOLOGIES

3. DISCLOSURES OF CONFLICTS OF INTEREST

4. CONFIRMATION OF THE MINUTES OF COUNCIL MEETINGS

Recommendation

That the Minutes of the Ordinary Meeting of Council held on 18 September 2017 be confirmed as a correct record of business transacted.

5. QUESTION AND SUBMISSION TIME

Members of the public can lodge questions for Council to answer or make a Comment or Submission prior to a specific item listed on the Agenda of an Ordinary Council meeting.

QUESTIONS

Members of the public can ask up to two (2) questions at an Ordinary Council meeting.

Questions submitted online will be responded to in the first instance. If you are not present at the meeting, the Chairperson will read the question and provide a response. The Chairperson may then take questions from members in the gallery.

Any question not answered at the meeting will be taken on notice and a written response will be provided to the person asking the question.

In accordance with the Darebin Governance Local Law, the Chairperson may disallow a question if it:

- is defamatory, indecent, abusive, offensive, irrelevant, trivial or objectionable in language or substance; or
- deals with a subject matter already answered; or
- is aimed at embarrassing a Councillor or an officer.

If you are unable to submit your question prior to the Ordinary Council meeting, the Chairperson may take questions from the floor.

SUBMISSIONS OR COMMENTS

Members of the public may make a comment or 2 minute submission on a matter listed on the Agenda prior to the item being debated.

A person who is unable to stay at the meeting until the Agenda item is heard, may make their comment or submission during Question Time.

HOW TO SUBMIT YOUR QUESTION OR MAKE A COMMENT OR SUBMISSION

Members of the public who wish to ask a question, or make a comment or submission to an agenda item, at an Ordinary Council meeting are encouraged to do so in one of the following ways:

(a) online at darebin.vic.gov.au/questionsandsubmissions by 3pm on the day of the meeting; or

(b) by email to QandS@darebin.vic.gov.au; by 3pm on the day of the meeting: or

(c) in person at the Preston Customer Service Centre, 274 Gower Street, Preston; or

(d) by mail to PO Box 91, Preston 3072; or

(e) with a Council officer prior to a Council meeting.

Council meetings can be viewed at the Watch Council and Planning Committee meetings page.

Agenda's will be available for viewing on Council's website at the 'Meeting Agendas and Minutes' page by 5pm, up to 6 days prior to the date of the meeting. Copies are also available at Customer Service centres and libraries.

6. PETITIONS

7. URGENT BUSINESS

8. CONSIDERATION OF REPORTS

8.1 PROPOSED SALE OF COUNCIL LAND ADJOINING REAR OF 4 GRANDVIEW ROAD AND 3 GRANGE STREET, PRESTON

Author: Property Manager

Reviewed By: Acting Director Operations and Environment

Report Background

This report provides Council with information regarding the outcome of statutory procedures relating to the proposed sale of a parcel of Council land from a previously discontinued road at the rear of 4 Grandview Road and 3 Grange Street, Preston as shown hatched on the statutory plan in **Appendix A** (Land).

Previous Council Resolution

At its ordinary meeting held on 3 April 2017 Council resolved:

'That Council commence the statutory procedures under section 189 of the Local Government Act 1989 ("the Act") to sell the land from the discontinued road adjoining the rear of 4 Grandview Road and 3 Grange Street, Preston, shown hatched in Appendix A, contained within Certificate of Title Volume 10368 Folio 644 and known as Lot 11 on Title Plan TP7638X, to the owner of 4 Grandview Road, Preston in accordance with Council policy.'

Previous Briefing(s)

Councillor Briefing – 28 August 2017

Council Plan Goal/Endorsed Strategy

Goal 6 - A well governed Council

Summary

This report provides the history and background relating to the proposed sale of a parcel of Council owned land from a discontinued right-of-way/road at the rear of 4 Grandview Road and 3 Grange Street, Preston, shown hatched on the statutory plan (**Appendix A**) as well as the outcome of the statutory procedures into its proposed sale.

In 2015, Council received an enquiry from an adjoining property owner expressing interest in the possible acquisition of the land from the previously discontinued road.The Land is contained within Certificate of Title Volume 10368 Folio 644 for which Council is the registered proprietor and is known as Lot 11 on Title Plan TP7638X (**Appendix B**).

At its ordinary meeting on 3 April 2017, Council resolved to commence the statutory procedures and give public notice of the proposed sale of Council owned land from the discontinued road adjoining the rear of 4 Grandview Road and 3 Grange Street, Preston. Public notice of the proposal was given in Preston Leader and Northcote Leader newspapers

on 2 and 3 May 2017, respectively. Notification was also given on Council's website. The notice period ended on 2 June 2017 with no submissions received.

This report recommends that, following the completion of the statutory procedures relating to the proposed sale of Council owned land from the discontinued road and having received no submissions, that the land be sold by private treaty to the owner of 4 Grandview Road, Preston in accordance with Council Policy.

Recommendation

That Council:

Having given public notice of a proposal to sell the land from the discontinued road adjoining the rear of 4 Grandview Road and 3 Grange Street, Preston, shown hatched on **Appendix A** to this report, and having received no submissions in respect of this proposal under section 223 of the *Local Government Act 1989*:

(1) Directs that the land from the discontinued road be sold by private treaty to the owner of 4 Grandview Road, Preston, in accordance with section 189 of the *Local Government Act 1989*, Council policy and signed 'in principle agreement'; and

(2) Signs and seals all documents relating to the sale of the land from the discontinued road to the owner of 4 Grandview Road, Preston.

Introduction

In 1992, part of the right-of-way/road bound by Grandview Road, Grange Street, Bruce Street and Cramer Street, Preston was discontinued and sold with Council taking title to any unsold parcels of land. Internal departments and external service authorities were consulted at the time of discontinuance and easements were saved over the Land in favour of Yarra Valley Water and Council.

In 2015, Council received an enquiry from an adjoining property owner at 4 Grandview Road, Preston, who is in occupation of the land, expressing interest in the possible acquisition of the land from the previously discontinued road. The land is contained within Certificate of Title Volume 10368 Folio 644 for which Council is the registered proprietor and is show as Lot 11 on Title Plan TP7638X in **Appendix B** (Land).

Negotiations commenced with the owners of 4 Grandview Road and 3 Grange Street with a view to selling the Land. The owners of 4 Grandview Road have entered into an 'in principle agreement' confirming their interest in acquiring the Land, consistent with its current use/occupation, in accordance with Council Policy.

Once the initial investigations confirmed the feasibility of the proposed sale, Macquarie Lawyers were commissioned to prepare for the statutory procedures to facilitate the sale of the Land to the owner of 4 Grandview Road.

Issues and Discussion

Statutory Procedures

Public Notice of the proposed sale of Council Land was given in the Preston Leader and Northcote Leader newspapers on 2 and 3 May 2017, respectively. Notification was also given on Council's website.

Owners and occupiers of the adjoining properties were notified in writing and were advised that written submissions would be considered by Council as per the provisions of section 223 of the *Local Government Act 1989*.

The notice period ended on 2 June 2017 with no submissions received.

Land Allocation

All the immediate adjoining owners were consulted regarding the proposed sale of the Land. The owner of 4 Grandview Road, Preston, who is currently in occupation of the Land, has confirmed an interest in acquiring the Land at current market value as well as meeting all of the reasonable costs associated with Council selling the Land.

Options for Consideration

Option 1 – Abandon the Proposal or Do Nothing

Council could resolve to abandon the proposal, take no action or may make no resolution on the matter. This option would mean that the Land would remain in Council's ownership and the status quo would remain with the adjoining property owner continuing to occupy the Land.

As Council is the registered proprietor and holds title to the Land, it is protected from any potential claim of adverse possession from the occupier.

Council may at some time in the future, resolve to commence the statutory procedures to sell the Land.

Option 2 – Sell the Land (Recommended)

Council could proceed with the sale of the Land from the discontinued road in accordance with the 'in principle' purchase agreement. This would be consistent with the statutory procedures which have been completed with no submissions received. Further it would formalise the current occupation of the Land.

Financial and Resource Implications

At the commencement of the negotiations with the property owners of 4 Grandview Road, Preston, Council's City Valuer placed a rate per square metre on the land of $484.00/m^2 (including GST). This rate took into account the Land's relationship to the purchaser and the fact that the Land is encumbered with easements in favour of Council and Yarra Valley Water.

Given the area of 43m^2, the market value for the Land to be sold at that time was assessed at $20,812.00 including GST. Costs associated with the statutory procedures and sale of the Land would be recovered from the purchaser.

The Land, once sold, will attract additional Council rates.

Risk Management

Risks associated with each option are covered under the analysis of each option.

Policy Implications

Economic Development

There are no factors in this report which impact upon economic development.

Environmental Sustainability

There are no factors in this report which factor on environmental sustainability.

Human Rights, Equity and Inclusion

Consultation with the immediate adjoining owners has been undertaken. The statutory procedures extended this consultation to the whole community by giving public notice of the proposal and providing the opportunity to make a formal submission to Council regarding the proposal.

Other

This report has been prepared having regard to Council's Sale of Minor Council Property Assets Policy.

Future Actions

- Arrange for the land to be sold and transferred to the owner of the adjoining property at 4 Grandview Road, Preston, in accordance with Council policy.

Consultation and Advocacy

- Macquarie Local Government Lawyers
- Owners and occupiers of the adjoining properties
- Community consultation

Related Documents

- *Local Government Act 1989*
- *Road Management Act 2004*
- Sale of Minor Council Property Assets Policy, Darebin City Council, 2015
- Council Minutes – 3 April 2017

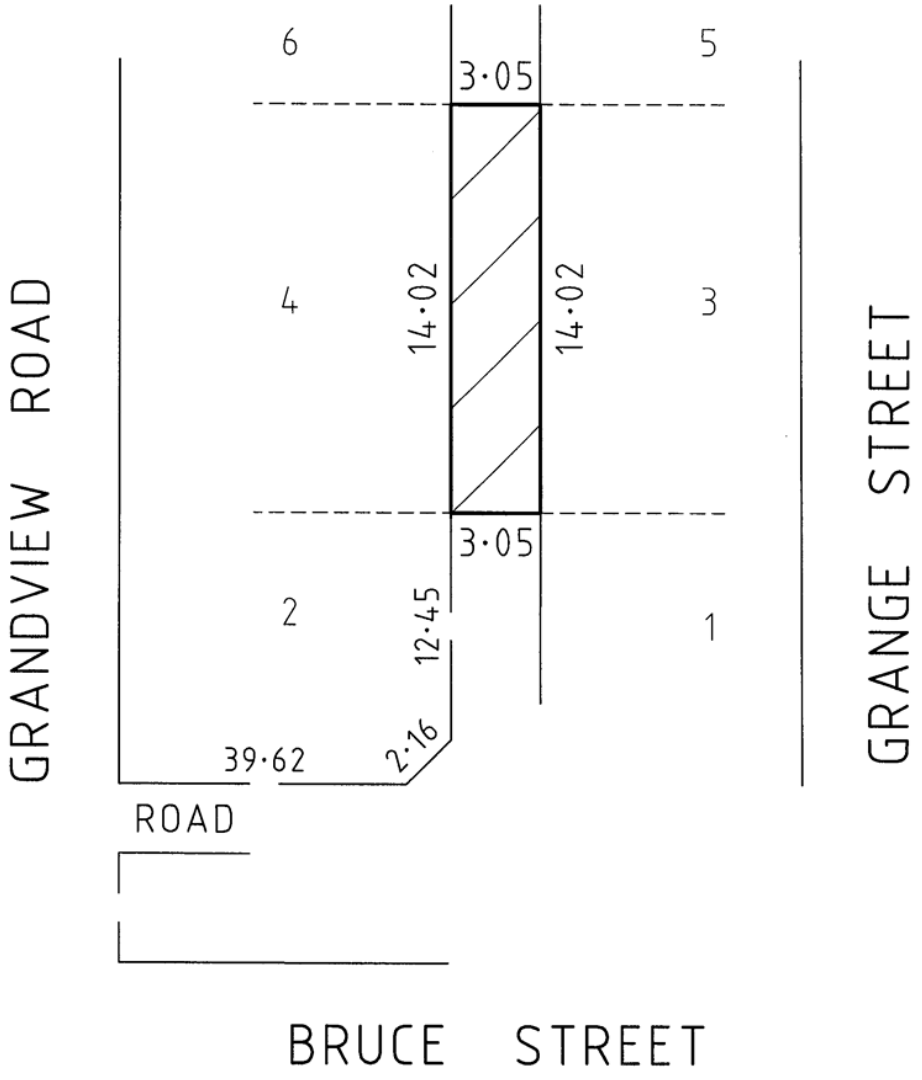
Attachments

- Statutory Plan (**Appendix A**) ⇩
- Title Plan TP007638 (**Appendix B**) ⇩

Disclosure of Interest

Section 80C of the *Local Government Act 1989* requires members of Council staff and persons engaged under contract to provide advice to Council to disclose any direct or indirect interest in a matter to which the advice relates.

The Officer reviewing this report, having made enquiries with relevant members of staff, reports that no disclosable interests have been raised in relation to this report.


6
5
3·05
4
14·02
14·02
3
3·05
2
12·45
1
2·16
39·62
GRANDVIEW ROAD
GRANGE STREET
ROAD
BRUCE STREET

	TITLE PLAN		LTO use only EDITION	Plan Number TP 7638

Location of Land

Parish: JIKA JIKA
Township: -
Section: -
Crown Allotment: -
Crown Portion: 144 (PART)
LTO base record: CHART 218 (2796)
Last Plan Reference: LP6213
Depth Limitation: DOES NOT APPLY
Parent title reference: VOL.3609 FOL.704
Postal Address: CRAMER STREET , PRESTON 3072
AMG Co-ordinates: E: 322 520 N: S 821 000 ZONE: 55
(Approx. centre of land in plan)

Warning:
This plan represents an expected division of land.
Any one lot may not have been created.
Check the Lot/Plan Index for current information.

Notations:

THIS PLAN IS NOT BASED ON SURVEY

Easement Information

Legend: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

...ement ...erence	Purpose	Width (Metres)	Origin	Land Benefited/in Favour Of
ALL THE LAND IN THIS PLAN	AS PROVIDED FOR IN SEC.207C(1) LGA 1989	SEE DIAGRAM	SEC.207C(1) LGA 1989	CITY OF DAREBIN
ALL THE LAND IN THIS PLAN	AS PROVIDED FOR IN SEC.207C(1) LGA 1989	SEE DIAGRAM	SEC.207C(1) LGA 1989	YARRA VALLEY WATER LTD.

THIS PLAN HAS BEEN PREPARED FOR THE VICTORIAN LAND TITLES OFFICE FOR TITLE DIAGRAM PURPOSES

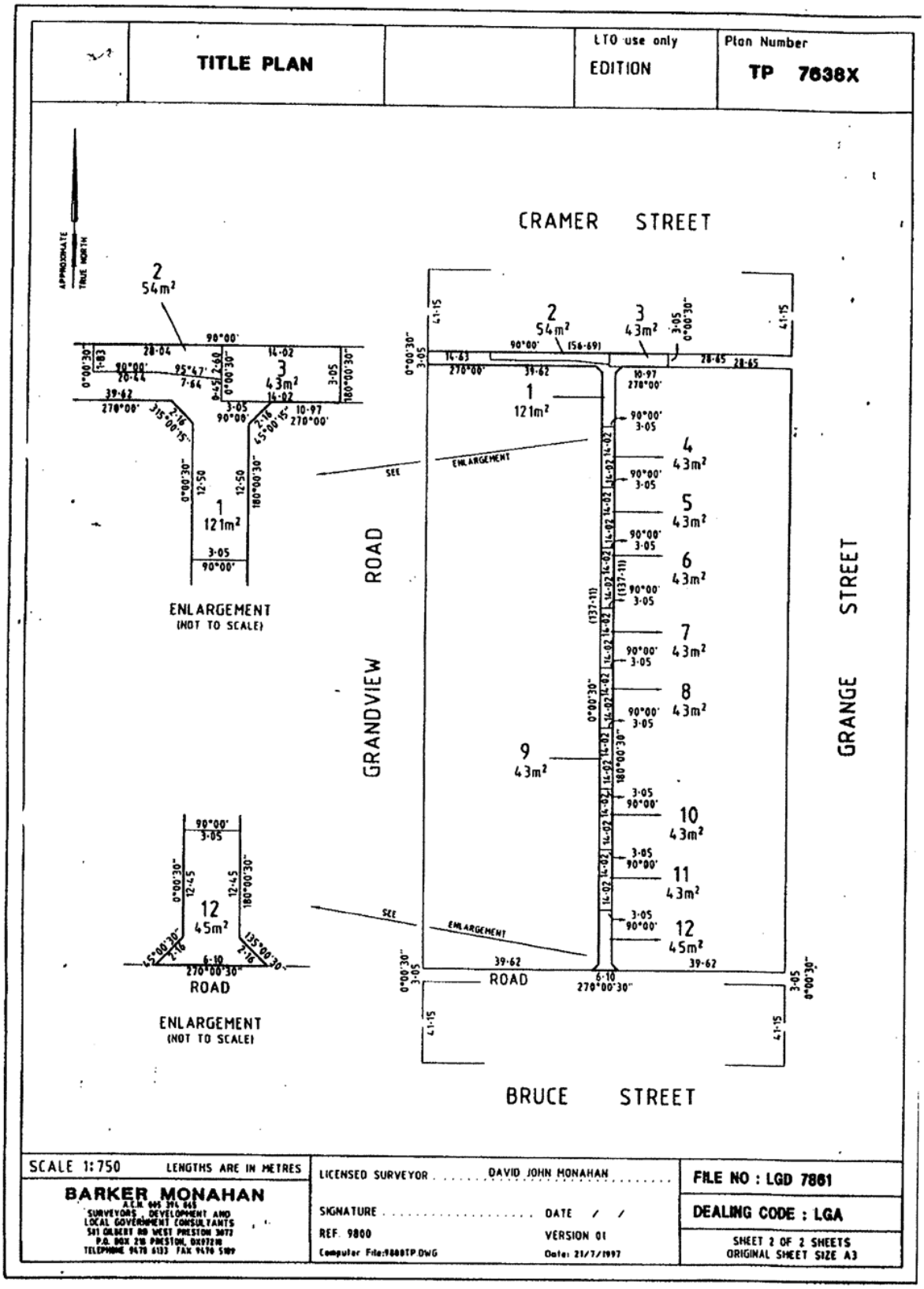
Checked by .....
Date 10 / 10 / 97
Assistant Registrar of Titles

SEE SHEET 2 FOR DIAGRAM

BARKER MONAHAN
A.C.N. 005 396 865
SURVEYORS DEVELOPMENT AND LOCAL GOVERNMENT CONSULTANTS
561 GILBERT RD WEST PRESTON 3072
P.O. BOX 218 PRESTON, DX97218
TELEPHONE 9470 6133 FAX 9470 5169

LICENSED SURVEYOR ..... DAVID JOHN MONAHAN .....
SIGNATURE ..... DATE / /
REF. 9800 VERSION 01
Computer File:9800TP.DWG Date: 21/7/1997

FILE NO : LGD 7861
DEALING CODE : LGA
SHEET 1 OF 2 SHEETS
ORIGINAL SHEET SIZE A3


TITLE PLAN
LTO use only
EDITION
Plan Number
TP 7638X
CRAMER STREET
GRANDVIEW ROAD
GRANGE STREET
BRUCE STREET
ROAD
ENLARGEMENT
(NOT TO SCALE)
SEE ENLARGEMENT
SCALE 1:750
LENGTHS ARE IN METRES
BARKER MONAHAN
SURVEYORS, DEVELOPMENT AND LOCAL GOVERNMENT CONSULTANTS
LICENSED SURVEYOR . . . . . DAVID JOHN MONAHAN
SIGNATURE . . . . . DATE / /
REF 9800
VERSION 01
Computer File:9800TP.DWG
Date: 21/7/1997
FILE NO : LGD 7861
DEALING CODE : LGA
SHEET 2 OF 2 SHEETS
ORIGINAL SHEET SIZE A3

8.2 PROPOSED ROAD DISCONTINUANCE ADJOINING 13 TO 17 FULHAM GROVE AND 14 AND 16 PERSHING STREET AND 52 AND 54 CRISPE STREET, RESERVOIR

Author: Property Manager

Reviewed By: Acting Director Operations and Environment

Report Background

This report provides Council with information regarding the outcome of statutory procedures relating to the proposed discontinuance and sale of the right-of-way adjoining 13 to 17 Fulham Grove, 14 and 16 Pershing Street and 52 and 54 Crispe Street, Reservoir, shown hatched on the statutory plan in **Appendix A** (Road), and recommends the Road be discontinued and sold.

Previous Council Resolution

At its ordinary meeting held on 1 May 2017 Council resolved to:

'(1) Commence the statutory procedures under section 206 and clause 3 of Schedule 10 to the Local Government Act 1989 ("the Act") to discontinue the road adjoining 13 to 17 Fulham Grove, 14 and 16 Pershing Street and 52 and 54 Crispe Street, Reservoir shown hatched on Appendix C.

(2) Give public notice under sections 207A and 82A and 223 of the Act of the proposed discontinuance in the appropriate newspapers and on Council's website and such notice state that if discontinued, Council proposes to sell the land from the road to the adjoining property owners by private treaty and transfer to itself any land from the road not sold to the adjoining property owners.'

Previous Briefing(s)

28 August 2017

Council Plan Goal/Endorsed Strategy

Goal 6 - A well governed Council

Summary

This report provides the history and background relating to the right-of-way adjoining 13 to 17 Fulham Grove and 14 and 16 Pershing Street and 52 and 54 Crispe Street, Reservoir, shown hatched on the statutory plan in **Appendix A** and in the aerial photo in **Appendix B,** as well as the outcome of the statutory procedures into its proposed discontinuance.

In 2009, part of the right-of-way/road located at the rear of 3-11 Fulham Grove and 4-14 Pershing Street was discontinued and sold. The section of the right-of-way/road adjoining 13 to 17 Fulham Grove and 14 and 16 Pershing Street and 52 and 54 Crispe Street, Reservoir (Road) was not discontinued at that time.

In 2015, Council received an application from an adjoining property owner for the discontinuance and sale of the Road. Initial investigations identified the Road, which is contained within Certificate of Title Volume 10368 Folio 644, to be occupied and, whilst not listed in Council's Register of Public Roads, it remained a road on title.

At its ordinary meeting of 1 May 2017, Council resolved to commence the statutory procedures and give public notice of the proposed discontinuance and sale of the Road. Public notice of the proposal was given in Preston Leader and Northcote Leader newspapers on 23 and 24 May 2017, respectively. Notification was also given on Council's website. The notice period ended on 23 June, 2017 with no submissions received.

This report recommends that following the completion of the statutory procedures for the proposed discontinuance and sale of the section of Road and having received no submissions, that the Road be discontinued and sold by private treaty in accordance with Council Policy and transfer any land not sold to itself.

Recommendation

That Council:

Having given public notice of a proposal to discontinue the road adjoining 13 to 17 Fulham Grove and 14 and 16 Pershing Street and 52 and 54 Crispe Street, Reservoir, shown hatched on **Appendix A** to this report, and having received no submissions in respect of this proposal under section 223 of the *Local Government Act 1989*:

(1) Discontinues the road in accordance with section 206 and schedule 10, Clause 3 to the *Local Government Act 1989*;

(2) Directs that a notice be published in the Victoria Government Gazette;

(3) Directs that the land from the road be sold by private treaty to the owners of the adjoining properties in accordance with Council policy and signed 'in principle agreements' and transfer to itself any land from the road not sold to the adjoining property owners;

(4) Directs that the discontinuance and sale will not affect any right, power or interest held by Yarra Valley Water, in the road in connection with any sewers, drains or pipes, under the control of that Authority in or near the road;

(5) Signs and seals all documents relating to the sale of any land from the discontinued road to the owners of the adjoining properties; and

(6) Delegates power to the Chief Executive Officer to do all other acts to enable any land from the Road not sold to the adjoining property owners to be transferred to Council.

Introduction

In 2015, Council received an application from an adjoining property owner for the discontinuance and sale of the right-of-way/road shown hatched on the statutory plan in **Appendix A** and on the aerial photo in **Appendix B** (Road).

The section under investigation adjoining 13 to 17 Fulham Grove and 14 and 16 Pershing Street and 52 and 54 Crispe Street, Reservoir was not included in the original discontinuance undertaken in 2009 and remained a 'road' on title. The Road is not listed on Council's Register of Public Roads, is not constructed or used for access. The section at the rear of 13 Fulham Grove and 14 and 16 Pershing Street appears to be occupied by 13 Fulham Grove and the remainder of the Road is landlocked.

Once the initial investigations confirmed the feasibility of discontinuing and selling the Road, Macquarie Lawyers were commissioned to undertake the statutory procedures to facilitate the possible discontinuance and sale of the Road.

Issues and Discussion

Statutory Procedures

Public notice of the proposed Road discontinuance and sale was given in the Preston Leader and Northcote Leader newspapers on 23 and 24 May 2017, respectively. Notification was also given on Council's website.

Owners and occupiers of the adjoining properties were notified in writing and were advised that written submissions would be considered by Council as per the provisions of section 223 of the *Local Government Act 1989*.

Internal departments and service authorities were consulted regarding the proposal and, whilst no objections were received, Yarra Valley Water advised that it has a sewer within the land and would require an easement to be saved over all of the land if the Road were to be discontinued. Whilst Council currently does not have any assets located within the Road it would also require an easement for drainage to be created over any land sold to cater for the installation of a drain in the future.

The notice period ended on 23 June 2017. No submissions were received.

Land Allocation

All of the immediate adjoining owners have been consulted regarding the proposal. The dimensions and proposed allocation/division of the land from the Road are shown in the Title Plan TP958331U in **Appendix C**.

The owners of 13 Fulham Grove and 54 Crispe Street, Reservoir, have entered into an 'in principle agreement' confirming their interest in acquiring the land at current market value as well as meeting their share of the reasonable costs associated with Council discontinuing the Road. Following discontinuance, it is proposed that Council would take title to any land from the Road that remains unsold.

Options for Consideration

Option 1 – Abandon the Proposal or Do Nothing

Council could resolve to abandon the proposal, take no action or may make no resolution on the matter. This option would mean that the Road would continue to vest in Council and the status quo would remain with the adjoining property owners continuing to occupy and use parts of the Road.

Council may be perceived as knowingly encouraging and enabling property owners to continue to occupy other roads or rights-of-way within Darebin to the detriment of the community (whether financially or as a benefiting right). Additionally Council may lose future rights to the Road if adjoining property owners are able to accrue possessory rights.

Council may, at some time in the future, resolve to recommence the discontinuance process.

Option 2 – Discontinue and sell the Road (Recommended)

Council could proceed with the discontinuance and sale of the land from the Road in accordance with the signed 'in principle' purchase agreements. This would be consistent with the statutory procedures which have been completed with no submissions received. Further it would formalise the occupation of the Road by the adjoining property owners.

This option could also provide for future sales to other adjoining property owners whilst protecting Council's interest in any unsold parcels of land from the Road. Nonetheless, by taking title to the land Council would be required to comply with further statutory procedures should a future sale be considered.

Financial and Resource Implications

At the commencement of the negotiations with the property owners, the City Valuer placed a rate per square metre for the land of $407.00/m² (including GST) for the land adjoining Fulham Grove and Pershing Street and $704.00/m² (including GST) for the land adjoining 52 and 54 Crispe Street. This rate takes into account the Road's relationship to the purchaser and the fact that the land would be encumbered with easements in favour of Council and Yarra Valley Water.

Given the area of 51m² for the land to be sold to 13 Fulham Grove and 113m² for the land to be sold to 54 Crispe Street, the combined market value for the land to be sold has been assessed at $100,309.00 including GST. Costs associated with the statutory procedures and sale of the Road would be recovered from the purchasers. Any costs associated with Council transferring any unsold land to itself would be managed within existing annual budget allocations.

Should Council decide not to proceed with either the discontinuance or the sale, then the costs associated with conducting process would be funded from existing budget allocations.

The land from the Road, once sold, would attract additional Council rates.

Risk Management

Risks associated with each option are covered under the analysis of each option.

Policy Implications

Economic Development

There are no factors in this report which impact upon economic development.

Environmental Sustainability

There are no factors in this report which factor on environmental sustainability.

Human Rights, Equity and Inclusion

Consultation with the immediate adjoining owners has been undertaken. The statutory procedures have extended this to the whole community by giving public notice of the proposal and providing the opportunity to anyone to make a formal submission to Council regarding the proposal.

Other

This report has been prepared having regard to Council's Sale of Minor Council Property Assets Policy.

Future Actions

- Arrange for a notice to be published in the Victoria Government Gazette.
- Arrange for the land to be sold and transferred to the owners of the adjoining properties by private treaty in accordance with Council policy.
- Arrange for the balance of land not sold, to be transferred into Council's ownership.

Consultation and Advocacy

- Council departments
- Darebin community
- Macquarie Local Government Lawyers
- Owners and occupiers of the adjoining properties
- Statutory authorities

Related Documents

- *Local Government Act 1989*
- *Road Management Act 2004*
- Sale of Minor Council Property Assets Policy, Darebin City Council, 2015
- Council Minutes – 1 May 2017

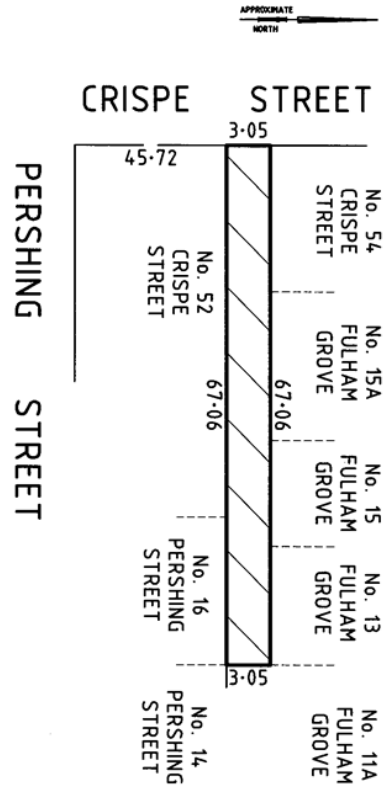
Attachments

- Statutory Plan (**Appendix A**) ⇩
- Aerial View (**Appendix B**) ⇩
- Title Plan TP958331U (**Appendix C**) ⇩

Disclosure of Interest

Section 80C of the *Local Government Act 1989* requires members of Council staff and persons engaged under contract to provide advice to Council to disclose any direct or indirect interest in a matter to which the advice relates.

The Officer reviewing this report, having made enquiries with relevant members of staff, reports that no disclosable interests have been raised in relation to this report.


APPROXIMATE NORTH
CRISPE STREET
3·05
45·72
No. 54 CRISPE STREET
No. 52 CRISPE STREET
No. 15A FULHAM GROVE
No. 15 FULHAM GROVE
No. 13 FULHAM GROVE
No. 11A FULHAM GROVE
67·06
67·06
No. 16 PERSHING STREET
No. 14 PERSHING STREET
3·05
PERSHING STREET


FULHAM GROVE
CRISPE STREET
PERSHING STREET
19
21
15A
15
13
11A
11
9
7
51
52
50-52
16B
16A
14
12
10
8
48

TITLE PLAN	EDITION 1	TP958331U

LOCATION OF LAND

PARISH	JIKA JIKA
TOWNSHIP	-
SECTION	-
CROWN ALLOTMENT	-
CROWN PORTION	147 (PART)
LAST PLAN REFERENCE	LP7444
DEPTH LIMITATION	DOES NOT APPLY
TITLE REFERENCE	VOL.3925 FOL.806, VOL.5782 FOL.305 & VOL.1511 FOL.054
MGA CO-ORDINATES (APPROX. CENTRE OF LAND IN PLAN)	E 323 335 N 5 822 805 ZONE 55

WARNING
THIS PLAN REPRESENTS AN EXPECTED DIVISION OF LAND.
ANY ONE LOT MAY NOT HAVE BEEN CREATED.
CHECK THE LOT/PLAN INDEX FOR CURRENT INFORMATION.

NOTATIONS

THIS PLAN IS NOT BASED ON SURVEY.

EASEMENT INFORMATION

LEGEND E- ENCUMBERING EASEMENT OR CONDITION IN CROWN GRANT IN THE NATURE OF AN EASEMENT OR OTHER ENCUMBERANCE
A- APPURTENANT EASEMENT R- ENCUMBERING EASEMENT (ROAD)

EASEMENT REFERENCE	PURPOSE	WIDTH (METRES)	ORIGIN	LAND BENEFITED/IN FAVOUR OF
E-1	AS PROVIDED FOR IN SEC.207C LGA 1989	SEE DIAGRAM	SEC.207C LGA 1989	YARRA VALLEY WATER CORPORATION

SEE SHEET 2 FOR DIAGRAM

SHEET 1 OF 2 SHEETS
ORIGINAL SHEET SIZE: A3

BARKER MONAHAN
A.C.N. 005 394 865
SURVEYORS, DEVELOPMENT AND
LOCAL GOVERNMENT CONSULTANTS
581 GILBERT ROAD, PRESTON 3072
P.O. BOX 2546 REGENT WEST 3072
TELEPHONE 9478 6133 FAX 9470 5189
EMAIL: survey@barkermonahan.com.au

LICENSED SURVEYOR . . . . . DAVID JOHN MONAHAN . . . . . .

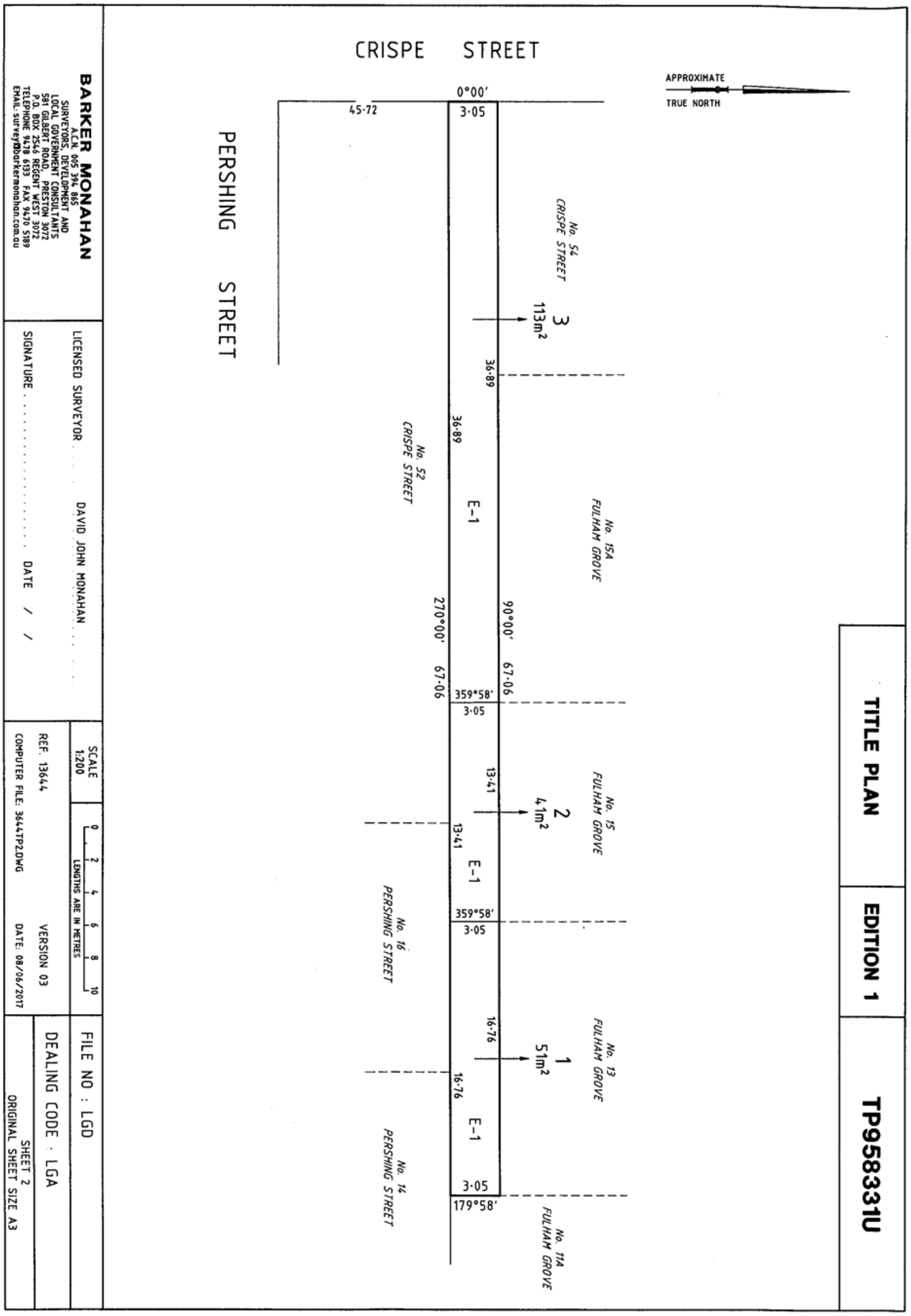
SIGNATURE . . . . . DATE / /

FILE NO : LGD

DEALING CODE : LGA

REF. 13644 VERSION 03

COMPUTER FILE: 3644TP1.DWG DATE: 08/06/2016


CRISPE STREET
PERSHING STREET
APPROXIMATE
TRUE NORTH
0°00'
45·72
3·05
No. 54 CRISPE STREET
3
113m²
36·89
36·89
No. 52 CRISPE STREET
E-1
No. 15A FULHAM GROVE
270°00' 67·06
90°00' 67·06
359°58'
3·05
13·41
13·41
No. 15 FULHAM GROVE
2
41m²
E-1
No. 16 PERSHING STREET
359°58'
3·05
16·76
16·76
No. 13 FULHAM GROVE
1
51m²
E-1
No. 14 PERSHING STREET
3·05
179°58'
No. 11A FULHAM GROVE
TITLE PLAN
EDITION 1
TP958331U
BARKER MONAHAN
A.C.N. 005 394 865
SURVEYORS, DEVELOPMENT AND LOCAL GOVERNMENT CONSULTANTS
581 GILBERT ROAD, PRESTON 3072
P.O. BOX 2546 REGENT WEST 3072
TELEPHONE 9478 6133 FAX 9470 5189
EMAIL: survey@barkermonahan.com.au
LICENSED SURVEYOR .... DAVID JOHN MONAHAN
SIGNATURE .... DATE / /
SCALE 1:200
0 2 4 6 8 10
LENGTHS ARE IN METRES
REF. 13644 VERSION 03
COMPUTER FILE: 3644TP2.DWG DATE: 08/06/2017
FILE NO : LGD
DEALING CODE : LGA
SHEET 2
ORIGINAL SHEET SIZE A3

8.3 ASSET MANAGEMENT POLICY REVIEW

Author: Coordinator Asset Systems

Reviewed By: Acting Director Operations and Environment

Report Background

This report provides the revised Asset Management Policy (**Appendix A**) for Council's consideration. The Asset Management Policy has been updated to align it with the new Council Plan and Council's new vision: *Greener, Bolder and More Connected*.

Previous Council Resolution

At its meeting held on 6 November 2013, Council resolved:

'That Council Adopt the Asset Management Policy 2013 as attached at Appendix A to this report.'

The Asset Management Policy contained a policy review section which noted that the policy would be reviewed every four years following the Council Plan preparation process.

Previous Briefing(s)

13 September 2017

Council Plan Goal/Endorsed Strategy

This report relates to Council's new vision: Greener, Bolder and More Connected.

Summary

The Darebin City Council owns and maintains assets such as roads, footpaths, buildings, drains, open space, libraries, recreational centres, plant and equipment to support service provision to the community it serves.

"Asset management" is a systematic process to guide the planning, acquisition, operation and maintenance, renewal and disposal of assets. Its objective is to maximise asset service delivery potential and manage related risks and costs over their entire lives.

The Asset Management Policy applies to the creation, acquisition, operation, use, maintenance, renewal and disposal of all Council assets. The policy applies to Council-owned physical assets and to physical assets which Council does not own but has direct responsibility for or control over (such as Bundoora Park).

The policy has been reviewed in accordance with the review timeframes built into the 2013 policy. The draft policy presented with this report has been reviewed to prepare a streamlined document that aligns with the new Council Plan.

Recommendation

That:

(1) Council adopts the Asset Management Policy 2017 attached as **Appendix A** to this report.

(2) The Asset Management Policy 2017 be made available on Darebin's website.

Introduction

This report provides the revised Asset Management Policy for Council's consideration. The Asset Management Policy has been updated to align it with the new Council Plan and Council's new vision: *Greener, Bolder and More Connected*.

The long-lived nature of many assets and the need for their ongoing renewal means that planning must be based on an understanding of the full costs throughout each asset's lifecycle, and address both short and long-term planning needs.

The purpose of the Policy is to guide sustainable management of Council's assets to meet current and future community needs. Well maintained municipal infrastructure (such as roads, footpath and street trees) play an important role in forming the look and feel of an area and the policy recognises the impact that Council's assets have on the wellbeing of the community.

Issues and Discussion

Asset Management Policy Guidelines

Several publications exist to guide an organisation with respect to asset management including the International Infrastructure Management Manual (IIMM), ISO 55001 and the Victorian Government's Better Practice Guide for Asset Management. Each of these documents provides specific guidance on what an asset management policy should contain.

The IIMM, produced by the Institute of Public Works Engineers Australia (IPWEA) instructs that an asset management policy is a high level statement setting out an organisation's approach to asset management detailing expectations with respect to outcomes and providing direction for the development of asset management strategies and objectives.

The IIMM notes that a good asset management policy will:

- Set out the principles which guide how asset management will be implemented to achieve the asset management objectives;
- State how top management will provide commitment to the achievement of policy objectives;
- Be consistent with the organisation's strategic plans, objectives and policies;
- Be written in clear, concise, simple language;
- Be appropriate to the purpose, scale and complexity of the organisation;
- Provide a consistent, logical framework for action;
- Be communicated to, accepted by, and available to stakeholders and staff with responsibility for implementation;

- Meet current regulations, laws and best practices;
- Include a commitment to abide by the principles in pursuing achievement of the asset management objectives;
- Include a commitment to continual improvement of the asset management system; and
- Be subject to regular review.

The IIMM notes that some organisations prefer a one page asset management policy and others prefer a more detailed policy that includes more information and that either approach is acceptable as long as they aim to meet the points listed above.

The international standard for asset management (ISO 55001:2014) requires that an asset management policy be established that:

- Is appropriate to the purpose of the organisation;
- Provides a framework for setting asset management objectives;
- Includes a commitment to satisfy applicable requirements; and
- Includes a commitment to continual improvement of the asset management system.

The standard further states that an asset management policy shall be;

- Consistent with the organisational plan;
- Consistent with other relevant organisational policies;
- Appropriate to the nature and scale of the organisation's asset and operations;
- Available as documented information;
- Communicated within the organisation;
- Available to stakeholders, as appropriate; and
- Implemented and periodically reviewed and, if required, updated.

In 2015, the Victorian state government produced a 'Better Practice Guide' for local government asset management to provide currency to previously released guidance materials for asset management and to reflect improved practices and tools that are available. The better practice guide states that the key to effective asset management is the preparation of a high quality asset management policy and strategy, supported by Asset Management Plans that focus on value for money and support councils in engaging with communities to find a balance between service levels, risk and cost. The better practice guide identifies the following contents of an asset management policy:

- Establishes the goals and objectives for asset management providing a platform for service delivery.
- Integrates long term asset and financial management with Council's strategic objectives.
- Maximises value for money by adoption of life-cycle costing, combined with disciplined performance measurement.
- Assigns accountability and responsibility for service delivery together with asset management.
- Promotes sustainability to protect the needs of future generations.

National Asset Management Assessment Framework

The Municipal Association of Victoria (MAV) Step Program was established in 2003 to assist Victorian councils to improve their asset management capabilities, step by step. Since 2010, this program has utilised the National Asset Management Assessment Framework (NAMAF) to assess councils' asset management maturity. The NAMAF was based on the Local Government Financial Sustainability Nationally Consistent Frameworks established in 2009 by the Local Government Planning Ministers Council, to assist local government to better understand and plan for managing community infrastructure and the associated long term financial commitments.

The NAMAF consists of a series of questions for 11 key asset management elements ranging from knowledge, systems and processes from operational to strategic level, enabling a council to assess and score its own level of asset management maturity. The section on "Asset Management Policy" asks the following questions:

- Council has an adopted Asset Management Policy which defines the Council's vision and service delivery objectives for asset management.
- The Asset Management Policy has a direct linkage with Council's Strategic Longer Term Plan and Long Term Financial Plan.
- The Asset Management Policy requires the adoption of Asset Management Plans informed by community consultation and local government financial reporting frameworks.
- The Asset Management Policy defines asset management roles, responsibilities and reporting framework.
- The Asset Management Policy identifies a process for meeting training needs in financial and asset management practices for Councillors and staff.

Council currently scores 100% on the questions for Asset Management Policy and the revised policy is expected to maintain this level of achievement.

Policy Review

The 2013 Asset Management Policy has been reviewed following the adoption of the new Council Plan. The 2013 policy was considered to be a lengthy document and the review focused on simplifying the document and Council's asset management policies. This has resulted in a reduction of document length from fifteen pages to six pages.

The policy review included an analysis of published asset management policies from Victorian and interstate municipalities for both form and content. It was found that the asset management policies had many common policy statements and, in terms of form, the main variations were in how each Council chose to present/format their policies – some were longer, some were shorter but Darebin's at fifteen pages would have been one of the longest produced.

Major changes from the 2013 to the 2017 Asset Management Policy include:

- Condensing Policy Principles and Key Policy Statements.
- Removal of the Glossary.
- Simplification of Roles and Responsibilities.

Options for Consideration

Option 1 – Do Nothing

Council could resolve to not adopt the reviewed policy or take no action to make a resolution in relation to this report.

In the absence of a reviewed policy being adopted by Council, it is assumed that Council would generally continue under the direction of the 2013 policy. The 2013 policy is lengthy, but the content of the policy is sound and is still relevant in 2017.

Council may lose score in the National Asset Management Assessment Framework if the policy is not reviewed according to the timeframes set in the policy.

Option 2 – Adopt the Policy

Council could resolve to adopt the policy review that is presented at **Appendix A** of this report.

Financial and Resource Implications

Nil

Risk Management

Good asset management practice is synonymous with good risk management. The adoption of an asset management policy to guide asset management activities throughout the organisation is noted in both the International Infrastructure Management Manual (produced by IPWEA) and the National Asset Management Assessment Framework (auspiced by MAV) as evidence of good asset management practice.

The policy contains a statement that Council will:

- Understand and manage risk associated with owning and operating assets.

Policy Implications

Economic Development

There are no economic development issues associated with the content of this report.

Environmental Sustainability

In this time of climate emergency, officers are expected to have regard to the environment when making decisions on asset acquisition, modifications and disposals with a view to providing superior environmental outcomes, reducing waste, reducing resources and reducing carbon emissions. Council's service managers have a responsibility to keep themselves well informed of the technological, climate and demographic changes within their areas of service.

The policy contains a statement that Council will*:*

- Develop and implement environmentally sustainable asset management practices.

Human Rights, Equity and Inclusion

The draft Asset Management Policy 2017 has been assessed using the Equity and Inclusion Policy Assessment Tool (EIPAT).

The policy contains statements that Council will:

- Provide equal access to Council's assets as a basic right for all residents.
- Ensure human rights principles and evidence are taken in account in decision making.
- Renew the assets required for service delivery and provide for new assets to meet changing and growing community needs.
- Involve the community in decisions about setting levels of service for assets.

Other

Nil

Future Actions

- Publication of the Asset Management Policy on Council's website.
- Internal distribution and education about the revised Asset Management Policy.
- Policy review to come to Council in 2021/2022, following the production of the next Council Plan.

Consultation and Advocacy

- The draft Asset Management Policy 2017 has been assessed using the Equity and Inclusion Policy Assessment Tool (EIPAT).
- Asset Management Steering Committee.

Related Documents

- Asset Management Policy (2013), Darebin City Council
- International Infrastructure Management Manual (2015), Institute of Public Works Engineering Australia (IPWEA)
- ISO 55001:2014(E), Asset management – Management systems – Requirements (2014) ISO
- Local Government Asset Management Better Practice Guide (2015), Local Government Victoria, Victorian Government
- National Asset Management Assessment Framework (2017), Municipal Association of Victoria/CT Management Group
- Council Minutes – 6 November 2013

Attachments

- Asset Management Policy 2017 (**Appendix A**) ⇩

Disclosure of Interest

Section 80C of the *Local Government Act 1989* requires members of Council staff and persons engaged under contract to provide advice to Council to disclose any direct or indirect interest in a matter to which the advice relates.

The Officer reviewing this report, having made enquiries with relevant members of staff, reports that no disclosable interests have been raised in relation to this report.

Asset Management Policy 2017

City of DAREBIN

CONTENTS

1 PREAMBLE

Darebin City Council owns and maintains assets such as roads, footpaths, buildings, drains, open space, libraries, recreational centres, plant and equipment to support service provision to the community it serves.

"Asset management" is a systematic process to guide the planning, acquisition, operation and maintenance, renewal and disposal of assets. Its objective is to maximise asset service delivery potential and manage related risks and costs over their entire lives.

The long lived nature of many assets and the need for their ongoing renewal means that planning must be on an understanding of the full costs throughout each asset's lifecycle, and address both short- and long-term planning needs.

Well maintained municipal infrastructure (such as roads, footpath and street trees) play an important role in forming the look and feel of an area. This policy recognises the impact that Council's assets have on the wellbeing of the community.

Municipal infrastructure contributes to achieving other important social policy outcomes, including preventative health, social cohesion and tolerance, stronger social capital and community resilience and better access to broad-based education and learning.

Asset management is the practical vehicle for:

1. Improving the well-being of people in our community by providing opportunities for them to live their lives well, and
2. Ensuring that our services, programs and facilities benefit all including our most vulnerable.

2 PURPOSE

The purpose of this Asset Management Policy is to guide sustainable management of Council's assets to meet current and future community needs.

This policy sets vision, outlines principles and assigns responsibilities for how the Darebin City Council will manage its assets.

3 SCOPE

This policy applies to the creation, acquisition, operation, use, maintenance, rehabilitation and disposal of all Council assets.

This policy applies to:

1. Council owned physical assets
2. All physical assets that Council does not own but has direct responsibility for or control over

Council and all Council staff are responsible for adherence to this policy in their day to day activities.

4 ASSET MANAGEMENT VISION

*"Darebin City Council's vision for asset management is to support Council's vision for a **greener, bolder and more connected** city through the efficient and effective supply of assets in a safe, responsive, sustainable and inclusive manner meeting regulatory obligations and customer expectations."*

5 ASSET MANAGEMENT POLICY

The Darebin City Council will:

- Develop and implement **environmentally sustainable** asset management practices
- Seek to achieve financial sustainability through **optimisation** of asset lifecycle costs
- Prepare and regularly review an **Asset Management Strategy** to guide the implementation of asset management
- Prepare and annually review **Asset Management Plans** for each asset class
- Establish and operate an **Asset Management Steering Group** to oversee and promote **continuous improvement** of asset management within the organisation
- Manage its assets to ensure that they are **fit for purpose** taking into account **best appropriate practice** asset management
- Provide **equal access** to Council's assets as a basic right for all residents
- Ensure **human rights** principles and evidence are taken in account in decision making
- Understand and **manage risk** associated with owning and operating assets
- Asset management practices and decision making is from a **service delivery** point of view with transparent assumptions about service delivery needs
- Allocate **responsibilities** for asset management throughout the organisation
- Renew the assets required for service delivery and provide for new assets to meet changing and growing **community needs**
- Collect **information** on its assets and their use to assist with asset management
- Implement a **training plan** which will identify and address asset management related training needs for Councillors and staff
- Involve the community in decisions about setting **levels of service** for assets
- Prepare and regularly review an **Asset Management Communications Plan** to promote awareness of asset management
- Provide annual reporting to the community on **asset performance** against levels of service and sustainability targets
- Asset management will be **integrated** with corporate, financial, business and budgetary planning.
- Periodically **review** this policy

6 ASSET MANAGEMENT FRAMEWORK

The framework below represents shows the relationship between the various elements of the asset management process:

Figure 1 – Asset Management Framework

7 ASSET MANAGEMENT RESPONSIBILITIES

To achieve this policy the following key roles and responsibilities are identified:

Council

- To act as custodians of community assets
- To set asset management policy and vision
- To approve AM Strategy
- To approve the Council Plan, the Annual Budget and Strategic Resource Plan
- To allocate appropriate resources for asset management activities

Chief Executive Officer/ Executive Management Team

- To provide leadership and direction in the implementation of the AM Policy and AM Strategy
- To ensure that community needs and the outcomes of service reviews are incorporated into asset management planning and the Strategic Resource Plan
- To ensure that the training needs of Councillors and staff in financial and asset management practices are provided
- To ensure that accurate and reliable information is presented to Council
- To ensure appropriate delegations and approval processes are followed

Asset Management Steering Group

- To oversee the implementation of the AM Policy and AM Strategy
- To oversee the ongoing development and review of service plans and asset management plans
- To ensure that community needs and the outcomes of service reviews are incorporated into asset management plans
- To promote and raise awareness of asset management within the organisation
- To ensure relevant health and wellbeing, human rights and equity principles and strategies are taken into consideration

Staff & Management

- To implement AM Strategy
- To review and regularly update AM Plans
- To develop and implement maintenance, renewal and capital works programs in accordance with the AM Policy, AM Strategy, AM Plans and budget allocations.
- To deliver levels of service to agreed risk and cost standards & expectations
- To develop and implement business processes to support asset management
- To develop and implement asset management improvement plans
- To develop and implement improvement plans for individual asset groups
- To manage infrastructure assets in consideration of long term sustainability
- To report asset related risk and damage
- To gather and analyse relevant data and research
- To ensure appropriate delegations and approval processes are followed
- To monitor, review and report on asset management policies, strategies and plans
- To provide and manage the asset management information system
- To establish and monitor asset risk inspection regimes
- To manage asset condition assessments
- To provide asset valuations
- To provide accurate and reliable information to council for decision making

8 POLICY REVIEW

This policy shall be reviewed at least every four (4) years to ensure consistency with other Council policies and enhance the effectiveness of delivering the necessary outcomes.

The policy should be reviewed following the Council Plan preparation process associated with new Council terms.

Responsibility for managing a review on expiry rests with the Manager Strategic Asset Management.

The review will be undertaken by the Asset Management Steering Group based on industry requirements and feedback on the effectiveness of the policy in achieving its objectives.

A collaborative whole of Council approach to policy review would allow staff with the knowledge and understanding of the social determinants of health and wellbeing to improve intra- and inter-agency communication, leading to more sustainable outcomes for the whole community.

8.4 WASTE AND LITTER STRATEGY ACTION PLAN

Author: Manager Environment and Community Outcomes

Reviewed By: Director Operations and Environment

Report Background

The report seeks endorsement of the attached Darebin Waste and Litter Strategy Action Plan 2017 – 2020 (**Appendix A**) which prioritises actions from the Darebin Waste and Litter Strategy 2015 – 2025. It also provides information on the upcoming food waste trial.

Previous Council Resolution

At its meeting held on 6 July 2016, Council resolved:

'That Council adopt the Darebin Waste and Litter Strategy 2015-2025 attached as Appendix A to this report.'

At its meeting held on 19 June 2016, Council resolved:

'That Council

(1) Approves a food waste collection trial commencing by November 2017 to inform the development of the final food waste collection model.

(2) Receives a briefing on the proposed trial prior to its introduction to the community.'

Previous Briefing(s)

Councillor Briefing – 13 September 2017

Council Plan Goal/Endorsed Strategy

- Goal 1 - A sustainable city
- Darebin Waste and Litter Strategy 2015 – 2025

Summary

The attached Darebin Waste and Litter Strategy Action Plan 2017 – 2020 (**Appendix A**) prioritises actions from the Darebin Waste and Litter Strategy 2015 – 2025. A key initiative in the Strategy is tackling issues around food waste and a food waste trial is taking place from November 2017. This will inform further Council action to reduce food waste from landfill.

Recommendation

That Council:

(1) Endorses the Waste and Litter Strategy Action Plan attached as **Appendix A** to this report.

(2) Receives a report following results of the food waste trial in June 2018.

Introduction

On 6 July 2015 Council adopted the Darebin Waste and Litter Strategy 2015 – 2025 (the Strategy) The attached draft Action Plan (**Appendix A**) has been developed to prioritise Council waste and litter actions during 2017 to 2020.

The vision adopted by Council in the strategy is that:

"Darebin will be a cleaner, more liveable and healthier place to live, with reduced litter and waste. Our Council and community will work together to achieve this vision".

The following waste and litter services are guided by the Strategy and Action Plan:

- Weekly garbage service and fortnightly recycling and green recycling collections.
- Annual area hard waste collection; booked hard waste collections, annual booked branch collection, Christmas tree collection and annual household chemical drop off.
- Darebin Resource Recovery Centre which provides transfer and recycling services available to all residents and businesses as well as regional customers.
- Waste and litter education including: provision of forums, compost and worm farms, recycling stations at customer service centres, advice and information, Sustainable Homes workshops, recycling calendar, website, newsletter, community grants and support for community activities.
- Dumped rubbish response and street and park litter collection.
- Street cleansing.
- Litter and building site compliance and enforcement.
- Litter trap, drainage pit and pipe cleaning.

A key initiative in the Strategy is tackling issues around food waste and at the Council meeting on 19 June, 2017 Council approved a food waste collection trial which is being commenced in November 2017 in 1,000 households in the Kingsbury area.

Issues and Discussion

The majority of actions indentified in the waste strategy are ongoing actions and highlight the breadth of waste and litter services, education provided to the community and advocacy.
In line with the strategy there are three key action areas:

- Council leadership – 25 actions
- Waste and recycling services – 60 actions
- Litter and dumped rubbish – 58 actions

Key proposed time dependent initiatives include:

2017- 2018

- Development of the Single Use Plastic Elimination Action Plan
- Food waste trial
- Review of Schools waste and recycling policy
- Commencement of recycling contract review
- Public Place recycling implementation

- Climate Emergency Review of Waste Services
- Streamlining the large bin permit system

2018 - 2019

- Review hard waste service
- Develop a municipality wide litter and dumped rubbish reduction campaign
- Commence implementation of food waste trial outcomes
- Develop Multi Unit Development waste policy and guidelines
- Implement E-waste ban actions
- Undertake full audit of household waste
- Commence Darebin Resource Recovery Centre contract review
- Commence planning for hydrogen truck trial

2019 - 2020

- Consider full implementation of weekly organic waste service
- Commence 5 year review of the Darebin Waste and Litter Strategy 2015 – 2025
- Develop action plan for 2021 – 2025
- Commence regional landfill waste disposal contract tender preparations

Action and outcomes will be reported to Council annually.

Food Waste trial

Food waste is a significant component of residential waste to landfill estimated at 38% of our waste disposed to landfill. Diverting this to be composted through our green waste contract is a much better environmental outcome. The food waste trial will involve existing green waste recycling bin users being able to put food waste in their green waste recycling bin along with their garden waste, collected fortnightly. An area of 1,000 green waste recycling bin using households in Kingsbury has been chosen. The trial will take place over 6 months from 27 November 2017 to 25 May 2018.

Following the trial Council is required to notify Veolia (green waste recycling contractor) on whether the service will be taken up across Darebin.

All food cooked and uncooked will be able to be included in the green waste recycling bin in the trial area. The only exclusion is that liquids (such as cooking oils) are not acceptable. Plastic including biodegradable plastic is not acceptable and if residents want to wrap food scraps they will be asked to do that in one or 2 sheets of paper.

It is acknowleged that education on food waste avoidance and home composting are strategically important components of any food waste service. These will be highlighted during the trial and will continue to remain an important aspect of Council's education and engagement work.

Options for Consideration

Following the food waste trial Council will have the option to offer the food waste collection service to all green waste recycling bin users. This is currently an optional service.

Long term to ensure the highest diversion of food waste from landfill and sustainable collection costs it would be recommended to consider a shift from weekly garbage collection and fortnightly organics (food and green waste) collection to a fortnightly garbage collection and weekly organics collection. This shift would require significant consultation, education planning and resourcing and the fortnightly "food into green" system could be considered as a transition to this model.

Financial and Resource Implications

Combined waste disposal, resource recovery and litter and dumping management services cost the Darebin community over $15 million per year. The majority of actions proposed within this strategy will be undertaken within existing Council budgets. Actions which may require additional resources are highlighted in the action plan and will be considered as part of annual budget considerations.

In the 2017/2018 budget additional funds of $268,000 were included for recycling bin installation in public places to increase public place recycling within the municipality

If Council decides to collect food waste in all green waste recycling bins following the trial, this will attract a small additional contract cost per tonne equating to an additional yearly cost in the order of $30,000. This would be expected to be offset by reduced costs in landfill disposal, however an average increase of 5% food waste would be needed to be recovered through the green waste recycling bins is needed to offset these costs. Initial indications from other councils is that similar trials have achieved 1.5% food waste.

Risk Management

Individual risk assessments will be undertaken for actions where required.

Policy Implications

Economic Development

There are no factors in this report which impact upon economic development.

Environmental Sustainability

The primary environmental drivers behind the Darebin Waste and Litter Strategy 2015 – 2025 are waste, resource and litter minimisation. Reducing and recycling waste also has impacts on greenhouse emissions both upstream and downstream. For example recycling a single aluminium drink-can could save the same amount of electricity as a television uses in 3 hours. Litter and dumping degrade our environment, threaten biodiversity and contribute to poor waterway health. In line with the Climate Emergency Plan a review of Waste Services will be undertaken as part of the organisational review.

Human Rights, Equity and Inclusion

Access to waste services is an issue across our community and can become a health issue if adequate standards are not provided or enforced. Litter and dumping degrade the quality of the environment and are linked to other antisocial behaviours which can affect community wellbeing.

Actions proposed through the strategy consider our diverse community's needs in relation to use, information, engagement and education around waste and litter issues. The strategy development has specifically considered CALD communities and people with disabilities.

An Equity and Inclusion Assessment guided the development of the Strategy and Action Plan.

Other

The Council Plan provides a commitment to reduce waste to landfill by 1kg per person year-on-year, while maintaining community satisfaction with waste services above 80%.

Future Actions

- The food waste trial is planned to run 27 November 2015 to 25 May 2018.
- Council briefing in April providing mid trial results.
- Action and outcomes will be reported to Council annually.
- A review of the Strategy will take place 2020 and a further Action plan will be developed following this review.

Consultation and Advocacy

- Metropolitan Waste and Resource Recovery Group (MWRRG) and Veolia
- Extensive public consultation informed the Darebin Waste and Litter Strategy 2015 – 2025 prior to its adoption including consultation across a wide range of community organisations, committees, advisory groups and the general community.
- Council departments with delivery responsibilities in the action plan.

Related Documents

- Darebin Waste and Litter Strategy 2015 – 2025
- Council Minutes – 19 June 2016 and 6 July 2016

Attachments

- Waste and Litter Strategy Action Plan (**Appendix A**) ⇩

Disclosure of Interest

Section 80C of the *Local Government Act 1989* requires members of Council staff and persons engaged under contract to provide advice to Council to disclose any direct or indirect interest in a matter to which the advice relates.

The Officer reviewing this report, having made enquiries with relevant members of staff, reports that no disclosable interests have been raised in relation to this report.

DAREBIN WASTE & LITTER STRATEGY

ACTION PLAN 2017-2020

Contents

Introduction to this document

This action plan (2017 – 2020) provides a framework to support the ongoing implementation of the City of Darebin's *Waste and Litter Strategy 2015-2025*. The Strategy sets direction for waste, recycling and litter in Darebin. It focuses on how Council wants to be managing these issues and ways to enable and support the community to move towards this vision.

The Strategy identifies key areas for action, key targets and the actions we will take to achieve these. The recommended actions are listed in this action plan, and each relates to one of the nine key targets and/or five major strategy initiatives identified in the Strategy.

The Strategy is reliant on this action plan to help realise Council's vision of becoming a cleaner, more liveable and healthier place to live, with reduced litter and waste.

Our Vision

Darebin will be a cleaner, more liveable and healthier place to live, with reduced litter and waste. Our Council and community will work together to achieve this vision.

Major Strategy Initiatives

A. Achieving best value waste and recycling (social, economic and environmental) outcomes

B. Tackling issues around food waste

C. Ensuring services and charges for waste management are equitable

D. Preventing and responding to litter and dumped rubbish issues

E. Addressing the needs of multi-unit developments

Targets

To deliver on Council's vision and ensure sustainable waste and litter management, the following targets have been developed:

No.	2025 Target What are we aiming for?	Key Performance Indicator What are we measuring?	Baseline (2013/14) What base are we measuring against?	Data Source How will we monitor progress?
1.	Reduce overall kerbside waste generation (including total waste, recyclables and green waste recycling)	Weight (kg/capita/year) of kerbside waste, recycling and green recycling collected	347kg/capita/year	Data collected monthly Recycling: contractor data Waste: Landfill gate data (tonnage) Green Waste: contractor data
2.	Reduce food in landfilled kerbside waste	Percentage (%) by weight or weight (kg/capita/year) of food waste in kerbside waste bins	38% by weight (or 69kg/capita/year)	Data only collected through specialised audits – not collected annually Waste bin audits
3.	Reduce kerbside waste sent to landfill	Weight (kg/capita/year) of kerbside waste collected	185kg/capita/year	Data collected monthly Landfill gate data (tonnage)
4.	Reduce contamination in kerbside recycling	Percentage (%) by weight of contamination in kerbside recycling bins	15% by weight	Recycling receivables contractor annual audit reports
5.	Reduce recyclables in landfilled kerbside waste	Percentage (%) by weight or weight (kg/capita/year) of recyclables in kerbside waste bins	11% by weight (or 20kg/capita/year)	Data only collected through specialised audits – not collected annually Waste bin audits
6.	Increase DRRC rate of recycling	Percentage (%) by weight of recyclables processed	40% by weight	Outlook Environmental annual reports
7.	Maintain and improve level of community satisfaction with the level of dumped rubbish	Percentage (%) satisfaction reported in community satisfaction survey	76.7%	Reporting from Community Satisfaction Survey
8.	Maintain and improve level of community satisfaction with litter collection in public places	Percentage (%) satisfaction reported in community satisfaction survey	80.5%	Reporting from Community Satisfaction Survey
9.	Provide ongoing community education and information on waste, litter and recycling	Number and type of community education and information activities undertaken	N/A	Annual reporting of activities by Environment and Community Outcomes Department

Action Plan

The action tables on the following pages have been prepared as part of the Waste & Litter Action Plan. Action tables have been developed for each of the three key areas from the Strategy – Council Leadership, Waste and Recycling Services, and Litter and Dumping Rubbish.

Detailed action tables key:

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
Action number	Description of action	Target/s (1-9) supported by action	Major Strategy Initiatives (A-E) supported by action	Blank where action is currently included in budget and notes where an action may require annual budget considerations	Priority level: • Critical • High • Medium	Departments listed in order of responsibility for delivery of action, with lead department in bold

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
Council Leadership						
INFRASTRUCTURE & SERVICES						
CL1.	Continue to implement measures to avoid, reduce, reuse and recycle waste and stop littering from all Council facilities and services, prioritising actions that will have the most impact.	1-3, 5, 8	A, D	May include annual budget considerations	Critical Ongoing	**All Council departments** Environment
CL2.	Ensure continuous improvement of waste, recycling and litter services, trialling service innovations where appropriate.	1-8	A, D	May include annual budget considerations	High Ongoing Food waste trial 2017/18	**City Works** Environment Civic Compliance
CL3.	Review data/information collection and reporting systems for environmental purchasing including developing new/improved data monitoring systems and staff training in their use.	1	A	May include annual budget considerations	Medium Ongoing	**Procurement & Contracts** Environment
CL4.	Demonstrate good waste avoidance, litter and recycling practices at Council events.	1, 8, 9	A, D		Critical Ongoing	**Culture & Community** Events All Council event managers Environment
CL5.	Support good waste avoidance, litter and recycling practices at community events by providing information in Council's Event Guide and Venue Hire Policy and making appropriate bin caps available.	1, 8, 9	A, D		Critical Ongoing	**Culture & Community** Events Civic Services Environment

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
CL6.	Develop and implement a policy and action plan, with the aim of eliminating the use of single use plastic at Council events and events on Council land and venues	1,9	A, D	May include ongoing annual budget considerations	Critical 2017/18	**Environment** Culture & Community Events Leisure Civic Services
CL7.	Ensure that public and occupational health and safety continue to be a key consideration in the delivery of our waste and litter management services.	7, 8	A, D		Critical Ongoing	**City Works** Corporate Risk
EDUCATION & ENGAGEMENT						
CL8.	Continue to educate and engage staff across Council on measures to avoid, reduce, reuse and recycle waste and minimise litter.	1-5, 9	A, D		Critical Ongoing	**Environment**
CL9.	Support the Environment Action Team and Environmental Champions programs in waste and litter management issues.	1-5	A, D		High Ongoing	**Environment**
CL10.	Develop specifications and specific information for Council and contracted service providers to avoid, reduce and recycle waste, eliminate single use plastic and have zero litter creation.	1-5, 8	A, D	May include annual budget considerations	High Ongoing	**Environment** Facilities City Works Procurement & Contracts Major Projects
CL11.	Continue work to reduce Council's paper use to a 10% reduction on 2007/08 baseline.	1	A		High Ongoing	**Environment** All Council Departments

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
CL12.	Ensure the Waste Strategy Group and Litter Education and Enforcement Group meet a minimum of quarterly to progress strategic and problem waste and litter issues and continue innovative actions.	7-9	A, D		High Ongoing	**Environment** City Works Civic Compliance
CL13.	Engage all Council staff to undertake actions as prescribed in the Waste & Litter Strategy and Action Plan.	All	All		Critical Ongoing	**Environment** Advocacy & Communication
CL14.	Review the Environmental Purchasing Code and Procurement Policy in terms of effectiveness and outcomes with regard to waste minimisation, recycling, reuse and zero litter creation and conduct staff training to support this.	1	A, D	May include annual budget considerations	High 2017-2019	**Environment** Procurement & Contracts
ENFORCEMENT						
CL15.	Enforce waste and litter contract and service requirements. For example, departments with in-house and/or externally contracted waste and recycling collection staff will be required to ensure the reduction and clean-up of litter spilt when emptying kerbside mobile bins.	8	A, D		Medium Ongoing	**City Works** Civic Services All Council departments engaging cleaning or waste collection staff/contractors
ADVOCACY						
CL16.	Continue advocacy and relationship development with key waste and litter stakeholders such as SV, MWRRG, EPA Victoria, Victorian Litter Action Alliance (VLAA), MAV and other bodies as appropriate.	All	All		Critical Ongoing	**Environment** City Works Civic Compliance
CL17.	Provide submissions to Federal and State Government as appropriate for increased opportunities, funding and support for waste and litter initiatives.	All	All		High Ongoing	**Environment** City Works Civic Compliance

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
CL18.	Continue to actively participate in MWRRG Local Government Forums, committees, advisory groups and projects.	All	All		High Ongoing	**Environment** **City Works** Outlook Environmental
CL19.	Advocate and share information of successful events and projects to our community, key stakeholders and others, particularly focussed on best practice and innovative achievements.	9	A		High Ongoing	**Environment** Advocacy & communication
MONITORING, REPORTING & REVIEWING						
CL20.	Council will report annually on its achievements under the Waste & Litter Strategy 2015-2025.	All	All		Critical Ongoing	**Environment**
CL21.	Review and update this action plan in 2020.	All	All		Critical 2020	**Environment**
CL22.	Annual reporting on targets, longer term trends and impacts.	All	All		Critical Ongoing	**Environment** City Works Procurement & Contracts Civic Compliance
CL23.	Conduct periodic audits of Council office waste and recycling streams using a consistent methodology.	1-6	A		High biannual	**Environment** City Works
CL24.	Monitor paper use reduction by staff.	1	A		High Ongoing	**Environment** Digital and information Procurement & Contracts
CL25.	Monitor purchase of environmental goods as a percentage of total budget.	1	A		High Ongoing	**Environment** Procurement & Contracts

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
Waste & Recycling Services						
INFRASTRUCTURE & SERVICES						
WRS1.	Investigate the standardisation of bin lid colours for waste, recycling and green waste recycling services in line with the national standard.	1-5	A	Significant cost – should be aligned with service changes	Medium Align with service changes	**Environment** City Works
WRS2.	Continue to provide an 80L waste bin as the standard size for waste services and progressively replace larger and obsolete waste bins with the 80L bins as the standard.	3	A, C		Critical Ongoing	**City Works** Environment
WRS3.	Continue providing a 240L recycling bin as the standard size for recycling services.	5	A, C		Critical Ongoing	**City Works**
WRS4.	Review the provision of organic (food and green) waste recycling services commencing with a trial in 2017.	5	A, B, C	Potential for significant cost or resource changes to be considered in annual budget considerations	Critical 2017-2019	**Environment** City Works
WRS5.	Undertake comprehensive audit of residential waste and recycling to inform service changes.	1-5	A, B	May include annual budget considerations	High 2018/19	**Environment** City Works
WRS6.	Consider the introduction of a separate 'waste and recycling services fee' as part of annual Council rating strategy deliberations.	1-3, 5	A, C	May include annual budget considerations	Medium Annual	**Finance** Environment City Works Revenue Services

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
WRS7.	Consider 'pay-per-lift' charges for waste, recycling and green waste recycling services to encourage waste generation reduction and improved recycling.	1-3, 5	A, C	May include annual budget considerations	Medium 2019/20	**Environment** City Works Revenue Services
WRS8.	Review recycling and waste services provided by Council to multi-unit developments and develop policy which includes clear waste management guidelines for developers of multi-unit developments outlining collection needs and requirements, and spaces to be built in – whether Council or private collections are used.	1, 5	A, C, E	May include annual budget considerations	Critical 2018/19	**Environment** City Works Planning
WRS9.	Develop strategies to reduce rubbish dumping near multi-unit developments.	7	A, C, D, E		High 2018/19	**Environment** Civic Compliance Planning
WRS10.	Consider a fee-for-service provision/ procurement of recycling and waste services that are unable to comply with Council's kerbside service requirements.	3, 5	A, C, E		High 2019	**Environment** City Works
WRS11.	Investigate better waste management solutions for people with disabilities including smaller/more manoeuvrable bins and access to other services including hard waste.	3, 5-7	A, C		High Ongoing	**Environment** City Works
WRS12.	Review DRRC contract (expires June 2021) and work with neighbouring councils, MWRRG, Sustainability Victoria and other stakeholders, to investigate the potential to develop the site as a regional transfer station or bulk haulage site and a more sustainable resource recovery facility.	6	A	May include annual budget considerations	Critical 2018/19	**City Works** Environment

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
WRS13.	Work with Outlook Environmental/contractor operating the DRRC to: - maintain and improve recycling and reuse at the DRRC; and - assess and trial recovery of a wider range of materials, including further expansion of product stewardship listed items.	6	A	May include annual budget considerations	High Ongoing	**Environment** City Works
WRS14.	Identify implications and required actions and resourcing of state wide e-waste ban in mid-2018.	6	A	May include annual budget considerations	High 2017/18	**City Works** Environment
WRS15.	Review hard waste service in line with contract finish of July 2019 and e-waste ban.	3, 5, 6	A, C	May include annual budget considerations	High 2018	**City Works** Environment
WRS16.	Continue to provide opportunities for the community to recycle or safely dispose of e-waste and hazardous waste items (such as paint, oil, chemicals, batteries) through public recycling points such as the DRRC and/or in partnership with State Government drop off days.	6, 7, 9	A, D		Critical Ongoing	**Environment** **City Works**
WRS17.	Review service charges to ensure equitable charging for waste, recycling and green waste recycling services	7	A, C		High ongoing	**Environment**
WRS18.	Review and streamline the larger bin permit system, including: charges, administration and debt control.	4, 7	A, C	May include annual budget considerations	High 2018/19	**Environment** City Works Customer Service
WRS19.	Review Council's Policy regarding waste and recycling services for schools to ensure service equity and transparency.	7	A, C	May include annual budget considerations	High 2017/18	**Environment** City Works

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
WRS20.	Review Council's Policy regarding waste and recycling services for churches, not for profit organisations and others that may have inconsistencies in their service equity and or/transparency.	7	A, C	May include annual budget considerations	High 2017/18	**Environment** City Works
WRS21.	Explore solutions to issues around sporting club waste and recycling services.	7, 8	A, C, D		High ongoing	**Environment** City Works Leisure
WRS22.	Continue to investigate increased recycling opportunities and rates of recycling.	3-5, 6	A		High Ongoing	**Environment** City Works
WRS23.	Review recycling contracts (contracts finish in September 2018 with 2 year extensions available).	3-5, 6	A	May include annual budget considerations	Critical 2017/18	**City Works** Environment Procurement & Contracts
WRS24.	Undertake Climate Emergency Review of waste and recycling services.		A		Critical 2018	**Environment** City Works
WRS25.	Continue to use landfills with best practice landfill management with landfill gas energy recovery and leachate management systems to minimise environmental impacts and recover energy – actively engage in MWRRG landfill tender process (current contract expires March 2021).		A		Critical 2018-2020	**City Works** Environment Procurement & Contracts
WRS26.	Participate in trials and implement improvements to the waste fleet where feasible including hydrogen and electric options.		A	May include annual budget considerations	High Ongoing	**City Works** Strategic Asset Management Environment

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
EDUCATION & ENGAGEMENT						
WRS27.	Work with the community to reduce waste through promoting and providing education on ways to avoid and reduce waste creation.	1, 3, 9	A		Critical Ongoing	**Environment** Advocacy & Communication
WRS28.	Educate the community on recycling issues and approaches, including types of recycling, recycling contamination and household recycling using varied education formats and approaches. Raise awareness about the financial, social and environmental costs caused by contamination.	4, 5, 9	A		Critical Ongoing	**Environment**
WRS29.	Develop and implement general and targeted community engagement programs promoting correct use of recycling systems.	4, 5, 9	A		Critical Ongoing	**Environment**
WRS30.	Continue to promote and support alternative, accessible recycling options for the community (e.g. Community Recycling Stations, DRRC, kerbside recycling services, public place recycling).	6, 9	A, C		High Ongoing	**Environment** City Works
WRS31.	Develop education strategies, promote and provide information and education on food waste avoidance and reduction through focussed programs and workshops.	2, 9	A, B		Critical Ongoing	**Environment** Advocacy & Communication
WRS32.	Conduct community programs, information sessions, training and promotion of home composting and worm-farming as the preferred way to manage unavoidable food waste.	2, 9	A, B		Critical Ongoing	**Environment** Community Wellbeing

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
WRS33.	Enhance promotion of the DRRC and Outlook Market, including free recycling opportunities, trials and projects, as well as the availability of and range of recycling, safe disposal and purchasing opportunities available.	6, 9	A, C		High Ongoing	**Environment** City Works
WRS34.	Work with contractors to increase the levels of recycling from hard waste collection services.	5	A		High Ongoing	**City Works** Environment
WRS35.	Develop partnerships for more effective waste, recycling and green waste recycling and related programs with key stakeholders or regional Councils.	1-6	A, B		High Ongoing	**Environment**
WRS36.	Develop and implement options for identifying, educating and potentially penalising those who misuse systems to avoid contamination and hazardous waste impacts.	4, 9	A, C		High Ongoing	**Environment** Civic Compliance
WRS37.	Address the potential issue for dumped waste to arise as a result of residents not understanding hard waste services through education and, if necessary, enforcement actions.	9	A, D		Medium Ongoing	**Environment** Civic Compliance
ENFORCEMENT						
WRS38.	Ensure staff and contractors undertake enforcement of bin contamination issues in conjunction with education programs above.	4	A		Medium Ongoing	**Environment** Civic Compliance City Works
WRS39.	Enforce local laws, other laws and terms and conditions relating to waste, recycling and green waste recycling issues.	3-5	A,D		High Ongoing	**Civic Compliance**
WRS40.	Continue to enforce hazardous waste restrictions at the DRRC.		A		Critical Ongoing	**Contractor** City Works

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
WRS41.	Develop enforcement blitzes/campaigns in key areas in line with education programs, or develop as needs arise, in areas with specific waste management issues (e.g. sporting grounds, shopping strips).	3,4	A, D	May include annual budget considerations	Medium Ongoing	**Civic Compliance** Environment
WRS42.	Investigate regional programs with key stakeholders and regional bodies.	3,4	A, D	May include annual budget considerations	Medium Ongoing	**Civic Compliance** Environment
WRS43.	Investigate conducting targeted waste and/or litter management enforcement patrols at public events (e.g. street parties, festivals, sporting events).	8	A, D	May include annual budget considerations	Medium 2018/19	**Environment** Culture & Community Events Civic Compliance
ADVOCACY						
WRS44.	Promote best practice waste management and triple bottom line performance criteria in regional waste, recycling and green waste recycling contracts.		A, C		Critical Ongoing	**Environment** City Works
WRS45.	Advocate for effective and targeted product stewardship programs which do not increase cost burden on local government.	1	A, C		Medium Ongoing	**Environment** City Works
WRS46.	Advocate for a greater percentage of landfill levies being returned to councils or used for council benefit and greater transparency.		A		Medium Ongoing	**Environment**
WRS47.	Advocate for greater focus and spending by State and Federal governments on waste avoidance and reduction education, information and programs.	1, 9	A		High Ongoing	**Environment**
WRS48.	Continue to work with other councils and relevant stakeholders and bodies to address waste issues on a regional basis.	All	All		Critical Ongoing	**Environment** City Works

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
WRS49.	Continue to advocate and work with other councils and MWRRG for regional green waste recycling facilities that have the capacity to process current and projected volumes of garden waste and expand to incorporate food waste.	2	A, B		High Ongoing	**Environment** City Works
WRS50.	Continue advocacy and relationship development with key waste stakeholders (e.g. MWRRG, Sustainability Victoria, EPA Victoria, Victorian Litter Action Alliance, MAV etc.).	All	All		High Ongoing	**Environment** City Works
WRS51.	Provide submissions to Federal and State Government as appropriate on new policy, strategy and legislation development and for increased opportunities, funding and support for initiatives and action on waste avoidance, reduction, recycling and management.	All	All		High Ongoing	**Environment**
WRS52.	Advocate to and work with the community to support understanding and ownership of waste issues.	All	All		Critical Ongoing	**Environment** Community Wellbeing
WRS53.	Continue to advocate for and participate in the development of best practice waste policies and contracts in Council, regionally and state wide and develop and review our contracts and practices in line with these.	All	All		High Ongoing	**Environment** **City Works**
WRS54.	Work with Outlook Environmental to continue to explore partnership opportunities, such as the Permanent Drop Off Site partnership with Sustainability Victoria.	6	A		Medium 2017/18	**Environment** **City Works**
MONITORING, REPORTING & REVIEWING						
WRS55.	Monitor total and per capita tonnes of landfilled waste from kerbside collections.	1, 3, 9	A, B		Critical Ongoing	**City Works** Environment

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
WRS56.	Monitor total and per capita tonnes of kerbside recycling.	1, 5, 9	A		Critical Ongoing	**City Works** Environment
WRS57.	Monitor total and per capita tonnes of kerbside green waste recycling.	1, 9	A		Critical Ongoing	**City Works** Environment
WRS58.	Monitor the proportions by weight/volume of recyclables and compostable garden and food waste in waste bins as shown by periodic kerbside waste bin audits (where funded).	1, 9	A, B	May include annual budget considerations	Critical Ongoing	**City Works** Environment
WRS59.	Monitor the proportion by weight of contaminants in the recycling and green waste recycling services (where information is available).	1, 4, 9	A		Critical Ongoing	**City Works** Environment
WRS60.	Monitor the proportion by weight of hard waste sent to landfill.	7, 9	A		Critical Ongoing	**City Works** Environment

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
Litter & Dumped Rubbish						
INFRASTRUCTURE & SERVICES						
LDR1.	Continue to keep our streets and shopping strips clean through regular street sweeping, litter and recycling bin supply, bin emptying and management.	7, 8	A, D		Critical Ongoing	**City Works** Public Places Parks
LDR2.	Continue appropriate park litter bin provision, emptying and park maintenance to support clean parks, good place management and discourage litter.	7, 8	A, D		Critical Ongoing	**City Works** Public Places Parks
LDR3.	Introduce and review park recycling bin provision as part of public place recycling provision throughout the municipality.	5, 7, 8	A, D		Medium 2017/18	**City Works** Leisure Public Places Parks Environment
LDR4.	Continue to respond to reports of littering and rubbish dumping and clean-up sites within Council's developed process of evaluation, enforcement and removal within agreed timeframes.	7, 8	A, D		Critical Ongoing	**Civic Compliance** **City Works**
LDR5.	At prioritised sites, investigate prevention of vehicle access to rubbish dumping areas where possible (e.g. closure of laneways) and/or erect signs to advise of surveillance cameras, potential monitoring and fines.	7, 8	A, D		High Ongoing	**Civic Compliance** Environment
LDR6.	Consider DRRC pricing of commonly dumped items such as tyres, mattresses and asbestos and whether resident concessions should be made to reduce the incentive to dump.	6-8	A, C, D		High Ongoing	**Environment** **City Works**

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
LDR7.	As part of action WRS 15 Investigate the potential of additional hard waste collections models (e.g. fee for service) to minimise dumped rubbish.	7	A, C, D	May include annual budget considerations	Medium 2018	**Environment** **City Works**
LDR8.	Explore the viability and risk of a drop-point for small loads of non-commercial and triple-wrapped asbestos waste in partnership with state authorities/others to allow residents an opportunity to safely dispose of asbestos sheeting, pipes, tiles and other items containing asbestos.	7	A, D	May include annual budget considerations	Medium 2019	**Environment** City Works
LDR9.	Investigate the best infrastructure options for protecting waterways from litter including gross pollutant traps.	8	A, D		High Ongoing	**Environment** Engineering
LDR10.	Ensure all Council stormwater and waterway protection infrastructure is emptied and maintained regularly and maintenance schedules are developed to support this.	8	A, D		Critical Ongoing	**City Works** Environment
LDR11.	Extend public place recycling progressively throughout the municipality.	5, 8	A	May include annual budget considerations	Medium Ongoing	**City Works** Environment Public Places
LDR12.	Protect nature strips and stormwater systems by ensuring barriers/bunding on building sites are used by those undertaking building works.	8	A, D		High Ongoing	**Building** Planning
LDR13.	Review infrastructure at sporting grounds to ensure it is adequate to support litter and recycling generated on site at events.	5, 8	A, D		Medium Ongoing	**Environment** Leisure Public Places
LDR14.	Continue to install surveillance cameras at key charity bin/store locations, with appropriate signage attached.	7	A, D		High Ongoing	**Civic Compliance**

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
LDR15.	Continued provision of dog excrement clean up bags and dispensers at off lead parks and other key areas to be considered in the Open Space Strategy review.	8	A, D		High 2017/18	**Public Places** Environment Parks City Works
LDR16.	Review processes to ensure bill posters are discouraged and bills posted are promptly removed appropriately, without causing litter, from public areas to support good place management.	8	A, D		High Ongoing	**Civic Compliance** City Works
EDUCATION & ENGAGEMENT						
LDR17.	Continue to promote litter reduction messages to the community through programs (including CALD appropriate engagement and communications), signage and the provision of litter bins in high pedestrian traffic areas.	9	A, D		Critical Ongoing	**Environment** Advocacy & Communication
LDR18.	Continue to work with the community to support participation in Clean Up Australia Day and other activities to reduce littering and rubbish dumping and clean up local areas, to encourage understanding and ownership of litter issues.	7-9	A, D		High Ongoing	**Environment**
LDR19.	Work with and educate our community to prevent unintentional rubbish dumping – especially that caused by placing unwanted goods on nature strips.	7, 9	A, D		Critical Ongoing	**Environment** Civic Compliance
LDR20.	Promote the availability and correct use of hard waste collection services; disposal and recycling opportunities at the DRRC; goods donation; swap and sale options; and other relevant services.	6, 7, 9	A, D		Critical Ongoing	**Environment** City Works Customer service

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
LDR21.	Install signage at sites where dumping occurs, with educative messaging around littering and rubbish dumping and explaining that penalties apply using graphics, English and CALD languages as appropriate.	7, 9	A, D		High Ongoing	**Civic Compliance** Environment Advocacy & Communication
LDR22.	Undertake targeted engagement of key stakeholders including: real estate agents, owners' corporations, tertiary institutions, multi-unit development site managers, and Office of Housing, to educate residents and establish trial programs to limit rubbish dumping.	7, 9	A, D, E		High Ongoing	**Environment** Civic Compliance
LDR23.	Work with providers and hosts of used item donation bins and stores to develop partnerships and programs to reduce and clean up dumping near these sites.	7, 9	A, D		High Ongoing	**Civic Compliance** Environment
LDR24.	Continue to work with Metro, Victrack and Public Transport Victoria to reduce litter from railway station, bus and tram stops and surrounding areas.	8	A, D		High Ongoing	**Civic Compliance** Environment City Works
LDR25.	Promote waste reduction actions that reduce common litter items such as plastic shopping bags and beverage containers.	8	A, D		High Ongoing	**Environment**
LDR26.	Work with and advocate to traders associations, businesses and individual traders to work together to address litter in shopping areas.	8	A, D		High Ongoing	**Environment** Civic Compliance Economic Development
LDR27.	Continue to develop trader information programs for appropriate public litter bin and public recycling bin usage, dumped rubbish and waste management.	7-9	A, D		High Ongoing	**Environment** Civic Compliance Economic Development

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
LDR28.	Investigate the development of targeted programs and continue to inform and educate builders, home renovators and developers of their requirements to manage litter, especially soil, sand, and screenings, and advise of penalties that apply for breaches.	7-9	A, D, E		Medium Ongoing	**Building** Environment Civic Compliance
LDR29.	Investigate the development of targeted programs to inform and educate builders, home renovators and developers of their requirements to manage waste, especially building waste, rubble, asbestos and other building materials.	7-9	A, D, E		Medium 2019	**Building** Environment Civic Compliance
LDR30.	Continue education and communication with sport clubs to reduce littering and increase recycling at sporting grounds.	5, 7-9	A, D		Medium Ongoing	**Environment** Leisure Civic Compliance
LDR31.	Continue to educate residents that overloaded waste, recycling and green waste bins cause littering, which can attract fines and may not be collected.	8, 9	A, D		Medium Ongoing	**Environment** City Works
LDR32.	Continue to provide information about responsible dog ownership including details on excrement clean up and fines, through registration papers and other modes.	8, 9	A, D		Medium Ongoing	**Civic Compliance** Parks Environment
LDR33.	Develop a municipality wide litter and dumped rubbish reduction campaign.	7-9	A, D		Critical 2018	**Environment** Civic Compliance
LDR34.	Continue to work with creek management committees, friends of groups, Melbourne Water and EPA Victoria to engage communities to clean up and reduce littering and rubbish dumping affecting our waterways.	7-9	A, D		High Ongoing	**Environment** Bushland crew Civic Compliance

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
LDR35.	Promote and deliver waste programs to businesses in line with other sustainability programs.	All	A, C		Medium Ongoing	**Economic Development** Environment
LDR36.	Continue to support and engage businesses in waste reduction and recycling initiatives through Council's 'Greening our Business Program'.	All	A, C		Medium Ongoing	**Economic Development** Environment
LDR37.	Continue to inform and educate the community on the need for litter and rubbish dumping of all types to be reported to Council and/or EPA Victoria.	7-9	A, D		Critical Ongoing	**Environment** Civic Compliance
ENFORCEMENT						
LDR38.	Continue to actively pursue and prosecute litter and rubbish dumping offenders.	7, 8	A, D		Critical Ongoing	**Civic Compliance**
LDR39.	Promote the costs of litter and rubbish dumping clean up to the community and stress that littering and rubbish dumping are illegal.	7-9	A, D		High Ongoing	**Environment** Civic Compliance
LDR40.	Continue to improve reporting systems to support more effective reporting of rubbish dumping and identification of rubbish dumpers to enable enforcement follow up.	7-9	A, D		High Ongoing	**Civic Compliance**
LDR41.	Continue to increase the visibility of action at rubbish dumping sites through the use of 'crime scene' tape to secure sites until they are investigated and cleaned up.	7, 9	A, D		High Ongoing	**Civic Compliance**
LDR42.	Investigate opportunities to work with neighbouring councils, EPA Victoria and Victoria Police to address repeated dumping of commercial and demolition wastes.	7, 8	A, D		Medium Ongoing	**Civic Compliance**
LDR43.	Enforce overflowing bin local laws to prevent spillage and littering of local streets.	8	A, D		Medium Ongoing	**Civic Compliance** City Works

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
LDR44.	Continue to rotate surveillance cameras across key locations to help identify rubbish dumpers and investigate the purchase and installation of further surveillance cameras to support enforcement actions.	7	A, D	May include annual budget considerations	High Ongoing	**Civic Compliance**
LDR45.	Ensure sporting clubs comply with Council waste management requirements and their waste management plans as a condition of their lease/agreement and act upon breaches of these in accordance with the lease/agreement provisions.	3-5, 7, 8	A	May include annual budget considerations	High Ongoing	**Leisure**
LDR46.	Ensure all developers are informed of and comply with their Asset Protection Permit requirements.	8	A, C, E		High Ongoing	**Building** Civic Compliance
ADVOCACY						
LDR47.	Advocate for better asbestos risk, removal and disposal awareness and more convenient metropolitan asbestos disposal.	4, 7	A		High Ongoing	**Environment**
LDR48.	Advocate for product stewardship programs to improve correct disposal of commonly dumped items.	4, 6, 7	A, D		High Ongoing	**Environment**
LDR49.	Continue to work with other Councils and relevant stakeholders and bodies to address litter and dumped rubbish issues on a regional basis.	7, 8	A, D		High Ongoing	**Environment** City works Civic Compliance
LDR50.	Continue advocacy and relationship development with key litter stakeholders (e.g. MWRRG, Sustainability Victoria, EPA Victoria, Victorian Litter Action Alliance, and Municipal Association of Victoria) especially in relation to pursuing research and developing solutions to litter issues.	All	A, D		High Ongoing	**Environment**

No.	Recommended Actions	Targets Supported	Major Strategy Initiatives	Additional costs or resources	Priority & timing	Responsibility
LDR51.	Advocate to Federal and State Government and their agencies for increased opportunities, funding and support for litter initiatives and actions on rubbish dumping.	7, 8	A, D		High Ongoing	**Environment**
LDR52.	Advocate to Public Transport Victoria and other public transport providers on waste and litter issues at public transport sites and their surroundings in Darebin.	8	A, D		High Ongoing	**Environment**
MONITORING, REPORTING & REVIEWING						
LDR53.	Monitor community satisfaction with litter collection in public places.	8	A, D		Critical Ongoing	**Community Engagement & Demographics**
LDR54.	Monitor community satisfaction with the level of dumped rubbish.	7	A, D		Critical Ongoing	**Community Engagement & Demographics**
LDR55.	Monitor number of customer reported litter and dumping incidents.	7, 8	A, D		Critical Ongoing	**Civic Compliance**
LDR56.	Monitor number of officer/staff reported litter and rubbish dumping incidents.	7, 8	A, D		Critical Ongoing	**Civic Compliance**
LDR57.	Monitor numbers of fines issues and revenue raised.	7, 8	A, D		Critical Ongoing	**Civic Compliance**
LDR58.	Continue to maintain records of the numbers and types of littering incidents and observed trends in different parts of the municipality.	8	A, D		Critical Ongoing	**Civic Compliance**

8.5 NORTH EAST LINK SUBMISSION

Author: Transport Planner

Reviewed By: Director Civic Governance and Compliance

Report Background

This report is in response to the invitiation from the North East Link Authority (NELA) to provide a submission to the North East Link project.

Previous Council Resolution

This matter is not the subject of a previous Council resolution.

Previous Briefing(s)

NELA provided a briefing to Council on the 28 August 2017

Council Plan Goal/Endorsed Strategy

Goal 1 - A sustainable city

Darebin Transport Strategy

Summary

North East Link is proposed to be a new freeway aiming to connect Melbourne's freeway network between the M80 Ring Road at Greensborough and the Eastern Freeway or EastLink.

The NELA is preparing a business case and undertaking community engagement to examine the opportunities and challenges of the project which will result in a preferred corridor for North East Link.

The NELA has organised information sessions inviting community to comment on different aspects of the project including corridor options; findings and data collection; and other problems community would like the North East Link to solve. In addition, NELA briefed Darebin Council on the project and offered Council the opportunity to provide an initial submission for their consideration.

Recommendation

That Council:

(1) Endorses the recommended submission contained in this report.

(2) Writes to the North East Link Authority (NELA) providing them with the submission for their consideration.

Issues and Discussion

- The North East Link Authority (NELA) released a technical summary in August 2017 which provides details about the road project and the four different corridor options.
- The NELA is inviting community to provide comments on different aspects of the project including corridor options; findings and data collection; and other problems community would like the North East Link to solve
- The North East Link project was identified as a medium term priority project in the Northern Horizons 50-year Infrastructure Strategy 2016 which provided a comprehensive analysis of the infrastructure needs of Melbourne's Northern region.
- NELA oversees the delivery of the North East Link project. They are responsible for all aspects of the project including developing the business case, stakeholder and community engagement and procurement.
- The North East Link will be constructed as a freeway standard road connection between the M80 Ring Road and the Eastern Freeway or EastLink.
- The connection is planned between the Metropolitan Ring Road at Greensborough to either the Eastern Freeway at Bulleen Road, or EastLink at either Ringwood or further afield. Four route options have been proposed, as shown in Figure 1 below.

Figure 1: Proposed North East Link Corridor options

- Option A (Figure 2) appears to offer the greatest benefit to Darebin in terms of reduction of traffic volumes, particularly on Plenty Rd.
- This option also provides the most opportunity to improve existing and new walking, cycling and public transport improvements in the northern region including connections to the La Trobe University.
- Option A offers opportunities to protect areas of high ecological value, sensitive landscapes and areas with cultural heritage and historical significance, particularly the Banyule Flats and the Yarra River through tunnelling, but will potentially involve some environmental impacts associated with surface works in other areas.

Figure 2: Option A - Proposed North East Link Corridor

- The project is expected to take around ten years to complete. Planning approvals and procurement is expected to take place in 2018.
- The estimated cost of the project is expected to be up to $10 billion.
- Based on the presentation provided by NELA to Darebin Council and a review of the technical documents currently available, Darebin has prepared a submission to NELA outlining our preliminary input for consideration.
- Further information can be found at: www.northeastlink.vic.gov.au/

Recommended Submission

Background and general comments:

- In 2013 Melbourne North's eight municipalities, together with Northern Melbourne RDA Committee, La Trobe University and NORTH Link, came together to consider the current and future infrastructure challenges created by the rapid growth in the area. The result of this collaborative work was the Northern Horizons – 50 Year Infrastructure Strategy for Melbourne's North report.
- The Northern Horizons report acknowledged and prioritised the North East Link as a key regional corridor missing in the freeway system in Melbourne, with the potential to improve access to employment, to industrial areas and the productive food areas of the south east of Victoria. In Northern Horizons report, North East Link was identified as medium term priority (2022-2033)
- The Northern Horizons report also prioritises in the short and medium term the need for more public transport and active transport infrastructure within the northern area by increasing frequency, reliability and safety. This includes short term priority projects such as dedicated trams and buses lanes; implementation of the Northern Regional Trail Strategy; and increase service frequencies the Clifton Hill Rail Group (South Morang and Hurstbridge lines). In the medium term, the Northern Horizons prioritises the implementation of the Clifton Hill-Southern Cross rail tunnel described in the Rail Network Development Plan-stage 3; extensions to the tram network, upgrades to the bus network, among others.

- The North East Link Authority (NELA) Technical Summary 2017 highlights three main rationale for the project: reducing congestion on the local network; improving freight movement and efficiencies, and enhancing access to jobs and business opportunities. However, NELA's report is missing in provide more details on improved public transport operation.

Having had an opportunity to have the NELA present to Council and subsequently review the report (North East Link Technical Summary 2017), the key aspects of the North East Link proposals that Darebin Council would like to make a submission on are:

- Given the planned investment in the La Trobe cluster, Council submits that one of the key priorities for this project should be to provide a high quality direct connection with La Trobe University, benefiting both the university and the broader Employment Cluster. Option A appears to be the corridor option that best aligns with the strategic objectives from the Northern Horizons Report, and provides access to the La Trobe Cluster and the Northland Urban Renewal Precinct (NURP).

  However, this option proposes that the closest interchange to the university be located at Greensborough Rd and Lower Plenty Rd. Council is concerned that none of the proposed interchanges in option A appear to connect directly with La Trobe University or the northern parts of the employment cluster. Saying this, Council understands and supports La Trobe University proposals to change the function of Kingsbury Drive as part of their Masterplan, reducing the speed limit to 40km/h and creating a boulevard, and providing safe and convenient pedestrian access across Kingsbury Drive.

- Darebin calls for the option that provides the greatest benefit to the La Trobe National Employment Cluster, hence to the Northland Urban Renewal Precinct, and acknowledging that Darebin is not seeking to attract a greater reliance on private vehicle trips to the Northland Urban Renewal Precinct, posits that this benefit is likely to be realised through public transport outcomes in the region.

- Option A appears to offer the greatest benefit to Darebin in terms of reduction of traffic volumes, particularly on Plenty Rd however these benefits will not be realised unless physical changes to these roads are implemented as part of the North East Link. What measures or projects to improve public and active transport are proposed to be implemented to ensure the realisation of benefits achieved by lower traffic volumes? For instance, with traffic reductions on Plenty Road, how can improved tram service levels be secured in the long term, can the significant pedestrian movement to the University precinct be given greater priority, and can the Strategic Cycling Corridor along Plenty Road be provided with a higher level of service to enable safe movement between the university and the north east. Similarly, is there an opportunity to dramatically improve the priority for public transport services along Bell Street and Murray Road?

- While Council is supportive of the improvements at the Doncaster terminus, and any potential for greater priority to the Eastern Freeway bus. Council is seeking to understand what other public transport improvements (rail, tram and bus) have been identified in association with the project. This includes any possible extension of the tram to South Morang or the route 11 tram to Reservoir, significantly improved orbital and regional public transport, and linkages between the La Trobe cluster, the CBD and the south east of Melbourne. We believe that these projects need to be considered and implemented as part of this project to ensure that an overall improvement to transport conditions for the northern region is achieved.

- Following the construction of the North East Link, what consideration has been given to extending the current truck bans on Rosanna Road and other parallel routes to additional roads, particularly in light of the increased truck traffic that has resulted from these bans on Darebin's roads?

- The current report does not include information on how the extra traffic generated through this project will be accommodated on the Eastern Freeway, Council seeks to better understand this, and what regional impacts and benefits will be associated with this. In particular, if significant improvements to public transport can be made to offset this additional demand.
- Council is concerned about possible impacts on Darebin roads during the years of construction. The report partially addresses this concern in terms of estimating the number of construction vehicles each of the options is likely to generate. However, more information would be required about the construction material disposal sites and the likely routes that will be used during construction and at different stages of the project, and how impact for our local communities would be managed.
- This project in all phases of delivery and realisation should continue to consider the Transport Integration Act in terms of achieving positive social, economic and environmental outcomes.

Financial and Resource Implications

- No financial or resource implication has been identified at this stage.

Risk Management

- No risk implication has been identified at this stage.

Policy Implications

Economic Development

- The North East Link has the potential to enhance access to jobs on the north and the south and to connect the Monash and La Trobe Clusters.
- The project offers an opportunity to take some of the freight traffic off Darebin's local road network and increasing freight movement efficiency.

Environmental Sustainability

- The project appears to redirect some of the north-south thru traffic away from Darebin's local network which is likely to see a reduction in traffic pollution caused by congestion.

Human Rights, Equity and Inclusion

- There are no factors in this report which impact on human rights, equity and inclusion at this stage.

Other

- There are no other factors which impact on this report at this stage.

Future Actions

- Write to the North East Link Authority (NELA) providing them with the submission for their consideration.

Consultation and Advocacy

- Transport Planner
- Team Leader Transport Strategy
- Manager Transport Management and Public Places

Related Documents

- Northern Horizons 50-year Infrastructure Strategy 2016

Attachments

- North East Link Technical-Summary August 2017 (**Appendix A**) ⇩
- Northern Horizons Summary Report 2016 (**Appendix B**) ⇩

Disclosure of Interest

Section 80C of the *Local Government Act 1989* requires members of Council staff and persons engaged under contract to provide advice to Council to disclose any direct or indirect interest in a matter to which the advice relates.

The Officer reviewing this report, having made enquiries with relevant members of staff, reports that no disclosable interests have been raised in relation to this report.

North East Link
Technical Summary

August 2017

Contents

1 Overview

1.1 North East Link project

North East Link is a proposed freeway standard road connection that plans to complete the missing link in Melbourne's metropolitan ring road, giving the city a fully completed orbital connection for the first time.

North East Link proposes to connect the M80 Ring Road (M80) to the Eastern Freeway / EastLink. While the final route for North East Link has yet to be determined, in general it is proposed to connect the M80 at Greensborough with either the Eastern Freeway at Bulleen Road or EastLink at either Ringwood or further to the south.

North East Link will be informed by and progressed through planning, technical, environmental and social investigations, along with community and stakeholder engagement, to determine the best corridor for the project, with a key focus on protecting existing urban areas and minimising environmental impacts.

Purpose of this summary

As the project proceeds, the North East Link Authority (NELA) will provide project updates from time to time, giving people with an interest in the project access to emerging information relevant to key aspects of North East Link. These project updates will be available for reading and downloading on the NELA online hub and notice of their publication will be given on the NELA website and in regular Community Updates distributed to households across Melbourne's north-east.

This summary provides a snapshot of the NELA's investigations and analysis so far relating to:

- Why we need North East Link, including an overview of key existing conditions in Melbourne's north-east
- Potential corridor options for North East Link
- How each of the options may perform against key areas of interest identified by stakeholders

Information is preliminary and provided to inform conversation about what North East Link should achieve.

Significant development of the project is still required and is underway. Key next steps have been identified by the NELA, with community engagement being a vital input.

1.2 Project background

Since 1969, successive Victorian Governments have identified the need for a freeway standard road link through Melbourne's north-east to complete the city's orbital connection. Potential links and routes have been identified through:

- Victorian Government (1969), Melbourne Transportation Plan
- Victorian Government (1974), F35 Study: Eastern Freeway – Ringwood to Greensborough
- Victorian Government (1979), Outer Ring Study, Diamond Creek to Ringwood: Technical Report: Transport and Economic Evaluation
- Victorian Government (2008), Victorian Transport Plan.

Most recently, in 2016, a North East Link was identified as Victoria's next priority road project in Infrastructure Victoria's 30-year strategy, which sets out a pipeline of initiatives to be delivered over the next three decades to help create the best possible future for the State of Victoria. The strategy undertook a high-level analysis and nominated North East Link as a short- to-medium-term project

that would enhance access to major employment centres and improve the capacity of the freight network, and recommended that a detailed assessment of corridors be undertaken as a first step.

As part of developing the business case, the NELA is completing a number of technical and environmental investigations, engaging with a wide range of stakeholders and members of the community and developing and assessing the benefits, challenges and costs for potential corridors for North East Link. The NELA is also looking at ways to improve existing roads, public transport services and cycling opportunities to make North East Link work effectively and maximise the transport, economic and social benefits it delivers.

1.3 Project objectives

North East Link has a strong focus on supporting business and jobs growth in communities across Melbourne's north, east and south-east, while also improving cross-city connectivity and helping to address critical traffic, freight and amenity issues. High-level Project Objectives and Guiding Principles reflecting this focus have been established for the project, as outlined in the table below.

Table 1 – North East Link Project Objectives and Guiding Principles

Project Objectives			
Objective 1 Improve business access and growth in Melbourne's north, east and south-east	***Objective 2*** Improve household access and growth in Melbourne's north, east and south-east	***Objective 3*** Improve freight and supply chain efficiency and industrial growth across the north, east and south-east	***Objective 4*** Improve access, amenity and safety for communities in Melbourne's north-east

Guiding Principles			
Guiding Principle 1 Minimise impacts on communities	***Guiding Principle 2*** Minimise impacts on environmental and cultural assets	***Guiding Principle 3*** Minimise impacts during the construction phase	***Guiding Principle 4*** Optimise the efficient use of resources

In developing the Project Objectives and Guiding Principles, the NELA has had regard to:

- The objectives and decision-making principles in the *Transport Integration Act 2010*
- Identification of key problems in Melbourne's north-east and consultation undertaken to date
- Key policy objectives of Government, including *Plan Melbourne.*

1.4 Initial investigations and stakeholder engagement activities

The NELA's initial investigation and stakeholder engagement activities have focused on understanding the existing conditions in Melbourne's north-east, exploring potential corridor options and identifying key areas of interest that people consider to be important.

Some of the key observations from these initial investigations are outlined in this Technical Summary. The key steps undertaken by the NELA to develop these observations are outlined below.

Existing conditions and potential corridor options

Work commenced earlier this year to investigate and analyse key problems and existing conditions in Melbourne's north-east, set key objectives and guiding principles for the project, identify potential corridors for North East Link, and identify the initial potential challenges and impacts of the existing conditions and corridor options. This work incorporates initial desktop and field work analyses of existing conditions, including:

- Identification of key demographics in relation to residents, workers, businesses and tertiary education in Melbourne's north-east and in the areas to the north, south and east of Melbourne
- Review of travel patterns and on-site traffic surveys, including identification of truck volumes
- Geotechnical investigations to identify ground conditions that will inform the project's design and construction methods, assessment of risks and cost of road pavement, structures and tunnels
- Environmental and heritage ground surveys to identify sensitive areas that need to be protected or offset.

Investigations are ongoing, with a focus on geotechnical investigations and environmental, heritage and traffic surveys.

The NELA has also been undertaking preliminary analysis of the effects of each potential corridor option, including:

- Preliminary transport modelling to identify the effects of each of the options on travel patterns and land use
- Engineering design to identify the potential location of options and the design and construction challenges associated with each option.

Investigations to date indicate that each corridor option has benefits and challenges. While there is still more work to do, this Technical Summary outlines some of the key observations to date on how each option addresses the key areas of interest identified through the NELA's initial stakeholder engagement activities.

Initial consultation and key areas of interest

The NELA commenced consultation for North East Link in May 2017, engaging with a range of stakeholders through activities that include:

- North East Link online community survey
- Discussions with local government
- Discussions with community groups
- Discussions with industry
- Discussions with government authorities including Transport for Victoria (TfV), VicRoads, Public Transport Victoria (PTV), the Victorian Planning Authority (VPA) and the Department of Environment, Land, Water and Planning (DELWP).

Through these initial interactions, the following issues have been identified as important:

- Reducing congestion on key roads in Melbourne's north-east
- Removing trucks that don't need to be on roads in Melbourne's north-east
- Providing better connectivity for people to access existing and new jobs and education opportunities
- Helping businesses better connect to each other and to workers across Melbourne
- Making freight journeys more efficient
- Improving public transport connections and travel times
- Improving connections for pedestrians and cyclists
- Protecting the environment, culture, heritage and open spaces
- Minimising the impacts from construction-related traffic as the project is being built.

2 Why do we need North East Link?

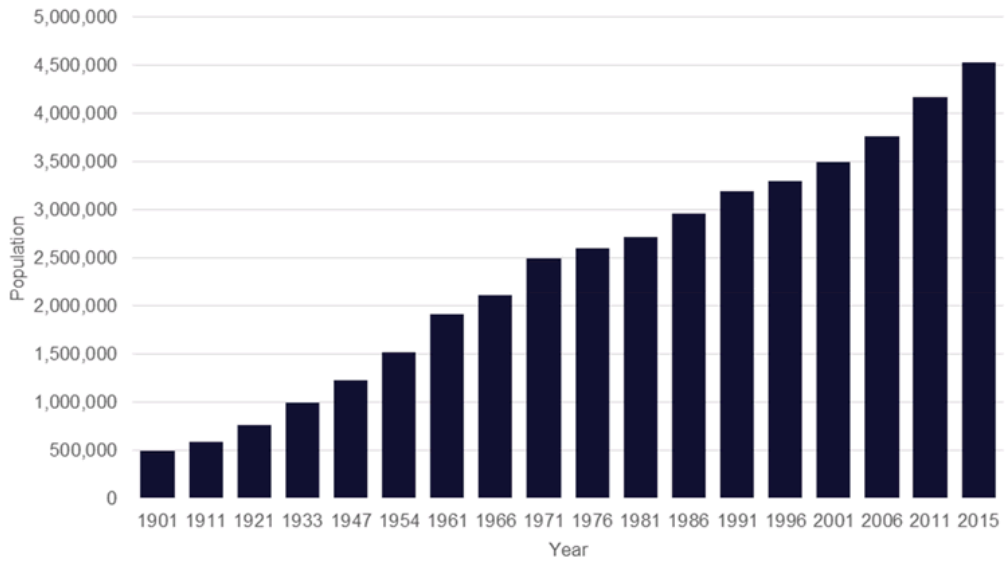
Over the last 50 years, Melbourne has undergone substantial changes in its population, economic structure and land use structure. These changes have been central to the city's success, but have also created numerous challenges in ensuring that Melbourne continues to play a part in growing Australia's economy and improving the living standards of all Victorians. As Melbourne has grown and its economy has evolved, demand for movement across the city and around its periphery has increased significantly.

2.1 A growing population and city

Although Melbourne's population has long been increasing, the recent scale of growth is unprecedented for an Australian city. From a population of just over 500,000 people at the turn of the 20th century, Melbourne today has grown to a population of more than 4.5 million (Figure 1).

In the year to June 2016, the Australian Bureau of Statistics (ABS) estimates that almost 30% of Australia's population growth occurred in Melbourne. During that time, the city swelled by an additional 108,000 people or 2.3%– nearly twice the rate of growth of the rest of the country (which grew by 1.2% cent over the same period). This is above the 10-year trend of around 2% annually, during which time – between 2006 and 2016 – the city's population increased by 857,000.

Figure 1 – Melbourne's Population 1911 - 2015

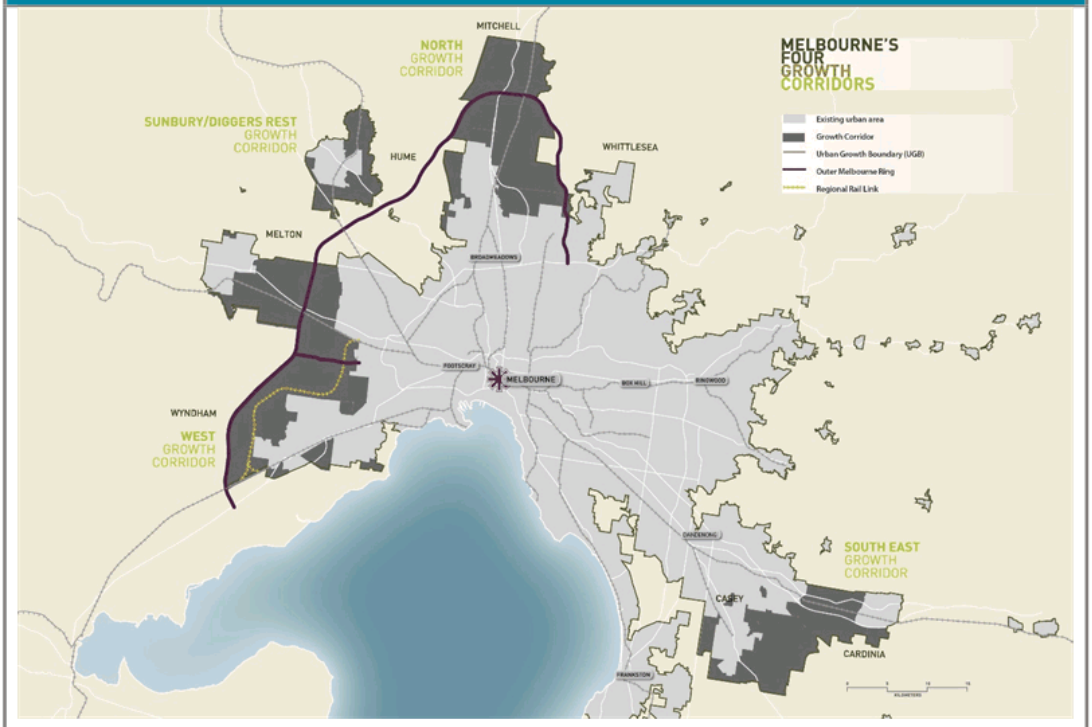


Source: Australian Bureau of Statistics, 2014, Australian historical population statistics catalogue number 3105.0.65.001- Greater Melbourne, ABS

While an Urban Growth Boundary was legislated in 2002 with the aim of reducing urban sprawl (a key policy direction in *Plan Melbourne 2017-2050 Strategy*[1]), the high demand for housing from a rapidly growing population has led to some adjustments to the boundary in subsequent years. This growing population and expanding footprint is continuing to place stress on existing infrastructure, which is increasingly struggling to accommodate the additional demand.

The changes to Melbourne's Urban Growth Boundary over the last decade are presented in Figure 2. The northern corridor of Melbourne is one of the city's fastest growing areas. South Morang was Australia's fastest growing suburb in 2015-2016 and has been in the top 3 for population growth for the last 3-4 years. Epping was also in the top 10 in 2016, with these two suburbs adding over 8,000 people, around 7.5% of Melbourne's total growth. This northern corridor with a future estimated population capacity of up to 330,000 people and job capacity of up to 105,000[2]. This is expected to place additional pressure on Melbourne's north-east transport network in the coming years.

Figure 2 – Expansion of the Urban Growth Boundary between 2002 and 2017



Source: Victorian Planning Authority, 2012, Growth Corridor Plans – Managing Melbourne's Growth

This growth pressure results in a range of issues that can be represented by three key problems for Melbourne as a liveable and competitive city, particularly in Melbourne's north-east:

[1] Victorian Government (2017) *Plan Melbourne-2017-2050 Strategy*, Policy 2.1.1, Maintain a permanent Urban Growth Boundary around Melbourne to create a more consolidated, sustainable city
[2] Victorian Planning Authority (2012) *Growth Corridor Plans – Managing Melbourne's Growth*

- Growing congestion and heavy vehicles are impacting liveability in Melbourne's north-east
- Inefficient freight movements are impacting business
- Poor connections are constraining economic potential.

The following sections outline the challenges in meeting the requirements of this growth in Melbourne's north and some of the key issues identified through NELA's initial investigations.

2.2 Growing congestion and heavy vehicles are impacting liveability in Melbourne's north-east

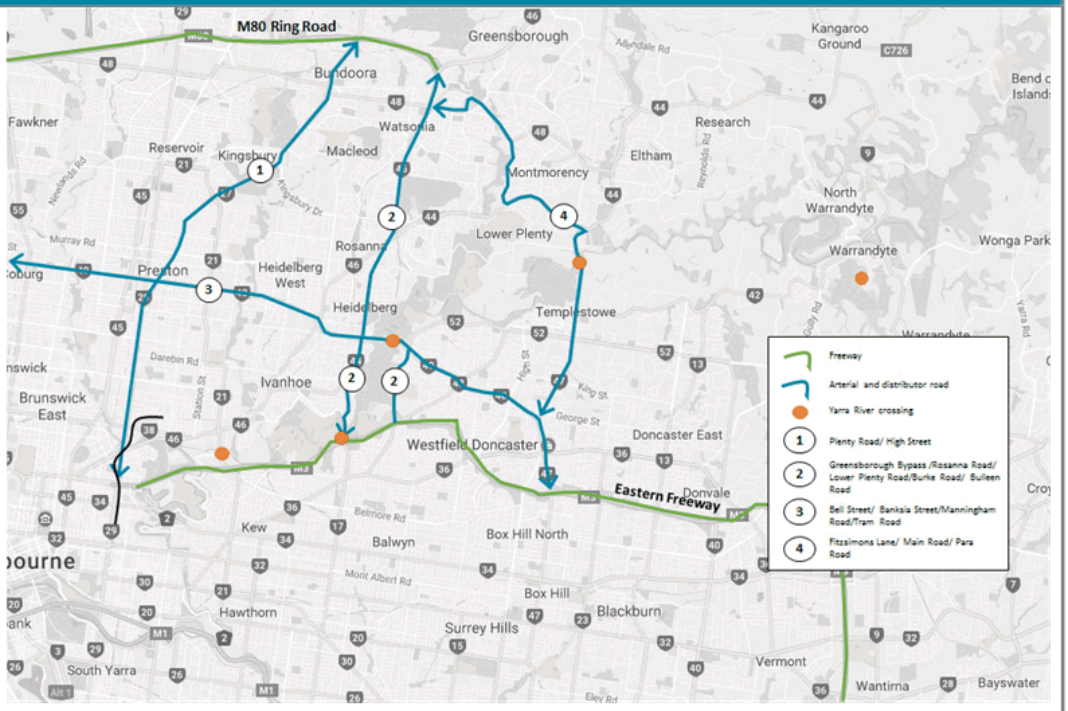
Between Melbourne's west and north, orbital movements are facilitated via the M80, which runs from the Princes Freeway in Altona to the Greensborough Bypass in Greensborough. Movements between the east and south-east are enabled by the EastLink tollway, which traverses the outer eastern suburbs between Donvale and Seaford. Unlike these other parts of Melbourne, the limited arterial road network in Melbourne's north-eastern suburbs has to cater to a range of both local and orbital movements; including commuter and business traffic, heavy freight vehicles, buses and active transport. All of these routes are operating at or well above their capacity, which is resulting in longer and less predictable travel times.

There are also key natural barriers to these movements, the main one being the Yarra River forming a barrier that funnels traffic on to a few key routes through Melbourne's north-east.

As a result, key local destinations such as shopping precincts, schools, medical facilities, recreation areas, parklands and other community infrastructure are becoming more and more difficult for local residents to access; not only by driving, but public transport, walking and cycling, as congestion is also impacting the performance of on-road public transport such as the orbital SmartBus routes on Fitzsimons Lane (bus routes 901 and 902), Para Road (bus routes 901 and 902) and Banksia Street (bus route 903).

Figure 3 identifies the key routes in Melbourne's north-east that are performing an orbital function along with the other local access functions and identifies the locations of the road network as it crosses the key barrier of the Yarra River.

Figure 3 – Existing key orbital movement routes



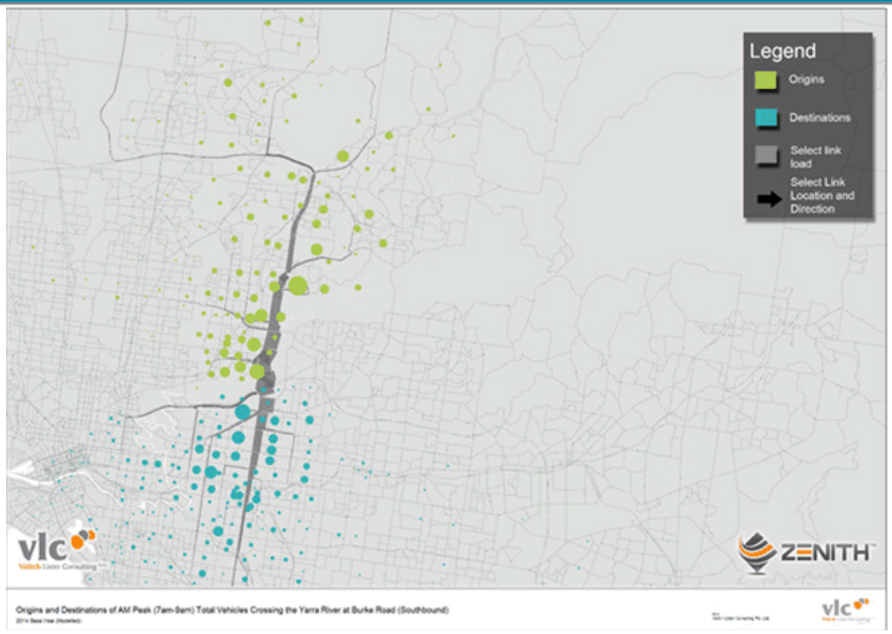
The origins and destinations of the trips that cross the Yarra River in the AM peak are presented in Figure 4 to Figure 7. The main crossing locations are at Burke Road, Banksia Street and Fitzsimons Lane, which account for the majority of all southbound trips across the Yarra River in the AM peak period. The Kangaroo Ground-Warrandyte Road crossing in Warrandyte has a relatively low share of river crossing trips due to the lower population density and road connectivity in this area.

The bulk of vehicles travelling across the Yarra River have origins mainly between Eltham and Ivanhoe, with another cluster of origins within the industrial precincts in Epping and Lalor further north. The river crossings, with the exception of Banksia Street all have narrow catchments typically immediately to the north of each of the bridges. Trips across the bridges at Burke Road and Fitzsimons Lane generally have origins within the local area, with relatively few longer distance trips. The crossing at Banksia Street on the other hand has a wider dispersal of origins, due to this location providing the best access between the M80 and Bell Street in the north and west respectively and the Eastern Freeway south of the river.

Destinations are generally focused along the Eastern Freeway corridor with the majority of destinations in Bulleen, Doncaster, Kew and Box Hill, and some destinations along EastLink in the vicinity of Ringwood and the Scoresby industrial precinct. The destinations of trips using Burke Road are concentrated between the Monash Freeway and Eastern Freeway around Kew, while the destinations of trips using the Fitzsimons Lane are concentrated around the Templestowe, Doncaster and Box Hill areas. While the Banksia Street crossing caters for some longer distance trips using

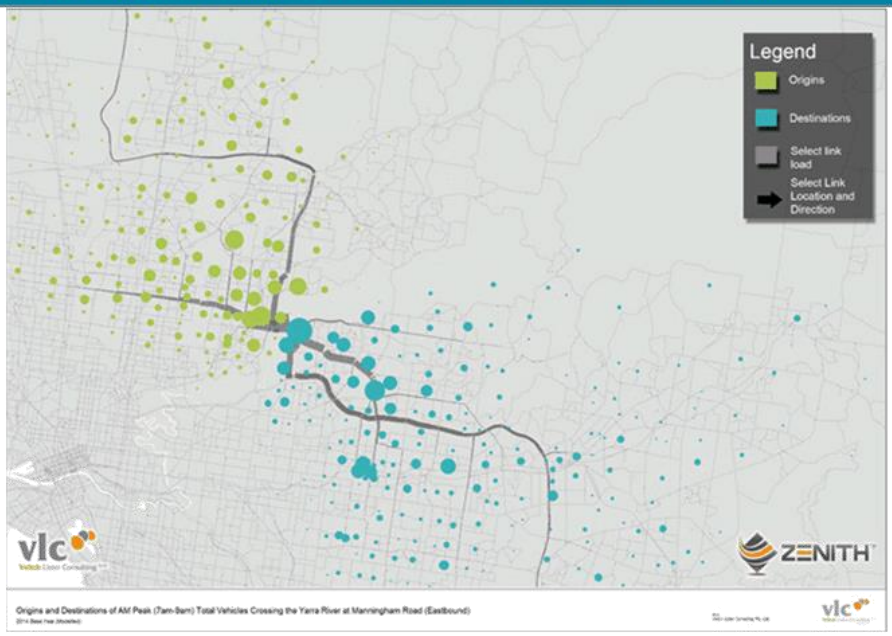
EastLink, a high proportion of trips still have destinations in the vicinity of the Eastern Freeway in suburbs such as Bulleen, Doncaster and Box Hill.

Figure 4 – Origins and destinations of traffic crossing Burke Road Bridge during the AM peak



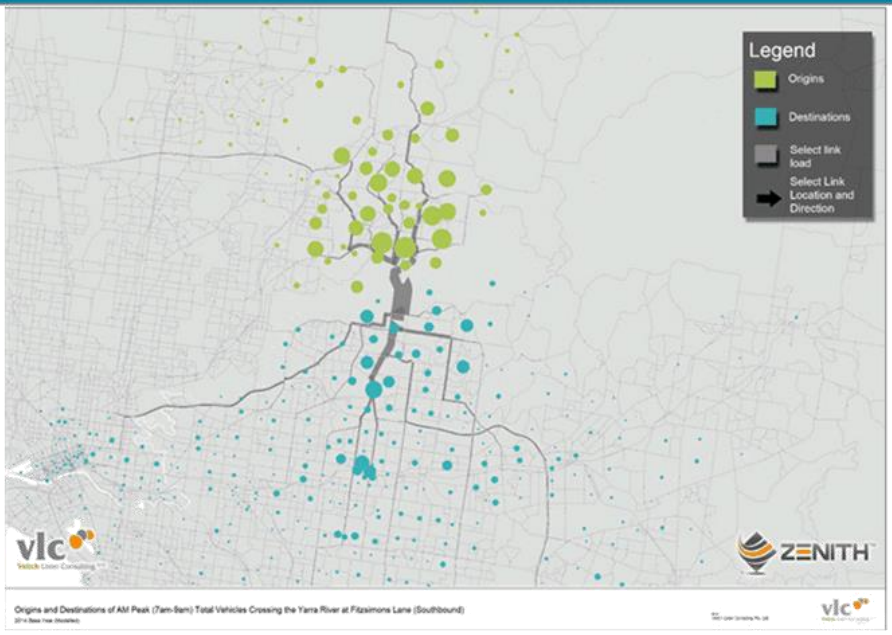
Source: VLC Zenith Model – Preliminary modelling for North East Link

Figure 5 – Origins and destinations of traffic crossing Banksia Street Bridge during the AM peak



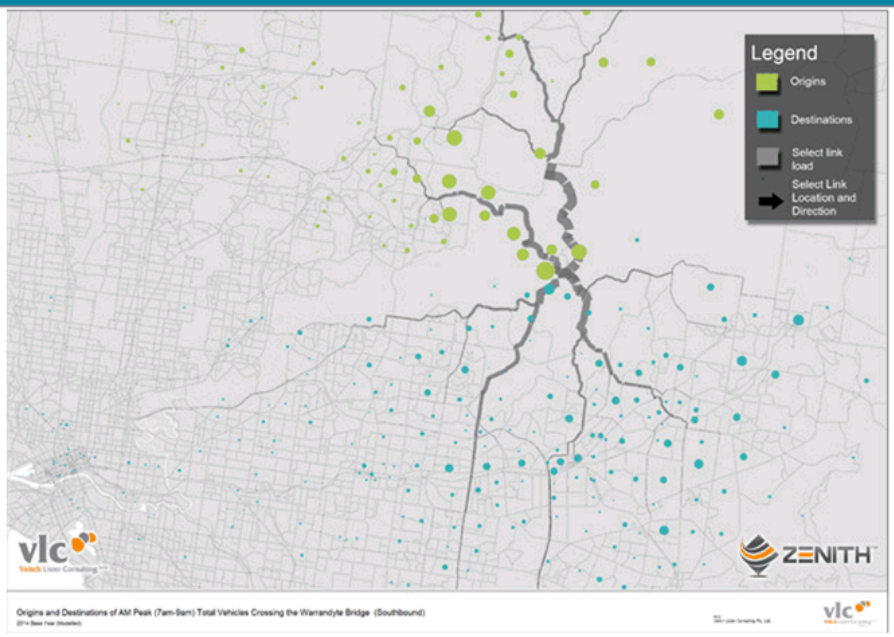
Source: VLC Zenith Model – Preliminary modelling for North East Link

Figure 6 – Origins and destinations of traffic crossing Fitzsimons Lane Bridge during the AM peak



Source: VLC Zenith Model – Preliminary modelling for North East Link

Figure 7 – Origins and destinations of traffic crossing Warrandyte Bridge during the AM peak

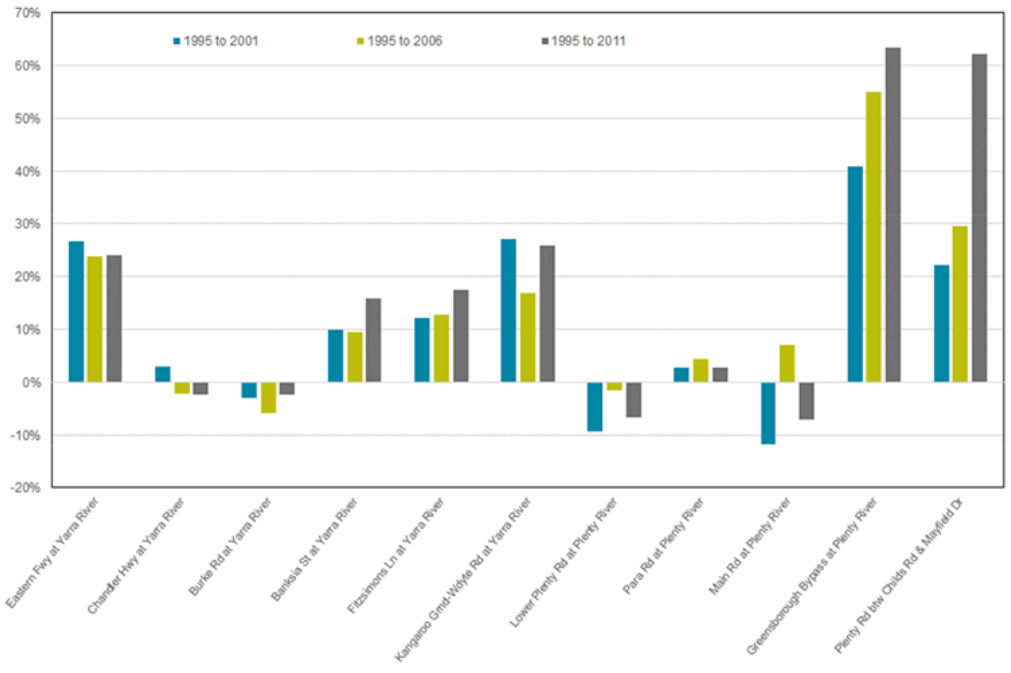


Source: VLC Zenith Model – Preliminary modelling for North East Link

Traffic volumes are growing

Residents and workers in Melbourne's north-east overwhelmingly rely upon the road network for travel (either using private vehicles or buses). This reliance on the road network has become more entrenched as traffic volumes on the outer suburban north-east arterial road network have grown over the past decade, compounding the issues of traffic congestion and delays, as presented in the Figure 8.

Figure 8 – Daily traffic volumes through Melbourne's north-east – 1995 to 2011



Source: VicRoads Screenline traffic volume data

These growing traffic volumes are placing the arterial road network in Melbourne's north-east under increasing pressure, making it more and more difficult for these roads to accommodate the varied travel demands competing for limited road space through the area.

This conflict of movement and road use is compounding congestion and is leading to high variability in trip duration and unreliability.

The busiest locations on Melbourne's north-east arterial road network are typically at the bridge crossings of the Yarra River (Chandler Highway, Burke Road, Manningham Road, Fitzsimons Lane, and Kangaroo Ground-Warrandyte Road). Other heavily congested locations are Bell Street, Banksia Street, Rosanna Road, Greensborough Road, Diamond Creek Road and Main Road.

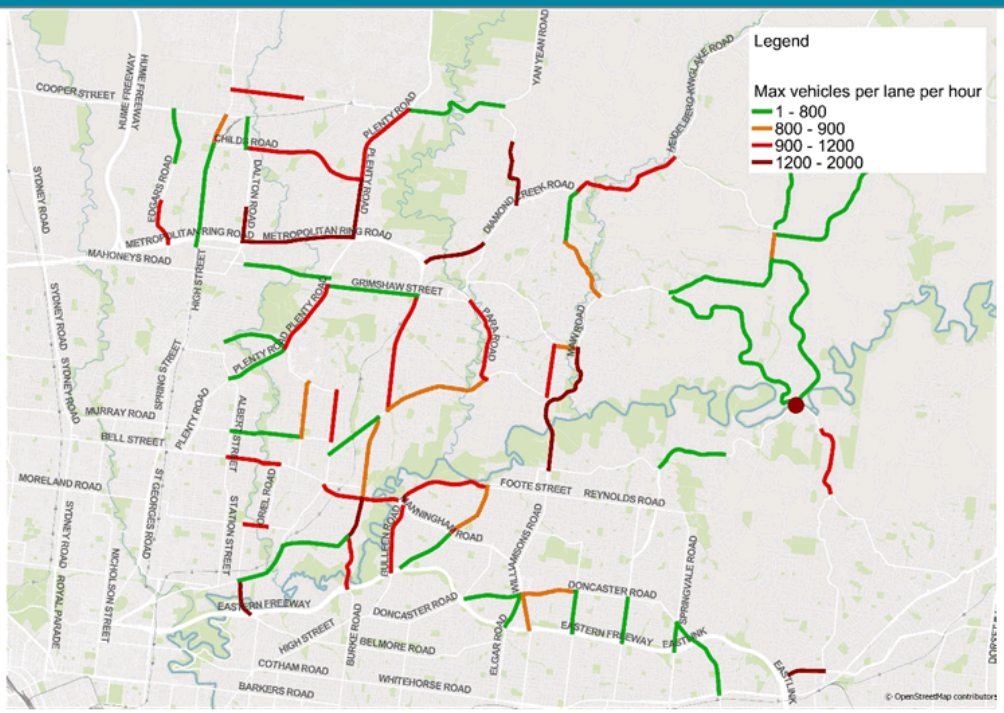
Melbourne's north-east arterial road network is at capacity

Traffic data for these roads indicate that they are often close to or at capacity during extended peak periods, as different travel demands compete for road space across the whole day.

The capacity issues on the arterial roads that cater for the movement of significant traffic volumes – including important cross city and orbital journeys – are exacerbated by the fact that many still provide a local access function. As a result, they often interface with numerous property accesses, priority intersections and signalised intersections. For example, vehicles travelling from the M80 to the Eastern Freeway via Rosanna Road must pass through 19 sets of signals over a 6 kilometre length of road. This means that road users encounter one set of traffic lights every 316 metres, resulting in 'stop/start' conditions and inconsistent travel speeds along the corridor. Having to service these local access functions impacts road capacity and reduces traffic throughput compared with the conditions experienced along a modern, access-controlled arterial road. It also impacts on the needs of other road users such as pedestrians and cyclists who face difficulty in travelling along or crossing these busy roads. Balancing the needs of all the road users along these roads is a key challenge.

Figure 9 presents the highest number of vehicles per lane observed during the AM and PM peak period(s), showing that during the peak hours (and for a large part of the day), the majority of the road network in Melbourne's north-east is already at capacity. An arterial road typically carries 800 to 900 vehicles per hour in peak periods. A number of the roads in Melbourne's north-east carry in excess of 1,000 vehicles per lane, leading to significant congestion, delay and poor reliability.

Figure 9 – Vehicles per lane during the AM and PM peak – 2017



Source: NELA Traffic Survey 2017

Where the weekends were once a less busy time on the road network and roads could be closed for maintenance or construction work, this is no longer the case. On Saturdays and Sundays, the traffic volumes recorded on the arterial road network can rival that of the weekday peak periods.

Overall, on average, weekend traffic volumes reach approximately 74% of the weekday peak volumes[3]. On many of these roads, traffic congestion is often worse on the weekend peak period due to the lack of weekend clearway periods, reducing road capacity and traffic throughput. Even though traffic volumes may be 25% lower than the weekday peak, a typical road with two lanes in each direction may have 50% less capacity due to on-street parking on weekends.

The top eight locations in Melbourne's north-east with similar weekend and weekday peak volumes are presented in Table 2. These locations often experience high levels of congestion throughout the week, including weekends.

Table 2 – Weekend peak vs weekday peak - 2017

Road (Direction) *Note: Northbound(NB); Southbound(SB); Eastbound (EB)*	Weekend peak as a percentage of the weekday peak
Edgars Road (NB)	98%
Banksia Street (EB)	98%
Chandler Highway (SB)	93%
Plenty Road at Darebin Creek (EB)	93%
Main Road at Diamond Creek (SB)	91%
Lower Heidelberg Road (NB)	91%
Doncaster Road (NB)	90%
Bell Street at Darebin Creek (EB)	87%

Source: NELA Traffic Survey 2017

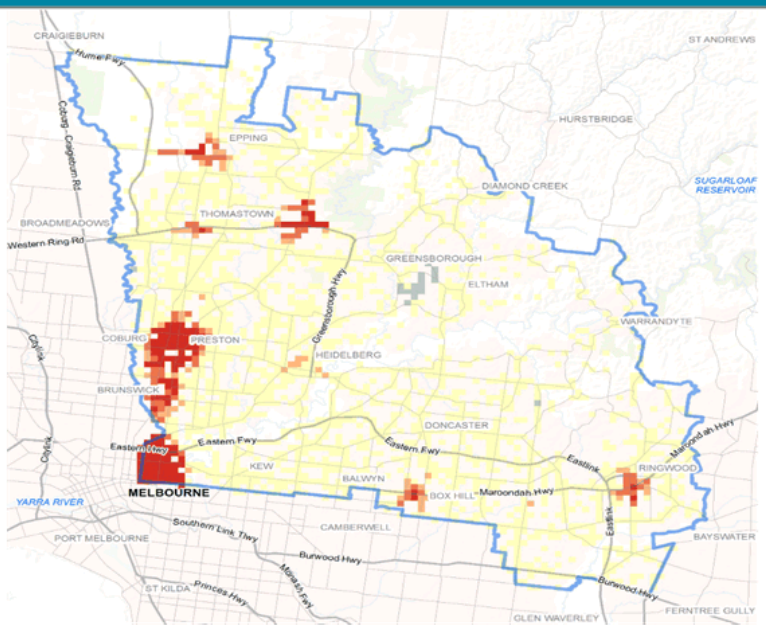
Adding to these problems is the growing number of freight vehicles using arterial roads for through movements between the north and east or south-east. Traffic counts undertaken for the North East Link project identify that 7% of trips along Rosanna Road and 8% of trips along Fitzsimons Lane are commercial vehicle trips. Along Fitzsimons Lane, which has steep grades unsuited to heavy vehicles, these freight vehicles are predominantly smaller heavy vehicles with over 90% being two to three axle trucks or buses, with less than 7% being larger articulated vehicles. This results in Rosanna Road attracting these larger vehicles as one of the only routes in the north-east that has grades that suit them and the connectivity to the freight network. Nearly 30% of freight vehicles on Rosanna Road are large articulated trucks[4].

These freight movements are a significant factor in growing local traffic congestion and contribute to increased emissions and traffic noise. Residents are also exposed to increased traffic noise and emissions, and a growing risk of road accidents. The analysis of crash hotspots in Melbourne's north-east is presented in Figure 10. It shows significant hotspots that are likely to be due to increased levels of congestion. The most common cause of crashes are rear end collisions followed by collisions

[3] NELA Traffic Survey 2017
[4] NELA Traffic Survey 2017

between right turning and through-movement vehicles. These crash types are typically associated with high levels of congestion, flow breakdown and poor control at heavily used intersections.

Figure 10 – Hot spots of all vehicle crashes 2012 to 2016



Source: VicRoads Crash Statistics

Traffic will continue to grow

Overly trafficked roads in Melbourne's north-east also increase local residents' daily commute to their workplaces. For working members of households in Melbourne's north-east, a significant part of their commute time is spent moving through local and arterial roads to access higher capacity parts of the network.

Although these distances can be short in terms of overall distance travelled, they account for a significant proportion of the total journey time. For example, travel times in Table 3 shows that current travel time to travel the 10 kilometres between Greensborough and Heidelberg in the morning peak is in the range of 10 to 35 minutes and for the 15 kilometres between Epping and Northland is estimated to be in range of 25 to 60 minutes – an average additional 20 minutes for a further 5 kilometres. By 2031, this is estimated to increase by 25% to 45% for a further 5 kilometres. This will impact travel time and reliability for not only private vehicles but, also freight and on-road public transport.

Table 3 –Potential future travel time changes between selected locations for Melbourne's north-east in the AM peak without North East Link (2017 and 2031)

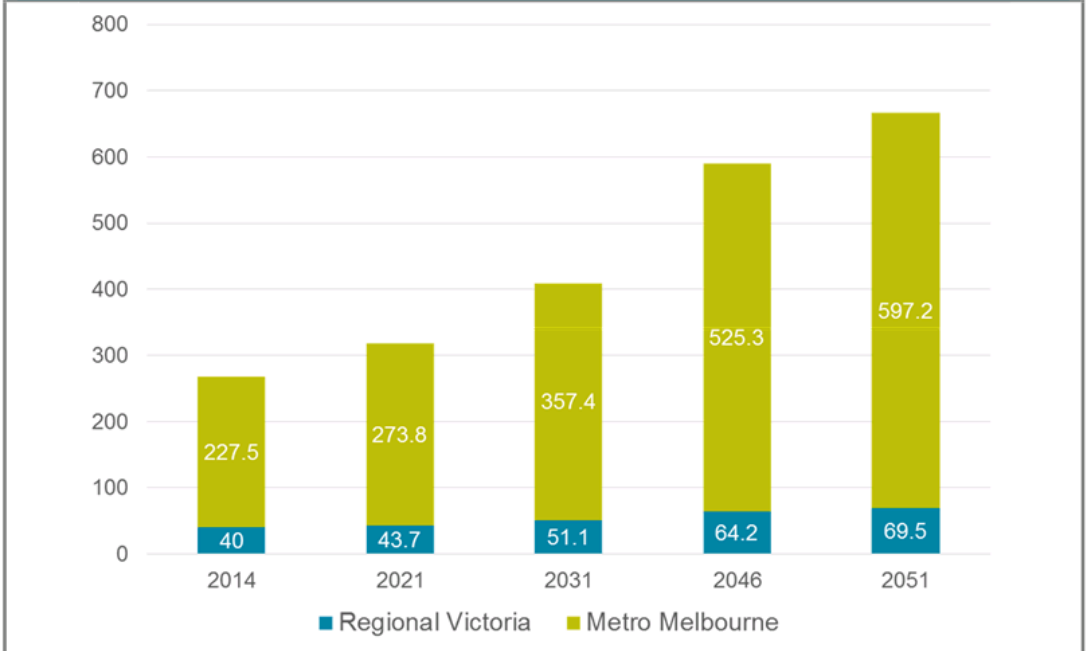
Origin	Destination	2017 travel time (mins)	Percentage change (2017 – 2031)
South Morang	Box Hill	45 to 100	+10% to +20%
Eltham	Ringwood	25 to 50	+5% to +15%
Greensborough	Heidelberg	10 to 35	+15% to +25%
Doncaster	La Trobe	20 to 40	+5% to +15%
Epping	Northland	25 to 60	+25% to +45%
Eltham	Swinburne University	30 to 70	+5% to +10%

Source: Google Maps and VLC Zenith Model – Preliminary modelling for North East Link

2.3 Inefficient freight movements are impacting business

The metropolitan freight task currently makes up around 85% of total Victorian freight volumes, at nearly 230 million tonnes in 2014 (Figure 11). That number is forecast to more than double over the next 30 years, growing at around 3% annually.

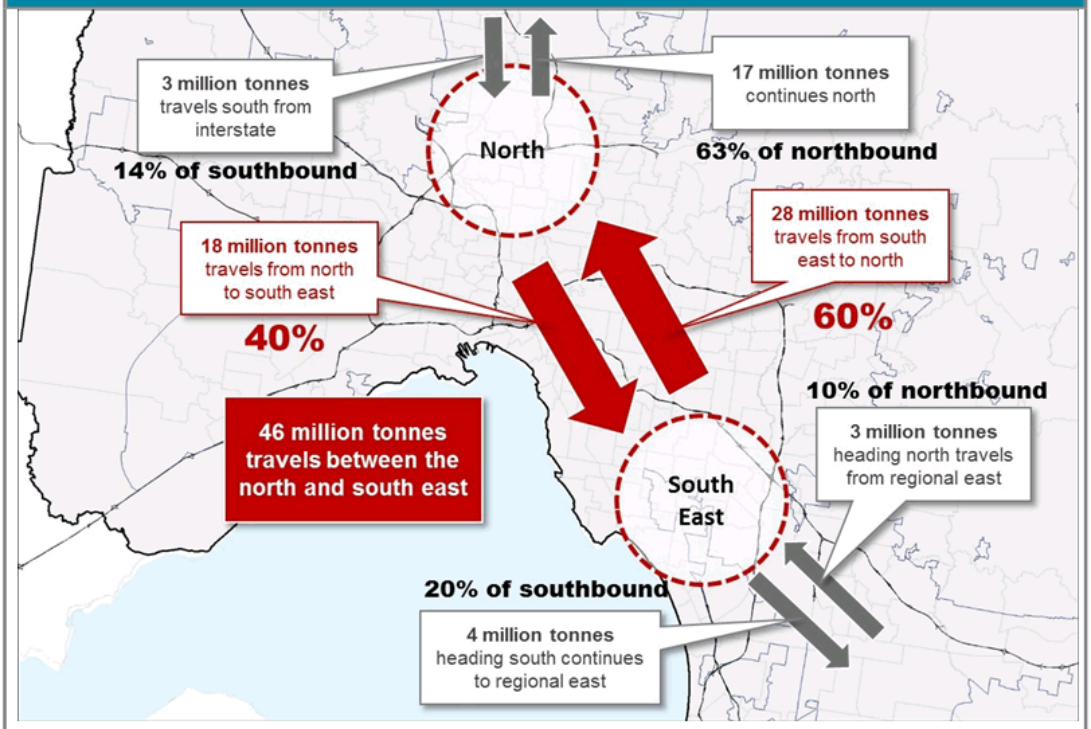
Figure 11 – Victorian freight task 2014 to 2051



Source: Department of Economic Development, Jobs, Transport and Resources, 2015, Review of Victoria's Freight and Logistics Task

Freight moving between the north and south-east of Melbourne accounts for 20% of all metropolitan freight volumes – or around 46 million tonnes. Of this volume, 60% travels from the south-east to the north, while 40% moves from the north to the south-east, as outlined in Figure 12.

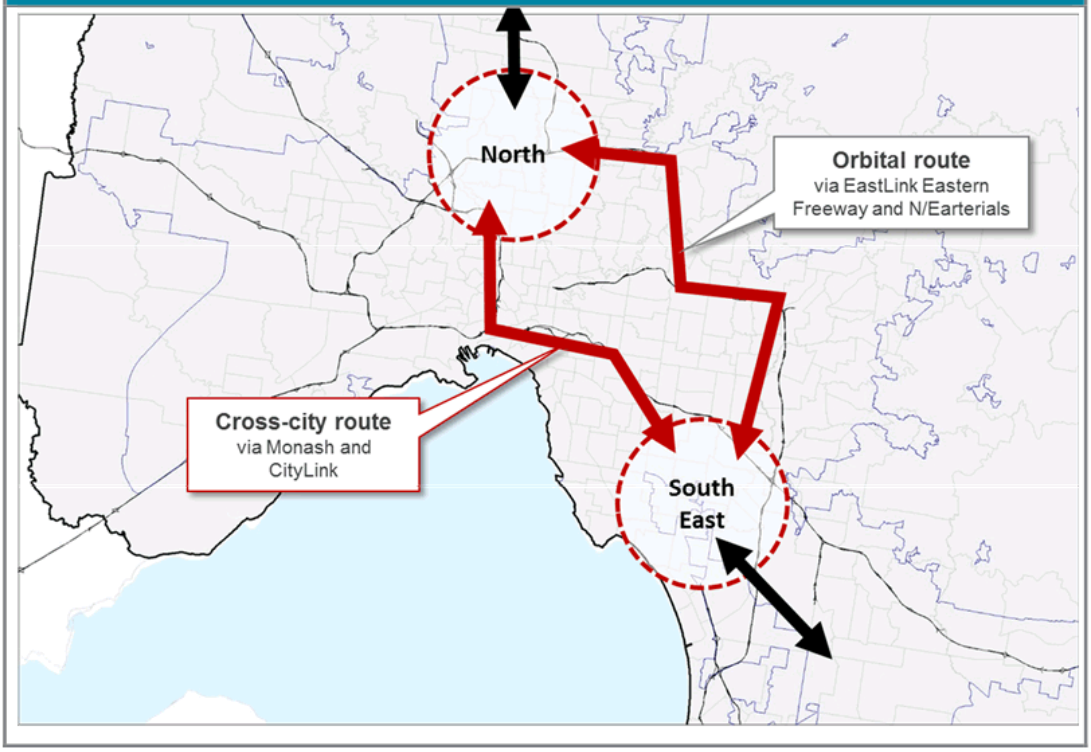
Figure 12 – Melbourne's north-east corridor freight flows



Source: XAct Solutions, 2017, North East Link Needs Assessment

Freight travelling between the north and south-east uses two primary routes; an orbital route via EastLink, the Eastern Freeway and through arterial roads such as Bulleen Road, Manningham Road, Rosanna Road and Greensborough Road in Melbourne's north-east, or a cross-city route via the M1 and CityLink, as shown in Figure 13.

Figure 13 – Primary routes for freight between the north and south-east of Melbourne



Poor freeway connectivity through the north-east leads to significant inefficiencies (and associated costs) in the freight task between Melbourne's north and south-east:

- With access for High Productivity Freight Vehicles (HPFVs) restricted in Melbourne's north-east, more trucks are required to move the same volume of freight, resulting in increased congestion and impacts on noise, air quality and road safety. Businesses based in Melbourne's north-east also have less flexibility and limited (and costlier) options for transporting larger loads.
- The 'gap' in the orbital network is a significant supply chain bottleneck that increases the cost of transporting goods from where they are produced to customers in Melbourne, Victoria or overseas. This is potentially a significant competitive disadvantage for businesses operating in high value industry sectors.
- Traffic congestion and poor reliability on key transport routes diminishes the provision of efficient freight systems to support the requirements of businesses.
- The lack of efficient orbital access through Melbourne's north-east places additional pressure on other key routes across the network, with supply chains increasingly reliant on the M1 corridor, which is heavily congested for a large and growing part of the day, and is increasingly susceptible to incidents and long periods of disruption.

- Melbourne has a strong competitive advantage in being home to the nation's largest curfew-free airport. Poor orbital connectivity means that the opportunities presented by this advantage are not being fully realised.

A key industry sector affected by these constraints is the food and fibre sector. Victoria is Australia's biggest food and fibre exporter, with exports reaching an all-time high of $12 billion in 2014-15[5]. The sector accounts for 4.9% of Gross State Product and in 2014-15 accounted for around half of the state's total goods exports. Recently, the Victorian Government has focused on promoting food and fibre products from east Victoria to export markets. However, poor orbital access in Melbourne's north-east is affecting the competitiveness of agriculture and manufacturing industries in Victoria's east. Excluding congestion impacts, the lack of orbital access across Melbourne's north-east is estimated to cost operators 12% more than equivalent distance deliveries in the north-west[6].

Poor orbital connectivity in Melbourne's north-east represents a significant supply chain bottleneck that increases the cost of transporting goods from where they are produced to customers in Melbourne, Victoria or overseas. This is potentially a significant competitive disadvantage for businesses operating in high value industry sectors, including those moving time-critical goods to Melbourne Airport. With supply chains increasingly reliant on the M1, many freight reliant and logistics industries have migrated to the western and northern suburbs of Melbourne. There is a further risk that, as freight costs increase, business may start to move to different cities to avoid higher prices.

[5] DEDJTR (2016) Food and Fibre: Sector Strategy

[6] XAct Solutions, 2017, North East Link Needs Assessment

Rosanna Road and the 14-hour peak period

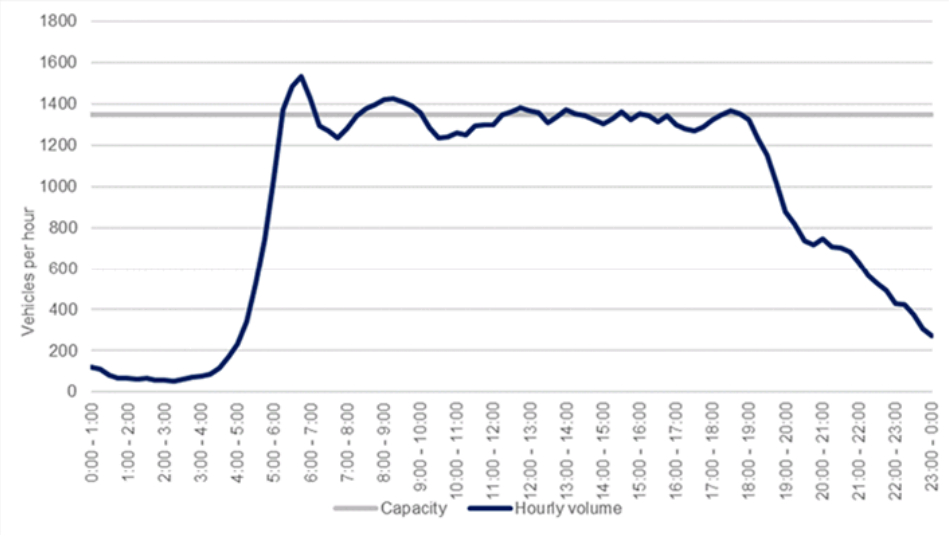
Rosanna Road is one of the busiest arterial roads in Melbourne's north-east, carrying approximately 45,000 vehicles per day, of which roughly seven percent are commercial vehicles. It is a four-lane, two-way undivided road, with low density residential dwellings along both sides of the road.

High volumes of trucks often take up space on the narrow lanes, causing other vehicles to move into less desirable locations. With limited separation between on-coming traffic or between the road and the footpaths, this leads to poor amenity outcomes for nearby residents.

Additionally, the lack of alternative north-south routes in the area means that there is a high degree of reliance on Rosanna Road for general traffic movement through the north-east. This means that there are long periods of congestion throughout the day and significant reliability issues.

The hourly traffic flows over a typical weekday on Rosanna Road (in the southbound direction) is presented in the figure below. Across the two lanes of traffic, the road can accommodate approximately 1,350 vehicles an hour (due to capacity constraints at the Lower Plenty Road and Banksia Street intersections). This means that the road reaches capacity at around 5:00 am in the morning, and remains busy all day until 7:00 pm at night; for 14 hours a day there is significant delay and congestion on Rosanna Road.

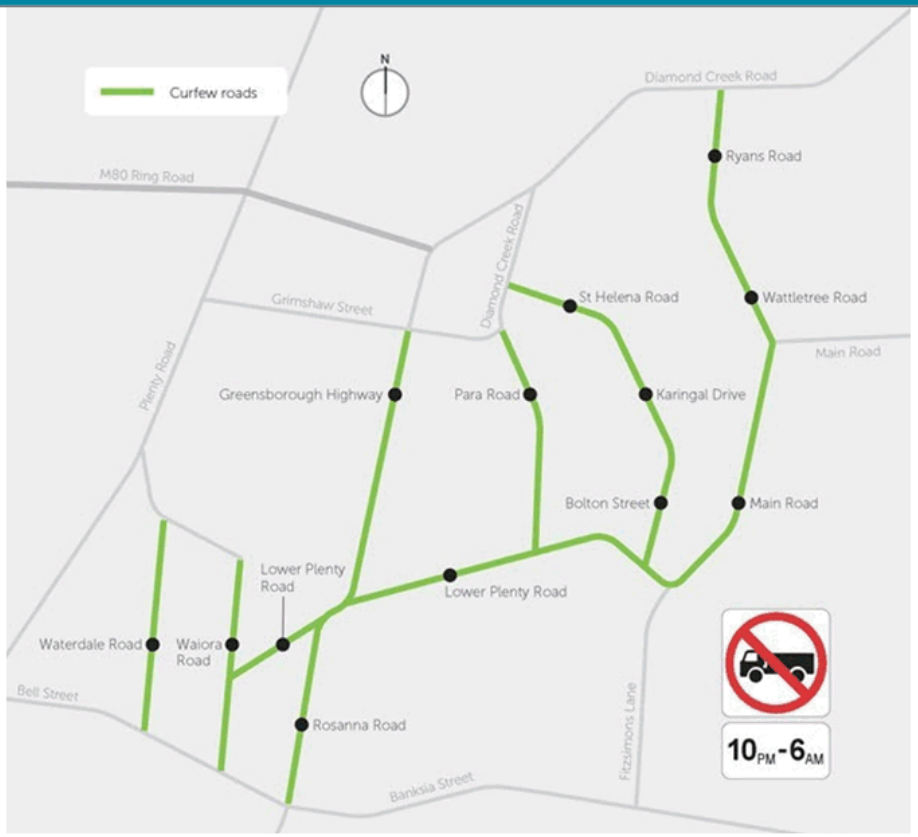
Figure 14 – Hourly traffic volumes on Rosanna Road (southbound)



Source: NELA Traffic Survey 2017

To address the amenity issues resulting from truck traffic on roads in Melbourne's north-east, a truck curfew is currently in place across several arterial roads across Melbourne's north-east. VicRoads introduced this curfew in 2015 to reduce truck traffic through the area at night and potential impacts on the community. Trucks in excess of 16.5 tonnes are restricted from using certain roads between the hours of 10:00 pm and 6:00 am. These restrictions, coupled with congestion throughout the day on these key routes further limits efficient freight movement through Melbourne's north-east as shown in Figure 15.

Figure 15 – Truck curfews on key roads in Melbourne's north-east (Trucks over 16.5 tonne)



Source: VicRoads

2.4 Poor connections are constraining economic potential

Orbital movements through Melbourne's north-east connect major population, employment and industrial centres across the city's north, east and south-east. Trips through this area are accessing Melbourne Airport and other significant gateways and freight hubs. There are a range of important economic journeys across and around Melbourne's north-east, including commuter journeys to employment precincts and activity centres, business-to-business trips and metropolitan, regional and interstate freight movements.

With no freeway standard link in this part of the corridor, arterial roads have to accommodate strategic orbital movements between employment and industrial clusters, as well as local movements between residential areas, amenities and services in the immediate vicinity.

As a consequence of poor orbital mobility, businesses located in employment and service centres in Melbourne's major population areas in the north, east and south-east lack access to the large labour markets that underpin productivity and competitiveness. Movement between businesses in these areas and their customers and suppliers is constrained, putting them at a disadvantage compared to

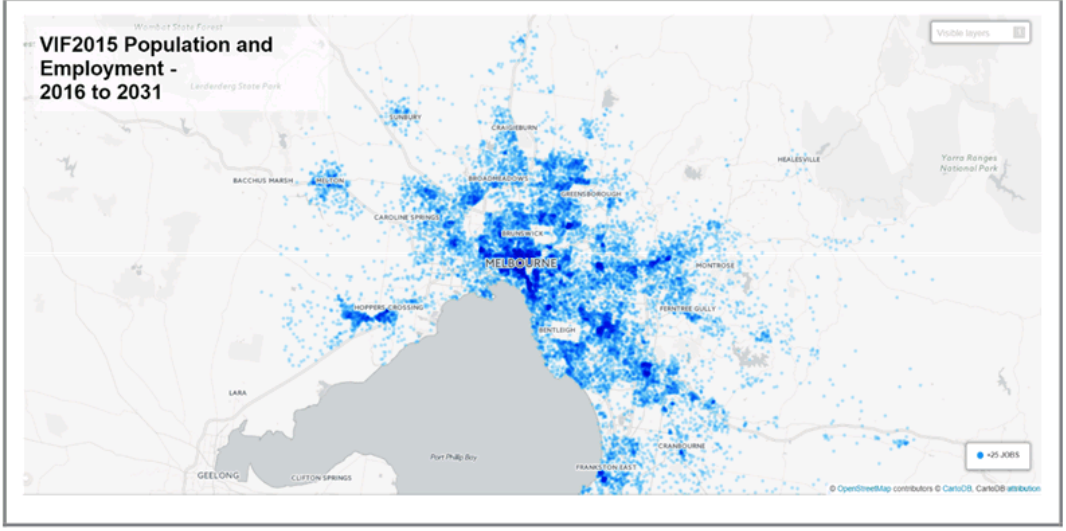
businesses in other locations with greater connectivity. Workers are restricted in accessing employment opportunities across the metropolitan area, which disproportionately affects lower-income households and entrenches social and housing market divisions.

Businesses in the north, east and south-east lack access to deep labour catchments

Maximising the full economic potential of a large city requires workers, consumers and suppliers to exchange labour and goods easily and to interact frequently. As a consequence of poor orbital mobility, businesses located in key employment and service centres in Melbourne's major population areas in the north, east and south-east lack good access to each other and to the large labour markets that underpin productivity and competitiveness. Poor cross city and orbital mobility also prevents workers from accessing employment opportunities across the metropolitan area.

Although central Melbourne has an advantage in terms of labour market accessibility, close to 80% of all jobs are located outside the central city[7]. A significant proportion of these are dispersed throughout the city's north, south and south-east as shown in Figure 16.

Figure 16 – Growth in employment in Melbourne 2016 - 2031



[7] Department Environment, Land, Water and Planning, 2017, Victoria in Future (VIF) 2015, Population and Employment Projections, Victorian Government

With Melbourne's population centre now lying to the east of the central city between the middle northern and south-eastern suburbs, the Monash and La Trobe National Employment and Innovation Clusters (NEICs) have an important role to play in boosting employment and productivity growth[8].

However, compared to the central city, these NEICs have much smaller accessible labour market catchments. In particular, only 5% of Melbourne's total workforce is accessible to the La Trobe NEIC within 60 minutes by public transport in the morning peak period. The Monash NEIC, which has greater train and bus accessibility, fares slightly better: 13% of the city's workforce can get to the centre within one hour by public transport.

Access to skilled workers is even more constrained, with approximately two thirds of all highly skilled workers living in Melbourne able to access the central city within 50 minutes by car and 51% able to access the city within 60 minutes by public transport. Just 6% of the city's highly skilled workforce is accessible to the La Trobe NEIC within 60 minutes by public transport[9].

These relatively low levels of accessibility suggest that businesses located in these NEICs (and in nearby metropolitan and major activity centres) may face difficulties in attracting and retaining workers, and building the skilled workforces necessary to lift their levels of productivity.

A comparison of labour market catchments for central Melbourne and La Trobe NEIC are shown in Figure 17 below.

La Trobe and Monash NEICs

To grow the economy and create competitive industries, the Victorian and Australian Governments promote the clustering of business activity of national significance in National Employment and Innovation Clusters (NEICs). These centres will become the focus for knowledge-based businesses and are considered crucial for maximising access to high-productivity jobs for Melbourne's middle and outer suburbs and growth areas.

The Monash NEIC is the largest concentration of employment outside the central city, with approximately 75,000 jobs. Monash NEIC includes Monash University and several leading education, health, research and commercialisation facilities. It also encompasses three major activity centres: Brandon Park, Clayton and Springvale.

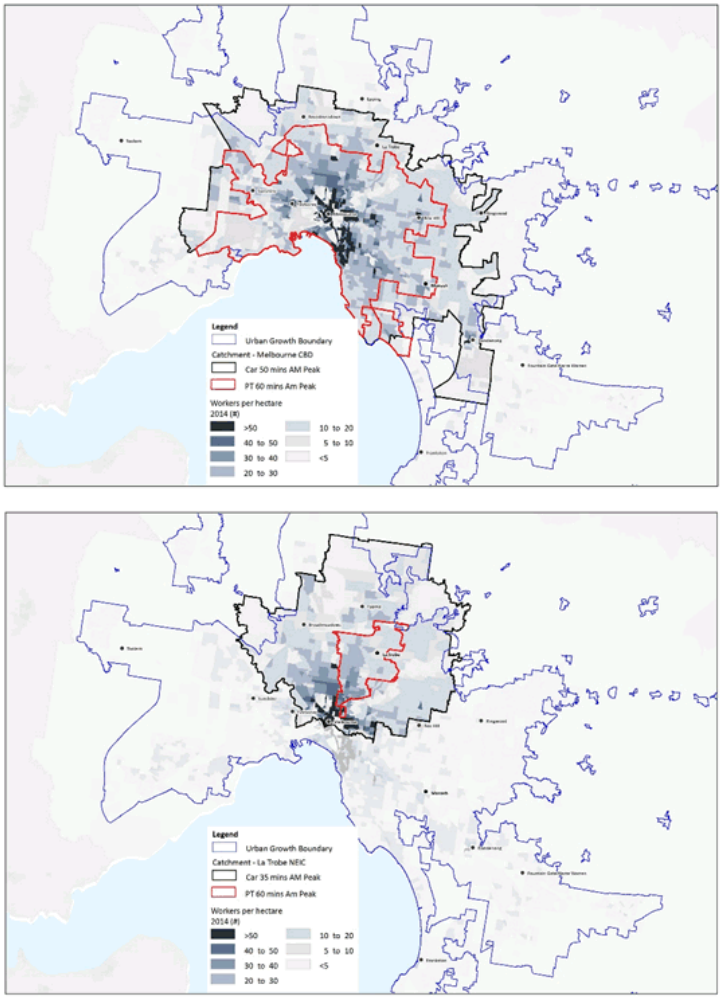
La Trobe NEIC is an emerging cluster with an expanding education, health and research role, home to approximately 28,500 jobs. It includes La Trobe University and the Austin Biomedical Alliance Precinct, and retail activities in and around the Northland Shopping Centre and the Heidelberg major activity centres.

These centres will need access to a large pool of workers if they are to make a major contribution to the Victorian and Melbourne economies, deliver significant regional services and generate and sustain jobs outside central Melbourne. They will also need good transport links with other major industrial areas, export gateways, health and education precincts and metropolitan and major activity centres.

[8] Victorian Government,2017, Plan Melbourne-2017-2050 Strategy, Policy 1.1.3 Facilitate the development of National Employment and Innovation Clusters

[9] Analysis of VLC Zenith Model – Preliminary modelling for North East Link

Figure 17 - Labour catchment analysis – central Melbourne and La Trobe – 2014 Base Case



Source: VLC Zenith Model – Preliminary modelling for North East Link

In addition to accessing labour markets, fast and reliable transport connections between businesses and their customers and suppliers are critical to keeping transport costs down and boosting business productivity. Efficient business-to-business interaction also enables the exchange of ideas and promotes collaboration and innovation.

Business-to-business travel between key economic and employment locations in the north, east and south-east is compromised by poor orbital mobility. As shown in Table 4, there are significant variations in travel times for business travel by car between key employment and service centres. Travel times for trips from Monash can vary between the ranges of 10 – 20 minutes to 41 – 60 minutes. Similarly, business-to-business trips from Epping to other key business destinations can

vary from 80-100 minutes for the longest journey to 20 to 40 minutes.[10] Travel between the La Trobe and Monash NEICs can take around one hour, as does travel from Ringwood and Box Hill in the south to Broadmeadows and Epping in the north.

The lengthy trip times shown in the table indicate that many critical business-to-business travel demands are under pressure, suggesting that NEICs and other employment centres along the orbital corridor may be missing out on vital opportunities to expand.

Table 4 – Business-to-business to travel by car between NEICs and other MACs in AM peak – 2014 Base Case

Travel times (mins)		Destination								
		La Trobe	Monash	D'nong	Narre Warren	Epping	B'meadows	Box Hill	R'wood	Melb CBD
Origin	La Trobe		61-80	61-80	61-80	21-40	21-40	41-60	41-60	41-60
	Monash	41-60		11-20	21-40	61-80	41-60	21-40	21-40	41-60
	Dandenong	61-80	21-40		11-20	61-80	61-80	21-40	21-40	41-60
	Narre Warren	61-80	21-40	21-40		81-100	61-80	41-60	41-60	61-80
	Epping	21-40	81-100	81-100	81-100		21-40	61-80	61-80	61-80
	Broadmeadows	21-40	41-60	61-80	61-80	21-40		41-60	41-60	21-40
	Box Hill	21-40	21-40	21-40	21-40	41-60	41-60		11-20	21-40
	Ringwood	41-60	21-40	21-40	21-40	41-60	61-80	21-40		41-60
	Melbourne	21-40	21-40	21-40	21-40	41-60	21-40	21-40	21-40	

Source: Analysis based on VLC Zenith Model – Preliminary modelling for North East Link

With no direct orbital connection, business trips to Melbourne Airport from the east and south-east are also taking longer and are less reliable and more expensive. The time and cost associated with travel to the airport is an important consideration for many businesses when choosing where to locate, especially those involved in knowledge-intensive sectors. If travel to the airport from centres in Melbourne's east and south-east becomes even further constrained, businesses will be less interested in locating to these centres. This will undermine efforts to distribute jobs in these expanding sectors across the metropolitan area.

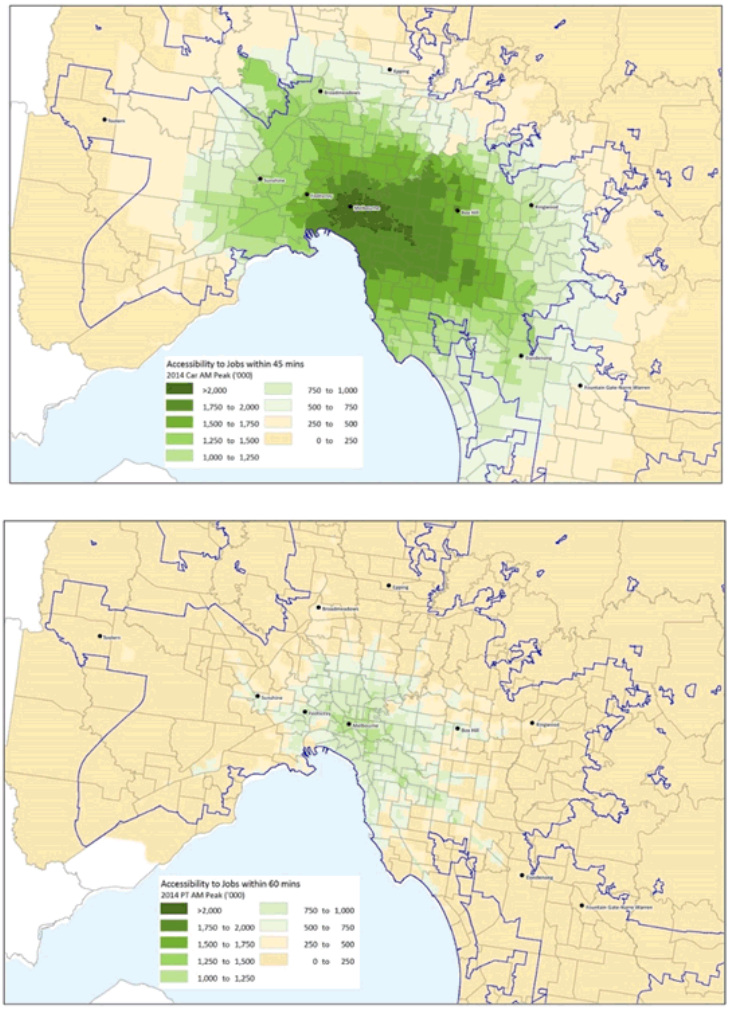
For people accessing economic opportunities across Melbourne, the number of jobs available within a reasonable travel time diminishes significantly the further away one lives from the central city. Figure 18 shows that access to jobs (by car and public transport) is highest for those living in the inner and middle suburbs, while access to jobs in the densely populated outer north and eastern areas is lowest.

[10] Analysis based on VLC Zenith Model – Preliminary modelling for North East Link

Because transport is the main means to reach employment and educational opportunities, barriers to travel can entrench disadvantage. Worsening orbital connectivity will exacerbate this disadvantage, making it even harder for households in the north, north-east and south-east to access economic opportunities.

If current settings remain unchanged, ongoing fragmentation of labour markets, poor business-to-business travel and diminished levels of employment access will continue to impose costs on businesses and households, and constrain productivity growth and competitiveness for Melbourne and Victoria.

Figure 18 – Accessibility to jobs analysis around key employment locations – 2014 Base Case



Source: VLC Zenith Model – Preliminary modelling for North East Link

3 Potential corridor options

3.1 Overview

Numerous studies extending back to 1969 have recognised the need for a link between the M80 and the Eastern Freeway/ EastLink. However no continuous established road reservation exists to accommodate or protect such a link.

While there are numerous ways to provide such a connection, the NELA's team of specialists has identified four of the most practical potential corridor options for North East Link, as displayed in Figure 19 and outlined below.

Figure 19 – Potential corridor options for North East Link

These corridors were identified by assessing existing traffic conditions and transport movements, investigating existing road corridors and utilities easements that could be used for motorway corridors, identifying potential surface road corridors and constraints to these corridors (such as difficult terrain, sensitive environmental areas and important community assets) and considering treatments such as tunnels to avoid these sensitive environmental and urban areas or to mitigate substantive surface impacts. The team is also developing an urban design framework to make sure that the design of the project fits into the local landscape. Further data gathering and analysis in

relation to these corridor options is being undertaken, along with community consultation. The views of residents, businesses, industry and community groups and other key stakeholders will be important inputs into these assessments to ensure the key issues identified as important for the project to deal with are properly considered.

Detailed assessment of each potential corridor option will provide the basis for identifying the preferred corridor for North East Link. Through these assessments, NELA will identify the option that best addresses Melbourne's poor orbital connectivity and the problems facing the north-east and that provides the most benefits when compared against the costs and impacts associated with building North East Link.

The following issues are common to all corridors and therefore are reflected in each of the corridor options:

- A continuous road reservation does not exist between M80 and Eastern Freeway and EastLink
- Steep natural grades are encountered throughout Melbourne's north-east and are therefore reflected in elements of the concept design
- Acquisition of some property is anticipated, and may affect commercial, industrial and residential properties. Government owned land may also be affected by some corridors
- North East link will require integration with M80 and Eastern Freeway or EastLink. These roads are anticipated to be Managed Motorways with Intelligent Transport Systems to manage traffic flow, and improve safety and provide travel information to the driver
- Arterial roads adjacent to North East Link will require upgrades to support interchanges. This typically involves additional through lanes, turning lanes and corridor improvements to allow traffic to move safely and efficiently between the wider road network and North East Link
- North East Link is required to integrate with various modes of public transport
- Enhancement of walking and cycling routes will form part of the broader project. This may include routes adjacent to North East Link corridor or those that may cross it to minimise severance. There are also opportunities for pedestrian and cycling traffic to use areas which are subject to lower traffic volumes as a result of the project
- The use of tunnelling will be critical to protect environmentally sensitive areas that may be affected by the proposed corridors
- All options cross the Yarra River valley by either tunnel or bridge structures
- Major utilities easements are affected by the proposed works and will require protection or relocation.

3.2 North East Link corridor options

Corridor Option A

This option would use the existing road reserve to link to the M80, follow the Greensborough Bypass south to connect with the Eastern Freeway near Bulleen Road. It provides a motorway solution that connects the northern and north-eastern growth areas and activity centres and employment / innovation clusters (particularly La Trobe NEIC) to communities and businesses in the east and south-east.

Figure 20 provides the location of Corridor A and includes potential interchanges and the estimated extent of upgrades required to existing roads. Figure 21 shows the terrain along which Corridor A will traverse between the M80 and Eastern Freeway.

Figure 20 - Corridor A: location

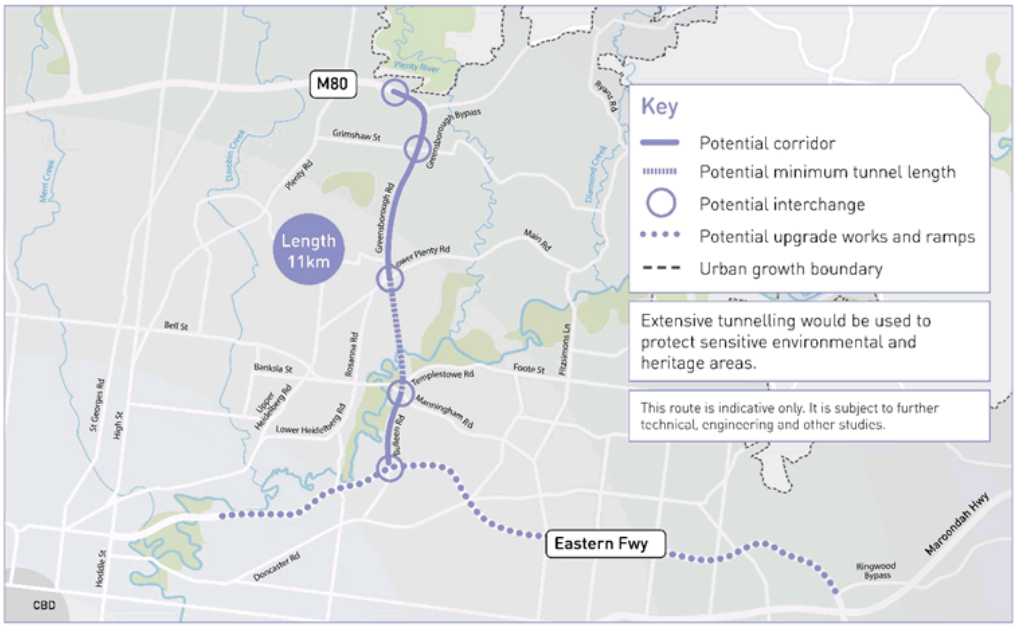
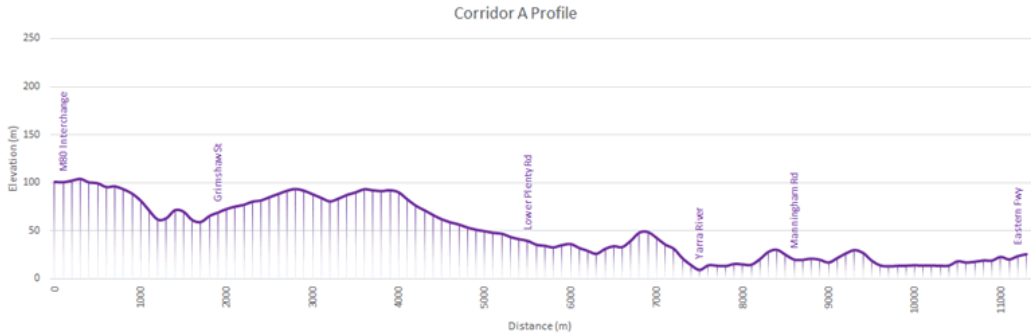


Figure 21 – Corridor A: natural surface profile M80 to Eastern Freeway



Initial development of design solutions for this corridor indicates that:

- It is approximately 11 kilometres in length from the M80 to Eastern Freeway
- It will necessitate upgrades when connecting to the Eastern Freeway to increase its capacity in both directions to accommodate merging between Bulleen Road and Chandler Highway and additional capacity and merging between Bulleen Road and Springvale Road
- Up to 50% of its length would likely be in tunnel, particularly under significant areas such as the Yarra River and Banyule Flats
- It provides the potential for a number of interchanges with the key arterial roads on the existing network including Grimshaw Street, Lower Plenty Road and Banksia Street; enabling a good level of connectivity to a range of areas in Melbourne's north-east
- It provides good access to the La Trobe NEIC
- Indicative modelling suggests that Corridor A may carry between 100,000 to 120,000 vehicles per day, 10 years after opening, with the volumes largely consistent along the length of the corridor
- It enables good gradelines to be achieved to accommodate heavy vehicles along the length of the corridor
- It provides good opportunities to connect to cycling routes due to its proximity to existing paths.

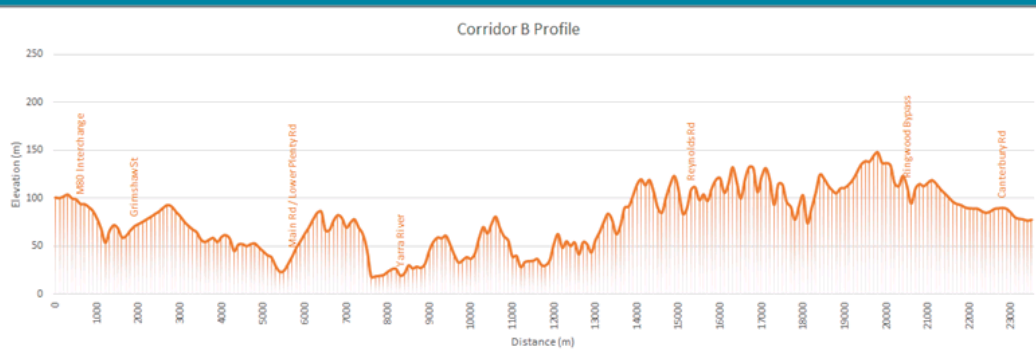
Corridor Option B

This option would provide a direct connection from the M80 at Greensborough to EastLink at Ringwood. It provides the functionality of an orbital motorway section that connects the northern and north-eastern growth areas to south-east Melbourne via EastLink, with connectivity to the La Trobe NEIC.

Figure 22 provides the location of Corridor B and includes potential interchanges and the estimated extent of upgrades required to existing roads. Figure 23 shows the terrain along which Corridor B will traverse between the M80 and EastLink.

Figure 22 – Corridor B: location

Figure 23 - Corridor B: natural surface profile M80 to EastLink connection



Initial development of design solutions for this corridor indicates that:

- It is approximately 24 kilometres in length from the M80 to EastLink
- It will necessitate significant works along the EastLink corridor to provide adequate connections
- It will require upgrades to Springvale Road, north of the Eastern Freeway and an extension to Reynolds Road to provide operational connectivity to the existing road network
- Up to 70% of its length would likely be in tunnel, particularly in significant areas such as the Yarra River
- It is challenging to achieve good gradelines that will accommodate heavy vehicles along the length of the corridor
- It provides potential for a number of interchanges with existing roads including Grimshaw Street, Lower Plenty Road and Reynolds Road, enabling connectivity to a number of areas in outer Melbourne's north-east
- Indicative modelling suggests that Corridor B may carry between 60,000 to 110,000 vehicles per day, 10 years after opening, with the lower volumes on the southern sections of the corridor.

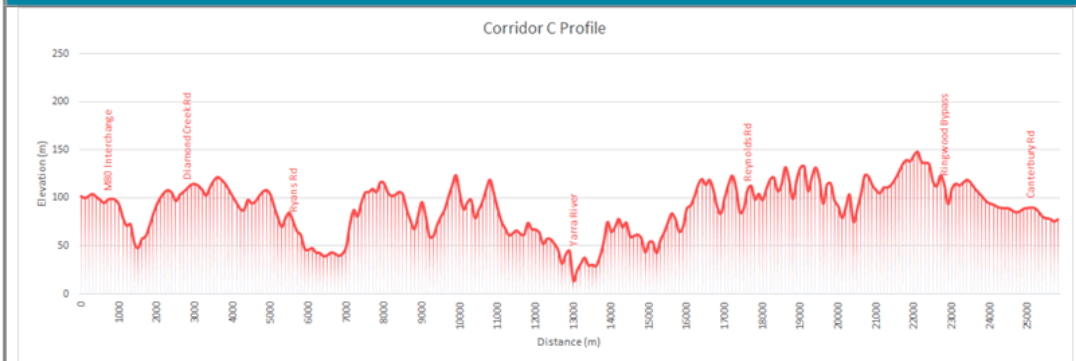
Corridor Option C

The northern end of this option would connect to the M80 using a previous road corridor that runs from the Greensborough Bypass / Diamond Creek Road roundabout to Ryans Road. Its southern end would connect to EastLink at Ringwood. It provides the functionality of a traditional orbital motorway section that connects the northern growth area to south-east Melbourne via EastLink.

Figure 24 provides the location of Corridor C and includes potential interchanges and the estimated extent of upgrades required to existing roads. Figure 25 shows the terrain along which Corridor C will traverse between the M80 and EastLink.

Figure 24 - Corridor C: location

Figure 25 - Corridor C: natural surface profile M80 to EastLink connection



Initial development of design solutions for this corridor indicates that:

- It is approximately 26 kilometres in length from the M80 to EastLink
- It will necessitate significant works along the EastLink corridor to provide adequate connections
- It will require upgrades to Ryans Road, Springvale Road north of the Eastern Freeway and an extension to Reynolds Road to provide operational connectivity to the existing road network
- Up to 55% of its length would likely be in tunnel, particularly in significant areas such as the Yarra River
- It is challenging to achieve good gradelines that will accommodate heavy vehicles along the length of the corridor
- It traverses outside the Urban Growth Boundary
- It provides potential for a limited number of interchanges with existing roads including Diamond Creek Road, Ryans Road and Reynolds Road; however these roads are not key arterial roads, thus providing limited connectivity in Melbourne's north-east
- Indicative modelling suggests that Corridor C may carry between 50,000 to 110,000 vehicles per day, 10 years after opening, with the lower volumes on the southern sections of the corridor.

Corridor Option D

This option would connect with EastLink south of Ringwood and travel east using part of the proposed Healesville Freeway Reserve and travel east to Lilydale. It would then turn back and head west to the M80 travelling though Bend of Islands and Kangaroo Ground. It provides a longer distance orbital solution using some existing reservations that connect the northern growth area to south-east Melbourne via an eastward orbital route largely outside the Urban Growth Boundary.

Figure 26 provides the location of Corridor D and includes potential interchanges and the estimated extent of upgrades required to existing roads. Figure 27 shows the terrain along which Corridor D will traverse between the M80 and EastLink.

Figure 26 - Corridor D: location

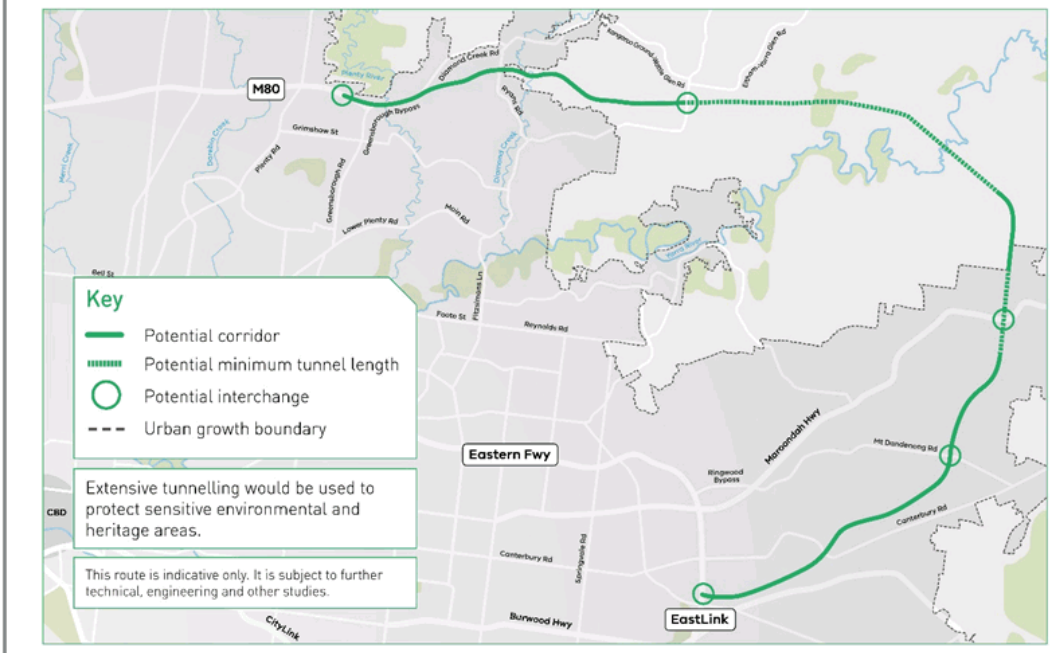
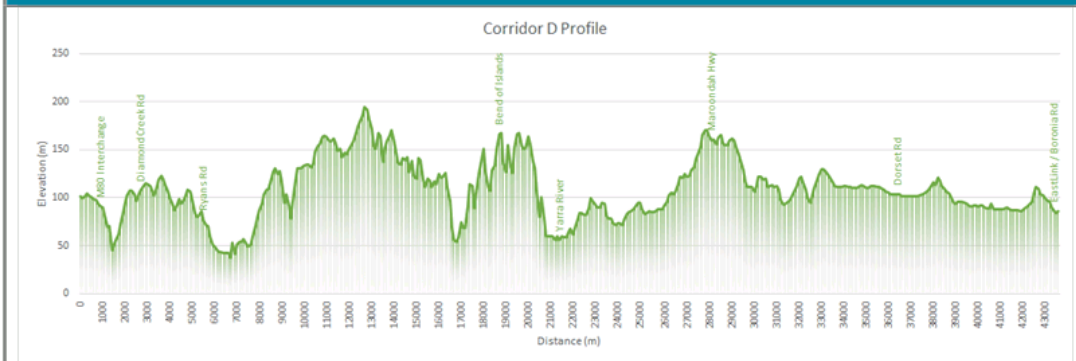


Figure 27 - Corridor D: natural surface profile M80 to EastLink connection



Initial development of design solutions for this corridor indicates that:

- It is approximately 40 kilometres in length from the M80 to EastLink
- It will necessitate works at EastLink interchanges to provide adequate connections
- Up to 40% of its length would likely be in tunnel, particularly in significant areas such as the Yarra River
- It is challenging to achieve good gradelines that will accommodate heavy vehicles along the length of the corridor
- It traverses primarily outside the Urban Growth Boundary
- It provides potential for a limited number of interchanges with existing roads including Diamond Creek Road, Ryans Road, Eltham-Yarra Glen Road, Maroondah Highway and Mt Dandenong Road, however these roads provide limited connectivity in Melbourne's north-east
- Indicative modelling suggests that Corridor D may carry between 45,000 to 90,000 vehicles per day, 10 years after opening, with the lower volumes on the southern sections of the corridor.

4 Areas of stakeholder interest: current observations

As noted in the Overview, NELA's preliminary community and stakeholder consultations identified several areas of interest as being important to people. This section of the Technical Summary outlines some observations from NELA's investigation and analysis to date in relation to these areas of interest. These areas of interest are reflected in the Project Objectives (see section 1), indicating that NELA's assessment of options for the project aligns with – and will address – community and stakeholder views, experiences and concerns.

Assessing the project's benefits

At the same time as we are investigating potential options for the project, NELA is also identifying, quantifying and assessing the potential benefits that are expected to be delivered by North East Link.

Current investigations indicate that the key benefits would be:

- *Economic and employment growth* – with better transport links between Melbourne's north, east and south-east attracting more investment in these areas
- *Increased economic opportunity for households in the north, east and south-east* – with enhanced orbital connectivity through the north-east reducing congestion and improving access to jobs and education
- *Improved competitiveness of the State of Victoria* – with more efficient connections, less congestion and fewer delays reducing costs to businesses and improving the productivity and competitiveness of Melbourne and Victoria
- *Improved liveability and thriving communities in the north-east* – with a decreased reliance on arterial roads for orbital travel reducing heavy vehicle traffic through residential areas and improving safety and access to local destinations.

Specific indicators to measure these benefits will be identified and included in the development of the design for the project.

What we've looked at for each of the areas of interest:

How can each corridor option provide opportunities to reduce traffic on roads in the north-east?

How can each corridor option attract trucks so they don't need to use existing roads?

How can each corridor option provide better and quicker access for people to get to jobs?

How can each corridor option provide businesses with faster connections and better access to more workers?

How can each corridor option improve the efficiency of freight movement to maintain industry competitiveness?

How can each corridor option provide opportunities to improve public transport services?

How can each corridor option provide opportunities to improve walking and cycling connections?

How can each corridor option help in reducing impacts to sensitive areas?

What are the potential impacts of construction traffic on roads in the north-east?

4.1 Reducing congestion in the north-east

Overview

As previously discussed, Melbourne's north-east currently experiences significant road congestion. This increases travel times, reduces the reliability of trips and impacts on accessibility for the local community. This area of interest explores how each potential corridor option reduces the severity of congestion on key roads in Melbourne's north-east. The preliminary indicators based on early analysis for this includes the forecast reduction of traffic on key roads.

Reducing congestion on the arterial road network will result in faster and more reliable journeys to work and an improvement to local amenity through a reduction in traffic noise, improvements in air quality and improvements to road safety. This also assists in improving the capability to operate public transport on these roads and can provide more opportunity for priority treatment.

Table 5 – Reducing congestion in the north-east: how the corridors perform

	Summary	Overall performance
Corridor A	Provides the potential to significantly reduce traffic and congestion in Melbourne's north-east, particularly on Rosanna Road, Lower Plenty Road east of Rosanna Road, Banksia Street and Fitzsimons Lane.	Performs very well
Corridor B	Provides the potential to reduce traffic and congestion on Banksia Street and Rosanna Road but would provide limited congestion relief to key north-south roads such as Fitzsimons Lane, Plenty Road and Burke Road.	Neutral
Corridor C	Performs well as it is expected to provide moderate reductions in traffic and congestion across the majority of key north-south roads.	Performs well
Corridor D	Does not provide a direct connection to the existing road network in the north-east, therefore unlikely to help reduce congestion. It is expected to instead provide moderate benefits for the outer eastern suburbs.	Performs poorly

Forecast reduction of traffic on key roads

Preliminary analysis indicates that each of the corridor options would provide varying levels of traffic relief on the arterial road network. This analysis focused on key roads (shown in Figure 28) in Melbourne's north-east identified by the community and stakeholders with known issues regarding amenity and traffic congestion. While the level of traffic and congestion varies along each road, the following locations were selected as reasonable indicators for the key arterial roads. Anticipated changes in daily weekday traffic at these locations for each corridor option are set out in Table 6.

Figure 28 – Key arterial roads in Melbourne's north-east

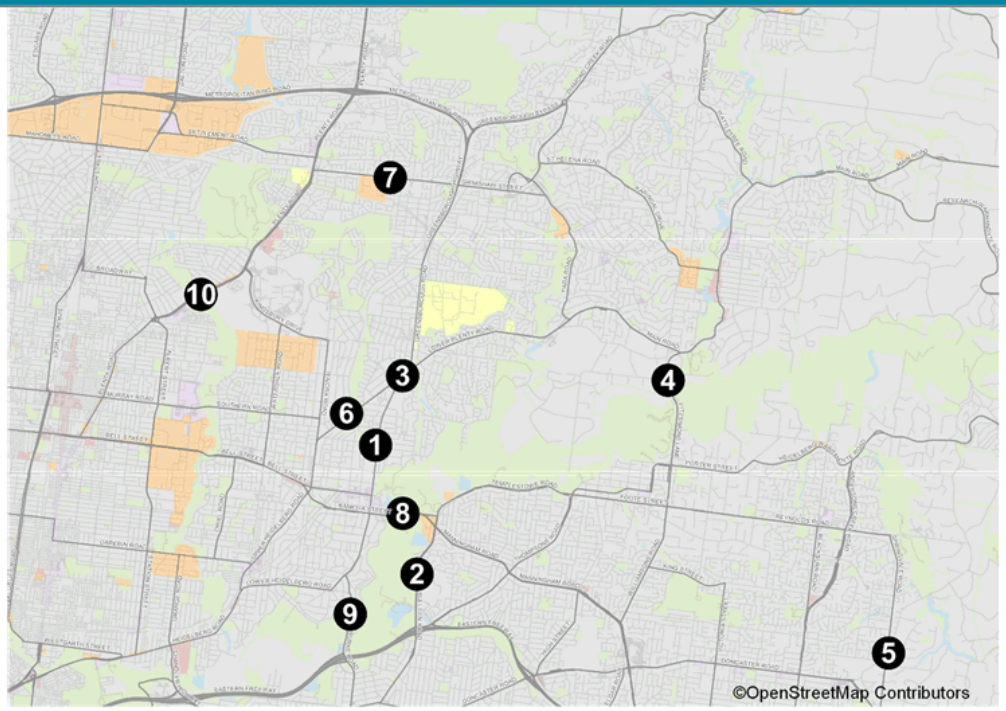


Table 6 – Estimates of potential changes in daily weekday traffic on key arterial roads in 2031 - Project case vs Base case (without the project)

	Corridor A	Corridor B	Corridor C	Corridor D
1. Rosanna Road south of Lower Plenty Road	-12,000 to -15,000	-9,000 to -12,000	-5,000 to -6,000	-500 to -1,500
2. Bulleen Road north of Eastern Freeway	-2,500 to -3,500	-4,000 to -5,000	-2,000 to -3,000	-500 to -1,500
3. Lower Plenty Road east of Rosanna Road	-17,000 to -20,000	-12,000 to -15,000	-7,000 to -8,000	-500 to -1,500
4. Fitzsimons Lane at the Yarra River	-9,000 to -11,000	-500 to -1,500	-6,000 to -8,000	-1,500 to -2,500
5. Springvale Road north of Mitcham Road	-2,000 to -3,000	3,500 to 4,500	3,000 to 4,000	500 to 1,500
6. Lower Plenty Road west of Rosanna Road	-4,000 to -5,000	-2,500 to -3,500	-1,000 to -2,000	-500 to 500
7. Grimshaw Street west of Watsonia Road	3,000 to 4,000	5,000 to 6,000	4,000 to 5,000	1,500 to 2,500
8. Banksia Street at Yarra River	-8,000 to -10,000	-10,000 to -12,000	-5,000 to -6,000	-500 to -1,500
9. Burke Road north of Eastern Freeway	-6,000 to -8,000	-1,500 to -2,500	-500 to 500	-500 to 500
10. Plenty Road at Darebin Creek	-3,000 to -4,000	-500 to 500	-500 to 500	-500 to 500

Corridor A can provide a direct alternative to congested roads in Melbourne's north-east due to good connections to the existing road network. While traffic increases are forecast on Grimshaw Street, significant reductions in traffic and congestion are expected on Rosanna Road, Lower Plenty Road east of Rosanna Road, Banksia Street and Fitzsimons Lane.

Corridor B can reduce traffic on the Eastern Freeway, Banksia Street, Rosanna Road and Lower Plenty Road but would provide limited congestion relief to key north-south roads such as Fitzsimons Lane, Plenty Road and Burke Road.

Corridor C can provide moderate reductions in traffic and congestion throughout Melbourne's north-east. Traffic volumes are expected to decrease on Rosanna Road, Bulleen Road, Lower Plenty Road, Fitzsimons Lane and Banksia Street.

Corridor D offers the fewest connections into the existing road network in Melbourne's north-east and therefore will be unlikely to help reduce congestion in the area. The corridor results in relatively few people currently travelling through Melbourne's north-east using the corridor. Moderate benefits are instead realised in the outer eastern suburbs, rather than through the congested north-eastern suburbs; as a result, the changes in traffic on the key arterial roads are negligible.

Further work to inform and shape this area of interest

These early observations are drawing on complex analytical tools such as strategic transport models. As we continue to develop our thinking and understanding of the range of issues in Melbourne's north-east, we will continue to refine the models and tools in our more detailed analysis.

Further work is being done to understand how the corridor options will impact congestion in Melbourne's north-east. This includes:

- Ongoing traffic data collection and modelling is being performed to understand the requirements for traffic movement on the M80 and the Eastern Freeway arising from connection to North East Link.
- Ongoing development of engineering solutions, to integrate with the connecting freeways (M80 and Eastern Freeway / EastLink), arterial and local road networks.
- Analysis of future trends and technologies that will impact on how and why people travel, what the vehicle fleet of the future looks like and how this might impact how roads and public transport will operate and integrate.
- Travel time and travel preference surveys and reliability research to understand travel behaviour and the effect the road will have on travel time reliability.

North East Link forms part of a wider strategy to improve movement in the north-east. Other key transport initiatives that are being considered in this context include:

- Hurstbridge rail line upgrades
- Level crossing removal project
- Mernda rail extension
- Upgrades to the local and arterial road network.

This further thinking and refinement then allows us to analyse the potential benefits that North East Link may have in reducing congestion in this region.

4.2 Getting trucks off residential roads in the north-east

Overview

The absence of alternative direct freeway or high capacity arterial road connections between industrial precincts and distribution centres in the north, east and south-east of the city has led to a number of roads abutting residential properties becoming heavy vehicle routes. Trips between locations such as Dandenong and Epping typically use the arterial road network in the north-east, travelling through residential neighbourhoods along Rosanna Road, Lower Plenty Road, Greensborough Road and Para Road.

These heavy vehicles are often in conflict with the residential or community nature of the road network, passing land uses such as residential properties, schools, community facilities and shops.

This area of interest assesses how each option can improve community amenity and safety in the north-east by reducing the number of heavy vehicles on roads used by local residents and on roads with a primarily residential land use.

Table 7 – Getting trucks off residential roads: how the corridors perform

	Summary	Overall performance
Corridor A	Best aligns with existing truck patterns in the north-east, and can accommodate the majority of freight trips, including those originating from south of the Eastern Freeway. Provides the most suitable grades in tunnels for trucks.	Performs very well
Corridor B	Accommodates some truck movements in the north-east, however does not serve trucks immediately south of the Eastern Freeway. The alignment does not meet standards and has undesirable grades for trucks along a high proportion of the route due to the topography of land.	Neutral
Corridor C	Accommodates some truck movements in the north-east, however does not serve truck origins immediately south of the Eastern Freeway. The alignment generally meets the standard for trucks except in one location, with some grade issues.	Performs well
Corridor D	Does not cater for truck movements within the north-east. Provides mostly good grades for trucks with some steep sections, however the length of route makes it less desirable than other corridor options.	Performs poorly

Heavy vehicle trip desire lines

Heavy vehicles in the north-east currently cross the Yarra River at one of five bridge crossings:

- Chandler Highway;
- Burke Road;
- Banksia Street;
- Fitzsimons Lane; or
- Kangaroo Ground-Warrandyte Road.

The crossings at Banksia Street and Fitzsimons Lane currently carry approximately 60% of all trucks travelling across the river, with moderate usage at Chandler Highway and Burke Road. Heavy vehicles

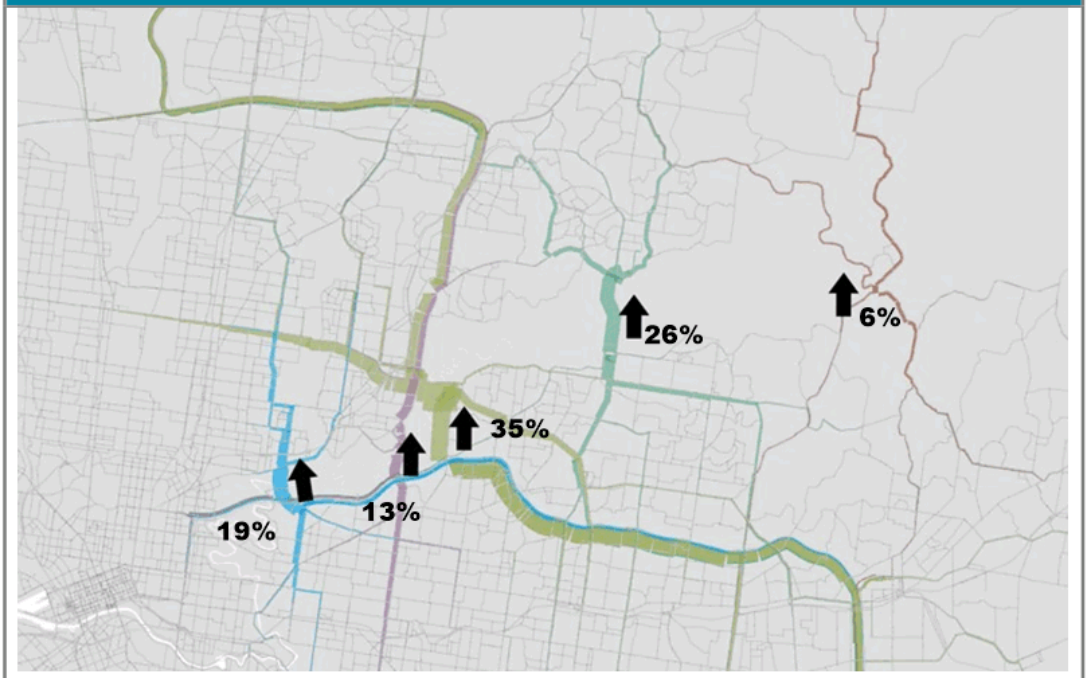
on Fitzsimons Lane comprise over 90% small trucks with larger trucks travelling down Rosanna Road to the river crossings at Banksia Street and Burke Road.

Relatively few trucks use the crossing at Kangaroo Ground-Warrandyte Road in Warrandyte. This is presented in Figure 29. The various colours in this figure represent the routes that the truck trips take prior to and after the river crossing point.

For example, it can be seen that for the trucks using Chandler Highway (the blue lines), there is a proportion that have come from the Eastern Freeway, with a proportion of these trucks also having used EastLink. However, there is a large proportion that have come from south of the Eastern Freeway along roads such as Princess Street.

When Burke Road is considered (the purple lines), the majority have come from Burke Road south of the Eastern Freeway. At Banksia Street, there is a split of origins of these truck trips; some originate back along EastLink, while many others join from the various arterial roads south of the Eastern Freeway.

Figure 29 – Existing truck movements across the Yarra River



Source: VLC Zenith Model – Preliminary modelling for North East Link and NELA Traffic Survey 2017

These travel patterns for truck trips through this area are an important consideration when assessing the potential for each corridor option to accommodate truck trips through the north-east, and thereby providing relief for the residential roads.

Corridor A provides the greatest opportunity to capture truck traffic from the south of the Eastern Freeway that currently use the crossings at Burke Road, Banksia Street and Fitzsimons Lane, while also capturing trucks that use Chandler Highway and the Eastern Freeway.

Corridors B and C are located further east, and as such would provide limited opportunity to capture the truck traffic directly south of the Eastern Freeway that use the Chandler Highway, Burke Road and Banksia Street crossings. The trips that currently use EastLink, which is a proportion of the Chandler Highway, Banksia Street and Fitzsimons Lane bridge crossings, have potential to use Corridors B and C, however this is a limited catchment when compared to Corridor A. These corridor options provide some limited potential to remove truck traffic from residential streets.

Corridor D is located the furthest east, and is in close proximity to the current crossing in Warrandyte. Only 6% of all trucks currently crosses the river at this location. It is very unlikely that Corridor D will cater for many truck movements through the north-east.

Likely truck usage

Connections through the north-east provide crucial access between key freight destinations in Melbourne, Victoria and Australia, linking regional areas such as Gippsland and industrial areas, freight gateways and distribution centres in the south-east (such as Dandenong) with the Hume Freeway and Melbourne Airport to facilitate interstate and international exports.

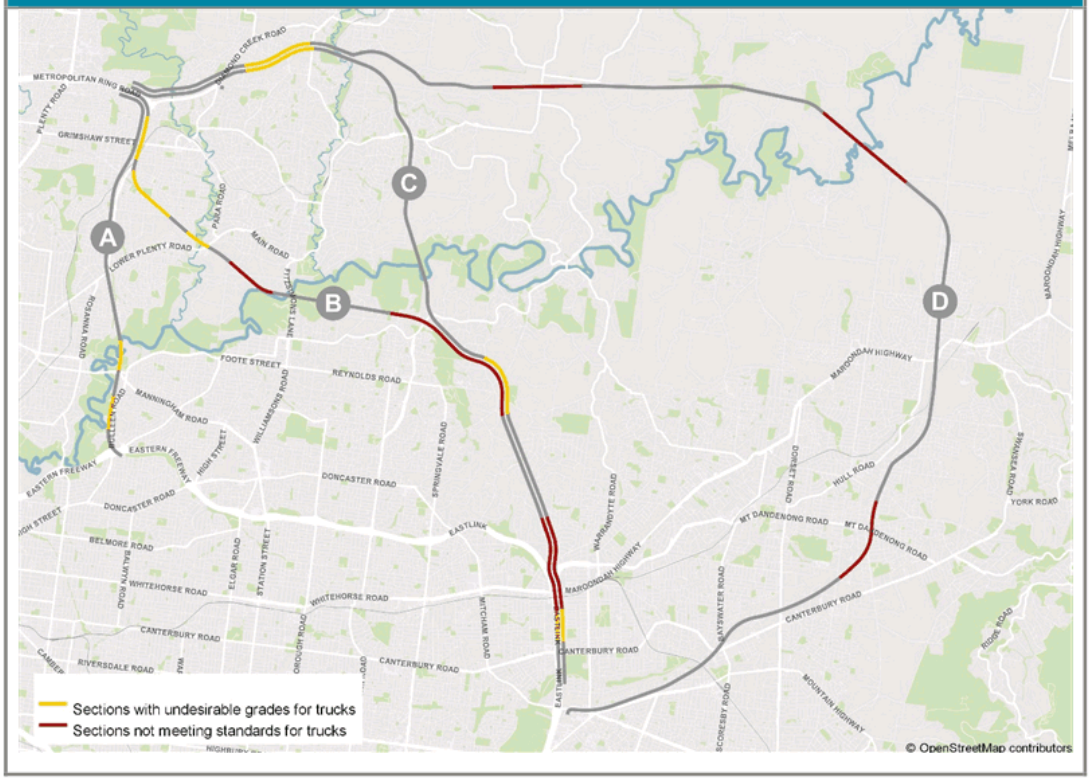
North East Link will only be successful in removing trucks from residential roads in the north-east if the new link provides an attractive alternative to the current arterial road network. Freight operators often base routes on a combination of travel time, distance, reliability, suitability for trucks and vehicle operating costs.

One major factor that affects most of those metrics is the steepness of the road. Depending on the terrain and along each alignment, some tunnels will likely be long and steep, which will significantly increase fuel consumption and slow trucks down, sometimes to below 40 km/hr which impacts on the performance of the road for other traffic and introduces potential safety issues. Trucks climbing at steep and extended grades also places additional strain on the vehicle and increases operating costs. These factors reduce the attractiveness of some of corridors, and as a result it is likely that some freight operators will instead opt to continue using the arterial road network.

Sections of each corridor that may be an issue for trucks are presented in Figure 30. The sections highlighted in yellow show lengths of the alignment that have undesirable grades for trucks, while sections in red show areas where minimum standards for trucks are not met. These have been determined based on the concept design of the corridors needing to cross the Yarra River in tunnel and connect to the existing road network, while avoiding urban and environmentally significant areas.

Also of importance to the efficiency of the freight task is the ability of the freight industry to utilise High Productivity Freight Vehicles (HPFVs), reducing vehicle costs and the number of freight trips required. Lack of continuous access for these vehicles across the north-east and high levels of congestion are reducing freight industry competitiveness. North East Link will play an integral role in facilitating interstate line haul through the north-east and a link that is attractive for these vehicles will link Melbourne's freeway network and assist in reducing the overall volume of trucks needed to undertake the growing freight task.

Figure 30 – Attractiveness of each corridor option for trucks



Corridor A provides for the most suitable grades within the tunnel, with the entire length meeting standards for trucks and only two short sections that have potentially undesirable grades for trucks; this means that trucks can maintain their speed for most of the route. This assists in reducing operating costs, making the more route desirable than other options. Trucks are likely to divert away from the arterial road network, reducing the number of trucks along residential roads in the north-east.

Corridor B has extended sections of steep tunnel grades, resulting in reduced speed for trucks and increased operating costs. Three long sections of the alignment do not meet standards for trucks and four other sections have undesirable grades for trucks.

Corridor C has only one section that does not meet standards for trucks, but three sections that have undesirable grades. While this corridor option generally has better grades than Corridor B, these undesirable sections, combined with the length of the corridor option, reduces its attractiveness to trucks.

Corridor D mostly provides good grades for trucks, but still has three sections that do not meet the standards for trucks and one section with potentially undesirable grades. Overall, the long length of the corridor option and these grade issues make it unattractive to trucks.

Further work to inform and shape this area of interest

Further work is being done to better understand the impact North East Link may have on truck movements in Melbourne's north-east, including:

- Refinement of the traffic modelling to better estimate the number of trucks remaining on local roads following construction of North East Link
- Investigating the outcomes and key learnings of the recent trial of the truck bans in Melbourne's north-east
- Analysis of future trends and technologies that will impact on freight trips such as the use of autonomous trucks, the increasing usage of on-line shopping and just in time delivery.
- Truck surveys to better understand truck origin-destination movements and volumes throughout the north-east
- Consultation with the freight and logistics industry and community groups to understand issues in the area and future freight needs
- Further development of the strategic traffic model to replicate the complex truck trip patterns in the area.

Additional and more refined analysis and research will allow NELA to further analyse the potential benefits provided by North East Link in removing freight movements from residential roads in the north-east.

4.3 Connecting more people to jobs and education

Overview

This area of interest has been assessed by identifying how each corridor option will provide the opportunity to facilitate greater access for residents to employment clusters and activity centres located in the north, east and south-east. The preliminary indicator based on early analysis for this include the ability of the options to improve accessibility to employment and education opportunities.

Ability to access jobs and broad range of services such as education opportunities is essential to improve socio-economic outcomes, support social sustainability and drive economic growth for communities in the region. Inability of residents to access these opportunities will mean higher costs for households (such as higher travel times for residents) or restrict households' access to quality jobs or particular types of job and education opportunities.

Table 8 – Connecting more people to jobs and education: how the corridors perform

	Summary	Overall performance
Corridor A	Connects residents in the north-east to local employment rich areas such as La Trobe and West Heidelberg. Improves connectivity to tertiary education opportunities around La Trobe University and Royal Melbourne Institute of Technology in Bundoora.	Performs well
Corridor B	Provides accessibility for residents in the north-east to employment clusters such as La Trobe and further down to Monash and Dandenong. Performs well in connecting residents to tertiary education opportunities in the north-east.	Performs well
Corridor C	Provides accessibility for residents in the north-east to employment areas in the north-east and to some extend the south-east. Performs well connecting residents to tertiary education opportunities in the north-east.	Performs well
Corridor D	Provides only marginal improvement to connect people to jobs and provides little benefit to students seeking access to education opportunities. Overall it is likely to improve accessibility for areas with low population densities outside the Urban Growth Boundary.	Performs very poorly

Improved accessibility to employment and education opportunities

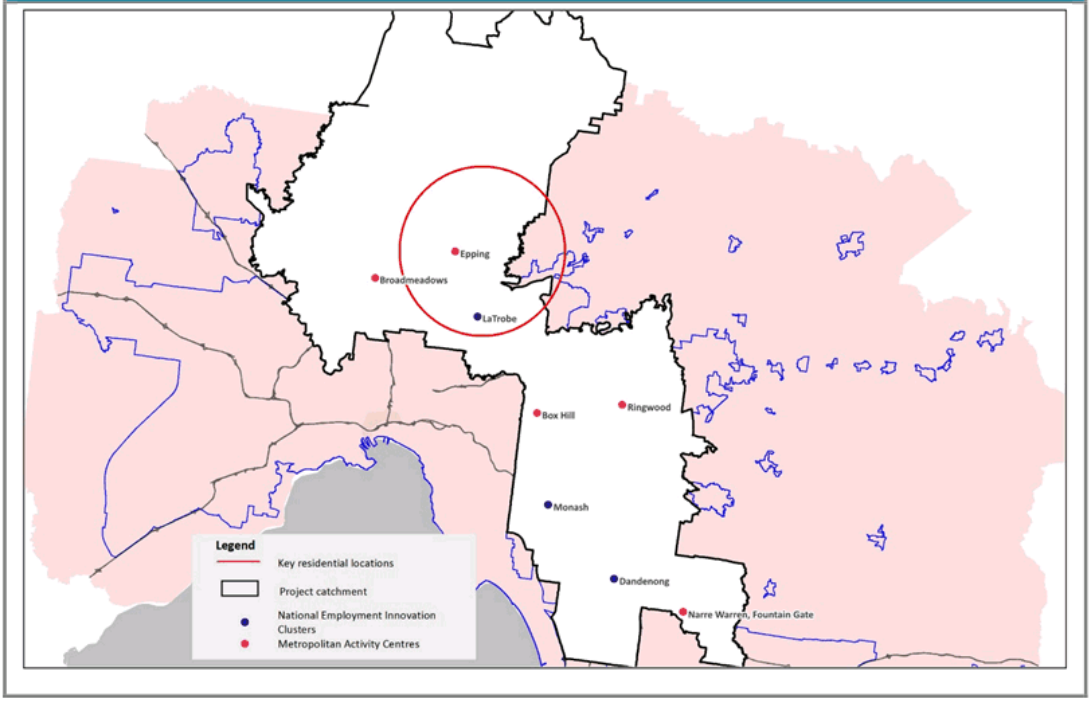
This indicator assesses how each corridor may provide the opportunity to better connect residents in Melbourne's north-east to employment and education opportunities in the north, east and south-east.

Each of the corridor options was analysed in terms of its potential to impact on accessibility to employment and education for key residential locations, which were identified as being significantly impacted by conflicting local and strategic orbital movements between the M80 and Eastern Freeway / EastLink.

The potential changes in accessibility to employment and education opportunities for each of the corridor options were identified by comparing the difference in the number of jobs within a 45 minute car travel time radius from a given location. This information is based on early transport modelling of the base case (the situation without the project) and an indicative project case for each corridor option.

The key residential locations, National Employment and Innovation Clusters and Metropolitan Activity Centres identified for this assessment are depicted in Figure 31.

Figure 31 – Residential locations analysed



Indicative accessibility changes arising from each corridor option are summarised in Table 9.

Table 9 – Potential change in car accessibility to jobs and education in 2031 – Project case vs Base case (without the project)

	Corridor A	Corridor B	Corridor C	Corridor D
Additional jobs accessible in key residential locations	65,000 – 75,000	65,000 – 80,000	85,000 – 100,000	45,000 – 55,000
Additional education places accessible in key residential locations	11,000 – 13,000	3,000 – 4,000	6,000 – 7,000	<2,000

The potential change in household accessibility to jobs is relatively comparable for residential locations analysed across Corridors A, B and C.

Due to changes in accessibility, each of the proposed corridor options for North East Link have the potential to increase property demand in residential areas where household accessibility gains are most prominent. Corridors B, C and D are likely to create development pressures in areas further east (e.g. Warrandyte, Lilydale) and in areas outside the Urban Growth Boundary.

Corridor A is estimated to perform well in connecting households in Melbourne's north-east to employment clusters around La Trobe, Heidelberg and West Heidelberg industrial hubs and to some extent Box Hill and Ringwood. Corridors B and C are estimated to perform marginally better as these options better connect households in Melbourne's north-east, such as Greensborough, Rosanna and Eltham, to Monash and Dandenong employment clusters in the south-east, but access will potentially be widely dispersed along the corridors. Corridor D shows a significantly lower potential change in accessibility to jobs as it extends into areas with low population densities.

In terms of each corridor option's impact on accessibility to tertiary education opportunities, Corridor A has the most significant impact on connectivity into the La Trobe University and Royal Melbourne Institute of Technology campuses in Bundoora. Corridor D is estimated to provide very limited improvement to access to tertiary education opportunities.

Further work to inform and shape this area of interest

Further work is being done to understand how the corridor options can facilitate better access to jobs and education opportunities for residents and households in Melbourne's north-east. This includes:

- Refining the assumptions included in the traffic modelling to better estimate the traffic demand and conditions during peak hours following the construction of North East Link
- Further data gathering on population and employment in Melbourne's north-east, including local strategies and business plans that might impact future employment growth
- Investigating the potential of the corridor options to improve public transport accessibility to jobs and education for residents who are public transport users
- Sensitivity analysis to better understand how variance from predicted forecasts might impact population, employment and land use in Melbourne's north-east
- Investigating the potential for the corridor options to support local and State's strategic land use policies and plans such as Plan Melbourne.

This additional and more refined work will allow NELA to further analyse the potential benefits provided by North East Link in improving access to jobs and education opportunities.

4.4 Connecting businesses

Overview

This area of interest has been assessed by identifying how each corridor option will potentially improve business access and growth in Melbourne's north, east and south-east. The preliminary indicator based on early analysis for this include the ability of the options to connect businesses to potential workers i.e. labour market accessibility.

This indicator was selected because they indicate the interconnectivity of businesses in the north-east, as well as the ability of businesses to attract workers.

Table 10 – Connecting businesses: how the corridors perform

	Summary	Overall performance
Corridor A	Delivers significant gains in accessibility to potential workers for the key employment clusters such as La Trobe and metropolitan activity centres such as Epping and Ringwood	Performs very well
Corridor B	Delivers some improvement in labour market accessibility to businesses in metropolitan activity centres such as Ringwood and Box Hill but reduction in accessibility for businesses in key employment clusters such as La Trobe, Monash, Epping and Dandenong.	Performs well
Corridor C	Delivers some improvement in labour market accessibility to businesses in metropolitan activity centres such as Ringwood and Box hill but limited improvement to key employment clusters such as La Trobe, Monash, Epping and Dandenong.	Performs well
Corridor D	Performs very poorly as it is estimated to deliver some labour market accessibility improvement to areas outside of the Urban Growth Boundary that are not identified for future commercial activity.	Performs very poorly

Connecting businesses to potential workers

Access to a pool of labour with skills matching the needs of employers is a key factor in the location decisions of businesses. Further, bringing jobs closer to workers generates important benefits, including reductions in vehicle kilometres travelled, fuel consumption and congestion, with increases in earnings and productivity and improved community health, safety and living standards.

An indicative change in business accessibility to workers was calculated by comparing the difference in the number of workers within a 35 minute travel time by road between key business locations in Melbourne's north-east, based on preliminary modelling results of the base case (without the project) and an indicative project case representative of each corridor option. The 35 minute travel time 'catchment' is based on analysis showing that the willingness to travel beyond this timeframe diminishes significantly for workers travelling to middle and outer suburban employment locations. The analysis is provided in Table 11 below.

Table 11 – Potential change in business accessibility to workers in 2031 - Project case vs Base case (without the project)

	Corridor A	Corridor B	Corridor C	Corridor D
Additional workers accessible to firms within key National Employment and Innovation Clusters and Metropolitan Activity Centres	8,500 – 10,500	2,000 - 2,600	5,100 – 6,200	5,800 – 7,200*

**Note: outside the Urban Growth Boundary*

All corridors have the potential to deliver a net gain in accessibility for the employment clusters and activity centres considered together.

In particular, Corridor A is expected to provide the most significant gains in accessibility to the La Trobe NEIC.

Both Corridors A and B provide increased opportunities for growth in business activity resulting from labour force accessibility gains relating to North East Link. Specific opportunities would be likely to arise around La Trobe and Epping. Corridor C provides opportunities further east and in areas outside the Urban Growth Boundary, where businesses are unlikely (or unable due to planning restrictions) to set up or relocate.

While there is limited data for Corridor D, preliminary modelling shows that the option has the potential to provide considerable improvements to labour force accessibility; however, much of this improvement is to areas outside of the Urban Growth Boundary with limited existing or planned commercial activity.

Further work to inform and shape this area of interest

Further work is being done to understand how the corridor options will improve connectivity for businesses to workers and other businesses. This includes:

- Refining the assumptions included in the traffic modelling to better estimate the traffic demand and conditions during peak or inter-peak hours following construction of North East Link
- Consultation with local business groups to understand issues in the area and local strategies and business plans that might impact future employment growth
- Investigating the potential of the corridor options to improve public transport accessibility between key employment locations and connectivity for businesses in Melbourne's north-east to potential workers
- Investigating the potential for the corridor options to support local and State's strategic land use policies and plans such as Plan Melbourne
- Developing analysis on the potential reduction in travel times and improvement in travel time reliability for business trips.

Additional and more refined analysis will allow NELA to further analyse the potential benefits delivered by North East Link in providing greater connectivity for businesses.

4.5 Making freight move more efficiently

Overview

The movement of freight goods, including fruit and vegetables, livestock, machinery, construction materials and consumer products, underpins the everyday operations and expenses of small businesses and households across Victoria. A more efficient freight network means lower transportation costs to supermarkets and other suppliers, and lower prices to households.

To estimate the potential for each identified corridor option to improve freight access and growth in Melbourne's north, east and south-east, the preliminary indicators based on early analysis include:

- Heavy commercial vehicle travel time savings
- Improving access for placarded and over-dimensional (OD) freight loads.

These preliminary indicators will provide the network performance between freight distribution centres, industrial precincts and the broader project catchment. Each of these indicators has been linked empirically to freight productivity.

Also a key indicator for improving freight efficiency is the design of the road and the ability for trucks to travel at speed. As discussed in section 4.2, the potential gradelines of each option will be a key factor in making a route attractive to heavy vehicles and achieving efficiency for trips along a corridor.

Table 12 – Making freight move more efficently: how the corridors perform

	Summary	Overall performance
Corridor A	Expected to deliver significant travel time improvement between key freight locations in the north-east. Some potential for integration with the over-dimensional load and placarded load networks.	Performs well
Corridor B	Expected to deliver modest travel time improvement between key freight locations in the north-east. The corridor does not provide for over-dimensional or placarded loads.	Performs poorly
Corridor C	Expected to deliver modest travel time improvement between key freight locations in the north-east. The corridor does not provide for over-dimensional or placarded loads.	Performs poorly
Corridor D	Does not provide a direct connection between many of the industrial precincts in the area. The corridor does not integrate with the over-dimensional load or placarded load networks.	Performs very poorly

Heavy commercial vehicle travel time savings

The travel times of heavy commercial vehicles (HCVs) are key to the productivity of the freight industry and are critical considerations in the route selection of vehicles. The freight industry will often select the quickest route, as this will assist in minimising operating costs.

The change in travel times between the Monash Freeway-EastLink interchange and the Greensborough Bypass-M80 interchange has been used as a proxy, as this route (or portions of this route) will be used for journeys by a number of the industrial precincts within Melbourne's north-east. This route is also the most likely alternative for the freight trips across Melbourne that do not

use the M1. Further, the selection of this route is considered a reasonable basis upon which to assess the four corridor options.

Each of the corridors provides varying forms of connectivity to the arterial road network; however, all provide a reasonable connection between the freeway network being used as the basis for this assessment. The key difference is the use of the Eastern Freeway for Corridor A.

To undertake the assessment, several factors were considered: the length of the route, the forecast traffic on the route and the vertical constraints present on the route. This last point is very important for trucks. The effect of steep grades is a critical factor for the freight industry as it can result in significantly reduced speeds and additional strain on the freight vehicle in climbing the incline. While only preliminary at this stage, the current assessment indicates that Corridors B, C and D are likely to contain long lengths of undesirable steep incline grades, while Corridor A is likely to have some short sections of steep grades.

Using this information, combined with a knowledge of the undulating topography of the area, the preliminary travel time savings for the M1 to M80 route are presented in Table 13 below.

Table 13 – Estimated travel time savings between M1 and M80 in 2031 - Project case vs Base case (without the project)

	Corridor A	Corridor B	Corridor C	Corridor D
Change in travel time (M1 to M80)	16-19 min	8-9 min	10-12 min	7-8 min

Corridor A can provide an upgraded Eastern Freeway and direct connection to the M80. The potential grades within tunnels is the most suited to trucks of all the corridors.

Corridor B is likely to have long tunnel sections, as is Corridor C. The grades for both Corridors B and C have extended steep sections, which results in slower operating speeds and longer travel times.

Corridor D has the longest length of approximately 40 kilometres. It is also expected to require significant tunnel length to avoid sensitive areas. This extended length compared to the other corridors has an impact on the overall travel time savings. Additionally, Corridor D does not provide a direct connection between many of the industrial precincts in the area.

Improving access for placarded and over-dimensional (OD) loads

While a focus of North East Link is removing trucks from arterial roads, there is a limitation with respect to the movement of dangerous goods. While some road tunnels overseas have been designed to accommodate placarded loads, no tunnel in Victoria currently permits the running of such vehicles. Current volumes of placarded loads travelling through the north-east have been identified, as outlined in Table 14.

Table 14 - Placarded vehicle numbers 10 am – 2 pm

Road	Total truck volume	Number of placarded vehicles	Percentage placarded vehicles
Fitzsimons Lane at Yarra River	518	3	0.5%
Plenty Road at Darebin Creek	266	4	1.5%
Lower Plenty Road at Rosanna Road	1,092	14	1.3%
Total	1,876	21	1.1%

Source: NELA Traffic Survey 2017

North East Link has potential to remove placarded and OD vehicles from the local road network, unless they have local destinations such as service stations, supermarkets or businesses. The options can potentially remove large vehicles from residential roads and improve the operation of these roads due to the removal of slow vehicles.

To understand the potential for each option to cater for placarded and over-dimensional vehicles, it has been assumed that sections of tunnel cannot accommodate a vehicle carrying dangerous goods. The analysis of how each option can accommodate placarded and over-dimensional loads is summarised in Table 15.

Placarded vehicles will be required to travel on a suitable existing road network to divert around any section of tunnel on each of the corridors. Their ability to do this will depend upon the types of roads available for these vehicles to use.

Over-dimensional vehicles are restricted to defined routes due to their size. These vehicles are wider than standard vehicles and can only use certain roads. OD vehicles can often be at odds with general traffic due to their size and speed. Some of the existing OD routes within Melbourne's north-east are along residential roads, which means these vehicles also clash with local traffic movements and residential access.

Table 15 – Classification results: potential ability to cater for placarded loads (based on current minimum tunnel lengths for each corridor)

	Corridor A	Corridor B	Corridor C	Corridor D
Ability to carry placarded loads	Can use the corridor between the M80 and Lower Plenty Road.	Cannot accommodate placarded loads	Cannot accommodate placarded loads	Can use the corridor between the M80 and Kangaroo Ground; however, no connectivity from Kangaroo Ground
Ability to carry over-dimensional loads	Can use the corridor between the M80 and Lower Plenty Road.	Over-dimensional vehicles cannot use the corridor	Over-dimensional vehicles cannot use the corridor	Can use the corridor between the M80 and Kangaroo Ground; however, there are no over-dimensional routes in this area

Corridor A has the potential to allow placarded loads to travel between the M80 and Lower Plenty Road. From here, placarded vehicles would travel along Rosanna Road, Banksia Street and Bulleen Road to connect to the Eastern Freeway. Corridor A has the potential to provide the best opportunity to remove placarded trucks from residential roads within Melbourne's north-east. Corridor A is the only corridor that has full integration with the existing over-dimensional routes.

OD vehicles could use Corridor A between the M80 and Lower Plenty Road. From there, OD vehicles could use OD Route 1, which runs along Rosanna Road, Manningham Road and Bulleen Road to access the Eastern Freeway.

Corridors B and C would not be able to carry placarded loads due to their extensive use of tunnels. This would mean that placarded trucks would continue to use the same residential roads as they currently use. Corridors B and C will not be able to accommodate OD vehicles due to the significant lengths of tunnel. This would mean that OD vehicles would continue to travel along residential roads.

Placarded loads could use Corridor D from the M80 to Kangaroo Ground; however, once at Kangaroo Ground there are limited suitable routes for these vehicles to reconnect to the arterial road network. At the southern end, placarded loads could travel along Corridor D from EastLink to Mt Dandenong Road; however, they would need to back-track to reconnect to the main arterial road network.

Corridor D may be able to accommodate OD vehicles from the M80 to Kangaroo Ground and from EastLink to Mt Dandenong Road; however, none of these locations connect to the existing OD network. This prevents the use of Corridor D for OD vehicles, meaning that these vehicles will continue to travel along residential roads.

Further work to inform and shape this area of interest

More work is being done to understand the impact of the potential corridor options on the efficiency of freight and supply chain networks, including:

- Consultation with the freight and logistics industry to understand:
  - Changes in freight accessibility to key freight areas
  - Freight fleet requirements
  - Freight travel time reliability
- Further engineering work to better define the details of corridor grades and their impacts on traffic flow and freight costs
- Analysis of future trends and technologies that will impact on freight trips such as the use of autonomous trucks, the increasing usage of on-line shopping and just in time delivery.

North East Link is also part of a broader strategy to improve the productivity of freight networks, with other complementary works including the West Gate Tunnel project, the widening of the M80 and the provision of managed motorways systems on the M80 and EastLink. The combined impact of these works and North East Link will need to be taken into account.

4.6 Improving public transport connections and travel times

Overview

This area of interest considers how each corridor option provides the opportunity for improving public transport in Melbourne's north-east. The preliminary indicators based on early analysis for this area include:

- Improving public transport services
- Providing greater public transport priority.

Improving public transport connections and travel times can encourage more people to leave their cars at home, reducing congestion on roads within Melbourne's north-east.

Table 16 – Improving public transport connections: how the corridors perform

	Summary	Overall performance
Corridor A	High potential for public transport priority on the Eastern Freeway and public transport services along the project corridor. Provides the best opportunity to enable greater priority for existing bus services on the arterial road network through the largest traffic reductions on routes used by buses.	Performs very well
Corridor B	Potential for public transport services along the project corridor. Reduces traffic volumes on some key roads, but increases traffic volumes on other roads used by public transport services.	Neutral
Corridor C	Potential for public transport services along the project corridor. Reduces traffic volumes on key roads, allowing for improved services, but not as much as Corridor A.	Performs well
Corridor D	Limited opportunity for public transport improvements or improvements to public transport services in the north-east.	Performs poorly

Improving public transport services

The project has the potential to enable the creation of new public transport services or enhance existing routes within the corridor. Initial stakeholder consultation has indicated that the potential for enhancing the Doncaster Area Rapid Transit (DART) bus services along the Eastern Freeway is a high public transport priority in Melbourne's north-east.

Corridor A would provide the best opportunity to enable greater priority for existing bus services on the arterial road network through the largest traffic reductions on routes used by buses. The upgrade to the Eastern Freeway also provides the opportunity to provide more dedicated DART bus lane facilities along the length of the freeway.

Corridors B and C have some potential for public transport network upgrades, improving connections between residents and employment. However, Corridor B has slightly more opportunity to improve connections to key locations, with its corridor connecting to more populated areas compared to Corridor C.

Corridor D has limited opportunity for public transport improvements given its corridor is away from residential areas and limited connectivity to employment locations.

Corridors A and B have the slight added benefit of providing improvements to access and car parking at Watsonia railway station. Additionally, Corridor A is located the closest to the La Trobe NEIC, which provides opportunities to deliver express bus services along the corridor to service the cluster, which currently has relatively poor public transport access.

This analysis is summarised in Table 17.

Table 17 – Classification results: potential for public transport on the new road

	Corridor A	Corridor B	Corridor C	Corridor D
Potential for public transport on the new road	Potential public transport priority on the Eastern Freeway and public transport services along the project corridor	Potential for public transport services along the project corridor	Potential for public transport services along the project corridor	Limited opportunity for public transport improvements

Providing greater public transport priority

This assessment investigated the ability for each corridor option to enhance existing public transport services on the arterial road network. This can be achieved by reducing traffic on arterial roads currently used by bus services. A reduction in traffic volumes can either improve travel times for buses by reducing congestion along a route or provide the ability to prioritise public transport at intersections. A reduction in traffic on one road may also give the ability to give additional green time at an intersection to a cross road that has bus services.

This assessment has focused primarily on the impact to the high patronage SmartBus network in Melbourne's north-east, with a lower focus on the suburban bus network. This is due to the significant number of passengers carried by the SmartBus service every day. It also provides an orbital service, connecting communities over longer distances.

Corridor A can provide the best opportunity to enable greater priority for existing bus services on the arterial road network through the largest traffic reductions on routes used by buses. Significant decreases in traffic are expected on Fitzsimons Lane (bus routes 901 and 902), Para Road (bus routes 901 and 902) and Banksia Street (route 903).

Corridor B can provide improvements to the public transport network, with some reductions in traffic volumes allowing for improved services. Significant decreases in traffic are expected on Para Road (route 901 and 902) and Banksia Street (route 903), however, this corridor option also increases traffic significantly on some roads, potentially impacting other services.

Corridor C can reduce traffic volumes on key roads, allowing for improved services, but not as much as Corridor A. Significant decreases in traffic are expected on Para Road (route 903). It also potentially services a lower number of residents compared to Corridors A and B.

Corridor D does not provide any opportunity for improvements to public transport services in the north-east as it has minimal reductions on key roads and poor connectivity to residential areas.

Table 18 – Classification results: change in traffic volumes on bus routes in the north-east

	Corridor A	Corridor B	Corridor C	Corridor D
Change in traffic volumes on bus routes in the north-east	Major positive impact	Neutral	Moderate positive impact	No benefit

Further work to inform and shape this area of interest

Further work is being done to undertake these assessments, particularly in relation to how the project corridor options will influence the behaviour of the transport network for public transport. Some of this additional analysis and work includes:

- Defining accessibility improvements using additional sources of data
- Working with local councils, the Level Crossing Removal Authority (LXRA), Public Transport Victoria (PTV) and Transport for Victoria (TfV) to determine ways to integrate potential North East Link public transport initiatives with existing and future projects and more broadly with the Transport Network Development Strategy
- Identifying options for public transport priority on North East Link and feeder arterial roads and investigating the impact of these complementary initiatives
- Investigating the desired future for the public transport network and future routes, including access to the La Trobe NEIC and other key activity centres in Melbourne's north-east
- Investigating the potential for improving public transport priority along the Eastern Freeway and priority treatments at freeway interchanges where Corridor A interfaces
- Investigating the potential for improving connectivity to train stations and bus stops, which may be achieved through the reduction of general traffic on roads across the north-east.

This additional work will allow NELA to further analyse the potential benefits provide by North East Link in improving public transport connections and travel times.

4.7 Improving connections for pedestrians and cyclists

Overview

The corridor options have the potential to improve walking and cycling networks in Melbourne's north-east, increasing accessibility to activity centres and completing the missing links in Melbourne's Strategic Cycling Corridors network.

While roads are typically seen as severing communities and being barriers to movement, North East Link offers an opportunity to provide new and upgraded walking and cycling infrastructure that will improve accessibility to activity centres, schools and community facilities. This would help to advance the concept of a '20-minute neighbourhood', in line with the goals of Plan Melbourne.

This analysis has focused on potential walking and cycling paths or trails that each of the corridors may be able to provide to benefit communities in Melbourne's north-east.

Table 19 – Improving walking and cycling connections: how the corridors perform

	Summary	Overall performance
Corridor A	Provides the most opportunity to improve existing and new walking and cycling connections in Greensborough, Watsonia, La Trobe, Diamond Creek and Heidelberg.	Performs very well
Corridor B	Offers some opportunity improve cycling connections in activity centres such as Greensborough, Diamond creek and Watsonia.	Performs well
Corridor C	Delivers some opportunity to provide shared use paths and on-road connections to connect activity centres such as Eltham, Diamond Creek and Greensborough.	Performs well
Corridor D	Offers limited opportunity to improve cycling connections and does not improve walking and cycling connections into key activity centres in the north-east.	Neutral

Potential to better connect with existing pedestrian and cycling routes

A high-level review has been undertaken of walking and cycling network gaps and issues in Melbourne's north-east. Opportunities to provide walking and cycling infrastructure to improve access identified in Figure 32, which also highlights the gaps in the current network.

Each corridor's ability to provide the identified potential shared use paths and cycling facilities is presented in Table 20.

Figure 32 – Potential walking and cycling improvements in the north-east

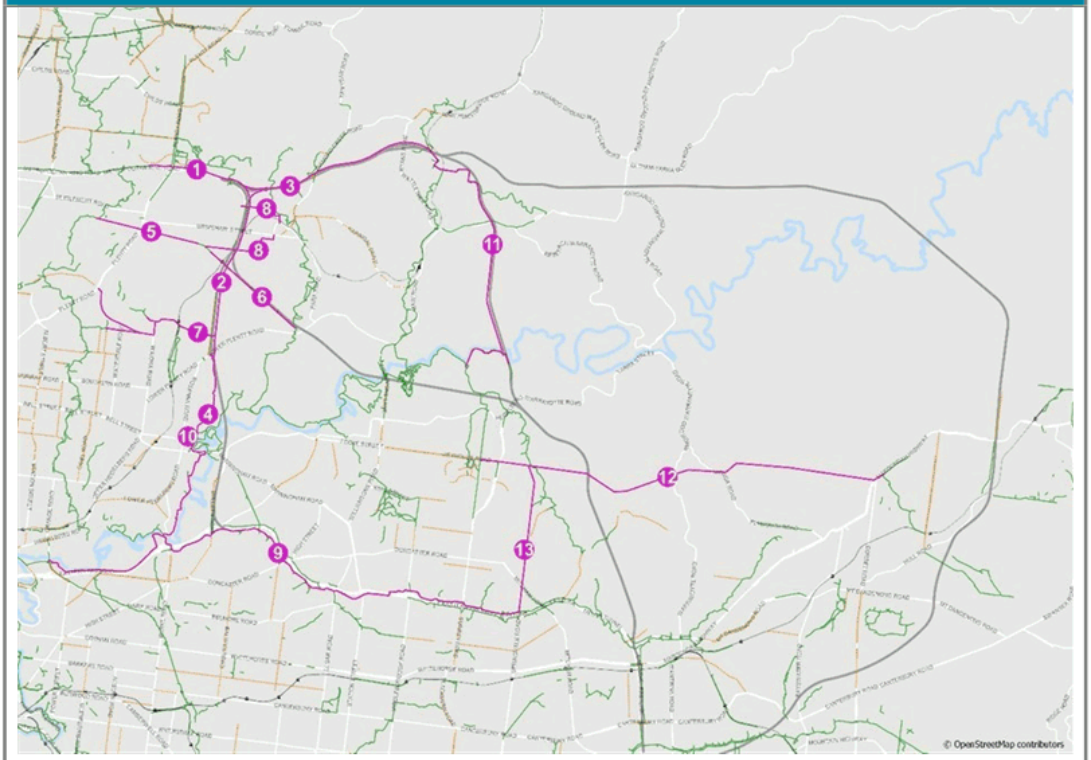


Table 20 – Potential walking and cycling improvements

No.	Description	Improves accessibility to north-east activity centres	Does the Corridor provide the opportunity for this link?			
			Corridor A	Corridor B	Corridor C	Corridor D
1	Upgraded M80 trail from Greensborough Bypass to Plenty Road	Yes	Yes	Yes	Yes	Yes
2	Complete missing link on Greensborough Road, including upgrade of the Greensborough Road trail	Yes	Yes	Yes	No	No
3	Extension of the M80 trail east of Greensborough Road	Yes	Yes	Yes	Yes	Yes
4	Upgrade of River Gum Walk trail	Yes	Yes	No	No	No
5	Completion of Transmission Line Linear Reserve trail west of Greensborough Road to Darebin Creek Trail	Yes	Yes	Yes	No	No
6	Completion of Transmission Line Linear Reserve east of Greensborough Road to Lower Plenty Road and Plenty River Trail	Yes	Yes	Yes	No	No

No.	Description	Improves accessibility to north-east activity centres	Does the Corridor provide the opportunity for this link?			
			Corridor A	Corridor B	Corridor C	Corridor D
7	New connections to La Trobe University	Yes	Yes	No	No	No
8	On-road cycling upgrades to Greensborough	Yes	Yes	Yes	Yes	Yes
9	Widening and upgrade of the Koonung Creek Trail (Eastern Freeway)	No	Yes	No	No	No
10	New connections into Heidelberg	Yes	Yes	No	No	No
11	New shared use path between the M80 Trail and the Main Yarra Trail	No	No	No	Yes	No
12	New shared use path along Reynolds Road extension	No	No	Yes	Yes	No
13	New shared use path along upgraded Springvale Road	No	No	Yes	Yes	No

Corridor A offers more opportunity to improve walking and cycling connections for people in Melbourne's north-east than other corridors, including opportunities for new shared use paths. This corridor presents the opportunity to improve connections to Greensborough, Watsonia, La Trobe University, Diamond Creek and Heidelberg, including strengthening the existing cycling corridor along the Eastern Freeway which services the eastern suburbs.

Corridor B offers some opportunity to improve cycling accessibility to activity centres in Melbourne's north-east. New connections can be provided into Greensborough, Diamond Creek and Watsonia.

Corridor C offers some opportunity to improve cycling accessibility to communities in Melbourne's north-east. Potential paths include shared use paths and on-road facilities to connect to Eltham, Diamond Creek and Greensborough.

Corridor D offers very limited opportunity to improve cycling accessibility to communities in Melbourne's north-east. While it may be possible to build a shared use path along the length of the corridor, this will not connect into metropolitan or major activity centres and is more likely to be a recreational trail.

Proposed path and trail enhancements will be undertaken in the context of the Northern Regional Trails Strategy.

Further work to inform and shape this area of interest

Work is continuing for these assessments, particularly in relation to how the project corridor options will influence the behaviour of the transport network for active transport. Some of this additional analysis and work includes:

- Seeking and incorporating further input from the community
- Working with local councils, the Level Crossing Removal Authority (LXRA), Public Transport Victoria (PTV) and Transport for Victoria (TfV) to determine ways to integrate potential North East Link active transport initiatives with existing and future projects and more broadly with the Network Development Strategy
- Investigating the desired future for the public transport and active transport network and future routes, including access to the La Trobe NEIC and other key activity centres in Melbourne's north-east
- Exploring opportunities to improve existing cycling facilities
- Consulting with the community and with key stakeholders such as Bicycle Network, local councils and community groups and incorporating their feedback
- Developing shared use path design options.

This additional work will allow NELA to further analyse the potential benefits provided by North East Link in improving road safety, general amenity and connections for pedestrian and cyclists in Melbourne's north-east.

4.8 Ability to protect the environment, culture, heritage and open spaces

Overview

This measure assesses how each corridor option performs in terms of its ability to protect the environment, culture, heritage and open spaces in the north-east. This can be achieved by considering:

- Potential impacts on areas of high ecological value
- Potential impacts on cultural and historic heritage
- Potential impacts on areas of sensitive landscape character
- Potential impacts on open spaces and recreation areas.

Each of the four corridor options is likely to have some impact; however, the extent of sensitive areas varies between the corridors.

Available databases, registers and previous reports have been reviewed to provide an initial view of areas of sensitivity. Field surveys have commenced to verify this information and fill any gaps in this data.

Table 21 – Protecting the environment, culture, heritage and open spaces: how the corridors perform

	Summary	Overall performance
Corridor A	Offers opportunities to protect areas of high ecological value, sensitive landscapes and areas with cultural heritage and historical significance, particularly the Banyule Flats and the Yarra River through tunnelling, but will potentially involve some environmental impacts associated with surface works in other areas.	Neutral
Corridor B	Provides opportunities to protect sensitive areas including the Yarra River by tunnelling, however the option may potentially impact on land with greater ecological value and landscape sensitivity.	Performs poorly
Corridor C	Offers some opportunities to protect sensitive areas including the Yarra River by tunnelling however surface works will impact on land with ecological value and sensitive landscapes.	Performs poorly
Corridor D	Offers opportunities to protect sensitive areas including Bend of Islands by tunnelling but surface works will have considerable impacts on areas of high ecological values. More importantly it will place development pressure on the green wedge and semi-rural communities outside the Urban Growth Boundary.	Performs very poorly

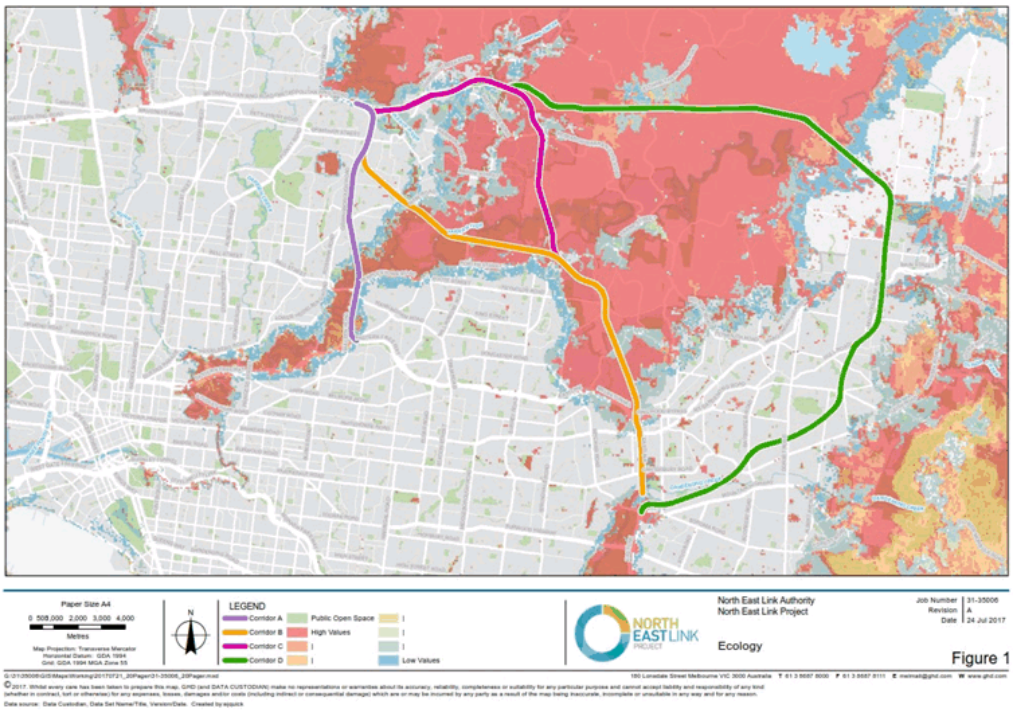
Areas of high ecological value

To identify areas of high ecological value, the NELA team has used the Department of Environment, Land, Water and Planning's NaturePrint Strategic Biodiversity Values map. This mapping tool identifies priority areas for protection based on the importance of the natural values in that location. It combines landscape importance information, such as where there is habitat for threatened species or where many threatened species occur, with connectivity and fragmentation information to show the relative biodiversity value of landscapes in Victoria.

The Strategic Biodiversity Values map helps to identify how development projects can be designed to have the least impact on biodiversity assets and is recommended to be used in the early stages of major infrastructure projects, such as North East Link.

Figure 33 shows the Strategic Biodiversity values map and the four corridor options for North East Link. The red areas represent the highest biodiversity value, while the blue areas represent the lowest biodiversity value[11]. This figure shows that Corridors B, C and D travel through greater areas of highest biodiversity value than Corridor A.

Figure 33 – Strategic Biodiversity Values



Source: Department of Environment, Land, Water and Planning NaturePrint Strategic Biodiversity Values

Cultural heritage

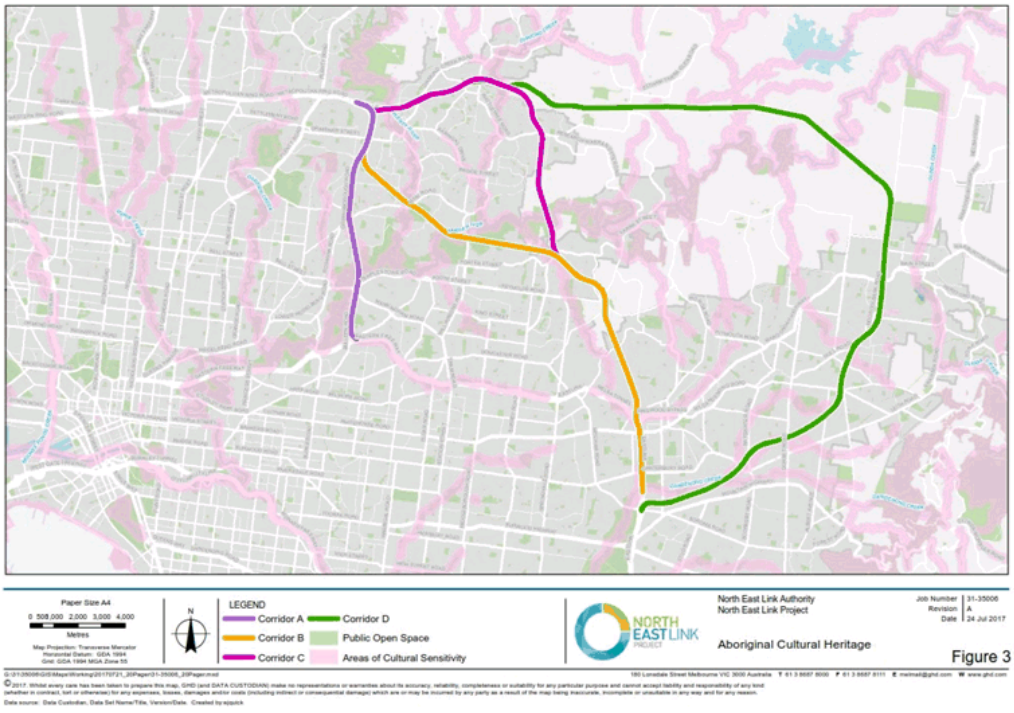
The Aboriginal Cultural Heritage Register Information System has been used to identify areas of high Aboriginal cultural heritage value. This system includes spatial and place information for all registered Aboriginal cultural heritage places on the Victorian Aboriginal Heritage Register, along with information regarding previous investigations undertaken in the study area.

[11] More information on the Strategic Biodiversity Values map can be found at the NaturePrint website: environment.vic.gov.au/biodiversity/natureprint

Registration of Aboriginal cultural heritage places is largely dependent upon whether previous investigations have been undertaken and the way in which these investigations were undertaken. Only approximately 10% of the study area has been subject to previous investigations and the vast majority of this previous work has focused on small study areas of less than 10 hectares in size. Because of this relative paucity of investigations, large swathes of the study area remain relatively unknown in terms of the distribution of Aboriginal cultural heritage places.

It is widely accepted that the availability of water and the resources associated with water have acted as a powerful modifier to hunter gatherer behaviour and use of the broader landscape by Aboriginal people. Within cultural resource management studies, the acceptance of this relationship has resulted in the almost uniform treatment of all areas of land located near to water (that is, within 200 metres) as areas of high archaeological potential or sensitivity. Figure 34 below shows areas of high archaeological sensitivity within 200 metres of watercourses and the four corridor options for North East Link.

Figure 34 – Areas of high archaeological sensitivity within 200 metres of watercourses



Source: Aboriginal Cultural Heritage Register Information System

The high level of suburban development throughout most of Corridor A, and parts of Corridors B and C, means that waterway corridors are likely to be the more sensitive landform features. These

corridors have a higher potential for preservation of Aboriginal cultural heritage places than in more highly developed areas.

Areas of open farmland and bushland associated with Corridor D in particular, and parts of Corridors B and C, are likely to have undergone significantly less development. This means that there is greater potential for a wide variety of cultural heritage places to be preserved in areas other than waterways.

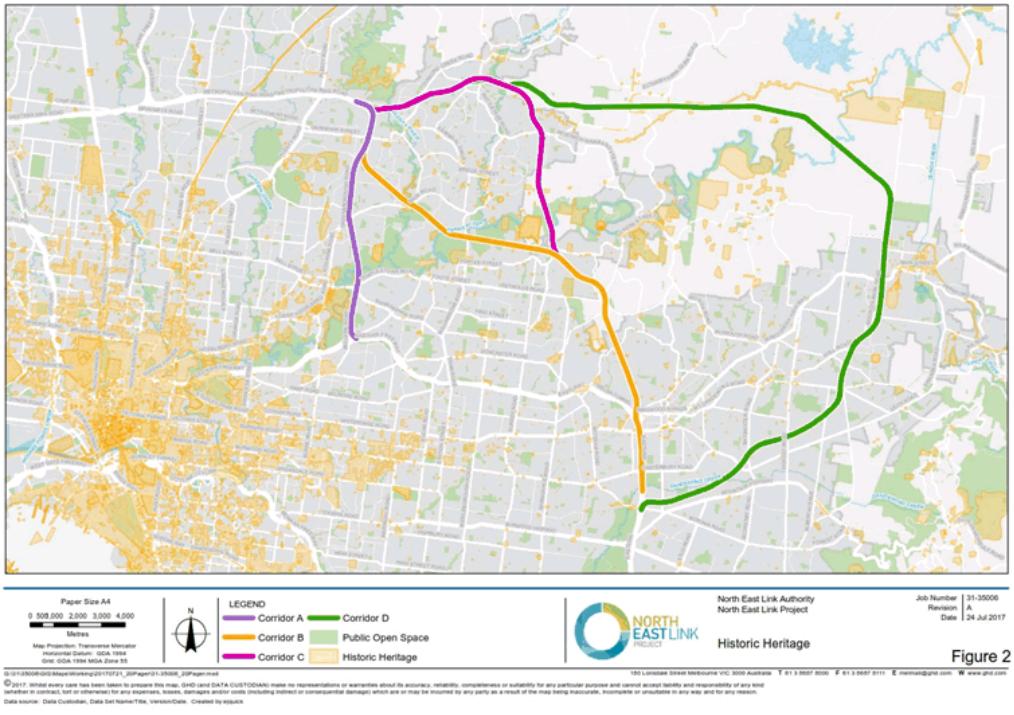
Historic heritage

To identify areas of high historic heritage value, the NELA team has examined the following:

- Victorian Heritage Register, which lists Victoria's most significant heritage places, objects and historic shipwrecks protected under the *Heritage Act 1995*
- Victorian Heritage Inventory, which lists all known historical archaeological sites in Victoria
- Heritage Overlays within local council planning schemes, which identify places of recognised local significance.

Figure 35 shows areas and places of high historic heritage value and the four corridor options for North East Link. This figure shows that there are areas and places of high historic heritage value in and near each of the four corridor options.

Figure 35 – Areas and places of high historic heritage value



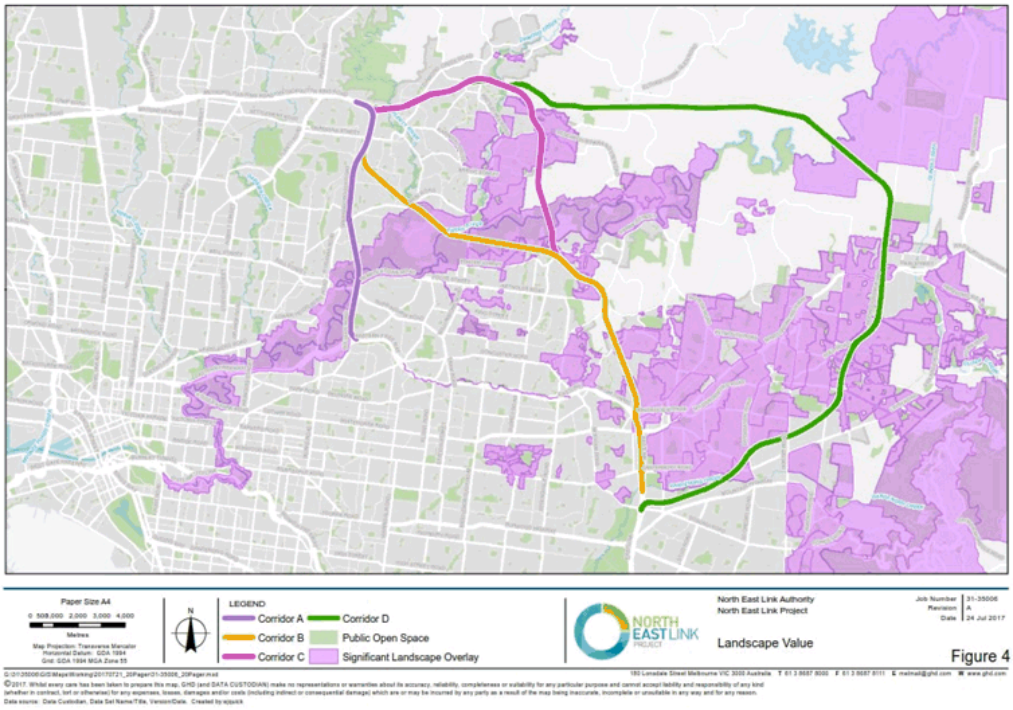
Source: Various sources

Sensitive landscapes

Significant Landscape Overlays within local council planning schemes have been used to identify sensitive landscapes. The Significant Landscapes Overlay is used to identify landscapes of natural and cultural significance at the local government level, and recognises that the value of landscapes and significant open spaces is derived from their environmental performance as well as the aesthetic qualities and the contribution they make to the spatial character and identity of areas of Victoria.

Figure 36 shows areas subject to Sensitive Landscape Overlays and the four corridor options for North East Link. This figure shows that large sections of Corridors B, C and D travel through areas subject to a Sensitive Landscape Overlay, while the southern section of Corridor A travels through such areas.

Figure 36 – Areas subject to Sensitive Landscape Overlay



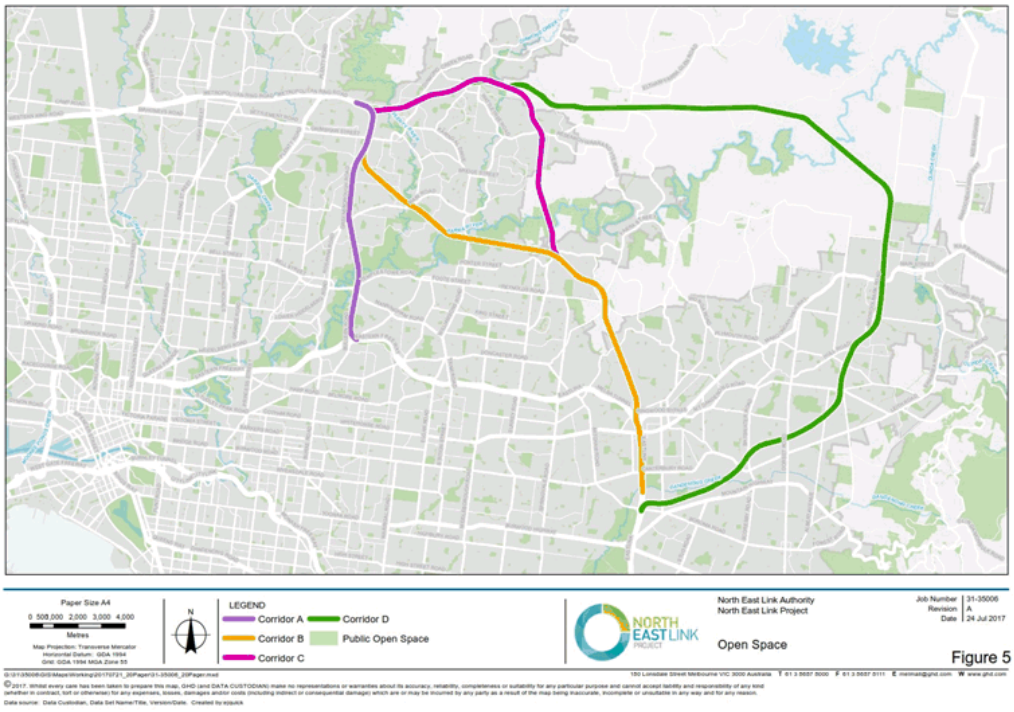
Source: Victorian Planning Schemes, Significant Landscapes Overlay

Open space and recreation areas

Public open space and recreation areas, such as playing fields, are important to and high valued by communities. Open space zones and overlays in planning schemes, as well as publicly available mapping, were used to identify these areas.

Figure 37 shows public open space and recreation areas and the four corridor options for North East Link.

Figure 37 – Public open spaces and recreation areas



Source: Victorian Planning Schemes, various zones and overlays

Further work to inform and shape this area of interest

The analysis outlined above is an indicative representation of the detailed analysis being undertaken. Further work is being done to understand how the corridor options will impact on the ability to protect the environment, culture, heritage and open spaces in Melbourne's north-east. This work includes:

- Ongoing specialist field investigations to confirm available desktop information and provide more detailed information to fill gaps. These investigations cover the areas of ecology, historical and Aboriginal cultural heritage, landscape and visual attributes, surface water and groundwater, and social, community and business characteristics and values
- Identification of private property, businesses, community facilities and open space likely to be impacted by each corridor option to gain an understanding of the potential land required to build the project
- Identification of sensitive receptors that might be affected by amenity impacts
- Preliminary quantification of greenhouse gas emissions during the construction and operation of the project.

4.9 Ability to minimise impacts from construction-related traffic

Overview

The construction of North East Link will take a number of years to complete. Construction works and activities have the potential to impact on the local community depending on the construction methodology selected and the preferred corridor.

The NELA team is assessing the broad impacts of the project's construction on the local community and on the existing road network. The main impacts are expected to be related to traffic performance on the road network from construction traffic and impacts to communities in the north-east from:

- The movement of materials throughout the construction area
- The removal of spoil materials from the construction of the tunnels
- General construction activities undertaken in the area of the project throughout the construction period.

All of these impacts will be mitigated in various ways, using well-tested construction practices and in accordance with the relevant laws and standards. The activities of the contractors delivering the work will be closely monitored and managed by NELA.

Table 22 – Minimising construction impacts: how the corridors perform

	Summary	Overall performance
Corridor A	Generates the fewest truck movements during the construction phase. May require lengthy disruptions to the Eastern Freeway between Chandler Highway and Springvale Road.	Neutral
Corridor B	Generates significant truck movement during construction phase. May require lengthy disruptions to the transport network including building a highly complex interchange at EastLink.	Neutral
Corridor C	Generates significant truck movement during construction phase. May require lengthy disruptions to the transport network including building a highly complex interchange at EastLink.	Neutral
Corridor D	Generates the most number of truck movements however construction sites are expected to be far away from residential areas hence overall impacts to residents and transport network is expected to be minimal.	Performs very well

Construction phase truck movements

The estimated number of construction phase truck movements required for each of the corridors is a good indicator of the impacts of construction. Trucks will be required to haul spoil away from the construction and tunnel sites, and to deliver plant, equipment and other construction materials (such as bridge beams and tunnel lining components) required for the road. These trucks have the potential to impact on traffic performance and local amenity surrounding the construction sites.

A high-level assessment has been undertaken to determine an indicative number of truck movements that are likely to be generated during the project. This assessment has been based on estimates of the amount of material that will be removed from the tunnels and where it needs to be

taken to, the amount of precast concrete components (bridge beams, tunnel linings, noise walls and so on), and the general construction-related traffic that a project of this size and complexity typically generates. The estimates provided in the table below are conservative and it is possible these could be reduced with further refinement.

Table 23 – Estimated total number of truck movements during construction phase (based on minimum tunnel lengths and estimated at four to seven years)

	Corridor A	Corridor B	Corridor C	Corridor D
Estimated total number of truck movements during construction phase	300,000	950,000	900,000	1,300,000

Corridor A is expected to require the smallest number of construction phase trucks, with Corridors B, C and D all requiring up to four times the number of trucks due to longer tunnel lengths and longer overall corridor lengths. However, Corridor A will potentially require the upgrade of the Eastern Freeway, which could cause disruption to this route.

Corridor A is expected to have tunnel portals in close proximity to the Eastern Freeway. This means that the majority of trucks will be able to travel to and from the construction sites without passing along local residential roads.

Corridors B and C have tunnel portals near EastLink. However, due to the complexity of the site, it is expected that spoil may not be removed from this location. Therefore, the majority of trucks will most likely have to use narrow residential roads to access the construction sites, causing significant disruption and impacts to local communities.

Corridor D is expected to generate the most trucks out of the four options. However, the corridor and construction sites are expected to be far away from built up residential areas. Therefore, the construction impacts on local communities and the overall network is expected to be minimal.

Further work to inform and shape this area of interest

The following activities are currently being undertaken:

- Continuing geotechnical investigations to understand the ground conditions likely to be encountered
- Development of approaches and requirements for the management of the possible impacts on the environment during the works.

5 References

Australian Bureau of Statistics, 2014, *Australian historical population statistics catalogue number 3105.0.65.001- Greater Melbourne,* ABS

Department of Economic Development, Jobs, Transport and Resources, 2016, *Food and Fibre: Sector Strategy,* viewed 10 July 2017, www.business.vic.gov.au/futureindustries

Department of Economic Development, Jobs, Transport and Resources, 2015, *Review of Victoria's Freight and Logistics Task,* Victorian Government

Department Environment, Land, Water and Planning, 2017, *Victorian Heritage Inventory,* Victorian Government

Department Environment, Land, Water and Planning, 2017, *NaturePrint Strategic Biodiversity Values* viewed 18 July 2017, ww.environment.vic.gov.au/biodiversity/natureprint

Department Environment, Land, Water and Planning, 2017, *Planning Schemes Online* viewed 18 July 2017, www.planning-schemes.delwp.vic.gov.au/

Department Environment, Land, Water and Planning, 2017, Victoria in Future (VIF) 2015, *Population and Employment Projections*, Victorian Government

Department of Premier and Cabinet, 2017, *Aboriginal Cultural Heritage Register Information System*, Victorian Government

Heritage Council of Victoria, 2017, *Victorian Heritage Register*, Victorian Government

North East Link Authority, 2017, *Traffic Survey 2017*, NELA

Veitch Lister Consulting (VLC), 2017, *Zenith Model – Preliminary modelling for North East Link*

VicRoads, 2017, *Crash statistics 2012 – 2016*, VicRoads

VicRoads, 2017, *Screenline traffic volume data 1995 to 2011*, VicRoads

Victorian Government, 2017, *Plan Melbourne 2017-2050 Strategy*, viewed 10 July 2017, www.business.vic.gov.au/futureindustries www.planmelbourne.vic.gov.au/

Victorian Planning Authority, 2012, *Growth Corridor Plans – Managing Melbourne's Growth* viewed 10 July 2017, *https://vpa.vic.gov.au/greenfield/growth-corridor-plans/*

XAct Solutions, 2017, *North East Link Needs Assessment*, NELA

50 Year Infrastructure Strategy for Melbourne's North

NORTHERN HORIZONS

Delivery through Partnerships

SUMMARY REPORT

Cover design

I.D.Yours

ISBN: 978-0-9577250-1-0

Enquiries and copies of full report

Mr Mick Butera

Executive Director, NORTH Link

c/- Institute for Advanced Study

La Trobe University

Main Drive, BUNDOORA 3086

Telephone: 03 9479 3337

Facsimile: 03 9467 8310

Email: m.butera@latrobe.edu.au

Acknowledgements

In bringing a comprehensive report card and further directions document together like Northern Horizons, it takes the combined efforts of a lot of people and organisations. In acknowledging a number of key people and organisations, I need also to thank all those who assisted and are not mentioned.

In particular, I would like to thank NORTHLink and Mick Butera, the Project Manager, for his diligent management of the Project and Rob Turk from Arup for providing the expertise, enthusiasm, professionalism and drive to complete this landmark document.

Thank you to each Council, their CEO's and staff, the Northern Melbourne RDA Committee and La Trobe University for their vision in commissioning the project.

Thank you to a range of key Victorian government departments for providing policy information that assisted the Steering Group to understand the State Government's priorities.

I would also like to acknowledge the support and work of all members of the Project Steering Group.

Mick Butera – Project Manager/ Executive Director, NORTHLink

John Francis – Director Governance and Economic Development, City of Whittlesea

Tony Coppola - Executive Officer, Northern Melbourne RDA Committee

Gregory O'Brien – Emeritus Professor, La Trobe University

Terry Larkins – Member, Northern Melbourne RDA Committee

Paul Farley - Executive Director, Infrastructure and Operations Group, La Trobe University

Rob Turk – Arup

Joan Ko – Arup

All participants in the project have agreed that the report card and future directions have helped create a shared sense of regional identity and co-operation regarding infrastructure priorities in Melbourne's North. It will provide a greater understanding of the future impact of the population increases and opportunities that need to be addressed to ensure that Melbourne's North contributes to Melbourne remaining one of the most liveable cities in the world.

Peter Brown
CEO Moreland City Council
Chair of the Project Steering Group
March 2014

Foreword

The rapid population growth occurring, and forecast for, Melbourne's North makes this a critical time for regional planning – one of challenges as well as opportunities.

Melbourne North's eight municipalities, together with Northern Melbourne RDA Committee, La Trobe University and NORTH Link, have come together to consider the current and future infrastructure challenges that are created by this rapid growth. The result of this collaborative work is the Northern Horizons – 50 Year Infrastructure Strategy for Melbourne's North report.

The report demonstrates the importance of taking a regional approach to the future infrastructure needs of Melbourne's North, to ensure that this region of Melbourne continues to make a significant economic and social contribution to the City of Melbourne and to the State of Victoria.

The Northern Horizons project is the most comprehensive regional analysis of all aspects of infrastructure covering Melbourne's eight northern municipalities looking outwards over the next 50 years.

The report was prepared by Arup, an independent Australian firm of designers, planners, engineers, consultants and technical specialists, and was commissioned and funded by NORTH Link, Northern Melbourne RDA Committee (including funding from Federal Department of Infrastructure and Regional Development), La Trobe University; and the eight municipalities of Banyule, Darebin, Hume, Mitchell, Moreland; Nillumbik, Yarra and Whittlesea.

The report provides a comprehensive assessment of the degree of provision and access to infrastructure within the Melbourne metropolitan area

While separately and independently prepared, Northern Horizons aligns in a number of ways with the Victorian Government's recently released draft of Plan Melbourne in terms of infrastructure priorities over the short, medium and long term. In addition, the study presents information that will inform, support and build on the strategic direction and initiatives identified in Plan Melbourne.

Based on current and future population projections, transport flows and land use planning, the modelling confirms a significant shortfall of infrastructure in the growth areas of Melbourne's North; specifically the LGAs of Whittlesea, Hume, Mitchell, and to a lesser extent the existing inner and middle ring areas of Melbourne's North.

It clearly identifies Melbourne North's need for enhanced infrastructure and improved access, particularly in relation to road infrastructure, social infrastructure (health / aged care facilities), gas and industrial zoned land.

Using this analysis, the report identifies priority projects for Melbourne's North - short, medium and long term.

The commitment and support of all eight of Melbourne North's municipalities to this project has made this report a reality. They have provided the drive, co-operation and creative input necessary to make a detailed report such as this possible. Their assistance and support to Arup to help them prepare the report is greatly appreciated. In particular the efforts of the Project Steering Group, chaired by Peter Brown CEO of Moreland and representing the eight municipalities, is gratefully acknowledged.

Seven of the eight LGAs have also provided letters of endorsement for the report. Some endorsements are qualified in relation to the timing of projects; the preferred location of a North – East link and the building of the East – West tunnel. The responses of the eight LGAs are provided in an Appendix to this report.

On behalf of all of the organisations who commissioned this report, we are pleased to make this report available and look forward to urgent and immediate action on the infrastructure priorities it identifies for Melbourne's North that are critical to driving productivity, growth and liveability for the Melbourne and Victorian economies.

Chris Heysen
Chair
NORTH Link

Bob McQuillen
Chair
Northern Melbourne RDA Committee

John Dewar
Vice-Chancellor
La Trobe University

Opportunities and challenges in Melbourne's North

Melbourne's North is currently home to just under a million residents. By 2050, it is projected the eight local government areas of the North will be home to 1.6 million people.

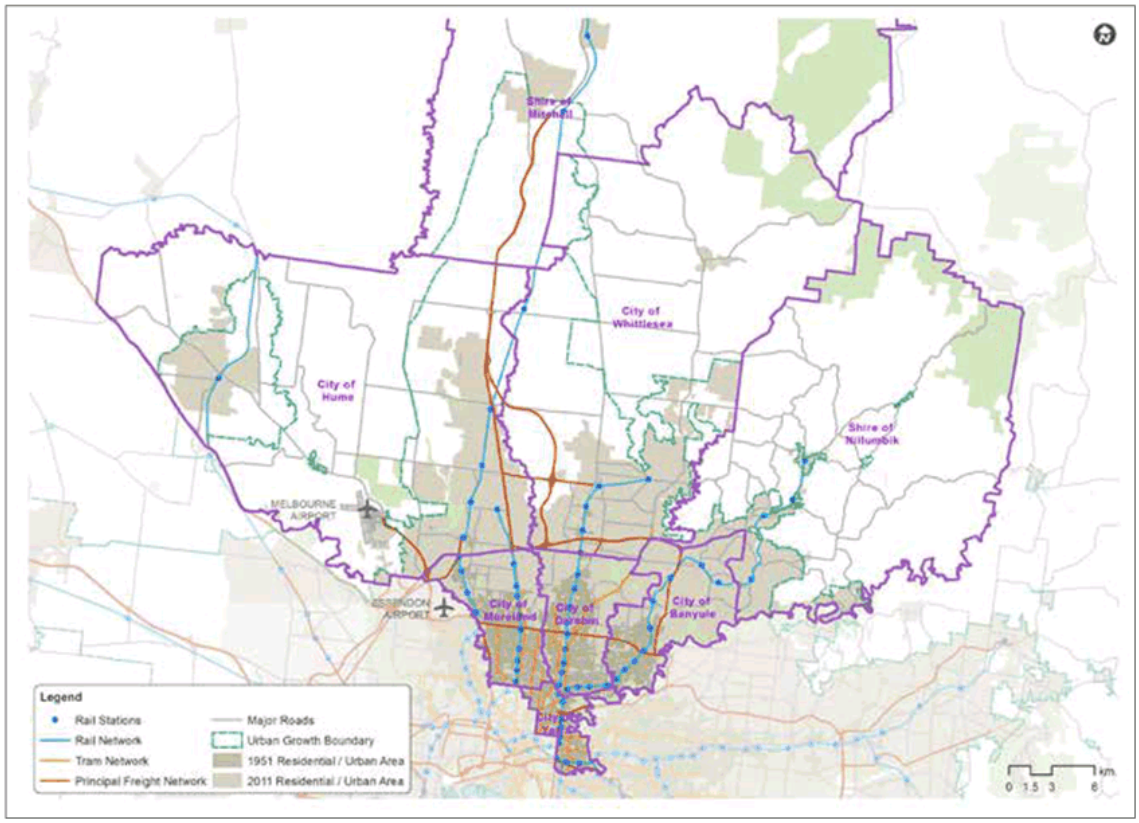


Figure 1 Northern Melbourne Metropolitan Region

The Northern economy is in the midst of an evolution from a traditional manufacturing base to one centred on high value knowledge manufacturing and health services. In 2013, this shift was exemplified by Ford Motor Company's announcement of the closure of its Broadmeadows manufacturing plant. At the same time, La Trobe University and RMIT University are hosting the Australian Government's new Food Industry Innovation Precinct in Bundoora and are identified in Plan Melbourne as integral to an emerging National Employment Cluster.

As its population and economy changes between now and 2050, the North's ability to improve its liveability and productivity depends critically on the infrastructure investment made today.

The *Northern Horizons – 50 Year Infrastructure Strategy for Melbourne's North* represents a comprehensive evidence based investigation consisting of two parts:

- A Report Card that defines the current level of infrastructure provision in Melbourne's North, and
- Future Directions for the short, medium and long term priorities for infrastructure in the region.

The challenges of infrastructure provision have had recent attention and are well known. These include:

- the lag between needs identification and actual infrastructure provision, particularly roads and public transport but also social and physical infrastructure,
- pressures on outer suburban infrastructure from sustained population growth,
- the lack of employment hubs in outer suburban Melbourne compared to the CBD and inner suburbs and the relatively dispersed nature of outer suburban employment,
- the mismatch between social capital (such as skills and training) and the employment needs of outer suburban Melbourne,
- increased spatial and socioeconomic polarisation between inner Melbourne and outer suburban Melbourne, and
- the need to find alternative funding sources to finance the construction and maintenance of urban infrastructure.

By 'infrastructure' we do not just refer to the hard infrastructure, like roads and transport, but also the other things that need to happen — the services, the learning and the jobs.

Domenic Isola, CEO, City of Hume, Parliament of Victoria: 2013


State of Infrastructure
A Report Card for the North
The provision, access to and performance of infrastructure in Melbourne's North reflects an amalgam of 150 years of historical decisions. This Report Card sources the most accurate and available data to quantify the provision of social, transport, utility, economic and environmental infrastructure to enable a comparison by municipality within Melbourne's North, to other Melbourne metropolitan regions and against regulated service levels and accepted Victorian, national and international benchmarks.

Transport infrastructure

Compared to the other Melbourne regions, the North is well served within the inner municipalities by rail, trams, cycling infrastructure and has excellent airport access. The Report Card highlights the unmistakable divide between good public transport access in the inner North and poor access and services in the outer North.

Road congestion is relatively severe, Northern roads have the slowest travel speeds in the morning and evening peak periods compared to other Melbourne regions, as well as the longest delays in travel time. Investing in public transport as well as road 'pinch points' is necessary to alleviate road congestion and improve the social, economic and environmental outcomes related to accessibility.

Transport

Excellent	Airports
Good	Road condition, Passenger rail, Tram network, Bus network, Cycling, Walking
Unsatisfactory	Community transport
Poor	Road congestion

Social infrastructure

The North faces challenges in providing social infrastructure at both the child and aged ends of the population demographic. Aged care services are fundamental to supporting healthy and socially stable communities. There is currently a significant shortfall in the provision of aged care places, with a notable gap in Yarra.

While there is current primary school capacity, the rate of growth in the outer areas of Melbourne's North necessitates that more than 20 additional primary schools will be needed over the next eight years. There is already a gap in childcare and pre-schools.

The distribution of general practitioner, allied health and dental facilities is poor in regional and outer metropolitan areas, particularly in Nillumbik, Hume and Whittlesea.

As the populations grow in the outer North, there will be a growing need for regional scale facilities such as justice courts and a new hospital.

Social

Excellent	Primary schools, Emergency services
Good	Tertiary institutions, Hospitals, Dental practices, Places of worship, Public open space for recreation, Libraries
Unsatisfactory	Kindergartens and pre-schools, Childcare, Secondary schools, Arts and culture, Sports facilities, Cemeteries, General practitioners, Allied health, Courts
Poor	Aged care, Hospital emergency departments, Community centres

Utilities infrastructure

Of the utilities, gas infrastructure is the most pressing. Gas supplies in the North are interrupted more than in other Melbourne regions as well as limited gas connectivity across the outer North where it is not deemed a commercial proposition. There is also a backlog of essential sewerage infrastructure in Nillumbik's rural areas.

There is currently an unsatisfactory level of landfill space remaining for solid inert waste. Pressure on landfill space may increase as population driven housing construction leads to increased volumes of inert construction waste.

The North lags the other regions in wastewater recycling. Distribution of solar installations across the region is uneven, with the regional average driven up largely by higher uptake in Whittlesea, Hume and Mitchell. The other municipalities fall well short of the Melbourne average.

The rollout of the National Broadband network is relatively slow in Yarra, Mitchell, Nillumbik and compared to other local governments in Victoria.

Utilities

Excellent	
Good	Sewer performance, Putrescible waste landfill capacity
Unsatisfactory	Potable water network, Electricity network, Broadband internet, Solid inert waste landfill capacity, Renewable energy, Recycled water
Poor	Gas

Environment infrastructure

The North is well served by open space, park lands and protected areas, which is likely to offer positive environmental and social benefits. Nillumbik and Banyule are particularly well served.

The environmental assets of the North are a strength of the region, which should be expanded on. The Northern Region Trails Strategy provides a roadmap towards connecting walking and cycling infrastructure and opportunities for collaborative promotion of trails and destinations.

Funding has already been allocated for some projects within this strategy, such as the $18 million investment announced in December of 2012 for the Darebin Creek Bike Trail.

Environmental

Excellent	Parks, gardens and conservation areas
Good	Open space
Unsatisfactory	
Poor	

Economic infrastructure

The North is leading the regions in new housing construction, particularly in Whittlesea, Yarra and Mitchell.

In the North, rental affordability is moderate in comparison to other regions. However, this is poorly distributed, with affordable properties in the outer areas (Mitchell Shire and Nillumbik) and poor affordability in Yarra, Moreland, Darebin and Banyule. Rental and mortgage stress are both particularly high in Hume and Whittlesea.

There is a particular lack of economically productive land in Nillumbik and Banyule. New employment areas planned for Hume and Whittlesea should improve employment access over the coming decades.

Economic

Excellent	
Good	New housing, Commercial land, Activity centres and Places of State Significance
Unsatisfactory	Housing affordability, Industrial zoned land
Poor	

50 Year Plan

Future directions for Melbourne's North

The study identifies the priority projects and programs to address current and future infrastructure gaps to ensure the North's long term liveability and productivity and build on the Region's competitive strengths.

The process of prioritising future infrastructure projects and programs for Melbourne's North involved the identification, through consultation and document review, of over 300 potential transport, social, utility, environmental and economic projects and programs. These were independently prioritised on the basis of the current and future need the project or program will address and the associated triple bottom line benefits.

Connectivity is a particular challenge for the North. Road congestion is severe in comparison to other regions of Melbourne and increasing public transport demand is placing pressure on the existing mass transit systems. This challenge is reflected in the list of priority projects and programs, with an emphasis on those within the transport sector.

Immediate priorities Today to 2021

Twenty projects and programs are prioritised to immediately address the shortfalls in current infrastructure provision and accelerate the transformation of Melbourne's North. These projects cover the full range of critical infrastructure for a vibrant and productive city.

Program of grade separations

Victoria's rail and road network is constrained by more than 170 at-grade rail crossings. This program is to develop critical mass through a rolling and sequenced pipeline of grade separations in the short term. The benefits of a rolling program include:

- Building up industry capacity by providing certainty on timing of projects,
- Economies of scale and cost efficiencies,
- Implementation and refinement of delivery models, including the testing of innovative value capture funding mechanisms,
- Rejuvenation of middle ring activity centres, which reduces travel demand and pressure on transport infrastructure, and
- Rapid realisation of road and rail network efficiencies, which are not possible through isolated improvements.

Grade separation priorities in the North include:

- Bell Street and Munro Street, Coburg on the Upfield Line (as one project),
- Bell Street, Cramer St and Murray Road, Preston on the South Morang Line (as one project),
- Camp Road, Campbellfield on the Upfield Line,
- High St, Reservoir Junction on the South Morang Line,
- Keon Parade, Keon Park on the South Morang Line,
- Grange Road, Fairfield on the Hurstbridge Line; and
- Glenroy Road, Glenroy on the Craigieburn Line.

Coordinated bus network

The North needs a comprehensive bus network that has:

- Minimum frequency of 3 buses per hour between 6am and 9pm weekdays,
- Minimum frequency of 2 buses per hour on weekends, and
- Routes that are accessible within 400 m of all residences.

Most of the network will involve buses running on the road as part of normal road traffic and in some cases with bus priority. This is achievable on most east-west routes. Bus Rapid Transit (BRT) should be introduced on key corridors or where sufficient road space and/or service reliability is otherwise not achievable. Specific projects within this program (in order of priority) are:

- SmartBus Route 901 extension to Melbourne Airport and Sunbury,
- Heidelberg (Austin Hospital) – La Trobe University – Bundoora RMIT – Mernda Bus Rapid Transit,
- Coburg Station – Reservoir Station – La Trobe University – Macleod Station Bus Rapid Transit,
- Dedicated SmartBus lanes and priority on Bell Street,
- Nillumbik – public bus network in rural areas,
- South Morang – Mernda Bus Rapid Transit (in advance of possible heavy rail conversion),
- Aitken Boulevard Bus Rapid Transit (Craigieburn – Broadmeadows), and
- Aurora Bus Rapid Transit (Epping – Craigieburn).

All arterial road widening projects should be planned with Bus Rapid Transit facilities in mind, including new developments at Merrifield and Lockerbie. Orbital east-west bus routes should facilitate access to radial north-south rail and tram connections.


ONDITIONED
CB60
ELTHAM 582
PANORAMA
CUSTOM
3035 AO

Accelerated National Broadband Network rollout

The North lags behind the South and the West in terms of the rate of the National Broadband Network (NBN) rollout. This is particularly the case for Yarra, Mitchell, Nillumbik. The accelerated rollout of the NBN in the North would benefit a range of sectors due to:

- North-based manufacturing industries in the region looking to move to enhance their global competitiveness,
- The knowledge economy strengths of the North built on the cluster of universities and health facilities, and
- High rates of growth and new housing development.

La Trobe, Austin and RMIT knowledge cluster

The potential of the La Trobe, Austin and RMIT knowledge cluster is recognised within Plan Melbourne where it identifies the emerging La Trobe National Employment Cluster as currently providing 25,700 jobs and having strengths in education, research, health and retail.

Maximising the agglomeration benefits of the La Trobe University / Austin Hospital / RMIT cluster will support long term economic productivity. La Trobe University alone could generate 12,000 jobs in the next 20 years. Measures to promote agglomeration benefits include:

- Jointly funding of research and sharing of resources to identify barriers to investment and strategies to promote investment and economic growth in small to medium enterprises which have a strategic alignment with the knowledge industry,
- Identifying priority uses of land to attract investment in knowledge industries,
- Coordinating appropriate planning scheme amendments, and
- Enhancing accessibility and transport connectivity between institutions.

New aged care facilities

Aged care services are fundamental to supporting healthy and socially stable communities. There is currently a significant shortfall in the provision of aged care places in the North. By 2021, unless addressed this gap will expand and the North will require 1435 additional high care places and 1265 additional low care places, with greatest need in Hume and Whittlesea.

Improving tram operations

Efficient tram services benefit not only tram users, but also alleviates road congestion. In addition to the current upgrade projects for Route 86 and 96, the north-south routes in the inner North region require improvements in service frequency, reliability and journey times. Priority upgrades include Sydney Road and Victoria Street.

Tram operations should take advantage of the reduction in east-west traffic priority on Alexandra Parade and Bell Streets once the East-West Link is established. Particular focus should be on:

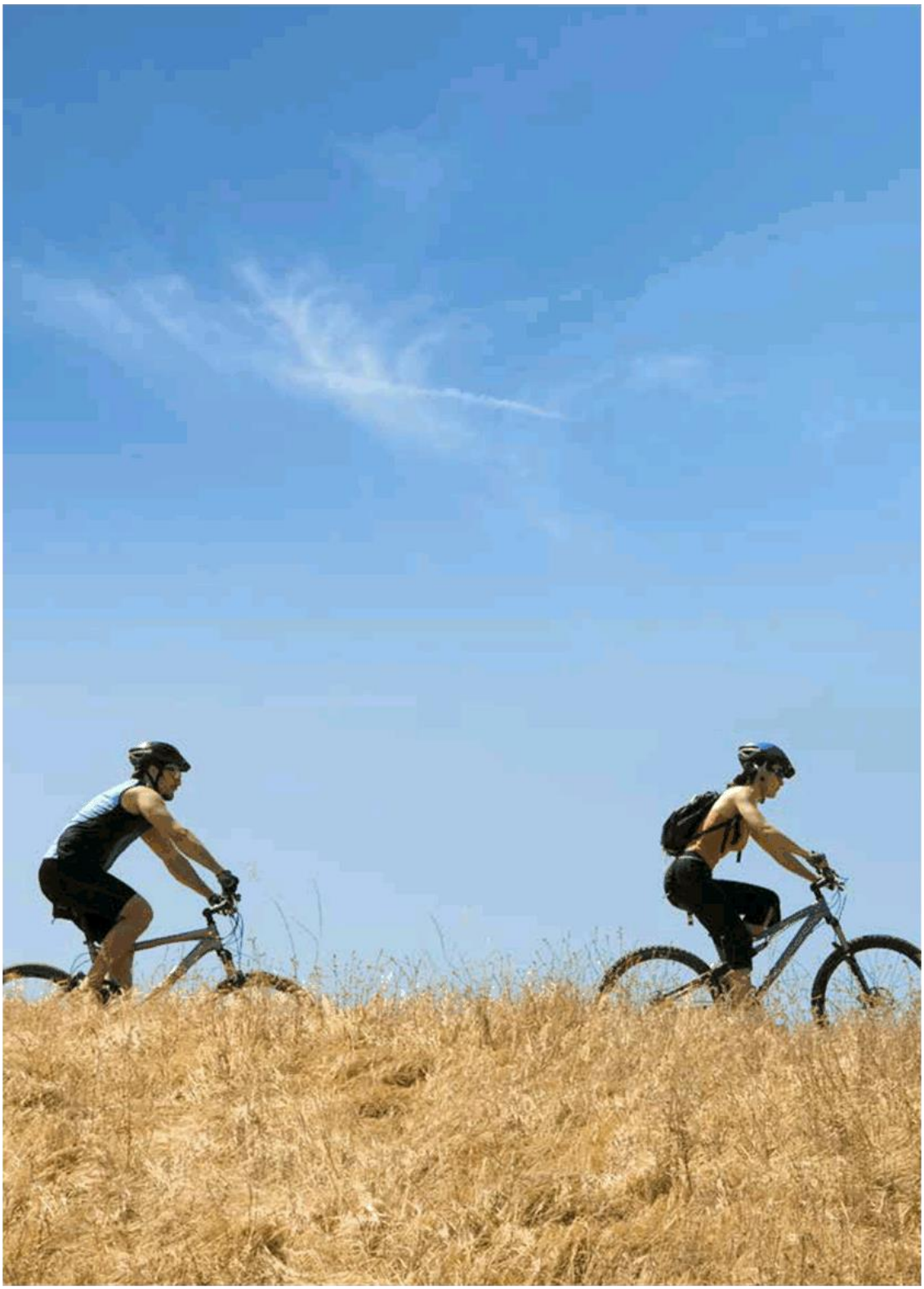
- Segregation of trams from traffic to improve journey time and reliability,
- Priority measures through intersections,
- Improved stops to provide level access, customer safety and information, and
- Increased numbers of low-floor trams for accessibility.

Implementing the Northern Regional Trails Strategy

The Northern Region Trails Strategy provides a comprehensive roadmap towards improving connectivity for walking and cycling infrastructure in the North. Active transport infrastructure supports access to jobs and services, community health and mode shift away from vehicle dependency. Key aspects of implementing the strategy include:

- Identifying regional priorities and coordinated development particularly of gaps in the existing network,
- Developing common facility standards for trail hierarchy, design, construction and signage, and
- Collaborative promotion of trails and destinations.

Funding has been allocated for some projects within this strategy, including the $18 million investment announced in December of 2012 for the Darebin Creek Bike Trail.



Implementing Health Precincts

A significant gap exists in basic health care services including general practitioners, allied health and dental services. This program seeks to develop an implementation plan for health precincts, which builds on lessons learned from current models.

Health precincts encompass all aspects of preventative and community-based health, allied health services, as well as the acute services. In bringing services together at one location, all aspects of access to the precinct must be considered – transport, digital, affordable and culturally appropriate access. Critical to the success of the precincts will be identifying the role of public, private and philanthropic agencies in meeting health infrastructure requirements.

Public Transport Victoria Network Development Plan – Metropolitan Rail Stage 2

High quality rail services benefit not only rail users, but also alleviate road congestion. Stage 2 of the Network Development Plan – Metropolitan Rail (Public Transport Victoria: 2012) provides the foundation for rail services in Melbourne's North. The following projects are immediate priorities:

- Melbourne Metro, which will enable increased service frequencies on the Sunbury (from 13 to 17 trains per hour), Craigieburn (from 11 to 16 trains per hour), and Upfield lines (from 4 to 6 trains per hour), and
- Clifton Hill Group Upgrade, which will enable increased service frequencies on the South Morang (from 8 to 11 trains per hour) and Hurstbridge Lines (from 9 to 11 trains per hour).

Effective bicycle network

To provide a holistic approach to ensuring cycling is a truly viable form of transport in the North an effective bicycle network needs to ensure:

- All town centres having continuous bicycle lanes, with safe and secure parking facilities,
- A principal bicycle network connecting town centres,
- A recreational bicycle network that provides segregated and safe cycling facilities, and
- Segregated bicycle lanes on new arterial roads.

Bicycle network improvements should also include new trails in major growth areas, such as Sunbury and the Hume Corridor.

Improving local routes in the North-East

This program focuses on upgrading of existing connections north of the M80 Ring Road and east of the Hume Freeway. In order of priority, key projects are:

- O'Herns Road – Epping Road to Hume Highway (widening to 4-6 lanes) including freeway interchange,
- Edgars Road extension Cooper St to O'Herns Road,
- Plenty Road – McKimmies Road to Bridge Inn Road (widening to 4-6 lanes),
- Epping Road – Memorial Drive to Craigieburn Road (widening to 4-6 lanes),
- Diamond Creek Road – Improvements between M80 and Diamond Creek,
- Yan Yean Road – Diamond Creek Road to Bridge Inn Road (widening to 4-6 lanes), and
- Scanlon Drive – construction of a 2 lane highway Cooper St to Craigieburn Road.

Improving the Tullamarine Freeway and Sunbury Road corridor

The Tullamarine Freeway between the M80 Ring Road and Melbourne Airport should be widened to 6 lanes. This takes advantage of the access improvements currently being developed at Melbourne Airport.

Sunbury Road should be duplicated between Bulla Road and Melbourne Airport, including a bypass of Bulla Road. This will improve connectivity between Sunbury and the Airport and relieve Bulla Road from heavy congestion.

Improving Yarra River crossings

Improvements to the following Yarra River crossings are priorities to alleviate current bottlenecks:

- Chandler Highway – Improvements comprise the duplication of the crossing and grade separation of Grange Road and the Hurstbridge rail line. This crossing facilitates the major Amcor Site development in Alphington.
- Fitzsimmons Lane – Improvements involve widening the bridge to 6 lanes, and local access road improvements to Main Road and Bolton Street.

1,500 new hospital beds in existing health facilities

There will be a shortfall of 1,500 new hospital beds as the population of the outer North grows. In the immediate term, this requires major expansion of the Northern Hospital, part of which is already occurring and the development of 24 hour services in established health clinics to relieve pressure from emergency departments.

Improving local routes in the North-West region

Key north-south connections north of the M80 Ring Road and west of the Hume Freeway require upgrade. In order of priority, these upgrades are:

Mickleham Road – Somerton Road to Mount Ridley Road (widening to 4-6 lanes), and

Aitken Boulevard – Somerton Road to Mount Ridley Road (widening to 4-6 lanes).

New childcare and kindergarten facilities

Childcare services and early year education facilities are essential for workforce participation across the community and early childhood development. Population growth will place increased pressure on existing childcare infrastructure, particularly in Whittlesea. By 2021, the North will need 61 new childcares and 55 kindergartens.

An even distribution of these new facilities will reduce pressures on inner North childcares and to a lesser extent kindergartens, which currently service local residents as well as commuters who drop off children on route to central Melbourne.

New primary schools

In the immediate term population growth will create a gap in the provision of primary schools. By 2021, 21 new schools will be needed in Whittlesea and Mitchell. The North will need to ensure that State Government invests in additional public schools before the gap emerges.

Although the location of schools will depend upon land availability, new schools should be distributed through the growth areas, which are experiencing increasingly poor access to existing facilities.

Increase utilisation of Somerton Freight Terminal

The existing Somerton Freight Terminal is a key link in the Metropolitan Intermodal Strategy. The facility is currently underutilised and represents an opportunity to increase freight capacity in the North. The Somerton Freight Terminal will support growth of Northern economic hubs particularly for warehousing and distribution centres in the Northern Industrial Precinct, as identified in Plan Melbourne, which spans parts of Broadmeadows, Campbellfield, Coolaroo, Craigieburn, Epping, Lalor, Mickleham and Somerton.

In the long term and after completion of the Outer Metropolitan Ring Road/E6, the Beveridge Interstate Freight Terminal will be developed as the primary intermodal facility to service the North. In the meantime, strategic improvements and promotion of the Somerton Freight Terminal is an opportunity to realise near term economic and connectivity benefits.

New community centres

The Report Card highlighted shortfalls in the provision of community centres. This gap exists throughout the North from inner to outer regions. Community centres are a vital part of the social infrastructure that encourage people to establish ties and build social capital for support in times of difficulty.

By 2021, the combination of the current lack of community centres and population growth means that the North will require 56 new community centres across the Region.

Increased car parking at selected stations

Sufficient and designated car parking at train stations can assist in alleviating North – South car journeys during the AM and PM peak, increase the attractiveness of travelling by train and reduce parking pressure on the surrounding road network.

There is potential for increased parking at selected stations in middle and outer ring suburbs along the South Morang, Hurstbridge, Craigieburn, Upfield and Sunbury electrified lines and the VLine service to Wallan and Kilmore East. The rapid up take of parking at the recently completed South Morang Station highlights the latent demand for this infrastructure.

To provide commuters with transport options this project must be integrated with the proposed short term priority project, 'Coordinated bus network' to provide a holistic solution.

Medium term priorities 2022 to 2033

Fourteen projects and programs are prioritised to future proof the North for population growth, enhance productivity and build on the short term infrastructure improvements.

Many of the projects prioritised for the medium term will require planning in the short term to ensure successful delivery. The reservation of land prior to detailed design and construction during the short term will be important to ensure the optimal location of these developments.

Public Transport Victoria Network Development Plan – Metropolitan Rail Stage 3

High quality rail services benefit not only rail users, but also alleviate road congestion. Stage 3 of the Network Development Plan will provide much needed capacity on Northern rail lines. In order of priority, the projects are:

- Clifton Hill to CBD capacity – Whether or not the Doncaster Rail Link is in place, more capacity is required on the Clifton Hill Group (South Morang and Hurstbridge Lines) between Clifton Hill and the CBD. This may be achieved via a tunnel between Clifton Hill, Parkville, Flagstaff and Southern Cross,
- Somerton to Upfield link, which enables Seymour regional services to divert via the Upfield Line and allow 18 trains per hour on the Craigieburn Line,
- Doncaster Rail Link, which is a new rail line to Doncaster using the Eastern Freeway alignment and the existing rail network from Clifton Hill, and
- Melbourne Airport Rail Link, as a new fast access link supporting the rapidly growing corridor between Melbourne Airport and the city.

In addition, there should be consideration for new stations to meet new demand in the growing areas of Sunbury South, Donnybrook, and Lockerbie.

New E6 freeway – Hume Freeway to the Metropolitan Ring Road

The new six lane E6 freeway will link the existing E6 reservation at Findon Road (Epping) to the M80 Ring Road at Thomastown. It would continue north to connect to the Hume Freeway, south of Wallan. Connections to the E6 would be made at Donnybrook Road, Epping Road, Masons Lane, Bridge Inn Road, Lehmanns Road, Findon Road and Childs Road.

The E6 will improve access to the proposed Beveridge Interstate Freight Terminal (Donnybrook) to the south and east regions of Victoria.

Traffic modelling indicates that the E6 freeway is likely to be the most effective means of reducing the need to widen the Hume Freeway and forestalling the requirement for significant arterial road development. If open by 2031, the E6 is forecast to carry 7,000-8,000 vehicles in one direction during a 2 hour peak period.

Extending the tram network

Three tram extension projects have been prioritised for the medium term:

- Route 112 to Reservoir Station, along Gilbert Road and Edwardes Street – This could involve upgrading the Bus Rapid Transit route between Coburg and Macleod Stations, which is proposed as a short term priority.
- Route 72 to Ivanhoe Station, along Burke Road and Lower Heidelberg Road – This provides significant cross-city connectivity, linking the Belgrave/Lilydale/ Alamein, Glen Waverley, Cranbourne/Pakenham and Hurstbridge rail lines (and potentially the Doncaster rail line).
- Route 86 to South Morang Station, along Plenty Road – This would provide an alternative to driving on Plenty Road, and connect to Westfield Plenty Valley. The project could involve upgrading the Bus Rapid Transit route between South Morang and Mernda, which is proposed as a short term priority.

Additional new aged care facilities

The combined effect of an aging population, population growth, and increased life expectancy means that there will be further demand for aged care places in the North. By 2031, the North will require 1510 additional high care places and 1690 additional low care places, with greatest need in Hume and Whittlesea.

Upgrading the bus network

Building on the coordinated bus network program proposed in the short term period, the medium term bus program focuses on improving service frequency and reliability. Key principles include:

- Minimum frequency of 4 buses per hour between 6am and 9pm weekdays, and
- Minimum frequency of 3 buses per hour on weekends.

Where on-road running is no longer viable (due to increased demand for road space for private vehicles), segregated solutions and bus priority should be sought.

Where segregated alignments have already been provided, upgrade to light rail should be considered if patronage and infrastructure is sufficient.

Specific projects within this program (in order of priority) are:

- Mickleham Road Bus Rapid Transit – Broadmeadows – Wallan – Epping, and
- Craigieburn Road Bus Rapid Transit (Doreen – Craigieburn).

Improving local arterial road network in the inner North

This program focuses on upgrading existing arterial routes in the inner North. On the assumption East-West Link is operational by 2031, the projects in order of priority are:

- Spring St/High St/Epping Road – Bell Street to Mahoneys Road (widening to 6 lanes),
- Bell Street – duplication Sydney Road to Tullamarine Freeway,
- Bell Street – Chifley Drive to Oriel Road (widening to 6 lanes), and
- Bell Street – Waterdale Road to Burgundy Street (widening to 8 lanes).

Improving local routes in the outer North

This program focuses on upgrading of existing key connections north of the M80 Ring Road. In order of priority, these projects are:

- Somerton Road – Hume Freeway to Hume Highway (widening to 6 lanes),
- Childs Road – Edgars Road to E6 (widening to 4 lanes),
- Johnstone Street – Mickleham Road to Aitken Boulevard (widening to 4 lanes),
- Cooper Street – Hume Highway to Edgars Road (widening to 4-6 lanes),
- Craigieburn Road – Aitken Boulevard to E6 (widening to 4-6 lanes),
- Southern Link and Jackson's Hill Link, Sunbury (widening to 2 lanes),
- Findon Road – Epping Road to Plenty Road (widening to 4-6 lanes), and
- McDonalds Road –Epping Road to Plenty Road (widening to 4 lanes).

Developing road network for new developments in the outer North

This program comprises new arterial road construction and widening to support new developments in the outer region. These projects should be part of an integrated transport strategy for the Merrifield and Lockerbie developments. Key corridors are (in order of priority):

- Mickleham Road – north of Craigieburn Road,
- Bridge Inn Road – Epping Road to Yan Yean Road,
- Epping Road – north of Craigieburn Road,
- Aitken Boulevard – north of Craigieburn Road,
- Donnybrook Road – west of Hume Freeway, and
- Upgrade of the Hume Freeway through to Kalkallo.

Additional new childcare facilities

Childcare services are essential for workforce participation across the community, and early childhood development. Continued growth in 2022-2031 will place pressure on existing childcare facilities, particularly in Whittlesea, Hume and Mitchell. By 2031, the North will need 33 new childcares, in addition to those proposed in the short term period.

Additional new primary and secondary schools

During 2022-2031, population growth will create a gap in the provision of primary and secondary schools in some Northern growth regions, particularly Hume, Whittlesea and Mitchell. In the medium term, 16 new public primary schools and 7 public secondary schools will be needed, in addition to those proposed in the short term period.

700 additional hospital beds and new hospital in the outer North

In addition to the hospital bed shortfall identified for the short term, an additional 700 beds are required by 2033. At the same time, to provide access in the growing populations, a new hospital in the outer North is required. Potential locations include the Lockerbie and Merrifield developments.

Protecting the Upfield line and land corridor to integrate a potential future east coast High Speed Rail

The Federal Department of Transport and Infrastructure report High Speed Rail Phase 2 identifies a preferred corridor for a high speed train from Sydney along the existing heavy rail freight line, connecting to the Upfield Corridor at Roxburgh Park and then in tunnel from south of Gowrie into Southern Cross.

The preferred alignment represents a significant tunnel structure into the city and a further detailed assessment is required in relation to the interaction between the proposed High Speed Rail, the existing freight corridor, the Upfield line and the need for over 20 grade separations along this line. To protect this corridor from future development it is proposed that a planning overlay be put in place, similar to the corridor reservation for the Melbourne Airport rail line to provide protection against incompatible future development.

New North East Link – Greensborough to Eastern Freeway

The North East Link will be a new connection between the M80 Ring Road at Greensborough and the Eastern Freeway. It will be an important future link for freight movement, both within and through Melbourne, and for access to employment. The new Link will improve access between the proposed Beveridge Interstate Rail Terminal and industrial areas in Ringwood and Dandenong and between the Melbourne Wholesale Fruit Vegetable & Flower Market and the productive food areas of the South East of Victoria.

Tunnelling will be required to protect existing urban areas and to minimise environmental impacts on the Banyule Flats, Yarra River and other places of significance, such as the Heide Museum of Modern Art.

Traffic modelling suggests that the North-East Link will remove significant numbers of vehicles off congested north-south links in the inner north, such as Plenty Road and Spring St/St Georges Road. The new Link will also relieve existing Yarra River crossings. It may also shift east-west cross regional movements via the Metropolitan Ring Road rather than the East-West Link.

By 2031, the North East Link is forecast to carry 10,000 vehicles in both directions during a 2 hour peak period.

Additional new community centres

Community centres are a vital part of the social infrastructure that encourages people to establish ties for support in times of difficulty. In addition to the new community centres proposed for the short term, by 2031 population growth will give rise to the need for 13 new community centres. The demand is distributed throughout the north, with particular need in Whittlesea.

Long term infrastructure priorities – 2034 to 2063

Three projects and programs are prioritised as long term priorities for the North. Delivery of these major projects requires proactive planning in the short to medium term to ensure sufficient land reserves and associated infrastructure are available.

New Outer Metropolitan Ring freeway

The Outer Metropolitan Ring Road will include a high-speed transport link for people and freight in Melbourne's North and West. This creates the flexibility for new road and rail transport links through the Werribee, Melton, Tullamarine and Craigieburn / Mickleham areas and is a fundamental part of the Integrated Economic Triangle concept outlined in Plan Melbourne.

The freeway standard road could be up to four lanes in each direction, with four railway tracks in the median for interstate freight and high-speed passenger trains between Werribee and Kalkallo. Ultimately, the freeway could be widened to a six-lane freeway.

Once complete, the project will:

- create better connections to key international transport hubs such as Melbourne Airport, Avalon Airport and the Port of Geelong,
- improve access to the proposed Beveridge Interstate Freight Terminal (Donnybrook),
- serve as an important travel and freight route to interstate and regional destinations,
- link residential and employment growth areas in the north and west of Melbourne, and
- improve access in this major employment corridor, which includes Avalon Airport, Werribee, Melton, Melbourne Airport, Mickleham and Donnybrook.

Beveridge Interstate Freight Terminal

This project involves establishing a major intermodal freight terminal on 80 hectares at Beveridge. The new freight terminal is part of the State Government's plans in Victoria The Freight State and Plan Melbourne to enable more efficient goods movement via intermodal terminals.

The Beveridge Terminal will receive interstate domestic freight for distribution to Melbourne, thus diverting traffic that currently passes through the metropolitan area to Dynon. In the long term, the terminal will be a major component of the Stage 2 Melbourne Freight Transport Network servicing the Port of Melbourne as well as other metropolitan freight distribution requirements.

Public Transport Victoria Network Development Plan – Metropolitan Rail Stage 4

High quality rail services benefit not only rail users, but also alleviate road congestion. Stage 4 of the Network Development Plan will provide the following improvements in North (in order of priority):

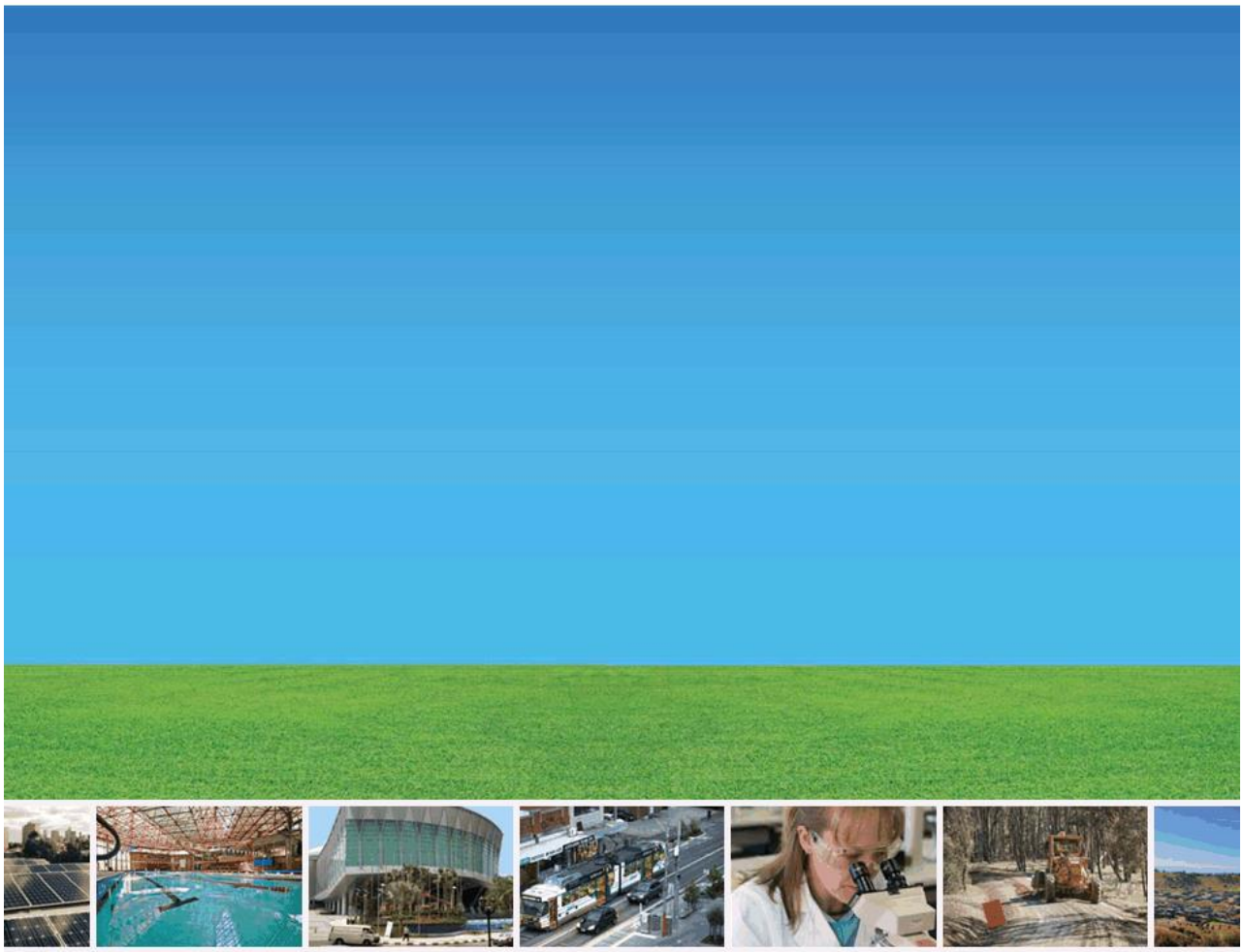
- Reconfiguration and upgrade of the City Loop to separate the Craigieburn and Upfield Lines, which enables a doubling of capacity on the Upfield Line to 12 trains per hour,
- Electrification of the rail line to Wallan to bring metro services to new developments in the outer north region, and
- Extension of South Morang Line to Mernda, which could be undertaken as an upgrade to an existing Bus Rapid Transit or Light Rail service when patronage is sufficient to justify the investment in heavy rail.

Conclusion

This seminal report draws on a comprehensive base of evidence to identify infrastructure priorities that are not only of regional significance, but also State and National benefit.

The diverse stakeholders of Melbourne's North have come together to shape this study. We have a shared interest in ensuring the long term sustainability, liveability and productivity of the Region. It is now clear which infrastructure projects have the greatest potential to support our common objectives.

Melbourne's North is delighted to present the results and looks forward to working together on the implementation of the recommendations.



9. CONSIDERATION OF RESPONSES TO PETITIONS, NOTICES OF MOTION AND GENERAL BUSINESS

Nil

10. NOTICES OF MOTION

10.1 BUDGET SUBMISSION TO EXTEND TRAM ROUTE 11

Councillor: **Gaetano GRECO**

NoM No.: 338

Take notice that at the Council Meeting to be held on 2 October 2017, it is my intention to move:

That *Council:*

(1) Prepares a comprehensive budget submission in time for the next state government budget process on extending Tram Route 11.

(2) Endorse the submission prior to it being presented to the State government.

Notice Received:	**19 September 2017**
Notice Given to Councillors	**25 September 2017**
Date of Meeting:	**2 October 2017**

11. REPORTS OF STANDING COMMITTEES

11.1 HEARING OF SUBMISSIONS COMMITTEE

The Hearing of Submissions Committee is an Special Committee appointed, pursuant to section 86 of the *Local Government Act 1989* (the Act), appointed by Council to hear and report to Council on submission received by Council in accordance with section 223 of the Act.

A meeting of the Hearing of Submissions Committee was held on 15 June 2017. The minutes of the meeting, have been circulated to Councillors and are available to the public.

Recommendation

That the minutes of the Hearing of Submissions Committee meeting held on 15 June 2017 be confirmed as a correct record of business transacted.

Related Documents

- Hearing of Submissions Committee minutes – 15 June 2017

Attachments

Nil

12. RECORDS OF ASSEMBLIES OF COUNCILLORS

12.1 ASSEMBLIES OF COUNCILLORS HELD

An Assembly of Councillors is defined in section 3 of the *Local Government Act 1989* (the Act) to include Advisory Committees of Council if at least one Councillor is present or, a planned or scheduled meeting attended by at least half of the Councillors and one Council Officer that considers matters intended or likely to be the subject of a Council decision.

Written records of Assemblies of Councillors must be kept and include the names of all Councillors and members of Council staff attending, the matters considered, any conflict of interest disclosures made by a Councillor attending, and whether a Councillor who has disclosed a conflict of interest leaves the assembly.

Pursuant to section 80A (2) of the Act, these records must be, as soon as practicable, reported at an ordinary meeting of the Council and incorporated in the minutes of that meeting.

An Assembly of Councillors record was kept for:

- 13 September 2017

Recommendation

That the record of the Assembly of Councillors held on 13 September 2017 and attached as **Appendix A** to this report, be noted and incorporated in the minutes of this meeting.

Related Documents

- *Local Government Act 1989*

Attachments

- Assembly of Councillors - 2 October 2017 (**Appendix A**) ⇩

ASSEMBLY OF COUNCILLORS PUBLIC RECORD

ASSEMBLY DETAILS:	**Title:**	Councillors Briefing Session
	Date:	Wednesday 13 September 2017
	Location:	Conference Room, Darebin Civic Centre
PRESENT:	**Councillors:**	Cr. Kim Le Cerf (Mayor), Cr. Gaetano Greco (Deputy Mayor), Cr. Susan Rennie, Cr. Susanne Newton (from 5.07pm), Cr. Steph Amir (from 5.07pm), Cr. Lina Messina (from 6.12pm).
	Council Staff:	Oliver Vido, Katrina Knox, Jacinta Stevens, Andrew McLeod, Libby Hynes (from 6.12pm). Shadi Hanna, Robyn Mitchell (5.05pm-6.12pm), Chris Meulblok (6.18pm).
	Other:	Melinda Leth, Cameron Bird - Ernst and Young – 5.05pm-6.12pm.
APOLOGIES:		Cr. Tim Laurence (Approved Leave of Absence), Cr. Trent McCarthy, Cr. Julie Williams.

The Assembly commenced at 5.05pm

	MATTERS CONSIDERED	DISCLOSURES AND COMMENTS
1	Aged Care Reforms	No disclosures were made. Cr. Messina declared a direct interest due to her employment status within the aged care industry.
2	Governance Local Law Review	No disclosures were made.
3	Review of Sale of Minor Council Property Assets Policy	No disclosures were made.
4	Waste and Litter Strategy Action Plan 2017-2020	No disclosures were made.
5	Illegal Brothels and Genocide – General Discussion	No disclosures were made.
6	Confidential – Councillor Only Briefing	No disclosures were made.
7	Proposed Sale of Council Property – 2 Dole Avenue Reservoir	No disclosures were made.
8	Outstanding Council Resolutions – As at 31 August 2017	No disclosures were made.

The Assembly concluded at 7.00pm

RECORD COMPLETED BY:	**Officer Name:**	Katrina Knox
	Officer Title:	Director Community Development

13. REPORTS BY MAYOR AND COUNCILLORS

Recommendation

That Council note the Reports by Mayor and Councillors.

14. CONSIDERATION OF REPORTS CONSIDERED CONFIDENTIAL

The Chief Executive Officer, pursuant to section 77(2)(c) of the *Local Government Act 1989* (the Act), has designated the following items to be confidential:

14.1 Refurbishment and Extension to WH Robinson Reserve Pavillion (CT201781)

This item is designated confidential because it is a contractual matter pursuant to section 89(2)(d) of the Act.

CLOSE OF MEETING

Recommendation

That in accordance with section 89(2) of the *Local Government Act 1989*, Council resolves to close the meeting to members of the public to consider the items designated confidential by the Chief Executive Officer.

RE-OPENING OF MEETING

Recommendation

That the meeting be re-opened to the members of the public.

15. CLOSE OF MEETING