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Legislative Council
Economy and Infrastructure Committee

**Third report into
infrastructure projects**

Parliament of Victoria
Economy and Infrastructure Committee

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Committee functions

The Economy and Infrastructure Standing Committee is established under the Legislative Council Standing Orders Chapter 23 – Council Committees and Sessional Orders.

The committee's functions are to inquire into and report on any proposal, matter or thing concerned with agriculture, commerce, infrastructure, industry, major projects, public sector finances, transport and education.

The Economy and Infrastructure Committee (References) may inquire into, hold public hearings, consider and report on other matters that are relevant to its functions.

The Economy and Infrastructure Committee (Legislation) may inquire into, hold public hearings, consider and report on any Bills or draft Bills referred by the Legislative Council, annual reports, estimates of expenditure or other documents laid before the Legislative Council in accordance with an Act, provided these are relevant to its functions.

Government Departments allocated for oversight:

- Department of Economic Development, Jobs, Transport and Resources
- Department of Education and Training
- Department of Treasury and Finance

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This report is available on the Committee's website.

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Terms of reference

Inquiry into infrastructure projects

On 27 May 2015 the Legislative Council agreed to the following motion:

That the Economy and Infrastructure Committee inquire into, consider and report, at least once every six months, on public sector infrastructure and public works projects, including current and past infrastructure projects and proposals and, in particular —

- (a) projects relating to the removal of railway level crossings;
- (b) the Western Distributor;
- (c) the Melbourne Metro Rail Project;
- (d) the sale/lease of Port of Melbourne; and
- (e) Melbourne Airport Rail Link;

and any other public sector infrastructure or public works projects the Committee determines appropriate.

On 25 October the Legislative Council agreed to the following motion:

That the Resolution of the Council of 27 May 2015 requiring the Economy and Infrastructure Standing Committee to inquire into Infrastructure Projects, and report every six months in June and December, be amended so as to now require the Committee to present reports every six months in April and October.

Chair's foreword

The Victorian Parliament's Economy and Infrastructure Committee has now presented three reports on Infrastructure projects in Victoria as part of our ongoing scrutiny process of this important area.

Billions of dollars of taxpayer funds are spent on infrastructure development in Victoria and I am pleased that we have been able to look into how this funding is allocated and the efficiencies or otherwise of processes that bring projects to fruition. We need to ensure that no money is wasted in this process.

I remain concerned that the processes that lead to infrastructure projects being built in Victoria are not being properly scrutinised. The Economy and Infrastructure Committee, at the time of tabling this report, is also inquiring into three other subjects. We have gathered as much evidence as we can to make our judgements on projects but our capacity for scrutiny is limited by our lack of resources.

I am also concerned that there is enough transparency in the way information is presented to the communities that are most affected by projects. In some cases gathering information has been difficult for the Committee let alone for residents that are affected by new builds in their area.

We looked at the level crossings removal program, Melbourne metro rail, and the Western Distributor project. For this report we also chose to look at health infrastructure, another important area of concern that we must get right for the sake of the wellbeing of our communities.

Evidence obtained through a series of public hearings and requests for further material is outlined in the report.

The hearings enabled the Committee to gain an understanding of the current status of the projects. I thank all those who appeared before the Committee to provide advice.

I hope that this report goes some way to providing valuable extra information and transparency for this major area of government spending.

I commend this Report to the House.



Bernie Finn MLC
Chair

Recommendations

General Recommendations

RECOMMENDATION 1: That the government ensure transparency of processes for major projects, including timely availability of key information such as Environmental Effects Statements.

RECOMMENDATION 2: That the government ensure that timely and genuine guidance is provided to communities affected by infrastructure projects.

RECOMMENDATION 3: That the government engage with opportunities presented by major projects to develop environmental performance solutions that will contribute to population health and to cost savings.

Chapter 12 Recommendation

RECOMMENDATION 4: That the Government undertake further investigation into the creation and implementation of a unified electronic medical record in Victoria, including considering cost-benefit arguments and international practice examples.

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1.1 Scope of the inquiry

This is the third report to be produced by the Economy and Infrastructure Committee as part of an ongoing inquiry into infrastructure projects in Victoria.

The terms of reference for the Committee's Inquiry into Infrastructure Projects call for the Committee:

... to inquire into, consider and report, at least once every six months, on public sector infrastructure and public works projects, including current and past infrastructure projects and proposals and, in particular –

- (a) projects relating to the removal of railway level crossings;
- (b) the Western Distributor;
- (c) the Melbourne Metro Rail Project;
- (d) the sale/lease of Port of Melbourne; and
- (e) Melbourne Airport Rail Link;

and any other public sector infrastructure or public works projects the Committee determines appropriate.

For Report Three the Committee decided to examine health infrastructure projects, an area of significant expenditure and importance to the community, that the Committee has not looked at before.

The report does not look at the Port of Melbourne or the Airport Rail Link projects, given the lack of current work on these. But the Committee notes that the Airport Rail Link has again been the subject of discussion in the media.

For the next report the Committee may look at another area of expenditure on infrastructure such as education or rural and regional infrastructure development. The Committee will also look into the operation of Projects Victoria which has not been vocal since a Board was established in September 2016. The Committee will look at whether the office has been established and how effective it has been if so.

1.2 Inquiry process

The Economy and Infrastructure Committee began this Inquiry with the goal of better understanding how infrastructure development process work in Victoria. The Committee has not received submissions for this inquiry but has conducted a number of public hearings to gather relevant information and to engage with those leading the peak infrastructure bodies.

The report highlights the efforts that are being undertaken to fulfil Victoria's infrastructure needs. The Committee thanks all those who provided information advice for the report. A number of senior executives responsible for health sector projects appeared before the Committee and provided further information. The Committee thanks them for assisting us to chart new territory.

In the preparation of this report, the Committee held public hearings and heard evidence from a number of witnesses:

- Mr James Pinder, Chief Executive Officer, VLine
- Mr Jeroen Weimar, Chief Executive Officer, Public Transport Victoria
- Allan Myers AC QC, Peter MacCallum Cancer Centre
- Professor Lester Peters, Peter MacCallum Cancer Centre
- Mr Scott Charlton, Chief Executive Officer, Transurban.
- Kevin Devlin, Chief Executive Officer, Level Crossing Removal Authority
- Professor Ian Meredith AM, Director, MonashHeart
- Andrew Stripp, Chief Executive Officer, Monash Health
- Professor Andrew Way, Chief Executive Officer, Alfred Health
- David Martine, Secretary, Department of Treasury and Finance
- David Webster, Deputy Secretary, Commercial Division, Department of Treasury and Finance
- Michel Masson, Chief Executive Officer, Infrastructure Victoria
- Adele McCarthy, Director, Strategy, Infrastructure Victoria
- Peter Gleeson, Director Projects and Planning, Metro Trains Melbourne
- Mr John Merritt, Chief Executive, VicRoads
- Mr Robert Vaughan, Metro Trains Melbourne
- Adam Fennessy, Secretary, Department of Environment Land Water and Planning
- Julian Lyngcoln, Acting Deputy Secretary, Planning, Department of Environment Land Water and Planning
- John Mulder, Chief Executive Officer, Bendigo Health
- Peter Faulkner, Executive Director, Bendigo Hospital Project and Chief Nursing and Midwifery Officer
- Michelle Morrison, Chief Executive Office, Exemplar Health
- Pip Carew, Assistant Secretary, Australian Nursing and Midwifery Federation (Victoria Branch)
- Libby Muir, CPS and Environment Health Officer, Australian Nursing and Midwifery Federation (Victoria Branch)
- Frances Mirabelli, Chief Executive Officer, Australian Medical Association Victoria

- Roderick McRae, Chairman of Council, Australian Medical Association Victoria
- Associate Professor Alex Cockram, Chief Executive Officer, Western Health
- Leanne Price, Director, Infrastructure Planning and Delivery, Department of Health and Human Services
- Lance Wallace, Deputy Secretary Corporate Services, Department of Health and Human Services
- Professor Jim Bishop AO, Executive Director, Victorian Comprehensive Cancer Centre
- Paul Crowe, Executive Director, Head of Origination, Plenary Health Group
- Glenn Hay, Chief Operating Officer, Plenary Health Group

Transcripts from the hearings are available on the Committee's website (www.parliament.vic.gov.au/eic).

The Committee also thanks the staff of the Parliamentary library for assisting with provision of important statistics and other information for the report and for making that information available to members.

1.3 The report

This report is divided into two parts. Part A includes chapters on transport infrastructure projects. Part B looks at a number of health projects currently underway in Victoria.

All chapters include:

- Background information about the specified projects and their intended benefits
- An update on progress since Reports 1 and 2
- Future work and timelines
- Issues raised by key organisations in public hearings.

1.4 Part A: Transport infrastructure

In Part A of the report Chapter 2 looks at the Level Crossings Removal Program including the Caulfield to Dandenong elevated rail project. The Committee discusses the extensive delay in availability of documents on the project. The Committee notes that Environmental Effects Statements have now been released but that cost benefit analysis documents for the project have not been provided. The Committee also noted the continuing absence of an overall business case for this project.

Chapter 3 looks at the Western Distributor project and outlines concerns relating to Community consultation truck curfews and traffic modelling. Transparency of information about this project, and in particular changes in the latest drafts which appear to have led to a laneway onto the West Gate Bridge being lost to a toll road are issues of significant concern. The Committee hopes to report further on these in the next report.

In Chapter 4 the Melbourne Metro Rail Project is discussed. The Committee highlights concerns relating to St Kilda Road, noise levels, resident relocation, the impact on nearby hospitals, the city square and other locations of significance. The Chapter also discusses cost reimbursement, opportunities for affordable housing and the cut and cover approach.

Chapter 5 looks at the disruptions to V/Line services that occurred in early 2016 as a result of a number of infrastructure problems. Specifically it looks at heat related disruptions, punctuality and reliability concerns, and the Murray Basin rail project. The chapter looks at both the causes of the problems and the measures put in place to deal with them.

1.5 Part B: Health infrastructure

For its third report for the Inquiry into Infrastructure Projects the Committee decided to focus on health related infrastructure projects in Victoria. This is in addition to reporting on the five projects outlined in Part A.

According to the Department of Health and Human Services (DHHS) Victoria's health infrastructure includes "some of the most highly used assets that we have in the state system" covering "about 3.3 million square metres of floor space".¹

They are 24-hour-a-day, 7-day-a-week, high-intensity usage. The major components of the health infrastructure are the health services, hospital buildings, but also residential aged care, community health centres and some ambulance assets involved there."²

The replacement cost of Victoria's health infrastructure assets is estimated to be about \$21 billion.³ The current estimate for health infrastructure projects, either in planning or underway, is \$3 billion.⁴

1 Lance Wallace - Deputy Secretary Corporate Services Department of Health and Human Services, *Transcript - 20 September 2016*, pp. 12-3.

2 Ibid.

3 Ibid.

4 Ibid.

Major challenges facing Victoria's health system and, by extension, health related infrastructure includes:⁵

- Demand pressures from population growth and an ageing population, particularly in regional areas;⁶
- More complex conditions due to population living longer;
- Changes to models of care from overnight stays to same-day treatment;
- Technological upgrades providing alternatives for clinical practice, including in-home options; and
- Asset configuration and condition, including ageing facilities with different models of care and design features that are no longer suited to modern requirements.

Consistent evidence to the Committee on this topic throughout the inquiry advised that metropolitan Victoria has been experiencing strong population growth along three major corridors (south-east, north and west) and that infrastructure investment in the health sector has not been keeping pace.⁷

...there are abundant requirements for the bricks and mortar, as you have spoken about, and we know that there is some investment going there, but it is just lagging behind the community requirement.⁸

Health infrastructure funding is primarily provided nationally through an agreement across all states on a per-procedure basis, which does not include a capital cost component.⁹ The vast majority of infrastructure funding, therefore, is through bidding to the state government as part of state budget processes. While some health services will have donation revenue or other funding avenues to contribute to capital funding and while the federal government may make direct capital contributions to health infrastructure projects, the majority of the funding comes through the state budget process.¹⁰

DHHS is currently coordinating a design and planning process for the whole health sector, engaging with key stakeholders and outlining capital priorities for health infrastructure to support budget planning for the next 20 years, with an initial five-year focus.¹¹

5 Ibid.; Roderick McRae - Chairman of Council Australian Medical Association Victoria, *Transcript - 18 October 2016*, p. 56; Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 2.

6 In evidence to the Committee, DHHS estimated "significant demand" running at "3 per cent or more per annum" Lance Wallace - Deputy Secretary Corporate Services Department of Health and Human Services, *Transcript - 20 September 2016*, pp. 12-3; "We could be talking about outside of the Geelong, Ballarat, Bendigo resources — the old bush nursing homes — whether or not they are adequately resourced in order to let local-type people have a normal gestational experience." Roderick McRae - Chairman of Council Australian Medical Association Victoria, *Transcript - 18 October 2016*, p. 56.

7 Ibid.

8 Ibid.

9 Lance Wallace - Deputy Secretary Corporate Services Department of Health and Human Services, *Transcript - 20 September 2016*, pp. 12-3.

10 Ibid.

11 Ibid.

In evidence to the Committee Mr Lance Wallace, Deputy Secretary Corporate Services at DHHS, advised that there are long lead-times in major capital developments and, therefore, there needs to be a constant flow of projects going into the pipeline to enable services to meet current and future demands.¹²

Chapter 6 of the report looks at the Bendigo Health Hospital project. The Committee discusses concerns related to asbestos removal and fire hazards; staffing and jobs; IT Infrastructure; environmental design; power outages and backup mechanisms; parking; commercial and retail spaces and the possibility of flammable cladding

Chapter 7 focusses on the Monash Children's Hospital. Community consultation and the emergency department were raised as issues.

Chapter 8 is about the Victorian Comprehensive Cancer Centre. Issues raised by the community include the 13th Floor; empty Space; staff training and attracting talent to new jobs; research collaboration; the impact of withdrawal of funding for a private hospital; maintenance; environmental sustainability; open space facilities and parking.

Chapter 9 looks at the Victorian Heart Hospital, including consideration of a walk-in emergency department, co-location or centralised hub-and-spoke service delivery designs, attracting and retaining staff, and the possibility of medical tourism.

Chapter 10 looks at the Joan Kirner Women's and Children's Hospital.

Chapter 11 notes a number of other important infrastructure projects:

- Footscray Hospital
- Maroondah Breast Cancer Centre
- Broadmeadows Surgery Centre
- Casey Hospital Expansion
- Goulburn Valley Hospital
- Moorabbin Hospital
- National Proton Beam Therapy Centre
- Northern Hospital
- Sunshine Hospital

Chapter 12 outlines a number of general concerns relating to infrastructure projects in the health sector:

- Job creation
- Environmental design
- Community Consultation

12 Ibid.

- Project timelines and budget constraints
- IT upgrades, including EMR projects
- Mental health services
- Future-proofing and future demand
- Negotiations
- Professional development, staff training and research infrastructure
- Federal funding
- Construction in Victoria

1.6 Recommendations

The report makes a small number of general recommendations for the Government's consideration. These recommendations reflect the key issues identified throughout the inquiry process, supplemented by the Committee's own research.

The recommendations focus on transparency, community consultation, environmental sustainability and a statewide medical records system.

Part A

Transport Infrastructure

2

Level Crossing Removal Program

Cost	Expected Completion Date	Current Status	Next Phase
\$5.0-6.0 billion ^(a)	2022 ^(b)	4 Complete 18 Currently Underway	37 expected to be complete or underway by 2018 Remaining 30 to be complete by 2022

- (a) Level Crossing Removal Authority, 'About the Project', viewed 20 March 2017, <levelcrossings.vic.gov.au/about>.
(b) A full list of all 50 level crossings listed under the project and their status as at the time of writing can be found in Appendix B.

Source: Department of Treasury and Finance, *Budget Paper No. 3: Service Delivery, 2015-16*, p.41.

2.1 Project overview and background

The Level Crossing Removal Program plans to remove 50 level crossings across Melbourne. The program is estimated to cost \$5.0-6.0 billion.¹³ Other works are to be conducted alongside level crossing removals, including rebuilding stations, modifying stations, power upgrades and signalling upgrades.

The Victorian Government established the Level Crossing Removal Authority (LXRA) in 2015 to manage the program. Crossing removals are being divided into 'packages', which are being contracted to various private sector consortia through alliance contracts.¹⁴

The Government believes that the Level Crossings Removal Program will:¹⁵

- deliver safety improvements for drivers and pedestrians;
- improve travel around Melbourne;
- stimulate economic growth by creating jobs during construction;
- benefit local communities; and
- enable trains to run more often and on time.

¹³ Department of Treasury and Finance, *Budget Paper No. 3: Service Delivery, 2015-16*, p.41.

¹⁴ Level Crossing Removal Authority, 'About the Project', viewed 20 March 2017, <levelcrossings.vic.gov.au/about>.

¹⁵ Level Crossing Removal Authority, "About the Project" <levelcrossings.vic.gov.au/about>, accessed 20 March 2017.

At the time of writing this report, four crossings have been removed, and 18 more removal projects are underway. Contracts have been signed for the removal of a further 26 crossings.¹⁶ The Level Crossing Removal Authority (LXRA) aims to complete all crossings by 2022,¹⁷ with 37 to be complete or underway by 2018.¹⁸

A particular area of interest within this program is the Caulfield to Dandenong project. The purpose of this project is to:

- remove all level crossings between Dandenong and the CBD;
- rebuild five stations;
- upgrade signalling and power; and
- lengthen 30 platforms to accommodate high-capacity trains.¹⁹

The LXRA has indicated that this will increase capacity on the line by 42 per cent.²⁰ An alliance including Lendlease, CPB Contractors, WSP Parsons Brinckerhoff, Aurecon and Metro Trains Melbourne has been established to undertake the project.

In February 2016, the Government announced plans to complete these removals through three sections of elevated track.²¹ The decision to conduct the Caulfield to Dandenong project removals using an elevated track solution has generated community concern, which the Committee has closely monitored in their reporting on this project.

Preliminary site preparation began in April 2016 and construction commenced in August 2016.²² The final design for the elevated rail section was released in January 2017.²³ Work is expected to be completed by late 2018.²⁴ The project is estimated to cost \$1.6 billion.²⁵ It would be useful to see a budget breakdown of these costs that specified costs for the Environmental Effects Statement (EES) process, and costs for tender, design and consulting processes.

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- 16 See Appendix B for a full list of level crossing sites and contracts awarded as at the time of writing.
- 17 Level Crossing Removal Authority, 'About the Project', viewed 20 March 2017, <levelcrossings.vic.gov.au/about>.
- 18 Kevin Devlin - CEO Level Crossing Removal Authority, *Transcript - 26 October 2016*, p. 29; Hon. Jacinta Allan MP - Deputy Premier and Minister for Public Transport, '37 Level Crossing Removals Complete or Underway By 2018 (media release)', <www.premier.vic.gov.au/37-level-crossing-removals-complete-or-underway-by-2018>.
- 19 Hon. Daniel Andrews MP - Premier; Hon. Jacinta Allan MP - Minister for Public Transport, 'No More Level Crossings Between Dandenong and The City (media release)', viewed 21 March 2017, <www.premier.vic.gov.au/no-more-level-crossings-between-dandenong-and-the-city>.
- 20 Level Crossing Removal Authority, 'Factsheet: Understanding Rail Noise and Vibration', viewed 12 April 2017, <levelcrossings.vic.gov.au/media-library/publications/caulfield-to-dandenong-publications/fact-sheets/understanding-rail-noise-and-vibration>.
- 21 Level Crossing Removal Authority, 'Caulfield to Dandenong Project', viewed 22 March 2017, <levelcrossings.vic.gov.au/crossings/caulfield-to-dandenong>.
- 22 Level Crossing Removal Authority, 'Caulfield to Dandenong Community Update - Feb/March 2017', viewed 21 March 2017, <levelcrossings.vic.gov.au/media-library/publications/caulfield-to-dandenong-publications/project-wide-community-updates/caulfield-to-dandenong-community-update-feb-2017>.
- 23 Level Crossing Removal Authority, 'Caulfield to Dandenong Level Crossing Removal Project Design', viewed 22 March 2017, <levelcrossings.vic.gov.au/crossings/caulfield-to-dandenong/project-design>.
- 24 Hon. Daniel Andrews MP - Premier; Hon. Jacinta Allan MP - Minister for Public Transport, 'No More Level Crossings Between Dandenong and The City (media release)', viewed 21 March 2017, <www.premier.vic.gov.au/no-more-level-crossings-between-dandenong-and-the-city>.
- 25 Ibid.

A full list of all 50 level crossings listed under the project and their status as at the time of writing is at Appendix 4.

Figure 2.1 Level Crossing Removal Project Map²⁶



2

2.2 Progress since June 2016

At the time of the Committee’s last report in June 2016, the Government had awarded contracts for 20 level crossing removal sites, costed at \$2.3 billion out of a total budget allocation of \$2.928 billion for the Level Crossing Removal Project.²⁷

Since June 2016, four level crossing projects have been completed and construction work is underway on a further 15, including on five of the crossings in the Caulfield to Dandenong package.²⁸

²⁶ Level Crossing Removal Authority, <levelcrossings.vic.gov.au/___data/assets/pdf_file/0020/17912/LXRA-50-Map_WEB.pdf>, accessed 21 March 2017.

²⁷ Kevin Devlin - CEO Level Crossing Removal Authority, *Transcript - 26 October 2016*. p. 29.

²⁸ Ibid.

Construction on the Caulfield to Dandenong project sites commenced in August 2016²⁹ and has included short-term line closures and closure of Carnegie Station between February and March 2017. The community consultation processes included 'customer journey surveys', an Open Space Ideas Hub, and the establishment of a Community Open Space Expert Panel planning the open space created by the elevated rail proposal and three Stakeholder Liaison Groups.³⁰

The LXRA have released design options for the level crossing sites on the Frankston line and three further level crossings have been added to the Frankston package to bring the total to 11. The LXRA has also determined that an Environmental Effects Statement is relevant for the Bonbeach and Edithvale sites due to possible impacts on nearby Ramsar wetlands.³¹

In September 2016 the Government announced a call for expressions of interest for two new packages of level crossing removals, including the North-Western Package which will include:

- Camp Road in Campbellfield;
- Buckley Street in Essendon;
- Glenroy Road in Glenroy;
- Bell Street in Coburg;
- Moreland Road in Brunswick;
- Abbots Road in Dandenong South;
- Aviation Road in Laverton;
- Ferguson Street in Williamstown; and
- Cherry and Werribee Streets in Werribee.³²

Construction work on this project is due to start in 2017 and be complete by 2019.³³ Kevin Devlin of the LXRA provided evidence to the Committee that the LXRA is currently assessing these expressions of interest and conducting early planning and engineering assessments for these sites.³⁴

29 Level Crossing Removal Authority, 'Caulfield to Dandenong Community Update - October 2016', viewed 22 March 2017, <levelcrossings.vic.gov.au/media-library/publications/caulfield-to-dandenong-publications/project-wide-community-updates/caulfield-to-dandenong-community-update-october-2016>.

30 Level Crossing Removal Authority, 'Caulfield to Dandenong Community Update - July 2016', viewed 22 March 2017, <levelcrossings.vic.gov.au/media-library/publications/caulfield-to-dandenong-publications/project-wide-community-updates/caulfield-to-dandenong-community-update-july-2016>; Level Crossing Removal Authority, 'Caulfield to Dandenong Community Update - October 2016', viewed 22 March 2017, <levelcrossings.vic.gov.au/media-library/publications/caulfield-to-dandenong-publications/project-wide-community-updates/caulfield-to-dandenong-community-update-october-2016>; Level Crossing Removal Authority, 'Caulfield to Dandenong Community Update - Feb/March 2017', viewed 21 March 2017, <levelcrossings.vic.gov.au/media-library/publications/caulfield-to-dandenong-publications/project-wide-community-updates/caulfield-to-dandenong-community-update-feb-2017>.

31 Kevin Devlin - CEO Level Crossing Removal Authority, *Transcript - 26 October 2016*, p. 29; Hon. Jacinta Allan MP - Minister for Public Transport, 'Three More Dangerous Frankston Line Level Crossings To Go (media release)', viewed 22 March 2017, <www.premier.vic.gov.au/three-more-dangerous-frankston-line-level-crossings-to-go>.

32 Hon. Jacinta Allan MP - Deputy Premier and Minister for Public Transport, '37 Level Crossing Removals Complete or Underway By 2018 (media release)', <www.premier.vic.gov.au/37-level-crossing-removals-complete-or-underway-by-2018>.

33 Ibid.

34 Kevin Devlin - CEO Level Crossing Removal Authority, *Transcript - 26 October 2016*, pp. 37-8.

Kevin Devlin also advised the Committee that they are conducting assessments for other specific sites around the state such as: “Manchester Road, Mooroolbark; Maroondah Highway; Hallam Road; Clyde Road; South Gippsland Highway; and Toorak Road in Kooyong.”³⁵

In March 2017 the Government announced the removal of three level crossings and a station overhaul for Carrum.³⁶

Other infrastructure projects related to the Level Crossings Removal Program, such as the Mernda rail extension and the Hurstbridge line upgrade project have also moved forward. John Holland has been contracted to construct the Mernda Rail Extension Project with construction anticipated to begin across the three sites in mid 2017.³⁷ Laing O’Rourke, Fulton Hogan and Jacobs have been announced as the construction partners for the Hurstbridge upgrade project and construction commenced in March 2017.³⁸

The majority of the level crossing removal projects³⁹ are being facilitated through planning scheme amendments approved by the Minister for Planning rather than an EES process under the *Environmental Effects Act 1978*.⁴⁰

The following sections outline which level crossing projects are complete, underway or yet to commence at the time of writing. Where possible the Committee has noted the future expected timelines for each of these projects.⁴¹

³⁵ Ibid. p. 29.

³⁶ Hon. Jacinta Allan MP - Minister for Public Transport, ‘Labor Government Reveals Major Revitalisation Of Carrum (media release)’, viewed 22 March 2017, <www.premier.vic.gov.au/labor-government-reveals-major-revitalisation-of-carrum>.

³⁷ Level Crossing Removal Authority, ‘Mernda Rail Extension Project’, viewed 21 March 2017, <levelcrossings.vic.gov.au/rail-projects/merndarail>.

³⁸ Kevin Devlin - CEO Level Crossing Removal Authority, *Transcript - 26 October 2016*. p. 29; Level Crossing Removal Authority, ‘Hurstbridge Rail Line Upgrade’, viewed 22 March 2017, <levelcrossings.vic.gov.au/rail-projects/hurstbridge-rail-line-upgrade>; Hon. Jacinta Allan MP - Minister for Public Transport, ‘Construction Begins On Massive Hurstbridge Line Upgrade (media release)’, viewed 22 March 2017, <www.premier.vic.gov.au/construction-begins-on-massive-hurstbridge-line-upgrade>.

³⁹ A notable exception being the Frankston level crossing removals mentioned above.

⁴⁰ Julian Lyngcoln - Acting Deputy Secretary Planning, *Transcript - 18 October 2016*. p. 13

⁴¹ This information was sourced and adapted from the individual level crossing update websites available on the Level Crossing Removal Authority’s website: levelcrossings.vic.gov.au/crossings.

2.2.1 Level Crossing removal works yet to commence (30)

Kororoit Creek Road, Williamstown North (In tender, due to commence early 2017)	Clyde Road, Berwick (Early planning underway)
Glenroy Rd, Glenroy	Hallam Road, Hallan (Early planning underway)
Buckley Street, Essendon (In tender, due to commence late 2017)	South Gippsland Highway, Dandenong (early planning underway)
Abbots Road, Dandenong south (In tender, due to commence early 2018)	Bell Street, Preston (In tender)
Balcombe Road, Mentone (Consultation & detailed planning underway)	High Street, Reservoir (In tender)
Charman Road Cheltenham (Consultation & detailed planning underway)	Bell Street, Coburg (In tender)
Edithvale Road, Edithvale (Consultation & detailed planning underway)	Camp Road, Campbellfield (In tender, due to commence late 2017)
Eel Race Road, Carrum (Consultation & detailed planning underway)	Moreland Road, Brunswick (In tender)
Seaford Road, Seaford (Consultation & detailed planning underway)	Aviation Road, Laverton (In tender)
Skye/Overton Road, Frankston (Consultation & detailed planning underway)	Cherry Street, Werribee (In tender)
Station Street, Carrum (Consultation & detailed planning underway)	Werribee Street, Werribee (In tender)
Station Street/Bondi Road, Bonbeach (Consultation & detailed planning underway)	Ferguson Street, Williamstown (Yet to commence)
Toorak Road, Kooyong (Early planning underway)	Grange Road, Alphington (In tender)
Manchester Road, Mooroolbark (Early planning underway)	Lower Plenty Road, Rosanna (In tender)
Maroondah Highway, Lilydale (Early planning underway)	Camp Road, Campbellfield (In tender)

2.2.2 Level Crossing removal works currently underway (18)

Centre Road, Clayton (Due mid-2018)	Poath Road, Hughesdale (Due mid-2018)
Chandler Road, Noble Park (Due mid-2018)	Thompsons Road, Lyndhurst (Due late 2018)
Clayton Road, Clayton (Due mid-2018)	Mountain Highway, Bayswater (Due April 2017)
Corrigan Road, Noble Park (Due mid-2018)	Scoresby Road, Bayswater (Due April 2017)
Grange Road, Carnegie (Due mid-2018)	Blackburn Road, Blackburn (Due mid-2017)
Heatherton Road, Noble Park (Due mid-2018)	Heatherdale Road, Mitcham (Due mid-2017)
Koornang Road, Noble Park (Due mid-2018)	Furlong Road, St Albans (Due May 2017)
Koornang Road, Carnegie (Due mid-2018)	Main Road, St Albans (Due May 2017)
Murrumbeena Road, Murrumbeena (Due mid-2018)	Melton Highway, Sydenham (Due late-2018)

2.2.3 Level Crossing removal works completed (4)

Burke Road, Glen Iris (Completed mid-2016)	Centre Road, Bentleigh (Completed late 2016)
North Road, Ormond (Completed late 2016)	McKinnon Road, McKinnon (Completed late 2016)

2.3 Future work and timelines

Based on the current information available to the Committee, the following level crossing projects currently underway or yet to begin are expected to be commenced and completed along the timeline cited below up to 2018.

The Committee intends to stay abreast of these timelines and continue to report on them as construction on the level crossing removal projects moves forward, tenders are awarded, and further construction timelines released.

Table 2.1 Future work and timelines to 2018⁴²

Time period	Level Crossing Location	Status
Early 2017	Kororoit Creek Road, Williamstown North	Due to commence
April 2017	Mountain Highway, Bayswater	Due to complete
	Scoresby Road, Bayswater	Due to complete
May 2017	Furlong Road, St Albans	Due to complete
	Main Road, St Albans	Due to complete
Mid-2017	Blackburn Road, Blackburn	Due to complete
	Heatherdale Road, Mitcham	Due to complete
End of 2017	Buckley Street, Essendon	Due to commence
Mid-2018	Abbots Road, Dandenong South	Due to commence
	Centre Road, Clayton	Due to complete
	Chandler Road, Noble Park	Due to complete
	Clayton Road, Clayton	Due to complete
	Corrigan Road, Noble Park	Due to complete
	Koornang Road, Noble Park	Due to complete
	Koornang Road, Carnegie	Due to complete
	Murrumbeena Road, Murrumbeena	Due to complete
	Poath Road, Hughesdale	Due to complete
	End of 2018	Thompsons Road, Lyndhurst
Melton Highway, Sydenham		

⁴² Adapted from Level Crossing Removal Authority individual crossing pages, <levelcrossings.vic.gov.au/crossings>, accessed 21 March 2017.

2.4 Committee comments

2.4.1 Caulfield to Dandenong project

There are still concerns about the Caulfield to Dandenong project, particularly the community consultation process and the lack of publicly available information about certain aspects of the project.

Outstanding documents

The lack of publicly available documents related to the Caulfield to Dandenong elevated rail solution was noted by the Committee. The Committee has requested documents relating to various elements of the Caulfield to Dandenong project, however, the receipt of these documents has been considerably delayed and has required multiple requests by the Committee to the Level Crossing Removal Authority.

The Committee has received air quality and Environmental Effects Statement Criteria self-assessment documents from the LXRA requested during the previous reporting period (see Appendices 7 and 8). A number of documents of interest to the Committee and the community that were requested during this reporting period were outstanding for six months before being provided.

Documentation provided by the Level Crossing Removal Authority relating to the following topics requested by the Committee is available in Appendix 4:

- the environmental management strategy for the elevated rail project;
- details of proposed removal, destruction or lopping of native vegetation/exotic vegetation;
- details of native vegetation offsets;
- site plans for works in heritage overlay and heritage management plan; design statement;
- open space development plan;
- airspace development plans;
- sound mitigation plans and report;
- replanting schedule for Girdwood and Carnegie stations;
- tree retention plan;
- the Glen Eira local heritage considerations report; and
- the tree retention summary report.

Public availability of information in a timely manner in relation to major infrastructure projects such as the Level Crossings Removal Project is essential to ensuring transparency and accountability of these projects.

The Committee also notes that cost-benefit analysis documents for the project have not been provided, despite repeated requests and attempts to follow-up with the LXRA.

EES

There were concerns about the lack of a formal EES process for the Caulfield to Dandenong project.

In evidence to the Committee, Mr Julian Lyngcoln of the Department of Environment, Land, Water and Planning stated:

In the case of the Caulfield–Dandenong rail project that you referred to, and particularly the CD9 level crossing removals as part of that program, the LXRA made an assessment against the criteria and determined that it did not need to refer it to the Minister for Planning, so there was no decision put to the Minister for Planning as part of that process for him to determine whether or not there would be an EES. Subsequent to the LXRA making that determination, it put a request to the Minister for Planning for a planning scheme amendment under the Planning and Environment Act to facilitate the project, and that submission was considered by the minister and he made a decision under the Planning and Environment Act that included an incorporated document that facilitated those works under that project.⁴³

Concerns were raised that the planning scheme amendment pathway allows the project developer to decide whether the project will be subject to an EES and that a lack of a formal EES process circumvents the possibility for adequate community engagement and input on a project.

Mr Lyngcoln argued that the material assessed by the Minister for Planning was sufficient for the project:

In relation to that, the material that the LXRA put to the Minister for Planning in requesting that planning scheme amendment included a whole lot of documentation. Part of that documentation was a report on the consultation activity that it undertook. So the LXRA when it went out publicly with a design solution invited comments and had a whole lot of engagement activity. So there was a report on all that engagement activity that went to the Minister for Planning, and that highlighted a number of concerns that had been raised through that consultation process. Many of those concerns are reflected in conditions that the Minister for Planning placed on the planning scheme amendment — for example, in relation to something like noise, it would have been picked up in the consultation report that the community had raised issues around noise.⁴⁴

Mr Adam Fennessy, Secretary of the Department of Environment, Land, Water and Planning, further elaborated on the planning pathway's suitability for the Caulfield to Dandenong project. Mr Fennessy suggested that in the absence of an EES process there are other options for review that can be taken up, such as through legal avenues:

⁴³ Julian Lyngcoln - Acting Deputy Secretary Planning, *Transcript - 18 October 2016*, pp. 14-5.

⁴⁴ *Ibid.*

Mr FENNESSY —...the EES pathway and the planning scheme amendment, or planning and environment pathway, are used very commonly for projects in Victoria. In fact the Planning and Environment Act pathway is used in the vast majority for planning assessment processes, and that does include that consultation process. Of the level crossings to date, I think it was 18 of them had undergone that pathway of planning scheme amendment. That was often because they were in existing rail corridors, and the environmental impacts were known to the point that that was the appropriate pathway....it really does depend on every particular project....That is a very well known and well tested pathway, and not only does that require the minister to consider the consultation that had been undertaken but it is always subject to legal challenge. In fact, as you are probably aware, it is currently being tested in the courts. Putting on the community lens, there are two very well known and well tested pathways for planning approval, and they are always subject to judicial review. If the community is not happy, or segments of the community, they have got that pathway, and in fact they are using that for this particular project.⁴⁵

He further noted that this is not an abnormal pathway for projects to take and whether they proceed through the EES or planning amendment pathway is dependent on the project:

I have been involved in major projects within government in Victoria for probably about, I think, 12 years, and I have seen lots of different pathways for projects, ranging from EastLink, as it is now known, the Victorian desalination project, lots of major roads projects as well as regional rail link and now these level crossings projects. So we have got a long-term exposure to how these projects are put through different pathways. It really does, as we said before, depend on the scope of the projects and what the best pathway is for those particular impacts.⁴⁶

The LXRA has provided the full project Environmental Effects Statement Criteria self-assessment as requested by the Committee during its work on Report 2 of the Infrastructure Inquiry. These documents can be found in Appendix 8.

2.4.2 Business case

The Committee notes the continued absence of an overall business case for the Level Crossing Removal Program.

The Committee were told that a business case for the program was expected to be completed by late 2015, including a “road map and strategic plan for delivery and sequencing and packaging of the 50 level crossings and [which] outlines the overall net benefits to the program as a program of 50.”⁴⁷

In its first report, the Committee noted the importance of this document, particularly as part of accountability mechanisms. Completing this business case and making it available to the public is important for ensuring that the program is well-delivered as well as providing a basis for transparency and accountability

⁴⁵ Adam Fennessy - Secretary Department of Environment Land Water and Planning, *Transcript - 18 October 2016*, p. 15.

⁴⁶ *Ibid.* p. 15.

⁴⁷ Mr Kevin Devlin, Level Crossing Removal Authority, *Public Hearing*, 1 September 2015, p.4.

in the delivery of the project by providing details to the public and stakeholders of how the removals will be managed and a basis on which to assess the LXRA's performance compared to the Government's expectations. A business case that considers the program as a whole is important for ensuring that the program is delivered effectively, on time, on budget and with the best possible solutions. Commencing projects without a business case increases the risk of these goals not being met.

The Auditor-General also expressed concerns about the lack of a business case in their May 2016 *Managing and Reporting on the Performance and Cost of Capital Projects* report:⁴⁸

The works to remove level crossings are proceeding, with the first crossings having individual, business cases or project proposals covering, among other things, the key technical elements and deliverability information required in a business case.

However, proceeding with this program without an overall business case is not recommended practice and raises the risks around the timely and efficient delivery of the intended benefits. Precise cost and benefit estimates for the program have not yet been prepared and validated.

DTF [the Department of treasury and Finance] and the Department of Premier & Cabinet (DPC) advice to government, in June 2015, noted the challenge in delivering the entire Level Crossing Removal Program within the \$5–\$6 billion commitment. Given the significant expenditure and risks in delivering such a large program, it is critical that a comprehensive program business case is completed and that it adequately considers the costs, benefits and risks together with an options analysis to assure government that the preferred approach represents good value.

The Victorian Auditor-General was informed that the overall business case was now expected to be completed in mid-2016.⁴⁹ However, as at the time of writing, the business case has not yet been completed.

There were continued concerns at the lack of an overall business case for the project, and that contracts for 27 of the 50 crossings have been signed without a completed business case.

The Committee hopes that the overall business case will be available for consideration in their next report.

2.4.3 Frankston

The Committee noted that there is some community concern that the 11 level crossings identified for removal on the Frankston line may also be removed using an elevated rail solution.

⁴⁸ Victorian Auditor-General's Office, *Managing and Reporting on the Performance and Cost of Capital Projects (June 2016)*, Melbourne., pp.19-20.

⁴⁹ *Ibid.*, p.19.

However, in evidence to the Committee, Mr Devlin stated that:

The government has come out and ruled out a sky rail, a CD9 type, and that is simply because it is very different to the Caulfield–Dandenong line. The Caulfield–Dandenong line was closely spaced level crossing sites. The Frankston line is not a continuous sequence of level crossings, there still remain 19 level crossings on that site — it is a 40-kilometre section — compared to the Caulfield–Dandenong line where we are removing all remaining nine level crossings on that line, which are closely spaced and make continuous structures.

He further noted that the LXRA considers the level crossing removal solution on a site-by-site basis and that the LXRA does not have a stance on using one option over another, other than what is most suitable for the site under consideration.

Frankston is not a continuous structure solution, and we presented the feasible options, which include rail-under and rail-over options. Again I want to keep reiterating that the authority has no vested interest in one option or the other.⁵⁰

In relation to the Frankston line level crossing sites, Mr Lyngcoln also provided evidence to the Committee that:

[the LXRA will] do an assessment to determine whether they believe a referral is required for the Minister for Planning to make a decision on whether or not there would be an EES required. So at this stage there is nothing before the Minister for Planning in relation to that, but it is possible that at some point in the future a referral could be made.⁵¹

The LXRA has since determined that an Environmental Effects Statement is relevant for the Bonbeach and Edithvale sites due to possible impacts on nearby Ramsar wetlands.⁵²

2.4.4 Other issues

Affected resident concerns/case management

The Committee noted some resident concerns about the lack of communication and responsiveness from case managers to affected residents' issues relating to the project, including delays in responding to maintenance problems such as flooding and fence damage.⁵³

Mr Devlin advised the Committee that he supported the actions of their case management team and the LXRA are implementing improvements to the case management system to provide a better service for affected residents.

⁵⁰ Kevin Devlin - CEO Level Crossing Removal Authority, *Transcript - 26 October 2016*. p. 34-5.

⁵¹ Julian Lyngcoln - Acting Deputy Secretary Planning, *Transcript - 18 October 2016*.p. 13.

⁵² Kevin Devlin - CEO Level Crossing Removal Authority, *Transcript - 26 October 2016*. p. 29; Hon. Jacinta Allan MP - Minister for Public Transport, 'Three More Dangerous Frankston Line Level Crossings To Go (media release)', viewed 22 March 2017, <www.premier.vic.gov.au/three-more-dangerous-frankston-line-level-crossings-to-go>; Hon. Jacinta Allan MP - Deputy Premier and Minister for Public Transport, '37 Level Crossing Removals Complete or Underway By 2018 (media release)', <www.premier.vic.gov.au/37-level-crossing-removals-complete-or-underway-by-2018>.

⁵³ Kevin Devlin - CEO Level Crossing Removal Authority, *Transcript - 26 October 2016*. p. 38.

...we certainly have increased the number of resources across the team to improve and support the community's need for more attentive and quicker responses. We have also implemented a revised 1800 number too, which actually moves away from a call centre basis to a customer experience basis.⁵⁴

Level crossing prioritisation

Further information was requested on how level crossings for the project have been prioritised, with several lists (from bodies such as the Australian Level Crossing Assessment Model (ALCAM) and the RACV) differing in their determinations of which are “the most dangerous” and therefore prioritised for this project.

Mr Peter Gleeson from Metro Trains Melbourne explained that the Government determined which crossing had priority for removal. He also suggested that organisations in the industry may have different views on the danger and risk associated with particular level crossings:

I think it certainly was a government decision in terms of the priority of the first 50, but what I am familiar with is certainly there are a number of state-based and federally based systems, which I will not comment on too much detail about, that assess the danger or perceived danger or risk of level crossings. ALCAM is one that I am familiar with. If you were to look at the ALCAM ratings, and then the RACV have their own rating system, those ratings do not match.⁵⁵

It would be valuable to the community if the selection process for the 50 level crossings covered in this project was made public.

Metro trains recouping costs

Interest was expressed in the total costs that have been recouped by Metro Trains as part of their association with the Level Crossing Removal Program.

Metro Trains provided the following statement to the Committee in relation to this:

Metro is reimbursed for the actual costs it incurs (plus margin) in assisting with the delivery of major projects. The majority of Metro costs paid by LXRA and MMRA were labour costs relating to safety, development, engineering, customer experience, and onsite construction support. In addition to this are the bussing costs associated with the replacement of rail services which are required during major occupations. In FY15/16 Metro received \$124m from LXRA and MMRA as payment for the works we completed in support of these projects.⁵⁶

⁵⁴ Ibid. p. 38.

⁵⁵ Peter Gleeson - Director Projects and Planning Metro Trains Melbourne, *Transcript - 19 October 2016*, pp. 55-6.

⁵⁶ Metro Trains Melbourne, *Response to Questions on Notice*. p. 1.

3

Western Distributor

Project	Cost	Expected Completion Date	Current Status	Next Phase
West Gate Tunnel	\$5.5 billion (including Monash Freeway and Webb Dock costs) ^(a)	2022 ^(b)	Market-Led Proposal Guidelines: Stage 4 (Negotiation and Assessment of Final Offer) Project Process: Stage 4 (Tender Designs and EES) - mid-2017 ^(c)	Market-Led Proposal Guidelines: Stage 5 (Award Contract) – end of 2017 ^(d) Project Process: Stage 5 (Final Project and Commencement of Construction) Late 2017-early 2018 ^(e)
Monash Freeway Upgrade	\$400 million ^(f)	September 2018 ^(g)	Under construction	Completion (2018) ^(h)
Webb Dock Access Improvement	\$61.5 million ⁽ⁱ⁾	Early 2018 ^(j)	Under construction	Completion (2018) ^(k)

- (a) Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 3; Department of Treasury and Finance, *Budget Paper No. 2: Strategy and Outlook, 2016-17*, pp. 7, 23, 32; Scott Charlton - Transurban, Transcript - 26 October 2016, p. 19.
- (b) Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 10; Scott Charlton - Transurban, Transcript - 26 October 2016, p. 19.
- (c) Western Distributor Authority, Design Overview (April 2017); Western Distributor Authority, 'West Gate Tunnel Project: Design Overview', viewed 21 April 2017, <westgatetunnelproject.vic.gov.au/design-overview>.
- (d) Department of Treasury and Finance, 'Market-led Proposals Guideline', viewed 15 March 2017, <www.dtf.vic.gov.au/Infrastructure-Delivery/Market-led-proposals/Market-led-Proposals-Guideline>; Western Distributor Authority, 'West Gate Tunnel Project', viewed 20 April 2017, <westgatetunnelproject.vic.gov.au/wgt>.
- (e) Western Distributor Authority, Design Overview (April 2017); Western Distributor Authority, 'West Gate Tunnel Project: Design Overview', viewed 21 April 2017, <westgatetunnelproject.vic.gov.au/design-overview>.
- (f) Department of Treasury and Finance, *Budget Paper No. 2: Strategy and Outlook, 2016-17*, p.7, 32; Scott Charlton - Transurban, Transcript - 26 October 2016, p. 19.
- (g) Western Distributor Authority, 'Monash Freeway Upgrade: Current Status', viewed 15 March 2017, <westgatetunnelproject.vic.gov.au/monash/#div1>.
- (h) Ibid.
- (i) Department of Treasury and Finance, *Budget Paper No. 2: Strategy and Outlook, 2016-17*, p.32; Scott Charlton - Transurban, Transcript - 26 October 2016, p. 19.
- (j) Department of Economic Development, Jobs, Transport and Resources, 'West Gate Tunnel Project', viewed 15 March 2017, <economicdevelopment.vic.gov.au/transport/major-projects/westgate-tunnel-project>.
- (k) Western Distributor Authority, 'Monash Freeway Upgrade: Current Status', viewed 15 March 2017, <westgatetunnelproject.vic.gov.au/monash/#div1>.

3.1 Project overview and background

The Western Distributor project⁵⁷ is intended to take traffic off the West Gate Bridge by providing an alternative route from the West Gate Freeway to the Port of Melbourne and West Melbourne. The project proposes to reduce congestion on the West Gate Bridge, specifically by:

- reducing the number of trucks travelling on the Bridge;
- making the travel routes for trucks using the bridge more efficient and safe;

⁵⁷ Transurban is now referring to the Western Distributor project as the West Gate Tunnel Project.

- improving commuter travel times and safety;
- better connecting Melbourne’s road network; and
- improving access to the Port of Melbourne.⁵⁸

In December 2015, the Government broadened the scope of the Western Distributor project to incorporate the Monash Freeway Upgrade. As a result, the overall scope of the project now comprises:

- West Gate Tunnel Project
- Monash Freeway Upgrade (including additional lanes and traffic management technology)
- Webb Dock Access Improvements (including a separate carriageway on the north side of the West Gate to provide direct access to the Bolte Bridge, and construction of a new truck-suitable ramp from Cook Street to the Bolte Bridge).⁵⁹

The plan for the West Gate Tunnel includes:

- two additional lanes in each direction on the West Gate Freeway between the M80 Ring Road and Williamstown and three central ‘express lanes’ on the Bridge;
- a tunnel under Yarraville and Footscray;
- a new bridge over the Maribyrnong River;
- an elevated road along Footscray Road with connections to the Port of Melbourne, CityLink and the CBD;
- ramps connecting the West Gate Freeway to Hyde Street for trucks with dangerous goods;
- a dedicated freight lane for trucks travelling between Webb Dock and the Bolte Bridge;
- an extension of Wurundjeri Way, providing a bypass of inner CBD roads;
- new cycling and walking paths, including completion of the Federation Trail.⁶⁰

The Western Distributor project is a “market-led proposal” initially proposed by Transurban to the Government in March 2015 as an alternative to the West Gate Distributor proposed by the Labor Party while in opposition.⁶¹ At the time of this report the Government is in negotiations with Transurban for the project’s delivery as part of stage four of the Government’s Market-led proposal guidelines

58 Western Distributor Authority, ‘Project Overview’, viewed 15 March 2017, <westgatetunnelproject.vic.gov.au/about>; Scott Charlton - Transurban, *Transcript - 26 October 2016*. pp. 12-3, 21-4; John Merritt - CEO VicRoads, *Transcript - 19 October 2016*. p. 69, 73-4.

59 Western Distributor Authority, ‘Webb Dock Access’, viewed 15 March 2017, <westgatetunnelproject.vic.gov.au/webbdock>; Scott Charlton - Transurban, *Transcript - 26 October 2016*. pp. 11-2.

60 Hon. Luke Donnellan MP - Minister for Roads and Road Safety, ‘Better And Safer Cycling Paths For Melbourne’s West (media release)’, viewed 15 March 2017, <www.premier.vic.gov.au/better-and-safer-cycling-paths-for-melbournes-west>; Scott Charlton - Transurban, *Transcript - 26 October 2016*. pp. 11-2, 22.

61 Scott Charlton - Transurban, *Transcript - 26 October 2016*. p. 11.

process.⁶² This stage involves negotiation of key commercial, technical and planning issues, commencement of downstream procurement for the project and ongoing assessment of the proposal leading to Transurban presenting a final offer for Government consideration.⁶³

The capital cost for the Government to deliver the project is expected to be \$5.5 billion.⁶⁴ The project is to be funded through a combination of tolls, an extension of the CityLink concession and Victorian Government funding.⁶⁵ The business case states that the “total risk adjusted capital cost of the project is estimated to be \$5.3 billion. This includes \$400 million for the Monash Freeway Upgrade project and \$61.5 million for the Webb Dock Access Improvements. The 2016-17 Budget allocates \$1.46 billion over the next four years with additional funding to be included in future budgets.”⁶⁶

The Treasurer has stated that the cost figure of \$5.5 billion is “part of a broader commercial negotiation” and therefore, while the costings may potentially differ between the short and long tunnel options, “...our expectation is that we will have provided for and we are confident that we have provided for sufficient funds for the more expensive option”.⁶⁷

According to the Victorian Government, the project will lead to \$11 billion worth of benefit to the Victorian economy. The Government believe that completion of the project will lead to removal of 6000 trucks from the West Gate Bridge and residential streets, and increase capacity on the Monash Freeway, and the West Gate Bridge and Freeway by 50 per cent.⁶⁸

62 Department of Treasury and Finance, ‘Market-led Proposals Guideline’, viewed 15 March 2017, <www.dtf.vic.gov.au/Infrastructure-Delivery/Market-led-proposals/Market-led-Proposals-Guideline>; Jason Loos - Director Partnerships Victoria, *Transcript - 19 October 2016*. p. 23; Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*.p. 10.

63 Department of Treasury and Finance, ‘Market-led Proposals Guideline’, viewed 15 March 2017, <www.dtf.vic.gov.au/Infrastructure-Delivery/Market-led-proposals/Market-led-Proposals-Guideline>; Jason Loos - Director Partnerships Victoria, *Transcript - 19 October 2016*. pp. 22-3.

64 Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*.p. 3; Department of Treasury and Finance, *Budget Paper No. 2: Strategy and Outlook, 2016-17*. p. 23.

65 Department of Treasury and Finance, *Budget Paper No. 2: Strategy and Outlook, 2016-17*. p. 23; Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*. p. 3; Department of Treasury and Finance, *Budget Paper No. 2: Strategy and Outlook, 2016-17*. p. 7; Scott Charlton - Transurban, *Transcript - 26 October 2016*. p. 20.

66 Department of Treasury and Finance, *Budget Paper No. 2: Strategy and Outlook, 2016-17*., pp.7, 32; Scott Charlton - Transurban, *Transcript - 26 October 2016*. p. 19.

67 Hon. Tim Pallas MP - Treasurer, *Inquiry into the 2015-16 Budget Estimates Transcript of Evidence, 8 May 2015*.

68 Scott Charlton - Transurban, *Transcript - 26 October 2016*. p. 12, 22.

Construction on the Western Distributor project is expected to commence by late 2017 or early 2018⁶⁹ with an estimated completion date of 2022.⁷⁰ Construction on the Monash Freeway Upgrade is currently underway and is expected to be complete in 2018.⁷¹ The Webb Dock Access Improvement works are also currently underway, with an expected completion date of 2018.⁷²

Further details about the history and intended benefits of the project can be found in the Committee's *First Report into Infrastructure Projects*.

69 The Committee notes that documentation on when construction is anticipated to commence on the new timeline varies.
Western Distributor Authority, *Design Overview (April 2017)*; Western Distributor Authority, 'West Gate Tunnel Project: Design Overview', viewed 21 April 2017, <westgatetunnelproject.vic.gov.au/design-overview>; Department of Economic Development, Jobs, Transport and Resources, 'West Gate Tunnel Project', viewed 15 March 2017, <economicdevelopment.vic.gov.au/transport/major-projects/westgate-tunnel-project>.

70 Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 10; Scott Charlton - Transurban, *Transcript - 26 October 2016*, p. 19.

71 Western Distributor Authority, 'Monash Freeway Upgrade: Current Status', viewed 15 March 2017, <westgatetunnelproject.vic.gov.au/monash/#div1>.

72 Department of Economic Development, Jobs, Transport and Resources, 'West Gate Tunnel Project', viewed 15 March 2017, <economicdevelopment.vic.gov.au/transport/major-projects/westgate-tunnel-project>.

Figure 3.1 Western Distributor Project Scope Map – June 2016

WesternDISTRIBUTOR
Project Scope Map

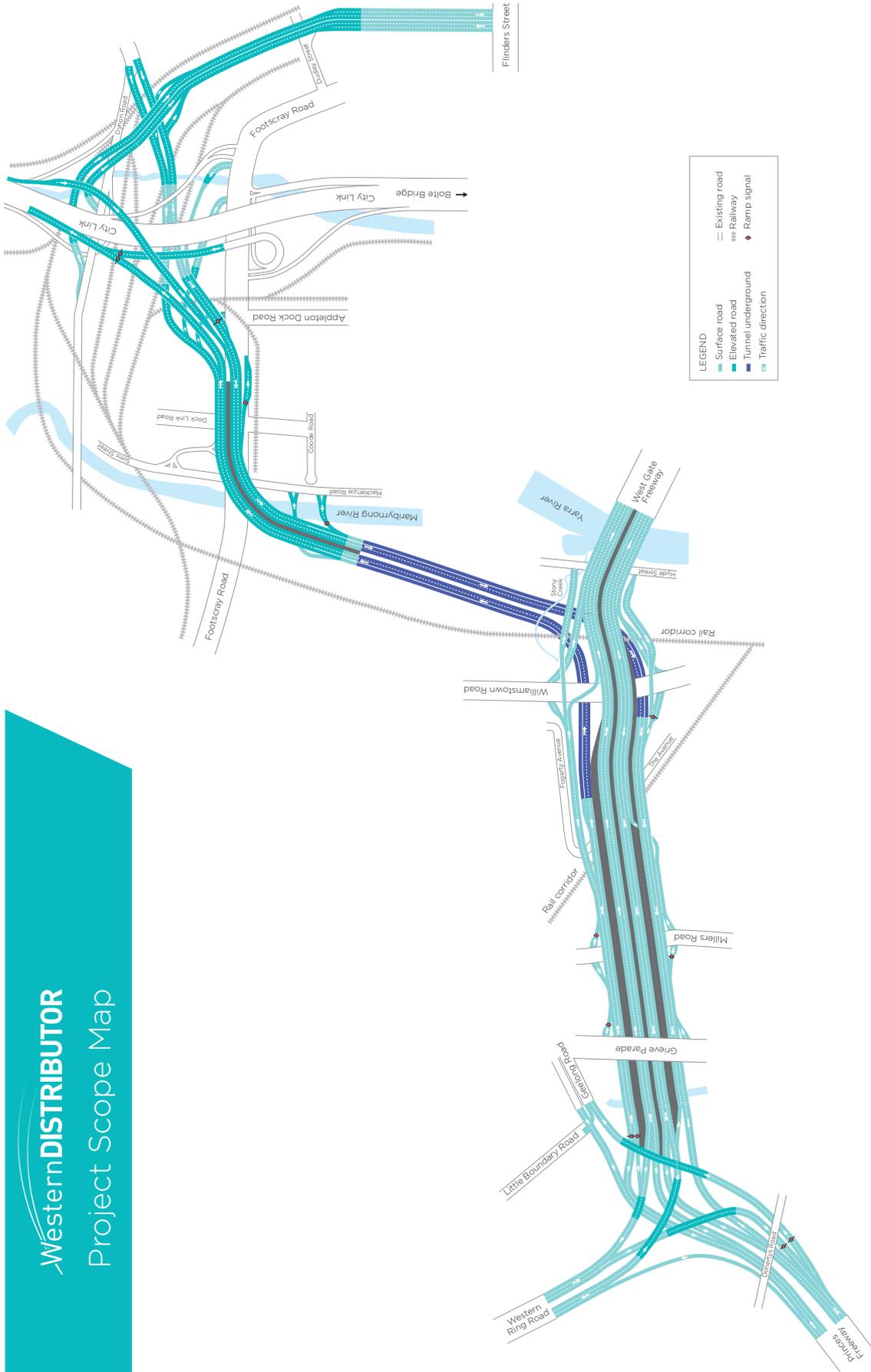
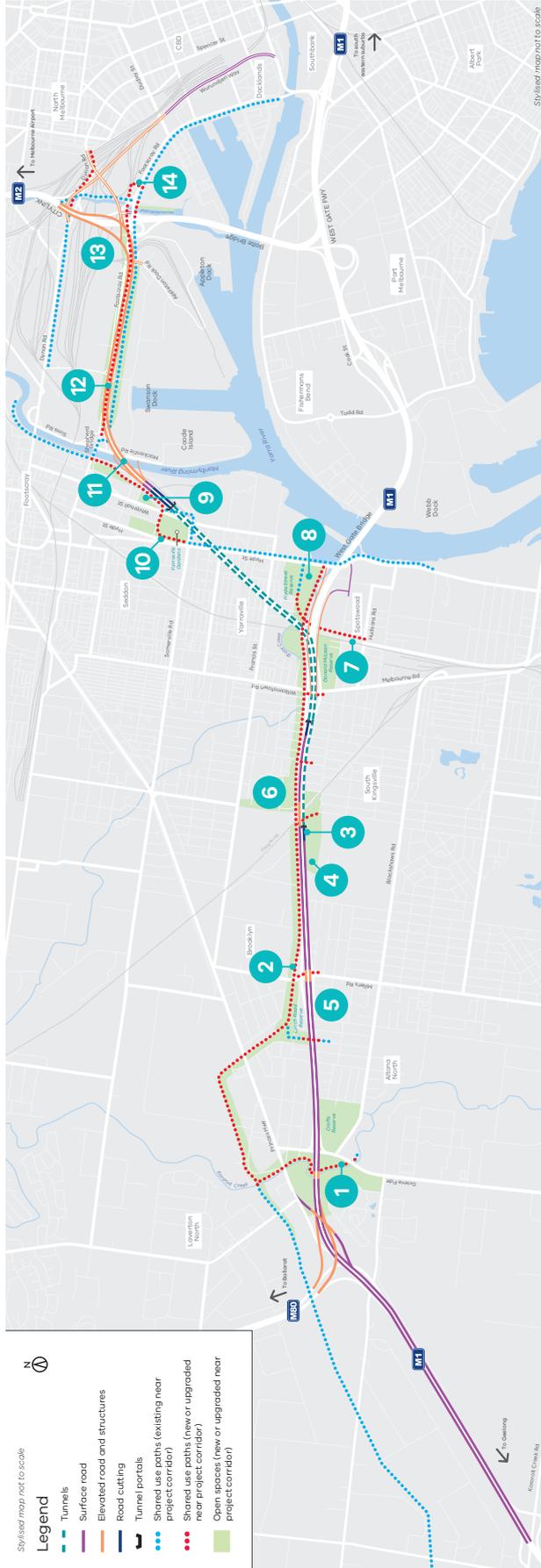


Figure 3.2 Western Distributor Final Design Overview – April 2017

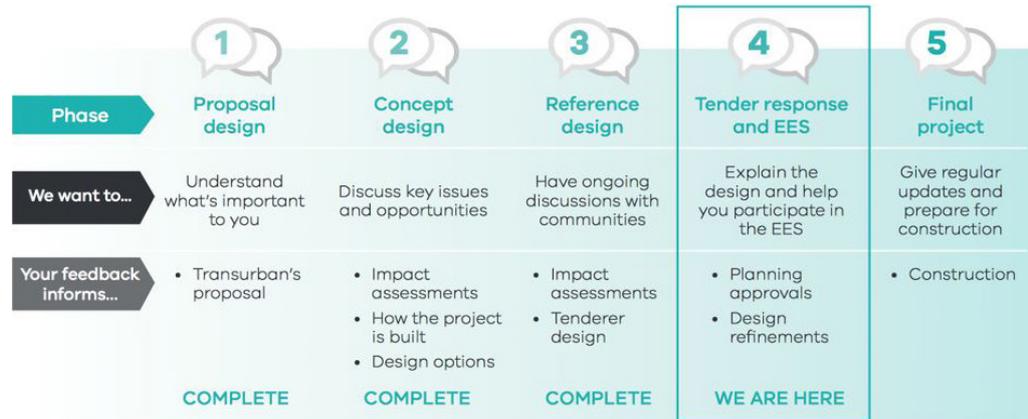


Source: Transurban, "West Gate Tunnel Project: Design Overview Fact Sheet", <westgatetunnelproject.vic.gov.au/wp-content/uploads/2016/07/Design-overview-fact-sheet-A-with-full-map.pdf>, accessed 20 April 2016.

3.2 Progress of the project since June 2016

3.2.1 Western Gate Tunnel Project

Figure 3.3 West Gate Tunnel Project Progress – Current



Source: West Gate Tunnel Project, "Project Status - Design released", <westgatetunnelproject.vic.gov.au/wgt>, accessed 16 May 2017.

The West Gate Tunnel Project has commenced phase four of its development with the release of the final design in April 2017.⁷³ This is a tender response and EES phase, which includes the release of the Environment Effects Statement (EES) for public feedback and obtaining relevant planning approvals for the project prior to construction commencement.⁷⁴

Previously, Transurban released an updated design proposal, which was followed by a new round of consultation during April and May 2016, including the formation of the Community Liaison Group.⁷⁵ After this initial community consultation period the initial project design was updated to create the reference design (released July 2016).⁷⁶ The reference design details the functional and construction requirements that tenderers must include in their tender response. These are intended as a basis for companies proposing to tender for the project to develop their own responses that improve on the design.⁷⁷

As part of phase three of the project the tender process for the design and construction of the West Gate Tunnel were invited to develop a tender for the project based on the reference design. These tenders were expected to be submitted by late 2016 for assessment and the preferred contractor announced

73 Western Distributor Authority, *Design Overview (April 2017)*; Western Distributor Authority, 'West Gate Tunnel Project: Design Overview', viewed 21 April 2017, <westgatetunnelproject.vic.gov.au/design-overview>.

74 Western Distributor Authority, *Design Overview (April 2017)*.

75 Western Distributor Authority, 'Western Distributor Reference Design Released', viewed 21 April 2017, <westgatetunnelproject.vic.gov.au/western-distributor-reference-design-released>.

76 Hon. Daniel Andrews MP - Premier, 'Second River Crossing Design Shaped By Community (media release)', viewed 15 March 2017, <www.premier.vic.gov.au/second-river-crossing-design-shaped-by-community>; Western Distributor Authority, *Community Update: July 2016*; Scott Charlton - Transurban, *Transcript - 26 October 2016*, p. 12, 15.

77 Western Distributor Authority, *Design development discussion paper*.

by early 2017.⁷⁸ As at the writing of this report a builder for the project had been selected, but the contract will not be awarded until the planning approvals are confirmed.⁷⁹ The preferred contractor has not been publicly announced.⁸⁰

Transurban has also released their community consultation report detailing the outcomes of their community consultation process and how this process influenced the concept design phase of the project.⁸¹ According to Transurban they are continuing the process of community consultation on the project through meetings, 'pop-up stalls', the project's website, and a Community Engagement Liaison Group.⁸²

Table 3.1 The design process planned by Transurban as at April 2017, including future projections

Date	Design phase	What is expected and how consultation will inform the phase
	Proposal	Transurban's proposal
April 2016	Concept ^(a)	Key issues, challenges and opportunities are expected to be examined in more detail with stakeholders Feedback will inform the impact assessments, design options and how the project is built.
July 2016	Reference	A tender for the design and construction together with the reference design, is released to the construction industry Stakeholder input during this phase will inform the impact assessments and tender design.
April 2017/13 (Current Phase)	Tenderer	The preferred tender's design will be assessed and reported on in the Environment Effects Statement, which will subsequently be available for comment through a formal submission process Feedback from this stage will inform the planning approvals and design refinements.
Late 2017 - ongoing ^(b)	Detailed	After the Environment Effects Statement process is completed, the final design will be confirmed and work undertaken to prepare for construction.

(a) This is a design update to be differentiated from the State's concept design upon which the Government based the business case (see: Department of Economic Development, Jobs, Transport and Resources, *Western Distributor Project Outline* (2015), p.1).

(b) Moved back from June 2016 estimates which expected this stage to commence in early 2017. Department of Environment, Land, Water and Planning, 'Environmental Assessment: West Gate Tunnel Project', viewed 15 March 2017, <www.planning.vic.gov.au/environmental-assessment/major-transport-projects/west-gate-tunnel-project>.

Source: Economy and Infrastructure Committee based on Transurban, *Western Distributor Design Update April 2016: Concept Design and Consultation Update*, 14 April 2016, pp. 1-2; and Transurban, *West Gate Tunnel Project: Design Overview Fact Sheet*.

78 Scott Charlton - Transurban, *Transcript - 26 October 2016*. p. 12.

79 Western Distributor Authority, 'Frequently Asked Questions', viewed 15 March 2017, <westgatetunnelproject.vic.gov.au/faqs>.

80 Western Distributor Authority, 'West Gate Tunnel Project', viewed 20 April 2017, <westgatetunnelproject.vic.gov.au/wgt>.

81 Western Distributor Authority, *Consultation Report: Concept design, April-May 2016 and Proposal Design Update, September-October 2015*, 2016.

82 Scott Charlton - Transurban, *Transcript - 26 October 2016*. pp. 12, 18, 26.

3.2.2 Monash Freeway Upgrade

The Monash Freeway Upgrade project opened for tender in March 2016, following preliminary works.⁸⁵ The contract was awarded to Fulton Hogan in June 2016.⁸⁴ Construction began in September 2016 and is expected to continue over a 24-month period to September 2018.⁸⁵

3.2.3 Webb Dock Access improvements

Geotechnical and construction works on the Webb Dock Access improvement project commenced in December 2015 and have continued through to the time of writing.⁸⁶ The works are being delivered by Leighton Contractors in conjunction with the CityLink-Tulla Widening project and capacity improvement work for the Port of Melbourne.⁸⁷

3.2.4 EES Process

The Department of Environment Land Water and Planning manages the Western Distributor project's EES process. This follows regulatory requirements for assessing the environmental impact of large-scale infrastructure projects under the *Environment Effects Act 1978*.⁸⁸

An Environment Effects Statement (EES) is required when the Minister for Planning determines that a project may have certain significant impacts on social amenity, human health or the natural environment. An EES includes a preferred design and details of how impacts will be mitigated. It is used by the Minister in determining whether or not the project “will have an acceptable level of environmental effects” or whether it “would need major modifications and/or

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- 83 Hon. Luke Donnellan MP - Minister for Roads and Road Safety, 'Getting On With Widening The Monash', viewed 15 March 2017, <www.premier.vic.gov.au/getting-on-with-widening-the-monash>.
- 84 Sophia Rostron, 'Fulton Hogan wins billion dollar upgrade of Monash Freeway in Melbourne', viewed 15 March 2017, <blog.plantminer.com.au/fulton-hogan-awarded-400m-monash-freeway-upgrade>.
- 85 Jobs Richard Bolt - Department of Economy Development, Transport and Resources, *Inquiry into Infrastructure Projects Presentation - 20 April 2016.*, p.16; Hon. Daniel Andrews MP - Premier, *Getting It Done: Monash Widening Works Begin*; Hon. Luke Donnellan MP - Minister for Roads and Road Safety, 'Works Underway For Western Distributor', viewed 15 March 2017, <www.premier.vic.gov.au/works-underway-for-western-distributor>; John Merritt - CEO VicRoads, *Transcript - 19 October 2016.* p. 62; Scott Charlton - Transurban, *Transcript - 26 October 2016.* p. 19.
- 86 Department of Economic Development, Jobs, Transport and Resources, 'West Gate Tunnel Project', viewed 15 March 2017, <economicdevelopment.vic.gov.au/transport/major-projects/westgate-tunnel-project>; Hon. Luke Donnellan MP - Minister for Roads and Road Safety, 'Works Underway For Western Distributor', viewed 15 March 2017, <www.premier.vic.gov.au/works-underway-for-western-distributor>.
- 87 Hon. Luke Donnellan MP - Minister for Roads and Road Safety, 'Works Underway For Western Distributor', viewed 15 March 2017, <www.premier.vic.gov.au/works-underway-for-western-distributor>; Department of Economic Development, Jobs, Transport and Resources, 'West Gate Tunnel Project', viewed 15 March 2017, <economicdevelopment.vic.gov.au/transport/major-projects/westgate-tunnel-project>.
- 88 Adam Fennessy - Secretary Department of Environment Land Water and Planning, *Transcript - 18 October 2016.* p. 12. Julian Lyngcoln - Acting Deputy Secretary Planning, *Transcript - 18 October 2016.* p. 22; Western Distributor Authority, *Environmental Effects Statement: Overview Brochure*, Western Distributor Authority, Melbourne, May 2017; Julian Lyngcoln - Acting Deputy Secretary Planning, *Transcript - 18 October 2016.* p. 22; Western Distributor Authority, *Environmental Effects Statement: Overview Brochure*, Western Distributor Authority, Melbourne, May 2017.

further investigations to establish that acceptable outcomes would be achieved.” The Minister’s assessment is to be used by decision-makers considering whether to approve a project or not.⁸⁹

In December 2015, the Minister for Planning required an EES to be prepared for the Western Distributor project.⁹⁰ On 22 February 2016, the Department of Environment, Land, Water and Planning released the draft scoping requirements for the EES for public comment until 15 March 2016.⁹¹ The scoping requirements were finalised in March 2016.⁹²

The initial EES planning process undertaken during this time included initial site investigations, existing conditions assessments and community consultation, which provided the baseline for assessing changes and possible impacts to the proposed project area.⁹³

The final EES was previously anticipated to be released in early 2017, however, at the time of writing this report the full EES has not been made public. The revised release timetable presented by Transurban is listed as mid-2017.⁹⁴ Phase four of the project will not be complete until the EES process is complete.⁹⁵

Table 3.2 details the key steps and timeframes for the Western Distributor’s EES process as at the time of writing.

Table 3.2 Key steps and timeframes for the EES process as at April 2017^(a)

Indicative timing	Stage	Key activities
February – March 2016 (completed)	Scoping the EES	<ul style="list-style-type: none"> • Topics the EES must cover are set out in draft scoping requirements. These are issued by the Minister for Planning and released for public comment. • The scoping requirements are finalised following public comment. • Studies of current environmental, social and economic conditions of the project area will be completed to provide a baseline for assessment.
Mid-late 2016	Preparing the EES	<ul style="list-style-type: none"> • Studies and investigations are carried out to understand potential impacts. • A Technical Reference Group (representatives from local government and government agencies responsible for approvals) provides advice and reviews all aspects of the EES.

⁸⁹ Western Distributor Authority, *EES specialist studies: discussion paper July 2016*.

⁹⁰ Victorian Auditor-General, *Effectiveness of the Environmental Effects Statement Process*, Victorian Auditor-General’s Office, Melbourne, March 2017; Adam Fennessy and Julian Lyngcoln, Department of Environment, Land, Water and Planning, Presentation to Committee: ‘Inquiry into Infrastructure Projects Hearing: Presentation’, 18 October 2016.

⁹¹ Department of Environment, Land, Water and Planning, *Scoping Requirements for Western Distributor Project*, Melbourne, April 2016.

⁹² Julian Lyngcoln - Acting Deputy Secretary Planning, *Transcript - 18 October 2016*, p. 13.

⁹³ Western Distributor Authority, *EES specialist studies: discussion paper July 2016*; Scott Charlton - Transurban, *Transcript - 26 October 2016*, p. 12; Julian Lyngcoln - Acting Deputy Secretary Planning, *Transcript - 18 October 2016*, p. 13.

⁹⁴ Water and Planning Department of Land, ‘West Gate Tunnel Project: Environmental Assessment’, viewed 20 April 2017; Western Distributor Authority, *Environmental Effects Statement: Overview Brochure*, Western Distributor Authority, Melbourne, May 2017.

⁹⁵ Western Distributor Authority, *Design Overview (April 2017)*.

Indicative timing	Stage	Key activities
Early – Mid 2017 ^(b)	Public review and hearings	<ul style="list-style-type: none"> Minister for Planning releases EES for public exhibition and appoints an inquiry panel. Written submissions from the public are received and considered by the panel. A public hearing may be conducted by the inquiry panel and submitters may be invited to speak at the hearing. Panel considers the effects of the project with regard to the EES studies and public submissions.
September 2017	EES finalised	
October – November 2017	Minister’s assessment	<ul style="list-style-type: none"> The Minister for Planning considers the EES, public submissions and any inquiry report in making an assessment for the purpose of advising decision-makers. Statutory decision makers may issue approvals.

(a) The Committee notes that the final design and commencement of phase four of the project have commenced since the publication of the source material for this timeline. Updated EES timetable information is not yet publicly available.

(b) Jobs Department of Economic Development, Transport and Resources, ‘West Gate Tunnel Project’, viewed 15 March 2017, <economicdevelopment.vic.gov.au/transport/major-projects/westgate-tunnel-project>; Western Distributor Authority, ‘Environment Effects Statement’, viewed 15 March 2017, <westgatetunnelproject.vic.gov.au/ees>; Western Distributor Authority, EES specialist studies: discussion paper July 2016.

Source: Economy and Infrastructure Committee based on Department of Economic Development, Jobs, Transport and Resources, *Western Distributor: Planning and Assessment* (2016), p. 2; and Ms Christine Wyatt, Department of Environment, Land, Water and Planning, *Public Hearing*, 20 April 2016, pp.15, 18.

3.3 Future work and timelines

3.3.1 West Gate Tunnel Project

The West Gate Tunnel Project is now undergoing the final EES and planning approval process. After the completion of the EES process and the proposed design has been finalised, including input from the Minister for Planning, it is expected that the contract for the West Gate Tunnel component of the project will be awarded in November 2017.⁹⁶ Construction on the West Gate Tunnel is anticipated to begin in late November 2017⁹⁷ or early 2018 and be completed around June 2022.⁹⁸

The Government will complete its assessment of the market-led proposal process at the conclusion of the tender process.⁹⁹

96 Western Distributor Authority, ‘Frequently Asked Questions’, viewed 15 March 2017; <westgatetunnelproject.vic.gov.au/faqs>; Jobs Richard Bolt - Department of Economic Development, Transport and Resources, *Inquiry into Infrastructure Projects Presentation - 20 April 2016.*, p.16; Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17.*, p. 10.

97 Department of Economic Development, Jobs, Transport and Resources, ‘West Gate Tunnel Project’, viewed 15 March 2017, <economicdevelopment.vic.gov.au/transport/major-projects/westgate-tunnel-project>.

98 Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17.*, p.10; Jobs Richard Bolt - Department of Economic Development, Transport and Resources, *Inquiry into Infrastructure Projects Presentation - 20 April 2016.*, p.16.

99 Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17.*, p. 10.

3.3.2 Monash Freeway Upgrade

Monash Freeway upgrade construction will continue and the project's expected completion is date September 2018.¹⁰⁰

3.3.3 Webb Dock Access improvements

Construction on the Webb Dock access improvements will continue and the project is expected to be completed in early 2018.¹⁰¹

3.3.4 EES Process

The EES process will continue, including commencing impact assessment work based on the reference design.¹⁰² The full EES will include the final scope and design of the Western Distributor, an assessment of the reference design and the proposed changes to the reference design by tenderers.

The EES is also anticipated to include full traffic modelling¹⁰³ for the project which has been previously unable to be released due to the project's status in stage four of the market-led proposal guidelines.¹⁰⁴ The revised timetable presented by Transurban cites the release date for the full EES as mid-2017.¹⁰⁵

The Government and Transurban have stated that after the EES has been made public a public consultation process will take place. This is planned to include an independent inquiry which will collect evidence from public hearings and submissions. In evidence to the Committee, Julian Lyngcoln assured the Committee that this process will allow the community to raise any concerns they may have.¹⁰⁶ The inquiry report will form part of the Minister for Planning's assessment of the project.¹⁰⁷

100 Richard Bolt - Department of Economy Development, Jobs, Transport and Resources, *Inquiry into Infrastructure Projects Presentation - 20 April 2016.*, p.16; Hon. Luke Donnellan MP - Minister for Roads and Road Safety, 'Getting On With Widening The Monash', viewed 15 March 2017, <www.premier.vic.gov.au/getting-on-with-widening-the-monash>; Hon. Luke Donnellan MP - Minister for Roads and Road Safety, 'Works Underway For Western Distributor', viewed 15 March 2017, <www.premier.vic.gov.au/works-underway-for-western-distributor>; John Merritt - CEO VicRoads, *Transcript - 19 October 2016.* p. 62; Scott Charlton - Transurban, *Transcript - 26 October 2016.* p. 19.

101 Department of Economic Development, Jobs, Transport and Resources, 'West Gate Tunnel Project', viewed 15 March 2017, <economicdevelopment.vic.gov.au/transport/major-projects/westgate-tunnel-project>.

102 Western Distributor Authority, 'Frequently Asked Questions', viewed 15 March 2017, <westgatetunnelproject.vic.gov.au/faqs>.

103 Scott Charlton - Transurban, *Transcript - 26 October 2016.* p. 25.

104 Ibid. p. 13.

105 Department of Environment, Land, Water and Planning, 'Environmental Assessment: West Gate Tunnel Project', viewed 15 March 2017, <www.planning.vic.gov.au/environmental-assessment/major-transport-projects/west-gate-tunnel-project>.

106 Western Distributor Authority, 'Environment Effects Statement', viewed 15 March 2017, <westgatetunnelproject.vic.gov.au/ees>; Western Distributor Authority, *EES specialist studies: discussion paper July 2016*; Julian Lyngcoln - Acting Deputy Secretary Planning, *Transcript - 18 October 2016.* pp. 18, 21.

107 Western Distributor Authority, *EES specialist studies: discussion paper July 2016.*

Transurban say that engagement activities with the Community Liaison Group, Technical Reference Group, local working groups and community hubs will continue through the EES feedback phase and into the construction phase of the project.¹⁰⁸

In evidence provided to the Committee, Scott Charlton of Transurban stated:

“...we are confident that we can get through the EES process, address the community concerns, fit within the functionality of the project and deliver the project that the community accepts and wants and deliver that by the end of next year. If the environmental assessment comes out and says the project cannot go forward for whatever reason, then the project will not proceed.”¹⁰⁹

3.4 Committee Comments

3.4.1 Final design

The Committee notes that the design, released in April 2017, includes changes to the original design in relation to the number of lanes going onto the Westgate Bridge.¹¹⁰ There were concerns that the number of lanes has decreased in favour of more toll lanes heading into the tunnel and the north of the city.

The Committee intends to investigate this change in design further in their next report, after the opportunity to gather more evidence.

3.4.2 Community Consultation

There were some concerns raised about the public consultation processes associated with this project. For example there is a potential conflict of interest related to Transurban, who have won the tender for this project and will be constructing it, running parts of the community consultation process which evaluates their own performance.

The Committee heard that key documents relating to the project have not been available which may impede the community’s ability to fully understand the project and therefore effectively engage in the consultation process.

During public hearings, the Committee raised these concerns with both Transurban and the Department of Economic Development, Jobs, Transport and Resources. Transurban maintains that their community consultation process in relation to the project is extensive, ongoing and suitable for the needs of the project:

¹⁰⁸ Scott Charlton - Transurban, *Transcript - 26 October 2016*. p. 26; Western Distributor Authority, ‘Frequently Asked Questions’, viewed 15 March 2017, <westgatetunnelproject.vic.gov.au/faqs>; Western Distributor Authority, ‘Visit the Project Team’, viewed 1 May 2017.

¹⁰⁹ Scott Charlton - Transurban, *Transcript - 26 October 2016*. p. 17.

¹¹⁰ Western Distributor Authority, ‘West Gate Tunnel Project: Interactive Map’, viewed 8 May 2017; Western Distributor Authority, ‘West Gate Tunnel Project Map’, viewed 8 May 2017.

“...this process has probably had more input than any major infrastructure project that I have seen done in my 25-year career here in Australia.”¹¹¹

The Committee hopes to see improvements to the consultation process and the reporting of the process as the project continues. The Committee will continue to monitor Transurban’s approach, the effectiveness of their consultation and the satisfaction of the community in their processes.

3.4.3 Truck Bans

The Committee noted that a key concern for local communities is what they see as a lack of clarity on the extent of truck bans on local residential streets near the proposed project. Residents affected by the project wish to be informed about if and where truck bans will take place. Transurban noted in evidence to the Committee that the original project proposal “did not include any truck bans” but that: “if the Government wants to do truck bans, that is an issue for the Government.”¹¹²

Transurban advised the Committee that Hyde Street, Francis Street and Somerville Road are currently designated high-capacity, high-frequency truck routes. Regulations that apply to these routes allow placarded vehicles, and it is anticipated that the existence of the Western Distributor project would not change that. Scott Charlton estimated a 5 per cent increase in trucks on Hyde Street as a result of the Western Distributor project – “about 1000 trucks a day — 500 in each direction — will use the Hyde Street ramps” - Including some placarded loads.¹¹³

The Committee noted that trucks who did not wish to pay the proposed tolls related to the Western Distributor project would continue to use those residential streets and that a truck ban on these streets may increase the number of trucks using the Western Distributor and strain the capacity of the proposed new infrastructure.

Transurban were not concerned about the Western Distributor’s capacity to handle an increase of trucks above the estimated 6000 trucks in the current traffic modelling, stating:

The tunnel is capable of having three lanes and in theory around 2000 vehicles per lane per hour — three lanes, so that is 6000 vehicles per hour — so it is a whole lot more trucks than are in the inner west.¹¹⁴

And, further, that the Western Distributor was a very attractive option for freight to use and would negate the need for a truck ban:

¹¹¹ Scott Charlton - Transurban, *Transcript - 26 October 2016*. p. 18.

¹¹² *Ibid.* p. 16.

¹¹³ *Ibid.* p. 25.

¹¹⁴ *Ibid.* p. 24.

A large number of the container trucks would use the project, because again for those people who are doing shuttles between breakdown areas and the port, it is incredibly economical for them to be able to do twice as many trips using the western distributor than if they were to use local roads. That is why we do not require the truck ban, because the economic incentive to use the road is very strong for freight.¹¹⁵

The Committee also discussed the estimated cost of tolls for trucks using the Western Distributor. Transurban stated the tolls would be: “roughly around \$13, which is very similar to the same distance on CityLink, but again the final arrangements — the commercial arrangements — will be done with the state. I would expect that it would be roughly around \$13.”¹¹⁶ Scott Charlton further stated that he “absolutely” believes that trucks will pay the proposed toll.

“You only have to look at the Victorian Transport Association or the various trucking associations that are supporting the project, which includes the toll, to the benefit of their members. Where we have done these projects before, whether it is NorthConnex in Sydney or the M7, and particularly when we provide freight benefits, it is about the economics of them saving time and the less wear and tear on their trucks.”

Transurban informed the Committee that the original proposal included an option to waive tolls for placarded vehicles on the Bolte Bridge. While not economical for freight, this did reduce the traffic through residential areas. But after feedback from the community and VicRoads it was determined that using Hyde Street was preferable.

“We are saying that approximately 50 per cent to 75 per cent of the trucks basically off Francis Street and Somerville Road will use the western distributor because now these freight forwarders can do trips in 50 per cent of the time, so even paying the toll they are much better off economically because they can make so many more trips so much quicker using the western distributor if they are going to the port or even if they are going north, so there will be 50 per cent to 75 per cent of the trucks off Francis Street and Somerville Road and all in all about 28 per cent or 30 per cent of the total trucks in the inner west on the western distributor. But once you start going further and further and further north and the inner west and you get way up north, you are going to have less of an impact than you do on Francis Street and Somerville Road — they are on the south — but a huge impact on those streets.”¹¹⁷

On 2 April 2017, the Government announced that the West Gate Tunnel Project will impose 24/7 truck bans on Francis Street and Somerville Road in Yarraville, and Buckley Street and Moore Street in Footscray. The bans will be in place from the Tunnel’s proposed opening date in 2022.¹¹⁸

115 Ibid. p. 24.

116 Ibid. p. 25.

117 Ibid. pp. 16, 24-5.

118 Hon. Luke Donnellan MP - Minister for Roads and Road Safety, ‘Win For The West - New Tunnel To Deliver 24/7 Truck Bans’, viewed 3 April 2017, <www.premier.vic.gov.au/win-for-the-west-new-tunnel-to-deliver-247-truck-bans>.

3.4.4 Truck Curfews

The Committee also noted community concern about truck curfews. Whilst night curfews were currently in place the local communities wished to extend this to include weekend curfews.

VicRoads advised the Committee that they were “contemplating curfews on those streets”, however, the implications of the Western Distributor project’s construction process for the truck industry, employees and employers also has to be taken into consideration.¹¹⁹

VicRoads further noted:

“We have been, I think in conjunction with the City of Port Phillip, doing truck counts and origin-and-destination surveys on trucks in that area to try and verify again what the impact of the curfew is. As we would have discussed on previous areas, we are trying to understand: where will the trucks go? How many of those are actually on that road because the destination is within the area and how many are there when they should be using the Nepean Highway... and when we push them off, what will it be?”¹²⁰

3.4.5 Traffic Modelling

There were concerns around the lack of publicly available traffic modelling underpinning the Western Distributor project, including information about expected reductions in crashes or removal of 6000 vehicles from the inner west.¹²¹

Transurban advised the Committee that this modelling will be available publicly when the full EES has been released, stating that as they are currently in stage four of the market-led proposal guidelines process it is not appropriate for them to release the modelling to the public.¹²²

“That initial [traffic] modelling was done. When we went to the proposal, we provided an overview with a similar number. It is in the state’s business case. They have got traffic modelling on that, so we are pretty comfortable with that number. That will be the appropriate number.... We are still in stage 4 of the market-led proposal process with the government, so that is still our intellectual property. But all that detail for the public will be provided in the EES process. So we are not going to be provide it now because we are in stage 4 of the market-led process, but we are comfortable with what the government has put forward.”¹²³

119 John Merritt - CEO VicRoads, *Transcript - 19 October 2016*. p. 67.

120 Ibid. p. 68.

121 Scott Charlton - Transurban, *Transcript - 26 October 2016*. p. 20.

122 Ibid. pp. 14, 16; Julian Lyngcoln - Acting Deputy Secretary Planning, *Transcript - 18 October 2016*. p. 18; Scott Charlton - Transurban, *Transcript - 26 October 2016*. p. 25.

123 Scott Charlton - Transurban, *Transcript - 26 October 2016*. p. 13.

3.4.6 EES

Several issues relating to the impact of the project on the local environment were raised with the Committee. These included concerns about air monitoring, and noise and vibration.¹²⁴

Issues such as these are supposed to be addressed through the environment effects statement process. The Committee will be observing that process as this inquiry progresses, to ensure that such concerns are adequately taken into account.

Transurban advised the Committee they are confident they will be able to manage the air quality of the project within appropriate monitoring standards during construction – noting that the CityLink and EastLink tunnels are “operating well inside their EPA requirements”.¹²⁵ They also noted that one of the main specialist studies being undertaken as part of the EES is into noise and vibration and that listening devices are already in place at Western Distributor-related construction sites to ensure that this is appropriately monitored.¹²⁶

“There are already some listening devices now — that is my understanding — but there will be listening devices put up prior to construction commencement. There will be obligations under the environmental approval process to maintain noise restrictions, vibration as well as dust and other things during the construction management process, but obviously the noise will be measured pre-and post-project, and then there will be a requirement post-project to obviously monitor and maintain the noise within the EES approvals. But as part of the process, there are significant increases to the noise walls, particularly along the West Gate, that are being proposed in the reference design.”¹²⁷

The Committee intends to continue to monitor the EES process in relation to this project and hopes to be able to consider the full EES and the related consultation process in detail in their next report.

3.4.7 Infrastructure Australia comments

The Committee also noted concerns about Infrastructure Australia’s comments at the federal Public Accounts and Estimates Committee hearing, that they are concerned that independent assessments of the project have not been provided to guarantee that the project “adds up”.

Transurban responded that:

“If you go back to the way we work, the process is — and we have to follow the government’s process — we submit under the market proposals. We submit the proposal. The government decides if it is unique, and the government decides if it is value for money. In this case the government actually went out and did their own

¹²⁴ Ibid. pp. 15, 18.

¹²⁵ Ibid. p. 18.

¹²⁶ Ibid. p. 15.

¹²⁷ Ibid. p. 15.

business case, which is available to judge our submission versus their assumption of value for money. The government has the information. They are our client. They are the ones that we have to deal with. So I do not know what information that department has, nor do I know what information Infrastructure Australia has. It is hard for me to comment because I have no idea what he is judging it on because I have no idea what information he has, and that is really between the state and federal governments.”¹²⁸

3.4.8 House acquisitions

The Committee identified community concerns relating to acquisition overlays and that some residents were experiencing difficulties selling their properties or accessing the standard hardship processes available to residents affected by the Western Distributor Project.

VicRoads advised the Committee that they would follow up on the individual cases identified and ensure that these residents are able to access the appropriate acquisition channels should they wish to do so.¹²⁹

The Committee will continue to monitor this issue as the inquiry progresses.

128 Ibid. p. 19.

129 John Merritt - CEO VicRoads, *Transcript - 19 October 2016*. p. 66.

4

Melbourne Metro Rail Project

Cost	Expected Completion Date	Current Status	Next Phase
\$10.9 billion ^(a)	2026 ^(b)	Planning and design phase Enabling works commenced, first major contract awarded, main project contract currently undergoing tender process ^(c)	2017: Main tender contract awarded ^(d) 2018: Main construction commences ^(e)

(a) Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, pp. 1, 114.

(b) Department of Economic Development, Jobs, Transport and Resources, *Melbourne Metro Business Case: February 2016*, 2016, pp. 9, 180; Melbourne Metro Rail Authority, 'Project Timeline', viewed 24 March 2017, <metrotunnel.vic.gov.au/about-the-project/project-timeline>.

(c) Melbourne Metro Rail Authority, 'Project Timeline', viewed 24 March 2017, <metrotunnel.vic.gov.au/about-the-project/project-timeline>.

(d) Department of Economic Development, Jobs, Transport and Resources, *Melbourne Metro Business Case: February 2016*, 2016, p. 273.

(e) Melbourne Metro Rail Authority, 'Project Timeline', viewed 24 March 2017, <metrotunnel.vic.gov.au/about-the-project/project-timeline>.

4.1 Project overview and background

The purpose of the Melbourne Metro Rail Project is to link the Sunbury and Cranbourne-Pakenham lines through two tunnels travelling under the CBD. This project includes construction of five new stations, with major train/tram interchanges at Parkville and Domain. Signalling, track and other infrastructure works will also be undertaken.

The Melbourne Metro Rail Project in its current form commenced in 2015. The history of the project, including previous designs proposed, is set out in the Committee's First Report into Infrastructure Projects.¹³⁰

The scope of the project includes:

- Two nine-kilometre rail tunnels from South Kensington to South Yarra, running via Swanston Street in the CBD, linking the Sunbury and Cranbourne/Pakenham rail lines;
- New underground stations at Arden, Parkville, CBD North (interchanging with Melbourne Central Station), CBD South (interchanging with Flinders Street Station) and Domain; and
- Train/tram interchanges at Parkville and Domain.¹³¹

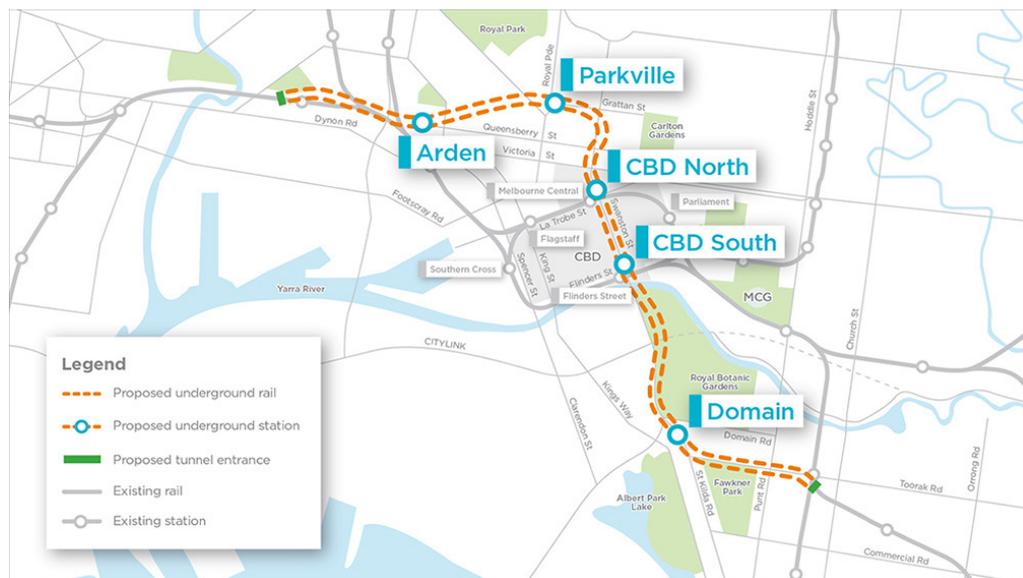
¹³⁰ See the Committee's *First Report into Infrastructure Projects* (2015), pp.26-8 for further details about earlier projects and their relation to the current project.

¹³¹ Melbourne Metro Rail Authority, *Melbourne Metro Rail Project* (2016), p.1.

The business case notes a number of additional components that are required as part of the project, including:¹³²

- signalling upgrades, track works and other infrastructure works;
- tram network changes; and
- 25 additional high-capacity metro trains and stabling, maintenance facilities and power upgrades.

Figure 4.1 Melbourne Metro Rail Project Map



Source: Melbourne Metro Rail Authority, <metrotunnel.vic.gov.au/resources/maps>, viewed 24 March 2017.

The image above shows the proposed location for the underground rail network.

The peak workforce on the project is expected to be 5000 people, including suppliers and fabricators and includes 10 per cent apprentices and 2.5 per cent Aboriginal workers.

Planning on the project commenced in 2015, and initial works such as utility service relocations and site preparation works began in 2016.¹³³ Major construction work is anticipated to begin in 2018. The project is expected to be completed at the end of 2026.¹³⁴

The Department of Treasury and Finance reports that the project is currently running on time and to the allocated budget¹³⁵ with the main project obtaining guaranteed funding of \$10.9 billion and allows \$2.86 billion over forward

132 Department of Economic Development, Jobs, Transport and Resources, *Melbourne Metro Business Case: February 2016*, 2016., pp.5-6.

133 Melbourne Metro Rail Authority, 'Current Works', viewed 24 March 2017, <metrotunnel.vic.gov.au/about-the-project/current-works>; Melbourne Metro Rail Authority, 'Project Delivery', viewed 24 March 2017, <metrotunnel.vic.gov.au/about-the-project/project-delivery>.

134 Department of Economic Development, Jobs, Transport and Resources, *Melbourne Metro Business Case: February 2016*, 2016. pp. 9, 180.

135 Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17.*, p. 149.

estimates.¹³⁶ The 2015-16 budget predicted a \$1.6 billion expenditure on the project between 2014-15 and 2018-19 to complete planning, design and early works before major construction commences in 2018, broken down as follows:¹³⁷

2014-15	2015-16	2016-17	2017-18	2018-19
\$40.0 million	\$122.4 million	\$137.6 million	\$420.0 million	\$840.0 million

This preliminary funding is intended to enable the Melbourne Metro Rail Authority to:

- complete the reference design
- undertake the statutory planning process
- acquire land
- prepare expression of interest and request for tender documents
- undertake early works (such as tram rerouting and service relocations).¹³⁸

The largest package of works on the project, including two nine-kilometre rail tunnels and five underground stations will be delivered through an 'availability-based PPP'. That is, on top of designing and building the tunnels and stations, the private sector partner will also be responsible for financing, operating and maintaining the infrastructure. The Public Private Partnership for this project is expected to be worth approximately \$6 billion. Expressions of interest for the tender opened in June 2016¹³⁹, shortlisted bidders were announced in August 2016¹⁴⁰, and the contract is anticipated to be awarded by the end of 2017.¹⁴¹

Additional works for relocation of existing services, reconfiguration of existing tracks and signal upgrades will be constructed through separate procurement packages.¹⁴²

The project was originally allocated \$3 billion in Federal Government funding, however this has been withdrawn.¹⁴³

¹³⁶ Ibid., p.1, 114.

¹³⁷ Department of Treasury and Finance, *Budget Paper No. 3: Service Delivery*, 2015-16., p.36.

¹³⁸ Hon. Daniel Andrews MP - Premier, '\$1.5 Billion To Get Started On Melbourne Metro Rail Project (media release)', viewed 24 March 2017, <www.premier.vic.gov.au/1-5-billion-to-get-started-on-melbourne-metro-rail-project-2>.

¹³⁹ Hon. James Merlino MP - Acting Premier; Hon. Jacinta Allan MP - Minister for Public Transport, 'Multi-Billion Dollar Metro Tunnel Out To Market', viewed 24 March 2017, <www.premier.vic.gov.au/multi-billion-dollar-metro-tunnel-out-to-market>.

¹⁴⁰ Hon. Daniel Andrews MP - Premier; Hon. Jacinta Allan MP - Minister for Public Transport, 'World's Best Shortlisted To Build The Metro Tunnel', viewed 24 March 2017, <www.premier.vic.gov.au/worlds-best-shortlisted-to-build-the-metro-tunnel>.

¹⁴¹ Hon. Daniel Andrews MP - Premier, '\$1.5 Billion To Get Started On Melbourne Metro Rail Project (media release)', viewed 24 March 2017, <www.premier.vic.gov.au/1-5-billion-to-get-started-on-melbourne-metro-rail-project-2>. Acting Premier Hon. Jacinta Allan MP, 'Work On Fully-Funded Metro Tunnel Begins', viewed 24 March 2017, <www.premier.vic.gov.au/work-on-fully-funded-metro-tunnel-begins>.

¹⁴² Melbourne Metro Rail Authority, 'Project Delivery', viewed 24 March 2017, <metro.tunnel.vic.gov.au/about-the-project/project-delivery>.

¹⁴³ Hon. Jacinta Allan MP - Minister for Public Transport, 'Getting It Done: The Metro Tunnel Is Fully Funded', viewed 24 March 2017, <www.premier.vic.gov.au/getting-it-done-the-metro-tunnel-is-fully-funded>; Acting Premier Hon. Jacinta Allan MP, 'Work On Fully-Funded Metro Tunnel Begins', viewed 24 March 2017, <www.premier.vic.gov.au/work-on-fully-funded-metro-tunnel-begins>.

Public Transport Victoria anticipate that the number of passengers using the metropolitan rail network in the next 15 years will double.¹⁴⁴ The project is intended to respond to population growth, particularly on the Sunbury and Cranbourne-Pakenham lines, which service growth corridors.¹⁴⁵

The Melbourne Metro Rail Authority states that the benefits of the project include:

- Allow greater capacity for 39,000 more passengers during peak periods;
- Relieve tram crowding and congestion on St Kilda Road and Swanston Street;
- Enable the future construction and extension of rail lines across Melbourne;
- Three new stations in areas not currently serviced by rail;
- Employing approximately 4,700 people during peak construction;
- Improve access to employment, education and opportunity in Melbourne's growth areas;
- Reduce road congestion;
- Add approximately \$7 billion to Victoria's Gross State Product;
- Improve connectivity within the existing rail network.¹⁴⁶

Evan Tattersall, CEO of the Melbourne Metro Rail Authority advised the Committee:

We are increasing the heart of our railway system by about 45 per cent. The city loop at the moment is near capacity; this increases that by nearly half.¹⁴⁷

It also takes two of the busiest lines that are currently used in the loop out and runs them through the new tunnel, that being the Sunbury line and the Dandenong line. That gives you a very good service on the new line we build, but it also creates space in the city loop to then allow more services on a lot of other lines around Melbourne's network.¹⁴⁸

Mr Jeroen Weimar, Acting CEO of Public Transport Victoria, informed the Committee that, presently, there is no capacity in the city loop for additional services. However, he advised the Committee that the Metro Rail project "is our big bottleneck reliever on the city loop" and that the project would significantly increase capacity through the loop and, by extension, services to the CBD during peak times, especially on the Cranbourne-Pakenham, Sunbury and Frankston lines.¹⁴⁹

¹⁴⁴ Jeroen Weimar - Acting CEO Public Transport Victoria, *Transcript - 19 October 2016*. p. 85.

¹⁴⁵ Evan Tattersall - CEO Melbourne Metro Rail Authority, *Transcript - 19 October 2016*., p.34.

¹⁴⁶ Melbourne Metro Rail Authority, 'Project Benefits', viewed 24 March 2017, <metrotunnel.vic.gov.au/about-the-project/project-benefits>.

¹⁴⁷ Evan Tattersall - CEO Melbourne Metro Rail Authority, *Transcript - 19 October 2016*., p. 34.

¹⁴⁸ *Ibid.* pp. 34-5.

¹⁴⁹ Jeroen Weimar - Acting CEO Public Transport Victoria, *Transcript - 19 October 2016*. p. 82.

Currently the city loop during the morning peak is full. We cannot run any additional trains through the city loop....So one of the great benefits of the Metro Tunnel Project is it enables us to take significant capacity on the city loop. Why? Because all the Dandenong and Sunbury trains will then run underneath the city loop so they will be taking a significant chunk of current demand out of the city loop. What that will enable us to do is run a lot of additional services — from Frankston, from Craigieburn, from around the network — around the city loop during their morning peak services.¹⁵⁰

Mr Weimar also stated that the Metro Tunnel Project supports improving rail capacity in the CBD, after which other elements such as high-capacity signalling or additional spurs¹⁵¹ could be added.¹⁵²

Evan Tattersall suggested to the Committee that at peak hour trains could run as frequently as four minutes apart on the Frankston line or “24 trains an hour” with the Metro Rail project.¹⁵³ However, he further clarified that where these improvements are likely to be seen and just how much the service is likely to improve beyond day one predictions is as yet unable to be estimated:

...on day one of Melbourne Metro in 2026, there is an extra 40 000 passengers roughly, in the peak period. That is not what the system would enable you to do; that is what the timetable on day one determines, and that is based on the seven-car high-capacity trains that are being bought. But, for example, we are building platforms that are 220 metres long in all these five new stations, with a view to those trains being able to be extended to 10-car carriages, which means you go from 1100 people to 1600 people in a carriage.... So the potential is enormous.¹⁵⁴

When asked by the Committee about what is likely to happen to Melbourne’s metropolitan rail network without upgrades such as the Melbourne Metro Rail Project, Mr Tattersall responded:

My understanding is it will continue to become more and more congested. If you do not do this project, it will grind to a halt.¹⁵⁵

4.2 Progress on the project from June 2016

Since the Committee’s last report the contract for the first major project element has been awarded an Environment Effects Statement has been completed.

The project is currently in the planning and design phase, with community consultation continuing, tender processes for the project contracts have begun, and initial (‘enabling works’) construction has commenced.¹⁵⁶

¹⁵⁰ Ibid. p. 82.

¹⁵¹ Such as an Airport Rail link - considered in Infrastructure Victoria’s report as medium-term projects Infrastructure Victoria, *Victoria’s 30-year Infrastructure Strategy*, Melbourne, 2016. pp. 128, 135, 137.

¹⁵² Jeroen Weimar - Acting CEO Public Transport Victoria, *Transcript - 19 October 2016*, p. 82.

¹⁵³ Evan Tattersall - CEO Melbourne Metro Rail Authority, *Transcript - 19 October 2016*. p. 37.

¹⁵⁴ Ibid. pp. 44-5.

¹⁵⁵ Ibid. pp. 44-5.

¹⁵⁶ Which includes moving underground utilities prior to the preferred contractor getting on site to commence the main work on the project. Melbourne Metro Rail Authority, ‘Project Timeline’, viewed 24 March 2017, <metrotunnel.vic.gov.au/about-the-project/project-timeline>.

Evan Tattersall, CEO of the Melbourne Metro Rail Authority, updated the Committee:

We are just starting some early works, which are two pronged. There are enabling works, we call them, which we are doing ahead of our planning approvals being in place, and that really is just minor service relocations around the stations. Then we are gearing up with our contractor John Holland to start major shaft works once the environmental approvals are in place early next year.

With our procurement packages, our main PPP contract is now out. The request for tender documents are out, and they are scheduled to close in March next year. We have got three major consortiums that were shortlisted — best around the world. We have got players in each of these consortia that are international players, as well as a good local mix. They comprise more than 80 companies when you put them all together. We hope to have our shortlisted proponents by towards the middle of next year, with a view to having that contract in place by the end of the year.

With our rail systems alliance, we are also out to tender, with two strong consortia there in a competitive alliance process. We released that earlier this month, and bids should be in by February next year, with a view to having the contract awarded by the middle of the year.¹⁵⁷

In June 2016 John Holland was awarded the first major contract for the Metro Tunnel Project – excavating the station shafts for the two new city stations at CBD North (at Frankly and A’Beckett Streets) and CBD South, which includes the partial demolition of City Square, and relocating utilities and the main sewer line under the Domain interchange.¹⁵⁸

In August 2016 the shortlisted bidders for the main project were announced:

- Continuum Victoria – comprising ACCIONA Infrastructure, Ferrovial Agroman, Honeywell, Downer EDI and Plenary Origination
- Cross Yarra Partnership – comprising Lendlease Engineering, John Holland, Bouygues Construction and Capella Capital
- Moving Melbourne Together – comprising Pacific Partnerships, CPB Contractors, Ghella, Salini Impregilo, Serco and Macquarie Capital.¹⁵⁹

In September 2016 two consortia (CPB Contractors and Bombardier Transportation, and The MetroConnect consortium comprising John Holland, Siemens and UGL) were also shortlisted for the signalling and communications system upgrade works with the contract anticipated to be worth up to \$1 billion.¹⁶⁰

¹⁵⁷ Evan Tattersall - CEO Melbourne Metro Rail Authority, *Transcript - 19 October 2016*. p. 35.

¹⁵⁸ Hon. Daniel Andrews MP - Premier, 'Major Work On Metro Tunnel To Begin Next Year', viewed 24 March 2017, <www.premier.vic.gov.au/major-work-on-metro-tunnel-to-begin-next-year>.

¹⁵⁹ Hon. Daniel Andrews MP - Premier; Hon. Jacinta Allan MP - Minister for Public Transport, 'World's Best Shortlisted To Build The Metro Tunnel', viewed 24 March 2017, <www.premier.vic.gov.au/worlds-best-shortlisted-to-build-the-metro-tunnel>; Melbourne Metro Rail Authority, 'Project Delivery', viewed 24 March 2017, <metrotunnel.vic.gov.au/about-the-project/project-delivery>.

¹⁶⁰ Hon. Jacinta Allan MP - Minister for Public Transport, 'Shortlist For Billion-Dollar High Capacity Signaling', viewed 24 March 2017, <www.premier.vic.gov.au/shortlist-for-billion-dollar-high-capacity-signaling>.

4.2.1 Environment Effects Statement (EES)

An EES assesses the potential environmental, social, economy and planning impacts of larger-scale projects and considers approaches for managing these impacts under the Environment Effects Act 1978. The EES is typically supported by a range of technical studies assessing different aspects of a project for potential impacts, suggesting mitigation measures. It informs subsequent planning approvals and decisions made by the Minister for Planning in relation to the project.¹⁶¹

In September 2015 the Minister for Planning determined that the Melbourne Metro Rail Project required an EES process to be carried out, due to the potential impact of a large-scale infrastructure project being undertaken in a dense urban area.

During this time the Melbourne Metro Rail Authority also submitted a referral under the Environment Protection and Biodiversity Conservation (EPBC) Act. The Commonwealth Government determined that the project be required to measure and monitor vibration when tunnelling passes the Victoria Barracks as this has Commonwealth heritage protection.¹⁶²

The EES process was finalised in December 2016.¹⁶³

The EES evaluated four key components of the Melbourne Metro Rail Project:

- The Concept Design and alternative design options
- Proposed construction methodology
- Environmental impact assessments underpinned by a risk assessment
- Recommended Environmental Performance Requirements.¹⁶⁴

The EES evaluated the project for a range of impacts across nine project areas (based on location of construction works and components), as well as possible benefits and opportunities arising from the project.¹⁶⁵

The draft EES was released for consultation in September. 379 submissions were received between May and June 2016. Submissions focused on noise and vibration from tunnelling, changes to traffic and transport, loss of trees, impacts

¹⁶¹ Melbourne Metro Rail Authority, 'Environmental Effects Statement', viewed 24 March 2017, <metrotunnel.vic.gov.au/planning/ees>.

¹⁶² Melbourne Metro Rail Authority, 'Planning Approvals', viewed 24 March 2017, <metrotunnel.vic.gov.au/planning/planning-approvals>.

¹⁶³ Melbourne Metro Rail Authority, *Melbourne Metro Rail Project Environmental Effects Statement: Summary Report*, Melbourne, 2016., p. 8; Melbourne Metro Rail Authority, 'Environmental Effects Statement', viewed 24 March 2017, <metrotunnel.vic.gov.au/planning/ees>; Hon. Richard Wynne MP - Minister for Planning, 'Environmental Plan In Place For The Metro Tunnel', viewed 24 March 2017, <www.premier.vic.gov.au/environmental-plan-in-place-for-the-metro-tunnel>.

¹⁶⁴ Melbourne Metro Rail Authority, *Melbourne Metro Rail Project Environmental Effects Statement: Summary Report*, Melbourne, 2016., p. 12.

¹⁶⁵ The full EES is able to be viewed here: <metrotunnel.vic.gov.au/planning/ees/documents>, viewed 27 March 2017.

on open space, heritage and the impact on communities and businesses around the works. A joint inquiry advisory committee sat between August and October, hearing from 115 parties, before making recommendations to the Minister.¹⁶⁶

The main impacts of the project identified in the EES include:

- The temporary closure of a number of roads for extended periods, the subsequent impact on local traffic patterns, walking and cycling routes, and some bus and tram services
- Construction activity generating truck movements for removing excavated material and delivering materials and equipment, which would add to existing local traffic
- The presence of a large construction workforce, which would generate additional traffic that could affect the local and wider road network.
- Acquisition of private land (the EES estimates 19 residential buildings, including an apartment block with 49 separate titles and 32 commercial buildings would need to be permanently acquired for the project which would have a “potentially significant” impact on individual landowners, households, tenants and businesses.¹⁶⁷
- Temporary loss of public space and parkland including:
 - City Square in the CBD
 - a small part of Federation Square,
 - part of University Square in Carlton,
 - the Albert Road Reserve and Edmund Herring Oval in Melbourne,
 - the South Yarra Siding Reserve and
 - potentially part of Fawkner Park in South Yarra.
- Noise and vibration, especially as tunnel-boring machines pass underneath a location.
- Visual impacts at a number of locations including
 - The University of Melbourne
 - The Victorian Comprehensive Cancer Centre
 - University Square, Parkville
 - City Square
 - Views to St Paul’s Cathedral, Flinders Street Station and Federation Square
 - Views along St Kilda Road and Swanston Street to the Shrine of Remembrance
 - Residences adjoining South Yarra Siding Reserve or overlooking CBD construction sites

¹⁶⁶ Julian Lyngcoln - Acting Deputy Secretary Planning, *Transcript - 18 October 2016*. p. 13.

¹⁶⁷ Unless otherwise specified, information for section 4.2.1 has been sourced from the Metro Tunnel website at: <metrotunnel.vic.gov.au/___data/assets/pdf_file/0015/51063/MMRP_Summary-Report-WEB.pdf>, viewed 27 March 2017.

- Removal of trees along Grattan Street, Royal Parade, St Kilda Road and Albert Road
- Temporary occupation of public space including Edmund Herring Oval, Fawkner Park, South Yarra Siding Reserve and Lovers Walk
- Potential for groundwater impacts
- The EES outlines the obligations for the successful contractor in relation to:
 - disruptions to existing public transport infrastructure, including walking and cycling routes
 - disruptions affecting car parking
 - disruptions affecting business¹⁶⁸
 - establishment of a traffic and transport work group¹⁶⁹
 - detailed traffic management plans for each precinct that would include measures to:
 - Identify construction traffic routes for each precinct to move this traffic away from local areas to the arterial road / motorway network as quickly as possible.
 - Divert road traffic away from construction work sites to alternative routes and encourage motorists to use the alternative routes
 - Minimise truck movements during peak periods to reduce impacts on peak period traffic
 - Minimise truck movements near residential areas at nighttime to reduce the impact on residents.
- Minimising additional impacts on air quality, including developing and maintaining a dust management and monitoring plan
- Managing air emissions at sensitive sites such as hospitals and medical research institutes
- Adhering to guidelines regarding noise and vibration, including using appropriate construction methods and management processes
- Implementing a management response for specific targets for noise and vibration impacts near sensitive sites such as healthcare and education institutions
- Over-site development at the CBD North and South stations visual impact and impact on nearby heritage buildings
- Exploring alternative public open space to Edmund Herring Oval, Fawkner Park, South Yarra Siding Reserve and Lovers Walk
- Designing tunnels, portals and stations to protect against flooding during construction and operation

¹⁶⁸ Hon. Richard Wynne MP - Minister for Planning, 'Environmental Plan In Place For The Metro Tunnel', viewed 24 March 2017, <www.premier.vic.gov.au/environmental-plan-in-place-for-the-metro-tunnel>.

¹⁶⁹ Ibid.

- Appropriately tanking and conducting excavation works to prevent impacts to groundwater
- Undertaking modelling based on the final design to demonstrate that predicted ground movements would be minimised to acceptable levels, including undertaking detailed surveys of potentially affected structures prior to commencing
- Undertaking comprehensive ground movement and groundwater monitoring programs throughout construction and prepare contingency plans to manage any issues which may arise during construction
- Mitigating the potential impacts of encountering gases and vapours during construction and operation
- Develop and implement a management plan for spoil and other wastes generated through construction
- Offset indigenous trees removed from the Arden station precinct
- Mitigating greenhouse gas impacts
- Adhering to the Environmental Management Framework outlined in the EES, including developing a project-specific Environmental Management System throughout the design, construction and operation phases of the project.

Notably, the EES found that the majority of transport connectivity risks and the likelihood of delays or travel time increases is low or very low. However, road closures including the reduction of lanes in St Kilda Road, will have “a potentially significant impact on traffic operations.”¹⁷⁰ The Melbourne Metro Project will also include permanent changes to roads, including:

- Grattan Street reduced to one lane in each direction between Flemington Road and Leicester Street (Parkville precinct)
- Permanent closure of part of Franklin Street between Swanston Street and Bowen Street (CBD North precinct)
- Reconfiguration of St Kilda Road, between Domain Road and Toorak Road to optimize the thoroughfare for all modes of transport (Domain precinct).

Other key suggestions and outcomes emerging from the EES include:¹⁷¹

- 119 fewer trees will be lost
- Fawkner Park will no longer be used for the project
- property acquisition in Kensington has been reduced from 22 to one
- The Minister has requested further action from the Melbourne Metro Rail Authority to minimise impacts on the community, businesses and surrounding heritage.

¹⁷⁰ Melbourne Metro Rail Authority, *Melbourne Metro Rail Project Environmental Effects Statement: Summary Report*, Melbourne, 2016.

¹⁷¹ Hon. Richard Wynne MP - Minister for Planning, 'Environmental Plan In Place For The Metro Tunnel', viewed 24 March 2017, <www.premier.vic.gov.au/environmental-plan-in-place-for-the-metro-tunnel>.

- The Melbourne Metro Rail Authority is required to set up new stakeholder groups along the alignment to work with communities during construction.

In January 2017 a draft Planning Scheme Amendment exhibited during the EES process was approved and published in the Government Gazette. Design and Development Overlaps for Melbourne, Port Phillip and Stonnington Planning Schemes were also approved and published to cover the new infrastructure being delivered and which now require a planning permit to undertake certain works near the Metro Tunnel alignment.¹⁷²

In February 2017 the Minister for Planning approved the Melbourne Metro Rail Authority's Environment Management Framework and Urban Design Strategy.¹⁷³

In evidence to the Committee, Evan Tattersall discussed the positive outcomes for the project because of the stakeholder engagement undertaken as part of the EES process:

It was a really good opportunity for the public and stakeholders to come and have their say and try and help us develop the performance requirements that we put in place to help us manage this project.¹⁷⁴

...examples of good initiatives that have come out of the interaction we have had with stakeholders in the community.... At one stage we were using a fair chunk of Fawkner Park for our tunnel boring machine launching area. We have now been able to develop our thinking in light of concerns to avoid going into Fawkner Park at all. That not only saves impacts on the local tennis club there and childcare centre but also saves quite a lot of mature trees, which is obviously a very important part of our project.

We have also managed to avoid some intervention shafts that were along Toorak Road there, which again saves impact on the community. On the right-hand side, we had an alternative to go over or under the CityLink tunnels, and we have, in light of a whole lot of consultation, adopted now to go under CityLink, which saves again a big impact on the park above there. So there were a lot of trees that would have gone had we gone above; a big disruption to the park that we now have been able to avoid. Just a couple of examples of some of the stuff that is coming out of it.¹⁷⁵

Community input and the EES assessment have resulted in changes to the original project proposal. These include:¹⁷⁶

- Refining the western tunnel entrance to not include JJ Holland Park
- Moving the Parkville and CBD north station locations to avoid and reduce impacts on Royal Parade, The Royal Melbourne Hospital, the State Library and La Trobe Street

¹⁷² Melbourne Metro Rail Authority, 'Planning Approvals', viewed 24 March 2017, <metrotunnel.vic.gov.au/planning/planning-approvals>.

¹⁷³ Both documents can be accessed in full here: <metrotunnel.vic.gov.au/planning/planning-applications>, viewed 28 March 2017.

¹⁷⁴ Evan Tattersall - CEO Melbourne Metro Rail Authority, *Transcript - 19 October 2016*. p. 35.

¹⁷⁵ *Ibid.* p. 34.

¹⁷⁶ Melbourne Metro Rail Authority, *Melbourne Metro Rail Project Environmental Effects Statement: Summary Report*, Melbourne, 2016. pp. 7-8.

- Changing from cut and cover to mined cavern construction methods for the CBD stations to reduce the impact on Swanston Street
- Boring tunnels under the Yarra River to reduce impacts on the river
- Revising the Domain Station layout to reduce the impact on the Shrine of Remembrance.

4.3 Future work and timelines

The shortlisted consortiums will submit formal proposals for the main project in early 2017. The government anticipates awarding the contract by the end of 2017.¹⁷⁷ Once the major contract is awarded, main works and tunnelling are anticipated to begin in early 2018.¹⁷⁸ Station construction is anticipated to take between five and six years.¹⁷⁹ The project is expected to be fully complete by 2026.¹⁸⁰

4.4 Committee Comments

4.4.1 Trees

During its inquiries on this matter, Committee members expressed concern about the number of trees likely to be removed as part of the project.

Mr Tattersall confirmed that approximately 224 trees are likely to be affected by the project. However, he also advised the Committee that the preferred contractor would be obligated to mitigate the number of trees lost and indicated that the tenders received already had “good ideas” presented in relation to this.¹⁸¹

The Committee were advised that the Melbourne Metro Rail Authority is working with the City of Melbourne and the City of Port Phillip on tree replacement as part of the project.

Ms HARTLAND — Can we take a step back and talk about that Domain intersection? When the trees are lost, will you replant mature trees? How will they be replaced?

Mr TATTERSALL — You can plant trees that are up to about three to four years old. We are working closely with the cities of Melbourne and Port Phillip. The City of Melbourne have actually already got trees growing because they have a regular retirement of trees when they get to the back end of their life. We are going to

177 Hon. Daniel Andrews MP - Premier; Hon. Jacinta Allan MP - Minister for Public Transport, 'World's Best Shortlisted To Build The Metro Tunnel', viewed 24 March 2017, <www.premier.vic.gov.au/worlds-best-shortlisted-to-build-the-metro-tunnel>; Acting Premier Hon. Jacinta Allan MP, 'Work On Fully-Funded Metro Tunnel Begins', viewed 24 March 2017, <www.premier.vic.gov.au/work-on-fully-funded-metro-tunnel-begins>.

178 Melbourne Metro Rail Authority, 'Project Timeline', viewed 24 March 2017, <metrotunnel.vic.gov.au/about-the-project/project-timeline>; Evan Tattersall - CEO Melbourne Metro Rail Authority, *Transcript - 19 October 2016*, p. 35.

179 Evan Tattersall - CEO Melbourne Metro Rail Authority, *Transcript - 19 October 2016*, p. 39.

180 Department of Economic Development, Jobs, Transport and Resources, *Melbourne Metro Business Case: February 2016*, 2016, pp. 9, 180; Melbourne Metro Rail Authority, 'Project Timeline', viewed 24 March 2017, <metrotunnel.vic.gov.au/about-the-project/project-timeline>.

181 Evan Tattersall - CEO Melbourne Metro Rail Authority, *Transcript - 19 October 2016*, p. 39.

effectively ramp that up more so that we are growing trees in parallel that are at about that three- to four-year age limit that can be dropped in. As I have said before, our focus will be to get the surface back to a normal level as quickly as possible. We will be planting the trees during the period of the project, not waiting until the end, so as quickly as possible at that three- to four-year level. I think that gets you about three- to four-metre high trees or something like that. They are not full blown, but they are reasonable size trees.¹⁸²

Mr Tattersall also addressed the issue of whether more trees would be removed than anticipated:

The CHAIR — So they are some that may find less trees removed. Are there any changes that may increase the number of trees removed from any areas?

Mr TATTERSALL — No. We have adopted a worst-case scenario, and performance criteria for the contractors is to reduce from that, not increase. And we do have a two-for-one replacement approach at the moment, so for every tree we take out, we want to put two back. It is obviously subject to some practicalities with councils, to make sure they do have the spaces and we are not overdeveloping the tree population, but that is the target.

Ms HARTLAND — It would never do that.

Mr TATTERSALL — You would think not.¹⁸³

Mr Tattersall also discussed the comparative impacts on trees between cut-and-cover and cavern tunnelling solutions for the project. He advised that a cavern solution saved approximately 15 trees but that this option was not being considered due to specific circumstances at the Domain project site.¹⁸⁴

4.4.2 St Kilda Road

Concerns were raised about the anticipated and ongoing impacts on traffic on St Kilda Road because of the project.¹⁸⁵

Mr Tattersall provided information about current plans and their impact on traffic on St Kilda Road, and in particular, how many lanes would remain operational at the end of the construction period:

The CHAIR — So going forward, once the station has been completed, what is the permanent impact going to be on St Kilda Road? I think there has been discussion that it may be reduced to just two lanes each way instead of the regular four. I am just wondering what are the permanent impacts upon St Kilda Road once the station is completed?

Mr TATTERSALL — It is effectively three lanes in each direction at the moment with turning lanes as well. It is not four.¹⁸⁶

¹⁸² Ibid. p. 39.

¹⁸³ Ibid. p. 47.

¹⁸⁴ Ibid. P. 36.

¹⁸⁵ John Merritt - CEO VicRoads, *Transcript - 19 October 2016*, pp. 69-70.

¹⁸⁶ Evan Tattersall - CEO Melbourne Metro Rail Authority, *Transcript - 19 October 2016*, p. 43.

And, further:

Mr TATTERSALL — We are still working through this with VicRoads, and we obviously need our contractors on board with the detailed design, because we are doing this on the basis of our reference design that we have produced today. The detail of that might see minor changes to the way the final legacy arrangements pan out, but at the moment we are looking at three lanes in each direction, except that off peak one of those lanes in each direction becomes available for parking in between Domain Road and Toorak Road, but in the peak there would be three lanes in each direction, which is effectively the same as now.¹⁸⁷

The CHAIR — But permanent lane reductions have not been ruled out to this point?

Mr TATTERSALL — Well, that is what I am saying: instead of three plus a turning lane, as you have got at the moment, it will be three, and that third lane will be used for parking as well. So you have three clear at the moment. There would be three during the peak, but off peak it would revert to parking. But the load on St Kilda Road, working that through with VicRoads and the council, is such that you do not need the three during the off-peak period; it is only in the peak when you need it. But that could change. That is subject to working it through with VicRoads in the detailed design.¹⁸⁸

The Committee noted the concerns raised by residents of buildings at 416, 416A and 418 St Kilda Road. Mr Tattersall advised the Committee that the Melbourne Metro Rail Authority was aware of these residents' concerns and was actively working with them to resolve the issues.

Mr TATTERSALL — Yes, they are genuine concerns. We have done a lot of work with those apartment buildings already but it is an ongoing process. We know their concerns and we are trying to find solutions that will work. Irrespective of the residents' concerns, we are not able to block access for emergency vehicles, for example, so we need to solve that irrespective of the concerns of the residents, and we are working on that.¹⁸⁹

4.4.3 Noise

At the Committee's Hearing questions were raised about the impact of noise on nearby residents who will be near the various construction sites for five to six years.

Mr Tattersall advised the Committee that the works will be mostly undertaken under an acoustic shed, in line with similar projects internationally:

Mr TATTERSALL — The overall period to build these stations is between five and six. For the ones in the city it is more like six, and the ones at Domain, Parkville and Arden are more like five. We have put an acoustic shed over the top. Then there are several years where we are working underneath to do the actual structural elements. Then there are a couple of years of fitting out the actual station proper and the

¹⁸⁷ Ibid. p. 43.

¹⁸⁸ Ibid. pp. 36-7.

¹⁸⁹ Ibid. p. 43.

services. Then there is the integration period with all the systems. So you are actually there for a lot longer, but in terms of the impact on the area, it is a matter of a few years. Again, until we get our contractors on board with the final detail, we will not be able to know all that exactly. But it will be about a year without an acoustic shed on it and then probably three years of impact where you are doing works underneath and you still have stuff coming up out of the ground and trucks moving around and impact on the local area.

Ms HARTLAND — The other projects you went to see, such as in New York, Copenhagen and Hong Kong, they would all have similar issues in terms of actually trying to do this through very urbanised areas. What were the things you learnt from those projects, to do or to avoid?

Mr TATTERSALL — We were particularly interested in how they protected as soon as possible the amenity from obviously noise but also dust. The acoustic sheds are what are commonly used around the world. When you have got an open shaft where you are bringing dirt up from, you get an acoustic shed over the top as quickly as possible. These are insulated sheds that reduce your noise dramatically. Then you have proper wheel washers so you are not bringing mud out on the streets. You bring your spoil up into the shed, load it into the trucks and move it out outside of peak, ideally. Particularly with Crossrail, where they were working in the heart of London, their focus was on moving trucks outside of the peak period so they were not clogging up an already very clogged city, that sort of thing. It is fairly standard procedure. I saw it in New York and we saw it in Hong Kong and in London. Others have been to Singapore and Malaysia, and that is the method that is used traditionally.¹⁹⁰

Further, Mr Tattersall advised that there would not be any out-of-hours work undertaken on the project until the acoustic sheds were installed and that the community would be consulted to ensure that truck routes did not unduly affect residential areas.

Mr TATTERSALL — It will vary. While we have open boxes, we will only be working during the day; we will not be doing any out-of-hours work. Once we get acoustic sheds on and get noise mitigated, then we will be looking at extended hours, working 24 hours for the tunnelling operation. It will be truck movements that are probably the biggest impact then. We are working with the community and with the stakeholders to get routes for the trucks so we can take them away from sensitive areas, like residential areas. But there will be impact, there is no denying that.¹⁹¹

4.4.4 Resident relocation

The issue of residential relocation was raised with Mr Tattersall during public hearings. He discussed the Melbourne Metro Rail Authority's community consultation process with regard to relocation. Mr Tattersall told that Committee that the EES process focussed on this issue. He told the Committee that resident impact management guidelines were developed and modified during the EES process:

¹⁹⁰ Ibid. p. 39.

¹⁹¹ Ibid. p. 40.

... yes, we do have a relocation policy, and it is quite clearly set out in those environmental performance requirements that are on the website as to how we would apply it. The contractors will be locked into having to comply with those.

Ms Hartland requested information about how residents were to be informed about that process. Mr Tattersall provided further information:

Mr TATTERSALL — It is a very public process at the moment, as I said before. We will be out actively engaging and advising of the outcomes. I mean, this is all subject to the recommendations of the panel and the approval by the minister, but by early next year, assuming this sort of thing is still the way we are going to do it, we will then be having a very solid communication process through precinct groups that we will set up, particularly around the stations, because that is where the greatest impact will be, and the portals, so that we inform the community.

Ms HARTLAND — On the other areas where you will have lots of residents — at Arden street, at this stage, there are not a lot of people there — the city ones will be more hotels and businesses that will be affected?

Mr TATTERSALL — Yes.

Ms HARTLAND — And the western portal. Can you remind me? It is in between Footscray and West Footscray, is it not?

Mr TATTERSALL — Yes. Right near South Kensington station. We have had a lot of discussion with the residents out there. I have been out there myself to a couple of three-hour sessions where we have been through what the design is and how we intend to build it. As a consequence of that there is a very strong desire from those residents to move the portal further to the west so it helps to mitigate the impact and it saves some of the houses that need to be acquired there under the current solution. So we are looking very closely at that right now. We hear loud and clear that there is a very strong push out there to do this, to help mitigate, and we just need to finalise this EES process.¹⁹²

Mr Tattersall informed the Committee about the different consultation arms of the Melbourne Metro Rail Project:

There are two levels. There is that forum which we have established — well there are three actually. There is the CEO-level forum that I go to. There is the precinct group that I showed you there before. At the moment I think it is about every six weeks they are meeting, but that will be as often as required, probably monthly. Then under that there will be subgroups, because different members of those groups will have different needs. But things like the bus and managing the 401 and the 402 bus, for that matter, we are working with PTV and VicRoads and that on how we can make sure that bus service is efficient during construction. Obviously we cannot drop them off where we will have the station being built, but we will make sure that that functionality is maintained. Ultimately the load on those bus services will probably drop off, because the train line will go directly there from the west.¹⁹³

¹⁹² Ibid. pp. 40-1.

¹⁹³ Ibid. p. 44.

4.4.5 Impact on hospitals

In response to questions Mr Tattersall told the Committee that the impact of tunnelling near sensitive sites such as hospitals was adequately taken into consideration by the Melbourne Metro Rail Authority and would be adequately considered by the preferred contractor in their construction methods.

...We do not have all the answers to a detailed level yet, but we have performance requirements that we are putting in place through the environment effects statement process that we will lock our contractors into to say, 'You cannot vibrate more than X millimetres per second' and 'You can't have noise levels beyond Y', for example, at different stages. They have some very sensitive equipment in the hospitals up there and obviously they have operations that they do, so we will need to work with them at a really detailed level and plan that step by step such that what we do works for them. All the details of those answers we do not yet have but we will have before we start banging holes in the ground. That is for sure.

He discussed the impact on the building fabric, procedures being undertaken in hospital and the ongoing operation of hospitals during construction. Mr Tattersall told the Committee that Melbourne Metro has considered these issues and put plans into place.

... I am confident that we can come up with construction methods that do not impact the buildings. From an operation's point of view, it may be acoustic treatment that we do to the buildings if it is a noise issue. It may be that we do need to move beds from one area to another area to move them further away. There are a lot of things that can be done. We will work with the hospitals to make sure that the solutions we put in place work for them.¹⁹⁴

4.4.6 City Square

There were concerns about the impact on business of the building disruption to City Square.

Mr Tattersall updated the Committee about how the Melbourne Metro Rail Authority is planning to compensate and work with those affected businesses:

...there are varying levels of impact, and every business is different. Any business that is directly affected, and there are some, will be moved from the area. Brunetti's is an obvious one that sits in the square that has to be moved. They are already working with us. We are relocating them to another place and they are being compensated for that. It is more complicated for other businesses that are further away from the direct site. But what we have here is akin to large building projects. It is like a Queen Victoria site or a Myer Emporium site.

...

194 Ibid. P. 42.

And we will work with each business, depending on where they are and what the impact is, to make sure signage and advertising initiatives are in place to make sure that we minimise the impact on them as much as possible.¹⁹⁵

Mr Tattersall was also able to clarify for the Committee exactly what the City Square site would look like while construction was underway:

...It will be very much akin to one of those big building sites you see around town, so there will be hoardings. We are very conscious of the high-profile location of City Square. It is obviously the heart of Melbourne, with the tourists, so we will not be putting ratty hoardings up, I assure you. The other thing to note is that after a year or so we will be putting an acoustic shed over City Square as well. That is to, again, mitigate that impact of noise and dust. So behind the hoarding there will be a shed, and quite a substantial shed. We are just working with the City of Melbourne in particular and the Westin hotel on the appearance of that shed, what we can do to make it not be too big and ugly. It is a very functional solution to help mitigate the impact of the project.¹⁹⁶

Mr Tattersall provided information to the Committee about the number of businesses affected and the Melbourne Metro Rail Authority's plans for consulting with these stakeholders. In some cases the *Land Acquisition and Compensation Act (Vic) 1986* will be relevant:

Mr TATTERSALL — They were 44 buildings in total for the project, and 29 of those are commercial and 15 are residential. That is all, say, behind Young and Jackson's area, for example; there are a number of businesses there. There are the ones under the Westin there and there are others up on CBD north.¹⁹⁷

He was, however, unable to provide estimates to the Committee about the levels of compensation available for businesses and residents.

Mr TATTERSALL — We have got estimates, but obviously it is going to be subject to a whole lot of detail, working through, understanding the business that is being acquired. The ultimate compensation will depend on what they can demonstrate, of course, to us.

The CHAIR — Could you provide those estimates to the committee?

Mr TATTERSALL — I do not think that would be appropriate at this stage. Perhaps down the track, once we have further established what those costs are, but at this stage it is still a work in progress.

...

Mr TATTERSALL — Maybe at a future stage, but it is premature to do that at this stage.¹⁹⁸

¹⁹⁵ Ibid. p. 42.

¹⁹⁶ Ibid. pp. 46-7.

¹⁹⁷ Ibid. PP. 42-3.

¹⁹⁸ Ibid. p. 45.

4.4.7 Other

Impact on the Shrine

Concerns were raised about the Domain station site and the possible impact of the project on the Shrine of Remembrance.

Mr Tattersall explained the decision to put the Domain station site aboveground:

It does not really make sense if you are trying to have that direct tram-train interchange If you put the station over under the shrine, then people are not going to transfer from the trams to the train, because by the time they do that they might as well stay on the tram and head into the city.¹⁹⁹

The final EES concluded that the impacts on the Shrine: “will not compromise the overall use of the land for public open space in the long term.”²⁰⁰

Cost reimbursement

The Committee expressed an interest in the total costs that have been recouped by Metro Trains as part of their association with the Melbourne Metro Rail Project.

Metro Trains provided the following statement to the Committee in relation to this:

Metro is reimbursed for the actual costs it incurs (plus margin) in assisting with the delivery of major projects. The majority of Metro costs paid by LXRA and MMRA were labour costs relating to safety, development, engineering, customer experience, and onsite construction support. In addition to this are the bussing costs associated with the replacement of rail services which are required during major occupations. In FY15/16 Metro received \$124m from LXRA and MMRA as payment for the works we completed in support of these projects.²⁰¹

Opportunities for affordable housing

The Committee noted evidence from Infrastructure Victoria, that the Melbourne Metro project opens up opportunities for affordable housing.

Adele McCarthy advised the Committee:

...we have pointed to opportunities like the Arden precinct, where there is obviously major investment going on with the current Melbourne Metro project. There are great opportunities in terms of government land being available there, so integrating that planning is obviously a present opportunity that is available.²⁰²

¹⁹⁹ Ibid. p. 46.

²⁰⁰ Melbourne Metro Rail Authority, *Melbourne Metro Rail Project Environmental Effects Statement: Summary Report*, Melbourne, 2016. p. 42.

²⁰¹ Metro Trains Melbourne, *Response to Questions on Notice*.

²⁰² Adele McCarthy - Director Strategy Infrastructure Victoria, *Transcript - 19 October 2016*. pp. 28-9.

Cut and cover approach

The Committee also noted community concern about the cavern compared to the cut-and-cover approach, which Mr Tattersall addressed in evidence to the Committee:

The CHAIR — Now, I note there have been over 7000 people who have signed a petition calling upon the government to have a Domain station built using a tunnelling method rather than that cut-and-cover. What would your message be to those over 7000 people?

Mr TATTERSALL — It would be outlining what I really just went through then, that the perception that a cavern solution actually reduces the impact is not right. The impact is much the same, but we would be there longer and, as I said, that longer term transport solution is much less effective because of the travel time/distance. People will not tend to use it anywhere near as much because it will take them longer to get up and down. That is the advice of the modellers. So I would be giving a similar sort of message, and we have. We have consulted far and wide now with local residents about the pros and cons of each.²⁰³

JJ Holland Reserve

Mr Tattersall was also able to confirm to the Committee that the project was “not going to touch” JJ Holland Reserve.²⁰⁴

203 Evan Tattersall - CEO Melbourne Metro Rail Authority, *Transcript - 19 October 2016*. p. 36.

204 *Ibid.* p. 41.

5

Victoria's Regional Rail Network

Victoria has a large regional rail network that provides passenger services to towns and cities throughout the state as well as a number of freight lines to move goods and help farmers get their product to market.

The passenger network has seen a period of unprecedented growth in patronage in the past decade as a number of infrastructure projects have made rail travel more attractive and accessible. Population growth on Melbourne's fringes and in Victoria's regional towns and cities has also led to an increase in patronage that is set to continue in the years ahead.

In many sectors of the transport network in Victoria this growth in patronage and associated demand has not been met with timely supply of transport options for commuters.

The Committee resolved to examine this issue in relation to Victoria's regional rail network and invited Public Transport Victoria and V/Line representatives to a public hearing to provide information about the network.

V/Line and PTV have put in place a number of measures to increase capacity on existing passenger lines and improve the punctuality and reliability of services. These measures include a renewed focus on infrastructure maintenance and upgrades.

The Committee heard that Victoria's freight network is also undergoing review and renewal following the imposition of heat-speed restrictions on sections of the network, which disrupted the exceptionally large grain harvest in December 2016.

Part of this renewal is the Murray Basin Rail Project, which will see an upgrade of large sections of the freight network to allow trains to carry larger loads, and access more tracks and port facilities.

5.1 Overview of Victoria's regional rail network

The V/Line passenger network consists of 1747 kilometres²⁰⁵ of track, as well as coach routes on which 17.6 million trips were taken in 2015-16.²⁰⁶ The track in regional Victoria is owned by VicTrack, a State Government body, through which

²⁰⁵ Victorian Government, *Connecting Regional Victoria; Victoria's Regional Network Development Plan*, 2016, p. 19.

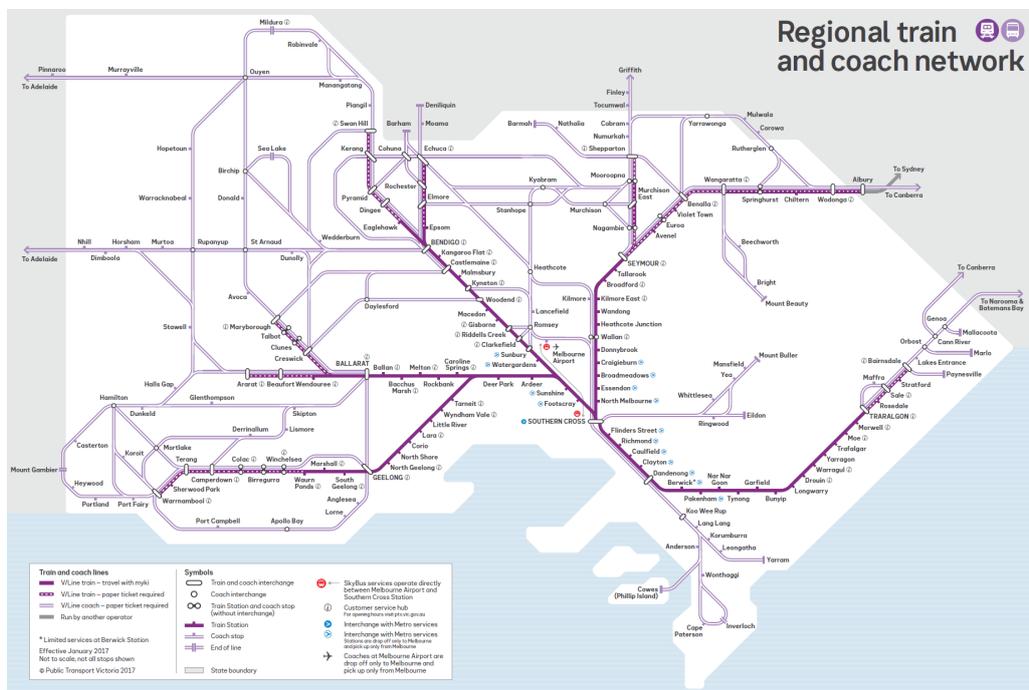
²⁰⁶ V/Line, *Annual Report 2015-16*, 2016, p. 4.

Public Transport Victoria (PTV) licences V/Line to operate passenger services. V/Line is also licenced to provide access to and maintain Victoria's freight track network.²⁰⁷

V/Line operates passenger services between Melbourne and:

- Geelong and Warrnambool
- Ballarat, Maryborough and Ararat
- Bendigo, Swan Hill and Echuca
- Seymour, Shepparton and Albury
- Traralgon, Sale and Bairnsdale.

Figure 5.1 V/Line's regional train and coach passenger network



Source: V/Line, <www.vline.com.au/Maps-stations-stops/Network-Maps>, viewed 21 April 2017.

5.2 Planning for growth - increase in demand for V/Line services

Victoria's regional rail network has experienced a significant increase in patronage in the past decade. Several factors, including the implementation of the Regional Fast Rail project in 2006, the completion of the Regional Rail Link

207 V/Line, 'About V/Line' <corporate.vline.com.au/About-V-Line/Our-company>, accessed 21 April 2017.

in 2015, as well as population growth in outer Melbourne and regional Victoria has seen patronage on V/Line services grow from approximately 7 million passengers a year in 2006²⁰⁸ to over 17 million in 2016.²⁰⁹

The Regional Fast Rail Project, completed in mid-2006, saw journey times between Melbourne, Bendigo and Ballarat decrease and extra services added. Following the completion of this project, passenger numbers on V/Line increased from 6.9 million in 2004-05²¹⁰ to 13.7 million by 2009-10.²¹¹

The Regional Rail link, completed in 2015, is a new section of track stretching through Melbourne's western suburbs to Geelong. The Regional Rail Link has allowed more frequent services between Melbourne and Geelong, Ballarat and Bendigo. V/Line saw an increase in patronage of nearly 20 per cent on its passenger rail network in 2015-16 following the opening of the Regional Rail Link.²¹²

This increase in patronage is set to continue in the coming years, particularly on lines between Melbourne and Victoria's growing regional cities. Mr James Pinder, CEO of V/Line told the Committee, 'Our railway and our region and our state is changing. More and more people are coming to live in Victoria. Our network is carrying more and more people and we are on a transformational journey.'²¹³

As well as availability of services, population growth in regional Victoria is a key driver of increasing patronage on V/Line services. More people are choosing to stay in or move to regional towns and cities. This is particularly evident in Victoria's large regional cities, where it is estimated that between 2011 and 2031, Greater Geelong, Greater Bendigo and Ballarat will account for approximately half of the population growth in Victoria's regions.²¹⁴

Jeroen Pinder, CEO of PTV outlined the increase in demand for V/Line services:

All of that [metropolitan service patronage] is really outstripped by the ongoing growth of patronage on the regional V/Line network. In February just gone we saw around a 4.3 per cent growth in patronage between July 2016 and February 2017. That is remarkable enough over that eightmonth period, but that is on top of a 17.5 per cent patronage growth in 2015-16 on the opening of the regional rail network. For example, on the Geelong line in March we had over 750 000 passenger trips. We are seeing a level of ridership on the network that we have not seen before on our regional services.

208 V/Line, *Annual Report 2005-06*, 2006, p.15.

209 Jeroen Weimar - CEO Public Transport Victoria, *Transcript - 20 April 2017*, p. 8.

210 V/Line, *Annual Report 2004-05*, 2005, p. 10.

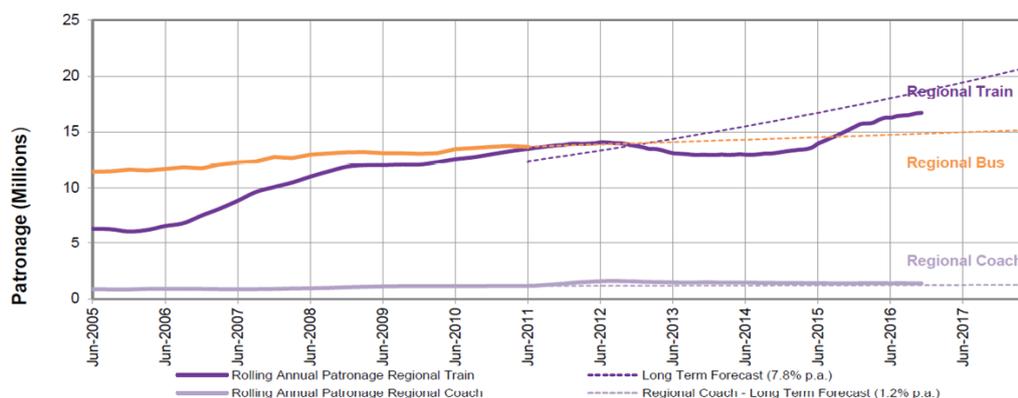
211 Ibid. p. 6.

212 Public Transport Victoria, *Annual Report 2015-16*, 2016, p. 7.

213 James Pinder - CEO V/Line, *Transcript - 20 April 2017*, p. 8.

214 Department of Environment, Land, Water and Planning, *Victoria In Future 2016 population and household projections to 2051*, 2016, p. 9.

Figure 5.2 Patronage growth on Victoria's regional rail network



Source: Public Transport Victoria, handout, public hearing, 20 April 2017

In 2016, the Government published Connecting Regional Victoria, Victoria's Regional Network Development Plan. The plan outlines the Government's aim to improve the regional rail network by providing more track, more trains, better facilities and more train services. In this document the Government describes its aim to have a 'commuter style service with a minimum 20 minute train frequency in the peak' and 'a 40 minute off-peak frequency of services to Melbourne' as well as five services, five days a week to outer regional train lines of Warrnambool, Bairnsdale, Wodonga, Echuca, Swan Hill and Shepparton.²¹⁵

5.2.1 Service capacity on the regional rail network

The Committee noted community concerns about the growing number of services at full capacity at peak times on regional train services. The table below outlines services at full seat capacity during the morning and afternoon peaks.

Table 5.1 V/Line services at full seat capacity on peak time trains in March 2017

Line	Services at full seat capacity at busiest point to Melbourne before 9:00am	Services at full seat capacity at busiest point from Melbourne between 4:00 and 6:00pm
Ballarat	7 out of 13 (53.8%)	7 out of 11 (63.6%)
Bendigo	1 out of 8 (12.5%)	2 out of 6 (33%)
Geelong	12 out of 16 (75%)	9 out of 13 (69.2%)
Gippsland	2 out of 4 (50%)	2 out of 3 (66.6%)
Seymour	0 out of 4 (0%)	2 out of 3 (66.6%)

Source: V/Line, 'Performance and Capacity', <www.vline.com.au/About-V-Line/Performance>, viewed 19 April 2017.

The Geelong line in particular has seen a significant increase in patronage in the past two years which service delivery has not kept up with. The completion of the Regional Rail Link allowed an extra 223 services to be added to the line

215 Victorian Government, *Connecting Regional Victoria; Victoria's Regional Network Development Plan*, 2016, p. 6.

in June 2015,²¹⁶ however, the increased availability of services has quickly been taken up by passengers switching from other modes of transport. Mr James Pinder, CEO of V/Line told the committee:

You could probably argue that the entire route between Geelong and the city is now a metropolitan style service, a commuter service. That is in large part — maybe I am putting a positive slant on things, but that is in large part — because we are running more trains than ever before, faster than ever before, but the patronage is keeping up with us.²¹⁷

Demand on this line continues to grow. Table 1 shows that in March 2017 75 per cent of services were at full seat capacity at the line's busiest point in the morning and 69.2 per cent of services were at full seat capacity in the evenings.

PTV introduced a timetable change in January 2017 that saw 80 extra services added throughout the regional rail network.²¹⁸ The Committee notes that these extra services are off-peak.²¹⁹ While they will improve choice for users at off-peak times, they may not assist with capacity issues at peak times.

Mr Pinder told the Committee that he planned to improve network capacity, reliability and punctuality through a focus on maintenance and upgrades of track and rolling stock infrastructure:

The performance challenge for me constitutes five elements. There is the focus on the day of operations, which we have organised ourselves structurally as a business to do more effectively going forward. We are focusing on rolling stock performance and working with our rolling stock maintenance contractors, Bombardier and Downer, in that space. We are focusing on, as we have already touched on, infrastructure performance and improving level crossing safety but also by installing axle counters at those level crossings whereby we are able to increase the speed of the operation of the line on those lines that are affected. We are also improving, through our other maintenance and renewal works, the condition of the infrastructure generally. We are focusing on performance in the Metro boundary and working more closely than we have ever worked before with Metro and colleagues there.²²⁰

Mr Pinder also explained that enhancement of availability of operational facilities such as depot, fuelling and cleaning facilities are a personal focus of his:

I think the last point for me in particular is a passion, given my background, is around the availability of operational facilities — making sure we have got the right depot facilities, the right fuelling facilities and the right sidings and cleaning facilities.²²¹

²¹⁶ V/Line, 'More Reliable Services for Passengers on the Geelong Line' (media release), 7 April 2017.

²¹⁷ James Pinder - CEO V/Line, *Transcript - 20 April 2017*, p. 12.

²¹⁸ Public Transport Victoria, 'More in Store for Regional Victoria' <www.ptv.vic.gov.au/getting-around/network-changes/more-in-store-for-regional-victoria/#newvlineservices> viewed 24 April 2017.

²¹⁹ Public Transport Victoria, 'More in Store for Regional Victoria' <www.ptv.vic.gov.au/getting-around/network-changes/more-in-store-for-regional-victoria/#newvlineservices>, viewed 24 April 2017.

²²⁰ James Pinder - CEO V/Line, *Transcript - 20 April 2017*, pp. 6-5.

²²¹ *Ibid.* p. 6.

Mr Weimar, agreed with V/Line's renewed focus on the maintenance and improvement of infrastructure to increase service capacity and reliability:

I think the approach that James and his team have taken has been absolutely right. We have taken a much more disciplined approach to maintenance and renewal work. We are seeing more being spent on maintenance and renewal in this financial year than was spent in many a long time on the V/Line network, and that is all about restoring the state of the infrastructure to the right state so you can run reliable services. As James says, we are managing the challenges of getting additional rolling stock onto the network — and those additional trains are coming on, giving us the uplift capacity we need — and we are running to catch up with the increase in demand that we are seeing on the network across all of our major corridors.²²²

The Committee notes the approach taken by V/Line to improve service capacity and reliability through a focus on maintenance and infrastructure improvement. The Committee hopes to see an indication of improvement in service capacity, reliability and punctuality in its next reporting period.

5.3 Punctuality on the Warrnambool and Albury-Wodonga Lines

The Warrnambool line and the Albury-Wodonga line have experienced ongoing issues with punctual service. Passengers on the Warrnambool line in particular have endured ongoing delays on the railway line because of speed restrictions at level crossings following a collision between a train and a vehicle in 2016. The Albury-Wodonga line has also experienced delays due to speed restrictions on parts of the line where poor weather and heavy use has caused the track to degrade. V/Line told the Committee that measures are in place to address these issues.

5.3.1 The Warrnambool Line

There have been speed restrictions on the Warrnambool line since an incident in July 2016 where a truck failed to stop at an unguarded crossing and collided with a passenger train.²²³ Speed restrictions were put in place at 17 unguarded level crossings between Waurnd Ponds and Warrnambool,²²⁴ which has resulted in increased travel times and ongoing issues with punctuality. V/Line defines punctuality on long distance services such as the Warrnambool line as between on-time to 10 minutes 59 seconds late.²²⁵ In January 2017, 12.6 per cent of services were punctual, and in February and March, 31.7 and 31.2 per cent of services respectively were punctual.

²²² Jeroen Weimar - CEO Public Transport Victoria, *Transcript - 20 April 2017*, p. 7.

²²³ V/Line, Warrnambool Line Level Crossing Incident 13 July 2016 (media release), 14 July 2016.

²²⁴ V/Line, Update on Warrnambool Line Services (media release), 25 January 2017.

²²⁵ V/Line, 'Performance and Capacity', <www.vline.com.au/About-V-Line/Performance> viewed 21 April 2017.

Table 5.2 Punctuality on the Warrnambool line between January and March 2017

	January	February	March
Percentage of punctual services on the Warrnambool line	12.6%	31.7%	31.2%

Source: V/Line, 'Performance and Capacity', <www.vline.com.au/About-V-Line/Performance> viewed 21 April 2017.

Mr Pinder told the Committee about the work underway to upgrade the crossings and remove the speed restrictions on the Warrnambool line:

On the Warrnambool line in particular we have had some issues specifically related to speed restrictions associated with level crossings. The safety bar when it comes to level crossings is continuing to increase. That is something we welcome. We have a great working relationship now with the regulator, and the work that we will be doing on the Warrnambool line in the next eight months will see the vast majority of those speed restrictions taken off that line, and we will be able to restore punctuality to that line to the levels that our passengers expect.²²⁶

The Government announced the upgrade of 52 high priority road crossings and 25 pedestrian crossings in February 2015²²⁷ as part of the safer country crossings program. The program aims to improve safety through installation of boom gates and other safety measures at unguarded crossings across the state. Part of this program will involve the upgrade of the unguarded crossings on the Warrnambool line, which will allow the removal of speed restrictions.

Jeroen Weimar, CEO of PTV told the Committee that work has been completed on 12 crossings, as part of the safer country crossings program, many of which are along the north east line.²²⁸ The next phase of the program will see crossing upgrades along the Warrnambool line.

5.3.2 The Albury-Wodonga Line

Service punctuality has also been an issue on the Albury-Wodonga line. The line is managed by the Australian Rail Track Corporation (ARTC), a Commonwealth Government owned corporation. There have been problems on the line for a number of years regarding 'mud holes' around concrete sleepers.²²⁹ This usually occurs after periods of rainfall where water and mud collect around the sleepers and liquefy the ballast, compromising its ability to support the track. Trains passing over mud holes have to slow down.²³⁰ ARTC is responsible for maintaining the line and since 2011 has undertaken a \$134 million ballast rehabilitation program between Sydney and Melbourne, including on the Albury-Wodonga line.²³¹

226 James Pinder - CEO V/Line, *Transcript - 20 April 2017*, p. 5.

227 The Hon Daniel Andrews MP, 'Work Begins to Upgrade 52 Regional Bridges and Crossings' (media release), 19 February 2015.

228 Jeroen Weimar - CEO Public Transport Victoria, *Transcript - 20 April 2017*, p. 3.

229 Australian Rail Track Corporation, 'Ballast Rehabilitation Program, Timeline', viewed 27 April 2017, <www.artc.com.au/projects/brp/chronology>

230 Ibid.

231 Australian Rail Track Corporation, 'Ballast Rehabilitation Program', viewed 27 April 2017, <www.artc.com.au/projects/brp/?doing_wp_cron=1493278566.2668819427490234375000>

Table 5.3 Punctuality on the Albury-Wodonga Line between January and March 2017

	January	February	March
Percentage of punctual services on the Albury-Wodonga line	65.7%	61.7%	60.7%

Source: V/Line, 'Performance and Capacity', viewed 21 April 2017, <www.vline.com.au/About-V-Line/Performance>

Mr Pinder told the Committee that V/Line were aware of the issue and have undertaken surveys on the line to let ARTC know where the most damaged sections of the track are:

We decided to instigate of our own volition the kitting out of our trains with some technical remote condition monitoring equipment. Rather than deal with anecdotal evidence from passengers and conductors and drivers on the trains saying, 'This patch is rough', 'That patch is rough', 'No, this patch is rougher than that patch', we actually used technology to provide us with a map, essentially, of exactly where the more rough sections of track were. We provided ARTC with that information. I have met on a few occasions and spoken on many more occasions with John from the ARTC. So we provided that information to them, and they used that information to better inform their remedial work that they carried out very recently. As a result of that remedial work, we believe anecdotally that the condition of the track is better, from speaking with our staff. Certainly we have seen a slight improvement in operational performance, but we are going to put the technology back on the trains to measure the actual before and after, and John and his team have made a commitment going forward that they will use that data to better inform their infrastructure maintenance and renewal activities.²³²

The Committee welcomes more targeted maintenance practices on the Albury-Wodonga line, however, the Committee notes that the problems regarding 'mud holes' have been ongoing for some years. The Committee hopes that V/Line continues to work with ARTC to develop a long-term solution to this problem.

5.4 The Ballarat Line Upgrade

The Government is upgrading the Ballarat line to improve capacity and improve punctuality. The upgrade will include:

- duplication of 17 kilometres of track between Deer Park and Melton
- a replacement carpark at Rockbank station
- additional platforms at Bacchus Marsh and Ballan stations, and extended platforms at Rockbank station with new pedestrian links between platforms
- new stabling facilities at Melton and Rowsley, and the removal of stabling facilities at Bacchus Marsh
- a five kilometre passing loop at Ballan
- a four kilometre passing loop at Spredaeagle which will make it possible to close the existing Bungaree loop and remove five level crossings

²³² James Pinder - CEO V/Line, *Transcript - 20 April 2017*, p. 15.

- duplication of three kilometres of track east of Warrenheip Junction.²³³

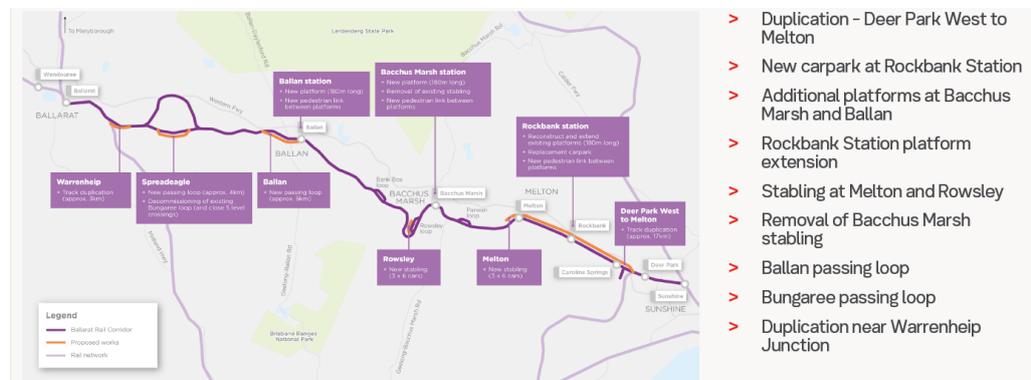
The upgrade will enable extra services in the morning and afternoon peaks, as well as a train every 40 minutes off-peak. The upgrade will also pave the way for future electrification of the line between Melton and Melbourne, creating a new metropolitan train line into the city.²³⁴ As part of this, a new train station opened at Caroline Springs in January 2017.²³⁵

The upgrade will also include the addition of extra passing loops, which are parts of track that allow trains to branch off and re-connect to the main track to let other trains pass. The Committee heard that passing loops will help services recover from unexpected delays more quickly, boosting reliability and punctuality:

What that does is really give us more capacity to get more trains onto the network along with more passing loops and more reliability. It also allows us to have a more resilient network. One of the challenges that James will explain is that when we do have incidents on the regional rail network, particularly with single track work, the disruption impact and the ability to recover from disruption is severely hampered. So projects like the Ballarat line upgrade are very important to developing a more reliable long-term network and a more resilient long-term network.²³⁶

The Committee was told that site surveys and investigations are underway. Major construction will commence in early 2018 and the upgrade is forecast to be completed in late 2019.²³⁷

Figure 5.3 Overview of the Ballarat line upgrade



Source: Public Transport Victoria handout, public hearing, 20 April 2017.

233 Department of Economic Development, Jobs, Transport and Resources, *Ballarat Line Upgrade Fact Sheet*, 2017, p. 1.

234 Ibid.

235 Hon, Jacinta Allen MP, Minister for Transport, 'Melbourne's Newest Station Ready for Passengers' (media release), 28 January 2017.

236 Jeroen Weimar - CEO PublicTransport Victoria, *Transcript - 20 April 2017*, p. 3.

237 Ibid.

5.5 Heat speed restrictions on Victoria's freight network

The Committee was keen to investigate heat-speed restrictions on the Victoria's freight rail network. Trains have heat-speed restrictions because the tracks expand in the heat and can lead to derailments. In December 2016, V/Line introduced a policy on the freight network to suspend services on a number of lines on days when the temperature reached 33 and 36 degrees. These measures caused disruption on the network during the exceptionally large grain harvest of 2016-17. The restrictions have been eased since the release of an updated network operating policy in January 2017, however, some restrictions still apply.²³⁸ V/Line has faced criticism for the restrictions and has commissioned Monash University to conduct an independent review of the policy.²³⁹ Table 5.4 outlines the service restrictions on the freight network in December 2016.

Table 5.4 Service restrictions in December 2016 at 33 and 36 degrees

Temperature required for service restriction	Route affected	Service restriction period
33 degrees	Swan Hill – Piangil	12:00pm and 10:00pm
33 degrees	Echuca – Deniliquin	10:00am and 10:00pm
33 degrees	Shepparton – Tocumwal	10:00am and 10:00pm
33 degrees	Toolamba – Echuca	10:00am and 10:00pm
33 degrees	Dunolly – Donald	12:00pm and 8:00pm
33 degrees	Donald – Mildura	10:00am and 10:00pm
33 degrees	Ouyen – Murrayville	10:00am and 10:00pm
33 degrees	Dimboola – Rainbow	10:00am and 10:00pm
36 degrees	Dunnolly – Inglewood	12:00pm and 8:00pm
36 degrees	Inglewood – Korong Vale	10:00am and 8:00pm
36 degrees	Korong Vale – Manangatang	10:00am and 8:00pm

Source: V/Line, *Network Operating Requirements R03-2016*, 9 December 2016, p. 8.

Mr Pinder told the Committee why heat speed restrictions are necessary:

Heat speed restrictions first and foremost are not a phenomenon that is unique to Melbourne, Victoria, Australia; they are something that occur everywhere around the world. They have to occur because of the laws of physics that say if you apply heat to metal, it will expand, and when it gets colder, it contracts. So in order to manage that, generally speaking what happens around the world is you slow trains down when it is either extremely hot or it is extremely cold.²⁴⁰

²³⁸ V/Line, *Network Operating Requirements R02-2017*, 27 January 2017, p. 8.

²³⁹ James Pinder - CEO V/Line, *Transcript - 20 April 2017*, p. 13.

²⁴⁰ James Pinder - CEO V/Line, *Transcript - 20 April 2017*, p. 12.

Mr Pinder went on to tell the Committee that some of the speed restrictions in December 2016 were put in place following an upgrade of some lines as part of the Murray Basin Rail Project. This will be discussed further in section 5.6 of this chapter. He said that:

We know, having carried out a significant amount of work last year as part 1 of the Murray Basin work on the rail freight network, that there was a risk, and we know it is a real risk because even as recently as late 2015 there were two significant derailments. We know that there is a risk associated with not allowing infrastructure to consolidate post the infrastructure work where you are changing significant amounts of that infrastructure. So having changed tens of thousands of sleepers you have to run trains over it to enable the infrastructure to bed in effectively, for want of a better term.²⁴¹

Mr Pinder said that he believed the restrictions prevented heat-related train derailments during the harvest for the first time since 2009.²⁴² He noted concerns about the disruption caused by the restrictions, but said they were reasonable in light of the delays and recovery costs that can come with large train derailments.²⁴³ He also told the Committee that the network moved almost twice as many trains during the 2016-17 harvest as it did for the 2015-16 harvest.²⁴⁴

The Committee notes that Victoria experienced an exceptionally large crop harvest in 2016-17. The Commonwealth Government's Australian Bureau of Agricultural and Resource Economics and Sciences reported that the 2016-17 harvest was 145 per cent larger than the 2015-16 harvest,²⁴⁵ which the bureau described as 'well below average'.²⁴⁶ Given this, the Committee believes that even with an almost doubling of trains on the network from the year before, the network may not have been operating at optimal efficiency.

V/Line released a revised network operating plan on 27 January 2017. Heat speed restrictions remain in place, however, the temperature at which services are suspended has been raised from 33 degrees to 36 degrees on some lines.²⁴⁷

Mr Pinder acknowledged that V/Line could have done more to communicate with stakeholders ahead of the implementation of the heat speed restrictions in December 2016:

I think if anything my observation in terms of where we could have done better is around communication with stakeholders. We felt that we were communicating with our freight operators, but it is fairly clear to me from spending quite a lot of the past four and a half months up in those regions talking to the Victorian Farmers Federation and the Rail Freight Alliance and all of these shire councils that that message was not getting through, so we have put steps in place to address that. We

²⁴¹ Ibid. pp. 12-13.

²⁴² Ibid. p. 13.

²⁴³ Ibid. p. 13.

²⁴⁴ Ibid. p. 4.

²⁴⁵ Commonwealth Department of Agriculture and Water Resources, Australian Bureau of Agricultural and Resource Economics and Sciences, *Australian Crop Report*, 2017, p. 2.

²⁴⁶ Ibid. p. 14.

²⁴⁷ V/Line, *Network Operating Requirements R02-2017*, 2017, p. 8.

are going to create a stakeholder advisory board for the freight community so that going forward we can communicate more effectively and make sure that people can make plans.²⁴⁸

The Rail Freight Alliance wrote a letter about the heat-speed restrictions to the Premier on 13 April 2017.²⁴⁹ The letter was signed by a number of Mayors in local government areas affected by the restrictions. The letter claimed that 'V/Line's actions have directly reduced the profitability of rural communities and has had a significant impact on the State's agriculture productivity.'²⁵⁰ The letter went on to call for an 'independent peer review of V/Line standards'.²⁵¹

Mr Pinder confirmed that an independent assessment of the heat-speed restrictions would take place:

We have commissioned Monash University to carry out an entirely independent assessment of our engineering activities and our operational activities post those engineering activities, and we will look forward to sharing the outcome of that in due course.

The Committee looks forward to the release of the Monash report and hopes it will inform a compromise on heat-speed restrictions between V/Line and the signatories of the Rail Freight Alliance letter. The Committee also welcomes the establishment of a stakeholder advisory board for the freight community.

5.6 The Murray Basin Rail Project

The Murray Basin Rail Project is a joint State and Commonwealth funded project to upgrade parts of Victoria's freight rail network to increase the loads which trains can carry, standardise rail gauges and increase access to ports. The project will take place in four stages, the first stage has been completed and stages two, three and four are expected to take place in the coming years.

Stage one of the project involved works on the Mildura and Hopetoun line to upgrade the rail, sleepers and ballast to accommodate heavier trains. The axle load weight on these lines has increased from 19 to 21 tonnes, which will increase efficiency by 15 per cent.²⁵² More than 175,000 sleepers and 3,400 metres of rail have been replaced as part of stage one.²⁵³

²⁴⁸ James Pinder - CEO V/Line, *Transcript* - 20 April 2017, p.13

²⁴⁹ Correspondence from Cr Glen Milne, Chair Rail Freight alliance et al, to the Hon Daniel Andrews MP, 13 April 2017.

²⁵⁰ Ibid.

²⁵¹ Ibid.

²⁵² Government of Victoria, *Murray Basin Rail Project Summary Brochure*, 2015, p. 5.

²⁵³ Public Transport Victoria, 'Murray Basin Rail Project', viewed 27 April 2017, <www.ptv.vic.gov.au/projects/rail-projects/murray-basin-rail-project>.

As noted in section 5.5, Mr Pinder suggested that the reason for heat speed restrictions on part of the freight network in December 2016 was to let the freight lines recently upgraded as part of the Murray Basin Rail Project 'bed in'.²⁵⁴ The Committee anticipates that the lines will have had sufficient time to consolidate before the next harvest.

Mr Pinder told the Committee that the upgraded lines would be less susceptible to heat-speed restrictions in the longer term:

Not only will they be able to run more trains but they will be able to run heavier trains. It will also mean that the infrastructure will be more robust, and whilst we will always have speed restrictions associated with hot weather, for all of the reasons that I mentioned earlier on, they will be less constraining.²⁵⁵

Stage two of the project will allow for heavier trains and involve the gauge conversion of the rail lines between Yelta and Maryborough and between Ouyen and Murrayville. The works will also include the reopening of the freight line between Maryborough and Ararat. The gauge conversion involves the change from broad gauge to standard gauge. The conversion will allow freight operators to access the port at Portland and promote competition in the industry.²⁵⁶

Stage three of the project involves the upgrade of the tracks on the Manangatang and Sea Lake Lines to replace old sleepers and sections of rail to accommodate heavier train loads in a manner similar to stage one. The work is due to commence in 2018 following the harvest season, the lines will be closed for five months while the work takes place.²⁵⁷

Stage four will also allow for heavier trains and convert the section of rail between Ballarat and Gheringhap, near Geelong, to dual gauge. This will allow passenger services, which use broad gauge, and freight services, which use standard gauge, to use the line.²⁵⁸

The Committee welcomes the investment in Victoria's freight network, which it believes will provide a boost to the transport industry, farmers and regional communities. The Committee notes concerns however with the timeline of the project,²⁵⁹ which began in 2015 and still has a number of years to run before completion. Mr Pinder told the Committee that the work is happening 'between the grain seasons'²⁶⁰ so as not to disrupt freight services during harvest. This effectively excludes work on the lines for part of the year and results in a longer project timeframe.

²⁵⁴ James Pinder - CEO V/Line, *Transcript - 20 April 2017*, pp. 12-13.

²⁵⁵ *Ibid.* p. 14.

²⁵⁶ *Ibid.* p. 14.

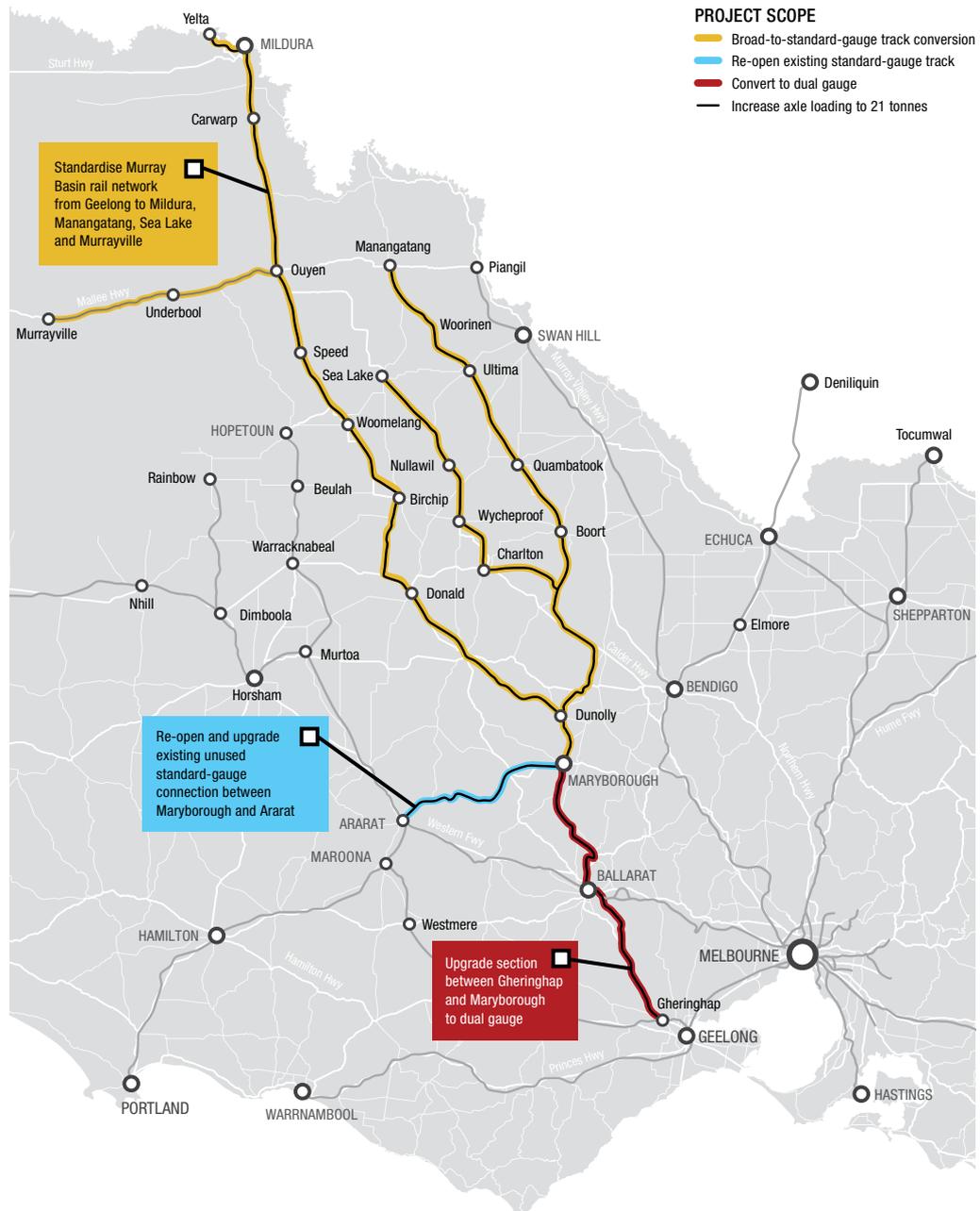
²⁵⁷ Public Transport Victoria, Rail Projects, Murray Basin Rail Project, viewed 27 April 2017, <www.ptv.vic.gov.au/projects/rail-projects/murray-basin-rail-project>.

²⁵⁸ James Pinder - CEO V/Line, *Transcript - 20 April 2017*, p. 14.

²⁵⁹ Hon. Gordon Rich-Phillips MLC, Opposition Press Releases, 'Murray Basin Rail Project Slow Going Under Labor' (media release), 1 March 2017, viewed 27 April 2017, <www.rich-phillips.com.au/Media/OppositionPressReleases/tabid/114/ID/1735/Murray-Basin-Rail-Project-slow-going-under-Labor.aspx>.

²⁶⁰ James Pinder - CEO V/Line, *Transcript - 20 April 2017*, p. 4.

Figure 5.4 Overview of the Murray Basin Rail Project



Source: Government of Victoria, Murray Basin Rail Project Summary Brochure, 2015, p. 4.

The Committee also asked Mr Pinder about whether the project would prohibit the future reinstatement of a passenger service to Mildura.²⁶¹ Mr Pinder told the Committee that ‘I am currently not aware of any plans to reinstate passenger services to Mildura, but certainly it will not stop it from happening if that decision is made in the future.’²⁶²

The Committee will continue to examine the Murray Basin Rail project in order to determine how effectively the project is progressing.

261 Colleen Hartland MLC, *Transcript - 20 April 2017*, p. 17.

262 James Pinder - CEO V/Line, *Transcript - 20 April 2017*, p. 17.

Part B

Health Infrastructure

6 Bendigo Health Hospital

For its third report for the Inquiry into infrastructure projects the Committee decided to focus on inquiring into health related infrastructure projects in Victoria. This is in addition to reporting on the five projects outlined in the Terms of Reference for this inquiry. See Chapter One for a general discussion on health infrastructure and the challenges facing our health system.

Cost	Expected Completion Date	Current Status	Next Phase
\$1.11 billion (\$630 million State funding)	Stage 1: Early 2017	Stage 1: Completed in January 2017	Stage 2: Due to Commence January 2017
	Stage 2: June 2018	Stage 2: Due to Commence January 2017	Stage 3: Possible beyond 2018

Source: Department of Treasury and Finance, 'Bendigo Hospital: Project Overview', viewed 3 April 2017, <www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Bendigo-Hospital>; Department of Treasury and Finance, Project Summary: Partnerships Victoria - Bendigo Hospital Project, Melbourne, 2013; Bendigo Health, 'Bendigo Hospital Project', viewed 3 April 2017, <bendigohospitalproject.org.au>.

6.1 Project overview and background

The Bendigo Health Hospital upgrade has been described by the government as the largest ever health project in regional Victoria. It is intended to expand Bendigo Health's ability to provide care to a growing regional population and to improve teaching opportunities and local service provision in the region.²⁶³

The project was initiated in September 2011 to replace the existing Bendigo hospital with one better able to service the Bendigo and Loddon Mallee region.²⁶⁴ The project is a public private partnership, which underwent a competitive tender process. Exemplar Health was announced as the successful partner on 30 May 2013.²⁶⁵

Stage 1 of the project is for:

- 372 inpatient beds, including 282 acute inpatient beds;
- 932 bed wards over three floors for acute inpatients;
- 72 same day beds or chairs;
- Significant increases in capacity for emergency and ICU wards;

²⁶³ Department of Treasury and Finance, *Project Summary: Partnerships Victoria - Bendigo Hospital Project*, Melbourne, 2013, pp. 7-8; Bendigo Health, 'Minister visit for new hospital's tick of approval', viewed 3 April 2017, <bendigohospitalproject.org.au/new-bendigo-hospitals-tick-of-approval>; John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 30.

²⁶⁴ Department of Treasury and Finance, *Project Summary: Partnerships Victoria - Bendigo Hospital Project*, Melbourne, 2013; John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 25.

²⁶⁵ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 25.

- Specialist birthing, maternity, and children’s wards including a special care nurse;
- 11 operating theatres;
- An integrated cancer centre, including radiotherapy and medical oncology services;
- Psychiatric inpatient services (56 beds), including parent and infant psychiatric services; and
- 60 subacute and rehab beds.²⁶⁶

It is intended that the upgraded hospital will have capacity for high-end and specialist medical services such as major trauma, specialist neonatal care and transplants.²⁶⁷ The hospital has close ties with Monash University and La Trobe University’s clinical schools and RMIT for psychiatry services and hospital design research.²⁶⁸

A proposed Stage 2 is for:

- A carpark;
- A bridge linking sections of the hospital;
- A helipad; and
- Commercial developments.²⁶⁹

In evidence to the Committee Mr Peter Faulkner, Executive Director of the Bendigo Hospital Project, anticipated a technical completion of stage 1 of the project by 14 December 2016 and a commercial acceptance by 23 January 2017.²⁷⁰

Stage 1 technical completion occurred on 14 November 2016²⁷¹ and the hospital was officially completed and handed over on 20 January 2017.²⁷²

²⁶⁶ Ibid, p. 30; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 32.

²⁶⁷ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, pp. 42-3; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 42.

²⁶⁸ Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 27-30; Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, pp. 25-7.

²⁶⁹ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 30.

²⁷⁰ Ibid, p. 30.

²⁷¹ Bendigo Health, 'Project update, December 2016', viewed 3 April 2017, <bendigohospitalproject.org.au/project-update-december-2016>.

²⁷² Bendigo Health, 'Official handover of the new Bendigo Hospital', viewed 3 April 2017, <bendigohospitalproject.org.au/official-handover-of-the-new-bendigo-hospital-from-exemplar-health-to-bendigo-health>; Bendigo Health, 'Minister visit for new hospital's tick of approval', viewed 3 April 2017, <bendigohospitalproject.org.au/new-bendigo-hospitals-tick-of-approval>.

6.2 Funding

The Bendigo Hospital upgrade project cost approximately \$1.11 billion through a public private partnership between the state government and Exemplar Health with the Victorian Government contributing \$630 million of the total as well as \$1.906 million in smaller related capital projects, upgrades, replacements and an expected completion payment.²⁷³

Ms Michele Morrison of Exemplar Health described the public-private partnership arrangement for the project to the Committee:

...the Bendigo Hospital project is being delivered by the Victorian state government through a public-private partnership, and the state engaged our consortium, Exemplar Health, to design, construct, finance and commission the project, in addition to the significant role of operating the hospital for the next 25 years. We will be utilising Spotless to provide our full range of services in the operational phase. This operational phase consists of building management, utilities management, waste management, grounds and garden maintenance, pest control, cleaning, car park management, security services, portering services along with materials distribution.²⁷⁴

A breakdown of state investment since 2015 is below:²⁷⁵

Table 6.1 Bendigo Health Investment Breakdown

Total	2013-14	2014-15	2015-16	2016-17	Remaining for 2017-18
\$129.46 million	\$83.560 million	\$14.6 million	\$97.386 million	\$15.336 million	\$16.738 million

Exemplar Health reported that Stage 1 of the project was delivered on budget on January 20 2017.²⁷⁶

Bendigo Health received a further \$275.25 million in funding in the 2016-17 budget to expand services once the Hospital opens.²⁷⁷

²⁷³ Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 53.

²⁷⁴ Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, pp. 25-7.

²⁷⁵ Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 51; Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program*, Melbourne, 2015-16, p. 35.

²⁷⁶ Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, p. 37.

²⁷⁷ Bendigo Health, 'Minister visit for new hospital's tick of approval', viewed 3 April 2017, <bendigohospitalproject.org.au/new-bendigo-hospitals-tick-of-approval>.

6.3 Progress to date

A timeline of Stage 1 of the project is below:²⁷⁸

Table 6.2 Stage 1 timeline

2010		Labor announces the project as part of a pre-election commitment.
TENDER PROCESS		
2011	September	Expressions of interest submitted for consideration.
2012	February	Expressions of interest proposals shortlisted.
	May	Requests for full proposals issued.
	November	Full proposals received.
2013	January	Best and final offer briefs issued.
	February	Best and final offer proposals received.
	April	Exemplar Health announced as the preferred contractor for the project.
	May	Contractual and financial negotiations closed.
	June	Exemplar appointed as preferred partner for the project.
CONSTRUCTION		
2013	August	Premier Denis Napthine turns the first sod on the project site.
	September	Site cleared for preparatory works, including removing the Bendigo ambulance station, laundry and other buildings.
	October	Excavation work commences.
	December	Laying of foundations commences.
2014	January	First crane installed and concrete infrastructure construction commenced.
	May	First building (Schaller Studio) opened.
	August	50 per cent of concrete required for the project has been poured.
2015	January	60 new workers were inducted on the site each week with 790 workers on site at peak construction.
	May	Tower cranes removed. Premier Daniel Andrews, Jacinta Allen and Maree Edwards tour the site, including unveiling the cancer centre.
	November	Structural works completed. Operational staff training commences.
2016	March	Internal fixtures and fit-out works commence.
	April	External infrastructure commences, including road building.
	August	Maternity facility unveiled.

²⁷⁸ Department of Treasury and Finance, *Project Summary: Partnerships Victoria - Bendigo Hospital Project*, Melbourne, 2013; Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, pp. 25-7; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 27-30; Bendigo Health, 'Bendigo Hospital Project: Newsletters', viewed 3 April 2017, <bendigohospitalproject.org.au/news-resources/newsletters>; Bendigo Health, 'Bendigo Hospital Project: Media Releases', viewed 3 April 2017, <bendigohospitalproject.org.au/news-resources/media-releases>; Bendigo Health, 'Bendigo Hospital Project: Construction Updates', viewed 3 April 2017, <bendigohospitalproject.org.au/news-resources/construction-updates>.

COMPLETION

2016	November	Technical construction work completed 20 November 2016. Heritage restoration works announced.
2017	January	Inpatient transition to the new facility on 24 January, including closure of the old emergency department. Retail precinct opens. Commercial handover of hospital on 20 January.

OPENING

2017	February	Flag raising ceremony held. The hospital has had 3,231 patient admissions, 100 births, almost 4,000 presentations to the ED, 759 operations and 6,277 appointments in specialist clinics since it opened in January.
	March	Psychiatric services opened. Tranquil gardens including local sculptures opened.

6.4 Future work and timelines

Stage 2 of the works was anticipated to commence in January 2017 but no official announcement that works have commenced on Stage 2 has been made.²⁷⁹ Stage 2 is proposed to include the demolition of existing buildings to allow the construction of a multistorey carpark, a helipad, a conference centre, affordable accommodation for patients' families, and a link bridge across Arnold Street to the new hospital.²⁸⁰ Stage 2 is proposed to be completed by 30 June 2018.²⁸¹

Bendigo Health currently has a proposal for Stage 3 of the project in early consideration.²⁸² Mr Mulder described the proposed Stage 3 works to the Committee. Works include moving current rehabilitation services to the new hospital building. Further:

The infrastructure plan and the retained buildings plan that Peter spoke of seeks to move all of those remaining services back across the road to the vacated Bendigo Health site, the Bendigo Hospital site, and demolish the current buildings. It will be a sensational plan. ... but it is probably around a \$50 million solution, so it is challenging in the current economic climate.²⁸³

Stage 3 of the project is not currently funded and the works proposed would involve a substantial investment.²⁸⁴ In evidence to the Committee Mr Mulder advised that "without investment we will continue to work out of the current buildings and leave the services where they are."²⁸⁵ Bendigo Health have initiated

²⁷⁹ Bendigo Health, 'Bendigo Hospital Project: Timelines', viewed 5 April 2017, <bendigohospitalproject.org.au/the-project-2/timelines>.

²⁸⁰ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p.25.

²⁸¹ Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, pp. 25-7, 42; John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 30.

²⁸² Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 27-30.

²⁸³ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 30.

²⁸⁴ *Ibid.*, pp. 30-1.

²⁸⁵ *Ibid.*, pp. 30-1.

discussions with the Department of Health and Human Services and the federal government to gain support for the third stage of the project. However, in evidence to the Committee Mr Faulkner advised that “at this point there has not been huge interest.”²⁸⁶

6.5 Committee comments

6.5.1 Staffing and jobs

The Committee took interest in the capacity of Bendigo Hospital upon opening and the associated increase in funding and staff requirements to run the hospital effectively at full capacity.

Mr Mulder advised the Committee that Bendigo Hospital currently runs with 3300 staff and at full capacity the hospital would require an additional 1000 staff.²⁸⁷

Bendigo Health advised the Committee that they do not expect Bendigo Hospital to be at capacity for a long time – allowing for further development when the communities health needs expand.²⁸⁸

But it is fair to say that there is a substantial increase in acute beds, and it will be a long time before we would ever see that hospital at capacity. It is significantly larger than what we have to function with at the moment. The challenge will be more about funding and providing operating funds to open it and providing the workforce for the increase in capacity. It will not be about beds, sufficient theatre space, sufficient ED cubicles and ICU spaces. It is a significant increase in what we have at the moment, and as we told our community, we are building a hospital not for 2016 but for the next 50 years.²⁸⁹

In evidence to the Committee Mr Mulder discussed the necessary staggering of staff that are hired for a new facility:

One of the challenges when you are given the opportunity to try and staff a new facility such as this is that you are never quite sure what your budgetary climate looks like. So you cannot rush out a year before and start having specialists sitting around, being paid significant money without the work. You can do a little bit of preliminary work, but until you sign your annual statement of priorities with government, it is very hard to make firm commitments to staff.²⁹⁰

²⁸⁶ Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 27-30; John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, pp. 25, 30-1.

²⁸⁷ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 32.

²⁸⁸ Ibid, p. 31; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 31.

²⁸⁹ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 31; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 31.

²⁹⁰ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 33; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 33.

The initial recruitment focus for the new hospital is on nursing and specialist areas of care.²⁹¹ However, the Committee were advised that it may be difficult to find enough trained staff locally to fill the available positions.²⁹²

We are doing what we can in Australia. It is likely we will have to be overseas for nursing, because there is a lot of growth not just across Victoria but right across the country; everyone seems to be growing. There are a few areas, and particularly psych nursing, where it is challenging to recruit, given the frontline challenges in psych nursing at the moment. That will probably have us overseas trying to fill those places, but it is a large number if we were to fill all of our psych beds up-front. There is significant demand. I think our team is telling me that something like 90 additional psych nurses need to come to Bendigo. That would be huge number, and we could never do that.

Bendigo Health assured the Committee that they are working closely with La Trobe University to train more nurses and improve graduate intakes from a range of universities across the country.²⁹³

The ability to take new graduates is something that we always endeavour to do. We do not exclusively take graduates from La Trobe University; we take students and graduates from about 14 or 15 universities across the country, but the majority do come from La Trobe, so that is a benefit for us. That said, the reality is getting experience. The real pressure points are psychiatry, as John mentioned, perioperative theatre nurses — theatre and anaesthetic nurses are a pressure point across the system — and midwives also are a pressure point across the system. So, in spite of new graduates coming through, they do not necessarily have the requisite experience and postgraduate qualifications, so that is part of our challenge. But, as I say, compared to some of our peers we are in a very good place.²⁹⁴

Concerns were raised about the challenge of obtaining specialist construction skills for hospital projects such as the Bendigo Hospital upgrade, but Ms Morrison of Exemplar Health told the Committee, that:

When we commenced the structure there were not a lot of big structures going on, so we managed to secure one of the big Melbourne contractors. Most of our contractors have come from Melbourne as opposed to Bendigo. The Bendigo market priced it generally out of range for us, but a lot of the individuals have worked for the subcontractors that have been there. We also did not want to put the local market out of business, so we were very mindful of how we worked with the local market.²⁹⁵

The Committee were advised on the number of jobs arising from the new retail sector of Bendigo Hospital and whether existing hospital employees would be able to retain their positions under the new tenancy arrangements with Spotless.

²⁹¹ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, pp. 32-3; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 32-3.

²⁹² John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 33; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 33.

²⁹³ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 33; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 33.

²⁹⁴ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 33; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 33.

²⁹⁵ Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, pp. 33-4.

Ms Morrison advised that 160 retail employees would be required for the new hospital. The existing 25 employees will be offered preference in the new working arrangements with Spotless and the new tenants, in an “opt in” arrangement.²⁹⁶ 296 existing cleaning and maintenance staff are being transferred to the new hospital and another 100 staff in these areas are being recruited by Spotless.²⁹⁷

The Committee also heard evidence that there will be 1000 additional jobs in Bendigo associated with the hospital.²⁹⁸

6.5.2 Region/catchment area

The Committee expressed interest in the catchment area able to be serviced by the new hospital, especially with the proposed helipad being built as part of stage 2 of construction.²⁹⁹

Mr Mulder stated, that:

In terms of what the range of the choppers are, a whole range of factors come into that, including what is happening in Melbourne at the trauma centres, what the weather conditions are on the ranges as well. I think that is why people are pretty keen, government was pretty keen and our medical staff are pretty keen to have an alternative north of the Divide. We certainly expect that we will get more traffic than we have at the moment, because at the moment if you require extensive care in a trauma centre, you go by ambulance to the current Bendigo Airport and then off to Melbourne — so there is the opportunity to get access to care earlier.³⁰⁰

Mr Faulkner added further information about the catchment areas being serviced by the hospital and the use of the helipad:

The primary catchment for Bendigo Health is clearly Bendigo. The secondary catchment is the Loddon Mallee region, which really goes from Mildura and Swan Hill down to Kyneton. It is quite large — about 25 per cent of the state’s geography, but not of the population, obviously. We would see that certainly as the kind of helicopter area....

The helipad from us will be equally about patient transfers out as for patient transfers in. There are very sick infants that need neonatal intensive care. We do not have intensive care; we have special care. We are a level down, so there is always transfer of very sick neonates to metropolitan hospitals. Similarly for some burns and so forth might arrive at Bendigo but be transferred to the specialist units in the city. From our perspective, it is as much about transfers out as it is transfers in.³⁰¹

²⁹⁶ Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, p. 39.

²⁹⁷ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 43; Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, p. 43.

²⁹⁸ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 43; Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, p. 43.

²⁹⁹ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 34; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 34.

³⁰⁰ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 34; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 34.

³⁰¹ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 34; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 34.

The addition of helicopter emergency transfer ability is anticipated to decrease patient transfers from Bendigo to specialist services in Melbourne from 2 hours to 30 minutes.³⁰²

6.5.3 IT infrastructure

The Committee expressed particular interest in the IT services and electronic medical records systems included in the Bendigo Hospital project.

Bendigo Health described Bendigo Hospital as “probably the most technologically advanced hospital in the state”³⁰³ and advised the Committee that elements of their new IT and electronic medical records systems includes:

- A pilot e-referral project
- Real-time location services
- 100 per cent wi-fi coverage within the hospital, including supporting patient monitoring via wi-fi
- Patient checking kiosks and queuing technologies
- Autoguided vehicles which assist with moving trolleys and with most of the bulk logistics movement in the hospital trolleys
- Audiovisual equipment facilitating telehealth services
- Tracking of theatre equipment and other clinical equipment
- Mother and baby matching
- A two stage electronic medical record project that “all players in the system can tap into in real time through a health information exchange” including other regional hospitals and general practitioners.³⁰⁴

Mr Mulder explained the rationale behind emphasising IT infrastructure in the hospital’s design to the Committee:

We see it as the next great frontier in quality and safety in health care. When we designed this hospital we felt that we could not call it world-class unless it had a fully functioning electronic medical record, and the safety that will come with that will be fantastic for our patients.³⁰⁵

The Committee received evidence that \$18 million of funding from the state government as part of the overall project funding has gone towards the electronic medical record project, representing approximately 30 per cent of the overall cost of the installation and operation of the records system for ten years. The total cost

³⁰² John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 3; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 34

³⁰³ Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 27-30

³⁰⁴ Ibid. pp. 27-30, 3; John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 35

³⁰⁵ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 35

of the record project over the 10 years is estimated at \$56 million, with Bendigo health needing an additional \$38 million in funding to resource the record project.³⁰⁶

Mr Mulder advised the Committee that the hospital anticipates savings arising from a benefits realisation plan and that the shortfall of funding for the record project will be somewhat able to be carried by the hospital.

There is an extensive business case with a benefits realisation plan around that, and we expect to achieve a range of savings over that time. One of the challenges with the EMR, the electronic medical record, of course is that many of the benefits are patient benefits and care benefits and outcome benefits. They are not what we call bankable benefits; they do not result in cash. So it will be a challenge; we do not doubt that....

We would like to be a little bit more certain around our savings, finding the last \$38 million over that 10-year period. We are trading well at the moment, we expect to continue to trade well and we expect there will be money that will present in bankable savings in terms of going from a paper-based record — running those records around, filing costs, a range of other things associated with a paper-based record — but they will not be to the tune of \$38 million. We would love to be paid for some of the care that we avoid due to reduced medication errors and due to other improvements in care and reduced length of stay. That is not how the system is funded at the moment, but it is a challenge we do not underestimate.³⁰⁷

Mr Mulder further advised the Committee that Bendigo Health have received commitments from the state government, that:

... they will be prepared to support us with cash if we have challenges over the early years. For example, we expect the benefits to accrue more in the later years, so in the first five years we will spend the \$18 million up-front and we will need to put some of our own cash in there as well. If we have not returned the benefits we are hoping to over years 3 to 6, we have had a commitment from the Victorian government. I think up to \$12 million was the figure if we needed it. So there is cash support over that period, but we are all expecting to get a return on the benefits realisation. Hopefully that money will not be needed.³⁰⁸

6.5.4 Environmental design

The Committee also expressed considerable interest in the environmental design elements of the new hospital.

³⁰⁶ Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 27-30.

³⁰⁷ Ibid. pp. 27-30.

³⁰⁸ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, pp. 40-1; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 41.

Mr Mulder stated that Bendigo Health “set out to build one of the greenest hospitals in the country, if not the greenest hospital”³⁰⁹ and detailed the environmental design features of note as 770 solar panels on the roof of the hospital and an extensive waste water collection and recycling system.³¹⁰

Bendigo Health identified recycling water as one of their key environmental sustainability projects.³¹¹ The hospital estimates that they will be recycling 95 per cent of the rainwater on the hospital roof through a tank farm consisting of 4 tanks with 424,000L storage capacity to supply potable and reused water. The hospital will also be reusing wastewater from sterilisers and recycled water supplied by Coliban water. Recycled water will be used for toilet flushing, bedpan maceration, heat rejection, cooling and irrigation.³¹²

Combined, the waste water recycling system is estimated to save the hospital \$38,000 per annum.³¹³ Mr Faulkner was unable to indicate to the Committee the predicted energy savings to the hospital over a 10-year period.³¹⁴

Bendigo Health stated they would be publicly displaying their environmental sustainability emissions figures for the hospital.³¹⁵

6.5.5 Power outages/backups

The Committee inquired about the emergency energy options available to the hospital in the event of a blackout.

Mr Mulder advised the Committee:

... we have a DRUPS system, which is a diesel generator backup, because Bendigo Hospital is only on one electrical supply grid. Most of the CBD hospitals have two supplies, so one will kick in. Our DRUPS will kick in within 2 to 3 seconds, so if you are a patient on the table in the middle of surgery, you are safe. And that has been tested, tested and tested, and we have tested it again.³¹⁶

³⁰⁹ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 35; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 35.

³¹⁰ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 35; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 27-30, 35.

³¹¹ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 42; Bendigo Health, 'Bendigo Hospital Project: Eco efficiency at new hospital', viewed 7 April 2017, <bendigohospitalproject.org.au/eco-efficient-new-hospital>.

³¹² Bendigo Health, 'Bendigo Hospital Project: Eco efficiency at new hospital', viewed 7 April 2017, <bendigohospitalproject.org.au/eco-efficient-new-hospital>.

³¹³ Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 27-30, 41; Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, p. 41; Bendigo Health, *Response to Questions on Notice*.

³¹⁴ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 35; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 35.

³¹⁵ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 35; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 35.

³¹⁶ Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 36.

Mr Faulkner also stated:

There are generators of course, but the DRUPS bridge the gap between the power outages.... There are only two places — I think there is a prison in WA and this hospital — that currently have them in the country.³¹⁷

6.5.6 Carpark

The multistorey carpark proposed as part of Stage 2 of the hospital's construction was an issue of concern, particularly whether the management would be outsourced and how much the carpark would cost patients, visitors and staff to use.³¹⁸

The Committee was informed that the proposed carpark for Bendigo Hospital was not funded by a Treasury loan³¹⁹ and that the management of the carpark will be outsourced to Spotless. Spotless will collect revenue on the hospital's behalf as part of the public-private partnership agreement.³²⁰

Staff at the hospital pay for parking in the 130 space carpark positioned under the hospital, with the larger stand-alone multistorey carpark reserved for the public.³²¹

Mr Mulder and Mr Faulkner advised the Committee that community consultation has informed both the carpark and the proposed parking rates.³²² Annual revenue from the hospital's carpark is estimated as \$1.5-\$2 million.³²³

6.5.7 Commercial and retail spaces

During evidence collection, the Committee expressed interest in the selection of retailers for the hospital's commercial and retail areas.

Bendigo Health advised the Committee that Exemplar Health had conducted a tender process for the retail spaces and, at the time evidence was provided to the Committee, Exemplar Health was waiting for the Minister to sign the recommended leases and finalise the tender process.³²⁴

³¹⁷ Ibid.

³¹⁸ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 37; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 37.

³¹⁹ Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, p. 42; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 42.

³²⁰ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 37; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 37.

³²¹ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 37; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 37.

³²² John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 37; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 37.

³²³ Bendigo Health, *Response to Questions on Notice*.

³²⁴ Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, pp. 39-40; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 39-40.

Ms Morrison explained to the Committee that, as part of the public-private partnership agreement for the project, leasing of the retail spaces was Exemplar Health's responsibility. However, Ms Morrison clarified to the Committee why and how the Minister was involved in the tender and lease process:

...ultimately this hospital is handed back to the government at the end of 25 years, so we need to get the permission to sign the lease from the minister before we can sign the lease. I now have the leases ready to be executed, but until such time as the minister signs off on the lease to approve us leasing, we have no lease.³²⁵

Ms Morrison assured the Committee that the successful tenders for the retail spaces in the hospital "are complying with the government's healthy guidelines and coming up with a mix of...retail outlets that Bendigo was interested in."³²⁶

Mr Faulkner also advised that:

We had indicated that from Bendigo Health's perspective there was a requirement for food and beverage outlets for both staff and patients and that we expected there would be the kind of gift shop function represented somewhere.³²⁷

Ms Morrison advised the Committee that Exemplar Health had opted for a head tenant model lease for the retail spaces, with individual spaces sublet under the successful provider.³²⁸

On January 25 2017 the successful head tenant for the retail space in Bendigo Hospital was announced as the Zouki Group.³²⁹

There were concerns that a head tenant model may not allow market forces to regulate pricing of the retail outlets, however Mr Faulkner assured the Committee that prices in the hospital "are comparable to what you would pay anywhere else, in Bendigo or elsewhere."³³⁰

6.5.8 Flammable cladding

There were concerns about fire hazards and asbestos at Bendigo Health in light of evidence presented by Frances Diver, Deputy Secretary, Department of Health and Human Services to Public Accounts and Estimates Committee in 2016.³³¹

³²⁵ Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, pp. 39-40.

³²⁶ Ibid.

³²⁷ Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 39-40.

³²⁸ Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, pp. 38-39.

³²⁹ Bendigo Health, 'New hospital retail precinct opens', viewed 5 April 2017, <bendigohospitalproject.org.au/new-hospital-retail-precinct-opens>.

³³⁰ Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, pp. 39-40.

³³¹ Frances Diver - Deputy Secretary Department of Health and Human Services, *Public Accounts and Estimates Committee Inquiry into 2013-14 and 2014-15 Financial and Performance Outcomes Public Hearing Transcript - 18 February 2016*, pp. 6-7.

Ms Morrison told the Committee that “there were actually six very small incidents of [flammable cladding] having been installed, and it was removed as soon as we were made aware of this issue.” The Committee were assured that the matter had been resolved at the builder’s cost.³³²

Mr Mulder also advised the Committee that he could not confirm that all asbestos had been removed from the hospital and associated buildings, however he was confident the asbestos that existed is being handled safely.

Could I say that there is absolutely no asbestos in the 1950s building? There is certainly nothing that is active or would present any concerns or issues. I am not sure that we could say we have removed every bit of asbestos from the building — there have been substantial eradication programs in all of our buildings over time, and some of that has involved making good or keeping safe and covering rather than removing. I could not tell you for sure, but I suspect there is asbestos still in some of those buildings on the Anne Caudle site.³³³

³³² John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 40; Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, p. 40.

³³³ John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 30.

7

Monash Children’s Hospital

Cost	Expected Completion Date	Current Status	Next Phase
\$258 million ^(a)	Early 2017 ^(b)	Phase 1 of move complete ^(c)	Paediatric services open August 2017 Mental health services to open late 2017/early 2018 ^(d)

- (a) Victorian Auditor-General, *High Value High Risk 2016-17: Delivering HVHR Projects*, Victorian Auditor-General’s Office, Melbourne, 2016., p. 25.
- (b) Monash Health, ‘Monash Children’s Hospital: Project scope and timeline’, viewed 5 April 2017, <www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital/project-scope-and-timeline>; Monash Health, ‘Monash Children’s Hospital: New Hospital’, viewed 5 April 2017, <www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital>.
- (c) Monash Health, ‘Monash Children’s Hospital: New Hospital’, viewed 5 April 2017, <www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital>.
- (d) Ibid.

7.1 Project overview and background

The Monash Children’s Hospital is a new paediatric-specific hospital based in Clayton alongside the existing Monash Hospital. The hospital serves the catchment areas of south-east Melbourne, the Mornington Peninsula and Gippsland.³³⁴

The Hospital includes:³³⁵

- 96 in-patient acute beds
- 10 paediatric intensive care beds
- 64 Monash Newborn cots
- 20 Early in Life Mental Health Service beds
- 8 neurodevelopmental psychiatry beds
- 20 same-day beds
- 12 oncology same-day beds
- 4 operating theatres incorporating a dedicated endoscopy suite
- sleep study and neurodiagnostic beds
- 3 imaging modalities (MRI, Ultrasound and X-Ray)
- Outpatient consulting rooms

³³⁴ Hon. Jill Hennessy MP - Minister for Health, *Monash Children’s Hospital Celebrates Special Milestone*, media release, Melbourne, 7 September 2015.

³³⁵ Monash Health, ‘Monash Children’s Hospital: Project scope and timeline’, viewed 5 April 2017, <www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital/project-scope-and-timeline>; Hon. Daniel Andrews MP - Premier; Hon. Jill Hennessy - Minister for Health, ‘Monash Children’s Hospital Celebrates Special Milestone’, viewed 5 April 2017, <www.premier.vic.gov.au/monash-childrens-hospital-celebrates-special-milestone>; Monash Health, ‘Monash Children’s Hospital: Images and design features’, viewed 5 April 2017, <www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital/images-and-design-features>.

- Monash University education and research precinct clinical skills centre
- 2 simulation centres
- Allied health therapy spaces
- A neonatal intensive care and special care unit
- An emergency helipad
- An-site accommodation for families in emergency circumstances, including a range of accommodation in close proximity for regional and travelling families
- Separate entertainment spaces catering for different ages, including both indoor and outdoor play areas and break-out areas for older adolescents
- Partnerships with Starlight Foundation, Ronald McDonald House, Kidsafe, Hoyts, Radio Lollipop, and Healesville Sanctuary
- The Monash Children's Hospital School.

7.2 Funding

The Monash Children's Hospital was estimated to cost \$250 million to complete.³³⁶ \$164.563 million was provided in the 2015-16 budget for the project, with another \$94.612 million provided in 2016-17.³³⁷ The 2016-17 budgetary allowance included an additional \$14.6 million for Early in Life Mental Health Services and \$300,00 for a paediatric surgical simulation centre.³³⁸

These figures reflect an additional \$8 million total funding more than was originally estimated for the project after additional scope and funding were added by the state, health services and external sources to support the on-site helipad and research wing.³³⁹

7.3 Progress to date and future work timelines

LendLease was awarded the contract for construction of the hospital in 2013 which commenced in July 2014. The hospital was opened in December 2016, including relocating patients and specialist services. The emergency department opened in April 2017.³⁴⁰

³³⁶ Hon. Daniel Andrews MP - Premier; Hon. Jill Hennessy - Minister for Health, 'Monash Children's Hospital Celebrates Special Milestone', viewed 5 April 2017, <www.premier.vic.gov.au/monash-childrens-hospital-celebrates-special-milestone>.

³³⁷ Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 52.

³³⁸ Monash Health, 'Monash Children's Hospital: Premier and Health Minister's message', viewed 5 April 2017, <www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital/premier-and-health-ministers-message>.

³³⁹ Victorian Auditor-General, *High Value High Risk 2016-17: Delivering HVHR Projects*, Victorian Auditor-General's Office, Melbourne, 2016., p. 33.

³⁴⁰ Monash Health, 'Monash Children's Hospital: Project scope and timeline', viewed 5 April 2017, <www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital/project-scope-and-timeline>; Monash Health, 'Monash Children's Hospital: New Hospital', viewed 5 April 2017, <www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital>.

In August 2017 paediatric intensive care will operate from the new site. Mental health services are anticipated to be located in the hospital from early 2017 or late 2018.³⁴¹

7.4 Committee comments

7.4.1 Emergency department

Concerns were raised that the Children's hospital would not have a dedicated emergency department.

Ms Leanne Price, Director Infrastructure Planning and Delivery Department of Health and Human Services, told the Committee that

The Monash Children's Hospital, which is effectively a wing on the main hospital, does not have a dedicated children's emergency department. Instead they will actually be fed through the main emergency department. That was actually a clear operational decision by Monash Health, who runs the service, as the best way of providing the emergency services to all people coming into that facility.³⁴²

Ms Price further noted the importance of the helipad in providing emergency transfer services to the hospital:

To give an indication of how closely they are linked, as part of the hospital we are currently installing a helipad on its roof. That is part of the children's hospital. That helipad will link via lifts straight down to the emergency department, and that services anyone being airlifted into the hospital.³⁴³

7.4.2 Community consultation

Ms Price provided information to the Committee on the role that community consultation had played in the design of the hospital.

We also look at working with the community members who might be coming in to experience those facilities. One great example is, say, the Monash Children's, where Monash Health actually engaged with mothers with young children who would actually be coming in to use the facilities. So rather than just from the clinician point of view, they also took into account the end-user type of view. All public health services in Victoria clearly recognise their role in the local community and how they interact and provide services, and they all have, in varying forms, community engagement panels or similar sorts of things where they actually engage with the community on a regular basis through different forums. It is not just about physical construction or infrastructure, but it is also about how they deliver their services. We tap into a lot of that because they know their communities and they would work with them.³⁴⁴

³⁴¹ Monash Health, 'Monash Children's Hospital: New Hospital', viewed 5 April 2017, <www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital>.

³⁴² Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 17.

³⁴³ Ibid.

³⁴⁴ Ibid. p. 23.

7.4.3 Victorian Auditor General's Office (VAGO)

In 2016 the Victorian Auditor-General included the project in their *High Value, High Risk 2016-17: Delivering HVHR Projects* report and noted that the Department of Treasury and Finance had identified some major risks to the project, including:

- The budget being insufficient to meet the scope of the project and any unplanned works
- Exchange rate risks, in particular for Furniture, Fixtures and Equipment (FFE) and construction costs
- Community expectations that the helipad would be returned to the hospital rooftop
- ICT design not integrating with existing systems and statewide requirements
- FFE transferred from existing site to the new Monash Children's Hospital becoming obsolete before the new hospital opens.³⁴⁵

However, VAGO further noted that since identifying these risks the Department has taken steps to mitigate the identified risks.³⁴⁶

³⁴⁵ Victorian Auditor-General, *High Value High Risk 2016-17: Delivering HVHR Projects*, Victorian Auditor-General's Office, Melbourne, 2016., pp. 34-5.

³⁴⁶ *Ibid.*, pp. 20-3.

8

Victorian Comprehensive Cancer Centre

Cost	Expected Completion Date	Current Status	Next Phase
\$1.27 billion	June 2016	Completed	N/A

Source: Department of Treasury and Finance, 'Victorian Comprehensive Cancer Centre: Overview', viewed 5 April 2017, <www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Victorian-Comprehensive-Cancer-Centre>.

8.1 Project overview and background

The Victorian Comprehensive Cancer Centre (VCCC) is a multi-disciplinary specialist cancer hospital located across two sites in the Parkville Biomedical Precinct. The VCCC was completed in June 2016.³⁴⁷ The VCCC aims to model US-style comprehensive cancer centres which co-locate population health research, laboratory research and clinical research. The goal of this model is to improve coordination, education and practice to improve patient outcomes.³⁴⁸

Professor Jim Bishop, Executive Director of the Victorian Comprehensive Cancer Centre described the main aims of the VCCC as: “to reduce the burden of cancer, to develop a centre of excellence in cancer and to increase cancer research income for Victoria.”³⁴⁹

I think it is transformational. In Victoria we have a tradition of individual hospitals and hospital boards, and it has been like that forever, and we have got a very high-quality system as a result of that, so it has benefits. I come from New South Wales, so there they have health services across a number of hospitals. But I have to say that the permission that we give as part of working as a VCCC network is permission for people to work more closely together. So a person from Peter Mac can just go and start talking and working with their Austin peer, with their peer from St Vincent's and hopefully more broadly. So we have given permission for people to get out of their silos, think about the issues that should be confronting them and see if they can do something about it.³⁵⁰

³⁴⁷ Department of Treasury and Finance, 'Victorian Comprehensive Cancer Centre: Overview', viewed 5 April 2017, <www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Victorian-Comprehensive-Cancer-Centre>.

³⁴⁸ Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, p. 33; Victorian Comprehensive Cancer Centre, 'Our Work', viewed 6 April 2017, <www.victorianccc.org.au/our-work>.

³⁴⁹ Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, pp. 28-9.

³⁵⁰ *Ibid*, pp. 35-6.

The VCCC project began with a business case presented in 2009, which was based on similar comprehensive cancer centres in America and internationally that integrate cancer-specific research, clinical care and education facilities in the one space.³⁵¹

The project was undertaken as part of a public-private partnership between the Department of Health and Human Services and Plenary Health who were awarded the contract in 2011.³⁵²

The VCCC buildings house an alliance of:

- The Peter MacCallum Cancer Centre,
- Melbourne Health,
- The University of Melbourne,
- The Walter and Eliza Hall Institute of Medical Research,
- The Royal Women’s Hospital,
- The Royal Children’s Hospital,
- Western Health,
- St Vincent’s Hospital – Melbourne; and
- Austin Health.³⁵³

The VCCC covers two buildings linked by a pedestrian bridge: a new building and a facility located inside the Royal Melbourne Hospital.

The project includes 202 overnight inpatient beds, with 96 allocated to the Peter MacCallum Cancer Centre tenancy across levels 3, 5 and 6.³⁵⁴ The Peter MacCallum Cancer Centre takes up 85 per cent of the space in the main VCCC facility and therefore acts as the primary operator of the building.³⁵⁵

The remaining 106 beds comprise of:

- A new 33 bed haematology inpatient unit located on Level 7 of Building 1B
- Shell space for a new 32 bed medical/surgical inpatient unit located on Level 8 of Building 1B
- A 42 bed capacity critical care unit located on Level 6 of building 1B with:
- 28 intensive care beds

³⁵¹ Ibid, pp. 28-9.

³⁵² Ibid, pp. 28-9; Paul Crowe - Executive Director Head of Origination Plenary Health Group, *Transcript - 20 September 2016*, p. 39.

³⁵³ Victorian Comprehensive Cancer Centre, 'The Alliance', viewed 6 April 2017, <www.victorianccc.org.au/about-the-vccc/the-alliance>; Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, p. 33.

³⁵⁴ Department of Health and Human Services, *Responses to Questions on Notice*.

³⁵⁵ Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, p. 33; Victorian Comprehensive Cancer Centre, 'The Alliance', viewed 6 April 2017, <www.victorianccc.org.au/about-the-vccc/the-alliance>.

- Space for a further six intensive care unit beds (this area is not equipped and allows for future growth in demand)
- Eight high dependency beds.³⁵⁶

In addition the VCCC includes:

- 110 chemotherapy, medical and same day beds and chairs.
- 42-bed capacity intensive care unit (provided on the north side of the facility by Royal Melbourne Hospital).
- A dedicated clinical trials unit with 24 clinical trial spaces.
- Eight refurbished medi-hotel beds, with additional space for overnight accommodation for country patients, their families and carers.
- 25,000 square meters of dedicated research space for 1400 researchers.
- Six operating theatres and two procedures rooms.
- Eight radiation therapy bunkers with six linear accelerators - this has increased to six.
- Education and training facilities including 47 seminar and meeting spaces and three lecture theatre
- Education and training facilities
- 8 gardens and terraces
- 3 bridge links to the Royal Melbourne Hospital facilities
- Parking space for 700 cars and storage space for 400 bicycles.³⁵⁷

The main VCCC building comprises of 13 floors designated as clinical, research and mixed spaces, as shown in Table 8.1 below.

³⁵⁶ Department of Health and Human Services, *Responses to Questions on Notice*.

³⁵⁷ Peter MacCallum Cancer Centre, 'Our New Home', viewed 6 April 2017, <www.petermac.org/news/our-new-home>; Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, p. 34.

Plenary Group, 'Victorian Comprehensive Cancer Centre', viewed 6 April 2017, <plenarygroup.com/projects/asia-pacific/victorian-comprehensive-cancer-centre>.

Table 8.1 Victorian Comprehensive Cancer Centre Floors

Ground Floor	Foyer
Floor 2	Patient services
Floor 3	Patient services
Floor 4	Patient services
Floor 5	Patient services
Floor 5	Patient services
Floor 6	Patient services
Floor 7	Mixed Area/Education (No Public Access beyond this level)
Floor 8	Research Space
Floor 9	Research Space
Floor 10	Research Space
Floor 11	Research Space
Floor 12	Research Space
Floor 13 ^(a)	Research Space ("Ian Potter Centre for New Cancer Treatments")

(a) Discussion of the 13th floor arrangements are considered in more detail in Section 8.4.

Source: Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, p. 34.

8.2 Funding

The VCCC business case anticipated the project to cost approximately \$1 billion to construct, and Plenary Health's final proposal costed the project at \$1.274 billion.³⁵⁸

The VCCC project received \$854.6 million in federal and state government funding through the Health and Hospitals Fund.³⁵⁹ The remaining funds were contributed by the Peter MacCallum Cancer Foundation and \$50 million worth of philanthropic donations.³⁶⁰

The Committee expressed an interest in ongoing Key Performance Indicators associated with the project and the details of any "make good" payments associated with the completion of the project. Professor Bishop advised the Committee that the VCCC is continuing to report on the existing KPIs, however the KPIs were in the process of being renegotiated after the completion of the VCCC and, therefore, he was unable to discuss any additional KPIs which might apply.³⁶¹

³⁵⁸ Partnerships Victoria, *Victorian Comprehensive Cancer Centre Project: Project Summary*, Department of Treasury and Finance, Melbourne, 2012, p. 16.

³⁵⁹ Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 19.

³⁶⁰ Department of Health and Human Services, 'Major Capital Projects: Victorian Comprehensive Cancer Centre', viewed 6 April 2017, <www2.health.vic.gov.au/hospitals-and-health-services/planning-infrastructure/major-projects>; Professor Lester Peters - Peter MacCallum Cancer Centre, *Transcript - 26 October 2016*, p. 2.

³⁶¹ Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, p. 30.

During evidence provided to the Committee at public hearings Mr Glenn Hay, CEO of Plenary Group, was unable to confirm the value of any “make-good” payment associated with the completion of the project or how much the building would cost to maintain per annum, despite attempts by the Committee to follow up this information.³⁶²

The state government also provided a core research grant of \$8 million over seven years to the VCCC in addition to research funding from other competitive and philanthropic research grants.³⁶³ Professor Bishop anticipated that the government would continue to provide the core research funding, in addition to a research development grant that “will allow us to essentially build much more quickly the infrastructure that will be shared infrastructure where all the partners will benefit and therefore all their researchers will be more successful.”³⁶⁴

The core research grant funding and associated match funding is primarily used to build shared research infrastructure.³⁶⁵

So we build it once but we make it highly collaborative so that they do not have to build their own essentially, and it also can be cutting edge because building allows us to put research platforms in place, so there are scientific platforms there around genomics, the animal facilities, the microscopy facilities and others.³⁶⁶

8.3 Progress to date

The project was advertised for expressions of interest in 2009 and, after an extensive tender assessment process, Plenary Health were awarded the contract in 2011. Construction commenced on the project in 2011. The VCCC project achieved commercial acceptance on time and on budget in June 2016.³⁶⁷

8.4 Committee comments

8.4.1 13th floor

One of the key issues considered by the Committee in relation to the Victorian Comprehensive Cancer Centre was the use and occupancy of the 13th floor of the main building.

³⁶² Glenn Hay - CEO Plenary Health Group, *Transcript - 20 September 2016*, p. 43.

³⁶³ Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, p. 29.

³⁶⁴ *Ibid.*, pp. 29-30.

³⁶⁵ *Ibid.*, pp. 29-30.

³⁶⁶ *Ibid.*, pp. 29-30.

³⁶⁷ Partnerships Victoria, *Victorian Comprehensive Cancer Centre Project: Project Summary*, Department of Treasury and Finance, Melbourne, 2012; Department of Treasury and Finance, 'Victorian Comprehensive Cancer Centre: Overview', viewed 5 April 2017, <www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Victorian-Comprehensive-Cancer-Centre>; Department of Health and Human Services, 'Infrastructure Planning and Delivery - Major Projects: Victorian Comprehensive Cancer Centre (VCCC)', viewed 6 April 2017, <www.capital.health.vic.gov.au/VCCC_project>.

The initial proposal for the floor was that the southern end was designated laboratory space and the northern end was commercial space,³⁶⁸ before the Board of the Peter MacCallum Cancer Centre accepted the case for a private facility on the 13th floor – Peter Mac Private – and settled on a partnership arrangement with Healthscope and required no state government capital funding.³⁶⁹

The Peter MacCallum Private proposal was signed off by the then Napthine government.³⁷⁰ However, the Andrews government retracted approval for Peter MacCallum Private in 2015. The Committee were advised that as a result an estimated \$25-\$38.6 million dollars in pledged private funding was lost from the capital campaign for the VCCC.³⁷¹

The Peter MacCallum Cancer Centre believes that, had the Peter Mac Private proposal gone through, it would have “provided a guaranteed revenue stream for Peter Mac to subsidise its programmatic initiatives. It would also have added capacity for patient care in the VCCC facility, since the private beds to be allocated were in addition to previously approved public beds and were in previously unallocated space.”³⁷²

In evidence to the Committee Professor Lester Peters of the Peter MacCallum Cancer Centre argued that world-class cancer centres internationally incorporated high-level private care to the benefit of the local community and the wider research community.³⁷³

Had Peter Mac come to reality, along with in-house consulting room suites, most surgeons would have been able to structure their practices to be geographically full time within the VCCC precinct — a great advantage in terms of optimising the multidisciplinary team model. Now unfortunately most surgeons are obliged to conduct their private practices outside the VCCC. This takes patients away from the VCCC, limiting our research capability, and also compromises the surgeons’ interaction with other team members.”³⁷⁴

The Committee heard evidence from Professor Peters and Professor Bishop that the loss of Peter MacCallum Private may also undermine the VCCC achieving its full potential as a co-located research and clinical cancer facility, by excluding private specialists from inclusion in the on-site multidisciplinary team model the VCCC is endeavouring to create.³⁷⁵

Professor Bishop advised the Committee:

³⁶⁸ Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, pp. 31-2.

³⁶⁹ Professor Lester Peters - Peter MacCallum Cancer Centre, *Transcript - 26 October 2016*, p. 3.

³⁷⁰ *Ibid*, p. 3.

³⁷¹ Professor Lester Peters - Peter MacCallum Cancer Centre, *Responses to Questions on Notice*; Professor Lester Peters - Peter MacCallum Cancer Centre, *Transcript - 26 October 2016*, p. 3.

³⁷² Professor Lester Peters - Peter MacCallum Cancer Centre, *Transcript - 26 October 2016*, p. 3.

³⁷³ *Ibid*, p. 3.

³⁷⁴ *Ibid*, p. 3.

³⁷⁵ *Ibid*, p. 3.

My own view about private medicine is that we want the best people to be geographically full time on site; whether they are on-site in a private activity or a public activity is probably less important than having their expertise there. That applies to whether you are talking about Monash or The Alfred or anywhere, because I think we benefit from people who work both in private and in public.³⁷⁶

The 13th floor of the VCCC is now being used as a dedicated research laboratory and therapy area: the Ian Potter Centre for New Cancer Treatments. The Centre includes an immunotherapy laboratory, a new therapeutics research space, a coordination centre for clinical trials, the Australian Genome Research Facility, and commercial space in the northern part of the floor.³⁷⁷

In evidence to the Committee, Mr Paul Crowe, Executive Director Head of Origination of the Plenary Health Group, explained that their proposed design for the VCCC included three options for additional space for expansion:

There was really only one opportunity to build it, which was to build it now, so we, as part of our offer and part of our risk, put in additional space. We put it in in three locations: level 1, level 9 and level 13. That was largely around level 1 being in our minds then a health expansion, level 9 being some general expansion space and level 13 more naturally fitting a research expansion. It was quite spread across the building so that we could flex any of the uses within the building or the client could flex those uses in the future.³⁷⁸

Mr Crowe further explained Plenary Health's rationale for encouraging the state government to take over the space during construction:

...we offered government incentives to take over the space during construction, because otherwise we would need certainty to be able to lease that space over commercial terms. The state, the department of health, took over that space during construction and were at that time debating the use of that; hence the debate around a private ward and the use of level 13 as a private ward. But ultimately that debate was able to be had because we created flexible space in the first place...³⁷⁹

There were concerns that the lift servicing the 13th floor may not have been suitable for servicing the private hospital.

In regards to the lift, Mr Crowe advised the Committee that:

The lifting for level 13 would have required an operational strategy from Peter Mac, so it was not a concern of the building asset owner. The lifting capacity was there; it is just about how you operate the lifts because of where level 13 is located relative to other health users in the facility. That was more an operational concern.³⁸⁰

³⁷⁶ Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, p. 37.

³⁷⁷ Ibid, p. 31; Hon. Jill Hennessy MP - Minister for Health, 'Victorian Comprehensive Cancer Centre', viewed 7 April 2017, <www.vic.gov.au/news/victorian-comprehensive-cancer-centre-b.html>.

³⁷⁸ Paul Crowe - Executive Director Head of Origination Plenary Health Group, *Transcript - 20 September 2016*, p. 41.

³⁷⁹ Ibid, p. 41.

³⁸⁰ Ibid, p. 42.

Ms Leanne Price, Director Infrastructure Planning and Delivery, Department of Health and Human Services discussed the decision to move away from using the 13th floor as a private health clinical space and the problem with the lifts to that floor in more detail:

It was designed as a research floor. It is sitting on top of a stack of research floors. It is quite separate from any other clinical floor. So one of the problems with any kind of configuration, if it was used for clinical space, is it is quite some distance from any other clinical services, which is problematic should there be adverse issues that arise with patients. Plus, the lift design was primarily as a goods lift — so, not designed for patient transport. There are some fundamental design problems if you were to use that floor for anything other than the research-type processes that it is now going to be used for.³⁸¹

It could include such things like rubbish removal obviously, but it is also things like animal transport and a range of other sorts of things in the back-of-house-type lift arrangements not designed for public use or for patient use.³⁸²

According to evidence provided to the Committee, the state government is paying approximately \$723, 000 per annum for the rental of the 13th floor space from Plenary Health.³⁸³ The fitout costs for the 13th floor are estimated at up to \$25 million, however that cost is split between the state government and the incoming tenants (primarily the Ian Potter Centre for New Cancer Treatments) with the state controlled areas fitout costs estimated to be \$11.89 million.³⁸⁴ An expression of interest to lease part or all of the 13th floor was released in 2016 and the Department of Health and Human Services has advised the Committee that the 13th floor will “be fully tenanted, with sub-lease payments from tenants fully covering the \$723,000 rental cost payable by the State to Plenary Health.”³⁸⁵

Ms Price, further clarified the state’s payments and the future tenancy arrangements for the 13th floor:

The state actually has the lease of that area, and the state is actually funding the component that the state had taken up earlier and is currently funding, and we have recently run an EOI for other tenants to come onto that site, and they will be expected to take up their lease payments once they are in occupation.³⁸⁶

However, when providing evidence to the Committee Professor Peters and Mr Myers of the Peter MacCallum Cancer Centre both argued that the goods lift argument for not using the 13th floor as a private hospital facility was “an explanation post hoc” as an alternate lift could have been installed if it was required.³⁸⁷

381 Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 19.

382 *Ibid*, p. 19.

383 Department of Health and Human Services, *Responses to Questions on Notice*, p. 2.

384 *Ibid*, p. 2; Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 14.

385 Department of Health and Human Services, *Responses to Questions on Notice*, p. 2.

386 Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 14.

387 Professor Lester Peters - Peter MacCallum Cancer Centre, *Transcript - 26 October 2016*, p. 8; Allan Myers AC QC - Peter MacCallum Cancer Centre, *Transcript - 26 October 2016*, p. 8.

The Committee also expressed interest in whether any empty or unused space remained in the VCCC building.

Professor Peters advised the Committee that there was some shell space left in the building, however that it was “tending to shrink as time goes on” and any space there was “is just a small amount of space.” All space on the 13th floor has been allocated.³⁸⁸

Mr Crowe further advised that the expansion capacity on levels 1 and 9 has been taken back by the government “for flexibility in functional planning within the design process.”³⁸⁹

Mr Glenn Hay, CEO of Plenary Group, advised that there is a small area of empty space left on level 1 and the empty space on level 9 has been taken up by overflow research functions from the changing tenants on level 13.³⁹⁰

8.4.2 Loss of private funding

The Committee heard evidence on the impacts of withdrawal of private funding on the VCCC, after the approval for Peter Mac Private was rescinded.

In evidence to the Committee provided by the Peter MacCallum Cancer Centre a confirmed withdrawal of \$20 million in pledged private funding was lost as a result of the cancellation of the Peter MacCallum Private plan. The loss of a possible “\$13.6M in likely gifts that were not forthcoming” could increase the total funding lost to the Peter MacCallum Cancer Centre to “as high as \$38.6M.” Representatives of Peter MacCallum further advised the Committee that this loss of funding reduced “the pledged total from \$39,201,765 to \$19,201,765”, which reduced “the VCCC Project Capital Campaign target to \$40 million” and resulted in the resignation of the Chair of the Peter MacCallum Cancer Centre board.³⁹¹

Professor Peters advised that the Peter MacCallum Cancer Centre “has taken the view, ‘This is disappointing, but we have to move on and make the most of an unfortunate situation’.”³⁹²

However, he expressed disappointment that the VCCC project “did not go the full distance”.³⁹³

My vision was for a cancer centre that would have been modelled after the great cancer centres around the world, like MD Anderson where I was, like Memorial Sloan Kettering in New York, like Royal Marsden in London, where excellence in science and research is made available to the totality of the population, not just the public

³⁸⁸ Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, pp. 35-7.

³⁸⁹ Paul Crowe - Executive Director Head of Origination Plenary Health Group, *Transcript - 20 September 2016*, p. 42.

³⁹⁰ Glenn Hay - CEO Plenary Health Group, *Transcript - 20 September 2016*, p. 43.

³⁹¹ Professor Lester Peters - Peter MacCallum Cancer Centre, *Responses to Questions on Notice*; Allan Myers AC QC - Peter MacCallum Cancer Centre, *Transcript - 26 October 2016*, pp. 3-4.

³⁹² Professor Lester Peters - Peter MacCallum Cancer Centre, *Transcript - 26 October 2016*, p. 7.

³⁹³ *Ibid*, pp. 7-8.

sector, and people flock from near and far to access that expertise. In Houston 25 per cent of the patients come from out of state or out of country because of the reputation of the facility and the opportunity to access that service in their private capacity.”³⁹⁴

When asked if the private facility would have adversely impacted on the amount of public space for Victorians, Professor Peters responded:

...it did not have to be an either/or situation. The idea would have been to cater for both. The private facility would have added capacity; it was not taking away one single bed from what had been planned for the public patients of Victoria.³⁹⁵

Professor Peters also advised the Committee of how private funding works to support the clinical and research efforts at similar comprehensive cancer centres internationally:

“It should be noted here that all of the world’s great comprehensive cancer centres offer private care to both local patients and those from elsewhere in the country, or from other countries, who seek out the very best in cancer care and are able and willing to pay for it. The revenue in fees and gifts from such patients contributes very substantially to the overall budget of these centres, subsidising both research and care for public patients as well as supporting the construction of new facilities. As an example, the MD Anderson Cancer Center in Houston recently received a gift of \$150 million from a Middle Eastern patient to endow a new building housing the institute for personalised cancer therapy.”³⁹⁶

8.4.3 Staffing

The Committee had an interest in the staffing and staff training at the VCCC and heard evidence that there were an estimated 1200 staff in specialised training at the VCCC, including:³⁹⁷

- 360 PhD students from the University of Melbourne,
- Surgical oncologists,
- Radiotherapists
- Radiation oncologists
- Medical oncologists
- Haematologists
- Cancer nurses
- Allied health staff
- Social workers.

³⁹⁴ Ibid, p. 7.

³⁹⁵ Ibid, pp. 7-8.

³⁹⁶ Ibid, p. 2.

³⁹⁷ Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, pp. 33-4.

Professor Bishop explained:

...we are training everybody. We want to make this a place where you can actually come to know everything you need to know about cancer for your particular discipline, and not only that, but you will get linked across to all the other disciplines just by the fact that we have pushed things together. If you are coming as a physiotherapist interested in cancer problems, you will be talking to the best cancer nurses, the best oncologists, the best surgeons as part of the environment.³⁹⁸

The VCCC also employed 1100 to 1200 construction staff at peak construction, with approximately 260 specialist subcontractors. The VCCC continues to employ specialist service providers to commission and maintain the VCCC's facilities.³⁹⁹

In evidence to the Committee Mr Hay stated that there were sufficient skills and specialist expertise in contractors and providers in Victoria to service the VCCC's requirements and that "the market was fairly healthy in terms of that expertise."⁴⁰⁰ Additionally, within these specialist service providers Mr Hay said he observed "that the builders are having very high numbers of apprenticeships and training programs."⁴⁰¹

...I think the industry is responding to ensuring that that knowledge capture and transition over time is being appropriately managed, giving young workers the opportunity to grow and to learn. So I think for the tier 1 contractors that we generally deal with, they have pretty strong programs in that regard. It is not to say that more cannot be done, but certainly we do see evidence of it in what we do."⁴⁰²

Professor Bishop and Mr Hay also stressed in their evidence to the Committee, that the calibre of international talent at both postdoctoral and professorial level being attracted to the VCCC is high and to be commended. Professor Bishop provided examples:

... our PhD students, which are our future, around 40 or 43 per cent are from overseas. We take our best local people, our best from Sydney et cetera, but we are really attracting a group of people now — from China, UK, US, western Europe, everywhere — that want to come here, and we have got to make that happen at all levels, including the postdocs, the PhDs as well as the clinicians and the professors.

Of the ones that we have attracted, the 12 professorial positions, a lot of them are international, and you will see more and more of this. We have got to be the place people come to in this country if they want to do research, but, not only that, one of the world places that they would think of coming to. Melbourne will sell itself, because it is a beautiful place to be. I think the research is now at a level where we are attracting people who are heavy hitters, if you like, in the Northern Hemisphere.⁴⁰³

³⁹⁸ Ibid.

³⁹⁹ Paul Crowe - Executive Director Head of Origination Plenary Health Group, *Transcript - 20 September 2016*, pp. 43-4; Glenn Hay - CEO Plenary Health Group, *Transcript - 20 September 2016*, pp. 43-4.

⁴⁰⁰ Paul Crowe - Executive Director Head of Origination Plenary Health Group, *Transcript - 20 September 2016*, p. 44; Glenn Hay - CEO Plenary Health Group, *Transcript - 20 September 2016*, p. 44.

⁴⁰¹ Glenn Hay - CEO Plenary Health Group, *Transcript - 20 September 2016*, p. 45.

⁴⁰² Ibid.

⁴⁰³ Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, pp. 33-4.

8.4.4 Research collaboration

The Committee noted evidence detailing the importance of co-location of different cancer services on the VCCC site and the opportunities this creates for staff across research areas and institutions to collaborate and improve outcomes for patients.

Professor Bishop stated:

We do not have to invent the co-location opportunities, because people bump into each other and then start talking and doing things. That is the opportunity.”⁴⁰⁴

The idea is to actually break down the institutional barriers by putting the people together that need to be put together.”⁴⁰⁵

The good thing about the program is that you can get the people actually having to deal with the consequences, the lung cancer doctor and nurse, also directly talking to the scientist, who is directly talking to the person who knows a lot about carcinogenesis. That is what I mean by having a research project that goes across rather than just one silo. We are all in silos in various ways, and we aim to try to work across them.”⁴⁰⁶

“...the trick for Victoria is called co-location. I do not think we should de-emphasise the importance of pushing people together and expecting them to collaborate and actually answer the big questions. That is not just for cancer; it is actually for everything. The Monash hub, the Melbourne hub, the new work around Monash Medical Centre et cetera — I think they are all things that work. It is a great idea, and other states cannot do this very well.”⁴⁰⁷

The Committee were informed of some of the positive outcomes to arise from the collaborative research environment facilitated by the VCCC, such as:⁴⁰⁸

- Linking cancer researchers with the University of Melbourne’s school of population and global health (e.g. a centre of research excellence in bowel cancer screening, which combines the VCCC and the school of population health);
- A workshop symposium working on the effect of air pollution and diesel fumes on lung cancer, which included respiratory physicians, lung cancer doctors and population health;
- Allowing harmonisation of clinical trials across the VCCC with 80 per cent of all cancer patients going into clinical trials in Victoria going through the group;
- A new cancer imaging program linked through the University of Melbourne’s brain centre;
- An expanded genomics research platform;

404 Ibid, pp. 33-4.

405 Ibid, pp. 34-5.

406 Ibid, pp. 34-5.

407 Ibid, p. 32.

408 Ibid, pp. 28-9, 33-5.

- Establishing clinical proteomics; and
- Establishing research into:
 - Health services
 - Primary care and screening

Professor Bishop also informed the Committee about VCCC ‘research leads’ on particular cancers and related issues which allow researchers to access information and work with other institutions within the VCCC:

That person has permission to go and ask what they are doing at St Vincent’s or Western Health about a particular cancer and then assist them in linking across to research that they might know about in another centre or working together to develop a new opportunity or do a new clinical trial. You sort of give them the ability to work across because of the structures that we are hoping to develop, and we have developed a number of these now.⁴⁰⁹

He highlighted the quantity and quality of cancer research already coming out of the VCCC:

We produce something like 40 per cent of all the research publications that sit within the top 1 per cent of cancer publications coming out of this country. So they are a very successful group on that measure.⁴¹⁰

8.4.5 Delivering infrastructure in Victoria

The Committee expressed an interest in whether there had been any challenges in building the VCCC in Victoria.

Mr Hay, CEO of Plenary Health Group emphasised the importance of having a strong pipeline of projects to allow for pre-planning from a procurement perspective and the importance of the state having a clear project brief which allows “certainty of the scope and specification and the objectives that the government is looking to” from a delivery perspective.⁴¹¹

Mr Hay identified the only other risks in relation to infrastructure projects in Victoria were to do with industrial relations, however that those risks “get factored in” and that there had been no industrial relations challenges in relation to the VCCC project.⁴¹²

8.4.6 Environmental design

The Committee expressed an interest in the environmental design and inclusion of open space in the VCCC.

⁴⁰⁹ Ibid.p. 36.

⁴¹⁰ Ibid, p. 32.

⁴¹¹ Glenn Hay - CEO Plenary Health Group, *Transcript - 20 September 2016*, pp. 40-1.

⁴¹² Ibid.

Mr Hay presented some of the environmental design elements of the VCCC as chiefly to do with energy savings:

Obviously the design drove a large focus on natural light and obviously trying to reduce energy consumption with the use of LEDs and some of the leading technologies, the building automation system that Honeywell use — the way that that is configured and calibrated to ensure that the building operates at the optimum from an efficiency point of view. Fittings, finishes, a lot of the mechanical equipment, with obviously high ratings from an energy perspective. So it has got quite a layered approach to energy-saving solutions and sustainability. That was a key part of the state's brief, and it is one that we had to strictly comply with.”⁴¹³

Mr Hay and Mr Crowe from Plenary Health also noted the important role gardens, cafes and open spaces played in designing the VCCC:

What we did try to do though with our design was, because it was quite a constrained site, I think we have got 12 rooftop gardens. On level 7 we have probably got one of the largest rooftop gardens in Victoria, if not Australia. There are some secure gardens for staff and for some of the support services provided, but also for the public. So we did try to create, albeit within that constrained triangular site, that outdoor experience. The other element that we were quite strong on was in terms of bicycles. I think we can accommodate over 300 or 350 bikes within the facility. So we did try to deal with that within the constraints of the brief that we had.⁴¹⁴

8.4.7 Carpark

The Committee expressed an interest in the funding and operation of the VCCC carpark. The Committee were informed that the Peter MacCallum Cancer Centre took out a \$41.06 million loan from the Department of Treasury and Finance to fund the construction of the carpark and are entitled to retain all revenue generated from the carpark's operation.⁴¹⁵

413 Ibid, p. 44.

414 Ibid, p. 45; Paul Crowe - Executive Director Head of Origination Plenary Health Group, *Transcript - 20 September 2016*, p. 45.

415 Department of Health and Human Services, *Responses to Questions on Notice*, p. 3.

9

Victorian Heart Hospital

Cost	Expected Completion Date	Current Status
\$150 million ^(a)	Late 2019/early 2020 ^(b)	Early planning

(a) Monash Health - Monash Heart, 'Victorian Heart Hospital', viewed 7 April 2017, <www.monashheart.org.au/index.php/about-us/victorian-heart-hospital>.

(b) Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 53.

9.1 Project overview and background

The Victorian Heart Hospital is a partnership between MonashHeart, Monash University and the state government to provide Australia's first cardiac care-specific hospital located at Monash University in Clayton.⁴¹⁶ The hospital proposes to bring together cardiac research and education institutions into the treatment and prevention of cardiovascular disease and aims to improve Victoria's provision of cardiac care and related research and education as well as contribute to meeting the key aims of the *Design, Service and Infrastructure Plan for Victoria's Cardiac System* of:

- Better patient access, experience and outcomes
- A coordinated cardiac system
- Provision of effective and innovative cardiac services.⁴¹⁷

The proposed hospital includes purpose-built public and private facilities to expand existing capacity and allow for a flexible and proactive approach to providing cardiac treatment, including:

- Cardiac theatres
- Cardiac catheterisation laboratories
- A pre clinical catheterisation laboratory for medical device research and research and development in pharmaceuticals
- Ambulatory services such as cardiac CT, echocardiography and specialist consultation.⁴¹⁸

⁴¹⁶ Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 53..

⁴¹⁷ Ibid, p. 53; Department of Treasury and Finance, *Budget Paper No. 3 - Service Delivery*, 2016-17, p. 93; Monash Health - Monash Heart, *Leading a Change of Heart: Building Australia's First Heart Hospital*, Melbourne; Hon. Jill Hennessy MP - Minister for Health, 'Vision For World Class Cardiac Care In Victoria', viewed 7 April 2017, <www.premier.vic.gov.au/vision-for-world-class-cardiac-care-in-victoria>.

⁴¹⁸ Monash Health - Monash Heart, 'Victorian Heart Hospital', viewed 7 April 2017, <www.monashheart.org.au/index.php/about-us/victorian-heart-hospital>.

The proposed facility will also provide care to overseas patients (“medical tourism”).⁴¹⁹

The Victorian Heart Hospital plans to include training and education opportunities for a range of staff and students, including:

- Undergraduate and postgraduate medical,
- Nursing and science students,
- One to two year subspecialty training fellowships for cardiologists and cardiac surgeons,
- An export business for the education of international health professionals
- Provision of PhD and Masters placement for doctors, nurses, cardiac technologists and allied health professionals.⁴²⁰

The proposed hospital will support and expand existing cardiac research activities within Monash Health and Monash University, including PhD projects, clinical trials and research partnerships.⁴²¹

Professor Ian Meredith, Director of Monash Health informed the Committee, that the project has been under consideration for 14 years as a solution to the growing demand for cardiac services in the south-eastern corridor. Demand has risen due to an ageing population and increased risk factors associated with modern Western lifestyles.⁴²²

We needed to have capacity. We needed to develop infrastructure that was not limited by concepts derived from the 20th century or even the 1980s, to be honest. The way medicine is really changing today, we need to have a system that is ready to cope with disruptive change and changing infrastructure. So they were the two underlying principles we started from — how could we actually meet the demands of the population going forward, how could we futureproof the service, how could we provide safe, timely and effective care — and accessible care — for the next generation and beyond?⁴²³

...Melbourne, with its tremendous infrastructure, is well positioned to have further med tech development in the health space, particularly in the hospital space. We saw all these things as potential opportunities to build appropriate infrastructure for the future.⁴²⁴

419 The phenomenon of medical tourism and how it is proposed to work with the Victorian Heart Hospital is considered in more depth in section 9.4. Monash Health - Monash Heart, ‘Victorian Heart Hospital’, viewed 7 April 2017, <www.monashheart.org.au/index.php/about-us/victorian-heart-hospital>.

420 Ibid.

421 Ibid.

422 Professor Ian Meredith AM - Director MonashHeart Victorian Heart Hospital, *Transcript - 19 October 2016*, p. 2.

423 Ibid.

424 Ibid.

9.2 Funding

The state government has committed \$150 million (\$135 million in addition to the \$15 million provided for planning works) to the project.⁴²⁵ The Department of Health and Human Services provided evidence to the Committee, that \$1.03 million has been spent in the project's planning and early works thus far, including the development of a full Business case and feasibility study.⁴²⁶

Total state funding allocation for the project for the 2015-16 and 2016-17 financial years is outlined in Table 5.4.1 below.

Table 9.1 Victorian Heart Hospital funding to date

Total funding	2015-16	2016-17
\$15 million	\$3 million	\$12 million

Source: Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 53.

Ms Price was unable to provide the Committee with an estimate of the overall cost for the proposed project but indicated that it would likely be less than \$500 million.⁴²⁷

Ms PRICE — For a brand-new hospital that is on a greenfield site, that has got 195 beds, an emergency department with 20-odd cubicles and a range of research facilities and that will have all the site establishment costs for bringing services onto the site — that sort of scale of standalone hospital — whilst I do not have the exact costs for this one, you could look at comparative sorts of locations. The Monash Children's that we were talking about earlier at 230 beds was in the order of 250 million, and that was tapping into a lot of the services that were already on the Monash Health Clayton site. So it is fair to say we will be talking in the hundreds of millions.⁴²⁸

Mr Stripp, CEO of Monash Health also indicated to the Committee that a total of \$300-400 million would be a reasonable estimate for the project.⁴²⁹

Mr STRIPP — Again, we have got architects, planners et cetera working on that exact question, so I do not have a precise dollar figure that I can give you. If you have a look at similar types of constructions, in terms of where we are up to it is going to be somewhere in the order of \$300 million to \$400 million, but it could be a bit more or it could be a bit less. It will depend on the exact refinement of the option that is decided on.⁴³⁰

⁴²⁵ Hon. Jill Hennessy MP - Minister for Health, 'Vision For World Class Cardiac Care In Victoria', viewed 7 April 2017, <www.premier.vic.gov.au/vision-for-world-class-cardiac-care-in-victoria>.

⁴²⁶ Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 20; Department of Health and Human Services, *Responses to Questions on Notice*, p. 3.

⁴²⁷ Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 20.

⁴²⁸ *Ibid.*, p. 20.

⁴²⁹ Andrew Stripp - CEO Monash Health Victorian Heart Hospital, *Transcript - 19 October 2016*, p. 9.

⁴³⁰ *Ibid.*

The state government funding will be supplemented with contributions from project partners, the federal government and private fundraising.⁴³¹

9.3 Progress to date and future work

Early planning work has commenced on the project, including nominating an indicative site at Monash University.⁴³² In evidence to the Committee Mr Stripp advised that the business case currently under development would be provided to the government by the end of 2016.⁴³³

The project has received \$15 million in planning and early works funding as detailed above, however Ms Price advised the Committee that there are currently no funding commitments from project partners and that there are no formal partners for the project at this stage.⁴³⁴

In evidence to the Committee, Ms Price explained that the government is still in negotiations with Monash University about whether the proposed site land would be purchased or leased.⁴³⁵

Ms Price was unable to provide the Committee with forward projections about when the project's construction might commence:

... that is premature now while we are still working through the actuals. We are effectively developing the detailed business case for government. That will have some indicative time lines for the delivery of a new build, and that will give greater detail around when and how something might be started, again depending on funding contributions coming from others.⁴³⁶

Based on current projections, the Victorian Heart Hospital is estimated to be complete in late 2019 or early 2020.⁴³⁷

⁴³¹ Department of Treasury and Finance, *Budget Paper No. 3 - Service Delivery*, 2016-17, p. 93.

⁴³² Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, pp. 20-21; Andrew Stripp - CEO Monash Health Victorian Heart Hospital, *Transcript - 19 October 2016*, p. 9.

⁴³³ Andrew Stripp - CEO Monash Health Victorian Heart Hospital, *Transcript - 19 October 2016*, p. 9.

⁴³⁴ Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 21.

⁴³⁵ *Ibid.*

⁴³⁶ *Ibid.*

⁴³⁷ Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 53.

9.4 Committee comments

9.4.1 Emergency department

Concerns were raised that there may not be a walk-in emergency department in the proposed design of the new hospital. Professor Meredith assured the Committee that “it should be a walk-up emergency department”, however that the majority of admissions would be via ambulance.⁴³⁸

So you do have to have a functioning emergency department. Obviously there will be emergency transport bringing patients in, but it would be the hope that a proper-functioning cardiovascular emergency would allow walk-in and return admissions to the hospital.⁴³⁹

...The model-of-care document that is being used to underpin the feasibility study in the planning is based around having a walk-up emergency department. This would be the most logical thing to do. It is a lesson that most of the people involved in the heart hospital have been told repeatedly when visiting other establishments around the world.⁴⁴⁰

9.4.2 Co-location or centralised hub-and-spoke service delivery

The Committee heard evidence discussing the comparative merits of co-located or centralised specialist services as part of a hub-and-spoke model of service delivery, such as the proposed heart hospital.

The Victorian Heart Hospital project argues that the stand-alone option is the best for Victoria, because:

- Stand-alone heart hospitals have become the preferred model for delivery of cardiac care around the world;
- This option best ‘future proofs’ for capacity growth and flexibility for new paradigms of care well into the future; and
- A Victorian Heart Hospital provides the best opportunity for development of related surplus generating activity, including:
 - growth in private patient procedures, both intervention and cardiac surgery;
 - development of cardiac ‘travel medicine’ within Victoria;
 - opportunities for involvement of major stakeholders.⁴⁴¹

In evidence to the Committee Professor Meredith advocated for a hub-and-spoke model of service delivery for cardiovascular services in Victoria:

⁴³⁸ Professor Ian Meredith AM - Director MonashHeart Victorian Heart Hospital, *Transcript - 19 October 2016*, p. 4.

⁴³⁹ *Ibid.*

⁴⁴⁰ *Ibid.*

⁴⁴¹ Monash Health - Monash Heart, ‘Victorian Heart Hospital’, viewed 7 April 2017, <www.monashheart.org.au/index.php/about-us/victorian-heart-hospital>.

So if you look at what you could do with Monash Health, you could either develop another detailed cardiovascular service at Dandenong, then a separate one at Casey, ultimately one at Warragul. You could build even more infrastructure at Box Hill, or you could look at the capacity limitation that we have at Monash Health and say, ‘What is the best way to provide a service to 2050?’. And the best way to provide a service to 2050, meeting volume quality objectives, providing timely, accessible and effective care, is to develop one centre.⁴⁴²

I think we have to look at not one but all the examples around the world if we are to see it in perspective, and I think the best model for Victoria, particularly Monash Health, would not be to duplicate all these costly infrastructures at each local hospital but to build a concentrated hub-and-spoke model. That, I think, is the underpinning of the Victorian cardiac services plan: major hubs for high-cost, high-complexity and low-frequency procedures, and then to distribute to the spoke low-cost, low-complexity common procedures.

That is going to provide us with the best volume quality structure. So there are good examples of where centres are coming together — Chicago is another place, Los Angeles County another — and where heart hospitals are moving together to create one larger structure.⁴⁴³

The idea of hub-and-spoke models of care, though, where you can concentrate to get volume and quality, is really the way to go forward, and there should be pillars that meet the requirements of each of the segments of the city and the state.⁴⁴⁴

Mr Stripp also supported the centre of excellence approach as appropriate for Victoria and, furthermore, that the central hub approach to specialist health service delivery is replicable around the state.⁴⁴⁵

What we have is a concentration of a centre of excellence. We would expect that, for instance, the heart hospital provides that opportunity for a centre of excellence and partnership with other services. Given the question of how that would be replicated around the state or whether there are other domains that you would pursue in others, is it possible? Yes. You would just want to go through the analysis, given the size of our community overall.⁴⁴⁶

Professor Meredith further argued for the central, standalone heart hospital as compared to a co-located service with Monash Health, stating that the standalone model is “not without precedent” and is proven to be safe, effective and to allow for future proofing and dynamic change in health service provision.⁴⁴⁷

The standalone structure offers a great deal for the development of medical education and medical tourism and for leveraging the extraordinary research and technology facilities that are at the university to build a true med tech hospital, so there are many strengths in that model.

442 Professor Ian Meredith AM - Director MonashHeart Victorian Heart Hospital, *Transcript - 19 October 2016*, pp. 4-5.

443 Ibid.

444 Andrew Stripp - CEO Monash Health Victorian Heart Hospital, *Transcript - 19 October 2016*, p. 8; Professor Ian Meredith AM - Director MonashHeart Victorian Heart Hospital, *Transcript - 19 October 2016*, p. 8.

445 Andrew Stripp - CEO Monash Health Victorian Heart Hospital, *Transcript - 19 October 2016*, p. 8.

446 Ibid.

447 Professor Ian Meredith AM - Director MonashHeart Victorian Heart Hospital, *Transcript - 19 October 2016*, pp. 2-3

The risks and possible weaknesses of the chosen standalone model for the hospital also raised some concerns.

Professor Meredith advised:

Of the perceived risks, one that is often talked about in public is the duplication of services — that would be one . It is perceived by some to be less safe. This of course is not really true. As I said, there are more than 100 such establishments around the world, and many of these operate at a higher level than the services that we can currently deliver from our constrained infrastructure.⁴⁴⁸

When you talk about safety, there are many elements to patient safety. Is it a case of actually delivering inferior-quality care? No, because that is a volume-related issue. Is it the case that the patient might go to the wrong establishment? The vast majority of patients will come by emergency services, and such patients will naturally flow directly to the heart hospital. There are always going to be transfer issues, but these have been well worked out around the world in other models.⁴⁴⁹

And then what if the patient were to deteriorate, or their health were to deteriorate? Well, you are building into the hospital all of the vertical infrastructure that you actually need. So you would not build a heart hospital without an intensive care unit, but it is a cardiac intensive care unit. You would not build it without cardiac theatres, but they are cardiac surgical theatres. You would not build it without a diabetes service, because 20 per cent of the population has diabetes. You would not build it without renal medicine, because 10 per cent of all cardiac patients have kidney problems. So all of these sort of service-related and operational issues have really been very well thought out. I have absolutely no doubt that there are no safety issues.

Of course there is going to be some duplication if you build another campus...but being part of Monash Health offers a lot of strength because there will be sharing of facilities across the entire organisation.⁴⁵⁰

9.4.3 Attracting and retaining research talent

The Committee expressed an interest in talent retention in medical research and what role the proposed hospital is anticipated to play in stemming the “brain drain” from Victoria in this area.

Professor Meredith acknowledged, that “the single most important and valuable asset to the running of a safe, effective and culturally sound organisation is having a critical mass of the right people working there and providing the environment that would attract them there.”⁴⁵¹

We have a problem with brain drain. We have a significant problem that some of our best and brightest do not come back to Australia, because there are better facilities with better infrastructure and better conditions for them to further their research.

448 Ibid.

449 Ibid.

450 Ibid.

451 Ibid, pp. 5-6.

It is a great pity that we do not retain those people or attract them back after putting so much effort into their undergraduate and postgraduate medical education. So I would see that a facility like this would be the next step.⁴⁵²

In evidence to the Committee he suggested that having the proposed Victorian Heart Hospital in the same precinct as Monash University would be conducive to supporting successful research efforts in the cardiac health space:

There are extraordinary research and biotech facilities: CSIRO; the imaging facility — the synchrotron — will be directly across from the PET scanning facilities at the institute; and biodiversity. All of the different departments will provide extraordinary synergy for research developments and early-phase med tech developments that can come through the hospital.

The one missing link we have got in med tech really is that we do not take enough of that into human clinical trials and develop it to a stage for commercial spin-off here. So if we could do that while providing excellence in clinical care, we would be setting ourselves up for a very successful new business dimension for Victoria going forward.⁴⁵³

Professor Meredith was also optimistic about the role the proposed hospital could play in Victoria's economic future, advising the Committee that MonashHeart's existing reputation would likely assist in attracting international talent to study and contribute research work to Victoria.⁴⁵⁴

Tertiary education is a very important part of the economic wealth of this state. Medical education could be a very important part of that. Both undergraduate and postgraduate training are significant enterprise activities that could be undertaken by the heart hospital, and that is one of the underpinnings of the business model.

Not only will we be providing safe, timely and effective care and providing capacity for the future, we will also be able to provide a financial structure for the state in terms of medical education and training: undergraduate, postgraduate, internationals.⁴⁵⁵

9.4.4 Medical tourism

The Committee expressed interest in the concept of medical tourism – international private patients coming to Victoria and paying to use the available specialist medical services - that the Victorian Heart Hospital aims to facilitate and provide services for.⁴⁵⁶

Professor Meredith advised the Committee that there is already an established medical tourism industry in Victoria, with approximately \$2 billion contributed to Victoria's economy in 2005 from cardiovascular tourism.⁴⁵⁷

452 Ibid.

453 Ibid.

454 Ibid.

455 Ibid.

456 Monash Health - Monash Heart, 'Victorian Heart Hospital', viewed 7 April 2017, <www.monashheart.org.au/index.php/about-us/victorian-heart-hospital>.

457 Professor Ian Meredith AM - Director MonashHeart Victorian Heart Hospital, *Transcript - 19 October 2016*, pp. 6-7.

Now, what it must be now would be at least four or five times that. I am not exactly sure what the total value of medical tourism in the cardiovascular space going to Europe or North America would actually look like, but we should be able to harness some of that coming to Victoria.⁴⁵⁸

However, Professor Meredith advised the Committee that the critical element of maintaining and improving medical tourism to Victoria is “the brand and the reputation.”⁴⁵⁹

Now the critical thing is that it is not just the facilities; it is the reputation. It is the brand and the reputation, and the brand and the reputation mean influence and influence is the thing that is going to actually help the medical tourism development. I believe that could be a strong and growing foundational business for Victoria in this century.⁴⁶⁰

Referring to international examples, Professor Meredith explained the potential impact of a well-supported medical tourism industry in Victoria into the future:

There are 500 million mobile phone users who have health applications on their phones today....Five hundred million. Most of those have daughters, sons — children — who will look it up and say, ‘We want your heart valve replacement to be done at Monash Medical Centre’, or at MonashHeart or the Victorian Heart Hospital’ or ‘We want your targeted cancer therapy to be done at VCCC’.... This is the foundation for developing a highly successful Victorian medical tourism business from which we will all benefit.⁴⁶¹

There were concerns that encouraging medical tourism may well undermine public health services for the Victorian people. However, Professor Meredith responded that this would be a service that would contribute financially to the hospital.⁴⁶²

I am so glad you asked that question. I have spent my entire 28 years in public medicine looking after uninsured patients and as a tireless advocate for people without a voice, so I am a great believer in access, equity and timely and effective care for all people. The problem is: how do we fund that? Even though I have worked my entire life in public health, the way to fund that is to have financial sustainability — to have some degree of financial autonomy and independence — so that you can meet that demand.

The reality is that in Monash Health ... every week there are 7000 people waiting 5 to 12 weeks for some cardiovascular service. It might be a minor service, but there are 7000 people every week waiting for something. I am a taxpayer. I am not happy about that. That could be me. But we do the best with the facilities that we have got. Not all of this actually appears on category 1 waiting lists; that is how you categorise things. But people are waiting for simple things, whether it be an ultrasound test of their heart or a stress test.

458 Ibid.

459 Ibid.

460 Ibid.

461 Ibid.

462 Ibid. pp. 7-8

This is not right. If we are to do this well and provide for our community, our citizens, all Victorians and all Australians, we have to have a way to fund that, and as long as we build a facility to provide all of those needs — and anything in terms of enterprising models is above and beyond that capacity — it should work. All of our modelling from day 1 has been to provide the capacity for those uninsured people who live here and who deserve to be treated in an equitable, accessible, timely and fair way. So every model we have ever developed is saying, ‘What would we need in 2025, what would we need in 2030 and what would we need in 2035 to meet the public demand?’.⁴⁶³

463 Ibid.

10

Joan Kirner Women's and Children's Hospital

Cost	Expected Completion Date	Current Status	Next Phase
\$200 million ^(a)	Late 2018/early 2019 ^(b) or late 2019/early 2020 ^(c)	Under construction	Completion of construction

(a) Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 51.

(b) Western Health, 'Accessing Sunshine Hospital services during construction of the Joan Kirner Women's and Children's Hospital', viewed 7 April 2017, <www.westernhealth.org.au/AboutUs/News/Pages/Joan-Kirner-Women%27s-and-Children%27s-Hospital-developments.aspx>; Western Health, 'Joan Kirner Women's and Children's Hospital Project', viewed 7 April 2017, <www.westernhealth.org.au/OurSites/JKWCH/Pages/About%20the%20Joan%20Kirner%20Women's%20and%20Children's%20Hospital.aspx>.

(c) Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 51.

10.1 Project overview and background

The Labor Government committed \$200 million to building new facilities at Sunshine Hospital as part of their 2014 election commitments while in opposition.⁴⁶⁴ The Joan Kirner Women's and Children's Hospital will be a nine-storey building constructed on the eastern side of the existing Sunshine Hospital site with access through to parts of the building for clinical and other specialties.⁴⁶⁵

The hospital is intended to help improve capacity and access to health services, particularly birthing and children's services, in Melbourne's west. By moving maternity services out of the existing building the project aims to repurpose the existing Sunshine Hospital space for other surgical or emergency short-stay beds.⁴⁶⁶

The new hospital will include:

- 20 labour delivery rooms;
- 39 Special Care Nursery cots;
- 64 women's inpatient beds;
- 32 children's inpatient beds;
- four operating theatres;

⁴⁶⁴ Western Health, *Western Health welcomes funding commitment*, 2014.

⁴⁶⁵ Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 3.

⁴⁶⁶ Ibid, p. 4; Western Health, 'Joan Kirner Women's and Children's Hospital Project', viewed 7 April 2017, <www.westernhealth.org.au/OurSites/JKWCH/Pages/About%20the%20Joan%20Kirner%20Women's%20and%20Children's%20Hospital.aspx>; Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 3.

- additional outpatient clinics; and
- refurbishing 55 existing acute adult inpatient beds at Sunshine Hospital.⁴⁶⁷

The new hospital, in association with anticipated health developments in Footscray, is expected to create a need for 1,000 additional health staff.⁴⁶⁸

10.2 Funding

The Joan Kirner Women’s and Children’s Hospital project has a commitment of \$200 million from the state government.⁴⁶⁹

A breakdown of funding through the 2015-16 and 2016-17 budgets is outlined in Table 5.5.1 below.

Table 10.1 Joan Kirner Women’s and Children’s Hospital Finance Breakdown

Total	2015-16	2016-17	Remaining
\$200 million	\$4.765 million	\$29.182 million	\$166.053 million

Source: Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 51.

10.3 Progress to date and future work

Construction on the project commenced in August 2016.⁴⁷⁰ When the Committee was taking evidence in October 2016 the status of project construction was:

- the interior design of the building was complete,
- five prototypes were being considered for inpatient rooms for clinician and patient needs
- the exterior façade was close to being finalised,
- alternative pathways and access points during construction were planned and arranged.⁴⁷¹

⁴⁶⁷ Western Health, ‘Joan Kirner Women’s and Children’s Hospital Project’, viewed 7 April 2017, <www.westernhealth.org.au/OurSites/JKWCH/Pages/About%20the%20Joan%20Kirner%20Women’s%20and%20Children’s%20Hospital.aspx>; Western Health, *Western Health welcomes funding commitment*, 2014.

⁴⁶⁸ Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 8.

⁴⁶⁹ Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 51.

⁴⁷⁰ Western Health, ‘Accessing Sunshine Hospital services during construction of the Joan Kirner Women’s and Children’s Hospital’, viewed 7 April 2017, <www.westernhealth.org.au/AboutUs/News/Pages/Joan-Kirner-Women%27s-and-Children%27s-Hospital-developments.aspx>.

⁴⁷¹ Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 3.

The Joan Kirner Women's and Children's Hospital was initially expected to be completed in late 2018 and to open in early 2019,⁴⁷² however the 2016-17 budget papers list an expected completion date of late 2019/early 2020.⁴⁷³

10.4 Committee comments

10.4.1 Community consultation

The Committee expressed interest in how Western Health and the project team were ensuring that the Joan Kirner Women's and Children's Hospital was meeting the needs of the patient demographic in their catchment area, noting that 16 per cent of people living in Sunshine Hospital's catchment area come from a culturally and linguistically diverse background.

Associate Professor Cockram advised the Committee that the project has undertaken considerable community consultation, including establishing a community consultation committee, conducting local residents' meetings, appointing patient advocates, and running clinician and staff engagement activities to ensure that the facility meets the needs of the community.⁴⁷⁴

...the interiors and patient and public areas have been well consulted to ensure that they are welcoming, friendly and appropriate for our community. I have mentioned before that our community is very diverse and has very different considerations in relation to health care and what they expect a healthcare facility to look like. We have also got one of the fastest growing Indigenous communities in Melbourne, so that is another thing that we have been consulting and thinking about in relation to how this facility will feel from a community perspective.⁴⁷⁵

Associate Professor Cockram noted that this community engagement has been particularly useful to the project team in successfully passing through the high-risk, high-value gateways associated with the project.⁴⁷⁶

Ms Leanne Price, Director Infrastructure Planning and Delivery Department of Health and Human Services, also emphasised the emphasis being placed on considering the patients' needs in the design of the hospital:

⁴⁷² Western Health, 'Accessing Sunshine Hospital services during construction of the Joan Kirner Women's and Children's Hospital', viewed 7 April 2017, <www.westernhealth.org.au/AboutUs/News/Pages/Joan-Kirner-Women%27s-and-Children%27s-Hospital-developments.aspx>; Western Health, 'Joan Kirner Women's and Children's Hospital Project', viewed 7 April 2017, <www.westernhealth.org.au/OurSites/JKWCH/Pages/About%20the%20Joan%20Kirner%20Women's%20and%20Children's%20Hospital.aspx>.

⁴⁷³ Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 51.

⁴⁷⁴ Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 3.

⁴⁷⁵ Ibid.

⁴⁷⁶ Ibid.

The buildings need to be legible...they need to be intuitive. People need to be able to find their ways around them. So in modern hospital design we do not use just pure signage with very technical labels of clinical areas because that does not mean very much to the people that are coming in for the first time or even for the second or third time.⁴⁷⁷

10.4.2 Car park

The Committee were also interested in the funding arrangements for the carpark at the new facility. Associate Professor Cockram advised the Committee that Western Health is currently working with the Department of Treasury and Finance to secure a loan for the carpark, which is anticipated to be completed at the same time as the hospital building.⁴⁷⁸

Associate Professor Cockram further assured the Committee that Western Health would endeavour to keep the car parking fees low to support the community.⁴⁷⁹

So we do keep the car parking fees low in the west of Melbourne, and we think that is a part of supporting our community. We obviously also support people with concessional requirements, and anyone who has any hardship or need also is supported — with chronic disease, who are in and out a lot. So we have a whole range of considerations for our community around car parking fees. I absolutely understand that people would prefer not to pay any fees on site; however, it does cost us to run the car parks and it does cost us to maintain those facilities. But we are very conscious of our community.⁴⁸⁰

Concerns were raised that linking the public transport services such as buses may not have been adequately considered in the design of the hospital.

In relation to this, Associate Professor Cockram advised the Committee, that:

...we have representatives from transport and planning and a range of people there to advise around the Sunshine precinct broadly — education providers, the universities, both University of Melbourne and Victoria University, are also participating.

What that group has been able to consider is how that whole precinct is planned, which does include transport. Due to the level crossing changes and a range of things around that, we will be able to be benefited by the fact that the Ginifer train station is moving closer back to Furlong Road. That means that the access from a public transport point of view to the facility is just so much better. It is fantastic. We are looking at how Furlong Road — that access between the new Ginifer train station and Furlong Road — is going to be made more accessible and pedestrianised, if I could describe it that way; not the actual road but how the footpaths and stuff work. We are working on how the intersections are working around the precinct with the RTA and stuff at the moment.

477 Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, pp. 23-4.

478 Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 8.

479 *Ibid*, pp. 8-9.

480 *Ibid*.

I think we are very lucky that local government, health, education, planning and transport are all coming together to actually see that precinct as a whole and provide support to how it works as an entire precinct from all those aspects. So it is actually, I would say, very exciting what is happening around public transport and other things. Bike paths are being put in, a whole range of things are happening around that precinct.⁴⁸¹

Associate Professor Cockram also informed the Committee that the Ginifer train station “comes now to the absolute intersection of Furlong Road, and so it is less than 500 metres” away. He expects this to take pressure off the proposed car park.⁴⁸²

481 Ibid, pp. 9-10.

482 Ibid.

11 Other health projects of note

The Committee's main focus in considering health infrastructure projects for this inquiry was on the major infrastructure projects considered in chapters 6 through 10. During the course of the inquiry the Committee also heard evidence on a range of other health projects or health infrastructure areas of significance. These are briefly considered in this chapter.

11.1 Footscray Hospital

There was interest in the current state of Footscray Hospital – one of the oldest hospitals in the state. Witnesses told the Committee that ageing infrastructure and building stock is resulting in the site being increasingly unsuitable to modern use.⁴⁸³

Dr Roderick McRae, Chairman of Council, Australian Medical Association Victoria, told the Committee that he would prioritise Footscray Hospital to be rebuilt in the next ten years.⁴⁸⁴

In evidence to the Committee, Ms Leanne Price, Director of Infrastructure Planning and Delivery with the Department of Health and Human Services, discussed the unexpected increase in growth and service demand in the west, which is influencing the Department's state-wide future planning and prioritisation work:⁴⁸⁵

...around a decade ago the growth patterns in the west perhaps supported planning that looked like the build-up of Sunshine Hospital as the more acute campus and that Footscray over time would become more subacute and ambulatory based. That was only about a decade ago. That led to a range of investments over the last decade that have been primarily focused on the Sunshine site.

...Recent planning that we have done over the last few years with Western Health has clearly indicated we need to maintain hospital facilities across two campuses to cater for both the inner west and the outer west. ... The volumes being experienced, for example, through the Footscray emergency department are higher than previously predicted. We need to make sure, if we are building for the future — and hopefully it will not be another 50 or 60 years before further works would be done on a site — that the buildings we do build will last us into the future.⁴⁸⁶

483 Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, pp. 4-5.

484 Roderick McRae - Chairman of Council Australian Medical Association Victoria, *Transcript - 18 October 2016*, p. 48.

485 Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 15.

486 Ibid.

Associate Professor Alex Cockram, CEO of Western Health, noted that Footscray Hospital “is a challenge to our staff” and that the facility faces “significant challenges in delivering high-quality care through the existing infrastructure”.⁴⁸⁷

Identified problems with Footscray Hospital’s existing infrastructure, include:

- An emergency department which is no longer fit for purpose;
- A run down and unusable south block;⁴⁸⁸ and
- outdated ambulance facilities.⁴⁸⁹

In evidence to the Committee, Associate Professor Cockram specifically highlighted the loss of usable space in Footscray Hospital, due to run-down and outdated infrastructure:

...we are down to now just over 70 beds existing in the south block. There are closed wards in the south block, but they are not currently fit for patient use, so we have taken those beds out.⁴⁹⁰

Associate Professor Cockram also advised the Committee as to the current state of the emergency department at Footscray Hospital :

The other thing that we know is that the ED cubicles themselves ...are built for a different era. An example would be that if someone has a cardiac arrest in one of our ED cubicles, they cannot get the equipment in next to that patient — they have got fixed walls — and the patient has to be wheeled out into the central corridor and the resuscitation has to start in that setting. We do have obviously resuscitation cubicles that are all there, available when they are, that people get moved into, but the facility is not a modern environment that is geared to the modern equipment and modern practice, and we know that.⁴⁹¹

In evidence to the Committee Ms Pip Carew, Assistant Secretary Australian Nursing & Midwifery Federation (Victoria Branch), acknowledged that “everyone knows [Footscray Hospital] is a facility that requires upgrading”⁴⁹² and discussed the impacts that the ageing infrastructure at Footscray Hospital was having on staff.

...the problem with the older models of health services is that the initiatives that a lot of our members consider should be part of modern practice, such as waste streaming and locating the appropriate vesicles to reserve that and manage that, is not always possible. Emergency departments are an example of that as well, because there is just not actually the physical room to do it. So there is a frustration, because a lot of people have these practices in their homes, and they want to actually

487 Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, pp. 4-7; Russell Harrison - Executive Director Operations Western Health, *Transcript - 20 September 2016*, p. 6.

488 90 beds were removed from the south block at Footscray Hospital to the new Sunshine Hospital. These beds have been unable to be replaced due to inappropriate infrastructure. Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, pp. 4-5.

489 Ibid.

490 Ibid.

491 Ibid.pp. 5-7.

492 Pip Carew - Assistant Secretary Australian Nursing & Midwifery Federation (Victoria Branch), *Transcript - 18 October 2016*, pp. 48-9.

go and work in an environment that replicates their thinking about what you should be doing as a citizen for the environment. So I think that does sort of weigh heavily on some people, as well as the other considerations about how the building performs generally.⁴⁹³

Associate Professor Cockram advised the Committee, that a rebuild of Footscray Hospital (estimated to cost \$300 million including a \$60 million upgrade for the emergency department⁴⁹⁴) was initially intended to be undertaken, after the works at Sunshine Hospital (see Section 11.9). However, the construction of the Joan Kirner Women’s and Children’s Hospital has pushed back work on Footscray Hospital.⁴⁹⁵

In the 2016-17 budget \$14.8 million was allocated for preventative infrastructure maintenance of the existing infrastructure at Footscray Hospital for five years. This includes the building’s facade, repairs of roof membranes, floors, and new chillers.⁴⁹⁶

Associate Professor Cockram anticipates that the allocated funds should be sufficient for Footscray Hospitals needs, stating that the funding “allows us to keep going for a bit longer... it means that we can get on and plan the right facility for that community.”⁴⁹⁷ However, she emphasised that the older infrastructure at the hospital means that unanticipated failures and associated costs are likely to occur across the next five years:

In a very old building — 1955, still running on steam in a large component of it — there can be failure points that we cannot anticipate, and therefore how that money is deployed during those five years will be a bit dependent on both getting going on the preventative work but also obviously using what we need to if there are urgent, critical aspects that we have to just fix.⁴⁹⁸

Associate Professor Cockram also indicated that any proposed Footscray Hospital development project would now need to be rescoped from the original proposed design and \$300 million estimated cost. It would still need to be a staged development to allow Footscray Hospital to continue to deliver services during the rebuild.⁴⁹⁹

The original plan was how we could continue to deliver services in Footscray whilst going through the rebuild. That is very important. The community would need us to continue to deliver care through that facility, so it has to be a staged development, particularly for the emergency department. We would have to build a new one before we could close the old one, so I think an important part of our next step is using that planning money to actually consolidate now what the build on the Footscray site would look like and then what it would cost.⁵⁰⁰

⁴⁹³ Ibid, p. 47.

⁴⁹⁴ Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 7.

⁴⁹⁵ Ibid, pp. 4-5.

⁴⁹⁶ Ibid, pp. 3-5; Department of Treasury and Finance, *Budget Paper No. 3: Service Delivery*, 2016-17, p. 89; Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 50.

⁴⁹⁷ Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 7.

⁴⁹⁸ Ibid, pp. 4-5.

⁴⁹⁹ Ibid, pp. 4-7.

⁵⁰⁰ Ibid, pp. 4-5.

The proposed staging approach included utilising space at the Sunshine facility so that Western Health can continue to deliver care for western Melbourne. But Associate Professor Cockram noted that as growth and demand for services increases at Sunshine Hospital the amount of space that could be made available for use by Footscray Hospital patients during a possible future redevelopment may not be sufficient.⁵⁰¹

The Committee heard evidence that the 2016-17 Budget includes \$2 million to conduct a detailed business case and design process for development of Footscray Hospital.⁵⁰² Associate Professor Cockram advised the Committee that \$2 million should be sufficient to “get us well underway to know what the best configuration on that site is and what the budget pool would be.”⁵⁰³

In addition, Associate Professor Cockram told the Committee that the original project scope had not anticipated the need to build a “decant” facility. This is because the use of Sunshine Hospital for patients during construction was previously guaranteed, which may no longer be the case.⁵⁰⁴

Mr Wallace, Deputy Secretary Corporate Services, Department of Health and Human Services, assured the Committee that the Department is aware that “action is required” at Footscray Hospital and that funding is provided in the 2016-17 budget to rectify immediate concerns.⁵⁰⁵ Further, Mr Wallace stated that Footscray Hospital was on the Department’s radar as a priority:

There is a very sophisticated planning process going on at the moment that I think will inform, and I would imagine that this is going to be a site that the department, from the department’s perspective, will keep raising as a site that needs further work....From the department’s perspective, we will be raising this as a priority.⁵⁰⁶

In the 2017-18 Budget, the Government announced \$50 million worth of funding to enable preparation of a business case for construction of a new Footscray Hospital, including identifying options for land acquisition and urgent infrastructure works at the existing Footscray Hospital.⁵⁰⁷

11.2 Maroondah Breast Cancer Centre

The Committee noted the \$10-\$15 million allocated in the 2016-17 state budget for the Maroondah Breast Cancer Centre project. The Centre would coordinate breast cancer services in most of the Melbourne’s east out to the Yarra Ranges and Healesville, including incorporating services currently being delivered by Breast

⁵⁰¹ Ibid.

⁵⁰² Ibid.

⁵⁰³ Ibid.

⁵⁰⁴ Ibid.

⁵⁰⁵ Lance Wallace - Deputy Secretary Corporate Services Department of Health and Human Services, *Transcript - 20 September 2016*, pp. 15-6.

⁵⁰⁶ Ibid.

⁵⁰⁷ Department of Treasury and Finance, *Budget Paper No. 3: Service Delivery*, Department of Treasury and Finance, Melbourne, 2017-18, pp. 90, 92.

Cancer Victoria. The project is currently in the detailed design phase, including considering location and how the centre will integrate with existing services. The project went out to tender in October 2016 and is anticipated to be complete by early 2018.⁵⁰⁸

In evidence to the Committee, Ms Price stated that the centre has capacity to expand the cancer services offered into the future:

... we have planned for the future so there is the capacity to expand that facility into the future as well, should those broader cancer services come in, but the focus on this particular project is around the breast cancer services.⁵⁰⁹

11.3 Broadmeadows Surgery Centre

The Committee noted the \$17.3 million investment in the Broadmeadows Surgery Centre, which seeks to expand surgery capacity to meet growing demand in the northern metro region.⁵¹⁰

Ms Price provided evidence to the Committee about the extent of growth anticipated in the northern corridor and the ramifications this would have for health infrastructure in the region:

...the demand in the north is...massive...we are seeing the growth all the way heading up both the Hume corridor and also the Plenty Road corridor. One of the area-based plans we are currently doing under the statewide plan is an outer northern growth corridor plan.

... For the new suburbs that are coming in sort of a 20 to 30-year period you are looking at growth that could be the size of two cities of Bendigo coming into the future. It is huge. So we need to actually look at what the health services are, but there are a lot of issues currently.⁵¹¹

11.4 Casey Hospital Expansion

The Committee also heard evidence in relation to the estimated \$120-\$134.9 million Casey Hospital expansion being developed as part of a public-private partnership between the state, Monash Health and a Plenary

508 Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 18; Hon. Jill Hennessy MP - Minister for Health, 'Work Starts On Maroondah Breast Cancer Centre', viewed 10 April 2017, <www.premier.vic.gov.au/work-starts-on-maroondah-breast-cancer-centre>; Hon. Jill Hennessy MP - Minister for Health, 'Breast Cancer Treatment Boost For Women In The East', viewed 10 April 2017, <www.premier.vic.gov.au/breast-cancer-treatment-boost-for-women-in-the-east>.

509 Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 18.

510 *Ibid.*, pp. 18-9.

511 *Ibid.*

Health consortium.⁵¹² The project proposes to increase the hospital's size in response to unanticipated growth in the Casey and Cardinia region; to enable it treat more than 25,000 additional patients; and to reduce the number of patients needing to be transferred.⁵¹³

The proposed project includes:⁵¹⁴

- An additional 136 multi-day beds
- A new 12 bed intensive care unit/high dependency unit
- A new 12 bed day surgical unit
- Four additional operating theatres
- Additional education and training spaces for medical, nursing and allied health students in conjunction with Monash University.

The detailed design process for the project has commenced, with construction anticipated to commence in mid-to-late 2017 and be completed in late 2019.⁵¹⁵

In 2016 the public-private contract was undergoing significant modification related to maintenance and service provision for the project.⁵¹⁶

A funding breakdown for the project is in Table 11.1 below:

Table 11.1 Casey Hospital Expansion Funding

Total	2015-16	2016-17	Remaining
\$106.300 million	\$400,000	\$2 million	\$103.900 million

Source: Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 51.

- 512 Department of Treasury and Finance, 'Casey Community Hospital: Overview', viewed 10 April 2017, <www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Casey-Community-Hospital>; Tenders VIC, 'Contract - E2478 Berwick Community Hospital Project', viewed 10 April 2017, <www.tenders.vic.gov.au/tenders/contract/view.do?id=12692&returnUrl=%252Fcontract%252Flist.do%253F%2524%257Brequest.queryString%257D>; Monash Health, 'Casey Hospital Expansion', viewed 10 April 2017, <www.monashhealth.org/page/casey_hospital_expansion>; Department of Health and Human Services, 'Casey Hospital Expansion Project', viewed 10 April 2017, <www.capital.health.vic.gov.au/Casey_Hospital_Expansion_Project>; Monash Health, *Casey Hospital Expansion Project: Newsletter Issue 1 - February 2017*.
- 513 Monash Health, 'Casey Hospital Expansion', viewed 10 April 2017, <www.monashhealth.org/page/casey_hospital_expansion>; Monash Health, *Casey Hospital Expansion Project: Newsletter Issue 1 - February 2017*.
- 514 Monash Health, 'Casey Hospital Expansion', viewed 10 April 2017, <www.monashhealth.org/page/casey_hospital_expansion>; Department of Health and Human Services, 'Casey Hospital Expansion Project', viewed 10 April 2017, <www.capital.health.vic.gov.au/Casey_Hospital_Expansion_Project>; Monash Health, *Casey Hospital Expansion Project: Newsletter Issue 1 - February 2017*.
- 515 Monash Health, 'Casey Hospital Expansion', viewed 10 April 2017, <www.monashhealth.org/page/casey_hospital_expansion>; Department of Health and Human Services, 'Casey Hospital Expansion Project', viewed 10 April 2017, <www.capital.health.vic.gov.au/Casey_Hospital_Expansion_Project>; Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 24.
- 516 Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 11; Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 21; Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 51.

Evidence provided to the Committee by the Department of Health and Human Services included in information about expenditure on the project:

Approximately \$1.014 million has been spent on the project to date (to the end of September 2016). Spending has been on design planning, procurement planning and legal and commercial advisory services to develop the project requirements and contractual framework.⁵¹⁷

Ms Price and Mr Lance Wallace provided the Committee with more detail about the current state of the project and the public-private partnership negotiations taking place:

Ms PRICE — So with our single partner, which is the incumbent project company, we have an agreement about how we are managing the next phases of the project. We are negotiating with a single party, if you like. That has to be managed quite carefully so that the state is getting the value out of the outcomes. It is not a competitive tender when you have an incumbent, but we have agreed those rules of engagement. We have released the first proposal requirements to them, so they are now working through, and they will come back to us with a proposal for how they will respond to the needs of the hospital.

...They will be responsible for the design as well as the construction of the extension. We have worked through it to have a bit of a reference design so we understand how it can be achieved, but the actual design, just as it is in any PPP, will be their response.

Mr WALLACE — Just to emphasise the point that Leanne is making, obviously when you consider a procurement if you procure from a single person because of the efficiencies that brings, you need to make sure that you get an appropriate price. So these reference works using quantity surveyors to actually give you a very good view about what a reasonable price would be are very important to the negotiations.⁵¹⁸

11.5 Goulburn Valley Hospital

The Department of Health and Human Services provided evidence to the Committee in relation to the Goulburn Valley Hospital project, noting that there has been strong community engagement in the design process for the project:

We have also got a community engagement panel going on with the new Goulburn Valley hospital that is led by the local member, Suzanna Sheed. That is a very active contribution in understanding what is important to the community when we are building these sorts of assets and how they experience them as well.⁵¹⁹

⁵¹⁷ Department of Health and Human Services, *Responses to Questions on Notice*, p. 3.

⁵¹⁸ Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 24; Lance Wallace - Deputy Secretary Corporate Services Department of Health and Human Services, *Transcript - 20 September 2016*, p. 24.

⁵¹⁹ Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 23.

11.6 Moorabbin Hospital

The Committee noted that \$16.2 million was allocated to the Moorabbin hospital in 2015 to expand their MRI and CT machines, as well as to provide 11 new outpatient consulting suites. The Committee discussed the Victorian Auditor-General's Report *Managing and Reporting on the Performance and Cost of Capital Projects* in May 2016 which highlighted that the project was 6 months late.⁵²⁰

In relation to this issue, Ms Price advised the Committee that there was a detailed design and planning process which delayed the construction contracts and commencement of the project and further stated, that: "the project is now moving forward on a revised time line, but we needed to do the detailed planning in an appropriate way up-front."⁵²¹

In evidence provided to the Committee, the Department advised that:

The approved completion date for the Moorabbin Hospital Medical Imaging and Outpatients Expansion project is 2018. The project is currently progressing to schedule.⁵²²

11.7 National Proton Beam Therapy Centre

The Committee noted that \$2 million was provided in the 2015-16 budget for the proposed National Proton Beam Therapy Centre's business case and a further \$50 million allocated in the 2016-17 budget for developing the centre. This is subject to the completion of the detailed planning and development work.⁵²³

Ms Leanne Price advised the Committee that the allocated \$2 million was used in part for an initial review on proton beam therapy which resulted in a report presented to the Minister in 2015.⁵²⁴ The Department of Health and Human Services was working with partners such as the Peter MacCallum Cancer Centre, the Victorian Comprehensive Cancer Centre and the Royal Children's Hospital about possible locations, including Parkville.⁵²⁵

Ms Price was unable to provide the Committee with an estimate for the total cost of the proposed centre as:

⁵²⁰ Victorian Auditor-General, *Managing and Reporting on the Performance and Cost of Capital Projects*, June 2016, Victorian Auditor-General's Office, Melbourne, pp. 51-9.

⁵²¹ Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 25.

⁵²² Department of Health and Human Services, *Responses to Questions on Notice*, p. 3.

⁵²³ Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, pp. 25-6; Department of Treasury and Finance, *Budget Paper No. 3: Service Delivery*, 2016-17, pp. 89-90; Department of Health and Human Services, *Responses to Questions on Notice*, pp. 49-50.

⁵²⁴ Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, pp. 25-6.

⁵²⁵ Ibid.

A lot of that depends on the scale of the sorts of services that are going to be provided within that facility — whether it is a two-bunk facility or four-bunk facility, for example, changes things enormously. My technical people are telling me the technology has changed dramatically already, just in 12 months, so that now we are talking a 360-degree spin of the scanning equipment around the patient, and that requires a bigger housing, if you like, for the facility, which will impact on the capital cost.⁵²⁶

The Committee noted that South Australia are also considering options for creating a similar centre, however Ms Price argued that Victoria is better suited for providing and developing technologies such as the proposed proton beam therapy centre:

I think the key thing is probably building on the incredibly strong presence that Victoria has in medical research around the nation. We currently...receive the majority of the research grants, for example. Victoria is a major player. We also have a massive strength in the Parkville region, with the number of researchers, clinical bodies and training facilities that we have in that precinct — and it really does operate as a precinct. We have got a cluster of major specialist hospitals in that area. We have been talking about the Victorian Comprehensive Cancer Centre, which is obviously a major player, but we have also got the Royal Melbourne Hospital and the Royal Women's Hospital and the Royal Children's Hospital all closely aligned. We have a number of research entities: the Walter and Eliza Hall institute and the Peter Doherty institute. We have the University of Melbourne, which is a strong partner in all these relationships and in all those facilities. So in bringing all that together we have a significant opportunity to leverage all of that, without doing the pitch, but maybe this is the pitch we should use to the commonwealth and to others about the strength that we can actually deliver in that space. But that is what we are hoping to demonstrate through the business case that we are currently developing.⁵²⁷

11.8 Northern Hospital

The Committee also noted the ongoing need for funding for the proposed project to expand Northern Hospital.⁵²⁸

In evidence to the Committee, Dr McRae concurred that Northern Health required funding to allow for expansion of capacity to meet demand and that “the amount that was cut out will probably not be sufficient now”⁵²⁹. He noted in particular the ancillary services such as preadmission clinics and translation services as particularly important for providing adequate health services in the region:

One thing that is a disaster — well, ‘disaster’ is again over the top — is to have somebody come in, ready to have their operation at 10 o'clock of a morning, and they go, ‘Oh, actually, we didn't know that you were at a high risk of having a heart attack.

⁵²⁶ Ibid.

⁵²⁷ Ibid.

⁵²⁸ Kate Hagan, *The Age, Cuts to hit Northern Hospital*, Melbourne.

⁵²⁹ Roderick McRae - Chairman of Council Australian Medical Association Victoria, *Transcript - 18 October 2016*, p. 64.

Why? Because we didn't have an interpreter. Your brother-in-law, in good faith, was just sort of answering questions, and we couldn't get the information from you'. Even that is another spend, if you like — just providing adequate translation services, right down to things like a consent form.⁵³⁰

11.9 Sunshine Hospital

In addition to the funding and infrastructure work ongoing at the Sunshine Hospital site in relation to the Joan Kirner Women's and Children's Hospital, the Committee heard evidence on the infrastructure funding and works being undertaken at Sunshine Hospital itself, including \$44 million in capital works funding.

As you can imagine when you bring on a new hospital, which is a substantive new building, there were a number of additional things we needed to ensure that were appropriately scaled to support that new building — loading docks, food services, and the refurbishment, as I have described, of some of the existing facilities so that we can actually not only bring on new women's and children's facilities but bring on new acute-care facilities, which is very important. It also provided some support around additional support to the emergency department, which is growing at a rapid rate. So with all of that, that is what the additional package was able to provide — additional support across the rest of the facility to not only support the new building but also to give us some additional acute-care capacity.⁵³¹

530 Ibid.

531 Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 7.

12 Health infrastructure projects: Committee comments

This chapter outlines a number of general issues relevant to the different health infrastructure projects discussed in Chapters 6-11.

12.1 Job creation

Currently there is approximately \$3 billion capital expenditure on health infrastructure projects in Victoria. Construction-related local jobs, traineeships and apprenticeships are being created as part of the health infrastructure projects currently underway across the state. The Committee requested information from the Department of Health and Human Services on jobs forecast because of this infrastructure spending.⁵³²

Ms Leanne Price, Director Infrastructure Planning and Delivery at the Department of Health and Human Services, informed the Committee that:

On a rough rule of thumb we work on how many jobs are forecast. Obviously they are then tested when we actually go out to tendering, but on a \$3 billion-plus program we are talking probably in the region of about 10 000 construction-related jobs.⁵³³

Ms Price could not provide the Committee with evidence as to the number of apprentices being trained in the construction sector as a result of the current level of infrastructure projects and funding. However, she noted that there is a government policy that sets a ratio for the number of apprentices trained on construction sites, which was implemented on all of the Department's projects.⁵³⁴

The Committee also heard specific job creation-related evidence for the major projects considered in chapters 6 to 10, including:

- An additional 1000 staff required for Bendigo Hospital, including in nursing and specialist care;⁵³⁵
- An additional 100 cleaning and maintenance staff for Bendigo Hospital;⁵³⁶
- An additional 135 retail jobs at Bendigo Hospital;⁵³⁷

⁵³² Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 18.

⁵³³ Ibid.

⁵³⁴ Ibid.

⁵³⁵ In evidence to the Committee Mr Mulder noted that there may not be enough skilled local workers to fill the available positions and overseas workers may have to be hired to fill the positions. For more information on this, please see Section 6.5 in this report. John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 32.

⁵³⁶ Ibid, p. 43; Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, p. 43.

⁵³⁷ Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, p. 39.

- An estimated 1200 new staff in specialised training at the Victorian Comprehensive Cancer Centre;⁵³⁸ and
- The VCCC employed 1100-1200 construction workers at peak construction, including 260 specialist contractors, and apprenticeship programs.⁵³⁹

12.2 Environmental design and sustainability

Environmental design considerations are included in projects being undertaken across the health sector in Victoria. The Committee received evidence on initiatives currently underway, including:

- Bendigo Hospital’s solar and waste water recycling systems;⁵⁴⁰
- The VCCC’s inclusion of natural light, low energy LED lighting, and energy-saving solutions throughout the building’s design;⁵⁴¹
- Ballarat and Yarrowonga health services obtaining 15% of their energy needs through solar panels; and
- Barwon Health’s solar-powered renal dialysis, recycled renal dialysis water, and home dialysis programs resulting in significant energy and carbon emissions savings.⁵⁴²

In evidence to the Committee, Ms Price noted that Department aimed to actively promote the environmental sustainability policy because hospitals are “the biggest public sector user of energy, and water to some extent as well, so they are major resource-intensive facilities.”⁵⁴³

Ms Price also advised the Committee on the sorts of actions the Department is taking in hospitals to improve their environmental impact. For example, energy-efficient lighting; changes in usage habits; and energy efficient fittings such as dual cistern toilets.

Ms Price said:

They are simple measures, but when you multiply them many times over a large building, they can have a real impact.⁵⁴⁴

The Committee heard further evidence of other health services and projects, which are upgrading and improving the environmental sustainability of their hospitals and health services.

⁵³⁸ Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, pp. 33-4.

⁵³⁹ Glenn Hay - CEO Plenary Health Group, *Transcript - 20 September 2016*, pp. 43-4; Paul Crowe - Executive Director Head of Origination Plenary Health Group, *Transcript - 20 September 2016*, pp. 43-4.

⁵⁴⁰ Discussed in Section 6.5. John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 35; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*, p. 35.

⁵⁴¹ Discussed in Section 8.4. Glenn Hay - CEO Plenary Health Group, *Transcript - 20 September 2016*, p. 44.

⁵⁴² Pip Carew - Assistant Secretary Australian Nursing and Midwifery Federation (Victoria Branch), *Transcript - 18 October 2016*, p. 46.

⁵⁴³ Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 22.

⁵⁴⁴ *Ibid*, p. 24.

The Department of Health and Human Services told the Committee that they ensure that all of their new facilities meet energy efficiency standards of “5-star or higher”, and stated that it is more difficult to improve environmental design in older, existing infrastructure:

A large part of our stock is actually probably greater than 10 years old, so for us, while all of our new facilities aim to meet greenhouse standards, whether they are 5-star or higher, to some extent it is relatively easy when you are building a new facility to incorporate newer technologies into that, whether it is embodied energy in the building materials themselves or how the facilities are actually going to use power and water and produce waste. It is harder for us when we are talking about our existing facilities, and that may be facilities that are 50 or 60 years old, but it may also be facilities that are only 10 or 20 years old that have not got the same sorts of inherent things built into them.⁵⁴⁵

Nevertheless the Department of Health and Human Services told the Committee that: ‘A lot of our policy processes at the moment are that we have been looking at what kinds of improvements we can make in the existing stock as well as what we do in the longer term in the newer stock’.⁵⁴⁶

Ms Carew noted that “there is still the opportunity within [older] health services to implement and introduce measures that make them perform better in terms of the environment”⁵⁴⁷ and noted the positive advantages this approach has on the community and the hospitals’ bottom line:

I think it is really important to say that no matter what you think about environmental performance and reducing carbon emissions — which we think is incredibly important, because it affects health outcomes for the community — there is the inextricable link between environmental performance and cost savings. There is absolute evidence of that throughout the sector, and we have got many, many examples of those sorts of initiatives which have translated to health dollar savings.⁵⁴⁸

In evidence to the Committee, Ms Libby Muir - CPS and Environment Health Officer for the Australian Midwifery Federation (Victorian Branch) concurred, stating that health services and in particular in older infrastructure can benefit from environmental and energy upgrades:

...if you think about health services, as we have known for a while, they are one of the most energy intensive. It is the old buildings and the old systems. Sixty-five per cent of the energy they use — a 300-bed hospital is estimated to be about 5000 households in its energy use, so if you looked at an old infrastructure and did an audit on what the cost compared to newer, well-built infrastructure would be, there would be cost savings, as with everything. I mean, the solar panels at the unit in Barwon were funded by an external private person, yet they have brought an over 80 per cent saving to the unit. So the benefits are potentially huge.⁵⁴⁹

⁵⁴⁵ Ibid, p. 22.

⁵⁴⁶ Ibid.

⁵⁴⁷ Pip Carew - Assistant Secretary Australian Nursing and Midwifery Federation (Victoria Branch), *Transcript - 18 October 2016*, p. 47.

⁵⁴⁸ Ibid.

⁵⁴⁹ Libby Muir - CPS and Environment Health Officer Australian and Midwifery Federation (Victorian Branch), *Transcript - 18 October 2016*, p. 47.

In evidence to the Committee, Ms Muir, stressed the importance of including environmental sustainability at the forefront of infrastructure planning efforts:

...when you put environmental sustainability central to all infrastructure planning you are putting in savings that can expand and improve the long-term picture in those areas.⁵⁵⁰

Ms Carew made a number of suggestions to the Committee for how health services could improve their environmental sustainability efforts, including:⁵⁵¹

- Improving waste streaming processes and practices could reduce the estimated \$17 million worth of general waste was produced in hospitals in 2011-12 by as much as 85 per cent as demonstrated by services such as Melbourne Health;
- Expanding use of the reinstated Greener Government Buildings scheme funding to improve the energy efficiency and reduce the greenhouse emissions produced by existing infrastructure;⁵⁵² and
- Adopting the Global Green and Healthy Hospitals agenda in Victoria, including goals and commitments for improving transport, energy, food, and buildings for health services.

12.3 Community consultation

How community consultation processes are included in health infrastructure projects in Victoria is of enormous significance to the success of a project.

In evidence to the Committee, Ms Price discussed how community consultation influences the detailed design phase of health projects:

... the consultation goes right throughout the design of new facilities. When we are looking at a new facility the health service has the expertise about how they actually run the services. My team and I, we can bring a lot of expertise about building design and construction, but they really know what their business is and how they run it. We do that at all of our facilities. Our capital programs and our facility designs are done in very close consultation with the health services. There is strong user group involvement right throughout, which is that clinicians, who are actually going to be using the facility, will be involved in detailed working groups around particular areas of the new facility that need to be developed up.⁵⁵³

550 Ibid.

551 Pip Carew - Assistant Secretary Australian Nursing and Midwifery Federation (Victoria Branch), *Transcript - 18 October 2016*, pp. 48, 52-3.

552 Currently only Peninsula Health has obtained funding under the scheme: Department of Treasury and Finance, 'Greener Government Buildings: Overview', viewed 12 April 2017; Hon. Robin Scott MP - Minister for Finance; and Environment and Climate Change; Hon. Lily D'Ambrosio MP - Minister for Energy, *Greener Government Buildings To Save \$100 Million*, media release, Melbourne, 22 August 2016.

553 Leanne Price - Director Infrastructure Planning and Delivery Department of Health and Human Services, *Transcript - 20 September 2016*, p. 23.

Ms Price further discussed the important role patients play in health service design, such as engaging with mothers and young children as part of the design of the Monash Children’s Hospital.⁵⁵⁴

Associate Professor Cockram emphasised the role indigenous and culturally and linguistically diverse communities played in designing the Sunshine Hospital upgrade project and the Joan Kirner Women’s and Children’s Hospital.⁵⁵⁵

12.4 Project timeliness and meeting budget

The Committee noted that in the Victorian Auditor-General’s Report *Managing and Reporting on the Performance and Cost of Capital Projects* in May 2016 Moorabbin Hospital’s MRI and CT upgrade project was ‘red flagged’ for being over time by more than 6 months.⁵⁵⁶ The other major health projects discussed in this report were not considered to be running significantly over time or budget.⁵⁵⁷ This was confirmed by witnesses to the Committee.

The Victorian Auditor-General’s *High Value, High Risk 2016-17: Delivering HVHR Projects report* also identified some major project risks in the Monash Children’s Hospital project, however, in their 2016 report VAGO noted that the Department has since taken steps to mitigate all the identified risks.⁵⁵⁸

12.5 IT upgrades and electronic medical records projects

The Committee noted evidence that one of the major focus areas for future health infrastructure should be IT upgrades and electronic medical records.

In evidence to the Committee, Dr Roderick McRae, Chairman of Council of the Australian Medical Association and Ms Frances Mirabelli, CEO of the Australian Medical Association discussed the current IT infrastructure problems experienced by medical and health services, and the possible benefits to the community if the state of this infrastructure was improved. Dr McRae said:

...I would also support the IT infrastructure requirement. Regrettably, it is invisible, it is very hard to cut the ribbon on it, and all that sort of stuff, but the brutal fact is the benefits that could be obtained are likely to be unimaginable — while we sit around and think about it.⁵⁵⁹

⁵⁵⁴ Ibid.

⁵⁵⁵ Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 3.

⁵⁵⁶ Moorabbin Hospital’s project overruns, including the Department’s justification for the delay are detailed in Section 11.6 of this report.

⁵⁵⁷ Victorian Auditor-General’s Report *Managing and Report on the Performance and Cost of Capital Projects* in May 2016 pp. 51-9.

⁵⁵⁸ Victorian Auditor-General, *High Value High Risk 2016-17: Delivering HVHR Projects*, Victorian Auditor-General’s Office, Melbourne, 2016, p. 35.

⁵⁵⁹ Roderick McRae - Chairman of Council Australian Medical Association Victoria, *Transcript - 18 October 2016*, p. 58.

The two key areas identified by Dr McRae and Ms Mirabelli as priority for future IT upgrades in the health sector were:⁵⁶⁰

- A lack of a, reliable secure electronic messaging service; and
- A need for a consistent electronic medical records system statewide.

Ms Mirabelli informed the Committee that email is not secure enough for medical records and most health services currently still use fax machines. Additionally, Dr McRae highlighted the positive effects of supplying fast, reliable communication between health care providers discussing their patients:

It is really the ability to communicate in that cleft between primary care and I will use the word tertiary care — and maybe secondary care, but it is easiest probably to think about the tertiary care model — and just get the messages back. There is an awful lot of lag and delay when the primary care practitioner has no idea that their favourite patient has actually spent two and a half weeks in a tertiary hospital and has no idea why the medications that have been going nicely for 12 years are now completely changed. It might be completely appropriate, so there is no comment about that — moving with the times and that sort of thing, or a new opportunity to manage a condition.⁵⁶¹

Dr McRae further explained the need for an electronic medical record, arguing that it would:⁵⁶²

- reduce patient readmission,
- reduce medical testing-related morbidity,
- reduce possibility for duplication of entries on elective surgery waiting lists; and
- increase the likelihood of advanced care directives or other patient choices such as the provision of blood transfusions being followed.

Dr McRae argued specifically that any electronic medical records system would need to be one system implemented statewide:

I would be concerned if we have a lot of healthcare networks...each coming up with their own things, so that the VHS does not talk to the Beta videos and all that sort of thing.... That would probably become more of a problem than what it is trying to address.⁵⁶³

In evidence to the Committee, Dr McRae discussed previous federal and state attempts (Personally Controlled Electronic Health Record system and HealthSMART respectively) at unified electronic medical record projects.⁵⁶⁴

560 Ibid, pp. 57-9; Frances Mirabelli - CEO Australian Medical Association Victoria, *Transcript - 18 October 2016*, p. 57.

561 Roderick McRae - Chairman of Council Australian Medical Association Victoria, *Transcript - 18 October 2016*, pp. 58-9.

562 Ibid, pp. 58-9, 61-2, 64.

563 Ibid, pp. 58-9.

564 Ibid.

In relation to the Personally Controlled Electronic Health Record system, Dr McRae commented:

There was concern about the patient controlling the information, and that is something that needs to be worked through, rather than just polarised views coming on it. Then I think interested parties captured the agenda, and we started worrying about individual identifiers and forgetting what the whole point was, which really goes right back to when I turn up unconscious and someone wants to be able to find out what my blood group is perhaps. What is my kidney function? Am I waiting for a kidney transplant on dialysis or never wanted this treatment in the first place? Should I be in this horrible circumstance?⁵⁶⁵

Further, Dr McRae noted that the lack of a consistent electronic medical record is a concern for health services outside of Victoria and Australia, with several international governments attempting projects in this space without success:

I think Canada shot \$4 billion and it came to nothing, and the UK have had a somewhat negative experience, and then the federal government have also had a disappointing response to the investment that they undertook.⁵⁶⁶

Dr McRae speculated that a feasible approach to trialling and rolling out a possible electronic medical records system for Victoria could be to use Barwon Health, as:

...the Barwon area is often used for experiments and that sort of thing because it is big enough and it is kind of metropolitan/kind of rural and would provide a mix of experience. I do not think we have actually discussed it as such, but I do not think there would be terrible opposition to that sort of suggestion.⁵⁶⁷

RECOMMENDATION 4: That the Government undertake further investigation into the creation and implementation of a unified electronic medical record in Victoria, including considering cost-benefit arguments and international practice examples.

12.6 Mental health services

The Committee took interest in mental health service provision in Victoria.

Dr McRae provided evidence to the Committee of a disparity in mental health services offered in metropolitan and rural areas. Investment in this area should be a priority because provision of appropriate rehabilitation and support services leads to significant positive return on investment for communities.⁵⁶⁸

⁵⁶⁵ Ibid.

⁵⁶⁶ Ibid.

⁵⁶⁷ Ibid.

⁵⁶⁸ Ibid, pp. 57-8.

Dr McRae noted the advantages of co-locating mental health services with clinical health services to facilitate provision of specialist clinical and psychiatric care on the same site for patients with complex health needs. Dr McRae talked about the difficulty of treating patients with mental and physical health issues and the extra resources required:

A very simple thing if somebody has a mental health issue — a simple thing that affects a lot of people, probably under-recognised — is depression. If they are institutionalised for the management of depression, it is pretty serious depression to start with, and then they get pneumonia for whatever reason and need intravenous antibiotics. They are not able to stay in the psychiatric area, because it is an acute medicine intervention.

...

It is complex. Where I work there is a co-located psychiatric facility. It is actually a standalone building connected by a corridor, not unlike the facility here, but my experience is if somebody has a high requirement as a consequence of physical illness — say, pneumonia requiring intravenous antibodies — they have got to come out and go into the general medical ward, and maybe require additional nursing resources, special one-to-one nursing, in a general ward.⁵⁶⁹

12.7 Future-proofing

The Committee heard considerable evidence in relation to unexpected population growth and demand on health infrastructure to the east, north and west of the state, and the associated importance of construction and maintenance keeping pace and “future-proofing” health infrastructure.⁵⁷⁰

...there are abundant requirements for the bricks and mortar...and we know that there is some investment going there, but it is just lagging behind the community requirement.⁵⁷¹

Dr McRae advised the Committee that a priority for health infrastructure was “just keeping up”:⁵⁷²

Often you have to spend an awful lot of money on infrastructure just to stand still, and then we do need to expand. So there is a big capacity requirement. For some out in the more remote areas, but even around the metropolitan areas...⁵⁷³

569 Ibid, pp. 60-1; Frances Mirabelli - CEO Australian Medical Association Victoria, *Transcript - 18 October 2016*, p. 60.

570 Lance Wallace - Deputy Secretary Corporate Services Department of Health and Human Services, *Transcript - 20 September 2016*, pp. 12-3; Roderick McRae - Chairman of Council Australian Medical Association Victoria, *Transcript - 18 October 2016*, p. 56; Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 2.

571 Roderick McRae - Chairman of Council Australian Medical Association Victoria, *Transcript - 18 October 2016*, p. 56.

572 Ibid, p. 58.

573 Ibid.

Associate Professor Cockram said that, according to current predictions, Western Health will need an additional 550 beds by 2025.⁵⁷⁴ Existing plans for development of health services in Western Melbourne will ameliorate this situation to some extent. 270 points of care will be provided with the opening of Joan Kirner Women's and Children's Hospital in late 2019/early 2020⁵⁷⁵ which will, in turn, allow existing services to expand into the spaces that were previously used for maternity services.⁵⁷⁶

...it means that we can move maternity services out of the existing facility and repurpose the existing facility for other surgical beds and short-stay beds for the emergency department and other aspects like that. It gives us the advantage of not only supporting women's and children's services but also giving us enhancement within the facility, so that is a significant support to that. We have anticipated that some of the additional support would come through the Footscray developments at some point.⁵⁷⁷

These ongoing and future demands on health services are not limited to the west,⁵⁷⁸ and are likely to remain a priority into the future. In response to this the Committee noted that the Department of Health and Human Services is developing a 20-year state-wide plan to prioritise health infrastructure projects to meet this demand.⁵⁷⁹

12.8 Professional development, training and research infrastructure

Another consistent theme throughout the evidence the Committee heard in relation to health infrastructure projects was the need for ongoing support and investment in professional development, training and research opportunities for general and specialist medical staff.

Dr McRae discussed future training and research demands in his evidence to the Committee:

There is a large increase in graduating medical students, and that is a good thing. They are going to require teaching and training. Some will want to participate in research, which is also a good thing down the track. All of these are going to require infrastructure....in order to educate, it is typically the full-time salaried employees in the large metropolitan quaternary and tertiary-type public hospital institutions who do the training on the ground in the public hospitals, so they require facilities which are modern, up to date and all those sorts of things as well.

He discussed the need to provide ongoing development opportunities to staff:

⁵⁷⁴ Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, pp. 3-4.

⁵⁷⁵ Department of Treasury and Finance, *Budget Paper No. 4: State Capital Program 2016-17*, p. 51.

⁵⁷⁶ Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, pp. 3-4.

⁵⁷⁷ *Ibid.*

⁵⁷⁸ *Ibid.*

⁵⁷⁹ Lance Wallace - Deputy Secretary Corporate Services Department of Health and Human Services, *Transcript - 20 September 2016*, pp. 12-3.

We need to be able to provide them with a career path. We are educating them, so then they need to have somewhere to go. We need to support them in primary care as well as into specialist care. We require relevant capacity and everything there in order to support that. Sometimes that is more bricks and mortar. We are getting to the stage where there are large queues — 22 people around grandma in a hospital bed — trying to observe how to practise medicine. It is not terribly satisfactory for anybody.⁵⁸⁰

Dr McRae also emphasised the importance of planning ahead for provision of hands-on internships and training for medical staff:

I do not think that you can achieve a good, high-quality medical practitioner via a simulation exercise sitting in a factory out there somewhere. It really does require not only the hands-on experience and ability to interact with patients and get to understand their experience but also the ability to trade off the knowledge and experience of typically senior medical practitioners — sometimes it is peer-level medical practitioners — and just to train and provide that. So what we need to do is sort of think, ‘Okay, in 20 years from now where do we want to be?’. As a community, how many neurosurgeons do we want, how many heart surgeons do we want, how many psychiatrists? And things like palliative care physicians and practitioners and the infrastructure around all of that would be required as well. It is definitely a long game.

Like everything, I think there will have to be an injection of funds, but it may not be as horrible as it actually looks....but the bottom line is we want good, healthy patients at the end, so satisfactory outcomes on any investment.⁵⁸¹

Dr McRae also advised the Committee that there are currently not enough intern positions, jobs or opportunities to pursue specialist training for the number of medical graduates in Victoria.

The Committee heard specific evidence on this topic in relation to three of the five main health infrastructure projects considered in detail in chapters 6 to 10:

- Bendigo Health will need additional specialist staff in areas such as psychiatric care and anaesthetics and that they are working in collaboration with La Trobe University to train more specialist nurses and improve graduate intake from around the country to meet the demand;⁵⁸²
- The VCCC is training approximately 1200 new staff in a variety of areas and is treating it as a priority;⁵⁸³
- The Victorian Heart Hospital aims to increase research opportunities for local postgraduate students and postdoctoral research fellows to reduce “brain drain” from Victoria and improve career pathways and opportunities.⁵⁸⁴

580 Roderick McRae - Chairman of Council Australian Medical Association Victoria, *Transcript - 18 October 2016*, pp. 63-4.

581 *Ibid*, pp. 64-6.

582 John Mulder - CEO Bendigo Health, *Transcript - 18 October 2016*, p. 33; Peter Faulkner - Executive Director Bendigo Hospital Project Bendigo Health, *Transcript - 18 October 2016*. P. 33.

583 Professor Jim Bishop AO - Executive Director Victorian Comprehensive Cancer Centre, *Transcript - 20 September 2016*, pp. 33-4.

584 Professor Ian Meredith AM - Director MonashHeart Victorian Heart Hospital, *Transcript - 19 October 2016*, pp. 5-6.

12.9 Federal funding

The Committee noted low federal funding levels for Victoria's health infrastructure.

Associate Professor Cockram of Western Health welcomed the growth funding supplied by the state to Western Health but advised the Committee that changes in funding in the negotiations between the Commonwealth and States can mean ongoing uncertainty for Western Health:

So over recent years the state has continued to support us with growth funding, and we have continued to receive more funding from the government year on year to support the growth of our community. A number of years ago there was a discussion about state and commonwealth funding agreements. From our perspective, we wait until the state and the commonwealth sort that out, and then we move forward on what the consequence of that agreement is. We were advised by the state at that point in time to be ready to make some changes to our delivery of care, but that was still being discussed between the state and commonwealth.

...it happened under both the previous government and under this government. There have been two cycles of commonwealth government discussions that we were notified by in two different rounds, so this has happened twice in my time at Western Health — under both the previous government and under the current government — that the state-commonwealth discussions had meant there may be cuts in the state-funded public facilities. But as I say, as the CEO of an active, running, busy health service we prepare for anything our government requires of us, but we wait to be told if we are actually going to have to enact them, because obviously we would not want to disturb or change our community's access to care unless we were told it was absolutely necessary.⁵⁸⁵

Western Health provided evidence to the Committee that they had not lost funding in the 2015-16 financial year due to changes in how the federal government calculates health funding.⁵⁸⁶

12.10 Construction in Victoria

There were concerns about investors being unwilling to invest in construction projects in Victoria after the dissolution of the East-West Link project and other factors.

Ms Morrison from Exemplar Health advised the Committee that she had been making considerable efforts to personally engage with shareholders since the east-west link project was officially cancelled.⁵⁸⁷ She described her efforts to reassure stakeholders of the sound basis for investment in Victoria.

⁵⁸⁵ Associate Professor Alex Cockram - CEO Western Health, *Transcript - 20 September 2016*, p. 9.

⁵⁸⁶ *Ibid.*

⁵⁸⁷ Michele Morrison - CEO Exemplar Health, *Transcript - 18 October 2016*, pp. 36-7.

Ms Morrison also told the Committee that Exemplar Health “do not think there is a profile risk for Victoria at all”.⁵⁸⁸

She stated

...since [the announcement of the cancellation of the East-West Link project] we have got a new investor on board that bought out some of the Lendlease investment infrastructure ownership of First State Super, and no, everyone is very happy to be investing in Victoria and we would welcome more opportunities.⁵⁸⁹

Ms Morrison also noted that recent Construction Forestry Mining and Energy Union negotiations for a new Enterprise Bargaining Agreement had had “no impact” on Exemplar Health’s activities in the building of Bendigo Hospital.⁵⁹⁰

Mr Hay, in evidence to the Committee in relation to the construction of the Victorian Comprehensive Cancer Centre reiterated that industrial relations matters had had no impact on the VCCC project.⁵⁹¹

588 Ibid.

589 Ibid.

590 Ibid.

591 Glenn Hay - CEO Plenary Health Group, *Transcript - 20 September 2016*, pp. 40-1. Considerations of delivering infrastructure in Victoria in relation to the VCCC project have been considered in more depth in Section 8.4

Appendix 1

Public Hearings

Thursday 20 September 2016, Melbourne

Name	Position	Organisation
Associate Professor Alex Cockram	Chief Executive Officer	Western Health
Mr Russell Harrison	Executive Director, Operations	
Mr Lance Wallace	Deputy Secretary, Corporate Services	Department of Health and Human Services
Ms Leanne Price	Director, Infrastructure Planning and Delivery	
Professor Jim Bishop	Executive Director	Victorian Comprehensive Cancer Centre
Mr Paul Crowe	Executive Director, Head of Origination	Plenary Group
Mr Glenn Hay	Chief Operating Officer	

Tuesday 18 October 2016, Melbourne

Name	Position	Organisation
Mr Adam Fennessy	Secretary	Department of Environment, Land, Water and Planning
Mr Julian Lyngcoln	Acting Deputy Secretary, Planning	
Mr John Mulder	Chief Executive Officer	Bendigo Health
Mr Peter Faulkner	Executive Director, Bendigo Hospital Project	
Ms Michele Morrison	Chief Executive Officer	Exemplar Health
Ms Pip Carew	Assistant Secretary	Australian Nursing and Midwifery Federation, Victorian Branch
Ms Libby Muir	Professional Development and Environmental Health Officer	
Ms Frances Mirabelli	Chief Executive Officer	Australian Medical Association
Dr Roderick McRae	Chairman of Council	

Wednesday 19 October 2016, Melbourne

Name	Position	Organisation
Professor Ian Meredith AM	Director, MonashHeart	Monash Health
Mr Andrew Stripp	Chief Executive Officer	
Professor Andrew Way	Chief Executive Officer	Alfred Health
Mr David Martine	Secretary	Department of Treasury and Finance
Mr David Webster	Deputy Secretary, Commercial Division	
Mr Jason Loos	Director, Partnerships Victoria	
Mr Joe Monforte	Director, Infrastructure Policy and Assurance	Infrastructure Victoria
Mr Michel Masson	Chief Executive Officer	
Ms Adele McCarthy	Director, Strategy	
Mr Evan Tattersall	Chief Executive Officer	Melbourne Metro Rail Authority
Mr Peter Gleeson	Director, Projects and Planning	Metro Trains Melbourne
Mr John Merritt	Chief Executive Officer	VicRoads
Mr Jeroen Weimar	Chief Executive Officer	Public Transport Victoria

Wednesday 26 October 2016, Melbourne

Name	Position	Organisation
Professor Lester Peters AM	Chairman	Peter MacCallum Cancer Foundation
Mr Allan Myers AC, QC		
Mr Scott Charlton	Chief Executive Officer	Transurban
Mr Kevin Devlin	Chief Executive Officer	Level Crossing Removal Authority

Thursday 20 April 2017, Melbourne

Name	Position	Organisation
Mr James Pinder	Chief Executive Officer	VLine
Mr Jeroen Weimar	Chief Executive Officer, Public Transport Victoria	

Appendix 2

CityLink Tulla Widening Project

Funding

The entire project is estimated to cost \$1.28 billion and is being financed by the Victorian and Federal governments and Transurban (the operator of CityLink).

citylinktullawidening.vic.gov.au/__data/assets/pdf_file/0003/40791/project_overview.pdf

Planning

Construction began in October 2015. See Economic Development, Jobs, Transport and Resources webpage on Significant Projects.

economicdevelopment.vic.gov.au/significant-projects/citylink-tulla-widening

EES

AECOM undertook the environmental effects statement on behalf of Transurban in April 2015.

[www.legislation.vic.gov.au/domino/Web_Notes/LDMS/LTObject_Store/ltobjst8.nsf/DDE300B846EED9C7CA257616000A3571/7450B5384DC1154CCA257CCA00171EAD/\\$FILE/03-6aa007%20authorised.pdf](http://www.legislation.vic.gov.au/domino/Web_Notes/LDMS/LTObject_Store/ltobjst8.nsf/DDE300B846EED9C7CA257616000A3571/7450B5384DC1154CCA257CCA00171EAD/$FILE/03-6aa007%20authorised.pdf)

Private contractors

Bulla Road to Melbourne Airport

LendLease

www.premier.vic.gov.au/contract-awarded-to-upgrade-section-of-tullamarine-freeway

Bulla Road to Power Street

Transurban

www.michaelobrien.com.au/Media/LatestNews/tabid/122/articleType/ArticleView/articleId/412/CityLink-Tulla-widening-gets-the-green-light.aspx

Design and construction

Bulla Road to Melbourne Airport

Bulla Road to Power Street

CPB Contractors (formerly Leighton)

Expected completion date

Expected to be completed in 2018

westgatetunnelproject.vic.gov.au/monash/#div1

Total cost

\$61.5 million

Appendix 3

Monash Freeway Upgrade (Western Distributor)

Funding

\$400 million for Monash Freeway Upgrade

westerndistributorproject.vic.gov.au/faqs

\$5.5 billion full project

libapps/MRpdfs/auto/2015/alp_2015_12_08_9I3o.pdf

Planning

westgatetunnelproject.vic.gov.au/wgt-documentlibrary

westgatetunnelproject.vic.gov.au/mfu-document-library

EES

No - Monash Freeway Upgrade

The Upgrade is contained within the existing freeway reserve and a preliminary assessment found no significant habitat for any species of national or state conservation significance.

Strict environmental management measures will be in place to ensure that construction noise, dust, drainage and other community impacts are minimised as much as possible.

westerndistributorproject.vic.gov.au/faqs

Yes - Western Distributor project

The Western Distributor EES will be exhibited publicly in the first half of 2017

westerndistributorproject.vic.gov.au/ees-specialist-studies

Private contractors

Fulton Hogan has been awarded the contract

blog.plantminer.com.au/fulton-hogan-awarded-400m-monash-freeway-upgrade

Design and construction

Work on the Monash Freeway Upgrade started in September 2016.

The upgrade will be completed in 2018.

www.premier.vic.gov.au/getting-it-done-monash-widening-gets-going

The first stage of work has successfully been completed to make the shoulder of the road smoother and stronger so it can be used as a traffic lane, minimising disruption by ensuring the same number of lanes will be open during the peak periods.

Mid Nov to May 2017

Sweeney Drive directly under Monash Freeway

Installation of piles to widen bridge for new lanes

westerndistributorproject.vic.gov.au/monash

Expected completion date

Monash Freeway upgrade section
Commence construction - 2016
Expected completion 2018
Western Distributor begins early 2018
Full project completed by 2022
[libapps/MRpdfs/auto/2015/alp_2015_12_08_9l3o.pdf](#)
[westgatetunnelproject.vic.gov.au/monash](#)

Project complete

2018
[westgatetunnelproject.vic.gov.au/monash/#div1](#)

Total cost

\$400 million
[www.dtf.vic.gov.au/Publications/State-Budget-publications/2016-17-State-Budget/2016-17-Budget-Papers](#)

Appendix 4

Level crossing removal sites

Railway Line	EES (Environmental Effects Statement)	Early Planning and Engineering Assessments	Consultation and Detailed Planning	Tender	Design	Construction	Crossing Removal	Project Completion	Private contractors	Project funding
KOROROIT CREEK ROAD, WILLIAMSTOWN NORTH — levelcrossings.vic.gov.au/crossings/kororoit-creek-road										
Altona Loop			Community consultation in early 2016. Design decided upon following a multi-criteria analysis that considered factors such as construction impacts, environmental and ground conditions, existing infrastructure including underground services, delivery timeframes and cost.	IN TENDER - 22/12/2016	Yes, c. June 2016.	No. Due to commence early 2017.	2019	2019	12/12/2016 - A joint venture of McConnell Dowell, Arup and Mott MacDonald, and a joint venture of Coleman Rail, Seymour Whyte and Arcadis Australia have been short-listed for the Western Program Alliance.	
MOUNTAIN HWY, BAYSWATER — levelcrossings.vic.gov.au/crossings/bayswater										
Belgrave					Jan-16	20/11/2016	22/12/2016	Dec-16	08/09/2016 - Laing O'Rourke Fulton Hogan AECOM	\$500M for Hurstbridge line
SCORESBY RD, BAYSWATER — levelcrossings.vic.gov.au/crossings/bayswater										
Belgrave					Jan-16	2/11/2016	22/11/2016	Dec-16	08/09/2016 - Laing O'Rourke Fulton Hogan AECOM	\$500M for Hurstbridge line
BUCKLEY ST, ESSENDON — levelcrossings.vic.gov.au/crossings/buckley-st-essendon										
Craigieburn			Community consultation in late 2016.	IN TENDER - 22/12/2016	No. Due mid to late 2017.	No. Due to commence late 2017.	2019	2019	12/12/2016 - A joint venture of John Holland and KBR, and a joint venture of CPB Contractors and Aurecon, have been short-listed for the North West Program Alliance.	
GLENROY RD, GLENROY — levelcrossings.vic.gov.au/crossings/glenroy-road-glenroy										
Craigieburn			Community consultation yet to commence.		No.	No.				

Railway Line	EES (Environmental Effects Statement)	Early Planning and Engineering Assessments	Consultation and Detailed Planning	Tender	Design	Construction	Crossing Removal	Project Completion	Private contractors	Project funding
THOMPSONS RD, LYNDBURST — levelcrossings.vic.gov.au/crossings/thompsons-road-lyndhurst										
Cranbourne			Community consultation early 2016.	Stage 1 \$175m; currently advertising for Stage 2	Yes, c.June 2016.	Late 2016	Late 2018	Late 2018	BMD Constructions	\$65.9M
ABBOTTS RD, DANDENONG SOUTH — levelcrossings.vic.gov.au/crossings/abbotts-road-dandenong										
Cranbourne		Planning Scheme Amendment requested.	Three phase consultation process, March - July 2016	IN TENDER - 22/12/2016	Final design of rail bridge to be determined by constructors once contract awarded.	No. Early 2018.	2019	2019	12/12/2016 - A joint venture of McConnell Dowell, Arup and Mott MacDonald, and a joint venture of Coleman Rail, Seymour Whyte and Arcadis Australia have been short-listed for the Western Program Alliance.	
CENTRE RD, CLAYTON — levelcrossings.vic.gov.au/crossings/centre-road-clayton										
Cranbourne-Pakenham	LCRP Caulfield to Dandenong Environmental Management Strategy. 16/06/2016.			Caulfield to Dandenong: Level Crossing Removal Project	Ongoing	Yes.	Unknown	Mid 2018 (expected)	8 Feb 2016 – Lendlease; CPB Contractors; WSP Parsons Brinckerhoff; Aurecon	CtoD LCRP budget is \$16B
CHANDLER RD, NOBLE PARK — levelcrossings.vic.gov.au/crossings/chandler-road-noble-park										
Cranbourne-Pakenham	LCRP Caulfield to Dandenong Environmental Management Strategy. 16/06/2016.			Caulfield to Dandenong: Level Crossing Removal Project	Ongoing	Yes.	Unknown	Mid 2018 (expected)	8 Feb 2016 – Lendlease; CPB Contractors; WSP Parsons Brinckerhoff; Aurecon	CtoD LCRP budget is \$16B
CHANDLER RD, NOBLE PARK — levelcrossings.vic.gov.au/crossings/chandler-road-noble-park										
Cranbourne-Pakenham	LCRP Caulfield to Dandenong Environmental Management Strategy. 16/06/2016.			Caulfield to Dandenong: Level Crossing Removal Project	Ongoing	Yes.	Unknown	Mid 2018 (expected)	8 Feb 2016 – Lendlease; CPB Contractors; WSP Parsons Brinckerhoff; Aurecon	CtoD LCRP budget is \$16B
CHANDLER RD, NOBLE PARK — levelcrossings.vic.gov.au/crossings/chandler-road-noble-park										
Cranbourne-Pakenham	LCRP Caulfield to Dandenong Environmental Management Strategy. 16/06/2016.			Caulfield to Dandenong: Level Crossing Removal Project	Ongoing	Yes.	Unknown	Mid 2018 (expected)	8 Feb 2016 – Lendlease; CPB Contractors; WSP Parsons Brinckerhoff; Aurecon	CtoD LCRP budget is \$16B

Railway Line	EES (Environmental Effects Statement)	Early Planning and Engineering Assessments	Consultation and Detailed Planning	Tender	Design	Construction	Crossing Removal	Project Completion	Private contractors	Project funding
GRANGE RD, CARNEGIE — levelcrossings.vic.gov.au/crossings/grange-road-carnegie										
Cranbourne-Pakenham	LCRP Caulfield to Dandenong Environmental Management Strategy. 16/06/2016.			Caulfield to Dandenong Level Crossing Removal Project	Ongoing	Work begins January 16, 2017.	Unknown	Mid 2018 (expected)	8 Feb 2016 – Lendlease; CPB Contractors; WSP Parsons Brinckerhoff; Aurecon	CtoD LCRP budget is \$16B
GRANGE RD, CARNEGIE — levelcrossings.vic.gov.au/crossings/grange-road-carnegie										
Cranbourne-Pakenham	LCRP Caulfield to Dandenong Environmental Management Strategy. 16/06/2016.			Caulfield to Dandenong Level Crossing Removal Project	Ongoing		Unknown	Mid 2018 (expected)	8 Feb 2016 – Lendlease; CPB Contractors; WSP Parsons Brinckerhoff; Aurecon	CtoD LCRP budget is \$16B
GRANGE RD, CARNEGIE — levelcrossings.vic.gov.au/crossings/grange-road-carnegie										
Cranbourne-Pakenham	LCRP Caulfield to Dandenong Environmental Management Strategy. 16/06/2016.			Caulfield to Dandenong Level Crossing Removal Project	Ongoing		Unknown	Mid 2018 (expected)	8 Feb 2016 – Lendlease; CPB Contractors; WSP Parsons Brinckerhoff; Aurecon	CtoD LCRP budget is \$16B
MURRUMBEENA RD, MURRUMBEENA — levelcrossings.vic.gov.au/crossings/murrumbeena-road-murrumbeena										
Cranbourne-Pakenham	LCRP Caulfield to Dandenong Environmental Management Strategy. 16/06/2016.			Caulfield to Dandenong Level Crossing Removal Project	Ongoing		Unknown	Mid 2018 (expected)	8 Feb 2016 – Lendlease; CPB Contractors; WSP Parsons Brinckerhoff; Aurecon	CtoD LCRP budget is \$16B
MURRUMBEENA RD, MURRUMBEENA — levelcrossings.vic.gov.au/crossings/murrumbeena-road-murrumbeena										
Cranbourne-Pakenham	LCRP Caulfield to Dandenong Environmental Management Strategy. 16/06/2016.			Caulfield to Dandenong Level Crossing Removal Project	Ongoing		Unknown	Mid 2018 (expected)	8 Feb 2016 – Lendlease; CPB Contractors; WSP Parsons Brinckerhoff; Aurecon	CtoD LCRP budget is \$16B
BALCOMBE RD, MENTONE — levelcrossings.vic.gov.au/crossings/balcombe-road-mentone										
Frankston		Yes. June 2016.	UNDERWAY - 22/12/2016							
CENTRE RD, BENTLEIGH — levelcrossings.vic.gov.au/crossings/north-mckinnon-centre										
Frankston					July 2015 - October 2016		24/06/2016	26-Jun-16	19 May 2015 - John Holland and KBR consortium	

Railway Line	EES (Environmental Effects Statement)	Early Planning and Engineering Assessments	Consultation and Detailed Planning	Tender	Design	Construction	Crossing Removal	Project Completion	Private contractors	Project funding
CHARMAN RD, CHELTENHAM	— levelcrossings.vic.gov.au/crossings/charman-road-cheltenham	Yes. June 2016.	UNDERWAY - 22/12/2016							
Frankston										
CHARMAN RD, CHELTENHAM	— levelcrossings.vic.gov.au/crossings/charman-road-cheltenham	Yes. June 2016.	UNDERWAY - 22/12/2016							
Frankston										
CHARMAN RD, CHELTENHAM	— levelcrossings.vic.gov.au/crossings/charman-road-cheltenham	Yes. June 2016.	UNDERWAY - 22/12/2016							
Frankston										
MCKINNON RD, MCKINNON	— levelcrossings.vic.gov.au/crossings/north-mckinnon-centre	Yes. June 2016.	UNDERWAY - 22/12/2016		July 2015 - October 2016	Yes. June 2016.	24/06/2016	26-Jun-16	19 May 2015 - John Holland and KBR consortium	TEI Level crossing removal program: \$659,319
Frankston										
NORTH RD, ORMOND	— levelcrossings.vic.gov.au/crossings/north-mckinnon-centre				July 2015 - October 2016	Yes. June 2016.	24/06/2016	26-Jun-16	19 May 2015 - John Holland and KBR consortium	TEI Level crossing removal program: \$659,319
Frankston										
SEAFORD RD, SEAFORD	— levelcrossings.vic.gov.au/crossings/seaford-road-seaford	Yes. June 2016.	UNDERWAY - 22/12/2016							
Frankston										
SKYE/OVERTON RD, FRANKSTON	— levelcrossings.vic.gov.au/crossings/overton-road-frankston	Yes. June 2016.	UNDERWAY - 22/12/2016							
Frankston										
STATION ST, CARRUM	— levelcrossings.vic.gov.au/crossings/station-street-carrum									
Frankston										
STATION ST/BONDI RD, BONBEACH	— levelcrossings.vic.gov.au/crossings/bondi-road-bonbeach	Yes. June 2016.	UNDERWAY - 22/12/2016							
Frankston										
BURKE RD, GLEN IRIS	— levelcrossings.vic.gov.au/crossings/burke-road-glen-iris				August 2015- July 2016	1/07/2015	13-Jan-16	1-Aug-16	19 May 2015 - John Holland and KBR consortium	TEI Level crossing removal program: \$659,319
Glen Waverley										
TOORAK RD, KOOYONG (PROJECTS IN PLANNING)	— levelcrossings.vic.gov.au/crossings/projects-in-planning LINK BROKEN									

Railway Line	EES (Environmental Effects Statement)	Early Planning and Engineering Assessments	Consultation and Detailed Planning	Tender	Design	Construction	Crossing Removal	Project Completion	Private contractors	Project funding
Glen Waverley		UNDERWAY - 22/12/2016								
GRANGE RD, ALPHINGTON — levelcrossings.vic.gov.au/crossings/grange-road-alphington										
Hurstbridge	Early 2016	"2016 – Planning Mid-late 2016 – Options development"	"2016 – Planning Mid-late 2016 – Options development"	"22/12/16 - IN TENDER"	"Early 2017 – Pre construction"	"2017 – Delivery"		"2019 – Completion"	8/09/2016 – Laing O'Rourke Fulton Hogan Jacobs (alliance)	
LOWER PLENTY RD, ROSANNA — levelcrossings.vic.gov.au/crossings/lower-pleanty-road-rosanna										
Hurstbridge		UNDERWAY - 2/1/2017	June 2016-Current	IN TENDER - 22/12/2016	No. Early 2017.	First half 2017.			8/09/2016 – Laing O'Rourke Fulton Hogan Jacobs (alliance)	
BLACKBURN RD, BLACKBURN — levelcrossings.vic.gov.au/crossings/blackburn										
Lilydale					November 2015 - Current	Yes. 27 December 2016.	January 2017 (expected)	Mid 2017 (expected)	8/9/2015 – Leighton Contractors, Aurecon and Hyder Consulting with VicRoads, Public Transport Victoria and Metro Trains Melbourne (MTM)	TEI Level crossing removal program: \$659,319
MANCHESTER RD, MOOROOLBARK — levelcrossings.vic.gov.au/crossings/manchester-rd-mooroolbark										
Lilydale		UNDERWAY - 22/12/2016	Community consultation yet to commence.							
MAROONDAH HWY, LILYDALE — levelcrossings.vic.gov.au/crossings/maroondah-hwy-lilydale										
Lilydale		UNDERWAY - 22/12/2016	Community consultation yet to commence.							
HEATHERDALE RD, MITCHAM — levelcrossings.vic.gov.au/crossings/heatherdale-road-mitcham										
Lilydale-Belgrave					November 2015 - Current	Yes. 27 December 2016.	January 2017 (expected)	Mid 2017 (expected)	8/9/2015 – Leighton Contractors, Aurecon and Hyder Consulting with VicRoads, Public Transport Victoria and Metro Trains Melbourne (MTM)	
CLYDE RD, BERWICK (PROJECTS IN PLANNING) — levelcrossings.vic.gov.au/crossings/projects-in-planning LINK BROKEN										
Pakenham		UNDERWAY - 22/12/2016	Community consultation yet to commence.							

Railway Line	EES (Environmental Effects Statement)	Early Planning and Engineering Assessments	Consultation and Detailed Planning	Tender	Design	Construction	Crossing Removal	Project Completion	Private contractors	Project funding
HALLAM RD, HALLAM (PROJECTS IN PLANNING) — levelcrossings.vic.gov.au/crossings/projects-in-planning/link-broken										
Pakenham		UNDERWAY - 22/12/2016	Community consultation yet to commence.							
SOUTH GIPPSLAND HWY, DANDENONG (PROJECTS IN PLANNING) — levelcrossings.vic.gov.au/crossings/projects-in-planning/link-broken										
Pakenham		UNDERWAY - 22/12/2016	Community consultation yet to commence.							
BELL ST, PRESTON — levelcrossings.vic.gov.au/crossings/bell-street-preston										
South Morang				IN TENDER - 22/12/2016						
HIGH ST, RESERVOIR — levelcrossings.vic.gov.au/crossings/high-street-reservoir										
South Morang		Early-mid 2016	Community consultation commenced June 2016	IN TENDER - 22/12/2016						
FURLONG RD, ST ALBANS — levelcrossings.vic.gov.au/crossings/furlong-main										
Sunbury					October 2015 - Current	Yes. Commenced December 2015.	2-Nov-16	May 2017 (expected)	8/9/2015 - Leighton Contractors, Aurecon and Hyder Consulting with VicRoads, Public Transport Victoria and Metro Trains Melbourne (MTM)	TEI Level crossing removal program: \$659,319
MAIN RD, ST ALBANS — levelcrossings.vic.gov.au/crossings/furlong-main										
Sunbury					October 2015 - Current	Yes. Commenced October 2015.	2-Nov-16	May 2017 (expected)	8/9/2015 - Leighton Contractors, Aurecon and Hyder Consulting with VicRoads, Public Transport Victoria and Metro Trains Melbourne (MTM)	TEI Level crossing removal program: \$659,319
MELTON HIGHWAY, SYDENHAM — levelcrossings.vic.gov.au/crossings/melton-highway										
Sunbury				Closed September 2016						
BELL ST, COBURG — levelcrossings.vic.gov.au/crossings/bell-street-coburg										
Upfield				IN TENDER - 22/12/2016						
CAMP RD, CAMPBELLFIELD — levelcrossings.vic.gov.au/crossings/camp-road-campbellfield										

Railway Line	EES (Environmental Effects Statement)	Early Planning and Engineering Assessments	Consultation and Detailed Planning	Tender	Design	Construction	Crossing Removal	Project Completion	Private contractors	Project funding
Upfield			Community consultation to commence late 2016.	IN TENDER - 22/12/2016	No. Early 2017.	No. Late 2017.	2019	2019	12/12/2016 - A joint venture of John Holland and KBR, and a joint venture of CPB Contractors and Aurecon, have been short-listed for the North West Program Alliance.	
MORELAND RD, BRUNSWICK — levelcrossings.vic.gov.au/crossings/moreland-road-brunswick										
Upfield			Community consultation yet to commence.	IN TENDER - 22/12/2016						
AVIATION RD, LAVERTON — levelcrossings.vic.gov.au/crossings/aviation-road-laverton										
Werribee			Community consultation yet to commence.	IN TENDER - 22/12/2016						
CHERRY ST, WERRIBEE — levelcrossings.vic.gov.au/crossings/cherry-st-werribee										
Werribee			Community consultation yet to commence.	IN TENDER - 2/1/2017						
WERRIBEE ST, WERRIBEE — levelcrossings.vic.gov.au/crossings/werribee-st-werribee										
Werribee			Community consultation yet to commence.	IN TENDER - 22/12/2016						
FERGUSON ST, WILLIAMSTOWN — levelcrossings.vic.gov.au/crossings/ferguson-street-williamstown										
Williamstown			Community consultation yet to commence.						The successful consortium is expected to be announced early 2017. The western package of works will start at Kororoit Creek Road in Williamstown North with the opportunity to deliver further works including Abbots Road in Dandenong South, Aviation Road in Laverton, Ferguson Street in Williamstown, and Cherry and Werribee Streets in Werribee.	

Appendix 5

Melbourne Metro Rail

Funding

Cost of \$10.9 billion.

metrotunnel.vic.gov.au/__data/assets/pdf_file/0015/6063/MM-Fact-Sheet-Project-Overview-20160601.pdf

Funding through a Public Private Partnership.

metrotunnel.vic.gov.au/library/media-releases/media-release-construction-of-melbourne-metro-rail-to-start-in-2017

Planning

www.planning.vic.gov.au/__data/assets/pdf_file/0024/9816/DOC-15-302622-MM-REPORT-Project-Outline-FINAL-20150730.pdf

Information on the project delivery

metrotunnel.vic.gov.au/about-the-project/project-delivery

EES

An EES was conducted and the report was released in December 2016.

metrotunnel.vic.gov.au/__data/assets/pdf_file/0015/51063/MMRP_Summary-Report-WEB.pdf

Further information can be accessed at the MMR website.

metrotunnel.vic.gov.au/planning/ees

Minister for Planning's media release:

www.premier.vic.gov.au/environmental-plan-in-place-for-the-metro-tunnel

Private contractors

John Holland awarded first major Metro Tunnel contract.

www.premier.vic.gov.au/major-work-on-metro-tunnel-to-begin-next-year

Three bidders for the Public Private Partnership (PPP) have been shortlisted and will be asked to submit a formal proposal by early 2017.

www.premier.vic.gov.au/worlds-best-shortlisted-to-build-the-metro-tunnel

A contract is expected to be awarded by the end of 2017.

www.premier.vic.gov.au/worlds-best-shortlisted-to-build-the-metro-tunnel4

Two consortia have been shortlisted to deliver up to \$1 billion worth of signalling and communications systems as part of the Metro Tunnel Rail Systems Alliance.

www.premier.vic.gov.au/shortlist-for-billion-dollar-high-capacity-signaling

Further information on MMR tenders and service providers can be found here.

metrotunnel.vic.gov.au/contact/tenders-and-service-providers

Design and construction

Metro Tunnel is currently in the planning and design phase.

Please consult the Project Timeline.

metrotunnel.vic.gov.au/about-the-project/project-timeline

And the Construction Planning section of the website for further information.

metrotunnel.vic.gov.au/planning/construction

Building the Project brochure.

metrotunnel.vic.gov.au/__data/assets/pdf_file/0012/52230/MM-BROCHURE-20161130-Building-the-project.pdf

Work on MMR commenced September 2016 as part of the early works contract awarded to John Holland.

metrotunnel.vic.gov.au/about-the-project/current-works

www.premier.vic.gov.au/work-on-fully-funded-metro-tunnel-begins

www.premier.vic.gov.au/cbd-streets-close-to-build-new-underground-city-station

Project complete

Due for completion in 2026.

metrotunnel.vic.gov.au/about-the-project/project-timeline

Total cost

\$10.9 billion.

www.dtf.vic.gov.au/Publications/State-Budget-publications/2016-17-State-Budget/2016-17-Budget-Papers

According to the Victorian Budget 16/17 Budget Paper on Service Delivery, the Melbourne Metro Rail project has so far delivered on 100% of its milestones in accordance with agreed budget and timelines (p. 149).

budgetfiles201617.budget.vic.gov.au/2016-17+State+Budget+-+BP3+Service+Delivery.pdf

Expected completion date

Major construction to commence from 2018.

The Metro Tunnel “will be built and operational by 2026”- Premier, Minister for Public Transport.

www.premier.vic.gov.au/getting-it-done-the-metro-tunnel-is-fully-funded

Suggested further reading

metrotunnel.vic.gov.au

metrotunnel.vic.gov.au/resources/fact-sheets

www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Metro-Tunnel-Project

www.planning.vic.gov.au/environmental-assessment/major-transport-projects/melbourne-metro-rail-project

www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Metro-Tunnel-Project

Appendix 6

Health projects

A6.1 Bendigo Health Hospital bendigohospitalproject.org.au

Funding

\$350,000 State Government Funding (for Leveraging the Benefits of the New Bendigo Hospital project - aimed at increasing local jobs)

bendigohospitalproject.org.au/partners/others

\$1.11b (\$630m State Government funding) (Estimated)

www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Bendigo-Hospital

2016-17 Budget allocated \$275.25m to expand services once the hospital is open

bendigohospitalproject.org.au/new-bendigo-hospitals-tick-of-approval

Early planning

www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Bendigo-Hospital

Consultation/detailed planning

Rationale and Initial Planning 2013

www.dtf.vic.gov.au/Publications/Infrastructure-Delivery-publications/Partnerships-Victoria/Bendigo-Hospital-Project-Summary

EES

None

Tender process

Sept 2011: EOI proposals submitted

Feb 2012: Proposals shortlisted

May 2012: Request for Proposal issued

Nov 2012: RFPs received

Jan 2013: Best and Final Offer brief issued

Feb 2013: BAFO proposals received

April 2013: Preferred proposal announced

May 2013: Contractual and financial close

www.dtf.vic.gov.au/Publications/Infrastructure-Delivery-publications/Partnerships-Victoria/Bendigo-Hospital-Project-Summary

June 2013: Exemplar appointed

bendigohospitalproject.org.au/the-project-2/timelines

Private contractors

Public private partnership

bendigohospitalproject.org.au/the-project-2/ppp

Exemplar Health

bendigohospitalproject.org.au/partners/exemplar-health

Industry Capability Network

bendigohospitalproject.org.au/partners/others

Design

Design details

www.dtf.vic.gov.au/Publications/Infrastructure-Delivery-publications/Partnerships-Victoria/Bendigo-Hospital-Project-Summary

Fly through images

bendigohospitalproject.org.au/the-project-2/timelines

Construction

Stage 1 Commenced: June 2013

Stage 2 Due to Commence: January 2017

bendigohospitalproject.org.au/the-project-2/timelines

Expected completion date

Stage 1: Early 2017

Stage 2: June 2018

Possible Stage 3 beyond 2018 (Transcript 18 October 2016)

bendigohospitalproject.org.au/the-project-2/timelines

Project complete

Stage 1 Complete: 24 January 2017

Stage 1 Opening on 24 January 2017

www.dtf.vic.gov.au/Publications/Infrastructure-Delivery-publications/Partnerships-Victoria/Bendigo-Hospital-Project-Summary

Total cost

Total estimated investment \$129,460,000

Estimated completion Qtr 2 2016-17

budgetfiles201617.budget.vic.gov.au/2016-17+State+Budget+-+BP4+State+Capital+Program.pdf

Original estimate approx \$1.1b

www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Bendigo-Hospital

Suggested further reading

Full Tender Contract Details

www.tenders.vic.gov.au/tenders/contract/view.do?id=20204&returnUrl=%252Fcontract%252Flist.do%253F%2524%257Brequest.queryString%257D

A6.2 Monash Children's Hospital

www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital

Funding

\$250m

www.premier.vic.gov.au/monash-childrens-hospital-celebrates-special-milestone

EES

None

Tender process

Dec 2013: Appointed Lendlease

www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital/project-scope-and-timeline

Design

Design details

www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital/images-and-design-features

Construction

July 2014: Construction commenced

www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital/project-scope-and-timeline

Expected completion date

December 2016

www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital/project-scope-and-timeline

Project complete

Early 2017

www.monashchildrenshospital.org/about-monash-childrens-hospital/new-hospital/images-and-design-features

Total cost

\$258m

www.audit.vic.gov.au/publications/20161026-HVHR/20161026-HVHR.html#s23

Over by \$8m for research wing (3%)

www.audit.vic.gov.au/publications/20161026-HVHR/20161026-HVHR.html#s23

A6.3 Victorian Comprehensive Cancer Centre www.capital.health.vic.gov.au/VCCC_project

Funding

\$1.27b

www.dtf.vic.gov.au/Infrastructure-Delivery/Public-private-partnerships/Projects/Victorian-Comprehensive-Cancer-Centre

EES

None

Tender process

Dec 2009: EOI proposals submitted

March 2010: Proposals shortlisted

June 2010: Request for Proposal issued

Dec 2010: RFPs received

Feb 2011: Best and Final Offer brief issued

March 2011: BAFO proposals received

Nov 2011: Preferred proposal announced

Dec 2011: Contractual and Financial Close

www.dtf.vic.gov.au/Publications/Infrastructure-Delivery-publications/Partnerships-Victoria/Victorian-Comprehensive-Cancer-Centre-Project-summary

Private contractors

Plenary Health

www.dtf.vic.gov.au/Publications/Infrastructure-Delivery-publications/Partnerships-Victoria/Victorian-Comprehensive-Cancer-Centre-Project-summary

Construction

Commenced 2011

www.capital.health.vic.gov.au/VCCC_project

Expected completion date

June 2016

www.dtf.vic.gov.au/Publications/Infrastructure-Delivery-publications/Partnerships-Victoria/Victorian-Comprehensive-Cancer-Centre-Project-summary

Project complete

June 2016

www.capital.health.vic.gov.au/VCCC_project

Total cost

"On budget"

www.capital.health.vic.gov.au/VCCC_project

A6.4 Royal Victorian Eye and Ear Hospital

A6

Funding

\$165m (\$130m state funding)

www.eyear.org.au/content/Document/Redevelopment/Redevelopment%20newsletter%20online.pdf

\$201m

www.audit.vic.gov.au/publications/20161026-HVHR/20161026-HVHR.pdf

EES

None

Construction

Commenced July 2013

www.eyear.org.au/page/Patients/Redevelopment

Expected completion date

Stage 1/Emergency Department: August 2016

www.eyear.org.au/content/Document/RVEEH%20Redevelopment%20News%20August%202016%20for%20web.pdf

Late 2018

www.eyear.org.au/page/Patients/Redevelopment

Total cost

\$201 million

"Central agencies rated this project as red (over budget or schedule) for four consecutive quarters"

www.audit.vic.gov.au/publications/20161026-HVHR/20161026-HVHR.pdf

A6.5 Joan Kirner Women's and Children's Hospital

Funding

\$200m

www.premier.vic.gov.au/new-joan-kirner-hospital-one-step-closer

EES

None

Private contractors

Lend Lease

www.westernhealth.org.au/OurSites/JKWCH/Pages/Project_Team.aspx

Construction

Commenced Aug 2016

www.westernhealth.org.au/AboutUs/News/Pages/Joan-Kirner-Women's-and-Children's-Hospital-developments.aspx

Expected completion date

Due Qtr 1 2018-19

www.westernhealth.org.au/OurSites/JKWCH/Pages/About%20the%20Joan%20Kirner%20Women's%20and%20Children's%20Hospital.aspx

Stage 2: Qtr 4 2019-20

budgetfiles201617.budget.vic.gov.au/2016-17+State+Budget+-+BP4+State+Capital+Program.docx

A6.6 Victorian Heart Hospital

www.monashheart.org.au/index.php/about-us/victorian-heart-hospital

Funding

\$150m

EES

None

Construction

Due to commence 2018

May not commence prior to 2019-20

www.heraldsun.com.au/news/victoria/victorian-state-budget-201617-plans-to-build-new-royal-melbourne-hospital/news-story/c67402f1953e4f374c30dfdd8276e6fc

Appendix 7
**Level Crossing Removal Project
- Caulfield to Dandenong –
Air Quality Assessment**

LEVEL CROSSING REMOVAL PROJECT

CAULFIELD TO DANDENONG

AIR QUALITY ASSESSMENT

A7

Document number	P03-029-CTD-XDA-0001
Revision number	B
Date	8/07/2016





REPORT CONTROL AND AMENDMENT

The current reviewed and approved version of this Design Report is available on Teambinder for all project personnel to access. Downloaded Reports are deemed uncontrolled and it is the responsibility of the user to ensure they are using the latest revision. All changes to this document are noted.

Report Title	Air Quality Assessment				
Package Number	N/A				
Document Number	P03-029-CTD-XDA-0001			Date	8/07/2016
Revision	Date	Description	Preliminary Assessment		
A	3-May-16		Prepared by	Checked by	Approved by
		Name	M Naidu	N Mackenzie	J Green
		Signature			
B	8-July-16	Description	Amended Report		
			Prepared by	Checked by	Approved by
		Name	M Naidu	N Mackenzie	J Green
		Signature			
		Description	Click here to enter text.		
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Description	Click here to enter text.		
			Prepared by	Checked by	Approved by
		Name			
		Signature			

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TERMS AND DEFINITIONS

Term	Definition
LXRA	Level Crossing Removal Authority
D&C	Design and Construction
CTD	Level Crossing Removal Project Caulfield to Dandenong Alliance, incorporating Lendlease, CPB, WSP Parsons Brinckerhoff, Aurecon, MTM and LXRA.
MTM	Metro Trains Melbourne
O&M	Operations and Maintenance

A7



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AIR QUALITY ASSESSMENT

1 INTRODUCTION

1.1 Project Scope

The Level Crossing Removal Project: Caulfield to Dandenong (the Project) was established to remove nine of Melbourne’s most congested level crossings along the Caulfield to Dandenong corridor and completely rebuild 5 stations on Melbourne’s busiest rail line by late 2018.

Additionally, the Project will also allow for the lengthening of 30 existing platforms as well as new signalling and power systems to support new longer High Capacity Metro Trains affording a 42% capacity increase, equivalent to an extra 20,000 passengers a day.

The Level Crossing Removal Authority (LXRA) identified the following Project Objectives:

- Maintain an acceptable level of service for road and rail users during delivery.
- Improve the reliability and efficiency of the transport network to improve productivity.
- Align with community and stakeholder expectations.
- Provide early engagement with stakeholders to take them on the journey.
- Promote appropriate land utilisation around rail corridors to facilitate value capture development rights opportunities.
- Provide better connected, more vibrant activity centres and improved urban amenity for all users.
- Create safer communities.

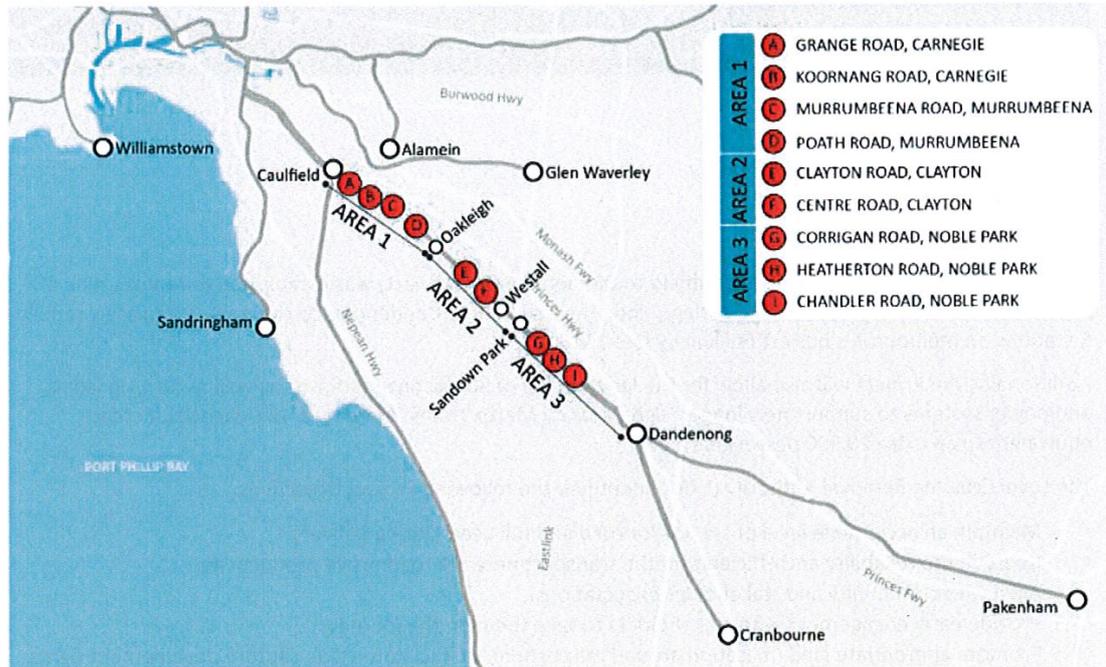
Victoria’s Level Crossing Removal Authority (LXRA) has awarded the Project to the Level Crossing Removal Project: Caulfield to Dandenong Alliance (CTD). CTD consists of an Alliance including Lendlease, CPB, Aurecon, WSP | Parsons Brinckerhoff, MTM and LXRA.

The major elements of the project include:

- Three sections of elevated structure to carry the rail over the existing level crossings of Grange Rd, Koornang Rd, Murrumbeena Rd, Poath Rd, Clayton Rd, Centre Rd, Corrigan Rd, Heatherton Rd and Chandler Rd.
- Removal of the level crossing infrastructure and refinement of the existing road alignments.
- Five reconstructed stations at Carnegie, Murrumbeena, Hughesdale, Clayton and Noble Park.
- Extended platforms at other stations along the line.
- New rail systems and signalling along the greater alignment stretching from the City-Loop out to Cranbourne and Pakenham.
- A linear park beneath the elevated structures and a shared user path running along the full length of the alignment.



Figure 1 Extent of Level Crossing Removal Project on Pakenham-Cranbourne Corridor



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2 INTRODUCTION

CTD has undertaken an air quality assessment of the Caulfield-Dandenong Level Crossing Removals and Rail Upgrade Project. This report focuses on the rail alignment which extends from Carnegie Station to Murrumbeena Station which crosses Murrumbeena Road. The assessed section of the rail alignment is shown in Figure 3 and Appendix D of this report. The rail corridor in this area is adjacent to densely populated residential areas and is deemed to contain the worst-affected sensitive receptors for the entire project.

Three scenarios are assessed in this assessment as follows:

- At Grade – The existing level crossings are not removed and the rail is at grade
- Rail Under – The level crossings are removed and the rail goes under the roads by means of cuttings
- Rail Over – The level crossings are removed and the rail goes above the roads by means of bridge structures

The objective of this assessment is to compare the above-mentioned scenarios and determine which scenario would produce the least impact on air quality at the sensitive receptors adjacent to the rail corridor.

Based on previous air quality assessments (GHD, 2010; Golder Associates, 2012) carried out for the Regional Rail Link in Victoria which involved diesel powered rail emissions, the key pollutants with the highest potential for non-compliance with the criteria (State Environment Protection Policy (Air Quality Management), 2001) were identified to be the following:

- Nitrogen dioxide, NO₂
- Particulate matter with an equivalent aerodynamic diameter less than 10 microns, PM₁₀
- Particulate matter with an equivalent aerodynamic diameter less than 2.5 microns, PM_{2.5}

The above-mentioned three pollutants are assessed in this study.

3 CRITERIA

Applicable air quality criteria is obtained from the State Environment Protection Policy (Air Quality Management), 2001 which references the National Environment Protection (Ambient Air Quality) Measure 2003 (AAQ NEPM) and is detailed in Table 1.

Table 1 AAQ NEPM Air Quality Criteria

Pollutant	Unit	Averaging period	AAQ NEPM Criteria	Maximum allowable exceedances
PM ₁₀	µg/m ³	24 hour	50	5 days a year
PM _{2.5}	µg/m ³	24 hour	25	-
NO ₂	µg/m ³	1 hour	226 ¹	1 day a year

Note:

1. Concentrations are converted from ppm to µg/m³ and are presented at 25 °C and 1 atm.

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4 EXISTING ENVIRONMENT

4.1 Background air quality

Background ground level concentrations are critical in the assessment process as the AAQ NEPM (National Environment Protection (Ambient Air Quality) Measure, 2003) criteria is cumulative and includes both the emissions from the rail and background concentrations in the air shed.

Background ground level concentrations of the assessed pollutants were obtained from the nearest EPA Victoria’s air quality monitoring station to the railway alignment which is located in Brighton. The monitoring station is approximately 5km South-east of the project area. The background concentrations were obtained from EPA Victoria’s 2014 air monitoring report (EPA Victoria, 2015) and are detailed in Table 2.

Table 2 Background Concentrations

Pollutant	Unit	Averaging period	Concentration	Percentile	AAQ NEPM Criteria
PM ₁₀	µg/m ³	24 hour	25.6	90 th	50
PM _{2.5}	µg/m ³	24 hour	13.2 ¹	90 th	25
NO ₂	µg/m ³	1 hour	47 ²	75 th	226 ²

Notes:

- The Brighton air monitoring station does not monitor PM_{2.5}. The ratio of PM₁₀/PM_{2.5} for 24 hour 90th percentile concentrations in 2014 was calculated from EPA Victoria’s Alphington station and was determined to be 1.94. This value was applied to the PM₁₀ concentration from Brighton.
- Concentrations are converted from ppm to µg/m³ and are presented at 25 °C and 1 atm.

The State Environment Protection Policy (Air Quality Management), 2001 states that the 70th percentile should be used for hourly averaged pollutants and the average should be used for 24-hour averaged pollutants in the absence of site-specific air pollutant monitoring. The percentiles selected in Table 2 are deemed to exclude outliers and limit uncertainties in the assessment process.

4.2 Meteorology

TAPM (The Air Pollution Model), a CSIRO developed prognostic meteorological and air dispersion model, was used to develop the hourly meteorological data for the project area. The TAPM model produces meteorological data, upper air information and temperature profiles for the simulation period in three dimensions for all the grid points across the domain. The gridded meteorological data generated by TAPM is calculated from the synoptic information determined from the six hour interval Limited Area Prediction System (LAPS). This final meteorological data is representative of the local topography, land use, surface roughness and temperature effects at the assessed rail alignment. The meteorological data is then incorporated into the CAL3QHCR air dispersion model which is discussed in Section 4.4.

The TAPM produced wind roses are shown in Figure 2.

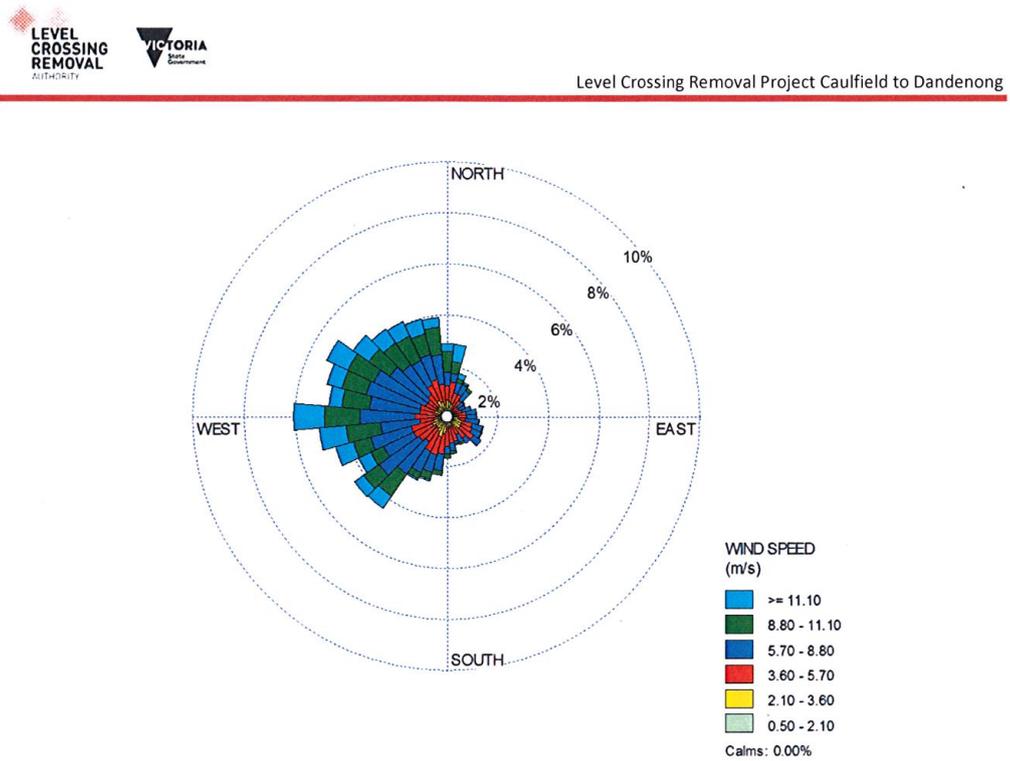


Figure 2 TAPM Wind Roses

The dominant wind directions are from the West and the wind predominantly travels along the rail corridor. In addition, south-westerly winds facilitate pollutant dispersion and reduce ground level concentrations in the properties adjacent to the West-bound rail.



5 EMISSIONS

5.1 Emissions inventory

V/line VLocity trains operates the railway line and the trains are predominantly 2-car sets consisting of diesel locomotives. The engine utilised by the trains is the Cummins QSK 19R diesel engine. Emissions data was obtained from a report for the Regional Rail Link (Golder Associates, 2012) and data in the report was sourced from engine data sheets from Cummins. The emission factors used in this assessment for air dispersion modelling are presented in Table 3.

Table 3 Emission Factors

Pollutant	Emission Rate, kg/h	Emission Factor ¹ , g/km
NO ₂	0.45	9.05
PM ₁₀	0.1	2.01
PM _{2.5}	0.1	2.01

Note:

1. The emission factors were calculated based on the line speed being 80 km/h.

5.2 Train Volumes

Train volumes for the modelled railway section were obtained from a community study conducted by VicRoads (VicRoads, 2012) and are presented in Table 4.

Table 4 Train Volumes

Station	Next Station	Daily Train Volume (2 way)	AM peak hour train volume (2 way)
Carnegie	Murrumbeena	263	26

The train volumes are for Metro, V-line and Pacific National trains. As a worst-case assumption for this assessment, V/line VLocity trains which use diesel locomotives constitute are assumed to constitute all the trains for a worst-case hour.

5.3 Emissions modelling

CAL3QHCR is a specialised air dispersion model for the assessment of road emissions and it has been used this assessment to model pollutant concentrations associated with emissions from trains. It is particularly suited for modelling the Over Rail and Under Rail scenarios in this assessment due to its ability to simulate cuttings and bridges. The model is similar to the AusRoads model used in air quality assessments for the Regional Rail Link (GHD, 2010; Golder Associates, 2012).

6 ASSESSMENT

6.1 Rail pollutant dispersion

A cross-section of the rail (as shown in Figure 3) in between Carnegie Station and Murrumbeena Station which has residential properties in proximity was analysed for the three options. This section is representative of the assessed section with regard to maximum concentrations predicted.

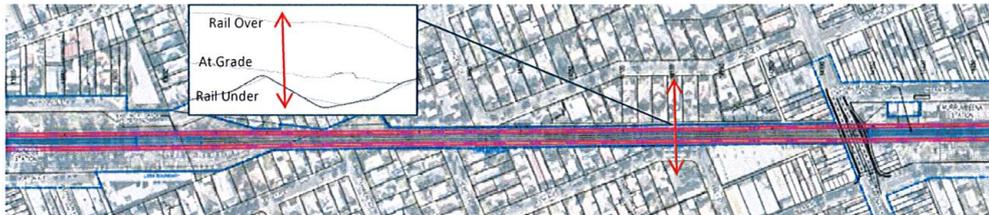


Figure 3 Location of Cross-Section for Rail Pollutant Dispersion

Ground level concentrations for NO₂, PM₁₀ and PM_{2.5} are predicted over incremental distances from the rail alignment and are presented in the Appendix.

The results indicate that pollutants under the Rail Under scenario have higher concentrations than the existing At Grade scenario in the rail corridor due to the pollutants being entrained within the cutting.

With the Rail Over Scenario, the pollutants near the centreline experience better dispersion due to the elevated height of pollutant release when compared against the existing At Grade scenario. As a result, concentrations are much lower in the railway corridor than both the existing scenario and the Rail Under scenario.

Beyond the rail corridor, the differences in pollutant concentrations for the three scenarios are marginal. The ground level concentrations are primarily controlled by background concentrations and the rail contributes marginally to the overall ground level concentration.

The AAQ NEPM criteria are not exceeded in any of the three scenarios.

6.2 Ground level concentration contours

Ground level concentrations at 1.8m above the ground are examined in detail for NO₂, PM₁₀ and PM_{2.5} in the Appendix A to D to display the dispersion characteristics of the pollutants. For all three scenarios, the AAQ NEPM criteria is not exceeded at the nearest residential receivers to the rail corridor.

For the Rail Under Scenario, it can be seen that the pollutants at 1.8m above the ground are concentrated closer to the centre line due to the pollutants being entrained by the cuttings present.

Under the Rail Over Scenario, the pollutants are lower at 1.8m closer to the rail centre line due to the pollutants being released more than 10m from ground level. Away from the rail corridor, the difference in pollutant contours for the three scenarios become marginal and the background pollutant concentrations in the air shed dominate the overall ground level concentrations.



7 CONCLUSION

Based on the assessment of NO₂, PM_{2.5} and PM₁₀ emissions from the rail between Carnegie Station and Murrumbeena Station, the NEPM AAQ criteria will not be exceeded by the proposed design in a rail over scenario. The rail over scenario provides an overall improvement in air quality than the existing conditions for those properties immediately adjacent to the rail corridor, and a better air quality outcome than a potential rail under scenario. Beyond the rail corridor there is only a marginal difference between all three scenarios.

The rail over scenario will facilitate dispersion at the rail corridor due its elevation which will aid pollutant release into the atmosphere while the rail under scenario will entrain pollutants within the rail corridor. Beyond the rail corridor, the contribution of the rail, regardless of the scenario, is marginal as background pollutant concentrations dominate the overall ground level concentrations for the assessed pollutants.

The assessment is representative for existing at grade, rail over and rail under scenarios throughout the Caulfield-Dandenong Level Crossing Removals and Rail Upgrade Project.

8 REFERENCES

- Department of Environment and Conservation (NSW). (2005). Approved Methods for the Modelling and Assessments of Air Pollutants in New South Wales.
- EPA Victoria. (2007). AusRoads User Manual.
- EPA Victoria. (2015). Air monitoring report 2014 – Compliance with the National Environment Protection (Ambient Air Quality) Measure.
- GHD. (2010). Department of Transport Air Quality Assessment for Regional Rail Link.
- Golder Associates. (2012). KBR-Arup Joint Venture Air Quality Modelling Assessment for Regional Rail Link Moonee Ponds Creek to Dudley Street.
- National Environment Protection (Ambient Air Quality) Measure (2003).
- State Environment Protection Policy (Air Quality Management), No. S 240 (Victorian Government Gazette 2001).
- VicRoads. (2012). Caulfield to Dandenong Rail Crossing Study, Summary of Community Issues and Ideas.



APPENDICES

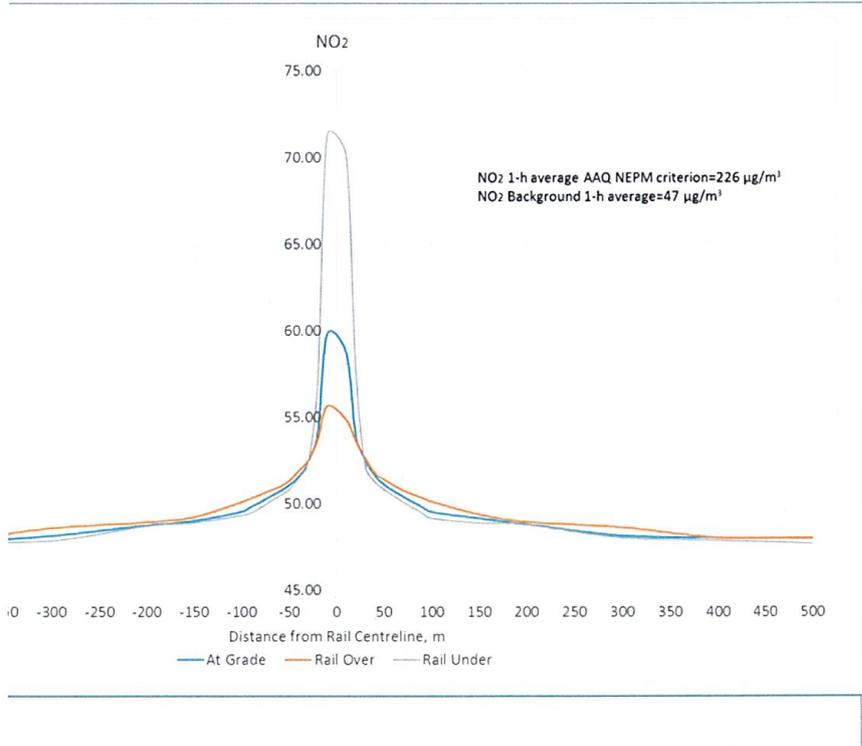
ATTACHMENTS AND REFERENCE DOCUMENTS

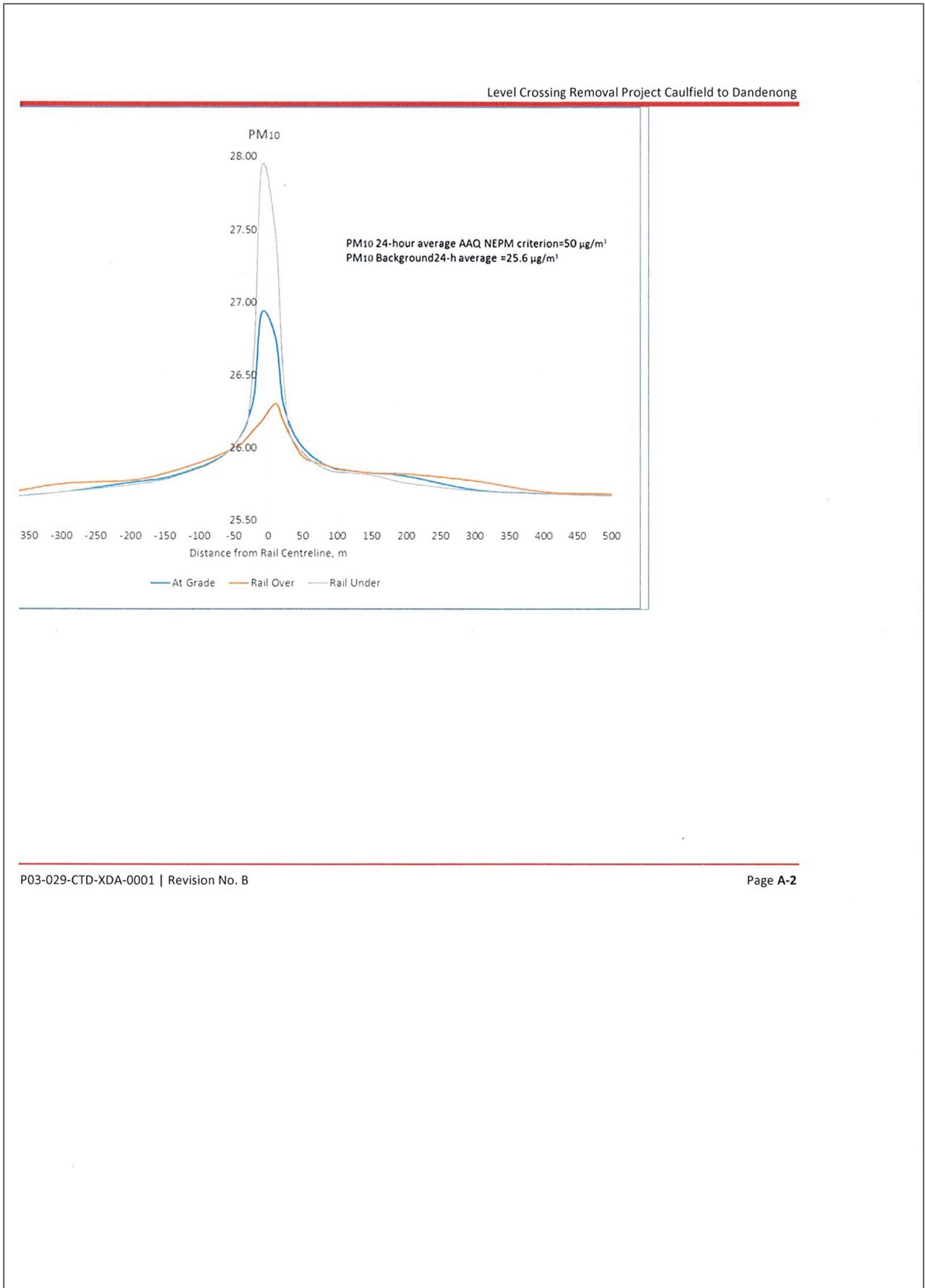
9 APPENDICES LIST

Appendix	Title
A	RAIL POLLUTANT DISPERSION
B	NO2 GROUND LEVEL CONTOURS
C	PM10 GROUND LEVEL CONTOURS
D	PM2.5 GROUND LEVEL CONTOURS

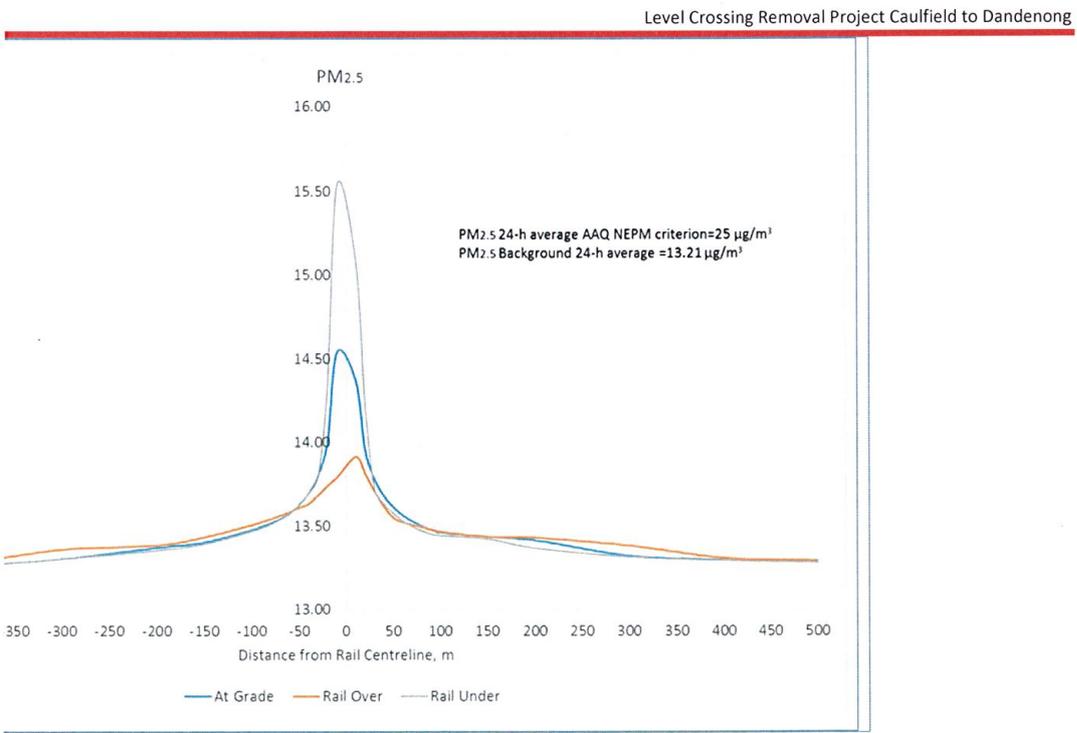
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DISPERSION





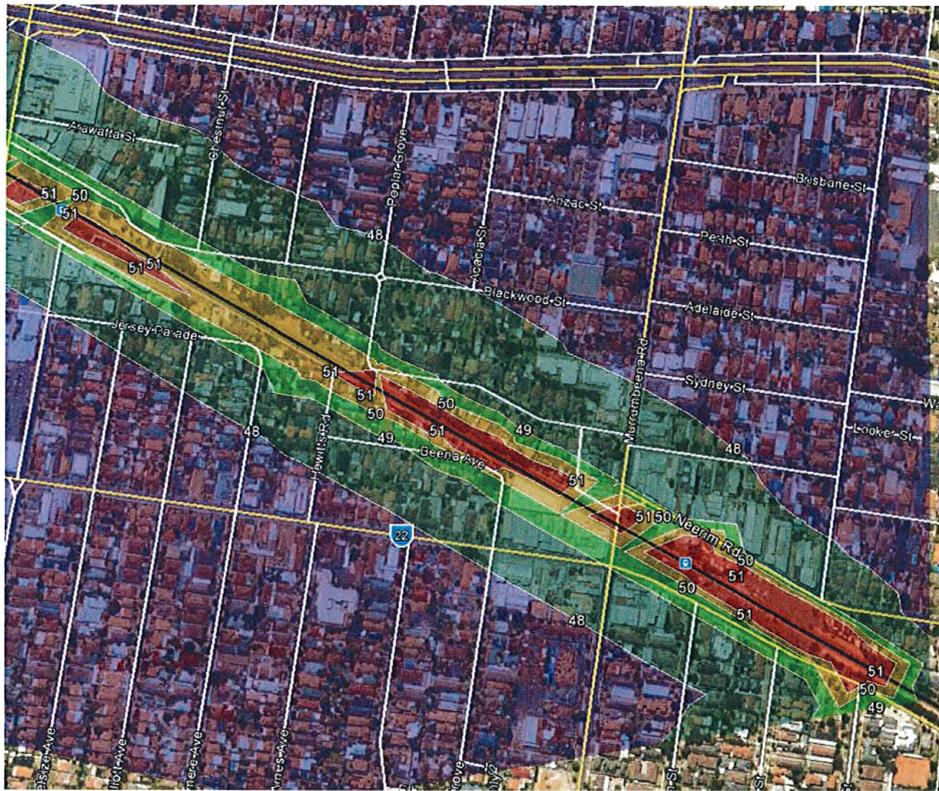
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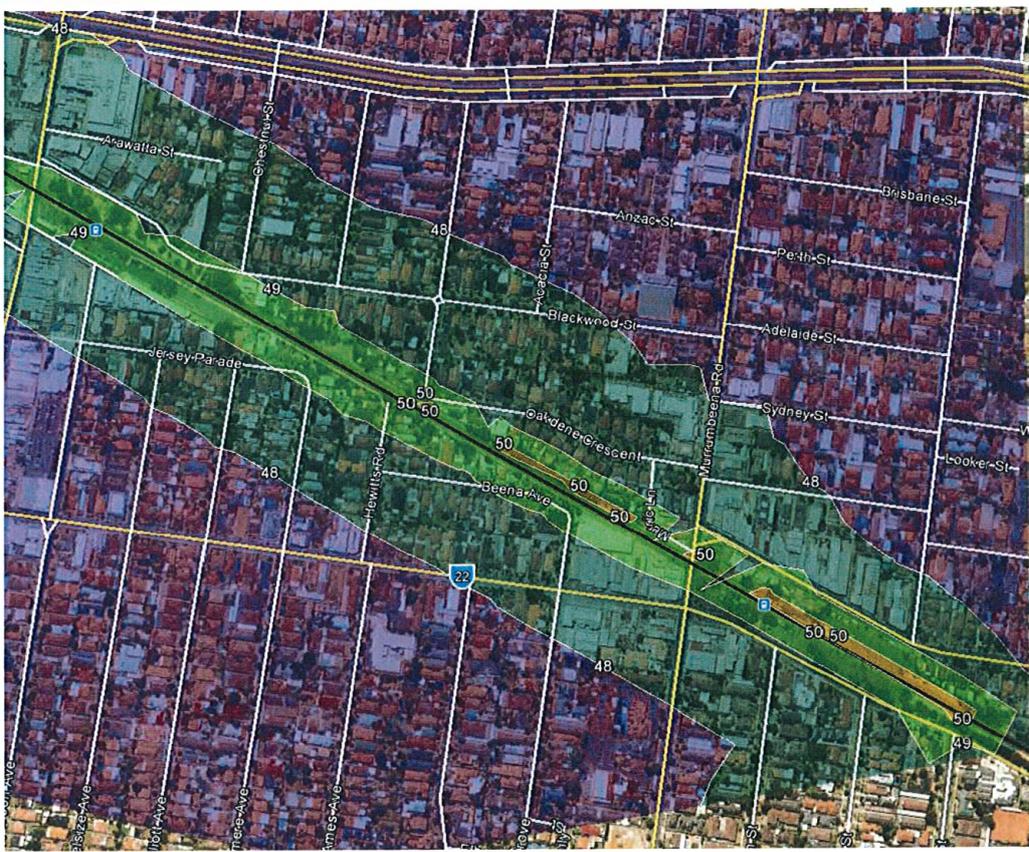
Level Crossing Removal Project Caulfield to Dandenong

EL CONTOURS

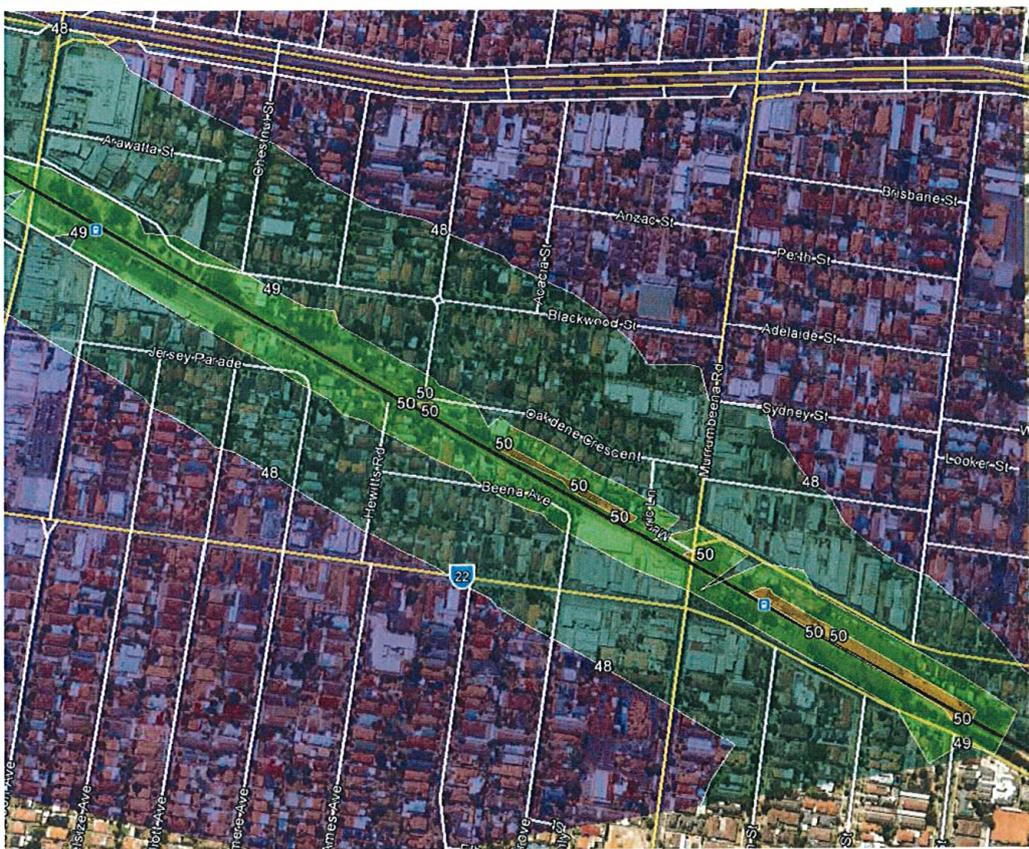


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Level Crossing Removal Project Caulfield to Dandenong

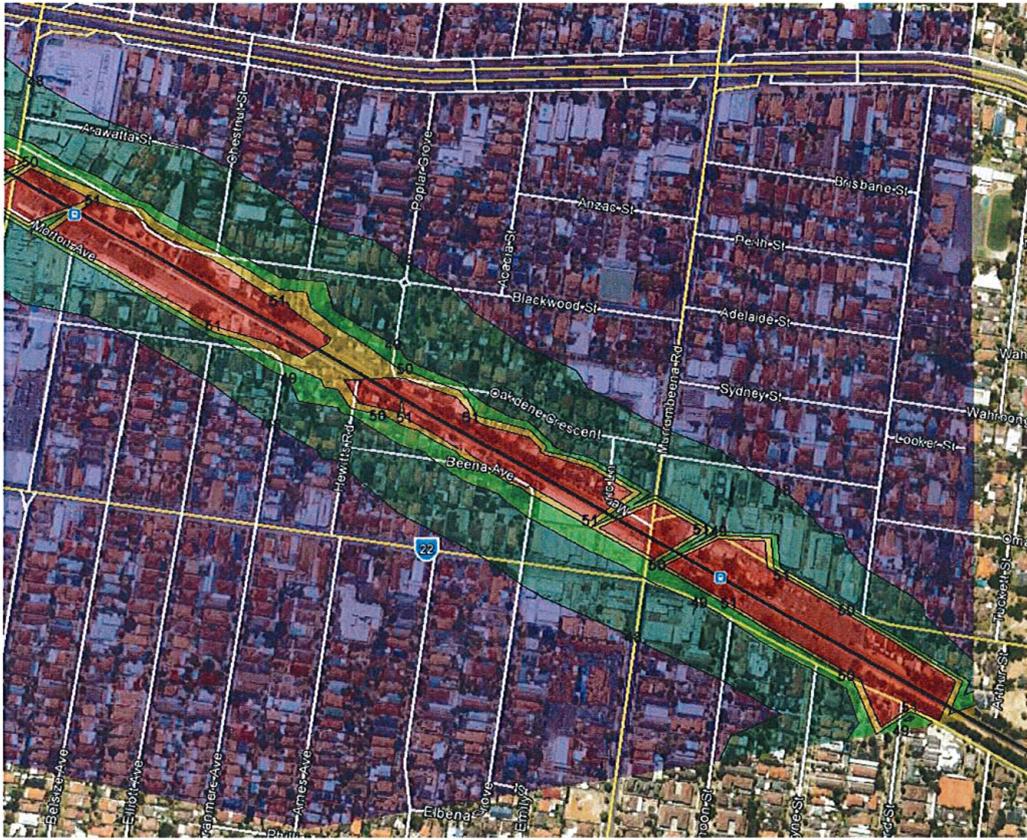


Level Crossing Removal Project Caulfield to Dandenong

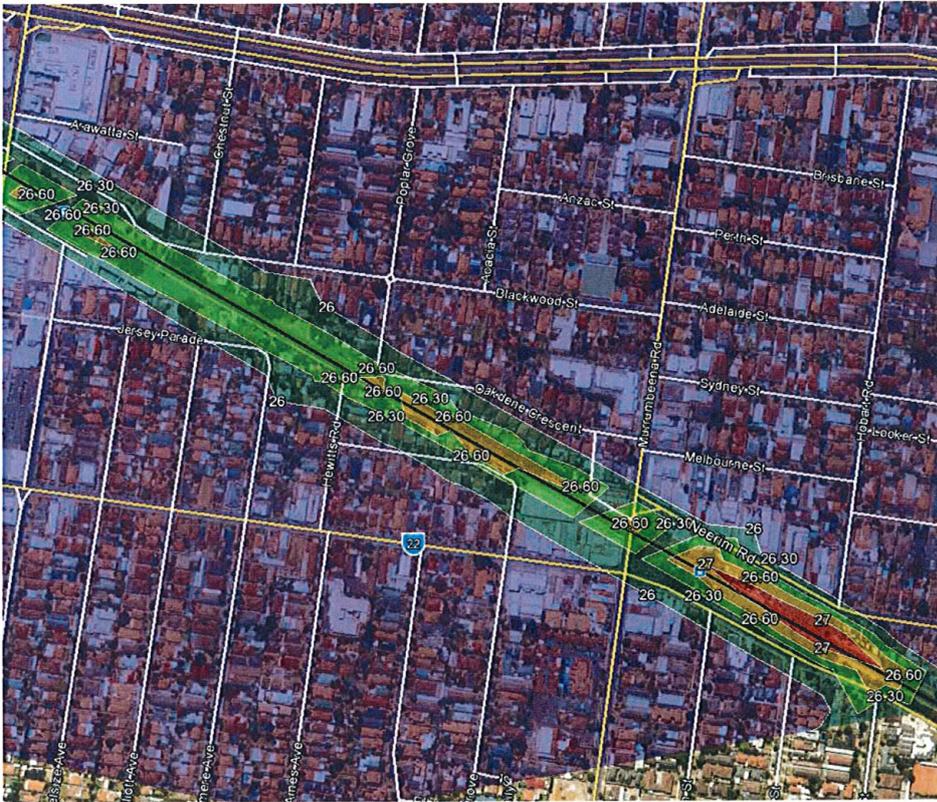


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Level Crossing Removal Project Caulfield to Dandenong



VEL CONTOURS



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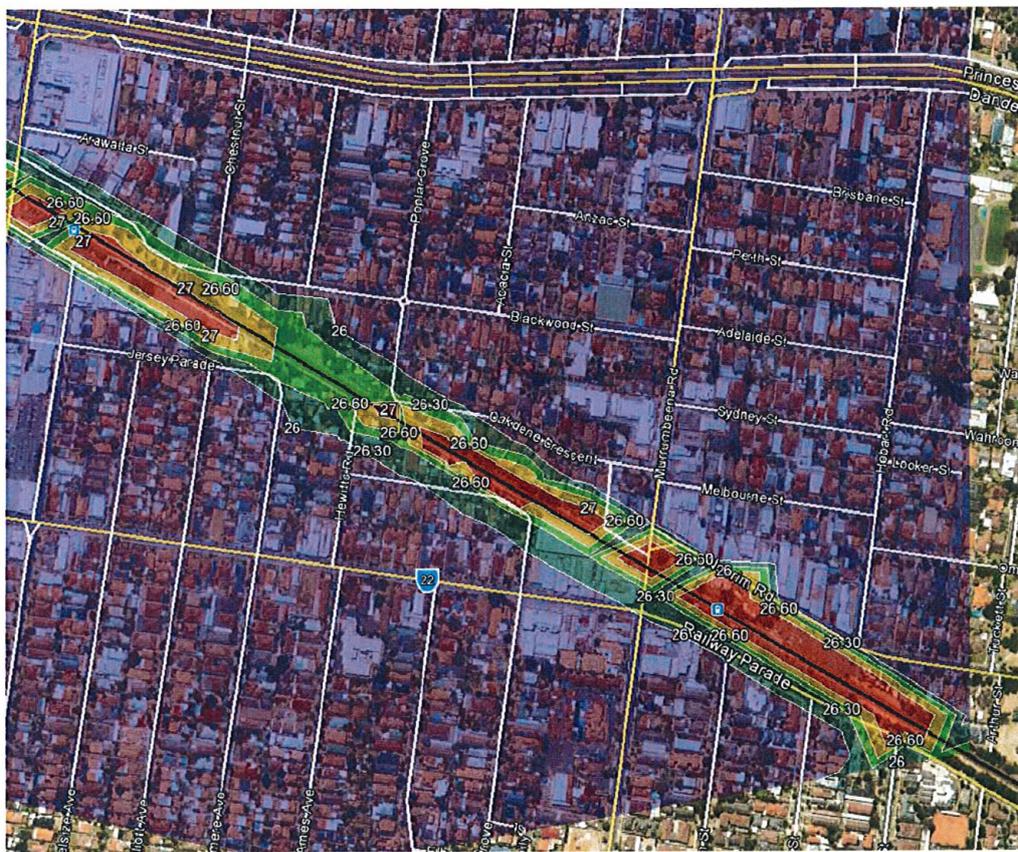
Level Crossing Removal Project Caulfield to Dandenong



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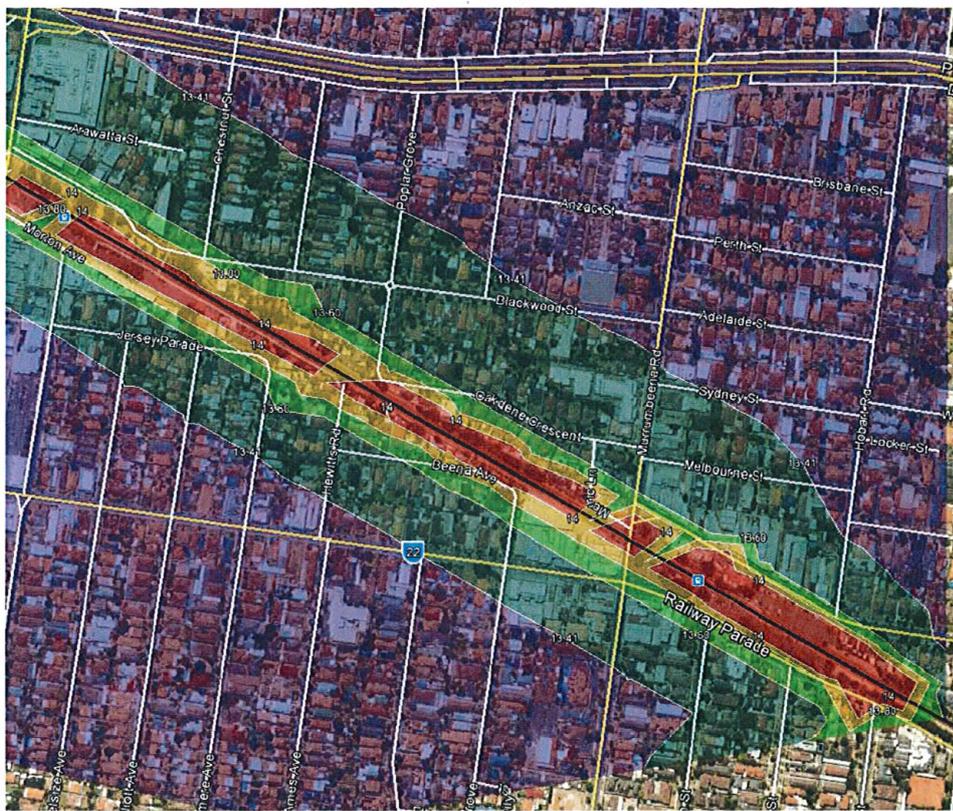
Level Crossing Removal Project Caulfield to Dandenong



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3

VEL CONTOURS



3

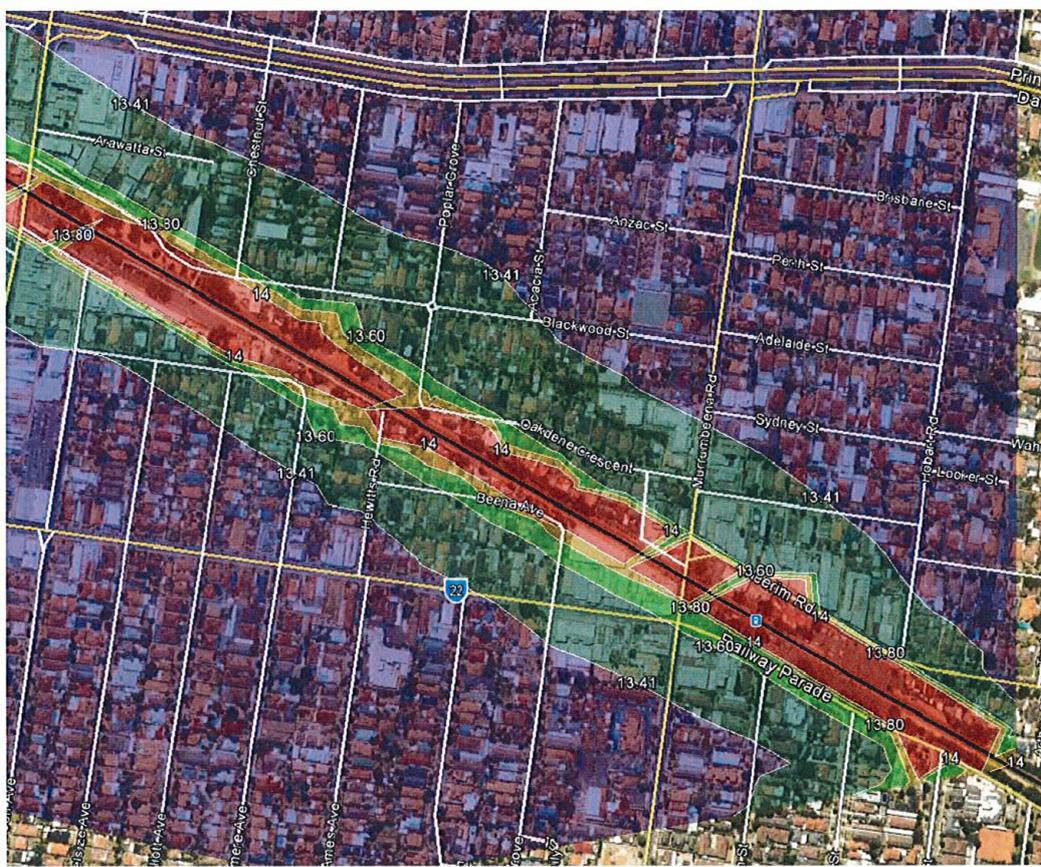
Level Crossing Removal Project Caulfield to Dandenong



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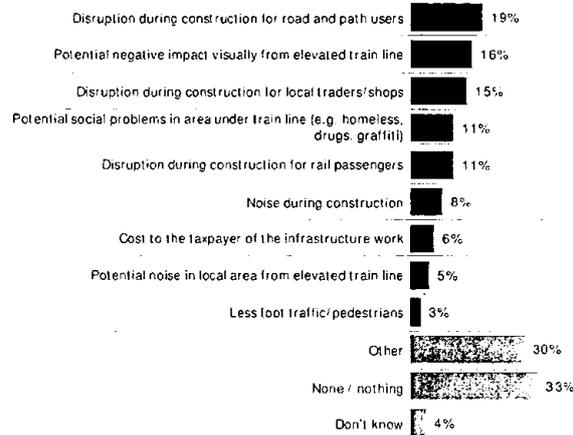
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Level Crossing Removal Project Caulfield to Dandenong



3

Perceived concerns about the removal of the level crossings - Traders



Base: Total sample (144)
 Q3: And what weaknesses do you think there are, or concerns you may have, about removing these level crossings?

Appendix 8

Correspondence from the Level Crossing Removal Authority



Ref: DOC/16/444939

Ms Lilian Topic
Secretary
Economy and Infrastructure Committee
Parliament of Victoria
EAST MELBOURNE VIC 3002

By email: eic@parliament.vic.gov.au

Dear Ms Topic

**STANDING COMMITTEE ON THE ECONOMY AND INFRASTRUCTURE
INQUIRY INTO INFRASTRUCTURE PROJECTS – 4 MAY 2016**

I refer to your letter dated 26 October 2015 (sic 2016) where you stated that the Committee does not accept legal professional privilege as the basis for withholding documents from the Committee.

Legal professional privilege was claimed in respect of point 1 in our correspondence dated 12 September 2016. Accordingly, please find attached a copy of the Level Crossing Removal Authority's (LXRA) self-assessment and supporting documentation regarding the requirement for an Environmental Effects Statement.

In relation to point 5 (cost-benefit analysis comparing elevated rail with a tunnel or cut and cover), please note that the LXRA is seeking advice in respect of a claim of executive privilege. Accordingly, the LXRA respectfully seeks an extension of time to respond in respect of the cost-benefit analysis documents.

Yours sincerely



Kevin Devlin
Chief Executive Officer

4 / 11 / 2016

Encl.

Level 14, 121 Exhibition Street, Melbourne Victoria 3000
GPO Box 4509 Melbourne VIC 3001
T: 03 9027 5222
E: levelcrossings@ecodev.vic.gov.au
W: levelcrossings.vic.gov.au





MEMORANDUM

TO: Kevin Devin *18/4/16*
Chief Executive Officer

Ref: DOC/16/139388

CC: Allen Garner
Chief Operating Officer

FROM: Cathy Philo
Manager, Planning and Approvals
Level Crossing Removal Authority

SUBJECT: Caulfield Dandenong Rail Upgrade Project, Assessment
against Environment Effects Statement Referral Criteria

DATE: 18/04/2016

PURPOSE

- To provide you with a copy of advice received from Clayton Utz regarding the assessment against the referral criteria contained in the *Ministerial Guidelines for the assessment of environment effects (Ministerial Guidelines)* under the *Environment Effects Act 1978 (EE Act)* advising that a referral to the Minister for Planning is not warranted, and to recommend that you sign attached letter to Christine Wyatt, Deputy Secretary DELWP.

RECOMMENDATION

- Note the advice from Clayton Utz.
- Sign the attached letter to Christine Wyatt.

Prepared by:



Cathy Philo
Manager
Planning and Approvals
Phone: [Redacted]
18/04/2016

Endorsed by:



Alan Martin
Director
Engineering and Program Services
Phone: [Redacted]
18/04/2016

	Recommendation 1 NOTED
Kevin Devlin Chief Executive Officer 18/04/2016	Recommendation 2 APPROVED / NOT APPROVED

A8



Ref: DOC/16/139398

Ms Christine Wyatt
Deputy Secretary
Department of Environment Land Water and Planning
1 Spring Street
MELBOURNE VIC 3000

Dear Ms Wyatt

CAULFIELD DANDENONG RAIL UPGRADE PROJECT

As you'll be aware, the Caulfield Dandenong Rail Upgrade Project is being delivered by the Level Crossing Removal Authority on behalf of the State. The project is part of the Level Crossing Removal Programme which will see the removal of 50 level crossings across metropolitan Melbourne.

The Caulfield Dandenong Rail Upgrade Project will provide for the removal of 9 level crossings in the municipalities of Glen Eira, Monash, Kingston and Greater Dandenong, together with 5 station redevelopments, track modifications, power and signalling upgrades and ancillary works and services to accommodate the increased services required on the Cranbourne and Pakenham lines.

LXRA has assessed the project against the referral criteria contained in the *Ministerial Guidelines for assessment of environmental effects under the Environment Effects Act 1978*. Based on this assessment, LXRA is of the view that the project does not warrant referral to the Minister for Planning for advice as to whether an Environment Effects Statement should be prepared for the project.

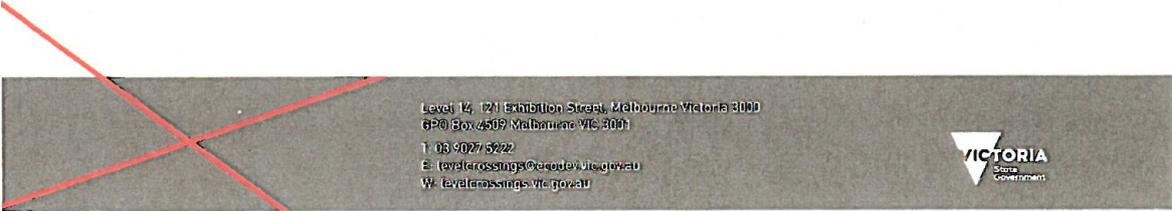
If you have any queries regarding this matter, please do not hesitate to contact Cathy Philo, Manager Planning and Approvals, on 0419 759178.

Yours sincerely



Kevin Devlin
Chief Executive Officer

18/ 04/ 2016



A8

CONFIDENTIAL AND SUBJECT TO LEGAL PROFESSIONAL PRIVILEGE

Caulfield Dandenong Rail Upgrade Project

Assessment against Environment Effects Statement Referral Criteria

1. Purpose

The purpose of this paper is to record the assessment of the Caulfield Dandenong Rail Upgrade Project (**the Project**) against the referral criteria contained in the *Ministerial Guidelines for the assessment of environment effects (Ministerial Guidelines)* under the *Environment Effects Act 1978 (EE Act)*.

A description of the Project is contained in **Attachment A**.

2. EES referral criteria

An environment effects statement (EES) is required under the EE Act, if a project is capable of having a significant effect on the environment.

Section 10(1) of the EE Act provides for the Minister for Planning to make guidelines for or with respect to any matter the Minister considers expedient to enable the EE Act to be carried out. This includes with respect to the types of projects that require an EES, and the processes and procedures to be followed by proponents.

The Ministerial Guidelines made under the EE Act specify **criteria** to determine whether a project should be referred to the Minister for Planning for a decision as to whether an EES is required.

If the referral criteria are not met, referral is not required and no EES is necessary.

The specified criteria consist of **individual criteria** and **combined criteria**, and it is only where:

- one or more of the individual criteria; or
- two or more of the combined criteria;

are met, will it be necessary to refer a project to the Minister.

Assessment of the Project against each criterion is summarised in **Attachment B**. This assessment is based on a range of information including:

- information contained in the preferred tenderer's proposal;
- various technical reports and studies, including the reports listed in **Attachment C**; and
- further confirmatory advice and information provided by the preferred tenderer (**Dandenong Nine Alliance** or **DNA**) and its advisors.

3. Results of the Assessment

The results of the assessment against the criteria are as follows:

- **none** of the individual criteria are met, or have the potential to be met;
- only **one** of the combined criteria is met - namely potential significant effects on the amenity of a substantial number of residents, due to extensive or major, long-term changes in visual conditions; and
- **no** other criterion is met, or has the potential to be met.

Accordingly, the Project is not required to be referred to the Minister for Planning for a determination as to whether or not an EES is required.

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Attachment A: Project overview

Overview of the project scope

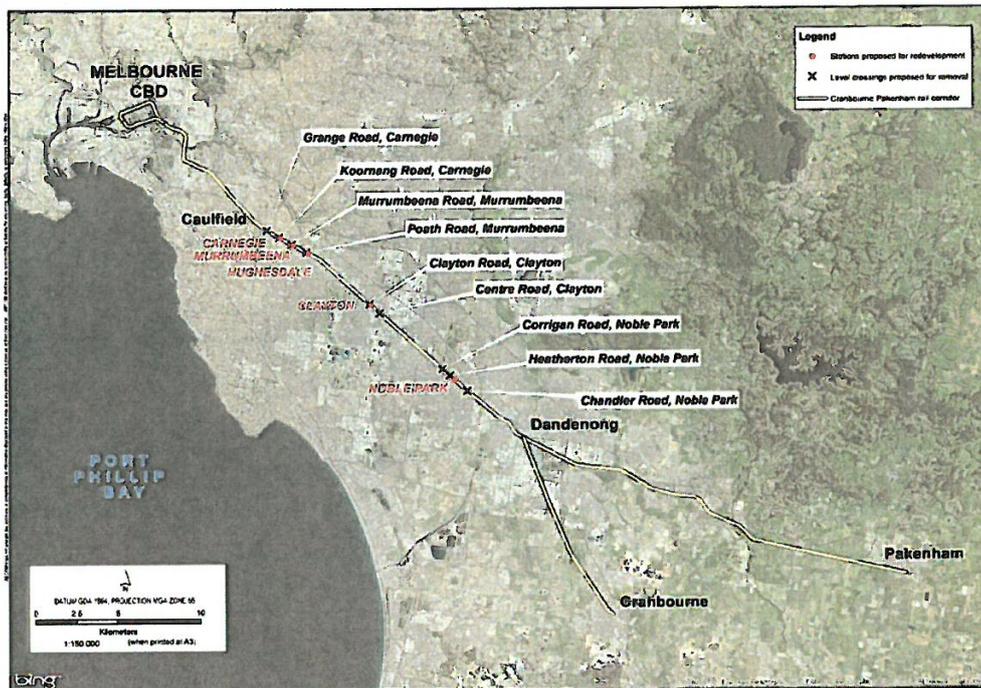
The Caulfield Dandenong Rail Upgrade Project (Project) comprises a package of works designed to meet the growing demand from additional passengers on the Cranbourne and Pakenham rail lines. The work area extends from Southern Cross Station to Cranbourne and Pakenham, as shown in Figure 1.

The major activities to be undertaken by the Project are:

- Removal of nine level crossings (at locations shown in Figure 1)
- Redevelopment of 5 railway stations (at locations shown in Figure 1)
- Power upgrades
- Rail corridor modifications
- Combined services route, cabling and signalling upgrades
- Ancillary Activities

Information regarding the scope of these activities is provided below.

Figure 1: Project location



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Removal of nine level crossings and station redevelopments

The nine existing level crossings between Caulfield and Dandenong will be removed and grade separated by constructing a rail over road solution in the form of four elevated viaducts in three areas as follows:

- Area 1 – from the rail intersection of the Frankston and Dandenong lines to the east of Hughesdale station, removing level crossings at:
 - Grange Road, Carnegie
 - Koornang Road, Carnegie
 - Murrumbeena Road, Murrumbeena
 - Poath Road, Hughesdale
- Area 2 – in Clayton, a single length of elevated track removing level crossings at:
 - Clayton Road, Clayton
 - Centre Road, Clayton
- Area 3 – in Noble Park, two lengths of elevated structure separating:
 - Corrigan Road and Heatherston Road
 - Chandler Road.

The construction of an elevated rail structure across these roads requires the reconstruction of the following five railway stations:

- Carnegie;
- Murrumbeena;
- Hughesdale;
- Clayton; and
- Noble Park.

The existing platforms at each of these locations will be decommissioned and demolished, and new station buildings developed.

Power upgrades

Power supply upgrades are required to support increased capacity and efficiency on the full length of the Cranbourne Pakenham rail corridor. The upgrade in power supply will include:

- Modernisation, upgrades and replacement (where necessary) of the overhead electrical systems
- Construction and installation of new prefabricated substations, and upgrades to a number of existing substations
- Decommissioning and demolition of a number of existing tie stations, and conversion of a number of existing tie stations to a substation

Each substation will be connected to the network power supply grid.

Rail corridor modifications

A series of modifications are proposed within the existing rail corridor to improve functionality of the Cranbourne Pakenham rail corridor.

• **Corridor wide track works**

Track works will occur at localised points along the corridor. This will include track rationalisation at Caulfield, Richmond, Flinders Street, Southern Cross, Oakleigh and Dandenong junction and a section of duplication of the northern section of the Cranbourne rail corridor between the Dandenong junction and Greens Road. Corridor wide track works also include:

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- Track rearrangements and realignments
- Removal of redundant infrastructure
- Installation of new tracks and installation or modifications of crossovers, points and turnouts
- Signalling modifications
- Other ancillary track works

- **Platform and Siding works**

Modifications are required to ensure station platforms and sidings can accommodate the new longer trains. Most of the modifications are relatively minor, with the most extensive works being lengthening of platforms by approximately 15 m and relocation of overhead wiring structures.

Works include:

- Extension and/or widening of platforms
- Altering, upgrading and/or extending sidings
- Relocation of overhead structures and signalling infrastructure
- Demolition of existing infrastructure
- Other ancillary platform and siding modifications, such as relocating video screens, mirrors, lighting and CCTV

- **Combined Services Route**

A new Combined Services Route (CSR) will be installed to provide a consolidated location for the provision of communications, signalling and power services to support the upgraded rail corridor. The CSR will be installed using several methodologies including:

- Direct buried trench
- Boring or drilling beneath a road, track, service, drainage line or other restriction
- Troughing (where the CSR is contained in a trough which is partially or fully buried, or located on the ground)
- Above ground in galvanised steel trunks, elevated or attached to existing structures (e.g. platforms)

The CSR will be installed the length of the rail corridor and the selection of installation methodologies will have consideration for the location of heritage values, as well as locational and engineering constraints.

Signalling upgrades

Upgrades to existing conventional signalling and installation of High Capacity Signalling are proposed, which includes modifications to existing and installation of new signalling infrastructure including gantries, masts, post, signal lights, equipment boxes, cabling and signal equipment rooms.

Ancillary Activities

Other ancillary activities include, but are not limited to, adjustment, reinstatement and improvements to utility services and associated infrastructure, roadways and paths, construction of a Shared User Path and recreational facilities and all temporary and staging works required to complete the Project.

Ancillary activities also include the activation of the newly open space areas, created as a consequence of the elevated rail track. It also includes the new access roads created by the Project, including beneath the elevated structures.

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Attachment B: Assessment of potential effects against EES referral criteria

Criteria	Relevant documents	Response	Conclusion
<p>Individual criteria</p>	<p>1. Potential clearing of 10 ha or more of native vegetation from an area that:</p> <ul style="list-style-type: none"> is of an Ecological Vegetation Class identified as endangered by the Department of Sustainability and Environment (in accordance with Appendix 2 of Victoria's Native Vegetation Management Framework); or is, or is likely to be, of very high conservation significance (as defined in accordance with Appendix 3 of Victoria's Native Vegetation Management Framework); and is not authorised under an approved Forest Management Plan or Fire Protection Plan 	<p>The Rail Transformation Consortium (RTC 2015) undertook an ecological survey within the project area relevant to the former Cranbourne Pakenham Rail Corridor Project, between the central business district and Cranbourne and Pakenham Railway Stations. This survey identified a total of 23,039 hectares of remnant native vegetation, none of which is located between the central business district and Caulfield. The total area of land within the project area is approximately 426 hectares.</p> <p>KBR (2015) subsequently identified that 2.67 hectares of this vegetation is located within that part of the project area relevant to the Project that lies between Caulfield and Dandenong. The majority of this is Plains Grassy Woodland (EVC 55) which is listed as Endangered.</p> <p>The remaining 20,369 hectares is located between Dandenong and Cranbourne Pakenham, where the Project works will be limited to infrastructure upgrades and improvements including signalling upgrades, electrical works and services relocation.</p> <p>LXRA has assessed the total amount of vegetation that will be removed by the Project - regardless of status or conservation significance - at significantly less than 10 hectares, particularly once planted native vegetation is excluded from the assessment.</p> <p>LXRA's assessment has been confirmed by DNA who has estimated the total amount of vegetation (of any vegetation class or conservation significance) likely to be removed, at approximately 8.29 hectares. This amount is further reduced to approximately 6.53 hectares once planted native vegetation is excluded from the assessment. Of this area, 6.44 hectares are identified as endangered.</p> <p>Details of all native vegetation to be removed will be prepared in accordance with the Permitted clearing of native vegetation - Biodiversity assessment guidelines (Department of Environment and Primary Industries, September 2013) to the satisfaction of the Secretary of DELWP, and native vegetation offsets will be provided in accordance with those guidelines.</p>	<p>Criterion not met.</p>

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Criteria	Relevant documents	Response	Conclusion
2. Potential long-term loss of a significant proportion (e.g. 1 to 5 percent depending on the conservation status of the species) of known remaining habitat or population of a threatened species within Victoria	<p>RTC (2015) KBR (2015) AECOM (2014) DNA (2015)</p>	<p>Based on the type, nature and extent of native vegetation in the area of potential impact and LXRA's assessment of DNA's proposal together with DNA's most recent advice, this criterion is not met.</p> <p>Project requirements imposed under the contractual arrangements to be entered into with DNA will also ensure that there is no potential for this criterion to be met during the life of the Project.</p> <p><u>Listed flora</u></p> <p>The RTC (2015) identified two threatened flora species within the rail corridor:</p> <ul style="list-style-type: none"> • Matted Flax-lily <i>Dianella amoena</i>; Listed as endangered under the <i>Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)</i>, listed under the <i>Flora and Fauna Guarantee Act 1995 (Vic) (FFG Act)</i> • Grey billy-buttons <i>Craspedia caneris</i>; listed under the FFG Act <p>The habitat within which these species were observed has been identified as a 'no-go' zone for the Project, and will not therefore be impacted by the Project. These no-go zones will be implemented through the relevant Worksite Environmental Management Plans (WEMPs) to ensure that these species will not be affected by the Project. To the extent that any listed flora species is identified in areas outside the defined 'no-go' zones, impacts to individual species will be avoided where possible. Where avoidance is not possible, impacts will be managed in accordance with the requirements of applicable legislation including obtaining necessary permits under the FFG Act where required.</p> <p><u>Listed fauna</u></p> <p>Ecological surveys undertaken by RTC (2015), KBR (2015) and AECOM (2014) did not observe listed fauna species within the rail corridor. If native fauna is observed prior to works, suitably qualified and licenced specialists will be engaged to relocate the fauna out of the works site prior to works commencing in accordance with the requirements of applicable legislation including the requirements of the Wildlife Act 1975.</p> <p><u>Fauna habitat</u></p> <p>AECOM (2014) and RTC (2015) identified potential for the following listed species to utilise suitable habitats within the project area:</p>	<p>Criterion not met.</p>

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Criteria	Relevant documents	Response	Conclusion
		<ul style="list-style-type: none"> • Dwarf galaxias <i>Galaxiella pusilla</i>; vulnerable under the EPBC Act, listed under the FFG Act • Australian Grayling <i>Prototroctes maraena</i>; vulnerable under the EPBC Act, listed under the FFG Act • Growing Grass Frog <i>Litoria raniformis</i>; vulnerable under the EPBC Act, listed under the FFG Act <p>This habitat is associated with waterways in the outer areas, such as Hallam Main Drain, Eumenmerring Creek, Cardinia Creek, Gum Scrub Creek and Toomuc Creek. This habitat will be avoided through the implementation of 'no-go zones' and use of sensitive construction measures such as boring underneath or utilising the existing bridge/culvert structures. Measures to protect water quality are required to be implemented as part of the Project: (see response to item 4 below).</p>	
3. Potential long-term change to the ecological character of a wetland listed under the Ramsar Convention or in 'A Directory of Important Wetlands in Australia'	DNA (2015)	<p>The Project area does not intersect a Ramsar wetland, though it is connected hydrologically with the Edithvale-Seaford Wetlands and Westernport Ramsar sites through watercourses that cross the rail corridor.</p> <p>The ecological character of these wetlands will not be impacted by the Project, due to measures to be implemented for the protection of surface water quality as discussed in response to the following criteria.</p>	Criterion not met.
4. Potential extensive or major effects on the health or biodiversity of aquatic, estuarine or marine ecosystems, over the long term	DNA (2015)	<p>The health or biodiversity of water-bodies will not be impacted by the Project.</p> <p>The Construction Environmental Management Plan prepared by DNA for the Project outlines a process by which a Surface Water Management Procedure will minimise, to the fullest extent practicable, the potential impacts on surface water. The procedure will outline measures to ensure compliance with relevant legislation (i.e. the <i>Environment Protection Act 1970</i> (Vic) and its subsidiary State Environment Protection Policies). Site specific WIEMPs will be prepared for waterways to provide visual detail of specific sensitivities and measures to be implemented at each site.</p> <p>Works over waterways are subject to permit requirements under the <i>Water Act 1989</i> (Vic) and will require DNA to consult with Melbourne Water as the relevant floodplain manager.</p> <p>Following construction, water sensitive urban design measures are included as necessary where elevated structures are proposed to manage stormwater quality and provide water for the linear park. In outer areas where more water courses are present, the quality of any stormwater runoff entering waterways from the rail corridor is not likely to differ from the existing</p>	Criterion not met.

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Criteria	Relevant documents	Response	Conclusion
5. Potential extensive or major effects on the health, safety or well-being of a human community, due to emissions to air or water or chemical hazards or displacement of residences	DNA (2015)	<p>conditions.</p> <p>The Construction Environmental Management Plan and the water sensitive design measures submitted by DNA as part of its proposal will ensure that the health or biodiversity of water-bodies will not be impacted by the Project.</p> <p>The Project does not require the compulsory acquisition or displacement of any residences. The Voluntary Purchase Scheme is purely voluntary, and no residences are required for the Project either on a permanent or temporary basis. Any properties purchased by the Government under the Voluntary Purchase Scheme will continue to be used as residences.</p> <p>During construction, implementation of management measures in accordance with the Environment Protection Authority Victoria (EPA) Publication 480 <i>Environmental Guidelines for Major Construction Sites</i> will be required by the Project Wide Air Quality Environmental Management Procedure and Waste Environmental Management Procedure to minimise any potential impacts from chemical hazards and emissions to air (such as dust and vehicle exhaust during construction). Air quality management measures may include dust suppression using water, installation of wind fences, covering exposed soil and stockpiling. Implementation of these measures will be supported by dust monitoring at key locations near sensitive receivers to inform reviews of the effectiveness of proposed measures. The application of these measures and the procedures for their implementation may vary by site, and will be managed through Worksite Environmental Management Plans (WEMPs) where appropriate. WEMPs form part of the overall environmental management framework for construction of the Project, which includes an Environmental Management Strategy (EMS), Construction EMP, Project Wide EMP procedures and WEMPs.</p> <p>During construction there are likely to be temporary discharges to water, particularly during and after rain events. Discharges will be managed in accordance with the WEMPs to minimise, to the fullest extent practicable, the potential impacts on surface water. Measures will ensure compliance with relevant legislation (i.e. the Environment Protection Act 1970 (Vic) and State Environment Protection Policies). Site specific WEMPs will be prepared for waterways to provide detail of specific sensitivities and measures and procedures to be implemented at each site. These may include sediment control measures and appropriate bunding of any chemical storages.</p> <p>WEMPs will be prepared prior to the commencement of works at a given site</p>	<p>Criterion not met.</p>

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Criteria	Relevant documents	Response	Conclusion
6. Potential greenhouse gas emissions exceeding 200,000 tonnes of carbon dioxide equivalent per annum, directly attributable to the operation of the facility	DNA (2015)	<p>or location in accordance with the environmental framework for the Project and the approved EMS.</p> <p>During operation, emissions to air and water and chemical hazards will be managed in accordance with existing rail operating practices.</p> <p>The Project is inert infrastructure that does not generate greenhouse gas emissions. While operation of the Project will require electricity, this operation is likely to result in a net decrease of emissions relative to existing conditions due to more efficient trains, increased passenger capacity, elevated stations allowing trains to decelerate up-slope, and reduced road congestion.</p>	Criterion not met.
Combination criteria			
7. Potential clearing of 10 ha or more of native vegetation, unless authorised under an approved Forest Management Plan or Fire Protection Plan	RTC (2015) KBR (2015) DNA (2015)	The Project will not require clearance of 10 hectares or more of native vegetation, as discussed in response to individual criteria No. 1.	Criterion not met.
8. Matters listed under the <i>Flora and Fauna Guarantee Act 1988</i> : i) potential loss of a significant area of a listed ecological community; or ii) potential loss of a genetically important population of an endangered or threatened species (listed or nominated for listing), including as a result of loss or fragmentation of habitats; or iii) potential loss of critical habitat; or iv) potential significant effects on habitat values of a wetland supporting migratory bird species	AECOM (2014) RTC (2015) KBR (2015)	<p>The three ecological surveys undertaken during 2014 and 2015 by AECOM, RTC and KBR collectively found that:</p> <p>i) no listed ecological communities are likely to occur within the project area between the city and the Dandenong station (KBR 2015 and RTC 2015);</p> <p>ii) in the outer areas between Dandenong and the Pakenham and Cranbourne stations, RTC 2015 observed the presence of 1.25 ha of FFG listed community: herb-rich plains grassy wetland (West Gippsland). It is a requirement of the Project, that the Project not result in significant impacts or loss of habitats, species or communities protected under the FFG Act, and this will be reflected in the approved EMS for the Project. This requirement will be implemented by the establishment of identified 'no-go' zones in the WEMPs. threatened species which:</p> <p>iii) a) have been observed within the project area, b) have been otherwise known to occur within the project area, or c) are considered to have potential to occur within the project area.</p>	Criterion not met.

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Criteria	Relevant documents	Response	Conclusion
9. Potential extensive or major effects on landscape values of regional importance, especially where recognised by a planning scheme overlay or within or adjoining land reserved under the <i>National Parks Act 1975</i>		<p>will be avoided during construction by using sensitive construction measures such as installation and maintenance of 'no-go zones', boring and utilisation of existing structures to avoid potential impacts.</p> <p>RTC (2015) observed three species (all birds) which are nominated for listing under the FFG Act, either within or flying over the corridor. Despite these sightings, AECOM (2015) considered that the corridor is unlikely to contain suitable habitat for these species.</p> <p>iv) no critical habitat is located within the project area;</p> <p>v) the project area does not contain a wetland supporting migratory bird species.</p> <p>Accordingly, the Project will not result in significant impacts or loss of habitats, species or communities protected under the <i>Flora and Fauna Guarantee Act 1988</i>.</p>	Criterion not met.
10. Potential extensive or major effects on land stability, acid sulphate soils or highly erodible soils over the short or long term	DNA (2015) Golder (2015a) Golder (2015b)	<p>The design proposed by DNA does not require excavations that could have extensive or major effects on land stability or highly erodible soils.</p> <p>The presence of acid sulphate soils has not been verified during the site assessments undertaken to date by Golder (2015a and 2015b), however Golder (2015b) identified some materials which have a low to medium likelihood of being Coastal Acid Sulphate Soils. Further assessments will be completed prior to the commencement of works in a specific area to quantify soil conditions. If acid sulphate soils are encountered, they will be managed in accordance with a specific Acid Sulphate Soils Management Procedure, which will reflect the relevant EPA guidelines and requirements.</p> <p>Accordingly, compliance with legislative and policy requirements will ensure that the Project will not have potential extensive or major effects on land stability, highly erodible soils or acid sulphate soils.</p>	Criterion not met.

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Criteria	Relevant documents	Response	Conclusion
11. Potential extensive or major effects on beneficial uses of waterbodies over the long term due to changes in water quality, streamflows or regional groundwater levels	DNA (2015)	<p>The Project will not impact on water quality within streams and watercourses across the corridor as the Project does not require works within the waterways.</p> <p>Works over waterways are required and these will predominately occur on the existing bridge or culvert structures, in accordance with relevant permit requirements to be obtained from Melbourne Water. New bridge structures are required at Mile Creek and the span is proposed to be prefabricated and will be lifted into place to minimise both the work required at site and the risks to the environment.</p> <p>Works over waterways will be managed in accordance with the EMS, Construction Environmental Management Plan, Surface Water Management Procedure and site specific WEMPs, which will include best practice management measures to prevent contamination or sedimentation of waterways. Protecting water quality will ensure that there are no effects to beneficial users of that water.</p> <p>Potential impacts to groundwater and groundwater levels have been avoided through design. No interaction with the groundwater is likely to occur with the 'rail over road' design solution, except perhaps where piling is required. Piling activity will not impact on the beneficial users of the regional groundwater or groundwater levels, as groundwater is not required to be extracted as part of the piling process and groundwater quality is not expected to be affected. Should any unforeseen circumstances result in localised interaction with groundwater, including the need for collection, appropriate measures will be in place to collect and manage onsite, or dispose offsite where needed.</p> <p>Accordingly, the measures to be implemented for the protection of surface water, and a proposed design that has minimal interaction with groundwater, will ensure that extensive or major effects on beneficial uses of applicable waterbodies will not occur.</p>	Criterion not met.
12. Potential extensive or major effects on social or economic well-being due to direct or indirect displacement of non-residential land use activities	DNA (2015)	<p>The DNA proposal does not require the compulsory acquisition or permanent displacement of any property outside the rail corridor, except for a narrow section of existing road reserve in Lorne Street and Girdwood Avenue, Carnegie having an area of approx. 1,470m².</p> <p>Construction activity will require the temporary use of some non-residential land uses, however this is largely limited to vacant land owned by VicTrack to be used as temporary offset car parking, two car parking areas associated</p>	Criterion not met.

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Criteria	Relevant documents	Response	Conclusion
13. Potential for extensive displacement of residences or severance of residential access to community resources due to	DNA (2015)	<p>with the Sandown Racecourse and Sandown Greyhound Racing Club and vacant sites or easements adjacent to the corridor, verges and nature strips associated with a number of local streets adjoining the corridor, and areas within the following three recreation reserves:</p> <ul style="list-style-type: none"> • Boyd Park in Murrumbena - an area of approx. 2,200m² within the VicTrack rail reserve currently used as an overflow gravel car park and recreational reserve. • Galbaly Reserve in Hughesdale - an area of approx. 5,340m² within this recreational reserve having direct access to the rail corridor. It includes a section of the Rosstown Rail Trail which will be temporarily diverted. It also includes a playground area (not proposed to be impacted). • Ross Reserve in Noble Park - an area of approx. 7,395m² within a recreational reserve with two sporting ovals directly adjoining the rail corridor to the south. Impacts to this area will include the removal of some vegetation to allow clear access to the rail corridor and temporary partial occupation of the western oval. <p>Temporary occupation of these areas will not give rise to extensive or major effects on social well-being as only part of the reserves are required, the areas concerned are only required for the period of construction and the sites will be restored to their existing or better condition following completion of construction and prior to their return to current use. Any displacement arising from the use of these areas will not give rise to major social effects.</p> <p>Use of the two car parking areas associated with the Sandown Racecourse and Sandown Greyhound Racing Club is subject to entering into commercial arrangements with the owners of those sites.</p> <p>Following construction of the Project, all areas temporarily occupied will be restored to their existing or better condition and returned to their current use. Accordingly, the Project will not give rise to potential extensive or major effects on social or economic well-being due to direct or indirect displacement of non-residential land use activities.</p>	Criterion not met.

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Criteria	Relevant documents	Response	Conclusion
<p>14. Potential significant effects on the amenity of a substantial number of residents, due to extensive or major, long-term changes in visual, noise and traffic conditions</p>	<p>DNA (2015) WSP (2015)</p>	<p>basis. Any properties purchased by the Government under the Voluntary Purchase Scheme will continue to be used as residences.</p> <p>Access to community resources will be temporarily disrupted, but not severed, in localised areas during the approximate two year construction phase. This is due to traffic management that requires lane closures and short-term road closures.</p> <p>Night-time closures of the nine roads will be required at each of the nine level crossing sites to install the rail bridge structure over the road, with road works to remove existing level crossing infrastructure to occur under lane closures. Works on the bridge will continue over re-opened roads. Disruption and/or closure of local streets around construction activities will occur, however alternate routes are readily available.</p> <p>Following construction, the removal of the nine level crossings and creation of four new link roads across the corridor will reduce congestion and significantly improve movement through the local areas, improving connectivity between residential areas and community resources.</p> <p>Accordingly, no residences will be compulsorily acquired or displaced. While access to community resources may be disrupted during construction, the completed project will significantly improve reliability and efficiency of access to community resources.</p> <p>The response to this criterion considers the three amenity components separately for the construction and operation phases. The construction period is approximately two years, and construction activity will be phased along the corridor where possible, minimising impacts to the surrounding communities.</p> <p><u>Visual</u> (sub-criterion met)</p> <p>The proposed elevated rail structures will result in a visual impact to the local area, particularly for the approximately 135 residential properties directly adjacent to the rail corridor for whom the elevated structure will be most evident. The indicative heights of key points of the structure include the following (note: heights vary along the corridor):</p> <ul style="list-style-type: none"> • Bottom of deck: 6.5 to 9.5m • Top of deck: 9.5m to 12.5m • Top of overhead gantries (approx. 40m spacing): 17m to 20m 	<p>Sub-criterion is met due to the changed visual conditions generated by the elevated structure for some residents along the corridor.</p>

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Criteria	Response	Conclusion
	<p>While the height of the top of the deck is similar to a two to three storey building, it remains a material change to the existing environment for those residents along the corridor.</p> <p>Some of these residents, particularly on the south side, will also be affected by shadowing cast by the elevated structure. While overshadowing of private property in these areas is unavoidable, it has been minimised in the design, through:</p> <ul style="list-style-type: none"> • optimising the height of the structure to minimise overshadowing while maximising the amenity for users of the linear park • installing tracks on separate structures to create a gap in the shadow • the use of opaque screens instead of solid barriers on the rail bridge which serves three purposes: <ol style="list-style-type: none"> 1) architectural screening to improve the appearance of the structure 2) acoustic barriers (where necessary) to reduce noise emissions, and 3) preventing train passenger views into private yards. <p>The elevated design of the Project will allow up to 60% of the existing vegetation within the corridor to be retained within the rail reserve, which is proposed to be converted into a 22.5 hectare linear park, supplemented with over 300,000 new trees, plants and shrubs. This will activate the land and significantly improve views into the rail corridor.</p> <p>A further consideration regarding the potential visual impact of the proposal is light spill into neighbouring properties, particularly the railway stations to be redeveloped. The external lighting on structures shall be designed to minimise light spill to adjacent residential buildings by selection of suitable types of light fittings, installation orientations and provision of shields where necessary. This will ensure any light spilling outside of the project boundary will be in accordance with AS4282 (Control of the Obtrusive Effects of Outdoor Lighting).</p> <p>The manner in which public open spaces are to be activated is subject to ongoing consultation between DNA, LXRA, the Office of the Victorian Government Architect and local councils. Community input in this regard will also be sought during the consultation phase including through the proposed Community Open Space Expert Panel.</p> <p><u>Noise</u> (sub-criterion not met)</p> <p>During construction, noise will be managed in accordance with the Construction Environmental Management Plan which will contain widely</p>	

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Cranbourne Pakenham Line Upgrade Project: Assessment against EES referral criteria

Criteria	Relevant documents	Response	Conclusion
		<p>adopted and practiced mitigation and management measures such as those outlined in EPA Publication 1254 <i>Noise Control Guideline</i>. On-going community consultation will ensure that affected residences are notified of works, particularly noisy or out-of-hours works, in advance of its commencement. Residents affected by consecutive nights of noisy works will be offered a relocation package for the duration of the works.</p> <p>Operational noise is governed by the Victorian Government's <i>Passenger Rail Infrastructure Noise Policy</i>. WSP (2015) undertook a preliminary noise assessment of the proposed design (as at the submission of tenders) to ensure compliance with this policy. A detailed assessment will be undertaken during detailed design work following the completion of the community consultation period.</p> <p>The proposed design incorporates appropriate noise mitigation where necessary to ensure that noise emissions from forecast passenger rail services do not exceed the investigation thresholds defined by the policy. The WSP (2015) modelling addresses a corridor 600m wide, centred on the rail corridor, and the results of the preliminary modelling indicate that up to 60% of households within this project area may experience a reduction in noise. Less than 1% of the corridor is predicted to experience a perceptible increase in noise levels (i.e. greater than 3db(A)).</p> <p>With the preliminary modelling indicating that 99% of the corridor is not expected to experience an increase in perceptible noise levels, the project is considered unlikely to have a significant effect on acoustic amenity.</p> <p><u>Traffic</u> (sub-criterion not met)</p> <p>During construction, traffic disruption will occur as a result of temporary road closures and movement of construction vehicles to and from particular worksites. All traffic will be managed through a series of Worksite Traffic Management Plans to ensure the safe and efficient use of roads for construction vehicles, minimising impacts to residents in relevant areas. To the extent that permission is required for works on a road under the Road Management Act 2004, these plans will form an integral part of the consent completion of works, traffic conditions are expected to improve significantly with the removal of nine level crossings and creation of four new link roads across the rail corridor. The removal of level crossings in particular will substantially reduce congestion and the associated noise and air quality</p>	

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CONFIDENTIAL AND SUBJECT TO LEGAL PROFESSIONAL PRIVILEGE

Cranbourne Pakenham Line Upgrade Project: Assessment against EES referral criteria

Criteria	Relevant documents	Response	Conclusion
15. Potential exposure of a human community to severe or chronic health or safety hazards over the short or long term, due to emissions to air or water or noise or chemical hazards or associated transport	DNA (2015)	<p>issues within local centres and residential areas.</p> <p>Construction activity will occur in accordance with an environmental framework consisting of an approved EMS, Construction Environmental Management Plan, Project Wide Environmental Management Plan Procedures and WEMPs which will identify potential hazards and risks associated with an activity and environmental controls to mitigate against the risk at the particular site or location.</p> <p>Specific mitigation and management measures to minimise noise, water and air quality impacts are discussed in response to other criteria, which when enacted will also ensure that human communities are not exposed to health hazards or chemicals, during construction. Such measures are widely practiced within the construction industry, and are documented in EPA Publication 480 Environmental Guidelines for Major Construction Sites.</p> <p>In addition, a model was used to assess dispersion of contaminants from diesel emissions (NO2 PM2.5 and PM10) from the elevated rail between Carnegie and Murrumbeena station (considered representative of effects of each elevated structure). This indicated that the National Environment Protection Method (NEPM) air quality criteria will not be exceeded and that the height of the viaducts would facilitate dispersion.</p> <p>Beyond the rail corridor the contribution of rail to air contamination is marginal as background pollutant concentrations dominate the overall ground level concentrations for the pollutants emitted from the rail corridor. It is expected there will be no difference to the existing level of fumes as a result of the project.</p> <p>Dust emissions from rail, wheel and brake wear emissions are unlikely to be significantly different to the present. The derailment barriers and screens along the viaducts would act to contain migration of dust.</p> <p>The Construction Management Plan prepared as part of DNA's proposal sets out measures to ensure public safety is maintained through appropriate separation from works.</p> <p>Accordingly, the Project will not expose a human community to severe or chronic health or safety hazards over the short or long term, due to emissions to air or water or noise or chemical hazards or associated transport.</p>	<p>Criterion not met</p>
16. Potential extensive or major effects on Aboriginal cultural heritage	ALA (2014)	<p>The Aboriginal Heritage Act 2006 (Vic) requires the preparation and approval of a Cultural Heritage Management Plan (CHMP) where works are proposed</p>	<p>Criterion not met.</p>

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Cranbourne Pakenham Line Upgrade Project: Assessment against EES referral criteria

Criteria	Relevant documents	Response	Conclusion
17. Potential extensive or major effects on cultural heritage places listed on the Heritage Register or the Archaeological Inventory under the <i>Heritage Act 1995</i> (Vic)	ALA (2015) DNA (2015) KBR (2015b) DNA (2015) DTPLI (2014)	<p>to occur in areas of potential archaeological sensitivity, specifically to manage impacts and avoid extensive or major effects on Aboriginal cultural heritage values.</p> <p>Two such CHMPs have been prepared and approved for the project area by Andrew Long and Associates (ALA 2014, 2015) who undertook desktop, standard and complex assessments in preparing the CHMPs. Four Aboriginal heritage sites have been identified as follows:</p> <ul style="list-style-type: none"> • Two 'Low Density Artefact Deposits' (VAHR 7922-1390 and 7921-15530 • One artefact scatter (VAHR 7921-1554) • One scar tree (VAHR 7922-0205) <p>The scar tree will be avoided, and the remaining sites are likely to require salvage in accordance with the measures prescribed by the CHMP 13274.</p> <p>The two approved CHMPs are currently being consolidated into a single CHMP that will specifically address the current scope and revised project area. When approved, this CHMP will supersede the existing two CHMPs.</p> <p>Compliance with the approved CHMPs is a legal requirement that must be met by the Project which will ensure that extensive or major effects to Aboriginal heritage values are avoided.</p> <p>A review of the Victorian Heritage Register identifies five registered places within the Project area:</p> <ul style="list-style-type: none"> • H1083 Flinders Street Station Complex • H1575 Malvern Railway Station • H1665 Caulfield Railway Station Complex • H1667 Clayton Railway Station <p>No places are listed on the Victorian Heritage Inventory, though KBR (2015b) identifies two sites within or immediately adjacent to the project area are listed on the Victorian War Heritage Inventory:</p> <ul style="list-style-type: none"> • Clayton Avenue of Honour • Noble Park Child Casualties Memorial <p>DNA's proposal to reconstruct Clayton Station on a new elevated rail bridge associated with the removal of the Clayton Road level crossing will impact the existing Clayton Station and Avenue of Honour. In response to advice received from Heritage Victoria regarding potential effects to the Station site,</p>	<p>Criterion not met.</p>

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Cranbourne Pakenham Line Upgrade Project: Assessment against EES referral criteria

Criteria	Relevant documents	Response	Conclusion
		<p>it is proposed to relocate the remaining Timber Shelter (B2) and integrate a new Avenue of Honour in the linear park.</p> <p>Works proposed to occur within the extent of the other registered sites include upgrades to signalling, power and communications equipment. Lengthening of platforms is required at Caulfield Stations to ensure compliance with the <i>Disability Discrimination Act 1992 (Cth)</i> and to enable the stations to accommodate the longer trains to be purchased by the State Government. Minor modifications to other station infrastructure may also occur.</p> <p>All works at the five registered places will be done in accordance with a Heritage Permit or exemptions to be applied for and obtained from Heritage Victoria prior to the commencement of works. Compliance with permit conditions or a formal exemption will ensure that major extensive or major effects to this site are avoided.</p>	

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Cranbourne Pakenham Line Upgrade Project: Assessment against EES referral criteria

Attachment C: References

- DNA (2015). Proposal [confidential].
- AECOM (2014). *Cranbourne Pakenham Rail Corridor Project. Existing Ecological Conditions Report*. Prepared for Department of Transport, Planning and Local Infrastructure, 11 September 2014.
- Andrew Long and Associates (ALA 2014). *Cranbourne Pakenham Rail Corridor Project – Southern Cross Station to Westall Road Clayton South. Cultural Heritage Management Plan*. CHMP Number 13154, dated 6 November 2014. Approved 19 November 2014.
- Andrew Long and Associates (ALA 2015). *Cranbourne Pakenham Line Upgrade. Cultural Heritage Management Plan*. CHMP Number 13274, dated 12 June 2015. Approved 10 July 2015.
- Department of Transport, Planning and Local Infrastructure (DTPLI 2014). *Re: Clayton Railway Station, 274 Clayton Road Clayton (H1667)*. Letter from Janet Sullivan to Rebecca Pell, File no: 11/008213-01, dated 8 July 2014.
- Golder (2015a). *Caulfield-Dandenong Level Crossing Removals and Rail Upgrade Project. Consolidated Phase 1 Environmental Site Assessment*. Submitted to Level Crossing Removal Authority, Report number: 1531944-002-R-Rev0.
- Golder (2015b). *Caulfield-Dandenong Level Crossing Removals and Rail Upgrade Project. Consolidated Phase 2 Environmental Site Assessment*. Submitted to Level Crossing Removal Authority, Report number: 1531944-012-R-Rev0.
- KBR (2015). *Caulfield to Dandenong Level Crossing Removal Project. Ecological Impact Report*. Prepared for Metro Trains Melbourne, Document reference MET402-TD-EV-REP-0004 Rev.0. Dated 10 July 2015.
- KBR (2015b). *Caulfield to Dandenong Level Crossing Removal Project. Built Heritage Report*. Prepared for Metro Trains Melbourne, Document reference MET402-TD-EV-REP-0003 Rev.0. Dated 10 July 2015.
- Rail Transformation Consortium (RTC 2015). *Ecological Assessment Project corridor impact report. Biodiversity impact and offsets*. Doc reference CPR-ALL-RTC-REP-ENV-0001B, dated 19 February 2015.
- WSP (2015). *Caulfield-Dandenong Level Crossing Removals and Rail upgrade Project. Preliminary Noise Assessment*. Prepared for the Dandenong Nine Alliance, dated 21 October 2015. [Confidential report - Annexure to DNA proposal]

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Minority Report

Inquiry into Infrastructure Projects – Third Report: Dissenting Report –

Khalil Eideh MLC Shaun Leane MLC Nazih Elasmr MLC

This report is tabled in opposition to the findings of the majority report

The minority report acknowledges that the Government's infrastructure program is proceeding at a rapid pace with projects being delivered ahead of schedule and on budget.

The Government's commitment to remove 20 level crossings in its first term is ahead of schedule with ten already gone and twenty eight due to be complete by the end of next year. Work has already begun on the Metro Tunnel project and the committee notes that Infrastructure Australia has assessed the project as the highest priority. Construction is underway on the Mernda train line extension. Contracts have been awarded for the West Gate Tunnel with construction due to start in 2018. \$100 million has been provide for the North East Link towards design, planning, and preconstruction works before contracts are signed in 2019.

Stage one of the \$440 million Murray Basin Rail Project is complete, and consultation with local communities about the next stage, re-opening the Maryborough to Ararat railway line, has begun. Tenders for the design and construction of stages two and three of the Murray Basin Rail Project are being assessed.

The Government has committed to using the \$1.45 billion owed to Victoria by the Commonwealth Government under the Asset Recycling Scheme to fund a Regional Rail Revival with upgrades to every regional train line.

This minority report notes that the Commonwealth is allocating only 8% of its Infrastructure funding program to Victoria. The Committee calls on the Commonwealth to honour its commitments under the Asset Recycling Scheme and provide Victoria with its fair share of infrastructure funding.

The Minority report notes the report from the Victorian Auditor General into "Public Participation in Government Decision-Making" that looked at three cases including the Level Crossing Removal Authority's approach the removal of nine level crossings between Caulfield and Dandenong. The report found that public engagement on the Caulfield to Dandenong project was effectively conducted. The report concluded that the Level Crossing Removal Authority has shown leadership by establishing public participation as a priority. The Auditor General noted that the Level Crossing Removal Authority have already provided detailed action plans and time frames for implementing the report's recommendations.

The Minority report notes that the Supreme Court has reaffirmed that the processes followed in relation to planning approvals for the Caulfield to Dandenong project were compliant with relevant legislation.

The Committee notes that the Melbourne Metro Business Case, Infrastructure Victoria, Infrastructure Australia and the independent Environment Effects Statement have all confirmed and approved the design of the Melbourne Metro Tunnel project.

The minority report believes that report fails to capture the true progress and achievements that have been made to date on a number of ongoing health related Government projects.

The report also fails to accurately reflect the views of a number of witnesses that spoke in support of the decisions that have led to the successful delivery of these infrastructure projects.

There has been a significant amount of capital investment in recent years with health capital projects currently under construction including the:

- \$200 million Joan Kirner Women and Children's Hospital.
- \$169 million redevelopment of Shepparton Hospital.
- \$10 million Ballarat Health Cath laboratory which is due to be finished by the end of the year.
- \$200 million Rural Health Infrastructure Fund which has recently had one round of funding announced leading to nearly 100 projects already funded and underway.
- \$140 million Casey Expansion; and
- \$85 million Werribee Mercy Hospital Acute Expansion.

These projects are all currently on time and on budget, without any issues. This is a trend that reflects the billions of dollars' worth of capital works underway in the health sector and that should be commended and celebrated.

Bendigo Health

The new \$630 million Bendigo Hospital is regional Victoria's largest ever hospital project and was started by the former Labor Government in 2010.

The project has delivered a state-of-the-art hospital with 372 inpatient beds, 72 same-day beds, 11 operating theatres, an integrated cancer centre, a new 25-bed maternity unit and an 80-bed mental health unit.

To ensure Bendigo Health was ready for the move and could expand services, the Labor Government has increased its funding for the health service by 13.2 per cent this financial year to \$275.25 million.

In his evidence to the committee Mr Mulder from Bendigo Health commented on the success of the project and that stage 2 of the project was due to start as soon as stage 1 finished:

Mr Mulder – *“The building is a stunning piece of health infrastructure. Everybody associated with it is very excited and should be rightly pleased as to what we have achieved to date. I am also pleased to report that the delivery process for the project has been particularly uneventful... And that is following the completion of the very substantial stage 1, which is the new hospital.*

Stage 2 will start shortly afterwards, and that is the demolition of several existing buildings where the hospital operates across the road — across Arnold Street. That will allow for the construction of a large, multistorey car park, with a chopper landing on top, and also for a two-storey link bridge across Arnold Street — very similar to what you see in Grattan Street, linking the Royal Melbourne Hospital with the new comprehensive cancer centre. That work will take place next year.”

Stage 2 of the project is now underway and will be completed in 2018.

Bendigo health also commented on the collaboration and support that they had received from the Government and the Department of Health and Human Services in progressing planning for stage 3 of the project. They however noted the issues to date with obtaining any federal interest of funding:

Mr Mulder – *Bendigo is unfortunate; last time we were one of few regional cities to miss out in the federal government's health infrastructure funding rounds, so we are looking forward to seeing what future infrastructure programs might be about to try and finish the project off and finish the site off.*

Mr Faulkner – *We had also approached the federal government support of this project element, but I think it is fair to say that at this point there has not been huge interest.*

Victorian Comprehensive Cancer Centre

The Victorian Comprehensive Cancer Centre opened its doors last year to international acclaim. The new hospital includes 160 inpatient beds, 110 same-day beds, eight operating theatres, two procedure rooms, eight radiation therapy bunkers and a 42-bed intensive care unit based at the Royal Melbourne Hospital.

A key focus of the new Cancer Centre will be to advance cancer research. The VCCC will host up to 1200 cancer researchers, featuring cancer research and clinical facilities for Peter Mac, Melbourne Health, research facilities for the University of Melbourne and education facilities.

To complement this, in line with the original plans for the Cancer Centre, last year it was announced that Last year we announced that Level 13 will become the Ian Potter Centre for new Cancer Treatments and provide a home for a range of research programs developing cutting-edge cancer treatments and technology.

There was some controversy around the project as during 2013 and 2014 the Napthine Government considered the proposal to establish a private floor in the VCCC. However, no project funding was provided to progress the proposal and any final decision was delayed. The final business case was never approved by cabinet.

Both the Department of Health and Human Services and Professor Jim Bishop, executive director of Victorian Comprehensive Cancer Centre confirmed that the 13th floor was always supposed to a research floor.

Prof. Bishop – *"The 13th floor had a little bit of building done initially because it was originally meant to be a research lab up there...We, being the VCCC board, had put a proposal to government that they should consider an immunotherapy lab, which is the hottest topic in cancer research right now; and that there should be opportunity to expand the clinical trials opportunity, because that is more dollars but it is also better, high-quality treatments that are going to be changing practice — and we think that is what the VCCC is all about...That southern pod was meant to be a lab and the northern part of it was meant to be for commercial purposes, and that is the way it has actually turned out in the end."*

There were also a number of issues with level 13 that meant it was designed, or safe to be anything other than a research floor.

Ms Price – *“It was in the original design that was presented back by the project company when they bid for it. It was designed as a research floor. It is sitting on top of a stack of research floors. It is quite separate from any other clinical floor. So one of the problems with any kind of configuration, if it was used for clinical space, is it is quite some distance from any other clinical services, which is problematic should there be adverse issues that arise with patients. Plus, the lift design was primarily as a goods lift — so, not designed for patient transport. There are some fundamental design problems if you were to use that floor for anything other than the research-type processes that it is now going to be used for.”*

This is a new project that could not start till the hospital opened and there is no delay. In response to Questions on Notice from the Committee the Department of Health and Human Services confirmed that this space does not result in an additional cost to the state as any rental payments for the commercial half of the floor are fully covered by sub-lease arrangements with the tenants.

Victorian Heart Hospital

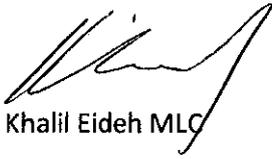
\$150 million has been provided to progress the construction of Australia’s first stand-alone cardiac hospital at Monash University. The Victorian Heart Hospital will include an emergency department, cardiac cath labs, specialist surgical and imaging facilities, and telehealth services for patients across Victoria, interstate and around the world and be home to medical research and specialist training facilities.

Current project partners include Monash Health and Monash University. Funding has been secured from project partners, but the amount has not yet been announced.

Professor Ian Meredith the previous director of Monash Heart outlined the importance of this project to the committee, and the benefits of the chosen model:



Shaun Leane MLC



Khalil Eideh MLC



Nazih Elasmr MLC

